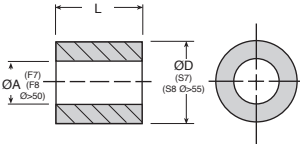
Cylindrical bush

MET — Self-lubricating sintered bronze

- ***Bronze bush***
- *Material:*
  Bronze BP25 / Sint A50/A51
- *Max. linear speed: 6m/s*
- *Working temp. from -5°C to +90°C*
- *Impregnation oil: ISO 100*



DISCOUNTS

Qty	1+	10+	25+	50+	200+
Disc.	List	-20%	-30%	-40%	On request

Part number	ØA (F7/F8)	ØD (s7/s8)	L	Stock*	Price each 1 to 9
MET2-5-2	2	5	2	-	0,81 €
MET2-5-3	2	5	3	✔	0,81 €
MET3-6-4	3	6	4	✔	0,89 €
MET3-6-10	3	6	10	✔	1,00 €
MET4-7-4	4	7	4	✔	0,94 €
MET4-7-8	4	7	8	✔	1,00 €
MET4-7-12	4	7	12	✔	1,17 €
MET4-8-4	4	8	4	✔	0,94 €
MET4-8-8	4	8	8	-	1,05 €
MET4-8-12	4	8	12	✔	1,28 €
MET5-8-5	5	8	5	✔	0,95 €
MET5-8-8	5	8	8	✔	1,05 €
MET5-8-10	5	8	10	✔	1,05 €
MET5-8-12	5	8	12	✔	1,14 €
MET5-8-16	5	8	16	✔	1,32 €
MET5-9-4	5	9	4	-	1,01 €
MET5-9-5	5	9	5	✔	1,01 €
MET5-9-8	5	9	8	✔	1,16 €
MET6-9-6	6	9	6	✔	0,98 €
MET6-9-10	6	9	10	✔	1,14 €
MET6-9-12	6	9	12	✔	1,21 €
MET6-9-16	6	9	16	✔	1,32 €
MET6-10-6	6	10	6	✔	1,05 €
MET6-10-10	6	10	10	✔	1,26 €
MET6-10-12	6	10	12	✔	1,32 €
MET6-10-16	6	10	16	✔	1,54 €

Part number	ØA (F7/F8)	ØD (s7/s8)	L	Stock*	Price each 1 to 9
MET6-12-6	6	12	6	-	1,26 €
MET6-12-10	6	12	10	✔	1,58 €
MET6-12-12	6	12	12	-	1,76 €
MET6-12-16	6	12	16	✔	1,99 €
MET7-10-5	7	10	5	-	0,98 €
MET7-10-8	7	10	8	✔	1,14 €
MET7-10-10	7	10	10	-	1,14 €
MET8-11-8	8	11	8	✔	1,20 €
MET8-11-12	8	11	12	✔	1,32 €
MET8-11-16	8	11	16	✔	1,55 €
MET8-11-20	8	11	20	✔	1,78 €
MET8-12-8	8	12	8	✔	1,32 €
MET8-12-12	8	12	12	✔	1,55 €
MET8-12-16	8	12	16	✔	1,78 €
MET8-12-20	8	12	20	✔	1,96 €
MET8-14-8	8	14	8	-	1,61 €
MET8-14-12	8	14	12	✔	1,90 €
MET8-14-16	8	14	16	✔	2,30 €
MET8-14-20	8	14	20	-	On request
MET9-12-6	9	12	6	-	On request
MET9-12-10	9	12	10	-	On request
MET9-12-14	9	12	14	-	On request
MET10-13-10	10	13	10	✔	1,32 €
MET10-13-16	10	13	16	✔	1,64 €
MET10-13-20	10	13	20	✔	1,84 €
MET10-13-25	10	13	25	✔	2,09 €

**Depending on availability - Dimensions in mm*

DISCOUNTS

Qty	1+	10+	25+	50+	200+
Disc.	List	-20%	-30%	-40%	On request

Part number	ØA (F7/F8)	ØD (s7/s8)	L	Stock*	Price each 1 to 9
MET10-14-10	10	14	10	✔	1,52 €
MET10-14-16	10	14	16	✔	1,97 €
MET10-14-20	10	14	20	✔	2,15 €
MET10-14-25	10	14	25	✔	2,42 €
MET10-15-10	10	15	10	✔	1,69 €
MET10-15-16	10	15	16	✔	2,09 €
MET10-15-20	10	15	20	✔	2,50 €
MET10-15-25	10	15	25	✔	2,99 €
MET10-16-10	10	16	10	✔	1,86 €
MET10-16-16	10	16	16	✔	2,50 €
MET10-16-20	10	16	20	✔	2,99 €
MET10-16-25	10	16	25	✔	3,63 €
MET12-15-12	12	15	12	✔	1,52 €
MET12-15-16	12	15	16	✔	1,86 €
MET12-15-20	12	15	20	✔	1,97 €
MET12-15-25	12	15	25	✔	2,20 €
MET12-16-12	12	16	12	✔	1,86 €
MET12-16-16	12	16	16	✔	2,09 €
MET12-16-20	12	16	20	✔	2,42 €
MET12-16-25	12	16	25	✔	2,83 €
MET12-17-12	12	17	12	-	2,04 €
MET12-17-16	12	17	16	✔	2,42 €
MET12-17-20	12	17	20	-	On request
MET12-17-25	12	17	25	-	On request
MET12-18-12	12	18	12	✔	2,26 €
MET12-18-16	12	18	16	✔	2,89 €
MET12-18-20	12	18	20	✔	3,52 €
MET12-18-25	12	18	25	✔	4,24 €
MET14-18-14	14	18	14	✔	2,09 €
MET14-18-18	14	18	18	✔	2,42 €
MET14-18-22	14	18	22	✔	2,89 €
MET14-18-28	14	18	28	-	On request
MET14-20-14	14	20	14	✔	2,83 €
MET14-20-18	14	20	18	-	3,52 €
MET14-20-22	14	20	22	✔	4,24 €
MET14-20-28	14	20	28	✔	5,27 €
MET15-19-16	15	19	16	✔	2,38 €
MET15-19-20	15	19	20	✔	2,77 €
MET15-19-25	15	19	25	✔	3,40 €
MET15-19-32	15	19	32	-	On request
MET15-21-16	15	21	16	✔	3,40 €
MET15-21-20	15	21	20	✔	4,09 €
MET15-21-25	15	21	25	-	5,00 €
MET15-21-32	15	21	32	✔	6,37 €
MET16-20-16	16	20	16	✔	2,50 €
MET16-20-20	16	20	20	✔	2,95 €
MET16-20-25	16	20	25	✔	3,57 €
MET16-20-32	16	20	32	✔	4,30 €
MET16-22-16	16	22	16	✔	3,63 €
MET16-22-20	16	22	20	✔	4,36 €
MET16-22-25	16	22	25	✔	5,33 €
MET16-22-32	16	22	32	✔	6,42 €
MET18-22-18	18	22	18	✔	2,95 €
MET18-22-22	18	22	22	✔	3,52 €
MET18-22-28	18	22	28	-	On request
MET18-22-36	18	22	36	-	On request
MET18-24-18	18	24	18	-	On request
MET18-24-22	18	24	22	✔	5,23 €
MET18-24-28	18	24	28	-	On request
MET18-24-36	18	24	36	-	On request
MET18-25-18	18	25	18	-	5,11 €
MET18-25-22	18	25	22	-	On request
MET18-25-28	18	25	28	-	On request
MET18-25-36	18	25	36	-	On request
MET20-24-16	20	24	16	✔	2,89 €
MET20-24-20	20	24	20	✔	3,52 €
MET20-24-25	20	24	25	✔	4,09 €
MET20-24-32	20	24	32	✔	5,33 €
MET20-25-16	20	25	16	✔	3,57 €
MET20-25-20	20	25	20	✔	4,36 €
MET20-25-25	20	25	25	✔	4,37 €
MET20-25-32	20	25	32	-	On request
MET20-26-16	20	26	16	-	4,24 €
MET20-26-20	20	26	20	✔	5,23 €
MET20-26-25	20	26	25	-	On request
MET20-26-32	20	26	32	✔	7,37 €
MET20-27-16	20	27	16	-	On request
MET20-27-20	20	27	20	-	On request
MET20-27-25	20	27	25	-	On request
MET20-27-32	20	27	32	-	On request
MET20-28-16	20	28	16	✔	5,62 €
MET20-28-20	20	28	20	✔	6,70 €
MET20-28-25	20	28	25	-	On request
MET20-28-32	20	28	32	-	On request
MET22-27-18	22	27	18	-	9,91 €
MET22-27-22	22	27	22	-	On request
MET22-27-28	22	27	28	-	6,25 €
MET22-27-36	22	27	36	-	On request

*Depending on availability - Dimensions in mm

Cylindrical bush

MET — Self-lubricating sintered bronze

- ***Bronze bush***
- *Material:*
  Bronze BP25 / Sint A50/A51
- *Max. linear speed: 6m/s*
- *Working temp. from -5°C to +90°C*
- *Impregnation oil: ISO 100*

DISCOUNTS

Qty	1+	10+	25+	50+	200+
Disc.	List	-20%	-30%	-40%	On request

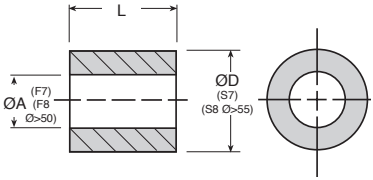
Part number	ØA (F7/F8)	ØD (s7/s8)	L	Stock*	Price each 1 to 9
MET22-28-18	22	28	18	-	On request
MET22-28-22	22	28	22	-	5,95 €
MET22-28-28	22	28	28	-	7,51 €
MET22-28-36	22	28	36	-	On request
MET22-29-18	22	29	18	-	On request
MET22-29-22	22	29	22	-	On request
MET22-29-28	22	29	28	-	On request
MET22-29-36	22	29	36	-	On request
MET25-30-20	25	30	20	✔	5,16 €
MET25-30-25	25	30	25	✔	6,30 €
MET25-30-32	25	30	32	-	On request
MET25-30-40	25	30	40	✔	9,21 €
MET25-32-20	25	32	20	✔	7,15 €
MET25-32-25	25	32	25	-	8,98 €
MET25-32-32	25	32	32	✔	10,35 €
MET25-32-40	25	32	40	✔	12,78 €
MET28-32-22	28	32	22	-	On request
MET28-32-28	28	32	28	-	On request
MET28-32-36	28	32	36	-	On request
MET28-32-45	28	32	45	-	On request
MET28-33-22	28	33	22	✔	6,13 €
MET28-33-28	28	33	28	-	7,56 €
MET28-33-36	28	33	36	-	On request
MET28-33-45	28	33	45	-	On request
MET28-36-22	28	36	22	-	9,82 €
MET28-36-28	28	36	28	-	On request
MET28-36-36	28	36	36	-	14,67 €
MET28-36-45	28	36	45	-	On request

DISCOUNTS

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

Part number	ØA (F7/F8)	ØD (s7/s8)	L	Stock*	Price each 1 to 9
MET30-38-24	30	38	24	✔	7,26 €
MET30-38-30	30	38	30	-	8,70 €
MET30-38-38	30	38	38	✔	10,83 €
MET32-38-20	32	38	20	✔	4,98 €
MET32-38-25	32	38	25	-	On request
MET32-38-32	32	38	32	-	7,58 €
MET32-38-40	32	38	40	-	9,11 €
MET32-38-50	32	38	50	-	11,64 €
MET32-40-20	32	40	20	-	6,53 €
MET32-40-25	32	40	25	-	On request
MET32-40-32	32	40	32	-	On request
MET32-40-40	32	40	40	✔	12,44 €
MET32-40-50	32	40	50	-	On request
MET35-44-22	35	44	22	-	9,46 €
MET35-44-28	35	44	28	-	On request
MET35-44-35	35	44	35	-	14,36 €
MET35-45-25	35	45	25	-	On request
MET35-45-35	35	45	35	-	On request
MET35-45-40	35	45	40	-	On request
MET35-45-50	35	45	50	-	23,38 €
MET36-42-22	36	42	22	-	On request
MET36-42-28	36	42	28	-	On request
MET36-42-36	36	42	36	✔	9,81 €
MET36-42-45	36	42	45	-	On request
MET36-45-22	36	45	22	-	On request
MET36-45-28	36	45	28	-	On request
MET36-45-36	36	45	36	-	On request
MET36-45-45	36	45	45	-	On request

**Depending on availability - Dimensions in mm*



DISCOUNTS

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

Part number	ØA (F7/F8)	ØD (s7/s8)	L	Stock*	Price each 1 to 9
MET38-44-25	38	44	25	-	On request
MET38-44-35	38	44	35	✔	10,72 €
MET38-44-45	38	44	45	-	On request
MET40-46-25	40	46	25	-	On request
MET40-46-32	40	46	32	✔	9,77 €
MET40-46-40	40	46	40	-	12,08 €
MET40-46-50	40	46	50	✔	14,89 €
MET40-50-25	40	50	25	-	On request
MET40-50-32	40	50	32	-	16,96 €
MET40-50-40	40	50	40	✔	21,41 €
MET40-50-50	40	50	50	-	On request
MET45-51-28	45	51	28	-	9,46 €
MET45-51-36	45	51	36	-	On request
MET45-51-45	45	51	45	-	15,95 €
MET45-51-56	45	51	56	-	On request
MET45-55-35	45	55	35	-	On request
MET45-55-55	45	55	55	-	On request
MET45-55-65	45	55	65	-	On request
MET45-56-28	45	56	28	-	On request
MET45-56-36	45	56	36	-	On request
MET45-56-45	45	56	45	-	On request
MET45-56-56	45	56	56	-	On request
MET50-56-32	50	56	32	-	On request
MET50-56-40	50	56	40	-	On request

DISCOUNTS

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

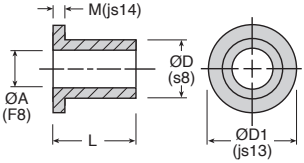
Part number	ØA (F7/F8)	ØD (s7/s8)	L	Stock*	Price each 1 to 9
MET50-56-50	50	56	50	-	On request
MET50-56-63	50	56	63	✔	26,83 €
MET50-60-32	50	60	32	-	On request
MET50-60-40	50	60	40	-	On request
MET50-60-50	50	60	50	-	40,87 €
MET50-60-63	50	60	63	-	On request
MET55-65-40	55	65	40	-	45,88 €
MET55-65-55	55	65	55	-	On request
MET55-65-70	55	65	70	-	On request
MET60-70-50	60	70	50	-	On request
MET60-70-60	60	70	60	-	On request
MET60-70-90	60	70	90	-	On request
MET60-70-120	60	70	120	-	On request
MET60-72-50	60	72	50	-	On request
MET60-72-60	60	72	60	-	On request
MET60-72-70	60	72	70	-	On request
MET60-80-90	60	80	90	-	On request
MET60-80-120	60	80	120	-	231,50 €
MET63-70-40	63	70	40	-	On request
MET63-70-50	63	70	50	-	On request
MET70-80-90	70	80	90	-	128,95 €
MET70-80-120	70	80	120	-	155,87 €
MET80-100-120	80	100	120	-	302,54 €
MET100-120-120	100	120	120	-	369,87 €

**Depending on availability - Dimensions in mm*

Cylindrical bushing

METC — Self-lubricating sintered bronze

- ***Bronze bushing***
- *Material:*
  Bronze BP25 / Sint A50/A51
- *Max. linear speed: 6m/s*
- *Working temp. from -5°C to +100°C*
- *Impregnation oil: ISO 100*



DISCOUNTS

Qty	1+	10+	25+	50+	200+
Disc.	List	-20%	-30%	-40%	On request

Part number	ØA (F8)	ØD (s8)	L	ØD1 (js13)	M (js14)		Price each 1 to 9
METC3-6-4	3	6	4	9	1,5	✔	1,18 €
METC3-6-6	3	6	6	9	1,5	✔	1,18 €
METC3-6-10	3	6	10	9	1,5	✔	1,30 €
METC4-8-4	4	8	4	12	2,0	✔	1,30 €
METC4-8-8	4	8	8	12	2,0	✔	1,40 €
METC4-8-12	4	8	12	12	2,0	✔	1,52 €
METC6-10-6	6	10	6	14	2,0	✔	1,46 €
METC6-10-10	6	10	10	14	2,0	✔	1,46 €
METC6-10-16	6	10	16	14	2,0	✔	1,75 €
METC8-12-8	8	12	8	16	2,0	✔	1,52 €
METC8-12-12	8	12	12	16	2,0	✔	1,69 €
METC8-12-16	8	12	16	16	2,0	✔	1,92 €
METC9-14-6	9	14	6	19	2,5	-	On request
METC9-14-10	9	14	10	19	2,5	-	On request
METC9-14-14	9	14	14	19	2,5	✔	2,20 €
METC10-13-10	10	13	10	16	1,5	✔	1,52 €
METC10-13-16	10	13	16	16	1,5	✔	1,81 €
METC10-13-20	10	13	20	16	1,5	✔	1,97 €
METC10-15-10	10	15	10	20	2,5	✔	2,04 €
METC10-15-16	10	15	16	20	2,5	✔	2,50 €
METC10-15-20	10	15	20	20	2,5	✔	2,89 €
METC10-16-8	10	16	8	22	3,0	✔	2,09 €
METC10-16-10	10	16	10	22	3,0	✔	2,38 €
METC10-16-16	10	16	16	22	3,0	✔	3,11 €

DISCOUNTS

Qty	1+	10+	25+	50+	200+
Disc.	List	-20%	-30%	-40%	On request

Part number	ØA (F8)	ØD (s8)	L	ØD1 (js13)	M (js14)	Stock*	Price each 1 tp 9
METC12-15-12	12	15	12	18	1,5	✔	1,75 €
METC12-15-16	12	15	16	18	1,5	✔	1,75 €
METC12-15-20	12	15	20	18	1,5	✔	2,15 €
METC12-17-12	12	17	12	22	2,5	✔	2,38 €
METC12-17-16	12	17	16	22	2,5	✔	2,83 €
METC12-17-20	12	17	20	22	2,5	✔	3,33 €
METC12-17-25	12	17	25	22	2,5	✔	3,91 €
METC12-18-8	12	18	8	24	3,0	✔	2,32 €
METC12-18-12	12	18	12	24	3,0	✔	2,89 €
METC12-18-20	12	18	20	24	3,0	✔	4,09 €
METC14-18-14	14	18	14	22	2,0	✔	2,26 €
METC14-18-18	14	18	18	22	2,0	✔	2,72 €
METC14-18-22	14	18	22	22	2,0	✔	3,17 €
METC14-20-14	14	20	14	26	3,0	✔	3,52 €
METC14-20-18	14	20	18	26	3,0	✔	4,24 €
METC14-20-22	14	20	22	26	3,0	✔	4,77 €
METC14-20-28	14	20	28	26	3,0	✔	5,80 €
METC15-19-16	15	19	16	23	2,0	✔	2,61 €
METC15-19-20	15	19	20	23	2,0	✔	3,11 €
METC15-19-25	15	19	25	23	2,0	-	On request
METC15-21-16	15	21	16	27	3,0	✔	4,09 €
METC15-21-20	15	21	20	27	3,0	-	On request
METC15-21-25	15	21	25	27	3,0	✔	5,68 €
METC15-21-32	15	21	32	27	3,0	✔	7,04 €

**Depending on availability - Dimensions in mm*

DISCOUNTS

Qty	1+	10+	25+	50+	200+
Disc.	List	-20%	-30%	-40%	On request

Part number	ØA (F8)	ØD (s8)	L	ØD1 (js13)	M (js14)	Stock*	Price each 1 to 9
METC16-20-16	16	20	16	24	2,0	✔	2,77 €
METC16-20-20	16	20	20	24	2,0	✔	3,28 €
METC16-20-25	16	20	25	24	2,0	✔	3,80 €
METC16-22-16	16	22	16	28	3,0	✔	4,36 €
METC16-22-20	16	22	20	28	3,0	✔	5,16 €
METC16-22-25	16	22	25	28	3,0	✔	5,90 €
METC16-22-32	16	22	32	28	3,0	✔	6,98 €
METC18-22-18	18	22	18	26	2,0	✔	3,28 €
METC18-22-22	18	22	22	26	2,0	-	3,86 €
METC18-22-28	18	22	28	26	2,0	-	4,53 €
METC18-24-18	18	24	18	30	3,0	✔	5,11 €
METC18-24-22	18	24	22	30	3,0	-	6,01 €
METC18-24-28	18	24	28	30	3,0	-	7,26 €
METC20-24-16	20	24	16	28	2,0	✔	3,28 €
METC20-24-20	20	24	20	28	2,0	✔	3,80 €
METC20-24-25	20	24	25	28	2,0	✔	4,47 €
METC20-26-16	20	26	16	32	3,0	✔	5,05 €
METC20-26-20	20	26	20	32	3,0	✔	5,84 €
METC20-26-25	20	26	25	32	3,0	✔	7,15 €
METC20-26-32	20	26	32	32	3,0	✔	9,21 €
METC22-27-18	22	27	18	32	2,5	✔	4,88 €
METC22-27-22	22	27	22	32	2,5	-	On request
METC22-27-28	22	27	28	32	2,5	-	On request
METC22-28-15	22	28	15	34	3,0	✔	5,00 €
METC22-28-20	22	28	20	34	3,0	✔	6,42 €
METC22-28-25	22	28	25	34	3,0	-	On request
METC22-28-30	22	28	30	34	3,0	-	On request
METC22-29-18	22	29	18	36	3,5	-	On request
METC22-29-22	22	29	22	36	3,5	-	8,40 €
METC22-29-28	22	29	28	36	3,5	-	10,23 €
METC22-29-36	22	29	36	36	3,5	-	11,77 €
METC25-30-20	25	30	20	35	2,5	✔	5,84 €
METC25-30-25	25	30	25	35	2,5	✔	6,70 €
METC25-30-32	25	30	32	35	2,5	✔	8,45 €
METC25-32-20	25	32	20	39	3,5	✔	9,25 €
METC25-32-25	25	32	25	39	3,5	-	On request
METC25-32-32	25	32	32	39	3,5	✔	11,94 €
METC28-33-22	28	33	22	38	2,5	-	6,87 €
METC28-33-28	28	33	28	38	2,5	-	On request
METC28-33-36	28	33	36	38	2,5	-	On request
METC28-36-22	28	36	22	44	4,0	-	On request
METC28-36-28	28	36	28	44	4,0	✔	13,65 €
METC28-36-36	28	36	36	44	4,0	-	16,58 €

DISCOUNTS

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

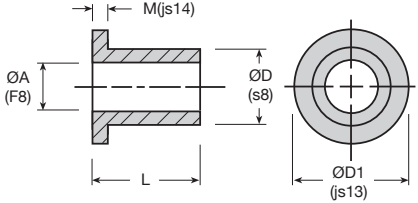
Part number	ØA (F8)	ØD (s8)	L	ØD1 (js13)	M (js14)	Stock*	Price each 1 to 9
METC30-38-20	30	38	20	46	4,0	✔	7,33 €
METC30-38-25	30	38	25	46	4,0	✔	8,87 €
METC30-38-30	30	38	30	46	4,0	✔	10,07 €
METC32-38-20	32	38	20	44	3,0	✔	6,16 €
METC32-38-25	32	38	25	44	3,0	-	7,18 €
METC32-38-32	32	38	32	44	3,0	✔	8,40 €
METC32-40-20	32	40	20	48	4,0	✔	7,93 €
METC32-40-25	32	40	25	48	4,0	-	On request
METC32-40-30	32	40	30	48	4,0	-	10,91 €
METC32-40-32	32	40	32	48	4,0	✔	11,24 €
METC36-42-22	36	42	22	48	3,0	✔	10,96 €
METC36-42-28	36	42	28	48	3,0	✔	8,87 €
METC36-42-36	36	42	36	48	3,0	-	On request
METC36-45-22	36	45	22	54	4,5	-	On request
METC36-45-28	36	45	28	54	4,5	-	On request
METC36-45-36	36	45	36	54	4,5	-	On request
METC40-46-25	40	46	25	52	3,0	✔	8,70 €
METC40-46-32	40	46	32	52	3,0	-	10,76 €
METC40-46-40	40	46	40	52	3,0	-	13,19 €
METC40-50-25	40	50	25	60	5,0	-	16,78 €
METC40-50-32	40	50	32	60	5,0	✔	20,43 €
METC40-50-40	40	50	40	60	5,0	✔	23,38 €
METC45-51-28	45	51	28	57	3,0	✔	10,63 €
METC45-51-36	45	51	36	57	3,0	-	On request
METC45-51-45	45	51	45	57	3,0	-	On request
METC45-56-28	45	56	28	67	5,5	-	On request
METC45-56-36	45	56	36	67	5,5	-	On request
METC45-56-45	45	56	45	67	5,5	-	On request
METC50-56-32	50	56	32	62	3,0	-	On request
METC50-56-40	50	56	40	62	3,0	-	On request
METC50-56-50	50	56	50	62	3,0	-	On request
METC50-60-32	50	60	32	70	5,0	✔	26,54 €
METC50-60-40	50	60	40	70	5,0	✔	41,72 €
METC50-60-50	50	60	50	70	5,0	-	On request
METC60-70-50	60	70	50	80	5,0	-	99,29 €
METC60-70-60	60	70	60	80	5,0	-	On request

*Depending on availability - Dimensions in mm

Flanged cylindrical bearing

MEFC Self-lubricating sintered ferrous alloy

- ***Ferrous alloy bearing***
- *Material:*
  Iron FP20 / Sint A10
- *Maximum linear speed: 4m/s*
- *Operating temp. from -5°C to +90°C*
- *Impregnation oil: ISO 100*



Ⓐ DISCOUNTS

Qty	1+	10+	25+
Disc.	Net	-20%	On request

Part number	ØA (F7/F8)	ØD (s7/s8)	L	ØD1 (js13)	M (js14)	Price each 1 to 9
MEFC6-10-6	6	10	6	14	2	Ⓐ 1,14 €
MEFC6-10-10	6	10	10	14	2	Ⓐ 1,21 €
MEFC6-10-16	6	10	16	14	2	Ⓐ 1,26 €
MEFC8-12-8	8	12	8	16	2	Ⓐ 1,21 €
MEFC8-12-12	8	12	12	16	2	Ⓐ 1,26 €
MEFC8-12-16	8	12	16	16	2	Ⓐ 1,36 €
MEFC10-13-10	10	13	10	16	1,5	Ⓐ 1,21 €
MEFC10-13-16	10	13	16	16	1,5	Ⓐ 1,26 €
MEFC10-15-10	10	15	10	20	2,5	Ⓐ 1,36 €
MEFC10-15-16	10	15	16	20	2,5	Ⓐ 1,54 €
MEFC10-15-20	10	15	20	20	2,5	Ⓐ 1,81 €
MEFC12-15-12	12	15	12	18	1,5	Ⓐ 1,21 €
MEFC12-15-16	12	15	16	18	1,5	Ⓐ 1,32 €
MEFC12-15-20	12	15	20	18	1,5	Ⓐ 1,36 €
MEFC12-17-12	12	17	12	22	2,5	Ⓐ 1,54 €
MEFC12-17-16	12	17	16	22	2,5	Ⓐ 1,81 €

All dimensions in mm

B DISCOUNTS

Qty	1+	10+	25+	50+	200+
Disc.	Prix	-20%	-30%	-40%	On request

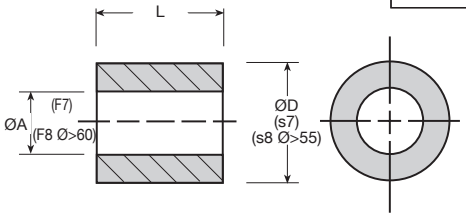
Part number	ØA (F7/F8)	ØD (s7/s8)	L	ØD1 (js13)	M (js14)		Price each 1 to 9
MEFC14-18-14	14	18	14	22	2	A	1,47 €
MEFC14-18-18	14	18	18	22	2	A	1,70 €
MEFC14-18-22	14	18	22	22	2	A	1,99 €
MEFC16-20-16	16	20	16	24	2	A	1,70 €
MEFC16-20-20	16	20	20	24	2	A	1,99 €
MEFC16-22-16	16	22	16	28	3	A	2,69 €
MEFC16-22-20	16	22	20	28	3	A	3,19 €
MEFC16-22-25	16	22	25	28	3	A	3,65 €
MEFC18-24-18	18	24	18	30	3	A	3,19 €
MEFC18-24-22	18	24	22	30	3	A	3,70 €
MEFC20-24-16	20	24	16	28	2	A	2,14 €
MEFC20-24-20	20	24	20	28	2	A	2,47 €
MEFC20-24-25	20	24	25	28	2	A	2,91 €
MEFC20-26-16	20	26	16	32	3	A	3,13 €
MEFC20-26-20	20	26	20	32	3	A	3,70 €
MEFC20-26-25	20	26	25	32	3	A	4,30 €
MEFC22-29-18	22	29	18	36	3,5	A	4,46 €
MEFC22-29-22	22	29	22	36	3,5	A	5,08 €
MEFC22-29-28	22	29	28	36	3,5	A	5,84 €
MEFC22-29-36	22	29	36	36	3,5	A	7,06 €
MEFC25-30-20	25	30	20	35	2,5	A	3,65 €
MEFC25-30-32	25	30	32	35	2,5	A	5,13 €
MEFC25-32-25	25	32	25	39	3,5	A	6,02 €
MEFC25-32-32	25	32	32	39	3,5	A	7,30 €
MEFC30-38-30	30	38	30	46	4	B	5,82 €
MEFC32-40-20	32	40	20	48	4	B	4,40 €
MEFC32-40-32	32	40	32	48	4	B	6,49 €
MEFC36-45-22	36	45	22	54	4,5	B	6,43 €
MEFC36-45-36	36	45	36	54	4,5	B	9,82 €
MEFC40-50-25	40	50	25	60	5	B	9,24 €
MEFC40-50-32	40	50	32	60	5	B	11,45 €
MEFC40-50-40	40	50	40	60	5	B	13,16 €
MEFC50-60-50	50	60	50	70	5	B	30,89 €
MEFC60-70-50	60	70	50	80	5	B	39,17 €
MEFC60-70-60	60	70	60	80	5	B	36,16 €

All dimensions in mm

Cylindrical bearing

MEF Self-lubricating sintered ferrous alloy

- ***Ferrous alloy bearing***
- *Material:*
  Iron FP20 / Sint A10
- *Maximum linear speed: 4m/s*
- *Operating temp. from -5°C to +100°C*
- *Impregnation oil: ISO 100*



DISCOUNTS

Qty	1+	10+	25+	50+	200+
Disc.	Net	-20%	-30%	-40%	On request

Part number	ØA (F7/F8)	ØD (s7/s8)	L	Price each 1 to 9
MEF3-6-4	3	6	4	0,72 €
MEF3-6-10	3	6	10	0,82 €
MEF6-9-6	6	9	6	0,77 €
MEF6-9-10	6	9	10	0,92 €
MEF6-9-12	6	9	12	0,98 €
MEF6-9-16	6	9	16	1,03 €
MEF6-10-6	6	10	6	0,82 €
MEF6-10-10	6	10	10	1,03 €
MEF6-10-16	6	10	16	1,14 €
MEF6-12-6	6	12	6	0,98 €
MEF8-11-8	8	11	8	0,88 €
MEF8-11-12	8	11	12	1,03 €
MEF8-11-16	8	11	16	1,09 €
MEF8-12-8	8	12	8	0,98 €
MEF8-12-12	8	12	12	1,14 €
MEF8-12-16	8	12	16	1,26 €
MEF8-12-20	8	12	20	1,36 €

All dimensions in mm

Part number	ØA (F7/F8)	ØD (s7/s8)	L	Price each 1 to 9
MEF10-13-10	10	13	10	1,03 €
MEF10-13-20	10	13	20	1,26 €
MEF10-13-25	10	13	25	1,42 €
MEF10-14-10	10	14	10	1,21 €
MEF10-14-16	10	14	16	1,36 €
MEF10-14-20	10	14	20	1,47 €
MEF10-15-10	10	15	10	1,21 €
MEF12-15-12	12	15	12	1,14 €
MEF12-15-16	12	15	16	1,21 €
MEF12-15-20	12	15	20	1,36 €
MEF12-16-12	12	16	12	1,26 €
MEF12-16-16	12	16	16	1,36 €
MEF12-16-20	12	16	20	1,47 €
MEF12-16-25	12	16	25	1,81 €
MEF12-17-12	12	17	12	1,42 €
MEF14-18-14	14	18	14	1,42 €
MEF14-18-18	14	18	18	1,33 €
MEF14-18-22	14	18	22	1,81 €
MEF14-20-14	14	20	14	1,87 €
MEF14-20-28	14	20	28	3,23 €
MEF15-19-16	15	19	16	1,47 €
MEF15-19-20	15	19	20	1,76 €
MEF16-20-16	16	20	16	1,54 €
MEF16-20-20	16	20	20	1,87 €
MEF16-20-25	16	20	25	2,25 €
MEF16-20-32	16	20	32	2,81 €
MEF16-22-16	16	22	16	2,25 €
MEF16-22-20	16	22	20	2,75 €
MEF16-22-25	16	22	25	3,23 €
MEF18-22-18	18	22	18	1,87 €
MEF18-22-22	18	22	22	2,25 €
MEF18-24-22	18	24	22	3,23 €
MEF20-24-16	20	24	16	1,92 €
MEF20-24-20	20	24	20	2,25 €
MEF20-24-25	20	24	25	2,64 €
MEF20-24-32	20	24	32	3,19 €
MEF20-26-16	20	26	16	2,69 €
MEF20-26-20	20	26	20	3,13 €
MEF20-26-25	20	26	25	3,86 €
MEF20-26-32	20	26	32	4,75 €
MEF22-27-18	22	27	18	2,69 €
MEF22-27-22	22	27	22	3,08 €
MEF25-30-20	25	30	20	3,13 €
MEF25-30-25	25	30	25	3,80 €
MEF25-30-32	25	30	32	4,75 €
MEF25-32-20	25	32	20	4,34 €
MEF25-32-25	25	32	25	5,29 €
MEF25-32-32	25	32	32	6,34 €

All dimensions in mm

Cylindrical bearing

MEF Self-lubricating sintered ferrous alloy

- ***Ferrous alloy bearing***
- *Material:*
  Iron FP20 / Sint A10
- *Maximum linear speed: 4m/s*
- *Operating temp. from -5°C to +90°C*
- *Impregnation oil: ISO 100*

REMISES

Qty	1+	10+	25+
Disc.	Net	-20%	On request

Part number	ØA (F7/F8)	ØD (s7/s8)	L	Price each 1 to 9
MEF30-38-24	30	38	24	3,97 €
MEF30-38-30	30	38	30	4,75 €
MEF30-38-38	30	38	38	6,00 €
MEF32-38-32	32	38	32	4,10 €
MEF35-44-22	35	44	22	5,26 €
MEF35-44-28	35	44	28	6,49 €
MEF35-44-35	35	44	35	7,62 €
MEF36-42-22	36	42	22	3,71 €
MEF40-46-25	40	46	25	4,33 €
MEF40-46-32	40	46	32	5,28 €
MEF40-46-40	40	46	40	6,40 €
MEF40-50-25	40	50	25	6,88 €
MEF40-50-32	40	50	32	8,67 €
MEF40-50-40	40	50	40	10,73 €
MEF40-50-50	40	50	50	14,31 €
MEF45-51-28	45	51	28	5,15 €
MEF45-51-45	45	51	45	8,54 €
MEF45-55-35	45	55	35	11,51 €
MEF45-56-36	45	56	36	12,73 €
MEF50-56-32	50	56	32	7,75 €
MEF50-60-50	50	60	50	29,21 €
MEF60-70-60	60	70	60	43,45 €
MEF60-70-90	60	70	90	55,89 €
MEF80-100-120	80	100	120	159,18 €
MEF100-120-120	100	120	120	200,85 €

All dimensions in mm

Bronze

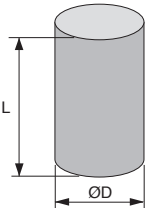
METEB

- ***Solid blanks***
- *Material:*
  Bronze BP25 / Sint A50/A51

Info.

- *Must be re-impregnated after machining*
- *Requires finishing (by customer)*

To be finished by customer



DISCOUNTS

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

Part number	L	Ø2 + 0,8/- 0,8	Price each
METEB0-30-50	50	30	40,19 €
METEB0-45-90	90	45	103,60 €
METEB0-70-120	120	70	390,76 €
METEB0-105-120	120	105	626,60 €

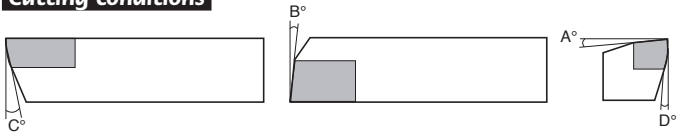
Dimensions in mm

Self-lubricating blanks METEB

Technical info – Machining recommendations

To maintain the integrity of the porosity of the friction surface, these machining recommendations should be followed:

Cutting conditions



Bronze

Angle	Blank / finish product
A	0-3°
B	5-7°
C	5-7°
D	5-7°

	Blank	Finish product
Tool grade	K10/K20	K10/K20
Cutting speed (m/min)	120-200	140-200
Feed (mm/rev)	0,1-0,2	0,1 max
Cut depth per pass (mm)	≤ 1	0,1-0,4

Iron alloy

Angle	Blank	Finition
A	3-7°	7-10°
B	5°	10°
C	5-7°	12-15°
D	5-7°	12-15°

	Blank	Finish product	
Nuance tool	K10/K20	K10	5015 (cermet)*
Cutting speed (m/min)	140	160	200-250
Feed rate (mm/rev)	0,2-0,3	0,035	0,035-0,06
Depth of cut (mm)	1-5	0,3-0,5	0,3-0,5

** In case of increased productivity*

Turning / Clamping

- To prevent any deformation, especially of the thin walls, the bores must be machined by clamping the bearing with collets or soft jaws. When machining the outside diameter, blanks should be fitted to the mandrels in a cantilever set-up or placed between lugs (mandrel taper 0.01%).

Finishing the contact surfaces

- After machining with a well-sharpened tool, it is recommended to provide an internal and external chamfer of approximately 0.5 mm at 45°.

Drilling

- For through holes, the feed should be reduced as the drill exits.
- *Sintered bronze: no special conditions apply.*
- *Sintered iron: HSS drill bit with 5% cobalt, cutting speed: 25 to 30 m/min, feed 0.1 to 0.3 mm/min.*

Tapping

- *Sintered bronze: no special conditions apply.*
- *Sintered iron: nitride-treated taps with 5% cobalt, cutting speed: 8 to 12 m/min.*

Grinding

- This should be avoided when finishing bores. Effectively, abrasive particles from grinding wheels can become embedded in imperfections in the surface and cause accelerated wear of moving parts.

Cutting oil

- When machining blanks, cutting oil is not required due to the presence of impregnation oil in the pores of the sintered metal. However, if additional cooling is required, especially when machining large quantities, it is recommended to use either an oil of the same specification as that used for impregnation, or a jet of compressed air.
  Do not use any other coolant as it may be incompatible with the original impregnation oil.

Reimpregnation after machining

- All standard blanks are delivered impregnated with mineral oils having a viscosity index greater than 95. However, in order to compensate for oil losses due to machining and handling, it is necessary to re-impregnate the blank using the following procedure:
- To eliminate any chips or dust remaining from machining operations, the part must be rapidly rinsed with a volatile solvent (Heptane or Biosane ECO 60R), and then dried.
- Depending on its weight, immerse the part for one or two hours in an oil bath at a temperature of 80°C.
- Leave the part to cool down in this bath to ensure optimum oil saturation of the pores. Preferably the oil used for the bath should have the same reference as the oil used for the original impregnation, if this is not possible, it may be replaced by SAE 30 type motor oil which is readily available.

Impregnation oils

- For shaft rotation speeds greater than 0.3 m/s, use standard impregnation oil: Shell Turbo T100 oil – Viscosity index of 100.
- For linear alternating or pendular movement speeds of less than 0.3 m/s, a special impregnation oil can be supplied on request (extreme pressure oil with molybdenum disulphide additive, etc.). Contact us for details.

Checking surface porosity

- It is assumed that, in practice, any machining work will result in a small decrease in surface porosity which will have little effect on the performance of self-lubricating materials on condition that the above machining recommendations have been respected. The residual porosity after machining will be checked in the following manner:
- Either by a comparative examination (preferably using a magnifying glass) of the machined surface and a non-machined surface,
- Or by raising the temperature of the machined part by approximately thirty degrees (using a heating plate, radiator, naked flame).
- Given the significant difference between the expansion coefficients of the sintered metal and the impregnation oil, this temperature rise causes the oil to ooze out. A uniform surface film of oil is formed and indicates that the self-lubricating qualities of the material are preserved.

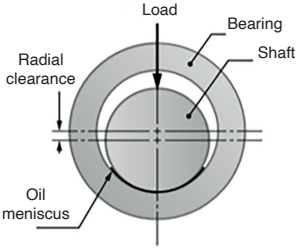
Cylindrical bearing

MET MEF

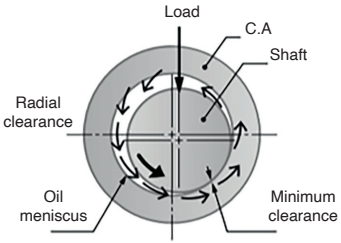
How to choose a self-lubricating bearing

- **Functional part of a bearing, the self-lubricating bush reduces friction between two shafts, one fixed, the other moveable.**
  It is made up of two components:
- A porous metallic frame whose function is to support and transmit the mechanical load
- A lubricant, either liquid or solid which acts as an interface between two moving surfaces and reduces frictional forces.

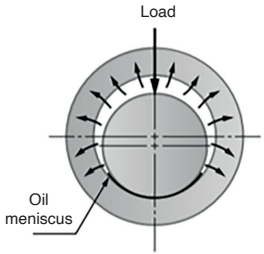
Which type to choose?



Stationary position
The oil is constrained within the self-lubricating bearing due to the action of capillarity forces.



During operation
The shaft rotates and an oil film is created that reduces friction.



After operation
The shaft has stopped and the oil is re-absorbed into the bearing due to capillary action.

Products in self-lubrificating sintered bronze

Products in self-lubrificating sintered iron

Bronze	Iron alloy
Good coefficient of friction	Recommended for medium to low speeds
Good corrosion resistance	Good resistance to bearing wear
Recommended for high speeds	Recommended for high loads
Shaft surface finish Ra ≤ 0.6	Shaft surface finish Ra ≤ 0.3
Shaft hardness ≥ 80kg/mm2	Shaft hardness ≥ 120kg/mm2

Standard grades	Bronze	Iron alloy
DIN 30910 equivalent	Sint A50	Sint A10
AFNOR equivalent	FU-E10-62	FC10-U3-56
Metafram equivalent	BP25	FP20
Min. density (g/cm^3)	6,5	5,8
Max. static load (daN/cm^2)	100	225
Max. linear speed (m/s)	6	4
Max. PV (daN/cm^2 x m/s)	18	13
Temperature range (°C)	-5 / +90	-5 / +90
Impregnation oil	ISO 100	ISO 100
Min. open porosity (%)	18 - 23	18 - 23
Hardness (HB)	25	25
Tensile strength (N/mm^2)	80	70
Elongation (%)	2	3

Self lubricating bushes

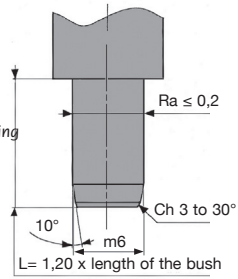
Assembly instructions

Using a mandrel

(Hardened carbon steel, polished finish, surface hardness 60RC)

tolerance Ø **m6**

Fit the bush using a press ensuring that the correct diameter mandrel is used so that:
- the bushing is inserted correctly so as to ensure correct seating
- the tolerances of the bore are still correct after fitting



Inserting force

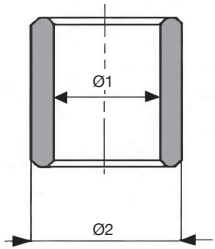
- Values are given assuming the tolerances are as follows ; mandrel **m6**, bore **H7** with Ra≤**3,2** and considered to be rigid* : **100daN/cm**² (equivalent surface area at Øcm from exterior of bushing)

*What do we mean by rigid? It is a bore or hole in steel (or possibly cast iron) where the wall thickness is a least 3 times the diameter of the bushing

Bush before assembly

- Ø1 interior **F7/G7**

- Ø2 outside **r7/s7**

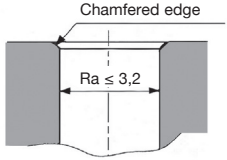


Steel housing

(in rigid material)

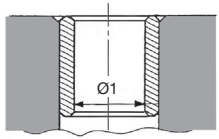
Tolerance ø **H7**

- *The tightness between the bush and the hole and the final tolerances of the bore of the bush have been calculated for a rigid steel housing.*
- *For all other types of support (non rigid or other materials), the tightness may vary and practical tests should be carried out to confirm the bore tolerances.*



Bush after press fitting

- *Ø interior – Ø1 bush* **H7**

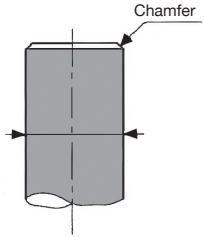


Shaft to be used

- *Mechanical properties of steel depending on the type of bush*
- *For a* ***sintered bronze*** *bush*
- *Steel with a minimum hardness of 80 kg/mm²*
- *Ra ≤* **0.6**

tolerance ø **f7**

- *Where bushes are fitted without additional support (Overmolding or gluing), use an h7 toleranced shaft rather than f7.*



Operating clearances

- *Running fit* **H7/f7**
- *Assembly instructions should be followed to endure the correct operation of the self lubricating bush (lubricating, wear, rubbing).*