



serialpicker

The High-Speed Robot with linear motors

Cycle times
up to
120pcs/min

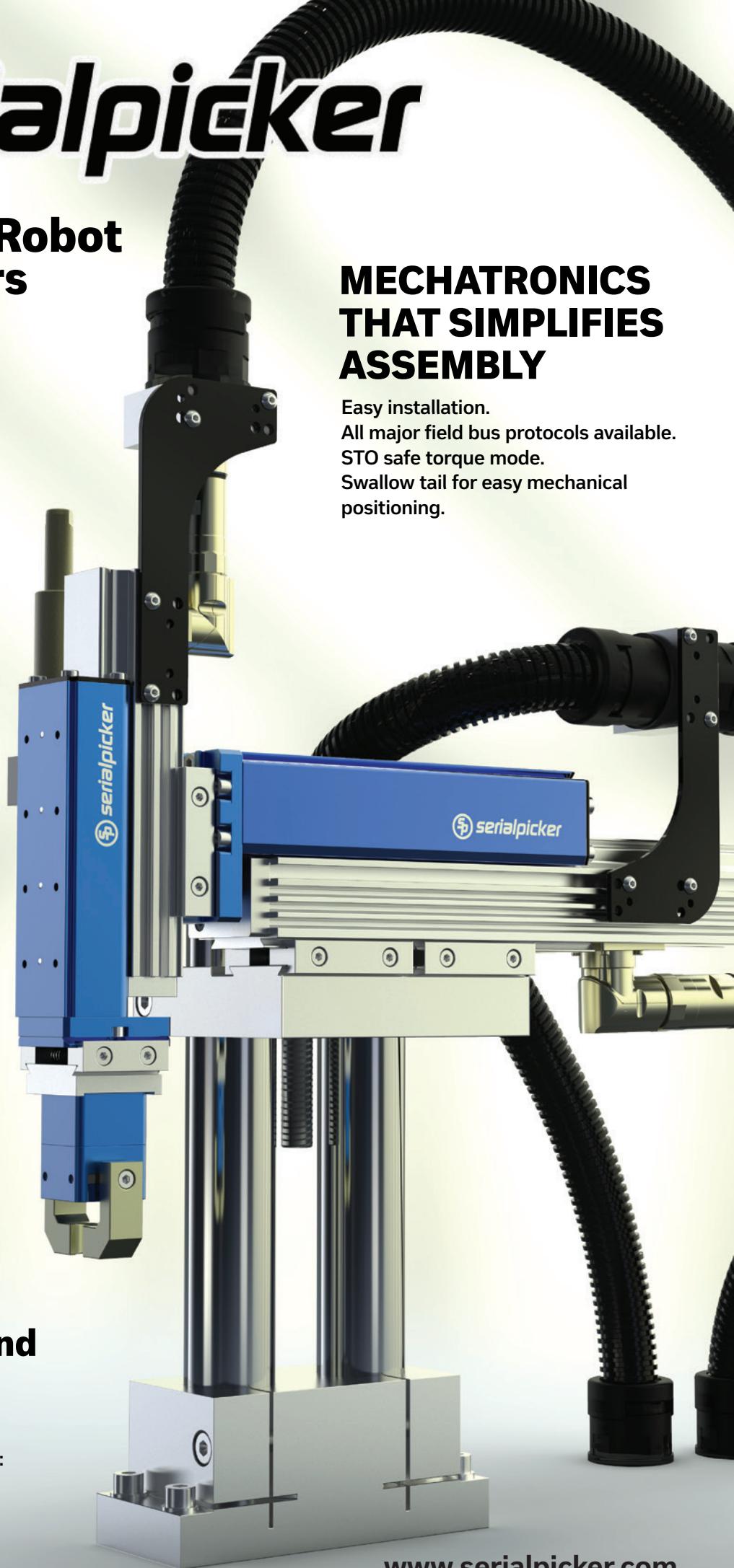


POSITION, SPEED AND FORCE CONTROL

Serialpicker is capable of performing optimally tasks from simple point-to-point to interpolated movements.

3 sizes to suit small and medium sizes automations

Standard kits are available complete with:
Gripper.
Suction cup gripping system..



MECHATRONICS THAT SIMPLIFIES ASSEMBLY

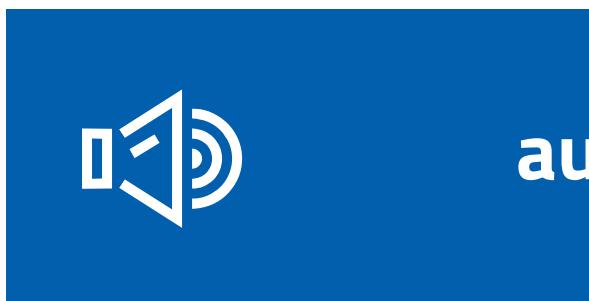
Easy installation.
All major field bus protocols available.
STO safe torque mode.
Swallow tail for easy mechanical
positioning.

Serialpicker in a nutshell

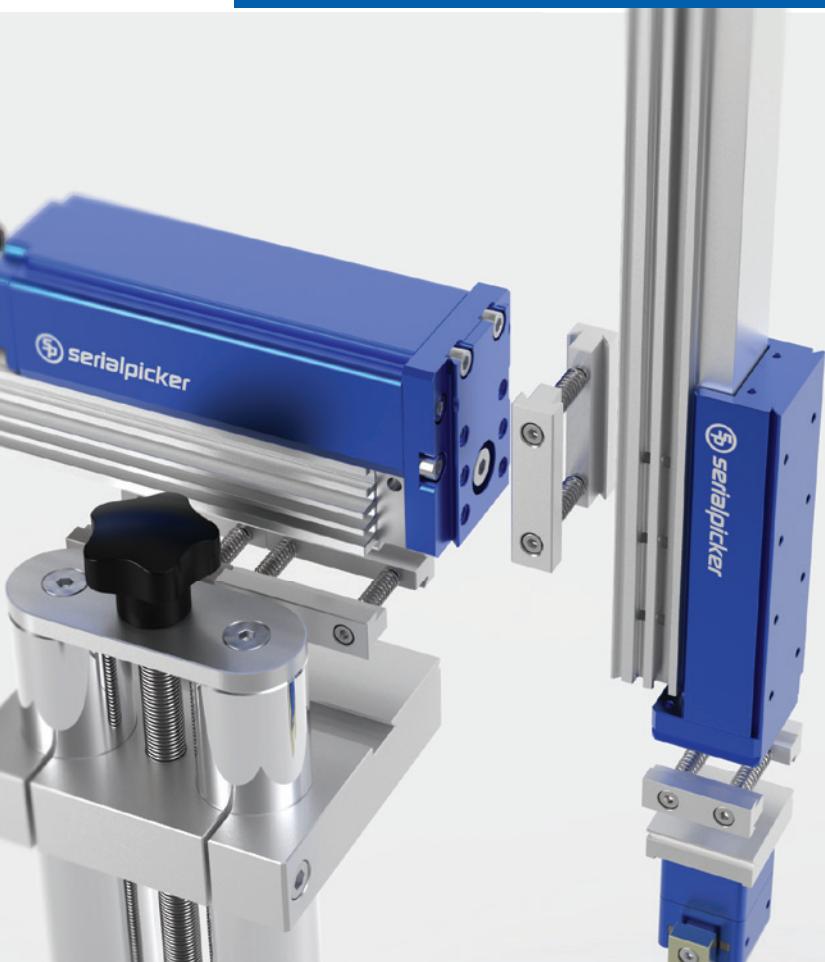
Serialpicker is the result of the integration of tubular linear motors with precision mechanics. The result? A compact, ready-to-use solution that simplifies and improves serial assembly operations.

Serialpicker communicates with everyone!

The wide variety of interfaces and communication protocols available ensure easy integration with all control systems and PLC.



“Serialpicker automation while simulta-



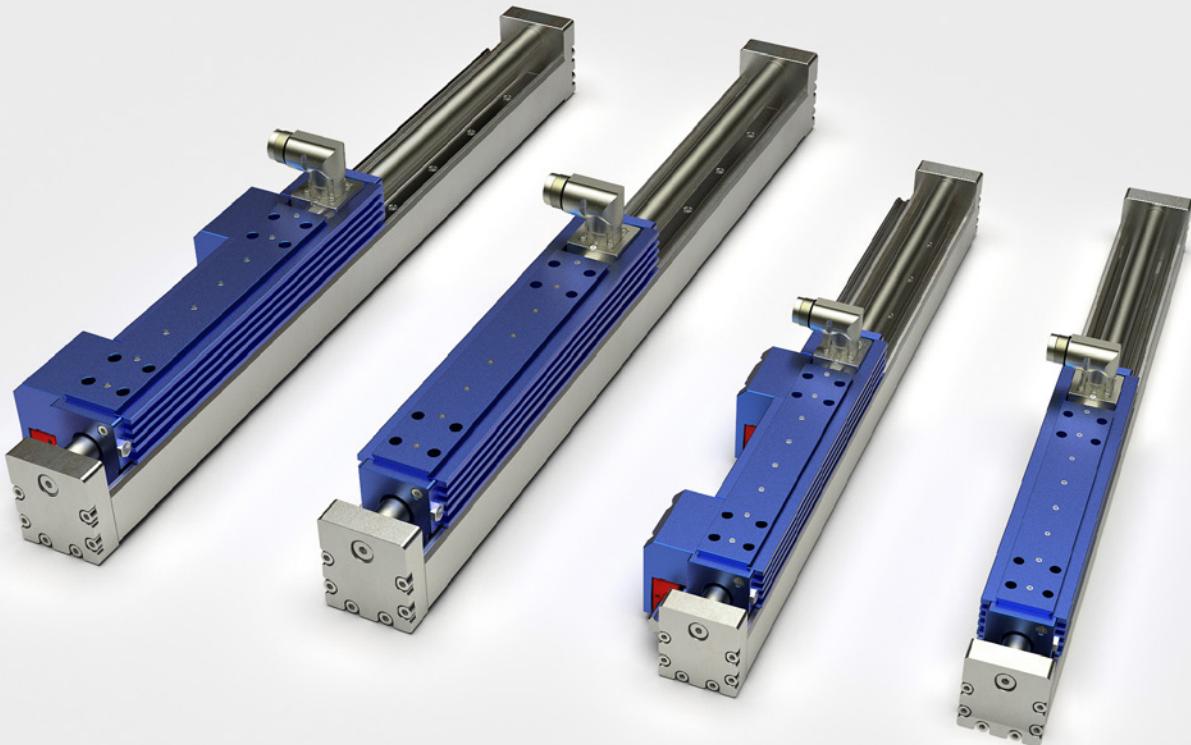
**Mounting and positioning?
Nothing could be simpler!**

The dove-tail clamps pole, obtained from the key points of Serialpicker, simplifies the optimal and reversible positioning of the Y and Z axes and accessory components.

Adjustable Base Support

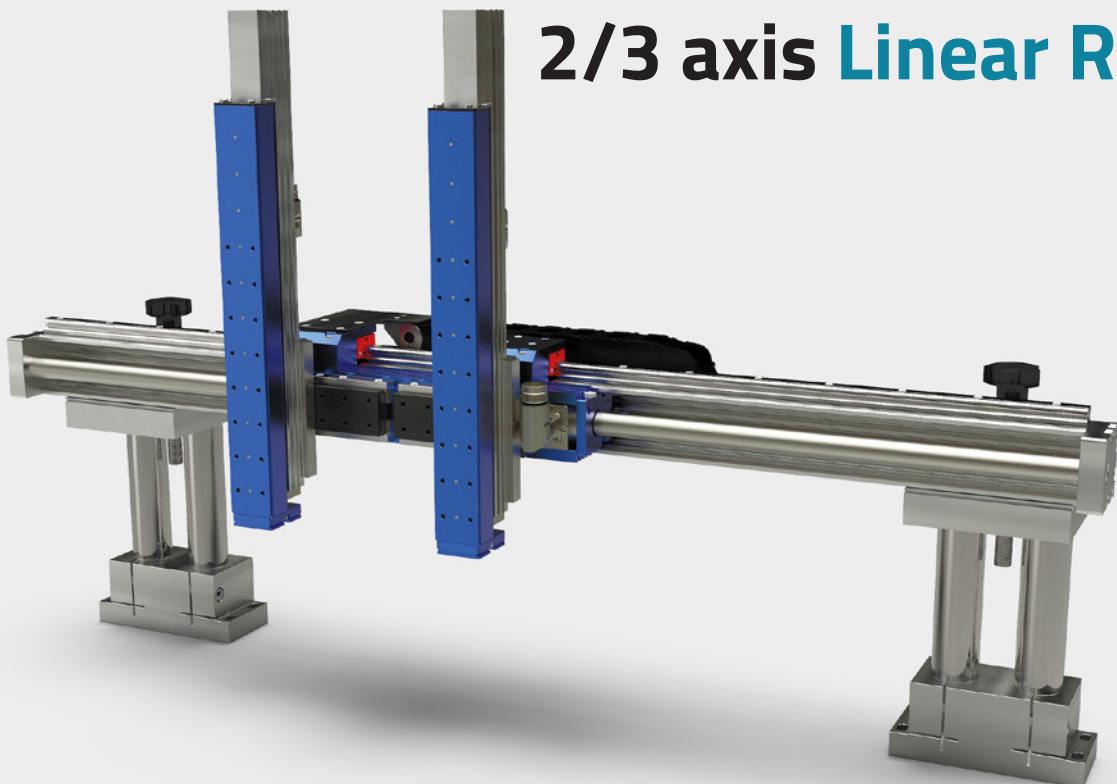
Serialpicker base support has adjustments that facilitate its positioning; the support surface is adjustable in height by means of a convenient knob, and is equipped with a mechanical safety lock system that ensures the position.

Slides Style Linear Units



“...r helps to improve the performance of your
simultaneously increasing the level of safety and
manageability of the cycle”.

2/3 axis Linear Robots



"In applications such as assembly machines or robotic stations, there is only one device that can accelerate and simplify serial assembly operations: Serialpicker.

Serialpicker makes it easier to automate assembly processes in any automation project, making your machine independent from compressed air"

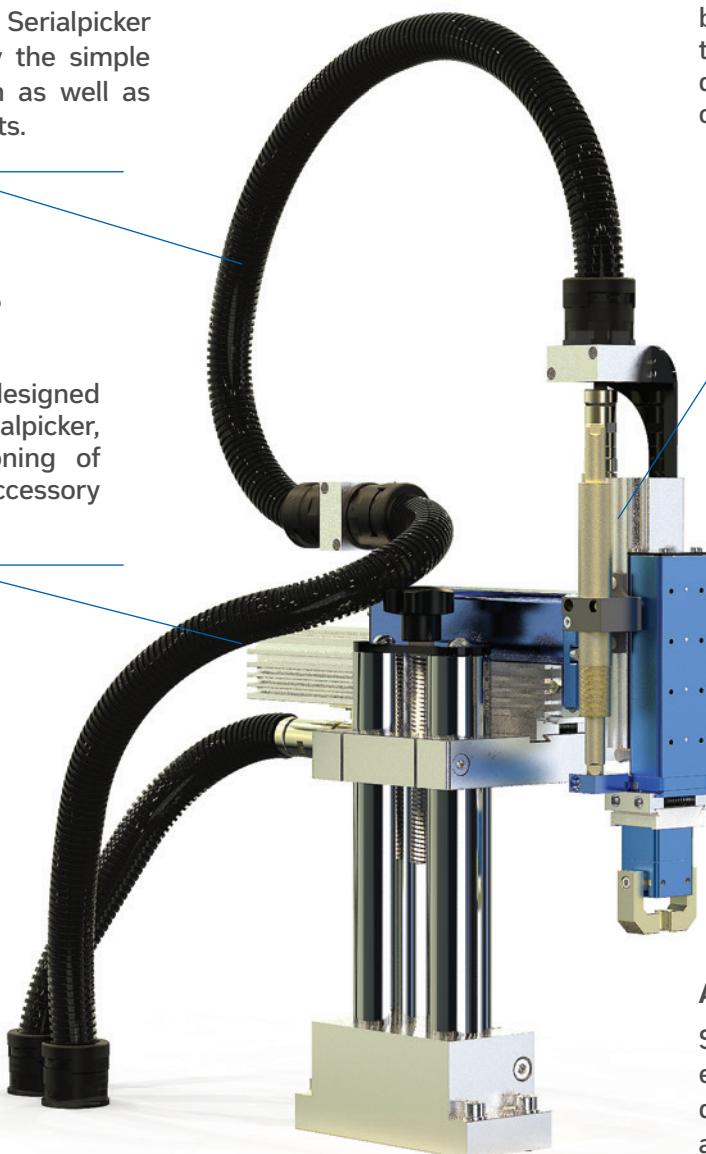
Position, speed and force control

The servo drives of Serialpicker can perform optimally the simple point-to-point function as well as interpolated movements.

Assembly and positioning?

Nothing could be simpler!

The dovetail clamp profile, designed at key points on Serialpicker, facilitates optimal positioning of the Y and Z axes and the accessory components.



Gravity compensator, present!

A magnetic spring, mounted parallel to the Z-axis, allows the load to be passively compensated during the cycle and prevents it from descending passively in the absence of power.

Keyword: flexibility

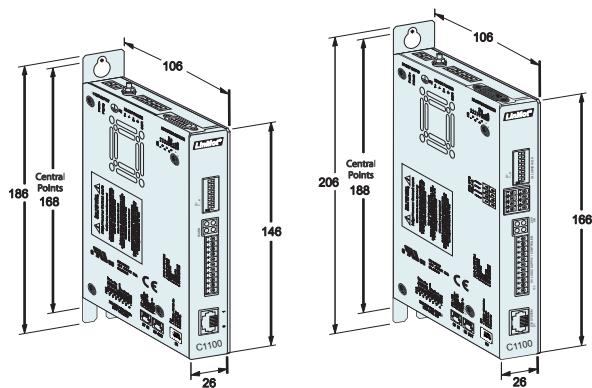
The electric linear units that are part of Serialpicker can be combined according to the stroke and load requirements of your application.

All-inclusive formula!

Serialpicker suite includes everything! Mechanical parts, drives, the power supply as well as cables for dynamic laying in standard lengths of 2, 4, 6 and 8 m.

Drives

C1100 Series - Compact drive for Point to Point applications



- Absolute/relative positioning commands
- Motion commands with "S" curves
- Base-time curves already stored
- Real-Time Interpolation
- Controlled by PLC or internally saved motion profiles
- Operation with digital and analog I/O
- Safe Torque Off (STO)
- Interface for an incremental or absolute encoder
- "Plug and Play" motor connection
- UL508C

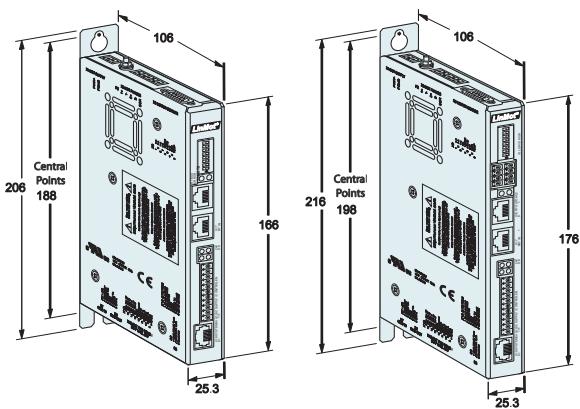
CANopen

EtherCAT®

PROFI
INDUSTRIAL ETHERNET
NET

RS 485

C1200 Series - Ethernet drive for NC motion applications



- Absolute/relative positioning commands
- Motion commands with "S" curves
- Base-time curves already stored
- Real-Time Interpolation
- Synchronized controls
- Controlled by PLC or internally saved motion profiles
- Operation with digital and analog I/O
- Safe Torque Off (STO)
- Interface for an incremental or absolute encoder
- "Plug and Play" motor connection
- UL508C
- Configuration via ethernet

EtherCAT®

EtherNet/IP

SERCOS
interface

PROFI
INDUSTRIAL ETHERNET
NET

ETHERNET
POWERLINK



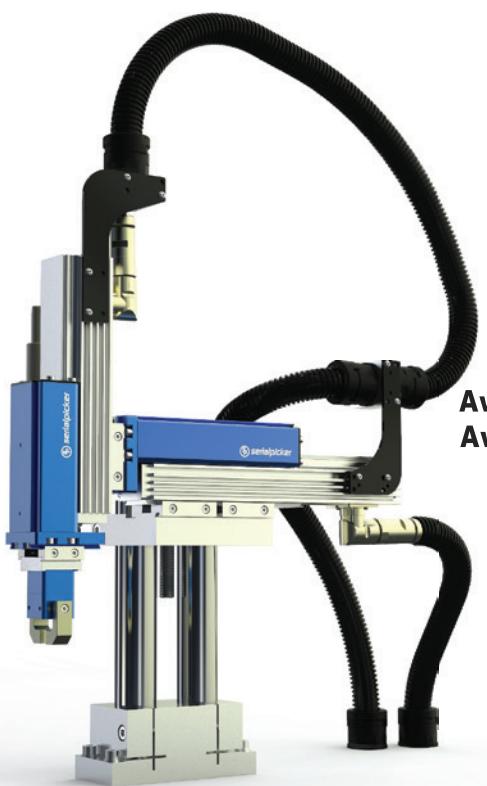
Serialpicker SP1

Drive	electric, direct-drive linear motor
Repeatability	$\pm 0.05\text{mm}$ (with external encoder $\pm 0.02\text{mm}$)
Available strokes on Z-axis	50-100-200mm
Available strokes on Y-axis	50-100-200-300mm
Max speed	up to 6,8 m/s
Payload	up to 3Kg



Serialpicker SP2

Drive	electric, direct-drive linear motor
Repeatability	$\pm 0.05\text{mm}$ (with external encoder $\pm 0.02\text{mm}$)
Available strokes on Z-axis	50-100-200mm
Available strokes on Y-axis	100-200-300mm
Max speed	up to 6,8 m/s
Payload	up to 5Kg



Serialpicker SP3

Drive	electric, direct-drive linear motor
Repeatability	$\pm 0.05\text{mm}$ (with external encoder $\pm 0.02\text{mm}$)
Available strokes on Z-axis	50-100-200-300mm
Available strokes on Y-axis	100-200-300-400-500mm
Max speed	up to 3,2 m/s
Payload	up to 8Kg

Technical Data - Serialpicker SP1

Admissible loads and moments

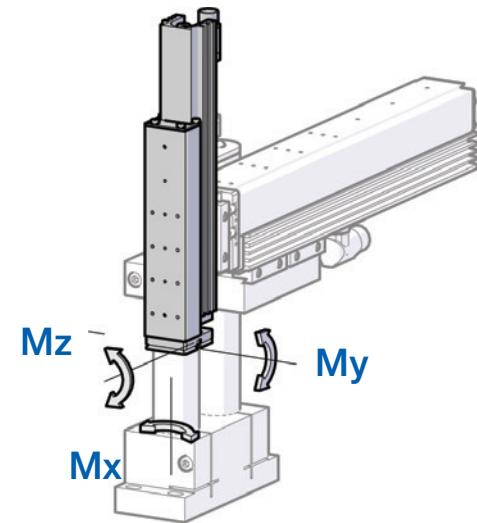
Transportable loads as a function of strokes (in-axis load)					Global admissible dynamic moments referred to the Z-axis model	
Z stroke [mm]	Y stroke [mm]				SP40V	SP40
	50	100	200	300		
50	3 Kg	3Kg	2Kg	1 Kg		
100	3 Kg	2Kg	1Kg	0,5 Kg		
200	2 Kg	1Kg	-	-		
300	1 Kg	-	-	-		

Characteristics		
	Z Axis	Y Axis
Model	SP40V-SP40	SP40
Max Speed	4,8 m/s	4,8 m/s
Peak thrust	137 N	137 N
Nominal thrust	31 N	31 N

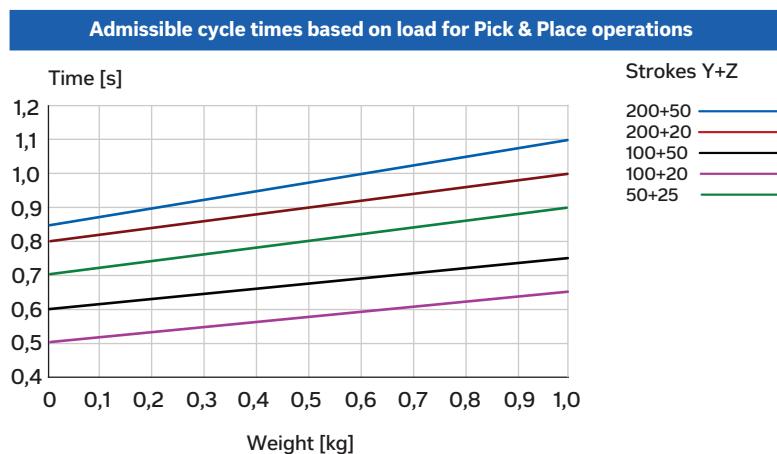
Serialpicker SP1 consists of 2 linear units Size 40

- Z axis: SP40V [with 1 guide block]
- Y-axis: SP40 [with 2 guide blocks]

Overall dimensions of single linear unit on page 17



Serialpicker SP1 Performances



NOTICE: The Mass [kg] is intended to be fixed vertically in-axis with the module.

The values in the table correspond to pick and place operations carried out in 6 movements + 2x100ms of pick-up time of a gripper.

In the case of loads mounted off-axis or in presence of high repeatability requests (realized through external encoder), the values of the table could increase.

Technical Data - Serialpicker SP2

Admissible loads and moments

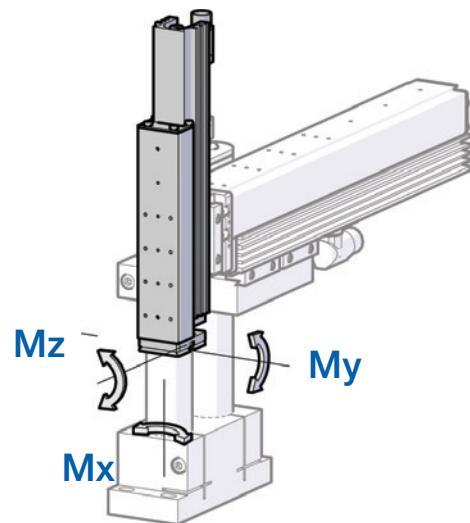
Transportable loads as a function of strokes (in-axis load)							Global admissible dynamic moments referred to the Z-axis model	
Z stroke [mm]	Y stroke [mm]						SP40V	SP40
	50	100	200	300	400	500		
50	3 Kg	5 Kg	5 Kg	4 Kg	3 Kg	2 Kg	5 Nm	7 Nm
100	5 Kg	5 Kg	4 Kg	3 Kg	2 Kg	1 Kg	26 Nm	51 Nm
200	5 Kg	4 Kg	3 Kg	2 Kg	1 Kg	0,5 Kg	26 Nm	51 Nm
300	4 Kg	3 Kg	2 Kg	1 Kg	0,5 Kg	0,5 Kg		

Characteristics		
	Z Axis	Y Axis
Model	SP.40V-SP.40	SP.60
Max Speed	4,8 m/s	3,2 m/s
Peak thrust	137 N	255 N
Nominal thrust	31 N	51 N

Serialpicker SP2 consists of 1 linear unit Size 40 and 1 size 60.

- Z-axis: SP40V [with 1 guide block]
- SP40 [with 2 guide block]
- Y-axis: SP60 [with 2 guide block]

Overall dimensions of single linear unit on page 17



Serialpicker SP2 Performances



NOTICE: The Mass [kg] is intended to be fixed vertically in-axis with the module.

The values in the table correspond to pick and place operations carried out in 6 movements + 2x100ms of pick-up time of a gripper.

In the case of loads mounted off-axis or in presence of high repeatability requests (realized through external encoder), the values of the table could increase.

Technical Data - Serialpicker SP3

Admissible loads and moments

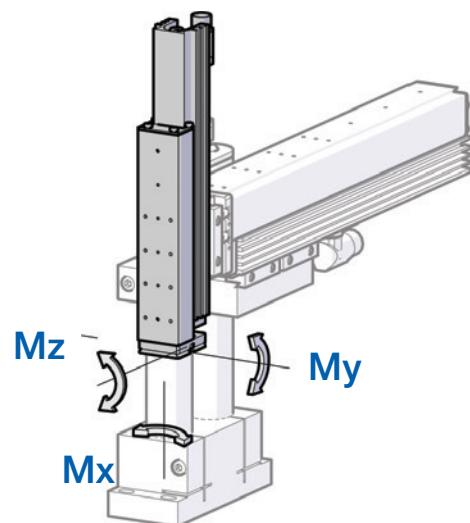
Transportable loads as a function of strokes (in-axis load)							Global admissible dynamic moments referred to the Z-axis model	
Z stroke [mm]	Y stroke [mm]						SP60V	SP60
	50	100	200	300	400	500		
50	8 Kg	7 Kg	6 Kg	5 Kg	4 Kg	3 Kg	30 Nm	40 Nm
100	7 Kg	6 Kg	5 Kg	4 Kg	3 Kg	2 Kg	41 Nm	82 Nm
200	6 Kg	5 Kg	4 Kg	3 Kg	2 Kg	1 Kg	41 Nm	82 Nm
300	5 Kg	4 Kg	3 Kg	2 Kg	1 Kg	0,5 Kg		

Characteristics		
	Z Axis	Y Axis
Model	SP60V-SP.60	SP60
Max Speed	3,2 m/s	3,2 m/s
Peak thrust	255 N	255 N
Nominal thrust	51 N	51 N

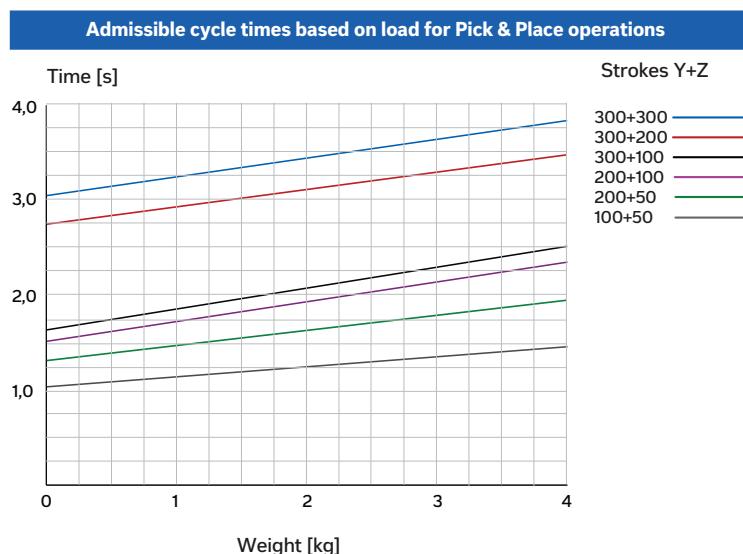
Serialpicker SP3 consists of 2 linear units Size 60

- Z-axis: SP.60V [with 1 guide block]
SP.60 [with 2 guide block]
- Y-axis: SP40 [with 2 guide blocks]

Overall dimensions of single linear unit on page 17



Serialpicker SP3 Performances

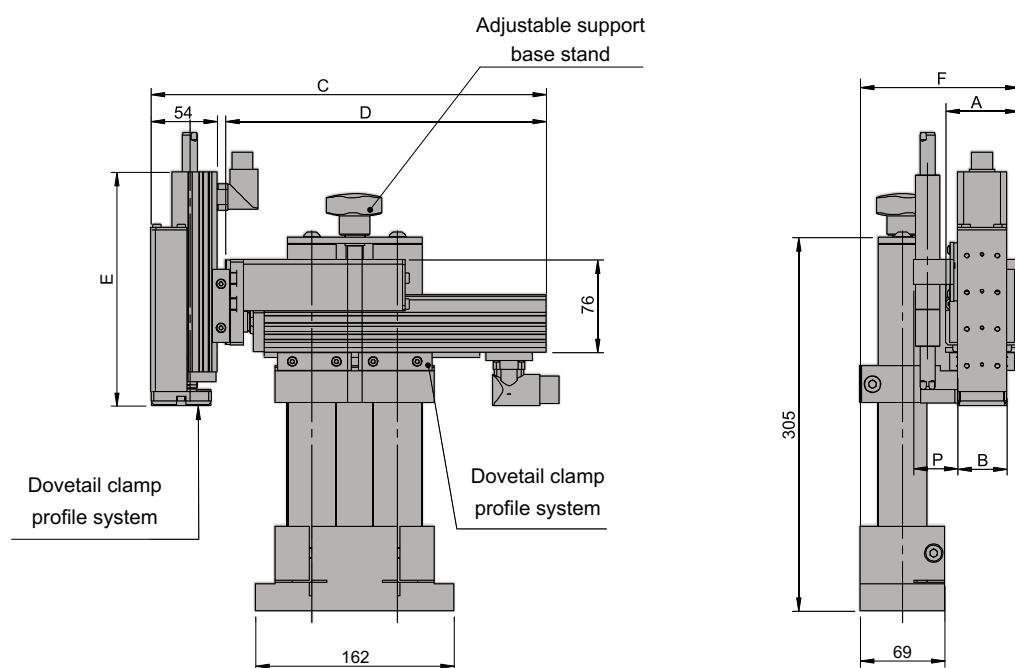
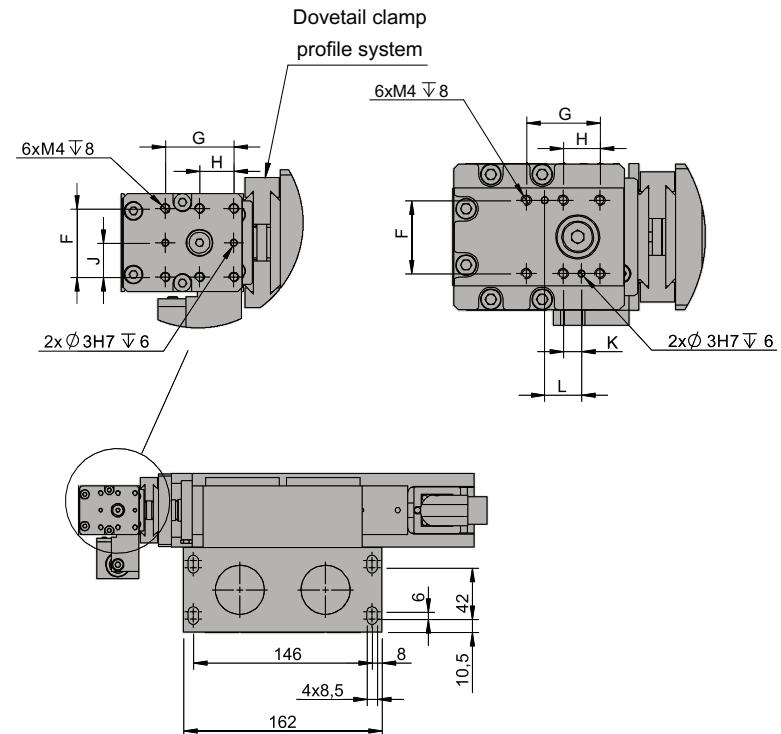


NOTICE: The Mass [kg] is intended to be fixed vertically in-axis with the module.

The values in the table correspond to pick and place operations carried out in 6 movements + 2x100ms of pick-up time of a gripper.

In the case of loads mounted off-axis or in presence of high repeatability requests (realized through external encoder), the values of the table could increase.

Overall dimensions



Serialpicker SP1 - SP2

Technical data

SP1

MODEL	A	B	C	D	E	F	G	H	J	K	L	M	N	P
SP1.50.50	40	40	332	271	54	191	120	28	14	-	-	28	14	36
SP1.50.100	40	40	347	286	54	191	120	28	14	-	-	28	14	36
SP1.100.100	40	40	347	286	54	246	120	28	14	-	-	28	14	36
SP1.150.100	40	40	427	366	54	191	120	28	14	-	-	28	14	36
SP1.150.150	40	40	427	366	54	246	120	28	14	-	-	28	14	36
SP1.200.50	40	40	427	366	54	366	120	28	14	-	-	28	14	36
SP1.200.100	40	40	497	436	54	191	120	28	14	-	-	28	14	36
SP1.200.150	40	40	497	436	54	246	120	28	14	-	-	28	14	36
SP1.200.200	40	40	497	436	54	366	120	28	14	-	-	28	14	36
SP1.300.50	40	40	497	436	54	436	120	28	14	-	-	28	14	36
SP1.300.100	40	40	557	496	54	191	120	28	14	-	-	28	14	36
SP1.300.150	40	40	557	496	54	246	120	28	14	-	-	28	14	36
SP1.300.200	40	40	557	496	54	366	120	28	14	-	-	28	14	36

SP2

MODEL	A	B	C	D	E	F	G	H	J	K	L	M	N	P
SP2.50.50	40	40	332	271	54	191	120	28	14	-	-	28	14	36
SP2.100.50	40	40	347	286	54	191	120	28	14	-	-	28	14	36
SP2.100.100	40	40	347	286	54	246	120	28	14	-	-	28	14	36
SP2.150.50	40	40	427	366	54	191	120	28	14	-	-	28	14	36
SP2.150.100	40	40	427	366	54	246	120	28	14	-	-	28	14	36
SP2.150.150	40	40	427	366	54	366	120	28	14	-	-	28	14	36
SP2.200.50	40	40	497	436	54	191	120	28	14	-	-	28	14	36
SP2.200.100	40	40	497	436	54	246	120	28	14	-	-	28	14	36
SP2.200.150	40	40	497	436	54	366	120	28	14	-	-	28	14	36
SP2.200.200	40	40	497	436	54	436	120	28	14	-	-	28	14	36
SP2.300.50	40	40	557	496	54	191	120	28	14	-	-	28	14	36
SP2.300.100	40	40	557	496	54	246	120	28	14	-	-	28	14	36
SP2.300.150	40	40	557	496	54	366	120	28	14	-	-	28	14	36
SP2.300.200	60	40	583	522	54	367	130	28	14	-	-	28	14	36

Serialpicker SP3

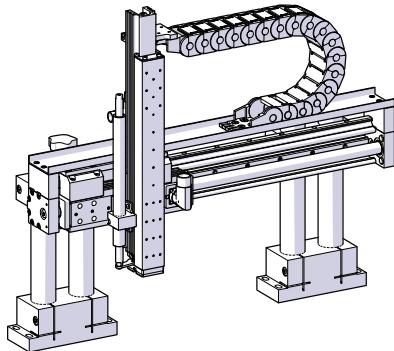
Technical data

SP3

MODEL	A	B	C	D	E	F	G	H	J	K	L	M	N	P
SP3.50.50	60	60	349	262	80	262	130	30	15	7,5	15	30	15	52
SP3.100.50	60	60	409	322	80	262	130	30	15	7,5	15	30	15	52
SP3.100.100	60	60	409	322	80	322	130	30	15	7,5	15	30	15	52
SP3.150.50	60	60	469	382	80	262	130	30	15	7,5	15	30	15	52
SP3.150.100	60	60	469	382	80	322	130	30	15	7,5	15	30	15	52
SP3.150.150	60	60	469	382	80	382	130	30	15	7,5	15	30	15	52
SP3.200.50	60	60	509	422	80	262	130	30	15	7,5	15	30	15	52
SP3.200.100	60	60	509	422	80	322	130	30	15	7,5	15	30	15	52
SP3.200.150	60	60	509	422	80	382	130	30	15	7,5	15	30	15	52
SP3.200.200	60	60	509	422	80	422	130	30	15	7,5	15	30	15	52
SP3.300.50	60	60	609	522	80	262	130	30	15	7,5	15	30	15	52
SP3.300.100	60	60	609	522	80	322	130	30	15	7,5	15	30	15	52
SP3.300.150	60	60	609	522	80	382	130	30	15	7,5	15	30	15	52
SP3.300.200	60	60	609	522	80	422	130	30	15	7,5	15	30	15	52
SP3.300.300	60	60	609	522	80	522	130	30	15	7,5	15	30	15	52
SP3.400.50	60	60	709	622	80	262	130	30	15	7,5	15	30	15	52
SP3.400.100	60	60	709	622	80	322	130	30	15	7,5	15	30	15	52
SP3.400.150	60	60	709	622	80	382	130	30	15	7,5	15	30	15	52
SP3.400.200	60	60	709	622	80	422	130	30	15	7,5	15	30	15	52
SP3.400.300	60	60	709	622	80	522	130	30	15	7,5	15	30	15	52
SP3.500.50	60	60	809	722	80	262	130	30	15	7,5	15	30	15	52
SP3.500.100	60	60	809	722	80	322	130	30	15	7,5	15	30	15	52
SP3.500.150	60	60	809	722	80	382	130	30	15	7,5	15	30	15	52
SP3.500.200	60	60	809	722	80	422	130	30	15	7,5	15	30	15	52
SP3.500.300	60	60	809	722	80	522	130	30	15	7,5	15	30	15	52

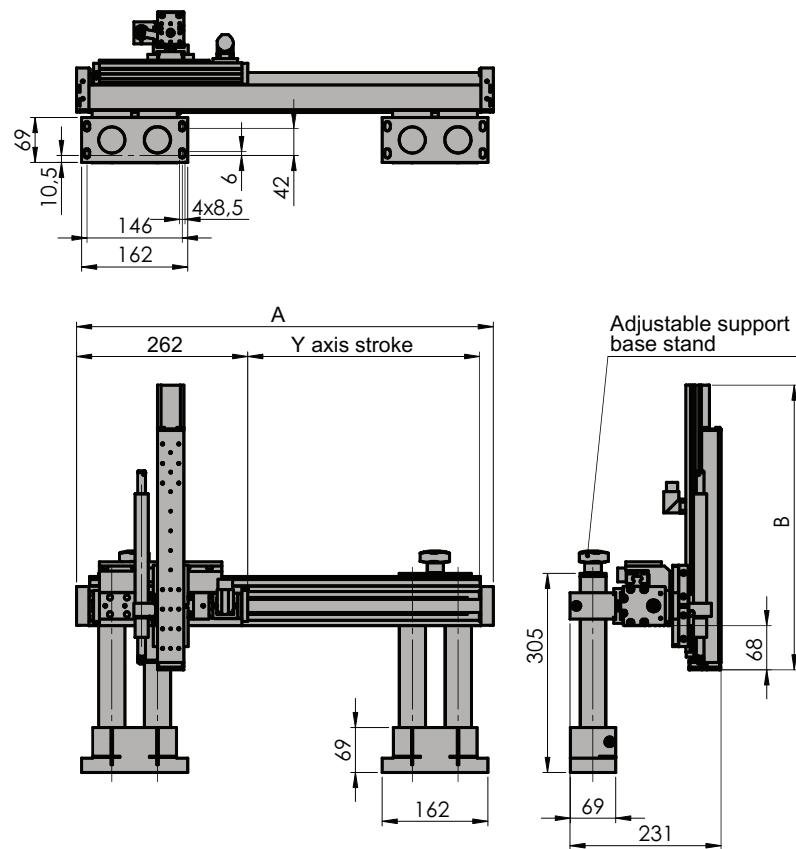
Serialpicker SPYZ - 2 Axis Robot

Overall Dimensions



Serialpicker SPYZ

Drive	electric, direct-drive linear motor
Repeatability	$\pm 0.05\text{mm}$ (with external encoder $\pm 0.02\text{mm}$)
Available strokes on Z-axis	50-100-200mm
Available strokes on Y-axis	up to 1300mm
Max speed	up to 6,8 m/s
Payload	up to 5Kg



Serialpicker SPYZ - 2 Axis Robot

Overall Dimensions

SPYZ

MODEL	SPYZ.300.50	SPYZ.300.100	SPYZ.300.200	SPYZ.400.50	SPYZ.400.100	SPYZ.400.200
Stroke on Y [mm]	300	300	300	400	400	400
Stroke on Z [mm]	50	100	200	50	100	200
A	638	638	638	738	738	738
B	271	286	366	271	286	366

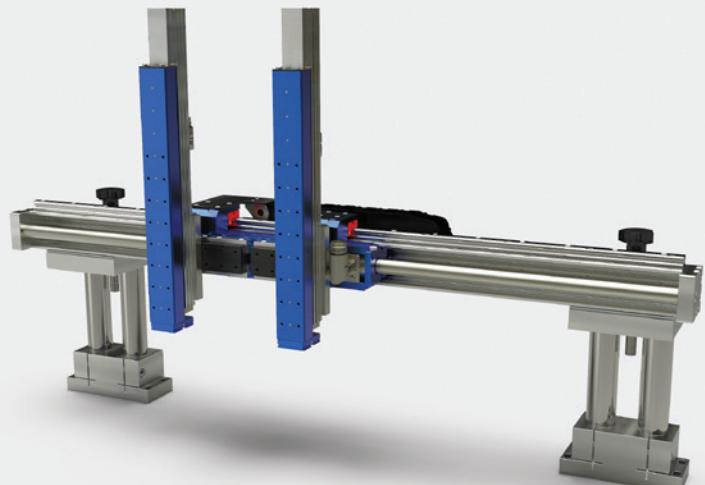
MODEL	SPYZ.500.50	SPYZ.500.100	SPYZ.500.200	SPYZ.600.50	SPYZ.600.100	SPYZ.600.200
Stroke on Y [mm]	500	500	500	600	600	600
Stroke on Z [mm]	50	100	200	50	100	200
A	838	838	838	938	938	938
B	271	286	366	271	286	366

MODEL	SPYZ.700.50	SPYZ.700.100	SPYZ.700.200	SPYZ.800.50	SPYZ.800.100	SPYZ.800.200
Stroke on Y [mm]	700	700	700	800	800	800
Stroke on Z [mm]	50	100	200	50	100	200
A	1038	1038	1038	1138	1138	1138
B	271	286	366	271	286	366

MODEL	SPYZ.900.50	SPYZ.900.100	SPYZ.900.200	SPYZ.1100.50	SPYZ.1100.100	SPYZ.1100.200
Stroke on Y [mm]	900	900	900	1100	1100	1100
Stroke on Z [mm]	50	100	200	50	100	200
A	1238	1238	1238	1438	1438	1438
B	271	286	366	271	286	366

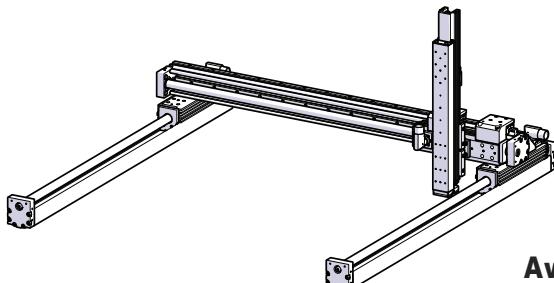
MODELLO	SPYZ.1300.50	SPYZ.1300.100	SPYZ.1300.200
Corsa su Y [mm]	1300	1300	1300
Corsa su Z [mm]	50	100	200
A	1638	1638	1638
B	271	286	366

***"2 Axis Robots
with double Z-axis
available"***



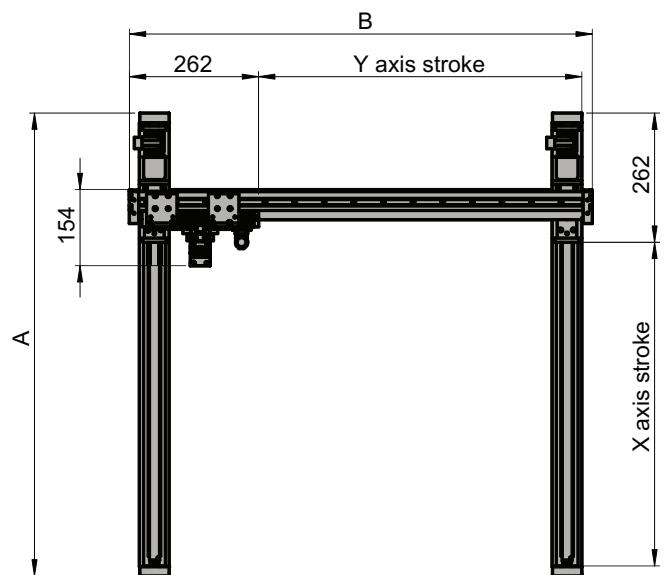
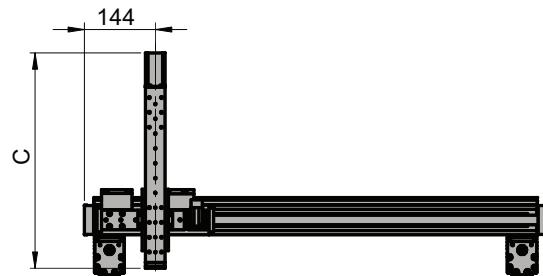
Serialpicker SPXYZ - 3 Axis Robot

Overall Dimensions



Serialpicker SPXYZ Gantry

Drive	electric, direct-drive linear motor
Repeatability	$\pm 0.05\text{mm}$ (with external encoder $\pm 0.02\text{mm}$)
Available strokes on Z-axis	50-100-200mm
Available strokes on Y-axis	up to 1300mm
Available strokes on X-axis	up to 1300mm
Max speed	up to 6,8 m/s
Payload	up to 5Kg



Serialpicker SPXYZ - 3 Axis Robot

Overall Dimensions

SPXYZ Gantry Robot | All combinations of strokes between the X and Y axes are available, example: SPXYZ.1100.500.100

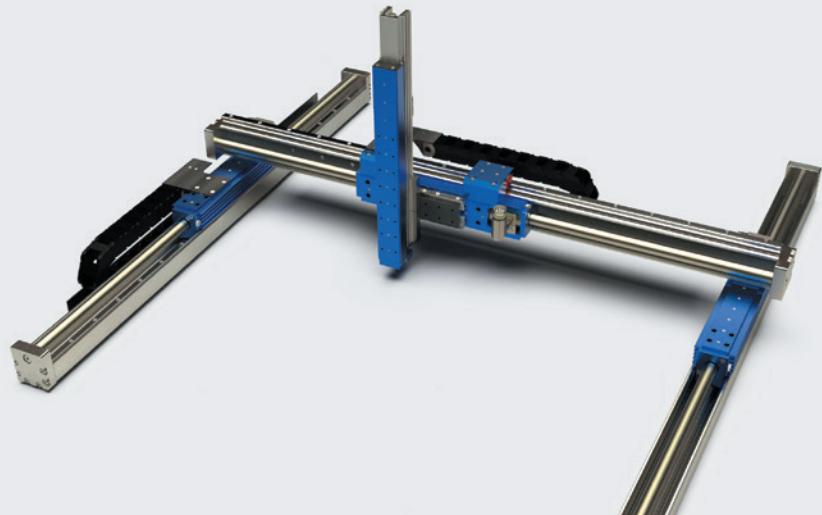
MODEL	SPXYZ.400.400.50	SPXYZ.400.400.100	SPXYZ.400.400.200	SPXYZ.500.500.50	SPXYZ.500.500.100	SPXYZ.500.500.200
Stroke on X [mm]	400	400	400	500	500	500
Stroke on Y [mm]	400	400	400	500	500	500
Stroke on Z [mm]	50	100	200	50	100	200
A	738	738	738	838	838	838
B	738	738	738	838	838	838
C	271	286	366	271	286	366

MODEL	SPXYZ.600.600.50	SPXYZ.600.600.100	SPXYZ.600.600.200	SPXYZ.700.700.50	SPXYZ.700.700.100	SPXYZ.700.700.200
Stroke on [mm]	600	600	600	700	700	700
Stroke on Y [mm]	600	600	600	700	700	700
Stroke on Z [mm]	50	100	200	50	100	200
A	938	938	938	1038	1038	1038
B	938	938	938	1038	1038	1038
C	271	286	366	271	286	366

MODEL	SPXYZ.800.800.50	SPXYZ.800.800.100	SPXYZ.800.800.200	SPXYZ.900.900.50	SPXYZ.900.900.100	SPXYZ.900.900.200
Stroke on X [mm]	800	800	800	900	900	900
Stroke on Y [mm]	800	800	800	900	900	900
Stroke on Z [mm]	50	100	200	50	100	200
A	1138	1138	1138	1238	1238	1238
B	1138	1138	1138	1238	1238	1238
C	271	286	366	271	286	366

MODEL	SPXYZ.1100.1100.50	SPXYZ.1100.1100.100	SPXYZ.1100.1100.200	SPXYZ.1300.1300.50	SPXYZ.1300.1300.100	SPXYZ.1300.1300.200
Stroke on [mm]	1100	1100	1100	1300	1300	1300
Stroke on [mm]	1100	1100	1100	1300	1300	1300
Stroke on [mm]	50	100	200	50	100	200
A	1438	1438	1438	1638	1638	1638
B	1438	1438	1438	1638	1638	1638
C	271	286	366	271	286	366

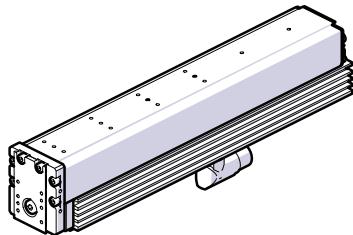
"Also available: 3-axis robots with double z-axis and double carriage"



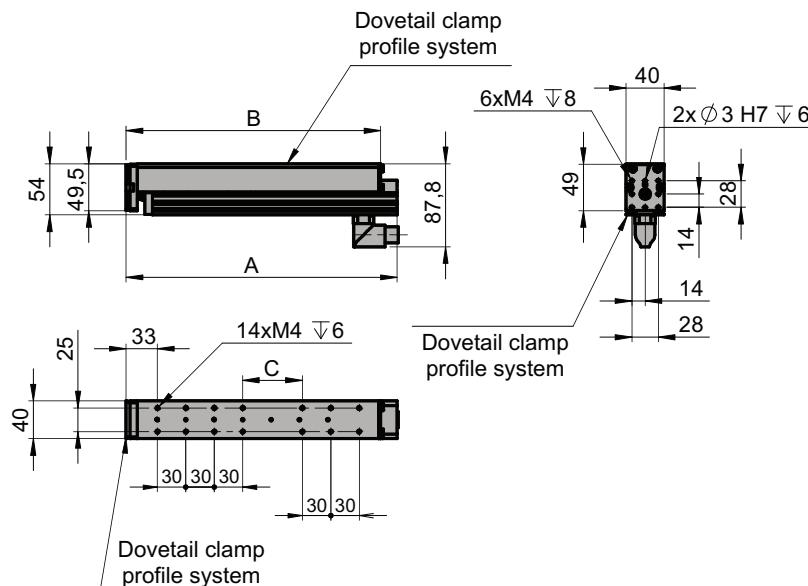
Serialpicker SP40 - Single Unit

Overall Dimensions

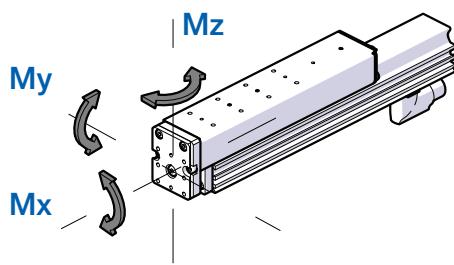
Serialpicker SP40 and SP40V



Drive	electric, direct-drive linear motor
Repeatability	$\pm 0.05\text{mm}$ (with external encoder $\pm 0.02\text{mm}$)
Available strokes	50-100-200-300mm
Positioning	horizontal and vertical
Max speed	up to 6,8 m/s
Payload	up to 5Kg
Peak thrust	137 N
Nominal thrust	31 N



MODEL	STROKE	Nr GUIDE BLOCKS	A	B	C
SP40V.50	50	1	271	152	-
SP40V.100	100	1	286	202	-
SP40.100	100	2	286	269	63
SP40.150	150	2	366	319	90
SP40.200	200	2	436	369	163
SP40.250	250	2	496	419	213
SP40.300	300	2	496	469	263



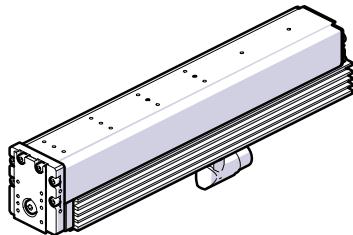
Admissible dynamic moments

	SP40V	SP40
M _x	5 Nm	7 Nm
M _y	26 Nm	51 Nm
M _z	26 Nm	51 Nm

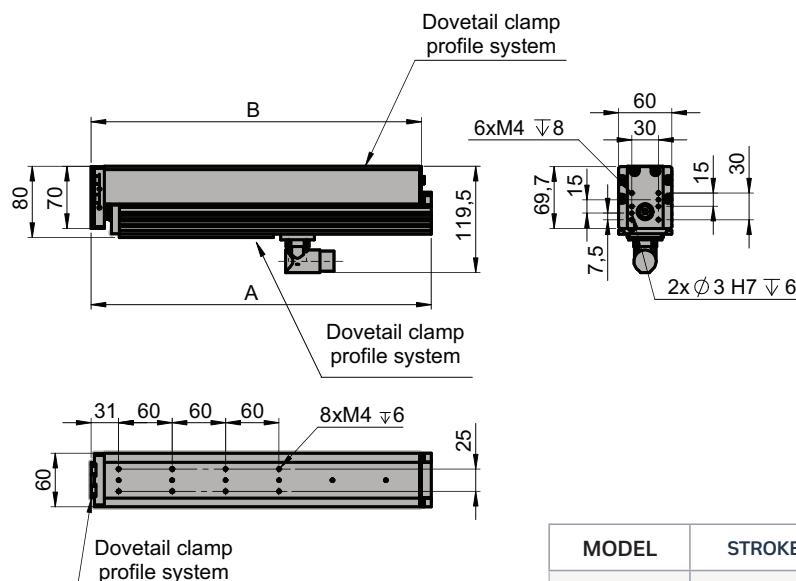
Serialpicker SP60 - Single Unit

Overall Dimensions

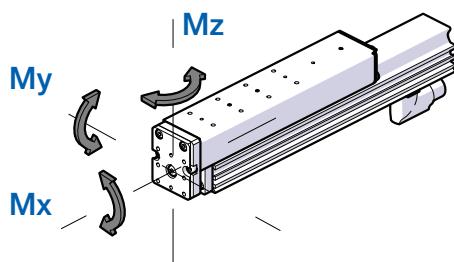
Serialpicker SP60 and SP60V



Drive	electric, direct-drive linear motor
Repeatability	$\pm 0.05\text{mm}$ (with external encoder $\pm 0.02\text{mm}$)
Available strokes	50-100-200-300mm
Positioning	horizontal and vertical
Max speed	up to 3,2 m/s
Payload	up to 8Kg
Peak thrust	255 N
Nominal thrust	51 N



MODEL	STROKE	Nr GUIDE BLOCKS	A	B
SP60V.50	50	1	262	152
SP60V.100	100	1	322	202
SP60.100	100	2	325	321
SP60.150	150	2	382	371
SP60.200	200	2	425	421
SP60.300	300	2	525	521
SP60.400	400	2	625	621
SP60.500	500	2	725	721



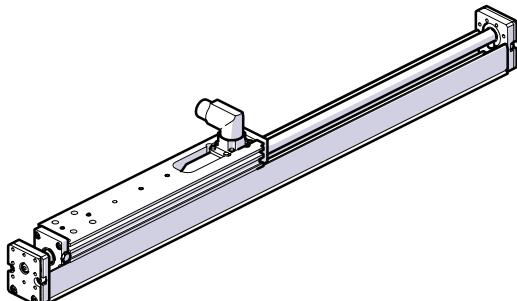
Admissible dynamic moments

	SP60V	SP60
Mx	30 Nm	40 Nm
My	41 Nm	82 Nm
Mz	41 Nm	82 Nm

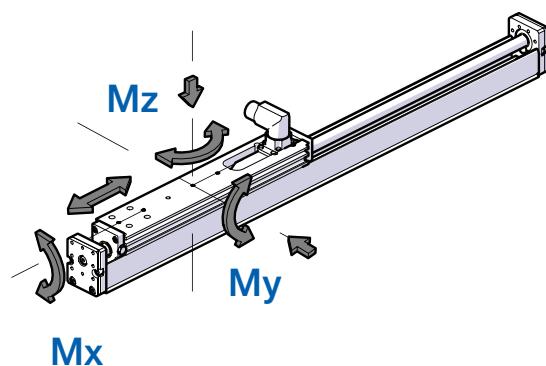
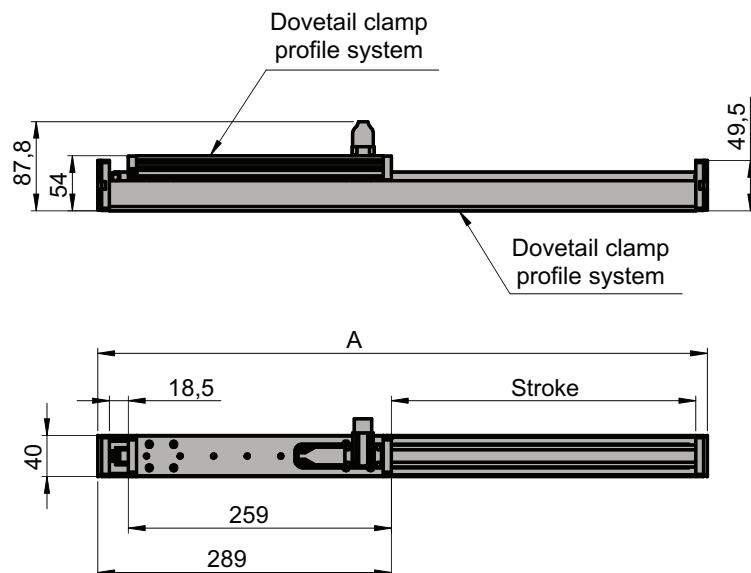
Serialpicker SPX40 - Single Unit

Overall Dimensions

Serialpicker SPX40 [Single rail guide]



Drive	electric, direct-drive linear motor
Repeatability	$\pm 0.05\text{mm}$ (with external encoder $\pm 0.02\text{mm}$)
Available strokes	120-180-280-460-550mm
Positioning	horizontal and vertical
Max speed	up to 6,8 m/s
Payload	up to 5Kg
Peak thrust	137 N
Nominal thrust	31 N



MODEL	STROKE	Nr GUIDE BLOCKS	A
SPX40.120	120	2	440
SPX40.180	180	2	500
SPX40.280	280	2	600
SPX40.460	460	2	780
SPX40.550	550	2	870

Admissible dynamic moments

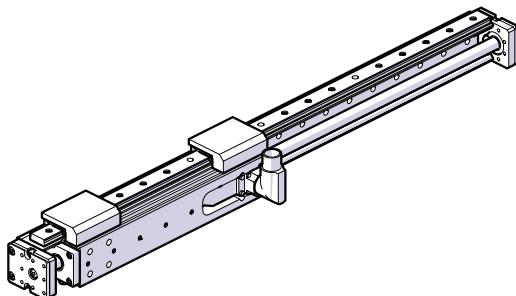
SPX40

Mx	7 Nm
My	71 Nm
Mz	71 Nm

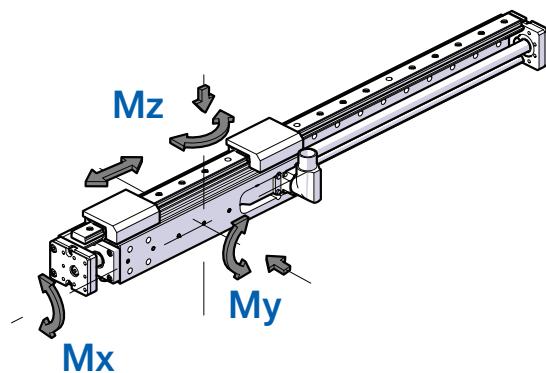
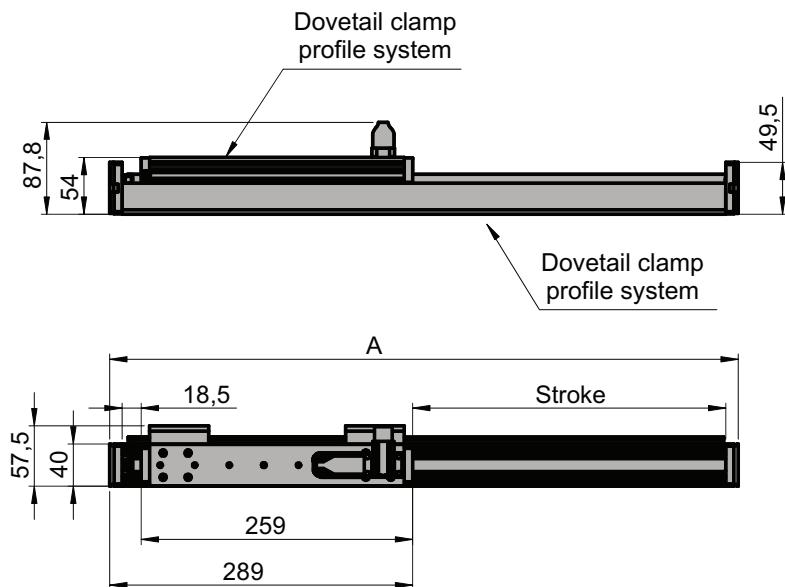
Serialpicker SP2X40 - Single Unit

Overall Dimensions

Serialpicker SP2X40 [Double rail guide]



Drive	electric, direct-drive linear motor
Repeatability	$\pm 0.05\text{mm}$ (with external encoder $\pm 0.02\text{mm}$)
Available strokes	120-180-280-460-550mm
Positioning	horizontal and vertical
Max speed	up to 6,8 m/s
Payload	up to 5Kg
Peak thrust	137 N
Nominal thrust	31 N



MODEL	STROKE	Nr GUIDE BLOCKS	A
SP2X40.120	120	4	440
SP2X40.180	180	4	500
SP2X40.280	280	4	600
SP2X40.460	460	4	780
SP2X40.550	550	4	870

Admissible dynamic moments

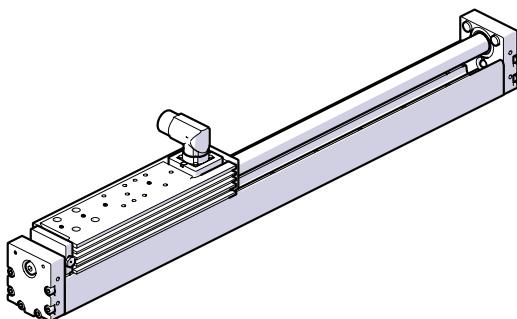
SP2X40

Mx	20 Nm
My	91 Nm
Mz	91 Nm

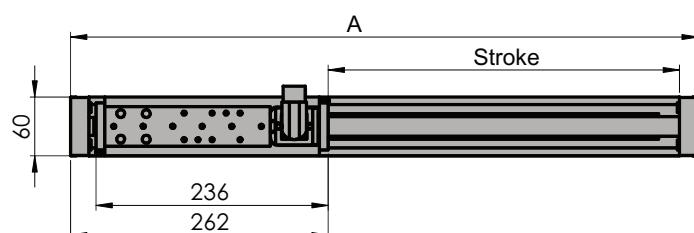
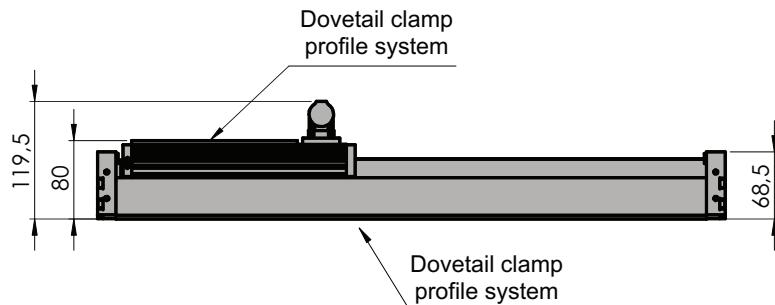
Serialpicker SPX60 - Single Unit

Overall Dimensions

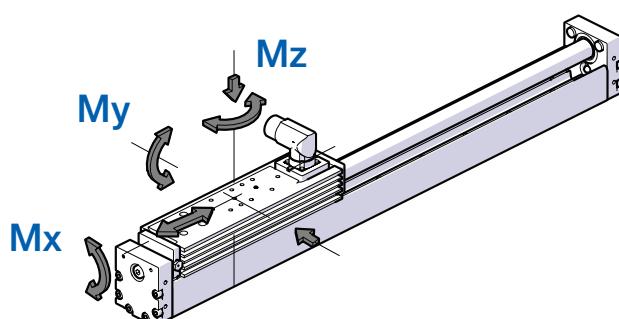
Serialpicker SPX60 [Single rail guide]



Drive	electric, direct-drive linear motor
Repeatability	$\pm 0.05\text{mm}$ (with external encoder $\pm 0.02\text{mm}$)
Available strokes	200 to 1300mm, 100mm intereradiation strokes
Positioning	horizontal and vertical
Max speed	up to 3,2 m/s
Payload	up to 8Kg
Peak thrust	255 N
Nominal thrust	51 N



MODEL	SPX60.200	SPX60.300	SPX60.400	SPX60.500	SPX60.600	SPX60.700	SPX60.800	SPX60.900	SPX60.1100	SPX60.1300
STROKE	200	300	400	500	600	700	800	900	1100	1300
Nr GUIDE BLOCKS	2	2	2	2	2	2	2	2	2	2
A	538	638	738	838	938	1038	1138	1238	1438	1638



Admissible dynamic moments

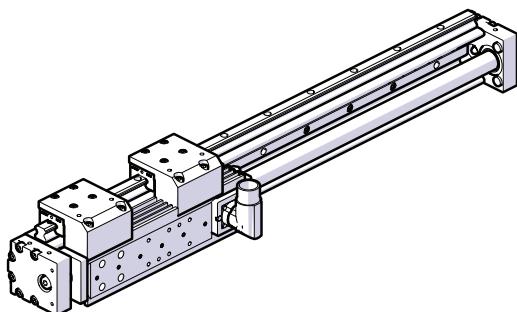
SPX60

M _x	50 Nm
M _y	97 Nm
M _z	97 Nm

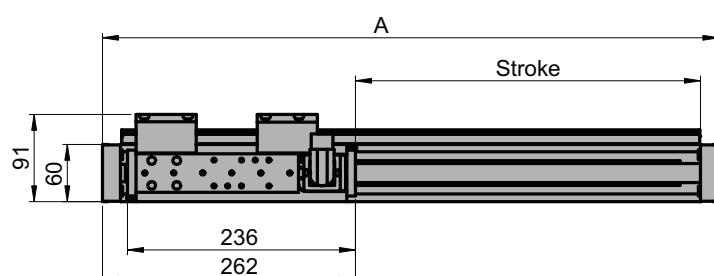
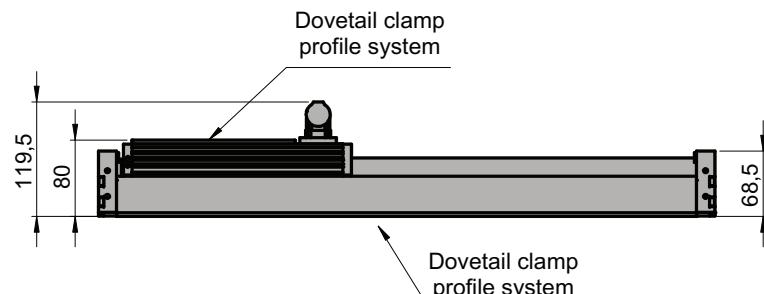
Serialpicker SP2X60 - Single Unit

Overall Dimensions

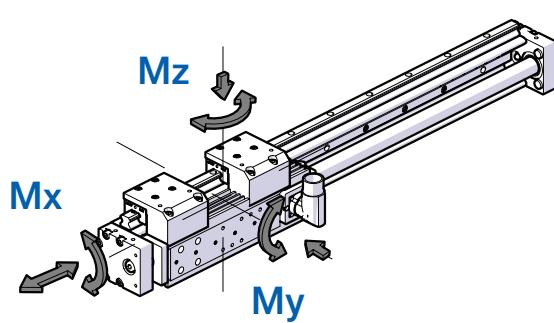
Serialpicker SP2X60 [Double rail guide]



Drive	electric, direct-drive linear motor
Repeatability	$\pm 0.05\text{mm}$ (with external encoder $\pm 0.02\text{mm}$)
Available strokes	200 to 1300mm, 100mm intereradiation strokes
Positioning	horizontal and vertical
Max speed	up to 3,2 m/s
Payload	up to 8Kg
Peak thrust	255 N
Nominal thrust	51 N



MODEL	SP2X60.200	SP2X60.300	SP2X60.400	SP2X60.500	SP2X60.600	SP2X60.700	SP2X60.800	SP2X60.900	SP2X60.1100	SP2X60.1300
STROKE	200	300	400	500	600	700	800	900	1100	1300
Nr GUIDE BLOCKS	4	4	4	4	4	4	4	4	4	4
A	538	638	738	838	938	1038	1138	1238	1438	1638



Admissible dynamic moments

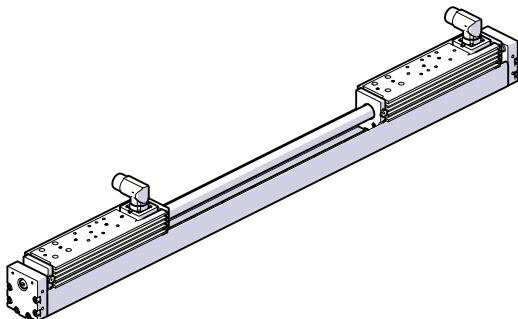
SP2X60

Mx	90 Nm
My	117 Nm
Mz	117 Nm

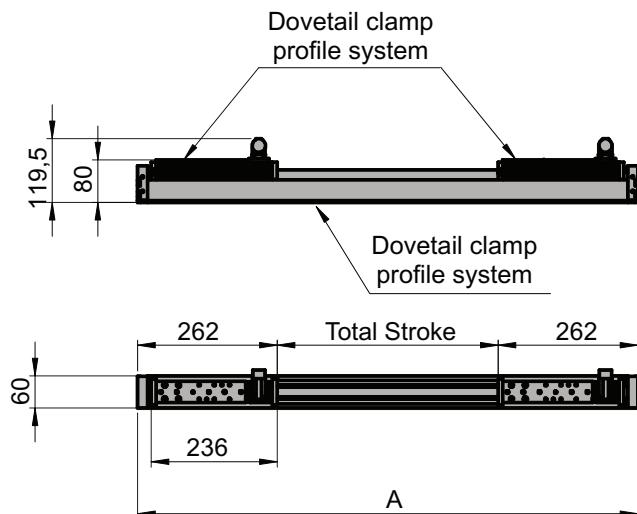
Serialpicker SPXDC60 - Single Unit

Indipendent Double Carriage [Stator] Overall Dimensions

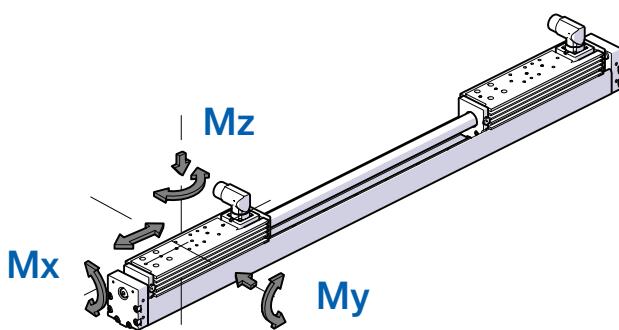
Serialpicker SPXDC60 [Single rail guide]



Drive	electric, direct-drive linear motor
Repeatability	$\pm 0.05\text{mm}$ (with external encoder $\pm 0.02\text{mm}$)
Available strokes	400-500-600-700-900-1100mm
Positioning	horizontal and vertical
Max speed	up to 3,2 m/s
Payload	up to 8Kg
Peak thrust	255 N
Nominal thrust	51 N



MODEL	STROKE	Nr GUIDE BLOCKS	A
SPXDC60.400	400	2+2	938
SPXDC60.500	500	2+2	1038
SPXDC60.600	600	2+2	1138
SPXDC60.700	700	2+2	1238
SPXDC60.900	900	2+2	1438
SPXDC60.1100	1100	2+2	1638



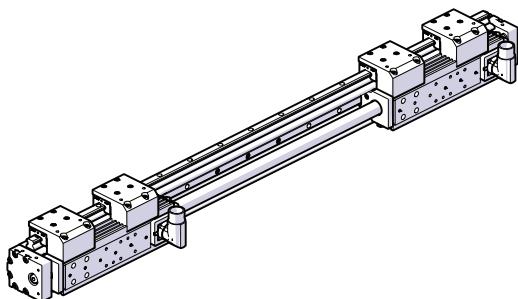
Admissible dynamic moments

SPXDC60
M _x
M _y
M _z

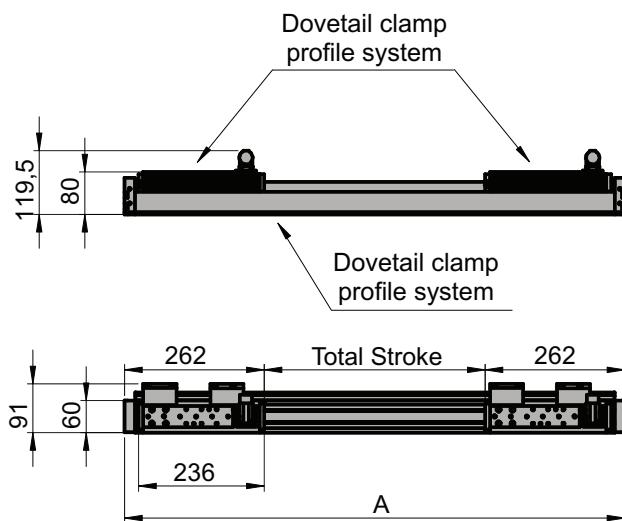
Serialpicker SP2XDC60 - Single Unit

Indipendent Double Carriage [Stator] Overall Dimensions

Serialpicker SP2XDC60 [Double rail guide]



Drive	electric, direct-drive linear motor
Repeatability	$\pm 0.05\text{mm}$ (with external encoder $\pm 0.02\text{mm}$)
Available strokes	400-500-600-700-900-1100mm
Positioning	horizontal and vertical
Max speed	up to 3,2 m/s
Payload	up to 8Kg
Peak thrust	255 N
Nominal thrust	51 N

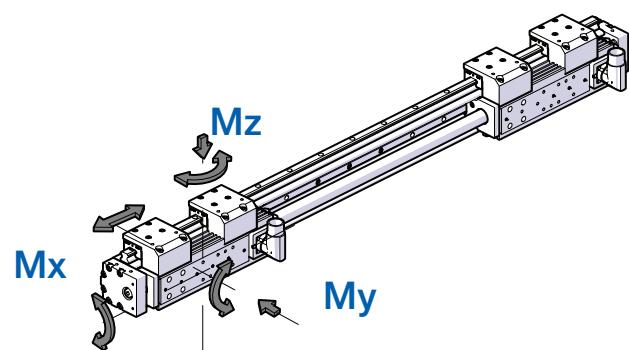


MODEL	STROKE	Nr GUIDE BLOCKS	A
SP2XDC60.400	400	4+4	938
SP2XDC60.500	500	4+4	1038
SP2XDC60.600	600	4+4	1138
SP2XDC60.700	700	4+4	1238
SP2XDC60.900	900	4+4	1438
SP2XDC60.1100	1100	4+4	1638

Admissible dynamic moments

SP2XDC60

Mx	90 Nm
My	117 Nm
Mz	117 Nm



Dynamic Pneumatic Safety Brake

In case of high dynamics, in order to prevent damage due to sudden power failure, it can be advisable to mechanically lock the moving masses at any point of the stroke. The purpose is to prevent damage due to sudden power failure.

Serialpicker offers a wide range of accessories including the Dynamic Pneumatic Safety Brake.

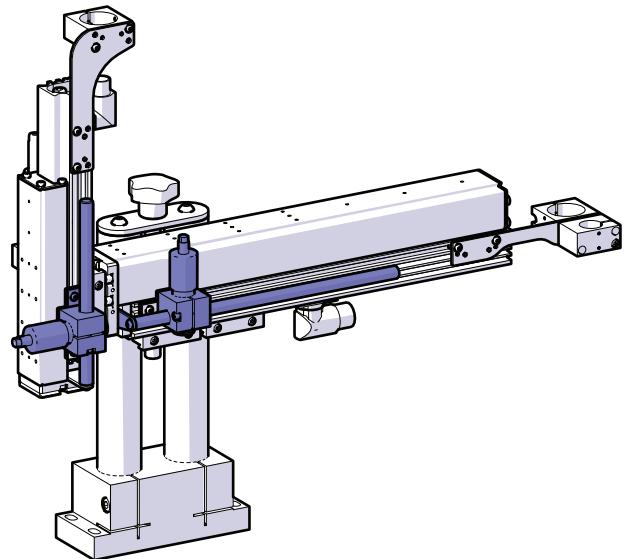
The operating concept is simple: the standard Dynamic Pneumatic Safety Brake is NC single-acting type (NO and double-acting versions on request), i.e. it blocks the stroke in case of power failure; when the current in the circuit is reactivated the block is automatically deactivated.

The Dynamic Pneumatic Safety Brake is supplied in Kit complete with mechanical interfaces. It is available both for linear cantilever units (cantilever) and for those in slide configuration.

SP-BPC Pneumatic Brake

Suitable for Pick and place and Cantilever linear units:

- SP1
- SP2
- SP3
- SPYZ [Z Axis]
- SPXYZ [Z Axis]
- SP40 [single unit]
- SP60 [single unit]



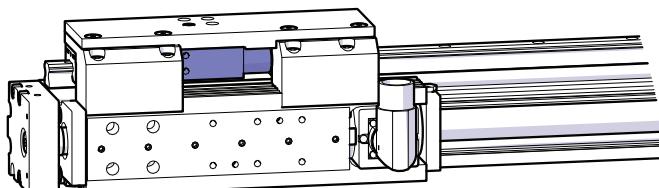
SP-BPX Pneumatic Brake

Suitable for Robots and Linear Slide Units:

- SPX40 [single unit]
- SP2X40 [single unit]

SP-BPX-60

- SPYZ [Y Axis]
- SPXYZ [X and Y Axis]
- SPX60 [single unit]
- SP2X60 [single unit]



Serialpicker: convenient and ecological

Is it better to choose a pneumatic actuator or an electric actuator?

Below we are going to compare the costs in terms of energy consumption and CO2 emissions of Serialpicker electric Pick&Place and a pneumatic Pick&Place. Let's consider, for example, a positioning cycle of an SP1 carrying a load of 1 Kg 1.6 sec; let's say we have an acceleration of 17.1 m/s² and a travel velocity of 0.92 m/s. The task can be carried out with about 100 W of power employed, and the annual energy costs are less than 100 euro.

To move the mass of 1 Kg at the required maximum speed of 0.92 m/s, it is possible to use a pneumatic cylinder with a 32 mm bore piston. Unlike the linear motor, the energy (compressed air) must be supplied throughout the entire cycle.

Based on cylinder volume and cycle time, the annual air consumption is 172,500 Nm³ of compressed air. With a cost of 0.025 €/Nm³ (according to the pneumatics manufacturers), the total cost is over 3,900 € per year.

Electrical power of the motor (1) W	Electrical power (2) W	Energy consumption per year (3) kWh	CO2 emissions per year (4) Kg	Electricity consumption costs per year (5) €
50	102	814	407	97

1) Average value estimated.

2) Linear motor including drive and power supply.

3) Continuous operation (8000 h/year).

4) Emission factor CO2: 0,5 Kg/kWh

5) Cost of electricity: 0,12 €/kWh

Piston bore mm	Compressed air consumption per year (1) Nm ³	Electric power consumption W	Electric power consumption W per year (2) kWh	CO2 emissions (3) Kg	Compressed air costs per year (4) €
32	172.530	2.550	20.340	10.195	3.920

1) Compressed air pressure 6 bar, continuous operation (8000 h/year), air distribution losses: 10%.

2) Electricity consumption factor: 0,13 kWh/Nm³

3) CO2 emission factor: 0,5 kg/kWh

4) Compressed air production costs: 0,025 €/Nm³ (data provided by pneumatic components manufacturers - including electricity production costs)

Two and a half times around the world!

Considering the CO2 emissions of the pneumatic cylinder compared to the emissions produced by a modern car (120 g/km), it would be equivalent to a mileage of 100,000 km per year. If, on the other hand, the application is resolved using a linear engine, the level of emissions would be equivalent to that produced over a distance of 3,400 km per year.

Main Features

- Available in 3 sizes, cantilever or slide configuration
- Strokes up to 500mm on Y-axis and 300mm on Z-axis
- Standard repeatability ±0.05 mm
- Repeatability with external encoder ±0.02 mm
- Speed up to 6.8 m/sec
- Payload up to 8 Kg
- Interface with any Fieldbus
- Safety Torque Off (STO) input
- Power supply 72 V DC

Advantages

- Position, speed and force control
- Low maintenance
- Significant reduction in cycle times
- High efficiency
- Energy saving
- Easy assembly thanks to dovetail clamp profiles
- Adjustable support base stand
- High rigidity
- Vertical axis mass compensation

"From assembly machines to robot cells, there is only one device that can accelerate and simplify serial assembly operations: *Serialpicker*.

Serialpicker makes it easier to automate assembly processes in any automation project, making your machine independent from compressed air".

"What excuse will you find when your client asks you to raise the cycle performance without compromising safety?

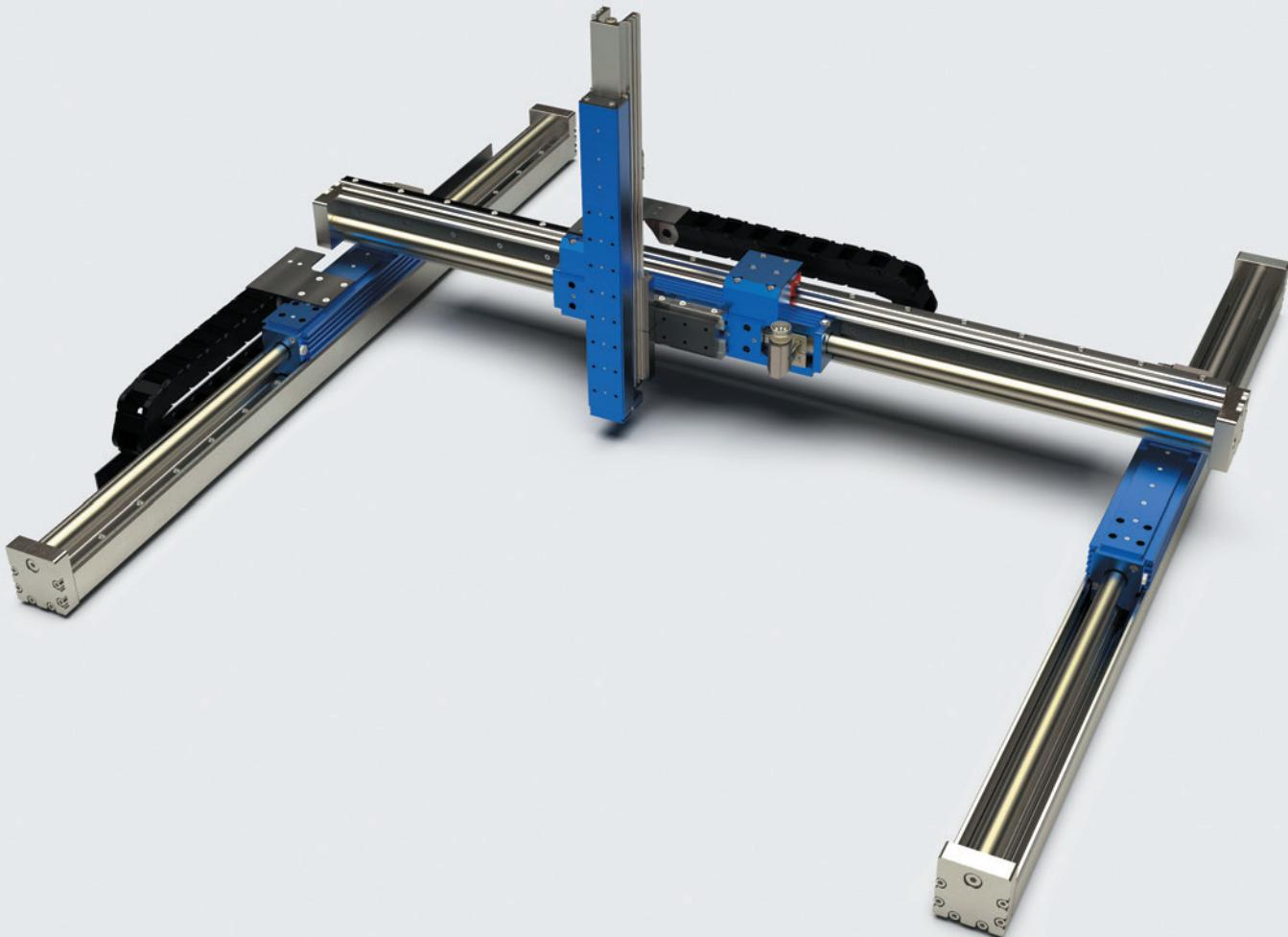
Maybe making it independent of consumption, losses, costs management and lack of flexibility of the compressed air?

You can afford not to keep up with the times with your customers, buyers, sellers, and associates?

Or is it important to be perceived as a successful builder, brilliant, and in line with the trends that drive the business scene of your field? "

Serialpicker comes to your aid and offers you:

- **Full-electric actuation.**
- **Cycle times up to 120pcs/min.**
- **Safe torque off (STO).**
- **Direct drive.**
- **Programmable push force.**



OMAS srl

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