

HPC

Mechanical components by mail order

2/5
2016



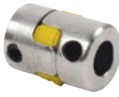
Power transmission parts

Tel: +33 (0)4 37 496 496

www.hpceurope.com



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Discounts: maximum discount on price list 2015

Stock: depending on availability

New: new product

2/4

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Discounts: maximum discount on price list 2015

Stock: depending on availability

New: new product

4/4

			
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Potentiometer p.267	Asynchronous AC motor p.271	Asynchronous AC motorgearboxes p.276	Worm and wheel gear reducer p.280
			
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MORE THAN 31000 PART NUMBER
on **HPCEUROPE.COM**



INDEX ICONS

Internal bore



Modifiable



Non-modifiable

Angles



45°



90°



17°45'

Load



Axial load



Radial load



Heavy duty



Max load
1 tonne

Delivery time



48h



3 weeks

In hours or weeks

Method of fabrication



Moulded



Machined

Material



Steel



Stainless steel



Aluminium



Brass



Bronze



Nylon



Copper



Plastic



Delrin



Peek



Cast iron

Resistant to



Low
temperatures



High
temperatures



Corrosion



Shock

Special HPC



Custom-made



In stock



In imperial

Compatibility



Robotic
industry



Food industry

Maintenance



Maintenance
free



No lubrication

Applicable



Industrial



Manual

Standards



DIN



ISO

Origin



Japan



Switzerland

Quality



1



4

from 1 to 8

Others



Bi-directional



Precision



Duo



Bearings



Light



No fixing



Miniature size



Low cost
range



Modulable



High
speed of
rotation



Easy assembly

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SERVICES AVAILABLE FROM **HPC**



EASY ORDERING

- Personalised advice from our technical and sales teams is available by telephone from Monday to Friday from 08.00 to 12.20 and 13.40 to 18.00, just call +33 (0) 4 37 496 496
- We can also be contacted by fax, email or post.



PERSONALISED SOLUTIONS

- 190 000 standard parts available from stock
- **Custom parts** can be machined to order from samples or drawings
- Items not listed in catalogue can also be supplied
- Medium and large production runs available on request



ONLINE ORDERING AVAILABLE 24/24

- **www.hpceurope.com** references 31,000 parts
- Instant online quote generation
- Datasheets in PDF format and 3D models can be **downloaded free of charge** from the site
- Package tracking





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card**



**Bank
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Cheque



**Bank
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Our bank details:
BNP PARIBAS
18 Chemin de Gargantua
69570 Dardilly
N° de compte: 00010041122



FAST DELIVERY

- Any order for articles in stock received before
- **14.00 will** be delivered before 18.00 the following day*
- Free delivery for all orders over 50€*



GENERAL INFORMATION

Engrenages HPC SARL, share capital 76 224€
N°382 911 907 RCS Lyon
French SIC code : APE 4669B
TVA FR 41 382 911 907

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Email: cial2@hpceurope.com
Website: www.hpceurope.com
Tel: +33(0)4 37 496 496
Fax: +33(0)4 37 490 055**

*Some restrictions apply. For deliveries to French mainland only.

Buyers guide

Couplings positioning



Part number	BS2	BC2	BS3	BC3	DBC, B3PANC
Brand	Panamech Multi-Beam	Panamech Multi-Beam	Panamech Multi-Beam	Panamech Multi-Beam	Panamech Multi-Beam
Type	2x3 helical	2x3 helical	2x3 helical	2x3 helical	1x3 helical
Fastening to shaft					
Radial misalignment(mm)	0,07 → 0,9	0,07 → 0,9	0,07 → 0,9	0,07 → 0,9	0,127
Axial misalignment(mm)	0,4 → 1	0,4 → 1	0,4 → 1	0,4 → 1	0,4 → 1
Angular misalignment	3° → 7°	3° → 7°	3° → 7°	3° → 7°	5°
Max. torque (Nm)	0,2 → 40	0,2 → 40	0,22 → 73	0,22 → 73	0,45 → 10
Max. speed (t/min)	5000	5000	5000	5000	5000
Material	aluminium	aluminium	stainless steel	stainless steel	aluminium or S/steel
Keying possible	✗	✗	✗	✗	✗
Re-boring possible	✓	✓	✓	✓	✓
Frequent starts	✓	✓	✓	✓	✓
Advantages	pratical	pratical	pratical	pratical	miniature
Quality	☆☆☆	☆☆☆	☆☆☆	☆☆☆	☆☆☆
Price	€€	€€	€€€	€€€	€€€
Pages	226	228	227	229	230 → 31

 : locking jaw  : set screw  : locking assembly

			
MHS	MHW	PFL	BG, BGC
-	-	P-FLEX	Oldham
simple disc	double disc	double elastomer ring	-
			
0	0,15 → 0,3	2,6 → 3,2	0,2 → 0,25
0,2	0,4 → 0,8	4,5 → 11	0,05 → 0,2
1°	2°	10° → 15°	0,5°
2,8 → 38	2,8 → 38	0,5 → 10	0,06 → 44
2400 → 4800	2400 → 4800	3000	3000
aluminium + S/steel	aluminium + S/steel	steel + Hytrel	brass or aluminium + acetal
✗	✗	✗	✗
✗	✗	✗	✓
✓	✓	✓	✓
precise	precise	economical	practical
☆☆☆	☆☆☆	☆☆	☆☆☆
€€€	€€€	€	€€
232	233	258	234 → 35

Buyers guide

Couplings

positioning



Part number	RGS	DKGS BKGS	EKGS	ADSR
Brand	Rotex® GS	Gerwah®	Gerwah®	Gerwah®
Type	spacer mounted, pre-stressed	spacer mounted, pre-stressed	spacer mounted, pre-stressed	spacer mounted, pre-stressed
Fastening to shaft				
Radial misalignment(mm)	0,06 → 0,15	0,06 → 0,14	0,06 → 0,14	0,06 → 0,16
Axial misalignment(mm)	0,4 → 1,5	0,2 → 2	0,2 → 1,4	0,5 → 2,1
Angulare misalignment	1°	0,5 → 1°	1°	0,9°
Max. torque (Nm)	0,08 → 190	0,5 → 450	0,5 → 35	12,5 → 525
Max. speed (t/min)	8500 → 56000	4000 → 3800	8500 → 47500	3600 → 13000
Material	aluminium + polyurethane	aluminium + polyurethane	aluminium + polyurethane	aluminium + polyurethane
Keying possible	✓	✓	✓	✓
Re-boring possible	✗	✓	✓	✓
Frequent starts	✓	✓	✓	✓
Advantages	powerful, precise	powerful, precise	powerful, precise	powerful, precise
Quality	☆☆☆	☆☆☆	☆☆☆	☆☆☆
Price	€€€	€€€	€€€	€€€
Pages	236 - 37	240 - 43	238 - 39	244 - 45

 : locking jaw
  : set screw
  : locking assembly



**MFB
MFB-C**



**MFBS
MFBS-C**



**EKN
DKN**



**AKD
AKN**



AK

-

-

Gerwah®

Gerwah®

Gerwah®

bellows

bellows

bellows

bellows

bellows



0,1 → 0,2

0,1 → 0,2

0,1 → 0,25

0,1 → 0,2

0,1 → 0,2

-2,5 → +0,8

-2,5 → +0,8

0,2 → 0,5

0,4 → 1

0,4 → 1

1,5° → 2°

1,5° → 2°

1,2° → 2°

1° → 1,5°

1° → 1,5°

0,3 → 4

0,5 → 6

0,1 → 10

18 → 500

30 → 500

4800 → 32000

4800 → 32000

-

4900 → 12700

4600 → 11000

aluminium +
bronze

stainless steel +
stainless steel

aluminium +
stainless steel

steel or aluminium
+ stainless steel

steel +
stainless steel

✗

✗

✓

✓

✗

✓

✓

✗

✗

✗

✓

✓

✓

✓

✓

precise

precise

miniature

powerful,
precise

powerful,
precise

☆☆☆

☆☆☆

☆☆☆☆

☆☆☆☆

☆☆☆☆

€

€€

€€

€€€€

€€€€

② 46, 48

② 47, 49

② 50 - 53

② 54 - 56

② 57

Buyers guide

Couplings positioning

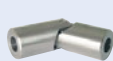


Part number	RTN	GET-AL	RTK	GFX	RTE
Brand	BoWex® Junior	-	BoWex®	-	Rotex®
Type	curved teeth	jaw	curved teeth	curved teeth	jaw
Fastening to shaft	0,1 → 0,4	0,2 → 0,28	0,3 → 0,4	0,7 → 1,3	0,17 → 0,50
Radial misalignment(mm)	1	1,2 → 1,8	1	1	-0,5 → +3,4
Axial misalignment(mm)	1° → 2°	0,9 → 1,2	2°	2°	0,9° → 1,2°
Angular misalignment	5 → 24	20 → 380	5 → 160	23 → 840	2 → 4800
Max. torque (Nm)	-	7100 → 14000	6700 → 14000	4000 → 14000	2800 → 19000
Max. speed (t/min)	nylon	aluminium + polyurethane	steel + nylon	steel + nylon	steel, aluminium or cast iron + polyurethane
Material	✓	✗	✓	✗	✓
Keying possible	✗	✗	✓	✗	✓
Re-boring possible	✓	✓	✓	✓	✓
Frequent starts	✓	✓	✓	✓	✓
Advantages	economical	economical	practical	economical	powerful, precise
Quality	☆☆	☆☆	☆☆☆	☆☆	☆☆☆
Price	€	€	€€	€	€€€
Pages	260 - 61	266 - 67	264 - 65	262 - 63	268 - 69

				
	PNA	FDS, FDSQ	AF	SC2
	Periflex®	Masterflex		
	tyre	flexible shaft	rigid	rigid
	5	-	0	0
	6	-	0	0
	2°	-	0	0
	50 → 2400	0,15 → 75	-	25 → 2250
	3000 → 5000	200 → 12000	-	-
	steel + rubber	steel	steel	steel, stainless steel
	✓	✗	✓	✗
	✗	✗	✓	✗
	✓	✗	✓	✓
	✗	✗	✗	✓
	powerful, precise	contourne les obstacles	standard	standard
	☆☆☆	☆☆☆	☆☆☆	☆☆☆
	€€€€	€€€€€	€€	€€
	276 → 77	270 → 73	282	283

Buyers guide

Couplings positioning



Part number	U-A	G-A	H-A	JCS
Bushes	-	hardened	needle bearing	hard
Standard	-	DIN808-7551	DIN808-7551	-
Angular misalignment	35°	45°	45°	45°
Max.torque (Nm)	0,2 → 1,7	7,5 → 720	9 → 402	2,3 → 216
Max. speed (rpm)	200	800	4000	800
Material	steel	steel	steel	stainless steel
Re-machining possible	✗	✓	✓	✓
Keying possible	✗	✓	✓	✓
Uses	manual or light	normal	intensive	normal
Frequent starts	✗	✓	✓	✓
Advantages	economical	standard	high speed	standard and stainless steel
Quality	☆☆	☆☆☆	☆☆☆☆	☆☆
Price	€	€€	€€€	€€
Pages	284	288	290	292

	double				telescopic
					
	U-C	GD-A	HD-A	JCD	CT
	-	hardened	needle bearing	hard	hardened
	-	DIN808-7551	-	-	-
	2x35°	2x45°	2x45°	2x45°	2x45°
	0,2 → 1,7	7 → 648	8,1 → 361,8	5,22 → 194,4	7 → 648
	200	800	4000	800	4000
	steel	steel	steel	stainless steel	steel
	✗	✓	✓	✓	✓
	✗	✓	✓	✓	✓
	manual or light	normal	intensive	normal	normal
	✗	✓	✓	✓	✓
	economical	standard	high speed	standard and stainless steel	speed, long length
	☆	☆☆	☆☆☆	☆☆	☆☆
	€	€€€	€€€€	€€€	€€€€
	② 85	② 89	② 91	② 93	② 94 + 95

Buyers guide

Torque limiters



Part number	VT	VTA	SAS	LC	DSF
Name	Vari-Tork®	Vari-Tork® /Oldham	miniature	friction	chaîne
Type	friction	friction	friction	friction	friction
Adjustable	✓	✓	✓	✓	✓
Couplings	✗	✓	✓	✗	✓
In-hurb assembly	✓	✗	✗	✓	✗
Bore size (mm)	Ø6 → Ø8	Ø6 → Ø10	Ø6 → Ø15,88	Plein	Ø7 → Ø68
Torque range (Nm)	0,53 → 1,32	0,53 → 1,32	0,01 → 8,64	30 → 240	4 → 2600
Torque precision	medium	medium	medium	medium	medium
Quality	☆☆	☆☆	☆☆	☆☆	☆☆
Price	€€	€€	€€€	€€	€€€€
Pages	298	299	2100 + 101	2102 + 103	2104 + 105

Locking rings



Part number	SUP	RT25	RTT	RT70	RTL450
Auto centering	✓	✓	✗	✓	✓
For shaft (mm)	Ø5 → Ø35	Ø6 → Ø55	Ø20 → Ø100	Ø19 → Ø70	Ø25 → Ø100
transmissible torque	☆	☆☆	☆☆	☆☆☆	☆☆☆
Advantages	easy assembly for small diameters	ideal for small diameters	handles high torque values	handles high torque values	handles high torque values
Quality	☆☆☆	☆☆☆	☆☆☆	☆☆☆	☆☆☆
Price	€€€	€€	€	€€	€€
Pages	2 124	2 129	2 128	2 130	2 131



Part number	TTQ MINI	TTQ OE	TTQ GT	ETP-MINI	ETP-CL	ETP-EX	ETP-EXss
Auto-centrante	✓	✓	✓	✓	✓	✓	✓
For shaft (mm)	Ø5 → Ø17	Ø17 → Ø35	Ø15 → Ø75	Ø6 → Ø14	Ø15 → Ø100	Ø15 → Ø100	Ø15 → Ø80
Transmissible torque	12 → 170	208 → 645	180 → 2010	7 → 66	55 → 15500	46 → 17000	46 → 8700
Advantages	mini compact	compact	wide range of use	mini	easy to assemble/dimantle	quick to assemble/dimantle	S/steel, quick to assemble/dimantle
Quality	☆☆☆	☆☆☆	☆☆☆	☆☆☆	☆☆☆☆	☆☆☆☆	☆☆☆☆
Price	€€	€€€	€€€	€€€	€€€	€€€	€€€
Pages	2 125	2 126	2 127	2 132	2 134	2 136	2 138

Buyers guide

Motorgearboxes

direct current



Part number	MAX22	MAX26	BUH77
Gearboxe type	spur	spur	spur
Voltage	12V DC and 24V DC	12V DC and 24V DC	12V DC and 24V DC
Nominal current (A)	0,05 → 0,30	0,05 → 0,63	0,275 → 1,4
Max.torque (Nm)	0,07 → 0,20	0,08 → 0,6	0,1 → 2
Max. speed (rpm)	27 → 435	8 → 459	14 → 900
Quality	☆☆☆	☆☆☆	☆☆☆
Price	€€	€€	€€
Pages	2 254	2 255	2 256

AC synchrone



Part number	DER RFV	LINK64
Gearboxe type	worm and wheel stainless steel	spur
Voltage	230/400 V AC	230V AC 1 phase
Nominal current (A)	0,58 → 3,3	0,051
Max.torque (Nm)	11 → 141	1,2 → 6
Max. speed (rpm)	14 → 186	0,5 → 31
Quality	☆☆☆	☆☆☆
Price	€€€	€€
Pages	2 302 - 311	2 270

				
	DOG316	DOG111	DOG319	DOG258
	worm and wheel	worm and wheel	worm and wheel	worm and wheel
	12V DC and 24V DC	12V DC and 24V DC	12V DC and 24V DC	12V DC and 24V DC
	2 → 4	2 → 5	3 → 10	5 → 12
	1,5 → 2	1,5 → 6	6 → 10	12 → 15
	27,5 → 65	10 → 240	10 → 80	25 → 40
	☆☆	☆☆	☆☆	☆☆
	€	€€	€€	€€€
	2 257	2 258	2 259	2 260

				
	CHM30-MOT	CHM40-MOT	CHM50-MOT	CHM63-MOT
	worm and wheel	worm and wheel	worm and wheel	worm and wheel
	400V AC phase	400V AC phase	400V AC phase	400V AC phase
	-	-	-	-
	9 → 22	22 → 52	33 → 87	67 → 165
	17 → 186	14 → 186	14 → 186	14 → 186
	☆☆	☆☆	☆☆	☆☆
	€€	€€	€€	€€
	2 276	2 277	2 278	2 279

Buyers guide

Gearboxes



Part number	CHMR	CHM	CHML	RFV	P	PF
Type	worm and wheel	worm and wheel	integrated torque limiter	worm and wheel	worm and wheel	worm and wheel
Reduction ratio	7,5:1 → 100:1	7,5:1 → 100:1	7,5:1 → 100:1	7,5 → 100	5:1 → 120:1	5:1 → 120:1
Transmissible torque (Nm)	11 → 980	11 → 980	11 → 980	11 → 141	0,94 → 164	1,25 → 164
Input shaft	●	○	○	○	●	○
Output shaft	○	○	○	○	○	○
Axle orientation	└	└	└	└	└	└
Self locking output	✓*	✓*	✓*	✓*	✓*	✓*
Multiplier	✗	✗	✗	✗	✗	✗
Quality	☆☆☆	☆☆☆	☆☆☆	☆☆☆	☆☆☆	☆☆☆
Price	€€	€€	€€	€€€	€€€	€€€
Pages	2280	2283	2296	2306	2148	2149



Part number	B332	RVM	RAM	CHTRP / CHTRB	BL
Type	bevel gear	worm and wheel	bevel gear	bevel gear	bevel gear
Reduction ratio	1:1	1:1 → 30:1	1:1 → 2:1	1:1 → 3:1	1:1 → 4:1
Transmissible torque (Nm)	0,11 → 0,68	2 → 17	4 → 6	1,4 → 87,3	0,4 → 6
Input shaft	●	⬡	⬡	●	●
Output shaft	●	⬡	⬡	●	○
Axle orientation	└	└	└	└ or └	≡
Self locking output	✗	✓*	✗	✗	✗
Multiplier	✗	✗	✗	✓	✗
Quality	☆	☆	☆	☆☆	☆☆
Price	€	€	€	€€	€€
Pages	2225	2228 → 2229	2226 → 2227	2232 → 2241	2174

● arbre plein ○ arbre creux * sous conditions

				
PP	E	BLHB / BLHI / BLHO	BLHM	BLH, BLHT
worm and wheel		bevel gear	bevel gear	bevel gear
25:1 → 900:1	1:1 → 40:1	1:1 → 2:1	1:1 → 2:1	1:1 → 2:1
2,2 → 34	0,4 → 62	0,53 → 70	0,53 → 128	0,53 → 128
●	○	or	●	●
●	○	or	●	●
==	⊥	L	⊥	L
✓*	✗	✗	✗	✗
✗	✗	✗	✗	✗
☆☆☆	☆☆☆	☆☆☆	☆☆☆	☆☆☆
€€€	€€€	€€€	€€€€	€€€

② 163 - 164

② 166 - 172

② 178 - 194

② 179 - 195

② 176 - 197

					
FF	EHD	XJ-J	NT	NH	HLA, HLC
spur	planetary	spur	spur	spur	spiral bevel gears
2:1 → 7:1	36:1	1:1 → 625:1	1:1 → 120:1	1:1 → 120:1	1:1 → 120:1
0,78 → 425	3,4 → 380	0,16 → 2,80	5 → 85	5 → 85	35 → 128
●	○	●○	●	○	●○
●	●	●●	●	●	●○
— —	— —	— —	— —	— —	⊥ L
✗	✗	✗	✗	✗	✗
✗	✗	✗	✗	✗	✗
☆☆☆	☆☆☆	☆☆	☆☆	☆☆	☆☆☆
€€€	€€€	€€	€€€	€€€	€€

② 198 - 203

② 204 - 209

② 211 - 216

② 217 - 223

② 217 - 223

② 242 - 249

Buyers guide

		Transmissible torque (Nm) changes depending on speed									
Gearbox	Part number	0-1	>1-5	>5-20	>20-100	>100-300	>300-600	>600-900	>900-1200	>1200-1512	
Worm and weel ② 280 → 293	CHM-CHMR30	10-28									
	CHM-CHMR40	22-57									
	CHM-CHMR50	39-107									
	CHM-CHMR63	73-198									
	CHM-CHMR75	118-298									
	CHM-CHMR90	198-540									
	CHM-CHMR110	350-980									
Worm and weel ② 142 → 165	P-PF15	0.94-3.75									
	P-PF20	1.25-5									
	P-PF30	2.5-8.8									
	P-PF40	5-18									
	P-PF45	10.3-40									
	P-PF55	13.4-57									
	P-PF60	27-118									
	P-PF70	38-164									
	PP35	2.2-4.1									
	PP50	6.5-12.8									
PP60	17.8-34										
Angle transmission ② 166 → 172	E15	0.4-1.32									
	E20	0.6-3.84									
	E30	1.5-9									
	E40	2.3-20									
	E50	3-41									
	E60	4.5-62									
Bevel gearing ② 174 → 197	BLHB20	0.53-1.77									
	BLHB30	1.32-4.4									
	BLHB40	3-10.3									
	BLHB50	7.7-30									
	BLHB60	19-70									
	BLHM20	0.53-1.77									
	BLHM30	1.32-4.4									
	BLHM40	3-10.3									
	BLHM50	7.7-30									
	BLHM60	19-70									
	BLHM70	26-128									
	BLH20	0.53-1.77									
	BLH30	1.32-4.4									
	BLH40	3-10.3									
	BLH50	7.7-30									
	BLH60	19-70									
	BLH70	26-128									
	BLHT20	0.53-1.77									
	BLHT30	1.32-4.4									
	BLHT40	3-10.3									
	BLHT50	7.7-30									
	BLHT60	19-70									
	BLHT70	26-128									
	BL8	0.2-2									
	BL15	1.1-6									

Gearbox		Part number	Transmissible torque (Nm) changes depending on speed							
			0-1	>1-5	>5-20	>20-100	>100-300	>300-600	>600-900	>900-1200
Single or dual output ②232 → 235	CHTRB8		1.4-4.7							
	CHTRB15		5.2-16.5							
	CHTRB20		15.3-53.1							
	CHTRB25		29.6-87.3							
Single or dual output ②236 → 241	CHTRP8		3.2-9.1							
	CHTRP14		9.9-34.5							
	CHTRP19		22.8-87.3							
	CHTRP24		22.8-87.3							
Dual output ②238 → 239	CHTRP14		9.9-28.8							
	CHTRP19		22.8-75.7							
Spur gear ②198 → 203	FF10	0.78-3.70								
	FF15		2.2-10							
	FF20		5.8-23							
	FF30		21.5-83							
	FF40			59-210						
	FF50			111-425						
Epicyclic ②204 → 209	EHD04		3.4-7							
	EHD06		8-19							
	EHD08		20-50							
	EHD08		35-50							
	EHD12			60-140						
	EHD16			210-380						
Planetary ②210 → 223	J-XJ51	0.13-0.49								
	J-XJ52	0.27-0.9								
	J-XJ53	0.43-1.15								
	J-XJ64	0.57-2.25								
	J-XJ65	0.8-2.95								
	J-XJ66	0.9-2.8								
	NT-NH61		5-14							
	NT-NH62		6-18							
	NT-NH63		8-20							
	NT-NH91		10-35							
	NT-NH92		15-40							
	NT-NH121		20-68							
	NT-NH122		32-85							
Manual ②226 → 229	RAM		4 à 6							
	RVM		5 à 17							
Spiral bevel gear ②242 → 249	HLA-HLC19			35 à 43						
	HLA-HLC24			22 à 78						
	HLA-HLC28			126 à 142						
Worm and wheel ②306 → 311	RFV40			+47Nm						
	RFV50			+80Nm						
	RFV63			+152Nm						

PANAMECH MULTI-BEAM®



p.26

FLEXIBLE COUPLING



p.32

OLDHAM® COUPLING



p.34

ROTEX GS® COUPLING



p.36

GERWAH® COUPLING



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COUPLINGS FOR SERVO-MOTORS

p.26 - 58

FLEXIBLE BELLOWS COUPLING



p.46

GERWAH® COUPLING



p.52

P-FLEX® COUPLING



p.58

BS2

Couplings for servo-motors

Torque: **0.2 to 40Nm**

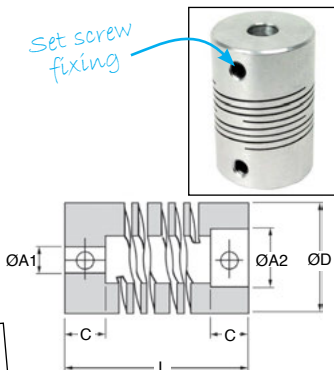
- **Multidirectional flexibility**
- High precision
- High torsional rigidity
- Single piece construction
- Backlash free
- 6 beams (except BS21 which has 3)
- Working temp -40°C to +120°C
- Max. speed: 5000 rpm
- Material:
Aluminium 6082
- **Pre-bore is not tolerated**

Uses

- Encoders, optical systems
- Automated systems, step motors
- Continuous or intermittent use

Assembly

- Dimension "C"
must not be
exceeded



DISCOUNTS

Qty	1+	5+	10+	25+	50+
Disc.	List	-6%	-12%	-18%	On request

Part number	ØD	L	C	Set screw	Misalignment		Torsional rigidity (Nm/Rad)	Max. torque (Nm)		
					Radial (mm)	Angular		shock and reversing	non reversing	peak torque
BS21	6,4	12,7	3,2	M2	0,07	3°	-	0,20	0,26	0,4
BS22	9,5	19,6	5,3	M2,5	0,12	3°	2	0,50	0,66	1,0
BS23	12,7	22,9	6,5	M3	0,17	5°	16	1,00	1,33	2,0
BS24	19,1	26,5	6,5	M4	0,25	7°	51	2,65	3,53	5,3
BS25	25,4	38,1	11,0	M5	0,38	7°	120	5,00	6,66	10,0
BS266	31,8	57,2	16,0	M6	0,50	7°	250	7,50	10,00	15,0
BS27	38,1	66,7	18,0	M6	0,60	7°	370	11,00	14,66	22,0
BS29	50,8	95,3	25,0	M8	0,90	7°	760	20,00	26,66	40,0

Part number	ØA1 x ØA2		ØA1 x ØA2		ØA1 x ØA2 Standard Bores (H8)	Stock*	Price each 1 to 4	
	Pre-bores	Min.	Max.				Std bores and pre-bores	Modified bore
BS21	1,5 x 2,0	1 x 2	3 x 3		1 x 2	✓	24,60 €	41,19 €
BS22	2,0 x 2,8	2 x 4	4,76 x 4,76		3, 18 x 4	-	27,12 €	45,49 €
BS23	2,5 x 4,5	3 x 5	6,35 x 6,35		6 x 6	✓	29,60 €	61,76 €
BS24	2,5 x 5,8	4,76 x 6,35	10 x 10		5 x 6 6 x 6 10 x 10	✓	36,87 €	68,11 €
BS25	3,5 x 7,5	5 x 8	12,70 x 12,70		6 x 6	✓	41,02 €	79,29 €
BS266	6,0 x 10,0	8 x 10	16 x 16		-	✓	53,78 €	107,04 €
BS27	8,0 x 12,0	8 x 12	22 x 22		-	✓	68,92 €	131,84 €
BS29	10,0 x 16,0	10 x 16	28 x 28		-	-	177,04 €	272,90 €

*Depending on availability - Dimensions in mm



Couplings for servo-motors

BS3

Torque: 0.22 to 73Nm

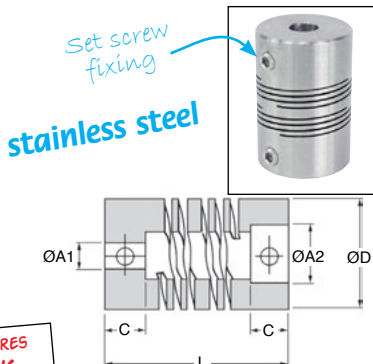
- **Multidirectional flexibility**
- High precision
- High torsional rigidity
- Single piece construction
- Backlash free
- 6 beams (except BS21 which has 3)
- Working temp -40°C to +120°C
- Max. speed: 5000 rpm
- Material:
Stainless steel 303
- **Pre-bore is not tolerated**

Uses

- Encoders, optical systems
- Automated systems, step motors
- Continuous or intermittent use

Assembly

- Dimension "C" must not be exceeded



DISCOUNTS

Qty	1+	5+	10+	25+	50+
Disc.	List	-6%	-12%	-18%	On request

Part number	ØD	L	C	Set screw	Misalignment		Torsional rigidity (Nm/Rad)	shock and reversing		
					Radial (mm)	Angular		shock and reversing	non reversing	peak torque
BS31	6,4	12,7	3,2	M2	0,07	3°	-	0,22	0,30	0,45
BS32	9,5	19,6	5,3	M2,5	0,12	3°	6	0,75	1,00	1,50
BS33	12,7	25,4	6,5	M3	0,17	5°	28	1,50	2,00	3,00
BS34	19,1	28,0	6,5	M4	0,25	7°	80	4,00	5,33	8,00
BS35	25,4	38,1	11,0	M5	0,38	7°	189	8,00	10,66	16,00
BS36	31,8	57,2	16,0	M6	0,50	7°	405	12,50	16,66	25,00
BS37	38,1	66,7	18,0	M6	0,60	7°	720	18,00	22,50	36,00
BS39	50,8	95,3	25,0	M8	0,90	7°	1450	36,50	48,66	73,00

Part number	ØA1 x ØA2	ØA1 x ØA2		ØA1 x ØA2		Stock*	Price each 1 to 4	
	Pre-bores	Min.	Max.	Standard Bores (H8)			Std bores and pre-bores	Modified bore
BS31	1,5 x 2,0	1 x 2	3 x 3	-		✓	42,73 €	111,86 €
BS32	2,0 x 2,8	2 x 4	4,76 x 4,76	4 x 4	6,35 x 6,35	✓	35,85 €	76,56 €
BS33	2,5 x 4,5	3 x 5	6,35 x 6,35	5 x 9,52	10 x 10	✓	46,62 €	81,90 €
BS34	2,5 x 5,8	4,76 x 6,35	10 x 10	8 x 8		✓	50,51 €	50,51 €
BS35	3,5 x 7,5	5 x 8	12,70 x 12,70	-		✓	79,81 €	118,91 €
BS36	6,0 x 10,0	8 x 10	19 x 19	-		✓	117,13 €	165,03 €
BS37	8,0 x 12,0	8 x 12	22 x 22	-		✓	150,30 €	204,74 €
BS39	10,0 x 16,0	10 x 16	28 x 28	-		-	278,48 €	507,10 €

*Depending on availability - Dimensions in mm

BC2

Couplings for servo-motors

Torque: **0.5 to 40Nm**

- **Multidirectional flexibility**
- High precision
- High torsional rigidity
- Single piece construction
- Backlash free
- 6 beams (except BS21 which has 3)
- Working temp -40°C to +120°C
- Max. speed: 5000 rpm
- Material:
Aluminium 6082
- **Pre-bore is not tolerated**

Uses

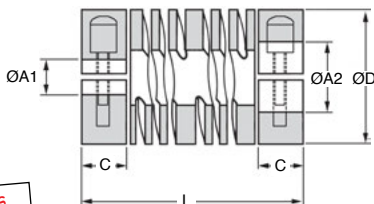
- Encoders, optical systems
- Automated systems, step motors
- Continuous or intermittent use

Assembly

- Dimension "C" must not be exceeded



clamp
fixing



DISCOUNTS

Qty	1+	5+	10+	25+	50+
Disc.	List	-6%	-12%	-18%	On request

Part number	ØD	L	C	Set screw	Misalignment		Torsional rigidity (Nm/Rad)	Max. torque (Nm)		
					Radial (mm)	Angular		shock reversing	non reversing	peak torque
BC22	9,5	19,6	5,3	M1,6	0,12	3°	2	0,5	0,66	1,0
BC23	12,7	22,9	6,5	M2	0,17	5°	16	1,0	1,33	2,0
BC24	19,1	26,5	6,5	M2,5	0,25	7°	51	2,6	3,53	5,3
BC25	25,4	38,1	11,0	M3	0,38	7°	120	5,0	6,66	10,0
BC26	31,8	57,2	16,0	M4	0,50	7°	250	7,5	10,00	15,0
BC27	38,1	66,7	18,0	M5	0,60	7°	370	11,0	14,66	22,0
BC29	50,8	95,3	25,0	M6	0,90	7°	760	20,0	26,66	40,0

Part number	ØA1 x ØA2		ØA1 x ØA2		ØA1 x ØA2 Standard Bores (H8)	Stock*	Price each 1 to 4		
	Pre-bores	Min.	Max.				Std. bores and pre-bores	Std. bores and pre-bores	Modified bore
BC22	2,0 x 2,8	2 x 4	4,76 x 4,76		3 x 3	✓	39,73 €	78,35 €	
BC23	2,5 x 4,5	3 x 5	6,35 x 6,35		3,18 x 4 6 x 6	✓	42,49 €	74,47 €	
BC24	2,5 x 5,8	4,76 x 6,35	10 x 10		5 x 6 6 x 10 8 x 8	✓	47,11 €	90,37 €	
BC25	3,5 x 7,5	5 x 8	12,70 x 12,70		6 x 6 8 x 12 10 x 10 10 x 12 12 x 12	✓	52,67 €	98,31 €	
BC26	6,0 x 10,0	8 x 10	16 x 16		10 x 14	✓	91,32 €	141,21 €	
BC27	8,0 x 12,0	8 x 12	19 x 19		-	✓	104,70 €	179,22 €	
BC29	10,0 x 16,0	10 x 16	26 x 26		-	✓	246,98 €	395,45 €	

*Depending on availability - Dimensions in mm



Couplings for servo-motors

BC3

Torque: **0.75 à 73Nm**

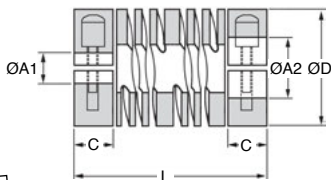
- **Multidirectional flexibility**
- High precision
- High torsional rigidity
- Single piece construction
- Backlash free
- 6 beams (except BS21 which has 3)
- Working temp -40°C to +120°C
- Max. speed: 5000 rpm
- Material:
Stainless steel 303
- **Pre-bore is not tolerated**

Uses

- Encoders, optical systems
- Automated systems, step motors
- Continuous or intermittent use

Assembly

- Dimension "C" must not be exceeded



**STANDARD BORES
IN STOCK**

DISCOUNTS

Qty	1+	5+	10+	25+	50+
Disc.	List	-6%	-12%	-18%	On request

Part number	ØD	L	C	Set screw	Misalignment		Torsional rigidity (Nm/Rad)	Max. torque (Nm)		
					Radial (mm)	Angular		shock reversing	non reversing	peak torque
BC32	9,5	19,6	5,3	M1,6	0,12	3°	6	0,75	1,00	1,5
BC33	12,7	22,9	6,5	M2	0,17	5°	28	1,50	2,00	3,0
BC34	19,1	26,5	6,5	M2,5	0,25	7°	80	4,00	5,33	8,0
BC35	25,4	38,1	11,0	M3	0,38	7°	189	8,00	10,66	16,0
BC36	31,8	57,2	16,0	M4	0,50	7°	405	12,50	16,66	25,0
BC37	38,1	66,7	18,0	M5	0,60	7°	720	18,00	24,00	36,0
BC39	50,8	95,3	25,0	M6	0,90	7°	1450	36,50	48,66	73,0

Part number	ØA1 x ØA2		ØA1 x ØA2		ØA1 x ØA2		Stock*	Price each 1 to 4	
	Pre-bores	Min.	Max.	Standard Bores (H8)	Std. bores and pre-bores	Std. bores and pre-bores		Std. bores and pre-bores	Modified bore
BC32	2,0 x 2,8	2 x 4	4,76 x 4,76	-	-	-	✓	58,91 €	101,99 €
BC33	2,5 x 4,5	3 x 5	6,35 x 6,35	6 x 6 6,35 x 6,35	✓	✓	✓	60,16 €	108,38 €
BC34	2,5 x 5,8	4,76 x 6,35	10 x 10	6 x 6	✓	✓	✓	77,44 €	126,94 €
BC35	3,5 x 7,5	5 x 8	12,70 x 12,70	6 x 6	✓	✓	✓	106,84 €	155,52 €
BC36	6,0 x 10,0	8 x 10	16 x 16	-	✓	✓	✓	140,85 €	206,39 €
BC37	8,0 x 12,0	8 x 12	19 x 19	-	✓	✓	✓	187,86 €	277,14 €
BC39	10,0 x 16,0	10 x 16	26 x 26	-	-	-	✓	379,05 €	644,00 €

*Depending on availability - Dimensions in mm

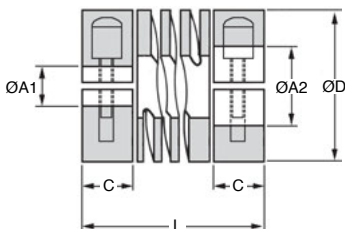
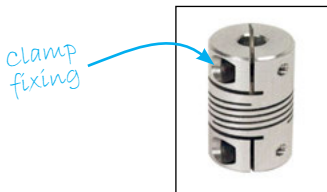
- **Multidirectional flexibility**
- High precision
- **Space saving**
- Good torsional rigidity
- Single piece construction
- Backlash free
- For use in restricted spaces
- 3 beams
- Working temperature: -40°C to +120°C
- Max. speed: 5000 rpm
- Material:
Aluminium 6082
- Pre-bore is not toleranced

Uses

- Encoders, optical systems
- Automated systems, step motors

Assembly

- Dimension "C" must not be exceeded



DISCOUNTS

Qty	1+	5+	10+	25+	50+
Disc.	List	-6%	-12%	-18%	On request

Part number	ØD	L	C	Set screw	Misalignment		Max torque (Nm)		
					Radial (mm)	Angular	shock and reversing	non reversing	peak torque
DBC3	12,7	19,1	6,0	M2	0,127	5°	0,45	0,60	0,9
DBC3.5	15,9	20,3	6,5	M2,5	0,127	5°	0,75	1,00	1,5
DBC4	19,1	22,9	6,5	M2,5	0,127	5°	1,25	1,66	2,5
DBC5	25,4	31,8	9,0	M3	0,127	5°	2,00	2,66	4,0
DBC6	31,8	44,5	12,0	M4	0,127	5°	3,00	4,00	6,0

Part number	ØA1 x ØA2		ØA1 x ØA2		ØA1 x ØA2 Standard Bores (H8)	Stock*	Price each 1 to 4	
	Pre-bores	Min.	Max.				Std. bores and pre-bores	Modified bore
DBC3	2,5 x 3,95	3 x 4	5 x 5		-	✓	44,10 €	74,76 €
DBC3.5	2,5 x 3,95	3 x 4	6,35 x 6,35		5 x 5	✓	44,10 €	82,17 €
DBC4	2,5 x 5,8	4 x 4,76	8 x 8		6 x 6	✓	46,93 €	86,41 €
DBC5	3,8 x 5,95	5 x 6	10 x 10		10 x 10	✓	53,14 €	100,26 €
DBC6	5,1 x 9,2	6 x 8	14 x 14		-	✓	79,96 €	143,28 €

*Depending on availability - Dimensions in mm

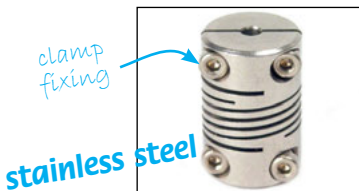


Couplings for servo-motors

B3PAN

Torque: **0,5 to 10Nm**

- **Multidirectional flexibility**
- High precision
- **Space saving**
- Good torsional rigidity
- Single piece construction
- Backlash free
- For use in restricted spaces
- 3 beams
- Working temperature: -40°C to +140°C
- Max. speed: 5000 rpm
- Material:
Stainless steel 303
- Pre-bore is not tolerated

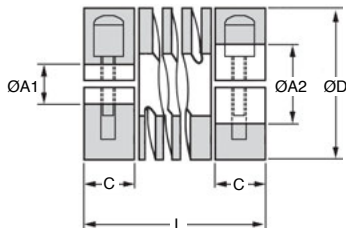


Uses

- Encoders, optical systems
- Automated systems, step motors

Assembly

- Dimension "C" must not be exceeded



**STANDARD BORES
IN STOCK**

DISCOUNTS

Qty	1+	5+	10+	25+	50+
Disc.	List	-6%	-12%	-18%	On request

Part number	ØD	L	C	Set screw	Misalignment		Max. torque (Nm)		
					Radial (mm)	Angular	shock and reversing	non reversing	peak torque
B3PAN4C	12,7	19,1	6,0	M2	0,127	5°	0,50	0,66	1,0
B3PAN5C	15,9	20,3	6,5	M2,5	0,127	5°	0,90	1,20	1,8
B3PAN6C	19,1	22,9	6,5	M2,5	0,127	5°	1,35	1,80	2,7
B3PAN7C	25,4	31,8	9,0	M3	0,127	5°	3,00	4,00	6,0
B3PAN8C	31,8	44,5	12,0	M4	0,127	5°	5,00	6,66	10,0

Part number	ØA1 x ØA2		ØA1 x ØA2		ØA1 x ØA2 Standard Bores (H8)	Stock*	Price each 1 to 4	
	Pre-bores	Min.	Max.				Std. bores and pre-bores	Modified bore
B3PAN4C	1,6 x 4,5	3 x 4	5 x 5		4 x 4	✓	63,70 €	101,44 €
B3PAN5C	2,5 x 4,8	3 x 4	6,35 x 6,35		5 x 5	✓	66,02 €	115,01 €
B3PAN6C	2,5 x 4,75	4 x 4,76	8 x 8		6 x 6	✓	69,96 €	127,11 €
B3PAN7C	3,5 x 5,95	5 x 6	10 x 10		8 x 8	✓	90,05 €	159,44 €
B3PAN8C	5,1 x 9,2	6 x 8	14 x 14		10 x 10	✓	140,86 €	218,94 €

*Depending on availability - Dimensions in mm

Single-disc flexible coupling



MHS

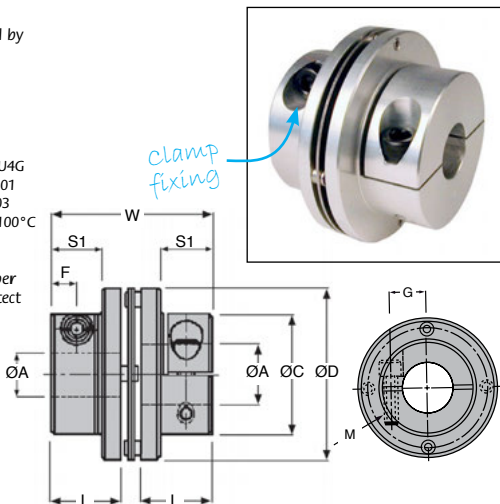
Couplings for servo-motors

Torque: 2.8 to 38Nm

- **Very rigid in torsion**
- Misalignment absorbed by stainless steel disc
- Backlash free
- Resistant to oil and chemical products
- Maintenance free
- Materials:
 - Hubs: Aluminium A-U4G
 - Disc: Stainless steel 301
 - Pin: Stainless steel 303
- Max. working temp.: +100°C

Uses

- Ideal for use with stepper motors that cannot detect start position
- Applications requiring high accuracy
- Automated systems



DISCOUNTS

Qty	1+	5+	10+	15+	20+
Disc.	List	-10%	-15%	-25%	On request

Part number	Max. speed of rotation (rpm)	Weight (g)	Moment of inertia (kg·m²)	Static torsional stiffness (Nm/Rad)	Misalignment			Nominal torque (Nm)	Max. torque (Nm)
					Radial (mm)	Angular	Axial (mm)		
MHS-32C	4800	38	$4,5 \times 10^{-6}$	1300	-	1°	±0,20	2,8	5,6
MHS-40C	3800	66	$1,2 \times 10^{-5}$	2800	-	1°	±0,20	6,0	12,0
MHS-50C	3100	120	$3,7 \times 10^{-5}$	3700	-	1°	±0,20	12,0	24,0
MHS-63C	2400	190	$8,4 \times 10^{-5}$	5000	-	1°	±0,20	19,0	38,0

Part number	Standard bore ØA	Max. bore ØA	ØD	F	L	W	ØC	S1	M	G	Stock*	Price each 1 to 4
MHS-32C	6	10	32	4	13,70	32	22	9	M3	8,00	✓✓	139,10 €
MHS-40C	8	14	40	6	16,50	38	28	12	M4	10,50	✓✓	151,04 €
MHS-50C	12	20	50	7	19,40	44	39	15	M5	14,75	✓	182,63 €
MHS-63C	16	25	63	8	22,30	50	45	18	M6	19,00	✓	255,10 €

*Depending on availability - Dimensions in mm



Double-disc flexible coupling

Couplings for servo-motors

MHW

Torque: 2.8 to 38Nm

- **Very rigid in torsion**
- Misalignment absorbed by stainless steel disc
- Backlash free
- Resistant to oil and chemical products
- Maintenance free
- Materials:

Hubs: Aluminium A-U4G

Disc: Stainless steel 301

Pin: Stainless steel 303

Central disc: A-U5 Pb Bi

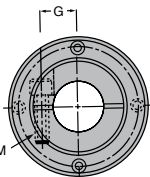
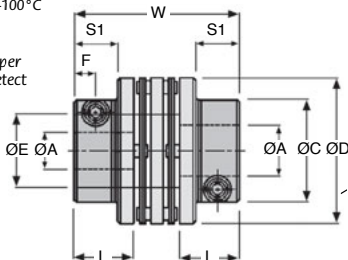
- Max. working temp.: +100°C



clamp
fixing

Uses

- Ideal for use with stepper motors that cannot detect start position
- Applications requiring high accuracy
- Automated systems



DISCOUNTS

Qty	1+	5+	10+	15+	20+
Disc.	List	-10%	-15%	-25%	On request

Part number	Max. speed of rotation (rpm)	Weight (g)	Moment of inertia (kg·m ²)	Static torsional stiffness (Nm/Rad)	Misalignment			Nominal torque (Nm)	Max. torque (Nm)
					Radial (mm)	Angular	Axial (mm)		
MHW-32C	4800	48	$6,2 \times 10^{-6}$	1000	0,15	2°	±0,40	2,8	5,6
MHW-40C	3800	81	$1,6 \times 10^{-5}$	1500	0,20	2°	±0,50	6,0	12,0
MHW-50C	3100	150	$4,6 \times 10^{-5}$	2000	0,20	2°	±0,60	12,0	24,0
MHW-63C	2400	230	$1,1 \times 10^{-4}$	2500	0,30	2°	±0,80	19,0	38,0

Part number	Standard bore ØA	Max. bore ØA	ØD	ØE	F	L	W	ØC	S1	M	G	Price each 1 to 4
MHW-32C	6	10	32	15	4	13,70	40	22	9	M3	8,00	165,47 €
MHW-40C	8	14	40	25	6	16,50	46	28	12	M4	10,50	185,58 €
MHW-50C	12	20	50	25	7	19,40	52	39	15	M5	14,75	223,16 €
MHW-63C	16	25	63	32	8	22,30	58	45	18	M6	17,00	316,15 €

*Depending on availability - Dimensions in mm

- **3 part assembly**
- Max. speed: 3000 rpm
- Working temp: -20°C to +60°C
- Materials:
 - BG6-BG13 Hubs: brass
 - CZ121
 - BG19-57 Hubs: Alocrom coated aluminium 6082
 - Disk: black acetal

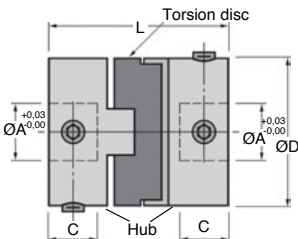
Service factor	
Usage	Factor
Momentary	1
1hr/day	2
3h/day	4
6h/day	6
12h/day	8

Torque to be transmitted X Service Factor must be less than Peak Torque



Set screw fixing

	Misalignment at 3000 rpm			Torque Peak (Nm)	Static break (Nm)	Moment of inertia (kgm ² x10 ⁻⁴)	Torsional stiffness (Nm/ Rad)
	Radial (± mm)	Axial (± mm)	Angular (± °)				
BG6	0,10	0,05	0,5°	0,06	0,7	6	10
BG9	0,10	0,05	0,5°	0,21	2,0	18	30
BG13	0,10	0,05	0,5°	0,5	4,0	26	65
BG19	0,20	0,10	0,5°	1,7	10,0	67	115
BG25	0,20	0,10	0,5°	4,0	13,0	252	205
BG33	0,20	0,15	0,5°	9,0	53,0	1 278	615
BG41	0,25	0,15	0,5°	17,0	57,0	3 327	1 200
BG50	0,25	0,20	0,5°	30,0	95,0	7 550	1 375
BG57	0,25	0,20	0,5°	44,0	150,0	12 410	2 610



DISCOUNTS

Qty	1+	5+	10+	25+	50+
Disc.	List	-6%	-12%	-18%	On request

	Standard bores (mm)	Optional bores (mm)	ØD	L	C	Vis	Weight (g)	Standard bores	Price each 1 to 4 Standard bores
Part number									
BG6	2	3, 3.18	6,40	12,70	3,80	M3	2,5	✓	19,76 €
BG9	3, 4, 5	-	9,50	12,70	3,80	M3	4	✓	16,67 €
BG13	3	4, 5, 6, 6.35	12,70	15,90	4,30	M3	11	✓	18,76 €
BG19	4, 6, 8	5, 6.35	19,10	22,00	6,30	M3	12	✓	21,12 €
BG25	6, 8, 10	6.35, 9.52, 12	25,40	28,40	8,60	M4	31	✓	28,47 €
BG33	8, 12	9.52, 10, 14, 15, 16	33,30	48,00	13,00	M4	86	✓	42,75 €
BG41	9.52, 10	12, 14, 15, 16, 18, 19, 20	41,30	50,80	16,70	M5	148	✓	50,75 €
BG50	10, 20	12, 14, 15, 16, 18, 19, 24, 25	50,00	59,60	20,60	M8	208	✓	116,93 €
BG57	12, 20	14, 15, 16, 18, 19, 24, 25, 30	57,10	78,00	28,40	M8	361	✓	162,20 €

*Depending on availability - Dimensions in mm

Couplings for servo-motors



BGC

Torque: **1.7 to 44Nm**

- **3 part assembly**
- Max. speed: 3000 rpm
- Working temperature:
-20°C to +60°C
- Materials:
Hub: Alocrom coated
aluminium 6082
Disk: black acetal

Advantages

- Misalignment does not affect load
- No lubrication
- Low inertia
- Non magnetic

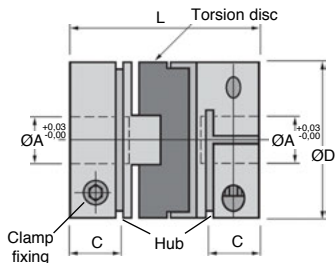
STANDARD BORE IN STOCK

Service factor	
Usage	Factor
Momentary	1
1h/jour	2
3h/jour	4
6h/jour	6
12h/jour	8

Torque to be transmitted X Service Factor must be less than Peak Torque



clamp fixing



	Misalignment at 3000 rpm			Torque Static break (Nm)	Moment of inertia (kgm ² x10 ⁻⁹)	Torsional stiffness (Nm/ Rad)
	Radial (± mm)	Axial (± mm)	Angular (± °)			
BG19	0,20	0,10	0,5°	1,7	10	67
BG25	0,20	0,10	0,5°	4,0	13	252
BG33	0,20	0,15	0,5°	9,0	53	1 278
BG41	0,25	0,15	0,5°	17,0	57	3 327
BG50	0,25	0,20	0,5°	30,0	95	7 550
BG57	0,25	0,20	0,5°	44,0	150	12 410

DISCOUNTS

Qty	1+	5+	10+	25+	50+
Disc.	List	-6%	-12%	-18%	On request

Part number	Standard bores (mm)	Optional bores (mm)	ØD	L	C	Vis	Weight (g)	Price each	
								Standard bores	1 to 4 Standard bores
BGC19	4	5, 6, 6.35, 8	19,10	22,00	6,30	M2,5	12	✓	21,70 €
BGC25	6, 8, 10	6.35, 9.52, 12	25,40	28,40	8,60	M3	31	✓	31,14 €
BGC33	8, 9.52, 10, 14	12, 12.7, 15, 16	33,30	42,00	13,00	M4	86	✓	45,71 €
BGC41	9.52, 12, 14	10, 15, 16, 18, 19, 20	41,30	50,80	16,70	M4	148	✓	50,76 €
BGC50	10, 20	12, 14, 15, 16, 18, 19, 24, 25	50,00	59,60	20,60	M5	208	✓	122,48 €
BGC57	12, 20	14, 15, 16, 18, 19, 24, 25, 30	57,10	78,00	28,40	M6	361	✓	140,42 €

*Depending on availability - Dimensions in mm

RGS Couplings for servo-motors

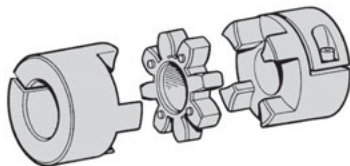
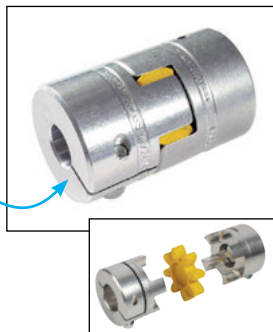
Torque: 0.5 to 190Nm

- No-wear elastic couplings
- No maintenance
- Low inertia and reduced size
- Easy blind assembly using standard screws
- Dampens vibration
- Electrically insulated

Definition

- TKN Nominal torque (Nm)
- TKMAX Max. torque (Nm)
- TKSP Torque transmitted without wear (Nm) when used with encoders and resolvers

clamp
fixing



☒ STANDARD BORE
IN STOCK

DISCOUNTS

Qty	1+	5+	10+	25+
Disc.	List	-6%	-12%	On request

Transmissible torque (Nm) by friction for split hub

Part number	Ø3	Ø4	Ø5	Ø6	Ø7	Ø8	Ø10	Ø12	Ø14	Ø15	Ø16	Ø19	Ø20	Ø24	Ø28	Ø30	Ø32
RGS-AL-5	-	-															
RGS-AL-7		0,65	0,70	0,74	0,79												
RGS-AL-9		1,48	-	1,43	-	1,79	1,94										
RGS-AL-14			3,32	3,43	-	3,67	3,91	4,14	4,38								
RGS-AL-19							18,90	-	20,80	21,3	21,7	-	23,6				
RGS-AL-24										27,5	28		29,0	31			
RGS-AL-28													62,0	66	69	71	73

Part number	Max. speed (rpm)	Torsional stiffness		Radial stiffness (N/mm)	Torque (Nm)			Misalignment		
		static (Nm/rad)	dynamic (Nm/rad)		T _{KSP}	T _{KN}	T _{KMAX}	axial (mm)	radial (mm)	angular
RGS-AL-5	56 000	5,16	16	154	0,08	0,50	1,00	0,40	0,06	1°
RGS-AL-7	40 000	14,30	45	219	0,20	1,20	2,40	0,60	0,10	1°
RGS-AL-9	28 000	31,50	95	262	0,45	3,00	6,00	0,80	0,13	1°
RGS-AL-14	19 000	114,60	344	336	1,00	7,50	15,00	1,00	0,15	1°
RGS-AL-19	14 000	573,00	1720	1120	2,50	10,00	20,00	1,20	0,10	1°
RGS-AL-24	10 600	1432,00	4296	1480	-	35,00	70,00	1,40	0,14	1°
RGS-AL-28	8 500	2292,00	6876	1780	-	95,00	190,00	1,50	0,15	1°

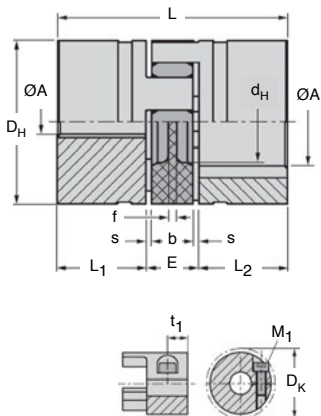
Dimensions in mm

Characteristics

- Long-life
- Fixed by clamping jaw (except RGS-AL-5)
- Single-slit split hub (except RGS-AL-24 and RGS-AL-28 double slit)
- Preconstrained raised coupling
- Working temperature: -40°C to +90°C (occasional -50°C to +120°C)
- Materials:
 - Hub: aluminium
 - Ring: polyurethane elastic (92 Shore A)

Uses

- Measuring and control instruments
- Servo-control, ball-screw systems
- Machine tools



DISCOUNTS

Qty	1+	5+	10+	25+
Disc.	List	-6%	-12%	On request

Clamping screw				Tightening torque T _A (Nm)
Part number	M ₁	t ₁	ØD _K	
RGS-AL-5	M1,2	2,5	11,4	-
RGS-AL-7	M2,0	3,5	16,5	0,37
RGS-AL-9	M2,5	5,0	23,4	0,76
RGS-AL-14	M3,0	5,0	32,2	1,34
RGS-AL-19	M6,0	12,0	45,7	10,50
RGS-AL-24	M6,0	10,5	56,4	10,50
RGS-AL-28	M8,0	11,5	72,6	25,00

Standard bore										Price each 1 to 4
Part number	ØA (H7)	D _H	d _H	L	L ₁ :L ₂	E	b	s	f	
RGS-AL-5	Plein	10	-	15	5	5	4	0,5	4,0	43,47 €
RGS-AL-7	4, 5, 6, 7	14	-	22	7	8	6	1,0	6,0	73,47 €
RGS-AL-9	4, 6, 8, 10	20	7,2	30	10	10	8	1,0	1,5	73,98 €
RGS-AL-14	5, 6, 8, 10, 12, 14	30	10,5	35	11	13	10	1,5	2,0	82,69 €
RGS-AL-19	10, 14, 15, 16, 20	40	18,0	66	25	16	12	2,0	3,0	192,63 €
RGS-AL-24	16, 19, 20, 24, 25	55	27,0	78	30	18	14	2,0	3,0	230,74 €
RGS-AL-28	20, 24, 25, 28, 30, 32	65	30,0	90	35	20	15	2,5	4,0	301,40 €

Dimensions in mm

EKGS

Servo insert coupling

Torque range: 0.5 to 35 Nm

- Elastic backlash free coupling
- Reliable torque transmission
- Maintenance free
- Low inertia/size
- Easy to assembly, even in confined spaces
- Reduces vibration
- Materials:
 - Body: Aluminium
 - Spider: Polyurethane 92 Shore A (yellow)



Applications

- Metrology, control systems, driving, machine tools, driving lead screws

Torque (Nm) transmissible for hub secured using set screws

Bore size	Ø3	Ø4	Ø5	Ø6	Ø7	Ø8	Ø9	Ø10	Ø11	Ø12	Ø13	Ø14	Ø15	Ø16	Ø17	Ø18	Ø20	Ø22	Ø24	Ø28
EKGS-5	0,5	0,5	0,5																	
EKGS-7	1,2	1,2	1,2	1,2	1,2	1,2														
EKGS-9	3	3	3	3	3	3	3	3	3	3										
EKGS-14	7,5	7,5	7,5	7,5	7,5	7,5	7,5	7,5	7,5	7,5	7,5	7,5	7,5	7,5						
EKGS-19				10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	
EKGS-24						20	22	24	26	29	31	34	35	35	35	35	35	35	35	35

Part number	Transmissible nominal (Nm)	Tightened torque (Nm)	Max speed (rpm)	Moment of inertia (10^{-6} kgm ²)	axial (Nm)	Misalignment radial (Nm)	angular
EKGS-5	0,5	1,3	47500	0,034	-0,2/+0,4	0,06	1°
EKGS-7	1,2	1,3	34000	0,196	-0,3/+0,6	0,10	1°
EKGS-9	3	3	24000	1,08	-0,4/+0,8	0,13	1°
EKGS-14	7,5	6	16000	5,7	-0,5/+1,0	0,15	1°
EKGS-19	10	6	12000	36	-0,5/+1,2	0,10	1°
EKGS-24	35	6	8500	162	-0,5/+1,4	0,14	1°

Dimensions in mm

Characteristics

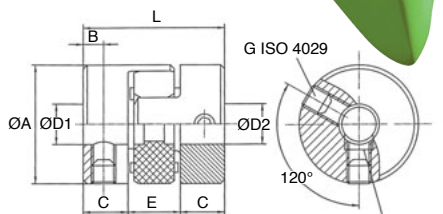
- Hardwearing
- Fixed using set screws
- Couplings are mounted pre-tensioned
- Shaft tolerance should be g6 or h7
- Contact surfaces should be free of grease

Bore

- Choose ØD1 and ØD2 from the ranges shown

Option

- Keyway according to DIN6885-1



Optional keyway

DISCOUNTS

Qty	1+	5+	10+	25+
Disc.	List	-4%	-8%	On request

Part number	L	ØA	E	ØD1/ ØD2 No keyway	ØD1/ ØD2 with keyway	C	B	G	Weight (g)	Price each 1 to 4 No keyway	Price each 1 to 4 with keyway
EKGS-5	15	10	5	2-5	-	5	2,5	1xM3	5	37,05 €	-
EKGS-7	22	14	8	3-8	6-8	7	2,5	1xM3	9	38,54 €	65,22 €
EKGS-9	30	20	10	3-12	6-10	10	5	2xM4	17	40,00 €	66,69 €
EKGS-14	35	30	13	4-16	6-16	11	5	2xM6	41	50,37 €	77,07 €
EKGS-19	66	40	16	6-24	6-24	25	10	2xM6	138	63,73 €	90,42 €
EKGS-24	78	55	18	8-35	8-35	30	10	2xM6	282	80,01 €	106,72 €

Dimensions in mm

DKGS

Servo insert coupling

Torque range: 0.5 to 3 Nm

- Elastic backlash free coupling
- Reliable torque transmission
- Maintenance free
- Low inertia/size
- Easy to assemble, even in confined spaces
- Reduces vibration
- Materials:
 - Hub: Aluminium
 - Spider: Polyurethane 92 Shore A (yellow)

Small size



Secured by a clamping hub

Applications

- Metrology, control systems, driving, machine tools, driving lead screws

Torque (Nm) transmissible by friction for a split hub

Bore size	Ø2	Ø3	Ø4	Ø5	Ø6	Ø7	Ø8	Ø9	Ø10	Ø11
DKGS-5	0,5	0,5	0,5	-	-	-	-	-	-	-
DKGS-7	-	0,8	1,1	1,2	1,2	1,2	-	-	-	-
DKGS-9	-	1,5	2	2,5	2,9	3	3	3	3	3

Part number	Nominal torque (Nm)	Tightened torque (Nm)	Max speed (rpm)	Moment of inertia (10 ⁻⁶ kg.m ²)	axial (Nm)	Misalignment radial (Nm)	angular
DKGS-5	0,5	0,25	38000	0,034	-0,2/+0,4	0,06	1°
DKGS-7	1,2	0,35	27000	0,196	-0,3/+0,6	0,10	1°
DKGS-9	3	0,75	19000	1,08	-0,4/+0,8	0,13	1°

Dimensions in mm

Characteristics

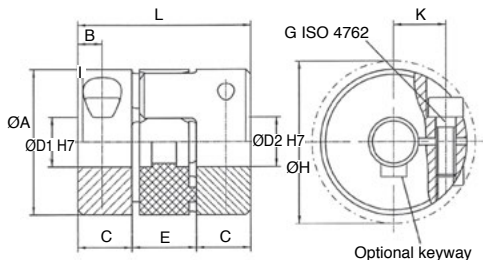
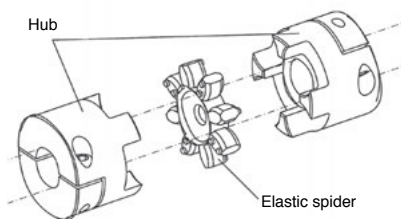
- Hardwearing
- Secured by a clamping hub
- Couplings are mounted pre-tensioned
- Shaft tolerance should be g6 or h7
- Contact surfaces should be grease free

Bore

- Choose $\varnothing D1$ and $\varnothing D2$ from the ranges shown

Option

- Keyway according to DIN6885-1



DISCOUNTS

Qty	1+	5+	10+	25+
Disc.	List	-4%	-8%	On request

Part number	L	ØA	K	ØH	E	ØD1 / ØD2		C	B	G	Weight (g)	Price each 1 to 4	
						No keyway	with keyway					No keyway	with keyway
DKGS-5	15	10	3,2	11,5	5	2-4	-	5	2,5	M1,6	5	41,50 €	-
DKGS-7	22	14	5	16,5	8	3-7	6-7	7	3,5	M2	9	42,96 €	69,65 €
DKGS-9	30	20	7,3	23,5	10	3-11	6-11	10	5	M2,5	15	44,45 €	71,15 €

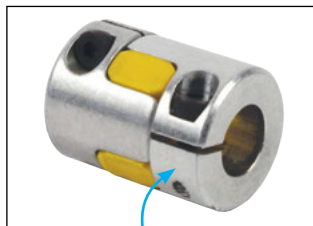
Dimensions in mm

BKGS

Coupling for driven systems

Torque range: 1.2 to 450 Nm

- Elastic backlash free coupling
- Reliable torque transmission
- Maintenance free
- Low inertia/size
- Easy to assemble, even in confined spaces
- Reduces vibration
- Materials:
 - Hub: Aluminium
 - Ring: Polyurethane 98 Shore A (Red)
 - except sizes 7 and 9 which are Shore 92 A (Yellow)



Secured using a clamping jaw

Applications

- Metrology, control systems, driving, machine tools, driving lead screws

Torque (Nm) transmissible by friction for a split hub

Bore size	03	04	05	06	08	10	12	14	15	18	20	25	26	28	30	35	40	45	50	55	56
BKGS-7	0,7	0,9	1,1	1,2																	
BKGS-9		1,7	2,1	2,4	3,0	3,0															
BKGS-14			9	10,6	12,5	12,5	12,5	12,5													
BKGS-19					17	17	17	17	17	17											
BKGS-24						43,9	51,8	60	60	60	60	60	60	60	60						
BKGS-28									113	120	141	155	160	160	160	160					
BKGS-38										191	226	248	302	312	325	325	325	325			
BKGS-42												250	305	316	337	358	409	450	450	450	450

DISCOUNTS

Qty	1+	5+	10+	25+
Disc.	List	-4%	-8%	On request

Part number	Transmissible torque (Nm)	Max. speed (t/min)	Moment of inertia (10 ⁻⁶ Kg m ²)	Misalignment axial (mm)	Misalignment radial (mm)	Misalignment angular	Tightening torque (Nm)
BKGS-7	1,2	27000	0,0001	-0,3/+0,6	0,10	1°	0,35
BKGS-9	3	19000	0,0002	-0,4/+0,8	0,13	1°	0,75
BKGS-14	12,5	13000	0,006	-0,5/+1,0	0,09	0,9°	5
BKGS-19	17	10000	0,029	-0,5/+1,2	0,06	0,9°	10
BKGS-24	60	7000	0,121	-0,5/+1,4	0,10	0,9°	18
BKGS-28	160	6000	0,236	-0,7/+1,5	0,11	0,9°	43
BKGS-38	325	5000	0,797	-0,7/+1,8	0,12	0,9°	84
BKGS-42	450	4000	1,779	-1,0/+2,0	0,14	0,9°	84

Dimensions in mm

Characteristics

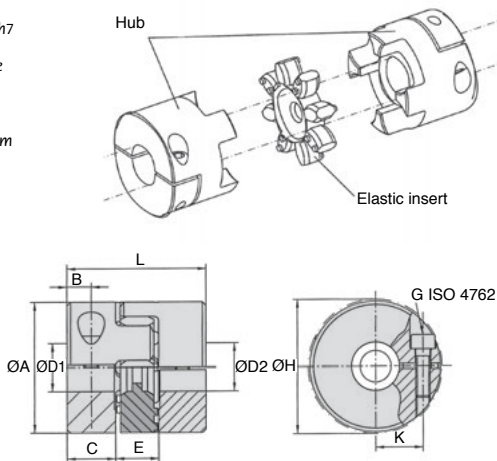
- Hardwearing
- Secured by a clamping hub
- Coupling mounted under pre-tension
- Shafts must have g6 or h7 tolerance
- Degrease surfaces before assembly

Bore

- Choose $\varnothing D1$ and $\varnothing D2$ from within the range shown

Option

- Keyway according to DIN6885-1



DISCOUNTS

Qty	1+	5+	10+	25+
Disc.	List	-4%	-8%	On request

Part number	L	ØA	K	ØH	E	ØD1/ØD2	C	B	G	Weight (kg)	Price each 1 to 4	
											Without keyway	With keyway
BKGS-7	20	14	5	16,5	8	3-7	6	3	M2	0,006	29,64 €	56,31 €
BKGS-9	26	19,5	7,5	23	10	4-11	8	4	M2,5	0,019	32,59 €	59,29 €
BKGS-14	32	29,5	10,5	33	13	5-15	9,5	5	M4	0,049	54,83 €	81,51 €
BKGS-19	50	39,5	15	43	16	8-22	17	6	M5	0,12	66,69 €	93,38 €
BKGS-24	58	54,5	20	56	18	10-31	20	10	M6	0,28	75,59 €	102,29 €
BKGS-28	62	64,5	23,5	67	19	14-35	21,5	11	M8	0,355	103,75 €	130,44 €
BKGS-38	85	79,5	30	88	23	15-46	31	13	M10	0,85	176,39 €	203,06 €
BKGS-42	102	94,5	35	95	26	20-56	38	14	M10	1,5	272,73 €	299,43 €

Dimensions in mm



ADSR

Servo insert coupling Torque range: 12.5 to 525 Nm

- Elastic backlash free coupling
- Reliable torque transmission
- Maintenance free
- Low inertia/size
- Easy to assemble, even in confined spaces
- Reduces vibration
- Materials:
Hub- Aluminium
Ring- Polyurethane 98 Shore A (Red)

Applications

- Metrology, control systems, driving, machine tools, driving lead screws



Secured by a clamping hub

Torque (Nm) transmissible by friction for a split hub

Part number	Ø5	Ø6	Ø8	Ø10	Ø12	Ø14	Ø16	Ø20	Ø25	Ø30	Ø35	Ø40	Ø45	Ø50	Ø55
ADSR-14	4,8	6,0	7,7	9,4	11	12,5	12,5								
ADSR-19		16	17	17	17	17	17	17							
ADSR-24				37	43	50	56	60	60	60					
ADSR-28				61	72	83	94	114	138	160	160				
ADSR-38					87	100	113	138	168	197	225	251	277		
ADSR-42						174	197	242	296	348	398	450	450		
ADSR-48							276	343	424	502	525	525	525	525	525

Part number	transmissible torque (Nm)	Tightened torque (Nm)	Max speed (t/min)	Moment of inertia 10^{-3} kg.m^2	axial (mm)	Misalignment radial (mm)	angular
ADSR-14	12,5	2	13000	0,006	-0,5/+1,0	0,09	0,9°
ADSR-19	17	11	10000	0,036	-0,5/+1,2	0,06	0,9°
ADSR-24	60	15	7000	0,15	-0,5/+1,4	0,10	0,9°
ADSR-28	160	32	6000	0,33	-0,7/+1,5	0,11	0,9°
ADSR-38	325	38	5000	0,96	-0,7/+1,8	0,12	0,9°
ADSR-42	450	84	4000	4,92	-1,0/+2,0	0,14	0,9°
ADSR-48	525	145	3600	8,26	-1,0/+2,1	0,16	0,9°

Dimensions in mm

Characteristics

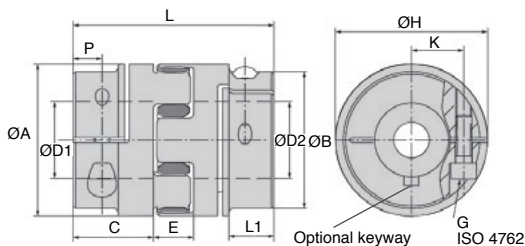
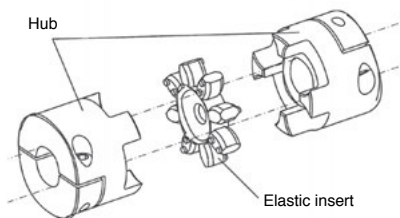
- Hardwearing
- Secured by a clamping hub
- Coupling mounted under pre-tension
- Shafts must have g6 or h7 tolerance
- Degrease surfaces before assembly

Bore

- Choose ØD1 and ØD2 from within the range shown

Option

- Keyway according to DIN6885-1



DISCOUNTS

Qty	1+	3+	6+
Disc.	List	-8%	On request

Part number	L	L1	ØB	K	ØA	ØH	E	ØD1/ ØD2	C	P	G	Price each 1 to 2	
												Weight (kg)	No keyway with keyway
ADSR-14	35	-	-	11	30	32,2	13	5-16	11	5	M3	0,042	66,69 € 93,38 €
ADSR-19	66	-	-	14,5	40	46	16	6-20	25	12	M6	0,158	94,85 € 121,53 €
ADSR-24	78	-	-	20	55	57	18	10-32	30	10,5	M6	0,304	111,15 € 137,86 €
ADSR-28	90	-	-	24,5	65	71	20	10-38	35	11,5	M8	0,505	143,76 € 170,46 €
ADSR-38	114	-	-	30	80	83	24	12-48	45	15,5	M8	0,934	222,35 € 249,03 €
ADSR-42	126	28	85	32,5	95	91	26	14-54	50	18	M10	3,8	760,46 € 787,14 €
ADSR-48	140	32	95	37	105	106	28	15-60	56	21	M12	4,9	889,41 € 916,10 €

Dimensions in mm



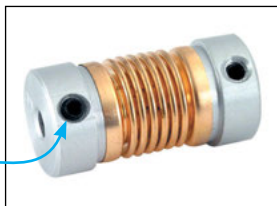
MFB

Couplings for servo-motors

Torque: 0.3 to 2Nm

- **High precision**
- High torsional stiffness
- Large misalignment
- Identical operation in both clockwise and anti-clockwise directions
- Materials:
 - Hub: Aluminium A-U5 Pb Bi
 - Bellows: Phosphorated bronze
- Max. working temperature: +100°C
- Bellows and hub bonded together

Set screw fixing

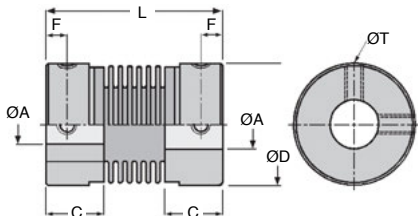


Uses

- Encoders, automated and robotic systems
- Stepper motors that cannot detect start position

Options

- Bore sizes can be modified (Tolerance H8)



STANDARD BORE IN STOCK

Part number	Misalignment			Torque	
	Radial (mm)	Axial (mm)	Angular	Nominal (Nm)	Max. (Nm)
MFB-12	0,10	+0,40 / -1,20	1,5°	0,3	0,6
MFB-16	0,10	+0,40 / -1,20	1,5°	0,5	1,0
MFB-20	0,10	+0,60 / -1,80	2,0°	0,8	1,6
MFB-25	0,15	+0,60 / -1,80	2,0°	1,3	2,6
MFB-32	0,20	+0,80 / -2,50	2,0°	2,0	4,0

DISCOUNTS

Qty.	1+	5+	10+	25+	50+
Disc.	List	-6%	-12%	-18%	On request

Part number	Standard bore	Max. bore	ØD	L	C	ØT	F	Moment of inertia	Torsional stiffness	Weight (g)	Max. rotational speed (rpm)	Price each 1 to 4	
	ØA	ØA						(kg·m²)	(Nm/Rad)			Standard Bores	Modified Bores
MFB-12	3 x 3	6,35	12	23,5	7,5	M2,5	2,5	9,0 x 10 ⁻⁸	82	4,1	32000	47,72 €	62,71 €
MFB-16	4 x 4	8	16	26,5	9,0	M3	3,0	3,5 x 10 ⁻⁷	110	9,0	24000	49,41 €	69,30 €
MFB-20	5 x 5	10	20	32,0	10,0	M3	3,5	9,9 x 10 ⁻⁷	180	16,0	19000	48,97 €	71,59 €
MFB-25	6 x 6	12	25	36,5	12,0	M4	4,5	3,1 x 10 ⁻⁶	240	32,0	15000	62,95 €	90,57 €
MFB-32	8 x 8	16	32	42,0	13,5	M4	5,5	9,2 x 10 ⁻⁶	330	57,0	12000	72,40 €	106,63 €

Dimensions in mm

Couplings for servo-motors

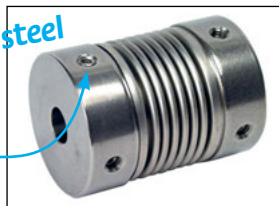
MFBS

Torque: **0.5 to 3Nm**

- **High precision**
- High torsional stiffness
- Large misalignment
- Identical operation in both clockwise and anti-clockwise directions
- Materials:
Hub: stainless steel 303
Bellows: stainless steel 316L
- Max. working temperature:
+150°C
- Bellows and hub bonded together

stainless steel

set screw fixing

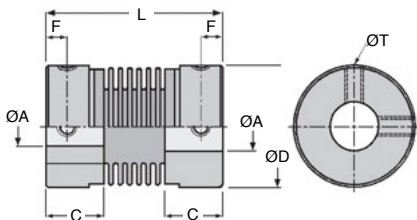


Uses

- Encoders, automated and robotic systems
- Stepper motors that cannot detect start position

Options

- Bore sizes can be modified (Tolerance H8)



Part number	Misalignment			Torque	
	Radial (mm)	Axial (mm)	Angular	Nominal (Nm)	Max. (Nm)
MFBS-12	0,10	+0,40 / -1,20	1,5°	0,5	1
MFBS-16	0,10	+0,40 / -1,20	1,5°	1,0	2
MFBS-20	0,15	+0,60 / -1,80	2,0°	1,5	3
MFBS-25	0,15	+0,60 / -1,80	2,0°	2,0	4
MFBS-32	0,20	+0,80 / -2,50	2,0°	3,0	6

STANDARD BORE IN STOCK

DISCOUNTS

Qty.	1+	5+	10+	25+	50+
Disc.	List	-6%	-12%	-18%	On request

Part number	Standard bore ØA	Max. bore ØA	ØD	L	C	ØT	F	Moment of inertia (kg·m ²)	Torsional stiffness (Nm/Rad)	Weight (g)	Max. rotational speed (rpm)	Price each 1 to 4	
												Standard Bores	Modified Bores
MFBS-12	3 x 3	6,35	12	23,5	7,5	M2,5	2,5	2,1 x 10 ⁻⁷	100	9,1	32000	79,67 €	96,00 €
MFBS-16	4 x 4	8	16	26,5	9,0	M3	3,0	8,0 x 10 ⁻⁷	150	20,0	24000	102,60 €	104,35 €
MFBS-20	5 x 5	10	20	32,0	10,0	M3	3,5	2,3 x 10 ⁻⁶	220	37,0	19000	118,74 €	118,74 €
MFBS-25	6 x 6	12	25	36,5	12,0	M4	4,5	7,0 x 10 ⁻⁶	240	330	15000	115,75 €	144,18 €
MFBS-32	8 x 8	16	32	42,0	13,5	M4	5,5	2,1 x 10 ⁻⁵	330	490	12000	151,30 €	150,48 €

Dimensions in mm

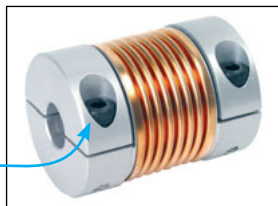


MFBC

Couplings for servo-motors

Torque: **0.3 to 2Nm**

- **High precision**
- High torsional stiffness
- Large misalignment
- Identical operation in both clockwise and anti-clockwise directions
- Materials:
 - Hub: Aluminium A-U5 Pb Bi
 - Bellows: Phosphorated bronze
- Max. working temperature: +100°C
- Bellows and hub bonded together



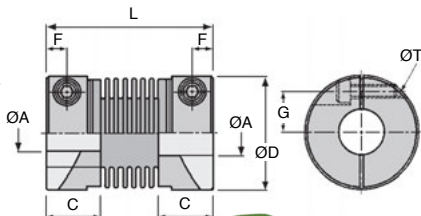
clamp fixing

Uses

- Encoders, automated and robotic systems
- Stepper motors that cannot detect start position

Options

- Bore sizes can be modified (Tolerance H8)



Part number	Misalignment			Torque	
	Radial (mm)	Axial (mm)	Angular	Nominal (Nm)	Max. (Nm)
MFB-12C	0,10	+0,40 -1,20	1,5°	0,3	0,6
MFB-16C	0,10	+0,40 -1,20	1,5°	0,5	1,0
MFB-20C	0,15	+0,60 -1,80	2,0°	0,8	1,6
MFB-25C	0,15	+0,60 -1,80	2,0°	1,3	2,6
MFB-32C	0,20	+0,80 -2,50	2,0°	2,0	4,0

DISCOUNTS

Qty.	1+	5+	10+	25+	50+
Disc.	List	-6%	-12%	-18%	On request

Part number	Standard bore ØA	Max. bore ØA	ØD	L	C	ØT	F	G	Moment of inertia (kg·m ²)	Torsional Stiffness (Nm/Rad)	Max. rotational speed (rpm)	Stock*	Price each 1 to 4		
													Standard bores	Standard Bores	Modified Bores
MFB-12C	4 x 4	5	12	23,5	7,5	M2	2,25	4,0	9,7 x 10 ⁻⁸	82	13 000	✓	62,86 €	-	-
MFB-16C	5 x 5	6,35	16	26,5	9,0	M2,5	3,00	5,0	3,7 x 10 ⁻⁷	110	9 500	✓	62,92 €	88,97 €	88,97 €
MFB-20C	6 x 6	8	20	32,0	10,0	M2,5	3,50	6,5	9,9 x 10 ⁻⁷	180	7 700	✓	63,03 €	95,67 €	95,67 €
MFB-25C	8 x 8	10	25	36,5	12,0	M3	4,50	9,0	3,1 x 10 ⁻⁶	240	6 100	✓	88,40 €	127,23 €	127,23 €
MFB-32C	8 x 8	14	32	42,0	13,5	M4	5,00	11,0	9,6 x 10 ⁻⁶	330	4 800	✓	84,85 €	127,23 €	127,23 €

*Depending on availability - Dimensions in mm

Couplings for servo-motors

MFBS_c

Torque: **0.5 to 3Nm**

- **High precision**
- High torsional stiffness
- Large misalignment
- Identical operation in both clockwise and anti-clockwise directions
- Materials:
 - Hub: stainless steel 303
 - Bellows: stainless steel 316L
- Max. working temperature: +150°C
- Bellows and hub bonded together

stainless steel

clamp fixing

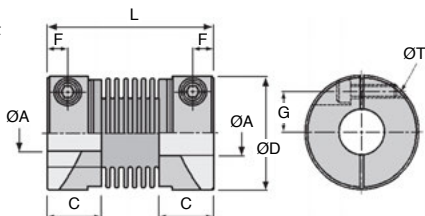


Uses

- Encoders, automated and robotic systems
- Stepper motors that cannot detect start position

Options

- Bore sizes can be modified (Tolerance H8)



Part number	Misalignment			Torque	
	Radial (mm)	Axial (mm)	Angular	Nominal (Nm)	Max. (Nm)
MFBS-12C	0,10	+0,40 -1,20	1,5°	0,5	1
MFBS-16C	0,10	+0,40 -1,20	1,5°	1,0	2
MFBS-20C	0,15	+0,60 -1,80	2,0°	1,5	3
MFBS-25C	0,15	+0,60 -1,80	2,0°	2,0	4
MFBS-32C	0,20	+0,80 -2,50	2,0°	3,0	6

DISCOUNTS

Qté	1+	5+	10+	25+	50+
Rem. Prix	-6%	-12%	-18%	On request	

Part number	Standard bore		Max. bore	ØD	L	C	ØT	F	G	Moment of inertia (kg·m²)	Torsional stiffness (Nm/Rad)	Max. rotational speed (rpm)	Price each 1 to 4		
	ØA	ØA											Standard bores	Standard Bores	Modified Bores
MFBS-12C	4 x 4	5	12	23,5	7,5	M2	2,25	4,0	2,1 x 10 ⁻⁷	100	13 000	✓	154,15 €	155,28 €	155,28 €
MFBS-16C	5 x 5	6,35	16	26,5	9,0	M2,5	3,00	5,0	8,1 x 10 ⁻⁷	150	9 500	✓	154,71 €	182,05 €	182,05 €
MFBS-20C	6 x 6	8	20	32,0	10,0	M2,5	3,50	6,5	2,3 x 10 ⁻⁶	220	7 700	✓	190,99 €	180,36 €	180,36 €
MFBS-25C	8 x 8	10	25	36,5	12,0	M3	4,50	9,0	6,9 x 10 ⁻⁶	330	6 100	✓	197,79 €	197,43 €	197,43 €
MFBS-32C	8 x 8	14	32	42,0	13,5	M4	5,00	11,0	2,1 x 10 ⁻⁵	490	4 800	✓	225,03 €	228,10 €	228,10 €

*Depending on availability - Dimensions in mm

- Backlash and maintenance free
- Materials:
 - Hub: anodised aluminium
 - Bellows: stainless steel
- Angular misalignment from 1.2° to 2° depending on the length
- High torsional rigidity
- Low moment of inertia
- Shaft/bore link without backlash
- Recommended assembly tolerances H7/g6
- Working temperature -30°C to +100°C
- **The DK series is no longer available and has been replaced by the DKN range.**
Please specify bore size on order (between min and max Ø)

Set screw
fixing

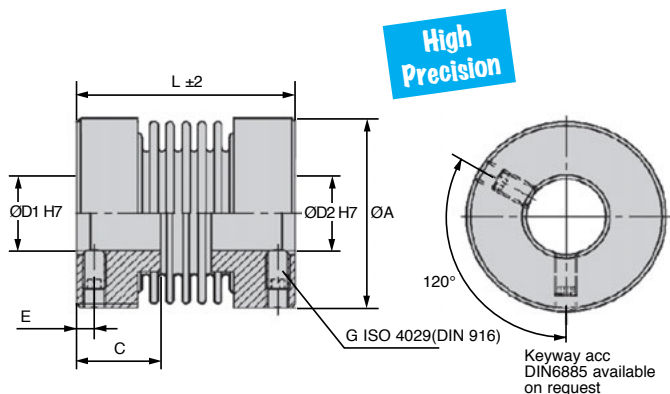


Options

- Keyway acc DIN6885 available on request (tolerance JS9)
- Stainless steel version on request

Part number	Misalignment		Torsional stiffness C_T dyn (10 ⁻³ Nm/rad)	Moment of inertia J (g cm ²)	Tightening torque (Screw) (Nm)	Weight (g)
	radial (ΔK _r) (mm)	axial (ΔK _a) (mm)				
EKN4-20	0,10	0,20	250	2,0	0,5	6
EKN4-23	0,15	0,30	190	2,0	0,5	6
EKN4-26	0,20	0,40	150	2,0	0,5	6
EKN9-21	0,10	0,20	500	2,0	0,5	6
EKN9-25	0,15	0,30	380	2,3	0,5	7
EKN9-28	0,20	0,40	300	2,6	0,5	8
EKN15-25	0,10	0,25	750	7,5	1,5	17
EKN15-30	0,15	0,40	700	8,0	1,5	19
EKN20-26	0,10	0,30	1500	14,0	1,5	22
EKN20-32	0,20	0,40	1300	16,0	1,5	24
EKN20-36	0,25	0,50	1000	17,0	1,5	26
EKN45-39	0,10	0,30	6500	68,0	3,0	54
EKN45-48	0,20	0,50	4000	73,0	3,0	58
EKN100-44	0,15	0,40	8100	200,0	3,0	104
EKN100-54	0,25	0,50	6700	220,0	3,0	114

Dimensions in mm



DISCOUNTS

Qty	1+	5+	10+	25+
Disc.	List	-4%	-8%	On request

Part number	øD1/øD2 (H7)	øA	C	L	G (DIN 916)	E (mm)	Nominal torque (Nm)	Price each 1 to 4 keyway	Price each 1 to 4 With keyway
EKN4-20	3-8	16	6	20	M3	2,0	0,4	47,76 €	91,69 €
EKN4-23	3-8	16	6	23	M3	2,0	0,4	47,76 €	91,69 €
EKN4-26	3-8	16	6	26	M3	2,0	0,4	47,76 €	91,69 €
EKN9-21	3-8	16	6	21	M3	2,0	0,9	47,76 €	91,69 €
EKN9-25	3-8	16	6	25	M3	2,0	0,9	47,76 €	91,69 €
EKN9-28	3-8	16	6	28	M3	2,0	0,9	47,76 €	91,69 €
EKN15-25	3-10	20	10	25	2 x M4	3,0	1,5	47,76 €	91,69 €
EKN15-30	3-10	20	10	30	2 x M4	3,0	1,5	47,76 €	91,69 €
EKN20-26	3-12	25	11	26	2 x M3	2,0	2,0	47,76 €	91,69 €
EKN20-32	3-12	25	11	32	2 x M3	2,0	2,0	47,76 €	91,69 €
EKN20-36	3-12	25	11	36	2 x M3	2,0	2,0	47,76 €	91,69 €
EKN45-39	6-16	33	16	39	2 x M6	4,0	4,5	67,30 €	101,28 €
EKN45-48	6-16	33	16	48	2 x M6	4,0	4,5	67,30 €	101,28 €
EKN100-44	6-19	40	20	44	2 x M6	4,0	10,0	95,57 €	129,48 €
EKN100-54	6-19	40	20	54	2 x M6	4,0	10,0	95,57 €	129,48 €

Dimensions in mm

Miniature bellows coupling

DKN Couplings for servo-motors Torque: **0.4 to 10Nm**

- **Backlash and maintenance free**
- Materials:
 - Hub: anodised aluminium
 - Bellows: stainless steel
- Angular misalignment from 1.2° to 2° depending on the length
- High torsional rigidity
- Low moment of inertia
- Shaft/bore link without backlash
- Recommended assembly tolerances H7/g6
- Working temperature -30°C to +100°C
- **Please specify bore size on order (between min and max Ø)**

Options

- Keyway acc DIN6885 available on request

Info.

- The DK series is no longer available and has been replaced by the DKN range

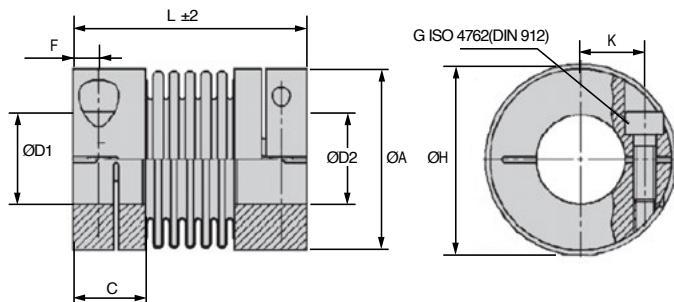


clamp fixing

Part number	Nominal torque (Nm)	radial (ΔK) (mm)	Misalignment axial (ΔK-) (mm)	Angulaire (°)	Torsional stiffness C _{t dyn} (Nm/rad)	Moment of inertia J (g cm²)	Tightening torque (Nm)	Weight (g)
DKN4/21	0,4	0,10	0,20	1,2	250	2,6	0,3	9
DKN4/24	0,4	0,15	0,30	2,0	190	2,6	0,3	9
DKN4/28	0,4	0,20	0,40	2,0	150	2,6	0,3	9
DKN9/23	0,9	0,10	0,20	1,2	500	2,6	0,3	9
DKN9/26	0,9	0,15	0,30	2,0	380	2,9	0,3	10
DKN9/30	0,9	0,20	0,40	2,0	300	3,2	0,3	11
DKN15/26	1,5	0,10	0,25	1,2	750	11,0	0,8	22
DKN15/30	1,5	0,15	0,40	2,0	700	12,0	0,8	24
DKN20/32	2,0	0,10	0,30	1,2	1500	25,0	1,0	36
DKN20/38	2,0	0,20	0,40	2,0	1300	27,0	1,0	38
DKN20/42	2,0	0,25	0,50	2,0	1000	28,0	1,0	40
DKN45/41	4,5	0,10	0,30	1,2	6500	98,0	3,0	74
DKN45/50	4,5	0,20	0,50	2,0	4000	103,0	3,0	78
DKN100/47	10,0	0,15	0,40	1,2	8100	231,0	3,0	120
DKN100/57	10,0	0,25	0,50	2,0	6700	250,0	3,0	130

Dimensions in mm

High
Precision



DISCOUNTS

Qty	1+	5+	10+	25+
Disc.	List	-4%	-8%	On request

Part number	D/D ₂ (H7)	$\varnothing A$	C	L	F	$\varnothing H$ undercut	G (DIN 912)	K	Price each 1 to 4 No keyway	Price each 1 to 4 With keyway
DKN4/21	3-6,5	16	7	21	2	18	M2	5	62,96 €	96,93 €
DKN4/24	3-6,5	16	7	24	2	18	M2	5	62,96 €	96,93 €
DKN4/28	3-6,5	16	7	28	2	18	M2	5	62,96 €	96,93 €
DKN9/23	3-6,5	16	7	23	2	18	M2	5	62,96 €	96,93 €
DKN9/26	3-6,5	16	7	26	2	18	M2	5	62,96 €	96,93 €
DKN9/30	3-6,5	16	7	30	2	18	M2	5	62,96 €	96,93 €
DKN15/26	3-10	20	9	26	3	21	M2,5	7	62,96 €	96,93 €
DKN15/30	3-10	20	9	30	3	21	M2,5	7	62,96 €	96,93 €
DKN20/32	3-12	25	11	32	4	27	M3	9	67,32 €	101,28 €
DKN20/38	3-12	25	11	38	4	27	M3	9	67,32 €	101,28 €
DKN20/42	3-12	25	11	42	4	27	M3	9	67,32 €	101,28 €
DKN45/41	6-16	33	13	41	5	34	M4	12	99,91 €	133,87 €
DKN45/50	6-16	33	13	50	5	34	M4	12	99,91 €	133,87 €
DKN100/47	6-19	40	14	47	5	42	M4	16	125,98 €	159,92 €
DKN100/57	6-19	40	14	57	5	42	M4	16	125,98 €	159,92 €

Dimensions in mm

- Backlash and maintenance free
- Materials:
 - Hub: aluminium for sizes 18-60
 - steel for sizes 80-500
- High torsional stiffness
- Low moment of inertia
- Shaft/bore link without backlash
- Recommended assembly tolerances H7/g6
- Working temperature: -30°C to +100°C
- **Please specify bore size on order (between min and max Ø)**

clamp
fixing



Options

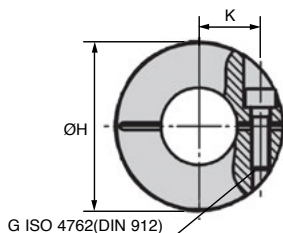
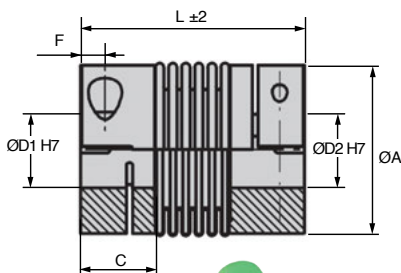
- Keyway acc DIN6885 available on request

Part number	radial (mm)	Misalignment axial (mm)	angular	Max. speed (rpm)	Weight (approx) (ca.kg)
AKD18	0,2	0,5	1,5°	12700	0,17
AKD30	0,2	0,5	1,5°	10200	0,27
AKD60	0,2	0,5	1,5°	8600	0,47
AKD80	0,2	0,5	1,5°	6800	1,00
AKD150	0,2	0,5	1,5°	6800	1,00
AKD200	0,2	0,5	1,5°	6300	1,20
AKD300	0,2	0,5	1,5°	5900	1,40
AKD500	0,2	1,0	1,5°	4900	1,80

Part number	Nominal torque (Nm)	Torsional stiffness (10 ³ Nm/rad)	Radial stiffness (N/mm)	Axial stiffness (N/mm)	Moment of inertia (10 ⁻³ kgm ²)	Tightening torque (Nm)
AKD18	18	6	85	40	0,06	6
AKD30	30	25	220	30	0,10	12
AKD60	60	50	330	55	0,30	30
AKD80	80	75	400	55	0,90	60
AKD150	150	100	600	85	0,90	85
AKD200	200	120	450	85	1,50	100
AKD300	300	280	1500	150	3,20	120
AKD500	500	310	1000	85	4,90	190

Dimensions in mm

High
Precision



DISCOUNTS

Qty	1+	3+	6+
Disc.	List	-8%	On request

Part number	Bore $\varnothing D1/D2$ (H7)	C	L	$\varnothing A$	F	G	K	H	Price each 1 to 2
AKD18	10-25	20	71	45	6	M5	18	47	224,44 €
AKD30	10-25	25	73	55	8	M6	20	56	278,84 €
AKD60	14-32	29	89	64	10	M8	24	67	315,12 €
AKD80	20-40	34	103	80	12	M10	28	84	358,17 €
AKD150	20-40	34	103	80	12	M10	28	84	428,49 €
AKD200	25-44	38	113	90	13	M12	31	93	516,92 €
AKD300	32-50	38	115	109	13	M12	39	110	564,54 €
AKD500	40-60	41	122	119	15	M14	43	122	723,26 €

Dimensions in mm

- Backlash and maintenance free
- High torsional stiffness
- Low moment of inertia
- Shaft/bore link without backlash
- Recommended assembly tolerances H7/g6
- Working temperature -30°C to +100°C
- Materials:

Hub: aluminium for sizes 18-60

steel for sizes 80-500

Bellows: stainless steel

- Please specify bore size on order (between min and max Ø)

G ISO 4762 (DIN 912)

*Undercut diameter

Torque calculation

- Use the formula

$$T_{KN} > K \times T_{AS} \times J_{mach} / (J_{mot} + J_{mach}) \text{ in Nm}$$

With following safety coefficient:

K = 1.5 for regular motion

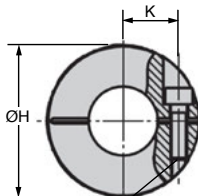
K = 2 for irregular motion

K = 2.5 - 4 for jerky motion

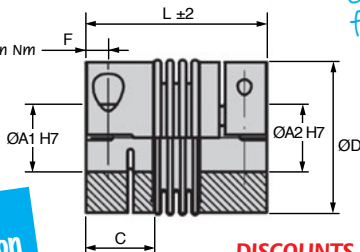
Jx = moment of inertia

(machine + motor)

T_{AS} Required torque



clamp fixing



High Precision

DISCOUNTS

Qty	1+	3+	6+
Disc.	List	-8%	On request

Part number	Max. speed (rpm)	radial (mm)	Misalignment axial (mm)	angular	Nominal torque (Nm)	Torsional stiffness (10 ³ Nm/Rad)	Moment of inertia (10 ³ kgm ²)	Tightening torque (Nm)	Weight (kg)
AKN18-63	12 700	0,2	0,5	1,5°	18	8	0,05	6	0,16
AKN30-65	10 200	0,1	0,4	1,0°	30	35	0,11	12	0,26
AKN60-78	8 600	0,1	0,4	1,0°	60	75	0,29	30	0,44
AKN80-91	6 800	0,2	0,4	1,0°	80	130	0,87	60	0,98
AKN150-91	6 800	0,2	0,4	1,0°	150	150	0,87	85	0,98

Part number	ØA mini.	ØA maxi.	L	ØD	C	F	G	K	ØH	Pric each No keyway	1 to 2 With keyway
AKN18-63	10	25	63	45	20	6	M5	18	47	214,12 €	247,93 €
AKN30-65	10	25	65	55	25	8	M6	20	56	266,05 €	299,87 €
AKN60-78	14	32	78	64	29	10	M8	24	67	300,66 €	334,47 €
AKN80-91	20	40	91	80	34	12	M10	28	84	341,77 €	375,58 €
AKN150-91	20	40	91	80	34	12	M10	28	84	408,44 €	442,66 €

Dimensions in mm



Couplings for servo-motors

GERWAH AK

Torque: 30 to 500Nm

- Backlash and maintenance free
- High torsional stiffness
- Low moment of inertia
- Shaft/bore link without backlash
- Recommended assembly tolerances H7/g6
- Working temperature -30°C to +100°C
- Materials:
 - Hub: steel
 - Bellows: stainless steel
- Please specify bore size on order (between min and max Ø)

clamp fixing



Torque calculation

- Use the formula

$$T_{KN} > K \times T_{AS} \times J_{mach} / (J_{mot} + J_{mach}) \text{ in Nm}$$

With following safety coefficient:

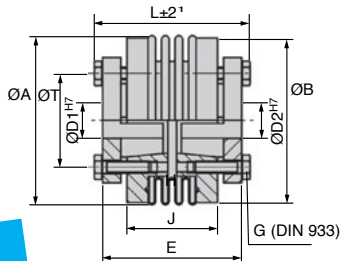
K = 1.5 for regular motion

K = 2 for irregular motion

K = 2.5 - 4 for jerky motion

Jx = moment of inertia (machine + motor)

T_{AS} Required torque



High Precision

DISCOUNTS

Qty	1+	3+	6+
Disc.	List	-8%	On request

Part number	Nominal torque (Nm)	Stiffness			Moment of inertia (10 ⁻³ kgm ²)	Tightening torque (Nm)	Weight (kg)	Misalignment			Max. speed (t/min)
		torsional (10 ³ Nm/Rad)	radial (N/mm)	axial (N/mm)				radial (mm)	axial (mm)	angular (°)	
AK30-60	30	25	220	30	0,15	3,0	0,4	0,2	0,5	1,5	11 000
AK60-73	60	50	330	55	0,24	8,5	0,8	0,2	0,5	1,5	9 100
AK80-91	80	75	400	55	0,65	10,0	1,3	0,2	0,5	1,5	7 000
AK150-92	150	100	600	85	0,65	14,0	1,3	0,2	0,5	1,5	7 000
AK200-93	200	120	450	85	0,87	14,0	1,6	0,2	0,5	1,5	6 700
AK300-104	300	280	1500	150	2,33	18,0	3,4	0,2	0,5	1,5	5 200
AK500-113	500	310	1000	85	3,61	26,0	4,7	0,2	1,0	1,5	4 600

Part number	ØA (mm)	ØB (mm)	L	D _{1H7} /D _{2H7}		E	J	ØT	G	Price each 1 to 2
				min.	max.					
AK30-60	56	55	60	12	20	53	38	31	6 x M4	262,89 €
AK60-73	66	64	73	15	25	65	46	37	6 x M6	286,76 €
AK80-91	82	80	91	20	35	83	61	51	6 x M6	315,02 €
AK150-92	82	80	92	20	35	84	61	51	6 x M6	367,16 €
AK200-93	90	90	93	20	40	85	63	56	6 x M6	430,04 €
AK300-104	110	109	104	25	50	93	67	75	6 x M8	497,55 €
AK500-113	122	120	113	35	55	105	72	80	6 x M8	647,49 €

Dimensions in mm

Couplings for servo-motors

PFL

Torque: **0.5 to 10Nm**

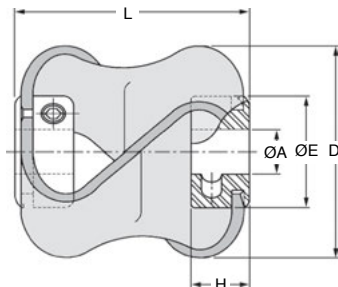
- Tolerates extreme misalignment
- Compact
- Corrosion-resistant
- High resistance to acids, solvents, alkaline solutions, fats, oils and ozone
- High torsional rigidity
- High resistance to tearing
- Retains its flexibility even at low temperatures

Set screw fixing



Characteristics

- High angular, radial, and axial flexibility
- Dampens vibrations
- Absorbs shocks
- Max. working temp.: -40°C to +100°C
- Max. speed: 3000 rpm
- Materials:
 - Ring: Hytrel® resistant elastomer
 - Hub: galvanised steel



Part number	axial (mm)	Misalignment		radial (mm)
		angulaire (°)		
PFL28	4,5	10°		2,6
PFL48	7,5	15°		3,2
PFL58	8,5	15°		3,2
PFL61	11,0	15°		3,2

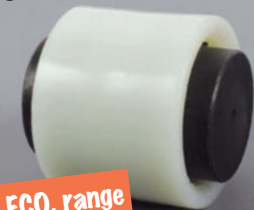
DISCOUNTS

Qty	1+	6+	20+	40+
Disc.	List	-15%	-20%	On request

Part number	ØA Bores (mm)		D	L	H	ØE	Max. torque (Nm)	Vis	Weight (g)	Price each 1 to 5
	Standard	Max.								
PFL28-6	6 x 6	8	26	28	7,9	18	0,5	M3	25	✓ 36,34 €
PFL28-8	8 x 8	8	26	28	7,9	18	0,5	M3	25	✓ 36,34 €
PFL48-10	10 x 10	12	48	48	12,7	25	1,8	M4	92	✓ 42,43 €
PFL48-12	12 x 12	12	48	48	12,7	25	1,8	M4	92	✓ 42,43 €
PFL58-12	12 x 12	16	54	58	15,9	28	5,0	M5	124	✓ 48,11 €
PFL58-14	14 x 14	16	54	58	15,9	28	5,0	M5	124	✓ 48,11 €
PFL61-14	14 x 14	16	54	61	15,9	28	10,0	M6	136	✓ 55,03 €
PFL61-16	16 x 16	16	54	61	15,9	28	10,0	M6	136	✓ 55,03 €

*Depending on availability - Dimensions in mm

**CURVED TOOTH
COUPLING**



ECO. range

p.62

**TRANSMISSION
COUPLINGS**
p.60 - 78

BOWEX® COUPLING



p.64

**ELASTIC COUPLING,
ECONOMY RANGE**



ECO. range

p.66

MASTERFLEX® SHAFT



p.70

**PERIFLEX® ELASTIC
COUPLING**



p.76

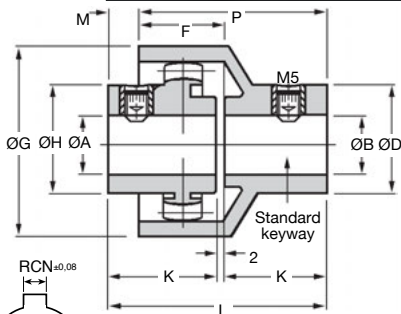
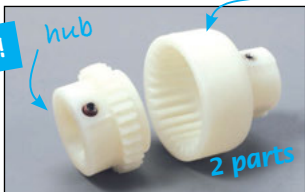
BoWex® curved tooth gear coupling

RTN 

Torque: 5 to 24Nm

- Anti-corrosion materials
- Very low wear
- BoWex® Junior
- Maintenance free
- 2 part construction
- Curved teeth
- Material:
Nylon
- Working temp.: -25°C to +100°C
- Bore and keyway acc DIN6885/1-JS9, fixing screw supplied
- Max. speed: 6000 rpm
- Low weight and low inertia
- Axial plug-in assembly

Plug-in design !



 **MANY DIFFERENT BORES IN STOCK**



DISCOUNTS

Qty	1+	5+	10+	25+
Disc.	List	-6%	-12%	On request

Part number	K	L	P	F	M	ØH	ØD	Bores		Misalignment	Torque (Nm)	Price each
								Hub	Socket			
								ØA	ØB	Axial	Tkn	1 to 4
RTN-J-14	23	48	40	23	8	25	25	6,8,9	8,10,11	±1	5	19,60 €
							25	10,11	10,11			
							26	12,14	12,14			
RTN-J-19	25	52	42	23	10	30	29	12,14	14,16	±1	8	29,71 €
							29	16	14,15			
							35	19	19			
RTN-J-24	26	54	45	25	9	36	32	10,11,12	14,16	±1	12	35,82 €
							32	14,15,16	14,16			
							36	18,19,20	19,20			
							40	24	24			

Dimensions in mm



BoWex® curved tooth gear coupling

Torque: 5 to 24Nm



RTN

- **Anti-corrosion material**
- Very low wear
- BoWex® Junior
- Maintenance free
- 3 part construction
- Curved teeth
- Material:
Nylon
- Working temp.: -25°C to +100°C
- Bore and keyway acc DIN6885/1-JS9,
fixing screw supplied
- Tolerances:
Bore $+0.05 / -0.1$
Keyway ± 0.08
- Axial plug-in means easy assembly

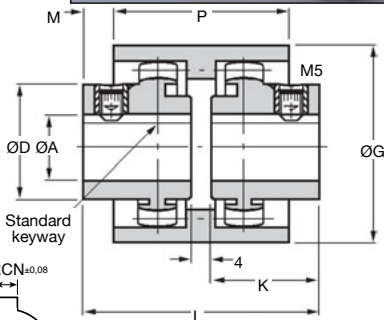
Plug-in design !



Info.

- $\varnothing D$ is a non-operational surface and is not truly circular

 **MANY DIFFERENT BORES
IN STOCK**



DISCOUNTS

Qty	1+	5+	10+	25+
Disc.	List	-6%	-12%	On request

Part number	K	L	P	M	ØD	ØA	ØG	Misalignment			Torque (Nm)		Price each 1 to 4
								Axial (mm)	Radial (mm)	Angular	Tkn	Tkn max.	
RTN-JM-14	23	50	37	6,50	22	6,7,8,9	40	±1	±0,3	±2°	5	10	27,00 €
					25	10,11							
					26	12,14							
RTN-JM-19	23	54	37	8,50	27	12,14	48	±1	±0,3	±2°	8	16	42,08 €
					30	16							
					32	19							
RTN-JM-24	26	56	41	7,50	26	10,11,12	52	±1	±0,4	±2°	12	24	50,69 €
					32	14,15,16							
					36	18,19,20							
					38	24							

Dimensions in mm

- **Rigid in torsion**
- Especially suitable for transmitting torque
- Maintenance free
- Low wearing
- 3 part construction
- Absorbs vibration
- Curved teeth
- Electrically insulating
- Materials:
 - Hub: Steel
 - Sleeve: Polyamide
- Working temp range: -20 to 80 °C

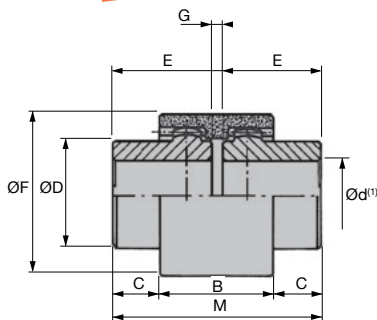
Must be bored



Economy range

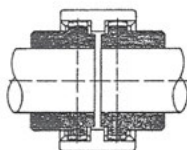
Bores

- ⁽¹⁾Depending on the size, these are supplied either solid or with a pre-bore.
- They should be finished by the user.
- Supplied non-assembled

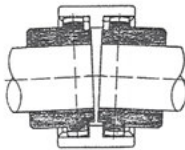


Part number	Nominal torque	Max torque	Max speed (rpm)	Weight of inertia (kg)	Moment of inertia kg. cm ²	Misalignment		
						angular	radial (mm)	axial (mm)
GFX-14-NN	11,5	23	14000	0,166	0,27	±2°	0,7	±1
GFX-19-NN	18,5	36,5	12000	0,276	0,64	±2°	0,8	±1
GFX-24-NN	23	46	10000	0,312	0,92	±2°	0,8	±1
GFX-28-NN	51,5	103,5	8000	0,779	3,45	±2°	1	±1
GFX-32-NN	69	138	7100	0,918	5,03	±2°	1	±1
GFX-38-NN	88	176	6300	1,278	9,59	±2°	0,9	±1
GFX-42-NN	110	220	6000	1,473	13,06	±2°	0,9	±1
GFX-48-NN	154	308	5600	1,777	18,15	±2°	0,9	±1
GFX-55-NN	285	570	4800	3,380	49,44	±2°	1,2	±1
GFX-65-NN	420	840	4000	4,988	106,34	±2°	1,3	±1

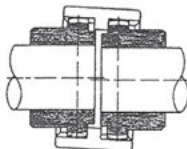
Dimensions in mm



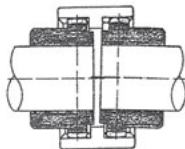
Shaft aligned



Angular misalignment



Radial misalignment



Radial and angular misalignment

DISCOUNTS

Qty	1+	5+	10+	25+
Disc.	List	-6%	-12%	On request

Part number	Bore possible Ød (h7)		B	C	ØD	E	ØF	G	M	Price each
	Min	Max								1 to 4
GFX-14-NN	6	14	38	6,5	25	23,5	41	4	51	20,82 €
GFX-19-NN	8	19	38	8,5	32	25,5	48	4	55	24,97 €
GFX-24-NN	10	24	42	7,5	36	26,5	52	4	57	27,90 €
GFX-28-NN	10	28	48	19	45	41	68	4	86	36,80 €
GFX-32-NN	12	32	48	18	50	40	75	4	84	43,96 €
GFX-38-NN	14	38	50	17	58	40	85	4	84	45,17 €
GFX-42-NN	20	42	50	19	63	42	95	4	88	66,22 €
GFX-48-NN	20	48	50	27	68	50	100	4	104	79,42 €
GFX-55-NN	25	55	65	29,5	82	60	120	4	124	126,93 €
GFX-65-NN	25	65	72	36	95	70	140	4	144	182,05 €

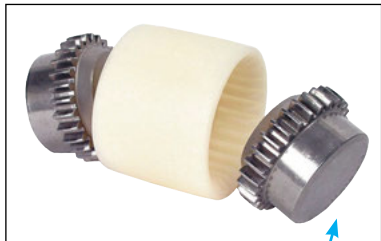
Dimensions in mm

BoWex® curved tooth gear coupling



Torque: 5 to 160Nm

- **Rigid in torsion**
- Suitable for handling high torques
- Maintenance free
- Low wear
- 3 part construction
- Rounded teeth
- Materials:
 - Sleeve: nylon
 - Hub: sintered steel
- Working temp.: -25°C to +100°C
- Bore(tolerance H7) and keyway acc DIN6885/1-JS9
- Axial plug-in assembly



set screw and keyway fixing*

Options

- Modification to bore sizes (additional cost)
- Conical bores
- Imperial sized bores for hydraulic pumps

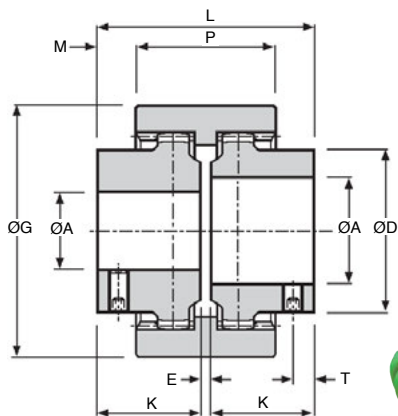
Info

- *Except for non bored couplings



Part number	K	E	L	P	M	ØD	ØG	Vis	T	Standard ØA	Optional ØA	max. ØA
RTK-M-14	23	4	50	37	6,5	25	40	M5	6	12	8, 9, 10, 11, 13, 14, 15	15
RTK-M-19	25	4	54	37	8,5	32	48	M5	6	12	10, 11, 14, 15, 16, 17, 18, 19, 20	20
RTK-M-24	26	4	56	41	7,5	36	52	M5	6	12	10, 11, 14, 15, 16, 17, 18, 19, 20, 22, 24	24
RTK-M-28	40	4	84	46	19,0	44	66	M8	10	-	14, 15, 16, 17, 18, 19, 20, 22, 24, 25, 28	28
RTK-M-32	40	4	84	48	18,0	50	76	M8	10	-	18, 19, 20, 22, 24, 25, 28, 30, 32	32
RTK-M-38	40	4	84	48	18,0	58	83	M8	10	-	18, 19, 20, 22, 24, 25, 28, 30, 32, 35, 38	38

Dimensions in mm



DISCOUNTS

Qty	1+	5+	10+	25+
Disc.	List	-6%	-12%	On request

Part number:	Max. speed (rpm)	Torque Tk (Nm)			Misalignment			Price each 1 to 4		
		Alternate (Nm)	Nominal (Nm)	Max. (Nm)	Axial (mm)	Radial (mm)	Angular	Stock*	Plain	Standard bore and keyway
RTK-M-14	14000	5	10	20	±1	±0,3	±2°	✓	38,10 €	67,80 €
RTK-M-19	11800	8	16	32	±1	±0,3	±2°	✓	47,86 €	76,37 €
RTK-M-24	10600	10	20	40	±1	±0,4	±2°	✓	57,25 €	86,46 €
RTK-M-28	8500	23	45	90	±1	±0,4	±2°	✓	86,32 €	126,72 €
RTK-M-32	7500	30	60	120	±1	±0,4	±2°	✓	106,01 €	147,27 €
RTK-M-38	6700	40	80	160	±1	±0,4	±2°	✓	129,38 €	169,87 €

*Depending on availability - Dimensions in mm

Jaw coupling, **economy range**



GET-AL Torque range from 2.6 to 380 Nm

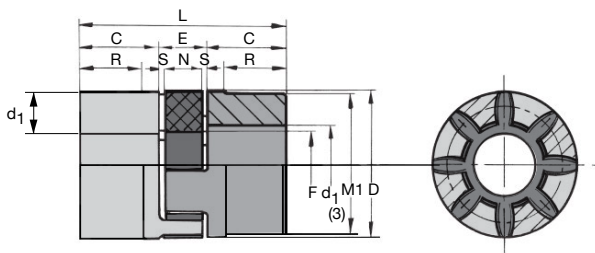
- **Rigid in torsion**
- Especially suitable for transmitting torque
- Maintenance free
- Low wearing
- 3 part construction
- Absorbs vibration
- Constant velocity
- Electrically insulating
- Materials:
 - Hub: Aluminium
 - Spider: Polyamide 94 Shore A
- Working temp range: -30 to 140 °C



Economical range

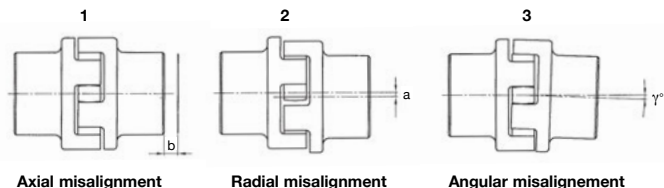
Bores

- To be finished by the user



Part number	Pre-bore	Max bore		C	ØD	E	ØF	ØM1	N	R	S	L	Weight (kg)	
		d1											Spider	Hub
GET-AL-24B	10	24	25	40	16	18	27	40	12	19	2	66	0,005	0,08
GET-AL-32B	14	32	30	55	18	27	55	14	24	2	78	0,014	0,18	
GET-AL-38B	16	38	35	65	20	30	65	15	27,5	2,5	90	0,025	0,30	
GET-AL-45B	20	45	45	80	24	38	78	18	36,5	3	114	0,042	0,55	

Dimensions in mm



Part number	Torsional rigidity (kNm/rad)			
	1,0 Tk n	0,75 Tk n	0,5 Tk n	0,25 Tk n
GET-AL-24B	0,68	0,57	0,44	0,28
GET-AL-32B	2,19	1,82	1,40	0,90
GET-AL-38B	5,20	4,31	3,32	2,12
GET-AL-45B	10,00	8,30	6,39	4,08

DISCOUNTS

Qty	1+	5+	10+	25+
Disc.	List -6%	List -12%	On request	

Part number	Moment of inertia kg.cm ²	Max torque t/min	Torque (Nm)			Misalignment			Price each 1 to 4
			Nominal Tk n	Max Tk max	Alternating Tk w	axial b	radial a	angular γ°	
GET-AL-24B	0,4	14000	10	20	2,6	1,2	0,2	1,2	18,97 €
GET-AL-32B	1,0	10600	35	70	9	1,4	0,2	0,9	25,36 €
GET-AL-38B	3,0	8500	95	190	25	1,5	0,25	0,9	36,62 €
GET-AL-45B	8,0	7100	190	380	49	1,8	0,28	1,0	57,32 €

Dimensions in mm

Rotex® jaw coupling



Torque: 2 to 4800Nm

- Maintenance free
- 3 part construction
- Max torsion angle 5°
- Materials:

Hub: Aluminium, steel
or cast iron
Spider: Polyurethane
(92 Shore A)

- Working temp. -40°C to +100°C
- Bore (tolerance H7) and keyway acc DIN6885/1-J59
- Axial plug-in assembly
- **Bores are not finished**

Absorbs shocks



Options

- Modification to bore sizes at additional cost (H7 tolerance and keyway acc DIN6885/1-J53)

Info.

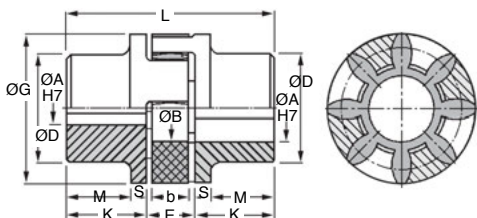
- *Except for non-bored or pre-bored couplings



set screw and keyway fixing*

Part number	Material	Pre-bore ØA	Standard ØA	Optional ØA	ØD	ØG	K	E	S	b	L	M	ØB
RTE-A-14	Aluminium	Full	14	6 8 9 10 11 12 15	30	30	11	13	1,5	10	35	0	10
RTE-A-19	Aluminium	Full	14, 19	10 11 12 15 16	32	41	25	16	2,0	12	66	20	18
			18	20 24	41	41	25	16	2,0	12	66	20	18
RTE-SL-19	Steel	Full	25	10 11 12 14 15 16 18 19 20 24	40	40	25	16	2,0	12	66	-	18
RTE-A-24	Aluminium	Full	15, 19	14 15 16 18 19 20 24	40	56	30	18	2,0	14	78	24	27
			20	25 28	56	56	30	18	2,0	14	78	24	27
RTE-SL-24	Steel	Full	-	14 15 16 18 19 20 22 24 25 28	55	55	30	18	2,0	14	78	-	27
RTE-A-28	Aluminium	Full	20, 25	14 16 18 19 22 24 28	48	67	35	20	2,5	15	90	28	30
			23	30 35 38	67	67	35	20	2,5	15	90	28	30
RTE-SL-28	Cast iron	Full	30	14 15 16 18 19 20 22 24	65	65	35	20	2,5	15	90	-	30
				25 28 32 35 38									
RTE-GG-38	Cast iron	Full	-	16 18 19 20 22 24 25 28 30 32 35 38	66	80	45	24	3,0	18	114	37	38
			36	40 42	78	80	45	24	3,0	18	114	37	38
RTE-GG-42		Full	-	30 32 35 38 40 42	75	95	50	26	3,0	20	126	40	46
RTE-GG-48		Full	-	25 30 32 35 38 40 42 45 48	85	105	56	28	3,5	21	140	45	51
RTE-GG-55	Cast iron	18	-	30 32 35 38 40 42 45 48 50 55	98	120	65	30	4,0	22	160	52	60
RTE-GG-65		20	-	40 45 48 50 55 60 65	115	135	75	35	4,5	26	185	47	68
RTE-GG-75		28	-	40 45 48 50 55 60 65 70 75	135	160	85	40	5,0	30	210	53	80
RTE-GG-90		38	-	50 55 60 65 70 75 80 85 90	160	200	100	45	5,5	34	245	62	100

Dimensions in mm



Plug-in design !

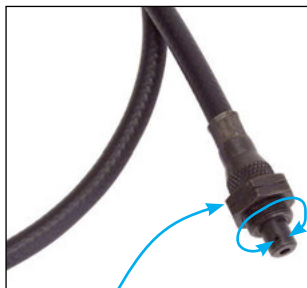
DISCOUNTS

Qty	1+	5+	10+	25+
Disc.	List -6%	List -12%	On request	On request

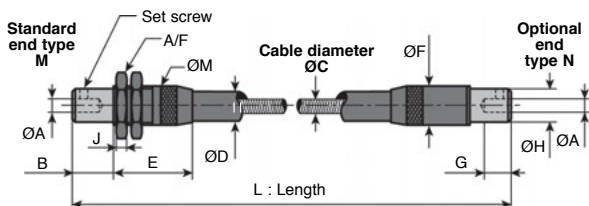
Misalignment at 1500 (rpm) Max.				Torque Tk (Nm)				Angle of torsion		Price each 1 to 4	
Axial (mm)	Radial (mm)	Angular	speed (rpm)	Alternate	Nominal	max.	Tk ψ	Tk max. ψ		Plain or pre-bored	Standard bore and keyway
-0,5/1,0	0,17	1,2°	19 000	2,0	7,5	15	6,4°	10°	36,57 €	51,39 €	
-0,5/1,2	0,20	1,2°	14 000	2,6	10	20	3,2°	5°	29,51 €	62,77 €	
-0,5/1,2	0,20	1,2°	14 000	2,6	10	20	3,2°	5°	35,23 €	-	
-0,5/1,2	0,20	1,2°	14 000	2,6	10	20	3,2°	5°	41,59 €	78,34 €	
-0,5/1,4	0,22	0,9°	10 600	9,0	35	70	3,2°	5°	38,89 €	79,74 €	
-0,5/1,4	0,22	0,9°	10 600	9,0	35	70	3,2°	5°	45,12 €	-	
-0,5/1,4	0,22	0,9°	10 600	9,0	35	70	3,2°	5°	59,13 €	103,75 €	
-0,7/1,5	0,25	0,9°	8 500	25,0	95	190	3,2°	5°	53,41 €	104,13 €	
-0,7/1,5	0,25	0,9°	8 500	25,0	95	190	3,2°	5°	56,05 €	-	
-0,7/1,5	0,25	0,9°	8 500	25,0	95	190	3,2°	5°	76,29 €	130,27 €	
-0,7/1,8	0,28	1,0°	7 100	49,0	190	380	3,2°	5°	141,56 €	203,05 €	
-0,7/1,8	0,28	1,0°	7 100	49,0	190	380	3,2°	5°	-	-	
-1,0/2,0	0,32	1,0°	6 000	69,0	265	530	3,2°	5°	214,96 €	295,37 €	
-1,0/2,1	0,36	1,1°	5 600	81,0	310	620	3,2°	5°	252,87 €	340,55 €	
-1,0/2,2	0,38	1,1°	4 750	105,0	410	820	3,2°	5°	351,29 €	440,07 €	
-1,0/2,6	0,42	1,2°	4 250	163,0	625	1 250	3,2°	5°	475,27 €	595,48 €	
-1,5/3,0	0,48	1,2°	3 550	254,0	975	1 950	3,2°	5°	743,53 €	895,23 €	
-1,5/3,4	0,50	1,2°	2 800	624,0	2400	4 800	3,2°	5°	1 111,64 €	1 307,00 €	

Dimensions in mm

- Suitable for most applications due to the use of self lubricating bronze bearings in the end connectors
- Allows the driving and driven elements to be mounted apart
- Obstacles can be avoided, multiple bends possible
- Position of the driven element is no longer determined by the position of the driving equipment
- Output efficiency >95%
- Dampens vibration
- Woven wire flexible shaft
- Materials:
 - Wires: blackened XC25 steel
 - Sheath: PVC



standard end
(with 2 locknuts)



Dark grey areas are fixed parts.
Light grey areas are revolving parts.

Part number	ØC core	ØM	ØA	B	ØD	E	A/F	ØF	G	ØH	J	Screw
FDSQ4-L	3,80	M15x1,0	4	10	10,5	43	22	15,0	8	12,5	4	M3
FDSQ5-L	4,75	M18x1,0	5	16	14,0	50	24	18,0	12	15,5	4	M3
FDSQ6-L	6,35	M21x1,0	6	17	17,0	59	27	21,0	14	18,5	4	M4
FDSQ8-L	8,00	M22x1,5	8	23	17,5	63	30	22,0	17	18,5	4	M4
FDSQ9-L	9,52	M26,5x1,5	10	25	22,5	69	35	26,5	20	23,0	4	M5
FDSQ13-L	12,70	M26,5x1,5	15	31	25,0	84	36	29,5	24	26,0	4	M6

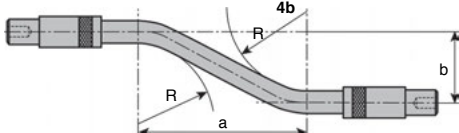
Dimensions in mm

Info.

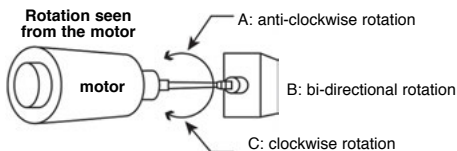
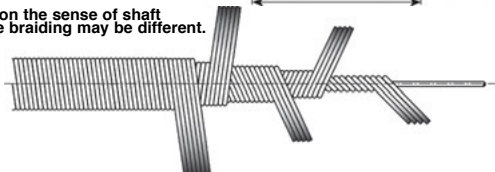
- Replace the "L" in the part number by the length required and add the desired end (R: standard; S: optional)
E.g. **FDSQ4A-500RR**
- Steel core lubricated with oil
- For continuous use, the shaft should be lubricated every 3 months
- Flexible shaft can be removed by unscrewing the knurled part. Check the sealing before re-use
- Delivered pre-bored

NOTE: For assembly, the end must be drilled and pinned to the connected shaft. The set screw is only there for positioning. It does not allow a torque to be transmitted.

BEND RADIUS
Radius = $\frac{a^2 + b^2}{4b}$ (mm)



Depending on the sense of shaft rotation, the braiding may be different.



"L" in part number refers to length, see **info**.

anti-clockwise	Part number bidirectional	clockwise	Price for 500 mm	Price for 1000 mm	Price for 1500 mm	Price for 2000 mm	Price for 2500 mm	Price for 3000 mm
FDSQ4A-L	FDSQ4B-L	FDSQ4C-L	On request	On request	On request	On request	On request	On request
FDSQ5A-L	FDSQ5B-L	FDSQ5C-L						
FDSQ6A-L	FDSQ6B-L	FDSQ6C-L						
FDSQ8A-L	FDSQ8B-L	FDSQ8C-L						
FDSQ9A-L	FDSQ9B-L	FDSQ9C-L						
FDSQ13A-L	FDSQ13B-L	FDSQ13C-L						

Dimensions in mm



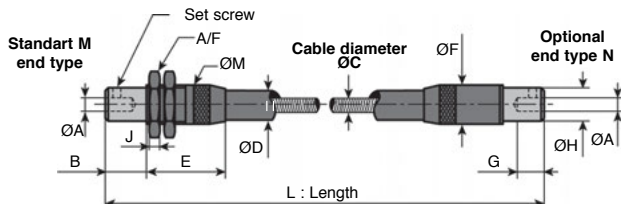
- Ball bearings in the end connectors allow for a higher speed of rotation and more intensive use.
- Allows the driving and driven elements to be mounted apart
- Obstacles can be avoided, multiple bends possible
- Position of the driven element is no longer determined by the position of the driving equipment
- Output efficiency >95%
- Dampens vibration
- Woven wire flexible shaft
- Materials:
 - Wires: blackened XC25 steel
 - Sheath: PVC



standard end
(with 2 locknuts)

Info.

- FDS19 is only available for bi-directional rotation



Dark grey areas are fixed parts.
Light grey areas are revolving parts.

Part number	ØC core	ØM	ØA	B	ØD	E	A/F	ØF	G	ØH	J	Screw
FDS4-L	3,80	M18 x 1,0	4	11,0	10,5	48,0	24	18	8	10,75	4	M3
FDS5-L	4,75	M21 x 1,0	5	14,5	14,0	59,0	27	21	12	14,00	4	M3
FDS6-L	6,35	M27 x 1,0	6	19,5	17,0	66,5	35	27	14	18,00	4	M4
FDS8-L	8,00	M30 x 1,5	8	24,0	17,5	68,5	36	30	17	20,00	4	M4
FDS9-L	9,52	M34 x 1,5	10	25,0	22,5	78,5	41	34	20	24,50	4	M5
FDS13-L	12,70	M38 x 1,5	15	26,5	25,0	85,5	46	38	24	28,00	4	M6
FDS16-L	16,00	M44 x 1,5	16	30,0	32,0	108,5	55	44	25	31,00	4	M6
FDS19-L	19,05	M50 x 1,5	20	31,0	31,0	114,0	60	50	25	36,50	4	M6

Dimensions in mm

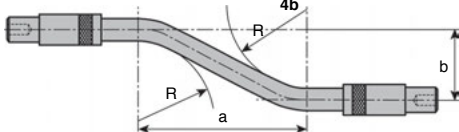
Info.

- Replace the "L" in the part number by the length required and add the desired end (M: standard; N: optional)
E.g. **FDS4-500MM**
- Steel core lubricated with oil
- For continuous use, the shaft should be lubricated every 3 months
- Flexible shaft can be removed by unscrewing the knurled part. Check the sealing before re-use
- Delivered pre-bored

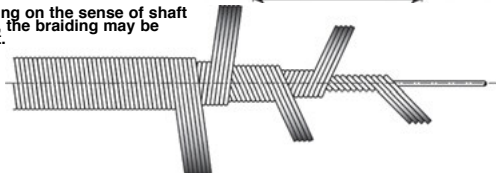
NOTE: For assembly, the end must be drilled and pinned to the connected shaft. The set screw is only there for positioning. It does not allow a torque to be transmitted.

BEND RADIUS

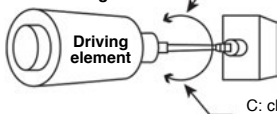
$$\text{Radius} = \frac{a^2 + b^2}{4b} \text{ (mm)}$$



Depending on the sense of shaft rotation, the braiding may be different.



Direction of rotation as seen from driving element



A: anti-clockwise rotation

B: bi-directional rotation

C: clockwise rotation



"L" in part number refers to length, see **info**.

	Part number			Price for 500 mm	Price for 1000 mm	Price for 1500 mm	Price for 2000 mm	Price for 2500 mm	Price for 3000 mm
	anti-clockwise	bidirectional	clockwise						
FDS4A-L	FDS4B-L	FDS4C-L		On request	On request	On request	On request	On request	On request
FDS5A-L	FDS5B-L	FDS5C-L							
FDS6A-L	FDS6B-L	FDS6C-L							
FDS8A-L	FDS8B-L	FDS8C-L							
FDS9A-L	FDS9B-L	FDS9C-L							
FDS13A-L	FDS13B-L	FDS13C-L							
FDS16A-L	FDS16B-L	FDS16C-L							
-	FDS19B-L	-							

Dimensions in mm

		Max. torsional resistance depending on RM twist direction		Torsion deflection depending on twist (0,1 Nm at 1 m)		Min. use radius (mm) RU	Max. speed	
		Same (Nm)	Opp. (Nm)	Same (Nm)	Opp. (Nm)		FDS (rpm)	FDSQ
FDS(Q)4	U	0,25	-	31,25	75,00	75	12 000	2 000
	B	1,00	1,00	27,85	56,00	75	3 000	200
FDS(Q)5	U	0,75	-	9,30	36,50	100	12 000	2 000
	B	1,50	1,50	7,50	17,00	100	3 000	200
FDS(Q)6	U	3	-	3,50	8,75	125	8 000	2 000
	B	5	5	1,50	3,25	125	3 000	200
FDS(Q)8	U	5	-	0,65	1,25	150	6 000	2 000
	B	8	8	0,50	0,80	200	2 000	200
FDS(Q)9	U	5	-	0,90	2,15	200	6 000	2 000
	B	10	10	0,30	0,63	200	2 000	200
FDS(Q)13	U	15	-	0,20	0,47	250	4 000	2 000
	B	25	25	0,11	0,20	250	2 000	200
FDS16	U	20	-	0,27	0,23	300	2 000	-
	B	45	45	0,06	0,13	300	1 500	-
FDS19	B	60	60	0,01	0,01	400	1 500	-

Max. torque (Nm) depending on bend radius (mm)

Bend radius (mm)		75	100	125	150	175	200	250	300	350	400	500	600	650	750	800	1000	1500
FDS(Q)4	U	0,15	0,20		0,35		0,44		0,53			0,56						
	B	0,65	1,30		1,60		1,85		2,00			2,10						
FDS(Q)5	U		0,26	0,56	0,77		0,90		1,13			1,60						
	B		1,30	1,70	2,05		2,25		2,40			2,60						
FDS(Q)6	U			0,80	1,05		1,35	1,70	2,25			2,85						
	B			4,00	5,00		7,00	8,00	9,00			10,50						
FDS(Q)8	U				2,70	3,00	3,60	4,20		4,75			5,50					
	B						10,00	12,50		15,80			18,50					
FDS(Q)9	U						4,50	5,40	6,00	6,55		7,10		7,25				
	B						13,00	17,00	20,00	23,00		26,00		28,00				
FDS(Q)13	U							7,90	10,00	12,00		13,00	14,00				15,00	
	B							23,00	32,00	41,00		49,00	55,00				56,00	
FDS16	U								12,50	14,00		16,00	18,00			20,00	25,00	
	B								20,00	28,00		35,00	40,00			45,00	50,00	
FDS19	B										40	50	60		65		70	75

Direction of rotation: **U** unidirectional (clockwise or anti-clockwise)
B bi-directional or manual

Masterflex flexible shaft®

Advantages

FDS
FDSQ



avoiding obstacles



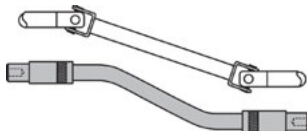
reduces vibrations



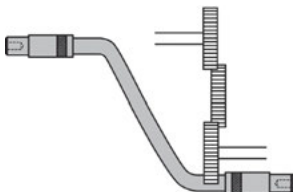
restricted access or control
at a distance



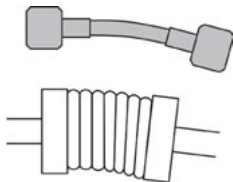
for moving parts



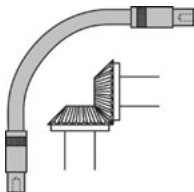
parallel misalignment



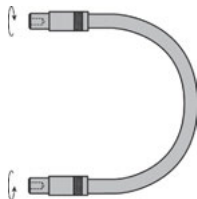
Very large parallel misalignment



angular misalignment



90° angle transmission



change of direction

Uses

- Motor driven pumps or compressors
- Electrical generators, textile machines
- Iron and steel plants, cement factories.

Determining torque

$$T_{MN} = \frac{N_{kW} \times 9550}{n_{rpm}} = (\text{Nm})$$

Service factor K :

Service	Electric motor steam turbine	Combustion engine hydraulic turbine
Uniform S1	1,0	1,5
Light S2	1,5	2,0
medium S3	2,0	2,5
Heavy S4	2,5	3,0
Very heavy S5	3,0	3,2

Temperature factor St:

St	-20°C	0°C	+20°C	+40°C	+60°C	+70°C	+80°C
	1,0	1,0	1,0	1,0	1,2	1,4	1,6

$$T_{MN} \times K \times St \leq T_{CN} \text{ coupling}$$

$$n_{inst.} \leq n_{MAX} \text{ coupling}$$

$$\text{shaft diameter} \leq d_{MAX} \text{ coupling}$$

Safety precautions

The tyre is cut to allow mounting/dismounting in a radial direction. Depending on the speed and torque transmitted, an axial force will be generated which must be absorbed by the bearings in the coupled machines. The tyre may expand by up to 5% during use which must be taken into account when choosing a protective housing.



Part number	Nominal torque TCN (Nm)	Max. torque TCmaxi. (Nm)	Max. speed (rpm)	Moment of inertia (kgm²)	Axial (Nm)	Misalignment Radial (Nm)	Angular
PNA2-203R	50	150	5000	0,001	1,0	0,75	2°
PNA6-206R	100	300	5000	0,003	1,5	1,00	2°
PNA16-210R	200	600	4000	0,013	2,0	1,30	2°
PNA40-214R	400	1200	4000	0,035	2,5	1,60	2°
PNA63-218R	800	2400	3000	0,105	3,0	2,10	2°

Dimensions in mm

PERIFLEX® elastic coupling

Torque: 50 to 2400Nm

PNA

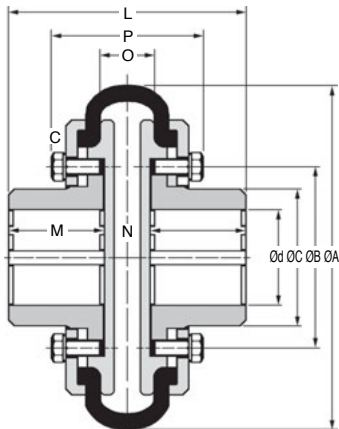
- Easy installation, machines to be coupled will not require to be moved
- Backlash free
- Can transmit shocks up to 3 times the value of nominal torque
- Quickly damps vibrations
- Maintenance free

Characteristics

- Large axial misalignment up to 6mm radial up to 5mm angular up to 2°
- Keyway in accordance with NF E22-175/P9 (JS9)
- Working temp.: -20°C to +80°C
- Materials:
 - Hub: Steel
 - Locking assembly: Steel
 - Tyre: Natural rubber with rubber inserts

Options

- Alternative tyre materials
- (²)inserts mounted in X pattern



DISCOUNTS

Qty	1+	5+	10+
Disc.	List	-3%	On request

Part number solid coupling	ØA	ØB	ØC	L	M	Ød max.	Ød pre-bore	Ød Standard bores (H7)
PNA2-203R	104	54	40	70	30	28	Full	10, 15, 19, 20, 25, 28
PNA6-206R	136	68	55	110	45	38	Full	10, 15, 20, 25, 30, 35, 38
PNA16-210R	178	88	70	130	50	48	15	20, 25, 30, 35, 38, 48
PNA40-214R ⁽¹⁾	210	116	92	160	65	65	15	20, 25, 30, 35, 40, 45, 50, 55, 60, 65
PNA63-218R ⁽¹⁾	263	140	107	190	75	75	25	30, 35, 40, 45, 50, 55, 60, 65, 70, 75

Part number solid coupling	N	O	P	Number of screws	Screw	Locking torque (Nm)	Weight (kg)	Stock* prebored	Price each 1 to 4 full or bored	Price each 1 to 4 prebored keyway
PNA2-203R	8	16	66	12	M6	4 ⁽²⁾	1,15	✓	309,64 €	524,33 €
PNA6-206R	8	18	74	16	M6	6 ⁽²⁾	2,50	✓	410,79 €	648,20 €
PNA16-210R	19	35	100	16	M8	15 ⁽²⁾	5,40	✓	520,21 €	759,67 €
PNA40-214R ⁽¹⁾	20	38	99	24	M8	20	9,50	-	757,62 €	1 011,54 €
PNA63-218R ⁽¹⁾	24	44	121	16	M12	25	17,50	-	1 034,24 €	1 350,10 €

*Depending on availability - Dimensions in mm

PERIFLEX® elastic coupling

PNA

Replacement tyre

- Tyre for PERIFLEX® coupling

- Replace the tyre without dismantling the machine
- Material natural rubber Tyre R (NR) equipped with disposed material in R
- Quality tyre X(1) with inserts mounted in X pattern

Assembly

- The elastic coupling is delivered pre-assembled. To mount the coupling, remove the tyre and place the hubs and locking assemblies on their respective shafts. Bring the two assemblies together respecting the distance "O" and aligning the two hubs with a straight edge or template.
- Place the tyre between the two hubs ensuring there is minimum radial backlash (2-15mm depending on the size of the coupling). Then bring the two locking assemblies together, tightening pairs of diametrically opposite screws to the prescribed torque. As the rubber may decompress with time, re-check the torque after a few hours.



SAVE MONEY !
Only change the tyre



DISCOUNTS

Qty	1+	5+	10+
Disc.	List	-3%	On request

Part number spare tyre	for PERIFLEX® coupling part number	Type of tyre	Stock*	Price each 1 to 4
203R	PNA2-203	R	-	92,88 €
206R	PNA6-206	R	✓	113,52 €
210R	PNA16-210	R	✓	171,31 €
214R	PNA40-214	R	✓	266,28 €
218R	PNA63-218	R	✓	276,60 €
414X	PNA40-214	X	-	268,36 €
418X	PNA63-218	X	-	295,18 €

*Depending on availability - Dimensions in mm

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- **Wide range of torque capacities**

SHAFT CLAMP WITH KEYWAY



p.82

SINGLE UNIVERSAL JOINT



p.84



SINGLE UNIVERSAL JOINT



p.88

NEEDLE ROLLER UNIVERSAL JOINT



p.90

SINGLE UNIVERSAL JOINT



stainless steel

p.92

**TELESCOPIC
UNIVERSAL JOINT**



p.94

**UNIVERSAL
JOINTS AND
RIGID
COUPLINGS**
p.82 - 105

**UNIVERSAL JOINT
COVER**



p.96

**VARITORK® SLIP
FRICTION CLUTCH**



p.98

FRICTION CLUTCH



p.102

SLIP FRICTION CLUTCH



p.104

Shaft clamp with keyway

AF

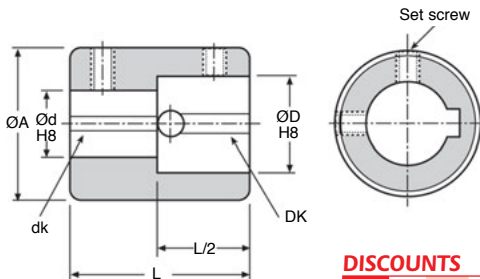
Set screw fixing

- With keyway

- Material:

Steel

Set screw



DISCOUNTS

Qty	1+	6+	20+	40+
Disc.	List	-15%	-20%	On request

Part number	ØD	Keyway DK	Ød	Keyway dK	ØA	L	Grubscrew	Stock*	Price each 1 to 5
AF10	10	3	10	3	20	30	M4	✓	77,21 €
AF12-10/12	12	4	10	3	28	36	M5	-	77,21 €
AF12	12	4	12	4	28	36	M5	✓	77,21 €
AF15-10/15	15	5	10	3	28	36	M5	✓	77,21 €
AF15-12/15	15	5	12	4	28	36	M5	✓	77,21 €
AF15	15	5	15	5	28	36	M5	✓	77,21 €
AF20-15/20	20	6	15	5	32	40	M6	-	97,56 €
AF20	20	6	20	6	32	40	M6	✓	97,56 €
AF24	24	8	24	8	40	54	M6	-	113,49 €
AF25-20/25	25	8	20	6	40	54	M8	-	113,49 €
AF25	25	8	25	8	40	54	M8	✓	113,49 €
AF30-25/30	30	8	25	8	50	54	M8	-	124,82 €
AF30	30	8	30	8	50	54	M8	✓	124,82 €

*Depending on availability - Dimensions in mm

- Rigid coupling for applications without radial or angular misalignment error

- Dependable torque transfer

- No backlash

- Easy to dismantle

- 8 locking screws supplied

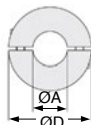
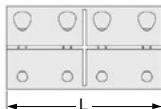
- No risk of shaft damage

- Materials:

Steel

Stainless steel

stainless steel
or steel



Info.

- Replaces the SC range

DISCOUNTS Stainless steel

Qty	1+	6+	10+
Disc.	List	-15%	On request

DISCOUNTS steel

Qty	1+	6+	20+	40+
Disc.	List	-15%	-20%	On request

Part number	ØA	ØD	L	Cap screw	Max torque (Nm)	Stock*	Price each 1 to 9
Steel							
SC2-6	6	18	30	M3x8	30	✓	38,61 €
SC2-8	8	24	35	M3x10	50	✓	45,06 €
SC2-10	10	29	45	M4x12	100	✓	50,75 €
SC2-12	12	29	45	M4x12	100	✓	50,75 €
SC2-14	14	34	50	M5x16	190	-	57,08 €
SC2-15	15	34	50	M5x16	190	✓	55,02 €
SC2-16	16	35	50	M5x16	190	-	53,28 €
SC2-20	20	42	65	M6x16	350	✓	62,47 €
SC2-25	25	45	75	M6x16	390	✓	66,07 €
SC2-30	30	53	83	M6x18	475	✓	91,66 €
SC2-35	35	67	95	M8x25	1100	-	107,98 €
SC2-40	40	77	108	M8x25	1325	-	146,59 €
SC2-50	50	85	124	M10x25	2250	-	189,27 €
Stainless steel							
SC2-6/SS	6	18	30	M3x8	25	-	61,25 €
SC2-8/SS	8	24	35	M3x10	40	-	62,47 €
SC2-10/SS	10	29	45	M4x12	90	-	75,69 €
SC2-12/SS	12	29	45	M4x12	90	-	88,57 €
SC2-14/SS	14	34	50	M5x16	160	-	101,42 €
SC2-15/SS	15	34	50	M5x16	160	-	101,42 €
SC2-16/SS	16	35	50	M5x16	160	-	103,82 €
SC2-20/SS	20	42	65	M6x16	300	-	137,85 €
SC2-25/SS	25	45	75	M6x16	325	-	146,59 €
SC2-30/SS	30	53	83	M6x18	400	-	218,80 €
SC2-35/SS	35	67	95	M8x25	925	-	299,78 €
SC2-40/SS	40	77	108	M8x25	1100	-	420,14 €
SC2-50/SS	50	85	124	M10x25	1875	-	512,05 €

*Subject to availability - Dimensions in mm

Single universal joint



UA

For hand operation

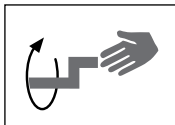
- **Conforms to DIN 7551-E**
(size 13) or DIN 808-E (sizes 16 to 32)
- Light duty applications
- Manual operation or infrequent use
- Misalignment angle 35°
- **Material:**
Untreated steel 9SMnPb28

Uses

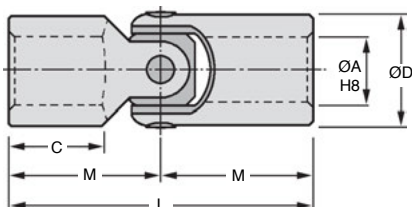
- Stress valve
- Valve drive
- Blinds



Economy range



For manual application



DISCOUNTS

Qty	1+	5+	10+	25+	50+
Disc.	List	-6%	-12%	-18%	On request

Part number	ØD	Bore ØA	C	M	L	Max. speed (rpm)	Backlash Nm (min)	Stock*	Price each 1 to 4
U813A	13	8,0	11,0	21,0	42	200	-	✓	11,39 €
U816A	16	10,0	15,0	26,0	52	200	0,2 45'	✓	15,65 €
U820A	20	12,0	18,0	31,0	62	200	0,4 40'	✓	17,95 €
U825A	25	16,0	22,0	37,0	74	200	1,0 32'	✓	24,07 €
U832A	32	20,0	25,0	43,0	86	200	1,7 28'	✓	42,27 €

*Depending on availability - Dimensions in mm

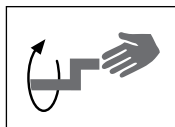
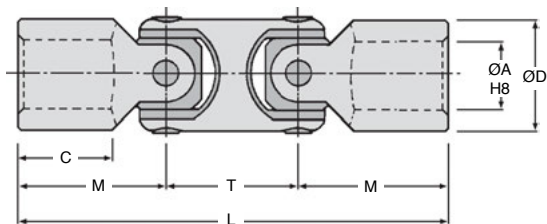
- **Conforms to DIN 7551-E (size 13) or DIN 808-E**
(sizes 16 to 40)
- Light duty applications
- Manual operation or infrequent use
- Misalignment angle 70°
- Material:
Steel 9SMnPb28

Uses

- Stress valve
- Valve drive
- Blinds



Economy range



For manual application

DISCOUNTS

Qty	1+	5+	10+	25+	50+
Disc.	List	-6%	-12%	-18%	On request

Part number	ØD	Bore ØA	C	M	T	L	Max speed (rpm)	Backlash Nm (min)	Stock*	Price each 1 to 4
U813C	13	8	11	21	18	60	200	- -	✓	26,40 €
U816C	16	10	15	26	22	74	200	0,2 1°30'	✓	25,32 €
U820C	20	12	18	31	26	88	200	0,4 1°20'	✓	30,73 €
U825C	25	16	22	37	30	104	200	1,0 1°04'	✓	62,03 €
U832C	32	20	25	43	37	123	200	1,7 0°56'	✓	63,36 €

*Depending on availability - Dimensions in mm

Rubber cover for universal joints



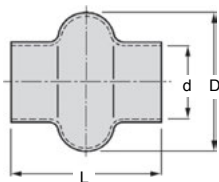
U8R

For use with U816 - U832

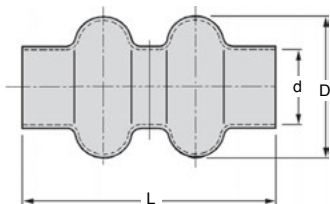
- Increases length of life of universal joints
- Material:
Synthetic rubber
- PVC Shore A 1,18g/cm²
- Electrical resistance $8 \times 10^9 \Omega \text{cm}$
- Working temperature:
Continuous -27°C to +70°C
Occasional -32°C to +120°C

Advantages

- Oil-resistant
- Good elasticity



For single joint



For double joint

DISCOUNTS

Qty	1+	5+	10+	25+	50+
Disc.	List	-6%	-12%	-18%	On request

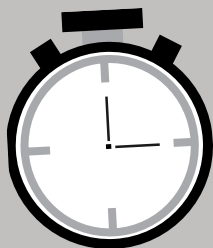
Part number	For joint	d	L	D	Stock*	Price each 1 to 4
For single joint						
U8R-02	U816A	16	32	35	-	11,64 €
U8R-04	U820A	20	40	36	✓	16,99 €
U8R-1	U825A	24	45	44	✓	12,73 €
U8R-3	U832A	32	55	62	✓	15,48 €
For double joint						
U8R-19	U816C	16	55	35	-	20,52 €
U8R-20	U820C	20	65	36	✓	22,46 €
U8R-21	U825C	24	70	44	✓	26,01 €
U8R-23	U832C	32	90	62	-	31,10 €

*Depending on availability - Dimensions in mm

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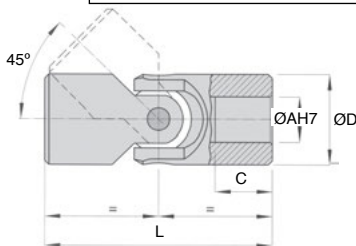
+33 (0)4 37 496 496



**Only for items in stock*

Industrial range

- **Standard series in accordance with DIN 808-7551**
- **With hardened bushes**
- Suitable for speeds up to 800 rpm
- Max. misalignment angle 45°
- **Materials:**
 - Body: C45 steel
 - Pin: Hardened steel 18NCD4



Accessories

- Optional rubber cover

modifiable bore-size



Angle Factor

Angle	Factor
5°	1,25
10°	1,00
20°	0,75
30°	0,45
40°	0,30

Effect of operating angle

The torques below are given for a 10° angle. For other angles, the appropriate factor from this table should be applied.
E.g. For 100Nm to be transmitted at 20°, the corrected value of torque becomes $100/0.75 = 133 \text{ Nm}$ and a joint should be chosen that can transmit 133Nm at the required speed.

DISCOUNTS

Qty	1+	5+	10+	25+
Disc.	List	-6%	-12%	On request

Part number	ØD	ØA	C	L	Torque (Nm)								Price each 1 to 4
					at 100 rpm	at 200 rpm	at 300 rpm	at 400 rpm	at 500 rpm	at 700 rpm	at 800 rpm	Stock*	
G01-A-6/6	16	6	9	34	-	-	-	-	-	-	-	✓	26,72 €
G02-A-8/8	16	8	11	40	-	-	-	-	-	-	-	✓	26,72 €
G03-A-10/10	22	10	10	45	25,0	17	14,5	13,0	12,0	11,0	7,5	✓	27,77 €
G04-A-12/12	25	12	11	50	43,0	25	20,5	17,0	15,5	13,0	12,0	✓	30,32 €
G05-A-14/14	29	14	13	56	68,5	43	39,5	36,0	33,5	28,5	26,5	✓	32,22 €
G1-A-16/16	32	16	15	65	86,5	84	72,0	57,5	51,5	41,0	36,0	✓	33,29 €
G2-A-18/18	37	18	17	72	156,0	120	96,0	72,0	60,0	48,0	-	✓	38,64 €
G3-A-20/20	40	20	19	82	240,0	168	120,0	96,0	84,0	60,0	-	✓	45,69 €
G4-A-22/22	47	22	22	95	300,0	192	144,0	120,0	96,0	72,0	-	✓	54,82 €
G5-A-25/25	50	25	26	108	384,0	240	168,0	144,0	120,0	96,0	-	✓	64,64 €
G6-A-30/30	58	30	30	122	432,0	264	192,0	156,0	132,0	-	-	✓	82,73 €
G61-A-32/32	63	32	30	130	-	-	-	-	-	-	-	-	82,73 €
G7-A-35/35	70	35	35	140	456,0	300	228,0	174,0	144,0	-	-	✓	142,46 €
G8-A-40/40	80	40	42	160	504,0	336	264,0	216,0	-	-	-	-	217,49 €
G9-A-50/50	95	50	54	190	720,0	480	336,0	264,0	-	-	-	-	278,77 €

*Depending on availability - Dimensions in mm

Industrial range

GD

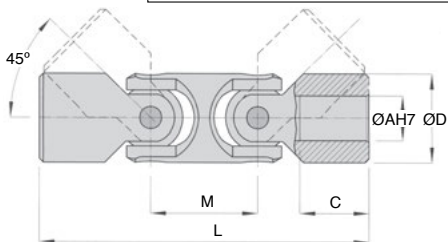
- **Standard series in accordance with DIN 808-7551**
- **With hardened bushes**
- Suitable for speeds up to 800 rpm
- Max. misalignment angle 45°
- **Materials:**
 - Body: C45 steel
 - Pin: Hardened steel 18NCD4



Accessories

- Optional rubber cover

modifiable bore-size



Effect of operating angle

The torques below are given for a 10° angle. For other angles, the appropriate factor from this table should be applied.
E.g. For 100Nm to be transmitted at 20°, the corrected value of torque becomes $100/0.75 = 133$ Nm and a joint should be chosen that can transmit 133Nm at the required speed.

DISCOUNTS

Qty	1+	5+	10+	25+
Disc.	List	-6%	-12%	On request

Part number	ØD	ØA	C	M	L	Torque (Nm)								Price each 1 to 4
						at 100 rpm	at 200 rpm	at 300 rpm	at 400 rpm	at 500 rpm	at 700 rpm	at 800 rpm	Stock*	
GD01-A-6/6	16	6	7,5	27	61	-	-	-	-	-	-	-	✓	53,54 €
GD02-A-8/8	16	8	10	27	67	-	-	-	-	-	-	-	✓	53,54 €
GD03-A-10/10	20	10	10	30	75	23	15	13	12	11	10	7	✓	56,19 €
GD04-A-12/12	22	12	11	29	74	39	23	18	15	14	12	11	✓	56,19 €
GD05-A-14/14	25	14	13	33	85	62	39	36	32	30	26	24	✓	62,96 €
GD1-A-16/16	29	16	19	35	100	78	76	65	52	46	37	32	✓	67,22 €
GD2-A-18/18	32	18	20	39	112	140	108	86	65	54	43	-	✓	81,04 €
GD3-A-20/20	40	20	19	46	128	216	151	108	86	76	54	-	✓	89,48 €
GD4-A-22/22	40	22	25	48	145	270	173	130	108	86	65	-	-	120,01 €
GD5-A-25/25	50	25	24	59	163	346	216	151	130	108	86	-	✓	146,70 €
GD6-A-30/30	58	30	28	66	182	389	238	173	140	119	-	-	-	174,27 €
GD61-A-32/32	63	32	30	84	198	-	-	-	-	-	-	-	-	174,27 €
GD7-A-35/35	70	35	32	78	212	410	270	205	157	130	-	-	-	320,37 €
GD8-A-40/40	80	40	38	95	245	454	302	238	194	-	-	-	-	501,36 €
GD9-A-50/50	95	50	50	120	290	648	432	302	238	-	-	-	-	696,08 €

*Depending on availability - Dimensions in mm

Single **needle** roller universal joint



H

Industrial range

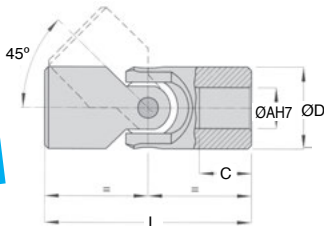
- **Standard series**
- **Needle bearings**
- Suitable for speeds up to 4000 rpm
- Max. misalignment angle 45°
- **Materials:**
 - Body: C45 steel
 - Pin: Hardened steel 18NCD4

Uses

- High speed applications

Accessories

- Optional rubber cover



modifiable bore-size



High speed applications

Angle Factor

Angle	Factor
5°	1,25
10°	1,00
20°	0,75
30°	0,45
40°	0,30

Effect of operating angle

The torques below are given for a 10° angle. For other angles, the appropriate factor from this table should be applied.
E.g. For 100Nm to be transmitted at 20°, the corrected value of torque becomes 100/0.75 = 133 Nm and a joint should be chosen that can transmit 133Nm at the required speed.

DISCOUNTS

Qty.	1+	5+	10+	25+
Disc.	List	-6%	-12%	On request

Part number	ØD	ØA	C	L	Torque (Nm)						Price each 1 to 4
					at 250 rpm	at 500 rpm	at 1000 rpm	at 2000 rpm	at 3000 rpm	at 4000 rpm	
H02-A-8/8	16	8	15	52	-	-	-	5,8	-	-	✓ 50,77 €
H03-A-10/10	20	10	18	62	22	17	14	11,0	10	9	✓ 45,69 €
H05-A-14/14	25	14	20	74	34	29	24	22,0	20	18	✓ 45,69 €
H1-A-16/16	32	16	24	86	65	55	45	40,0	37	32	✓ 50,77 €
H2-A-18/18	37	18	17	72	75	61	50	45,0	40	36	✓ 53,43 €
H3-A-20/20	40	20	30	108	140	120	100	80,0	70	65	✓ 60,94 €
H4-A-22/22	47	22	22	95	162	132	108	88,0	77	71	✓ 70,91 €
H5-A-25/25	50	25	38	132	200	170	130	110,0	90	85	✓ 78,69 €
H6-A-30/30	63	30	45	166	300	270	230	190,0	160	140	- 101,34 €
H61-A-32/32	63	32	45	166	-	-	-	-	-	-	- 101,34 €
H7-A-35/35	70	35	35	140	326	277	237	198,0	168	-	- 183,39 €
H8-A-40/40	80	40	50	180	365	303	255	205,0	186	-	- 252,50 €
H9-A-50/50	95	50	54	190	402	335	275	225,0	198	-	- 353,84 €

*Depending on availability - Dimensions in mm



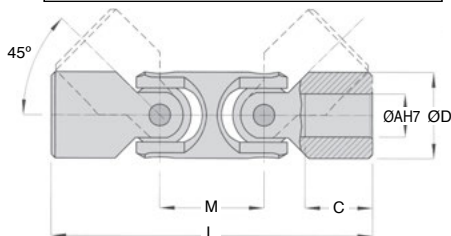
- **Standard series**
- **Needle bearings**
- Suitable for speeds up to 4000 rpm
- Max. misalignment angle 45°
- **Materials:**
 - Body: C45 steel
 - Pin: Hardened steel 18NCD4

Uses

- High speed applications

Accessories

- Optional rubber cover



modifiable bore-size



Angle	Factor
5°	1,25
10°	1,00
20°	0,75
30°	0,45
40°	0,30

Effect of operating angle

The torques below are given for a 10° angle. For other angles, the appropriate factor from this table should be applied.
E.g. For 100Nm to be transmitted at 20°, the corrected value of torque becomes $100/0.75 = 133 \text{ Nm}$ and a joint should be chosen that can transmit 133Nm at the required speed.

High speed applications

DISCOUNTS

Qty.	1+	5+	10+	25+
Disc.	List	-6%	-12%	On request

Part number	ØD	ØA	C	M	L	Torque (Nm)		at 1000 rpm	at 2000 rpm	at 3000 rpm	at 4000 rpm	Price each 1 to 4
						at 250 rpm	at 500 rpm					
HD03-A-10/10	20	10	18	26	88	19,8	15,3	12,6	9,9	9,0	8,1	137,16 €
HD05-A-14/14	25	14	19	33	104	30,6	26,1	21,6	19,8	18,0	16,2	107,58 €
HD1-A-16/16	32	16	24	39	125	58,5	49,5	40,5	36,0	33,3	28,8	107,58 €
HD3-A-20/20	40	20	30	48	156	126,0	108,0	90,0	72,0	63,0	58,5	145,18 €
HD5-A-25/25	50	25	37	59	188	180,0	153,0	117,0	99,0	81,0	76,5	172,85 €
HD6-A-30/30	63	30	41	80	238	270,0	243,0	207,0	171,0	144,0	126,0	195,25 €
HD61-A-32/32	63	32	41	80	238	-	-	-	-	-	-	195,25 €
HD7-A-35/35	70	35	30	78	212	293,4	249,3	213,3	178,2	151,2	-	388,54 €
HD8-A-40/40	80	40	48	120	290	328,5	272,7	229,5	184,5	167,4	-	626,72 €
HD9-A-50/50	95	50	50	120	290	361,8	301,5	247,5	202,5	178,2	-	731,13 €

Dimensions in mm

- **Stainless steel range**
- **Plain pins and bushes**
- Suitable for speeds up to 800 rpm
- Max. angle of misalignment 45°
- Material:
Stainless steel X5CrNi1810

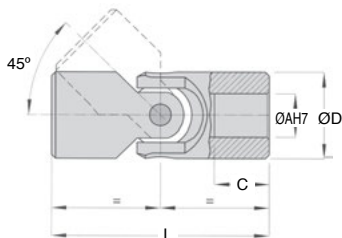
Uses

- Food and pharmaceutical industries

Accessories

- Optional rubber cover

modifiable bore-size



Angle	Factor
5°	1,25
10°	1,00
20°	0,75
30°	0,45
40°	0,30

Effect of operating angle

The torques below are given for a 10° angle. For other angles, the appropriate factor from this table should be applied. E.g. For 10Nm to be transmitted at 20°, the corrected value of torque becomes $10/0.75 = 13.3$ Nm and a joint should be chosen that can transmit 13.3Nm at the required speed.

DISCOUNTS

Qty.	1+	5+	10+	25+	50+
Disc.	List	-6%	-12%	-18%	On request

Part number	ØD	ØA	C	L	Torque (Nm)								Price each 1 to 4
					at 100 rpm	at 200 rpm	at 300 rpm	at 400 rpm	at 500 rpm	at 700 rpm	at 800 rpm	Stock*	
JCS00/SS	10	5	15	44	3,6	3,3	2,8	2,5	2,3	-	-	✓	42,55 €
JCS01/SS	13	6	18	50	4,4	4,4	3,5	3,2	2,9	-	-	✓	38,98 €
JCS02/SS	16	8	19	58	8,6	6,0	5,3	4,6	4,0	3,4	3,1	✓	38,98 €
JCS03/SS	22	10	25	76	12,3	8,3	7,0	6,4	5,8	5,2	3,5	✓	38,98 €
JCS04/SS	25	12	29	86	21,0	12,6	10,0	8,0	7,3	6,3	5,8	✓	44,29 €
JCS05/SS	29	14	30	90	33,0	21,3	19,3	17,6	16,3	13,3	12,6	✓	46,08 €
JCS06/SS	32	16	30	95	45,0	42,0	35,3	28,0	25,3	20,0	17,3	✓	47,85 €
JCS07/SS	37	18	35	108	76,0	60,0	46,6	35,3	29,3	23,3	-	-	56,73 €
JCS08/SS	40	20	32	108	117,0	84,0	58,6	46,6	41,3	29,3	-	✓	62,05 €
JCS09/SS	47	22	38	127	146,0	96,0	70,0	58,6	46,6	35,3	-	-	78,02 €
JCS10/SS	50	25	44	140	192,0	120,0	84,0	72,0	60,0	48,0	-	✓	92,25 €
JCS11/SS	58	30	58	178	216,0	132,0	96,0	78,0	66,0	-	-	✓	120,64 €

*Depending on availability - Dimensions in mm

- **Stainless steel range**
- **Plain pins and bushes**
- Suitable for speeds up to 800 rpm
- Max. angle of misalignment 90°
- Material:

Stainless steel X5CrNi1810

Uses

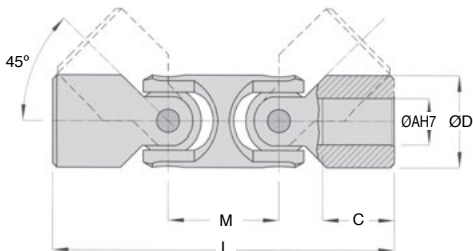
- Food and pharmaceutical industries

Accessories

- Optional rubber cover



modifiable bore-size



Angle	Factor
5°	1,25
10°	1,00
20°	0,75
30°	0,45
40°	0,30

Effect of operating angle

The torques below are given for a 10° angle. For other angles, the appropriate factor from this table should be applied.

E.g. For 10Nm to be transmitted at 20°, the corrected value of torque becomes $10/0.75 = 13.3$ Nm and a joint should be chosen that can transmit 13.3Nm at the required speed.

DISCOUNTS

Qty.	1+	5+	10+	25+	50+
Disc.	List	-6%	-12%	-18%	On request

Part number	ØD	ØA	C	M	L	Torque (Nm)								Price each 1 to 4
						at 100 rpm	at 200 rpm	at 300 rpm	at 400 rpm	at 500 rpm	at 700 rpm	at 800 rpm	Stock*	
JCD04/SS	22	12	25	29	105	18,9	11,34	9,00	7,20	6,57	5,67	5,22	✓	88,68 €
JCD05/SS	25	14	29	33	119	29,7	19,17	17,37	15,84	14,67	11,97	11,34	-	92,25 €
JCD06/SS	29	16	30	35	125	40,5	37,80	31,77	25,20	22,77	18,00	15,57	✓	95,76 €
JCD07/SS	32	18	30	39	134	68,4	54,00	41,94	31,77	26,37	20,97	-	-	113,51 €
JCD08/SS	40	20	32	46	154	105,3	75,60	52,74	41,94	37,17	26,37	-	✓	124,15 €
JCD09/SS	40	22	38	46	173	131,4	86,40	63,00	52,74	41,94	31,77	-	-	156,11 €
JCD10/SS	50	25	44	59	199	172,8	108,00	75,60	64,80	54,00	43,20	-	-	184,53 €
JCD11/SS	58	30	58	66	244	194,4	118,80	86,40	70,20	59,40	-	-	-	241,30 €

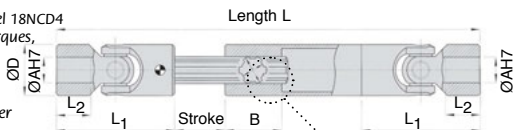
*Depending on availability - Dimensions in mm

- **Standard series**
- **With hardened bushes**
- Suitable for speeds up to 800 rpm
- Max. angle of misalignment 45°
- **Materials:**

Body: C45 steel

Pin: Hardened steel 18NCD4

- For transmissible torques, refer to GD range



Accessories

- Optional rubber cover

Options

- Stainless steel version on request

modifiable bore-size



DISCOUNTS

Qty	1+	5+	10+	25+
Disc.	List	-6%	-12%	On request

Part number	L min/max	ØA H7	ØD	L1	L2	B	Stroke	E	F	Stock*	Price each 1 to 4
CT10-130/150	130/150	10	22	45	10	40	20	11	14	✓	154,64 €
CT10-140/170	140/170	10	22	45	10	40	30	11	14	✓	154,64 €
CT10-160/200	160/200	10	22	45	10	40	40	11	14	✓	154,64 €
CT10-170/230	170/230	10	22	45	10	40	60	11	14	-	154,64 €
CT10-180/240	180/240	10	22	45	10	40	60	11	14	-	154,64 €
CT10-230/330	230/330	10	22	45	10	40	100	11	14	✓	154,64 €
CT12-140/170	140/170	12	25	50	11	45	30	13	16	-	163,37 €
CT12-160/200	160/200	12	25	50	11	45	40	13	16	-	163,37 €
CT12-180/225	180/225	12	25	50	11	45	45	13	16	-	163,37 €
CT12-200/270	200/270	12	25	50	11	45	70	13	16	✓	163,37 €
CT12-220/300	220/300	12	25	50	11	45	80	13	16	✓	163,37 €
CT12-250/355	250/355	12	25	50	11	45	105	13	16	-	163,37 €
CT12-280/420	280/420	12	25	50	11	45	140	13	16	✓	163,37 €
CT12-300/450	300/450	12	25	50	11	45	150	13	16	✓	163,37 €
CT14-160/190	160/190	14	29	56	13	45	30	13	16	-	168,60 €
CT14-170/200	170/200	14	29	56	13	45	30	13	16	-	168,60 €
CT14-180/220	180/220	14	29	56	13	45	40	13	16	-	168,60 €
CT14-210/280	210/280	14	29	56	13	45	70	13	16	-	168,60 €
CT14-220/300	220/300	14	29	56	13	45	80	13	16	-	168,60 €
CT14-250/350	250/350	14	29	56	13	45	100	13	16	✓	168,60 €
CT14-280/420	280/420	14	29	56	13	45	140	13	16	-	168,60 €
CT14-300/450	300/450	14	29	56	13	45	150	13	16	-	168,60 €
CT14-350/550	350/550	14	29	56	13	45	200	13	16	-	173,43 €
CT14-400/650	400/650	14	29	56	13	45	250	13	16	✓	173,43 €

*Depending on availability - Dimensions in mm

Part number	L min/max	ØA	H7	ØD	L1	L2	B	Stroke	E	F	Stock*	Price each 1 to 4
CT16-180/210	180/210	16	32	65	15	45	30	16	20	-	-	173,70 €
CT16-190/220	190/220	16	32	65	15	45	30	16	20	-	-	173,70 €
CT16-210/250	210/250	16	32	65	15	45	40	16	20	-	-	173,70 €
CT16-240/320	240/320	16	32	65	15	45	80	16	20	-	-	173,70 €
CT16-250/350	250/350	16	32	65	15	45	100	16	20	✓	-	173,70 €
CT16-275/390	275/390	16	32	65	15	45	115	16	20	-	-	173,70 €
CT16-300/430	300/430	16	32	65	15	45	130	16	20	-	-	173,70 €
CT16-380/590	380/590	16	32	65	15	45	210	16	20	-	-	178,56 €
CT16-400/630	400/630	16	32	65	15	45	230	16	20	✓	-	183,39 €
CT18-195/225	195/225	18	37	72	17	45	30	16	20	-	-	195,15 €
CT18-230/280	230/280	18	37	72	17	45	50	16	20	-	-	195,15 €
CT18-250/320	250/320	18	37	72	17	45	70	16	20	-	-	195,15 €
CT18-270/370	270/370	18	37	72	17	45	100	16	20	-	-	195,15 €
CT18-290/400	290/400	18	37	72	17	45	110	16	20	-	-	195,15 €
CT18-300/415	300/415	18	37	72	17	45	115	16	20	-	-	195,15 €
CT18-400/620	400/620	18	37	72	17	45	220	16	20	-	-	204,84 €
CT18-500/820	500/820	18	37	72	17	45	320	16	20	-	-	214,51 €
CT20-220/250	220/250	20	40	82	19	45	30	18	22	✓	-	199,40 €
CT20-250/300	250/300	20	40	82	19	45	50	18	22	-	-	199,40 €
CT20-270/340	270/340	20	40	82	19	45	70	18	22	-	-	199,40 €
CT20-290/380	290/380	20	40	82	19	45	90	18	22	-	-	199,40 €
CT20-320/440	320/440	20	40	82	19	45	120	18	22	-	-	199,40 €
CT20-380/560	380/560	20	40	82	19	45	180	18	22	✓	-	204,27 €
CT20-420/640	420/640	20	40	82	19	45	220	18	22	-	-	209,10 €
CT20-500/800	500/800	20	40	82	19	45	300	18	22	✓	-	213,95 €
CT22-250/280	250/280	22	47	95	22	48	30	21	25	-	-	253,10 €
CT22-270/320	270/320	22	47	95	22	48	50	21	25	-	-	253,10 €
CT22-290/350	290/350	22	47	95	22	48	60	21	25	-	-	253,10 €
CT22-330/430	330/430	22	47	95	22	48	100	21	25	-	-	253,10 €
CT22-350/470	350/470	22	47	95	22	48	120	21	25	-	-	253,10 €
CT22-470/710	470/710	22	47	95	22	48	240	21	25	-	-	267,61 €
CT25-270/320	270/320	25	50	108	26	48	50	23	28	-	-	285,95 €
CT25-295/350	295/350	25	50	108	26	48	55	23	28	-	-	285,95 €
CT25-310/375	310/375	25	50	108	26	48	65	23	28	-	-	285,95 €
CT25-350/450	350/450	25	50	108	26	48	100	23	28	-	-	285,95 €
CT25-380/500	380/500	25	50	108	26	48	120	23	28	-	-	285,95 €
CT25-420/590	420/590	25	50	108	26	48	170	23	28	-	-	285,95 €
CT25-460/660	460/660	25	50	108	26	48	200	23	28	-	-	285,95 €
CT25-500/745	500/745	25	50	108	26	48	245	23	28	✓	-	285,95 €
CT30-320/390	320/390	30	58	122	30	50	70	26	32	-	-	389,14 €
CT30-350/420	350/420	30	58	122	30	50	70	26	32	-	-	389,14 €
CT30-370/455	370/455	30	58	122	30	50	85	26	32	-	-	389,14 €
CT30-400/510	400/510	30	58	122	30	50	110	26	32	-	-	389,14 €
CT30-450/620	450/620	30	58	122	30	50	170	26	32	-	-	389,14 €
CT30-500/720	500/720	30	58	122	30	50	220	26	32	-	-	389,14 €
CT30-540/795	540/795	30	58	122	30	50	255	26	32	-	-	389,14 €

*Depending on availability - Dimensions in mm

Universal joint cover

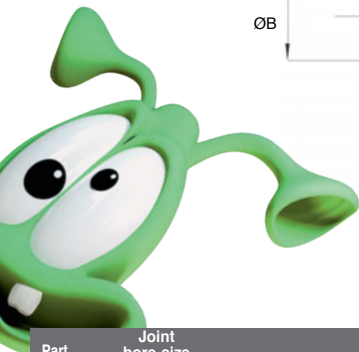
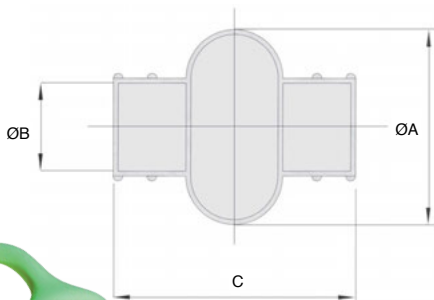
M

Industrial range

- Bellows for single joints
- For double joints, use two covers

Advantages

- The use of a cover can extend the operating life of a universal joint by 5 times



DISCOUNTS

Qty	1+	5+	10+	25+
Disc.	List	-6%	-12%	On request

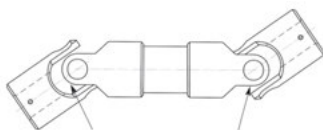
Part number	Joint bore-size (indication)	ØA	ØB	C	For universal joint n°	Stock*	Price each 1 to 4
M03-A-10	10	39	20,5	47	G03 GD03 H03 HD03 CT10	✓	9,00 €
M04-A-12	12	47	24,5	52	G04 GD04 H04 HD04 CT12	✓	9,00 €
M05-A-14	14	51	27,5	58	G05 GD05 H05 HD05 CT14	✓	9,00 €
M1-A-16	16	56	30,5	67	G1 GD1 H1 HD1 CT16	✓	9,88 €
M2-A-18	18	66	35,5	74	G2 GD2 H2 HD2 CT18	✓	9,88 €
M3-A-20	20	75	40,0	84	G3 GD3 H3 HD3 CT20	✓	14,10 €
M4-A-22	22	83	45,0	97	G4 GD4 H4 HD4 CT22	✓	14,10 €
M5-A-25	25	93	50,0	110	G5 GD5 H5 HD5 CT25	✓	15,30 €
M6-A-30	30	105	56,0	124	G6 GD6 H6 HD6 CT30	✓	15,30 €

*Depending on availability - Dimensions in mm

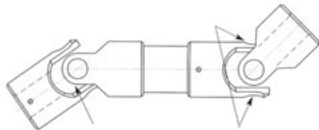
Use and maintenance of universal joints

Use and maintenance of universal joints

The yokes should be positioned as shown in the diagram in order to obtain an uniform movement.



Correct assembly
Yokes well-positioned



Incorrect assembly
Yokes badly-positioned

Maintenance of universal joints is limited to regular lubrication at least once a day.
In a dusty environment, using grease-filled joint covers is recommended.

Several rules should be followed for a universal joint to work correctly:

- It is rare for a single joint to be used alone. They are normally only used in manually operated systems.
- Assembly of two single joints (a double joint) allows speed irregularities of a single joint to be corrected by another joint exhibiting the same irregularities in the opposite direction. The transmission is said to be homocinetic.



2 single joints

for constant velocity movement, the two angles should be equal and in the same plane



double joint

correct:
 α angles equal



Entry and exit shafts should be parallel



incorrect:
 α and β angles unequal

correct:
A parallel to A'

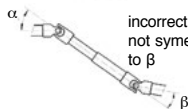


incorrect:
A not parallel to A'

correct: α symmetrical to α



Shafts should be guided by bearings as close to joint as possible to reduce radial loads.



incorrect: α not symmetrical to β

VT27
VT40

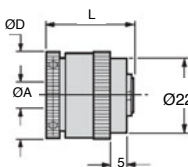
Torque up to 1.32Nm

- **Basic clutch to be insert into a hub**
- Protects equipment in case of excess torque
- Max. backlash 2°
- Max. sliding velocity: 1000 rpm
- The housing t° should be maintained below 80°C
- Power dissipation at 20°C :
 - 2 discs : 7 watts
 - 6 discs : 8.6 watts
- Materials:
 - Hubs + discs: treated steel
 - Casing + adjuster ring: aluminium

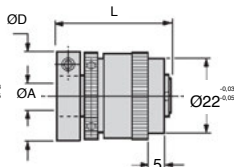


Advantages

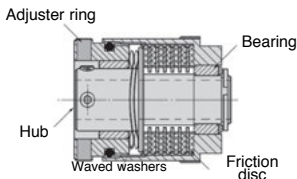
- Clutches interrupt rotation when load being transmitted exceeds preset limit.



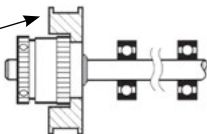
VT2 With set screw



VT4 With clamp fixing



Pulley (Or gear, etc...) bonded to register.
Press fits not permissible.



DISCOUNTS

Qty	1+	5+	10+	15+	20+	25+
Disc.	List	-15%	-20%	-25%	-30%	On request

Part number	Std.	OA (+0.03/-0.00)	N° of friction discs	ØD	L	Screw	Heat dissipation at 20°C (Watts)	Max. frictional torque (Nm)	Moment of inertia (kgm² x 10³)	Price each 1 to 4
With set screw										
VT2712-6	6	2	25,8	26,4	M3	7,0	0,53	242	✓	70,62 €
VT2712-8	8	2	25,8	26,4	M3	7,0	0,53	242	✓	70,62 €
VT2796-6	6	6	25,8	32,4	M3	8,6	1,32	312	✓	83,72 €
VT2796-8	8	6	25,8	32,4	M3	8,6	1,32	312	✓	83,72 €
With locking jaw										
VT4012-6	6	2	25,8	34,4	M3	7,0	0,53	317	✓	79,64 €
VT4012-8	8	2	25,8	34,4	M3	7,0	0,53	317	-	79,64 €
VT4096-6	6	6	25,8	40,7	M3	8,6	1,32	381	✓	91,56 €
VT4096-8	8	6	25,8	40,7	M3	8,6	1,32	381	✓	91,56 €

*Depending on availability - Dimensions in mm

Torque up to 1.32Nm

VTA2
VTA6

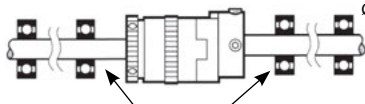
- Adjustable clutch coupling
- Max. backlash 2°
- Max. sliding velocity: 1000 rpm
- The housing t° should be maintained below 80°C
- Equipped with an Oldham coupling
- Materials:
Hub: Aluminium 6082
Disc: Black acetal

Equipped with coupling

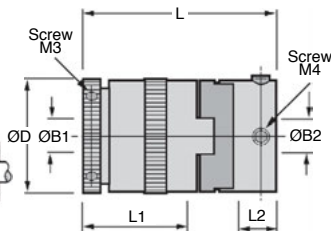


Uses

- 2 waved washers are fitted to these clutches
- These clutches are fitted with two washers. In some applications better torque control can be achieved by removing one of them.



Motor, gearbox, or other externally supports shafts



DISCOUNTS

Qty	1+	5+	10+	15+	20+	25+
Disc.	List	-15%	-20%	-25%	-30%	On request

Part number	ØB1	ØB2	L	ØD	Max. shaft length L1	Max. shaft length L2	Heat dissipation at 20°C (Watts)	Max. frictional torque (Nm)	Stock*	Price each 1 to 4
2 discs										
VTA2-0606	6	6	46,50	25,8	25	8,60	7,0	0,53	✓	98,92 €
VTA2-0608	6	8	46,50	25,8	25	8,60	7,0	0,53	✓	98,92 €
VTA2-0610	6	10	46,50	25,8	25	8,60	7,0	0,53	-	98,92 €
VTA2-0806	8	6	46,50	25,8	25	8,60	7,0	0,53	-	98,92 €
VTA2-0808	8	8	46,50	25,8	25	8,60	7,0	0,53	✓	98,92 €
VTA2-0810	8	10	46,50	25,8	25	8,60	7,0	0,53	✓	98,92 €
6 discs										
VTA6-0606	6	6	53,40	25,8	31	8,60	8,6	1,32	-	112,09 €
VTA6-0608	6	8	53,40	25,8	31	8,60	8,6	1,32	-	112,09 €
VTA6-0610	6	10	53,40	25,8	31	8,60	8,6	1,32	-	112,09 €
VTA6-0806	8	6	53,40	25,8	31	8,60	8,6	1,32	-	112,09 €
VTA6-0808	8	8	53,40	25,8	31	8,60	8,6	1,32	✓	112,09 €
VTA6-0810	8	10	53,40	25,8	31	8,60	8,6	1,32	✓	112,09 €

*Depending on availability - Dimensions in mm

Miniature slip friction clutch

Stock



SAS

Torque up to 8.64Nm

- **Adjustable clutch coupling**
- Rotation will stop if a preset torque is exceeded and will restart when the torque is reduced, thus protecting equipment and personnel
- Protects in case of overload
- Backlash 6°
- Brass friction discs

Principle

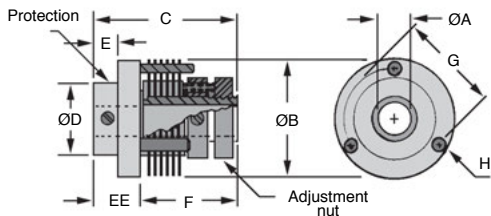
- Springs maintain contact between the clutch plates and friction rings, this contact is broken in case of excessive torque



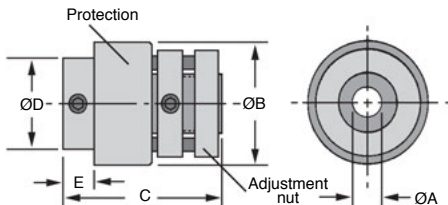
Miniature

Part number	B	Tolerances (0/+0,005)		C	ØD	E	EE	F	G	H
		ØA Std.	ØA max.							
SAS16-6	25,40	6	9,53	33,27	19,30	6,35	-	-	-	-
SAS20-6	31,75	6	9,53	38,10	19,30	6,35	12,70	25,40	26,98	2,39
SAS24-10	38,10	10	12,70	63,50	25,65	9,40	19,05	44,45	33,33	3,18
SAS32-12	50,80	12	15,88	72,90	35,05	12,70	25,40	47,75	42,47	4,78
SAS44-14	69,85	14	15,88	72,90	41,40	12,70	25,40	47,75	60,33	4,78

Dimensions in mm



Open clutch - SAS20-44



Protected clutch - SAS16

DISCOUNTS

Qty	1+	5+	10+	25+	50+
Disc.	List	-6%	-12%	-18%	On request

Part number	Capacity at 50 rpm (Nm)	Capacity at 50 rpm (Watts)	Friction surfaces	Stock*	Price each 1 to 4
SAS16-6	0,010 - 1,28	5,8	8	✓	146,66 €
SAS20-6	0,010 - 1,35	6,0	8	-	401,67 €
SAS24-10	0,055 - 3,22	14,5	12	✓	433,79 €
SAS32-12	0,090 - 5,64	29,0	12	-	558,35 €
SAS44-14	0,110 - 8,64	43,0	12	-	807,57 €

*Depending on availability - Dimensions in mm

Friction clutch



LC

Max torque 30Nm to 240Nm

Adjustable clutch

- Place the wheel (gear, pulley, chain sprocket) between the two friction disks and tighten/loosen the thread to achieve the torque setting required.

- Supplied pre-bored

Material:

Steel

Friction disks do not contain asbestos

Option

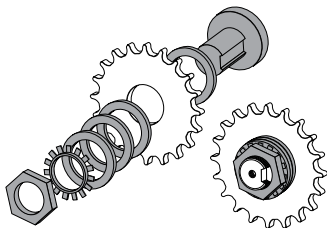
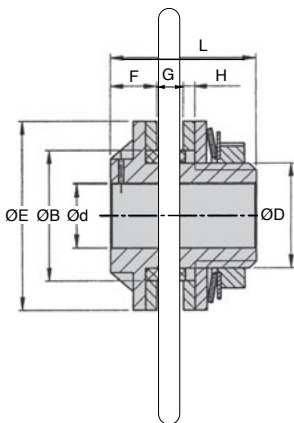
- Bore and keyway to your specifications
(Mini quantity order: 30 pieces)

Info.

- Friction disks should never come into contact with oil as this could cause damage or affect the performance of the clutch
- Gear/sprocket not supplied



LC 40-50



DISCOUNTS

Qty	1+	5+	10+	25+	50+
Disc.	List	-6%	-12%	-18%	On request

Part number	ØE	ØBh8	Ød	F	G max	H	ØD	L	Ø torque max (Nm)	N° springs	Recommended sprocket Pas	N of teeth	Price each 1 to 4
LC40-1-7	40	26	7	10	6	3	22	30,0	15	1	3/8"	18-21	- 24,31 €
LC40-2-7	40	26	7	10	6	3	22	30,0	28	2	1/2"	15	- 27,06 €
LC50-1-7	45	35	7	11	6	3	32	35,5	30	1	3/8"	19-23	✓ 30,06 €
LC50-2-7	45	35	7	11	6	3	32	35,5	55	2	1/2"	18	✓ 30,06 €

*Depending on availability - Dimensions in mm



Friction clutch

Max torque 190Nm to 1.800Nm

LC

- **Adjustable clutch**
- Place the wheel (gear, pulley, chain sprocket) between the two friction disks and tighten/ loosen the thread to achieve the torque setting required.
- Supplied pre-bored
- Material:
Steel
- Friction disks do not contain asbestos

Option

- Bore and keyway to your specifications
(Mini quantity order: 30 pieces)

Info.

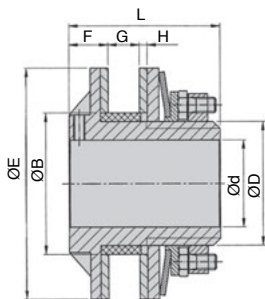
- Friction disks should never come into contact with oil as this could cause damage or affect the performance of the clutch
- **Gear/sprocket not supplied**



LC 65-85-95-120-140-170



LC 65-85-95-120-140-170



DISCOUNTS

Qty	1+	5+	10+	25+	50+
Disc.	List	-6%	-12%	-18%	On request

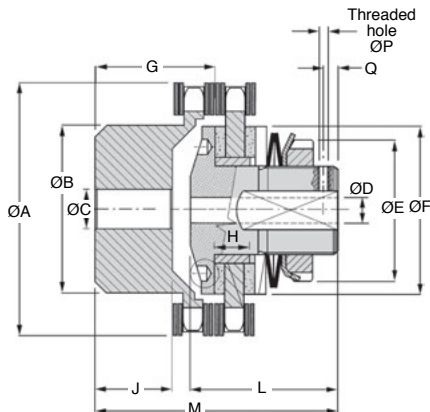
Part number	ØE	ØBh8	Ød	F	G max	H	ØD	L	Ø torque max (Nm)	Nb springs	Recommended sprocket Pitch	Nb of teeth	Stock*	Price each 1 to 4
LC65-1-10	65	45	10	16	9	4	36	50,5	70	1	3/8"	27	✓	39,68 €
LC65-2-10	65	45	10	16	9	4	36	50,5	120	2	1/2"	21	✓	43,52 €
LC85-1-15	85	52	15	17,0	11,0	4,0	45	55,5	130	1	1/2"	38	✓	49,60 €
LC85-2-15	85	52	15	17,0	11,0	4,0	45	55,5	240	2	5/8"	25	✓	54,67 €
LC95-1-15	95	60	15	18,0	11,0	4,0	52	67,0	190	1	3/4"	21	✓	76,19 €
LC95-2-15	95	60	15	18,0	11,0	4,0	52	67,0	340	2	1"	19	-	81,63 €
LC120-1-20	120	73	20	20,0	16,0	4,0	64	78,0	350	1	1 1/2"	38	-	84,83 €
LC120-2-20	120	73	20	20,0	16,0	4,0	64	78,0	650	2	1 1/2"	32	✓	96,85 €
LC140-1-20	140	90	20	23,0	17,0	4,0	85	86,5	650	1	1 1/2"	25	-	141,68 €
LC140-2-20	140	90	20	23,0	17,0	4,0	85	86,5	1200	2	1 1/2"	21	-	160,49 €
LC170-1-28	170	100	28	27,5	18,5	4,5	90	95,0	1000	1	1 1/2"	35	-	164,08 €
LC170-2-28	170	100	28	27,5	18,5	4,5	90	95,0	1800	2	1 1/2"	22	-	190,89 €

*Depending on availability - Dimensions in mm

- Adjustable clutch coupling
- Chain coupling
- Clutch with slip friction disc
- Can be supplied pre-bored or solid
- Max. speed: 100 rpm
- Materials:
Steel EN10083-2

Options

- Bore-size and keyway

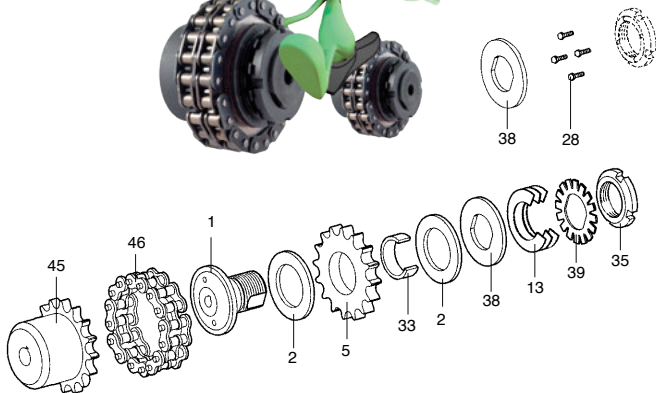


Part number	ØA	ØB	ØE	ØF	G	H	J	L	M	ØP	Q
DSF025-4-20	41	23	22	25	13	5,5	9,0	26	36,0	M3	3
DSF038-5-35	58	37	32	38	28	8,0	20,0	33	56,0	M3	3
DSF050-12-60	75	50	44	50	28	8,0	19,0	35	59,0	M4	4
DSF170-26-100	101	70	63	70	40	10,0	29,0	55	87,0	M4	4
DSF290-70-300	126	90	82	90	60	15,0	48,0	60	112,5	M6	6
DSF311-240-580	157	110	105	115	70	17,0	57,5	70	131,0	M6	6
DSF414-400-1200	198	130	139	140	70	21,0	59,5	80	152,0	M6	6
DSF517-450-2600	223	130	160	170	100	25,0	90,5	95	192,0	M8	8

Dimensions in mm

Parts

- 1 - Flange clamp hub
- 2 - Friction disc
- 5 - Toothed crown
- 13 - Axial spring
- 28 - Adjustment screw
- 33 - Sliding ring
- 35 - Notched locknut
- 38 - Mobile flange
- 39 - Toothed washer
- 45 - Pre-bored chain pinion
- 46 - Double chain



Part number	ØC (mm)		ØD (mm)		Torque (Nm)	Stock*	Price each
	Prebore Ø	Max. Ø	Prebore Ø	Max. Ø			
DSF025-4-20	7	12	-	8	4-20	✓	124,35 €
DSF038-5-35	10	20	5	12	5-35	✓	149,62 €
DSF050-12-60	12	24	8	20	12-60	✓	216,37 €
DSF170-26-100	16	30	10	25	26-150	✓	221,75 €
DSF290-70-300	20	42	14	38	70-300	-	313,00 €
DSF311-240-580	20	50	18	45	240-580	-	541,64 €
DSF414-400-1200	28	60	24	55	400-1200	-	950,68 €
DSF517-450-2600	30	68	28	65	450-2600	-	1 059,80 €

*Depending on availability - Dimensions in mm

**FLANGED SPLINED
BUSH**

*stainless
steel*



p.113

**ADJUSTABLE SHAFT
COLLAR**



p.114

LOCKING RINGS



NEW

p.115

CLAMPING COLLAR



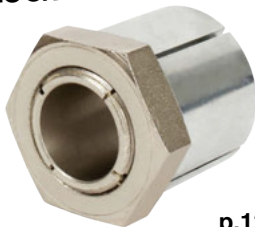
p.116

CLAMPING RING



p.120

**SELF-CENTERING
LOCKING ASSEMBLY**



p.124

SELF-CENTERING LOCKING ASSEMBLY



p.125

ASSEMBLY ELEMENTS p.108 - 139



LOCKING ASSEMBLY



p.128

MECHANICAL LOCKING ASSEMBLY



p.132

HYDRAULIC LOCKING ASSEMBLY



p.136

- Suitable for transmitting high torque values

- Materials:

Steel C40/XC42

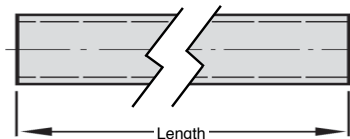
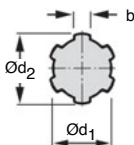
- Extruded product

Accessories

- Splined bush: cylindrical or flanged

Options

- Alternative lengths up to 3000mm



DISCOUNTS and AVAILABLE LENGTHS

Qty	1+	10+	20+	30+	40+
disc	List	-15%	-20%	-30%	On request
L.	1000 mm		2000 mm		3000 mm
Price	Uni.		x 2,23		x 3,35

Part number	Number of splines	Ød ₁	Ød ₂	b	Standard length (mm)	Weight (kg)	Stock*	Price each 1 to 9
ACA6-14-1000	6	11 ^{+0/-0,08}	14 ^{-0,07/-0,2}	3,0 ^{+0/-0,08}	1000	0,949	✓	28,84 €
ACA6-16-1000	6	13 ^{+0/-0,08}	16 ^{-0,07/-0,2}	3,5 ^{+0/-0,08}	1000	1,287	✓	27,62 €
ACA6-20-1000	6	16 ^{+0/-0,08}	20 ^{-0,07/-0,25}	4,0 ^{+0/-0,08}	1000	1,911	✓	37,05 €
ACA6-22-1000	6	18 ^{+0/-0,08}	22 ^{+0/-0,10}	5,0 ^{+0/-0,08}	1000	2,453	✓	41,99 €
ACA6-25-1000	6	21 ^{+0/-0,08}	25 ^{-0,07/-0,27}	5,0 ^{+0/-0,08}	1000	3,139	✓	48,01 €
ACA6-28-1000	6	23 ^{+0/-0,08}	28 ^{-0,07/-0,25}	6,0 ^{+0/-0,08}	1000	3,964	✓	64,54 €
ACA6-32-1000	6	26 ^{+0/-0,08}	32 ^{-0,07/-0,27}	6,0 ^{+0/-0,08}	1000	5,008	✓	79,05 €
ACA6-34-1000	6	28 ^{+0/-0,08}	34 ^{-0,07/-0,27}	7,0 ^{+0/-0,08}	1000	5,816	✓	93,28 €
ACA6-38-1000	8	32 ^{+0/-0,08}	38 ^{-0,07/-0,27}	6,0 ^{+0/-0,08}	1000	7,433	✓	115,68 €
ACA8-42-1000	8	36 ^{+0/-0,08}	42 ^{-0,07/-0,27}	7,0 ^{+0/-0,08}	1000	9,302	✓	150,14 €
ACA8-48-1000	8	42 ^{+0/-0,08}	48 ^{-0,07/-0,27}	8,0 ^{+0/-0,08}	1000	12,371	✓	190,46 €
ACA8-54-1000	8	46 ^{+0/-0,08}	54 ^{-0,07/-0,27}	9,0 ^{+0/-0,08}	1000	15,300	✓	277,15 €

*Depending on availability - Dimensions in mm

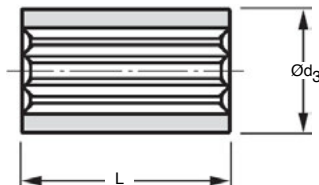
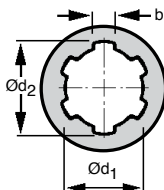
- Suitable for transmitting high torque values

- Material:

Steel C45

Accessories

- Steel or stainless steel **splined shaft**



DISCOUNTS

Qty	1+	10+	20+	30+	40+
Disc.	List	-15%	-20%	-30%	On request

Part number	Number of splines	Ød ₁	Ød ₂	b	L total length	splined length	Ød ₃	Stock*	Price each 1 to 9
BCA6-14	6	11,00	14,00	3,00	40	30	25	✓	11,80 €
BCA6-16	6	13,00	16,00	3,50	40	40	28	✓	11,10 €
BCA6-20	6	16,00	20,00	4,00	50	50	30	✓	11,10 €
BCA6-22	6	18,00	22,00	5,00	50	50	32	✓	11,10 €
BCA6-25/40	6	21,00	25,00	5,00	40	40	38	✓	13,08 €
BCA6-25	6	21,00	25,00	5,00	60	60	38	✓	13,08 €
BCA6-28	6	23,00	28,00	6,00	60	60	38	✓	13,59 €
BCA6-32	6	26,00	32,00	6,00	60	60	42	✓	13,59 €
BCA6-34	6	28,00	34,00	7,00	60	60	45	✓	15,25 €
BCA8-38	8	32,00	38,00	6,00	60	60	55	✓	22,28 €
BCA8-42	8	36,00	42,00	7,00	70	70	60	✓	26,07 €
BCA8-48	8	42,00	48,00	8,00	70	70	65	✓	32,39 €
BCA8-54	8	46,00	54,00	9,00	80	80	70	✓	43,20 €

*Depending on availability - Dimensions in mm

- Suitable for transmitting high torque values
- Conforming to DIN ISO 14-B
- Material:
Steel 303
- Extruded product

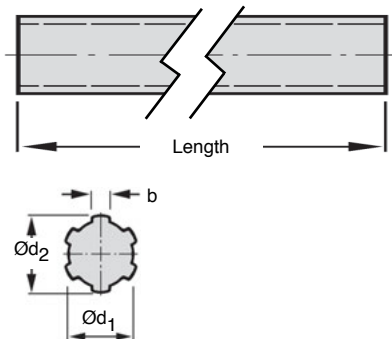
Accessories

- Splined bush:
cylindrical or flanged

Options

- Alternative lengths up to 3000mm

For hostile environments



DISCOUNTS

Qty	1+	10+	20+
Disc.	List	-7%	On request

Part number	Number of splines	Ød ₁	Ød ₂	b	Standard length (mm)	Stock*	Price each 1 to 9 for 1000mm
BUC30-001SS	6	11,00	14,00	3,00	1000	✓	115,75 €
BUC30-002SS	6	13,00	16,00	3,50	1000	✓	124,82 €
BUC30-003SS	6	16,00	20,00	4,00	1000	✓	220,74 €
BUC30-004SS	6	21,00	25,00	5,00	1000	✓	344,24 €
BUC30-005SS	6	26,00	32,00	6,00	1000	-	461,99 €
BUC30-006SS	8	32,00	38,00	6,00	1000	-	732,50 €
BUC30-007SS	8	42,00	48,00	8,00	1000	-	1 213,38 €

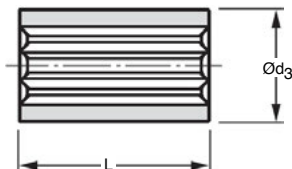
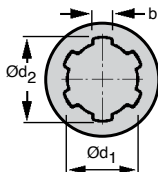
*Depending on availability - Dimensions in mm

- Suitable for transmitting high torque values
- Conforming to DIN ISO 14-A
- Materials:
Stainless steel

Accessories

- Steel or stainless steel splined shaft

For hostile environments



DISCOUNTS

Qty	1+	10+	20+
Disc.	List	-7%	On request

Part number	Number of splines	Ød ₁ ^{H7}	Ød ₂	b ^{D9}	L	Ød ₃ ^{H11}	Stock*	Price each 1 to 9
BUC00-001SS	6	11,00	14,00	3,00	40	20,00	✓	67,96 €
BUC00-002SS	6	13,00	16,00	3,50	45	28,00	✓	69,93 €
BUC00-003SS	6	16,00	20,00	4,00	45	32,00	✓	72,76 €
BUC00-004SS	6	21,00	25,00	5,00	55	40,00	✓	87,97 €
BUC00-005SS	6	26,00	32,00	6,00	60	52,00	-	100,08 €
BUC00-006SS	8	32,00	38,00	6,00	60	60,00	-	106,94 €
BUC00-007SS	8	42,00	48,00	8,00	70	65,00	-	157,55 €

*Depending on availability - Dimensions in mm

Splined locking bush



BUC

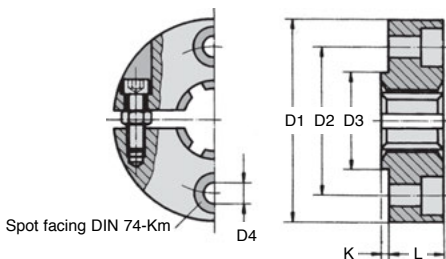
ISO 14-G

- For axial positioning/fixing
- Conforming to DIN ISO 14-G
- Material:
Stainless steel 304

Accessories

- Splined shaft in steel or stainless steel

For hostile environments



DISCOUNTS

Qty	1+	10+	20+
Disc.	List	-7%	On request

Part number	Profile G	For shaft	Number of splines	D1	D2	D3 ^{h8}	D4 ^{h13}	L	K	Stock*	Price each 1 to 9
BUC00-031SS	G6x11x14	BUC30-001SS	6	42	28	20	4,5	12	2	✓	134,42 €
BUC00-032SS	G6x13x16	BUC30-002SS	6	50	36	22	4,5	12	2	-	154,01 €
BUC00-033SS	G6x16x20	BUC30-003SS	6	52	38	25	5,5	14	2	✓	165,25 €
BUC00-034SS	G6x21x25	BUC30-004SS	6	62	48	35	6,6	14	3	✓	177,58 €
BUC00-035SS	G6x26x32	BUC30-005SS	6	70	56	40	6,6	15	3	-	On request
BUC00-036SS	G6x32x38	BUC30-006SS	8	82	65	50	9,0	18	3	-	259,51 €
BUC00-037SS	G6x42x48	BUC30-007SS	8	95	75	60	11,0	22	3	-	303,99 €

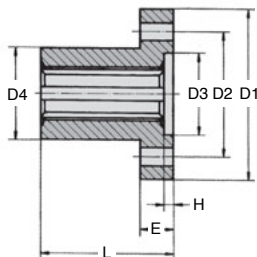
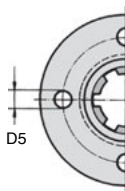
*Depending on availability - Dimensions in mm

- Suitable for transmitting high torque values
- Flange is toleranced
- Conforming to DIN ISO 14-F
- Material:
Stainless steel 304

Accessories

- Splined shaft in steel or stainless steel

For hostile environments



DISCOUNTS

Qty	1+	10+	20+
Disc.	List	-7%	On request

Part number	Profile G	For shaft of splines	Number D1	D2	D3 ^{H7}	D4 ^{h8}	D5 ^{H9}	E	H	L	Price each 1 to 9
BUC00-017SS	F6x11x14	BUC30-001SS	6	42	28	20	4,5	8	3,0	35	✓ 122,76 €
BUC00-018SS	F6x13x16	BUC30-002SS	6	50	36	22	4,5	8	3,0	40	✓ 125,40 €
BUC00-019SS	F6x16x20	BUC30-003SS	6	52	38	25	5,5	10	3,0	40	✓ 134,88 €
BUC00-020SS	F6x21x25	BUC30-004SS	6	62	48	35	6,6	10	3,5	50	✓ 171,85 €
BUC00-021SS	F6x26x32	BUC30-005SS	6	70	56	40	6,6	10	3,5	60	- 209,99 €
BUC00-022SS	F6x32x38	BUC30-006SS	8	82	65	50	9,0	12	3,5	60	- 230,45 €
BUC00-023SS	F6x42x48	BUC30-007SS	8	95	75	60	11,0	16	4,0	80	- 318,53 €

*Depending on availability - Dimensions in mm

Adjustable shaft collar

BAGR

Quick adjustment

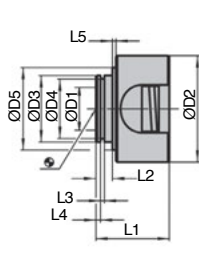
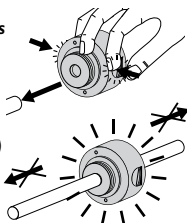
- For positioning, fixing or tightening applications on shafts
- Quick one handed installation
- In driving direction
- Self locking - vibration resistant
- Max working temperature 80 °C
- Materials :

Body : Black thermoplastic (PA 6)

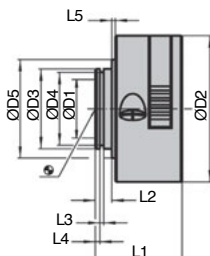
Internal components :

stainless steel

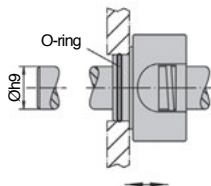
O-ring : Nitrile (NBR)



Sizes 8 - 16



Sizes 20 - 22



DISCOUNTS

Qty	1+	5+	10+	25+	50+
Disc.	List	-6%	-12%	-18%	On request

Shaft collar

Part number	ØD1	ØD2	ØD3	ØD4	ØD5	L1	L2	L3	L4	L5	Axial retaining force (N)	Weight (g)	Price each 1 to 4
BAGR-008	8	40	25	22,4	31	27,5	7	1,7	3,15	0,5	250	31	43,84 €
BAGR-010	10	40	25	22,4	31	27,5	7	1,7	3,15	0,5	250	30	43,84 €
BAGR-012	12	40	25	22,4	31	27,5	7	1,7	3,15	0,5	350	30	43,84 €
BAGR-015	15	40	25	22,4	31	27,5	7	1,7	3,15	0,5	350	28	54,81 €
BAGR-016	16	40	25	22,4	31	27,5	7	1,7	3,15	0,5	380	27	59,03 €
BAGR-020	20	55	30	27,4	37	32,5	7	1,7	2,65	0,5	320	51	61,97 €
BAGR-022	22	55	30	27,4	37	32,5	7	1,7	2,65	0,5	320	50	73,19 €

O-ring

Part number	Ød	Used with size	Weight (g)	Price each 1 to 4
BAGR-J-8/16	22x1,5	8 - 16	0,17	12,78 €
BAGR-J-20/22	27x1,5	20 - 22	0,20	15,72 €

Dimensions in mm

- Cylindrical locking ring conforming to DIN705
- Secured using a set screw (DIN914)
- Materials:
Steel, natural finish
303 stainless steel, natural finish

NEW!



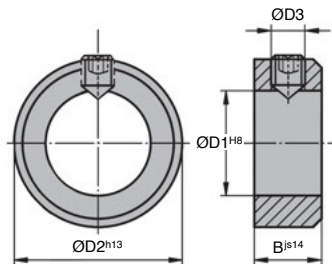
Advantages

- Allows a stop or an axial block to be quickly added to a shaft

Info

- Alternative bores available

Lowest price available!



DISCOUNTS

Qty	1+	5+	10+	25+	50+
Disc	List	-6%	-12%	-18%	On request

Part number	Steel	S/steel	ØD1	B	ØD2	ØD3	Weight (kg)	Price each 1 to 4
								Steel S/steel
BAG0-006	BAG0-006/SS	6	8	12	M4x5	0,005	0,78 €	1,87 €
BAG0-008	BAG0-008/SS	8	8	16	M4x6	0,009	0,86 €	2,25 €
BAG0-010	BAG0-010/SS	10	10	20	M5x8	0,018	1,14 €	2,74 €
BAG0-012	BAG0-012/SS	12	12	22	M6x8	0,025	1,27 €	3,61 €
BAG0-015	BAG0-015/SS	15	12	25	M6x8	0,03	1,41 €	4,10 €
BAG0-016	BAG0-016/SS	16	12	28	M6x8	0,039	1,49 €	5,77 €
BAG0-020	BAG0-020/SS	20	14	32	M6x8	0,054	1,90 €	7,50 €
BAG0-025	BAG0-025/SS	25	16	40	M8x10	0,096	2,88 €	12,40 €
BAG0-030	BAG0-030/SS	30	16	45	M8x10	0,111	3,78 €	14,58 €
BAG0-035	BAG0-035/SS	35	16	56	M8x12	0,189	5,11 €	23,22 €
BAG0-040	BAG0-040/SS	40	18	63	M10x16	0,263	7,45 €	30,70 €
BAG0-050	BAG0-050/SS	50	18	80	M10x16	0,433	11,14 €	44,98 €

Dimensions in mm

Clamping collar



BAP

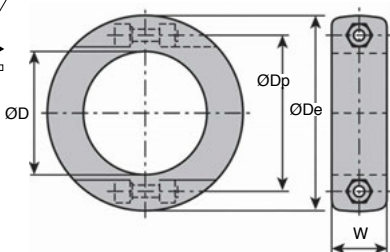
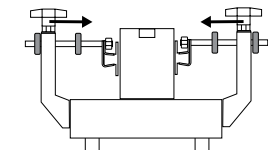
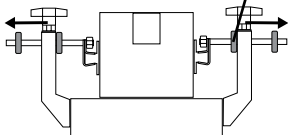
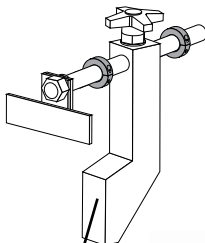
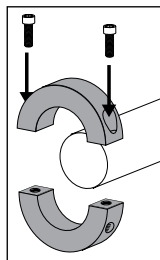
Ø10 to Ø20

- 2 part clamping collar

- Materials:

Body: reinforced polyamide

Screws: stainless steel 304



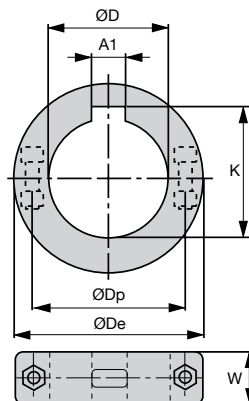
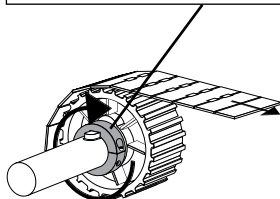
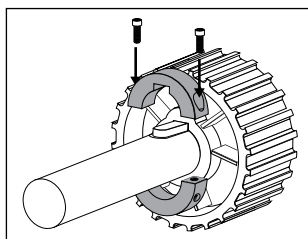
DISCOUNTS

Qty	1+	40+	100+	200+	300+
Disc.	List	-5%	-10%	-15%	On request

Part number	ØD	ØDe	ØDp	W	Weight (kg)	Stock*	Price each 1 to 39
BAP-10	10	30	20	12	0,01	✓	3,15 €
BAP-12	12	30	20	12	0,01	✓	3,15 €
BAP-14	14	30	20	12	0,01	✓	3,15 €
BAP-15	15	39	27	14	0,02	✓	3,15 €
BAP-16	16	39	27	14	0,02	✓	3,15 €
BAP-18	18	39	27	14	0,02	✓	3,15 €
BAP-20	20	40	29	14	0,02	✓	3,15 €

*Depending on availability - Dimensions in mm

- 2 part locking collar
- Smooth or grooved bore
- Materials:
Body: reinforced polyamide
Screws: stainless steel 304



DISCOUNTS

Qty	1+	40+	100+	200+	300+
Disc.	List	-5%	-10%	-15%	On request

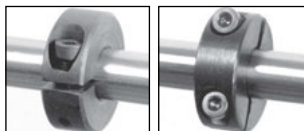
Part number		ØD	A1	ØDe	ØDp	W	K	Weight (kg)	Stock*	Price each. 1 à 39	
smooth	grooved									smooth	grooved
BAP-25	BAP-25K	25	8	45	35	14	28,3	0,02	✓	3,15 €	5,28 €
BAP-30	BAP-30K	30	8	55	45	16	33,3	0,03	✓	3,74 €	5,80 €
BAP-35	BAP-35K	35	10	60	47	16	38,3	0,03	✓	4,04 €	6,10 €
BAP-40	BAP-40K	40	12	64	51	18	43,3	0,04	✓	4,04 €	6,10 €

*Subject to available stocks - Dimensions in mm

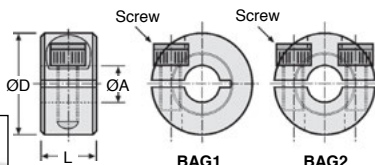
BAG1 BAG2

Single or two part assembly

- Solid fixing onto any type of shaft
- Do not separate the two pieces
- Materials:
Clamp: blackened steel
(natural, blackened or chromed steel depending of arrivage)
Screw: steel alloy
- 2-part clamps offer a 20% stronger fixing
- Dimensions ØD and L are given as an indication only and are subject to change.



Typical application



DISCOUNTS

Qty	1+	5+	10+	25+	50+
Disc	List	-6%	-12%	-18%	On request

Part number		ØA	ØD	L	Screw	Stock*	Stock*	Price each 1 to 4	
1 part	2 parts					1 part	2 parts	1 part	2 parts
BAG1-004	BAG2-004	4	16	9	M3 x 8	-	-	3,89 €	6,67 €
BAG1-005	BAG2-005	5	16	9	M3 x 8	✓	✓	3,89 €	6,67 €
BAG1-006	BAG2-006	6	16	9	M3 x 8	✓	✓	3,89 €	6,67 €
BAG1-008	BAG2-008	8	18	9	M3 x 8	✓	✓	3,89 €	6,67 €
BAG1-010	BAG2-010	10	24	9	M3 x 10	✓	✓	4,41 €	7,40 €
BAG1-012	BAG2-012	12	28	11	M4 x 12	✓	✓	4,89 €	7,75 €
BAG1-015	BAG2-015	15	34	13	M5 x 16	✓	✓	5,83 €	9,17 €
BAG1-016	BAG2-016	16	34	13	M5 x 16	✓	✓	5,83 €	9,17 €
BAG1-018	BAG2-018	18	36	13	M5 x 16	-	✓	6,51 €	9,88 €
BAG1-020	BAG2-020	20	40	15	M6 x 16	✓	✓	7,40 €	10,59 €
BAG1-025	BAG2-025	25	45	15	M6 x 16	✓	✓	8,00 €	11,64 €
BAG1-030	BAG2-030	30	54	15	M6 x 18	✓	✓	10,12 €	13,22 €
BAG1-035	BAG2-035	35	57	15	M6 x 18	✓	✓	10,96 €	14,62 €
BAG1-040	BAG2-040	40	60	15	M6 x 18	✓	✓	11,64 €	15,61 €
BAG1-050	BAG2-050	50	78	19	M8 x 25	✓	✓	24,67 €	27,96 €
BAG1-055	BAG2-055	55	90	16	M8 x 20	-	-	18,07 €	21,43 €
BAG1-060	BAG2-060	60	100	16	M8 x 20	-	✓	21,38 €	24,59 €
BAG1-070	BAG2-070	70	110	20	M10 x 25	-	-	24,41 €	28,21 €
BAG1-075	BAG2-075	75	125	20	M10 x 25	-	-	30,67 €	34,60 €
BAG1-080	BAG2-080	80	125	20	M10 x 25	-	-	30,12 €	33,91 €

*Depending on availability - Dimensions in mm

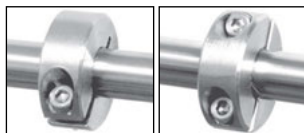
Single or two part assembly

BAG1ss
BAG2ss

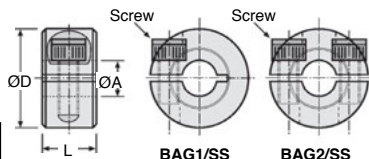
- **Solid fixing onto any type of shaft**
- Do not separate the two pieces
- Materials:
Clamp + screw: stainless steel
Screw: steel alloy
- 2-part clamps offer a 20% stronger fixing
- Dimensions ØD and L are given as an indication only and are subject to change



stainless steel



Typical application



DISCOUNTS

Qty	1+	5+	10+	25+	50+
Disc	List	-6%	-12%	-18%	On request

Part number		ØA	ØD	L	Screw	Stock*	Stock*	Price each 1 to 4	
1 part	2 parts					1 part	2 parts	1 part	2 parts
BAG1-004/SS	BAG2-004/SS	4	16	9	M3 x 8	✓	✓	8,19 €	10,47 €
BAG1-005/SS	BAG2-005/SS	5	16	9	M3 x 8	✓	✓	8,19 €	10,47 €
BAG1-006/SS	BAG2-006/SS	6	16	9	M3 x 8	✓	✓	8,19 €	10,47 €
BAG1-008/SS	BAG2-008/SS	8	18	9	M3 x 8	✓	✓	9,11 €	10,67 €
BAG1-010/SS	BAG2-010/SS	10	24	9	M3 x 10	✓	✓	11,27 €	13,31 €
BAG1-012/SS	BAG2-012/SS	12	28	11	M4 x 12	✓	✓	11,64 €	13,81 €
BAG1-015/SS	BAG2-015/SS	15	34	13	M5 x 16	✓	✓	13,93 €	16,92 €
BAG1-016/SS	BAG2-016/SS	16	34	13	M5 x 16	✓	✓	13,93 €	16,92 €
BAG1-018/SS	BAG2-018/SS	18	36	13	M5 x 16	✓	✓	15,92 €	19,01 €
BAG1-020/SS	BAG2-020/SS	20	40	15	M6 x 16	✓	✓	19,40 €	20,24 €
BAG1-025/SS	BAG2-025/SS	25	45	15	M6 x 16	✓	✓	21,44 €	23,01 €
BAG1-030/SS	BAG2-030/SS	30	54	15	M6 x 18	✓	✓	24,76 €	27,59 €
BAG1-040/SS	BAG2-040/SS	40	60	15	M6 x 18	✓	✓	30,93 €	38,38 €
BAG1-050/SS	BAG2-050/SS	50	78	19	M8 x 25	✓	✓	58,29 €	84,96 €
BAG1-055/SS	BAG2-055/SS	55	90	16	M8 x 20	-	-	84,02 €	88,99 €
BAG1-060/SS	BAG2-060/SS	60	100	16	M8 x 20	-	✓	96,82 €	101,91 €
BAG1-070/SS	BAG2-070/SS	70	110	20	M10 x 25	-	-	107,85 €	113,61 €
BAG1-075/SS	BAG2-075/SS	75	125	20	M10 x 25	-	-	138,32 €	144,27 €
BAG1-080/SS	BAG2-080/SS	80	125	20	M10 x 25	-	-	131,65 €	137,52 €

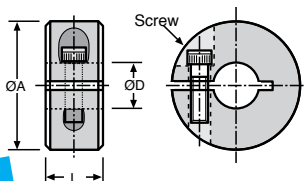
*Depending on availability - Dimensions in mm

Stainless steel or steel clamp ring **Ste Sta Stock**

CC

Single piece assembly

- Shaft end stop clamp



Wide range
of bores

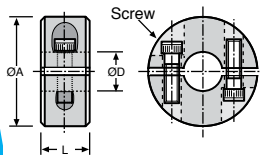
DISCOUNTS

Qty	1+	6+	20+	40+
Disc.	List	-15%	-20%	On request

Part number	ØA	L	Screw	Materials	Bore-size ØD	Stock*	Price each 1 to 5
CC3-3	16	5	M3	Stainless steel 303	3	-	52,04 €
CC3-4	16	5	M3	Stainless steel 303	4	-	52,04 €
CC3-5	16	5	M3	Stainless steel 303	5	-	52,04 €
CC3-6	16	5	M3	Stainless steel 303	6	✓	52,04 €
CC5-5	22	5	M3	Stainless steel 303	5	-	59,78 €
CC5-6	22	5	M3	Stainless steel 303	6	-	59,78 €
CC5-7	22	5	M3	Stainless steel 303	7	-	59,78 €
CC5-8	22	5	M3	Stainless steel 303	8	✓	59,78 €
CC8-8	25	8	M4	Stainless steel 303	8	-	66,00 €
CC8-9	25	8	M4	Stainless steel 303	9	-	66,00 €
CC8-10	25	8	M4	Stainless steel 303	10	✓	66,00 €
CC10-10	30	8	M4	Stainless steel 303	10	-	66,00 €
CC10-11	30	8	M4	Stainless steel 303	11	-	66,00 €
CC10-12	30	8	M4	Stainless steel 303	12	✓	66,00 €
CC10-13	30	8	M4	Stainless steel 303	13	-	66,00 €
CC12-12	32	10	M5	Stainless steel 303	12	✓	74,22 €
CC12-13	32	10	M5	Stainless steel 303	13	-	74,22 €
CC12-14	32	10	M5	Stainless steel 303	14	-	74,22 €
CC12-15	32	10	M5	Stainless steel 303	15	✓	74,22 €
CC15-15	35	10	M5	Stainless steel 303	15	-	78,97 €
CC15-16	35	10	M5	Stainless steel 303	16	-	78,97 €
CC15-17	35	10	M5	Stainless steel 303	17	-	78,97 €
CC15-18	35	10	M5	Stainless steel 303	18	-	On request
CC20-19	38	10	M5	Stainless steel 303	19	-	85,93 €
CC20-20	38	10	M5	Stainless steel 303	20	✓	85,93 €
CC20-22	38	10	M5	Stainless steel 303	22	-	85,93 €
CC20-23	38	10	M5	Stainless steel 303	23	-	85,93 €
CC25	48	15	M6	Steel	25	-	105,76 €
CC30	55	15	M6	Steel	30	-	123,24 €
CC35	60	15	M6	Steel	35	-	150,63 €
CC40	65	15	M6	Steel	40	-	174,33 €

*Depending on availability - Dimensions in mm

- Shaft clamp ring for applications access is restricted



steel or stainless steel



Wide range of bores

DISCOUNTS

Qty	1+	6+	20+	40+
Disc.	List	-15%	-20%	On request

Part number	ØA	L	Screw	Materials	Bore-size ØD	Stock*	Price each 1 to 5
CT3-3	16	5	M3	Stainless steel 303	3	-	52,83 €
CT3-4	16	5	M3	Stainless steel 303	4	-	26,54 €
CT3-5	16	5	M3	Stainless steel 303	5	-	26,54 €
CT3-6	16	5	M3	Stainless steel 303	6	-	26,22 €
CT5-5	22	5	M3	Stainless steel 303	5	-	30,47 €
CT5-6	22	5	M3	Stainless steel 303	6	-	30,47 €
CT5-7	22	5	M3	Stainless steel 303	7	-	30,47 €
CT5-8	22	5	M3	Stainless steel 303	8	-	30,09 €
CT8-8	25	8	M4	Stainless steel 303	8	-	33,69 €
CT8-9	25	8	M4	Stainless steel 303	9	-	33,69 €
CT8-10	25	8	M4	Stainless steel 303	10	✓	33,69 €
CT10-10	30	8	M4	Stainless steel 303	10	-	33,69 €
CT10-11	30	8	M4	Stainless steel 303	11	-	33,69 €
CT10-12	30	8	M4	Stainless steel 303	12	✓	33,69 €
CT10-13	30	8	M4	Stainless steel 303	13	-	33,69 €
CT12-12	32	10	M5	Stainless steel 303	12	-	37,87 €
CT12-13	32	10	M5	Stainless steel 303	13	-	37,87 €
CT12-14	32	10	M5	Stainless steel 303	14	✓	37,87 €
CT12-15	32	10	M5	Stainless steel 303	15	-	37,87 €
CT15-15	38	10	M5	Stainless steel 303	15	-	40,32 €
CT15-16	38	10	M5	Stainless steel 303	16	-	40,32 €
CT15-17	38	10	M5	Stainless steel 303	17	-	40,32 €
CT15-18	38	10	M5	Stainless steel 303	18	-	40,32 €
CT17-17	40	10	M5	Stainless steel 303	17	-	43,87 €
CT17-18	40	10	M5	Stainless steel 303	18	-	43,87 €
CT17-19	40	10	M5	Stainless steel 303	19	-	43,87 €
CT17-20	40	10	M5	Stainless steel 303	20	-	43,87 €
CT20-19	43	10	M5	Stainless steel 303	19	-	48,74 €
CT20-20	43	10	M5	Stainless steel 303	20	✓	48,74 €
CT20-22	43	10	M5	Stainless steel 303	22	-	48,74 €
CT20-23	43	10	M5	Stainless steel 303	23	-	48,74 €
CT25-25	48	15	M6	Steel	25	-	62,13 €
CT30-30	55	15	M6	Steel	30	-	75,38 €
CT35-35	60	15	M6	Steel	35	-	88,21 €
CT40-40	65	15	M6	Steel	40	--	101,44 €

*Depending on availability - Dimensions in mm

Hub clamp

MDS

Shaft positioning

- For positioning or holding a shaft

- Material :

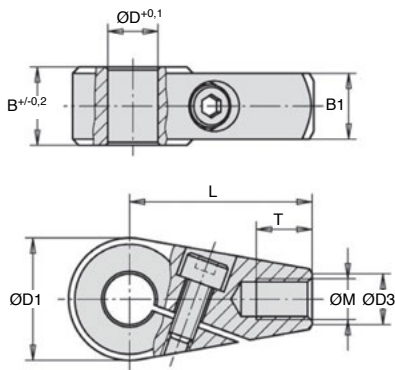
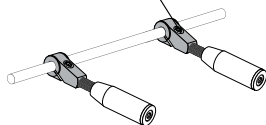
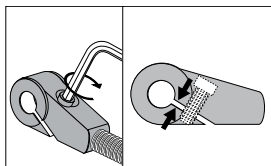
Blackened steel 1.1206

Application

Hub clamp can be quickly and easily attached to shafts, adjusted to the proper operating position and then locked.

Assembly

For proper torque transfer, an h11 shaft tolerance is recommended



DISCOUNTS

Qty	1+	5+	10+	25+	50+
Disc.	List	-6%	-12%	-18%	On request

Part number	ØD	ØD1	M	ØD3	B	B1	L	T	Approx weight	Price each 1 to 4
MDS10-36	10	24	M8	10	15,5	13	36	11	0,078	20,45 €
MDS12-36	12	24	M8	10	15,5	13	36	11	0,074	20,45 €
MDS12-41	12	28	M10	12	17,5	15	41	14	0,118	23,16 €
MDS14-41	14	28	M10	12	17,5	15	41	14	0,113	23,16 €
MDS14-45	14	32	M12	14	19,5	17	45	16	0,169	28,62 €
MDS16-45	16	32	M12	14	19,5	17	45	16	0,162	28,62 €

Dimensions in mm



Locking elements

Technical information

Principle of operation

These parts operate on the basis of an interference fit between two conical rings crewed together. The outer ring expands and exerts a pressure on the part being held whilst the inner ring exerts a pressure on a shaft.

Assembly

Carefully clean all the components parts and then apply a light coating of oil to the contact surfaces. Place one part in the hub and insert the shaft, then tighten the screws in a uniform fashion until the prescribed torque is reached. The Torque (T) and Axial Force (F_{ax}) figures in the tables have been calculated for an oiled assembly.

Note:

Do not use Molybdenum Bisulphate based oils or greases as these can significantly reduce the frictional torque.

Dismantling

Unscrew the screws, inserting them in the extraction holes and increasing the pressure in a gradual and uniform manner until the cones are freed. When re-using the pieces, ensure that the screws and threaded holes are oiled.

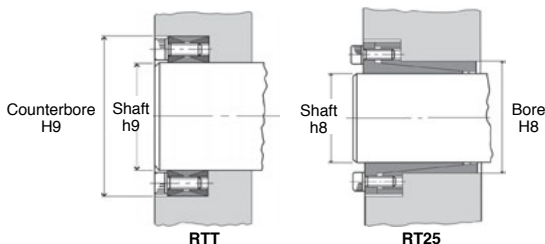
Tolerance

A good machine-finish is sufficient.

Roughness

Maximum admissible roughness: Rt max 16µm

Recommended assembly tolerances



Self-centering hexagonal locking assembly

SUP

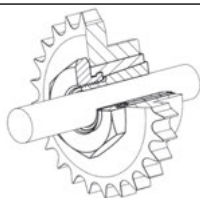
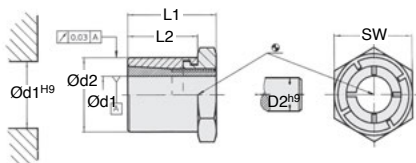
For small diameters

- Backlash free, self centring shaft-gear hub.
- Single part to insert
- Corrosion resistant
- Materials:
 - Internal ring: blackened steel
 - External ring: zinc plated steel
 - Nut: nickel plated steel

Info.

- TA: tightening torque of nut
- M: transmissible rotational movement
- FA: transmissible axial load
- PW: shaft surface pressure
- PN: hub surface pressure

Reduces
assembly time



DISCOUNTS

Qty	1+	6+	20+
Disc.	List	-5%	On request

Part number	Ød1	Ød2	L1	L2	SW	TA max. (Nm)	M max. (Nm)	FA max. (kN)	PW max. (N/mm ²)	PN max. (N/mm ²)	Price each 1 to 5
SUP-005	5	14	19	15	14	9,9	10,1	4,0	264	96	✓ 35,50 €
SUP-006	6	14	19	15	14	9,9	12,1	4,0	220	96	✓ 35,50 €
SUP-008	8	16	22	17	16	16,9	23,4	5,8	179	91	✓ 37,15 €
SUP-010	10	20	24	19	22	34,9	48,6	9,7	221	115	✓ 39,29 €
SUP-012	12	22	24	19	22	43,8	65,3	10,9	206	117	✓ 42,83 €
SUP-014	14	26	28	22	27	65,0	93,0	13,3	178	99	✓ 46,47 €
SUP-015	15	26	28	22	27	65,0	99,0	13,3	166	99	✓ 46,47 €
SUP-016	16	26	28	22	27	65,0	106,0	13,3	156	99	✓ 46,47 €
SUP-018	18	35	36	27	36	161,0	223,0	24,8	224	125	- 50,99 €
SUP-020	20	35	36	27	36	161,0	248,0	24,8	201	125	✓ 50,99 €
SUP-022	22	42	41	30	46	250,0	349,0	31,8	197	110	✓ 55,91 €
SUP-024	24	42	41	30	46	250,0	381,0	31,8	180	110	✓ 55,91 €
SUP-025	25	42	41	30	46	250,0	397,0	31,8	173	110	✓ 55,91 €
SUP-030	30	47	44	33	50	355,0	605,0	40,4	162	110	✓ 65,55 €
SUP-032	32	55	51	38	55	490,0	764,0	47,8	166	102	- 78,36 €
SUP-035	35	55	51	38	55	490,0	836,0	47,8	151	102	✓ 78,36 €

*Depending on availability - Dimensions in mm

- Locking assembly for small shafts

- Very good concentricity

- Material:

RoHS compliant finish

Info.

- Ma: Tightening torque

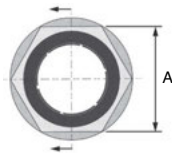
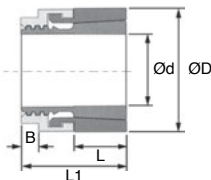
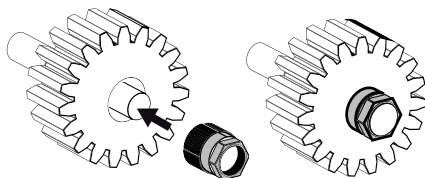
- Mt: Transmissible torque

- Th: Transmissible force

- Ph: Hub surface pressure

- Dn: Minimum hub diameter

- Tolerance for shaft and bore +/- 0.04mm
(for all sizes)



DISCOUNTS

Qty	1+	6+	20+
Disc.	List	-5%	On request

Part number	Ød	ØD	L	L1	A	B	Ma (Nm)	Mt (Nm)	Th (kN)	Ph (N/mm²)	Dn	Stock*	Price each 1 to 5
TTQ5-16-MINI	5	16,0	9,5	19,1	13,0	3,2	14,1	12	3,2	36	17,8	-	41,32 €
TTQ6-16-MINI	6	16,0	9,5	19,1	13,0	3,2	14,1	16	3,4	36	17,8	✓	41,32 €
TTQ7-19-MINI	7	19,0	11,1	22,2	15,9	3,2	17,0	20	3,5	26	20,7	-	41,32 €
TTQ8-19-MINI	8	19,0	11,1	22,2	15,9	3,2	17,0	23	4,0	26	20,7	✓	43,14 €
TTQ9-19-MINI	9	19,0	11,1	22,2	15,9	3,2	17,0	26	4,1	26	20,7	✓	43,14 €
TTQ10-22-MINI	10	22,5	12,7	25,7	19,0	4,8	19,8	30	4,2	19	23,6	✓	47,62 €
TTQ11-22-MINI	11	22,5	12,7	25,7	19,0	4,8	19,8	34	4,2	19	23,6	✓	47,62 €
TTQ12-22-MINI	12	22,5	12,7	25,7	19,0	4,8	19,8	39	4,3	19	23,6	✓	47,62 €
TTQ15-25-MINI	15	25,5	15,9	28,6	22,0	4,8	22,6	45	4,4	12	26,4	✓	49,42 €
TTQ16-25-MINI	16	25,5	15,9	28,6	22,0	4,8	22,6	50	4,5	12	26,4	✓	49,42 €
TTQ17-32-MINI	17	32,0	19,1	34,9	27,0	6,4	80,0	170	8,9	55	38,0	-	49,42 €

*Depending on availability - Dimensions in mm

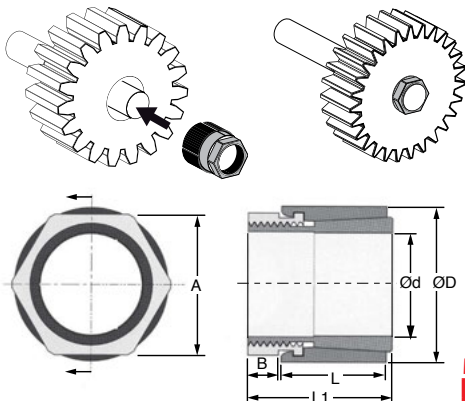
Self centering hexagonal locking assembly

TTQ Suitable for **medium** torque applications

- Compact locking assembly
- Very good concentricity

Info.

- Ma: Tightening torque
- Mt: Transmissible torque
- Th: Transmissible force
- Ph: Hub surface pressure
- Dn: Minimum hub diameter
- Tolerance for shaft and bore +/- 0.08mm (for all sizes)



DISCOUNTS

Qty	1+	6+	20+
Disc.	List	-5%	On request

Part number	Ød	ØD	L	L1	A	B	Ma (Nm)	Mt (Nm)	Th (kN)	Ph (N/mm²)	Dn	Stock*	Price each 1 to 5
TTQ17-32-OE	17	32	22	30	30	6	110	208	25	92	43,5	✓	33,16 €
TTQ18-32-OE	18	32	22	30	30	6	110	221	25	92	43,5	✓	38,46 €
TTQ19-32-OE	19	32	22	30	30	4	110	233	25	92	43,5	✓	38,46 €
TTQ20-35-OE	20	35	24	33	32	7	150	298	30	94	47,9	✓	45,97 €
TTQ22-35-OE	22	35	24	33	32	7	150	328	30	94	47,9	✓	45,97 €
TTQ24-38-OE	24	38	25	35	36	8	185	398	33	93	51,7	✓	45,97 €
TTQ25-38-OE	25	38	25	35	36	8	185	415	33	93	51,7	✓	45,97 €
TTQ28-45-OE	28	45	29	41	46	11	240	505	36	73	57,3	-	59,54 €
TTQ30-45-OE	30	45	29	41	46	11	240	541	36	73	57,3	✓	59,54 €
TTQ32-50-OE	32	50	30	44	50	12	265	590	37	65	61,9	-	59,54 €
TTQ35-50-OE	35	50	30	44	50	12	265	645	37	65	61,9	✓	59,54 €

*Depending on availability - Dimensions in mm



Self centering hexagonal locking assembly

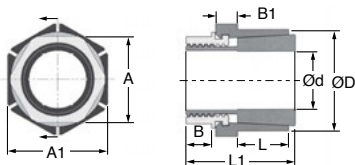
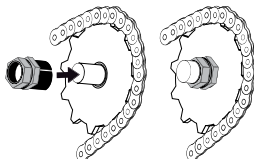
Suitable for **very high** torque applications

TTQ

- **Compact locking assembly**
- Very good concentricity
- Material:
RoHS compliant finish

Info.

- Ma: Tightening torque
- Mt: Transmissible torque
- Th: Transmissible force
- Ph: Hub surface pressure
- Dn: Minimum hub diameter
- Tolerance for shaft and bore $\pm 0.08\text{mm}$ (for all sizes).



DISCOUNTS

Qty	1+	6+	20+
Disc.	List	-5%	On request

Part number	Ød	ØD	L	L1	A	A1	B	B1	Ma (Nm)	Mt (Nm)	Th (kN)	Ph (N/mm²)	Dn	Price each 1 to 5
TTQ15-38-GT	15	38,0	19,1	38,1	31,8	38,1	8,0	8,9	136	180	13,4	76	48,7	58,36 €
TTQ16-38-GT	16	38,0	19,1	38,1	31,8	38,1	8,0	8,9	136	198	15,0	76	48,7	58,36 €
TTQ17-38-GT	17	38,0	19,1	38,1	31,8	38,1	8,0	8,9	136	220	17,0	76	48,7	58,36 €
TTQ18-38-GT	18	38,0	19,1	38,1	31,8	38,1	8,0	8,9	136	265	18,1	76	48,7	58,36 €
TTQ19-38-GT	19	38,0	19,1	38,1	31,8	38,1	8,0	8,9	136	282	19,9	76	48,7	58,36 €
TTQ20-45-GT	20	45,0	22,2	47,6	38,0	44,5	11,1	9,5	170	290	21,0	65	54,8	69,33 €
TTQ22-45-GT	22	45,0	22,2	47,6	38,0	44,5	11,1	9,5	170	315	24,1	65	54,8	69,33 €
TTQ24-45-GT	24	45,0	22,2	47,6	38,0	44,5	11,1	9,5	170	380	27,2	65	54,8	69,33 €
TTQ25-45-GT	25	45,0	22,2	47,6	38,0	44,5	11,1	9,5	170	390	28,7	65	54,8	69,33 €
TTQ28-51-GT	28	51,0	25,4	57,2	46,0	50,8	12,7	14,3	225	495	32,6	54	60,5	69,33 €
TTQ30-51-GT	30	51,0	25,4	57,2	46,0	50,8	12,7	14,3	225	580	35,4	54	60,5	90,31 €
TTQ32-51-GT	32	51,0	25,4	57,2	46,0	50,8	12,7	14,3	225	680	38,2	54	60,5	90,31 €
TTQ34-60-GT	34	60,5	38,1	69,9	50,0	60,3	14,3	12,7	260	710	41,0	45	69,8	110,39 €
TTQ35-60-GT	35	60,5	38,1	69,9	50,0	60,3	14,3	12,7	260	725	42,4	45	69,8	110,39 €
TTQ36-60-GT	36	60,5	38,1	69,9	50,0	60,3	14,3	12,7	260	750	43,8	45	69,8	110,39 €
TTQ38-60-GT	38	60,5	38,1	69,9	50,0	60,3	14,3	12,7	260	790	46,6	45	69,8	110,39 €
TTQ40-67-GT	40	67,0	42,9	79,4	60,0	66,7	14,3	17,4	316	900	49,7	38	75,4	137,78 €
TTQ42-67-GT	42	67,0	42,9	79,4	60,0	66,7	14,3	17,4	316	1000	53,3	38	75,4	137,78 €
TTQ45-73-GT	45	73,0	50,8	90,5	65,0	73,0	15,9	19,1	554	1170	57,5	29	80,2	171,54 €
TTQ48-73-GT	48	73,0	50,8	90,5	65,0	73,0	15,9	19,1	554	1355	62,9	29	80,2	171,54 €
TTQ50-73-GT	50	73,0	50,8	90,5	65,0	73,0	15,9	19,1	554	1510	65,7	29	80,2	171,54 €
TTQ55-80-GT	55	80,0	54,0	95,3	69,9	79,4	15,9	20,7	600	1650	67,8	24	85,8	376,85 €
TTQ60-86-GT	60	86,0	57,2	98,4	75,0	85,7	17,5	19,1	635	1740	68,7	19	91,3	419,74 €
TTQ65-92-GT	65	92,0	60,3	103,2	82,0	92,1	17,5	20,7	680	1930	69,5	17	97,2	473,57 €
TTQ70-92-GT	70	92,0	60,3	103,2	82,0	92,1	17,5	20,7	680	1920	70,4	17	97,2	473,57 €
TTQ75-100-GT	75	100,0	63,5	108,0	90,0	98,4	19,1	20,7	750	2000	71,5	16	97,2	528,32 €

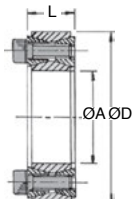
Dimensions in mm

Locking assembly



RTT Medium/high torque, not self-centering

- Inserts between the shaft and the bore
- High transmissible torque
- Contact pressure spread evenly
- Easy to assembly and dismantle
- Reduced width
- Backlash free
- No constraints due to keyway
- Increases the resistant part of the shaft
- Suitable for alternating rotational movements
- Up to 4 units can be used together
- Materials:
Body: steel
Screws: steel DIN 912 12.9

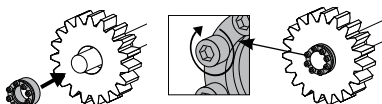


Options

- Other diameters available (up to 220mm bore)
- Stainless steel version

Info

- **P_N: hub surface pressure
- **P_W: shaft surface pressure



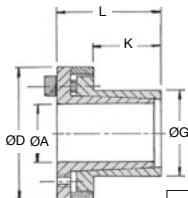
DISCOUNTS

Qty	1+	6+	20+	40+	60+	100+
Disc.	List	-10%	-15%	-20%	-25%	On request

Part number	ØA	ØD	L	H	Screw M	Tightening torque TA(Nm)	Transmissible torque T (Nm)	**P _W (N)	mm ² mm ²	(N/mm ²)	Price each 1 to 5
RTT-20-47	20	47	20	28	8xM6x18	14	270	210	90	✓	15,25 €
RTT-22-47	22	47	20	28	8xM6x18	14	300	195	90	✓	15,25 €
RTT-24-50	24	50	20	28	9xM6x18	14	360	195	95	✓	15,64 €
RTT-25-50	25	50	20	28	9xM6x18	14	380	190	85	✓	15,64 €
RTT-28-55	28	55	20	28	10xM6x18	14	500	187	96	-	17,46 €
RTT-30-55	30	55	20	28	10xM6x18	14	530	176	96	✓	17,46 €
RTT-32-60	32	60	20	28	12xM6x18	14	630	192	105	✓	19,17 €
RTT-35-60	35	60	20	28	12xM6x18	14	700	180	105	✓	19,17 €
RTT-38-65	38	65	20	28	14xM6x18	14	860	183	107	-	21,11 €
RTT-40-65	40	65	20	28	14xM6x18	14	910	180	110	✓	21,11 €
RTT-42-75	42	75	24	34	12xM8x22	35	1500	226	125	-	26,41 €
RTT-45-75	45	75	24	34	12xM8x22	35	1610	210	125	-	26,41 €
RTT-48-80	48	80	24	34	12xM8x22	35	1700	196	115	-	28,00 €
RTT-50-80	50	80	24	34	12xM8x22	35	1770	190	115	✓	28,00 €
RTT-55-85	55	85	24	34	14xM8x22	35	2270	200	130	-	30,74 €
RTT-60-90	60	90	24	34	14xM8x22	35	2470	180	120	✓	32,51 €
RTT-65-95	65	95	24	34	16xM8x22	35	3040	190	130	✓	35,39 €
RTT-70-110	70	110	28	40	14xM10x25	70	4600	210	130	-	46,85 €
RTT-75-115	75	115	28	40	14xM10x25	70	4900	195	125	-	50,99 €
RTT-80-120	80	120	28	40	14xM10x25	70	5200	180	120	-	53,61 €
RTT-85-125	85	125	28	40	16xM10x25	70	6300	195	130	-	57,04 €
RTT-90-130	90	130	28	40	16xM10x25	70	6600	180	125	-	57,26 €
RTT-95-135	95	135	28	40	18xM10x25	70	7900	195	135	-	62,99 €
RTT-100-145	100	145	33	47	14xM12x30	125	9600	195	135	-	75,16 €

*Depending on availability - Dimensions in mm

- Inserts between the shaft and the bore
- High transmissible torque
- Contact pressure spread evenly
- Easy to assembly and dismantle
- Reduced width
- Backlash free
- No constraints due to keyway
- Increases the resistant part of the shaft
- Suitable for alternating rotational movements

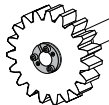


Options

- Other diameters available (up to 100mm bore)

Info

- * PN: hub surface pressure
- * Pw: shaft surface pressure



DISCOUNTS

Qty	1+	6+	10+	20+	40+	60+
Disc.	List	-20%	-30%	-40%	-50%	On request

Part number	ØA	ØG	ØD	L	Screw M	K	Tightening torque TA(Nm)	Transmissible torque T (Nm)	*Pw (N/mm²)	*PN (N/mm²)	Stock*	Price each 1 to 5
RT25-6-14	6	14	25	22,5	3xM3x10	10,0	2,2	12	190	80	✓	24,90 €
RT25-8-15	8	15	27	25,5	3xM4x12	12,0	5,0	29	205	110	✓	21,87 €
RT25-9-16	9	16	28	27,5	3xM4x12	14,0	5,0	31	150	85	✓	22,10 €
RT25-10-16	10	16	28	27,5	3xM4x12	14,0	5,0	35	140	85	✓	22,10 €
RT25-11-18	11	18	32	27,5	4xM4x12	14,0	5,0	52	170	105	✓	22,36 €
RT25-12-18	12	18	32	27,5	4xM4x12	14,0	5,0	58	150	100	✓	22,36 €
RT25-14-23	14	23	39	27,5	4xM4x12	14,0	5,0	69	140	80	✓	20,15 €
RT25-16-24	16	24	45	36,5	4xM6x12	16,0	17,0	180	148	98	✓	23,51 €
RT25-18-26	18	26	47	39,5	4xM6x18	19,0	17,0	200	180	125	✓	23,65 €
RT25-19-27	19	27	49	39,5	4xM6x18	19,0	17,0	210	170	120	✓	23,65 €
RT25-20-28	20	28	50	39,5	4xM6x18	19,0	17,0	220	160	115	✓	24,52 €
RT25-22-32	22	32	54	46,5	4xM6x18	26,0	17,0	250	115	80	✓	26,75 €
RT25-24-34	24	34	56	46,5	6xM6x18	26,0	17,0	395	146	102	-	26,79 €
RT25-25-34	25	34	56	46,5	6xM6x18	26,0	17,0	410	140	102	✓	27,38 €
RT25-28-39	28	39	61	46,5	6xM6x18	25,5	17,0	465	135	98	✓	30,37 €
RT25-30-41	30	41	62	46,5	6xM6x18	25,5	17,0	510	127	90	✓	31,08 €
RT25-32-43	32	43	65	46,5	8xM6x18	25,5	17,0	705	146	108	✓	33,84 €
RT25-35-47	35	47	69	52,5	8xM6x18	31,5	17,0	790	105	80	-	34,50 €
RT25-38-50	38	50	72	52,5	8xM6x18	31,5	17,0	860	100	76	✓	39,42 €
RT25-40-53	40	53	75	52,5	8xM6x18	31,5	17,0	900	96	72	✓	41,20 €
RT25-42-55	42	55	78	52,5	8xM6x18	31,5	17,0	940	90	70	-	45,75 €
RT25-45-59	45	59	86	71,0	8xM8x22	45,0	41,0	1840	110	85	-	62,25 €
RT25-48-62	48	62	87	71,0	8xM8x22	45,0	41,0	2000	105	80	-	66,97 €
RT25-50-65	50	65	92	71,0	8xM8x22	45,0	41,0	2100	100	75	✓	72,49 €
RT25-55-71	55	71	98	81,0	9xM8x22	55,0	41,0	2580	85	65	-	87,26 €

*Depending on availability - Dimensions in mm

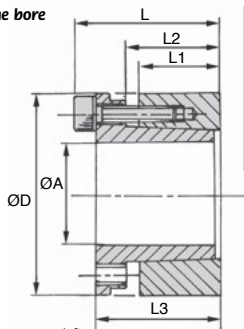
Self-centering locking assembly **Ste** ★★★

RT70

Medium/high torque

- Inserts between the shaft and the bore

- High transmissible torque
- Contact pressure spread evenly
- Easy to assembly and dismantle
- Backlash free
- No constraints due to keyway
- **Increases the resistant part of the shaft**
- Suitable for alternating rotational movements
- Materials:
Body: steel
Screws: steel DIN 912 12.9

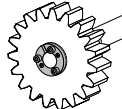
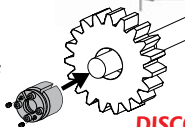


Options

- Other diameters available (up to 180mm bore)

Info.

- * PN: hub surface pressure
- * PW: shaft surface pressure



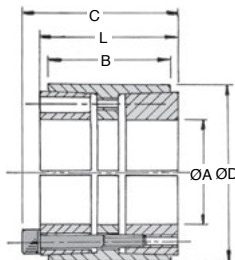
DISCOUNTS

Qty	1+	6+	20+	40+	60+	100+
Disc.	List	-10%	-15%	-20%	-25%	On request

Part number	ØA	ØD	L1	L2	L3	L	Transmissible torque (Nm)	Pw (N/mm²)	PN (N/mm²)	Screws No.	Type	Tightening torque (Nm)	Stock*	Price each 1 to 5
RT70-19-47	19	47	26	31	39	45	350	228	98	4	M6x25	17	✓	13.43 €
RT70-20-47	20	47	26	31	39	45	390	231	100	4	M6x25	17	✓	13.43 €
RT70-22-47	22	47	26	31	39	45	440	220	95	4	M6x25	17	✓	13.43 €
RT70-24-50	24	50	26	31	39	45	519	215	102	6	M6x25	17	-	14.02 €
RT70-25-50	25	50	26	31	39	45	590	230	105	6	M6x25	17	✓	14.02 €
RT70-28-55	28	55	26	31	39	45	700	220	110	6	M6x25	17	✓	15.92 €
RT70-30-55	30	55	26	31	39	45	760	200	120	6	M6x25	17	✓	15.92 €
RT70-32-60	32	60	26	31	39	45	930	230	114	8	M6x25	17	✓	17.27 €
RT70-35-60	35	60	26	31	39	45	1030	200	119	8	M6x25	17	✓	17.27 €
RT70-38-65	38	65	26	31	39	45	1240	210	124	8	M6x25	17	✓	19.62 €
RT70-40-65	40	65	26	31	39	45	1350	200	125	8	M6x25	17	✓	19.62 €
RT70-42-75	42	75	30	36	47	55	2170	236	140	6	M8x30	41	-	26.27 €
RT70-45-75	45	75	30	36	47	55	2350	236	140	6	M8x30	41	✓	26.27 €
RT70-48-80	48	80	30	36	47	55	2510	218	135	6	M8x30	41	✓	29.36 €
RT70-50-80	50	80	30	36	47	55	2580	218	135	6	M8x30	41	✓	29.36 €
RT70-55-85	55	85	30	36	47	55	3200	223	145	8	M8x30	41	✓	33.52 €
RT70-60-90	60	90	30	36	47	55	3380	198	157	8	M8x30	41	✓	35.97 €
RT70-65-95	65	95	30	36	47	55	4160	213	140	8	M8x30	41	-	38.70 €
RT70-70-110	70	110	40	46	57	67	6840	225	143	8	M10x35	83	✓	59.06 €

*Depending on availability - Dimensions in mm

- Inserts between the shaft and the bore
- High transmissible torque
- Contact pressure spread evenly
- Easy to assembly and dismantle
- Reduced width
- Backlash free
- No constraints due to keyway
- **Increases the resistant part of the shaft**
- Suitable for alternating rotational movements
- Up to 3 units can be used together
- Material:
Steel

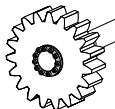
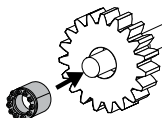


Options

- Other diameters available (up to 300mm bore)

Info.

- *PN: hub surface pressure
- *PW: shaft surface pressure



DISCOUNTS

Qty	1+	6+	20+	40+	60+	100+
Disc.	List	-10%	-15%	-20%	-25%	On request

Part number	ØA	ØD	B	L	C	Screw M	Tightening torque TA (Nm)	Transmissible torque T (Nm)	*Pw (N/mm²)	*PN (N/mm²)	Price each 1 to 5
RTL450-25-55	25	55	32	40	46	6xM6x35	17	295	295	134	✓ 26,97 €
RTL450-30-55	30	55	32	40	46	6xM6x35	17	246	246	134	✓ 27,72 €
RTL450-35-60	35	60	44	54	60	7xM6x45	17	174	174	101	✓ 33,72 €
RTL450-38-75	38	75	44	54	62	7xM8x50	41	296	296	150	- 42,08 €
RTL450-40-75	40	75	44	54	62	7xM8x50	41	281	281	150	✓ 42,08 €
RTL450-42-75	42	75	44	54	62	7xM8x50	41	268	268	150	- 45,51 €
RTL450-45-75	45	75	44	54	62	7xM8x50	41	250	250	150	- 45,51 €
RTL450-48-80	48	80	44	54	62	8xM8x50	41	207	207	124	✓ 52,48 €
RTL450-50-80	50	80	56	64	72	8xM8x50	41	200	200	98	✓ 52,48 €
RTL450-55-85	55	85	56	64	72	9xM8x50	41	205	205	104	✓ 59,44 €
RTL450-60-90	60	90	56	64	72	10xM8x50	41	202	202	106	✓ 63,93 €
RTL450-65-95	65	95	56	64	72	10xM8x50	41	187	187	100	✓ 70,17 €
RTL450-70-110	70	110	70	78	88	10xM10x60	83	223	223	114	✓ 95,72 €
RTL450-75-115	75	115	70	78	88	10xM10x60	83	223	223	114	✓ 103,71 €
RTL450-80-120	80	120	70	78	88	11xM10x60	83	215	215	115	✓ 110,42 €
RTL450-85-125	85	125	70	78	88	12xM10x60	83	215	215	115	- 118,38 €
RTL450-90-130	90	130	70	78	88	12xM10x60	83	208	208	115	- 122,02 €
RTL450-95-135	95	135	70	78	88	12xM10x60	83	208	208	115	- 138,00 €
RTL450-100-145	100	145	90	100	112	11xM12x80	145	200	200	107	- 185,35 €

*Depending on availability - Dimensions in mm

Mechanical locking assembly

ETP-MINI



ETP-MINI®

- **Mechanical locking assembly**
- Small size
- Quick and easy mounting
- Good concentricity (0.02mm)
- Stainless steel version available for food and pharmaceutical industries
- Materials:
 - Steel or stainless steel (1.4565)
- Working temp: -30/+85°C

Applications

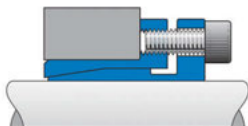
- Machine tools, presses, injection machines requiring frequent adjustment

Info

- When the screws are tightened with a torque T_t :
 - T = transmissible torque (axial force = 0)
 - FA = Transmissible axial force (torque = 0)
 - FR = Transmissible radial force
- Max authorised bending torque is 5% of transmissible torque T
- T_t = Recommended tightening torque for screws.
Increasing the torque will not increase the pressure
- * $\varnothing D2$ is measured before assembly



steel or stainless steel

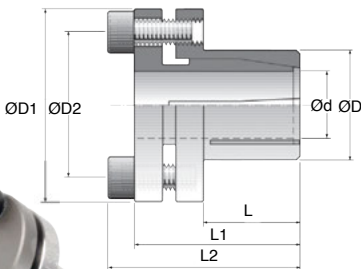


Part number	Transmissible Torque T (Nm)	Axial force FA (kN)	Polar moment of inertia (kgm ² · 10 ⁻³)	Weight (kg)
Steel version				
ETP-MINI-6-14	7	2,5	2,1	0,03
ETP-MINI-1/4-14	8	2,5	2,1	0,03
ETP-MINI-8-15	20	5,0	3,3	0,04
ETP-MINI-9-16	28	6,5	4,4	0,05
ETP-MINI-3/8-16	30	6,5	4,4	0,05
ETP-MINI-10-16	34	6,5	4,3	0,05
ETP-MINI-11-18	36	6,5	6,2	0,06
ETP-MINI-12-18	40	6,5	6,1	0,06
ETP-MINI-1/2-18	42	6,5	6,0	0,06
ETP-MINI-14-22	66	9,5	13,2	0,08
Stainless steel version				
ETP-MINI-6-14/SS	5	1,7	2,1	0,03
ETP-MINI-8-15/SS	17	4,4	3,3	0,04
ETP-MINI-9-16/SS	20	4,4	4,4	0,05
ETP-MINI-10-16/SS	23	4,4	4,3	0,05
ETP-MINI-11-18/SS	25	4,4	6,2	0,06
ETP-MINI-12-18/SS	27	4,4	6,1	0,06
ETP-MINI-14-22/SS	48	6,5	13,2	0,08

Dimensions in mm

Assembly

- All keyways **MUST** be refilled
- **Assembly tolerances:**
Shaft h8 (h7 for size 15 only)
Hub H7
- Please ensure that threads are lubricated each time parts are assembled
We recommend use of Omega 58



For smaller parts

DISCOUNTS

Qty	1+	9+
Disc.	List	On request

Part number	Ød	ØD	ØD2	ØD2*	L	L1	L2	Screws DIN912			Price each 1 to 8
								N°	R	Tt (Nm)	
Steel version											
ETP-MINI-6-14	6,00	14	25	18	10	19,0	22,0	2	M3	2,0	45,31 €
ETP-MINI-1/4-14	6,35	14	25	18	10	19,0	22,0	2	M3	2,0	45,31 €
ETP-MINI-8-15	8,00	15	27	20	12	21,5	25,5	2	M4	4,0	46,86 €
ETP-MINI-9-16	9,00	16	28	21	14	24,0	28,0	2	M4	4,0	49,26 €
ETP-MINI-3/8-16	9,525	16	28	21	14	24,0	28,0	2	M4	4,0	50,09 €
ETP-MINI-10-16	10,00	16	28	21	14	24,0	28,0	2	M4	4,0	50,09 €
ETP-MINI-11-18	11,00	18	30	23	14	25,5	29,5	2	M4	4,0	52,47 €
ETP-MINI-12-18	12,00	18	30	23	14	25,5	29,5	2	M4	4,0	55,28 €
ETP-MINI-1/2-18	12,70	18	30	23	14	25,5	29,5	2	M4	4,0	55,28 €
ETP-MINI-14-22	14,00	22	35	27	15	27,5	31,5	3	M4	4,0	58,48 €
Stainless steel version											
ETP-MINI-6-14/SS	6,00	14	25	18	10	19,0	22,0	3	M3	1,2	89,22 €
ETP-MINI-8-15/SS	8,00	15	27	20	12	21,5	25,5	3	M4	2,7	75,70 €
ETP-MINI-9-16/SS	9,00	16	28	21	14	24,0	28,0	3	M4	2,7	77,78 €
ETP-MINI-10-16/SS	10,00	16	28	21	14	24,0	28,0	3	M4	2,7	78,09 €
ETP-MINI-11-18/SS	11,00	18	30	23	14	25,5	29,5	3	M4	2,7	78,91 €
ETP-MINI-12-18/SS	12,00	18	30	23	14	25,5	29,5	3	M4	2,7	79,32 €
ETP-MINI-14-22/SS	14,00	22	35	27	15	27,5	31,5	4	M4	2,7	107,01 €

Dimensions in mm

Hydraulic locking assembly



ETP-CL



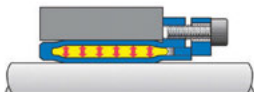
ETP-CLASSIC®

- **Hydraulic locking assembly**
- Small size
- Quick and easy mounting
- Fine adjustment is possible during assembly
- Low tightening torque and reduced number of screws eases assembly
- Good concentricity even after frequent use (0.03 -0.06mm)
- Supplied with Allen screws but hexagonal head screws can also be used
- Material:
Steel
- Working temp: -30/+85°C



Info

- When the screws are tightened with a torque T_t :
 T = transmissible torque (axial force = 0)
 FA = Transmissible axial force (torque = 0)
 FR = Transmissible radial force
- Max authorised bending torque is 5% of transmissible torque T
- * $\varnothing D2$ is measured before assembly.



Part number	Torque T (Nm)	Transmissible Axial force FA (kN)	Radial force FR (kN)	Polar moment of inertia of inertia (kgm ² .10 ⁻³)	Weight (kg)
ETP-CL15-23	55	7,30	2,5	0,019	0,10
ETP-CL19-28	100	10,60	5,8	0,045	0,17
ETP-CL20-28	125	12,50	6,6	0,043	0,16
ETP-CL22-32	135	12,30	8,2	0,063	0,20
ETP-CL24-34	200	16,70	9,8	0,066	0,20
ETP-CL25-34	250	20,00	10,6	0,067	0,20
ETP-CL28-39	300	21,40	13,1	0,112	0,27
ETP-CL30-41	420	28,00	14,7	0,133	0,30
ETP-CL32-43	420	26,30	16,3	0,180	0,35
ETP-CL35-47	650	37,10	18,8	0,230	0,41
ETP-CL38-50	750	39,50	21,2	0,277	0,44
ETP-CL40-53	940	47,00	22,8	0,408	0,57
ETP-CL42-55	940	44,80	24,4	0,414	0,56
ETP-CL45-59	1290	57,30	26,9	0,636	0,73
ETP-CL48-62	1570	65,40	29,3	0,761	0,80
ETP-CL50-65	1900	76,00	30,9	0,943	0,91
ETP-CL55-71	2500	90,90	35	1,301	1,09
ETP-CL60-77	3400	113,00	39,1	1,959	1,40
ETP-CL65-84	3500	108,00	43,1	2,780	1,72
ETP-CL70-90	5200	149,00	47,2	4,035	2,09
ETP-CL75-95	6300	168,00	51,3	5,500	2,51
ETP-CL80-100	8800	220,00	55	8,100	2,68
ETP-CL85-106	8800	207,00	58	9,500	3,09
ETP-CL90-112	11000	244,00	60	12,200	3,52
ETP-CL95-120	12800	269,00	61,5	17,100	4,46
ETP-CL100-125	15500	310,00	62	19,950	4,87

Dimensions in mm

Applications

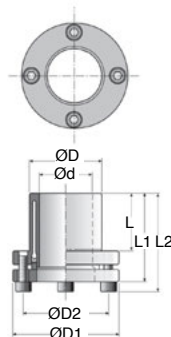
- Machine tools, presses, injection machines requiring frequent adjustment

Assembly

- All keyways **MUST** be refilled.
- **Assembly tolerances:**
 - Shaft h8 - k6 (h7 for size 15 only)
- When using a k6 shaft, transmissible torque (+20%)
- When using a h9 shaft, transmissible torque (-25%)
- Hub H7

Torque

- The transmissible torque T is for a static load.
- If the load is an alternating or pulsating torque, reduce the transmissible torque T by the following factor (factor x T):
 - Alternating : 0.6 x T for sizes 15-30mm.
 - 0.5 x T for sizes 32-100mm.
 - Pulsating : 0.7 x T for sizes 15-30mm.
 - 0.6 x T for sizes 32-100mm.



DISCOUNTS

Qty	1+	9+
Disc.	List	On request

Part number	Screws DIN915										Price each 1 to 8
	Ød	ØD	ØD2	ØD2*	L	L1	L2	Nb	R	Tt (Nm)	
ETP-CL15-23	15	23	38	28.5	17	30	35	3	M5	6	145,50 €
ETP-CL19-28	19	28	45	35,0	21	37	42	3	M5	8	146,64 €
ETP-CL20-28	20	28	45	35,0	22	37	42	3	M5	8	149,85 €
ETP-CL22-32	22	32	49	40,0	22	37	42	4	M5	8	151,08 €
ETP-CL24-34	24	34	49	40,0	25	40	45	4	M5	8	152,65 €
ETP-CL25-34	25	34	49	40,0	27	43	48	4	M5	8	157,10 €
ETP-CL28-39	28	39	55	46,0	29	45	50	4	M5	8	165,09 €
ETP-CL30-41	30	41	57	47,5	32	47	52	4	M5	8	177,85 €
ETP-CL32-43	32	43	60	50,5	34	52	57	4	M5	8	179,51 €
ETP-CL35-47	35	47	63	53,5	37	55	60	6	M5	8	199,53 €
ETP-CL38-50	38	50	65	56,0	41	59	64	6	M5	8	211,56 €
ETP-CL40-53	40	53	70	60,5	43	63	68	6	M5	8	221,60 €
ETP-CL42-55	42	55	70	60,5	45	65	70	6	M5	8	230,03 €
ETP-CL45-59	45	59	77	66,5	49	69	75	6	M6	13	250,02 €
ETP-CL48-62	48	62	80	69,5	52	73	79	6	M6	13	265,29 €
ETP-CL50-65	50	65	83	72,5	53	76	82	6	M6	13	276,48 €
ETP-CL55-71	55	71	88	78,0	58	82	88	8	M6	13	303,76 €
ETP-CL60-77	60	77	95	84,5	64	90	96	8	M6	13	329,78 €
ETP-CL65-84	65	84	102	91,0	68	96	102	8	M6	13	371,06 €
ETP-CL70-90	70	90	113	99,0	72	99	107	6	M8	32	435,99 €
ETP-CL75-95	75	95	118	104,0	85	114	122	6	M8	32	720,05 €
ETP-CL80-100	80	100	123	109,0	90	120	128	6	M8	32	758,10 €
ETP-CL85-106	85	106	129	115,0	95	125	133	6	M8	32	1194,51 €
ETP-CL90-112	90	112	135	121,0	100	133	141	8	M8	32	1007,32 €
ETP-CL95-120	95	120	143	129,0	105	139	147	8	M8	32	1443,30 €
ETP-CL100-125	100	125	148	134,0	110	145	153	8	M8	32	1156,02 €

Dimensions in mm

Hydraulic locking assembly



ETP-EXPRESS®

- Single screw means extremely quick to mount/unmount
- Small size
- Radial position of the screw saves space along the shaft
- Accurate positioning, no axial movement during assembly
- Good concentricity
- Materials:
Steel
- Working temp: -30/+85°C

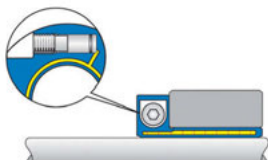


Applications

- Machine tools, presses, injection machines requiring frequent adjustment

Info

- When the screws are tightened with a torque T_t :
 T = transmissible torque (axial force = 0)
 FA = Transmissible axial force (torque = 0)
 FR = Transmissible radial force
 Max authorised bending torque is 5% of transmissible torque T



Part number	Torque T (Nm)	Transmissible Axial force FA (kN)	Radial force FR (kN)	Polar moment of inertia ($\text{kgm}^2 \cdot 10^{-3}$)	Weight (kg)
ETP-EX15-18	46	5,1	0,5	0,04	0,16
ETP-EX19-23	85	7,3	1	0,06	0,2
ETP-EX20-24	110	9,1	1	0,07	0,21
ETP-EX22-27	130	9,6	1,2	0,1	0,25
ETP-EX24-29	190	13	1,4	0,11	0,27
ETP-EX25-30	230	15	1,5	0,12	0,27
ETP-EX28-34	280	16	1,8	0,17	0,34
ETP-EX30-36	380	21	2	0,19	0,35
ETP-EX32-39	440	22	2,2	0,25	0,42
ETP-EX35-42	640	30	2,5	0,32	0,48
ETP-EX38-46	890	38	2,8	0,76	0,84
ETP-EX40-48	1100	45	3	0,84	0,88
ETP-EX42-51	1100	43	3,2	0,97	0,96
ETP-EX45-54	1400	51	3,5	1,17	1,05
ETP-EX48-59	1700	57	4	1,46	1,21
ETP-EX50-60	1900	63	4,5	1,52	1,2
ETP-EX55-67	2400	71	5	2,18	1,5
ETP-EX60-73	3300	90	5,3	3,17	1,85
ETP-EX65-79	4400	112	5,6	4,1	2,13
ETP-EX70-85	5600	130	6,4	7,12	3,04
ETP-EX80-97	8700	180	7,5	10,35	3,75
ETP-EX90-109	12000	220	8,6	15,2	4,8
ETP-EX100-121	17000	280	9,7	21,9	5,9

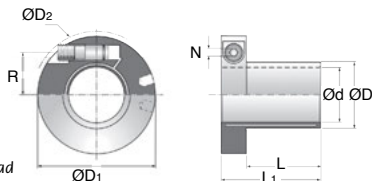
Dimensions in mm

Assembly

- All keyways **MUST** be refilled.
- **Assembly tolerances**
 Shaft h7 for d=15mm
 Arbre k6-h7 pour
 Shaft k6-h7 for d=19,22,24,28,32,38,
 42,48 and 55mm
 Shaft h8 for all other sizes
 Hub H7

Torque

- The transmissible torque T is for a static load
- If the load is an alternating or pulsating torque, reduce the transmissible torque T by the following factor (factor x T)
 Alternating : 0,5 x T
 Pulsating : 0,6 x T
- Tt = Recommended tightening torque for screws.
- Increasing the torque will not increase the pressure
- *ØD2 is measured before assembly



Quick mounting

DISCOUNTS

Qty	1+	9+
Disc.	List	On request

Part number	Ød	ØD	ØD1	ØD2*	L	L1	Screws DIN915			Price each 1 to 8	
							R	N	Tt (Nm)		
ETP-EX15-18	15	18	46	48,9	25	39	M10	15,1	5	5	186,34 €
ETP-EX19-23	19	23	50,5	53	28	42	M10	17,4	5	5	187,08 €
ETP-EX20-24	20	24	51,5	54,1	30	44	M10	18	5	5	191,95 €
ETP-EX22-27	22	27	55,5	60,5	32	46	M10	19,3	5	5	193,09 €
ETP-EX24-29	24	29	57,5	62,3	33	47	M10	20,3	5	5	193,93 €
ETP-EX25-30	25	30	58	62,9	35	49	M10	20,8	5	5	200,34 €
ETP-EX28-34	28	34	63	69,6	38	52	M10	22,6	5	5	210,00 €
ETP-EX30-36	30	36	64,5	71	40	54	M10	23,6	5	5	226,79 €
ETP-EX32-39	32	39	68,5	77,7	42	56	M10	24,8	5	5	228,35 €
ETP-EX35-42	35	42	73	85,1	45	59	M10	26,4	5	5	255,21 €
ETP-EX38-46	38	46	84,5	89,5	52	72	M16	31	8	21	270,05 €
ETP-EX40-48	40	48	86,5	91,2	55	75	M16	32	8	21	282,49 €
ETP-EX42-51	42	51	89	93,5	56	76	M16	33,2	8	21	294,10 €
ETP-EX45-54	45	54	93	100,3	58	78	M16	34,8	8	21	318,90 €
ETP-EX48-59	48	59	97	103,8	59	79	M16	36,8	8	21	339,44 €
ETP-EX50-60	50	60	98,5	105,1	60	80	M16	37,5	8	21	354,15 €
ETP-EX55-67	55	67	106	115,9	65	85	M16	40,5	8	21	388,28 €
ETP-EX60-73	60	73	115,5	132,7	70	90	M16	43,3	8	21	421,14 €
ETP-EX65-79	65	79	120,5	137	75	95	M16	46,1	8	21	474,05 €
ETP-EX70-85	70	85	135,5	153,9	85	109	M20	50,8	10	39	557,74 €
ETP-EX80-97	80	97	145,5	162,6	95	119	M20	56,3	10	39	968,42 €
ETP-EX90-109	90	109	155,5	171,7	105	129	2xM20**	61,8	10	39	1287,44 €
ETP-EX100-121	100	121	166	181	115	139	2xM20**	67,3	10	39	1478,55 €

Dimensions in mm

- **Single screw means extremely quick to mount/unmount**
- Small size
- Radial position of the screw saves space along the shaft
- Accurate positioning, no axial movement during assembly
- Good concentricity
- All parts exposed to the environment are made of stainless steel.
- Flat profile allows easy cleaning.
- Lubricant on fixing screw is approved for use in "food" environments
- Materials:
 - Stainless steel 1.45057
- Working temp: -30/+85°C

stainless steel

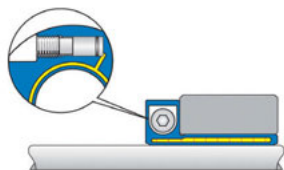


Applications

- Machine tools, presses, injection machines requiring frequent adjustment

Info

- When the screws are tightened with a torque T_t :
 T = transmissible torque (axial force = 0)
 FA = Transmissible axial force (torque = 0)
 FR = Transmissible radial force
 Max authorised bending torque is 5% of transmissible torque T



Part number	Torque T (Nm)	Transmissible		Polar moment of inertia ($\text{kgm}^2 \cdot 10^{-3}$)	Weight (kg)
		Axial force FA (kN)	Radial force FR (kN)		
ETP-EX15-18/SS	46	5,1	0,5	0,04	0,16
ETP-EX20-24/SS	110	9,1	1	0,07	0,21
ETP-EX25-30/SS	230	15	1,5	0,12	0,27
ETP-EX30-36/SS	380	21	2	0,19	0,35
ETP-EX35-42/SS	640	30	2,5	0,32	0,48
ETP-EX40-48/SS	1100	45	3	0,84	0,88
ETP-EX45-54/SS	1400	51	3,5	1,17	1,05
ETP-EX50-60/SS	1900	63	4,5	1,52	1,2
ETP-EX60-73/SS	3300	90	5,3	3,17	1,85
ETP-EX70-85/SS	5600	130	6,4	7,12	3,04
ETP-EX80-97/SS	8700	180	7,5	10,35	3,75

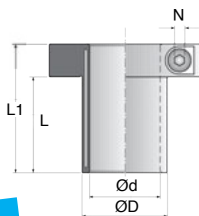
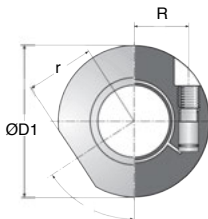
Dimensions in mm

Assembly

- All keyways **MUST** be refilled.
- **Assembly tolerances**
 Shaft h7 for d=15mm
 Shaft k6-h7 for d=19,22,24,28,32,38,42,48 and 55mm
 Shaft h8 for all other sizes
 Hub H7
- Please ensure that threads are lubricated each time parts are assembled
- We recommend use of Omega 58.

Torque

- The transmissible torque T is for a static load
- If the load is an alternating or pulsating torque, reduce the transmissible torque T by the following factor (factor x T)
 Alternating: 0.5 x T
 Pulsating: 0.6 x T
- Tt = Recommended tightening torque for screws.
 Increasing the torque will not increase the pressure
- *ØD2 is measured before assembly



Quick mounting

DISCOUNTS

Qty	1+	9+
Disc.	List	On request

Part number	Screws DIN915										Tt		Price each
	Ød	ØD	ØD1	ØD2*	L	L1	r	v°	R	N	(Nm)	1 to 8	
ETP-EX15-18/SS	15	18	46,0	48,9	25	39	19,9	53	M10	15,1	5	5	312,57 €
ETP-EX20-24/SS	20	24	51,5	54,1	30	44	22,6	56	M10	18,0	5	5	212,57 €
ETP-EX25-30/SS	25	30	58,0	62,9	35	49	25,8	58	M10	20,8	5	5	346,58 €
ETP-EX30-36/SS	30	36	64,5	71,0	40	54	29,1	59	M10	23,6	5	5	397,51 €
ETP-EX35-42/SS	35	42	73,0	85,1	45	59	33,7	58	M10	26,4	5	5	468,04 €
ETP-EX40-48/SS	40	48	86,5	91,2	55	75	37,7	59	M16	32,0	8	21	646,29 €
ETP-EX45-54/SS	45	54	93,0	100,3	58	78	41,1	59	M16	34,8	8	21	729,26 €
ETP-EX50-60/SS	50	60	98,5	105,1	60	80	43,7	60	M16	37,5	8	21	354,15 €
ETP-EX60-73/SS	60	73	115,5	132,7	70	90	53,3	59	M16	43,3	8	21	421,14 €
ETP-EX70-85/SS	70	85	135,5	153,9	85	109	62,0	59	M20	50,8	10	39	557,74 €
ETP-EX80-97/SS	80	97	145,5	162,6	95	119	65,9	61	M20	56,3	10	39	2211,37 €

Dimensions in mm

WORM AND WHEEL GEAR REDUCER



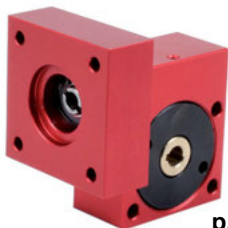
p.142

WORM AND WHEEL GEAR REDUCER



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WORM AND WHEEL GEAR REDUCER



p.146

OPTIONAL OUTPUT SHAFT



p.162

DOUBLE REDUCTION WORM GEAR REDUCERS



p.163



RIGHT ANGLE HELICAL REDUCERS

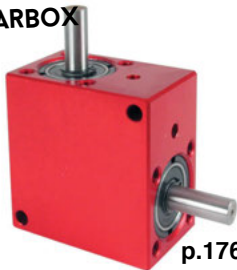


✓ INCREASED STOCK

p.166

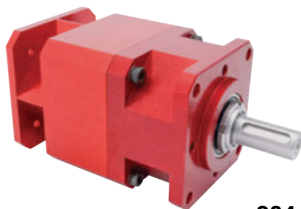
GEARBOXES p.142 - 223

RIGHT ANGLED GEARBOX



p.176

INTERNAL EPICYCLIC SERVO REDUCERS



p.204

SPUR GEAR COAXIAL GEARBOX



p.211

SPUR GEAR COAXIAL GEARBOX



p.217

Worm and wheel gear reducer Size XS

P15

Torque up to 3,75Nm

- Ratios from 5:1 to 120:1
- Output backlash $\approx 0^{\circ}30'$
- Max. input speed: 3000 rpm
- Materials:
 - Casing: anodised aluminium
 - Input: high carbon steel
 - Output: Bronze
- Weight: 0,15 kg

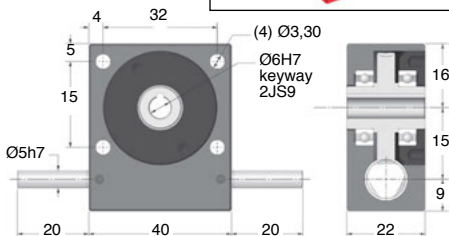
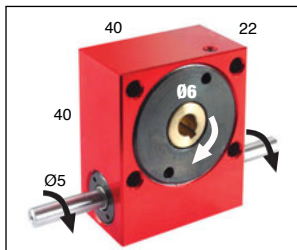
High reduction ratios

Options

- Can be modified to your specifications

Accessories

- Output shafts
P20-X and P20-DX



OUTPUT TORQUE (Nm values given as a guide only)

Ratios	6,66:1	8:1	10:1	13,33:1	20:1	40:1	80:1
3000	1,05	1,13	1,20	1,28	1,43	1,58	0,94
2000	1,28	1,28	1,35	1,35	1,58	1,80	1,07
1000	1,58	1,73	1,73	1,88	2,03	2,18	1,28
500	2,03	2,03	2,10	2,18	2,40	2,63	1,46
200	2,55	2,63	2,63	2,78	2,93	3,08	1,70
100	2,93	2,93	3,08	3,15	3,23	3,38	1,91
50	3,30	3,38	3,38	3,45	3,53	3,60	2,04
10	3,60	3,60	3,68	3,68	3,75	3,75	2,04

 **INCREASED STOCK**

DISCOUNTS

Qty	1+	3+	6+	10+
Disc.	List -10%	-15%	On request	

Part number	Ratios	Efficiency at 1000 rpm	Reflected inertia at input (kg.m ²)	Anti-back drive	Stock*	Price each 1 to 2
P15-6	6,66:1	86%	1,79x10 ⁻⁷	NO	✓	244,99 €
P15-8	8:1	85%	1,73x10 ⁻⁷	NO	✓	244,99 €
P15-10	10:1	84%	1,68x10 ⁻⁷	NO	✓	244,99 €
P15-13	13,33:1	78%	1,65x10 ⁻⁷	NO	-	244,99 €
P15-20	20:1	71%	1,62x10 ⁻⁷	NO	-	244,99 €
P15-40	40:1	60%	1,61x10 ⁻⁷	NO	✓	244,99 €
P15-80	80:1	32%	1,60x10 ⁻⁷	NO	-	244,99 €
P15-A	Reduced output backlash ~ 0°8'					On request
P15-AR	Reduced output backlash ~ 0°4'					On request

Dimensions in mm

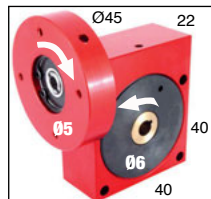
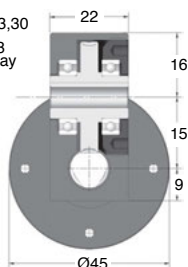
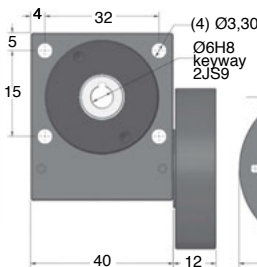
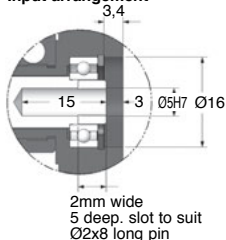
- Ratios from 6:1 to 80:1
- Output backlash $\approx 0^{\circ}30'$
- Max input speed: 3000 rpm
- Materials:

Casing: Anodised aluminium

Input: High carbon steel

Output: Bronze

- The angle of the input flange is not aligned
- Verify it is suitable for use with your motor
- Weight: 0,21 kg

High reduction ratios**Input arrangement****OUTPUT TORQUE (Nm values given as a guide only)**

Ratios	6,66:1	8:1	10:1	13,33:1	20:1	40:1	80:1
3000	1,05	1,13	1,20	1,28	1,43	1,58	0,94
2000	1,28	1,28	1,35	1,35	1,58	1,80	1,07
1000	1,58	1,73	1,73	1,88	2,03	2,18	1,28
500	2,03	2,03	2,10	2,18	2,40	2,63	1,46
200	2,55	2,63	2,63	2,78	2,93	3,08	1,70
100	2,93	2,93	3,08	3,15	3,23	3,38	1,91
50	3,30	3,38	3,38	3,45	3,53	3,60	2,04
10	3,60	3,60	3,68	3,68	3,75	3,75	2,04

DISCOUNTS

Qty	1+	3+	6+	10+
Disc.	List -10%	List -15%	On request	On request

Part number	Ratios	Efficiency at 1000 rpm	Reflected inertia at input (kg.m ²)	Anti-back drive	Price each 1 to 2
PF15-6	6,66:1	86%	1,79x10 ⁻⁷	NO	314,91 €
PF15-8	8:1	85%	1,73x10 ⁻⁷	NO	314,91 €
PF15-10	10:1	84%	1,68x10 ⁻⁷	NO	314,91 €
PF15-13	13,33:1	78%	1,65x10 ⁻⁷	NO	314,91 €
PF15-20	20:1	71%	1,62x10 ⁻⁷	NO	314,91 €
PF15-40	40:1	60%	1,61x10 ⁻⁷	NO	314,91 €
PF15-80	80:1	32%	1,60x10 ⁻⁷	NO	314,91 €
PF15-A	Reduced output backlash $\approx 0^{\circ}8'$				On request
PF15-AR	Reduced output backlash $\approx 0^{\circ}4'$				On request

Dimensions in mm

Worm and wheel gear reducer Size XS

P20

Torque up to 5Nm

High reduction ratios

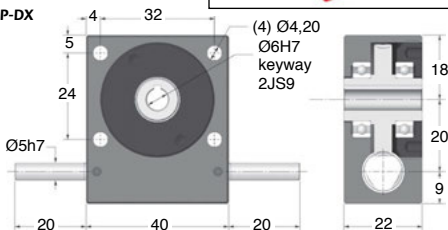
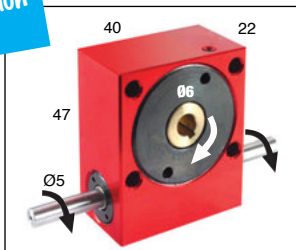
- Ratios from 5:1 to 120:1
- Output backlash $\approx 0^{\circ}30'$
- Max. input speed: 3000 rpm
- Materials:
Casing: anodised aluminium
Input: high carbon steel
Output: Bronze
- Weight: 0,18 kg

Options

- Can be modified to your specifications

Accessories

- Output shafts P-X and P-DX



OUTPUT TORQUE (Nm values given as a guide only)

Ratios	10:1	12:1	15:1	20:1	30:1	60:1	120:1
3000	1,40	1,50	1,60	1,70	1,90	2,10	1,25
2000	1,70	1,70	1,80	1,80	2,10	2,40	1,42
1000	2,10	2,30	2,30	2,50	2,70	2,90	1,70
500	2,70	2,70	2,80	2,90	3,20	3,50	1,94
200	3,40	3,50	3,50	3,70	3,90	4,10	2,27
100	3,90	3,90	4,10	4,20	4,30	4,50	2,55
50	4,40	4,50	4,50	4,60	4,70	4,80	2,72
10	4,80	4,80	4,90	4,90	5,00	5,00	2,72

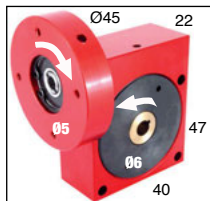
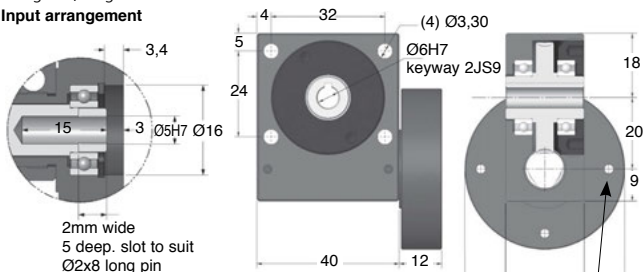
DISCOUNTS

Qty	1+	3+	6+	10+
Disc.	List -10%	-15%	On request	

Part number	Ratios	Efficiency at 1000 rpm	Reflected inertia at input (kg.m ²)	Anti-back drive	Stock*	Price each 1 to 2
P20-10	10:1	86%	$2,03 \times 10^{-7}$	NO	✓	273,87 €
P20-12	12:1	85%	$1,93 \times 10^{-7}$	NO	✓	273,87 €
P20-15	15:1	84%	$1,85 \times 10^{-7}$	NO	✓	273,87 €
P20-20	20:1	78%	$1,78 \times 10^{-7}$	NO	✓	273,87 €
P20-30	30:1	71%	$1,74 \times 10^{-7}$	NO	✓	273,87 €
P20-60	60:1	60%	$1,71 \times 10^{-7}$	YES	✓	273,87 €
P20-120	120:1	32%	$1,50 \times 10^{-7}$	YES	✓	273,87 €
P20-SP	5:1-120:1	Ratios from 5:1 to 120:1 or left handed			-	On request
P20-A		Reduced output backlash $\approx 0^{\circ}8'$			-	On request
P20-AR		Reduced output backlash $\approx 0^{\circ}4'$			-	On request

*Depending on availability - Dimensions in mm

- Ratios from 5:1 to 120:1
- Output backlash $\approx 0^{\circ}30'$
- Max input speed: 3000 rpm
- Materials:
Casing: Anodised aluminium
Input: High carbon steel
Output: Bronze
- The angle of the input flange is not aligned
- Verify it is suitable for use with your motor
- Weight: 0,23 kg

High reduction ratios**Input arrangement****OUTPUT TORQUE (Nm values given as a guide only)**

Ratios	10:1	12:1	15:1	20:1	30:1	60:1	120:1
3000	1,40	1,50	1,60	1,70	1,90	2,10	1,25
2000	1,70	1,70	1,80	1,80	2,10	2,40	1,42
1000	2,10	2,30	2,30	2,50	2,70	2,90	1,70
500	2,70	2,70	2,80	2,90	3,20	3,50	1,94
200	3,40	3,50	3,50	3,70	3,90	4,10	2,27
100	3,90	3,90	4,10	4,20	4,30	4,50	2,55
50	4,40	4,50	4,50	4,60	4,70	4,80	2,72
10	4,80	4,80	4,90	4,90	5,00	5,00	2,72

(4)M3 on Ø36 PCD

DISCOUNTS

Qty	1+	3+	6+	10+
Disc.	List -10%	List -15%	On request	On request

Part number	Ratios	Efficiency at 1000 rpm	Reflected inertia at input (kg.m ²)	Anti-back drive	Price each 1 to 2
PF20-10	10:1	86%	2,53 x 10 ⁻⁷	NO	349,20 €
PF20-12	12:1	85%	2,43 x 10 ⁻⁷	NO	349,20 €
PF20-15	15:1	84%	2,35 x 10 ⁻⁷	NO	349,20 €
PF20-20	20:1	78%	2,28 x 10 ⁻⁷	NO	349,20 €
PF20-30	30:1	71%	2,24 x 10 ⁻⁷	NO	349,20 €
PF20-60	60:1	60%	2,21 x 10 ⁻⁷	YES	349,20 €
PF20-120	120:1	32%	2,00 x 10 ⁻⁷	YES	349,20 €
PF20-SP	5:1 - 120:1	Ratios from 5:1 to 120:1 or left handed			On request
PF20-A		Reduced output backlash $\approx 0^{\circ}8'$			On request
PF20-AR		Reduced output backlash $\approx 0^{\circ}4'$			On request

Dimensions in mm

Worm and wheel gear reducer



PF20NM

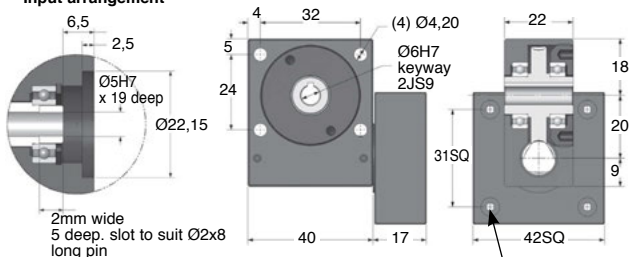
Torque up to 5Nm

**NEMA 17
square flange**

- Ratios from 5:1 to 120:1
- Output backlash $\approx 0^{\circ}30'$
- Max. input speed: 3000 rpm
- Materials:
 - Casing: anodised aluminium
 - Input: high carbon steel
 - Output: Bronze
- Weight: 0,23 kg



Input arrangement



OUTPUT TORQUE (Nm values given as a guide only)

Ratios	10:1	12:1	15:1	20:1	30:1	60:1	120:1
3000	1,40	1,50	1,60	1,70	1,90	2,10	1,25
2000	1,70	1,70	1,80	1,80	2,10	2,40	1,42
1000	2,10	2,30	2,30	2,50	2,70	2,90	1,70
500	2,70	2,70	2,80	2,90	3,20	3,50	1,94
200	3,40	3,50	3,50	3,70	3,90	4,10	2,27
100	3,90	3,90	4,10	4,20	4,30	4,50	2,55
50	4,40	4,50	4,50	4,60	4,70	4,80	2,72
10	4,80	4,80	4,90	4,90	5,00	5,00	2,72

DISCOUNTS

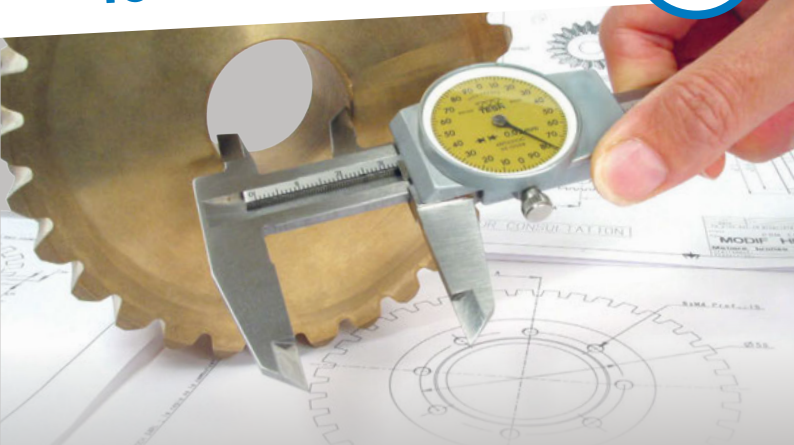
Qty	1+	3+	6+	10+
Disc.	1+	3+	6+	10+
	List -10% -15% On request			

Part number	Ratio	Reflected Inertia at Input (kg.m ²)	Efficiency at 1000 rpm	Anti back drive	Price each 1 to 2
PF20-10NM	10:1	$2,53 \times 10^{-7}$	86%	NO	349,20 €
PF20-12NM	12:1	$2,43 \times 10^{-7}$	85%	NO	349,20 €
PF20-15NM	15:1	$2,35 \times 10^{-7}$	84%	NO	349,20 €
PF20-20NM	20:1	$2,28 \times 10^{-7}$	78%	NO	349,20 €
PF20-30NM	30:1	$2,24 \times 10^{-7}$	71%	NO	349,20 €
PF20-60NM	60:1	$2,21 \times 10^{-7}$	60%	YES	349,20 €
PF20-120NM	120:1	$2,00 \times 10^{-7}$	32%	YES	349,20 €
PF20-SPNM	5:1 - 120:1	Special ratios from 5:1 to 120:1 or left handed			On request
PF20-ANM		Reduced output backlash $\approx 0^{\circ}8'$			On request

Dimensions in mm

Questions ? Need a quote ?

OUR TECHNICAL TEAM IS HERE TO HELP



- With made to measure items
- Help choosing the right component
- For any other questions

Tel. +33 (0)4 37 496 496

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cial2@hpceurope.com

Worm and wheel gear reducer

P30

Torque up to 8.8Nm

- Ratios from 5:1 to 120:1
- Output backlash $\approx 0^{\circ}30'$
- Max. input speed: 3000 rpm
- Materials:
 - Casing: anodised aluminium
 - Input: high carbon steel
 - Output: Bronze
- Weight: 0,48 kg

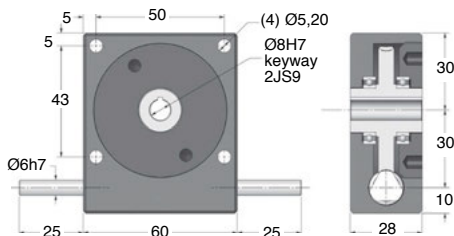
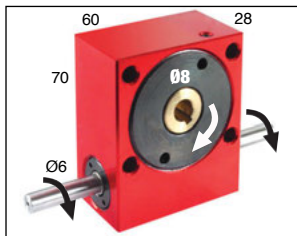
Options

- Can be modified to your specifications

Accessories

- Output shafts
P-X and P-DX

High reduction ratios



OUTPUT TORQUE (Nm values given as a guide only)

Ratios	10:1	12:1	15:1	20:1	30:1	60:1	120:1
3000	2,50	2,50	2,60	2,70	3,00	3,50	3,40
2000	2,80	2,90	3,00	3,20	3,60	4,10	3,70
1000	3,50	3,70	4,00	4,20	4,50	5,00	4,60
500	4,60	4,70	4,90	5,10	5,30	5,80	5,40
200	5,40	5,60	5,70	5,90	6,20	6,60	6,40
100	6,00	6,00	6,50	6,50	7,00	7,50	6,70
50	7,50	7,80	8,00	8,30	8,30	8,60	6,70
10	8,00	8,00	8,30	8,50	8,50	8,80	6,70

DISCOUNTS

Qty	1+	3+	6+	10+
Disc.	List -10%	List -15%	On request	On request

Part number	Ratios	Efficiency at 1000 rpm	Reflected inertia at input (kg.m ²)	Anti-back drive	Stock*	Price each 1 to 2
P30-10	10:1	90%	$8,43 \times 10^{-7}$	NO	✓	338,73 €
P30-12	12:1	88%	$7,55 \times 10^{-7}$	NO	-	338,73 €
P30-15	15:1	86%	$6,92 \times 10^{-7}$	NO	-	338,73 €
P30-20	20:1	84%	$6,43 \times 10^{-7}$	NO	-	338,73 €
P30-30	30:1	78%	$6,08 \times 10^{-7}$	NO	✓	338,73 €
P30-60	60:1	70%	$5,87 \times 10^{-7}$	YES	✓	338,73 €
P30-120	120:1	40%	$5,72 \times 10^{-7}$	YES	✓	338,73 €
P30-SP	5:1-120:1	Ratios from 5:1 to 120:1 or left handed			-	On request
P30-A		Reduced output backlash $\approx 0^{\circ}8'$			-	On request
P30-AR		Reduced output backlash $\approx 0^{\circ}4'$			-	On request

*Depending on availability - Dimensions in mm



Worm and wheel gear reducer

Torque up to 8.8Nm

PF30

- Ratios from 5:1 to 120:1

- Output backlash $\approx 0^{\circ}30'$

- Max input speed: 3000 rpm

- Materials:

Casing: Anodised aluminium

Input: High carbon steel

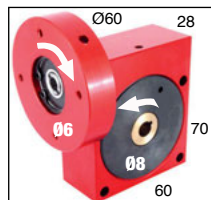
Output: Bronze

- The angle of the input flange is not aligned

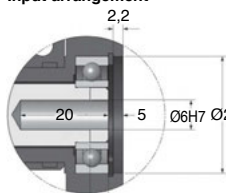
- Verify it is suitable for use with your motor

- Weight: 0,59 kg

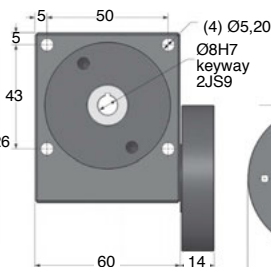
High reduction ratios



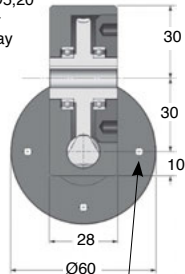
Input arrangement



2mm wide 5 deep. slot to suit Ø2x14 long pin



(4) Ø5,20
Ø8H7
keyway
2JS9



(4)M4 on Ø46
PCD

OUTPUT TORQUE (Nm values given as a guide only)

Ratios	10:1	12:1	15:1	20:1	30:1	60:1	120:1
3000	2,50	2,50	2,60	2,70	3,00	3,50	3,40
2000	2,80	2,90	3,00	3,20	3,60	4,10	3,70
1000	3,50	3,70	4,00	4,20	4,50	5,00	4,60
500	4,60	4,70	4,90	5,10	5,30	5,80	5,40
200	5,40	5,60	5,70	5,90	6,20	6,60	6,40
100	6,00	6,00	6,50	6,50	7,00	7,50	6,70
50	7,50	7,80	8,00	8,30	8,30	8,60	6,70
10	8,00	8,00	8,30	8,50	8,50	8,80	6,70

DISCOUNTS

Qty	1+	3+	6+	10+
Disc.	List -10%	List -10%	List -15%	On request

Part number	Ratios	Efficiency at 1000 rpm	Reflected inertia at input (kg.m ²)	Anti-back drive	Price each 1 to 2
PF30-10	10:1	90%	1,00 x 10 ⁻⁶	NO	420,01 €
PF30-12	12:1	88%	9,25 x 10 ⁻⁷	NO	420,01 €
PF30-15	15:1	86%	8,62 x 10 ⁻⁷	NO	420,01 €
PF30-20	20:1	84%	8,13 x 10 ⁻⁷	NO	420,01 €
PF30-30	30:1	78%	7,88 x 10 ⁻⁷	NO	420,01 €
PF30-60	60:1	70%	7,67 x 10 ⁻⁷	YES	420,01 €
PF30-120	120:1	40%	7,42 x 10 ⁻⁷	YES	420,01 €
PF30-SP	5:1-120:1	Ratios from 5:1 to 120:1 or left handed			On request
PF30-A		Reduced output backlash $\approx 0^{\circ}8'$			On request
PF30-AR		Reduced output backlash $\approx 0^{\circ}4'$			On request

Dimensions in mm

Worm and wheel gear reducer



PF30NM

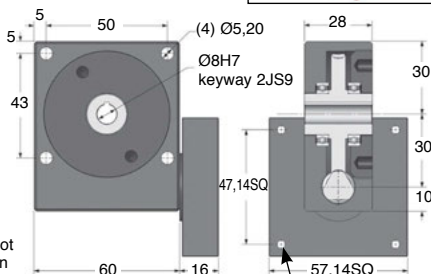
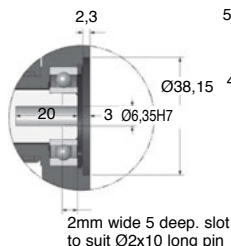
Torque up to 8.8Nm

- Ratios from 5:1 to 120:1
- Output backlash $\approx 0^{\circ}30'$
- Max. input speed: 3000 rpm
- Materials:
 - Casing: anodised aluminium
 - Input: high carbon steel
 - Output: Bronze
- Weight: 0,59 kg

**NEMA 23
square flange**



Input arrangement



OUTPUT TORQUE (Nm values given as a guide only)

Ratios	10:1	12:1	15:1	20:1	30:1	60:1	120:1
3000	2,50	2,50	2,60	2,70	3,00	3,50	3,40
2000	2,80	2,90	3,00	3,20	3,60	4,10	3,70
1000	3,50	3,70	4,00	4,20	4,50	5,00	4,60
500	4,60	4,70	4,90	5,10	5,30	5,80	5,40
200	5,40	5,60	5,70	5,90	6,20	6,60	6,40
100	6,00	6,00	6,50	6,50	7,00	7,50	6,70
50	7,50	7,80	8,00	8,30	8,30	8,60	6,70
10	8,00	8,00	8,30	8,50	8,50	8,80	6,70

DISCOUNTS

Qty	1+	3+	6+	10+
Disc.	List -10%	List -15%	On request	On request

Part number	Ratio	Reflected Inertia at Input (kg.m ²)	Efficiency at 1000 rpm	Anti back drive	Price each 1 to 2
PF30-10NM	10:1	$1,00 \times 10^{-6}$	90%	NO	420,01 €
PF30-12NM	12:1	$9,25 \times 10^{-7}$	88%	NO	420,01 €
PF30-15NM	15:1	$8,62 \times 10^{-7}$	86%	NO	420,01 €
PF30-20NM	20:1	$8,13 \times 10^{-7}$	84%	NO	420,01 €
PF30-30NM	30:1	$7,88 \times 10^{-7}$	78%	NO	420,01 €
PF30-60NM	60:1	$7,67 \times 10^{-7}$	70%	YES	420,01 €
PF30-120NM	120:1	$7,42 \times 10^{-7}$	40%	YES	420,01 €
PF30-SPNM	5:1 - 120:1	Special ratios from 5:1 to 120:1 or left handed			On request
PF30-ANM		Reduced output backlash $\approx 0^{\circ}8'$			On request

Dimensions in mm



Worm and wheel gear reducer

Torque up to 18Nm

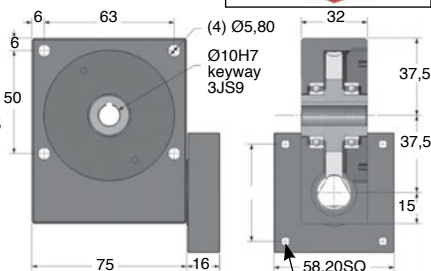
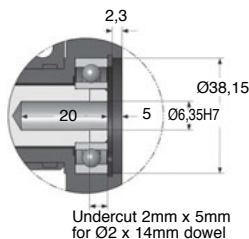
PF40NM

- Ratios from 5:1 to 120:1
- Output backlash $\approx 0^{\circ}30'$
- Max. input speed: 3000 rpm
- Materials:
 - Casing: anodised aluminium
 - Input: high carbon steel
 - Output: Bronze
- Weight: 1,15 kg

NEMA 23 square flange



Input arrangement



OUTPUT TORQUE (Nm values given as a guide only)

Ratios	10:1	12:1	15:1	20:1	30:1	60:1	120:1
3000	5,00	5,20	5,40	5,60	6,40	7,20	6,50
2000	5,50	5,80	6,20	6,60	7,30	8,00	7,20
1000	7,10	7,50	8,00	8,20	9,00	10,00	8,70
500	8,90	9,10	9,60	10,00	10,50	11,40	10,20
200	11,60	11,90	12,30	12,50	13,50	14,20	11,70
100	13,40	13,60	14,10	14,60	15,30	16,00	12,30
50	15,10	15,50	16,20	16,40	17,30	17,60	12,30
10	17,60	17,60	17,60	17,70	17,80	18,00	12,30

DISCOUNTS

Qty	1+	3+	6+	10+
Disc.	List -10%	-15%	On request	

Part number	Ratio	Reflected Inertia at Input (kg.m ²)	Efficiency at 1000 rpm	Anti back drive	Price each 1 to 2
PF40-10NM	10:1	3,78 x 10 ⁻⁶	89%	NO	570,26 €
PF40-12NM	12:1	3,62 x 10 ⁻⁶	87%	NO	570,26 €
PF40-15NM	15:1	3,49 x 10 ⁻⁶	85%	NO	570,26 €
PF40-20NM	20:1	3,39 x 10 ⁻⁶	83%	NO	570,26 €
PF40-30NM	30:1	3,32 x 10 ⁻⁶	76%	NO	570,26 €
PF40-60NM	60:1	3,27 x 10 ⁻⁶	65%	YES	570,26 €
PF40-120NM	120:1	3,26 x 10 ⁻⁶	41%	YES	570,26 €
PF40-SPNM	5:1 - 120:1	Special ratios from 5:1 to 120:1 or left handed			On request
PF40-ANM		Reduced output backlash $\approx 0^{\circ}8'$			On request

Dimensions in mm

Worm and wheel gear reducer

P40

Torque up to 18Nm

- Ratios from 5:1 to 120:1
- Output backlash $\approx 0^{\circ}30'$
- Max. input speed: 3000 rpm
- Materials:
 - Casing: anodised aluminium
 - Input: high carbon steel
 - Output: Bronze
- Weight: 0,92 kg

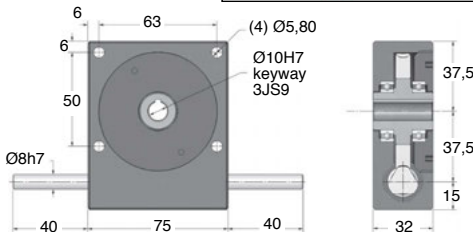
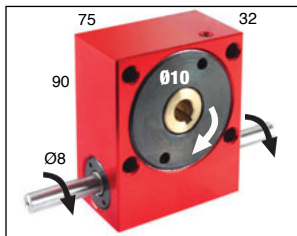
Options

- Can be modified to your specifications

Accessories

- Output shafts
P-X and P-DX

High reduction ratios



OUTPUT TORQUE (Nm values given as a guide only)

Ratios	10:1	12:1	15:1	20:1	30:1	60:1	120:1
3000	5,00	5,20	5,40	5,60	6,40	7,20	6,50
2000	5,50	5,80	6,20	6,60	7,30	8,00	7,20
1000	7,10	7,50	8,00	8,20	9,00	10,00	8,70
500	8,90	9,10	9,60	10,00	10,50	11,40	10,20
200	11,60	11,90	12,30	12,50	13,50	14,20	11,70
100	13,40	13,60	14,10	14,60	15,30	16,00	12,30
50	15,10	15,50	16,20	16,40	17,30	17,60	12,30
10	17,60	17,60	17,60	17,70	17,80	18,00	12,30

DISCOUNTS

Qty	1+	3+	6+	10+
Disc.	List	-10%	-15%	On request

Part number	Ratios	Efficiency at 1000 rpm	Reflected inertia at input (kg.m ²)	Anti-back drive	Stock*	Price each 1 to 2
P40-10	10:1	89%	$2,94 \times 10^{-6}$	NO	✓	459,13 €
P40-12	12:1	87%	$2,69 \times 10^{-6}$	NO	-	459,13 €
P40-15	15:1	85%	$2,49 \times 10^{-6}$	NO	-	459,13 €
P40-20	20:1	83%	$2,33 \times 10^{-6}$	NO	✓	459,13 €
P40-30	30:1	76%	$2,22 \times 10^{-6}$	NO	-	459,13 €
P40-60	60:1	65%	$2,15 \times 10^{-6}$	YES	✓	459,13 €
P40-120	120:1	41%	$2,10 \times 10^{-6}$	YES	-	459,13 €
P40-SP	5:1-120:1	Ratios from 5:1 to 120:1 or left handed			-	On request
P40-A		Reduced output backlash $\approx 0^{\circ}8'$			-	On request
P40-AR		Reduced output backlash $\approx 0^{\circ}4'$			-	On request

*Depending on availability - Dimensions in mm



Worm and wheel gear reducer

Torque up to 18Nm

PF40

- Ratios from 5:1 to 120:1

- Output backlash $\approx 0^{\circ}30'$

- Max input speed: 3000 rpm

- Materials:

Casing: Anodised aluminium

Input: High carbon steel

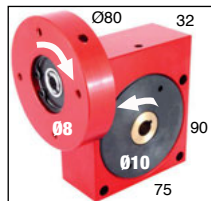
Output: Bronze

- The angle of the input flange is not aligned

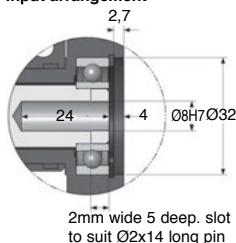
- Verify it is suitable for use with your motor

- Weight: 1,15 kg

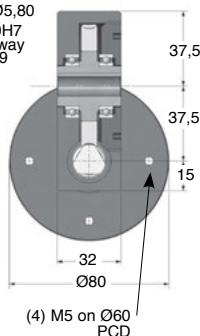
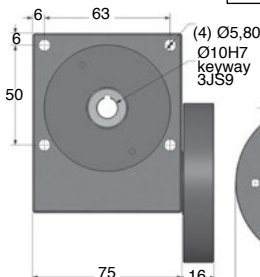
High reduction ratios



Input arrangement



2mm wide 5 deep slot
to suit Ø2x14 long pin



OUTPUT TORQUE (Nm values given as a guide only)

Ratios	10:1	12:1	15:1	20:1	30:1	60:1	120:1
3000	5,00	5,20	5,40	5,60	6,40	7,20	6,50
2000	5,50	5,80	6,20	6,60	7,30	8,00	7,20
1000	7,10	7,50	8,00	8,20	9,00	10,00	8,70
500	8,90	9,10	9,60	10,00	10,50	11,40	10,20
200	11,60	11,90	12,30	12,50	13,50	14,20	11,70
100	13,40	13,60	14,10	14,60	15,30	16,00	12,30
50	15,10	15,50	16,20	16,40	17,30	17,60	12,30
10	17,60	17,60	17,60	17,70	17,80	18,00	12,30

DISCOUNTS

Qty	1+	3+	6+	10+
Disc.	List -10%	-15%	On request	On request

Part number	Ratios	Efficiency at 1000 rpm	Reflected inertia at input (kg.m ²)	Anti-back drive	Price each 1 to 2
PF40-10	10:1	89%	$3,78 \times 10^{-6}$	NO	570,26 €
PF40-12	12:1	87%	$3,62 \times 10^{-6}$	NO	570,26 €
PF40-15	15:1	85%	$3,49 \times 10^{-6}$	NO	570,26 €
PF40-20	20:1	83%	$3,39 \times 10^{-6}$	NO	570,26 €
PF40-30	30:1	76%	$3,32 \times 10^{-6}$	NO	570,26 €
PF40-60	60:1	65%	$3,27 \times 10^{-6}$	YES	570,26 €
PF40-120	120:1	41%	$3,26 \times 10^{-6}$	YES	570,26 €
PF40-SP	5:1-120:1	Ratios from 5:1 to 120:1 or left handed			On request
PF40-A		Reduced output backlash $\approx 0^{\circ}8'$			On request
PF40-AR		Reduced output backlash $\approx 0^{\circ}4'$			On request

Dimensions in mm

Worm and wheel gear reducer

P45

Torque up to 40Nm

- Ratios from 5:1 to 120:1
- Output backlash $\approx 0^{\circ}30'$
- Max. input speed: 3000 rpm
- Materials:
 - Casing: anodised aluminium
 - Input: high carbon steel
 - Output: Bronze
- Weight: 1,70 kg

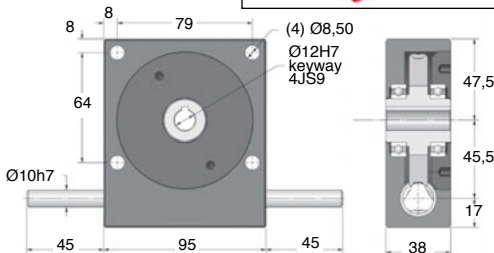
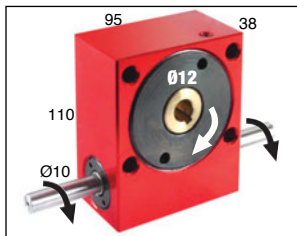
Options

- Can be modified to your specifications

Accessories

- Output shafts
P-X and P-DX

High reduction ratios



OUTPUT TORQUE (Nm values given as a guide only)

Ratios	10:1	12:1	15:1	20:1	30:1	60:1	120:1
3000	10,30	10,80	11,30	12,20	13,20	14,70	10,80
2000	11,70	12,20	12,70	13,20	14,70	17,10	12,70
1000	14,70	15,20	16,20	17,10	18,10	20,60	14,30
500	19,10	19,60	20,60	21,60	22,50	24,50	17,50
200	24,40	25,50	26,40	27,00	28,90	30,00	20,60
100	28,30	28,90	29,40	30,30	31,80	33,80	22,80
50	32,30	32,80	33,80	34,30	34,50	35,20	23,00
10	39,90	39,90	39,90	40,00	40,00	40,00	23,00

DISCOUNTS

Qty	1+	2+	4+
Disc.	List	-5%	On request

Part number	Ratios	Efficiency at 1000 rpm	Reflected inertia at input (kg.m ²)	Anti-back drive	Stock*	Price each
P45-10	10:1	90%	$6,15 \times 10^{-6}$	NO	✓	553,32 €
P45-12	12:1	89%	$5,32 \times 10^{-6}$	NO	-	553,32 €
P45-15	15:1	86%	$4,64 \times 10^{-6}$	NO	-	553,32 €
P45-20	20:1	85%	$4,11 \times 10^{-6}$	NO	-	553,32 €
P45-30	30:1	78%	$3,73 \times 10^{-6}$	NO	✓	553,32 €
P45-60	60:1	67%	$3,51 \times 10^{-6}$	YES	✓	553,32 €
P45-120	120:1	47%	$2,88 \times 10^{-6}$	YES	✓	553,32 €
P45-SP	5:1-120:1	Ratios from 5:1 to 120:1 or left handed			-	On request
P45-A		Reduced output backlash $\approx 0^{\circ}8'$			-	On request
P45-AR		Reduced output backlash $\approx 0^{\circ}4'$			-	On request

*Depending on availability - Dimensions in mm

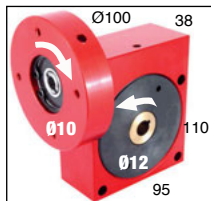


Torque up to 40Nm

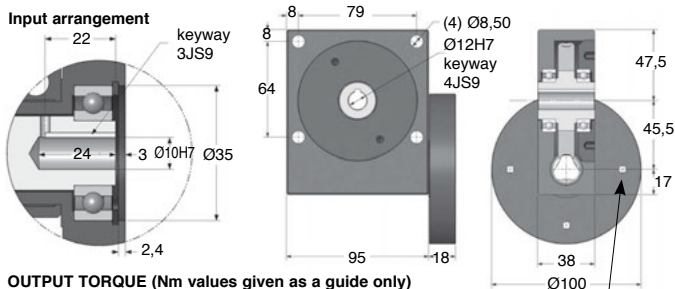
PF45

- **Ratios from 5:1 to 120:1**
- Output backlash $\approx 0^{\circ}30'$
- Max input speed: 3000 rpm
- Materials:
 - Casing: Anodised aluminium
 - Input: High carbon steel
 - Output: Bronze
- The angle of the input flange is not aligned
- Verify it is suitable for use with your motor
- Weight: 1,15 kg

High reduction ratios



Input arrangement



OUTPUT TORQUE (Nm values given as a guide only)

Ratios	10:1	12:1	15:1	20:1	30:1	60:1	120:1
3000	10,30	10,80	11,30	12,20	13,20	14,70	10,80
2000	11,70	12,20	12,70	13,20	14,70	17,10	12,70
1000	14,70	15,20	16,20	17,10	18,10	20,60	14,30
500	19,10	19,60	20,60	21,60	22,50	24,50	17,50
200	24,40	25,50	26,40	27,00	28,90	30,00	20,60
100	28,30	28,90	29,40	30,30	31,80	33,80	22,80
50	32,30	32,80	33,80	34,30	34,50	35,20	23,00
10	39,90	39,90	39,90	40,00	40,00	40,00	23,00

(4)M6 on Ø75
PCD

DISCOUNTS

Qty	1+	2+	4+
Disc.	List	-5%	On request

Part number	Ratios	Efficiency at 1000 rpm	Reflected inertia at input (kg.m ²)	Anti-back drive	Price each
PF45-10	10:1	90%	7,34 x 10 ⁻⁶	NO	687,23 €
PF45-12	12:1	89%	6,84 x 10 ⁻⁶	NO	687,23 €
PF45-15	15:1	86%	6,43 x 10 ⁻⁶	NO	687,23 €
PF45-20	20:1	85%	6,09 x 10 ⁻⁶	NO	687,23 €
PF45-30	30:1	78%	5,86 x 10 ⁻⁶	NO	687,23 €
PF45-60	60:1	67%	5,70 x 10 ⁻⁶	YES	687,23 €
PF45-120	120:1	47%	5,66 x 10 ⁻⁶	YES	687,23 €
PF45-SP	5:1-120:1	Ratios from 5:1 to 120:1 or left handed			On request
PF45-A		Reduced output backlash $\approx$ 0°8'			On request
PF45-AR		Reduced output backlash $\approx$ 0°4'			On request

Dimensions in mm

Worm and wheel gear reducer

P55

Torque up to 57Nm

- Ratios from 5:1 to 120:1
- Output backlash $\approx 0^{\circ}30'$
- Max. input speed: 3000 rpm
- Materials:
 - Casing: anodised aluminium
 - Input: high carbon steel
 - Output: Bronze
- Weight: 2,40 kg

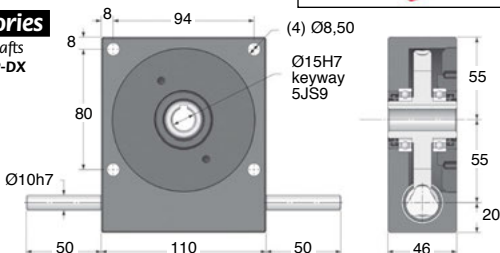
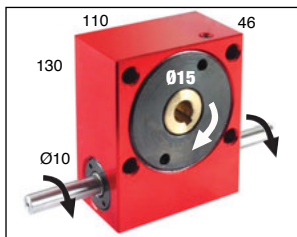
High reduction ratios

Options

- Can be modified to your specifications

Accessories

- Output shafts
P-X and P-DX



OUTPUT TORQUE (Nm values given as a guide only)

Ratios	10:1	12:1	15:1	20:1	30:1	60:1	120:1
3000	13,40	14,00	14,80	16,20	17,60	20,40	18,00
2000	16,20	16,90	18,30	19,10	20,40	23,90	20,00
1000	21,10	22,50	23,20	24,60	25,30	28,80	25,00
500	27,40	28,10	28,80	30,20	31,60	35,10	30,00
200	34,40	35,10	36,50	37,90	39,30	42,10	36,00
100	40,00	41,40	42,10	42,80	44,90	46,30	38,00
50	45,60	46,30	47,70	48,40	49,80	50,50	38,00
10	56,80	56,80	56,80	57,00	57,00	57,00	38,00

DISCOUNTS

Qty	1+	2+	4+
Disc.	List	-5%	On request

Part number	Ratios	Efficiency at 1000 rpm	Reflected inertia at input (kg.m ²)	Anti-back drive	Stock*	Price each
P55-10	10:1	89%	$1,35 \times 10^{-5}$	NO	✓	655,71 €
P55-12	12:1	88%	$1,13 \times 10^{-5}$	NO	✓	655,71 €
P55-15	15:1	86%	$9,81 \times 10^{-6}$	NO	✓	655,71 €
P55-20	20:1	84%	$8,63 \times 10^{-6}$	NO	✓	655,71 €
P55-30	30:1	78%	$7,79 \times 10^{-6}$	NO	✓	655,71 €
P55-60	60:1	69%	$7,23 \times 10^{-6}$	YES	✓	655,76 €
P55-120	120:1	47%	$7,04 \times 10^{-6}$	YES	-	655,71 €
P55-SP	5:1-120:1	Ratios from 5:1 to 120:1 or left handed			-	On request
P55-A		Reduced output backlash $\approx 0^{\circ}8'$			-	On request
P55-AR		Reduced output backlash $\approx 0^{\circ}4'$			-	On request

*Depending on availability - Dimensions in mm



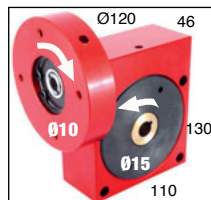
Worm and wheel gear reducer

Torque up to 57Nm

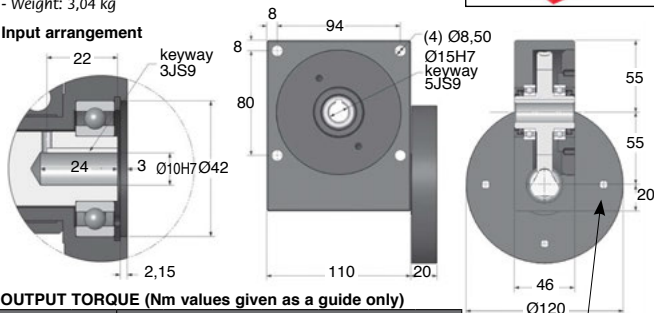
PF55

- Ratios from 5:1 to 120:1
- Output backlash $\approx 0^{\circ}30'$
- Max input speed: 3000 rpm
- Materials:
 - Casing: Anodised aluminium
 - Input: High carbon steel
 - Output: Bronze
- The angle of the input flange is not aligned
- Verify it is suitable for use with your motor
- Weight: 3,04 kg

High reduction ratios



Input arrangement



OUTPUT TORQUE (Nm values given as a guide only)

Ratios	10:1	12:1	15:1	20:1	30:1	60:1	120:1
3000	13,40	14,00	14,80	16,20	17,60	20,40	18,00
2000	16,20	16,90	18,30	19,10	20,40	23,90	20,00
1000	21,10	22,50	23,20	24,60	25,30	28,80	25,00
500	27,40	28,10	28,80	30,20	31,60	35,10	30,00
200	34,40	35,10	36,50	37,90	39,30	42,10	36,00
100	40,00	41,40	42,10	42,80	44,90	46,30	38,00
50	45,60	46,30	47,70	48,40	49,80	50,50	38,00
10	56,80	56,80	56,80	57,00	57,00	57,00	38,00

DISCOUNTS

Qty	1+	2+	4+
Disc.	List -5%	On request	On request

Part number	Ratios	Efficiency at 1000 rpm	Reflected inertia at input (kg.m ²)	Anti-back drive	Price each
PF55-10	10:1	89%	$1,96 \times 10^{-5}$	NO	814,49 €
PF55-12	12:1	88%	$1,84 \times 10^{-5}$	NO	814,49 €
PF55-15	15:1	86%	$1,74 \times 10^{-5}$	NO	814,49 €
PF55-20	20:1	84%	$1,67 \times 10^{-5}$	NO	814,49 €
PF55-30	30:1	78%	$1,62 \times 10^{-5}$	NO	814,49 €
PF55-60	60:1	69%	$1,58 \times 10^{-5}$	YES	814,49 €
PF55-120	120:1	47%	$1,57 \times 10^{-5}$	YES	814,49 €
PF55-SP	5:1-120:1	Ratios from 5:1 to 120:1 or left handed			On request
PF55-A		Reduced output backlash $\approx 0^{\circ}8'$			On request
PF55-AR		Reduced output backlash $\approx 0^{\circ}4'$			On request

Dimensions in mm

Worm and wheel gear reducer

P60

Torque up to 118Nm

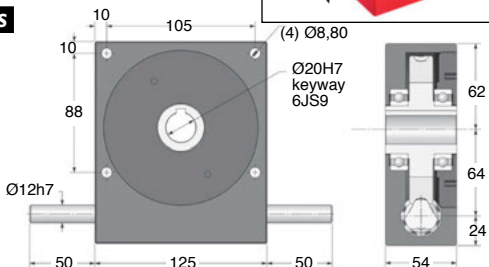
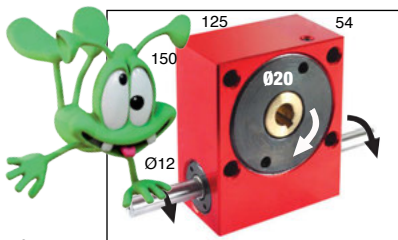
- Ratios from 5:1 to 120:1
- Output backlash $\approx 0^{\circ}30'$
- Max. input speed: 3000 rpm
- Materials:
 - Casing: anodised aluminium
 - Input: high carbon steel
 - Output: Bronze
- Weight: 4,10 kg

Options

- Can be modified to your specifications

Accessories

- Output shafts
P-X and P-DX



OUTPUT TORQUE (Nm values given as a guide only)

Ratios	10:1	12:1	15:1	20:1	30:1	60:1	120:1
3000	30	31	33	35	38	44	27
2000	33	36	39	41	44	50	32
1000	45	47	50	54	58	64	39
500	58	60	62	65	69	73	47
200	77	78	80	84	88	94	55
100	88	89	91	94	97	105	61
50	100	102	104	105	107	110	66
10	113	114	115	116	116	118	66

High reduction ratios

DISCOUNTS

Qty	1+	2+	4+
Disc.	List	-5%	On request

Part number	Ratios	Efficiency at 1000 rpm	Reflected inertia at input (kg.m ²)	Anti-back drive	Stock*	Price each
P60-10	10:1	90%	$2,93 \times 10^{-5}$	NO	✓	828,92 €
P60-12	12:1	89%	$2,46 \times 10^{-5}$	NO	-	828,98 €
P60-15	15:1	85%	$2,08 \times 10^{-5}$	NO	-	828,92 €
P60-20	20:1	85%	$1,78 \times 10^{-5}$	NO	✓	828,92 €
P60-30	30:1	78%	$1,57 \times 10^{-5}$	NO	✓	828,92 €
P60-60	60:1	68%	$1,44 \times 10^{-5}$	YES	✓	828,92 €
P60-120	120:1	45%	$9,54 \times 10^{-6}$	YES	-	828,92 €
P60-SP	5:1-120:1	Ratios from 5:1 to 120:1 or left handed			-	On request
P60-A		Reduced output backlash $\approx 0^{\circ}8'$			-	On request
P60-AR		Reduced output backlash $\approx 0^{\circ}4'$			-	On request

*Depending on availability - Dimensions in mm



Worm and wheel gear reducer

Torque up to 118Nm

PF60

- Ratios from 5:1 to 120:1

- Output backlash $\approx 0^{\circ}30'$

- Max input speed: 3000 rpm

- Materials:

Casing: Anodised aluminium

Input: High carbon steel

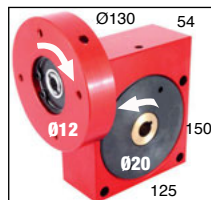
Output: Bronze

- The angle of the input flange is not aligned

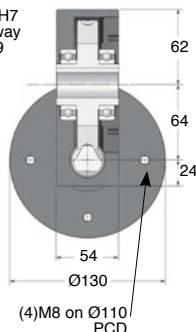
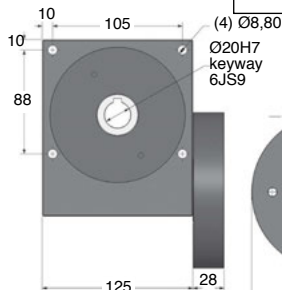
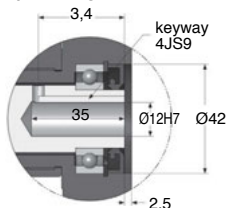
- Verify it is suitable for use with your motor

- Weight: 5,10 kg

High reduction ratios



Input arrangement



OUTPUT TORQUE (Nm values given as a guide only)

Ratios	10:1	12:1	15:1	20:1	30:1	60:1	120:1
3000	30	31	33	35	38	44	27
2000	33	36	39	41	44	50	32
1000	45	47	50	54	58	64	39
500	58	60	62	65	69	73	47
200	77	78	80	84	88	94	55
100	88	89	91	94	97	105	61
50	100	102	104	105	107	110	66
10	113	114	115	116	116	118	66

DISCOUNTS

Qty	1+	2+	4+
Disc.	List	-5%	On request

Part number	Ratios	Efficiency at 1000 rpm	Reflected inertia at input (kg.m ²)	Anti-back drive	Price each
PF60-10	10:1	90%	$3,80 \times 10^{-5}$	NO	918,85 €
PF60-12	12:1	89%	$3,68 \times 10^{-5}$	NO	918,85 €
PF60-15	15:1	85%	$3,14 \times 10^{-5}$	NO	918,85 €
PF60-20	20:1	85%	$3,10 \times 10^{-5}$	NO	918,85 €
PF60-30	30:1	78%	$2,88 \times 10^{-5}$	NO	918,85 €
PF60-60	60:1	68%	$2,82 \times 10^{-5}$	YES	918,85 €
PF60-120	120:1	45%	$2,79 \times 10^{-5}$	YES	918,85 €
PF60-SP	5:1-120:1	Ratios from 5:1 to 120:1 or left handed			On request
PF60-A		Reduced output backlash $\approx 0^{\circ}8'$			On request
PF60-AR		Reduced output backlash $\approx 0^{\circ}4'$			On request

Dimensions in mm

Worm and wheel gear reducer

P70

Torque up to 164Nm

- Ratios from 5:1 to 120:1
- Output backlash $\approx 0^{\circ}30'$
- Max. input speed: 3000 rpm
- Materials:
 - Casing: anodised aluminium
 - Input: high carbon steel
 - Output: Bronze
- Weight: 6,40 kg

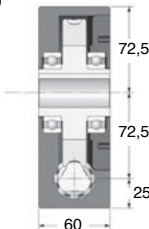
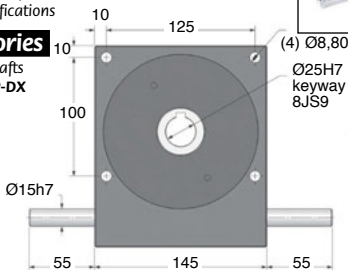
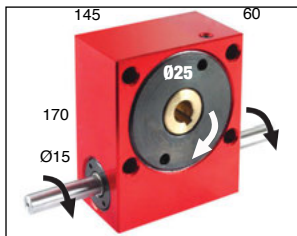
Options

- Can be modified to your specifications

Accessories

- Output shafts P-X and P-DX

High reduction ratios



OUTPUT TORQUE (Nm values given as a guide only)

Ratios	10:1	12:1	15:1	20:1	30:1	60:1	120:1
3000	38	40	42	45	50	56	38
2000	47	49	53	55	61	69	46
1000	61	65	67	71	73	83	55
500	77	81	83	87	91	100	66
200	99	101	105	107	113	121	77
100	115	119	121	123	129	133	86
50	129	133	137	139	144	146	90
10	160	160	160	164	164	164	90

DISCOUNTS

Qty	1+	2+	4+
Disc.	List	-5%	On request

Part number	Ratios	Efficiency at 1000 rpm	Reflected inertia at input (kg.m ²)	Anti-back drive	Stock*	Price each
P70-10	10:1	90%	$6,04 \times 10^{-5}$	NO	✓	920,48 €
P70-12	12:1	89%	$5,03 \times 10^{-5}$	NO	-	920,48 €
P70-15	15:1	86%	$4,21 \times 10^{-5}$	NO	✓	920,55 €
P70-20	20:1	85%	$3,57 \times 10^{-5}$	NO	-	920,55 €
P70-30	30:1	78%	$3,11 \times 10^{-5}$	NO	✓	920,48 €
P70-60	60:1	67%	$2,84 \times 10^{-5}$	YES	✓	920,48 €
P70-120	120:1	50%	$2,48 \times 10^{-5}$	YES	-	920,48 €
P70-SP	5:1-120:1	Ratios from 5:1 to 120:1 or left handed			-	On request
P70-A		Reduced output backlash $\approx 0^{\circ}8'$			-	On request
P70-AR		Reduced output backlash $\approx 0^{\circ}4'$			-	On request

*Depending on availability - Dimensions in mm



Worm and wheel gear reducer

Torque up to 164Nm

PF70

- Ratios from 5:1 to 120:1

- Output backlash $\approx 0^{\circ}30'$

- Max input speed: 3000 rpm

- Materials:

Casing: Anodised aluminium

Input: High carbon steel

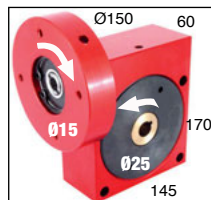
Output: Bronze

- The angle of the input flange is not aligned

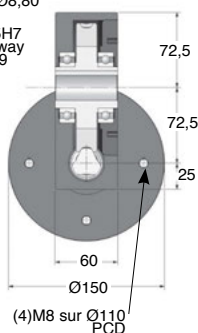
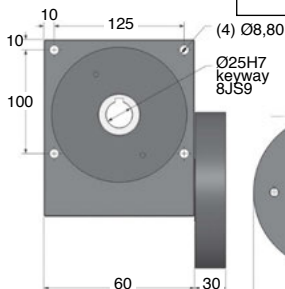
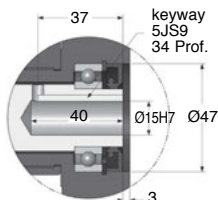
- Verify it is suitable for use with your motor

- Weight: 7,90 kg

High reduction ratios



Input arrangement



OUTPUT TORQUE (Nm values given as a guide only)

Ratios	10:1	12:1	15:1	20:1	30:1	60:1	120:1
3000	38	40	42	45	50	56	38
2000	47	49	53	55	61	69	46
1000	61	65	67	71	73	83	55
500	77	81	83	87	91	100	66
200	99	101	105	107	113	121	77
100	115	119	121	123	129	133	86
50	129	133	137	139	144	146	90
10	160	160	160	164	164	164	90

DISCOUNTS

Qty	1+	2+	4+
Disc.	List	-5%	On request

Part number	Ratios	Efficiency at 1000 rpm	Reflected inertia at input (kg.m ²)	Anti-back drive	Price each
PF70-10	10:1	90%	$4,81 \times 10^{-5}$	NO	1 036,20 €
PF70-12	12:1	89%	$4,19 \times 10^{-5}$	NO	1 036,20 €
PF70-15	15:1	86%	$3,70 \times 10^{-5}$	NO	1 036,20 €
PF70-20	20:1	85%	$3,28 \times 10^{-5}$	NO	1 036,20 €
PF70-30	30:1	78%	$3,00 \times 10^{-5}$	NO	1 036,20 €
PF70-60	60:1	67%	$2,89 \times 10^{-5}$	YES	1 036,20 €
PF70-120	120:1	50%	$2,76 \times 10^{-5}$	YES	1 036,20 €
PF70-SP	5:1-120:1	Ratios from 5:1 to 120:1 or left handed			On request
PF70-A		Reduced output backlash $\approx 0^{\circ}8'$			On request
PF70-AR		Reduced output backlash $\approx 0^{\circ}4'$			On request

Dimensions in mm

Optional output shaft **stainless steel**

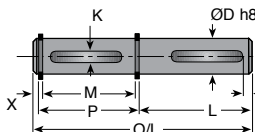
Px
PdX

For P and PF gear reducers

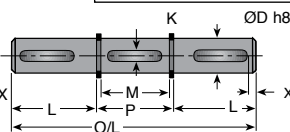
- **Optional accessory for adding outputs shafts**
to P and PF gear reducers

Composition

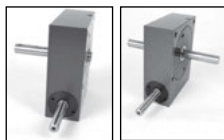
- Single shaft kit P-X: Stainless steel 303 shaft, 2 steel keys and 2 steel circlips
- Double shaft kit P-dx: Stainless steel 303 shaft, 3 steel keys and 2 steel circlips



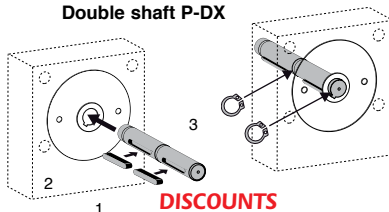
Single shaft P-X



Double shaft P-DX



Single Double
Typical applications



DISCOUNTS

Qty	1+	6+	20+	40+
Disc.	List	-15%	-20%	Sur demande

Part number	For gearbox	ØD	O/L	M	P	X	L	K	Stock*	Price each 1 to 5
Single										
P20-X	P20-PF20	6	50,80	22	23,60	3,00	25	K2 x 22	✓	34,29 €
P30-X	P30-PF30	8	63,90	28	29,80	3,00	32	K2 x 22	✓	40,28 €
P40-X	P40-PF40	10	76,60	32	34,20	3,50	40	K3 x 20	✓	45,26 €
P45-X	P45-PF45	12	88,10	38	40,20	4,00	45	K4 x 25	-	48,62 €
P55-X	P55-PF55	15	101,10	46	48,20	4,00	50	K5 x 30	-	53,85 €
P60-X	P60-PF60	20	119,80	54	56,60	4,50	60	K6 x 32	-	63,30 €
P70-X	P70-PF70	25	135,80	60	62,60	4,50	70	K8 x 40	-	72,74 €
Double										
P20-DX	P20-PF20	6	73,60	22	23,60	1,50	25	K2 x 22	✓	45,13 €
P30-DX	P30-PF30	8	93,80	28	29,80	5,45	32	K2 x 22	✓	49,04 €
P40-DX	P40-PF40	10	114,20	32	34,20	9,90	40	K3 x 20	-	56,18 €
P45-DX	P45-PF45	12	130,20	38	40,20	4,00	45	K4 x 25	-	61,37 €
P55-DX	P55-PF55	15	148,20	46	48,20	9,90	50	K5 x 30	-	66,87 €
P60-DX	P60-PF60	20	176,60	54	56,60	4,50	60	K6 x 32	-	77,75 €
P70-DX	P70-PF70	25	202,50	60	62,60	4,50	70	K8 x 40	-	88,64 €

Dimensions in mm



Double reduction worm gear reducers

Torque up to 4.10Nm

PP35

- Ratios from 25:1 to 900:1
- 2-stage reduction
- Output backlash $\approx 2^\circ$
- Max. input speed: 3000 rpm
- Materials:

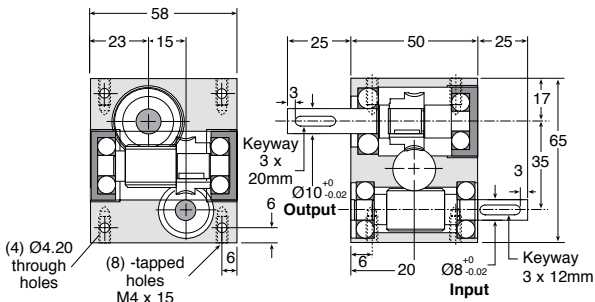
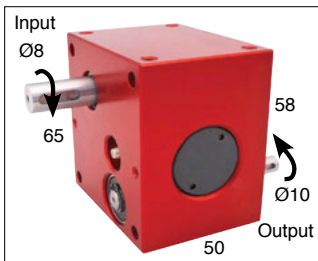
Casing: anodised aluminium
input: high carbon steel
output: bronze

- Weight: 0.70 kg

Options

- Can be modified to your specifications

**Very high
reduction
ratios**



OUTPUT TORQUE (Nm values given as a guide only)

Ratios	100:1	200:1	400:1
3000	2,20	2,30	2,50
2000	2,50	2,70	2,80
1000	2,80	3,00	3,10
500	3,10	3,50	3,60
200	3,80	3,90	4,00
100	3,90	4,00	4,00
50	4,00	4,10	4,10

DISCOUNTS

Qty	1+	3+	6+	10+
Disc.	List -10%	List -15%	On request	On request

Part number	Ratio	Max. input speed (rpm)	Max. output speed (rpm)	Efficiency at 1000 rpm	Anti back drive	Price each 1 to 5
PP35-100	100:1	3000	30,00	52%	NO	615,43 €
PP35-200	200:1	3000	15,00	45%	NO	615,43 €
PP35-400	400:1	3000	7,50	34%	YES	615,43 €
PP35-SP	25:1 - 900:1	Special ratios from 25:1 to 900:1				On request

Dimensions in mm

Double reduction worm gear reducers

PP50

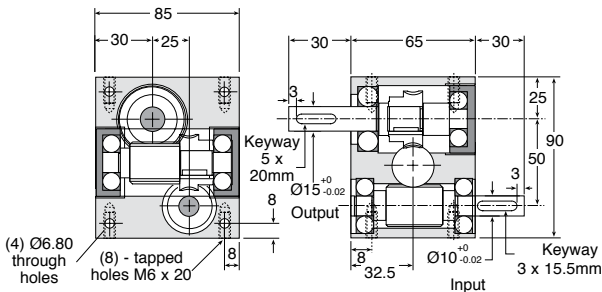
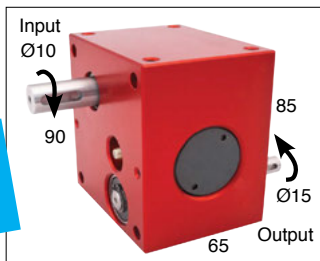
Torque up to 12.8Nm

- Ratios from 25:1 to 900:1
- 2-stage reduction
- Output backlash $\approx 2^\circ$
- Max. input speed: 3000 rpm
- Materials:
 - casing: anodised aluminium
 - input: high carbon steel
 - output: bronze
- Weight: 1.80 kg

Options

- Can be modified to your specifications

**Very high
reduction
ratios**



OUTPUT TORQUE (Nm values given as a guide only)

Ratios	100:1	200:1	400:1
3000	6,50	7,10	8,20
2000	7,20	7,80	8,90
1000	8,20	9,00	9,80
500	9,50	10,20	11,50
200	11,00	11,60	12,20
100	12,00	12,30	12,60
50	12,70	12,80	12,80

DISCOUNTS

Qty	1+	2+	4+
Disc.	List	-5%	On request

Part number	Ratio	Max. input speed (rpm)	Max. output speed (rpm)	Efficiency at 1000 rpm	Anti back drive	Price each 1 to 5
PP50-100	100:1	3000	30,00	54%	NO	581,74 €
PP50-200	200:1	3000	15,00	48%	NO	581,74 €
PP50-400	400:1	3000	7,50	36%	YES	581,74 €
PP50-SP	25:1 - 900:1	Special ratios from 25:1 to 900:1				On request

Dimensions in mm



Double reduction worm gear reducers

Torque up to 34Nm

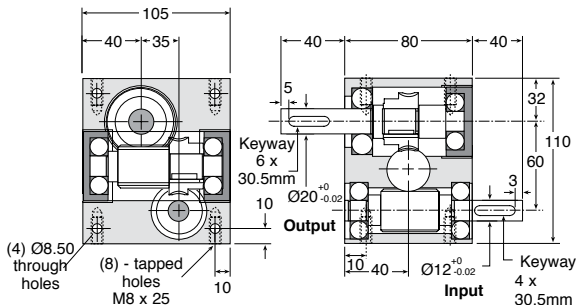
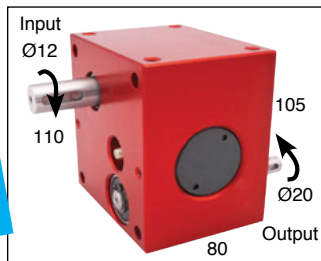
PP60

- Ratios from 25:1 to 900:1
- 2-stage reduction
- Output backlash $\approx 2^\circ$
- Max. input speed: 3000 rpm
- Materials:
 - Casing: anodised aluminium
 - input: high carbon steel
 - output: bronze
- Weight: 3.30 kg

Options

- Can be modified to your specifications

**Very high
reduction
ratios**



OUTPUT TORQUE (Nm values given as a guide only)

Ratios	100:1	200:1	400:1
3000	17,80	19,40	22,50
2000	20,00	21,60	24,80
1000	22,50	25,00	26,80
500	26,10	28,00	31,60
200	30,50	32,00	34,00
100	33,00	34,00	34,00
50	34,00	34,00	34,00

DISCOUNTS

Qty	1+	2+	4+
Disc.	List	-5%	On request

Part number	Ratio	Max. input speed (rpm)	Max. output speed (rpm)	Efficiency at 1000 rpm	Anti back drive	Price each 1 to 5
PP60-100	100:1	3000	30,00	55%	NO	735,10 €
PP60-200	200:1	3000	15,00	50%	NO	735,10 €
PP60-400	400:1	3000	7,50	37%	YES	735,10 €
PP60-SP	25:1 - 900:1	Special ratios from 25:1 to 900:1				On request

Dimensions in mm

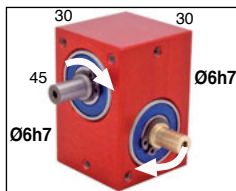
Right angle helical reducers



E15

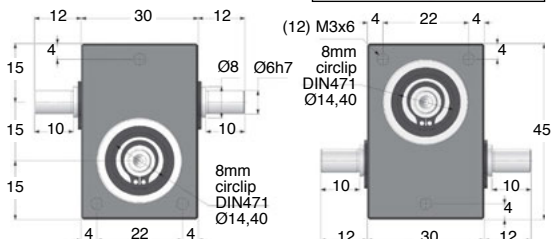
Torque up to 2.53Nm

- Ratios from 1 :1 to 40:1
- Single block construction
- Output backlash : $\pm 1^\circ$
- Max input speed : up to 4000rpm
- Materials :
 - Casing: anodised aluminium
 - Gears/worms : high carbon steel
- Ratios 1: to 5:1, Input and output: high carbon steel
- Ratios $\geq 8:1$, Input :high carbon steel, Output : bronze
- Weight: 0.255 kg



Option

- Can be modified to your specifications



OUTPUT TORQUE (Nm values given as a guide only)

Ratios	1:1	2:1	3:1	4:1	5:1	8:1	10:1	20:1	40:1
3000	0,40	0,40	0,40	0,40	0,40	-	-	-	-
2000	0,46	0,46	0,46	0,46	0,46	0,69	0,79	0,90	1,00
1000	0,66	0,66	0,66	0,66	0,66	0,86	0,86	1,08	1,19
INPUT SPEED (RPM)	500	0,92	0,92	0,92	0,92	1,27	1,37	1,47	1,56
100	1,19	1,19	1,19	1,19	1,19	1,72	1,78	1,87	1,95
50	1,25	1,25	1,25	1,25	1,25	1,95	2,07	2,18	2,24
10	1,32	1,32	1,32	1,32	1,32	2,39	2,44	2,51	2,53



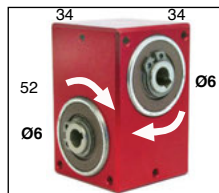
DISCOUNTS

Qty	1+	3+	6+	10+
Disc.	List -10%	List -10%	List -15%	On request

Part number	Ratios	Type	Input	Efficiency at 1000 rpm	Max input speed (rpm)	Reflected inertia at input (kg.m ²)	Anti-back drive	Stock*	Prix Uni. 1 à 2
E15-1	1:1	Helical	A	88%	4000	3,762 x 10 ⁻⁶	NO	✓	320,00 €
E15-2	2:1	Helical	A	86%	4000	2,349 x 10 ⁻⁶	NO	-	320,00 €
E15-3	3:1	Helical	A	85%	4000	2,011 x 10 ⁻⁶	NO	-	320,00 €
E15-4	4:1	Helical	A	84%	4000	1,986 x 10 ⁻⁶	NO	-	320,00 €
E15-5	5:1	Helical	A	80%	4000	1,544 x 10 ⁻⁶	NO	-	320,00 €
E15-8	8:1	Worm+wheel	A	80%	2000	1,622 x 10 ⁻⁶	NO	-	320,00 €
E15-10	10:1	Worm+wheel	A	73%	2000	1,609 x 10 ⁻⁶	NO	-	320,00 €
E15-20	20:1	Worm+wheel	A	67%	2000	1,593 x 10 ⁻⁶	YES	-	320,00 €
E15-40	40:1	Worm+wheel	A	60%	2000	1,589 x 10 ⁻⁶	YES	✓	320,00 €
E15-SP	1:1 - 40:1	Ratio from 1:1 to 40:1							On request
E15-SPA	1:1 - 40:1	Reduced output backlash $\approx 30'$							On request
E15-SPLH	1:1 - 40:1	Left handed							On request

Depending on availability - Dimensions in mm

- Ratios from 1:1 to 40:1
- Single piece construction
- Output backlash $\approx 1^\circ$
- Max. input speed up to 4000 rpm
- Materials:
 - Casing: anodised aluminium
 - gears and worms: case-hardened steel
- Ratios 1:1 to 5:1, input and output: case-hardened steel
- Ratios $\geq 8:1$, input: case-hardened steel output: bronze
- Weight: 0.255 kg

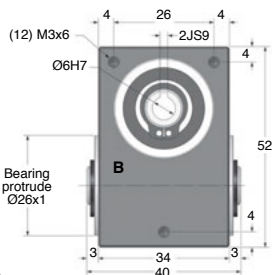
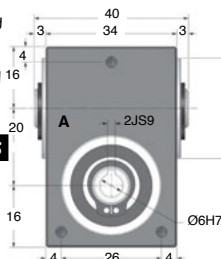


Options

- Can be modified to your specifications

Accessories

- Input or output shafts
- E-X and E-DX



COUPLE DE SORTIE (Nm : VALEURS INDICATIVES)

Ratios	1:1	2:1	3:1	4:1	5:1	8:1	10:1	20:1	40:1
3000	0,60	0,60	0,60	0,60	0,60	-	-	-	-
2000	0,70	0,70	0,70	0,70	0,70	1,05	1,20	1,36	1,52
1000	1,00	1,00	1,00	1,00	1,00	1,31	1,47	1,63	1,80
500	1,40	1,40	1,40	1,40	1,40	1,93	2,08	2,22	2,37
100	1,80	1,80	1,80	1,80	1,80	2,60	2,70	2,83	2,95
50	1,90	1,90	1,90	1,90	1,90	2,95	3,13	3,31	3,40
10	2,00	2,00	2,00	2,00	2,00	3,62	3,70	3,80	3,84

DISCOUNTS

Qty	1+	3+	6+	10+
Disc.	List -10%	-15%	On request	On request

Part number	Ratio	Type	Input	Efficiency at 1000 rpm	Max. input speed (rpm)	Reflected inertia at input (kg.m ²)	Anti-back drive	Stock*	Price each 1 to 2
E20-1	1:1	Helical	A	88%	4000	3,762 x 10 ⁻⁶	NO	✓	354,66 €
E20-2	2:1	Helical	A	86%	4000	2,349 x 10 ⁻⁶	NO	-	354,66 €
E20-3	3:1	Helical	A	85%	4000	2,011 x 10 ⁻⁶	NO	-	354,66 €
E20-4	4:1	Helical	A	84%	4000	1,986 x 10 ⁻⁶	NO	✓	354,66 €
E20-5	5:1	Helical	A	80%	4000	1,544 x 10 ⁻⁶	NO	-	354,66 €
E20-8	8:1	Worm+wheel	A	80%	2000	1,622 x 10 ⁻⁶	NO	✓	354,66 €
E20-10	10:1	Worm+wheel	A	73%	2000	1,609 x 10 ⁻⁶	NO	-	354,66 €
E20-20	20:1	Worm+wheel	A	67%	2000	1,593 x 10 ⁻⁶	YES	✓	354,66 €
E20-40	40:1	Worm+wheel	A	60%	2000	1,589 x 10 ⁻⁶	YES	-	354,66 €
E20-SP	1:1 - 40:1	Ratio from 1:1 to 40:1						-	On request
E20-SPA	1:1 - 40:1	Reduced output backlash $\approx 30'$						-	On request
E20-SPLH	1:1 - 40:1	Left handed						-	On request

*Depending on availability - Dimensions in mm

Right angle helical reducers



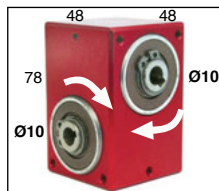
E30

Torque up to 9Nm

- Ratios from 1:1 to 40:1
- Single piece construction
- Output backlash $\approx 1^\circ$
- Max. input speed up to 4000 rpm
- Materials:

Casing: anodised aluminium
gears and worms: case-hardened steel

- Ratios 1:1 to 5:1, input and output: case-hardened steel
- Ratios $\geq 8:1$,
input: case-hardened steel
output: bronze
- Weight: 0.72 kg

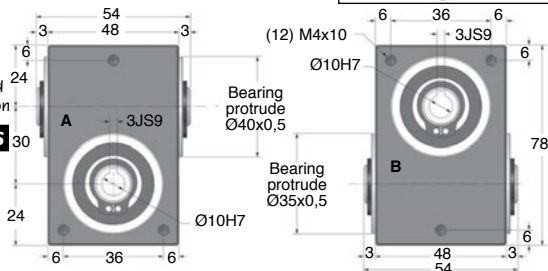


Options

- Can be modified
your specification

Accessories

- Input or output
shafts
E-X and E-DX



OUTPUT TORQUE (Nm values given as a guide only)

Ratios	1:1	2:1	3:1	4:1	5:1	8:1	10:1	20:1	40:1
3000	1,5	1,5	1,5	1,5	1,5	-	-	-	-
2000	2,0	2,0	2,0	2,0	2,0	-	-	-	-
1000	2,5	2,5	2,5	2,5	2,5	3,6	4,2	4,7	5,0
500	3,0	3,0	3,0	3,0	3,0	4,9	5,3	5,6	6,0
100	4,0	4,0	4,0	4,0	4,0	6,5	7,0	7,1	7,3
50	4,5	4,5	4,5	4,5	4,5	7,9	8,4	8,5	8,6
10	5,0	5,0	5,0	5,0	5,0	8,5	8,7	8,9	9,0

DISCOUNTS

Qty	1+	3+	6+	10+
Disc.	List -10%	List -15%	On request	On request

Part number	Ratio	Type	Input	Efficiency at 1000 rpm	Max. input speed (rpm)	Reflected inertia at input (kg.m ²)	Anti-back drive	Stock*	Price each 1 to 2
E30-1	1:1	Helical	B	90%	4000	2,867 x 10 ⁻⁶	NO	✓	407,11 €
E30-2	2:1	Helical	A	88%	4000	1,362 x 10 ⁻⁶	NO	✓	407,11 €
E30-3	3:1	Helical	A	87%	4000	1,071 x 10 ⁻⁶	NO	✓	407,11 €
E30-4	4:1	Helical	A	86%	4000	1,032 x 10 ⁻⁶	NO	✓	407,11 €
E30-5	5:1	Helical	A	80%	4000	9,372 x 10 ⁻⁶	NO	✓	407,11 €
E30-8	8:1	Worm+wheel	A	80%	1500	1,115 x 10 ⁻⁶	NO	✓	407,11 €
E30-10	10:1	Worm+wheel	A	73%	1500	1,106 x 10 ⁻⁶	NO	✓	407,11 €
E30-20	20:1	Worm+wheel	A	67%	1500	1,094 x 10 ⁻⁶	YES	✓	407,11 €
E30-40	40:1	Worm+wheel	A	60%	1500	1,091 x 10 ⁻⁶	YES	-	407,11 €
E30-SP	1:1 - 40:1	Ratio from 1:1 to 40:1							On request
E30-SPA	1:1 - 40:1	Reduced output backlash $\approx 30'$							On request
E30-SPLH	1:1 - 40:1	Left handed							On request

*Depending on availability - Dimensions in mm



Right angle helical reducers

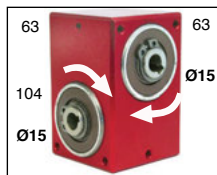
Torque up to 20Nm

E40

- Ratios from 1:1 to 40:1
- Single piece construction
- Output backlash $\approx 1^\circ$
- Max. input speed up to 4000 rpm
- Materials:

Casing: anodised aluminium
gears and worms: case-hardened steel

- Ratios 1:1 to 5:1, input and output: case-hardened steel
- Ratios $\geq 8:1$, input: case-hardened steel
output: bronze
- Weight: 1.67 kg

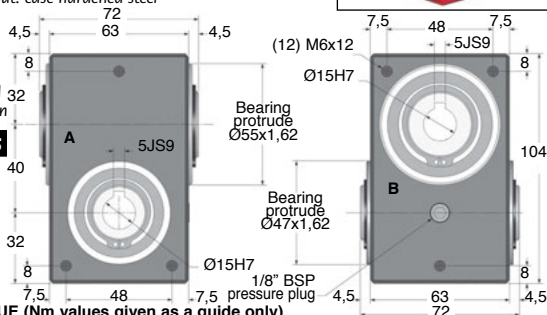


Options

- Can be modified
your specification

Accessories

- Input or output
shafts
E-X and E-DX



OUTPUT TORQUE (Nm values given as a guide only)

Ratios	1:1	2:1	3:1	4:1	5:1	8:1	10:1	20:1	40:1
3000	2,3	2,3	2,3	2,3	2,3	-	-	-	-
2000	2,8	2,8	2,8	2,8	2,8	-	-	-	-
1000	3,8	3,8	3,8	3,8	3,8	7,3	8,0	8,8	9,7
500	5,0	5,0	5,0	5,0	5,0	10,7	11,3	12,2	13,1
100	8,0	8,0	8,0	8,0	8,0	14,2	15,0	15,8	16,7
50	9,0	9,0	9,0	9,0	9,0	17,1	17,3	17,7	18,2
10	10,0	10,0	10,0	10,0	10,0	19,5	19,6	19,8	20,0

DISCOUNTS

Qty	1+	2+	4+
Disc.	List -5%	On request	On request

Part number	Ratio	Type	Input	Efficiency at 1000 rpm	Max. input speed (rpm)	Reflected inertia at input (kg.m ²)	Anti-back drive	Stock*	Price each
E40-1	1:1	Helical	B	92%	4000	1,471 x 10 ⁻⁴	NO	✓	519,92 €
E40-2	2:1	Helical	A	90%	4000	6,738 x 10 ⁻⁵	NO	✓	519,92 €
E40-3	3:1	Helical	A	89%	4000	5,193 x 10 ⁻⁵	NO	✓	519,92 €
E40-4	4:1	Helical	A	88%	4000	5,038 x 10 ⁻⁵	NO	✓	519,92 €
E40-5	5:1	Helical	A	80%	4000	5,095 x 10 ⁻⁵	NO	✓	519,92 €
E40-8	8:1	Worm+wheel	A	80%	1500	5,213 x 10 ⁻⁵	NO	-	519,84 €
E40-10	10:1	Worm+wheel	A	73%	1500	5,198 x 10 ⁻⁵	NO	✓	519,84 €
E40-20	20:1	Worm+wheel	A	67%	1500	5,110 x 10 ⁻⁵	YES	✓	519,92 €
E40-40	40:1	Worm+wheel	A	60%	1500	5,090 x 10 ⁻⁵	YES	-	519,84 €
E40-SP	1:1 - 40:1	Ratio from 1:1 to 40:1							On request
E40-SPA	1:1 - 40:1	Reduced output backlash $\approx 30'$							On request
E40-SPLH	1:1 - 40:1	Left handed							On request

*Depending on availability - Dimensions in mm

Right angle helical reducers



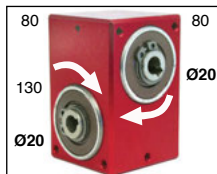
E50

Torque up to 41Nm

- Ratios from 1:1 to 40:1
- Single piece construction
- Output backlash $\approx 1^\circ$
- Max. input speed up to 4000 rpm
- Materials:

Casing: anodised aluminium
gears and worms: case-hardened steel

- Ratios 1:1 to 5:1, input and output: case-hardened steel
- Ratios $\geq 8:1$, input: case-hardened steel, output: bronze
- Weight: 3.18 kg

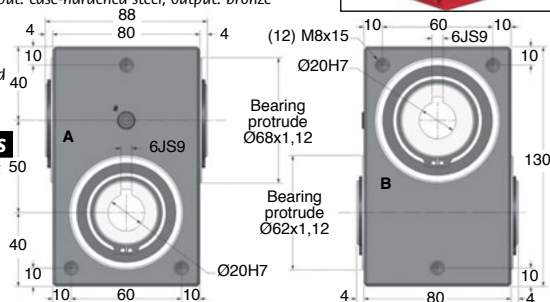


Options

- Can be modified to your specifications

Accessories

- Input or output shafts
- E-X and E-DX



OUTPUT TORQUE (Nm values given as a guide only)

Ratios	1:1	2:1	3:1	4:1	5:1	8:1	10:1	20:1	40:1
3000	3,0	3,0	3,0	3,0	3,0	-	-	-	-
2000	4,0	4,0	4,0	4,0	4,0	-	-	-	-
1000	6,0	6,0	6,0	6,0	6,0	11,3	13,0	15,0	17,0
500	8,0	8,0	8,0	8,0	8,0	18,0	20,0	21,0	23,0
100	12,0	12,0	12,0	12,0	12,0	25,0	26,0	28,0	30,0
50	14,0	14,0	14,0	14,0	14,0	31,0	31,0	32,0	33,0
10	16,0	16,0	16,0	16,0	16,0	40,0	40,0	41,0	41,0

DISCOUNTS

Qty	1+	2+	4+
Disc.	List -5%	On request	On request

Part number	Ratio	Type	Input	Efficiency at 1000 rpm	Max. input speed (rpm)	Reflected inertia at input (kg.m ²)	Anti-back drive	Stock*	Price each
E50-1	1:1	Helical	B	93%	3000	4,585 x 10 ⁻⁴	NO	✓	661,22 €
E50-2	2:1	Helical	A	91%	3000	2,240 x 10 ⁻⁴	NO	✓	661,22 €
E50-3	3:1	Helical	A	90%	3000	1,759 x 10 ⁻⁴	NO	-	661,22 €
E50-4	4:1	Helical	A	89%	3000	1,924 x 10 ⁻⁴	NO	✓	661,22 €
E50-5	5:1	Helical	A	80%	3000	1,920 x 10 ⁻⁴	NO	-	661,24 €
E50-8	8:1	Worm+wheel	A	80%	1500	1,489 x 10 ⁻⁴	NO	-	661,22 €
E50-10	10:1	Worm+wheel	A	73%	1500	1,496 x 10 ⁻⁴	NO	-	661,22 €
E50-20	20:1	Worm+wheel	A	67%	1500	1,463 x 10 ⁻⁴	YES	✓	661,22 €
E50-40	40:1	Worm+wheel	A	60%	1500	1,455 x 10 ⁻⁴	YES	✓	661,22 €
E50-SP	1:1 - 40:1	Ratio from 1:1 to 40:1							On request
E50-SPA	1:1 - 40:1	Reduced output backlash $\approx 30'$							On request
E50-SPLH	1:1 - 40:1	Left handed							On request

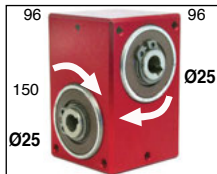
*Depending on availability - Dimensions in mm



Torque up to 62Nm

E60

- Ratios from 1:1 to 40:1
- Single piece construction
- Output backlash $\approx 1^\circ$
- Max. input speed up to 4000 rpm
- Materials:
 - casing: anodised aluminium
 - gears and worms: case-hardened steel
- Ratios 1:1 to 5:1, input and output: case-hardened steel
- Ratios $\geq 8:1$, input: case-hardened steel, output: bronze
- Weight: 5.50 kg

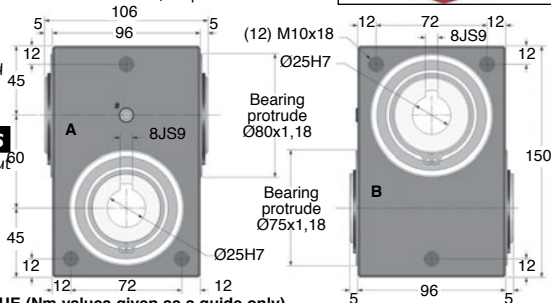


Options

- Can be modified to your specifications

Accessories

- Input and output shafts **E-X** and **E-DX**



OUTPUT TORQUE (Nm values given as a guide only)

Ratios		1:1	2:1	3:1	4:1	5:1	8:1	10:1	20:1	40:1
INPUT SPEED (RPM)	3000	4.5	4.5	4.5	4.5	4.5	-	-	-	-
	2000	5.5	5.5	5.5	5.5	5.5	-	-	-	-
	1000	8.0	8.0	8.0	8.0	8.0	17.8	21.3	22.0	24.0
	500	10.0	10.0	10.0	10.0	10.0	27.0	29.0	31.0	34.0
	100	16.0	16.0	16.0	16.0	16.0	37.0	40.2	42.0	44.0
	50	20.0	20.0	20.0	20.0	20.0	48.0	49.0	50.0	51.0
	10	24.0	24.0	24.0	24.0	24.0	60.0	60.0	61.0	62.0

DISCOUNTS

Qty.	1+	2+	4+
Disc.	List	-5%	On request

[illegible]

*Depending on availability - Dimensions in mm

Right angle helical reducers

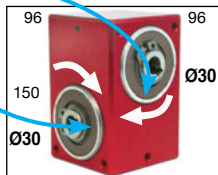


E60B

Torque up to 24Nm

- Ratios from 1 :1 to 4:1
- Large bores
- Single block construction
- Output backlash : $\pm 1^\circ$
- Max input speed : up to 3000rpm
- Materials :
 - Casing: anodised aluminium
 - Gears : high carbon steel
 - Ratios 1: to 4:1, Input and output: high carbon steel
- Weight: 5.5 kg

Large bore

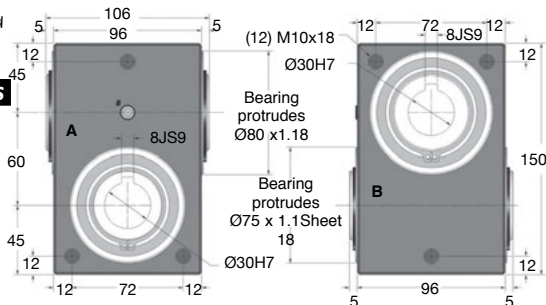


Option

- Can be modified to your specifications

Accessoires

- E-X and E-DX input/output shafts



OUTPUT TORQUE (Nm values given as a guide only)

Ratios	1:1	2:1	3:1
3000	4,5	4,5	4,5
2000	5,5	5,5	5,5
1000	8,0	8,0	8,0
500	10,0	10,0	10,0
200	16,0	16,0	16,0
100	20,0	20,0	20,0
50	24,0	24,0	24,0

DISCOUNTS

Qty	1+	2+	4+
Disc.	List	-5%	On request

Part number	Ratio	Type	Input	Efficiency at 1000 rpm	Max. input speed (rpm)	Reflected inertia at input (kg.m ²)	Anti-back drive	Stock*	Price each
E60B-1	1:1	Helical	B	94%	3000	$1,237 \times 10^{-3}$	NO	-	797,13 €
E60B-2	2:1	Helical	A	92%	3000	$6,023 \times 10^{-4}$	NO	-	797,13 €
E60B-3	3:1	Helical	A	91%	3000	$4,651 \times 10^{-4}$	NO	-	797,13 €
E60B-4	4:1	Helical	A	90%	3000	$5,026 \times 10^{-4}$	NO	-	797,13 €
E60B-SP	1:1 - 40:1	Ratio from 1:1 to 40:1						-	On request
E60B-SPA	1:1 - 40:1	Reduced output backlash ~ 30'						-	On request
E60B-SPLH	1:1 - 40:1	Left handed						-	On request

*Depending on availability - Dimensions in mm

Optional shaft for E-type gear reducers

Stainless steel

Ex
EDX

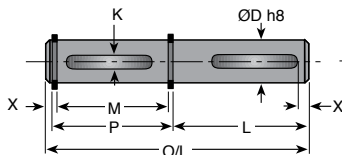
- Optional accessory for adding outputs shafts to E series gear reducers

Composition

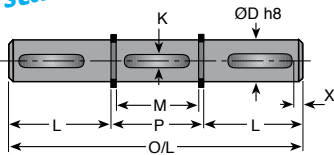
- Single shaft kit E-x: shaft in stainless steel 303, 2 steelkeys and 2 steel circlips
- Double shaft kit E-dx: stainless steel 303 shaft, 3 steel keys and 2 steel circlips



stainless steel



Single shaft E-X



Double shaft E-DX



Single



Double

Assembly examples

DISCOUNTS

Qty	1+	6+	20+	40+
Disc.	List	-15%	-20%	On request

Part number	For gearbox	ØD	O/L	M	P	X	L	K	Price each 1 to 5
Single									
E20-X	E20	6	68,80	40	41,60	3,00	25	K2 x 22	47,01 €
E30-X	E30	10	98,60	54	56,20	3,50	40	K3 x 20	55,68 €
E40-X	E40	15	127,10	72	74,20	4,00	50	K5 x 30	67,62 €
E50-X	E50	20	153,80	88	90,60	4,50	60	K6 x 32	75,49 €
E60-X	E60	25	182,30	106	108,60	5,00	70	K8 x 40	81,38 €
Double									
E20-DX	E20	6	91,60	40	41,60	3,00	25	K2 x 22	60,58 €
E30-DX	E30	10	136,20	54	56,20	3,50	40	K3 x 20	69,80 €
E40-DX	E40	15	174,20	72	74,20	4,00	50	K5 x 30	81,21 €
E50-DX	E50	20	210,60	88	90,60	4,50	60	K6 x 32	94,27 €
E60-DX	E60	25	248,60	106	108,60	5,00	70	K8 x 40	110,01 €

Dimensions in mm

Right angled gearbox, dual output shafts

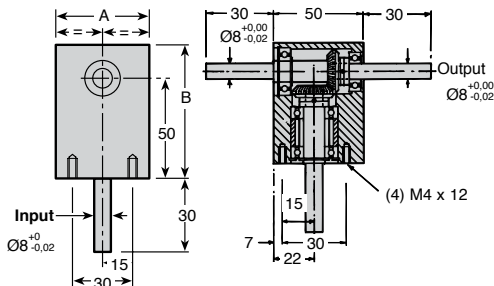
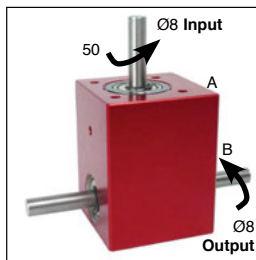
BL8

Torque up to 2Nm

- Ratios from 1:1 to 4:1
- Output backlash $\approx 1^\circ$
- Max. input speed: 2000 rpm
- Materials:
Casing: anodised aluminium
input and output : unhardened steel
- Weight: 0.55 kg

Options

- Can be modified to your specifications



OUTPUT TORQUE (Nm: VALUES GIVEN AS A GUIDE ONLY)

Ratios		1:1	2:1	3:1	4:1
INPUT SPEED (rpm)	2000	0,40	0,20	0,50	0,80
	1000	0,50	0,30	0,50	0,90
	500	0,50	0,30	0,60	1,10
	200	0,60	0,40	0,70	1,30
	100	0,70	0,40	0,80	1,40
	50	0,80	0,40	0,90	1,60
	10	1,00	0,60	1,20	2,00

DISCOUNTS

Qty	1+	3+	6+	10+
Disc.	List	-15%	-20%	On request

Part number	Ratio	Efficiency at 1000 rpm	Max. input speed (rpm)	Max. output speed (rpm)	A	B	Module	Stock*	Price each 1 to 2
BL8-1	1:1	88%	2000	2000	50	65	0,8	-	232,45 €
BL8-2	2:1	88%	2000	1000	50	65	0,8	✓	232,45 €
BL8-3	3:1	88%	2000	666	50	75	0,8	✓	232,45 €
BL8-4	4:1	88%	2000	500	60	80	0,8	-	232,45 €
BL8-XH	1:1 - 4:1	With hardened gears = output torque x 2							On request

*Depending on availability - Dimensions in mm



Right angled gearbox, dual output shafts

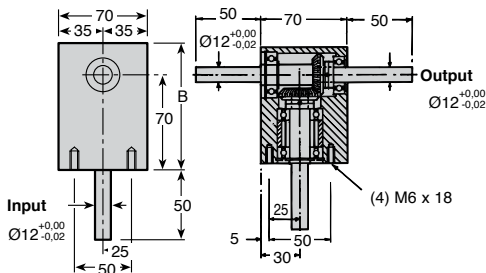
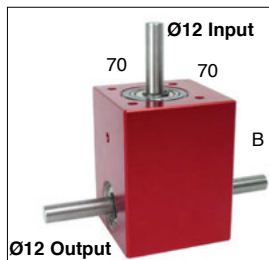
Torque up to 6Nm

BL15

- Ratios from 1:1 to 4:1
- Output backlash $\approx 1^\circ$
- Max. input speed: 2000 rpm
- Materials:
Casing: anodised aluminium
input and output : unhardened steel
- Weight: 0.70 kg

Options

- Can be modified to your specifications



OUTPUT TORQUE (Nm: VALUES GIVEN AS A GUIDE ONLY)

Ratios	1:1	2:1	3:1	4:1
2000	2,00	1,10	2,30	2,20
1000	2,30	1,20	2,60	2,50
500	2,70	1,40	3,00	2,80
200	3,20	1,70	3,60	3,40
100	3,50	2,00	4,00	3,70
50	3,90	2,20	4,50	4,20
10	5,00	2,90	6,00	5,50

DISCOUNTS

Qty	1+	3+	6+	10+
Disc. List	-15%	-20%	-20%	On request

Part number	Ratio	Efficiency at 1000 rpm	Max. input speed (rpm)	Max. output speed (rpm)	B	Module	Price each 1 to 2
BL15-1	1:1	88%	2000	2000	90	1,5	320,90 €
BL15-2	2:1	88%	2000	1000	105	1,5	320,90 €
BL15-3	3:1	88%	2000	666	110	1,5	320,90 €
BL15-4	4:1	88%	2000	500	120	1,0	387,13 €
BL15-XH	1:1 - 4:1	With hardened gears = output torque x 2					on request

Dimensions in mm

Right angled gearbox



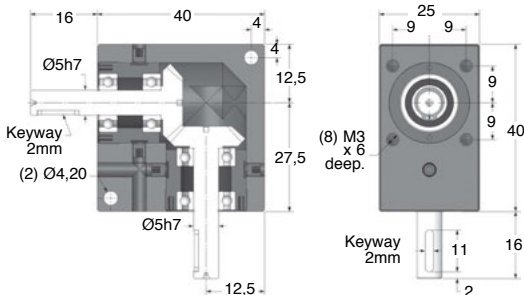
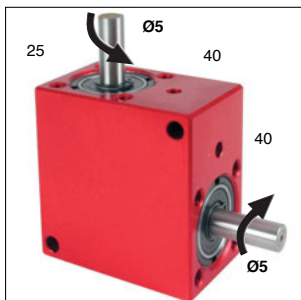
BLH20

Torque up to 1.77Nm

- **Input and output rotate in opposite directions**
- Ratios from 1:1 to 2:1
- Output backlash $\approx 1^\circ$
- Max. speed: 4000 rpm
- Materials:
 - casing: anodised aluminium
 - input and output: hardened steel
- Keyway conforming to DIN 6885
- Greased for life: Shell Gadus S2 V220AD 2
- Weight: 0.11 kg

Options

- Can be modified to your specifications



OUTPUT TORQUE (Nm values given as a guide only)

Ratios		1:1	2:1
INPUT SPEED (rpm)	3000	0,66	0,53
	2000	0,72	0,58
	1000	0,88	0,70
	500	1,00	0,80
	100	1,35	1,08
	50	1,48	1,18
	10	1,77	1,41

DISCOUNTS

Qty	1+	3+	6+	10+
Disc.	List	-15%	-20%	On request

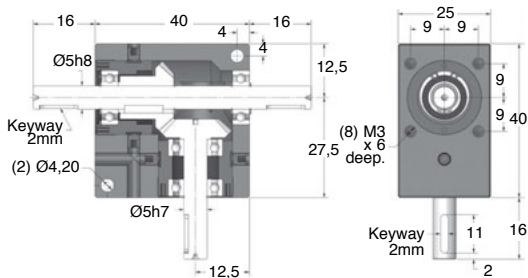
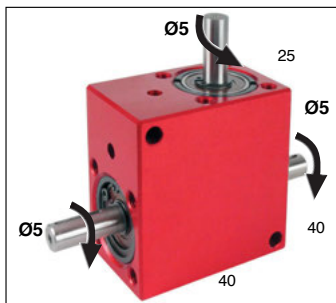
Part number	Ratio	Efficiency at 1000 rpm	Max. input speed (rpm)	Max. output speed (rpm)	Reflected inertia at input (kg.m ²)	Stock*	Price each 1 to 2
BLH20-1	1:1	88%	4000	4000	$4,34 \times 10^{-7}$	✓	288,83 €
BLH20-2	2:1	88%	4000	2000	$8,41 \times 10^{-8}$	✓	288,83 €

*Depending on availability - Dimensions in mm

- **Input and output rotate in opposite directions**
- Ratios from 1:1 to 2:1
- Output backlash $\approx 1^\circ$
- Max. speed: 4000 rpm
- Materials:
 - casing: anodised aluminium
 - input: hardened steel
 - output: unhardened steel
- Keyway conforming to DIN 6885
- Greased for life: Shell Gadus S2 V220AD 2
- Weight: 0.12 kg

Options

- Can be modified to your specifications



OUTPUT TORQUE (Nm values given as a guide only)

Ratios	1:1	2:1
3000	0,66	0,53
2000	0,72	0,58
1000	0,88	0,70
500	1,00	0,80
100 (rpm)	1,35	1,08
50	1,48	1,18
10	1,77	1,41

DISCOUNTS

Qty	1+	3+	6+	10+
Disc.	List	-15%	-20%	On request

Part number	Ratio	Efficiency at 1000 rpm	Max. input speed (rpm)	Max. output speed (rpm)	Reflected inertia at input (kg.m ²)	Stock*	Price each 1 to 2
BLHT20-1	1:1	88%	4000	4000	$4,34 \times 10^{-7}$	✓	317,71 €
BLHT20-2	2:1	88%	4000	2000	$8,41 \times 10^{-8}$	-	317,71 €

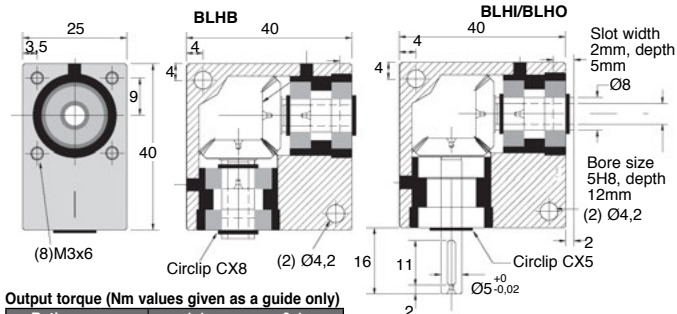
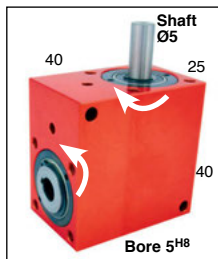
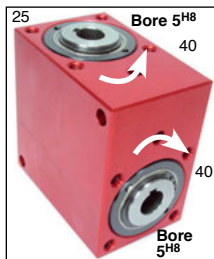
*Depending on availability - Dimensions in mm

Right angled gearbox, bored shafts Size XS

BLHB20
BLHI20
BLHO20

Torque up to 1.77Nm

- Input and output rotate in opposite directions
- Ratio from 1:1 to 2:1
- Output backlash $\approx 1^\circ$
- Max. speed: 4000 rpm
- Greased for life
- Materials:
 - casing: anodised aluminium 6082
 - gears: case hardened steel
- Allowable loads, please refer to the technical pages



Output torque (Nm values given as a guide only)

Ratios	1:1	2:1
INPUT SPEED (rpm)		
3000	0,66	0,53
2000	0,72	0,58
1000	0,88	0,70
500	1,00	0,80
100	1,35	1,08
50	1,48	1,18
10	1,77	1,41

DISCOUNTS

Qty	1+	2+	4+	6+
Disc.	List	-15%	-20%	On request

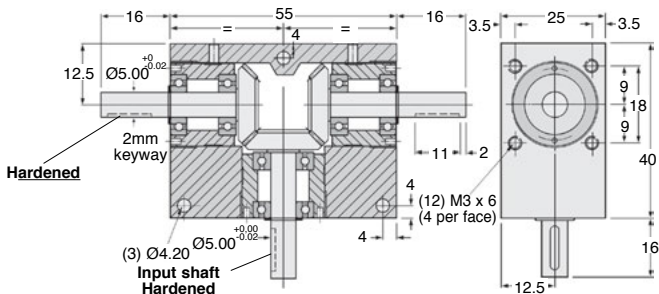
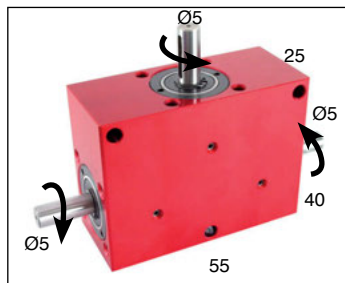
Part number	Ratios	Input shaft	Output shaft	Efficiency at 1000 (rpm)	Max. input speed (rpm)	Max. output speed (rpm)	Price each
BLHB20-1	1:1	Hollow	Hollow	88%	4000	4000	353,55 €
BLHB20-2	2:1	Hollow	Hollow	88%	4000	2000	353,55 €
BLHI20-1	1:1	Hollow	Solid	88%	4000	4000	322,93 €
BLHI20-2	2:1	Hollow	Solid	88%	4000	2000	322,93 €
BLHO20-2	2:1	Solid	Hollow	88%	4000	2000	322,93 €

Dimensions in mm

- The two outputs rotate in opposite directions
- Ratios of 1:1 to 2:1
- Output backlash $\approx 1^\circ$
- Max. speed: 4000 rpm
- Materials: casing: anodised aluminium
input: hardened steel,
output: hardened steel
- Weight: 0.16 kg

Options

- Can be modified to your specifications



Output torque Nm (Nm values given as a guide only)

Ratios		1:1	2:1
INPUT SPEED (rpm)	3000	0,66	0,53
	2000	0,72	0,58
	1000	0,88	0,70
	500	1,00	0,80
	100	1,35	1,08
	50	1,48	1,18
	10	1,77	1,41

Innovative !
Outputs rotate in different directions

DISCOUNTS

Qty	1+	2+	4+	6+
Disc.	List	-15%	-20%	On request

Part number	Ratio	Efficiency at 1000 rpm	Max. input speed (rpm)	Max. output speed (rpm)	Module	Price each
BLHM20-1	1:1	88%	4000	4000	0,6	433,28 €
BLHM20-2	2:1	88%	4000	2000	0,6	433,28 €

Dimensions in mm

Right angled gearbox



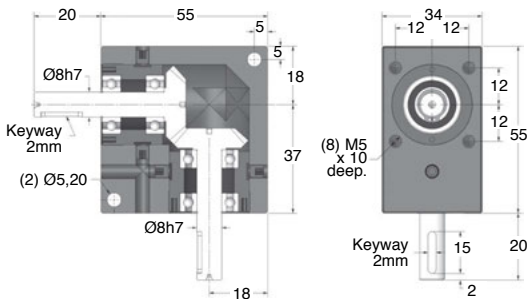
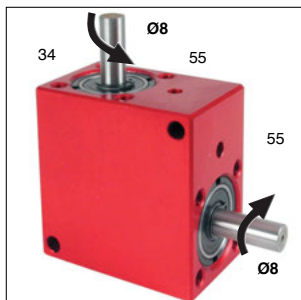
BLH30

Torque up to 4.4Nm

- **Input and output rotate in opposite directions**
- Ratios from 1:1 to 2:1
- Output backlash $\approx 1^\circ$
- Max. speed: 4000 rpm
- Materials:
 - casing: anodised aluminium
 - input and output: hardened steel
- Keyway conforming to DIN 6885
- Greased for life: Shell Gadus S2 V220AD 2
- Weight: 0.28 kg

Options

- Can be modified to your specifications



OUTPUT TORQUE (Nm values given as a guide only)

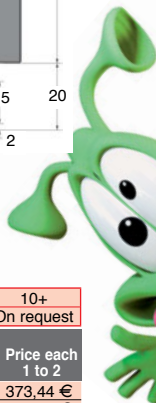
Ratios	1:1	2:1
3000	1,65	1,32
2000	1,81	1,45
1000	2,20	1,76
500	2,51	2,00
100	3,38	2,70
50	3,70	3,00
10	4,40	3,54

DISCOUNTS

Qty	1+	3+	6+	10+
Disc.	List	-15%	-20%	On request

Part number	Ratio	Efficiency at 1000 rpm	Max. input speed (rpm)	Max. output speed (rpm)	Reflected inertia at input (kg.m ²)	Stock*	Price each 1 to 2
BLH30-1	1:1	88%	4000	4000	$2,19 \times 10^{-6}$	✓	373,44 €
BLH30-2	2:1	88%	4000	2000	$5,00 \times 10^{-7}$	✓	373,44 €

*Depending on availability - Dimensions in mm





Right angled gearbox

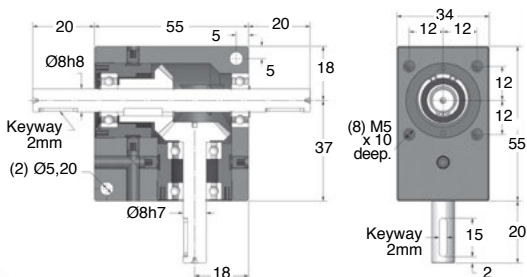
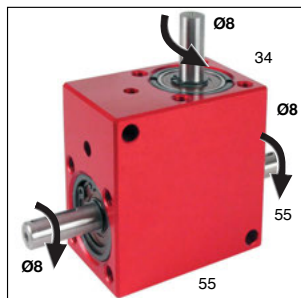
Torque up to 4.4Nm

BLHT30

- Gearbox output shafts double sided
- Ratios from 1:1 to 2:1
- Output backlash $\approx 1^\circ$
- Max. speed: 4000 rpm
- Materials:
 - casing: anodised aluminium
 - input: hardened steel
 - output: unhardened steel
- Keyway conforming to DIN 6885
- Greased for life: Shell Gadus S2 V220AD 2
- Weight: 0.3 kg

Options

- Can be modified to your specifications



OUTPUT TORQUE (Nm values given as a guide only)

Ratios		1:1	2:1
INPUT SPEED (rpm)	3000	1,65	1,32
	2000	1,81	1,45
	1000	2,20	1,76
	500	2,51	2,00
	100	3,38	2,70
	50	3,70	3,00
	10	4,40	3,54

DISCOUNTS

Qty	1+	3+	6+	10+
Disc.	List	-15%	-20%	On request

Part number	Ratio	Efficiency at 1000 rpm	Max. input speed (rpm)	Max. output speed (rpm)	Reflected inertia at input (kg.m ²)	Stock*	Price each 1 to 2
BLHT30-1	1:1	88%	4000	4000	2,19 x 10 ⁻⁶	✓	410,76 €
BLHT30-2	2:1	88%	4000	2000	5,00 x 10 ⁻⁷	✓	410,76 €

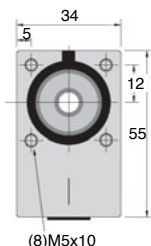
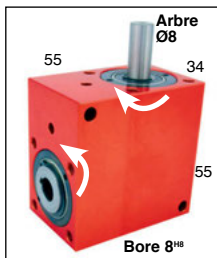
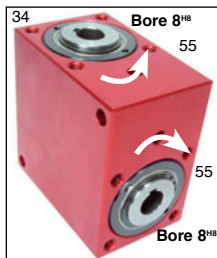
*Depending on availability - Dimensions in mm

Right angled gearbox, bored shafts

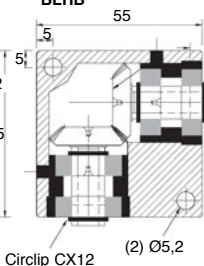
BLHB30
BLHI30
BLHO30

Torque up to 4.4Nm

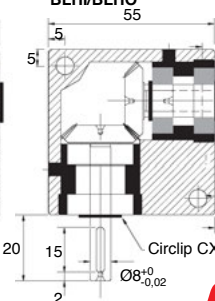
- Input and output rotate in opposite directions
- Ratio from 1:1 to 2:1
- Output backlash $\approx 1^\circ$
- Max. speed: 4000 rpm
- Greased for life
- Materials:
 - casing: anodised aluminium 6082
 - gears: case hardened steel
- Allowable loads, please refer to the technical pages



BLHB



BLHI/BLHO



Slot width
2mm, depth
5mm

Ø12

Bore size
8H8, depth
16mm
(2) Ø4,2

Output torque (Nm values given as a guide only)

Ratios	1:1	2:1
3000	1,65	1,32
2000	1,81	1,45
1000	2,20	1,76
500	2,51	2,00
100	3,38	2,70
50	3,70	3,00
10	4,40	3,54

 **INCREASED STOCK**

DISCOUNTS

Qty	1+	2+	4+	6+
Disc.	List	-15%	-20%	On request

Part number	Ratios	Input shaft	Output shaft	Efficiency at 1000 (rpm)	Max. input speed (rpm)	Max. output speed (rpm)	Stock*	Price each
BLHB30-1	1:1	Hollow	Hollow	88%	4000	4000	✓	457,19 €
BLHB30-2	2:1	Hollow	Hollow	88%	4000	2000	-	457,19 €
BLHI30-1	1:1	Hollow	Solid	88%	4000	4000	✓	417,59 €
BLHI30-2	2:1	Hollow	Solid	88%	4000	2000	-	417,59 €
BLHO30-2	2:1	Solid	Hollow	88%	4000	2000	-	417,59 €

Dimensions in mm

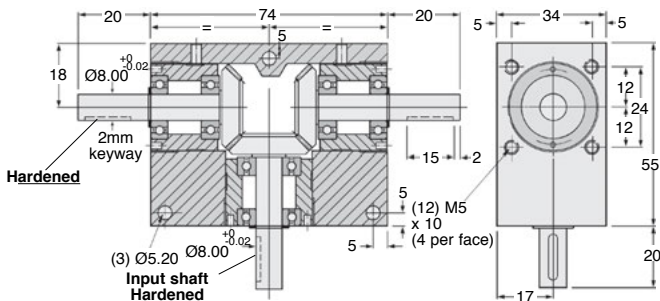


Torque up to 4.4Nm

BLHM30

- ## Options

-



**Innovative !
Outputs rotate in
different directions**

Ratios		1:1	2:1
INPUT SPEED (rpm)	3000	1,65	1,32
	2000	1,81	1,45
	1000	2,20	1,76
	500	2,51	2,00
	100	3,38	2,70
	50	3,70	3,00
	10	4.40	3.54

DISCOUNTS

Qty	1+	2+	4+	6+
Disc.	List	-15%	-20%	On request

Part number	Ratio	Efficiency at 1000 rpm	Max. input speed (rpm)	Max. output speed (rpm)	Module	Price each
BLHM30-1	1:1	88%	4000	4000	0.8	560,18 €
BLHM30-2	2:1	88%	4000	2000	0.8	560,18 €

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HPC

Volume ② 2016

2183

Right angled gearbox



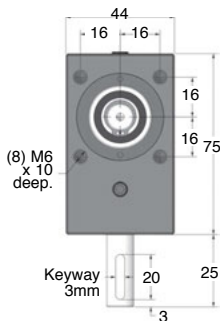
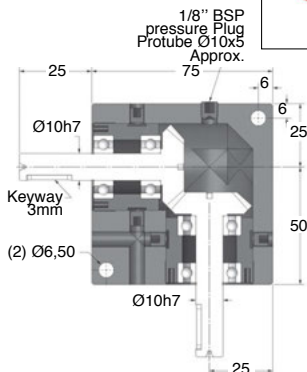
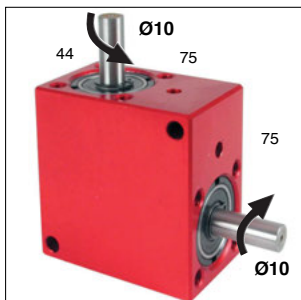
BLH40

Torque up to 10.3Nm

- **Input and output rotate in opposite directions**
- Ratios from 1:1 to 2:1
- Output backlash $\approx 1^\circ$
- Max. speed: 4000 rpm
- Materials:
 - casing: anodised aluminium
 - input and output: hardened steel
- Keyway conforming to DIN 6885
- Greased for life: Shell Gadus S2 V220AD 2
- Weight: 0.90 kg

Options

- Can be modified to your specifications



Output torque (Nm values given as a guide only)

Ratios		1:1	2:1
INPUT SPEED (rpm)	3000	4,00	3,00
	2000	4,40	3,40
	1000	5,10	4,00
	500	5,80	4,60
	100	7,60	6,00
	50	8,50	6,30
	10	10,30	8,00

DISCOUNTS

Qty	1+	3+	6+	10+
Disc.	List	-15%	-20%	On request

Part number	Ratio	Efficiency at 1000 rpm	Max. input speed (rpm)	Max. output speed (rpm)	Reflected inertia at input (kg.m ²)	Stock*	Price each 1 to 2
BLH40-1	1:1	88%	4000	4000	$6,42 \times 10^{-6}$	✓	476,41 €
BLH40-2	2:1	88%	4000	2000	$1,40 \times 10^{-6}$	✓	476,41 €

*Depending on availability - Dimensions in mm



Right angled gearbox

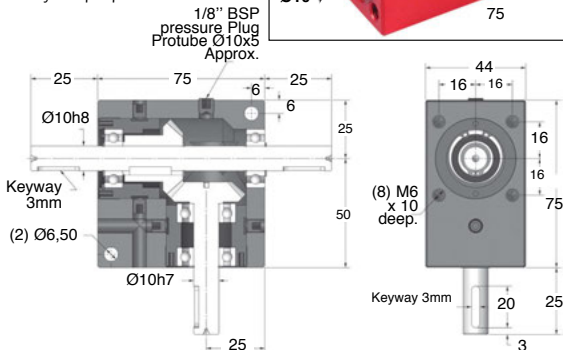
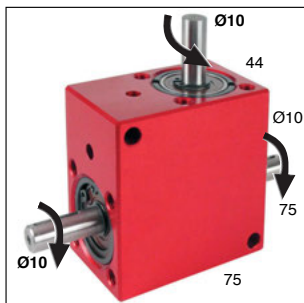
Torque up to 10.3Nm

BLHT40

- Gearbox output shafts double sided
- Ratios from 1:1 to 2:1
- Output backlash $\approx 1^\circ$
- Max. speed: 4000 rpm
- Materials:
 - casing: anodised aluminium
 - input: hardened steel
 - output: unhardened steel
- Keyway conforming to DIN 6885
- Greased for life: Shell Gadus S2 V220AD 2
- Weight: 1 kg

Options

- Can be modified to your specifications



Output torque (Nm values given as a guide only)

Ratios		1:1	2:1
INPUT SPEED (rpm)	3000	4,00	3,00
	2000	4,40	3,40
	1000	5,10	4,00
	500	5,80	4,60
	100	7,60	6,00
	50	8,50	6,30
	10	10,30	8,00

DISCOUNTS

Qty	1+	3+	6+	10+
Disc.	List	-15%	-20%	On request

Part number	Ratio	Efficiency at 1000 rpm	Max. input speed (rpm)	Max. output speed (rpm)	Reflected inertia at input (kg.m ²)	Stock*	Price each 1 to 2
BLHT40-1	1:1	88%	4000	4000	$6,42 \times 10^{-6}$	✓	524,08 €
BLHT40-2	2:1	88%	4000	2000	$1,40 \times 10^{-6}$	✓	524,08 €

*Depending on availability - Dimensions in mm

Right angled gearbox, bored shafts

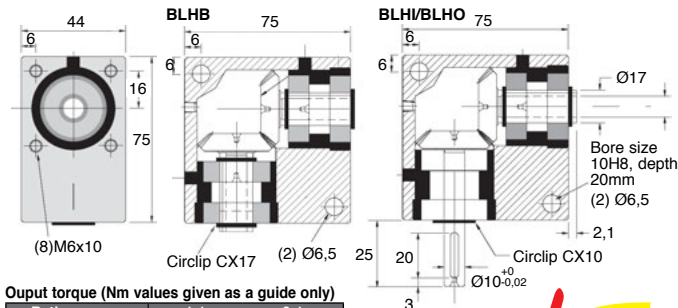
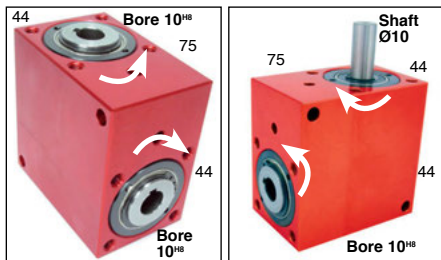
BLHB40
BLHI40
BLHO40

Torque up to 10.3Nm

- Input and output rotate in opposite directions
- Ratio from 1:1 to 2:1
- Right angled gearbox with bored shafts
- Output backlash $\approx 1^\circ$
- Max. speed: 4000 rpm
- Greased for life
- Materials:
 - casing: anodised aluminium 6082
 - gears: case hardened steel

Info.

- Pressure cap 1/8" BSP
- For allowable loads, please refer to the technical pages



Output torque (Nm values given as a guide only)

Ratios	1:1	2:1
INPUT SPEED (rpm)		
3000	4,00	3,00
2000	4,40	3,40
1000	5,10	4,00
500	5,80	4,60
100	7,60	6,00
50	8,50	6,30
10	10,30	8,00



DISCOUNTS

Qty	1+	2+	4+	6+
Disc.	List	-15%	-20%	On request

Part number	Ratios	Input shaft	Output shaft	Efficiency at 1000 (rpm)	Max. input speed (rpm)	Max. output speed (rpm)	Stock*	Price each
BLHB40-1	1:1	Hollow	Hollow	88%	4000	4000	✓	615,04 €
BLHB40-2	2:1	Hollow	Hollow	88%	4000	2000	-	615,04 €
BLHI40-1	1:1	Hollow	Solid	88%	4000	4000	✓	561,74 €
BLHI40-2	2:1	Hollow	Solid	88%	4000	2000	-	561,74 €
BLHO40-2	2:1	Solid	Hollow	88%	4000	2000	-	561,74 €

Dimensions in mm



Right angled gearbox



BLH50

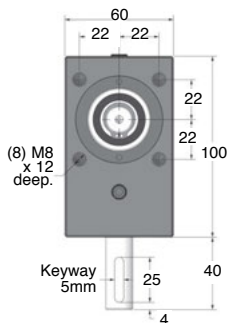
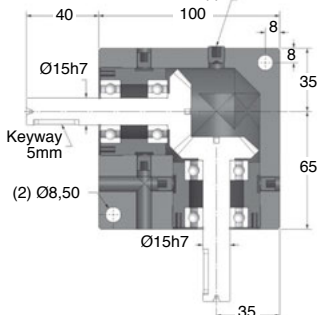
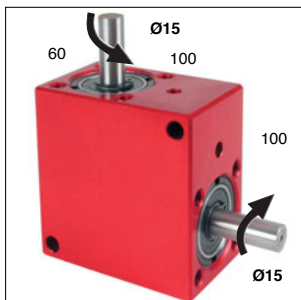
Torque up to 30Nm

- Input and output rotate in opposite directions
- Ratios from 1:1 to 2:1
- Output backlash $\approx 1^\circ$
- Max. speed: 3000 rpm
- Materials:
 - casing: anodised aluminium
 - input and output: hardened steel
- Keyway conforming to DIN 6885
- Greased for life: Shell Gadus S2 V220AD 2
- Weight: 2.20 kg

Options

- Can be modified to your specifications

1/8" BSP
pressure Plug
Protube $\varnothing 10 \times 5$
Approx.



Output torque (Nm values given as a guide only)

Ratios		1:1	2:1
INPUT SPEED (rpm)	3000	11,50	7,70
	2000	13,20	8,70
	1000	15,90	10,20
	500	17,50	11,60
	100	23,00	15,00
	50	25,00	17,00
	10	30,00	20,00

DISCOUNTS

Qty	1+	3+	6+	10+
Disc.	List	-15%	-20%	On request

Part number	Ratio	Efficiency at 1000 rpm	Max. input speed (rpm)	Max. output speed (rpm)	Reflected inertia at input (kg.m ²)	Stock*	Price each 1 to 2
BLH50-1	1:1	88%	3000	3000	$4,76 \times 10^{-5}$	✓	716,78 €
BLH50-2	2:1	88%	3000	1500	$1,25 \times 10^{-5}$	✓	716,78 €

*Depending on availability - Dimensions in mm



Right angled gearbox

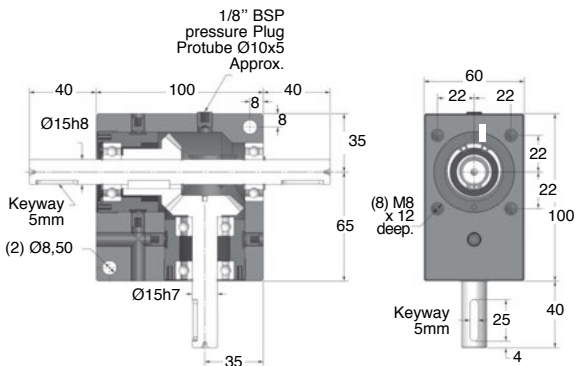
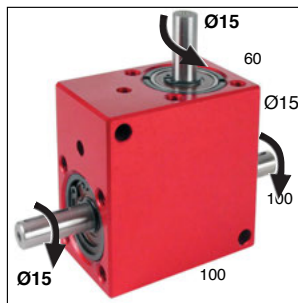
Torque up to 30Nm

BLHT50

- Gearbox output shafts double sided
- Ratios from 1:1 to 2:1
- Output backlash $\approx 1^\circ$
- Max. speed: 3000 rpm
- Materials:
 - casing: anodised aluminium
 - input: hardened steel
 - output: unhardened steel
- Keyway conforming to DIN 6885
- Greased for life: Shell Gadus S2 V220AD 2
- Weight: 2.31 kg

Options

- Can be modified to your specifications



DISCOUNTS

Qty	1+	3+	6+	10+
Disc.	List	-15%	-20%	On request

Part number	Ratio	Efficiency at 1000 rpm	Max. input speed (rpm)	Max. output speed (rpm)	Reflected inertia at input (kg.m ²)	Stock*	Price each 1 to 2
BLHT50-1	1:1	88%	3000	3000	$4,76 \times 10^{-5}$	✓	786,91 €
BLHT50-2	2:1	88%	3000	1500	$1,25 \times 10^{-5}$	✓	786,91 €

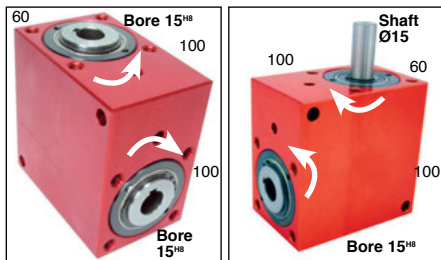
*Depending on availability - Dimensions in mm

Right angled gearbox, bored shafts

BLHB50
BLHI50
BLHO50

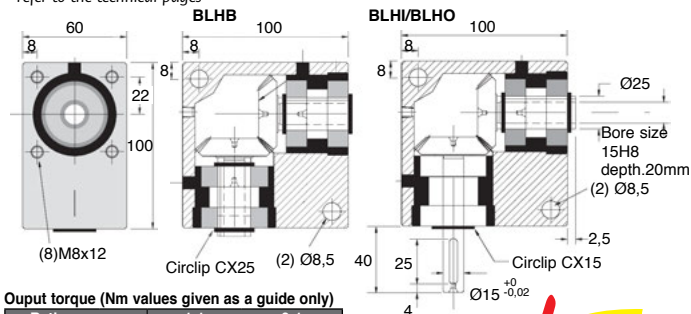
Torque up to 30Nm

- Input and output rotate in opposite directions
- Ratio from 1:1 to 2:1
- Right angled gearbox with bored shafts
- Output backlash $\approx 1^\circ$
- Max. speed: 4000 rpm
- Greased for life
- Materials:
 - casing: anodised aluminium 6082
 - gears: case hardened steel



Info.

- Pressure cap 1/8" BSP
- For allowable loads, please refer to the technical pages



Output torque (Nm values given as a guide only)

Ratios	1:1	2:1
INPUT	3000	11,50
SPEED	2000	13,20
(rpm)	1000	15,90
	500	17,50
	100	23,00
	50	25,00
	10	30,00

INCREASED STOCK

DISCOUNTS

Qty	1+	2+	4+	6+
Disc.	List	-15%	-20%	On request

Part number	Ratios	Input shaft	Output shaft	Efficiency at 1000 (rpm)	Max. input speed (rpm)	speed (rpm)	Stock*	Price each
BLHB50-1	1:1	Hollow	Hollow	88%	3000	3000	✓	925,34 €
BLHB50-2	2:1	Hollow	Hollow	88%	3000	1500	-	925,34 €
BLHI50-1	1:1	Hollow	Solid	88%	3000	3000	✓	845,21 €
BLHI50-2	2:1	Hollow	Solid	88%	3000	1500	-	845,21 €
BLHO50-2	2:1	Solid	Hollow	88%	3000	1500	-	845,21 €

*Depending on availability - Dimensions in mm



Right angled gearbox, double output shafts

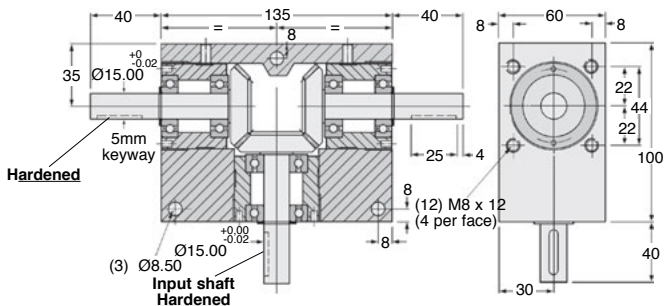
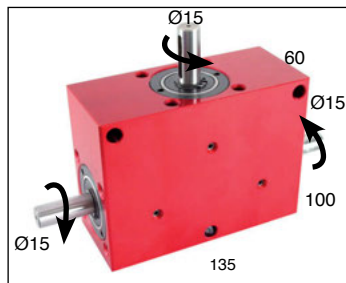
Torque up to 30Nm

BLHM50

- The two outputs rotate in opposite directions
- Ratios of 1:1 to 2:1
- Output backlash $\approx 1^\circ$
- Max. speed: 4000 rpm
- Materials: casing: anodised aluminium
input: hardened steel,
output: hardened steel
- Weight: 2.53 kg

Options

- Can be modified to your specifications



Output torque (Nm values given as a guide only)

Ratios	1:1	2:1
3000	11,50	7,70
2000	13,20	8,70
1000	15,90	10,20
500	17,50	11,60
100	23,00	15,00
50	25,00	17,00
10	30,00	20,00

Innovative !
Outputs rotate in
different directions

DISCOUNTS

Qty	1+	2+	4+	6+
Disc.	List	-15%	-20%	On request

Part number	Ratio	Efficiency at 1000 rpm	Max. input speed (rpm)	Max. output speed (rpm)	Module	Price each
BLHM50-1	1:1	88%	3000	3000	1,5	1 075,27 €
BLHM50-2	2:1	88%	3000	1500	1,5	1 075,27 €

Dimensions in mm

Right angled gearbox

BLH60

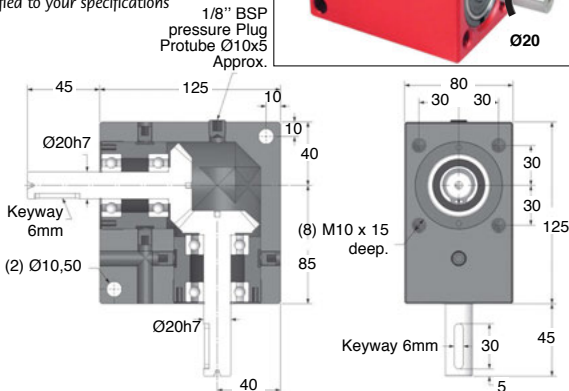
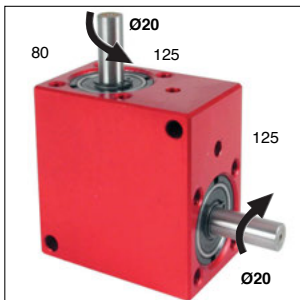
Torque up to 70Nm



- **Input and output rotate in opposite directions**
- Ratios from 1:1 to 2:1
- Output backlash $\approx 1^\circ$
- Max. speed: 3000 rpm
- Materials:
 - casing: anodised aluminium
 - input and output: hardened steel
- Keyway conforming to DIN 6885
- Greased for life: Shell Gadus S2 V220AD 2
- Weight: 4.5 kg

Options

- Can be modified to your specifications



Output torque (Nm values given as a guide only)

Ratios		1:1	2:1
INPUT SPEED (rpm)	3000	26,00	19,00
	2000	30,00	22,00
	1000	35,00	25,00
	500	35,00	25,00
	100	53,00	38,00
	50	57,00	43,00
	10	70,00	52,00

DISCOUNTS

Qty	1+	3+	6+	10+
Disc.	List	-15%	-20%	On request

Part number	Ratio	Efficiency at 1000 rpm	Max. input speed (rpm)	Max. output speed (rpm)	Reflected inertia at input (kg.m ²)	Price each 1 to 2
BLH60-1	1:1	88%	3000	3000	$1,99 \times 10^{-4}$	815,95 €
BLH60-2	2:1	88%	3000	1500	$3,87 \times 10^{-5}$	815,95 €

*Depending on availability - Dimensions in mm



Right angled gearbox

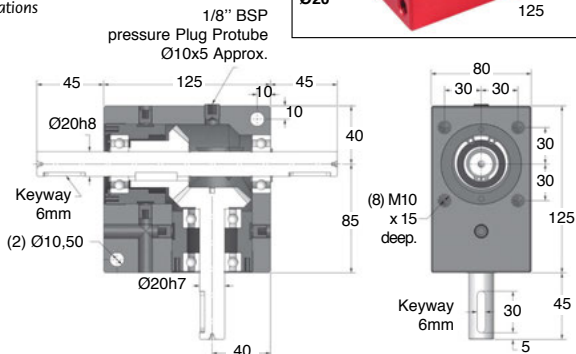
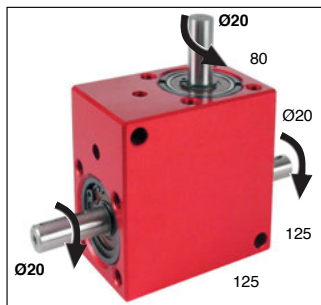
Torque up to 70Nm

BLHT60

- Gearbox output shafts double sided
- Ratios from 1:1 to 2:1
- Output backlash $\approx 1^\circ$
- Max. speed: 3000 rpm
- Materials:
 - casing: anodised aluminium
 - input: hardened steel
 - output: unhardened steel
- Keyway conforming to DIN 6885
- Greased for life: Shell Gadus S2 V220AD 2
- Weight: 4.75 kg

Options

- Can be modified to your specifications



Output torque (Nm values given as a guide only)

Ratios		1:1	2:1
INPUT SPEED (rpm)	3000	26,00	19,00
	2000	30,00	22,00
	1000	35,00	25,00
	500	35,00	25,00
	100	53,00	38,00
	50	57,00	43,00
	10	70,00	52,00

DISCOUNTS

Qty	1+	3+	6+	10+
Disc.	List	-15%	-20%	On request

Part number	Ratio	Efficiency at 1000 rpm	Max. input speed (rpm)	Max. output speed (rpm)	Reflected inertia at input (kg.m ²)	Price each 1 to 2
BLHT60-1	1:1	88%	3000	3000	$1,99 \times 10^{-4}$	897,54 €
BLHT60-2	2:1	88%	3000	1500	$3,87 \times 10^{-5}$	897,54 €

*Depending on availability - Dimensions in mm

Right angled gearbox, bored shafts

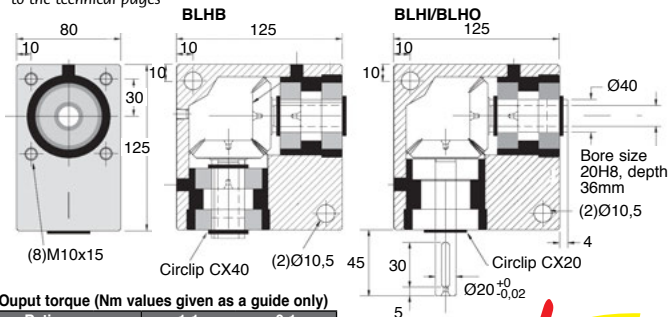
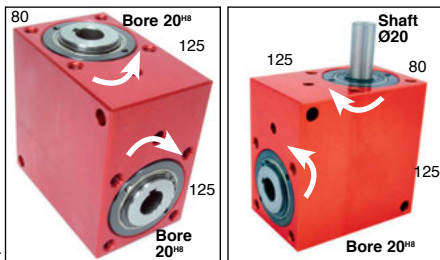
BLHB60
BLHI60
BLHO60

Torque up to 70Nm

- Input and output rotate in opposite directions
- Ratio from 1:1 to 2:1
- Right angled gearbox with bored shafts
- Output backlash $\approx 1^\circ$
- Max. speed: 3000 rpm
- Greased for life
- Materials:
 - casing: anodised aluminium 6082
 - gears: case hardened steel

Info.

- Pressure cap 1/8" BSP
- For allowable loads, please refer to the technical pages



Output torque (Nm values given as a guide only)

Ratios	1:1	2:1
INPUT	3000	26,00
SPEED	2000	30,00
(rpm)	1000	35,00
	500	40,00
	100	53,00
	50	57,00
	10	70,00

✓ INCREASED STOCK

DISCOUNTS

Qty	1+	2+	4+	6+
Disc.	List	-15%	-20%	On request

Part number	Ratios	Input shaft	Output shaft	Efficiency at 1000 (rpm)	Max. input speed (rpm)	Max. output speed (rpm)	Stock*	Price each
BLHB60-1	1:1	Hollow	Hollow	88%	3000	3000	✓	1 053,31 €
BLHB60-2	2:1	Hollow	Hollow	88%	3000	1500	✓	1 053,31 €
BLHI60-1	1:1	Hollow	Solid	88%	3000	3000	✓	962,13 €
BLHI60-2	2:1	Hollow	Solid	88%	3000	1500	-	962,13 €
BLHO60-2	2:1	Solid	Hollow	88%	3000	1500	-	962,13 €

Dimensions in mm



Right angled gearbox



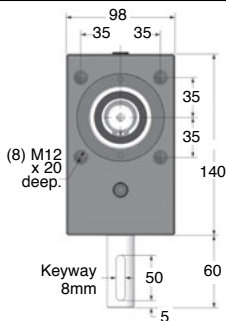
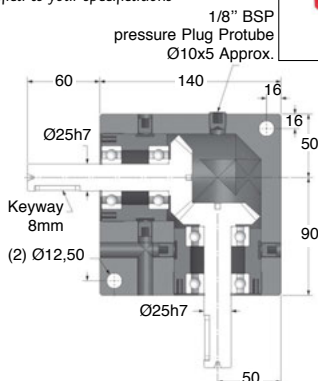
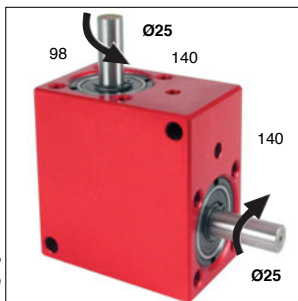
BLH70

Torque up to 128Nm

- Input and output rotate in opposite directions
- Ratios from 1:1 to 2:1
- Output backlash $\approx 1^\circ$
- Max. speed: 3000 rpm
- Materials:
 - casing: anodised aluminium
 - input and output: hardened steel
- Keyway conforming to DIN 6885
- Greased for life: Shell Gadus S2 V220AD 2
- Weight: 7.05 kg

Options

- Can be modified to your specifications



OUTPUT TORQUE (Nm values given as a guide only)

Ratios		1:1	2:1
INPUT SPEED (rpm)	3000	43	26
	2000	47	30
	1000	51	34
	500	64	38
	100	85	51
	50	94	60
	10	128	77

DISCOUNTS

Qty	1+	3+	6+	10+
Disc.	List	-15%	-20%	On request

Part number	Ratio	Efficiency at 1000 rpm	Max. input speed (rpm)	Max. output speed (rpm)	Reflected inertia at input (kg.m ²)	Price each 1 to 2
BLH70-1	1:1	88%	3000	3000	$4,15 \times 10^{-4}$	1 637,71 €
BLH70-2	2:1	88%	3000	1500	$1,12 \times 10^{-4}$	1 637,71 €

Dimensions in mm



Right angled gearbox

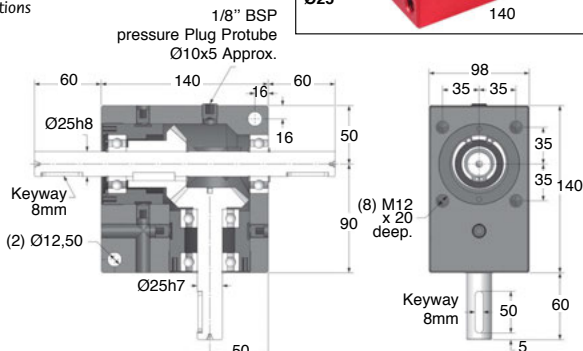
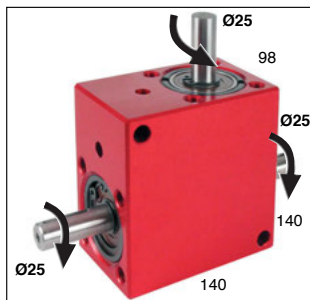
Torque up to 128Nm

BLHT70

- Gearbox output shafts double sided
- Ratios from 1:1 to 2:1
- Output backlash $\approx 1^\circ$
- Max. speed: 3000 rpm
- Materials:
 - casing: anodised aluminium
 - input: hardened steel
 - output: unhardened steel
- Keyway conforming to DIN 6885
- Greased for life: Shell Gadus S2 V220AD 2
- Weight: 7.20 kg

Options

- Can be modified to your specifications



OUTPUT TORQUE (Nm values given as a guide only)

Ratios		1:1	2:1
INPUT SPEED (rpm)	3000	43	26
	2000	47	30
	1000	51	34
	500	64	38
	100	85	51
	50	94	60
	10	128	77

DISCOUNTS

Qty	1+	3+	6+	10+
Disc.	List	-15%	-20%	On request

Part number	Ratio	Efficiency at 1000 rpm	Max. input speed (rpm)	Max. output speed (rpm)	Reflected inertia at input (kg.m ²)	Price each 1 to 2
BLHT70-1	1:1	88%	3000	3000	$4,15 \times 10^{-4}$	1 788,69 €
BLHT70-2	2:1	88%	3000	1500	$1,12 \times 10^{-4}$	1 788,69 €

Dimensions in mm

Offset spur gear reducer



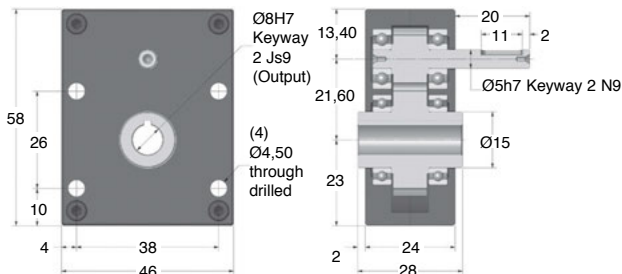
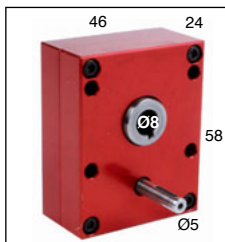
FF10

Torque up to 3.7Nm

- **High efficiency**
- Ratios from 2:1 to 7:1
- Output backlash $\approx 1^\circ$
- Max. speed: 2000 rpm
- Materials:
 - casing: anodised aluminium
 - input and output: unhardened steel
- Weight: 0.226 kg

Options

- Can be modified to your specifications



OUTPUT TORQUE (Nm values given as a guide only)

Ratios	2:1	3:1	4:1	5:1	6:1	7:1
2000	1,34	1,29	1,15	1,10	0,94	0,78
1000	1,55	1,49	1,33	1,27	1,08	0,90
500	1,85	1,78	1,58	1,51	1,30	1,07
200	2,08	2,00	1,78	1,71	1,46	1,21
100	2,44	2,35	2,09	2,00	1,71	1,42
50	2,74	2,63	2,36	2,25	1,92	1,60
10	3,70	3,57	3,16	3,03	2,60	2,16

DISCOUNTS

Qty	1+	3+	6+	10+
Disc.	List	-15%	-20%	On request

Part number	Ratio	Max. input speed (rpm)	Max. output speed (rpm)	Efficiency at 1000 rpm	Stock*	Price each 1 to 2
FF10-2	2:1	2000	1000	93%	✓	290,57 €
FF10-3	3:1	2000	666	93%	-	290,57 €
FF10-4	4:1	2000	500	93%	-	290,57 €
FF10-5	5:1	2000	400	93%	✓	290,57 €
FF10-6	6:1	2000	333	93%	-	290,57 €
FF10-7	7:1	2000	285	93%	-	290,57 €
FF10-XH	2:1 - 7:1	(With hardened gears = torque x 2)			-	513,61 €

*Depending on availability - Dimensions in mm



Offset spur gear reducer

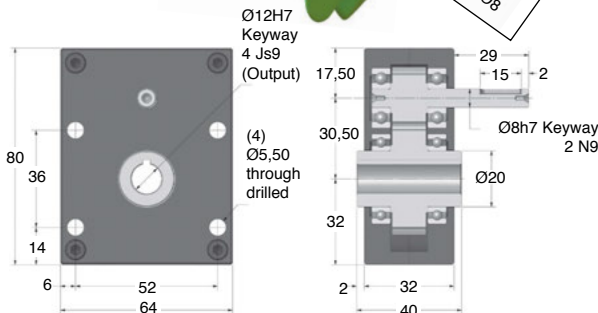
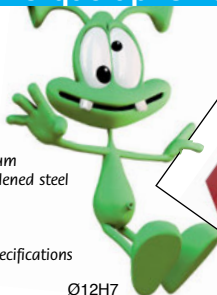
Torque up to 10Nm

FF15

- **High efficiency**
- Ratios from 2:1 to 7:1
- Output backlash $\approx 1^\circ$
- Max. speed: 2000 rpm
- Materials:
casing: anodised aluminium
input and output: unhardened steel
- Weight: 0.55 kg

Options

- Can be modified to your specifications



OUTPUT TORQUE (Nm values given as a guide only)

Ratios	2:1	3:1	4:1	5:1	6:1	7:1
2000	3,70	3,50	3,20	2,90	2,60	2,20
1000	4,30	4,00	3,70	3,40	3,10	2,60
500	5,00	4,80	4,40	4,00	3,60	3,00
200	5,70	5,50	5,00	4,40	3,90	3,20
100	6,70	6,50	5,90	5,10	4,50	3,70
50	7,50	7,20	6,50	5,70	5,00	4,00
10	10,00	9,80	9,00	8,00	7,30	6,10

DISCOUNTS

Qty	1+	3+	6+	10+
Disc.	List	-15%	-20%	On request

Part number	Ratio	Max. input speed (rpm)	Max. output speed (rpm)	Efficiency at 1000 rpm	Stock*	Price each 1 to 2
FF15-2	2:1	2000	1000	93%	✓	355,31 €
FF15-3	3:1	2000	666	93%	✓	355,31 €
FF15-4	4:1	2000	500	93%	-	355,31 €
FF15-5	5:1	2000	400	93%	✓	355,31 €
FF15-6	6:1	2000	333	93%	-	355,31 €
FF15-7	7:1	2000	285	93%	-	355,31 €
FF15-XH	2:1 - 7:1	(With hardened gears = torque x 2)			-	639,30 €

*Depending on availability - Dimensions in mm

Offset spur gear reducer



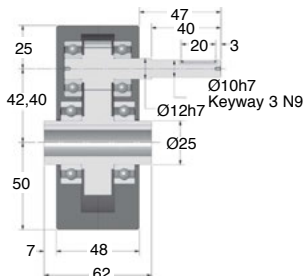
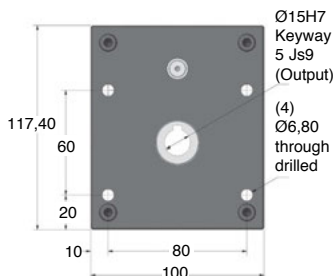
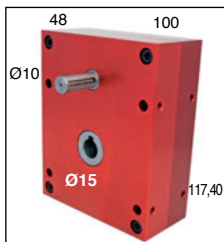
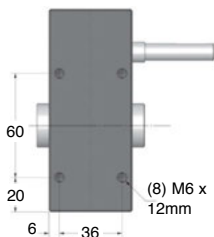
FF20

Torque up to 23Nm

- **High efficiency**
- Ratios from 2:1 to 7:1
- Output backlash $\approx 1^\circ$
- Max. speed: 2000 rpm
- Materials:
casing: anodised aluminium
input & output: unhardened steel
- Weight: 1.90 kg

Options

- Can be modified to your specifications



OUTPUT TORQUE (Nm values given as a guide only)

Ratios	2:1	3:1	4:1	5:1	6:1	7:1
2000	9,20	7,70	8,00	6,90	6,60	5,80
1000	10,80	10,20	9,50	8,20	7,80	6,90
500	12,50	11,80	11,00	9,60	9,00	8,20
200	15,00	14,20	13,10	11,50	10,80	9,80
100	16,70	15,70	14,60	12,80	12,00	10,90
50	19,20	18,10	16,80	14,50	13,80	12,50
10	23,00	21,60	20,00	17,50	16,50	15,00

DISCOUNTS

Qty	1+	3+	6+	10+
Disc.	List -15%	-20%	On request	On request

Part number	Ratio	Max. input speed (rpm)	Max. output speed (rpm)	Efficiency at 1000 rpm	Stock*	Price each 1 to 2
FF20-2	2:1	2000	1000	93%	✓	540,44 €
FF20-3	3:1	2000	666	93%	-	507,83 €
FF20-4	4:1	2000	500	93%	✓	507,83 €
FF20-5	5:1	2000	400	93%	-	540,44 €
FF20-6	6:1	2000	333	93%	-	540,44 €
FF20-7	7:1	2000	285	93%	✓	540,44 €
FF20-XH	2:1 - 7:1	(With hardened gears = torque x 2)			-	902,82 €

*Depending on availability - Dimensions in mm



Offset spur gear reducer

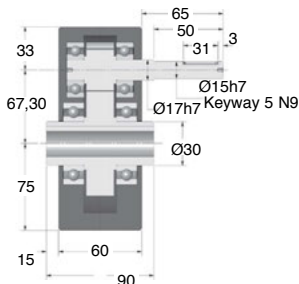
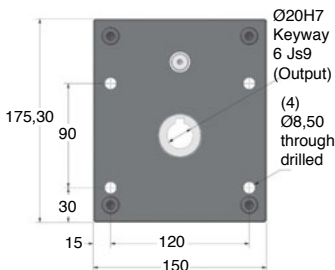
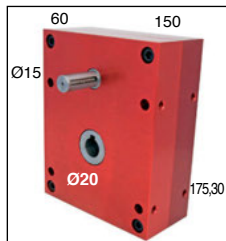
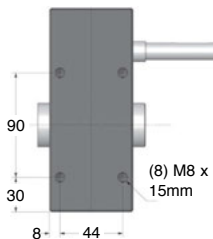
Torque up to 83Nm

FF30

- **High efficiency**
- Ratios from 2:1 to 7:1
- Output backlash $\approx 1^\circ$
- Max. speed: 2000 rpm
- Materials:
casing: anodised aluminium
input & output: unhardened steel
- Weight: 5.50 kg

Options

- Can be modified to your specifications



OUTPUT TORQUE (Nm values given as a guide only)

Ratios	2:1	3:1	4:1	5:1	6:1	7:1
2000	33,20	29,10	25,20	24,30	23,90	21,50
1000	39,10	34,40	29,80	28,70	27,30	25,10
500	45,20	39,70	34,40	33,10	31,60	28,80
200	54,30	47,60	41,30	39,70	38,20	34,00
100	60,40	52,90	45,90	44,20	43,40	39,10
50	69,00	60,08	43,00	50,80	49,30	45,20
10	83,00	72,70	63,00	60,70	59,20	54,40

DISCOUNTS

Qty	1+	3+	6+	10+
Disc.	List	-15%	-20%	On request

Part number	Ratio	Max. input speed (rpm)	Max. output speed (rpm)	Efficiency at 1000 rpm	Stock*	Price each 1 to 2
FF30-2	2:1	2000	1000	93%	-	722,49 €
FF30-3	3:1	2000	666	93%	-	722,49 €
FF30-4	4:1	2000	500	93%	✓	722,49 €
FF30-5	5:1	2000	400	93%	-	722,49 €
FF30-6	6:1	2000	333	93%	-	722,49 €
FF30-7	7:1	2000	285	93%	✓	722,49 €
FF30-XH	2:1 - 7:1	(Avec engrenages trempés = couple x 2)			-	1 125,75 €

*Depending on availability - Dimensions in mm

Offset spur gear reducer



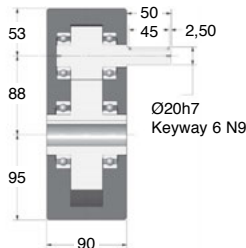
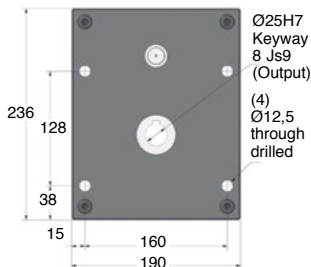
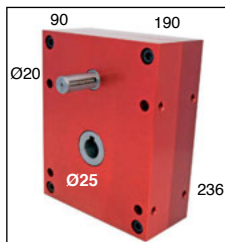
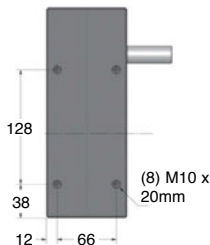
FF40

Torque up to 210Nm

- **High efficiency**
- Ratios from 2:1 to 7:1
- Output backlash $\approx 1^\circ$
- Max. speed: 1500 rpm
- Materials:
casing: anodised aluminium
input & output: unhardened steel

Options

- Can be modified to your specifications



OUTPUT TORQUE (In Nm, values given as a guide only)

Ratios	2:1	3:1	4:1	5:1	6:1	7:1
2000	83	83	76	70	61	59
1000	90	90	82	76	66	64
500	103	102	95	87	76	73
200	120	120	110	102	89	86
100	138	135	126	116	101	98
50	156	155	146	136	117	113
10	210	210	196	180	158	152

DISCOUNTS

Qty	1+	3+	6+	10+
Disc.	List -15%	-20%	On request	On request

Part number	Ratio	Max. input speed (rpm)	Max. output speed (rpm)	Efficiency at 1000 t/min	Price each 1 to 2
FF40-2	2:1	1500	750	93%	1 270,61 €
FF40-3	3:1	1500	500	93%	1 270,61 €
FF40-4	4:1	1500	395	93%	1 270,61 €
FF40-5	5:1	1500	300	93%	1 270,61 €
FF40-6	6:1	1500	250	93%	1 270,61 €
FF40-7	7:1	1500	214,29	93%	1 270,61 €
FF40-XH	2:1 - 7:1	(With hardened gears = torque x 2)			1 661,60 €

*Depending on availability - Dimensions in mm



Offset spur gear reducer

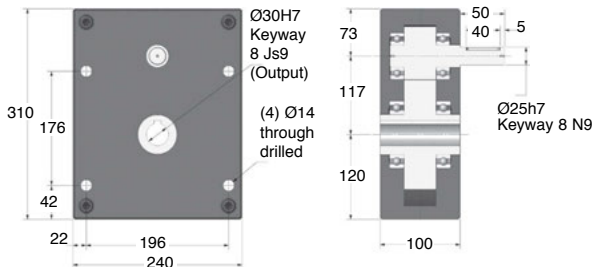
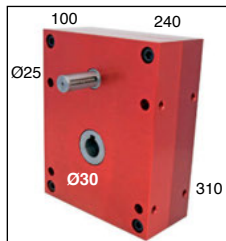
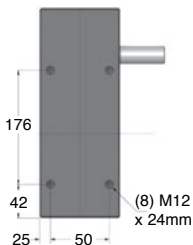
Torque up to 425Nm

FF50

- **High efficiency**
- Ratios from 2:1 to 7:1
- Output backlash $\approx 1^\circ$
- Max. speed: 1500 rpm
- Materials:
casing: anodised aluminium
input & output: unhardened steel
- Weight: 26.3 kg

Options

- Can be modified to your specifications



OUTPUT TORQUE (In Nm, values given as a guide only)

Ratios	2:1	3:1	4:1	5:1	6:1	7:1
2000	166	156	147	138	120	111
1000	180	168	160	149	130	120
500	207	194	183	172	150	139
200	242	226	214	200	175	162
100	276	260	245	220	200	185
50	318	300	282	264	230	212
10	425	400	380	356	310	286

DISCOUNTS

Qty	1+	3+	6+	10+
Disc.	List	-15%	-20%	On request

Part number	Ratio	Max. input speed (rpm)	Max. output speed (rpm)	Efficiency at 1000 rpm	Price each 1 to 2
FF50-2	2:1	1500	750	93%	1 947,05 €
FF50-3	3:1	1500	500	93%	1 947,05 €
FF50-4	4:1	1500	395	93%	1 947,05 €
FF50-5	5:1	1500	300	93%	1 947,05 €
FF50-6	6:1	1500	250	93%	1 947,05 €
FF50-7	7:1	1500	214,29	93%	1 947,05 €
FF50-XH	2:1 - 7:1	(With hardened gears = torque x 2)			2 338,04 €

*Depending on availability - Dimensions in mm

Internal epicyclic servo reducers Size XS

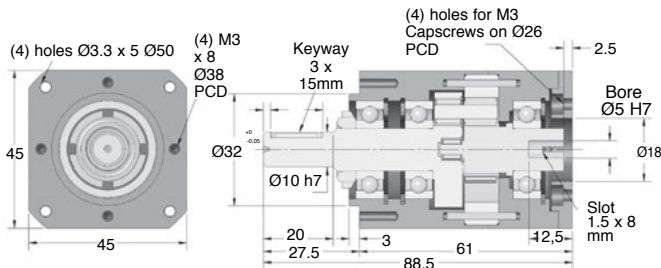
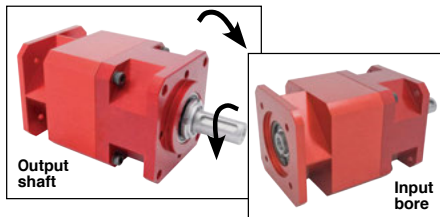
EHD04

Torque up to 7Nm

- Ratios from 3:1 to 6:1
- Input is a slot pin drive
- Output backlash $\approx 0^{\circ}30'$
- Max. speed: 4000 rpm
- Materials:
casing: anodised aluminium
input and output: unhardened steel
- Weight: 0.44kg

Options

- Can be modified to your specifications
- e.g. modified to suit your motor



OUTPUT TORQUE (In Nm, values given as a guide only)

Ratios	3:1	4:1	5:1	6:1
3000	83	76	70	61
2000	90	82	76	66
1000	102	95	87	76
SPEED (rpm)	500	120	110	102
	200	135	126	116
	100	155	146	136
	50	210	196	180

Large transmissible torque

DISCOUNTS

Qty	1+	2+	4+	6+
Disc. List	-15%	-20%		On request

Part number	Ratio	Max. input speed (rpm)	Max. output speed (rpm)	Efficiency at 1000 rpm	Direction of input/output rotation	Price each
EHD04-3	3:1	4000	1333,33	92%	Same	505,87 €
EHD04-4	4:1	4000	1000,00	92%	Same	505,87 €
EHD04-5	5:1	4000	800,00	92%	Same	505,87 €
EHD04-6	6:1	4000	666,66	92%	Same	505,87 €

Dimensions in mm



Internal epicyclic servo reducers

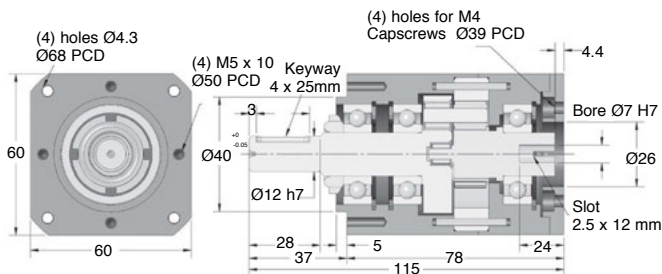
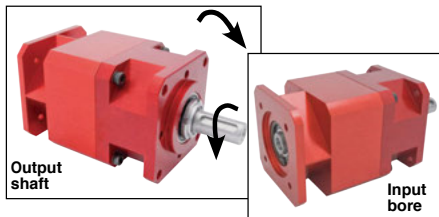
Torque up to 19Nm

EHD06

- Ratios from 3:1 to 6:1
- Input is a slot pin drive
- Output backlash $\approx 0^{\circ}30'$
- Max. speed: 4000 rpm
- Materials:
casing: anodised aluminium
gears: heat-treated steel

Options

- Can be modified to your specifications
- e.g. modified to suit your motor



Large transmissible torque

OUTPUT TORQUE (In Nm, values given as a guide only)

Ratios	3:1	4:1	5:1	6:1
3000	10	10	10	8
2000	12	12	12	10
1000	15	15	15	12
500	16	16	16	13
200	18	18	18	14
100	19	19	19	15
50	19	19	19	15

DISCOUNTS

Qty	1+	2+	4+	6+
Disc. List	-15%	-15%	-20%	On request

Part number	Ratio	Max. input speed (rpm)	Max. output speed (rpm)	Efficiency at 1000 rpm	Direction of input/output rotation	Price each
EHD06-3	3:1	4000	1333,33	92%	Same	563,65 €
EHD06-4	4:1	4000	1000,00	92%	Same	563,65 €
EHD06-5	5:1	4000	800,00	92%	Same	563,65 €
EHD06-6	6:1	4000	666,66	92%	Same	563,65 €

Dimensions in mm

Internal epicyclic servo reducers



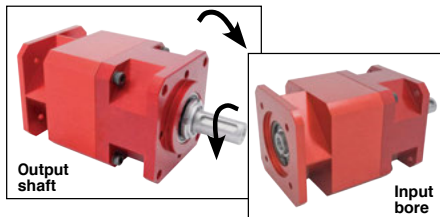
EHD08

Torque up to 50Nm

- Ratios from 3:1 to 6:1
- Output backlash $\approx 0^{\circ}30'$
- Max. speed: 4000 rpm
- Materials:
casing: anodised aluminium
gears: heat-treated steel
- Weight: 1.4kg

Options

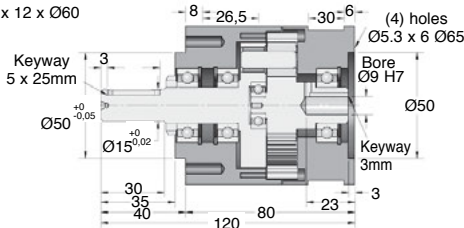
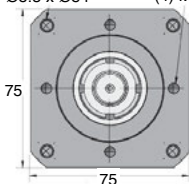
- Can be modified to your specifications
- e.g. modified to suit your motor



(4) holes

$\varnothing 5.3 \times \varnothing 84$

(4) M6 x 12 x $\varnothing 60$



Large transmissible torque

OUTPUT TORQUE (In Nm, values given as a guide only)

Ratios	3:1	4:1	5:1	6:1
3000	25	25	25	20
2000	30	30	30	23
1000	35	35	35	28
SPEED				
500	42	42	42	35
(rpm)				
200	45	45	45	40
100	48	48	48	42
50	50	50	50	45

DISCOUNTS

Qty	1+	2+	4+	6+
Disc.	List	-15%	-20%	On request

Part number	Ratio	Max. input speed (rpm)	Max. output speed (rpm)	Efficiency at 1000 rpm	Direction of input/output rotation	Price each
EHD08-3	3:1	4000	1333,33	92%	Same	696,88 €
EHD08-4	4:1	4000	1000,00	92%	Same	696,88 €
EHD08-5	5:1	4000	800,00	92%	Same	696,88 €
EHD08-6	6:1	4000	666,66	92%	Same	696,88 €

Dimensions in mm



Internal epicyclic servo reducers

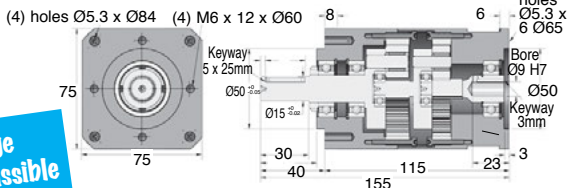
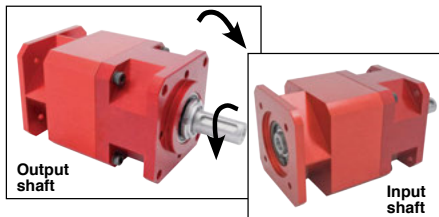
Torque up to 50Nm

EHD08

- Ratios from 9:1 to 36:1
- Output backlash $\approx 1^{\circ}30'$
- Max. speed: 4000 rpm
- Materials:
casing: anodised aluminium
gears: heat-treated steel
- Weight: 2.1 kg

Options

- Can be modified to your specifications
- e.g. modified to suit your motor



Large transmissible torque

DISCOUNTS

Qty	1+	2+	4+	6+
Disc.	List	-15%	-20%	On request

OUTPUT TORQUE (In Nm, values given as a guide only)

Ratios	9:1	12:1	15:1	16:1	18:1	20:1	24:1	25:1	30:1	36:1
INPUT	3000	35	35	35	38	42	42	42	42	36
SPEED	1000	43	43	43	45	46	46	46	46	41
(rpm)	500	45	45	45	48	48	48	48	48	42
	100	50	50	50	50	50	50	50	50	45
	50	50	50	50	50	50	50	50	50	45

Part number	Ratio	Max. input speed (rpm)	Max. output speed (rpm)	Efficiency at 1000 rpm	Direction of input/output rotation	Price each
EHD08-9	9:1	4000	444,44	86%	Same	1 046,13 €
EHD08-12	12:1	4000	333,33	86%	Same	1 046,13 €
EHD08-15	15:1	4000	266,66	86%	Same	1 046,13 €
EHD08-16	16:1	4000	250,00	86%	Same	1 046,13 €
EHD08-18	18:1	4000	222,22	86%	Same	1 046,13 €
EHD08-20	20:1	4000	200,00	86%	Same	1 046,13 €
EHD08-24	24:1	4000	166,66	86%	Same	1 046,13 €
EHD08-25	25:1	4000	160,00	86%	Same	1 046,13 €
EHD08-30	30:1	4000	133,33	86%	Same	1 046,13 €
EHD08-36	36:1	4000	111,11	86%	Same	1 046,13 €

Dimensions in mm

Internal epicyclic servo reducers



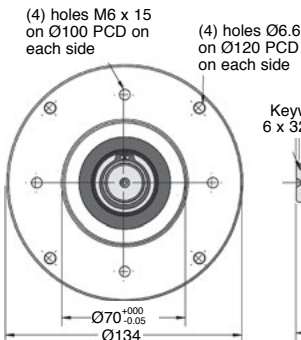
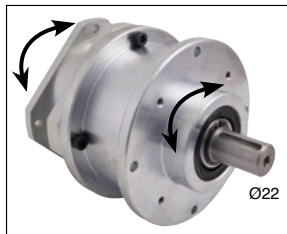
EHD12

Torque up to 140Nm

- Ratios from 3:1 to 6:1
- Output backlash $\approx 0^{\circ}30'$
- Max. speed: 3000 rpm
- Materials:
casing: anodised aluminium
gears: heat-treated steel

Options

- Can be modified to your specs
- e.g. modified to suit your motor



OUTPUT TORQUE (In Nm, values given as a guide only)

Ratios	3:1	4:1	5:1	6:1
3000	75	75	75	60
2000	90	90	90	75
1000	110	110	110	90
SPEED	500	120	120	100
(rpm)	200	130	130	110
100	140	140	140	120
50	140	140	140	120

Large transmissible torque

DISCOUNTS

Qty	1+	2+	4+	6+
Disc.	List	-15%	-20%	On request

Part number	Ratio	Max. input speed (rpm)	Max. output speed (rpm)	Efficiency at 1000 rpm	Direction of input/output rotation	Price each
EHD12-3	3:1	3000	1000	92%	Same	1 250,55 €
EHD12-4	4:1	3000	750	92%	Same	1 250,55 €
EHD12-5	5:1	3000	600	92%	Same	1 250,55 €
EHD12-6	6:1	3000	500	92%	Same	1 250,55 €

Dimensions in mm



Internal epicyclic servo reducers

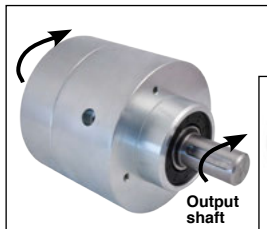
Torque up to 380Nm

EHD16

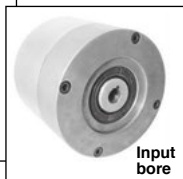
- Ratios from 3:1 to 6:1
- Output backlash $\approx 0^{\circ}30'$
- Max. speed: 2000 rpm
- Materials:
casing: anodised aluminium
gears: heat-treated steel
- Weight: 18.86 kg

Options

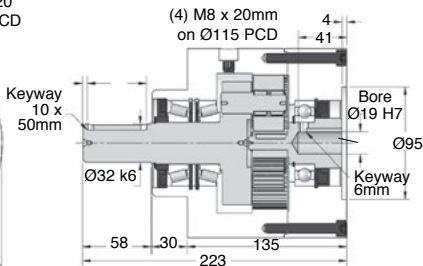
- Can be modified to your specs
- e.g. modified to suit your motor



Output shaft



Input bore



OUTPUT TORQUE (In Nm, values given as a guide only)

Ratios	3:1	4:1	5:1	6:1
2000	250	250	250	210
1000	300	300	300	250
500	350	350	350	300
200	350	350	350	300
100	380	380	380	320
50	380	380	380	320

Large transmissible torque

DISCOUNTS

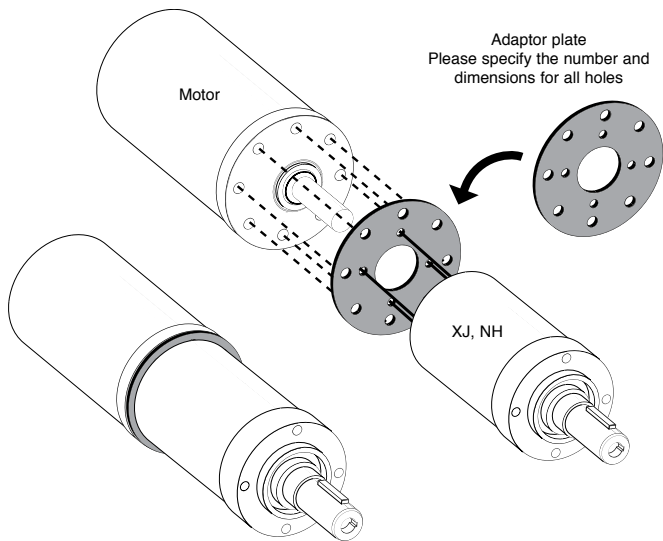
Qty	1+	2+	4+	6+
Disc. List	-15%	-20%	-20%	On request

Part number	Ratio	Max. input speed (rpm)	Max. output speed (rpm)	Efficiency at 1000 rpm	Direction of input/output rotation	Price each
EHD16-3	3:1	2000	666,66	92%	Same	1 682,44 €
EHD16-4	4:1	2000	500,00	92%	Same	1 682,44 €
EHD16-5	5:1	2000	400,00	92%	Same	1 682,44 €
EHD16-6	6:1	2000	333,33	92%	Same	1 682,44 €

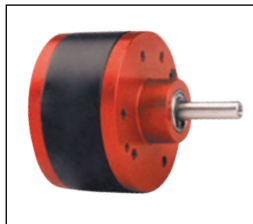
Dimensions in mm

Inline spur gear reducer

Technical information



Input face of the XJ reducers



Output face of the XJ reducers



XJ + NH Reducers:

Please supply us with the dimensions of the face plate of your motor

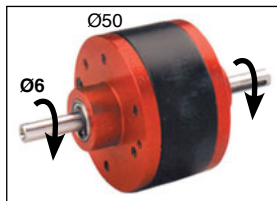
Torque up to 0.49Nm

J51
XJ51

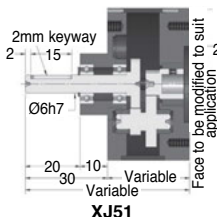
- Ratios from 1:1 to 20:1
(Other ratios available on request)
- Output backlash: N/A
- Max. input speed: 4000 rpm
- Materials:
casing: anodised aluminium and black delrin
input & output: unhardened steel
- Weight: 0.14 kg
- Keyway conforms to DIN 6885

XJ Gearbox

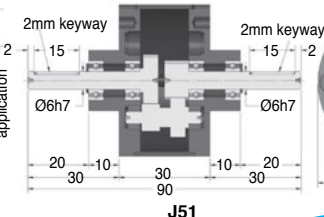
- Please send us the dimensions of the front face of your motor
- The overall length depends on the adaptor plate



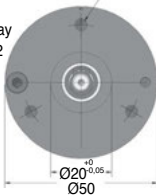
(2x3) M4 x 5mm
deep on 38mm PCD



XJ51



J51



OUTPUT TORQUE (In Nm, values given as a guide only)

Ratios	2:1	3:1	4:1	5:1	10:1	15:1	20:1
4000	0,16	0,15	0,14	0,13	0,15	0,17	0,18
2000	0,19	0,18	0,17	0,15	0,18	0,20	0,21
1000	0,22	0,22	0,20	0,18	0,21	0,22	0,23
500	0,27	0,25	0,23	0,21	0,24	0,25	0,27
200	0,32	0,30	0,27	0,25	0,28	0,30	0,32
100	0,36	0,33	0,30	0,28	0,32	0,34	0,36
50	0,40	0,38	0,35	0,32	0,36	0,37	0,42
20	0,48	0,45	0,41	0,38	0,43	0,44	0,49

Large choice
of reduction
ratios!
Up to 625:1

DISCOUNTS

Qty	1+	2+	4+	6+
Disc.	List -15%	-20%	On request	

Part number	Ratios	Max. input speed (rpm)	Max. output speed (rpm)	Efficiency at 1000 rpm	Direction of input/output rotation	Price each J	Price each XJ
J51-2	XJ51-2	2:1	4000	2000	92%	Same	338,94 €
J51-3	XJ51-3	3:1	4000	1333	92%	Same	338,94 €
J51-4	XJ51-4	4:1	4000	1000	92%	Same	338,94 €
J51-5	XJ51-5	5:1	4000	800	92%	Same	338,94 €
J51-10	XJ51-10	10:1	4000	400	92%	Same	338,96 €
J51-15	XJ51-15	15:1	4000	266	92%	Same	338,96 €
J51-20	XJ51-20	20:1	4000	200	92%	Same	338,96 €
J51-SP	XJ51-SP	1:1 - 20:1	Special ratios from 1:1 to 20:1				476,40 €

Dimensions in mm

On request

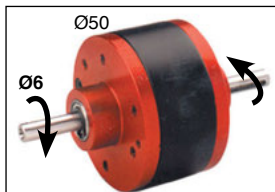
Spur gear coaxial gearbox



J52
XJ52

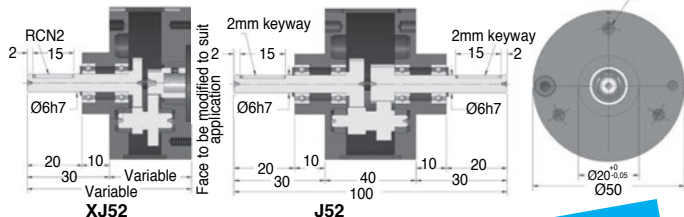
Torque up to 0.9Nm

- Ratios from 1:1 to 130:1
(Other ratios available on request)
- Output backlash: N/A
- Max. input speed: 4000 rpm
- Materials:
casing: anodised aluminium
and black delrin
input & output: unhardened steel
- Weight: 0.16 kg
- Keyway conforms to DIN 6885



XJ Gearbox

- Please send us the dimensions of the front face of your motor
- The overall length depends on the adaptor plate



OUTPUT TORQUE (In Nm, values given as a guide only)

Ratios	30:1	40:1	50:1	60:1	75:1	100:1	125:1
4000	0,27	0,28	0,29	0,30	0,31	0,33	0,34
2000	0,30	0,32	0,33	0,34	0,35	0,38	0,40
1000	0,34	0,36	0,38	0,40	0,41	0,42	0,43
500	0,40	0,41	0,42	0,43	0,46	0,49	0,49
200	0,46	0,48	0,49	0,52	0,54	0,57	0,59
100	0,52	0,55	0,57	0,59	0,61	0,65	0,69
50	0,57	0,62	0,65	0,69	0,73	0,74	0,75
20	0,69	0,73	0,75	0,75	0,75	0,90	0,90

Large choice
of reduction
ratios!
Up to 625:1

DISCOUNTS

Qty	1+	2+	4+	6+
Disc.	List -15%	-20%	On request	

Part number	Ratios	Max. input speed (rpm)	Max. output speed (rpm)	Efficiency at 1000 rpm	Direction of input/output rotation	Price each J	XJ
J52-30	XJ52-30	30:1	4000	133	88%	Opposite	468,12 €
J52-40	XJ52-40	40:1	4000	100	88%	Opposite	468,12 €
J52-50	XJ52-50	50:1	4000	80	88%	Opposite	468,12 €
J52-60	XJ52-60	60:1	4000	66	88%	Opposite	468,12 €
J52-75	XJ52-75	75:1	4000	53	88%	Opposite	468,12 €
J52-100	XJ52-100	100:1	4000	40	88%	Opposite	468,12 €
J52-125	XJ52-125	125:1	4000	32	88%	Opposite	468,12 €
J52-SP	XJ52-SP	1:1 - 130:1	Special ratios from 1:1 to 130:1				551,67 €

On request

Dimensions in mm

Torque up to 1.15Nm

J53
xJ53

**- Ratios from 1:1 to 625:1
(Other ratios available on request)**

- Output backlash: N/A

- Max. input speed: 4000 rpm

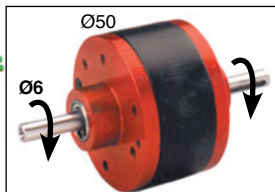
- Materials:

casing: anodised aluminium
and black delrin

input & output: unhardened steel

- Weight: 0.17 kg

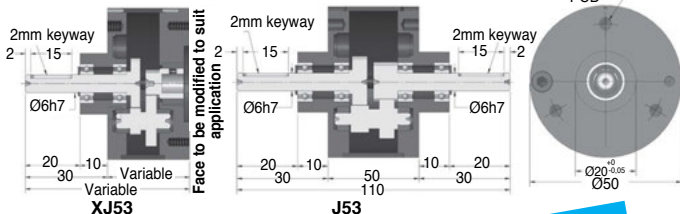
- Keyway conforms to DIN 6885



XJ Gearbox

- Please send us the dimensions of the front face of your motor

- The overall length depends on the adaptor plate



OUTPUT TORQUE (In Nm, values given as a guide only)

Ratios	140:1	160:1	200:1	300:1	400:1	500:1	625:1
4000	0,43	0,45	0,46	0,51	0,53	0,55	0,58
2000	0,50	0,52	0,53	0,58	0,59	0,61	0,63
1000	0,56	0,57	0,58	0,63	0,65	0,67	0,69
500	0,63	0,67	0,69	0,69	0,79	0,84	0,96
200	0,76	0,79	0,79	0,79	0,91	0,99	1,15
100	0,86	0,91	0,91	0,91	1,15	1,15	1,15
50	0,95	0,95	0,95	0,95	1,15	1,15	1,15
20	1,15	1,15	1,15	1,15	1,15	1,15	1,15

**Large choice
of reduction
ratios!
Up to 625:1**

DISCOUNTS

Qty	1+	2+	4+	6+
Disc.	List	-15%	-20%	On request

Part number	Ratios	Max. input speed (rpm)	Max. output speed (rpm)	Efficiency at 1000 rpm	Direction of input/output rotation	Price each J	Price each XJ
J53-140 XJ53-140	140:1	4000	29	85%	Same	625,81 €	
J53-160 XJ53-160	160:1	4000	25	85%	Same	625,81 €	
J53-200 XJ53-200	200:1	4000	20	85%	Same	625,81 €	
J53-300 XJ53-300	300:1	4000	13	85%	Same	625,81 €	
J53-400 XJ53-400	400:1	4000	10	85%	Same	625,81 €	
J53-500 XJ53-500	500:1	4000	8	85%	Same	625,81 €	
J53-625 XJ53-625	625:1	4000	6,40	85%	Same	625,81 €	
J53-SP XJ53-SP	1:1 - 625:1	Special ratios from 1:1 to 625:1				715,35 €	

Dimensions in mm

On request

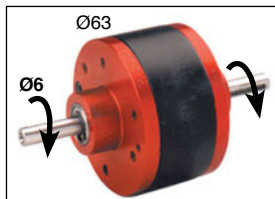
Spur gear coaxial gearbox



J64
XJ64

Torque up to 2.25Nm

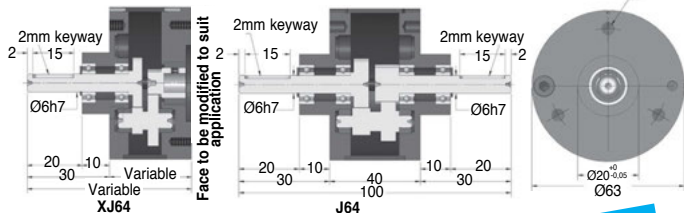
- Ratios from 1:1 to 16:1
(Other ratios available on request)
- Output backlash: N/A
- Max. input speed: 4000 rpm
- Materials:
casing: anodised aluminium
and black delrin
input & output: unhardened steel
- Weight: 0.3 kg
- Keyway conforms to DIN 6885



XJ Gearbox

- Please send us the dimensions of the front face of your motor
- The overall length depends on the adaptor plate

(2x3) M4x6mm
deep on 35
mm PCD



OUTPUT TORQUE (In Nm, values given as a guide only)

Ratios	2:1	3:1	4:1	6:1	10:1	12:1	16:1
4000	0,66	0,64	0,57	0,75	0,70	0,79	0,80
2000	0,84	0,81	0,72	0,88	0,81	0,90	0,92
1000	0,99	0,96	0,85	1,00	0,90	1,04	1,07
500	1,13	1,10	0,98	1,14	1,01	1,17	1,21
200	1,32	1,28	1,14	1,35	1,20	1,39	1,43
100	1,50	1,45	1,30	1,53	1,33	1,58	1,65
50	1,68	1,63	1,46	1,68	1,53	1,81	1,90
20	2,00	1,95	1,74	2,00	1,80	2,10	2,25

Large choice
of reduction
ratios!
Up to 625:1

DISCOUNTS

Qty	1+	2+	4+	6+
Disc.	List -15%	-20%	On request	On request

Part number		Ratios	Max. input speed (rpm)	Max. output speed (rpm)	Efficiency at 1000 rpm	Direction of input/output rotation	Price each J	Price each XJ
J64-2	XJ64-2	2:1	4000	2000	92%	Same	443,84 €	On request
J64-3	XJ64-3	3:1	4000	1333	92%	Same	443,84 €	
J64-4	XJ64-4	4:1	4000	1000	92%	Same	443,84 €	
J64-6	XJ64-6	6:1	4000	666	92%	Same	443,84 €	
J64-10	XJ64-10	10:1	4000	400	92%	Same	443,84 €	
J64-12	XJ64-12	12:1	4000	333	92%	Same	443,84 €	
J64-16	XJ64-16	16:1	4000	250	92%	Same	443,84 €	
J64-SP	XJ64-SP	1:1 - 16:1	Special ratios from 1:1 à 16:1				543,01 €	

Dimensions in mm



Spur gear coaxial gearbox

Torque up to 2.95Nm

J65
XJ65

- Ratios from 1:1 to 64:1
(Other ratios available on request)

- Output backlash: N/A

- Max. input speed: 4000 rpm

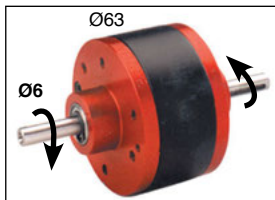
- Materials:

casing: anodised aluminium
and black delrin

input & output: unhardened steel

- Weight: 0.32 kg

- Keyway conforms to DIN 6885

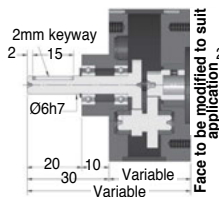


XJ Gearbox

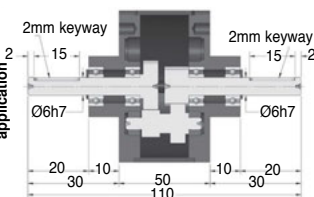
- Please send us the dimensions of the front face of your motor

- The overall length depends on the adaptor plate

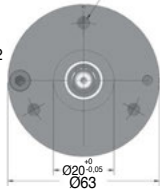
(2x3) M4 x 5mm
deep on 38mm PCD



XJ65



J65



OUTPUT TORQUE (In Nm, values given as a guide only)

Ratios	15:1	20:1	24:1	32:1	40:1	48:1	64:1
4000	0,80	0,81	0,91	0,92	0,89	0,91	0,92
2000	0,91	0,93	1,04	1,05	1,03	1,04	1,06
1000	1,05	1,10	1,16	1,20	1,16	1,19	1,23
500	1,20	1,27	1,35	1,41	1,37	1,40	1,45
200	1,40	1,63	1,58	1,63	1,56	1,61	1,63
100	1,48	1,71	1,80	1,85	1,73	1,82	1,87
50	1,86	2,02	1,95	2,00	1,94	1,95	1,96
20	2,20	2,30	2,36	2,45	2,36	2,40	2,95

**Large choice
of reduction
ratios!
Up to 625:1**

DISCOUNTS

Qty	1+	2+	4+	6+
Disc.	List	-15%	-20%	On request

Part number	Ratios	Max. input speed (rpm)	Max. output speed (rpm)	Efficiency at 1000 rpm	Direction of input/output rotation	Price each J	Price each XJ
J65-15	XJ65-15	15:1	4000	266	88%	Opposite	527,49 €
J65-20	XJ65-20	20:1	4000	200	88%	Opposite	527,49 €
J65-24	XJ65-24	24:1	4000	166	88%	Opposite	527,49 €
J65-32	XJ65-32	32:1	4000	125	88%	Opposite	527,49 €
J65-40	XJ65-40	40:1	4000	100	88%	Opposite	527,49 €
J65-48	XJ65-48	48:1	4000	83	88%	Opposite	527,49 €
J65-64	XJ65-64	64:1	4000	62	88%	Opposite	527,49 €
J65-SP	XJ65-SP	1:1 - 64:1	Special ratios from 1:1 to 64:1				620,59 €

Dimensions in mm

On request

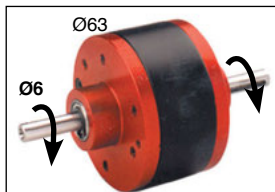
Spur gear coaxial gearbox



J66
XJ66

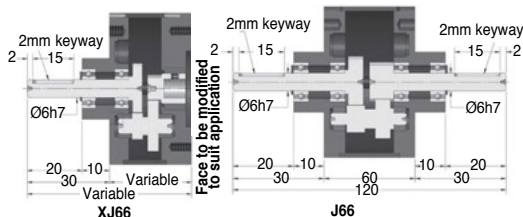
Torque up to 2.8Nm

- Ratios from 1:1 to 256:1
(Other ratios available on request)
- Output backlash: N/A
- Max. input speed: 4000 rpm
- Materials:
casing: anodised aluminium
and black delrin
input & output: unhardened steel
- Weight: 0.34 kg
- Keyway conforms to DIN 6885

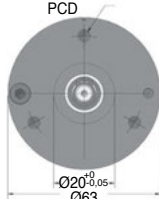


XJ Gearbox

- Please send us the dimensions of the front face of your motor
- The overall length depends on the adaptor plate



(2x3) M4x6mm
deep on 35 mm
PCD



OUTPUT TORQUE (In Nm, values given as a guide only)

Ratios	50:1	80:1	96:1	128:1	160:1	192:1	256:1
4000	0,90	1,01	1,05	1,09	1,13	1,25	1,40
2000	1,04	1,13	1,18	1,24	1,30	1,40	1,55
1000	1,18	1,30	1,33	1,39	1,44	1,60	1,85
500	1,40	1,44	1,50	1,58	1,64	1,78	2,00
200	1,60	1,73	1,80	1,87	1,96	2,18	2,42
100	1,82	1,96	2,10	2,17	2,28	2,47	2,80
50	2,02	2,28	2,45	2,61	2,80	2,80	2,80
20	2,50	2,80	2,80	2,80	2,80	2,80	2,80

Large choice
of reduction
ratios!
Up to 625:1

DISCOUNTS

Qty	1+	2+	4+	6+
Disc.	List	-15%	-20%	On request

Part number		Ratios	Max. input speed (rpm)	Max. output speed (rpm)	Efficiency at 1000 rpm	Direction of input/output rotation	Price each	
							J	XJ
J66-50	XJ66-50	50:1	4000	80	85%	Same	625,34 €	On request
J66-80	XJ66-80	80:1	4000	50	85%	Same	625,34 €	
J66-96	XJ66-96	96:1	4000	41	85%	Same	625,34 €	
J66-128	XJ66-128	128:1	4000	31	85%	Same	625,34 €	
J66-160	XJ66-160	160:1	4000	25	85%	Same	625,34 €	
J66-192	XJ66-192	192:1	4000	21	85%	Same	625,34 €	
J66-256	XJ66-256	256:1	4000	15	85%	Same	625,34 €	
J66-SP	XJ66-SP	1:1 - 256:1	Special ratios from 1:1 to 256:1				719,97 €	

Dimensions in mm

On request



Spur gear coaxial gearbox

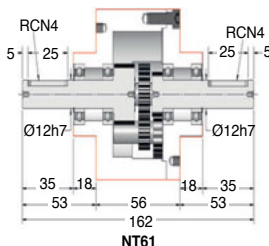
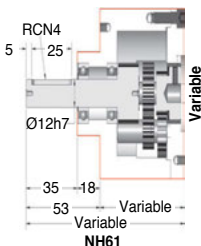
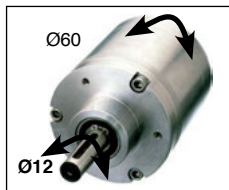
Torque up to 14Nm

**NT61
NH61**

- Ratios from 1:1 to 9:1 (other ratios available on request)
- Output backlash: N/A
- Max. input speed: 3000 rpm
- Materials:
 - casing: anodised aluminium
 - input & output: unhardened steel
- Weight: 0.6 / 1.2kg
- keyway conforms to DIN 6885

Options

- Can be adapted to suit your motor
- Ask for the ratio you require
- Also see NT62, NH62 and NT63, NH63



OUTPUT TORQUE (In Nm: values given as a guide only)

Ratios	2:1	3:1	4:1	5:1	6:1	8:1	9:1
3000	5,0	5,0	5,0	5,0	5,0	5,0	5,0
2000	5,5	5,5	5,5	6,0	6,0	6,0	6,0
1000	6,5	6,5	6,5	7,0	7,0	7,0	7,0
500	7,5	7,5	7,5	8,0	8,0	8,0	8,0
200	9,0	9,0	9,0	9,0	9,0	9,0	9,0
100	10,0	10,0	10,0	10,0	10,0	10,0	10,0
50	12,0	12,0	12,0	12,0	12,0	12,0	12,0
20	14,0	14,0	14,0	14,0	14,0	14,0	14,0

**Large choice of
reduction ratios!
Up to 120:1**

DISCOUNTS

Qty	1+	2+	4+	6+
Disc.	List	-15%	-20%	On request

Part number		Ratios	Max. input speed (rpm)	Max. output speed (rpm)	Efficiency at 1000 rpm	Direction of input/output rotation	Price each	
							NT	NH
NT61-2	NH61-2	2:1	3000	1500	92%	Same	726.93 €	On request
NT61-3	NH61-3	3:1	3000	1000	92%	Same	726.93 €	
NT61-4	NH61-4	4:1	3000	750	92%	Same	726.93 €	
NT61-5	NH61-5	5:1	3000	600	92%	Opposite	726.93 €	
NT61-6	NH61-6	6:1	3000	500	92%	Opposite	726.93 €	
NT61-8	NH61-8	8:1	3000	375	92%	Opposite	726.93 €	
NT61-9	NH61-9	9:1	3000	333	92%	Opposite	726.93 €	
NT61-SP	NH61-SP	1:1 - 9:1	Special ratios from 1:1 to 9:1				851.75 €	

Dimensions in mm

Spur gear coaxial gearbox



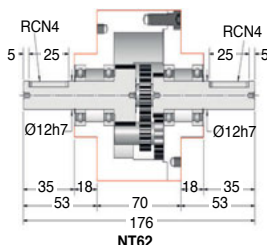
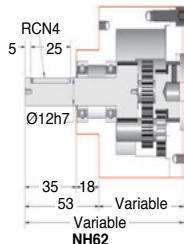
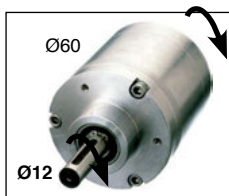
NT62
NH62

Torque up to 18Nm

- Ratios from 1:1 to 27:1 (other ratios available on request)
- Output backlash: N/A
- Max. input speed: 3000 rpm
- Materials:
 - casing: anodised aluminium
 - input & output: unhardened steel
- Weight: 0.61 kg

Options

- Can be adapted to suit your motor
- Ask for the ratio you require
- Also see **NT61**, **NH61** and **NT63**, **NH63**
- Keyway conforms to DIN 6885



OUTPUT TORQUE (In Nm, values given as a guide only)

Ratios	10:1	12:1	15:1	18:1	20:1	24:1	27:1
3000	6,0	8,0	8,0	8,0	8,0	8,0	8,0
2000	7,0	8,5	8,5	8,5	8,5	8,5	8,5
1000	8,5	9,0	9,0	9,0	9,0	9,0	9,0
500	10,0	10,0	10,0	10,0	10,0	10,0	10,0
200	11,0	12,0	12,0	12,0	12,0	12,0	12,0
100	12,0	14,0	14,0	14,0	14,0	14,0	14,0
50	14,0	16,0	16,0	16,0	16,0	16,0	16,0
20	16,0	18,0	18,0	18,0	18,0	18,0	18,0

Large choice of reduction ratios !
Up to 120:1

DISCOUNTS

Qty	1+	2+	4+	6+
Disc.	List	-15%	-20%	On request

Part number		Ratios	Max. input speed (rpm)	Max. output speed (rpm)	Efficiency at 1000 rpm	Direction of input/output rotation	Price each	
							NT	NH
NT62-10	NH62-10	10:1	3000	300	85%	Same	877,72 €	On request
NT62-12	NH62-12	12:1	3000	250	85%	Same	877,72 €	
NT62-15	NH62-15	15:1	3000	200	85%	Same	877,72 €	
NT62-18	NH62-18	18:1	3000	166	85%	Same	877,72 €	
NT62-20	NH62-20	20:1	3000	150	85%	Same	877,72 €	
NT62-24	NH62-24	24:1	3000	125	85%	Same	877,72 €	
NT62-27	NH62-27	27:1	3000	111	85%	Same	877,72 €	
NT62-SP	NH62-SP	1:1 - 27:1	Special ratios from 1:1 to 27:1				1 000,80 €	

Dimensions in mm



Spur gear coaxial gearbox

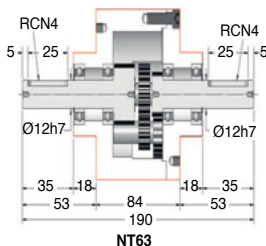
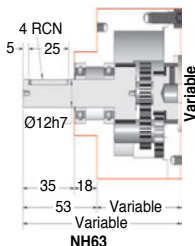
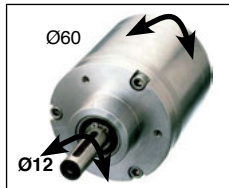
Torque up to 20Nm

**NT63
NH63**

- Ratios from 1:1 to 120:1 (other ratios available on request)
- Output backlash: N/A
- Max. input speed: 3000 rpm
- Materials:
 - casing: anodised aluminium
 - input & output: unhardened steel
- Weight: 0.64 kg

Options

- Can be adapted to suit your motor
- Ask for the ratio you require
- Also see NT61, NH61 and NT62, NH62
- keyway conforms to DIN 6885



OUTPUT TORQUE (In Nm, values given as a guide only)

Ratios	30:1	36:1	40:1	48:1	54:1	81:1	120:1
3000	8,0	9,0	9,0	9,0	9,0	10,0	10,0
2000	8,5	9,0	9,0	9,0	9,0	10,0	10,0
1000	9,0	10,0	10,0	10,0	10,0	10,0	10,0
500	10,0	11,0	11,0	11,0	11,0	11,0	11,0
200	12,0	12,0	12,0	12,0	12,0	12,0	12,0
100	14,0	14,0	14,0	14,0	14,0	14,0	14,0
50	16,0	17,0	17,0	17,0	17,0	17,0	17,0
20	19,0	20,0	20,0	20,0	20,0	20,0	20,0

**Large choice of
reduction ratios !
Up to 120:1**

DISCOUNTS

Qty	1+	2+	4+	6+
Disc.	List	-15%	-20%	On request

Part number	Ratios	Max. input speed (rpm)	Max. output speed (rpm)	Efficiency at 1000 rpm	Direction of input/output rotation	Price each	
NT63-30 NH63-30	30:1	3000	100	80%	Opposite	968,82 €	On request
NT63-36 NH63-36	36:1	3000	83	80%	Opposite	968,82 €	
NT63-40 NH63-40	40:1	3000	75	80%	Opposite	968,82 €	
NT63-48 NH63-48	48:1	3000	62	80%	Opposite	968,82 €	
NT63-54 NH63-54	54:1	3000	55	80%	Opposite	968,82 €	
NT63-81 NH63-81	81:1	3000	37	80%	Opposite	968,82 €	
NT63-120 NH63-120	120:1	3000	25	80%	Same	968,82 €	
NT63-SP NH63-SP	1:1 - 120:1	Special ratios from 1:1 to 120:1				1 080,84 €	

Dimensions in mm

Spur gear coaxial gearbox



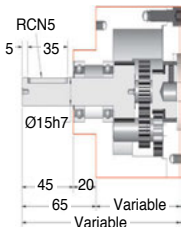
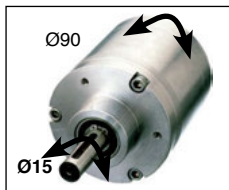
**NT91
NH91**

Torque up to 35Nm

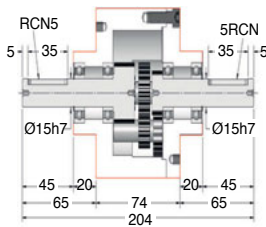
- Ratios from 1:1 to 9:1 (other ratios available on request)
- Output backlash: N/A
- Max. input speed: 3000 rpm
- Materials:
casing: anodised aluminium
input & output: unhardened steel
- Weight: 1.6 kg

Options

- Can be adapted to suit your motor
- Ask for the ratio you require
- Also see NT92, NH92
- Keyway conforms to DIN 6885



NH91



NT91



Output face

OUTPUT TORQUE (In Nm, values given as a guide only)

Ratios	2:1	3:1	4:1	5:1	6:1	8:1	9:1
3000	10	11	12	12	14	14	15
2000	12	13	14	15	16	16	17
1000	15	16	17	18	19	19	20
500	18	18	19	21	22	22	23
200	21	22	22	24	25	25	26
100	24	25	26	26	27	28	29
50	27	27	28	30	31	32	32
20	30	30	30	33	33	35	35

Part number	Ratios	Max. input speed (rpm)	Max. output speed (rpm)	Efficiency at 1000 rpm	Direction of input/output rotation	Price each	
						NT	NH
NT91-2	NH91-2	2:1	3000	1500	90%	Same	840,41 €
NT91-3	NH91-3	3:1	3000	1000	90%	Same	840,41 €
NT91-4	NH91-4	4:1	3000	750	90%	Same	840,41 €
NT91-5	NH91-5	5:1	3000	600	90%	Opposite	840,41 €
NT91-6	NH91-6	6:1	3000	500	90%	Opposite	840,41 €
NT91-8	NH91-8	8:1	3000	375	90%	Opposite	840,41 €
NT91-9	NH91-9	9:1	3000	333	90%	Opposite	840,41 €
NT91-SP	NH91-SP	1:1 - 9:1	Special ratios from 1:1 to 9:1				968,40 €

Dimensions in mm

**Large choice of reduction ratios !
Up to 36:1**

DISCOUNTS

Qty	1+	2+	4+	6+
Disc.	List -15%	-20%	On request	On request

On request



Spur gear coaxial gearbox

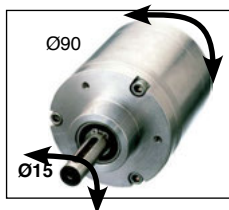
Torque up to 40Nm

**NT92
NH92**

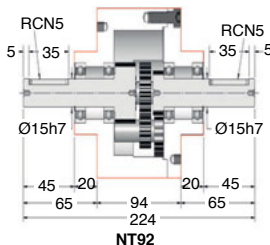
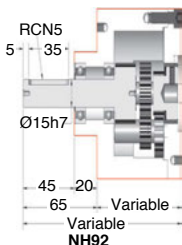
- Ratios from 1:1 to 36:1 (other ratios available on request)
- Output backlash: N/A
- Max. input speed: 3000 rpm
- Materials:
 - casing: anodised aluminium
 - input & output: unhardened steel
- Weight: 2 kg

Options

- Can be adapted to suit your motor
- Ask for the ratio you require
- Also see NT91, NH91
- keyway conforms to DIN 6885



(2x3) M5x10 depth
on Ø70



Output face

OUTPUT TORQUE (In Nm, values given as a guide only)

Ratios	10:1	12:1	15:1	18:1	20:1	27:1	36:1
3000	15	15	17	17	17	18	18
2000	18	18	20	20	20	21	21
1000	21	21	23	23	23	24	24
500	24	24	26	26	26	27	27
200	27	27	29	29	29	30	30
100	30	30	31	31	32	33	33
50	32	33	34	34	35	36	36
20	35	36	38	38	40	40	40

**Large choice of
reduction ratios !
Up to 36:1**

DISCOUNTS

Qty	1+	2+	4+	6+
Disc.	List	-15%	-20%	On request

Part number		Ratios	Max. input speed (rpm)	Max. output speed (rpm)	Efficiency at 1000 rpm	Direction of input/output rotation	Price each	
							NT	NH
NT92-10	NH92-10	10:1	3000	300	84%	Same	899,05 €	On request
NT92-12	NH92-12	12:1	3000	250	84%	Same	899,05 €	
NT92-15	NH92-15	15:1	3000	200	84%	Same	899,05 €	
NT92-18	NH92-18	18:1	3000	166	84%	Same	899,05 €	
NT92-20	NH92-20	20:1	3000	150	84%	Same	899,05 €	
NT92-27	NH92-27	27:1	3000	125	84%	Same	899,05 €	
NT92-36	NH92-36	36:1	3000	83	84%	Same	898,93 €	
NT92-SP	NH92-SP	1:1 - 36:1	Special ratios from 1:1 to 36:1				1 022,64 €	

Dimensions in mm

Spur gear coaxial gearbox



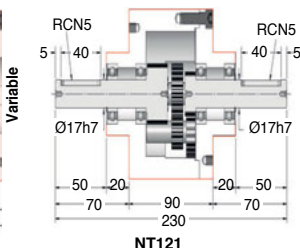
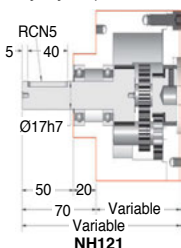
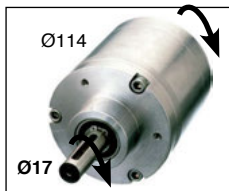
NT121
NH121

Torque up to 68Nm

- Ratios from 1:1 to 9:1 (other ratios available on request)
- Output backlash: N/A
- Max. input speed: 3000 rpm
- Materials:
casing: anodised aluminium
input & output: unhardened steel
- Weight: 2.3 kg

Options

- Can be adapted to suit your motor
- Ask for the ratio you require
- Also see **NT122**, **NH122**
- Keyway conforms to DIN 6885



OUTPUT TORQUE (In Nm, values given as a guide only)

Ratios	2:1	3:1	4:1	5:1	6:1	8:1	9:1
3000	20,0	20,0	21,1	22,2	23,5	29,7	26,0
2000	23,0	23,6	24,7	26,0	27,4	28,6	30,0
1000	27,1	27,5	28,6	29,7	31,0	32,5	34,0
500	31,5	32,0	33,3	34,8	36,4	38,0	40,0
200	35,0	35,5	37,2	38,0	40,8	42,8	45,0
100	40,0	41,0	41,8	42,7	43,6	47,0	51,0
50	47,2	48,0	50,2	52,5	55,0	58,0	61,1
20	53,0	55,0	57,0	60,0	62,0	65,0	68,0

Large choice of reduction ratios!
Up to 27:1

DISCOUNTS

Qty	1+	2+	4+	6+
Disc.	List	-15%	-20%	On request

Part number	Ratios	Max. input speed (rpm)	Max. output speed (rpm)	Efficiency at 1000 rpm	Direction of input/output rotation	Price each
						NT NH
NT121-2 NH121-2	2:1	3000	1500	92%	Same	1 046,03 €
NT121-3 NH121-3	3:1	3000	1000	92%	Same	1 046,03 €
NT121-4 NH121-4	4:1	3000	750	92%	Same	1 046,03 €
NT121-5 NH121-5	5:1	3000	600	92%	Same	1 046,03 €
NT121-6 NH121-6	6:1	3000	500	92%	Same	1 046,03 €
NT121-8 NH121-8	8:1	3000	375	92%	Same	1 046,03 €
NT121-9 NH121-9	9:1	3000	333	92%	Same	1 046,03 €
NT121-SP NH121-SP	1:1 - 9:1	Special ratios from 1:1 to 9:1				1 164,75 €

On request

Dimensions in mm



Spur gear coaxial gearbox

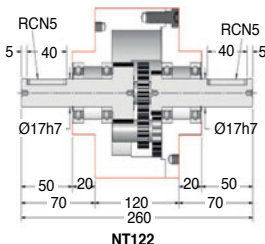
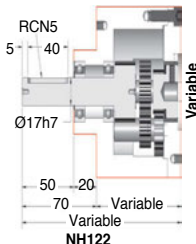
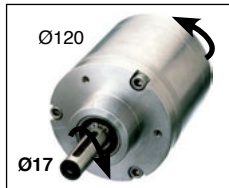
Torque up to 85Nm

**NT122
NH122**

- Ratios from 1:1 to 27:1 (other ratios available on request)
- Output backlash: N/A
- Max. input speed: 3000 rpm
- Materials:
 - casing: anodised aluminium
 - input & output: unhardened steel
- Weight: 2.6 kg

Options

- Can be adapted to suit your motor
- Ask for the ratio you require
- Also see NT121, NH121
- keyway conforms to DIN 6885



OUTPUT TORQUE (In Nm, values given as a guide only)

Ratios	10:1	12:1	15:1	18:1	24:1	8:1
3000	32	32	32	32	32	32
2000	36	36	36	36	36	36
1000	42	42	42	42	42	42
500	49	49	49	49	49	49
200	54	54	54	54	54	54
100	61	61	61	61	61	61
50	73	73	73	73	73	73
20	85	85	85	85	85	85

**Large choice of
reduction ratios!
Up to 27:1**

DISCOUNTS

Qty	1+	2+	4+	6+
Disc.	List	-15%	-20%	On request

Part number	Ratios	Max. input speed (rpm)	Max. output speed (rpm)	Efficiency at 1000 rpm	Direction of input/output rotation	Price each	
NT122-10 NH122-10	10:1	3000	300	88%	Opposite	1 251,96 €	On request
NT122-12 NH122-12	12:1	3000	250	88%	Opposite	1 251,96 €	
NT122-15 NH122-15	15:1	3000	200	88%	Opposite	1 251,96 €	
NT122-18 NH122-18	18:1	3000	166	88%	Opposite	1 251,96 €	
NT122-24 NH122-24	24:1	3000	125	88%	Opposite	1 251,96 €	
NT122-27 NH122-27	27:1	3000	111	88%	Opposite	1 251,96 €	
NT122-SP NH122-SP	1:1 - 27:1	Special ratios from 1:1 to 27:1				1 329,31 €	

Dimensions in mm

MINIATURE RIGHT ANGLED GEAR REDUCERS



p.225

OTHERS GEARBOXES p.225 - 249

MANUAL BEVEL GEARBOX



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MANUAL WORM/WHEEL GEARBOX



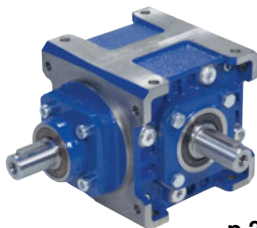
p.228

SINGLE OR DUAL OUTPUT GEARBOXES



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RIGHT ANGLE GEARBOX

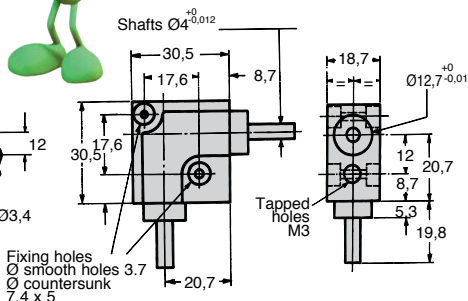
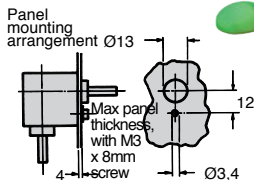
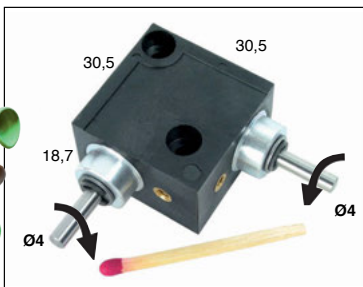


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**INCREASED
STOCK**

- Ratio 1:1
- Lightweight construction
- Output backlash 1°
- Max. input speed: 3000 rpm
- Materials:
 - casing: plastic
 - gears: Type 1 = steel
 - Type 2 = plastic
- Weight: 37 to 41g

Economy range



OUTPUT TORQUE (Nm)

Ratios	1:1	1:1
Input speed	Type 1 Steel	Type 2 Plastic
1500 rpm	0,68	0,11

DISCOUNTS

Qty	1+	5+	10+	25+	50+
Disc.	List	-6%	-12%	-18%	On request

Part number	Type	Ratio	Efficiency at 1500 rpm	Max. input speed (rpm)	Stock*	Price each 1 to 4
B332.31.2	1	1:1	94%	3000	✓	67,87 €
B332.31.3	2	1:1	94%	1500	✓	39,43 €

*Depending on availability - Dimensions in mm

Manual bevel gearbox



RAM30

Manual torque up to 4 Nm

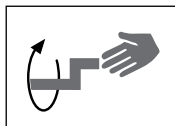
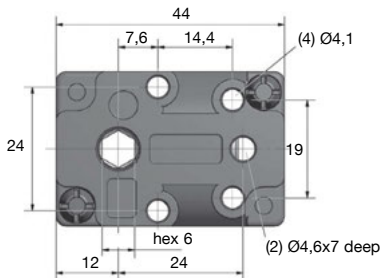
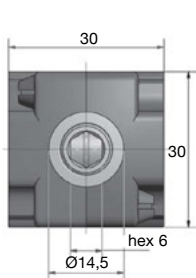
- **Manually operated bevel gearbox**
- Ratios from 1:1
- Materials:
 - Housing: Glass fibre reinforced PA6
 - Bevel gears: Case hardened steel

Accessories

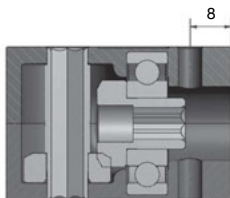
- MBEX handle
- AHES hexagonal shaft

Info

- Not suitable for motorised applications



For manual applications



DISCOUNTS

Qty	1+	10+	25+	50+
Disc.	List	-5%	-15%	On request

Part number	Ratio	Input	Output	Max torque (Nm)	Price each 1 to 9
RAM30-1	1:1	hex 6mm	hex 6mm	4	39,10 €

Dimensions in mm



Manual bevel gearbox

Manual torque up to 6 Nm

RAM35

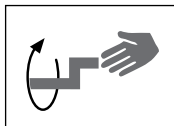
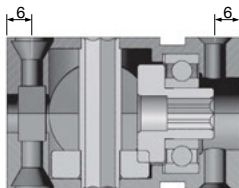
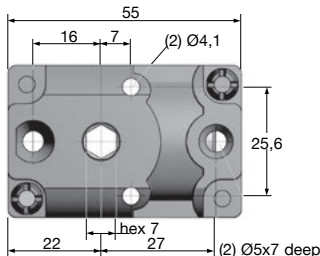
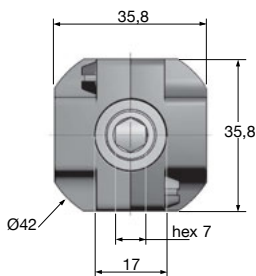
- **Manually operated bevel gearbox**
- Ratios from 1:1 to 2:1
- Materials:
Housing: Glass fibre reinforced PA6
Bevel gears: Case hardened steel

Accessories

- MBEX handle
- AHX hexagonal shaft

Info

- Not suitable for motorised applications



For manual applications

DISCOUNTS

Qty	1+	10+	25+	50+
Disc.	List	-5%	-15%	On request

Part number	Ratio	Input	Output	Max torque (Nm)	Price each 1 to 9
RAM35-1	1:1	hex 7mm	hex 7mm	6	50,60 €
RAM35-2	2:1	hex 7mm	hex 7mm	6	50,60 €

Dimensions in mm

Manual worm/wheel gearbox



RVM14

Manual torque up to 5 Nm

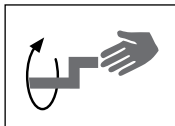
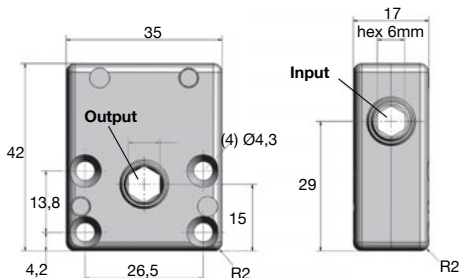
- **Manually operated bevel gearbox**
- Ratios from 1:1 to 23:1
- Materials:
Housing: die cast zinc
Worm/wheel: Case hardened steel

Accessories

- MBEX handle
- AHX hexagonal shaft

Info

- Not suitable for motorised applications



For manual applications

DISCOUNTS

Qty	1+	10+	25+	50+
Disc.	List	-5%	-15%	On request

Part number	Ratio	Input/Output	Max torque (Nm)	Self locking	Price each 1 to 9
RVM14-1	1:1	hex 6mm	2,0	No	78,14 €
RVM14-2	2:1	hex 6mm	2,0	No	78,14 €
RVM14-2.8	2,8:1	hex 6mm	2,5	No	78,14 €
RVM14-4.33	4,33:1	hex 6mm	2,0	Yes	78,14 €
RVM14-10	10:1	hex 6mm	4,0	Yes	78,14 €
RVM14-14	14:1	hex 6mm	5,0	Yes	78,14 €
RVM14-15	15:1	hex 6mm	4,0	Yes	78,14 €
RVM14-23	23:1	hex 6mm	3,0	Yes	78,14 €

Dimensions in mm



Manually operated gearbox

Manual torque up to 17 Nm

RVM25

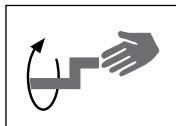
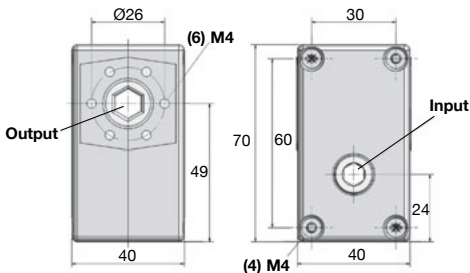
- **Compact manually operated gearbox**
- Ratios from 1:1 to 30:1
- Material:
Housing: die cast zinc

Accessories

- **MBEX** handle
- **AHES** hexagonal shaft

Info

- Not suitable for motorised applications



For manual applications

DISCOUNTS

Qty	1+	10+	25+	50+
Disc.	List	-5%	-15%	On request

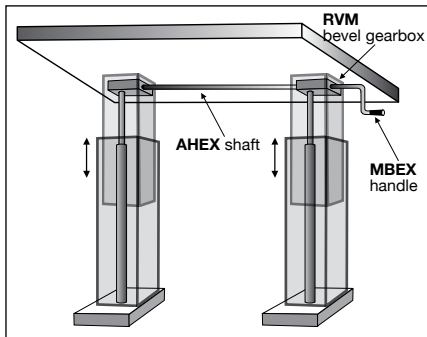
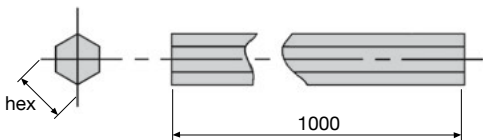
Part number	Ratio	Input	Output	Max torque (Nm)	Self locking	Price each 1 to 9
RVM25-1	1:1	hex 6mm	hex 9mm	2,0	No	115,00 €
RVM25-2	2:1	hex 6mm	hex 9mm	3,0	No	115,00 €
RVM25-3.25	3,25:1	hex 6mm	hex 9mm	4,0	Yes	115,00 €
RVM25-4.33	4,33:1	hex 6mm	hex 9mm	5,0	Yes	115,00 €
RVM25-7	7:1	hex 6mm	hex 9mm	7,0	Yes	115,00 €
RVM25-8.5	8,5:1	hex 6mm	hex 9mm	9,0	Yes	115,00 €
RVM25-17	17:1	hex 6mm	hex 9mm	12,0	Yes	115,00 €
RVM25-20	20:1	hex 6mm	hex 9mm	15,0	Yes	115,00 €
RVM25-30	30:1	hex 6mm	hex 9mm	17,0	Yes	115,00 €

Dimensions in mm

Hexagonal shaft **DIN176**

AHEX For manually operated bevel gearbox

- Hexagonal shaft for use with the RAM and RVM bevel gearbox ranges
- Cut to required length
- Material:
Steel



Typical application

DISCOUNTS

Qty	1+	10+	25+	50+
Disc.	List	-5%	-15%	On request

Part number	Profil	Length (mm)	Price each
AHEX6-1000	hex 6mm	1000	24,64 €
AHEX7-1000	hex 7mm	1000	29,36 €
AHEX9-1000	hex 9mm	1000	29,36 €

Dimensions in mm

Hexagonal ended handle

For use with manually
operated bevel gearbox

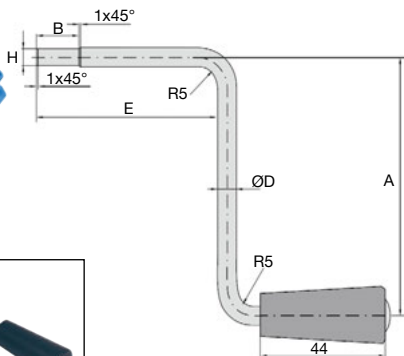
MBEX

- Handle for operating RAM and
RVM manual bevel gearboxes

- Material

Shaft: stainless steel

Rotating handle: plastic



Used with a RVM14 gearbox

DISCOUNTS

Qty	1+	10+	25+	50+
Disc.	List	-5%	-15%	On request

Part number	A	H	ØD	E	B	Price each 1 to 9
MBEX6-90	90	hex 6mm	7	60	20	57,50 €
MBEX7-90	90	hex 7mm	8	62	15	46,00 €

Dimensions in mm

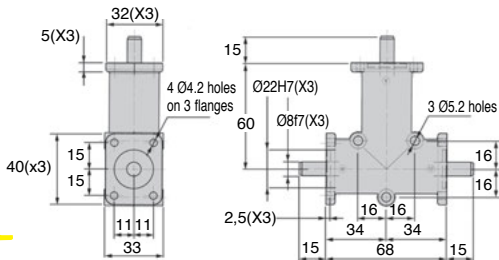
Single or dual output gearboxes

CHTRB8 Suitable for torques up to 4.7Nm

- Gearbox with one or two outputs
- Ratios from 1:1 to 2:1
- Maximum speed 3000 rpm
- Lubrication: Synthetic oil
- Material :
 - Box: Cast aluminium
 - Gears: Steel 16CrN4
- Operating temperature -20° to +80°C

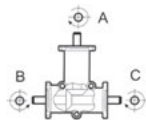
Info.

- For the maximum loads and service factor, please see technical pages
- If used as a multiplier, the maximum input speed is 750 rpm for gearboxes with a 2:1 ratio.



OUTPUT TORQUE (Nm: VALUES GIVEN AS A GUIDE ONLY)

Ratios	1:1	2:1
3000	1,7	1,4
2000	1,8	1,6
1400	2,0	1,7
800	2,3	2,0
400	2,8	2,4
200	3,3	2,8
100	3,9	3,4
50	4,7	4,0



DISCOUNTS

Qty	1+	6+	20+	40+
Disc.	List	-15%	-20%	On request

Part number	Type	Ratio	Input	Output	Max. input speed (rpm)	Max. output speed (rpm)	Weight (kg)	Stock*	Price each 1 to 5
CHTRB8-1-1	1	1:1	A	B	3000	3000	0,3	✓	143,37 €
CHTRB8-2-1	2	1:1	A	C	3000	3000	0,3	✓	143,37 €
CHTRB8-3-2	3	2:1	A	B	3000	1500	0,3	✓	143,37 €
CHTRB8-4-2	4	2:1	A	C	3000	1500	0,3	-	143,37 €
CHTRB8-5-1	5	1:1	A	B-C	3000	3000	0,3	✓	150,67 €
CHTRB8-6-2	6	2:1	A	B-C	3000	1500	0,3	-	150,67 €

Depending of availability - Dimensions in mm

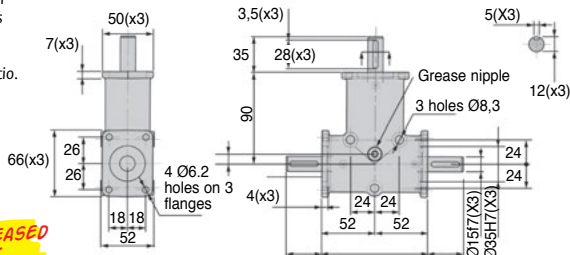
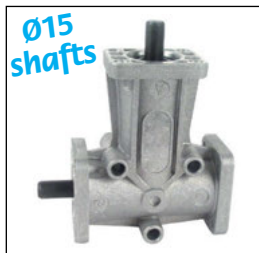


Suitable for torques up to 16.5Nm **CHTRB15**

- **Gearbox with one or two outputs**
- Ratios from 1:1 to 2:1
- Maximum speed 3000 rpm
- Lubrication: Synthetic oil
- Material :
 - Box: Cast aluminium
 - Gears: Steel 16CrN4
- Operating temperature -20° to +80°C

Info.

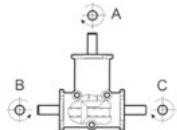
- For the maximum loads and service factor, please see technical pages
 - If used as a multiplier, the maximum input speed is 750 rpm for gearboxes with a 2:1 ratio.
- 
- The technical drawing shows a side view of a gearbox. A dimension line on the left indicates a width of 7(x3). A dimension line on the top indicates a height of 50(x3). The drawing is a simple line sketch of the gearbox housing.



✓ INCREASED STOCK

OUTPUT TORQUE (Nm: VALUES GIVEN AS A GUIDE ONLY)

Ratios		1:1	2:1
INPUT SPEED (rpm)	3000	5,9	5,2
	2000	6,6	5,8
	1400	7,2	6,3
	800	8,2	7,3
	400	9,8	8,7
	200	11,7	10,3
	100	13,9	12,3
	50	16,5	14,6



DISCOUNTS

Qty	1+	6+	20+	40+
Disc.	List	-15%	-20%	On request

Part number	Type	Ratio	Input	Output	Max. input	Max. output	Weight (kg)	Stock*	Price each 1 to 5
					speed (rpm)	speed (rpm)			
CHTRB15-1-1	1	1:1	A	B	3000	3000	1,1	✓	186,62 €
CHTRB15-2-1	2	1:1	A	C	3000	3000	1,1	✓	186,62 €
CHTRB15-3-2	3	2:1	A	B	3000	1500	1,1	✓	186,62 €
CHTRB15-4-2	4	2:1	A	C	3000	1500	1,1	✓	186,62 €
CHTRB15-5-1	5	1:1	A	B-C	3000	3000	1,2	✓	194,62 €
CHTRB15-6-2	6	2:1	A	B-C	3000	1500	1,2	✓	194,62 €

Depending of availability - Dimensions in mm

Single or dual output gearboxes

CHTRB20 Suitable for torques up to 53.1Nm

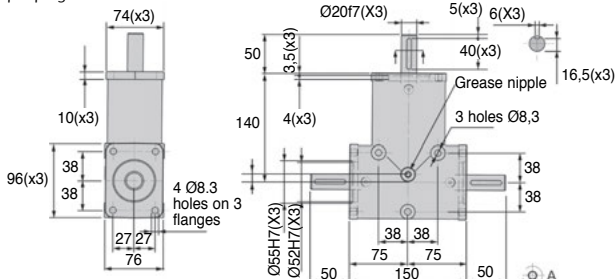
- Gearbox with one or two outputs
- Ratios from 1:1 to 2:1
- Maximum speed 3000 rpm
- Lubrication: Synthetic oil
- Material :
Box: Cast aluminium
Gears: Steel 16CrN4
- Operating temperature -20° to +80°C

INCREASED STOCK



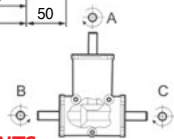
Info.

- For the maximum loads and service factor, please see technical pages
- If used as a multiplier, the maximum input speed is 750 rpm for gearboxes with a 2:1 ratio.



OUTPUT TORQUE (Nm: VALUES GIVEN AS A GUIDE ONLY)

Ratios	1:1	2:1
3000	19,1	15,3
2000	21,1	16,9
1400	23,1	18,5
800	26,5	21,3
400	31,6	25,3
200	37,5	30,1
100	44,6	35,7
50	53,1	42,5



DISCOUNTS

Qty	1+	6+	20+	40+
Disc.	List	-15%	-20%	On request

Part number	Type	Ratio	Input	Output	Max. input speed (rpm)	Max. output speed (rpm)	Weight (kg)	Price each 1 to 5
CHTRB20-1-1	1	1:1	A	B	3000	3000	3,4	265,17 €
CHTRB20-2-1	2	1:1	A	C	3000	3000	3,4	265,17 €
CHTRB20-3-2	3	2:1	A	B	3000	1500	3,4	265,17 €
CHTRB20-4-2	4	2:1	A	C	3000	1500	3,4	265,17 €
CHTRB20-5-1	5	1:1	A	B-C	3000	3000	3,5	269,40 €
CHTRB20-6-2	6	2:1	A	B-C	3000	1500	3,5	269,40 €

Depending of availability - Dimensions in mm



Single or dual output gearboxes

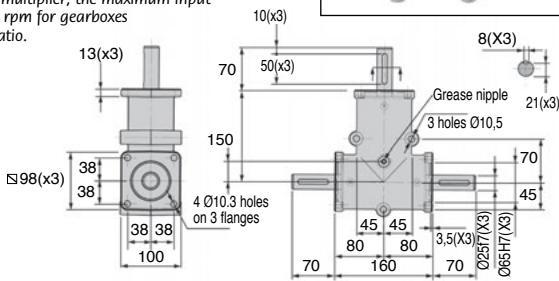
Suitable for torques up to 87.3Nm

CHTRB25

- Gearbox with one or two outputs
- Ratios from 1:1 to 2:1
- Maximum speed 3000 rpm
- Lubrication: Synthetic oil
- Material :
Box: Cast aluminium
Gears: Steel 16CrN4
- Operating temperature -20° to +80°C

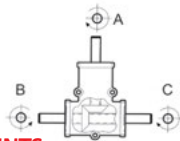
Info.

- For the maximum loads and service factor, please see technical pages
- If used as a multiplier, the maximum input speed is 750 rpm for gearboxes with a 2:1 ratio.



OUTPUT TORQUE (Nm: VALUES GIVEN AS A GUIDE ONLY)

INPUT SPEED (rpm)	Ratios		1:1	2:1
3000			31,4	29,6
2000			34,7	32,7
1400			38,0	35,8
800			43,7	41,1
400			51,9	48,9
200			61,8	58,2
100			73,4	69,2
50			87,3	82,3



DISCOUNTS

Qty	1+	6+	20+	40+
Disc.	List	-15%	-20%	On request

Part number	Type	Ratio	Input	Output	Max. input speed (rpm)	Max. output speed (rpm)	Weight (kg)	Price each 1 to 5
CHTRB25-1-1	1	1:1	A	B	3000	3000	5,5	328,92 €
CHTRB25-2-1	2	1:1	A	C	3000	3000	5,5	328,92 €
CHTRB25-3-2	3	2:1	A	B	3000	1500	5,5	328,92 €
CHTRB25-4-2	4	2:1	A	C	3000	1500	5,5	328,92 €
CHTRB25-5-1	5	1:1	A	B-C	3000	3000	5,8	340,78 €
CHTRB25-6-2	6	2:1	A	B-C	3000	1500	5,8	340,78 €

Dimensions in mm



Single or dual output gearboxes

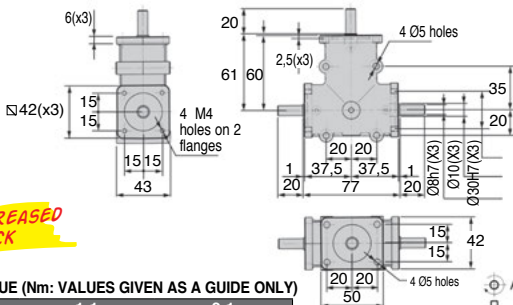
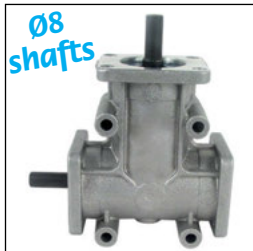
Suitable for torques up to 9.1Nm

CHTRP8

- Gearbox with one or two outputs
- Ratios from 1:1 to 2:1
- Maximum speed 3000 rpm
- Lubrication: Synthetic oil
- Material :
 - Box: Cast aluminium
 - Gears: Steel 16CrN4
- Operating temperature -20° to +80°C

Info.

- For the maximum loads and service factor, please see technical pages
- If used as a multiplier, the maximum input speed is 750 rpm for gearboxes with a 2:1 ratio.



OUTPUT TORQUE (Nm: VALUES GIVEN AS A GUIDE ONLY)

Ratios	1:1	2:1
3000	3,3	3,2
2000	3,6	3,5
1400	4,0	3,9
800	4,5	4,4
400	5,4	5,3
200	6,4	6,3
100	7,6	7,5
50	9,1	8,9

DISCOUNTS

Qty	1+	6+	20+	40+
Disc.	List	-15%	-20%	On request

Part number	Type	Ratio	Input	Output	Max. input speed (rpm)	Max. output speed (rpm)	Weight (kg)	Price each 1 to 5
CHTRP8-1-1	1	1:1	A	B	3000	3000	0,6	✓ 197,15 €
CHTRP8-2-1	2	1:1	A	C	3000	3000	0,6	- 197,15 €
CHTRP8-3-2	3	2:1	A	B	3000	1500	0,6	✓ 222,69 €
CHTRP8-4-2	4	2:1	A	C	3000	1500	0,6	- 222,71 €
CHTRP8-5-1	5	1:1	A	B-C	3000	3000	0,6	✓ 208,99 €
CHTRP8-6-2	6	2:1	A	B-C	3000	1500	0,6	- 236,40 €

Depending of availability - Dimensions in mm



Single or dual output gearboxes

Suitable for torques up to 34.5Nm **CHTRP14**

- Gearbox with one or two outputs

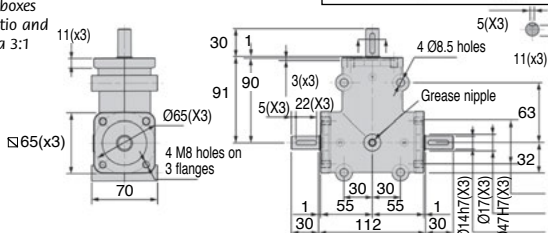
- Ratios from 1:1 to 3:1
- Maximum speed 3000 rpm
- Lubrication: Synthetic oil
- Material :
Box: Cast aluminium
Gears: Steel 16CrN4
- Operating temperature -20° to +80°C

INCREASED STOCK



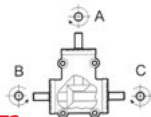
Info.

- For the maximum loads and service factor, please see technical pages
- If used as a multiplier, the maximum input speed is 750 rpm for gearboxes with a 2:1 ratio and 500 rpm for a 3:1 ratio.



OUTPUT TORQUE (Nm: VALUES GIVEN AS A GUIDE ONLY)

Ratios	1:1	2:1	3:1
3000	12,4	12,2	9,9
2000	13,7	13,5	10,9
1400	15,0	14,7	12,0
800	17,2	16,9	13,7
400	20,5	20,1	16,3
200	24,4	23,9	19,4
100	29,0	28,5	23,1
50	34,5	33,8	27,5



DISCOUNTS

Qty	1+	6+	20+	40+
Disc.	List	-15%	-20%	On request

Part number	Type	Ratio	Input	Output	Max. input speed (rpm)	Max. output speed (rpm)	Weight (kg)	Price each
CHTRP14-1-1	1	1:1	A	B	3000	3000	2	238,88 €
CHTRP14-2-1	2	1:1	A	C	3000	3000	2	238,88 €
CHTRP14-3-2	3	2:1	A	B	3000	1500	2	256,22 €
CHTRP14-4-2	4	2:1	A	C	3000	1500	2	256,22 €
CHTRP14-5-3	5	3:1	A	B	3000	1000	2	262,11 €
CHTRP14-6-3	6	3:1	A	C	3000	1000	2	262,11 €
CHTRP14-7-1	7	1:1	A	B-C	3000	3000	2	262,11 €
CHTRP14-8-2	8	2:1	A	B-C	3000	1500	2	274,38 €
CHTRP14-9-3	9	3:1	A	B-C	3000	1000	2	294,85 €

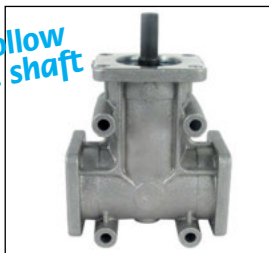
Depending of availability - Dimensions in mm

Single or dual output gearboxes

CHTRP14 Suitable for torques up to 28.8Nm

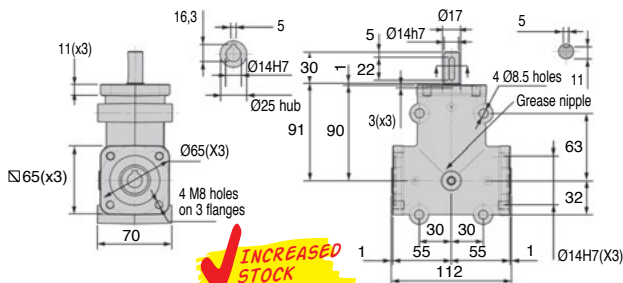
- Gearbox with one or two outputs
- Ratios from 1:1 to 3:1
- Maximum speed 3000 rpm
- Lubrication: Synthetic oil
- Material :
 - Box: Cast aluminium
 - Gears: Steel 16CrN4
- Operating temperature -20° to +80°C

Ø14 hollow output shaft



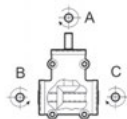
Info.

- For the maximum loads and service factor, please see technical pages
- If used as a multiplier, the maximum input speed is 750 rpm for gearboxes with a 2:1 ratio and 500 rpm for a 3:1 ratio.



OUTPUT TORQUE (Nm: VALUES GIVEN AS A GUIDE ONLY)

Ratios	1:1	2:1	3:1
3000	10,3	10,1	9,9
2000	11,4	11,2	10,9
1400	12,5	12,2	12,0
800	14,4	14,1	13,7
400	17,1	16,7	16,3
200	20,3	19,9	19,4
100	24,2	23,7	23,1
50	28,8	28,1	27,5



DISCOUNTS

Qty	1+	6+	20+	40+
Disc.	List	-15%	-20%	On request

Part number	Type	Ratio	Input	Output	Max. input speed (rpm)	Max. output speed (rpm)	Weight (kg)	Price each 1 to 5
CHTRP14-10-1	10	1:1	A	B-C	3000	3000	2	✓ 300,49 €
CHTRP14-11-2	11	2:1	A	B-C	3000	1500	2	✓ 324,60 €
CHTRP14-12-3	12	3:1	A	B-C	3000	1000	2	✓ 349,63 €

Depending of availability - Dimensions in mm



Single or dual output gearboxes

Suitable for torques up to 87.3Nm

CHTRP19

Gearbox with one or two outputs

- Ratios from 1:1 to 3:1
- Maximum speed 3000 rpm
- Lubrication: Synthetic oil
- Material :
Box: Cast aluminium
Gears: Steel 16CrN4
- Operating temperature -20° to +80°C

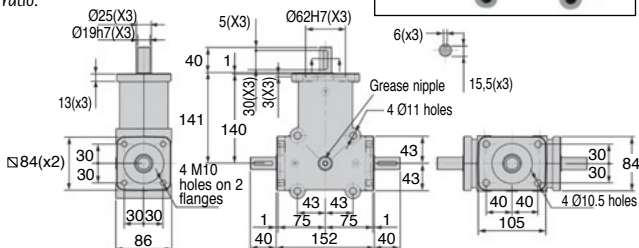
INCREASED STOCK

Ø19 shafts



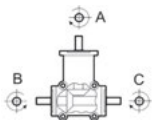
Info.

- For the maximum loads and service factor, please see technical pages
- If used as a multiplier, the maximum input speed is 750 rpm for gearboxes with a 2:1 ratio and 500 rpm for a 3:1 ratio.



OUTPUT TORQUE (Nm: VALUES GIVEN AS A GUIDE ONLY)

Ratios	1:1	2:1	3:1
3000	31,4	29,6	22,8
2000	34,7	32,7	25,2
1400	38,0	35,8	27,6
800	43,7	41,1	31,7
400	51,9	48,9	37,7
200	61,8	58,2	44,9
100	73,4	69,2	53,3
50	87,3	82,3	63,4



DISCOUNTS

Qty	1+	6+	20+	40+
Disc.	List	-15%	-20%	On request

Part number	Type	Ratio	Input	Output	Max. input speed (rpm)	Max. output speed (rpm)	Weight (kg)	Price each
CHTRP19-1-1	1	1:1	A	B	3000	3000	4,5	349,52 €
CHTRP19-2-1	2	1:1	A	C	3000	3000	4,5	349,52 €
CHTRP19-3-2	3	2:1	A	B	3000	1500	4,5	366,00 €
CHTRP19-4-2	4	2:1	A	C	3000	1500	4,5	365,98 €
CHTRP19-5-3	5	3:1	A	B	3000	1000	4,5	382,56 €
CHTRP19-6-3	6	3:1	A	C	3000	1000	4,5	382,60 €
CHTRP19-7-1	7	1:1	A	B-C	3000	3000	4,5	349,41 €
CHTRP19-8-2	8	2:1	A	B-C	3000	1500	4,5	371,20 €
CHTRP19-9-3	9	3:1	A	B-C	3000	1000	4,5	398,06 €

Depending of availability - Dimensions in mm

Single or dual output gearboxes

CHTRP19 Suitable for torques up to 75.7Nm

- Gearbox with one or two outputs

- Ratios from 1:1 to 3:1

- Maximum speed 3000 rpm

- Lubrication: Synthetic oil

- Material :

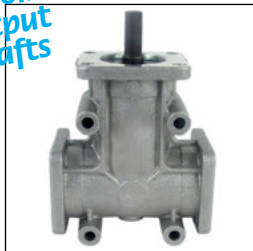
Box: Cast aluminium

Gears: Steel 16CrN4

- Operating temperature -20° to +80°C

Ø19 hollow
output
shafts

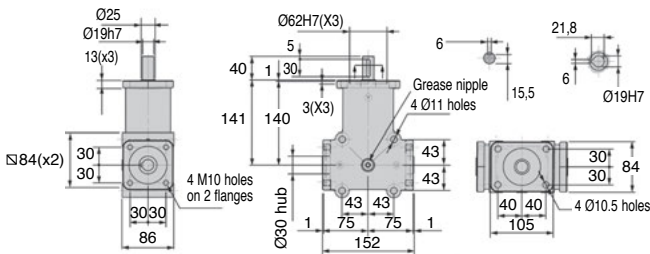
✓ INCREASED
STOCK



Info.

- For the maximum loads and service factor, please see technical pages

- If used as a multiplier, the maximum input speed is 750 rpm for gearboxes with a 2:1 ratio and 500 rpm for a 3:1 ratio.

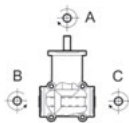


OUTPUT TORQUE (Nm: VALUES GIVEN AS A GUIDE ONLY)

Ratios	1:1	2:1	3:1
3000	27,2	26,6	22,8
2000	30,1	28,3	25,2
1400	32,9	31,0	27,6
800	37,9	35,6	31,7
400	45,0	42,4	37,7
200	53,5	50,4	44,9
100	63,7	59,9	53,3
50	75,7	71,3	63,4

DISCOUNTS

Qty	1+	6+	20+	40+
Disc.	List	-15%	-20%	On request



Part number	Type	Ratio	Input	Output	Max. input speed (rpm)	Max. output speed (rpm)	Weight (kg)	Price each 1 to 5
CHTRP19-10-1	10	1:1	A	B-C	3000	3000	4,5	✓ 451,74 €
CHTRP19-11-2	11	2:1	A	B-C	3000	1500	4,5	✓ 533,85 €
CHTRP19-12-3	12	3:1	A	B-C	3000	1000	4,5	- 615,19 €

Depending of availability - Dimensions in mm



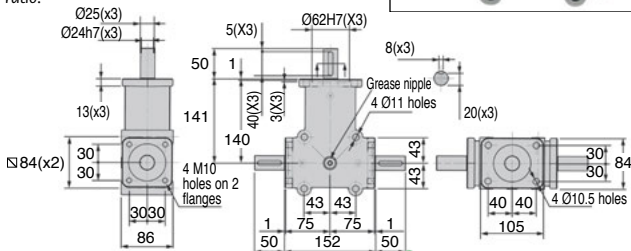
Single or dual output gearboxes

Suitable for torques up to 87.3Nm **CHTRP24**

- **Gearbox with one or two outputs**
- Ratios from 1:1 to 3:1
- Maximum speed 3000 rpm
- Lubrication: Synthetic oil
- Material :
Box: Cast aluminium
Gears: Steel 16CrN4
- Operating temperature -20° to +80°C

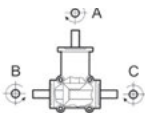
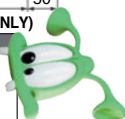
Info.

- For the maximum loads and service factor, please refer to the technical pages of the catalogue
- If used as a multiplier, the maximum input speed is 750 rpm for gearboxes with a 2:1 ratio and 500 rpm for a 3:1 ratio.



OUTPUT TORQUE (Nm: VALUES GIVEN AS A GUIDE ONLY)

Ratios	1:1	2:1	3:1
3000	31,4	29,6	22,8
2000	34,7	32,7	25,2
1400	38,0	35,8	27,6
800	43,7	41,1	31,7
400	51,9	48,9	37,7
200	61,8	58,2	44,9
100	73,4	69,2	53,3
50	87,3	82,3	63,4



DISCOUNTS

Qty	1+	6+	20+	40+
Disc.	List	-15%	-20%	On request

Part number	Type	Ratio	Input	Output	Max. input speed (rpm)	Max. output speed (rpm)	Weight (kg)	Price each 1 to 5
CHTRP24-1-1	1	1:1	A	B	3000	3000	4,5	358,40 €
CHTRP24-2-1	2	1:1	A	C	3000	3000	4,5	615,19 €
CHTRP24-3-2	3	2:1	A	B	3000	1500	4,5	403,29 €
CHTRP24-4-2	4	2:1	A	C	3000	1500	4,5	403,29 €
CHTRP24-5-3	5	3:1	A	B	3000	1000	4,5	434,04 €
CHTRP24-6-3	6	3:1	A	C	3000	1000	4,5	434,06 €
CHTRP24-7-1	7	1:1	A	B-C	3000	3000	4,5	394,54 €
CHTRP24-8-2	8	2:1	A	B-C	3000	1500	4,5	427,43 €
CHTRP24-9-3	9	3:1	A	B-C	3000	1000	4,5	470,69 €

Dimensions in mm

Right angled gearbox

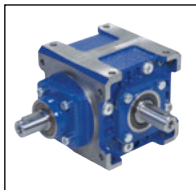
HLA
HLC

With spiral bevel gears

A gearbox that is available with 3 different final ratios and 3 types of output shaft, hollow, single or dual.

It is also possible to have an additional optional output shaft on the opposite side to the input.

- Three input types are available; a projecting shaft (HLA), a coupling for a motor (bell and joint are options) or a coupling for a compact motor with an IEC flange (HLC).
- The cast iron body (EN GJL 200 UNI EN 1561) has internal and external ribs to ensure rigidity and is machined on all surfaces for easy positioning. A single lubrication chamber guarantees improved heat dissipation and better lubrication of all internal components.
- The internal mechanism of these gearboxes consists of a train of steel (16CrNi4 or 18NiCrMo5) GLEASON spiral bevel gears with precision lapped profiles.
- The use of high quality bearings on all axes ensures a long life even under conditions of very high radial and axial stresses.
- The body of the gearbox, flanges, bells and covers have a RAL5010 blue painted finish.



HLA With input shaft



HLC With motor flange

The different types of input, rotation direction (see table below) and mounting positions (see table opposite) offer a wide variety of possible configurations and make up the final Part N°.

The following modifications should be made to the basic reference:

Basic Part number - Input type-Direction of rotation-Mounting position

Example: HLC19-1-C-71B5-F-VA

$i = 1$ $i > 1$



A



B



C



D

$i = 1$ $i > 1$



E



F



E



F

Direction of rotation

Right angled gearbox

With spiral bevel gears

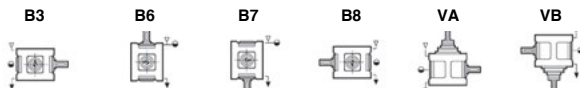
HLA
HLC

Lubrication

Right angle gearboxes require oil lubrication and are fitted with filling points, drain plugs and level gauges. The mounting position should always be specified in the Part N° when ordering. The HLA19 gearbox is lubricated for life.

Mounting position and oil volume (litres)

The quantities of oil shown in the following table are given as a guide only and apply for the mounting position shown. They have been calculated for correct operation in normal ambient temperature and an input speed of 1,400 rpm.



L	B3	B6	B7	B8	VA	VB
19	0,2	0,2	0,2	0,2	0,2	0,2
24	0,4	0,8	0,8	0,4	0,6	0,5
28	0,9	0,8	0,8	0,8	0,9	0,8

The thermal power

The table opposite gives the thermal power ratings (P_{t0}) (kW) for all gearbox sizes.

n ₁ (rpm)	Thermal power (kW)		
	L19	L24	L28
1400	4,5	6,7	10,3

FS: service factor with motor

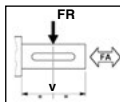
T₂: Torque with service factor

T_{2M}: Torque with service factor of 1
Values highlighted in grey should be modified using the appropriate service factor and thermal power.

L	n ₁ = 1400		LC				LA	
	ir	n ₂	T ₂	P ₁	FS'	T _{2M}	P	
	ratio	rpm	Nm	kW		Nm	kW	
19	1	1400	12	1,8	3	35	5,5	
	2	700	24	1,8	1,7	40	3	
	3	467	36	1,8	1,2	43	2,2	
24	1	1400	26	4	2,7	73	11	
	2	700	53	4	1,4	72	5,5	
	3	467	78	4	1	78	4	
28	1	1400	61	9,2	2,4	146	22	
	2	700	122	9,2	1,2	145	11	
	3	467	182	9,2	1	182	9,2	

Axial and radial loads (N)

The radial loads shown in the table are given for loads applied to the mid-point of the shaft and are given for gears operating with a service factor of 1.



i _n	L					
	19	24	28			
Input shaft (at 1400 rpm)						
	Fr ₁	Fa ₁	Fr ₁	Fa ₁	Fr ₁	Fa ₁
1-2-3	400	80	630	125	1000	200
Input shaft (at 1400 rpm)						
	Fr ₂	Fa ₂	Fr ₂	Fa ₂	Fr ₂	Fa ₂
1	800	160	1250	250	2000	400
2-3	1000	160	1600	320	2500	500

For In the case of dual projecting shafts, the load applied to each shaft is limited to 2/3 of the value given subject to the condition that the loads are identical, are applied in the same direction and have the same direction of rotation.

Right angle gearbox

HLA19

Torque up to 43 Nm

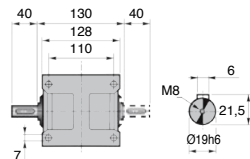
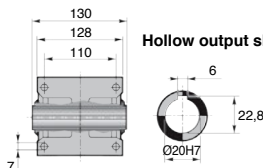
- **Right angle bevel gearbox**
- Max speed 1,400 rpm
- Output backlash: 12' to 20'
- Materials:
 - Components: steel
 - Case: cast iron
- Thermal power: 4.5 kW (Heat dissipation capability)

Part number

- When ordering, specify the rotation direction and mounting position by replacing **E** and **B3** in the Part number (see presentation page)

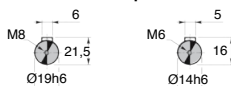


Hollow output shaft C



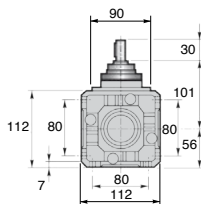
Single output shaft S or dual shafts B

With input shaft



Ratio 1:1

Ratio 2:1
Ratio 3:1



DISCOUNTS

Qty	1+	2+	4+
Disc.	List	-5%	On request

Part number	Ratio	Ø input shaft (h6)	Output shaft	Max output speed (rpm)	Mechanical output torque (Nm)	Weight (kg)	Price each
HLA19-1-C-E-B3	1:1	19	hollow	1400	35	8,5	384,17 €
HLA19-2-C-E-B3	2:1	14	hollow	700	40	8,5	384,17 €
HLA19-3-C-E-B3	3:1	14	hollow	467	43	8,5	384,17 €
HLA19-1-S-E-B3	1:1	19	single	1400	35	8,5	382,92 €
HLA19-2-S-E-B3	2:1	14	single	700	40	8,5	382,92 €
HLA19-3-S-E-B3	3:1	14	single	467	43	8,5	382,92 €
HLA19-1-B-E-B3	1:1	19	dual	1400	35	8,5	395,43 €
HLA19-2-B-E-B3	2:1	14	dual	700	40	8,5	395,43 €
HLA19-3-B-E-B3	3:1	14	dual	467	43	8,5	395,43 €

*For maximum torque and a service factor applied, see presentation page - Dimensions en mm

Right angle gearbox

Torque up to 43 Nm

HLC19

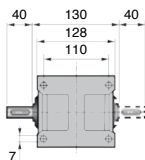
- **Right angle bevel gearbox**
- Max speed 1,400 rpm
- Output backlash: 12' to 20'
- Materials:
 - Components: steel
 - Case: cast iron
- Thermal power: 4.5 kW (Heat dissipation capability)

Part number

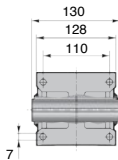
- When ordering, specify the rotation direction and mounting position by replacing **E** and **B3** in the Part number (see presentation page)

Input flange

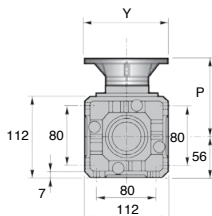
- The following flanges are available: 63B5, 71B5, 80B5, 90B5 and 80B14 and the reference should be added to the Part number



**Single output shaft S
or dual shafts B**



Hollow output shaft C



**Input with
motor flange**

Input flange

IEC	63B5	71B5	80/90B5	80B14
Y	140	160	200	120
P	104	111	131	131

DISCOUNTS

Qty	1+	2+	4+
Disc.	List	-5%	On request

Part number	Ratio	Output shaft	Max output speed (rpm)	Mechanical output torque* (Nm)	Weight (kg)	Price each
HLC19-1-C-63B5-E-B3	1:1	hollow	1400	35	11,5	458,01 €
HLC19-2-C-63B5-E-B3	2:1	hollow	700	40	11,5	458,01 €
HLC19-3-C-63B5-E-B3	3:1	hollow	467	43	11,5	458,01 €
HLC19-1-S-63B5-E-B3	1:1	single	1400	35	11,5	456,75 €
HLC19-2-S-63B5-E-B3	2:1	single	700	40	11,5	456,75 €
HLC19-3-S-63B5-E-B3	3:1	single	467	43	11,5	456,75 €
HLC19-1-B-63B5-E-B3	1:1	dual	1400	35	11,5	469,26 €
HLC19-2-B-63B5-E-B3	2:1	dual	700	40	11,5	469,26 €
HLC19-3-B-63B5-E-B3	3:1	dual	467	43	11,5	469,26 €

*For maximum torque and a service factor applied, see presentation page - Dimensions in mm

Right angle gearbox

HLA24

Torque up to 78 Nm

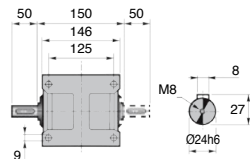
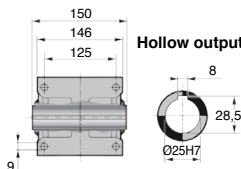
- **Right angle bevel gearbox**
- Max speed 1,400 rpm
- Output backlash: 12' to 20'
- Materials:
 - Components: steel
 - Case: cast iron
- Thermal power: 6.7 kW (Heat dissipation capability)

Part number

- When ordering, specify the rotation direction and mounting position by replacing **E** and **B3** in the Part number (see presentation page)



Hollow output shaft C



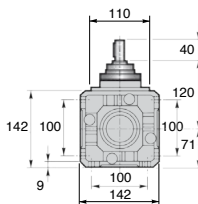
Single output shaft S or dual shafts B

With input shaft



Ratio 1:1

**Ratio 2:1
Ratio 3:1**



DISCOUNTS

Qty	1+	2+	4+
Disc.	List	-5%	On request

Part number	Ratio	Øinput shaft (h6)	Input shaft	Max output speed (rpm)	Mechanical output torque* (Nm)	Weight (kg)	Price each
HLA24-1-C-E-B3	1:1	24	hollow	1400	73	14	535,59 €
HLA24-2-C-E-B3	2:1	19	hollow	700	72	14	535,59 €
HLA24-3-C-E-B3	3:1	19	hollow	467	78	14	535,59 €
HLA24-1-S-E-B3	1:1	24	single	1400	73	14	501,80 €
HLA24-2-S-E-B3	2:1	19	single	700	72	14	501,80 €
HLA24-3-S-E-B3	3:1	19	single	467	78	14	501,80 €
HLA24-1-B-E-B3	1:1	24	dual	1400	73	14	533,09 €
HLA24-2-B-E-B3	2:1	19	dual	700	72	14	533,09 €
HLA24-3-B-E-B3	3:1	19	dual	467	78	14	533,09 €

*For maximum torque and a service factor applied, see presentation page - Dimensions en mm

Right angle gearbox

Torque up to 78 Nm

HLC24

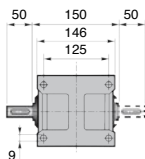
- **Right angle bevel gearbox**
- Max speed 1,400 rpm
- Output backlash: 12' to 20'
- Materials:
 - Components: steel
 - Case: cast iron
- Thermal power: 6.7 kW (Heat dissipation capability)

Part number

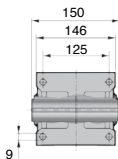
- When ordering, specify the rotation direction and mounting position by replacing **E** and **B3** in the Part number (see presentation page)

Input flange

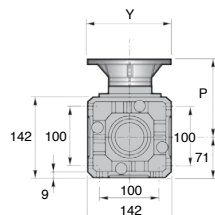
- The following flanges are available: 63B5, 71B5, 80B5, 90B5 and 80B14 and the reference should be added to the Part number



Single output shaft S
or dual shafts B



Hollow output shaft C



Input with
motor flange

Input flange

IEC	71B5	80B5	90B5	100/112B5
Y	160	200	200	250
P	128	148	148	158

DISCOUNTS

Qty	1+	2+	4+
Disc.	List	-5%	On request

Part number	Ratio	Output shaft	Max output speed (rpm)	Mechanical output torque* (Nm)	Weight (kg)	Price each
HLC24-1-C-71B5-E-B3	1:1	hollow	1400	73	19	633,21 €
HLC24-2-C-71B5-E-B3	2:1	hollow	700	72	19	633,21 €
HLC24-3-C-71B5-E-B3	3:1	hollow	467	78	19	633,21 €
HLC24-1-S-71B5-E-B3	1:1	single	1400	73	19	599,42 €
HLC24-2-S-71B5-E-B3	2:1	single	700	72	19	599,42 €
HLC24-3-S-71B5-E-B3	3:1	single	467	78	19	599,42 €
HLC24-1-B-71B5-E-B3	1:1	dual	1400	73	19	649,47 €
HLC24-2-B-71B5-E-B3	2:1	dual	700	72	19	649,47 €
HLC24-3-B-71B5-E-B3	3:1	dual	467	78	19	649,47 €

*For maximum torque and a service factor applied, see presentation page - Dimensions in mm

Right angle gearbox

HLA28

Torque up to 182 Nm

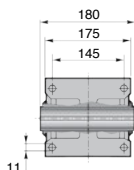
- **Right angle bevel gearbox**
- Max speed 1,400 rpm
- Output backlash: 12' to 20'
- Materials:
 - Components: steel
 - Case: cast iron
- Thermal power: 10.3 kW (Heat dissipation capability)

Part number

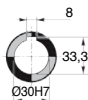
- When ordering, specify the rotation direction and mounting position by replacing **E** and **B3** in the Part number (see presentation page)



With input shaft



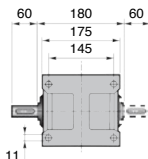
Hollow output shaft C



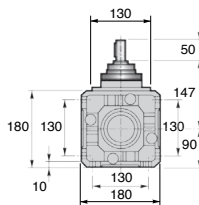
Ratio 1:1



Ratio 2:1
Ratio 3:1



Single output shaft S or dual shafts B



DISCOUNTS

Qty	1+	2+	4+
Disc.	List	-5%	On request

Part number	Ratio	ØInput shaft (h6)	output shaft	Max output speed (rpm)	Mechanical output torque* (Nm)	Weight (kg)	Price each
HLA28-1-C-E-B3	1:1	28	hollow	1400	146	23	795,88 €
HLA28-2-C-E-B3	2:1	24	hollow	700	145	23	795,88 €
HLA28-3-C-E-B3	3:1	24	hollow	467	182	23	795,88 €
HLA28-1-S-E-B3	1:1	28	single	1400	146	23	713,29 €
HLA28-2-S-E-B3	2:1	24	single	700	145	23	713,29 €
HLA28-3-S-E-B3	3:1	24	single	467	182	23	713,29 €
HLA28-1-B-E-B3	1:1	28	dual	1400	146	23	757,09 €
HLA28-2-B-E-B3	2:1	24	dual	700	145	23	757,09 €
HLA28-3-B-E-B3	3:1	24	dual	467	182	23	757,09 €

*For maximum torque and a service factor applied, see presentation page - Dimensions en mm

Right angle gearbox

Torque up to 182 Nm

HLC28

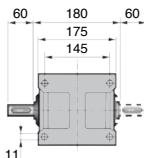
- **Right angle bevel gearbox**
- Max speed 1,400 rpm
- Output backlash: 12' to 20'
- Materials:
 - Components: steel
 - Case: cast iron
- Thermal power: 10.3 kW (Heat dissipation capability)

Part number

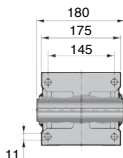
- When ordering, specify the rotation direction and mounting position by replacing **E** and **B3** in the Part number (see presentation page)

Input flange

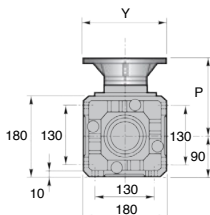
- The following flanges are available: 63B5, 71B5, 80B5, 90B5 and 80B14 and the reference should be added to the Part number



**Single output shaft S
or dual shafts B**



Hollow output shaft C



**Input with
motor flange**



Input flange

IEC	80/90B5	100/112B5	132B5
Y	200	250	300
P	171	181	203

DISCOUNTS

Qty	1+	2+	4+
Disc.	List	-5%	On request

Part number	Ratio	Output shaft	Max output speed (rpm)	Mechanical output torque* (Nm)	Weight (kg)	Price each
HLC28-1-C-80B5-E-B3	1:1	hollow	1400	146	33	919,77 €
HLC28-2-C-80B5-E-B3	2:1	hollow	700	145	33	919,77 €
HLC28-3-C-80B5-E-B3	3:1	hollow	467	182	33	919,77 €
HLC28-1-S-80B5-E-B3	1:1	single	1400	146	33	837,18 €
HLC28-2-S-80B5-E-B3	2:1	single	700	145	33	837,18 €
HLC28-3-S-80B5-E-B3	3:1	single	467	182	33	837,18 €
HLC28-1-B-80B5-E-B3	1:1	dual	1400	146	33	1 451,19 €
HLC28-2-B-80B5-E-B3	2:1	dual	700	145	33	1 451,19 €
HLC28-3-B-80B5-E-B3	3:1	dual	467	182	33	1 451,19 €

*For maximum torque and a service factor applied, see presentation page - Dimensions in mm

MOTOR GEARBOXES



p.254

MOTOR GEARBOXES



p.256

MOTOR GEARBOXES



p.257

POWER SUPPLY



p.262

SPEED CONTROLLER



p.266

POTENTIOMETER



p.267

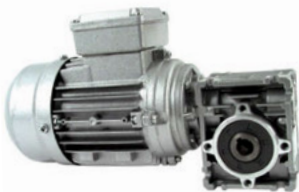
**ASYNCHRONOUS
AC MOTOR**



p.271

**MOTOR-
GEARBOXES**
p.252 - 327

**ASYNCHRONOUS AC
MOTORGearBOXES**



p.276

**WORM AND WHEEL
GEARBOX**



p.296

**AC ASYNCHRONOUS
MOTOR**



p.302

**WORM AND WHEEL
GEARBOX**



p.306

24V dc motorisation kit

KITDOG

Worm and wheel

- The kit comprises:

1 motorised gearbox DOG319

1 servoamplifier FIRSTDC-1Q

1 potentiometer MDPOT-10T/10K

1 power supply ALIDR120-2

(please refer to product pages for full technical details)

- Reduced size

- Low noise

- Solid design

- Powerfull



Application

- Industrial drives

Advantages

- Complete set

- Easy to set up

DISCOUNTS

Qty	1+	6+	10+
Disc.	List	-7%	On request

Part number	Motor used	Max speed (rpm)	Max torque (Nm)	Price each 1 to 9
KIT-DOG-30	DOG319-24-30	30	9	537,41 €
KIT-DOG-45	DOG319-24-45	45	9	537,41 €
KIT-DOG-85	DOG319-24-85	85	4	537,41 €

Dimensions in mm

24V dc motorisation kit

2 Planetary gears

KITBUH

- The kit comprises :
 - 1 motorised gearbox BUH77
 - 1 servoamplifier
 - NANO DC-1Q-30/3
 - 1 cable NANO DC-RS232
 - 1 power supply 24V 2.1A
 - 1 cable NANODC-RS232
 - 1 power supply 24V 2,1A(please refer to product pages for full technical details)
- Reduced diameter
- Works in Start/Stop mode or in reverse direction

Application

- Industrial drives

Advantages

- Complete set of components
- Easy to install



DISCOUNTS

Qty	1+	6+	10+
Disc.	List	-7%	On request

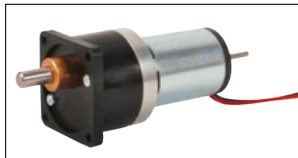
Part number	Motor used	Max speed (rpm)	Max torque (Nm)	Price each 1 to 9
KIT-BUH-900	BUH77-24-004	900	0,10	352,89 €
KIT-BUH-260	BUH77-24-012	260	0,30	352,89 €
KIT-BUH-140	BUH77-24-022	140	0,55	352,89 €
KIT-BUH-075	BUH77-24-040	75	1,00	352,89 €
KIT-BUH-023	BUH77-24-135	23	1,80	352,89 €
KIT-BUH-014	BUH77-24-250	14	2,00	352,89 €

Dimensions in mm

Motor-gearbox, 12 and 24 V DC

MAX22 Torque from 0.07 to 0.2 Nm

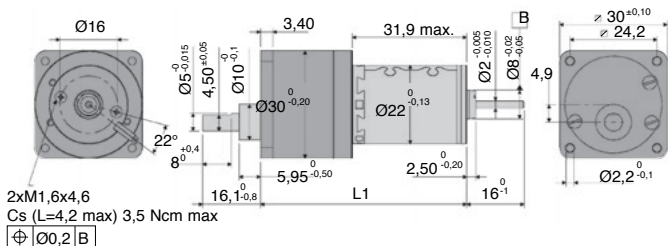
- **Type of gearbox:** spur gear
- Bearings: self lubricating bushes
- Avg angular backlash: 2° to 3°
- Max axial load: 15N
- Max radial load at 5 mm from fixing surface: 35 N
- Working temperature: -5 to 65 °C
- Weight: 104g min



Accessories

- **ESCON-4Q-50/5** (servo-amplifier)
- **NANODC-1Q-30/3** (speed controller)
- Power supplies: **ALIDR30-12** and **ALIDR30-24**

Replaces the MAX30



Wire length: 150 mm ±5

Stripped and tinned ends: 4 mm ±1

DISCOUNTS

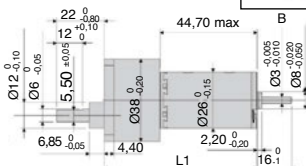
Qty	1+	6+	10+
Disc.	List	-7%	On request

Part number	Ratio	N° of stages	Efficiency	L1 (mm)	No-load speed (rpm)	Speed under load (rpm)	Nominal torque (Nm)	Nominal current (A)	Price each 1 to 5
12 V version									
MAX22-12-015	15:1	3	73%	54,9	356	176	0,07	0,30	161,00 €
MAX22-12-100	100:1	4	66%	57,4	53	47	0,10	0,08	186,09 €
MAX22-12-200	200:1	5	59%	62,4	27	23	0,20	0,09	192,36 €
24 V version									
MAX22-24-015	15:1	3	73%	54,9	435	252	0,07	0,18	161,00 €
MAX22-24-100	100:1	4	66%	57,4	65	58	0,10	0,05	164,26 €
MAX22-24-200	200:1	5	59%	62,4	33	29	0,20	0,05	192,36 €

Dimensions in mm

MAX26

-

[illegible]

Qty	1+	6+	10+
Disc.	List	-7%	On request

Part number	Reduction	N° of stages	Max efficiency	L1 (mm)	No-load speed (rpm)	Speed under load (rpm)	nominal torque (Nm)	nominal current (A)	Price each 1 to 5
12V Version									
MAX26-12-006	6	2	0,81	62,4	740	457	0,08	0,63	208,67 €
MAX26-12-010	10	2	0,81	62,4	444	311	0,10	0,50	208,67 €
MAX26-12-018	18	3	0,73	67,9	247	155	0,20	0,61	217,46 €
MAX26-12-030	30	3	0,73	67,9	148	115	0,20	0,37	217,46 €
MAX26-12-060	60	4	0,66	70,4	74	47	0,60	0,61	227,35 €
MAX26-12-100	100	4	0,66	70,4	44	35	0,60	0,37	227,35 €
MAX26-12-200	200	5	0,59	72,3	22	19	0,60	0,22	232,84 €
MAX26-12-500	500	6	0,53	75,3	9	8	0,60	0,11	239,44 €
24V Version									
MAX26-24-006	6	2	0,81	62,4	752	459	0,08	0,25	208,67 €
MAX26-24-010	10	2	0,81	62,4	451	310	0,10	0,25	208,67 €
MAX26-24-018	18	3	0,73	67,3	251	154	0,20	0,31	217,46 €
MAX26-24-030	30	3	0,73	67,3	150	116	0,20	0,19	217,46 €
MAX26-24-060	60	4	0,66	70,4	75	46	0,60	0,31	227,35 €
MAX26-24-100	100	4	0,66	70,4	45	35	0,60	0,19	227,35 €
MAX26-24-200	200	5	0,59	72,3	22	20	0,60	0,11	232,84 €
MAX26-24-500	500	6	0,53	75,9	9	8	0,60	0,053	239,44 €

2 255

Motor-gearboxes 12 and 24 V **DC**

BUH77

Torque from 0.1 to 2 Nm

- Gearbox type : spur gear
- Bearing : bronze
- Max axial load : 10N
- Max radial load : 30N at 5mm from flange
- Angular backlash : 0.05 to 0.6mm
- Working temp : from -10° to 70°C
- Weight : 250g



Application

- Drives, ideal for Start/Stop applications or reverse applications

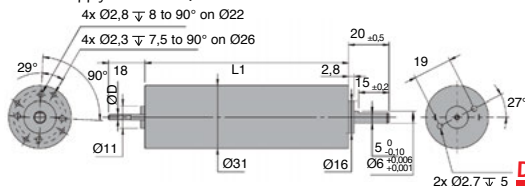
Advantages

- Compact size
- High torque

Accessories

Servoamplifier: **NANODC-1A-30/3** (speed controller)

-Power supply **ALIDR30-12, ALIDR30-24**



DISCOUNTS

Qty	1+	6+	10+
Disc Price	-7%	-7%	on request

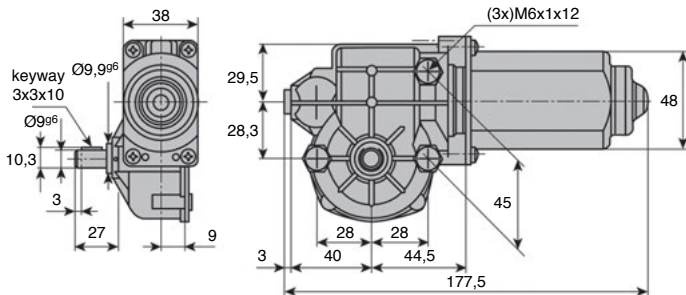
Part number	Reduction	N° of stages	ØD	L1 (mm)	No-load speed (rpm)	Speed under load (rpm)	Nominal torque (Nm)	Nominal current (A)	Price each
12V DC Version									
BUH77-12-004	3,4	1	3	100,5	1215	900	0,10	1,4	188,22 €
BUH77-12-012	11,6	2	3	106,6	355	260	0,30	1,4	188,22 €
BUH77-12-022	21,4	2	3	106,6	190	140	0,55	1,4	188,22 €
BUH77-12-040	39,7	2	3	106,6	105	75	1,00	1,4	197,40 €
BUH77-12-135	135	3	2,5	88,5	33	23	1,80	0,85	197,40 €
BUH77-12-250	250	3	2,5	88,5	18	14	2,00	0,85	197,40 €
24V DC Version									
BUH77-24-004	3,4	1	3	100,5	1215	900	0,10	0,7	188,22 €
BUH77-24-012	11,6	2	3	106,6	355	260	0,30	0,7	188,22 €
BUH77-24-022	21,4	2	3	106,6	190	140	0,55	0,7	199,70 €
BUH77-24-040	39,7	2	3	106,6	105	75	1,00	0,7	199,70 €
BUH77-24-135	135	3	2,5	88,5	33	23	1,80	0,425	199,70 €
BUH77-24-250	250	3	2,5	88,5	18	14	2,00	0,275	199,70 €

Dimensions in mm

- Gearbox type: worm
- Bearings: self-lubricating bushes
- Working temp.: -40°C to +80°C
- Weight: 1kg
- Ingress protection: IP40
- Angular backlash: N/A
- Max axial load: N/A
- Radial load: N/A

Accessories

- Servo Amplifiers **FIRSTDC-1Q-60/10** and **NANODC- 1Q-30/3**
- Power Supplies **ALIDR30-12**, **ALIDR60-24**, **ALIDR-120-24**



DISCOUNTS

Qty	1+	6+	10+
Disc.	List	-7%	On request

Part number	Ratios	Rendement	Loaded speed (rpm)	Nominal torque (Nm)	Nominal current (A)	Consistent card		Price each 1 to 5
12V DC Version								
DOG316-12-46	62:1	0,5	38	2,0	3,4	No	Yes	116,08 €
DOG316-12-30	62:1	0,5	32	1,5	3,0	No	Yes	116,08 €
24V DC Version								
DOG316-24-75	62:1	0,5	65	1,5	3,0	No	Yes	116,08 €
DOG316-24-46	62:1	0,5	38	2,0	1,7	Yes	Yes	116,08 €

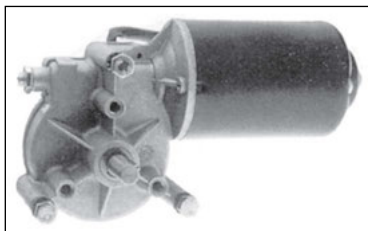
Dimensions in mm

Motor-gearbox 12V and 24V **DC**

DOG111

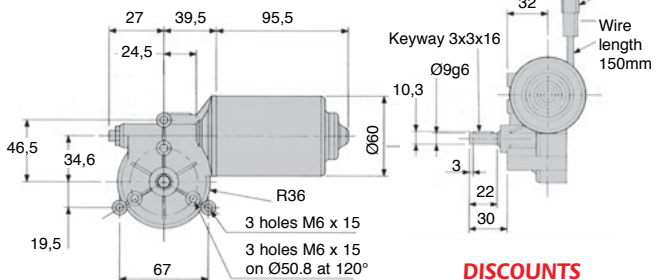
Torque from 1.5Nm to 6Nm

- Gearbox type: **worm and wheel**
- Bearing: self-lubricating bushes
- Angular backlash: N/A
- Max. axial load: N/A
- Max. radial load: N/A
- Working temp. from -40°C to +80°C
- Min. weight: 1.25kg
- Motor does not exhibit anti back drive behaviour for efficiencies less than 50%



Accessories

- Servo Amplifier **FIRSTDC-1Q-60/10**
- Speed controller **NANODC-1Q-30/3**
- Power Supplies **ALIDR60-24, ALIDR120-24**



DISCOUNTS

Qty	1+	6+	10+
Disc.	List	-7%	On request

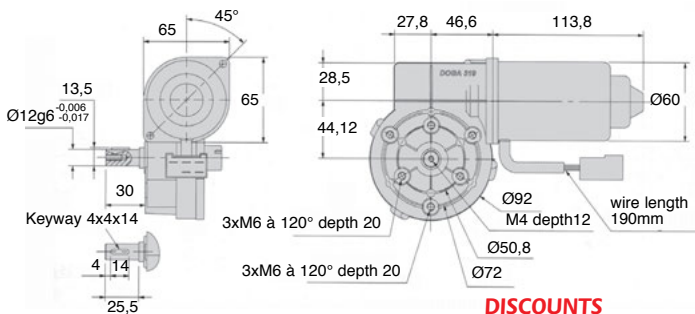
Part number	Ratios	Efficiency (%)	Unloaded speed (rpm)	Load speed (rpm)	Nominal torque (Nm)	Courant nominal (A)	Consistent Nano First	Price each 1 to 5
12 V DC Version								
DOG111-12-135	12,2:1	60	135	105	1,5	4,0	No Yes	251,58 €
DOG111-12-50	62,0:1	45	50	40	5,0	5,0	No Yes	135,44 €
DOG111-12-34	62,0:1	45	34	25	6,0	4,0	No Yes	135,44 €
DOG111-12-17	62,0:1	45	17	10	6,0	2,0	Yes Yes	138,23 €
12 V DC Version								
DOG111-24-270	12,2:1	60	270	240	1,5	4,0	No Yes	251,58 €
DOG111-24-78	62,0:1	45	78	70	3,0	3,0	Oui Yes	149,26 €
DOG111-24-50	62,0:1	45	50	40	5,0	2,5	Yes Yes	143,73 €
DOG111-24-34	62,0:1	45	34	25	6,0	2,0	Yes Yes	138,23 €

Dimensions in mm

- **Gearbox type:** worm
- Bearings: self-lubricating bushes
- Angular backlash: N/A
- Max. axial load: N/A
- Max. radial load: N/A
- Working temperature: -40°C to $+80^{\circ}\text{C}$
- Weight 1.7kg
- Materials:
 - Screws: steel
 - Wheel: POM

Accessories

- Servo Amplifier **FIRSTDC-1Q-60/10**
- Speed controller **NANODC-1Q-30/3**
- Power Supplies **ALIDR120-24,**
ALIDR240-24



DISCOUNTS

Qty	1+	6+	10+
Disc.	List	-7%	On request

Part number	Ratios	No-load speed (rpm)	Loaded speed (rpm)	Nominal torque (Nm)	Nominal current (A)	Consistent carde Nano First		Price each 1 to 5
12 V DC Version								
DOG319-12-15	81:1	18	15	9	3	No	Yes	214,91 €
DOG319-12-30	81:1	35	30	9	7	No	Yes	215,52 €
DOG319-12-45	81:1	50	45	8	6	No	Yes	214,91 €
DOG319-12-85	39:1	95	85	4	7	No	Yes	263,16 €
12 V DC Version								
DOG319-24-30	81:1	30	30	9	3	No	Yes	227,63 €
DOG319-24-45	81:1	45	45	9	3	No	Yes	203,94 €
DOG319-24-85	39:1	95	85	4	3,5	No	Yes	271,93 €

Dimensions in mm

Motor-gearbox 12V and 24V **DC**

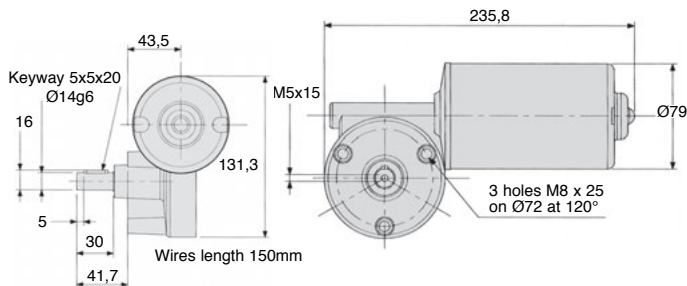
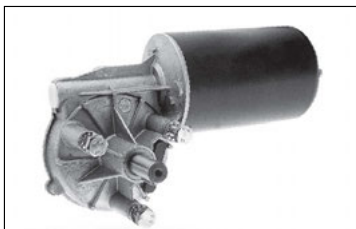
DOG258

Torque from 12Nm to 15Nm

- Gearbox type: worm
- Bearings: self-lubricating bushes
- Angular backlash: N/A
- Max. axial load: N/A
- Max. radial load: N/A
- Working temp.: -40°C to +80°C
- Weight: 3kg
- Ingress protection: IP53

Accessories

- Speed controller not available
- Servo amplifier **FIRSTDC-1Q-60/10**
- Power Supplies **ALIDR120-14,ALIDRP240-24**
- **HPC is unable to supply a speed controller for this motor gearbox**
- **The encoder cannot be mounted behind the motor.**



DISCOUNTS

Qty	1+	6+	10+
Disc.	List	-7%	On request

Part number	Ratios	Unloaded speed (rpm)	Loaded speed (rpm)	Nominal torque (Nm)	Nominal current (mA)	Price each 1 to 5
12 V DC Version						
DOG258-12-50	52:1	50	40	12	12	434,64 €
DOG258-12-30	52:1	30	25	15	10	434,64 €
24 V DC Version						
DOG258-24-50	52:1	50	40	12	6	434,64 €
DOG258-24-30	52:1	30	25	15	5	434,64 €

Dimensions in mm

Advantages

- Universal mains input
- Din rail mounting, DINTS35/7.5 or 15
- Protected against short circuits, overloads and over-voltage.
- Insulation class II
- LED supply indication
- Air-cooled
- 100% Burn-in

Characteristics

- Output voltage can be varied by +/- 10%
- Max ripple on output +/- 1%

Protections

- Max overload on output limited to 105/160%
- Output is short circuit protected
- Max overvoltage on output 115 to 135% of nominal output voltage

Environment

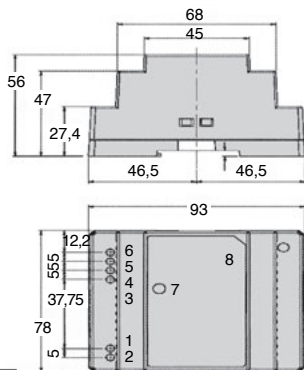
- EMC: Conforms to EN55022 class B, EN61000-3-2,3, EN61000-6-2, EN61000-4-2,3,4,5,6,8,11, EN550204, EN61204-3
- Max working temperature -20° to +50°C at 100% rated load (+60°C at 80% rated load)

Connection

- Supply: 2 screw clamp terminals (0.2 to 2.5mm²)
- Output: 4 screw clamp terminals (0.2 to 2.5mm²)

Dimensions/Material

- Enclosure: painted plastic
- Dimensions 93 x 78 x 56 (L x W x H)



Terminal n° Connection Terminal n° Connection

1	AC/N	5,6	V-
2	AC/L	7	LED
3,4	V+	8	+VADJ

DISCOUNTS

Qty	1+	6+	10+
Disc.	List	-7%	On request

Part number	Supply voltage (V AC)	Output voltage (V DC)	Output current (A)	Weight (kg)	Price each 1 to 5
ALIDR30-12	85-264 / 120-370	12	2	0,27	51,39 €
ALIDR30-24	85-264 / 120-370	24	1,5	0,27	62,21 €

Dimensions in mm

24V DC power supply



ALIDR 120

Max current 5A

Advantages

- Mains input voltage switch-selectable
- UL508 listed
- Din rail mounting, DINTS35/7.5 or 15
- Protected against short circuits, overloads and over-voltage.
- Insulation class II
- LED supply indication
- Air-cooled
- 100% Burn-in

Characteristics

- Output voltage can be varied from 24 to 48V DC
- Max ripple on output +/- 1%

Protections

- Max overload on output limited to 105/160%
- Output is short circuit protected
- Max overvoltage on output 120 to 140% of nominal voltage

Environment

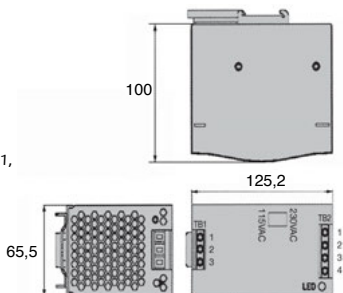
- Environmental
- EMC: Conforms to EN55022 class B, EN61000-3-2,3, EN61000-6-2, EN61000-4-2,3,4,5,6,8,11, ENV50204, EN61204-3
- Personnel safety: Conforms to UL508, UL60950-1, TUV60950-1
- Max working temperature -20° to +60°C (natural convection)

Connections

- Supply: 3 screw clamp terminals DIN
- Output: 4 screw clamp terminals DIN

Dimensions/Material

- Enclosure: painted plastic
- Dimensions 65.5 x 125.2 x 100 (L x W x H)



Terminal assignment (TB1)		Terminal assignment (TB2)	
Contact n°	Affectation	Contact n°	Affectation
1	FG	1,2	DC OUTPUT +V
2	AC/N	3,4	DC OUTPUT -V
3	AC/L		

DISCOUNTS

Qty	1+	6+	10+
Disc.	List	-7%	On request

Part number	Supply voltage (V AC)	Output voltage (V DC)	Output current (A)	Weight (kg)	Price each 1 to 5
ALIDR120-24	88-132 / 176-264 commutable	24	5	0,79	154,22 €

Dimensions in mm

Advantages

- Universal Mains supply.
PF>0.98@115Vac, PF>0.95@230Vac
- Protected against short circuits, overloads and over-voltage
- Switching frequency : 100KHz
- UL508 listed
- Din rail mounting, DINTS35/7.5 or 15.
- LED supply indication
- Air-cooled
- 100% Burn-in

Characteristics

- Output voltage can be varied from 24 to 48V DC
- Max ripple on output +/- 1%

Protections

- Max overload on output limited to 105 to 150%
- Output is short circuit protected
- Max overvoltage on output 30 to 36 V DC

Environment

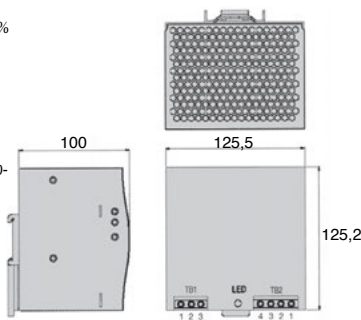
- EMC: Conforms to EN55022 class B, EN61000-3-2,3, EN61000-6-2, EN61000-4-2,3,4,5,6,8,11, ENV50204, EN61204-3
- Personnel safety: Conforms to UL508, UL60950-1, TUV60950-1
- Max working temperature -10° to +50°C @100% load, +70°C @60% load (natural convection)

Connection

- Supply: 3 screw clamp terminals DIN
- Output: 4 screw clamp terminals DIN

Dimensions/Material

- Enclosure: painted plastic
- Dimensions 125.5 x 125.2 x 100 (L x W x H)



DISCOUNTS

Qty	1+	6+	10+
Disc.	List	-7%	On request

Part number	Supply voltage (V AC)	Output voltage (V DC)	Output current (A)	Weight (kg)	Price each 1 to 5
ALIDRP240-24	85-264 / 120-370	24	10	1,2	227,29 €

Dimensions in mm

3A Servo amplifier



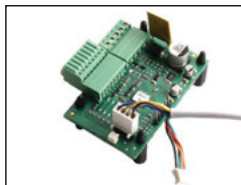
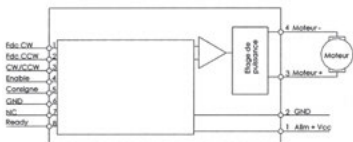
NANO

For motor control systems

- **Digital motor servo amplifier for driving motors (>90W)**
- Accepts limit switch inputs
- Small size
- Easily configured using a PC, RS232 cable required (not supplied)

Accessories

- **MDPOT-10T/10K** Control potentiometer
- Power supplies



Technical specifications		30V/3A	
- Max Power	90W	- Under voltage	Yes
- Power Supply	10 to 30 Vdc	- Over-current	Adjustable
- Max permanent output current	3A	- Motor short circuit	Yes
- Operating mode	PWM, 1 quadrant	- Short circuit on inputs	Yes
Inputs		Environment	
- Speed control	External voltage 0/10V	- Working temperature	0 to 40°C
- Enable	Voltage free contact (earthed)	- Storage temperature	-40 to +85°C
- Direction	Voltage free contact (earthed)	- Relative humidity	20 to 80 %non-condensing
- Limit switches	2 Voltage free contacts (earthed)	Connections	
Outputs		- Connectors	Spring loaded terminals, pitch 2.54mm. Wire size : 0.14 to 1.5mm ²
- Ready	Open collector, 30Vdc 20mA	- Connectors (motor + supply)	Screw clamp terminals, pitch 3.81mm . Wire size : 0.14 to 1.5mm ²
Controls		Mechanical characteristics	
- Max speed	Analogue voltage	- Dimensions	50x100x32mm
- Max current	Analogue voltage	- Weight	105g
Protection		- Mounting:	Uses M4 screws
- Reverse polarity	Resettable fuse		
- Over voltage	Yes		

DISCOUNTS

Qty	1+	6+	10+
Disc.	List	-7%	On request

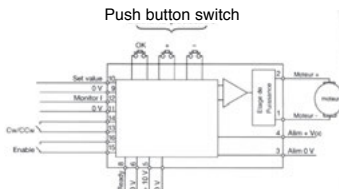
Part number	Mounting	Screw spacing cable	Weight (g)	Price each 1 to 5
NANODC-1Q-30/3	M4 screw	34x54	0,11	134,86 €
NANODC-RS232		Cable NANO DC - RS232		101,52 €

Dimensions in mm

- **Digital servo amplifier operating in "R x I" mode**
- Allows direction of rotation to be reversed
- Analogue output signal

Accessories

- **MDPOT-10T/10K** Control potentiometer
- Power supply



Technical specifications		50V/5A	
- Max. power	250W		
- Feed voltage	12 to 50 VDC	Protection :	
- Max. permanent output current	5 A	- Polarity reversal	Fuse 10A
- Workings	PWM (20KHz) - 1 quadrant	- Overvoltage	Yes
- Control method	RxI	- Undervoltage	Yes
Inputs :		- Current overload	Can be limited by adjustment
- Setting	Potentiometer ext. 10KW Voltage ext. 0/10V	- Short-circuit motor	Yes
- Enable	Voltage free contact (earthed)	- Input/output short-circuit	Yes
- Direction	Voltage free contact (earthed)	- Auxiliary feed short-circuit	Yes
Outputs :		Environment :	
- Current image	1 V/A	- Operating Temperature	-10 to +35°C
- Ready	Open collector 30 VDC/20 mA	- Storage Temperature	-40 to +85°C
- Auxiliary voltage	10 V / 20 mA max.	- Relative humidity	20 to 80% non-condensing
Adjustments :		Connections :	
- Compensation RI	Via pushbutton	- Connectors	Detachable terminal block for wire
- Offset	Via pushbutton		0.14 to 1.52 mm ²
- Max. speed	Via pushbutton	Mechanics :	
- Max. current	Via pushbutton	- Eurocard format 3U	Yes

DISCOUNTS

Qty	1+	6+	10+
Disc. List	-7%	On request	

Part number	Mounting	Euro card format 3U	weight (g)	Price each 1 to 5
FIRSTDC-1Q-60/10	M4 screw	100 x 100 x 32	220	322,03 €

Speed controller 5A



ESCON-4Q 4 quadrant servo-controller

- Digital speed controller for DC or brushless motors up to 250W

- Configured using a USB cable and graphical interface

Accessories

- ESCON Studio software

(Free download from our site)



ESCON-4Q-50/5



ESCON-USB



ESCON-CABLE

DISCOUNTS

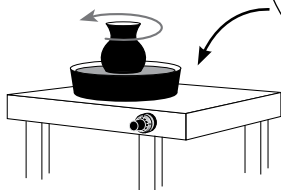
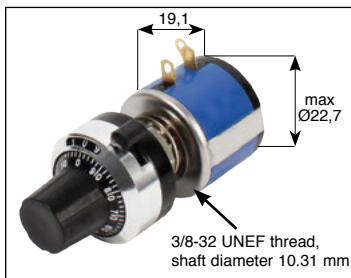
Qty	1+	6+	10+
Disc.	List -7%	On request	

Technical Specifications		50V/5A	
- Max power	250W	- Fault	Yes
- Supply voltage	10 to 50 Vdc	- Auxiliary Voltage	+5 Vdc 10 mA max
- Max output current	15A	- Hall sensor supply	+5 Vdc 10 mA max
- Nominal Output current	5A	- Encoder supply	+5 vdc 70mA
- Max motor speed	150 000 rpm	- Aux input supply	-10 /+10 Vdc
- Programmable	No	Parameters	
- Control mode	Current, Speed	- Offset	Yes
Inputs:		- Max speed	Yes
- Limit switches	No	- Max output current	5 A
- Analogue	2,12 bit, +/-10V	- Speed ramp	Yes
- Speed limit	Pot. ext/int, PWM 53.6KHZ	- Current point	15 A
- Enable/Disable	Yes	- Gain	Yes
- Electronic brake	Yes	Protection	
- Stop	No	- Reverse polarity	No
- Direction	Yes	- Surge protection	Yes
- Encoder	A,A/B, B/ -1MHz	- Under voltage	Yes
- Tachometer	Yes	- Overvoltage	Yes
- Regulation	Rxl	- Over Current limit	Limited by regulator
- Serial link	No	- Motor short circuit	Yes
- CAN bus	No	- Input short circuit	Yes
Outputs :		- Supply short circuit	Yes
- USB signal	Mini USB	- Thermal	Yes
- Speed	Yes	- Working temp	-30°/ +45°C
- Current	Yes	- Storage	-40°/ +85°C
- Ready	Yes	- Relative humidity	20/80 % non condensing

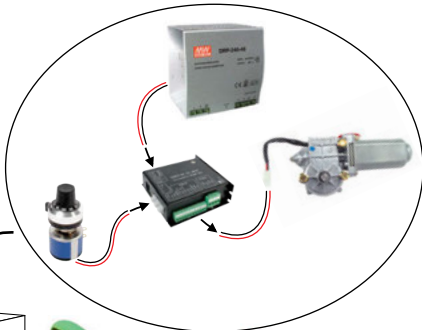
Part number	Mounting	Format	Weight (g)	Price each 1 to 5
ESCON-4Q-50/5	M4 screw	115X75,5x24	204	384,73 €
ESCON-USB		USB cable for PC link		23,00 €
ESCON-CABLE		Kit of 4 cables for DC motor		50,18 €

Dimensions in mm

- Precision potentiometer
- 10 turn, wirewound
- Fitted with indicator for precise control



Adjusting the speed



DISCOUNTS

Qty	1+	6+	10+
Disc.	List	-7%	On request

Part number	Resistance (kΩ)	Tolerance (%)	Linearity (%)	Max power (W)	Total angular travel (°)	Isolation resistance (Mohm)	Insulation voltage (V)	Price each 1 to 5
MDPOT-10T/10K	10,0	±5	±0,5	2	3600	1000	1000	47,56 €

Dimensions in mm

A wide range of AC motors with both synchronous permanent magnet versions and asynchronous single-phase or three -phase versions.

Synchronous motors rotate at a fixed and precise speed, independent of variations in load and supply voltage.

Asynchronous motors are characterised by a speed of rotation that is dependent on the load applied to the shaft. The unloaded speed is proportional to the frequency of the single or three phase supply (230/400V-50Hz).

AC motors are often used for applications where the speed and operating torque are fixed and are directly powered by mains voltage. They are designed to have a long working life, necessary for many applications.

The following information is given as a guide to choosing an AC motor:

Type

Permanent magnet synchronous motor

- double wound stator
- multi-polar magnet and radial magnetisation rotor
- bi-directional rotation via the use of an internal de-phasing capacitor

Squirrel cage asynchronous motor

- multi-recessed triple-wound stator
- squirrel cage rotor
- single-phase or three-phase versions

Life expectancy

- Depends on usage, principally limited by life expectancy of the bearings.

Overheating

Synchronous motors

- convection cooling, motor can block rotor without risk of deterioration
- isolation quality class B.

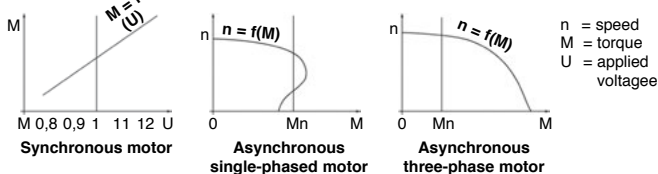
Squirrel cage asynchronous motors

- incorporated ventilator cooling
- isolation quality class E.

Technical information

Characteristics

The performance of AC motors is shown by the graphs given below which are given as a guide only as actual performance will depend on temperature, stability of the supply voltage and frequency and of the circuit capacitance.



Electronics

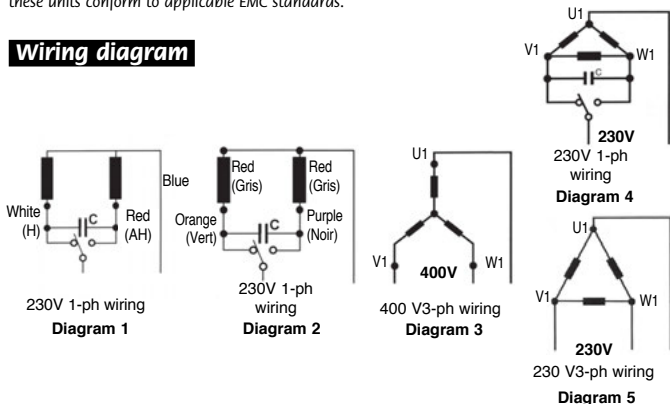
These speed controllers operate by varying the frequency of the power supply to an asynchronous three-phase motor.

In order to maintain a constant torque, the ratio of the supply voltage and frequency ratio is kept constant. As output voltage remains constant above 50Hz, the torque will drop as the speed rises. To avoid reducing the efficiency, motors should not be run at a frequency higher than 150Hz.

When connected to a motor with internal ventilation, it is also recommended to avoid working permanently at supply frequencies lower than 20 Hz. This is because as the fan is not turning as fast, the motor may overheat and be damaged or destroyed.

Variable frequency drives can produce electrical interference. To protect sensitive equipment nearby these units conform to applicable EMC standards.

Wiring diagram



Synchronous **AC** motor-gearbox

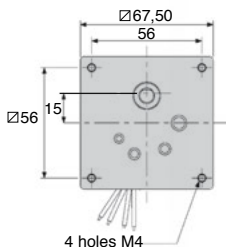
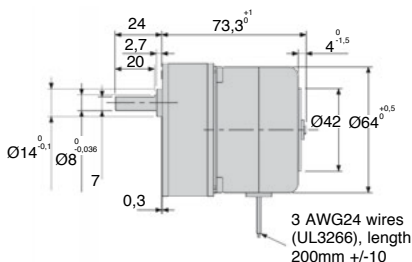
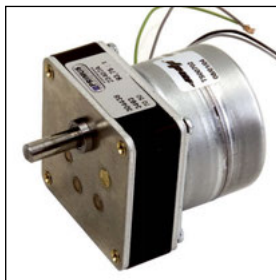
LINK64

Torque from 1.3Nm to 6Nm

- 230 V AC Single phase
- Rotor: permanent magnet
- Magnet: ferrite
- Type of gearbox: spur gear
- Bearings: self-lubricating bushes
- Max. axial load: 30N
- Axial backlash: 0.3mm
- Max. radial load: 60N at 10mm from the surface
- Press fit force: 30N
- Working temp. from 0°C to +40°C
- Weight: 830g

Assembly

- Capacitor supplied
- Refer to Diagram N° 2 on technical information



DISCOUNTS

Qty	1+	6+	10+
Disc.	List	-7%	On request

Part number	Reduction ratio	Number of stages	Efficiency (%)	Unloaded speed (rpm)	Loaded speed (rpm)	Nominal torque (Nm)	Nominal current (mA)	Price each 1 to 5
LINK6443A/0012	12:1	2	85	31,0	31,0	1,3	180	217,29 €
LINK6443A/0037	37,5:1	3	78	10,0	10,0	3,8	180	220,29 €
LINK6443A/0050	50:1	3	78	8,0	8,0	5,1	180	220,29 €
LINK6443A/0093	93,75:1	4	72	4,0	4,0	6,0	180	241,11 €
LINK6443A/0187	187:1	4	72	2,0	2,0	6,0	180	241,11 €
LINK6443A/0375	375:1	5	66	1,0	1,0	6,0	180	264,94 €
LINK6443A/0750	750:1	5	66	0,5	0,5	6,0	180	264,94 €

Dimensions in mm



Asynchronous **AC** motor 0.09kW

Torque up to 0.64Nm

CHT56

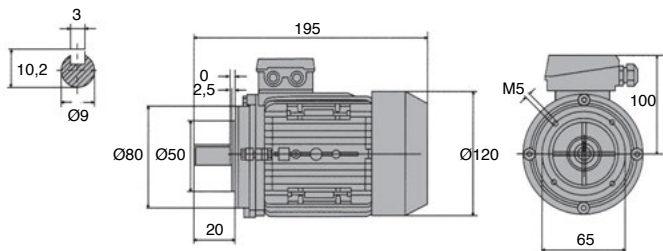
- 3 phase AC asynchronous motor
- 4 pole motor
- Supply frequency 50 Hz
- B14 mounting flange
- Insulation class F
- Protection IP55
- Bearings: ball bearings
- Can rotate in both directions
- Rotor: Squirrel cage

Accessories

- Servo amplifier **TEL-ATV11/180**
- Gearbox **CHM**

Option

- Motor with B5 mounting flange



DISCOUNTS

Qty	1+	6+	10+
Disc. List	-7%	-7%	On request

Part number	Power (kW)	Power supply (V)	Current at 400V (A)	Torque (Nm)	Efficiency	Power factor cos	Weight (kg)	Price each 1 to 5
CHT56B4-B14	0.09	230/400	0.43	0.64	50%	0.61	3,2	92,55 €

Dimensions in mm

Asynchronous **AC** motor 0.12 to 0.22kW



CHT63

Torque up to 1.77Nm

- 3 phase AC asynchronous motor
- 4 pole motor
- Supply frequency 50 Hz
- B14 mounting flange
- Insulation class F
- Ingress protection: IP55
- Bearings: ball bearings
- Can rotate in both directions
- Rotor: Squirrel cage

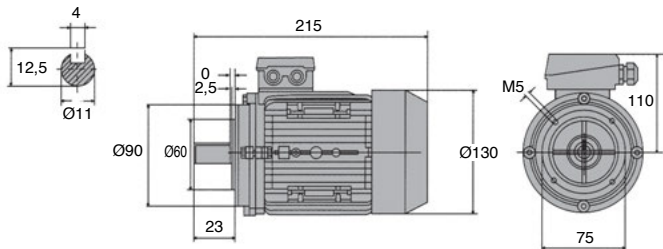


Accessories

- Servo amplifier **TEL-ATV11/180**, **TEL-ATV11/370**
- Gearbox **CHM**

Option

- Motor with B5 mounting flange



DISCOUNTS

Qty	1+	6+	10+
Disc.	List	-7%	On request

Part number	Power (kW)	Power supply (V)	Current at 400V (A)	Torque (Nm)	Efficiency	Power factor cos	Weight (kg)	Price each 1 to 5
CHT63A4-B14	0.12	230/400	0.47	0.86	57%	0.64	3.9	95.81 €
CHT63B4-B14	0.18	230/400	0.70	1.27	57%	0.65	4.5	100.44 €
CHT63C4-B14	0.22	230/400	0.92	1.77	59%	0.67	4.8	105.50 €

Dimensions in mm



Asynchronous AC Motor 0.18 to 0.55kW

Torque up to 3.81Nm

CHT71

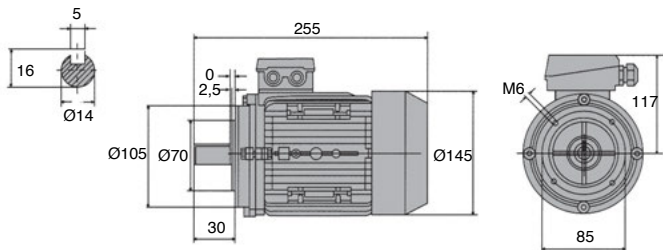
- 3 phase AC asynchronous motor
- 4 pole motor
- Supply frequency 50 Hz
- B14 mounting flange
- Insulation class F
- Ingress protection: IP55
- Bearings: ball bearings
- Can rotate in both directions
- Rotor: Squirrel cage

Accessories

- Servo amplifier **TEL-ATV11/370**
- Gearbox **CHM**

Option

- Motor with B5 mounting flange



DISCOUNTS

Qty	1+	6+	10+
Disc.	List	-7%	On request

Part number	Power (kW)	Power supply (V)	Current at 400V (A)	Torque (Nm)	Efficiency	Power factor cos	Weight (kg)	Price each 1 to 5
CHT71A4-B14	0.25	230/400	0.84	1.77	60%	0.72	5.6	108,61 €
CHT71B4-B14	0.37	230/400	1.12	2.58	65%	0.74	6.2	121,00 €
CHT71C4-B14	0.55	230/400	1.61	3.81	66%	0.75	7.0	137,19 €

Dimensions in mm

Asynchronous **AC** Motor 0.55 to 1.1kW



CHT80

Torque up to 7.6Nm

- 3 phase AC asynchronous motor
- 4 pole motor
- Supply frequency 50 Hz
- B14 mounting flange
- Insulation class F
- Ingress protection: IP55
- Bearings: ball bearings
- Can rotate in both directions
- Rotor: Squirrel cage

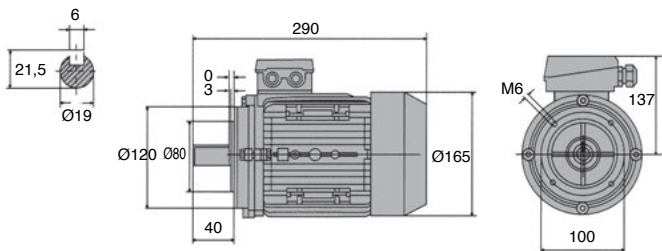


Accessories

- Gearbox **CHM**

Option

- Motor with B5 mounting flange



DISCOUNTS

Qty	1+	6+	10+
Disc.	List	-7%	On request

Part number	Power (kW)	Power supply (V)	Current at 400V (A)	Torque (Nm)	Efficiency	Power factor cos	Weight (kg)	Price each 1 to 5
CHT80A4-B14	0.55	230/400	1,59	3,81	67%	0,75	8,9	143,73 €
CHT80B4-B14	0.75	230/400	1,94	5,20	72%	0,78	10,0	212,90 €
CHT80C4-B14	1,10	230/400	2,64	7,58	78%	0,77	11,0	245,84 €

Dimensions in mm



Asynchronous **AC** Motor 1.1 to 1.85kW

Torque up to 9.24Nm

CHT90

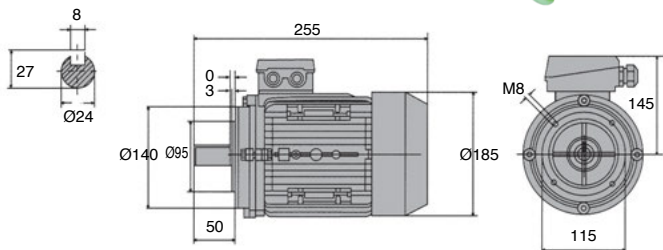
- 3 phase AC asynchronous motor
- 4 pole motor
- Supply frequency 50 Hz
- B14 mounting flange
- Insulation class F
- Ingress protection: IP55
- Bearings: ball bearings
- Can rotate in both directions
- Rotor: Squirrel cage

Accessories

- Gearbox **CHM**

Option

- Motor with B5 mounting flange



DISCOUNTS

Qty	1+	6+	10+
Disc.	List	-7%	On request

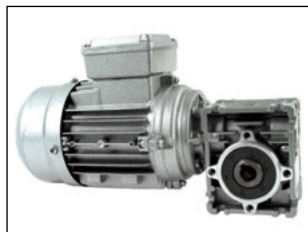
Part number	L (mm)	Power (kW)	Power supply (V)	Current at 400V (A)	Torque (Nm)	Efficiency	Power factor cos	Weight (kg)	Price each 1 to 5
CHT90S4-B14	310	1,10	230/400	2,64	5,19	76,2%	0,79	12,1	254,71 €
CHT90L4-B14	335	1,50	230/400	3,46	7,51	78,5%	0,80	14,3	295,26 €
CHT90LL4-B14	365	1,85	230/400	4,30	9,24	79%	0,78	16,0	On request

Dimensions in mm

CHM30-MOT

Torque up to 22Nm

- **Three phase electric motor gearbox assembly**
- Comprises 1 **CHM30** gearbox and 1 **CHT** motor (see motor section)
- 4 pole motor
- B14 mounting flange
- Motor speed 1400 rpm
- Material:
Gearbox casing: aluminium

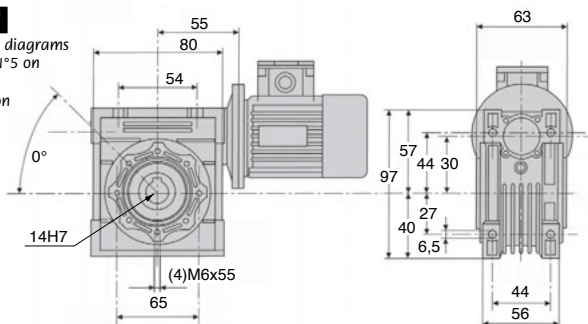


Accessories

- Servo amplifier **TEL-ATV11/180**, **TEL-ATV11/370**
- Output shaft **CHM30-X**, **CHM30-DX**
- Reaction arm **CHM30-BR**

Wiring

- See wiring diagrams N°3 and N°5 on technical information pages



DISCOUNTS

Qty	1+	6+	10+
Disc.	List	-7%	On request

Part number	Reduction ratio	Motor	Motor power (kW)	Loaded speed (rpm)	Nominal Torque (Nm)	Service factor	Price each 1 to 5
CHM30-7-63C4	7.5:1	63C4	0.22	186.7	9	2.1	216.41 €
CHM30-10-63C4	10:1	63C4	0.22	140.0	11	1.6	216.41 €
CHM30-15-63C4	15:1	63C4	0.22	93.3	16	1.0	215.92 €
CHM30-20-63C4	20:1	63C4	0.22	70.0	20	0.9	215.92 €
CHM30-25-63B4	25:1	63B4	0.18	56.0	20	1.0	211.33 €
CHM30-30-63B4	30:1	63B4	0.18	46.7	22	0.9	211.33 €
CHM30-40-63B4	40:1	63B4	0.18	35.0	21	0.8	211.33 €
CHM30-50-63B4	50:1	63B4	0.18	28.0	19	0.8	211.33 €
CHM30-60-56B4	60:1	56B4	0.09	23.3	18	0.9	203.44 €
CHM30-80-56B4	80:1	56B4	0.09	17.5	13	0.9	203.44 €

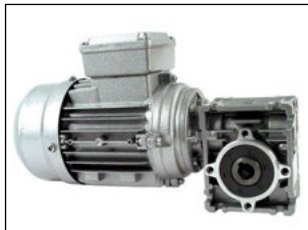
Dimensions in mm



Torque up to 52Nm

CHM40 -MOT

- **Three phase electric motor gearbox assembly**
- Comprises 1 **CHM40** gearbox and 1 **CHT** motor (see motor section)
- 4 pole motor
- B14 mounting flange
- Motor speed 1400 rpm
- Material:
Gearbox casing: aluminium

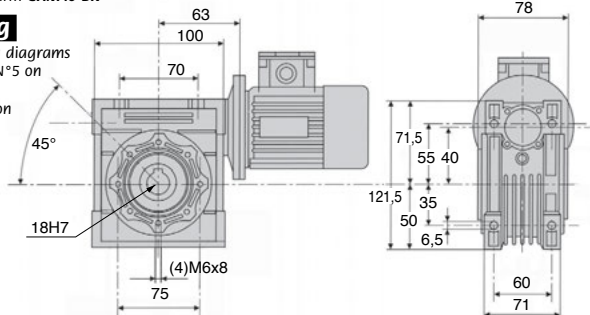


Accessories

- Servo amplifier **TEL-ATV11/370**
- Output shaft **CHM40-X**, **CHM40-DX**
- Reaction arm **CHM40-BR**

Cabling

- See wiring diagrams N°3 and N°5 on technical information pages



DISCOUNTS

Qty	1+	6+	10+
Disc.	List	-7%	On request

Part number	Reduction ratio	Motor	Motor power (kW)	Loaded speed (rpm)	Nominal Torque (Nm)	Service factor	Price each 1 to 5
CHM40-7-71C4	7,5:1	71C4	0,55	186,7	22	1,6	271,03 €
CHM40-10-71C4	10:1	71C4	0,55	140,0	30	1,4	271,03 €
CHM40-15-71C4	15:1	71C4	0,55	93,3	44	0,9	271,03 €
CHM40-20-71C4	20:1	71C4	0,55	70,0	38	1,0	271,03 €
CHM40-25-71B4	25:1	71B4	0,37	56,0	45	0,9	254,81 €
CHM40-30-71B4	30:1	71B4	0,37	46,7	52	0,8	254,81 €
CHM40-40-71A4	40:1	71A4	0,25	35,0	43	0,9	242,45 €
CHM40-50-63C4	50:1	63C4	0,22	28,0	44	0,9	239,32 €
CHM40-60-63B4	60:1	63B4	0,18	23,3	42	0,8	234,27 €
CHM40-80-63B4	80:1	63B4	0,18	17,5	36	0,8	234,27 €
CHM40-100-63B4	100:1	63B4	0,18	14,0	35	0,8	234,27 €

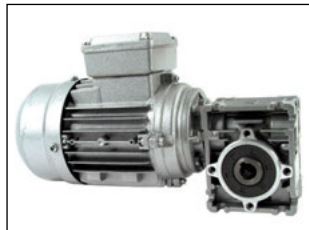
Dimensions in mm

Asynchronous **AC** motorgearboxes 0.18 to 0.75kW

CHM50 -MOT

Torque up to 87Nm

- **Three phase electric motor gearbox assembly**
- Comprises 1 **CHM50** gearbox and 1 **CHT** motor (see motor section)
- 4 pole motor
- B14 mounting flange
- Motor speed: 1400 rpm
- Material:
Gearbox casing: aluminium

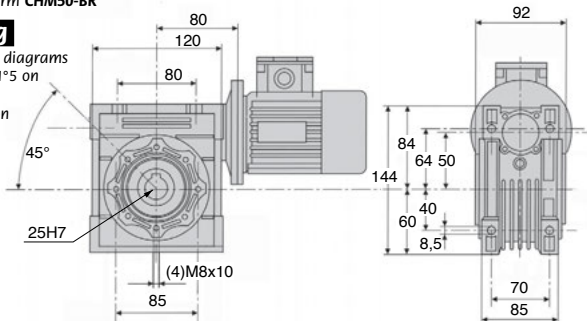


Accessories

- Servo amplifier **TEL-ATV11/370**
- Output shaft **CHM50-X**, **CHM50-DX**
- Reaction arm **CHM50-BR**

Cabling

- See wiring diagrams N°3 and N°5 on technical information pages



DISCOUNTS

Qty	1+	6+	10+
Disc.	List	-7%	On request

* without CHM50-100-63B4 mounting flange B5

Part number	Reduction ratio	Motor	Motor power (kW)	Loaded speed (rpm)	Nominal Torque (Nm)	Service factor	Price each 1 to 5
CHM50-7-80B4	7.5:1	80B4	0,75	186,7	33,3	2,0	330,73 €
CHM50-10-80B4	10:1	80B4	0,75	140,0	43,9	1,6	330,73 €
CHM50-15-80B4	15:1	80B4	0,75	93,3	62,6	1,2	330,73 €
CHM50-20-80B4	20:1	80B4	0,75	70,0	80,0	0,9	330,73 €
CHM50-25-80A4	25:1	80A4	0,55	56,0	70,0	1,0	316,26 €
CHM50-30-80A4	30:1	80A4	0,55	46,7	80,0	1,0	316,26 €
CHM50-40-71B4	40:1	71B4	0,37	35,0	67,0	1,1	293,51 €
CHM50-50-71B4	50:1	71B4	0,37	28,0	78,0	0,9	293,51 €
CHM50-60-71B4	60:1	71B4	0,37	23,3	87,0	0,8	293,51 €
CHM50-80-71A4	80:1	71A4	0,25	17,5	70,0	0,9	281,13 €
CHM50-100-63B4*	100:1	63B4	0,18	14,0	59,0	0,9	272,97 €

Dimensions in mm



Torque up to 165Nm

CHM63-MOT

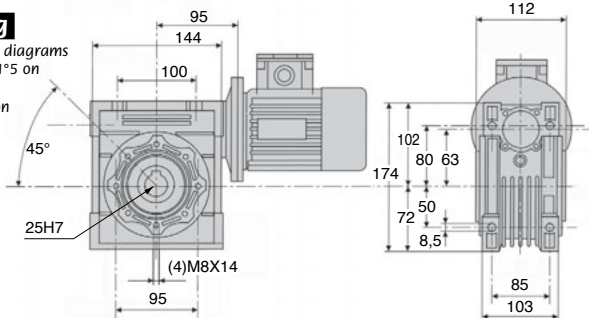
- Three phase electric motor gearbox assembly
- Comprises 1 **CHM63** gearbox and 1 **CHT** motor (see motor section)
- 4 pole motor
- B14 mounting flange
- Motor speed 1400 rpm
- Material:
Gearbox casing: aluminium

Accessories

- Servo amplifier **TEL-ATV11/370**
- Output shaft **CHM63-X**, **CHM63-DX**
- Reaction arm **CHM63-BR**

Cabling

- See wiring diagrams N°3 and N°5 on technical information pages



DISCOUNTS

Qty	1+	6+	10+
Disc.	List	-7%	On request

Part number	Reduction ratio	Motor	Motor power (kW)	Loaded speed (rpm)	Nominal Torque (Nm)	Service factor	Price each 1 to 5
CHM63-7-90L4	7,5:1	90L4	1,50	186,7	67,4	1,8	457,37 €
CHM63-10-90L4	10:1	90L4	1,50	140,0	88,6	1,4	457,37 €
CHM63-15-90L4	15:1	90L4	1,50	93,3	126,0	1,1	457,37 €
CHM63-20-90L4	20:1	90L4	1,50	70,0	164,0	0,8	457,37 €
CHM63-25-90S4	25:1	90S4	1,10	56,0	145,0	0,9	432,22 €
CHM63-30-90S4	30:1	90S4	1,10	46,7	165,0	1,0	432,22 €
CHM63-40-80B4	40:1	80B4	0,75	35,0	143,0	1,0	402,60 €
CHM63-50-80A4	50:1	80A4	0,55	28,0	122,0	1,1	388,15 €
CHM63-60-80A4	60:1	80A4	0,55	23,3	138,0	0,9	388,15 €
CHM63-80-71B4	80:1	71B4	0,37	17,5	114,0	1,1	365,40 €
CHM63-100-71B4	100:1	71B4	0,37	14,0	127,0	0,9	365,40 €

Dimensions in mm

Worm and wheel gear reducer

CHMR30

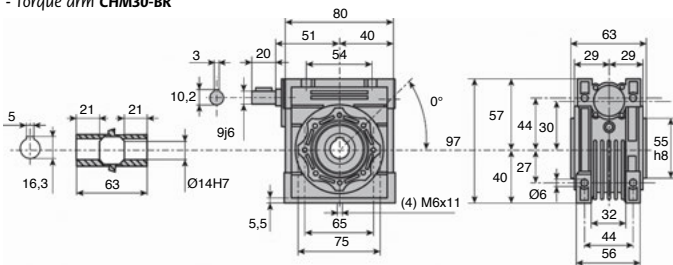
Torque up to 28 Nm

- Ratios from 7.5:1 to 80:1
- Output backlash: NC
- Max. input speed: 2800 rpm
- Max. output speed: see CHMR30
- Materials:
 - Casing: aluminium
 - Screws: treated steel
 - Wheel: bronze (cast iron hub)
- Lubrication: synthetic oil ISO VG320
- Weight: 1.2 kg



Accessories

- Output shaft **CHM30-X** and **CHM30-DX**
- Torque arm **CHM30-BR**



Output torque (Nm values given as a guide only)

Ratios	7.5:1	10:1	15:1	20:1	25:1	30:1	40:1	50:1	60:1	80:1
INPUT SPEED (rpm)	2800	12	12	12	11	15	14	13	12	11
1400	17	17	17	17	20	20	19	17	16	15
900	19	19	19	19	22	22	20	19	17	16
500	23	23	23	22	28	25	22	20	18	16

DISCOUNTS

Qty	1+	6+	20+	40+
Disc.	List	-15%	-20%	On request

Part number	Reduction ratio	Max. input speed (rpm)	Max. output speed (rpm)	Efficiency at 900 rpm (%)	Self locking output	Stock*	Price each 1 to 5
CHMR30-7	7.5:1	2800	373,33	NC	no	✓	122,29 €
CHMR30-10	10:1	2800	280,00	NC	no	✓	122,29 €
CHMR30-15	15:1	2800	186,66	NC	no	✓	122,29 €
CHMR30-20	20:1	2800	140,00	NC	no	-	122,29 €
CHMR30-25	25:1	2800	112,00	NC	no	✓	122,29 €
CHMR30-30	30:1	2800	93,33	NC	not defined	-	122,29 €
CHMR30-40	40:1	2800	70,00	NC	not defined	✓	122,29 €
CHMR30-50	50:1	2800	56,00	NC	not defined	✓	122,29 €
CHMR30-60	60:1	2800	46,66	NC	yes	✓	122,29 €
CHMR30-80	80:1	2800	35,00	NC	yes	✓	122,29 €

*Depending on availability - Dimensions in mm



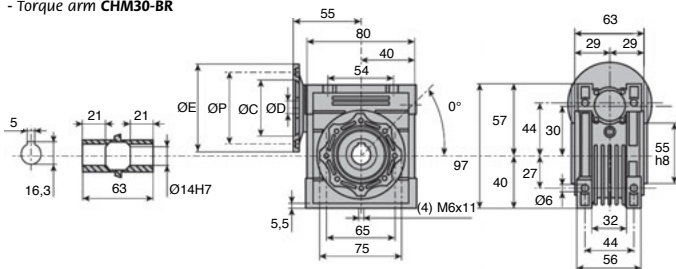
Torque up to 28 Nm

CHM30

- Ratios from 7,5:1 to 80:1
- With mounting flange B14 for IEC56
- Output backlash: NC
- Max. input speed: 2800 rpm
- Material:
 - Casing: aluminium
 - Worm: hardened steel
 - Wheel: bronze (hub in cast iron)
- Lubrication: synthetic oil ISO VG320
- Weight: 1,2 kg

Accessories

- Output shaft **CHM30-X** and **CHM30-DX**
- Torque arm **CHM30-BR**



Output torque (Nm values given as a guide only)

Ratios	7,5:1	10:1	15:1	20:1	25:1	30:1	40:1	50:1	60:1	80:1
2800	12	12	12	11	15	14	13	12	11	10
1400	17	17	17	17	20	19	17	16	15	12
900	19	19	19	19	22	20	19	17	16	14
500 (rpm)	23	23	23	22	28	25	22	20	18	16

DISCOUNTS

Qty	1+	6+	20+	40+
Disc.	List	-15%	-20%	On request

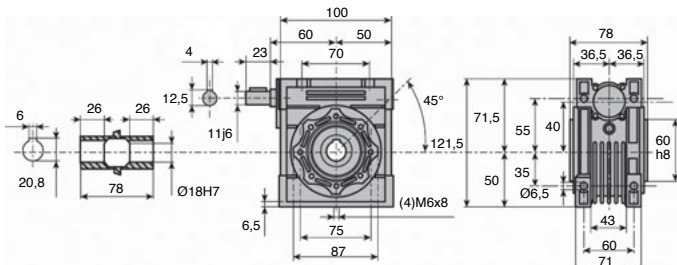
Part number	Reduction ratio	Input flange	ØD	ØC	ØP	ØE	Self locking output	Stock*	Price each 1 to 5
CHM30-7	7,5:1	56B14	9	50	65	80	no	✓	122,29 €
CHM30-10	10:1	56B14	9	50	65	80	no	✓	122,29 €
CHM30-15	15:1	56B14	9	50	65	80	no	✓	122,29 €
CHM30-20	20:1	56B14	9	50	65	80	no	✓	122,29 €
CHM30-25	25:1	56B14	9	50	65	80	no	✓	122,29 €
CHM30-30	30:1	56B14	9	50	65	80	not defined	✓	122,29 €
CHM30-40	40:1	56B14	9	50	65	80	not defined	-	122,29 €
CHM30-50	50:1	56B14	9	50	65	80	not defined	✓	122,29 €
CHM30-60	60:1	56B14	9	50	65	80	yes	✓	122,29 €
CHM30-80	80:1	56B14	9	50	65	80	yes	✓	122,29 €

*Depending on availability - Dimensions in mm

- Ratios from 7.5:1 to 100:1
- Output backlash: NC
- Max. input speed: 2800 rpm
- Materials:
 - Casing: aluminium
 - Screws: treated steel 20CR
 - Wheel: bronze CuSn12 (cast iron hub 6500)
- Lubrication: synthetic oil ISO VG320
- Weight: 2.3 kg

Accessories

- Output shaft **CHM40-X** and **CHM40-DX**
- Torque arm **CHM40-BR**



Output torque (Nm values given as a guide only)

Ratios	7.5:1	10:1	15:1	20:1	25:1	30:1	40:1	50:1	60:1	80:1	100:1
INPUT SPEED (rpm)	2800	27	26	30	28	27	33	30	30	27	24
22	1400	39	39	39	38	39	44	40	38	35	32
900	43	43	44	43	43	48	44	41	38	35	31
500	52	52	54	53	51	57	52	48	45	40	35

DISCOUNTS

Qty.	1+	6+	20+	40+
Disc.	List. +15%	-20%	On request	

Part number	Reduction ratio	Max. input speed (rpm)	Max. output speed (rpm)	Efficiency at 900 rpm (%)	Self locking output	Stock*	Price each 1 to 5
CHMR40-7	7.5:1	800	373,33	NC	no	✓	147,60 €
CHMR40-10	10:1	2800	280,00	NC	no	✓	147,60 €
CHMR40-15	15:1	2800	186,66	NC	no	✓	147,60 €
CHMR40-20	20:1	2800	140,00	NC	no	✓	147,60 €
CHMR40-25	25:1	2800	112,00	NC	no	✓	147,60 €
CHMR40-30	30:1	2800	93,33	NC	no	✓	147,60 €
CHMR40-40	40:1	2800	70,00	NC	no	✓	147,60 €
CHMR40-50	50:1	2800	56,00	NC	not defined	-	147,60 €
CHMR40-60	60:1	2800	46,66	NC	not defined	✓	147,60 €
CHMR40-80	80:1	2800	35,00	NC	yes	✓	147,60 €
CHMR40-100	100:1	2800	28,00	NC	yes	✓	147,60 €

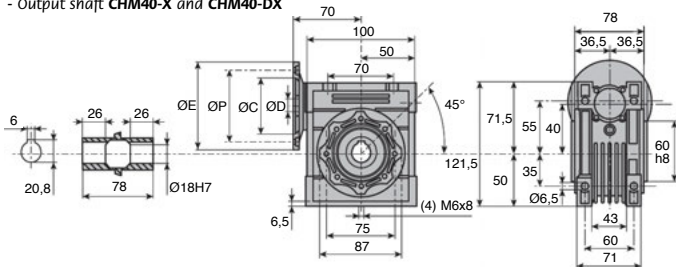
*Depending on availability - Dimensions in mm

- Ratios from 7.5:1 to 100:1
- With B14 (IEC56) flange
- Output backlash: NC
- Max. input speed: 2800 rpm
- Max. output speed: see CHMR40
- Materials:
 - Casing: aluminium
 - Screws: treated steel 20CR
 - Wheel: bronze CuSn12 (cast iron hub G500)
- Lubrication: synthetic oil ISO VG320
- Weight: 2.3 kg



Accessories

- Output shaft: CHM40-X and CHM40-DX



Output torque (Nm values given as a guide only)

Ratios	7.5:1	10:1	15:1	20:1	25:1	30:1	40:1	50:1	60:1	80:1	100:1
INPUT SPEED (rpm)	2800	27	26	30	28	27	33	30	30	27	24
	1400	39	39	39	38	39	44	40	38	35	32
	900	43	43	44	43	43	48	44	41	38	35
	500	52	52	54	53	51	57	52	48	45	40

DISCOUNTS

Qty.	1+	6+	20+	40+
Disc.	List.	-15%	-20%	On request

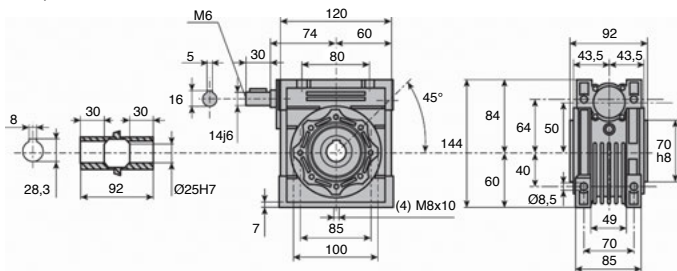
Part number	Reduction ratio	Input flange	ØD	ØC	ØP	ØE	Self locking output	Stock*	Price each 1 to 5
CHM40-7	7.5:1	63B14	11	60	75	90	no	✓	147,60 €
CHM40-10	10:1	63B14	11	60	75	90	no	✓	147,60 €
CHM40-15	15:1	63B14	11	60	75	90	no	✓	147,60 €
CHM40-20	20:1	63B14	11	60	75	90	no	✓	147,60 €
CHM40-25	25:1	63B14	11	60	75	90	no	-	147,60 €
CHM40-30	30:1	63B14	11	60	75	90	no	✓	147,60 €
CHM40-40	40:1	63B14	11	60	75	90	no	✓	147,60 €
CHM40-50	50:1	63B14	11	60	75	90	not defined	✓	147,60 €
CHM40-60	60:1	63B14	11	60	75	90	not defined	✓	147,60 €
CHM40-80	80:1	63B14	11	60	75	90	yes	✓	147,60 €
CHM40-100	100:1	63B14	11	60	75	90	yes	✓	147,60 €

*Depending on availability - Dimensions in mm

- Ratios from 7.5:1 to 100:1
- Output backlash: NC
- Max. input speed: 2800 rpm
- Materials:
 - Casing: aluminium
 - Screws: treated steel 20CR
 - Wheel: bronze CuSn12 (cast iron hub 6500)
- Lubrication: synthetic oil ISO VG320
- Weight: 3.5 kg

Accessories

- Output shaft **CHM50-X** and **CHM50-DX**
- Torque arm **CHM50-BR**



Output torque (Nm values given as a guide only)

Ratios	7.5:1	10:1	15:1	20:1	25:1	30:1	40:1	50:1	60:1	80:1	100:1
INPUT SPEED (rpm)	2800	51	53	56	52	51	63	58	52	49	44
2800	1400	70	71	73	72	69	83	75	72	67	64
900	83	83	83	76	74	89	81	76	71	67	55
500	102	102	102	92	90	107	97	90	82	74	64

DISCOUNTS

Qty.	1+	6+	20+	40+
Disc.	List.	-15%	-20%	On request

Part number	Reduction ratio	Max. input speed (rpm)	Max. output speed (rpm)	Efficiency at 900 rpm (%)	Self locking output	Stock*	Price each 1 to 5
CHMR50-7	7.5:1	2800	373,33	NC	no	✓	190,29 €
CHMR50-10	10:1	2800	280,00	NC	no	✓	190,29 €
CHMR50-15	15:1	2800	186,66	NC	no	✓	190,29 €
CHMR50-20	20:1	2800	140,00	NC	no	✓	190,29 €
CHMR50-25	25:1	2800	112,00	NC	no	-	190,29 €
CHMR50-30	30:1	2800	93,33	NC	no	✓	190,29 €
CHMR50-40	40:1	2800	70,00	NC	no	✓	190,29 €
CHMR50-50	50:1	2800	56,00	NC	not defined	✓	190,29 €
CHMR50-60	60:1	2800	46,66	NC	not defined	✓	190,29 €
CHMR50-80	80:1	2800	35,00	NC	yes	✓	190,29 €
CHMR50-100	100:1	2800	28,00	NC	yes	✓	190,29 €

*Depending on availability - Dimensions in mm



Torque up to 107 Nm

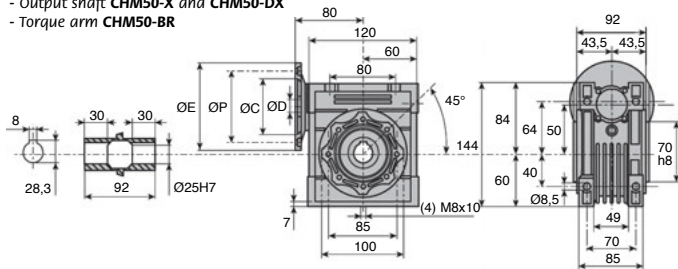
CHM50

- Ratios from 7.5:1 to 100:1
- With B14 (IEC71) flange
- Output backlash: NC
- Max. input speed: 2800 rpm
- Max. output speed: see CHMR50
- Materials:
 - Casing: aluminium
 - Screws: treated steel 20CR
 - Wheel: bronze CuSn12 (cast iron hub G500)
- Lubrication: synthetic oil ISO VG320
- Weight: 3.5 kg



Accessories

- Output shaft **CHM50-X** and **CHM50-DX**
- Torque arm **CHM50-BR**



Output torque (Nm values given as a guide only)

Ratios	7.5:1	10:1	15:1	20:1	25:1	30:1	40:1	50:1	60:1	80:1	100:1
INPUT SPEED (rpm)	2800	51	53	56	52	51	63	58	52	49	39
	1400	70	71	73	72	69	83	75	72	67	54
	900	83	83	83	76	74	89	81	76	71	55
	500	102	102	102	92	90	107	97	90	82	64

DISCOUNTS

Qty.	1+	6+	20+	40+
Disc.	List.	-15%	-20%	On request

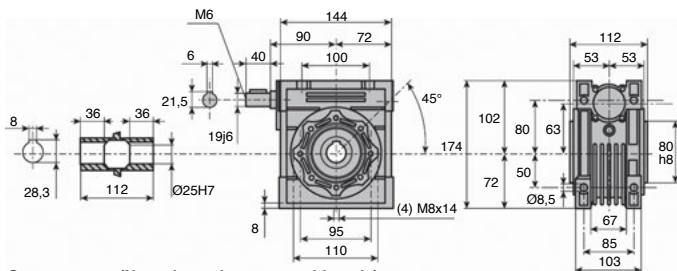
Part number	Reduction ratio	Input flange	ØD	ØC	ØP	ØE	Self locking output	Stock*	Price each 1 to 5
CHM50-7	7.5:1	71B14	14	70	85	105	no	✓	190,29 €
CHM50-10	10:1	71B14	14	70	85	105	no	✓	190,29 €
CHM50-15	15:1	71B14	14	70	85	105	no	✓	190,29 €
CHM50-20	20:1	71B14	14	70	85	105	no	✓	190,29 €
CHM50-25	25:1	71B14	14	70	85	105	no	-	190,29 €
CHM50-30	30:1	71B14	14	70	85	105	no	✓	190,29 €
CHM50-40	40:1	71B14	14	70	85	105	no	✓	190,29 €
CHM50-50	50:1	71B14	14	70	85	105	not defined	✓	190,29 €
CHM50-60	60:1	71B14	14	70	85	105	not defined	✓	190,29 €
CHM50-80	80:1	71B14	14	70	85	105	yes	✓	190,29 €
CHM50-100	100:1	71B14	14	70	85	105	yes	✓	190,29 €

*Depending on availability - Dimensions in mm

- Ratios from 7.5:1 to 100:1
- Output backlash: NC
- Max. input speed: 2800 rpm
- Materials:
 - Casing: aluminium
 - Screws: treated steel 20CR
 - Wheel: bronze CuSn12 (cast iron hub 6500)
- Lubrication: synthetic oil ISO VG320
- Weight: 6.2 kg

Accessories

- Output shaft **CHM63-X** and **CHM63-DX**
- Torque arm **CHM63-BR**



Output torque (Nm values given as a guide only)

Ratios	7.5:1	10:1	15:1	20:1	25:1	30:1	40:1	50:1	60:1	80:1	100:1
INPUT	2800	92	96	102	99	91	119	107	99	94	84
SPEED	1400	127	129	139	134	129	159	144	134	129	121
(rpm)	900	150	152	154	147	136	174	159	144	137	127
	500	183	184	186	177	163	198	184	172	159	136

DISCOUNTS

Qty.	1+	2+	6+	15+
Disc.	List.	-5%	-15%	On request

Part number	Reduction ratio	Max. input speed (rpm)	Max. output speed (rpm)	Efficiency at 900 rpm (%)	Self locking output	Stock*	Price each 1 to 5
CHMR63-7	7.5:1	2800	373,33	NC	no	✓	269,60 €
CHMR63-10	10:1	2800	280,00	NC	no	✓	269,60 €
CHMR63-15	15:1	2800	186,66	NC	no	✓	269,60 €
CHMR63-20	20:1	2800	140,00	NC	no	✓	269,60 €
CHMR63-25	25:1	2800	112,00	NC	no	✓	269,60 €
CHMR63-30	30:1	2800	93,33	NC	no	✓	269,60 €
CHMR63-40	40:1	2800	70,00	NC	no	✓	269,60 €
CHMR63-50	50:1	2800	56,00	NC	not defined	-	269,60 €
CHMR63-60	60:1	2800	46,66	NC	not defined	✓	269,60 €
CHMR63-80	80:1	2800	35,00	NC	yes	✓	269,60 €
CHMR63-100	100:1	2800	28,00	NC	yes	✓	269,60 €

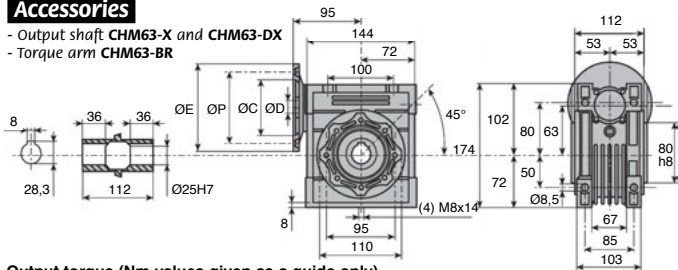
*Depending on availability - Dimensions in mm

- Ratios from 7.5:1 to 100:1
- With B14 flange acc IEC80 for ratios 7.5:1 to 30:1
- With B14 mounting flange acc IEC71 for ratios 7.5:1 to 30:1
- Output backlash: NC
- Max. input speed: 2800 rpm
- Max. output speed: see CHMR63
- Materials:
 - Casing: aluminium
 - Screws: treated steel 20CR
 - Wheel: bronze CuSn12 (cast iron hub G500)
- Lubrication: synthetic oil ISO VG320
- Weight: 3.5 kg



Accessories

- Output shaft **CHM63-X** and **CHM63-DX**
- Torque arm **CHM63-BR**



Output torque (Nm values given as a guide only)

Ratios	7.5:1	10:1	15:1	20:1	25:1	30:1	40:1	50:1	60:1	80:1	100:1
INPUT SPEED	2800	92	96	102	99	91	119	107	99	94	73
SPEED	1400	127	129	139	134	129	159	144	134	129	117
(rpm)	900	150	152	154	147	136	174	159	144	137	123
	500	183	184	186	177	163	198	184	172	159	136

DISCOUNTS

Qty.	1+	2+	6+	15+
Disc.	-5%	-15%	-15%	On request

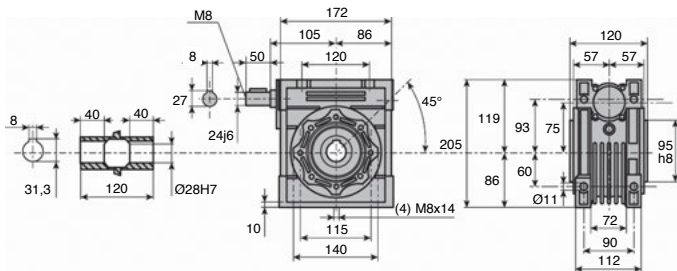
Part number	Reduction ratio	Input flange	ØD	ØC	ØP	ØE	Self locking output	Stock*	Price each 1 to 5
CHM63-7	7.5:1	80B14	19	80	100	120	no	-	269,60 €
CHM63-10	10:1	80B14	19	80	100	120	no	-	269,60 €
CHM63-15	15:1	80B14	19	80	100	120	no	✓	269,60 €
CHM63-20	20:1	80B14	19	80	100	120	no	✓	269,60 €
CHM63-25	25:1	80B14	19	80	100	120	no	-	269,60 €
CHM63-30	30:1	80B14	19	80	100	120	no	✓	269,60 €
CHM63-40	40:1	71B14	14	70	85	105	no	✓	269,60 €
CHM63-50	50:1	71B14	14	70	85	105	not defined	✓	269,60 €
CHM63-60	60:1	71B14	14	70	85	105	not defined	✓	269,60 €
CHM63-80	80:1	71B14	14	70	85	105	yes	✓	269,60 €
CHM63-100	100:1	71B14	14	70	85	105	yes	✓	269,60 €

*Depending on availability - Dimensions in mm

- Ratios from 7.5:1 to 100:1
- Output backlash: NC
- Max. input speed: 2800 rpm
- Materials:
 - Casing: aluminium
 - Screws: treated steel 20CR
 - Wheel: bronze CuSn12 (cast iron hub 6500)
- Lubrication: synthetic oil ISO VG320
- Weight: 8.5 kg

Accessories

- Output shaft **CHM75-X** and **CHM75-DX**
- Torque arm **CHM75-BR**



Output torque (Nm values given as a guide only)

Ratio	7.5:1	10:1	15:1	20:1	25:1	30:1	40:1	50:1	60:1	80:1	100:1
INPUT	2800	129	144	148	158	148	119	168	146	144	129
SPEED	1400	184	194	198	209	198	159	228	209	198	188
(rpm)	900	214	228	234	234	214	174	258	218	209	198
	500	258	268	278	284	254	198	298	248	238	214

DISCOUNTS

Qty	1+	2+	6+	15+
Disc. List	-5%	-15%	-15%	On request

Part number	Reduction ratio	Max. input speed (rpm)	Max output speed (rpm)	Efficiency at 900 rpm (%)	Self locking output	Stock*	Price each
CHMR75-7	7.5:1	2800	373.33	NC	no	✓	360.09 €
CHMR75-10	10:1	2800	280.00	NC	no	✓	360.09 €
CHMR75-15	15:1	2800	186.66	NC	no	-	360.09 €
CHMR75-20	20:1	2800	140.00	NC	no	✓	360.09 €
CHMR75-25	25:1	2800	112.00	NC	no	✓	360.09 €
CHMR75-30	30:1	2800	93.33	NC	no	✓	360.09 €
CHMR75-40	40:1	2800	70.00	NC	no	✓	360.09 €
CHMR75-50	50:1	2800	56.00	NC	not defined	✓	360.09 €
CHMR75-60	60:1	2800	46.66	NC	not defined	✓	360.09 €
CHMR75-80	80:1	2800	35.00	NC	not defined	✓	360.09 €
CHMR75-100	100:1	2800	28.00	NC	yes	✓	360.09 €

*Depending on availability - Dimensions in mm



CHM75

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Accessories

- Output shaft **CHM75-X** and **CHM75-DX**
- Torque arm **CHM75-BR**

Technical drawing of the CHM75 motor showing three views: front, side, and top. The front view shows a flange with a central shaft hole of diameter Ø28H7 and a mounting flange with four M8x14 holes. The side view shows the motor body with dimensions 120, 112.5, 172, 86, 120, 115, 140, 10, 119, 93, 75, 60, 86, 205, 45°, and Ø11. The top view shows the motor base with dimensions 120, 57, 57, 95, h8, 72, 90, 112, and Ø11. The drawing also includes a detail of the output shaft with dimensions 8, 31.3, 40, 40, 120, and Ø28H7.

Output torque (Nm values given as a guide only)

Ratio		7.5:1	10:1	15:1	20:1	25:1	30:1	40:1	50:1	60:1	80:1	100:1
INPUT SPEED (rpm)	2800	129	144	148	158	148	119	168	146	144	129	118
	1400	184	194	198	209	198	159	228	209	198	188	178
	900	214	228	234	234	214	174	258	218	209	198	186
	500	258	268	278	284	254	198	298	248	238	214	208

Qty	1+	2+	6+	15+
Disc.	List	-5%	-15%	On request

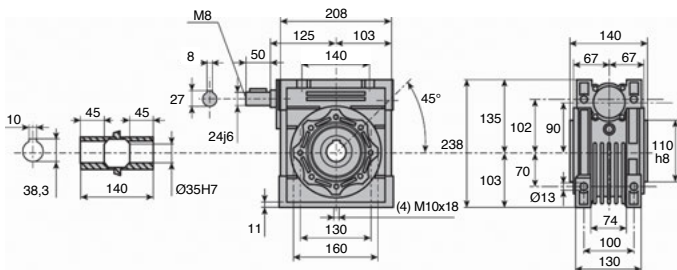
Part number	Reduction ratio	Input flange	ØD	ØC	ØP	ØE	Irrever-sibility	Stock*	Price each
CHM75-7	7.5:1	90B14	24	95	115	140	no	✓	360,09 €
CHM75-10	10:1	90B14	24	95	115	140	no	✓	360,09 €
CHM75-15	15:1	90B14	24	95	115	140	no	-	360,09 €
CHM75-20	20:1	80B14	19	80	100	120	no	-	360,09 €
CHM75-25	25:1	80B14	19	80	100	120	no	✓	360,09 €
CHM75-30	30:1	80B14	19	80	100	120	no	-	360,09 €
CHM75-40	40:1	80B14	19	80	100	120	no	✓	360,09 €
CHM75-50	50:1	80B14	19	80	100	120	not defined	✓	360,09 €
CHM75-60	60:1	80B14	19	80	100	120	not defined	✓	360,09 €
CHM75-80	80:1	80B14	19	80	100	120	not defined	✓	360,09 €
CHM75-100	100:1	80B14	19	80	100	120	yes	✓	360,09 €

2 289

- Ratios from 7.5:1 to 100:1
- Output backlash: NC
- Max. input speed: 2800 rpm
- Materials:
 - Casing: aluminium
 - Screws: treated steel 20CR
 - Wheel: bronze CuSn12 (cast iron hub 6500)
- Lubrication: synthetic oil ISO VG320
- Weight: 12 kg

Accessories

- Output shaft **CHM90-X** and **CHM90-DX**
- Torque arm **CHM90-BR**



Output torque (Nm values given as a guide only)

Ratio	7.5:1	10:1	15:1	20:1	25:1	30:1	40:1	50:1	60:1	80:1	100:1
INPUT	2800	208	234	258	258	248	308	274	264	244	198
SPEED	1400	288	308	358	354	338	408	358	338	318	284
(rpm)	900	338	368	418	388	368	458	408	388	346	278
	500	408	434	438	468	438	540	478	448	398	364

DISCOUNTS

Qty	1+	2+	6+	15+
Disc. List	-5%	-5%	-15%	On request

Part number	Reduction ratio	Max. input speed (rpm)	Max output speed (rpm)	Efficiency at 900 rpm (%)	Self locking output	Stock*	Price each
CHMR90-7	7.5:1	2800	373,33	NC	No	✓	469,97 €
CHMR90-10	10:1	2800	280,00	NC	No	✓	469,97 €
CHMR90-15	15:1	2800	186,66	NC	No	✓	469,97 €
CHMR90-20	20:1	2800	140,00	NC	No	✓	469,97 €
CHMR90-25	25:1	2800	112,00	NC	No	-	469,97 €
CHMR90-30	30:1	2800	93,33	NC	No	✓	469,97 €
CHMR90-40	40:1	2800	70,00	NC	No	✓	469,97 €
CHMR90-50	50:1	2800	56,00	NC	No	✓	469,97 €
CHMR90-60	60:1	2800	46,66	NC	not defined	✓	469,97 €
CHMR90-80	80:1	2800	35,00	NC	not defined	✓	469,97 €
CHMR90-100	100:1	2800	28,00	NC	Yes	✓	469,97 €

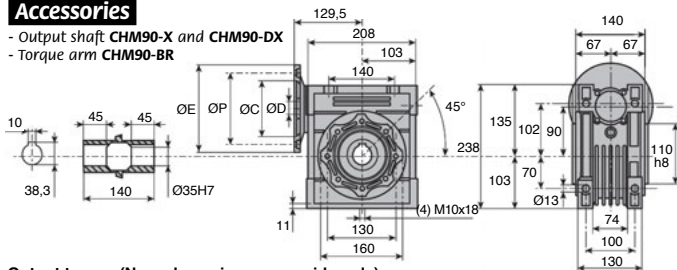
*Depending on availability - Dimensions in mm

- Ratios from 7.5:1 to 100:1
- With B14 flange acc IEC90 for ratios 7.5:1 to 60:1
- With B14 mounting flange acc IEC71 for ratios 80:1 to 100:1
- Output backlash: NC
- Max. input speed: 2800 rpm
- Max. output speed: see CHMR90
- Materials:
 - Casing: aluminium
 - Screws: treated steel 20CR
 - Wheel: bronze CuSn12 (cast iron hub G500)
- Lubrication: synthetic oil ISO VG320
- Weight: 3.5 kg



Accessories

- Output shaft **CHM90-X** and **CHM90-DX**
- Torque arm **CHM90-BR**



Output torque (Nm values given as a guide only)

Ratio	7.5:1	10:1	15:1	20:1	25:1	30:1	40:1	50:1	60:1	80:1	100:1
INPUT	2800	208	234	258	258	248	308	274	264	244	224
SPEED	1400	288	308	358	354	338	408	358	338	318	284
(rpm)	900	338	368	418	388	368	458	408	388	346	314
	500	408	434	438	468	438	540	478	448	398	364

DISCOUNTS

Qty	1+	2+	6+	15+
Disc. List	-5%	-15%	-15%	On request

Part number	Reduction ratio	Input flange	ØD	ØC	ØP	ØE	Irreversibility	Stock*	Price each
CHM90-7	7.5:1	90B5	24	130	165	200	No	-	469,97 €
CHM90-10	10:1	90B5	24	130	165	200	No	-	469,97 €
CHM90-15	15:1	90B5	24	130	165	200	No	-	469,97 €
CHM90-20	20:1	90B5	24	130	165	200	No	-	469,97 €
CHM90-25	25:1	90B5	24	130	165	200	No	-	469,97 €
CHM90-30	30:1	90B5	24	130	165	200	No	✓	469,97 €
CHM90-40	40:1	90B5	24	130	165	200	No	-	469,97 €
CHM90-50	50:1	90B5	24	130	165	200	No	-	469,97 €
CHM90-60	60:1	90B5	24	130	165	200	not defined	✓	469,97 €
CHM90-80	80:1	80B5	19	130	165	200	not defined	-	469,97 €
CHM90-100	100:1	80B5	19	130	165	200	Yes	-	469,97 €

*Depending on availability - Dimensions in mm

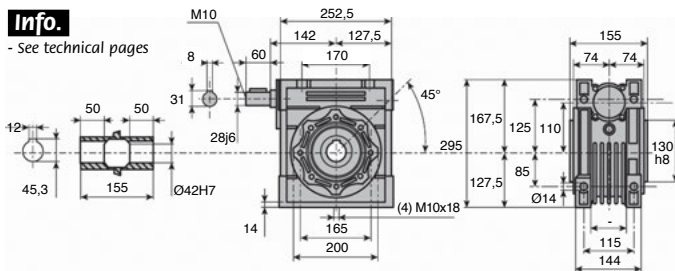
- Ratios from 7.5:1 to 100:1
- Output backlash: NC
- Max. input speed: 2800 rpm
- Materials:
 - Casing: aluminium
 - Screws: treated steel 20CR
 - Wheel: bronze CuSn12 (cast iron hub 6500)
- Lubrication: synthetic oil ISO VG320
- Weight: 35 kg

Accessories

- Output shaft **CHM110-X** and **CHM110-DX**
- Torque arm **CHM110-BR**

Info.

- See technical pages



Output torque (Nm values given as a guide only)

Ratio	7.5:1	10:1	15:1	20:1	25:1	30:1	40:1	50:1	60:1	80:1	100:1
2800	380	430	480	475	490	540	520	490	465	380	350
INPUT	1400	540	580	650	635	660	715	690	650	610	505
SPEED	900	640	705	740	720	740	830	780	740	675	550
(rpm)	500	780	840	890	850	890	980	920	870	770	645

DISCOUNTS

Qty	1+	2+	6+	15+
Disc. List	-5%	-15%		On request

Part number	Reduction ratio	Max. input speed (rpm)	Max output speed (rpm)	Efficiency at 900 rpm (%)	Self locking output	Price each
CHMR110-7	7.5:1	2800	373,33	NC	no	724,16 €
CHMR110-10	10:1	2800	280,00	NC	no	724,16 €
CHMR110-15	15:1	2800	186,66	NC	no	724,16 €
CHMR110-20	20:1	2800	140,00	NC	no	724,16 €
CHMR110-25	25:1	2800	112,00	NC	no	724,16 €
CHMR110-30	30:1	2800	93,33	NC	no	724,16 €
CHMR110-40	40:1	2800	70,00	NC	no	724,16 €
CHMR110-50	50:1	2800	56,00	NC	no	724,16 €
CHMR110-60	60:1	2800	46,66	NC	no	724,16 €
CHMR110-80	80:1	2800	35,00	NC	not defined	724,16 €
CHMR110-100	100:1	2800	28,00	NC	not defined	724,16 €

Dimensions in mm



Torque up to 980 Nm

CHM110

- Ratios from 7.5:1 to 100:1
- With B14 flange acc IEC100/112 for ratios 7.5:1 to 60:1
- With B14 mounting flange acc IEC90 for ratios 80:1 to 100:1
- Output backlash: NC
- Max. input speed: 2800 rpm
- Max. output speed: see CHMR110
- Materials:
 - Casing: aluminium
 - Screws: treated steel 20CR
 - Wheel: bronze CuSn12 (cast iron hub G500)
- Lubrication: synthetic oil ISO VG320
- Weight: 35 kg

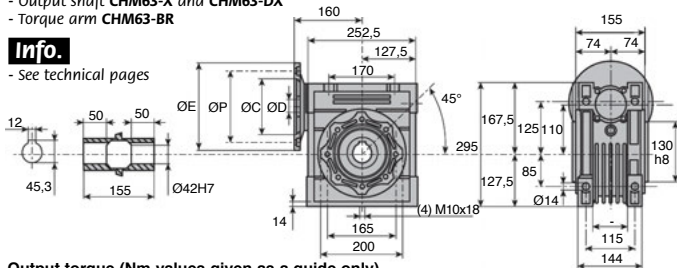


Accessories

- Output shaft: **CHM63-X** and **CHM63-DX**
- Torque arm: **CHM63-BR**

Info.

- See technical pages



Output torque (Nm values given as a guide only)

Ratio	7.5:1	10:1	15:1	20:1	25:1	30:1	40:1	50:1	60:1	80:1	100:1
INPUT	2800	380	430	480	475	490	540	520	490	465	380
SPEED	1400	540	580	650	635	660	715	690	650	610	505
(rpm)	900	640	705	740	720	740	830	780	740	675	550
	500	780	840	890	850	890	980	920	870	770	645

DISCOUNTS

Qty	1+	2+	6+	15+
Disc. List	-5%	-5%	-15%	On request

Part number	Reduction ratio	Input flange	ØD	ØC	ØP	ØE	Irrever-sibility	Price each
CHM110-7	7.5:1	100/112B5	28	180	215	250	no	724,16 €
CHM110-10	10:1	100/112B5	28	180	215	250	no	724,16 €
CHM110-15	15:1	100/112B5	28	180	215	250	no	724,16 €
CHM110-20	20:1	100/112B5	28	180	215	250	no	724,16 €
CHM110-25	25:1	100/112B5	28	180	215	250	no	724,16 €
CHM110-30	30:1	100/112B5	28	180	215	250	no	724,16 €
CHM110-40	40:1	100/112B5	28	180	215	250	no	724,16 €
CHM110-50	50:1	100/112B5	28	180	215	250	no	724,16 €
CHM110-60	60:1	100/112B5	28	180	215	250	no	724,16 €
CHM110-80	80:1	90B5	24	130	165	200	not defined	724,16 €
CHM110-100	100:1	90B5	24	130	165	200	not defined	724,16 €

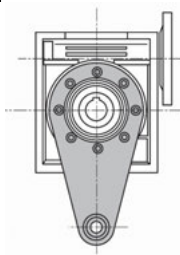
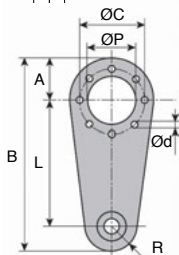
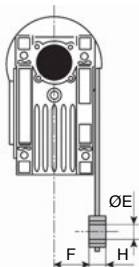
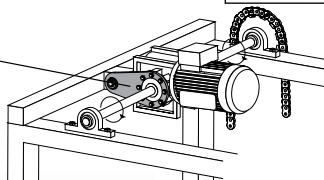
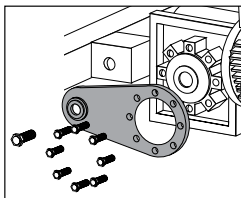
Dimensions in mm

Reaction arm



CHM_{BR} For CHM and CHMR gear gearboxes

- Mounts directly on the output side of the CHM and CHMR gear gearboxes
- The mounting point of the reaction arm is equipped with an anti-vibration bearing



DISCOUNTS ^A

Qty	1+	6+	20+	40+
Disc.	List	-15%	-20%	On request

DISCOUNTS ^B

Qty	1+	2+	6+	15+
Disc.	List	-5%	-15%	On request

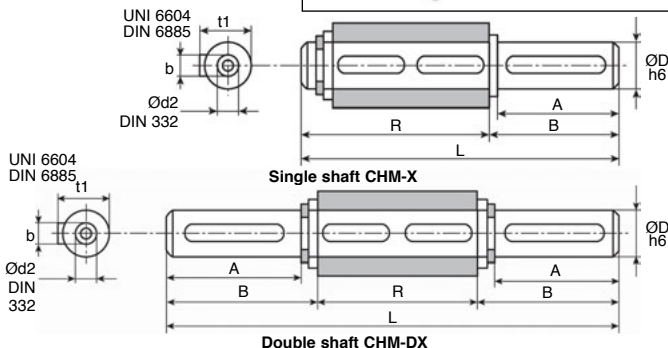
Part number	L	R	F	H	OE	A	B	OC	OD	OP	Weight (kg)	Stock*	Price each 1 to 5
CHM30-BR	85	15	24,0	14	8	38	138	65	7	55	0,18	✓	^A 9,00 €
CHM40-BR	100	18	31,5	14	10	44	162	75	7	60	0,24	✓	^A 9,56 €
CHM50-BR	100	18	38,5	14	10	50	168	85	9	70	0,27	✓	^A 10,45 €
CHM63-BR	150	18	49,0	14	10	55	223	95	9	80	0,57	✓	^A 13,35 €
CHM75-BR	200	30	47,5	25	20	70	300	115	9	95	1,10	✓	^B 20,03 €
CHM90-BR	200	30	57,5	25	20	80	310	130	11	110	1,26	✓	^B 28,49 €
CHM110-BR	250	35	62,0	30	25	100	385	165	11	130	1,92	-	^B 37,90 €

*Depending on availability - Dimensions in mm

Single and double output shafts

For CHM and CHMR gear gearboxes **CHMx**
CHMDx

- Mounts into the bores of the CHM and CHMR gear gearboxes
- Shaft steel C40



DISCOUNTS [Ⓐ]

Qty	1+	6+	20+	40+
Disc.	List	-15%	-20%	On request

DISCOUNTS [Ⓑ]

Qty	1+	2+	6+	15+
Disc.	List	-5%	-15%	On request

Part number	ØD h6	A	B	b	t1	R	L	Ød2	Weight (kg)	Stock*	Price each 1 to 5
Single shaft											
CHM30-X	14	30	32,5	5	16,0	69,5	102	M6x16	0,14	✓	Ⓐ 14,23 €
CHM40-X	18	40	43,0	6	20,5	85,0	128	M6x16	0,27	✓	Ⓐ 16,79 €
CHM50-X	25	50	53,5	8	28,0	99,5	153	M10x22	0,60	✓	Ⓐ 19,31 €
CHM63-X	25	50	53,5	8	28,0	119,5	173	M10x22	0,67	✓	Ⓐ 21,49 €
CHM75-X	28	60	63,5	8	31,0	128,5	192	M10x22	0,94	✓	Ⓑ 23,99 €
CHM90-X	35	80	84,5	10	38,0	149,5	234	M12x28	1,79	✓	Ⓑ 35,73 €
CHM110-X	42	80	84,5	12	45,0	164,5	249	M16x35	2,70	-	Ⓑ 40,43 €
Double shaft											
CHM30-DX	14	30	32,5	5	16,0	63,0	128	M6x16	0,16	✓	Ⓐ 19,31 €
CHM40-DX	18	40	43,0	6	20,5	78,0	164	M6x16	0,34	✓	Ⓐ 21,49 €
CHM50-DX	25	50	53,5	8	28,0	92,0	199	M10x22	0,75	✓	Ⓐ 23,99 €
CHM63-DX	25	50	53,5	8	28,0	112,0	219	M10x22	0,84	-	Ⓐ 26,17 €
CHM75-DX	28	60	63,5	8	31,0	120,0	247	M10x22	1,20	✓	Ⓑ 28,49 €
CHM90-DX	35	80	84,5	10	38,0	140,0	309	M12x28	2,50	✓	Ⓑ 42,06 €
CHM110-DX	42	80	84,5	12	45,0	155,0	324	M16x35	3,44	-	Ⓑ 50,03 €

*Depending on availability - Dimensions in mm

Worm and wheel gearbox

CHML

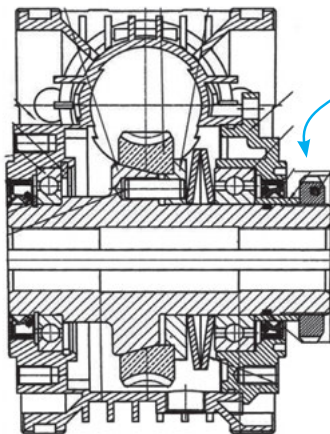
Integrated torque limiter

- The CHML range of worm and wheel gearboxes are available in 3 sizes; CHML40, CHML50 and CHML63
- The torque limiter provides protection against overload
- The torque limiter is in an oil bath and is maintenance free
- The gearbox **dimensions are identical to those of the CHM** range with the exception of the external ring nut.
- Please note however that the dimensions of the mounting flange may be different to those of the CHM range



Adjustment

- Set the torque limit by tightening or loosening the external ring nut



Torque
limiter



Worm and wheel gearbox

Integrated torque limiter (up to 57 Nm) CHML40

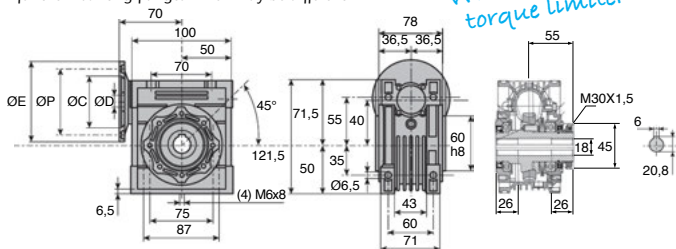
- **Protected against overload**
- Ratios from 20:1 to 100:1
- Torque limit can be set anywhere up to the maximum value
- Materials:
 - Casing: aluminium
 - Worm: treated steel
 - Wheel: bronze (cast iron hub)
- Lubrication: synthetic oil ISO VG320

Accessory

- See **CHM40**

Info

- Dimensions are the same as the **CHM** range except for the mounting flanges which may be different



OUTPUT TORQUE (IN NM, VALUES GIVEN AS A GUIDE ONLY)

Ratio	20:1	25:1	30:1	40:1	50:1	60:1	100:1
Input speed (rpm)	2800	28	27	33	30	30	27
1400	38	39	44	40	38	35	28
900	43	43	48	44	41	38	31
500	53	51	57	52	48	40	35

DISCOUNTS

Qty	1+	6+	20+	40+
Disc.	List -15%	-20%	-20%	On request

	Reduction	Mounting						Self locking	Price each
Part number	ratio	flange	ØD	ØC	ØP	ØE	output	1 to 5	
CHML40-20-71B14	20:1	71B14	14	70	85	105	No	206,76 €	
CHML40-25-63B14	25:1	63B14	11	60	75	90	No	206,76 €	
CHML40-25-63B5	25:1	63B5	11	95	115	140	No	206,76 €	
CHML40-30-63B14	30:1	63B14	11	60	75	90	No	206,76 €	
CHML40-30-63B5	30:1	63B5	11	95	115	140	No	206,76 €	
CHML40-40-63B14	40:1	63B14	11	60	75	90	No	206,76 €	
CHML40-40-63B5	40:1	63B5	11	95	115	140	No	206,76 €	
CHML40-50-63B14	50:1	63B14	11	60	75	90	Not defined	206,76 €	
CHML40-60-63B14	60:1	63B14	11	60	75	90	Not defined	206,76 €	
CHML40-100-63B14	100:1	63B14	11	60	75	90	Yes	206,76 €	

Dimensions in mm

Worm and wheel gearbox

CHML50 Integrated torque limiter (up to 107 Nm)

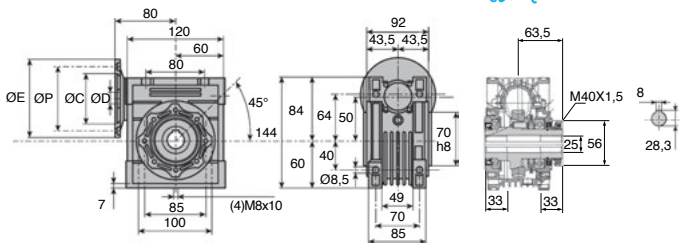
- **Protected against overload**
- Ratios from 20:1 to 100:1
- Torque limit can be set anywhere up to the maximum value
- Materials:
 - Casing: aluminium
 - Worm: treated steel
 - Wheel: bronze (cast iron hub)
- Lubrication: synthetic oil ISO VG320

Accessory

- See **CHM50**

Info

- Dimensions are the same as the **CHM** range except for the mounting flanges which may be different



OUTPUT TORQUE (IN NM, VALUES GIVEN AS A GUIDE ONLY)

Ratio		20:1	25:1	30:1	40:1	50:1	60:1	100:1
Input speed (rpm)	2800	52	51	63	58	52	49	39
	1400	72	69	83	75	72	67	54
	900	76	74	89	81	76	71	55
	500	92	90	107	97	90	82	64

DISCOUNTS

Qty	1+	6+	20+	40+
Disc.	List -15%	-20%	On request	

	Reduction	Mounting					Self locking	Price each
Part number	ratio	flange	ØD	ØC	ØP	ØE	output	1 to 5
CHML50-20-71B5	20:1	71B5	14	110	130	160	No	313,69 €
CHML50-25-71B5	25:1	71B5	14	110	130	160	No	313,69 €
CHML50-30-71B5	30:1	71B5	14	110	130	160	No	313,69 €
CHML50-40-71B5	40:1	71B5	14	110	130	160	No	313,69 €
CHML50-50-71B5	50:1	71B5	14	110	130	160	Not defined	313,69 €
CHML50-60-71B5	60:1	71B5	14	110	130	160	Not defined	313,69 €
CHML50-100-71B5	100:1	71B5	14	110	130	160	Yes	313,69 €

Dimensions in mm

Worm and wheel gearbox

Integrated torque limiter (up to 138 Nm) CHML63

- **Protected against overload**
- Ratios from 20:1 to 100:1
- Torque limit can be set anywhere up to the maximum value
- Materials:
 - Casing: aluminium
 - Worm: treated steel
 - Wheel: bronze (cast iron hub)
- Lubrication: synthetic oil ISO VG320

Accessory

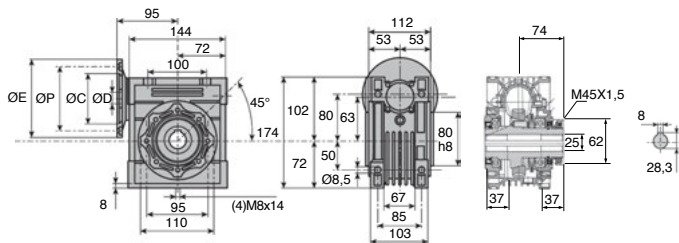
- See **CHM63**

Info

- Dimensions are the same as the **CHM** range except for the mounting flanges which may be different.



With integrated torque limiter



OUTPUT TORQUE (IN NM, VALUES GIVEN AS A GUIDE ONLY)

Ratio	20:1	25:1	30:1	40:1	50:1	60:1	100:1
Input speed (rpm)	2800	99	91	119	107	99	94
1400	134	129	159	144	134	129	117
900	147	136	174	159	144	137	123
500	177	163	198	184	172	159	127

DISCOUNTS

Qty	1+	6+	20+	40+
Disc.	List -15%	-20%	On request	

Part number	Reduction	Mounting						Self locking	Price each
	ratio	flange	ØD	ØC	ØP	ØE	output		1 to 5
CHML63-20-90B5	20:1	90B5	24	130	165	200	No		419,25 €
CHML63-25-90B5	25:1	90B5	24	130	165	200	No		419,25 €
CHML63-30-90B5	30:1	90B5	24	130	165	200	No		419,25 €
CHML63-40-80B5	40:1	80B5	19	130	165	200	No		419,25 €
CHML63-50-80B5	50:1	80B5	19	130	165	200	Not defined		419,25 €
CHML63-60-80B5	60:1	80B5	19	130	165	200	Not defined		419,25 €
CHML63-100-71B5	100:1	71B5	14	110	130	160	Yes		419,25 €

Dimensions in mm

Stainless steel worm and wheel gearbox

RFV

Power P _{1n} (kW)	Output speed (rpm)	Output torque M _{2n} (Nm)	Reduction ratio	F _{r2} (N)	Service factor F _s	Gearbox	Motor
0,18	70	19	20/1	1824	2,1	RFV40	DER63- A4-B14/SS
	56	23	25/1	1964	1,7		
	46,7	25	30/1	2087	1,8		
	35	32	40/1	2298	1,3		
	28	37	50/1	2475	1,0		
	35	33	40/1	3153	2,3	RFV50	DER63- A4-B14/SS
	28	39	50/1	3397	1,9		
	23,3	43	60/1	3610	1,6		
	17,5	52	80/1	3973	1,2		
	186,7	11	7,5/1	1315	3,6		
0,25	140	14	10/1	1447	2,8	RFV40	DER71- A4-B14/SS
	93,3	20	15/1	1657	2,0		
	70	26	20/1	1824	1,5		
	56	32	25/1	1964	1,3		
	46,7	35	30/1	2087	1,2		
	70	27	20/1	2503	2,7	RFV50	DER71- A4-B14/SS
	56	32	25/1	2696	2,2		
	46,7	36	30/1	2865	2,3		
	35	46	40/1	3153	1,7		
	28	54	50/1	3397	1,4		
	23,3	60	60/1	3610	1,1	RFV63	DER71- A4-B14/SS
	28	55	50/1	4440	2,4		
	23,3	63	60/1	4719	2,0		
	17,5	76	80/1	5193	1,6		
	14	87	100/1	5595	1,4		
0,37	186,7	16	7,5/1	1315	2,5	RFV40	DER71- B4-B14/SS
	140	21	10/1	1447	1,9		
	93,3	30	15/1	1657	1,3		
	70	39	20/1	1824	1,0		
	140	21	10/1	1987	3,4	RFV50	DER71- B4-B14/SS
	93,3	31	15/1	2274	2,4		
	70	39	20/1	2503	1,9		
	56	47	25/1	2696	1,5		
	46,7	54	30/1	2865	1,6		
	35	68	40/1	3153	1,1	RFV63	DER71- B4-B14/SS
	35	70	40/1	4122	2,1		
	28	82	50/1	4440	1,6		
	23,3	94	60/1	4719	1,4		
	17,5	113	80/1	5193	1,1		
0,55	186,7	24	7,5/1	1805	2,9	RFV50	DER80- A4-B14/SS
	140	32	10/1	1987	2,3		
	93,3	46	15/1	2274	1,6		
	70	59	20/1	2503	1,2		
	56	70	25/1	2696	1,0	RFV63	DER80- A4-B14/SS
	46,7	80	30/1	2865	1,1		
	70	60	20/1	3272	2,2		
	56	72	25/1	3524	1,8		
	46,7	82	30/1	3745	1,9		
	35	104	40/1	4122	1,4		
	28	122	50/1	4440	1,1		

Motor and gearbox selection table

RFV

Power P1n (kW)	Output speed (rpm)	Output torque M _{2n} (Nm)	Reduction Ratio	Fr ₂ (N)	Service factor Fs	Gearbox	Motor
0,75	186,7	33	7,5/1	1805	2,1	RFV50	DER80- B4-B14/SS
	140	43	10/1	1987	1,7		
	93,3	62	15/1	2274	1,2		
	93,3	63	15/1	2973	2,2		
	70	82	20/1	3272	1,6	RFV63	DER80- B4-B14/SS
	56	98	25/1	3524	1,3		
	46,7	112	30/1	3745	1,4		
	35	141	40/1	4122	1,0		
1,1	186,7	50	7,5/1	2359	2,6	RFV63	DER90- S4-B14/SS
	140	65	10/1	2597	2,0		
	93,3	92	15/1	2973	1,5		
	70	120	20/1	3272	1,1		
1,5	186,7	68	7,5/1	2359	1,9	RFV63	DER90- L4-B14/SS
	140	88	10/1	2597	1,5		
	93,3	126	15/1	2973	1,1		

RFV

Radial load

Use the following formula to calculate the radial load:

Where: Fr radial load (N)
M Shaft torque (Nm)
d₀ Diameter of the transmission element (mm)
F_z Transmission factor (see table)

$$F_r = \frac{M \cdot 2000 \cdot f_z}{d_0} [N]$$

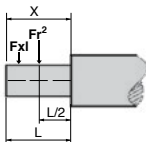
Use the following formula to calculate the maximum permissible radial load on the shaft:

Where: Fr₂ Allowable radial load (x=L/2), see table
(N) a, b are constant, see table
x distance at which load is applied (mm)

$$F_x L \leq \frac{F_{r2} \cdot a}{(b + x)} [N]$$

Transmission element	Factor F _z	Factor M _{2n} (Nm)
Gear	1,00	>=17 teeth
	1,15	<17 teeth
Chain sprocket	1,00	>=20 teeth
	1,25	<20 teeth
	1,40	<13 teeth
Belt pulley	1,75	Depends on tension
Synchronous pulley	2,50	Depends on tension

	RFV40	RFV50	RFV63
a	84	101	120
b	64	76	95
Fr ² max (N)	3490	4840	6270



Stainless steel AC asynchronous motor 0.18 kW **Sta**

DER63

Torque up to 3.49 Nm

- 3 phase asynchronous motor ideal for use in the food industry

- B14 flange
- 4 pole motor
- Speed under no load: 1,500 rpm
- Supply voltage 230/400 AC
- All surfaces smooth and polished to avoid dirt retention
- Enclosed housing, no ventilation
- Sealed terminal box
- Ingress protection IP66
- Insulation class ISO F
- Material:
Stainless steel

stainless steel



B14 flange

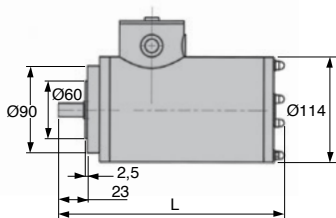
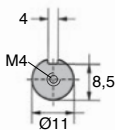
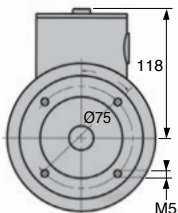
Accessory

- RFV Stainless steel gearbox to create a motorised gearbox

Option

- Motor with B5 or B3 flanges

Suitable for food industry



DISCOUNTS

Qty	1+	2+	4+
Disc.	List -5%	On request	

Part number	L	Power (kW)	Current (A)	Efficiency	Power factor	Torque				Weight (kg)	Price each
						Tn (Nm)	Ts (Nm)	Tmax (Nm)	Is (A)		
DER63-A4-B14/SS	137	0,18	0,58	66,90%	0,71	1,24	3,49	3,49	2,5	9	554,23 €

Dimensions in mm

Stainless steel AC asynchronous motor 0.25 to 0.37 kW

Torque up to 6.37 Nm

DER71

- 3 phase asynchronous motor ideal for use in the food industry

- B14 flange
- 4 pole motor
- Speed under no load: 1,500 rpm
- Supply voltage 230/400 AC
- All surfaces smooth and polished to avoid dirt retention
- Enclosed housing, no ventilation
- Sealed terminal box
- Ingress protection IP66
- Insulation class ISO F
- Material:
Stainless steel 304

Accessory

- RFV Stainless steel gearbox to create a motorised gearbox

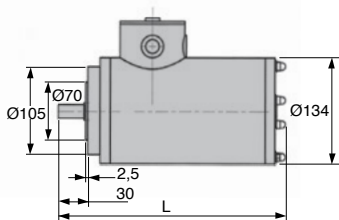
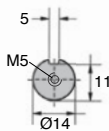
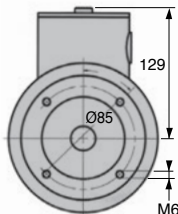
Option

- Motor with B5 flange

stainless steel

B14 flange

Suitable for food industry



DISCOUNTS

Qty	1+	2+	4+
Disc.	List -5%	List -5%	On request

Part number	L	Torque									
		Power (kW)	Current (A)	Efficiency	Power factor	T _n (Nm)	T _s (Nm)	T _{max} (Nm)	I _s (A)	Weight (kg)	Price each
DER71-A4-B14/SS	243	0,25	0,64	77,50%	0,76	1,65	3,58	3,58	3,0	12	610,55 €
DER71-B4-B14/SS	253	0,37	0,96	79,20%	0,74	2,46	6,4	6,37	5,0	13	647,09 €

Dimensions in mm

Stainless steel AC asynchronous motor 0.55 to 0.75 kW **Sta**

DER80

Torque up to 17.46 Nm

- 3 phase asynchronous motor ideal for use in the food industry

- B14 flange
- 4 pole motor
- Speed under no load: 1,500 rpm
- Supply voltage 230/400 AC
- All surfaces smooth and polished to avoid dirt retention
- Enclosed housing, no ventilation
- Sealed terminal box
- Ingress protection IP66
- Insulation class ISO F
- Material:
Stainless steel

stainless steel



B14 flange

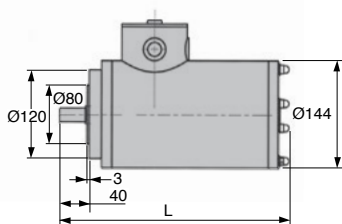
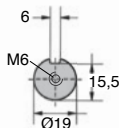
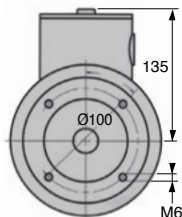
Accessory

- RFV Stainless steel gearbox to create a motorised gearbox

Option

- Motor with B5 flange

Suitable for food industry



DISCOUNTS

Qty	1+	2+	4+
Disc.	List -5%	On request	

Torque											
Part number	L	Power (kW)	Current (A)	Efficiency	Power factor	Tn (Nm)	Ts (Nm)	Tmax (Nm)	Is (A)	Weight (kg)	Price each
DER80-A4-B14/SS	308	0,55	1,33	84,20%	0,75	3,62	10,50	10,50	8,10	18,9	756,76 €
DER80-B4-B14/SS	348	0,75	1,81	85,20%	0,74	4,91	17,46	17,46	12,59	21,0	849,64 €

Dimensions in mm

Stainless steel AC asynchronous motor 1.1 to 1.5 kW

Torque up to 33 Nm

DER90

- 3 phase asynchronous motor ideal for use in the food industry

- B14 flange
- 4 pole motor
- Speed under no load: 1,500 rpm
- Supply voltage 230/400 AC
- All surfaces smooth and polished to avoid dirt retention
- Enclosed housing, no ventilation
- Sealed terminal box
- Ingress protection IP66
- Insulation class ISO F
- Material:
Stainless steel

Accessory

- RFV Stainless steel gearbox to create a motorised gearbox

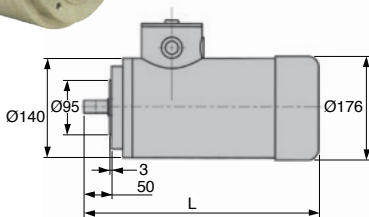
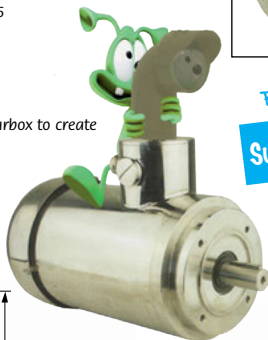
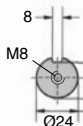
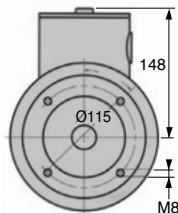
Option

- Motor with B5 flange

stainless steel

B14 flange

Suitable for food industry



DISCOUNTS

Qty	1+	2+	4+
Disc.	List -5%	On request	

Part number	L	Torque									Price each
		Power (kW)	Current (A)	Efficiency	Power factor	Tn (Nm)	Ts (Nm)	Tmax (Nm)	Is (A)	Weight (kg)	
DER90-S4-B14/SS	351	1,1	2,45	84,30%	0,81	7,35	20,08	20,08	15,20	23,9	1 203,32 €
DER90-L4-B14/SS	367	1,5	3,3	85,10%	0,81	9,93	33,00	33,00	23,50	28,9	1 274,45 €

Dimensions in mm

Stainless steel worm and wheel gearbox

RFV40

Torque up to 47 Nm

- Gearbox especially suitable for use in the food industry
- Ratios from 7.5:1 to 100:1
- B14 flange
- All surfaces smooth and polished to avoid dirt retention
- Lubricated using food quality grease
- Working temperature: -20° to +40 °C
- Material:
316 stainless steel housing

Accessories

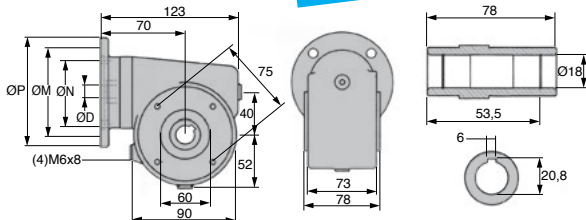
- Use with a DER 4 pole motor to create a motorised gearbox
- Torque arm, mounting feet and protective covers

Info

- All information is engraved directly on to gearbox rather than being on a tag plate to avoid accumulating dirt etc



Suitable for the food industry



FLANGE DIMENSIONS

	ØD	ØP	ØM	ØN
63B14 flange	11	90	75	60
71B14 flange	14	105	85	70

DISCOUNTS

Qty	1+	2+	4+
Disc.	List -5%	On request	

Part number	Reduction ratio	Self locking output	Price each
63B14 flange			
RFV40-7.5-63B14/SS	7.5	No	575.96 €
RFV40-10-63B14/SS	10	No	575.96 €
RFV40-15-63B14/SS	15	No	575.96 €
RFV40-20-63B14/SS	20	Not defined	575.96 €
RFV40-25-63B14/SS	25	Not defined	575.96 €
RFV40-30-63B14/SS	30	Yes	575.96 €
RFV40-40-63B14/SS	40	Yes	575.96 €
RFV40-50-63B14/SS	50	Yes	575.96 €
RFV40-60-63B14/SS	60	Yes	575.96 €
RFV40-80-63B14/SS	80	Yes	575.96 €
RFV40-100-63B14/SS	100	Yes	575.96 €
71B14 flange			
RFV40-7.5-71B14/SS	7.5	No	575.96 €
RFV40-10-71B14/SS	10	No	575.96 €
RFV40-15-71B14/SS	15	No	575.96 €
RFV40-20-71B14/SS	20	Not defined	575.96 €
RFV40-25-71B14/SS	25	Not defined	575.96 €
RFV40-30-71B14/SS	30	Yes	575.96 €
RFV40-40-71B14/SS	40	Yes	575.96 €
RFV40-50-71B14/SS	50	Yes	575.96 €
RFV40-60-71B14/SS	60	Yes	575.96 €
RFV40-80-71B14/SS	80	Yes	575.96 €
RFV40-100-71B14/SS	100	Yes	575.96 €

Dimensions in mm

Stainless steel worm and wheel gearbox

Torque up to 80 Nm

RFV50

- Gearbox especially suitable for use in the food industry

- Ratios from 7.5:1 to 100:1
- B14 flange
- All surfaces smooth and polished to avoid dirt retention
- Lubricated using food quality grease
- Working temperature: -20° to +40 °C
- Material:

316 stainless steel housing

Accessories

- Use with a **DER** 4 pole motor to create a motorised gearbox
- Torque arm, mounting feet and protective covers

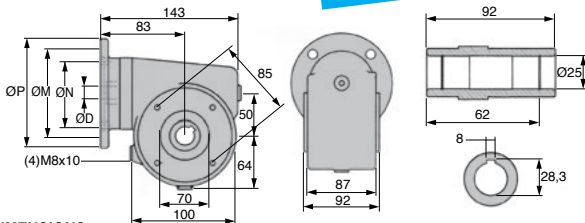
Info

- All information is engraved directly on to gearbox rather than being on a tag plate to avoid accumulating dirt etc

stainless steel



Suitable for the food industry



FLANGE DIMENSIONS

	ØD	ØP	ØM	ØN
63B14 flange	11	90	75	60
71B14 flange	14	105	85	70
80B14 flange	19	120	100	80

DISCOUNTS

Qty	1+	2+	4+
Disc.	List	-5%	On request

Part number	Reduction ratio	Self locking output	Price each
63B14 flange			
- RFV50-7.5-71B14/SS	7.5	No	615.49 €
- RFV50-10-71B14/SS	10	No	615.49 €
- RFV50-15-71B14/SS	15	No	615.49 €
- RFV50-20-71B14/SS	20	Not defined	615.49 €
- RFV50-25-71B14/SS	25	Not defined	615.49 €
- RFV50-30-71B14/SS	30	Yes	615.49 €
- RFV50-40-71B14/SS	40	Yes	615.49 €
RFV50-50-63B14/SS	50	Yes	615.49 €
RFV50-60-63B14/SS	60	Yes	615.49 €
RFV50-80-63B14/SS	80	Yes	615.49 €
RFV50-100-63B14/SS	100	Yes	615.49 €

Dimensions in mm

Stainless steel worm and wheel gearbox

RFV63

Torque up to 152 Nm

- Gearbox especially suitable for use in the food industry
- Ratios from 7.5:1 to 100:1
- B14 flange
- All surfaces smooth and polished to avoid dirt retention
- Lubricated using food quality grease
- Working temperature: -20° to +40 °C
- Material:
316 stainless steel housing

stainless steel



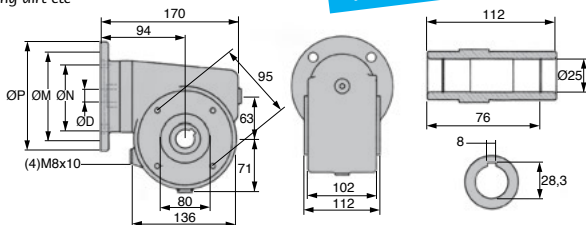
Accessories

- Use with a DER 4 pole motor to create a motorised gearbox
- Torque arm, mounting feet and protective covers

Info

- All information is engraved directly on to gearbox rather than being on a tag plate to avoid accumulating dirt etc

Suitable for the food industry



FLANGE DIMENSIONS

	ØD	ØP	ØM	ØN
71B14 flange	14	105	85	70
80B14 flange	19	120	100	80
90B14 flange	24	140	115	95

DISCOUNTS

Qty	1+	2+	4+
Disc.	List -5%	On request	

	Part number	Reduction ratio	Self locking output	Price each
71B14 flange	80B14 flange	90B14 flange		
-	RFV63-7,5-80B14/SS	RFV63-7,5-90B14/SS	7,5	No 806,16 €
-	RFV63-10-80B14/SS	RFV63-10-90B14/SS	10	No 806,16 €
-	RFV63-15-80B14/SS	RFV63-15-90B14/SS	15	No 806,16 €
-	RFV63-20-80B14/SS	RFV63-20-90B14/SS	20	Not defined 806,16 €
-	RFV63-25-80B14/SS	RFV63-25-90B14/SS	25	Not defined 806,16 €
-	RFV63-30-80B14/SS	RFV63-30-90B14/SS	30	Yes 806,16 €
RFV63-40-71B14/SS	RFV63-40-80B14/SS	RFV63-40-90B14/SS	40	Yes 806,16 €
RFV63-50-71B14/SS	RFV63-50-80B14/SS	RFV63-50-90B14/SS	50	Yes 806,16 €
RFV63-60-71B14/SS	RFV63-60-80B14/SS	-	60	Yes 806,16 €
RFV63-80-71B14/SS	RFV63-80-80B14/SS	-	80	Yes 806,16 €
RFV63-100-71B14/SS	-	-	100	Yes 806,16 €

Dimensions in mm

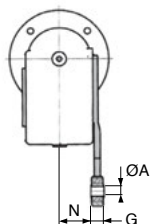
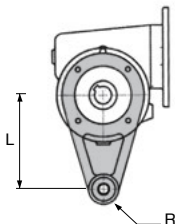
Stainless steel worm and wheel gearboxes

Torque arm

RFV_{BR}

- **Torque arm for FRV gearbox**
- Mounts on gearbox output
- Material:
316 stainless steel

Suitable for
the food industry



DISCOUNTS

Qty	1+	2+	4+
Disc.	List	-5%	On request

Part number	L	R	N	G	ØA	Price each
RFV40-BR/SS	100	18	31,5	14	10	40,50 €
RFV50-BR/SS	100	18	38,5	14	10	42,47 €
RFV63-BR/SS	150	18	49,0	14	10	44,45 €

Dimensions in mm

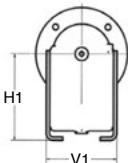
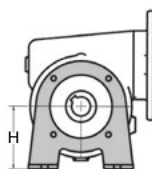
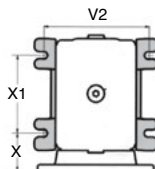
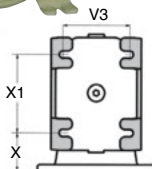
Stainless steel worm and wheel gearboxes

RFV_{FP}

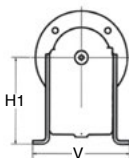
Mounting bracket

- Supports FRV gearbox
- Inward or outward facing
- Sold in pairs
- Material:
316 stainless steel

Suitable for
the food industry



Brackets facing
inwards



Brackets facing
outwards

DISCOUNTS

Qty	1+	2+	4+
Disc.	List -5%	On request	

Part number	H	H1	V	V1	X	X1	V2	V3	Price each
RFV40-FP/SS	50	90	111	83	35	70	95	60	75,08 €
RFV50-FP/SS	60	110	131	97	40	80	114	70	81,99 €
RFV63-FP/SS	72	135	156	116	45	100	137	85	99,77 €

Dimensions in mm

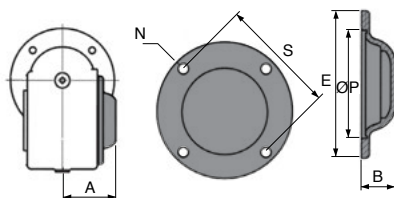
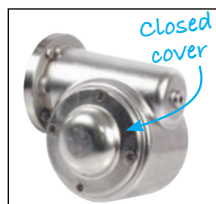
Stainless steel protective cover

RFV_{CAP}

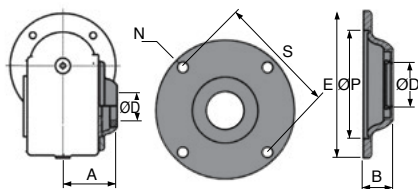
Worm and wheel gearbox

- Protective cover to prevent dirt etc from lodging in output shaft
- For full protection, use one cover on each side of the gearbox
- Material:
316 stainless steel

Suitable for
the food industry



Closed cover RFV-CAP-F



Open cover RFV-CAP-AT

DISCOUNTS

Qty	1+	2+	4+
Disc.	List -5%	On request	On request

Part number	ØE	ØP	ØD	B	A	S	N	Price each
Closed cover								
RFV40-CAP-F/SS	90	60	-	20,0	56,5	75	6,5	29,64 €
RFV50-CAP-F/SS	100	70	-	20,5	64,0	85	8,5	36,54 €
RFV63-CAP-F/SS	110	80	-	26,0	79,0	95	8,5	43,46 €
Open cover for transversal shaft								
RFV40-CAP-AT/SS	90	60	18	17,0	53,5	75	6,5	32,59 €
RFV50-CAP-AT/SS	100	70	25	17,0	60,5	85	8,5	38,52 €
RFV63-CAP-AT/SS	110	80	25	22,0	75,0	95	8,5	45,44 €

Dimensions in mm

CHM and CHMR gear gearboxes

CHM CHMR

Technical information

Maximum output load

When used with a double output shaft, the total of the combined loads should not exceed the values given in the table below

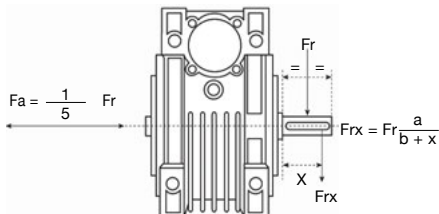
Loads are given for a speed of 10 rpm are the maximum loads that the gear reducers can accept.

- a : Gear constant
b : Gear constant
x : Load distance
from shaft shoulder (mm)

Fr_x : Radial load
in position X (N)

Fr : Radial load (N)

Fa : Axial load (N)



Maximum output load (NB Speeds given are a guide only)

Sizes	CHM30	CHM40	CHM50	CHM63	CHM75	CHM90	CHM110
400	530	1020	1400	1830	2160	2390	3530
250	620	1200	1650	2150	2520	2800	4130
150	740	1420	1960	2540	2990	3310	4890
100	850	1620	2250	2910	3430	3800	5600
60	1000	1920	2660	3450	4060	4500	6640
40	1150	2200	3050	3950	4650	5150	7600
25	1350	2570	3570	4620	5440	6020	8890
10	1830	3490	4840	6270	7380	8180	12000

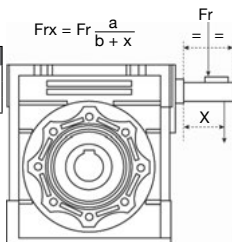
Values of gear constants

Sizes	CHM30	CHM40	CHM50	CHM63	CHM75	CHM90	CHM110
a	65	84	101	120	131	162	176
b	50	64	76	95	101	122	136

Maximum radial input loads

Values of gear constants

Sizes	CHM30	CHM40	CHM50	CHM63	CHM75	CHM90	CHM110
a	86	106	129	159	192	227	266
b	76	94	114	139	167	202	236
Fr maxi.	210	350	490	700	980	1270	1700



For the CHM110 and CHMR110

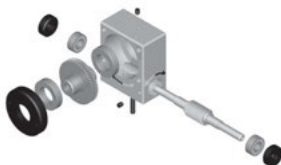
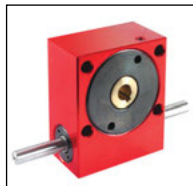
- It is the user's responsibility to fill the housing with oil before use (approx 3l).
- The oil should be changed after 300 hours of use.

Worm and wheel gear gearboxes

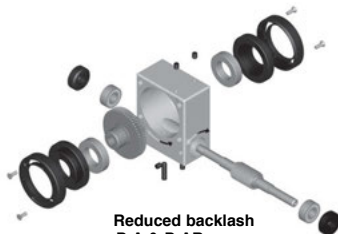
Technical information

P, P-A
P-AR

- **Ratios: From 5:1 to 120:1**
- **Materials :**
 - Housing - anodised aluminium (6082)
 - Worm - Steel (35NCD6)
 - Wheel - Aluminium bronze (CuAl10Ni5Fe4)
- Max input speed: 3,000 rpm
- Backlash(output): $\approx 0^{\circ}30'$ (P), $\approx 0^{\circ}08'$ (P-A), $\approx 0^{\circ}04'$ (P-AR)
- Lubrication: greased for life (Shell Nerita HV grease)
- Guaranty: 13 months
- Tolerances :
 - PCD $\varnothing$: -0.15 mm
 - Centres: +0.00/+0.05



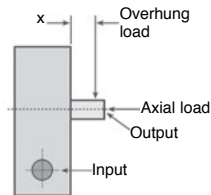
Standard P range



Reduced backlash
P-A & P-AR range

ADMISSIBLE LOADS

Part number	Distance 'X' (mm)	Output Overhung load (kg)	Axial load (kg)	Input Overhung load (kg)
P15	10	8	3	4
P20	10	12	5	6
P30	12	20	12	8
P40	15	30	20	10
P45	20	45	30	12
P55	20	60	40	14
P60	25	70	50	16
P70	30	80	60	20



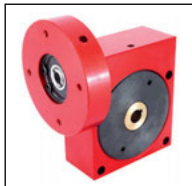
Data given based on input speed of 1000 rpm.
Values given as an indication only.

Worm and wheel gear gearboxes with input flange

PF, PF-A PF-AR

Technical information

- **Ratios: From 5:1 to 120:1**
- **Materials :**
 - Housing - anodised aluminium (6082)
 - Worm - Steel (35NCD6)
 - Wheel - Aluminium bronze (CuAl10Ni5Fe4)
- **Max input speed:** 3,000 rpm
- **Backlash(output):** $\approx 0^{\circ}30'$ (PF), $\approx 0^{\circ}08'$ (PF-A), $\approx 0^{\circ}04'$ (PF-AR)
- **Lubrication:** greased for life (Shell Nerita HV grease)
- **Guaranty:** 13 months
- **Tolerances :**
 - PCD $\varnothing$: -0.15 mm
 - Centres: +0.00/+0.05
 - for the reduced backlash versions, the wheel being eccentrically mounted, the distance between centres can vary by several tenths.



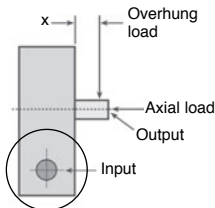
Standard PF range



Reduced backlash
PF-A & PF-AR range

ADMISSIBLE LOADS

Part number	Distance 'X' (mm)	Output Overhung load (kg)	Axial load (kg)
PF15	10	8	3
PF20	10	12	5
PF30	12	20	12
PF40	15	30	20
PF45	20	45	30
PF55	20	60	40
PF60	25	70	50
PF70	30	80	60



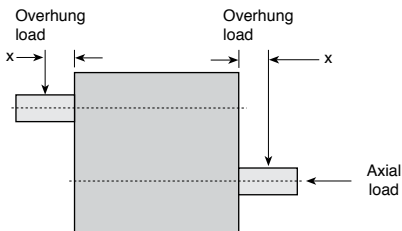
Data given based on input speed of 1000 rpm.
Values given as an indication only.

Double reduction gear gearboxes

Technical information

PP

- **Speed ratio: from 25:1 to 900:1**
- **Materials :**
 - casing 6082 anodised aluminium
 - worm steel 35NCD6
 - wheel CuAl10Ni5Fe4 aluminium bronze
- **Max. speed: 3000 rpm on input**
depending on model
- **Backlash: $\approx 2^\circ$ on output**
- **Lubrication: greased for life**
(Shell Nerita HV grease)
- **Guarantee: 13 months**
- **Tolerances :**
 - Centres: $+0.00/+0.05$
 - PCD $\varnothing$: -0.15 mm



ADMISSIBLE LOADS

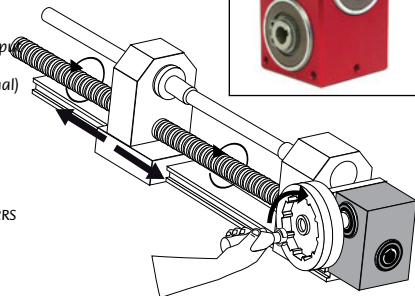
Part number	Distance 'X' (mm)	Output Overhung load (kg)	Axial load (kg)	Input Overhung load (kg)
PP35	12	12	10	6
PP50	20	30	20	10
PP60	25	45	35	15

Data given based on input speed of 1000 rpm.
Values given as an indication only.

Crossed axis gear gearboxes

E Technical information

- **Speed ratio: from 1:1 to 40:1**
- **Materials :**
casing 6082 anodised aluminium
gears in 20NCD2 case hardened
(ratio >8 : output CuAl10Ni5Fe4
aluminium bronze)
- **Max. speed: 3000 to 4000 rpm at input**
depending on model
- **Backlash(output): $\approx 1^\circ$ ($0^\circ 30'$ optional)**
- **Lubrication: greased for life**
(Shell Alvania HDX2 grease)
- **Guarantee: 13 months**
- **Tolerances :**
 - PCD $\varnothing$: -0.15 mm
 - Centres: $+0.00/+0.05$
- **Steel bearing with single ball race 2RS**



Typical application



Left handed
teeth (LH)

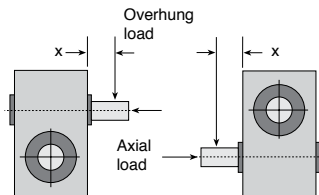


Right handed
teeth (RH)

ADMISSIBLE LOADS

Part number	Distance 'X' (mm)	Overhung load (kg)	Axial load (kg)
E15	6	15	10
E20	6	15	10
E30	10	20	15
E40	12	40	30
E50	20	60	40
E60	25	80	50
E60B	25	80	50

Data given based on input speed of 1000 rpm.
values given as an indication only.

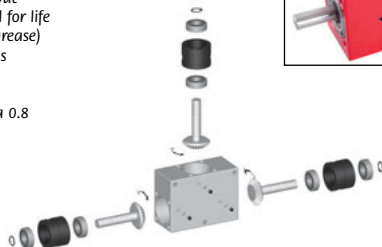
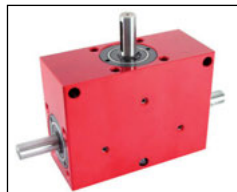


Double output bevel gearbox

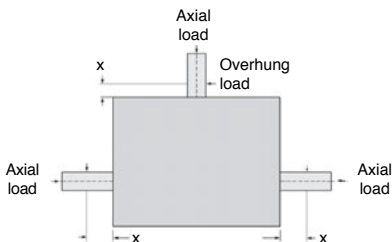
Technical information

BLHM

- **Speed ratio: from 1:1 to 2:1**
- **Materials :**
 - casing 6082 anodised aluminium
 - gears in heat treated steel (20NCD2)
- **ax. speed: 2000 to 4000 rpm on input depending on model**
- **Backlash: $\approx 1^\circ$ on output**
- **Lubrication: greased for life**
(Shell Alvania HDX2 grease)
- **Guarantee: 13 months**
- **Tolerances:**
 - PCD $\varnothing$: -0.15 mm
 - ground shafts h7, Ra 0.8



BLHM series



ADMISSIBLE LOADS

Part number	Distance 'X' (mm)	Overhung load (kg)	Axial load (kg)
BLHM20	6	4	3
BLHM30	10	8	6
BLHM40	12	12	10
BLHM50	20	20	15
BLHM60	25	30	25
BLHM70	30	40	35

Data given based on input speed of 1000 rpm.
values given as an indication only.

T and L right angle drive gearbox

**BLH, BLHT,
BL, BLHB**

Technical information

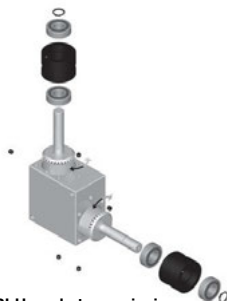
- **Speed ratio:** from 1:1 to 4:1
- **Materials :**
 - casing 6082 anodised aluminium
 - gears in heat treated steel (20NCD2)
- **Max. speed:** 2000 to 4000 rpm on input depending on model
- **Backlash:** $\approx 1^\circ$ on output
- **Lubrication:** greased for life (Shell Alvania HDX2 grease)
- **Guarantee:** 13 months
- **Tolerances :**
 - PCD $\varnothing$: -0.15 mm
 - ground shafts h7, Ra 0.8



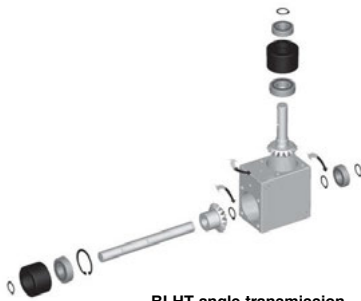
BLH range



BLHT range



BLH angle transmission

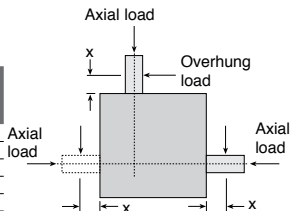


BLHT angle transmission

ADMISSIBLE LOADS

Part number		Distance 'X' (mm)	Overhung load (kg)	Axial load (kg)
BLH20	BLHT20	6	4	3
BLH30	BLHT30	10	8	6
BLH40	BLHT40	12	12	10
BLH50	BLHT50	20	20	15
BLH60	BLHT60	25	30	25
BLH70	BLHT70	30	40	35

Data given based on input speed of 1000 rpm.
values given as an indication only.

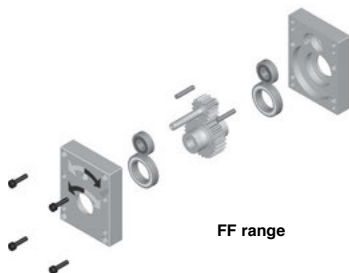
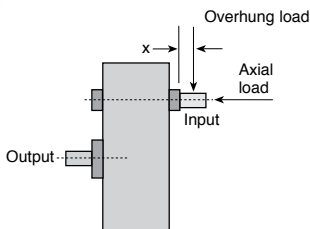


Offset spur gear gearboxes

Technical information

FF

- **Speed ratio: from 2:1 to 7:1**
- **Materials :**
 - casing anodised aluminium
 - gears in 35NCD6 steel
- Max. speed: 2000 rpm on input
- Backlash: $\approx 1^\circ$ on output
- Lubrication: greased for life
(Shell Nerita HV grease)
- Guarantee: 13 months
- Tolerances :
 - Centres: $+0.00/+0.05$
 - PCD $\varnothing$: -0.15 mm
 - ground shafts h7, Ra 0.8

**FF range**

ADMISSIBLE LOADS

Part number	Distance 'X' (mm)	Output Overhung load (kg)	Axial load (kg)	Input Overhung load (kg)
FF10	8	10	10	6
FF15	10	20	20	12
FF20	15	40	30	16
FF30	20	60	40	20
FF40	30	80	50	30
FF50	40	100	60	40

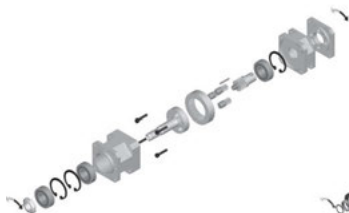
Data given based on input speed of 1000 rpm.
Values given as an indication only.

Inline spur gear gearboxes

EHD

Technical information

- **Speed ratio: from 3:1 to 36:1**
- **Materials :**
casing 6082 anodised aluminium
gears in 20NCD2 heat treated steel
- **Max. speed: 2000 to 4000 rpm on input**
depending on model
- **Backlash: $\approx 0^{\circ}30$ on output**
- **Lubrication: greased for life**
(Shell Nerita HV grease)
- **Guarantee: 13 months**
- **Tolerances :**
• Ground shafts h7, Ra 0.8



EHD 04, 06, 08, 12 range



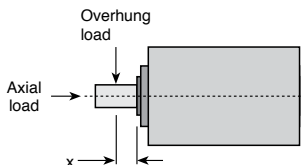
EHD16 range

ADMISSIBLE LOADS

Part number	Distance 'X' (mm)	Output	
		Overhung load (kg)	Axial load (kg)
EHD04*	10	20	15
EHD06*	10	25	15
EHD08*	12	30	20
EHD12**	20	60	60
EHD16**	30	100	100

*Ball bearings **Oblique contact bearings

Data given based on input speed of 1000 rpm.
values given as an indication only.



Spur gear coaxial gearbox

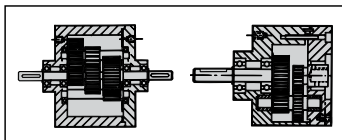
Technical information

J, XJ, NT, NH,
JHD, XJHD, K, XK, L, XL

- **Speed ratio: from 1:1 to 625:1**
- **Materials :**
Housing - anodised aluminium (6082) and black Delrin
Gears - 303 stainless steel, 35NCD 6 steel
Heat treated steel 20NCD2 depending on model
- **Max. speed: 3000 to 4000 rpm on input depending on model**
- **Lubrication: greased for life**
(Shell Nerita HV grease)
- **Guarantee: 13 months**
- **Tolerances :**
• PCD Ø: -0.15 mm



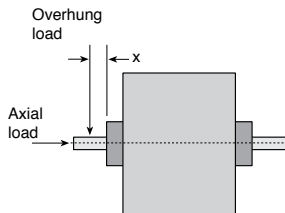
J, XJ range



ADMISSIBLE LOADS

Part number	Distance 'X' (mm)	Output	
		Overhung load (kg)	Axial load (kg)
J & XJ51-52-53	6	5	5
J & XJ64-65-66	6	5	5
K & XK64-65	8	10	8
K & XK83-84-85	8	10	8
L & XL84	10	12	10
L & XL101-102	10	12	10
L & XL115-116	10	12	10
NT & NH61-62-63	10	12	10
NT & NH91-92	15	20	15
NH & NH121-122	20	25	20

Data given based on input speed of 1000 rpm.
Values given as an indication only.



Note : Space constraints mean we are unable to include the full range of parallel train gear reducers in the catalogue. Examples of other models are:

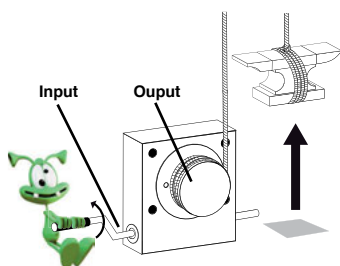
- **Type K and XK : output torque up to 5Nm**
 - **Type L and XL : output torque up to 40Nm**
- Please contact us for more details

What is anti-back drive ?

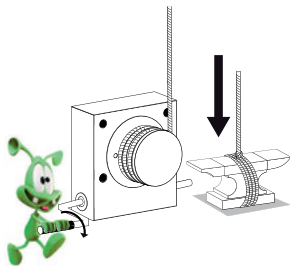
Technical information

The inputs of all of our gear reducers can turn in both directions whether they are reversible or not reversible. But what is anti back drive ?

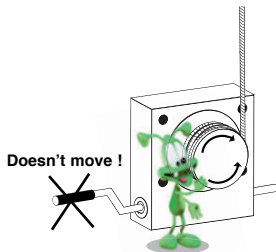
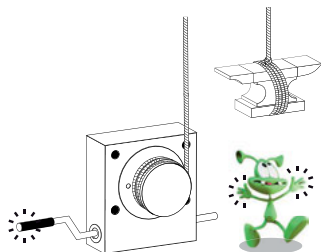
The input of an anti-back drive gear reducer can turn in both directions. In this example an anti-back drive gear reducer can be used to raise or lower a load by turning a handle.



...However, if the handle is released, the load will not move...



...If you try to turn the output of an anti-back drive gear reducer, the input shaft will not move.



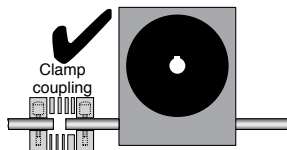
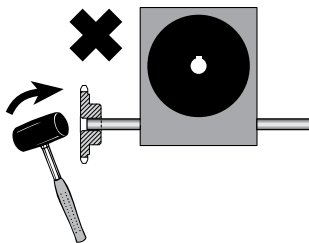
The Anti-back drive property is sometimes referred to as **self locking**



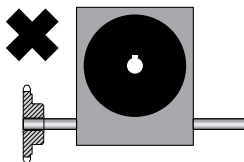
Very occasionally, the reverse efficiency of an anti-back drive gear reducer is insufficient to guarantee anti back drive and a light brake will be required on the input shaft to ensure safety.

All types of gear gearboxes

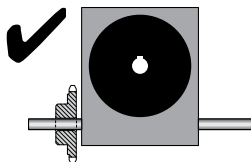
Assembly advice



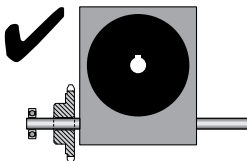
Clamp coupling avoids damage to shaft and absorbs misalignments.



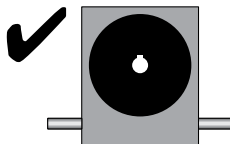
Gears mounted at the outer extremity of the input shaft can cause bending and eventual failure of the shaft.



Mounting a gear as near to the casing as possible allows the torque produced by the overhung load to be reduced, and protects the shaft from premature wear.



The addition of a bearing at the end of the shaft acts as a counter-weights to the overhung load thus avoiding damage to the shaft.



Please contact us about any modifications you may require to be made to a shaft. In that way they can be done before assembly, thus avoiding any possible damage to the gear reducer due to later re-machining.



Note: Gear reducers can be mounted in any position.
Any modifications made by the customer will void the guarantee.

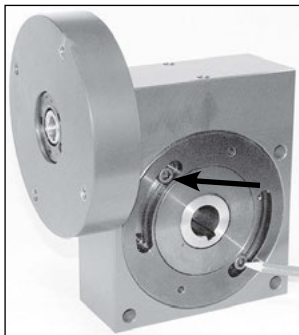
**Important :**

Adjusting the backlash yourself voids the guarantee, **please contact us.**



The wheel is covered by fixed plates on both sides, which should never move, and (smaller) eccentric cams.

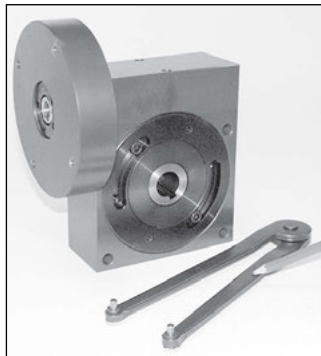
(The pointer indicates the high point of the cam).



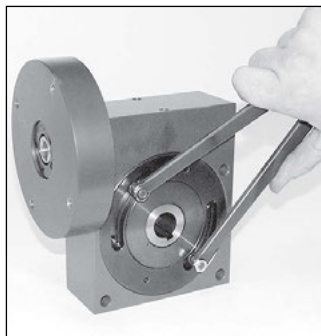
Unscrew the 2 CHC screws on both sides of the gearbox to allow the eccentric cams to rotate. To increase the backlash, move the wheel away from the screw. To reduce the backlash, move the wheel towards the screw. These adjustments should be made with small, gentle movements.

Retighten the CHC screws. Turn the wheel both ways to ensure that it doesn't stick. If it does, increase the backlash.

In the factory, the gearbox would then be taken to the test bench to measure the backlash obtained.



A pair of compasses will be required when adjusting the backlash



Do not unscrew any of the other screws to avoid damaging the gear reducer. The main plates should never be moved, irreparable damage could be caused.

Gearboxes

Technical information

Torque

- Torque figures have been calculated on the basis of a 12,000 hour working life and being 12 hours per day. For 24/24 use, multiply the original figure by 0.75.

Working temperature

- Normal working temperature range is 0°C to +70°C.
Alternative greases for use between -55°C and +155°C are available, as are bearings with sealed joints (2RS) for use up to +120°C, steel bearings without joints for use up to +150°C or stainless steel bearings for use up to +288°C when used with special high temperature grease.
- Standard grease allows use of up to +80°C in most applications. However if the speed or torque rises, the gear reducer temperature will also rise, which could cause damage.

Modifications

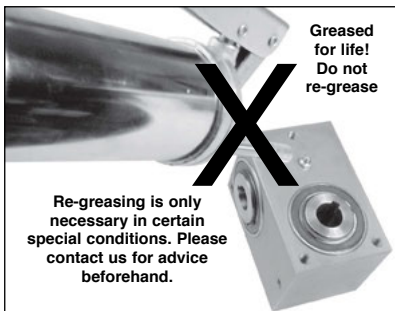
- We can modify gear reducer, adding keyways or circlip groove or modifying the shaft... Please contact us with your requirements. Any modifications that you carry out to a gear reducer modification will void the guarantee.

Usage

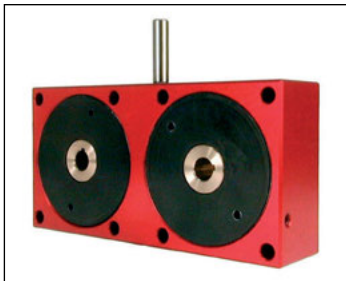
- The use of flexible coupling is recommended to connect the gearbox to the rest of the system.
- **Gear reducers are designed to reduce speed, not multiply it. Because of this, we cannot guarantee the correct operation of a gear reducer when used backwards.**
- The user must always test a gear reducer in his own application to ensure that it is suitable and produces the desired results.

Oiling

- Gear reducers are greased for life and do not require maintenance. If re-greasing, do not over-fill as this could cause gears to get stuck and over-heat the gear reducer.



Standard gearboxes



We can easily adapt our standard gearboxes to meet your specific requirements.

On request and with no minimum order, we can manufacture :

- different shaft lengths and diameters
 - other bore diameters (metric or imperial)
 - flat plates, keyways, circlip grooves...
 - addition of channelled or threaded rings
 - custom-made parts from a drawing, specification or sample.
- To find out more, contact our technical team.

Custom made gearboxes built to order

- Please send your request for a custom made gearbox to our technical department on +33 (0) 437 490 055

General terms and conditions of sale

For professional Clients

Note. This translation of the original Engrenages HPC French Terms and Conditions is offered as a guide only. In the case of any dispute, the terms and conditions in the original French document will apply.

1 - APPLICATION AND ENFORCEMENT OF THESE TERMS AND CONDITIONS OF SALE.

The act of a professional Client ("The client") placing an order with Engrenages HPC ("HPC") implies the complete and unreserved agreement by the Client to these general terms and conditions of sale, to the exclusion of any other documents such as catalogues produced by HPC, which are provided for information only and are merely intended as an indication, and regardless of any other information that may be included on the Client's order documents, the Client's terms and conditions of purchase or in any other document transmitted by the Client to HPC.

Any conditions applied by the Client will therefore by default be not accepted by HPC, regardless of when they may be brought to their attention unless they have been explicitly confirmed in writing by HPC.

Only specifications relating to custom-made parts can modify these general terms and conditions but should there be a conflict between these T+Cs and the specifications of the pieces to be manufactured, these T+Cs shall take precedence

The fact that HPC does not immediately apply any of the clauses in these terms and conditions should not be interpreted as meaning that they may not do so at a later date.

2 - ORDERS.

Orders must be placed in writing to HPC by the Client. Any order placed by telephone must be confirmed in writing by the Client within 24 hours. Without such confirmation the order will be cancelled. An order will only become definitive and the sales contract confirmed when it is accepted by HPC, this acceptance taking the form of an order confirmation sent to the Client or the delivery of the products ordered.

In case of any modification HPC may deem necessary to be made to the Client's order and confirmed in the order acknowledgment sent to the Client, the latter is assumed to have accepted the modification unless HPC is advised in writing within 24 hours of receipt.

No order with a value lower than 20 Euros (before tax) will be accepted, this includes orders passed at the trade counter at HPC's offices.

No order with a value lower than 150 Euros (before tax) will be accepted from customers outside of France (EU countries included)

3 - ORDER MODIFICATIONS

Any modification to, or cancellation of an order requested by the Client will not be taken into consideration unless it is received in writing before the goods (for standard products) are despatched or manufacture is started (of custom-made products) and acceptance of the modification has been expressly confirmed by HPC in a fax addressed to the Client within 24 hours of the request. If either of these conditions is not fulfilled, the products ordered initially will be sent and full payment will become due.

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For professional Clients

4 - PRICES

All prices mentioned in the catalogue are given excluding any taxes. Value Added Tax (VAT) at the current rate, delivery and packing charges as marked in the catalogue and any insurance to which the Client wishes to subscribe, will be added to these prices. Choice of packaging material will be made by HPC unless the Client has made a prior request.

Unless stated to the contrary, products are sold at the price applicable the day the order is placed. Prices quoted in the catalogue are those applicable on the date of publication marked on the cover of said catalogue. HPC reserves the right to modify these prices at any time.

5 - DELIVERY METHODS AND TIMES.

A - DESPATCH DATES

Items in stock on the date an order is accepted can be made available for collection or despatched within a maximum of 72 hours. For catalogue items not in stock at the time the order is accepted or for special items, an estimated despatch time will be given when the order is accepted.

Should the estimated delivery date given by HPC be exceeded by more than thirty (30) working days and except in the case of force majeure, the Client has the right to cancel the order within thirty (30) working days from the estimated delivery date by sending a registered letter.

For the purposes of the Terms and Conditions, force majeure is considered to cover, but not limited to such events as: war, riot, fire, industrial disputes, natural disasters or failure of their suppliers to deliver.

B - DELIVERY

Unless stated otherwise, delivery is carried out by the collection of the goods by Client from HPC's premises in Dardilly 69570 (France) or by delivery by means of transport chosen by HPC or the Client. Products are sold from Dardilly 69570 France (HPC premises) and are transported at the risk of the Client, the goods remaining the property of HPC until full payment is received as explained in Clause 10.

Unless otherwise agreed, goods are sold "ex-works" and transport is carried out at the Client's cost by a transport method chosen by HPC unless one has been specified by the Client.

In case of loss or damage during transit, it is the Client's responsibility to make any claims or remarks to the transporter in writing by recommended letter or other legally accepted means within 3 days of reception of the products (article L133-3 of the French Commercial Code)

HPC reserves the right to make partial deliveries from an order where necessary.

C - RECEPTION

Without prejudice to any claims for damaged goods made direct to the transport company concerned, any complaints regarding differences between the products delivered and those products ordered or identified on the delivery document, should be sent in writing to HPC within 30 days of receipt of the goods. Claims received outside of this period will not be accepted

It is the Client's responsibility to provide full proof of the existence of problems or faults with the goods supplied. He must give HPC access and means to evaluate and rectify any problems. He will not however attempt to repair any faults either directly or by intervention of a third party.

HPC's guarantee is limited to the free replacement or repair of products or components that they have agreed are faulty.

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For professional Clients

Any product for which the Client required repair or replacement under guarantee must be returned to HPC's service department whose authorisation is required before any replacement can be made. Transport costs will be charged to the Client if a claim for replacement under guarantee is found not to be applicable.

6 - METHODS OF PAYMENT.

Invoices which will be sent at the same time as goods are despatched, are payable as follows:

- On receipt
- 30 days from the end of the month of the date of the invoice or summary invoice. This method of payment is subject to acceptance by HPC and may be withdrawn at any moment without the Client's approval.
- in Euros
- by cheque, credit card, bank transfer, or promissory note, the choice of method of payment cannot change the payment due date. No discounts are made for advance payments.

7 - LATE OR NON PAYMENT

If payment is not made within the period quoted above and after receipt of a formal notice of non payment with payment not being received within 8 days, the Client will be liable for charges equivalent to an interest rate of one and a half times the prevailing legal interest rate on the sum owed as well as any costs associated with the final collection of the unpaid sum. Any claims by the Client do not exempt him from paying an invoice on or before the due date. Non or partial payments will lead to the immediate requirement for the Client to pay all sums outstanding to HPC, even if they are not yet due and whatever the intended method of payment might be.

8 - GARANTEE.

HPC guarantees the Client against faults or hidden defects that appear in the products sold under the conditions stipulated in article 1641 of the French Civil Code.

For products made to a Client's specification, HPC's responsibility is limited to manufacturing items that conform to the specifications supplied but does not guarantee their functionality or suitability for any application the Client may use them for. The Client is solely responsible for the information transmitted to HPC.

For standard products, HPC guarantees their conformity to the specifications quoted in the catalogue except where the original manufacturer has changed the technical specification. Any action to invoke HPC's responsibility and/or the implementation of the guarantee offered by HPC must be made within 30 days of receipt of the goods by the Client. Any claim under the guarantee will be limited to an amount equal to the price paid for the product. In no case can damage caused by a product marketed by HPC be a reason to any claim for damages or repair.

In the event that a product manufactured to a Client's specification infringes the rights of a third party, the Client accepts responsibility for refunding all the costs (procedure, claims, damages, lawyers' expenses, other advisors...) suffered by HPC and will actively cooperate at his own expense in the defence of the latter.

The guarantee will be considered void if products have been modified or interfered with in any way by the Client without prior written agreement from HPC or if the products have been used in any abnormal way or under unsuitable conditions taking into account their characteristics and normal

General terms and conditions of sale

For professional Clients

applicable uses and standards (in particular in the event of use or installation in any aerial or space going craft for which the products are completely unsuited)

9 - RETURNED MATERIAL.

Every returned product must be the subject of a formal written agreement between the HPC and the Client by fax, email or letter.

The choice of transport method will be made by HPC. Any product returned without this prior agreement will be stored on behalf of the Client but will not oblige HPC to provide a refund or replacement.

In any event, no product returned more than 30 days after receipt of the product by the Client will be accepted. The cost of returning a product is always the responsibility of the purchaser and the risk in the product remains with him. Any returned product must be addressed to HPC's registered office.

Once the material has been accepted by HPC for return, a Credit Note for the value of the products, valid for duration of six months will be issued. The condition and quantity of all products returned will be subject to inspection.

In the case of an obvious problem or the non-conformity of the product has been confirmed by HPC, the Client will either receive at the discretion of HPC, either replacement products or a refund, no other charges or penalties will be accepted.

10 - RETENTION OF PROPERTY

The transfer of property in any standard or custom-made part is subject to the full payment of the invoice, payment is understood to take place the day funds reach HPC's bank account.

The above provision does not stop the risk in the product passing to the Client (in particular risk of loss, deterioration, and damage caused by the shipped parts) once the parts have been handed over or dispatched by HPC.

If a Client supplies a product for modification, repair or to be used as a sample, the Client remains the owner of the original product and is responsible for the cost of their transport to and from HPC. The Client also accepts all risks related to their transport, any possible modification by HPC, and any damage that might be caused.

11 - APPLICABLE LAW - COURT OF JURISDICTION.

Sales concluded with HPC are subject to French law.

Any dispute which may arise between the two parties relating to the interpretation and/or execution and/or termination of the contract will be brought before the competent commercial courts of the jurisdiction for the registered office of HPC, even in the event of case of appeal or plurality of defendants.

Photos are non-contractual

All product information is subject to technical modifications where necessary

Part number	Volume	1	2	3	4	5	Page
203R	PERIFLEX®						78
712	handle						92 → 94 105, 113
A							
AAG, ABG	toothed bar						38, 212
AB	anti-backlash wormwheel						185
ABL	antistatic brush						184 → 187
ABM	anti-backlash gear						176 → 177
ABS	anti-backlash wormwheel						184
AC	hook						124 → 125
ACA	splined shaft						108
ACL	angle bracket						329 → 355
ACL FPA	panel mounting block						346
ACM	bonnet fastener						155 → 157
ADG, ASG	toothed bar						39, 213
ADL	eye bolt						330 → 331
ADSR	backlash free coupling						44 → 45
AF	rigid coupling						82
AFM, ASM	Igidur cylindrical polymer bush						28 → 33
AHEX	hexagonal shaft						230
AK, AKD, AKN	coupling Gerwah						54 → 57
ALI	power supply DC						261 → 263
APB, APB BOU	adjusting rod						107 → 109
APBC	circular rod						117
ARL	Plastic flexible rack						199
ARTE							268 → 269
AT	timing pulley						64 → 83
AT	toothed bar						62 → 63
AT	timing belt						84 → 86
AT-M	timing belt per metre						86
AT-P	connecting plate						87
AT-ZY	elasto mount						248 → 249
AWMP	aluminium shaft						229
AXTR	axle for tensioner pulley						129
A-ZY(ss)	cylindrical mount						252 → 255
B							
B, B/Eco	Bevel gear						132 → 133, 138 → 139
B332	reducer						225
B3PAN	Panamech Multi-Beam						31
BAB	clamping pin						24 → 39, 41
BABA	lifting pin						332 → 333
BAD NEW	brush ring						182 → 183
BAG	locking assembly						118 → 119
BAGO NEW	locking ring						115
BAG1-TR	leadscrew locking ring						309

Part number	Volume	1	2	3	4	5	Page
BAGR	adjustable shaft collar						114
BAP	clamping collar						116 → 117 74 → 75
BAN	angular clamp						22
BC	Panamech Multi-Beam						28 → 29
BCA	splined bush						109
BCH	mushroom knob						111
BCM	cylindrical brushes						167 → 171
BDP	holding arm						23 → 25
BEF, BEK	miniature leadscrew						316 → 317
BETA	spring pin						373
BFA	shaft locking washer						360
BFM	flanged nut						305, 308
BG(C)	OLDHAM coupling						34 → 35
BH	single housed bearing assembly						64 → 67
BHC	socket head button screw						428
BISF	ball transfer unit						47
BKGS	backlash free coupling						42 → 43
BL, BLH, BLHT	right bevel gearbox						174 → 197
BLHB, BLHO, BLHI	right bevel gearbox						178 → 194
BLHM	right bevel gearbox						179 → 195
BLM	spring loaded plunger						62
BLOC	doorstop						280
BOX-BETA NEW	dowel pin						348
BOX-DH, BOX-DHX	dowel pin						349 → 350
BOX-INS	self tapping insert						408 → 409
BOX-KK, BOX-KU	key						353 → 354
BOX-SAP	spring pin						352
BPM	spring plunger						63 → 65
BPMc	slotted spring plunger						66
BPTRW, BTCW	cap for tube						138 → 139
BPOM	ball transfer unit						48
BPF, BPFL, BPP	flanged bearing						48 → 50
BPTRM	end cap						140 → 141
BRI	panel holder						282
BS	Panamech Multi-Beam						26 → 27
BSB	ballscrew bearing unit						324
BSM	spring plunger						60 → 61
BSP	compact precision slide						162 → 163
BSPM	miniature leadscrew						314 → 315
BSPT	single rod clip						106
BTC	end cap						142 → 144, 272
BTE, BTE(ss)	universal tension arm						120 → 121
BTEU	ball transfer unit						49
BTEU, BTHD	ball transfer unit						45 → 46
BUC	shaft and bush splined						111 → 113

Part number	Volume	1	2	3	4	5	Page
BUH	motor gearboxes						256
BUT	panel 5 top						281
BWU	compact precision shaft	6	164				169
B-ZY(ss)	cylindrical mount						256 → 259
C							
CAB	cable						296 → 297
CAP	plate chain						60 → 63
CAR ^{NEW}	articulated coupling	6	400				403
CC, CT	collar clamp						120 → 121
CCL(ss)	wire thimble						298 → 299
CD	compression spring						180 → 191
CDR	cable for clamping pin						40
CGLc ^{NEW}	tubular structure						263
CGT ^{NEW}	tubular structure						250 → 258
CGR ^{NEW}	tubular structure						259 → 261
CF(S), CFES	cam follower	6	283				284
CFC	spring loaded						57
CFCL	cam follower						285
CFF(ss)	rod end						131, 133
CFU	cam follower						280 → 281
CHA	hinge						196 → 199, 205
CHAE	decorative hinge						201 → 204
CHAFR	adjustable friction hinge						222
CHAK	indent hinge						223
CHAL	long hinge						200
CHAM	marine hinge						206
CHA-R	hinge						214 → 221
CHC	socket head screw						420 → 425
CHM, CHMR	wormwheel						280 → 293
CHM-BR, CHM-X	arm and shaft						294 → 295
CHML	worm and wheel gearbox						296 → 299
CHM-MOT	motor-reducers AC						276 → 279, 88 → 90
CHN(ss)	straight long link chain						320 → 321
CHT	asynchronous AC motor						271 → 275
CHTRB	right bevel gearbox						232 → 235
CHTRP	right bevel gearbox						236 → 241
CLA, CLB	indexing handle						72 → 75
CLS-R/CLL-R	clevis components						230
CLG	moulded spur gear						248 → 290
CLM(ss)	clevis components						144
CLS, CLP	clevis components						142
CLL, CLLP	clevis components						143, 231
CLQ ^{NEW}	feeler strip on roll						114 → 115
CLR/CLRss ^{NEW}	straight clevis						227, 137
CLS(ss), CLP(ss)	clevis components						145

Part number	Volume	1	2	3	4	5	Page
CMA(ss)	eye screw						328 → 329
CMM(ss)	rod end						130, 132
CNA/CNG ^{NEW}	mounting plate						228, 138
COA/COG ^{NEW}	mounting plate						229, 139
CPAS	stay with safety catch						224
CR/CPE ^{NEW}	accessories for tubular structure						266 → 269
CRG	adjustment column						86 → 87, 362 → 363
CRM	imperial section rack						200
CRR ^{NEW}	rack for tubular structure						262
CSS(ss)	spherical bearing						122 → 123
CT, CTH	telescopic universal joint						94 → 95
CT-ZY	diabolo mount						250 → 251
CX, CY	circlip						358 → 359
CYT ^{NEW}	Graphit® connector						265
D							
D	springs in metre						192
DB, DB/Eco	bevel gear						134, 140
DBC	Panamech Multi-Beam						30
DBL	idler						72 → 73
DCA, DCG, DFG	suction cup						15 → 17
DER	AC asynchronous motor						302 → 305
DG	double spur gear						180 → 183
DGS	rod end						126 → 129
DH	dowel pin						368 → 369
DHX	extendable dowel pin						372
DIL, DIA, DIV	locking bolt						44 → 47
DKGS	coupling						40 → 41
DKN	coupling GERWAH®						52 → 53
D-KON, D-PAR(ss)	elasto buffer						266 → 267
DOG	motor-reducer DC						257 → 260
DOMI	adjustable slide						374 → 391
DP	dowel pin						370 → 371
DR	flexible rack						198
DSF	clutche						104 → 105
DST, DT	pinion shaft						186 → 189
DTR	chain idler sprocket						117
D-ZY(ss)	elasto buffer						260 → 263
E							
E	right angle reducer						166 → 173
EAR ^{NEW}	lock nut bearing						105
EBM	u bolt						392
ECF	well nut						247
ECL	adjusting nut						291
ECPR	high helix leadscrew						293
EDS	support bracket						111

Part number	Volume	1	2	3	4	5	Page
EFSM	Igubal® flange unit						60
EFTC	fixing support						279
EHD	coaxial reducer						204 → 209
EIM	stainless steel u bolt						393
EKGS	GERWAH® coupling						38 → 39
EKN	GERWAH® coupling						50 → 51
EMS, EML, EMR	thumb screw						107 → 108, 110
EP	spring pin						364 → 365
EP7	indicator						170 → 171
ERC, ERL, ERF	quick fitting cable						304 → 305
ERT	sliding nut						441
ESCB, ESSB	bipod						145 → 146
ESCON-4Q	speed controler 5A						266
ESST	tripod						147
ET	extension spring						194 → 203
ETP	manual handle						357
ETP	locking assembly						132 → 139
E-X, E-DX	output shaft						173
E-ZY	cylindrical buffer						264 → 265
F							
F7 NEW	multifonction display						172 → 177
FB, FB/Eco	bevel gear						136, 142
FBL	brush strip						172 → 178
FDS(Q)	flexible shaft						70 → 74
FF	reducer						198 → 203
FGWA	end support						235
FHC(ss)	countersunk screw						426 → 427
FIRST	servo amplifier						265
FR	thread inserts						396 → 399
FRT	rotary damper						236 → 239
FS	spring washer						113
FTSN	supported shaft						228
FU(ss)	nut for bearing						106 → 107
G							
G, GD	universal joint						88 → 89
G	spur gear						214 → 301
GA	gas spring						224 → 225, 228 → 229
GAL	conveyor wheel						38 → 39, 41, 76 → 79
GB	brass spur gear						224, 236, 244
GBM	nut for ballscrew						321 → 322
GBS	nut for ballscrew						319 → 320
GCA, GCT	spring pin						362 → 363
GCB	curved track						81
GDR	straight track						80
GE	toggle latch						120 → 122

Part number	Volume	1	2	3	4	5	Page
GE	spherical bushing						118 → 121
GET-AL	elastic coupling ECO. range						66 → 67
GFX	elastic coupling ECO. range						62 → 63
GG	ground spur gear						442 → 451
GGB	wing knob						96
GGP	wing knob						97
GLB	small 6 lobe female handle						98
GLP	small 6 lobe male handle						99
GLT	telescopic slide						234 → 245
GLT	miniature slide						237
GMC, GMK	guide						98, 100 → 105
GP	toggle latch						123
GPB	threaded spherical knob						104
GR	centerless ground shaft						23
GSI	gas spring						222 → 223, 226 → 227
GTC, GTC(ss)	belt tension rollers						124 → 127
H							
H, HD	needle roller uni. joint						90 → 91
H	helical gear						319 → 329
HBM	half rail guide						270
HC(ss)	set screw						434 → 435
HCV, HRV	v-rail guidance system						276 → 277
HFL	one way needle bearing						97
HG, HPG	spur gear						299 → 304
HK	manual locking clam						204 → 207
HLA, HLC	right angled gearbox						242 → 249
HLU(T)	handwheel						90 → 91
HS, HSE, HSB	spacer						376 → 377, 382
HSS	shoulder screw						412 → 413
HTD	toothed bar						14 → 15
HTD	timing pulley						16 → 24
HTS, HTT, HW	half rail guide						266 → 273
I							
IBJ	ball & socket joint						140, 232
IN	internal gear						190 → 194
INS	insert						402 → 407
J							
J, XJ	coaxial reducer						211 → 216
JCD, JCS	universal joint						92 → 93
JFM, JSM	Iglidur® cylindrical polymer						26 → 27
K							
KB, KBS, KBWW	linear bearing						239 → 241
KB-OP	linear bearing						245

Part number	Volume 1 2 3 4 5	Page	Part number	Volume 1 2 3 4 5	Page
KGS	ballscrew	318	MEB	bevel gear	146
KH	linear bearing	236	MEP	cylindrical handle	76
KIT	motorisation kit	252 → 253	MET(C)	Metafram® cylindrical bush	34 → 41
KK(ss)	keysteel	356 → 357	MF	shock absorber flange	245
KM	bearing locknut	102	MFB(S)	bellows coupling	46 → 49
KS(ss)	keysteel	355	MFB, MHB	bevel gear	148
KSM	cylindrical nut	302	MGS	support brush	42 → 43, 164 → 165
KSTM	Igubal® block bearing	62 → 63	MH, MHQ	arm with handle	78 → 80
L			MHS, MHW	coupling	32 → 33
LAC	came lever	116 → 117	MXH	sleeves	384 → 385
LAT	linear actuator	328 → 332	MLY(ss)	bow shackle	308 → 309
LB(E)	miniature linear bearing	238	MPB, MPE, MPS	spacer	378 → 381, 383
LC	clutche	102 → 103	MR(S), MMR	rack	204 → 205
LDS	security strap	442	MRA(ss)-Eco	quick link	322 → 323
LF	bearing accessories	110 → 111	MRA(ss)	quick link	324 → 325
LFM	leadscrew	294 → 295, 306	MURP	mini-profile	359 → 361
LINK	motor-reducer AC	270	N		
LPR	high helix leadscrew	292	NANO	servo amplifier	264
LOQ	manual lock	285	NAST	cam follower	278
LQT	mechanical catch	194	NCT	connector	275 → 278
LR	precision locknut	108 → 109	NDS	adjustable clamp	20 → 21
LRH	leadscrew	298	NINA, NIN	self locking nut	439
LRM	trapezoidal nut	304, 307	NJM	adjustable clamp	134
LRR	spring loaded latch	192 → 193	NK, NW	Drylin N® guiding system	208 → 211
LRX	linear roller slide	194 → 201	NKX, NKXR	combined bearing	90 → 91
LSAG	linear ball spline	154 → 157	NPCR, NPR, NSA	adjustable clamp	130 → 132
LSM	leadscrew	296 → 297	NPTF, NPTR	adjustable clamp	125 → 129
LVT	motorised actuator	334 → 341	NSB, NSO	linear bearing housing	248, 250
LWL, LWH	linear ball slide	170 → 193	NSD	straight support clamp	123
LWL25	linear ball LWL	182 → 183	NSKB	Miniature guidance	212
M			NSR	adjustable clamp	133
M	cover for uni. joint	96	NT, NH	coaxial reducer	217 → 223
M, PM	worm and wheel set	157 → 175	NTM	set screw	429 → 433
MAC(ss)	carabiner	310 → 311	NRR	adjustable support clamp	122
MAT(ss) ^{NEW}	round bar	20, 22, 24	NRV	orthogonal support clamp	121
MAX	moto-reducer DC	254 → 255	NSP	universal 90° support clamp	119
MB	stop washer	103	NSU	universal 90° support clamp	120
MBEX	hexagonal ended handle	231	O		
MBF	threaded blocking clamp	118	OP	indicators	162 → 169
MC	shock absorber	243	P		
MCL	sleeves	410	P	wormwheel reducer	148 → 162
MDB, MTB	bevel gear	147	PAL	self locking counter nut	361
MDPOT	potentiometre	267	PAM(ss)	articulated foot	285
MDR(ss)	dee shackle	306 → 307	PAP	handle for alu. profile	356
MDS	hub clamp	122			

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PAT	articulated foot	1	284	5	152	→ 153	
PAV	vibration dampening foot	1	289				
PB	plastic ball bearing	3	68	→ 69			
PBG	precision bevel gear	4	358	→ 359			
PCLA	handle	1	70	→ 71			
PCP	cell carrier assembly	5	124				
PCS(ss)	chain sprocket	4	96	→ 101			
PDD	spring plunger	1	58	→ 59			
PF	reducer	2	142	→ 161			
PFC	fixed rubber foot	1	272				
PFL	coupling P-Flex	2	58				
PFM	articulated foot	1	283				
PG	spur gear	4	214	→ 301			
PGB	accessory-holder	5	347				
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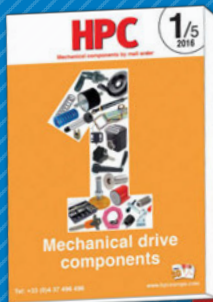


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