



## Présentation



The UtiliTrak ® linear auide system is designed for applications where low cost, easy installation and minimal maintenance requirements are the primary design objectives.



Designed primarily for transport type applications, UtiliTrak® is intended for use where load capacity, stiffness, and positional accuracy are less demanding than machine tool applications. UtiliTrak® offers a low cost alternative to recirculating ball quide technologies, which often require a considerable amount of surface preparation, adding significantly to the total installed cost.

UTK- SW: Hardened and ground steel channel with precision steel wheels.

UTK- PW: Aluminium alloy channel with polymer over-moulded wheels

### Features and benefits

- Frictionless operation
- Low noise
- Smooth running - High speed capacity
- Unlimited travel lengths
- High load capacity

# - Resistant to contamination by dust

# Open channel V rail

# Load Capacity

- The load capacity ratings in this guide Mounting on open or V rail are based on 100km of service life. As with any linear bearing technology, the choice of the size of the UtiliTrak® track should be done conservatively. If the guide selection is such that load capacities are marginal, it may be appropriate to consider the next larger size.

#### Lubrication

- The recirculating elements within DualVee ® quide wheels are lubricated for life and sealed against the operating environment. The contact surfaces between the wheel and channel do however require lubrication to maximize the life and speed of the quide. All UtiliTrak ® carriages come complete with lubricators, consisting of an oil saturated felt pad within a housing. Lubricators should be periodically checked and re-oiled to ensure that a sufficient coating of lubricant is maintained on the channel guideway surfaces.









# 

# **Aluminium**

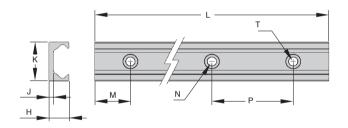
#### - Used with UTK-PW Series V wheel carriage assemblies

- U shaped aluminium allov (6063-T6) channel
- Lightweight
- Tolerance on length +/-2mm

## Option

- Increased length, max 3600mm





### DISCOUNTS

Qty	1+	2+	4+
Disc.	List	-10%	On request

Part number	н	J	K	L	М	N Ø x depth (counterbore)	T (Ø hole)	P	Rail weight (kg/m)	Carriage weight (g)		Price each
UTK0-PWR	11,0	4,0	20	1000	20	8,3 x 3	4,8	80	0,30	46	-	100,47€
UTK1-PWR	15,0	4,0	26	1000	20	9,8 x 2,8	5,8	80	0,50	92	~	109,53 €
UTK2-PWR	19.7	4.5	40	1000	20	14.3 x 3	8.8	80	0.93	243	~	159.98 €

\*Depending of avaibility - Dimensions in mm

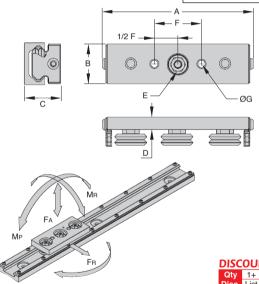




# 

- V style carriage assembly for UTK-PWR aluminium channel
- Light to medium duty transport applications
- Extremely low noise
- Liahtweight and economical





### **DISCOUNTS**

Qty	1+	2+	4+
Disc.	List	-10%	On request

					E				Loa	id ca	paci	ty			
					Socket			Radial	Axial	MР	My	MR		0114	Price
Part number	Α	В	С	D	size	F	ØG	FR (N)	FA (N)	(Nm)	(Nm)	(Nm)	С	STOCK	each
UTK0-PWC	79,9	18	22,0	7,9	8	22	M4x0,7	55	88	3	1,5	1	130	-	181,46€
UTK1-PWC	113,5	24	26,3	8,8	10	40	M6x1	110	155	8	3,0	2	200	~	148,51 €
UTK2-PWC	144,2	38	35,0	11,8	13	45	M8x1,25	165	311	18	8,0	4	350	V	168,31 €

<sup>\*</sup>Depending of avaibility - Dimensions in mm





# V shaped channel UtiliTrak®



# UTKPWRR FEECO

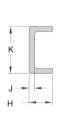
## Aluminium

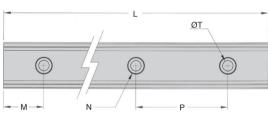
#### - For use with UTK-PWCR roller carriages

- V shaped channel made from aluminium 6063-T6
- Lightweight
- Length may vary +/- 2mm

- Max rail length : 3600mm







## **DISCOUNTS**

Qty	1+	2+	4+
Disc.	List	-10%	On request
	D 11	•	

						Dia x depth			Rail weight	Carriage weight	
Part number	H	J	K	L	М	(counterbore)	(Ø hole)	P	(kg/m)	(g)	Price each
UTK0-PWRR 1	1,0	4,0	20	1000	20	8,3 x 3	4,8	80	0,29	47	100,71 €
UTK1-PWRR 1	5,0	4,0	26	1000	20	9,8 x 2,8	5,8	80	0,43	94	109,79 €
UTK2-PWRR 1	9,7	4,5	40	1000	20	14,3 x 3	8,8	80	0,80	246	160,32 €
Dimensions in mr	n										





## roller

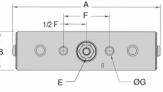
# HEPCO

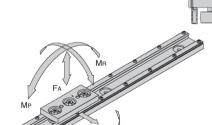
# **UTK**PWCR

- Cam follower style carriage for use with UTK-PWRR aluminium channel
- Intended for radial loads only
- Reduced noise
- Light and economic









DISC	UU	N 1 2	
Qty	1+	2+	4+
Disc.	List	-10%	On request

					E			Adn	nissib	le lo	ad			
					allen			Radial	Axial	Mp	My	MR		Price
Part number	Α	В	С	D	key	F	ØG	FR (N)	FA (N)	(Nm)	(Nm)	(Nm)	С	each
UTK0-PWCR	79,9	18	22,0-23,1	7,9	8	22	M4x0,7	55	0	0	1,5	0	130	181,96 €
UTK1-PWCR	113,5	24	25,3-27,6	8,8	10	40	M6x1	110	0	0	3,0	0	200	154,25 €
UTK2-PWCR	144,2	38	34,7-37,4	11,8	13	45	M8x1,25	165	0	0	8,0	0	350	168,72€

Dimensions in mm









# UTKswr TEECCO

#### - Used with UTK-SWC Series V wheel carriage assemblies

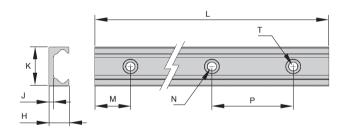
- Carbon bearing steel with hardened steel raceways
- Running surface smooth to Ra 0.8µm
- Tolerance on length +/-2mm

# Option

- Increased length, max 3600mm



Steel



# DISCOUNTS

Qty	1+	2+	4+
Disc.	List	-10%	On request

						N			Rail	Carriage		
						Ø x depth			weight	weight	Sto	Price
Part number	Н		K	L	M	(counterbore)	(Ø hole)	P	(kg/m)	(g)	5100	ck* each
UTK1-SWR	15,0	4,0	26	1000	20	9,8 x 2,8	5,8	80	1,46	114	V	265,96 €
UTK2-SWR	19,7	4,5	40	1000	20	14,3 x 3	8,8	80	2,70	330	-	340,52 €
UTK3-SWR	30,0	8,0	58	1000	20	14,3 x 5	8,8	80	5,91	943	-	504,66 €

\*Depending of avaibility - Dimensions in mm





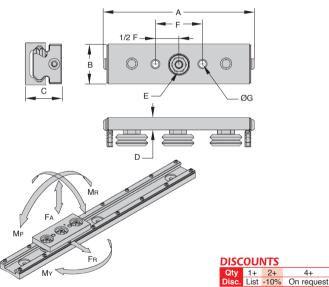




Precision steel wheels THERE UTKSWC

- Used with UTK-SWR Series V wheel carriage assemblies
- Suitable for medium/heavy loads
- Suitable for high speeds
- Smooth frictionless operation





					Е			Load capacity							
					Socket			Radial	Axial	Mp	My	MR		0	Price
Part number	Α	В	С	D	size	F	ØG	FR (N)	FA(N)	(Nm)	(Nm)	(Nm)	C	Stock*	each
UTK1-SWC	113,5	24	26,3	8,8	10	40	M6x1	2440	719	18	30,5	7,0	5600	~	200,11 €
UTK2-SWC	144,2	38	35,0	11,8	13	45	M8x1,25	5300	1475	58	100,0	22,7	10200	-	243,27 €
UTK3-SWC								11800	5100	229	346,0	118,0	21600	-	309,32 €

\*Depending of avaibility - Dimensions in mm





# V shaped channel UtiliTrak®



Steel



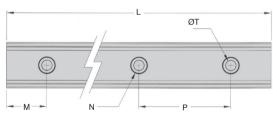
UTKSWRR HERCO

- For use with STK-PWCR roller carriages
- Carbon bearing steel with hardened steel raceways
- Smoothness Ra 0.8µm
- Length may vary +/- 2mm

- Max rail length : 3600mm







### **DISCOUNTS**

Qty	1+	2+	4+
Disc.	List	-10%	On request

						Dia			Rail	Slide	
						x depth	T		weight	weight	
Part number	Н	J	K	L	M	(counterbore)	(Ø hole)	Р	(kg/m)	(g)	Price each
UTK1-SWRR	15,0	4,0	26	1000	20	9,8 x 2,8	5,8	80	1,33	121	266,56 €
UTK2-SWRR	19,7	4,5	40	1000	20	14,3 x 3	8,8	80	2,47	320	341,29 €
UTK3-SWRR	30,0	8,0	58	1000	20	14,3 x 5	8,8	80	5,36	910	505,79€

Dimensions in mm





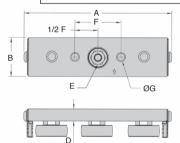
HEPCO

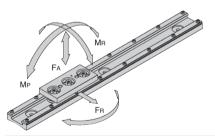
Steel cam follower

- Cam follower style carriage for use with UTK-SWRR steel channel
- Intended for radial loads only
- Suitable for higher speeds
- Smooth friction free operation









### DISCOUNTS

טוטכ	UU	413	
Qty	1+	2+	4+
Disc.	List	-10%	On request

				E					Admissible load					
					Allen			Radial	Axial	Mp	My	MR		Price
Part number	Α	В	С	D	key	F	ØG	Fr (N)	FA(N)	(Nm)	(Nm)	(Nm)	С	each
UTK1-SWCR	113,5	24	25,3-27,6	8,8	10	40	M6x1	2440	0	0	30,5	0	5600	192,58 €
UTK2-SWCR	144,2	38	34,7-37,4	11,8	13	45	M8x1,25	5300	0	0	100,0	0	10200	248,03€
UTK3-SWCR	201,3	55	46,3-53,4	15,8	15	60	M10x1,5	11800	0	0	346,0	0	21600	309,32€

Dimensions in mm





# Utilitrak® linear auides

## Presentation



## Accuracy

- The accuracy of the UtiliTrak® system is defined differently than typical recirculating ball quides. These are designed primarily for "high end" positioning applications, such as machine tool auideways. Cartesian coordinate robotics and precision XY inspection equipment. These quides are more rigidly defined in terms of the running parallelism of carriages to rail, and are measured as a function of rail lenath. Their higher cost can be attributed to the grinding and finishing operations necessary to achieve these tight tolerances.
- UtiliTrak®, in contrast, has been developed for "lower end" transport applications. The definition of accuracy in this class of quide is independent of channel length, and is measured solely by the parallelism maintained between the critical channel surfaces, this does not vary by more than 0.05 mm over the entire length of the channel. As with any linear guide, installed accuracy is directly related to the straightness and flatness of the surface to which it is mounted. Because the auide will conform to the mounting surface, it is important for that surface to be more rigid than the UtiliTrak® channel.

### Life expectancy

The sum of the applied loads divided by system load capacity should be less than or

The applied force on the system is equivalent to:

$$F = F_{\mathsf{R}(\mathsf{MAX})} * L_{\mathsf{F}}$$

Knowing the equivalent applied load. the system life can now be calculated:

$$L_{km} = 100 * \left( \frac{C}{F} * \frac{1}{f_c} \right)^3$$

\_km = System life in kilometres

C = System dynamic load rating
F = Equivalent load

# Correction factor table

Environmental factor	Correction value fc
No shock or vibration, clean working environment, speed <1m/s	1,46
Light shocks or vibration, speed between 1m/s to 2m/s	1,85
Shocks, vibrations, harsh environment, speed >2m/s	3



# Our other products



Rotex®, jaw coupling, cast iron



Idler for slat top chain, Range 805



Anti-vibration machine mount, Oval base plate



Suction cup, 2.5 bellows, natural rubber



Closed linear precision bearing, Precision - steel



Crossed helical gear crossed axis at 90°, Steel 20NCD2



Cam follower, Standard - steel



Assembly key for aluminium profile, Assembly key



Worm - precision range, Steel



Worm and wheel set, Machined plastic (delrin)



Right angled bracket for aluminium profile, 4 holes



Invisible hinge, Invisible - Opening up to 90°

# Complementary products



Utilitak® V rail, V rail