

# KHS-LG<sup>®</sup>



## DUAL SHAFT GUIDES



Anticorrosive & Economical

# KHS-LG<sup>®</sup>

## DUAL SHAFT GUIDES



### FEATURES

#### 1. Increase in Service Life ,Corrosion Resistance and Antitrust

KHS-LG ,TPS Dual Guides, adopting high-carbon chromium bearing steel to the friction part ,guarantees long term life span because it obtains over 58 HRC (Hardness of Rockwell) by high-frequency heat treatment, and precision grinding. The shafts are hardened chromed which not only has pleasing appearance ,but also superior antirust properties..The Running precision is less than  $\pm 0.02$  with the adoption of double row bearings . The material of Linear Block and Shaft support is of aluminum alloy with superior surface finish and anodizing.

#### 2. Family Easy Assembly

KHS-LG TPS Shaft type linear guides make to standardize and conformity, which is simple for customer's design and assembly.

#### 3. Easy Interchangeability

KHS-LG TPS Guide blocks and track rail can be purchased separately. After customers long-term use, interchangeability allows replacement of damaged or loose parts.

#### 4. Smooth and Quiet Movement with High Speeds

TPS Series has well-balanced rolling contact between carrying rollers and shaft. Adopting double row bearing, Dual Guide makes all elements of the bearing have a complete rolling motion, so it has rectilinear motion with the maximum rotation speed and silence.

#### 5. Double Row Bearings

KHS-LG TPS Dual guides use Double Row ball bearings as the rolling element .The double row ball bearing has the great advantages of enduring both axial and radial loads with high speed rotation. Regarding multi axial loads, the double row ball bearing has two point contacts with the guide rail shaft and is precisely grinded after cutting a groove and heat treatment in the outer wheel. Moreover, it has grease inside. Thus, it doesn't need to have additional oil supplements up to the end of its life.

#### 6. High Economy Efficiency

The advantages are lightweight, corrosion resistance, interchangeability and easy assembly. Those are optimum and wide ranges of application for machine equipment.

#### 7. Low Total Cost

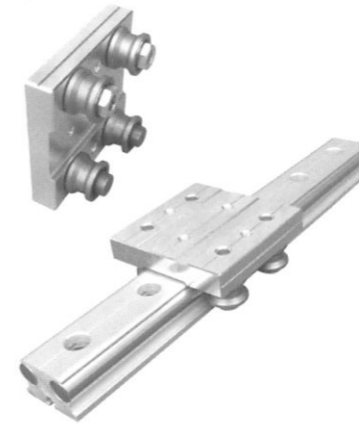
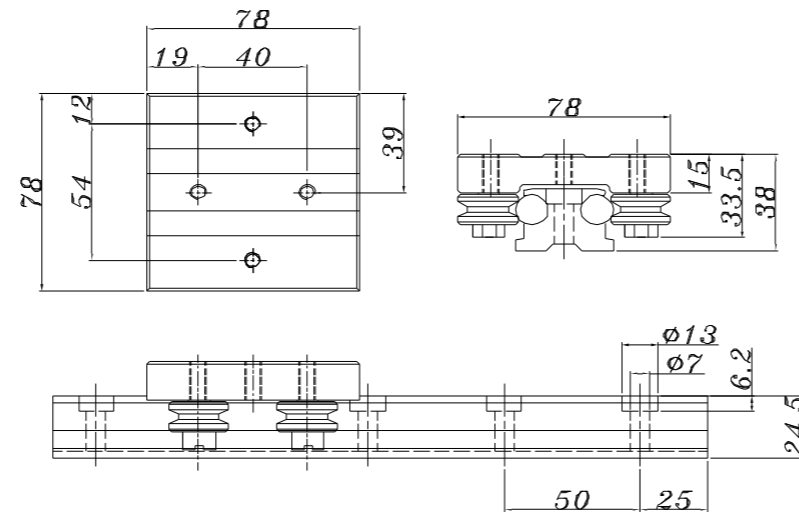
Shaft type linear guides with simple structures, high productivity and ease of assembly. It has lower cost and more competitive pricing.

# KHS-LG<sup>®</sup>



## TPS12E - Dual Shaft Guides

Twin Parallel Shaft System (Adjustable) Anticorrosive Linear Guide



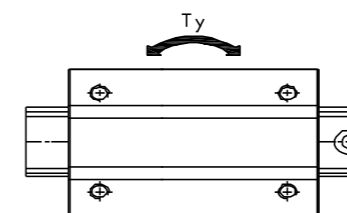
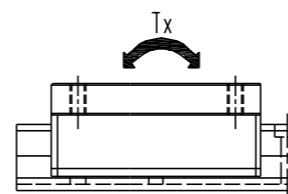
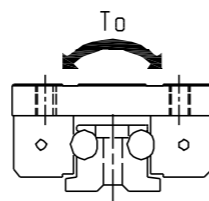
Shaft diameter	Rolling Bearings No.	Basic dynamic load rating C(kgf)	Basic static load rating C(kgf)	Static Torque			Weight	
				To (kgf-m)	Tx (kgf-m)	Ty (kgf-m)	Block (kg)	Track rail (kg/m)
12	4	140	230	1.5	2.5	3.5	0.36	3.2

Example of Identification number :

**TPS12E - B3 - R3000L**

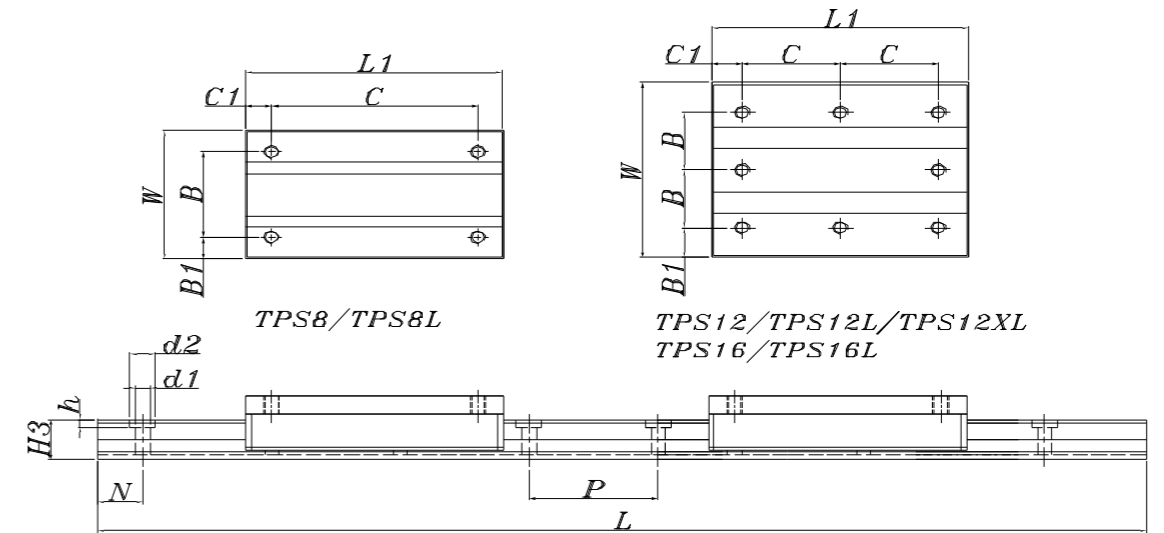
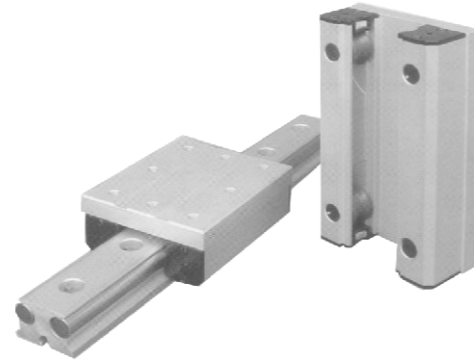
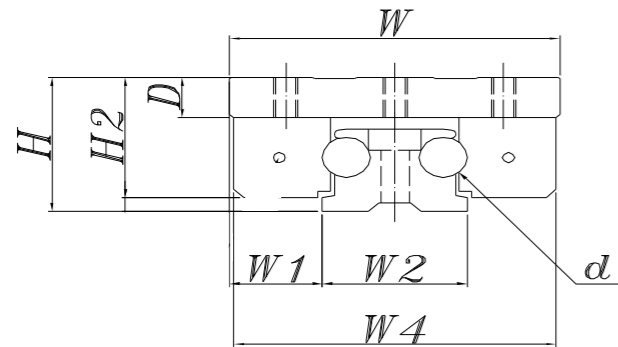
(1) (2) (3)

1. Model No.:
2. Number of blocks per track rail :  
B1: 1 Block B2: 2 Blocks B3: 3 Blocks,....
3. Length of track rail (4000mm) :  
Shaft : Hardened (HRC 60±2) ground and chromium plated



## TPS8 ~ TPS12 ~ TPS16 - Dual Shaft Guides

Twin Parallel Shaft System (Fix or Adjustable) Anticorrosive Linear Guide



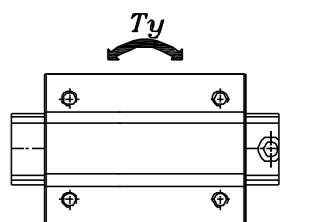
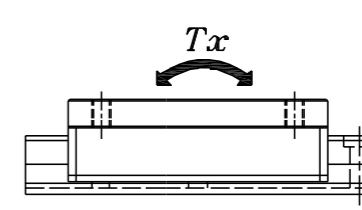
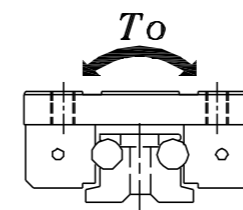
Model No.	d. Shaft diameter	Rolling Bearings No.	Dimensions of assembly			Dimensions of block										Rolling Bearing Spindle
			H	H1	W1	W	W4	H2	D	L1	B	B1	C	C1		
TPS8	8	4	30	3.5	16	60	59	26.5	9	70	40	10	50	10	5	
TPS8L	8	4	30	3.5	16	60	59	26.5	9	100	40	10	80	10	5	
TPS12	12	4	40	4	23	82	80	36	12	100	27	14	38	12	8	
TPS12L	12	4 8	40	4	23	82	80	36	12	140	27	14	58	12	8	
TPS12XL	12	8	40	4	23	82	80	36	12	160	27	14	68	12	8	
TPS16	16	4	50	5	35	120	118	45	14	150	45	15	60	15	8	
TPS16L	16	4	50	5	35	120	118	45	14	190	45	15	80	15	8	

Dimensions of track								Basic dynamic load rating C(kgf)	Basic static load rating C(kgf)	Static Torque			Weight		Model No.
W2	H3	d1	d2	h	P	N	L(max)			To (kgf-m)	Tx (kgf-m)	Ty (kgf-m)	Block (Kg)	Track rail (kg/m)	
28	18.5	5.5	10	3.5	50	25	3000	30	45	0.5	1.0	2	0.20	1.65	TPS8
28	18.5	5.5	10	3.5	50	25	3000	30	50	0.5	1.5	2.3	0.26	1.65	TPS8L
36	24.5	7	13	6.2	50	25	4000	150	250	1.5	2.5	2.5	0.52	3.2	TPS12
36	24.5	7	13	6.2	50	25	4000	180 235	290 375	2 3.5	5.8 5.3	6.5 7.0	0.7 0.78	3.2	TPS12L
36	24.5	7	13	6.2	50	25	4000	290	390	3.5	6.5	7.5	0.86	3.2	TPS12XL
50	32	9	21	8	80	40	4000	290	390	3.6	6	8	1.3	6.0	TPS16
50	32	9	21	8	80	40	4000	330	420	3.6	7	10	1.6	6.0	TPS16L

Example of Identification number :

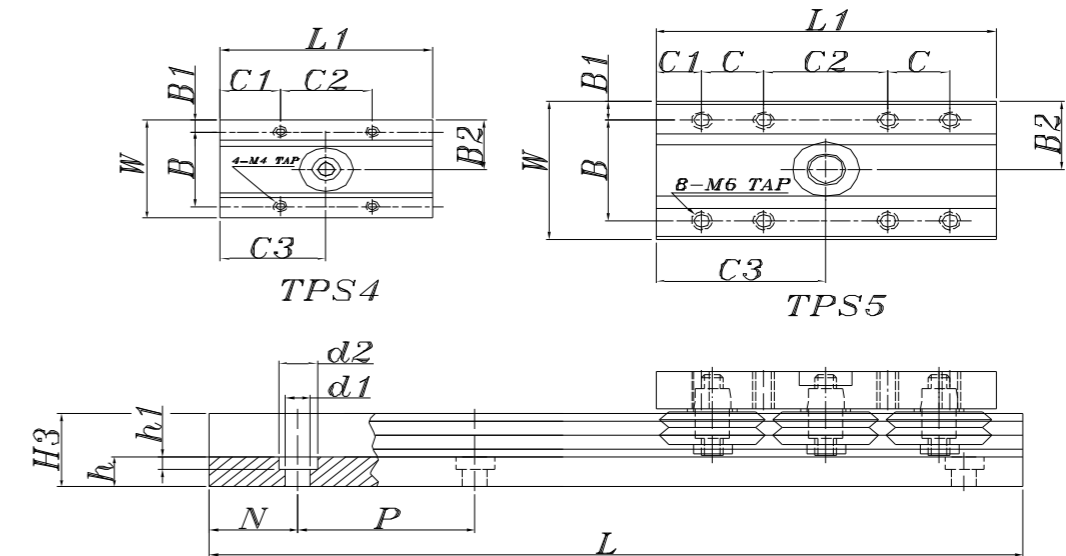
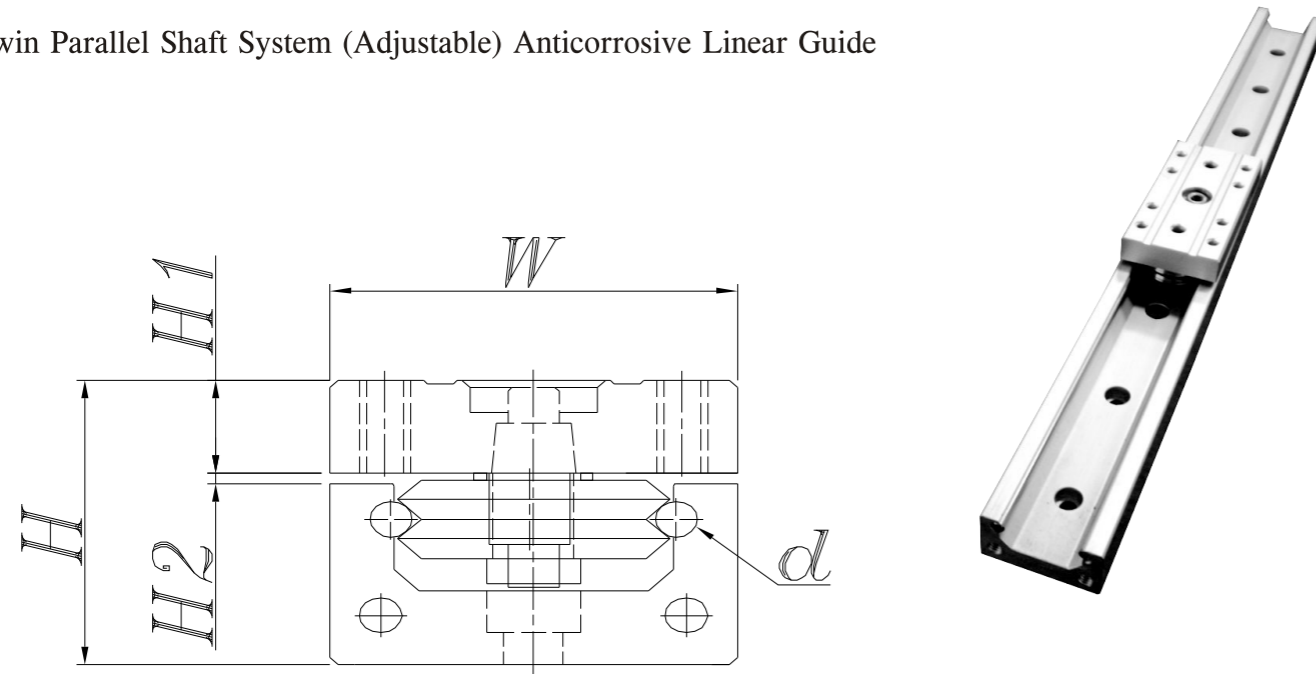
**TPS8 - B3 - R3000L**  
(1) (2) (3)

1. Model No. :
2. Number of blocks per track rail :  
B1 : 1 Block B2 : 2 Blocks B3 : 3 Blocks,
3. Length of track rail (3000mm - 4000mm)  
Shaft : Hardened (HRC 62±2) ground and chromium plated



## TPS4 ~ TPS5 - Dual Shaft Guides

Twin Parallel Shaft System (Adjustable) Anticorrosive Linear Guide



Model No.	Shaft diameter	Rolling Bearings No.	Dimension of assembly		Dimension of block									
			H	H2	B	B1	B2	C	C1	C2	C3	W	L1	H1
TPS4	4	3	28	17	26	4	16.59	NL	NL	26	30.5	34	61	9.5
TPS5	5	3	40	25	35	6.5	24	17.5	13	35	48	48	96	13

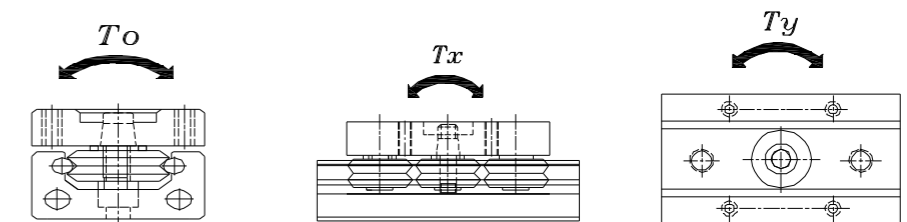
Dimension of track rail								Basic dynamic load rating C (kgf)	Basic static load rating C (kgf)	Static Torque			Weight		Model No.
H3	d1	d2	N	P	L	h	h1			To (kgf-m)	Tx (kgf-m)	Ty (kgf-m)	Block (kg)	Track rail (kg/m)	
18	5	8.1	30	60	3000	7.5	4.5	40	55	0.5	2	0.8	0.1	1.1	TPS4
25	7	11	30	60	3000	10.5	6.2	80	120	1	3.5	1.4	0.3	2.15	TPS5

Example of Identification number :

**TPS4 - B3 - R3000L**

(1) (2) (3)

1. Model No.:
2. Number of blocks per track rail :  
B1: 1 Block B2: 2 Blocks B3: 3 Blocks,....
3. Length of track rail (3000mm) :  
Shaft : Hardened (HRC 60±2) ground and chromium plated



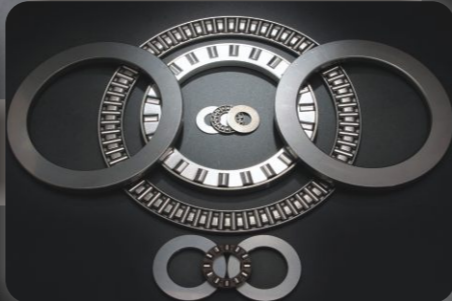
ENTIRE RANGE



Drawn Cup Needle Roller Bearings



Machined Type Needle Roller Bearings



Thrust Needle Roller Bearings



Linear Motion Bearings



Stud and Yoke Type Track Roller Bearings



Drawn Cup Needle Roller Clutches



Rod End Bearings



Cylindrical Roller Bearings



Needle Roller and Cage Assemblies



Track Roller Bearings

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