

# Pick & Place HP 70: two horizontal linear axes parallel on top of each other, connected through a kinematic unit. Because of the construction a narrow width of only 60 mm is possible.

Pick & Place HP 140: a horizontal and a vertical linear axis integrated in a single module. Along these two axes all points can be moved to directly.

# HP PICK & PLACE: THE DIRECT ALTERNATIVE

# THE SOLUTION FOR CLEANROOMS

The HP140T CL 6 Pick & Place has been designed for use in cleanrooms and is certified to air purity class 6 in line with ISO 14644-1.

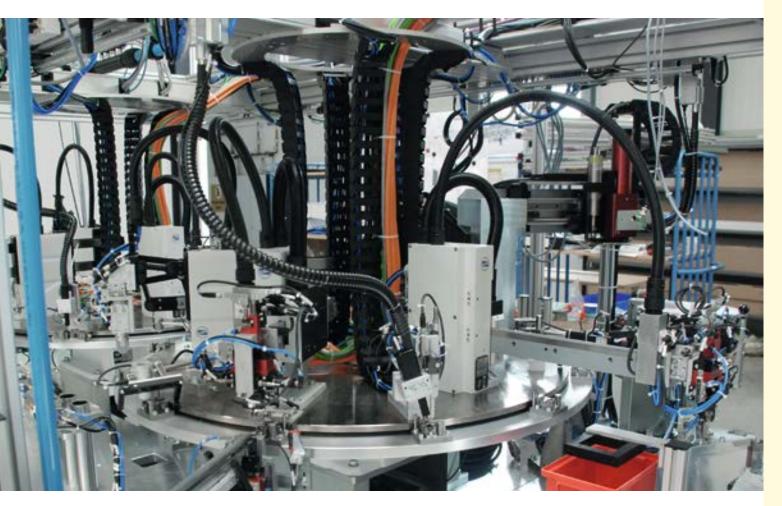


# FREELY AND INTUITIVELY PROGRAMMABLE

W.A.S. 2 - WEISS Application Software: secure and fast commissioning with free-of-charge user software.



Automated assembly system for electromechanical sensors from UBH Mechanical Engineering: eleven Pick & Place units achieve the required repeat accuracy of 0.02 mm – at a cycle time of 1.5 s.



Whether HP 140 or HP 70: The Pick & Place from WEISS works with two linear axes and therefore profit from all advantages of a direct drive: rapid dynamic performance, free user-programmability, minimal wear and highest precision. The HP overcomes limits of traditional pneumatic systems regarding variability, dynamic performance and efficiency.

# ADVANTAGES

- · Extremely high dynamic performance thanks to direct drive
- · Ready-to-install complete solution
- · Free programmability
- Permanent feedback of position, process forces, speed (adjustable control circuit)
- · Low maintenance costs
- Significantly lower energy consumption, in particular in comparison with pneumatic systems
- · Very compact and slim design, offering greater flexibility for integration and assembly of the machine
- W.A.S. 2 WEISS Application Software for simple commissioning
- · Impressive price-performance

#### **GENERAL INFORMATION**

 All motors are equipped with overtemperature protection (PTC)

#### OPTIONS

- The Pick & Place units can be equipped with manual or automatic lubrication
- For efficient cable laying to the screw-on surface, the HP units can optionally be equipped with a tool connector. In addition to this, up to 2 valves can be installed directly in the housing (screwed down to the tool connector)
- · Absolute measuring systems
- · Functional safety (secure encoder attachment)

## **GENERAL INFORMATION**

- · The HP 70 can be used in any installation situation and therefore offers a maximum degree of flexibility
- · Drawings of the HP70 for custom installation locations are available on request

## OPTIONS

· The Pick&Place unit can optionally be supplied with a clamping element for the y-axis and z-axis

#### **TECHNICAL DATA**

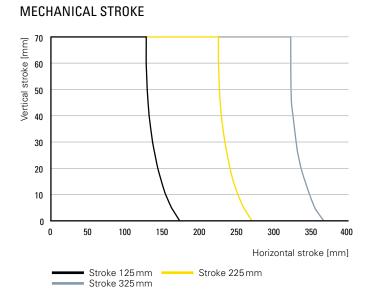
U	Voltage range:	200-600 $V_{AC Effektiv}$
a <sub>Max</sub>	Max. acceleration:	40 m/s <sup>2</sup>
V <sub>Max</sub>	Max. speed:	3.6 m/s
F <sub>N mot</sub>	Nominal force:	65 N
F <sub>P mot</sub>	Peak force:	180 N
S <sub>h Max</sub>	Horizontal stroke:	125, 225, 325 mm
S <sub>v Max</sub>	Vertical stroke:	70 mm
m	Weight:	9 kg
	Repeat accuracy:	0.005 mm
m <sub>rec</sub>	Max. recommended load:	1 kg

LOAD DATA		
M <sub>X stat</sub>	Max. static moment about the X-axis:	61 Nm
M <sub>Y stat</sub>	Max. static moment about the Y-axis:	41 Nm
M <sub>Z stat</sub>	Max. static moment about the Z-axis:	120 Nm
$\mathbf{F}_{\mathbf{Y}  \mathrm{stat}}$	Max. static force in the Y-axis:	100 N
F <sub>Z stat</sub>	Max. static force in the Z-axis:	100 N

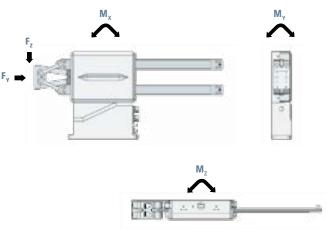
Please do not exceed the given forces – especially during pick or place operations. The accuracy is given for constant temperature and without outside forces.

# ENCODER

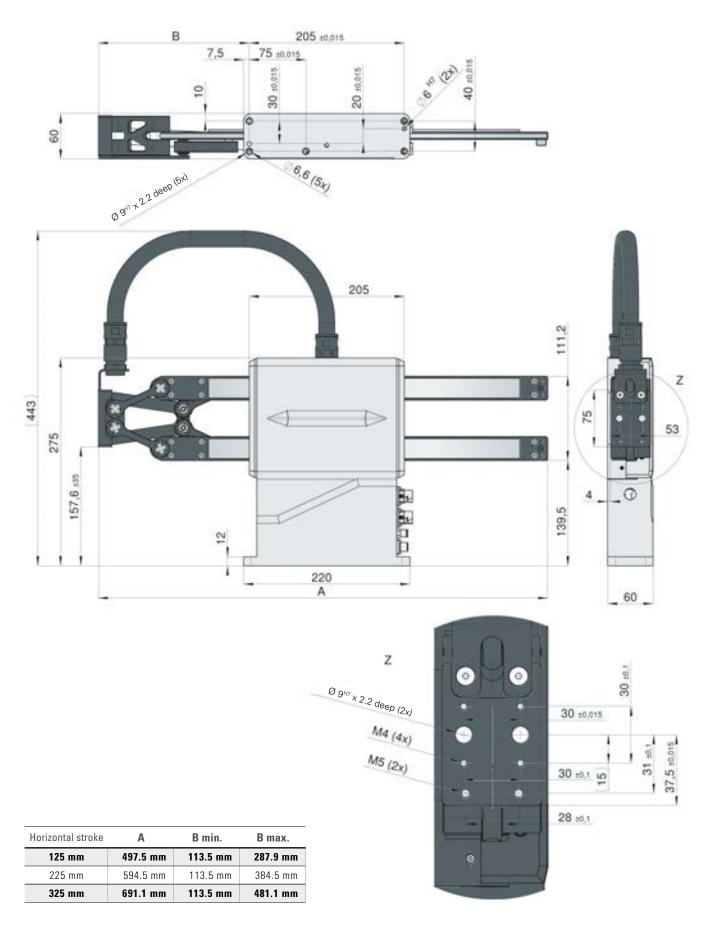
Balluff	sin/cos
Balluff	BISS
Balluff	SSI



## LOAD DATA



# DIMENSIONS



# **GENERAL INFORMATION**

 $\cdot~$  The HP140 is only suitable for horizontal installation

# OPTIONS

· The Pick&Place unit can optionally be designed with a clamping element for the z-axis

TECHNICAL DATA
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U	Voltage range:	200-600 V <sub>AC Effektiv</sub>
U	voltage range.	200 000 V AC Effektiv
a <sub>Max</sub>	Max. acceleration:	40 m/s <sup>2</sup>
V <sub>Max</sub>	Max. speed:	4 m/s
F <sub>N mot</sub>	Nominal force:	100 N (Y), 150 N (Z)
$\mathbf{F}_{\mathbf{P} \text{ mot}}$	Peak force:	240 N (Y), 370 N (Z)
S <sub>h Max</sub>	Horizontal stroke:	160, 215, 270, 300, 400 mm
S <sub>v Max</sub>	Vertical stroke:	65, 100, 150 mm
m	Weight:	11-18 kg
	Installation position::	horizontal
	Repeat accuracy:	0.005 mm
m <sub>rec</sub>	Max. recommended load:	3 kg

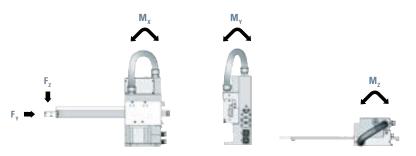
LOAD DATA		
M <sub>X stat</sub>	Max. static moment about the X-axis:	49 Nm
$\mathbf{M}_{\mathbf{Y}  \mathrm{stat}}$	Max. static moment about the Y-axis:	15 Nm
M <sub>Z stat</sub>	Max. static moment about the Z-axis:	36 Nm
$\mathbf{F}_{\mathbf{Y}\mathrm{stat}}$	Max. static force in the Y-axis:	100 N
F <sub>Z stat</sub>	Max. static force in the Z-axis:	100 N

Please do not exceed the given forces – especially during pick or place operations. The accuracy is given for constant temperature and without outside forces.

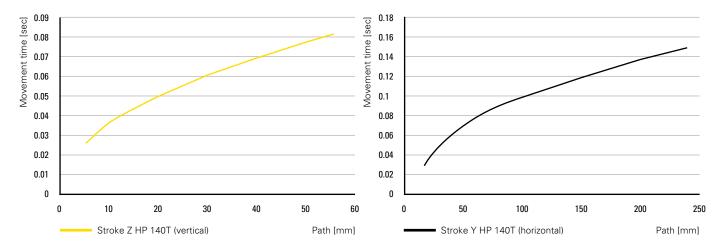
# ENCODER

Balluff	sin/cos
Balluff	BISS
Balluff	SSI

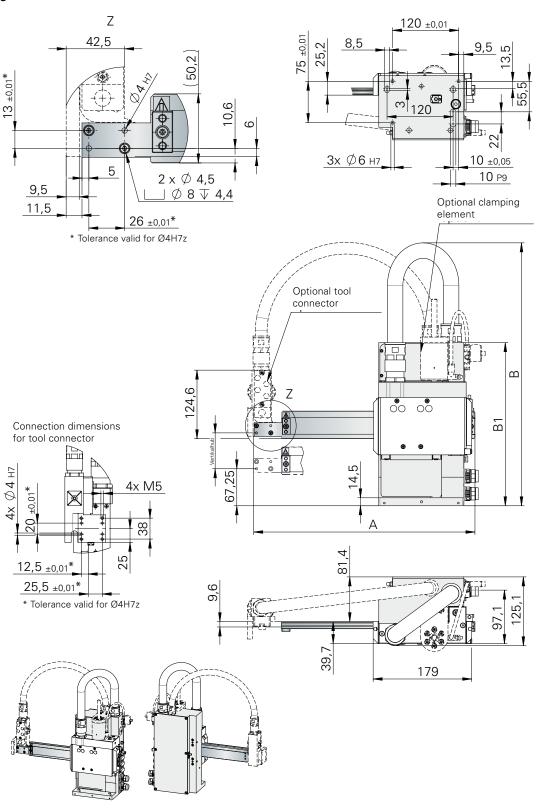
# LOAD DATA



TIMING DIAGRAM To help calculate the exact cycle time, please forward your proposed sequence.







Vertical stroke	В	B <sub>1</sub>
65	478	296.5
100	581	371.5
150	653	471.5

Horizontal stroke	Α		
160	402	*	
270	512	*	
300	542	*	
400	642	*	