

SAIBO
Innovation in Motion



TELESCOPIC RAIL

SAIBO is one of world recognized manufacturers of precision power transmission components. SAIBO group has two divisions, linear motion division and bearing division. Linear Product Division mainly produces curved rail and conveyor, telescopic rail and fork, linear guide, linear module, belt conveyor etc. Bearing Division mainly produces Thin-section bearing, High-speed angular contact ball bearing, linear bearing etc.

SAIBO products are widely used in 3C, factory automation, precision machine, green energy, rail transportation, medical and pharmacy etc. industries. SAIBO end users are located in more than 50 countries and regions around the world.

SAIBO has over 33,000 square meters producing facilities totally and 350 employees. SAIBO continues to develop innovative automation components and modulars to meet customers sustainable solutions.

SAIBO means aim for greatness, focus on details. We seek to work with you and promise the following:

- The right product from your application
- A quality product you can trust
- Engineering assistance that is proven and world renown

TPE

Partial Extension Rail

This rail's stroke could reach half or more than its length. Using shorter ball cage could get longer stroke. But this will reduce load capacity.



TDB

Full Extension Rail

This series products permit full extension. It is assembled with two TPE rails which are bolted back to back. This rail's stroke could reach slider's full length or even more.



TDF

Full Extension Rail

This series products permits full extension. It is assembled with two TPE rails which are bolted face to face. This rails stroke could reach slider's full length or even more. It has a good dustproof performance to balls.



TFS**Full Extension Rail with S-beam**

Telescopic rail of Full extension with S-beam. Thin structure is very fit for limited assembly space. TFS achieves high load capacity, small deflection in compact structure.

**TLB****Linear Guide with Ball Cage**

This series products' ball cage and internal slider are limited in the external C-shaped rail. The internal slider can not extend external C-shaped rail. One or more internal sliders could be set in one external rail. Internal slides could be set in the same or different ball cages.

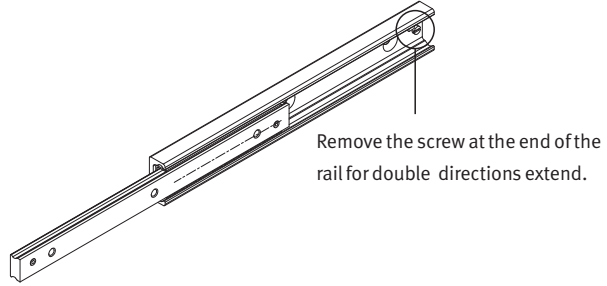
**THR****Full Extension Rail (Static Application)**

H-beam structure designing. Suitable for heavy duty application without shock or vibration. High carbon steel and Stainless steel are available.



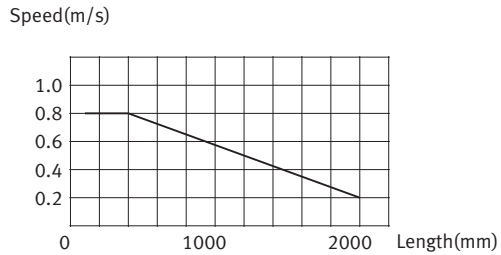
Double Directions

If need double directions extend, just remove the stop screw, Then the internal slider could extend in both directions.



Working Speed

The maximum working speed is 0.8m/s. But this maximum speed could reduce influenced by the length of ball cage and internal slider, installation and application. If application condition is good and installation is perfect, the most influence factor is rail's length. Please refer the maximum speed as below chart.



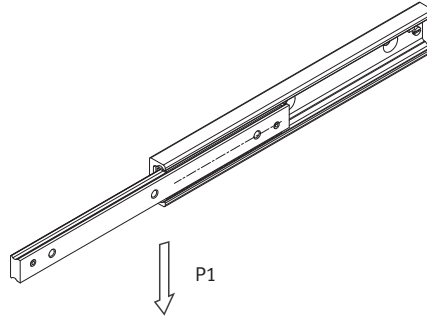
Lubrication and Temperature

High quality lubrication is helpful for rail's working life. It also could reduce running noise. In delivery status, all products are filled lubricate in the raceways which allows to work in the temperature between -20°C and 120°C. It is commended to re-lubricate each 100Km running.

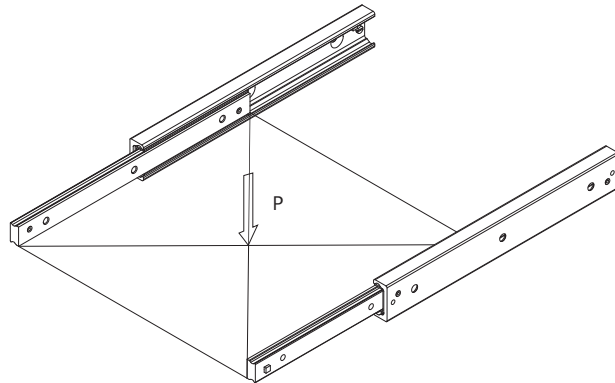
Special temperature request, please contact us.

Load Capacity

These Cold-drawn Steel Rails are designed for heavy load capacity. The load capacity is most different to those steel sheet rolled drawer rails. Please check detailed parameters in each product's load capacity table.



All the maximum permissible load showing in the table is tested in the center of extend slider in the status of completely extension.



When two telescopic rails are mounted parallelly in ideal and the load is distributed on each rail uniformly. This drawer's maximum load P is double of one single rail's load capacity.

$$P=2 P1$$

Load Calculation

Telescopic Rail's life is determined by several factors. These factors include effective load, direction shift frequency, running speed, installation precision, vibration or shock, working condition and temperature, lubricate etc.

Equivalent Load LF

$$LF = F_y + \left(\frac{F_z}{Coax} + \frac{M_x}{M_{xmax}} + \frac{M_y}{M_{ymax}} + \frac{M_z}{M_{zmax}} \right) Corad$$

F_y – Actual load in Y direction (N)

F_z – Actual load in Z direction (N)

M_x - Actual moment load in X directiron (N.m)

M_y - Actual moment load in Y directiron (N.m)

M_z - Actual moment load in Z directiron (N.m)

(Below Parameters can be taken from the table of Load Capacity)

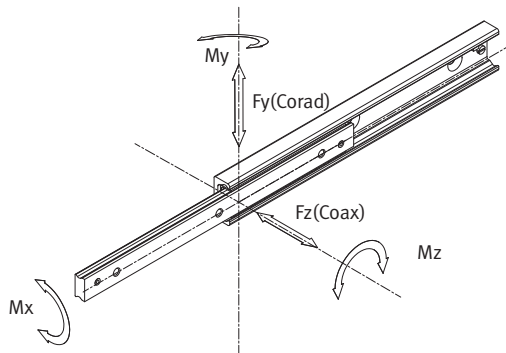
$Corad$ – Load capacity in Y direction (N)

$Coax$ –Load capacity in Z direction (N)

M_x -Max-Moment capacity in X directiron (N.m)

M_y -Max-Moment capacity in Y directiron (N.m)

M_z -Max-Moment capacity in Z directiron (N.m)



Life Calculation

$$L_{km} = 100 \cdot \left(\frac{C_{100}}{LF \cdot f} \right)^3$$

C_{100} – Load capacity factor.

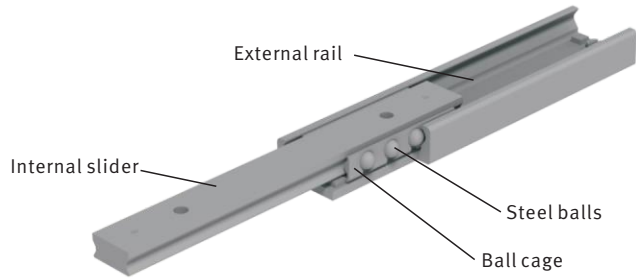
(Please check detailed parameter each product's load capacity table)

f – Application Coefficient

None vibration or shock, Low speed Low frequency shift direction, clean environment.	1.3-1.8
Light vibration or shock, medium speed medium frequency shift direction, some dirtiness	1.8-2.3
Heavy vibration or shock, high speed high frequency shift direction, heavy dirty	2.3-3.5

TPE

Partial Extension Rail



TPE stroke could reach half of its length or even more. Shorter ball cage could achieve longer stroke. But load capacity will be smaller accordingly.

Rail Profile

External and internal profiles are made of high-quality steel with cold drawn, induction hardening. So it performs good rigidity, excellent wear-resisting property.

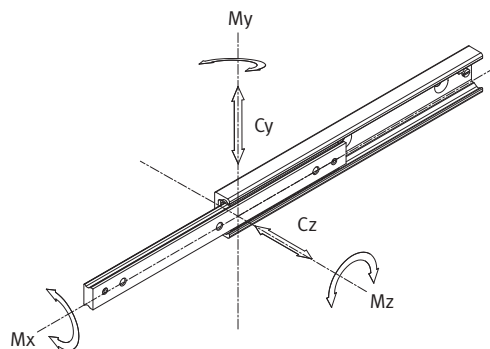
Steel Ball

SAIBO select high performance steel balls which are made of high-quality steel. Precision and hardened steel balls are very helpful to improve wear-resisting property and reduce noise

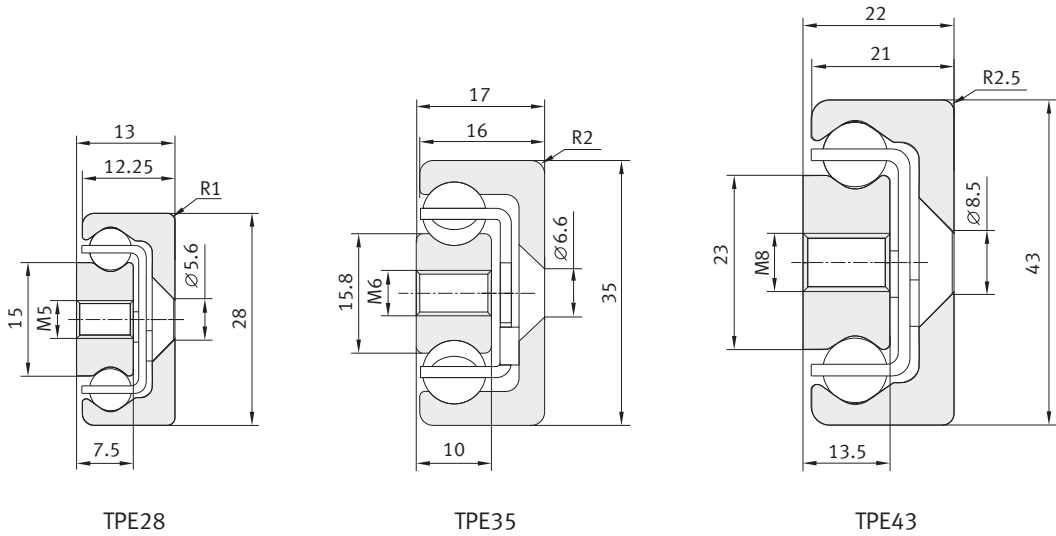
Code Description

TPE	28	- L	- S	
				Stroke
				Rail length
				Size
				Product series code

Force Diagrams

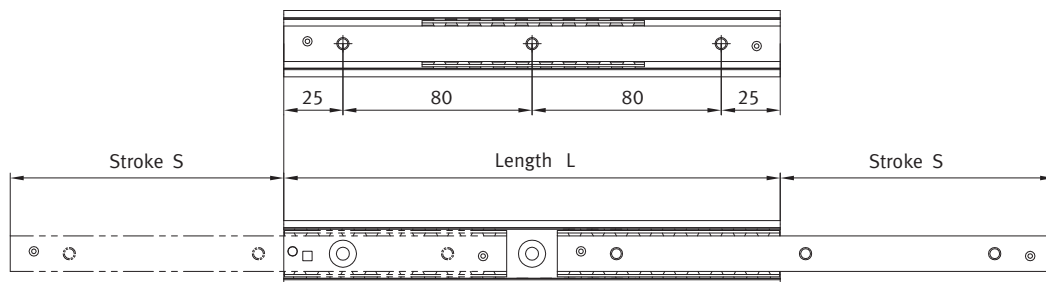


TPE Dimension



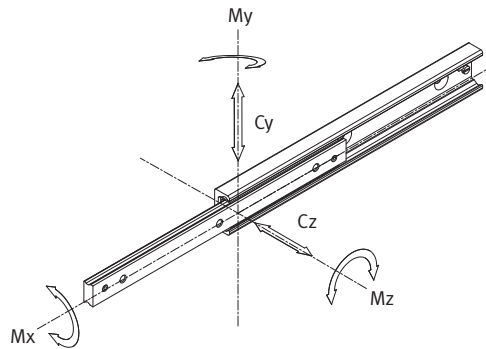
Type	Length L (mm)	Stroke S (mm)	Load Capacity					C_{100} (N)	No. of holes
			C_y (N)	C_z (N)	M_x (Nm)	M_y (Nm)	M_z (Nm)		
TPE28-130	130	74	612	430	16	21	29	873	2
TPE28-210	210	116	1117	782	27	59	83	1579	3
TPE28-290	290	148	1935	1355	40	133	187	2693	4
TPE28-370	370	190	2446	1712	51	214	306	3403	5
TPE28-450	450	232	2956	2070	62	315	450	4120	6
TPE28-530	530	274	3467	2427	73	436	620	4835	7
TPE28-610	610	316	3978	2785	83	577	820	5558	8
TPE28-690	690	358	4489	3142	94	736	1051	6273	9
TPE28-770	770	400	4996	3499	105	915	1308	6985	10
TPE28-850	850	433	5829	4082	118	1166	1667	8113	11
TPE28-930	930	475	6336	4437	130	1390	1985	8810	12
TPE28-1010	1010	517	6849	4795	140	1633	2329	9526	13
TPE28-1090	1090	559	7359	5150	151	1894	2704	10239	14
TPE28-1170	1170	601	7868	5508	162	2176	3109	10953	15

TPE Dimension



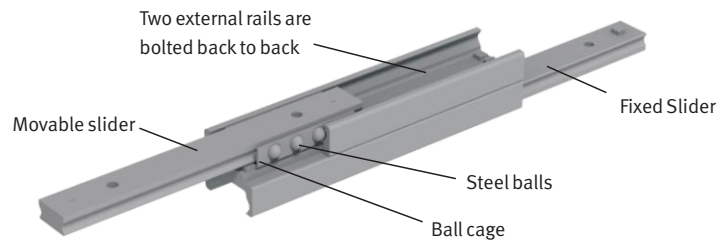
Type	Length L (mm)	Stroke S (mm)	Load Capacity					C_{100} (N)	No. of holes
			C_y (N)	C_z (N)	M_x (Nm)	M_y (Nm)	M_z (Nm)		
TPE35-210	210	127	1066	745	29	58	81	1532	3
TPE35-290	290	159	2061	1441	47	147	207	2905	4
TPE35-370	370	203	2639	1846	60	239	339	3720	5
TPE35-450	450	247	3217	2251	73	355	504	4536	6
TPE35-530	530	279	4282	2996	90	544	774	5989	7
TPE35-610	610	323	4859	3400	104	712	1014	6802	8
TPE35-690	690	367	5436	3803	117	903	1287	7611	9
TPE35-770	770	399	6522	4564	134	1192	1701	9092	10
TPE35-850	850	443	7096	4965	147	1436	2049	9902	11
TPE35-930	930	487	7670	5367	160	1703	2430	10713	12
TPE35-1010	1010	519	8766	6135	178	2093	2988	12200	13
TPE35-1090	1090	563	9338	6535	191	2413	3444	13008	14
TPE35-1170	1170	607	9910	6936	204	2755	3933	13817	15
TPE35-1250	1250	639	11013	7707	221	3246	4635	15310	16
TPE35-1330	1330	683	11583	8106	234	3641	5199	16117	17
TPE35-1410	1410	727	12154	8506	247	4059	5796	16924	18
TPE35-1490	1490	759	13261	9281	265	4651	6642	18422	19

Force Diagrams



Type	Length L (mm)	Stroke S (mm)	Load Capacity					C ₁₀₀	No. of holes
			C _y (N)	C _z (N)	M _x (Nm)	M _y (Nm)	M _z (Nm)		
TPE43-210	210	123	1596	1118	61	85	121	2288	3
TPE43-290	290	158	2873	2012	94	202	289	4055	4
TPE43-370	370	208	3378	2365	116	307	441	4794	5
TPE43-450	450	243	4691	3285	150	510	730	6602	6
TPE43-530	530	278	6040	4228	185	763	1089	8451	7
TPE43-610	610	313	7412	5189	216	1065	1520	10325	8
TPE43-690	690	363	7865	5506	238	1295	1850	11007	9
TPE43-770	770	398	9233	6465	273	1682	2403	12879	10
TPE43-850	850	433	10617	7430	305	2120	3029	14763	11
TPE43-930	930	483	11056	7740	328	2440	3485	15430	12
TPE43-1010	1010	518	12435	8705	360	2962	4231	17311	13
TPE43-1090	1090	568	12878	9015	383	3336	4767	17981	14
TPE43-1170	1170	603	14256	9980	416	3945	5635	19861	15
TPE43-1250	1250	638	15640	10948	450	4597	6572	21749	16
TPE43-1330	1330	688	16076	11255	471	5066	7238	22412	17
TPE43-1410	1410	723	17458	12220	504	5806	8296	24298	18
TPE43-1490	1490	758	18848	13192	538	6599	9426	26187	19
TPE43-1570	1570	793	20240	14168	571	7442	10630	28085	20
TPE43-1650	1650	843	20663	14465	593	8031	11473	28735	21
TPE43-1730	1730	878	22055	15438	626	8958	12796	30628	22
TPE43-1810	1810	928	22480	15738	648	9604	13718	31280	23
TPE43-1890	1890	963	23865	16709	682	10615	15163	33170	24
TPE43-1970	1970	1013	24230	17010	705	11315	16162	33827	25



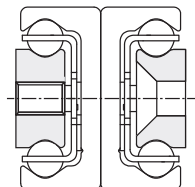
TDB**Full Extension Rail**

This series products permit full extension. It is assembled with two Partial Extension(TPE) Rails which are bolted back to back. This rail's stroke could reach slider's full length or even more.

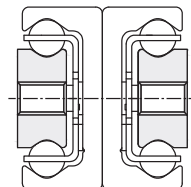
- Full stroke
- High load capacity and good rigidity performance
- Compact and easy structure
- Two-way slide is available

TDB Mount—holes combinations

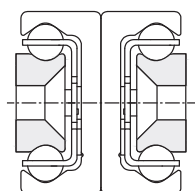
There're several options for mounting holes available for :



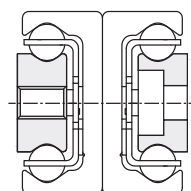
Basic combination



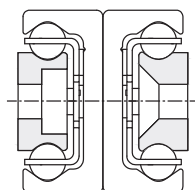
MM



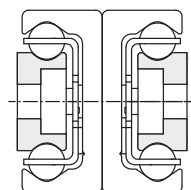
V V



CM



C V



C C

* V type hole is optional DIN7991 bolt and C type hole is optional DIN7984 Bolt.

* 28 Size rail is optional M5 bolt, 35 Size rail is optional M6 bolt and 43 size rail is optional M8 bolt.

Code Description

TDB

28

MM
VV
CM
CV
CC

- L

- S

Stroke

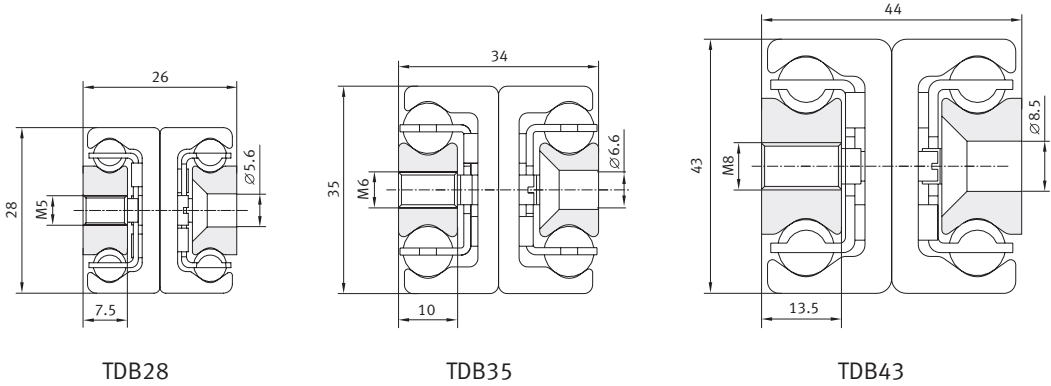
Rail length

Mount-hole combination type, vacant means basic combination

Size

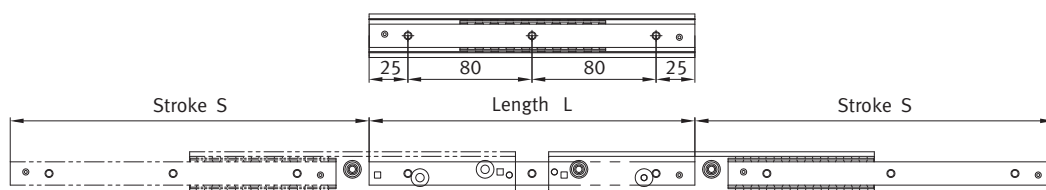
Product series code

TDB Dimension



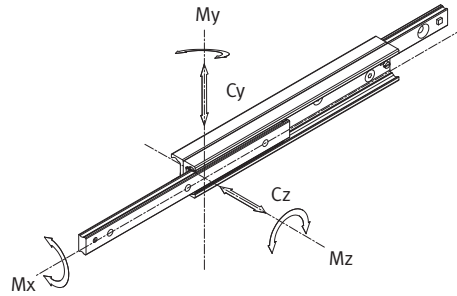
Type	Length L (mm)	Stroke S (mm)	Load Capacity		C_{100} (N)	No. of holes
			C_v (N)	C_z (N)		
TDB28-130	130	148	236	165	358	2
TDB28-210	210	232	433	303	656	3
TDB28-290	290	296	768	538	1155	4
TDB28-370	370	380	969	472	1456	5
TDB28-450	450	464	1170	386	1760	6
TDB28-530	530	548	1108	326	2065	7
TDB28-610	610	633	956	281	2370	8
TDB28-690	690	717	845	248	2673	9
TDB28-770	770	801	754	220	2978	10
TDB28-850	850	866	712	209	3489	11
TDB28-930	930	950	647	190	3785	12
TDB28-1010	1010	1034	593	175	4086	13
TDB28-1090	1090	1118	548	161	4389	14
TDB28-1170	1170	1202	509	150	4691	15

TDB Stroke



Type	Length L (mm)	Stroke S (mm)	Load Capacity		C_{100} (N)	No. of holes
			C_y (N)	C_z (N)		
TDB35-210	210	254	403	282	615	3
TDB35-290	290	318	801	561	1212	4
TDB35-370	370	406	1026	719	1553	5
TDB35-450	450	494	1251	794	1893	6
TDB35-530	530	558	1686	729	2541	7
TDB35-610	610	646	1909	627	2879	8
TDB35-690	690	734	1690	549	3218	9
TDB35-770	770	798	1592	517	3882	10
TDB35-850	850	886	1426	464	4219	11
TDB35-930	930	974	1292	420	4556	12
TDB35-1010	1010	1038	1234	401	5227	13
TDB35-1090	1090	1126	1132	368	5562	14
TDB35-1170	1170	1214	1046	340	5898	15
TDB35-1250	1250	1278	1007	328	6574	16
TDB35-1330	1330	1366	938	305	6908	17
TDB35-1410	1410	1454	878	286	7243	18
TDB35-1490	1490	1518	851	277	7921	19

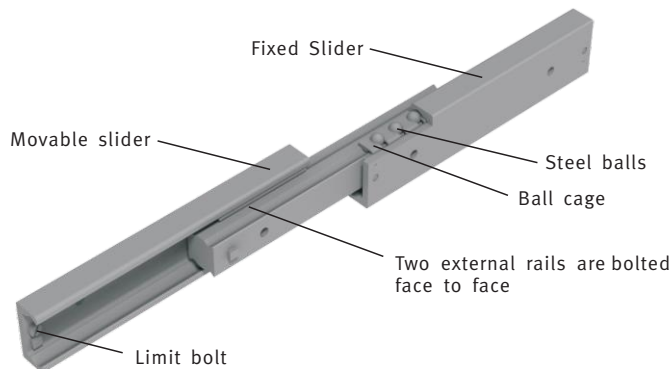
Load Diagram



Type	Length L (mm)	Stroke S (mm)	Load Capacity		C_{100} (N)	No. of holes
			C_y (N)	C_z (N)		
TDB43-210	210	246	606	425	923	3
TDB43-290	290	316	1115	781	1687	4
TDB43-370	370	416	1302	912	1974	5
TDB43-450	450	486	1827	1280	2764	6
TDB43-530	530	556	2376	1435	3580	7
TDB43-610	610	626	2935	1303	4414	8
TDB43-690	690	726	3092	1096	4661	9
TDB43-770	770	796	3056	1018	5493	10
TDB43-850	850	866	2848	945	6335	11
TDB43-930	930	966	2508	835	6572	12
TDB43-1010	1010	1036	2365	788	7411	13
TDB43-1090	1090	1106	2239	745	8257	14
TDB43-1170	1170	1206	2020	673	8489	15
TDB43-1250	1250	1276	1929	642	9332	16
TDB43-1330	1330	1376	1767	588	9568	17
TDB43-1410	1410	1446	1694	565	10409	18
TDB43-1490	1490	1516	1628	542	11255	19
TDB43-1570	1570	1586	1568	523	12105	20
TDB43-1650	1650	1686	1460	487	12330	21
TDB43-1730	1730	1756	1407	470	13178	22
TDB43-1810	1810	1856	1322	440	13406	23
TDB43-1890	1890	1926	1281	426	14252	24
TDB43-1970	1970	2026	1207	402	14483	25

TDF

Full Extension Rail



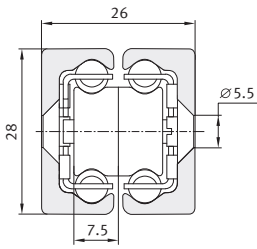
This series products permit full extension. It is assembled with two Partial Extension (TPE) Rails which are bolted face to face. This rail's stroke could reach slider's full length or even more.

- One outer rail is fixed, and the other outer rail is installed on the device that needs to be moved.
- The cover of the outer rail can provide good dust protection for the internal steel ball.
- One-way or two-way travel can be selected according to the use.

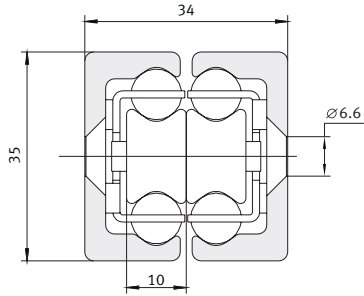
Code Description

TDF	28	- L	- S	
				Stroke
				Rail length
				Size
				Product series code

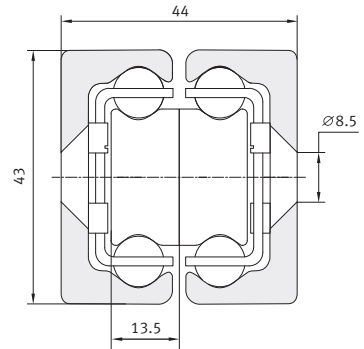
TDF Dimension



TDF28



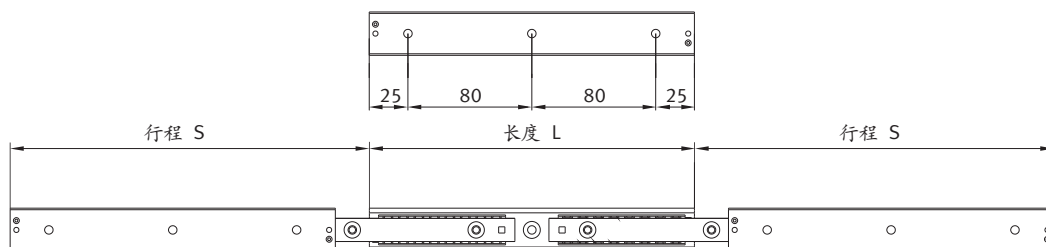
TDF35



TDF43

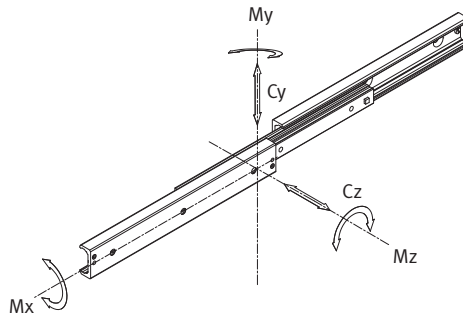
Type	Length L (mm)	Stroke S (mm)	Load Capacity		C_{100} (N)	No. of holes
			C_y (N)	C_z (N)		
TDF28-130	130	148	240	165	360	2
TDF28-210	210	232	432	302	655	3
TDF28-290	290	296	622	537	1153	4
TDF28-370	370	380	482	482	1456	5
TDF28-450	450	464	394	394	1760	6
TDF28-530	530	548	332	332	2063	7
TDF28-610	610	633	286	286	2372	8
TDF28-690	690	717	255	255	2670	9
TDF28-770	770	801	227	227	2980	10
TDF28-850	850	866	213	213	3487	11
TDF28-930	930	950	191	191	3783	12
TDF28-1010	1010	1034	178	178	4086	13
TDF28-1090	1090	1118	165	165	4388	14
TDF28-1170	1170	1202	153	153	4692	15

TDF Stroke



Type	Length L (mm)	Stroke S (mm)	Load Capacity		C_{100} (N)	No. of holes
			C_y (N)	C_z (N)		
TDF35-210	210	254	403	282	615	3
TDF35-290	290	318	801	561	1212	4
TDF35-370	370	406	1026	719	1553	5
TDF35-450	450	494	1251	794	1893	6
TDF35-530	530	558	1686	729	2541	7
TDF35-610	610	646	1909	627	2879	8
TDF35-690	690	734	1690	549	3218	9
TDF35-770	770	798	1592	517	3882	10
TDF35-850	850	886	1426	464	4219	11
TDF35-930	930	974	1292	420	4556	12
TDF35-1010	1010	1038	1234	401	5227	13
TDF35-1090	1090	1126	1132	368	5562	14
TDF35-1170	1170	1214	1046	340	5898	15
TDF35-1250	1250	1278	1007	328	6574	16
TDF35-1330	1330	1366	938	305	6908	17
TDF35-1410	1410	1454	878	286	7243	18
TDF35-1490	1490	1518	851	277	7921	19

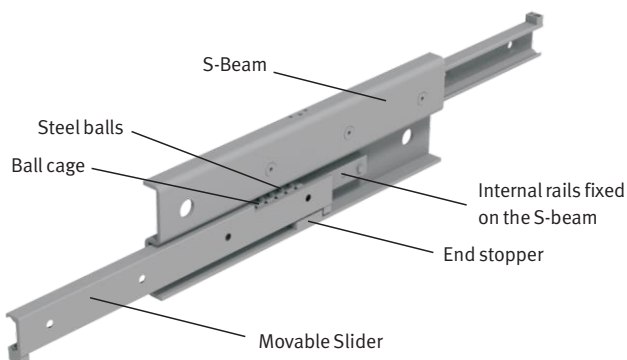
Load Diagram



Type	Length L (mm)	Stroke S (mm)	Load Capacity		C_{100} (N)	No. of holes
			C_y (N)	C_z (N)		
TDF43-210	210	246	610	425	925	3
TDF43-290	290	316	1114	780	1687	4
TDF43-370	370	416	1300	910	1974	5
TDF43-450	450	486	1335	1285	2764	6
TDF43-530	530	556	1193	1193	3580	7
TDF43-610	610	626	1083	1083	4415	8
TDF43-690	690	726	920	920	4665	9
TDF43-770	770	796	845	845	5493	10
TDF43-850	850	866	785	785	6331	11
TDF43-930	930	966	693	693	6572	12
TDF43-1010	1010	1036	655	655	7412	13
TDF43-1090	1090	1106	619	619	8257	14
TDF43-1170	1170	1206	556	556	8485	15
TDF43-1250	1250	1276	533	533	9332	16
TDF43-1330	1330	1376	488	488	9568	17
TDF43-1410	1410	1446	473	473	10415	18
TDF43-1490	1490	1516	450	450	11255	19
TDF43-1570	1570	1586	434	434	12105	20
TDF43-1650	1650	1686	400	400	12330	21
TDF43-1730	1730	1756	390	390	13178	22
TDF43-1810	1810	1856	366	366	13407	23
TDF43-1890	1890	1926	352	352	14250	24
TDF43-1970	1970	2026	335	335	14484	25

TFS

Full Extension rail with S-beam



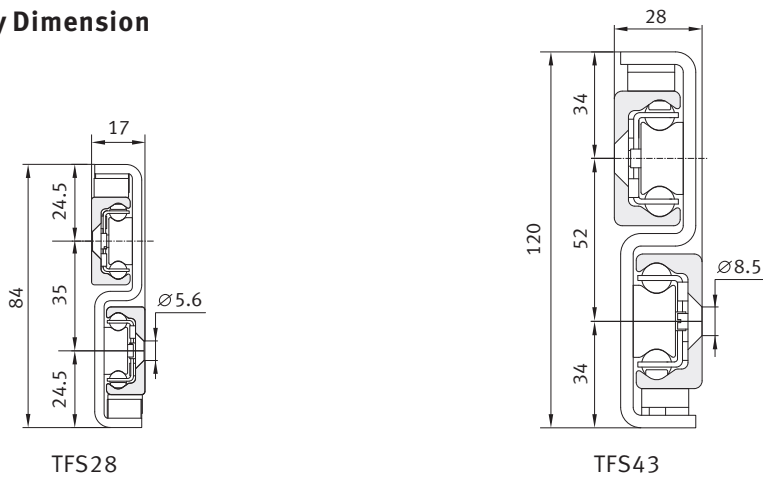
TFS rail is a full extension rail with S-beam. Thin structure is very fit for limited assembly space. TFS achieves high load capacity, small deflection in compact structure.

- It is ideal for using in limited space
- Full stroke
- High load capacity and good rigidity performance
- Two-way slide is available

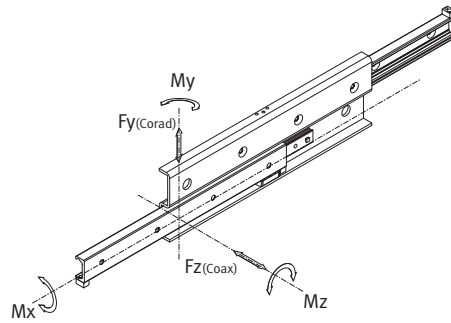
Code Description

TFS	28	D	- L	- S
				Stroke
				Rail length
				Two-way movable , vacant means one-way movable
				Size
				Product series code

TFS One-way Dimension

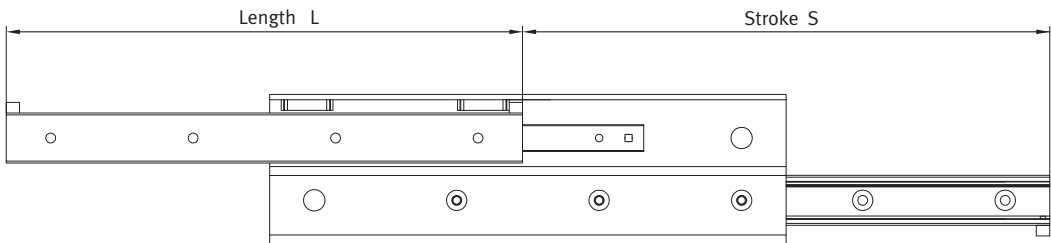
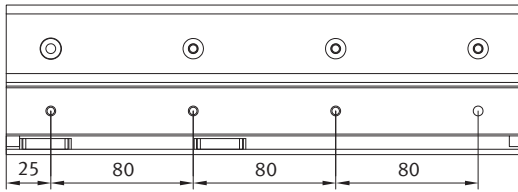


Force Diagrams



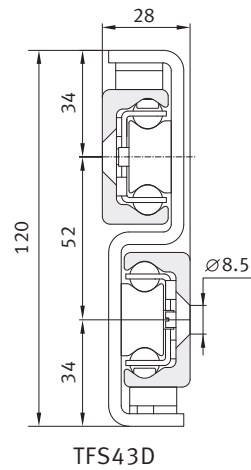
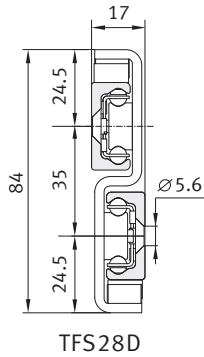
Type	Carriage				
	Length	Stroke	Load Capacity	C_{100} (N)	No. of holes
	L (mm)	S (mm)	Corad (N)		
TFS28-290	290	296	570	864	4
TFS28-370	370	380	769	1164	5
TFS28-450	450	464	969	1465	6
TFS28-530	530	548	1170	1768	7
TFS28-610	610	630	1376	2079	8
TFS28-690	690	714	1577	2385	9
TFS28-770	770	798	1778	2684	10
TFS28-850	850	864	2111	3210	11
TFS28-930	930	950	2240	3475	12
TFS28-1010	1010	1034	2054	3778	13

TFS One-way Stroke

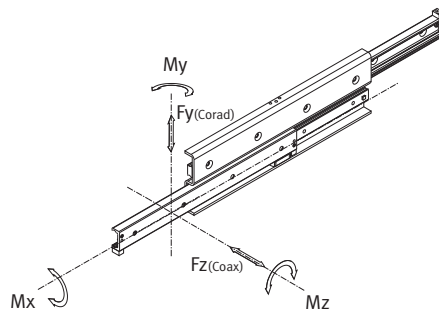


Type	Carriage				
	Length	Stroke	Load Capacity	C_{100} (N)	No. of holes
	L (mm)	S (mm)	Corad (N)		
TFS43-530	530	556	2061	3121	7
TFS43-610	610	626	2603	3953	8
TFS43-690	690	726	2775	4197	9
TFS43-770	770	796	3319	5010	10
TFS43-850	850	866	3873	5837	11
TFS43-930	930	966	4036	6095	12
TFS43-1010	1010	1036	4590	6916	13
TFS43-1090	1090	1106	4908	7750	14
TFS43-1170	1170	1206	4610	7645	15
TFS43-1250	1250	1276	4398	8829	16
TFS43-1330	1330	1376	4027	9077	17
TFS43-1410	1410	1446	3864	9909	18
TFS43-1490	1490	1516	3713	10750	19
TFS43-1570	1570	1616	3445	10988	20

TFS...D Two-way Dimension

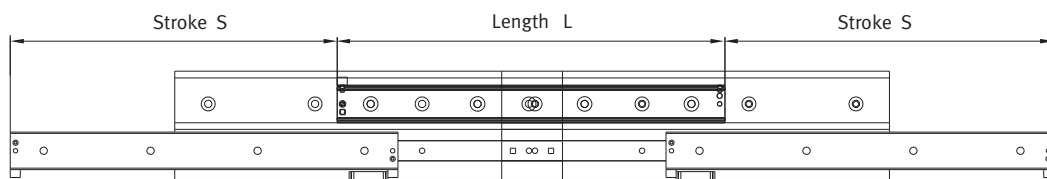
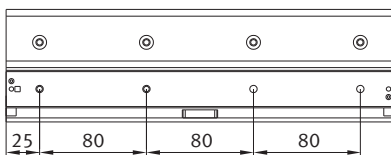


Force Diagrams



Type	Carriage				
	Length	Stroke	Load Capacity	C_{100} (N)	No. of holes
	L (mm)	S (mm)	Corad (N)		
TFS28D-290	290	246	896	864	4
TFS28D-370	370	326	1105	1164	5
TFS28D-450	450	406	1320	1465	6
TFS28D-530	530	486	1626	1768	7
TFS28D-610	610	566	1838	2079	8
TFS28D-690	690	646	2055	2385	9
TFS28D-770	770	726	2262	2684	10
TFS28D-850	850	806	2485	3210	11
TFS28D-930	930	886	2582	3475	12
TFS28D-1010	1010	966	2357	3778	13

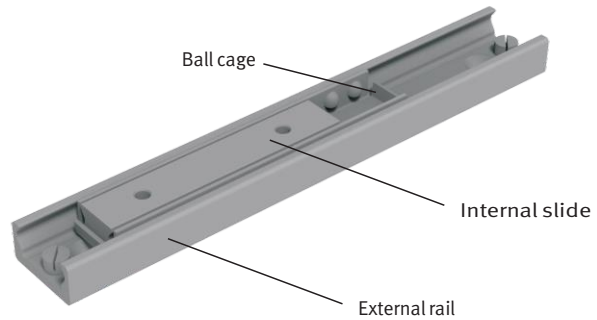
TFS Two-way Stroke



Type	Carriage				
	Length	Stroke	Load Capacity	C_{100} (N)	No. of holes
	L (mm)	S (mm)	Corad (N)		
TFS43D-530	530	480	3019	3121	7
TFS43D-610	610	560	3280	3953	8
TFS43D-690	690	640	3781	4197	9
TFS43D-770	770	720	4297	5010	10
TFS43D-850	850	800	4548	5837	11
TFS43D-930	930	880	5065	6095	12
TFS43D-1010	1010	960	5578	6916	13
TFS43D-1090	1090	1040	5830	7750	14
TFS43D-1170	1170	1120	5390	7645	15
TFS43D-1250	1250	1200	5014	8829	16
TFS43D-1330	1330	1280	4686	9077	17
TFS43D-1410	1410	1360	4398	9909	18
TFS43D-1490	1490	1440	4140	10750	19
TFS43D-1570	1570	1520	3917	10988	20

TLB

Linear guide with Ball cage



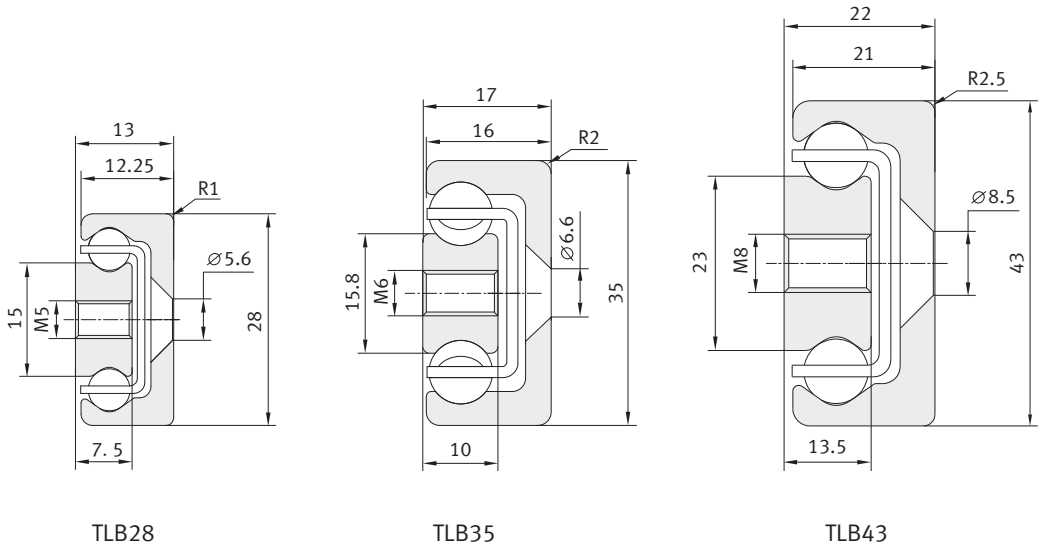
This series products' ball cage and internal slider are limited in the external C-shaped rail. Then the internal slider can't extend external C-shaped rail. One or more internal sliders could be set in one external rail.

- Internal slider length is available for custom design
- One External rail could set one or more internal sliders
- One or more internal sliders could be set in the same or different ball cages

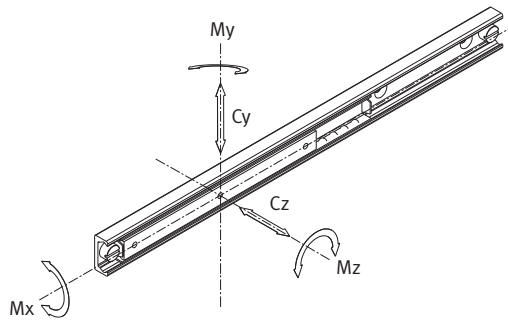
Code Description

TLB	28	- A	- S	- L
				Rail length
				Stroke
				Slider length
				Size
				Product series code

TLB Dimension

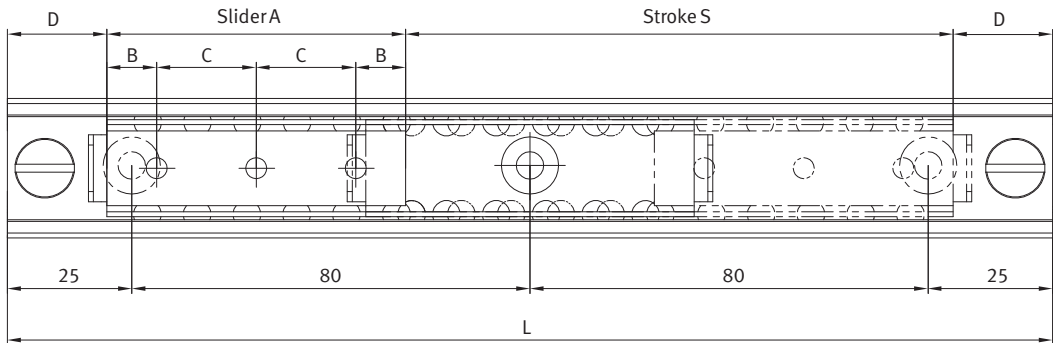


Force Diagrams



Type	Carriage										
	Dimension				Load Capacity					C_{100} (N)	No. of holes
	D (mm)	A (mm)	B (mm)	C (mm)	C_y (N)	C_z (N)	M_x (Nm)	M_y (Nm)	M_z (Nm)		
TLB28	20	60	10	20	3481	2438	17	25	36	3481	3
	20	80	10	20	4642	3249	23	44	62	4642	4
	20	130	25	80	7542	5279	36	115	162	7542	2
	20	210	25	80	12182	8525	60	301	427	12200	3
	20	290	25	80	16850	11775	83	570	812	16823	4
	20	370	25	80	21461	15024	106	928	1324	21461	5
	20	450	25	80	26103	18272	128	1372	1965	26103	6

TLB Stroke



Type	Carriage										
	Dimension				Load Capacity					C_{100} (N)	No. of holes
	D (mm)	A (mm)	B (mm)	C (mm)	C_y (N)	C_z (N)	M_x (Nm)	M_y (Nm)	M_z (Nm)		
TLB35	25	130	25	80	9755	6830	47.3	149	212	8697	2
	25	210	25	80	15755	11030	76.2	385	550	14572	3
	25	290	25	80	21755	15230	105.5	736	1053	20448	4
	25	370	25	80	27755	19430	134.6	1200	1713	26173	5
	25	450	25	80	33755	23630	163.6	1773	2532	32198	6
	25	530	25	80	39755	27830	192.7	2461	3513	38073	7
	25	610	25	80	45755	32030	221.4	3254	4650	43948	8

Type	Carriage										
	Dimension				Load Capacity					C_{100} (N)	No. of holes
	D (mm)	A (mm)	B (mm)	C (mm)	C_y (N)	C_z (N)	M_x (Nm)	M_y (Nm)	M_z (Nm)		
TLB43	25	130	25	80	13912	9738	97	212	302	13912	2
	25	210	25	80	22471	15743	156	550	786	22471	3
	25	290	25	80	31032	21723	215	1060	1503	31032	4
	25	370	25	80	39633	27715	272	1710	2442	39592	5
	25	450	25	80	48151	33704	333	2528	3612	48151	6
	25	530	25	80	56713	39698	390	3508	5010	56713	7
	25	610	25	80	65272	45689	451	4646	6637	65272	8

TLB Specifications

Type	Carriage Length	Stroke	Rail Length
TLB28-60-30-130	60	30	130
TLB28-60-110-210	60	110	210
TLB28-60-190-290	60	190	290
TLB28-60-270-370	60	270	370
TLB28-60-350-450	60	350	450
TLB28-80-90-210	80	90	210
TLB28-80-170-290	80	170	290
TLB28-80-250-370	80	250	370
TLB28-80-330-450	80	330	450
TLB28-80-410-530	80	410	530
TLB28-80-490-610	80	490	610
TLB28-130-120-290	130	120	290
TLB28-130-200-370	130	200	370
TLB28-130-280-450	130	280	450
TLB28-130-360-530	130	360	530
TLB28-130-440-610	130	440	610
TLB28-130-520-690	130	520	690
TLB28-130-600-770	130	600	770
TLB28-130-680-850	130	680	850
TLB28-130-760-930	130	760	930
TLB28-130-840-1010	130	840	1010
TLB28-210-200-450	210	200	450
TLB28-210-280-530	210	280	530
TLB28-210-360-610	210	360	610
TLB28-210-440-690	210	440	690
TLB28-210-520-770	210	520	770
TLB28-210-600-850	210	600	850
TLB28-210-680-930	210	680	930
TLB28-210-760-1010	210	760	1010
TLB28-210-920-1170	210	920	1170
TLB28-210-1080-1330	210	1080	1330
TLB28-290-280-610	290	280	610
TLB28-290-360-690	290	360	690
TLB28-290-440-770	290	440	770
TLB28-290-520-850	290	520	850
TLB28-290-600-930	290	600	930
TLB28-290-680-1010	290	680	1010
TLB28-290-840-1170	290	840	1170
TLB28-290-1000-1330	290	1000	1330
TLB28-290-1160-1490	290	1160	1490
TLB28-370-360-770	370	360	770
TLB28-370-440-850	370	440	850
TLB28-370-520-930	370	520	930
TLB28-370-600-1010	370	600	1010
TLB28-370-760-1170	370	760	1170
TLB28-370-920-1330	370	920	1330
TLB28-370-1080-1490	370	1080	1490
TLB28-450-440-930	450	440	930
TLB28-450-520-1010	450	520	1010
TLB28-450-680-1170	450	680	1170
TLB28-450-840-1330	450	840	1330
TLB28-450-1000-1490	450	1000	1490
TLB28-450-1160-1650	450	1160	1650

TLB Specifications

Type	Carriage Length	Stroke	Rail Length
TLB35-130-110-290	130	110	290
TLB35-130-190-370	130	190	370
TLB35-130-270-450	130	270	450
TLB35-130-350-530	130	350	530
TLB35-130-430-610	130	430	610
TLB35-130-510-690	130	510	690
TLB35-130-590-770	130	590	770
TLB35-130-670-850	130	670	850
TLB35-130-750-930	130	750	930
TLB35-130-830-1010	130	830	1010
TLB35-210-190-450	210	190	450
TLB35-210-270-530	210	270	530
TLB35-210-350-610	210	350	610
TLB35-210-430-690	210	430	690
TLB35-210-510-770	210	510	770
TLB35-210-590-850	210	590	850
TLB35-210-670-930	210	670	930
TLB35-210-750-1010	210	750	1010
TLB35-210-910-1170	210	910	1170
TLB35-210-1070-1330	210	1070	1330
TLB35-210-1230-1490	210	1230	1490
TLB35-290-270-610	290	270	610
TLB35-290-350-690	290	350	690
TLB35-290-430-770	290	430	770
TLB35-290-510-850	290	510	850
TLB35-290-590-930	290	590	930
TLB35-290-670-1010	290	670	1010
TLB35-290-830-1170	290	830	1170
TLB35-290-990-1330	290	990	1330
TLB35-290-1150-1490	290	1150	1490
TLB35-290-1310-1650	290	1310	1650
TLB35-370-350-770	370	350	770
TLB35-370-430-850	370	430	850
TLB35-370-510-930	370	510	930
TLB35-370-590-1010	370	590	1010
TLB35-370-750-1170	370	750	1170
TLB35-370-910-1330	370	910	1330
TLB35-370-1070-1490	370	1070	1490
TLB35-370-1230-1650	370	1230	1650
TLB35-450-430-930	450	430	930
TLB35-450-510-1010	450	510	1010
TLB35-450-670-1170	450	670	1170
TLB35-450-830-1330	450	830	1330
TLB35-450-990-1490	450	990	1490
TLB35-450-1150-1650	450	1150	1650
TLB35-450-1310-1810	450	1310	1810
TLB35-530-590-1170	530	590	1170
TLB35-530-750-1330	530	750	1330
TLB35-530-910-1490	530	910	1490
TLB35-530-1070-1650	530	1070	1650
TLB35-530-1230-1810	530	1230	1810
TLB35-610-670-1330	610	670	1330
TLB35-610-830-1490	610	830	1490
TLB35-610-990-1650	610	990	1650
TLB35-610-1150-1810	610	1150	1810

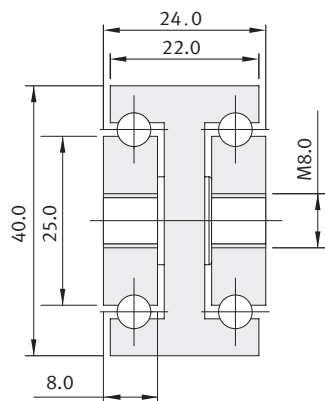
TLB Specifications

Type	Carriage Length	Stroke	Rail Length
TLB43-130-110-290	130	110	290
TLB43-130-190-370	130	190	370
TLB43-130-270-450	130	270	450
TLB43-130-350-530	130	350	530
TLB43-130-430-610	130	430	610
TLB43-130-510-690	130	510	690
TLB43-130-590-770	130	590	770
TLB43-130-670-850	130	670	850
TLB43-130-750-930	130	750	930
TLB43-130-830-1010	130	830	1010
TLB43-210-190-450	210	190	450
TLB43-210-270-530	210	270	530
TLB43-210-350-610	210	350	610
TLB43-210-430-690	210	430	690
TLB43-210-510-770	210	510	770
TLB43-210-590-850	210	590	850
TLB43-210-670-930	210	670	930
TLB43-210-750-1010	210	750	1010
TLB43-210-910-1170	210	910	1170
TLB43-210-1070-1330	210	1070	1330
TLB43-210-1230-1490	210	1230	1490
TLB43-210-1390-1650	210	1390	1650
TLB43-290-270-610	290	270	610
TLB43-290-350-690	290	350	690
TLB43-290-430-770	290	430	770
TLB43-290-510-850	290	510	850
TLB43-290-590-930	290	590	930
TLB43-290-670-1010	290	670	1010
TLB43-290-830-1170	290	830	1170
TLB43-290-990-1330	290	990	1330
TLB43-290-1150-1490	290	1150	1490
TLB43-290-1310-1650	290	1310	1650
TLB43-290-1470-1810	290	1470	1810
TLB43-370-350-770	370	350	770
TLB43-370-430-850	370	430	850
TLB43-370-510-930	370	510	930
TLB43-370-590-1010	370	590	1010
TLB43-370-750-1170	370	750	1170
TLB43-370-910-1330	370	910	1330
TLB43-370-1070-1490	370	1070	1490
TLB43-370-1230-1650	370	1230	1650
TLB43-370-1390-1810	370	1390	1810
TLB43-450-430-930	450	430	930
TLB43-450-510-1010	450	510	1010
TLB43-450-670-1170	450	670	1170
TLB43-450-830-1330	450	830	1330
TLB43-450-990-1490	450	990	1490
TLB43-450-1150-1650	450	1150	1650
TLB43-450-1310-1810	450	1310	1810
TLB43-450-1470-1970	450	1470	1970
TLB43-530-590-1170	530	590	1170
TLB43-530-750-1330	530	750	1330
TLB43-530-910-1490	530	910	1490
TLB43-530-1070-1650	530	1070	1650
TLB43-530-1230-1810	530	1230	1810
TLB43-530-1390-1970	530	1390	1970
TLB43-610-670-1330	610	670	1330
TLB43-610-830-1490	610	830	1490
TLB43-610-990-1650	610	990	1650
TLB43-610-1150-1810	610	1150	1810
TLB43-610-1310-1970	610	1310	1970



THR

THR40 Dimension

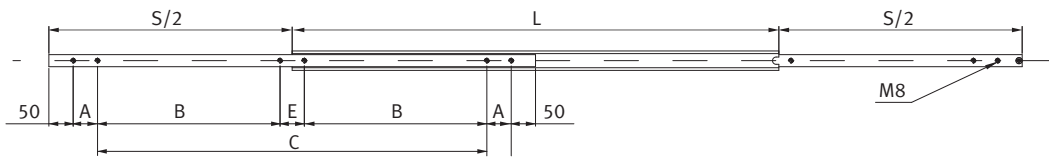


* 45# High carbon steel/316L(1.4404) Stainless steel are available.

* Surface Treatment: White Zinc Plated.

Type	Length L (mm)	Stroke S (mm)	Load Capacity (Per Pair) (kg)	Pitch (mm)			
				A	B	C	E
THR40-0150	150	150	175	50			
THR40-0200	200	200	210	50			
THR40-0250	250	250	217	50		50	
THR40-0300	300	300	224	50		100	
THR40-0350	350	350	231	50		150	
THR40-0400	400	400	238	50		200	
THR40-0450	450	450	245	50		250	
THR40-0500	500	500	252	50		300	
THR40-0550	550	550	259	50	150		50
THR40-0600	600	600	266	50	175		50
THR40-0650	650	650	259	50	200		50
THR40-0700	700	700	252	50	225		50
THR40-0750	750	750	245	50	250		50
THR40-0800	800	800	238	50	275		50

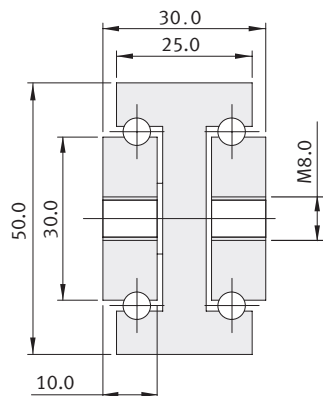
THR40 Stroke



Type	Length L (mm)	Stroke S (mm)	Load Capacity (Per Pair) (kg)	Pitch (mm)			
				A	B	C	E
THR40-0850	850	850	231	50	300		50
THR40-0900	900	900	217	50	325		50
THR40-0950	950	950	210	50	350		50
THR40-1000	1000	1000	198	50	375		50
THR40-1050	1050	1050	186	50	400		50
THR40-1100	1100	1100	179	50	425		50
THR40-1150	1150	1150	173	50	450		50
THR40-1200	1200	1200	166	50	475		50
THR40-1250	1250	1250	160	50	500		50
THR40-1300	1300	1300	150	50	525		50
THR40-1350	1350	1350	139	50	550		50
THR40-1400	1400	1400	132	50	575		50
THR40-1450	1450	1450	126	50	600		50
THR40-1500	1500	1500	119	50	625		50

THR

THR50 Dimension

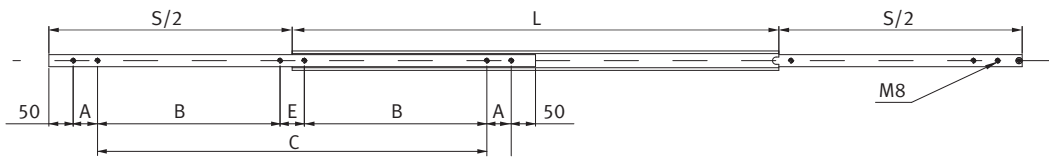


* 45# High carbon steel/316L(1.4404) Stainless steel are available.

* Surface Treatment: White Zinc Plated.

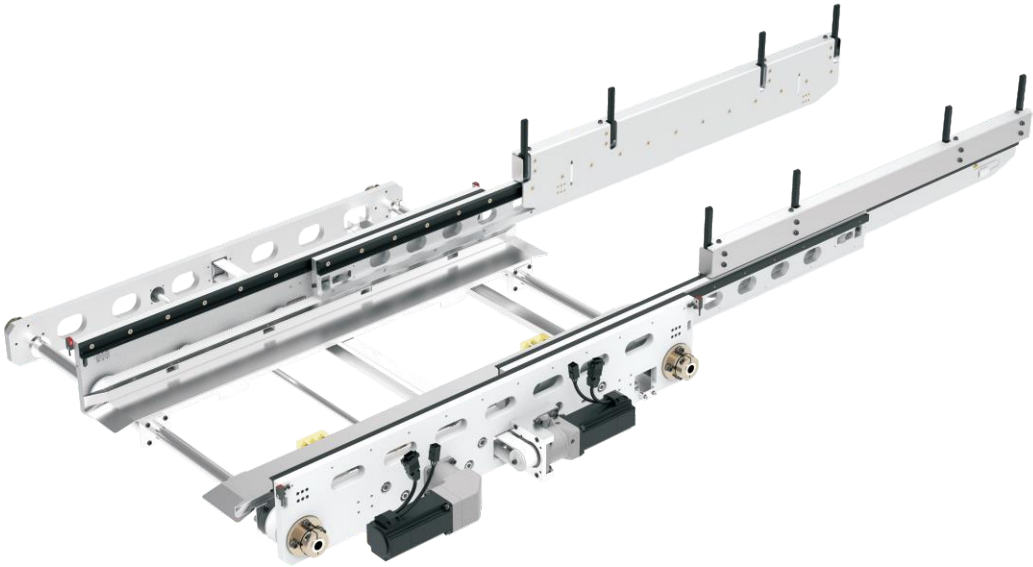
Type	Length L (mm)	Stroke S (mm)	Load Capacity (Per Pair) (kg)	Pitch (mm)			
				A	B	C	E
THR50-0200	200	200	300	50			
THR50-0250	250	250	310	50		50	
THR50-0300	300	300	320	50		100	
THR50-0350	350	350	330	50		150	
THR50-0400	400	400	340	50		200	
THR50-0450	450	450	350	50		250	
THR50-0500	500	500	360	50		300	
THR50-0550	550	550	370	50	150		50
THR50-0600	600	600	380	50	175		50
THR50-0650	650	650	370	50	200		50
THR50-0700	700	700	360	50	225		50
THR50-0750	750	750	350	50	250		50
THR50-0800	800	800	340	50	275		50
THR50-0850	850	850	330	50	300		50
THR50-0900	900	900	310	50	325		50

THR50 Stroke



Type	Length L (mm)	Stroke S (mm)	Load Capacity (Per Pair) (kg)	Pitch (mm)			
				A	B	C	E
THR50-0950	950	950	300	50	350		50
THR50-1000	1000	1000	290	50	375		50
THR50-1050	1050	1050	280	50	400		50
THR50-1100	1100	1100	270	50	425		50
THR50-1150	1150	1150	260	50	450		50
THR50-1200	1200	1200	250	50	475		50
THR50-1250	1250	1250	240	50	500		50
THR50-1300	1300	1300	230	50	525		50
THR50-1350	1350	1350	220	50	550		50
THR50-1400	1400	1400	210	50	575		50
THR50-1450	1450	1450	200	50	600		50
THR50-1500	1500	1500	190	50	625		50
THR50-1550	1550	1550	175	50	650		50
THR50-1600	1600	1600	160	50	675		50

Telescopic Fork



SAIBO Telescopic fork is designed for pull or push material container in the automated logistics storage system. It has characteristic of compact structure, light weight, high speed, single or bidirectional movement. It mainly used for shuttle vehicles, container-storage-type AGV, light weight stacker etc.

Single Depth Telescopic Fork

It is used to pick a single row of 400X600 standard material containers. The arms run fast and locates precisely. The combination of aluminum alloy and metal sheet material not only realizes the compact structure and light weight, but also has the characteristics of high rigidity and low deflection deformation.

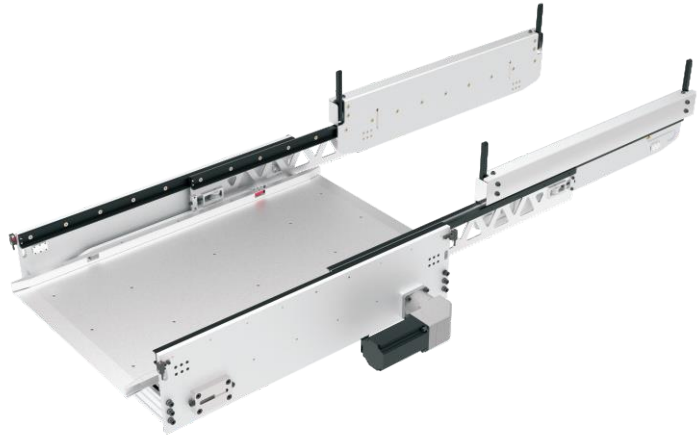
Double Depth Telescopic forks

It is used to pick double-row 400X600 standard material containers. It is characterized by precise stroke control and multiple sets of independent fingers. It can realize pick double-row material containers with bidirectional movement. This structure helps increase material storage density.

Adjustable Width Telescopic Fork

It is used to pick double-row material containers with different sizes. With the function of width adjustment, it can realize the handling and storage of materials with different sizes to meet the special needs of mixed storage of various materials.

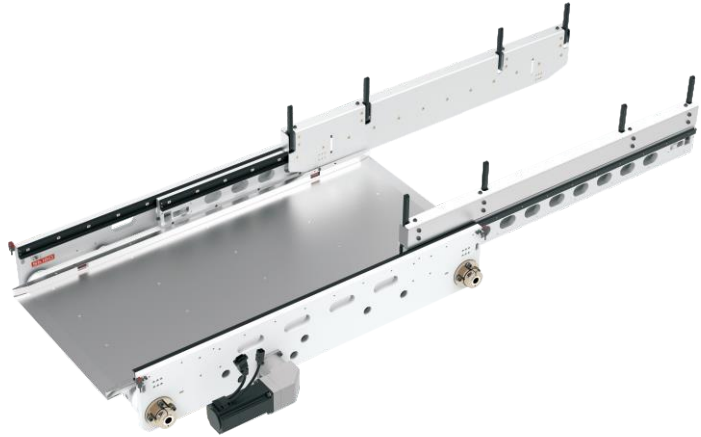
Single Depth Telescopic Fork



Item	Parameter
Model No.	FTMB400
Dimension (L/W/H)	783/675/242mm
Stroke	910mm
Applicable case size	600 × 400mm
Max No-load Speed	2m/s
Max No-load Acceleration	3m/s ²
Max Load Capacity	50KG
Extend Arm Thickness	40mm
Fork Weight	35KG
Finger Quantity on One Side Arm	2pcs
Distance between Fingers	658mm

- Compact structure, lightweight
- Life test verification, long life and efficient
- Standard and modular design
- Quick response and delivery timely

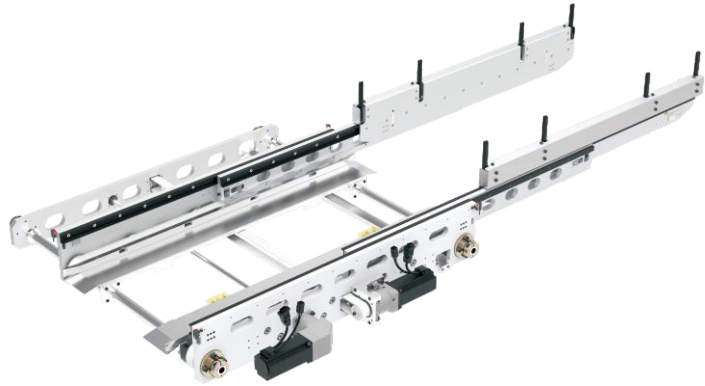
Double Depth Telescopic Fork



Item	Parameter
Model No.	FTMC400
Dimension (L/W/H)	1020/723/233mm
Stroke	1444mm
Applicable case size	600 × 400mm
Max No-load Speed	1.6m/s
Max No-load Acceleration	3m/s ²
Max Load Capacity	50KG
Extend Arm Thickness	40mm
Fork Weight	55KG
Finger Quantity on One Side Arm	4pcs
Distance between Fingers	664mm

- Suitable for taking and placing in double depth material case
- Flexible switch between single depth and double depth
- Standard and modular design
- Quick response and delivery timely

Adjustable Width Telescopic Fork



Item	Parameter
Model No.	RMFB 200-600
Dimension (L/W/H)	1003/1016/233mm
Stroke	1444mm
Applicable case size	600 × (200-600)mm
Max No-load Speed	1.6m/s
Max No-load Acceleration	3m/s ²
Max Load Capacity	50KG
Extend Arm Thickness	40mm
Fork Weight	61KG
Finger Quantity on One Side Arm	4pcs
Distance between Fingers	664mm

- Suitable for taking and placing different size material cases
- Flexible switch between single depth and double depth
- Standard and modular design
- Quick response and delivery timely

All rights reserved.

Due to constant development of the products, we reserve the right of modifications without notifications.

WUXI SAIBO INDUSTRY CO LTD

6-701 XIHU EAST ROAD, WUXI 214011, CHINA

Tel: +86-510-8203 9930

www.saibo-motion.com
info@saibo-motion.com



S03E-2023

