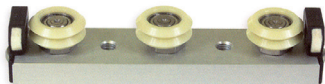


The Utilitrak® linear guide system is designed for applications where low cost, easy installation and minimal maintenance requirements are the primary design objectives.



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 guide 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

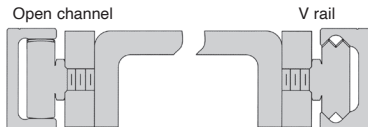
- Frictionless operation
- Low noise
- Smooth running
- High speed capacity
- Unlimited travel lengths
- High load capacity
- Resistant to contamination by dust

### Load Capacity

- The load capacity ratings in this guide 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® guide 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 guide. 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.

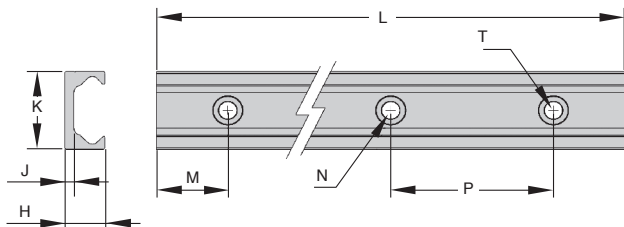


Mounting on open or V rail

- Used with UTK-PW Series V wheel carriage assemblies
- U shaped aluminium alloy (6063-T6) channel
- Lightweight
- Tolerance on length +/-2mm

### Option

- Increased length, max 3600mm



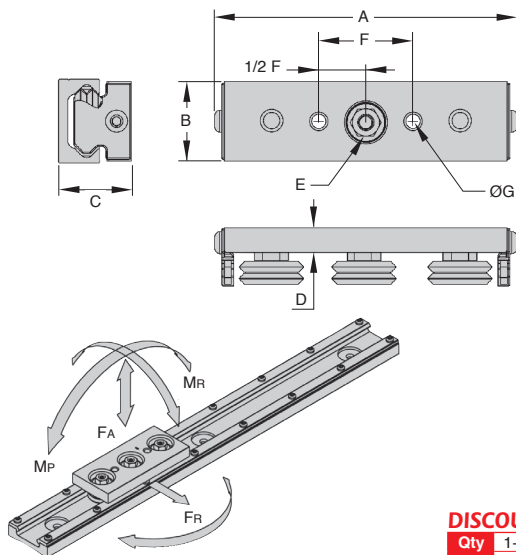
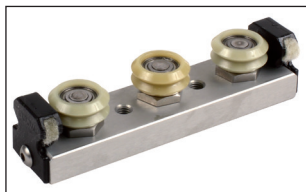
### DISCOUNTS

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

| Part number | H    | J   | K  | L    | M  | N<br>Ø x depth<br>(counterbore) | T<br>(Ø hole) | P  | Rail<br>weight<br>(kg/m) | Carriage<br>weight<br>(g) | Price each |            |
|-------------|------|-----|----|------|----|---------------------------------|---------------|----|--------------------------|---------------------------|------------|------------|
|             |      |     |    |      |    |                                 |               |    |                          |                           | Stock*     | 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 availability - Dimensions in mm

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



### DISCOUNTS

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

| Part number | E     |    |      |      | Load capacity |    |         |        |        |         |         |         |     |        | Price each |
|-------------|-------|----|------|------|---------------|----|---------|--------|--------|---------|---------|---------|-----|--------|------------|
|             | A     | B  | C    | D    | Socket size   | F  | ØG      | Fr (N) | FA (N) | Mp (Nm) | My (Nm) | Mr (Nm) | C   | Stock* |            |
| 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 | ✓      | 168,31 €   |

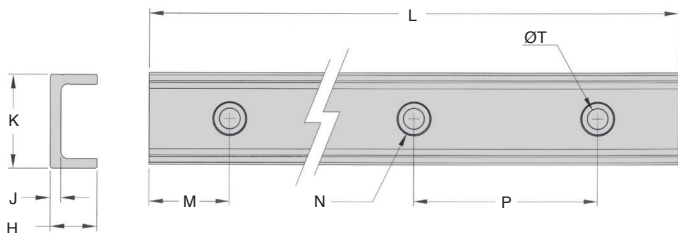
\*Depending of availability - Dimensions in mm



- For use with UTK-PWCR roller carriages
- V shaped channel made from aluminium 6063-T6
- Lightweight
- Length may vary +/- 2mm

### Option

- Max rail length : 3600mm



### DISCOUNTS

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

| Part number | H    | J   | K  | L    | M  | Dia x depth (counterbore) | T (Ø hole) | P  | Rail weight (kg/m) | Carriage weight (g) | Price each |
|-------------|------|-----|----|------|----|---------------------------|------------|----|--------------------|---------------------|------------|
| UTK0-PWRR   | 11,0 | 4,0 | 20 | 1000 | 20 | 8,3 x 3                   | 4,8        | 80 | 0,29               | 47                  | 100,71 €   |
| UTK1-PWRR   | 15,0 | 4,0 | 26 | 1000 | 20 | 9,8 x 2,8                 | 5,8        | 80 | 0,43               | 94                  | 109,79 €   |
| UTK2-PWRR   | 19,7 | 4,5 | 40 | 1000 | 20 | 14,3 x 3                  | 8,8        | 80 | 0,80               | 246                 | 160,32 €   |

Dimensions in mm



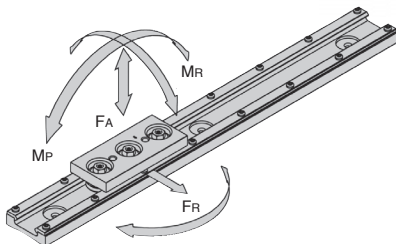
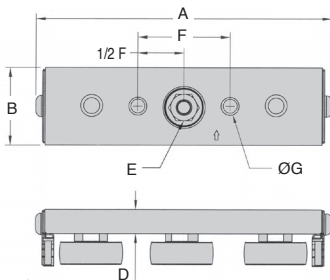
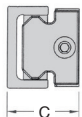
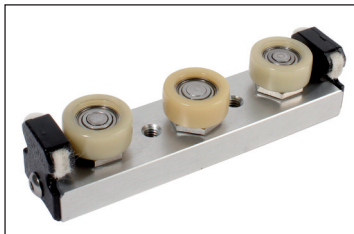
# Utilitrak® 3 wheel carriage

roller

HEPCO

UTKPWCR

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



## DISCOUNTS

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

| Part number | A     | B  | C         | D    | E<br>allen<br>key | F  | ØG      | Admissible load |        |         |         |         | Price<br>each |          |
|-------------|-------|----|-----------|------|-------------------|----|---------|-----------------|--------|---------|---------|---------|---------------|----------|
|             |       |    |           |      |                   |    |         | Fr (N)          | FA (N) | Mp (Nm) | My (Nm) | Mr (Nm) |               | C        |
| 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

Fax: 0 825 88 6000 Service 0,15€/mln + prix appel

cial2@hpcurope.com

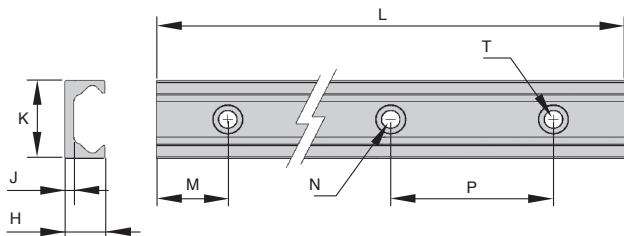
WEB  
04/2020

HPC

- 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



### DISCOUNTS

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

| Part number | H    | J   | K  | L    | M  | N<br>Ø x depth<br>(counterbore) | T<br>(Ø hole) | P  | Rail<br>weight<br>(kg/m) | Carriage<br>weight<br>(g) | Stock* | Price<br>each |
|-------------|------|-----|----|------|----|---------------------------------|---------------|----|--------------------------|---------------------------|--------|---------------|
| UTK1-SWR    | 15,0 | 4,0 | 26 | 1000 | 20 | 9,8 x 2,8                       | 5,8           | 80 | 1,46                     | 114                       | ✓      | 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 availability - Dimensions in mm



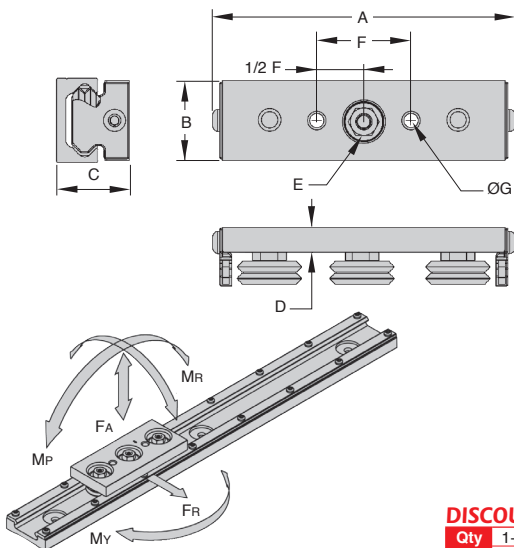
# Utilitrak® 3 wheel carriage

## Precision steel wheels



## UTKswc

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



### DISCOUNTS

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

| Part number | A     | B  | C    | D    | E<br>Socket size | F  | ØG      | Load capacity |        |         |         |         | C     | Stock* | Price each |
|-------------|-------|----|------|------|------------------|----|---------|---------------|--------|---------|---------|---------|-------|--------|------------|
|             |       |    |      |      |                  |    |         | Fr (N)        | FA (N) | Mp (Nm) | My (Nm) | Mr (Nm) |       |        |            |
| 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    | 201,3 | 55 | 50,0 | 15,8 | 15               | 60 | M10x1,5 | 11800         | 5100   | 229     | 346,0   | 118,0   | 21600 | -      | 309,32 €   |

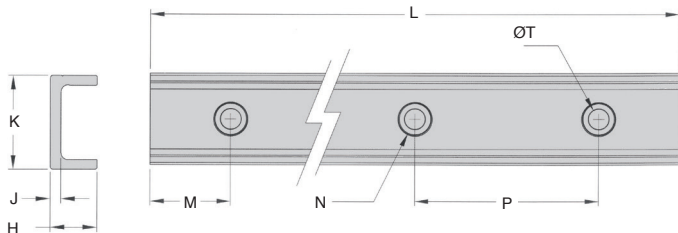
\*Depending of availability - Dimensions in mm



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

### Option

- Max rail length : 3600mm



### DISCOUNTS

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

| Part number | H    | J   | K  | L    | M  | Dia<br>x depth<br>(counterbore) | T<br>(Ø hole) | P  | Rail<br>weight<br>(kg/m) | Slide<br>weight<br>(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





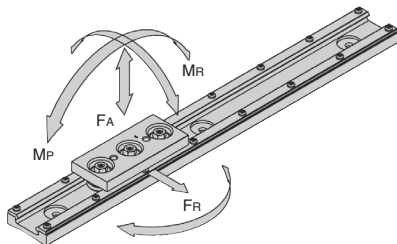
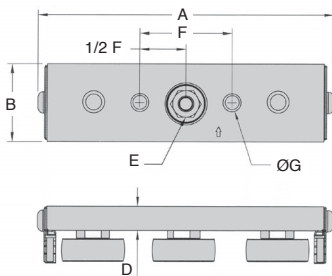
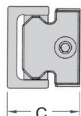
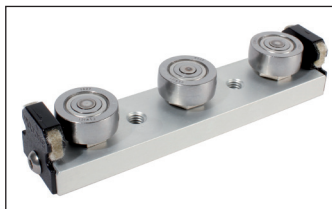
# Utilitrak<sup>®</sup> 3 wheel carriage

## UTKSWCR

## 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

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

| Part number | A     | B  | C         | D    | E<br>Allen<br>key | F  | ØG      | Admissible load |        |         |         |         | Price<br>each |          |
|-------------|-------|----|-----------|------|-------------------|----|---------|-----------------|--------|---------|---------|---------|---------------|----------|
|             |       |    |           |      |                   |    |         | FR (N)          | FA (N) | MP (Nm) | MY (Nm) | MR (Nm) |               |          |
| 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

### Accuracy

- The accuracy of the Utilitrak® system is defined differently than typical recirculating ball guides. These are designed primarily for "high end" positioning applications, such as machine tool guideways, Cartesian coordinate robotics and precision XY inspection equipment. These guides are more rigidly defined in terms of the running parallelism of carriages to rail, and are measured as a function of rail length. 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 guide 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 guide 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 equal to 1:

$$LF = \frac{F_R}{F_R(\text{MAX})} + \frac{F_A}{F_A(\text{MAX})} + \frac{M_R}{M_R(\text{MAX})} + \frac{M_Y}{M_Y(\text{MAX})} + \frac{M_P}{M_P(\text{MAX})} \leq 1$$

The applied force on the system is equivalent to:

$$F = F_{R(\text{MAX})} * LF$$

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

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

$L_{\text{km}}$  = System life in kilometres

$C$  = System dynamic load rating

$F$  = Equivalent load

$f_c$  = Correction factor

### Correction factor table

| Environmental factor  | Correction value $f_c$ |
|---|------------------------|
| 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



HTD8M\_20

HTD Heavy duty timing pulley, HTD8 Steel



MSP38

Masterplate® glueable insert Ø38, Cylindrical Ø38 with tapped ins...



EBM

Steel U bolt, Steel



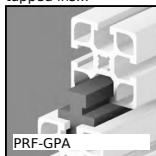
BPFss

Pressed stainless steel flange bearing, Stainless steel



DBL805

Idler for slat top chain, Range 805



PRF-GPA

Guide for aluminium profile, Parallel rails



KB\_WW

Closed linear precision bearing, Economy range



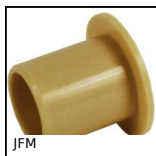
SBF

Sealed flange bearing unit for Food Industry, cover



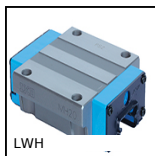
PSG2

Spur gear - precision range, Pre-hardened Steel 35NCD6



JFM

Flanged polymer bush, Universal polymer



LWH

High rigidity linear slide, Chariot - from 9320 N to 71300 N



BIMSS

Indexing plunger mini, miniature - Stainless steel

## Complementary products



UTKpwrr

V shaped channel UtiliTrak®, V rail