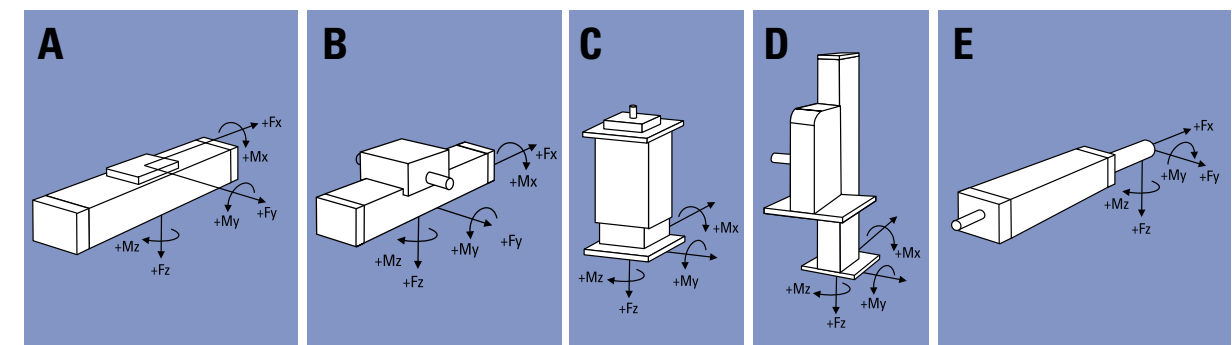


Photos of the Units

Ball Screw Drive, Ball Guide 1  2  3 	Belt Drive, Ball Guide 6  7  8  9 	Linear Lifting Units 14  15  16 
Ball Screw Drive, Slide Guide 4  5 	Belt Drive, Slide Guide 10  11 	Linear Rod Units 17  18  19 
Belt Drive, Wheel Guide 12  13 		

Definition of Forces

Please use these definitions when referring to a force that are applied to the unit.



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**DISTRIBUIDOR
 AUTORIZADO**

MEX (55) 53 63 23 31
 QRO (442) 1 95 72 60

MTY (81) 83 54 10 18
 ventas@industrialmagza.com

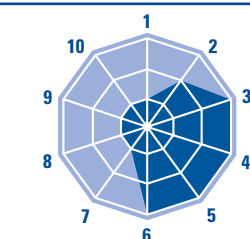
Product Groups

Thomson linear units are divided in to seven product groups depending on the drive and guiding method being used.

Ball screw driven - ball guided units

Units designed for high thrust, payload, precision and stiffness.

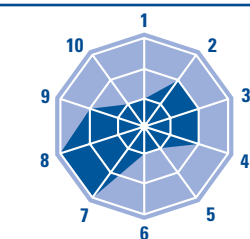
- Force up to 12000 N
- Repeatability down to 0,005mm



Ball screw driven - slide guided units

Low cost units for high thrust applications and demanding environments.

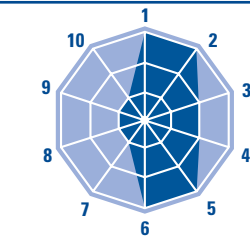
- Durable guide system
- Washdown protected version



Belt driven - ball guided units

Smooth running units for high speed, acceleration and load requiring a long lifetime.

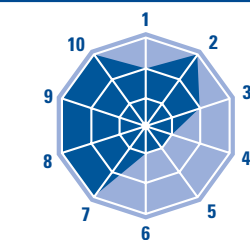
- Speed up to 5 m/s
- Acceleration up to 40 m/s²



Belt driven - slide guided units

Units for applications requiring smooth travel, high speed, high acceleration and low maintenance.

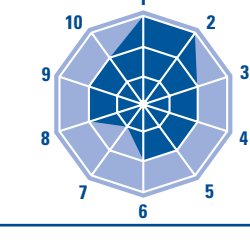
- Cost efficient guide system
- Chemically protected versions



Belt driven - wheel guided units

Units for high speed, high acceleration, smooth motion and medium to high loads.

- Speed up to 10 m/s
- Acceleration up to 40 m/s²



Linear lifting units

Units for lifting applications that often are used in X-Y configurations in combination with other linear units.

Linear rod units

Units designed for lifting applications or for the replacement of hydraulic and pneumatic cylinders.

1. Velocity
2. Acceleration
3. Repeatability
4. Force
5. Load torque
6. Stiffness
7. Guide robustness
8. Cost
9. Maintenance
10. Noise

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Quick Selection Table



DISTRIBUIDOR AUTORIZADO MEX (55) 53 63 23 31 MTY (81) 83 54 10 18
 QRO (442) 1 95 72 60 ventas@industrialmagza.com

Group	Linear Units																Linear Units										Linear Lifting Units							Linear Rod Units																		
	WM40S	WM40D	WM60D	WM60S	WM80D	WM80S	WM120D	MSLM60D	MSLM80D	2HBE10	2HEB20	WB40	WB60	M55	M75	M100	WH40	WM60Z	WM80Z	M55	M75	M100	MLSM80Z	M50	M55	M75	M100	WH50	WH80	WH120	MLSH60Z	MLSH80Z	WHZ50	WHZ80	Z2	Z3	ZB	WZ60	WZ80	T90	T130											
Drive Type	SCREW											SCREW					BELT					BELT					BELT		SCREW			SCREW																				
Guide Type	BALL											SLIDE					BALL					SLIDE					WHEEL		WHEEL			SLIDE		BALL		SLIDE																
Specifications																																																				
Screw diameter / belt type [mm]	12	12	20	20	25	25	32	25	32	16	25	12	20	16	20	25	10 AT 5	20 ATL 5	25 AT 10	22STD5M5	STD5-40	STD8-50	75 ATL 10	GT 5MR	22STD5M5	STD5-40	STD8-50	16 ATL 5	32 ATL 10	50 ATL 10	32 ATL 5	75 ATL 10	16 ATL 5	32 ATL 5	25	32	25	32	50 AT 10	20	25	25	32	40								
Screw lead / move per revolution [mm]	5	5	5, 20, 50	5, 20, 50	5, 10, 20, 50	5, 10, 20, 50	5, 10, 20, 40	5, 10, 20, 50	5, 10, 20, 40	5, 10	5, 10, 25	5, (8 ³)	5, 20, (8 ³)	5, 5,08, 10, 20, (32 ⁴)	5, 12,7, 20, (5 ⁴)	5, 10, 25, (10, 25 ⁴)	100	120	170	105	130	176	200	130	105	130	176	120	200	260	135	200	120	200	10, 25	20	10, 25	20	200	5, 20, 50	5, 10, 20, 50	5, 10,25	20, 32	10, 20, 40								
Profile size (width x height) [mm]	40 x 40	40 x 40	60 x 60	60 x 60	80 x 80	80 x 80	120 x 120	160 x 65	240 x 85	100 x 33,5	200 x 44	40 x 37	60 x 59	58 x 55	86 x 75	108 x 100	40 x 40	60 x 60	80 x 80	58 x 55	86 x 75	108 x 100	240 x 85	50 x 50	58 x 55	86 x 75	108 x 100	50 x 50	80 x 80	120 x 120	160 x 65	240 x 85	50 x 50	80 x 80	188 x 150	188 x 150	188 x 150	188 x 150	88 x 88	60 x 60	80 x 80	90 x 92	90 x 92	130 x 130								
Performance																																																				
Max. stroke length [mm]	2000	1950	11000 (5000 ³)	5000	11000 (5000 ³)	5000	11000 (5000 ⁴)	5500	5200	850	2800	1000	5200	3000	4000	6000	2000	4000	5400	7000	12000	12000	5900	5000	7000	12000	12000	3000	11000	11000	5500	5900	1500	3000	1500	1500	1500	1500	2500	400	500	1500	1500	2000								
Max. linear speed [m/s]	0,25	0,25	2,5	2,5	2,5	2,5	2,0	2,5	2,0	0,5	1,3	0,25	1,0	1,0	1,6	1,6	3,0	2,5	5,0	5,0	5,0	5,0	5,0	5,0	5,0	5,0	6,5	10,0	10,0	6,5	10,0	6,5	10,0	1,25	1,25	1,25	1,25	3,0	1,5	1,5	2,0	2,0	2,0									
Max. acceleration [m/s ²]	20	20	20	10	20	20	20	20	20	20	20	5	5	8	8	8	40	20	20	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	8	8	8	8	40	20	20	8	8	8						
Repeatability [±mm]	0,02	0,01	0,01	0,02	0,01	0,02	0,01	0,01	0,01	0,005	0,005	0,05	0,05	0,05	0,05	0,05	0,05	0,05	0,05	0,1	0,1	0,1	0,1	0,05	0,2	0,2	0,2	0,2	0,05	0,05	0,05	0,05	0,05	0,05	0,05	0,05	0,1	0,1	0,1	0,1	0,1	0,02	0,02	0,05	0,05	0,05						
Max. dynamic load (Fx) [N]	1000	1000	4000	2800	5000	3500	12000 (8000 ⁴)	5000	12000 (8000 ⁴)	2500	5000	200 (500 ³)	2500 (2500 ³)	1000 (500 ³)	2500 (1250 ³)	5000 (2000 ³)	315	850	1470	400 (200 ³)	900 (450 ³)	1250 (625 ³)	5000	400 (200 ³)	400 (200 ³)	900 (450 ³)	1250 (625 ³)	670	2700	5000	1480	5000	670	1480	-	-	-	-	-	2800	3500	10000	20000	40000								
Max. dynamic load (Fy) single carriage [N]	450	450	2000	1400	3000	2100	6000	6000	8000	2065	9515	200	500	400	1485	3005	450	1400	3000	750	1750	4000	6400	400	400	1485	3005	415	882	4980	3000	5000	415	882	-	-	-	-	-	2000	3000	300	500	800								
Max. dynamic load (Fz) single carriage [N]	600	600	2000	1400	3000	2100	6000	6000	8000	2065	9515	250	650	400	1485	3005	600	1400	3000	750	1750	4000	6400	400	400	1485	3005	730	2100	9300	3000	5000	730	882	5000	7500	5000	7500	500	2000	3000	300	500	800								
Max. dynamic load torque (Mx) [Nm]	10	10	100	50	350	150	500	400	780	290	2760	6	30	9	49	117	10	25	150	5	16	43	600	5	9	49	117	16	75	500	165	350	16	75	700	700	2000	2000	445	50	150	-	-	-								
Max. dynamic load torque (My) single carriage [Nm]	30	30	200	100	300	180	600	460	900	225	2130	15	70	23	85	279	30	50	300	29	84	280	720	21	21	85	279	87	230	930	310	450	87	230	700	700	2000	2000	445	-	-	150	150	300								
Max. dynamic load torque (Mz) single carriage [Nm]	30	30	200	100	300	180	600	460	900	225	2130	10	50	23	85	279	30	50	300	29	84	280	720	21	21	85	279	50	100	500	310	450	50	100	330	330	330	330	35	-	-	150	150	300								
Features																																																				
Cover band, none / plastic / steel	/•/	/•/	/•/	/•/	/•/	/•/	/•/	/•/	/•/	/•/	•//	•//	/•/	/•/	//•	//•	//•	•//	/•/	/•/	//•	//•	//•	/•/	•//	//•	//•	//•	•//	•//	•//	/•/	/•/	•//	•//	-	-	-	-	•//	-	-	-	-	-							
Lubrication, required / not required	•/	•/	•/	•/	•/	•/	•/	•/	•/	•/	•/	•/	•/	•/	•/	•/	•/	•/	•/	•/	•/	•/	•/	•/	•/	•/	•/	•/	•/	•/	•/	•/	•/	•/	•/	•/	•/	•/	•/	•/	•/	•/	•/	•/	•/	•/	•/	•/				
Screw supports, when required / optional / no ²	•//	•//	•//	•//	•//	•//	•//	•//	•//	//•	//•	//•	//•	/•/	/•/	/•/	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Options																																																				
Double carriages	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	-	-	-	-	-	-	-	-	-	-	-						
Play elimination																																																				
Undriven version	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
Washdown protection																																																				
Chemical protection																																																				
Photo and Force Definition																																																				
Photo / force definition	1 / A	1 / A	1 / A	1 / A	1 / A	1 / A	1 / A	2 / A	2 / A	3 / A	3 / A	4 / A	4 / A	5 / A	5 / A	5 / A	6 / A	7 / A	7 / A	8 / A	8 / A	8 / A	9 / A	10 / A	11 / A	11 / A	11 / A	12 / A	12 / A	12 / A	13 / A	13 / A	14 / B	14 / B	15 / C	15 / C	15 / C	15 / C	16 / D	17 / E	17 / E	18 / E	18 / E	19 / E								

¹ LA and Lc = c/c distance in mm between carriages. ² When required means that screw supports are installed automatically at the factory when they are required while optional means that screw supports are available but must be specified in the ordering key to be installed in the unit at the factory. ³ For screw lead 50 mm. ⁴ For screw lead 40 mm. ⁵ Value between brackets = for models with lead screw instead of ball screw. ⁶ Value between brackets = for models with composite nut instead of ball nut. ⁷ Value between brackets = for speeds above 2,5 m/s.