LINEAR ROBOT **RL50**

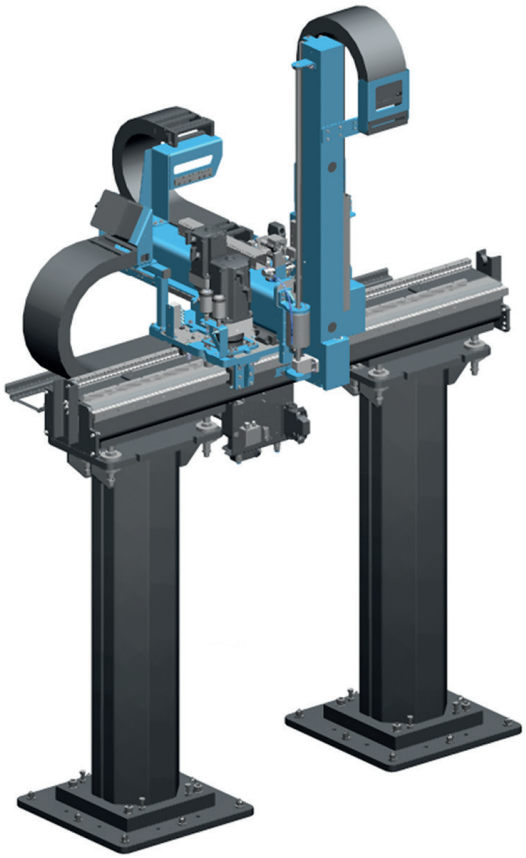
FOR ENHANCED QUALITY AND PRODUCTIVITY IN LARGE-SCALE WORKSPACES

In its maximum configuration, the **RL50 linear robot** has three cartesian axes and three rotary axes, which are fully synchronized and interpolated servo axes controlled by the robot controller.

The experience gained from a large number of installed handling applications and our expertise as one of the leading providers of intelligent automation solutions for more than five decades have been incorporated into the development of the new **RL50**.

YOUR BENEFITS

- combined with the very low interference contours of the robot kinematics, this is ideal for interlinking work sequences for loading and unloading, but also for palletizing or transferring
- modular design with workspaces from 1 m^3 to 169 m^3 make the linear robot a safe investment for your automation system
- state-of-the-art servo drive technologies are used to achieve the best possible dynamics, performance and reliability



SCOPE OF SUPPLY INCLUDING

- **RL50** with flexible stroke and staggered operating height
  Basic stroke:
  A1 = 2,000 mm,
  A2 = 500 mm,
  A3 = 1,000 mm

OPTIONS

- Wrist axle modules
- Incremental stroke lengths A1 – A3
- Incremental height adjustment of the support columns
- Additional brake A3
- Central lubrication system
- Energy supply
- Adapted to customer specifications
- Extra seals for guiding systems
- Drip protection

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Technical data

Nominal payload capacity	kg	50
Payload range (depending on stroke A3)	kg	33 to 81
Repeat positioning accuracy	mm	± 0.1
Number of axes		3
Work envelope	m^3	2 to 169
Medium power consumption	kVA	2.7
Connected load	kVA	4.3
Weight of basic stroke A1 – A3 (without support columns, without load)	kg	approx 628

Velocities

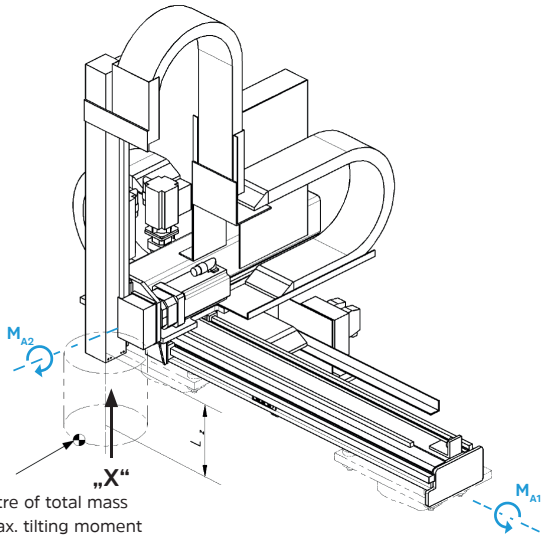
A1	m/s	3
A2	m/s	2
A3	m/s	3

Strokes

		A1	A2	A3
Basic stroke	mm	2,000	500	1,000
Max. stroke	mm	45,000	1,500	2,500
Extension steps	mm	1,000	250	250
Extra weight for each upgrade	kg	111	18.5	8

Support column

Basic size (ø)	mm	345
Basic height	mm	1,750
Maximum height	mm	3,000
Height of extension steps	mm	250
Support column spacing (max.)	mm	5,000
Support arm projection (max.)	mm	1,250



Gravty centre of total mass
observe max. tilting moment

Table Maximum load A3

Stroke lengths A3 [mm]		Load (max.)
1,000	kg	81
1.,250	kg	73
1,500	kg	65
1,750	kg	57
2,000	kg	49
2,250	kg	41
2,500	kg	33

Max. lever arm with max. load

L_z	mm	150

For further information please contact us under: sales@reisrobotics.com

Reis Robotics GmbH & Co. KG
Walter-Reis-Straße 1
63785 Obernburg / Germany
Phone +49 6022 503-0

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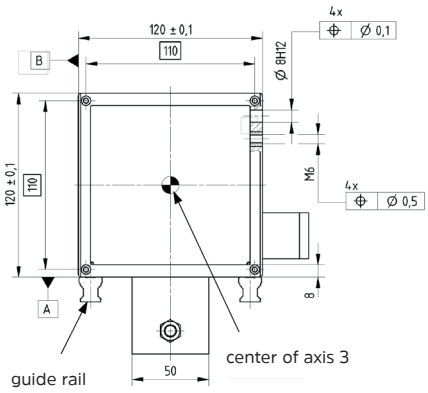
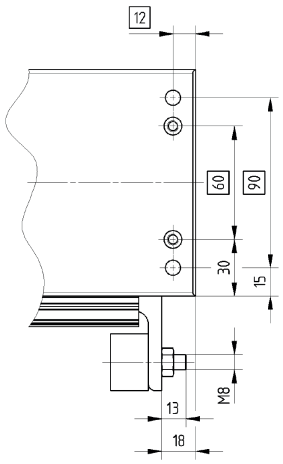
ADDITIONAL LOAD

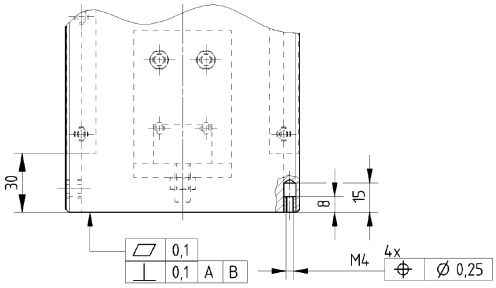
Additional load on axis A1 and axis A2

Type	stroke lengths A2 / D	Additional load moving along on A1		Additional load moving along on A2	
		max. mass	max. admissible moment around center of support arm A1, generated by L_{A1} **and** L_{A2}	max. mass	max. admissible moment around center of support arm A2
	[mm]	L_{A1} [kg]	M_{A1} [Nm]	L_{A2} [kg]	M_{A2} [Nm]
RL50	500	80 – L_{A2}	600	65	+/- 98
	750	65 – L_{A2}	488	50	+/- 75
	1,000	50 – L_{A2}	375	35	+/- 53
	1,250	35 – L_{A2}	263	20	+/- 30
	1,500	20 – L_{A2}	150	5	+/- 8

D = extension of cantilever







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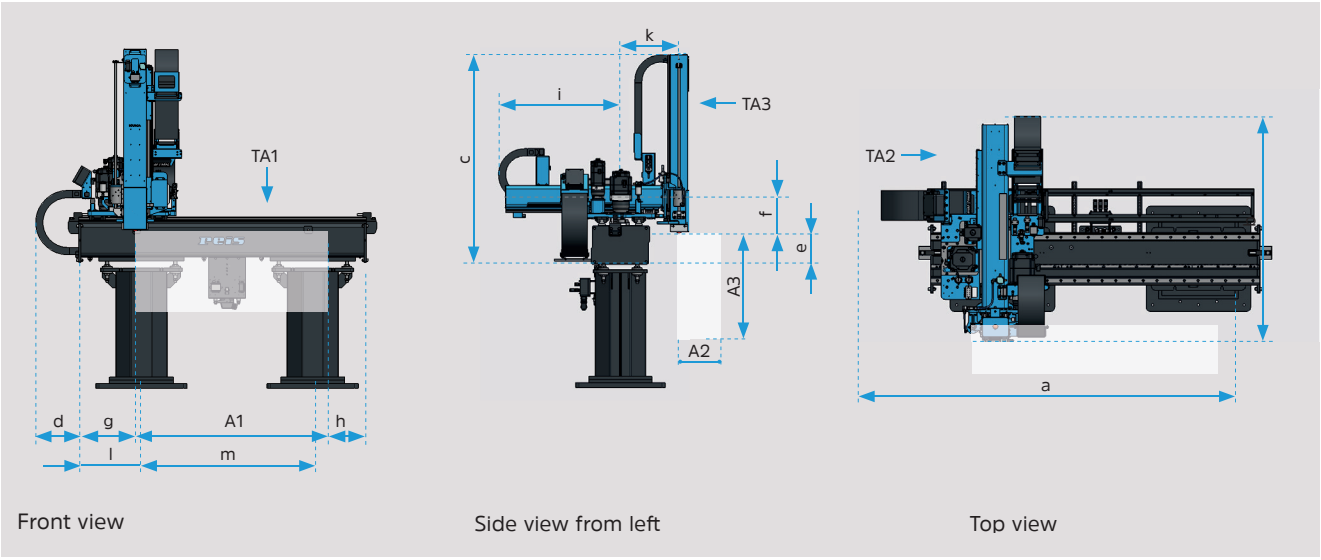
WORK ENVELOPE



Front view | Side view from left | Top view

Legend

A1 Stroke axis 1	**TAx** Support arm Axis x
A2 Stroke axis 2	**WS** Tool interface A3
A3 Stroke axis 3	**UK** Bottom edge
	OK Upper edge

Space requirement / footprint

a	Overall length	mm	A1 + 1,045
b	Total width	mm	A2 + 1,090
c	Total height (without stand)	mm	A3 + 635
d	Overhang E-chain	mm	435
e	Lower TA1 to WS	mm	125
f	Center TA2 to WS	mm	260
g	Start TA1 to WS	mm	410

h	End TA1 to WS	mm	205
i	Protrusion TA2 Center A1	mm	A2 + 605
k	Center TA1 to WS	mm	395
l	Max. ledge projection TA1	mm	1,250
m	Max. distance between uprights	mm	6,500

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