ROLLON®

Linear Evolution

Actuator Line

Part 2

Product Overview

English

www.motiontech.com.au

www.rollon.com

Actuator Line

Product families

TECLINE

Linear axes with rack and pinion transmission.
Rolling on trapezoidal or recirculating ball guides.
High loads and precision positioning.
Can be equipped with multiple independent carriages.

MODLINE

Linear axis with belt drive or screw drive.
Rolling on trapezoidal, round or recirculating ball guides.
Reduced maintenance, silent.
Covers resist contamination.

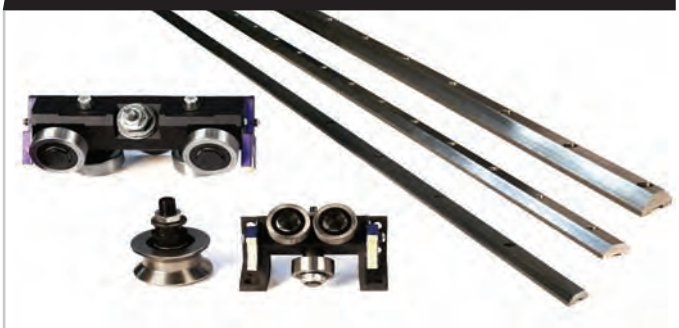
MODLINE Z

Vertical axes with belt transmission. It includes axes with pneumatic counter balance. The pneumatic cylinder is integrated inside the section, which also contains cable conduit. It requires smaller geared motors, it offers higher performances, resulting in cost and energy savigs.

SYS

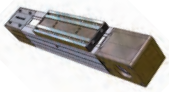
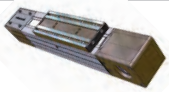
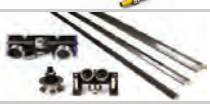
Modular handling system consisting of aircraft aluminum alloy guides with high mechanical features and hardcoat anodized surface (deep, hard anodisation) and wheel-based rolling blocks. Designed to protect the wheels, it has a small cross-section and is available in various configurations depending on loads and distance between the various supports. Can be integrated with structural sections and a wide range of accessories.

PRISMATIC RAIL



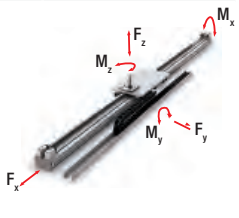
Prismatic steel guides hardened and ground with high carbon content provides for easy assembly and low maintenance requirements. Extremely adaptable, they allow for applications with good accuracy in environments with process contamination.

Technical features overview

Reference			Section		Driving			Anticorrosion	Protec
Family		Product	Balls	Rollers	Toothed belt	Ball screw	Rack and pinion		
TECLINE		PAR							
		PAS/M PAH/M							
MODLINE		MCS MCH							
		MCR							
		TVS TVH							
		TCS TCH TECH							
		KCH							
		TCR TECR							
		MVS MVH							
		MTR MVR							
MODLINE Z		ZCS ZCH							
		ZCR ZCY							
		ZMC							
SYS		SYS1							
		SYS2							
PRISMATIC RAIL		203							

Reported data must be verified according to the application.
For a complete overview about technical data, please consult our catalogues at www.rollon.com.
* Longer stroke is available for jointed version

tion	Size	Max. load capacity per carriage [N]			Max. static moment per carriage [Nm]			Max. travel speed [m/s]	Max. acceleration [m/s²]	Repeatability accuracy [mm]	Max. travel or stroke (per system) [mm]
		F_x	F_y	F_z	M_x	M_y	M_z				
	170-180-200 220-280-360	10280	29900	44860	6900	13160	8800	3,5	10	± 0,2	10800*
	170-180-200 220-280-360	11600	47350	47350	7240	13100	13100	3,5	10	± 0,05	10800*
	65-80-105	3300	9550	9550	156	800	800	5	50	± 0,1	10100
	65-80-105	3300	1500	2950	185	580	220	5	20	± 0,1	10100
	170-180 220-280	6000	18300	18300	1300	3200	3200	1	5	± 0,05	4000
	100-170 180-200-220 280- 360	8000	28600	28600	4000	5500	5500	5	50	± 0,1	11480
	100-150-200	2150	6500	6000	110	680	680	4	50	0,1	5600
	100-170 180-200-220 280- 360	8000	25400	25400	4900	5300	5300	7	20	± 0,1	11480
	80-105	3000	9550	9550	156	800	800	0,75	5	± 0,05	5150
	80-105	3000	1500	2950	185	580	220	0,75	5	± 0,05	5150
	60-90-100 170-220	6000	10400	12000	810	2940	4560	4	25	± 0,1	11305
	60-90-100 170-180-220	6000	7620	9500	440	1900	1485	4	25	± 0,1	11300
	105	250	4500	4500	260	700	700	4	25	± 0,1	2000
	50-100 130-180	6100	3950	6317	548	950	668	5	25	± 0,05	7500*
	200	6320	6320	6320	700	820	705	5	25	± 0,05	7500*
	28-35-55	-	-	15000	-	-	-	5	50	± 0,1	7500*



Multi-axis Systems

PICK & PLACE

Two Y/Z axes arrange the basic handling on a vertical plane. The customer's equipment is secured at the top of the Z axis directly or with an interface plate. Wheel-based rolling system or recirculating ball rolling block on profile rails to ensure high positioning precision.

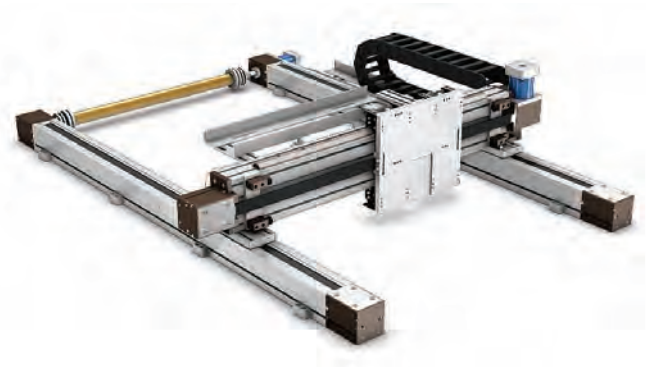
COMPARE MODELS

y	z	Kg 0 5 25 50 60 80 100 150 200 250 300 400 500 600 800 1000 1500	Ld
100	60		2000
180	90		3000
170	100		5000
200	100		5000
200	180		5500
220	170		5000
280	200		6000
280	220		6000
360	220		6000
360	280		7000
460	360		7000

High cycle rate — Low cycle rate

Ld = free span

2D GANTRY



Two X/Y axes with a bridge structure arrange provide the basic handling on a horizontal plane. The customer's equipment is anchored onto the mobile plate of the Y axis and processed as per specifications. Wheel-based rolling system or recirculating ball rolling block on processed guide bushings to ensure high positioning precision.

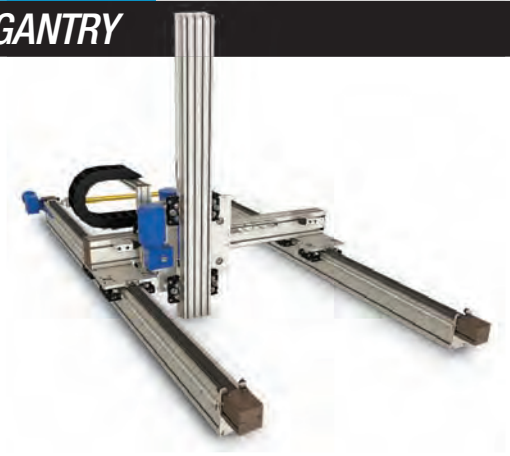
COMPARE MODELS

x	y	Kg 5 25 50 60 80 100 150 200 250 300 400 500 600 800 1000 1500	Ld
From 105 to 220	60-65		2000
	90-80		3000
	100-105		3500
	180		4500
	170		5000
From 280 to 460	200		5000
	220		6000
	280		6000
	280		6500
	360		7000

High cycle rate — Low cycle rate

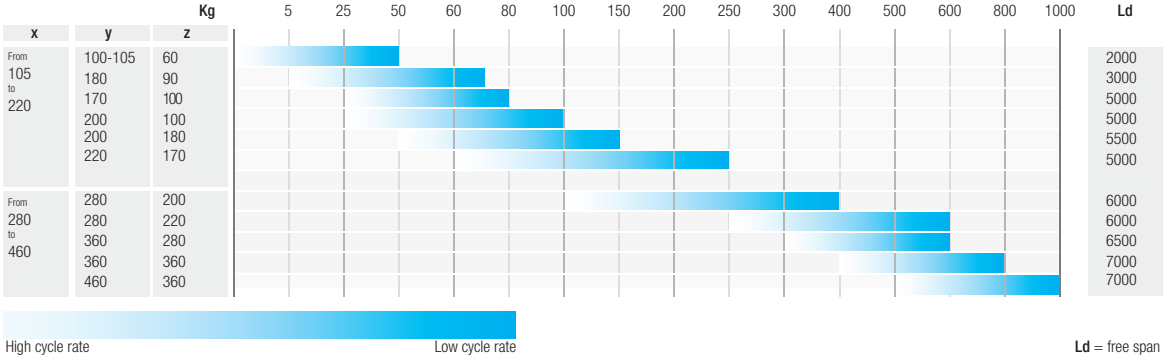
Ld = free span

3D GANTRY



System provides for fine positioning moves in 3D space. The interpolation between two basic systems allows for the deployment of the handling in the complex three-dimensional space. Wheel-based rolling system or recirculating ball rolling block on processed guide bushings to ensure high positioning precision.

COMPARE MODELS

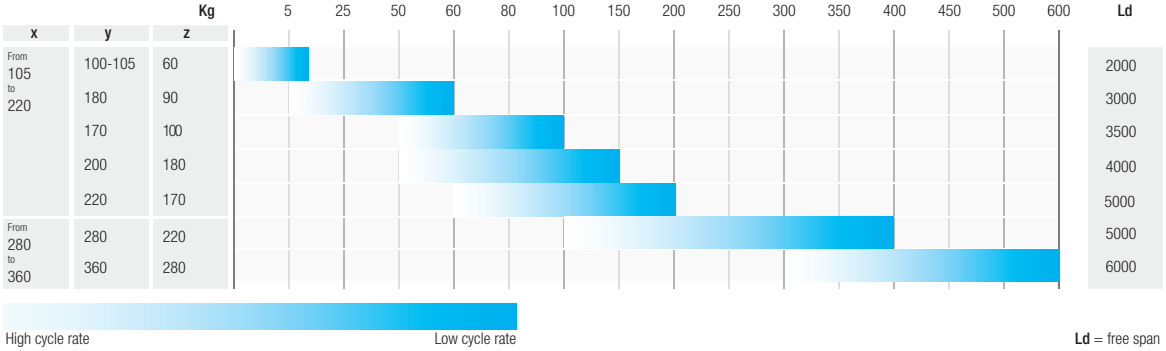


Ld = free span

CANTILEVER

The system with three axis (X/Y/Z) motion can be set to cantilevered mode to keep the working area free from obstacles. By maintaining the bridge-like structure, one can ensure high precision, loads and dynamic response. Wheel-based rolling system or recirculating ball rolling block on processed guide bushings to ensure high positioning precision.

COMPARE MODELS



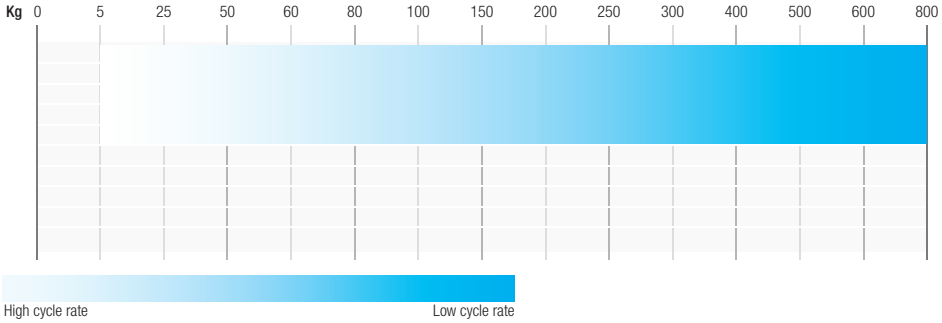
Ld = free span

Special Systems

MULTI

Multiple X/Y/Z systems with belt, comma after rack screw and hybrid handling. Exploiting the modularity with the full range of our standard products, we work together with customers to make highly customized systems quickly and with low costs.

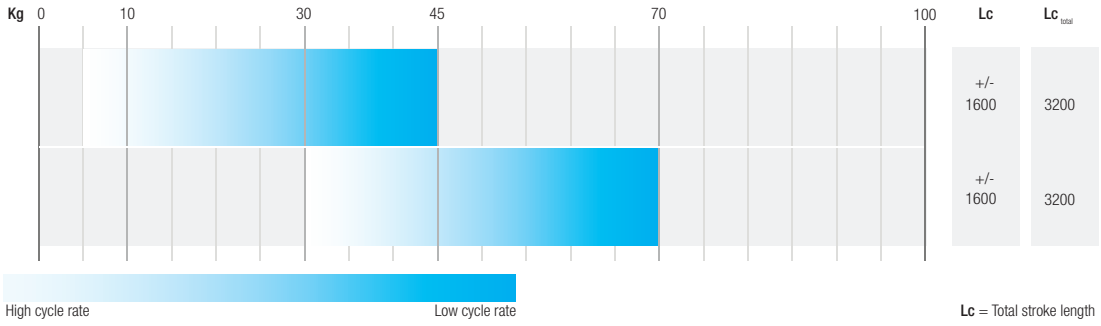
COMPARE MODELS



FEEDER

Power supply systems with minimum overall dimensions and masses to ensure high speed and acceleration. Horizontal movement with telescopic axes with several disengagements, belt handling and rolling on recirculating ball bearing guides. Vertical movement with recirculating ball screw or “Crank connecting rod”.

COMPARE MODELS



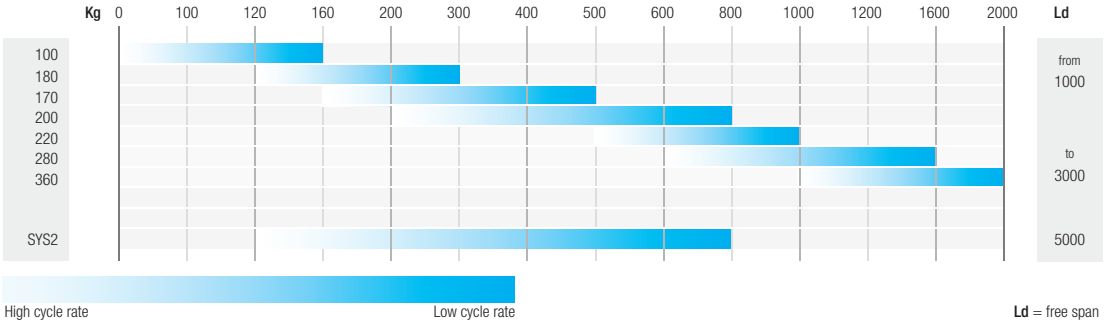
Lc = Total stroke length

Actuator Line

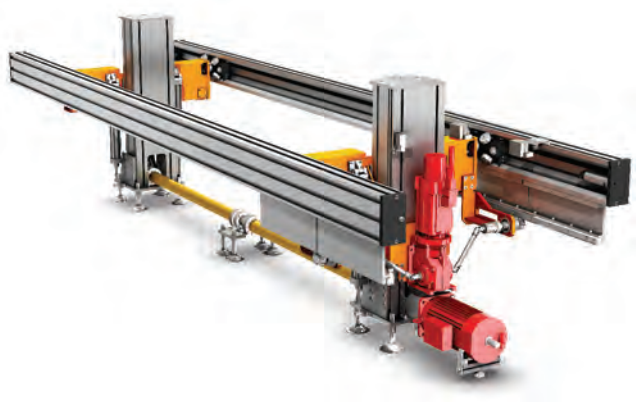
RAIL

Handling with shuttle system for heavy, bulky loads. High speed and tens of metres long. Adjustable support feet. Wheel-based rolling system or recirculating ball rolling block on processed guide bushings to ensure high positioning precision.

COMPARE MODELS

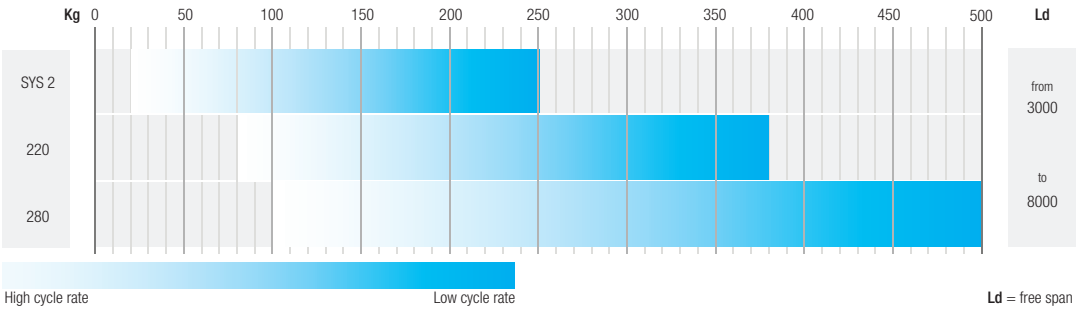


WALK



“Lift and move” motion profile with multi-stations and long travel lengths. “Pilgrim step” movement system with hard anodised profiles. The horizontal handling, in combination with the vertical movement, is carried out by rolling on polyamide nylon wheels with a rack and pinion system. Column modules carry out the lifting movement with a recirculating ball screw drive. The column modules are operated with a single geared motor through a transmission with shafts and corner stops.

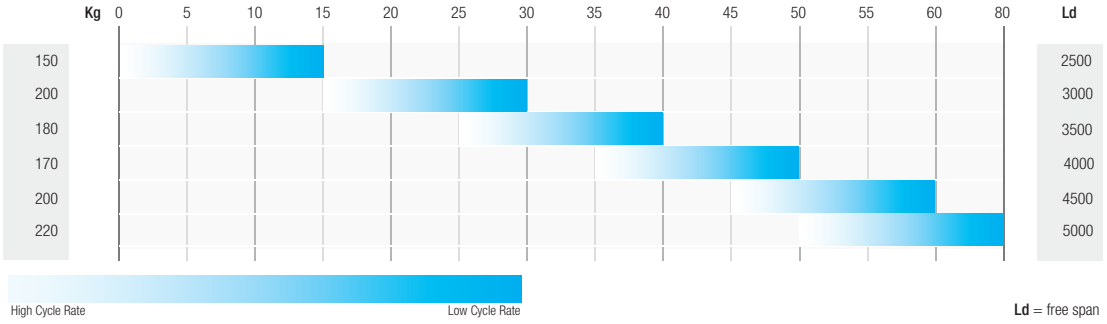
COMPARE MODELS



SIDE 1

> Versatile transfer system in many molding industries (press edge). Lightweight and silent running.
Designed for high duty cycles, positioning precision and high dynamic loads. Wide range, extensive lengths, cantilevered loads. Belt handling (Ω transmission to minimize belt length).

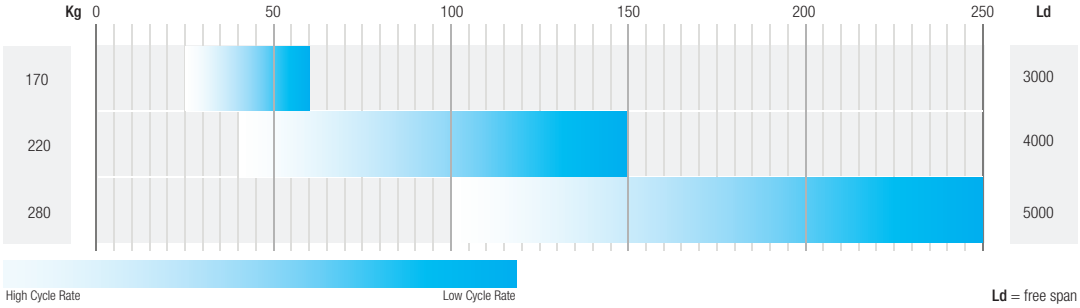
COMPARE MODELS



SIDE 2

> Versatile multi-carriage system that can be used in many molding sectors (pick and place robots extension). Designed for high cycles, positioning precision and dynamic loads. Long lengths for multi-station control systems. Belt drive connected to first vertical axis only. Thereafter, all vertical axis connected by metallic bars.

COMPARE MODELS



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