

# Mobile Robot System HelMo

**The next step in man-robot-collaboration**



# Characteristics

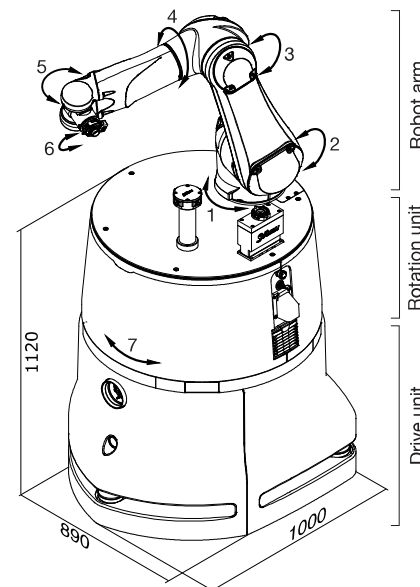
ROBOT ARM	TX2-90	TX2-90L	TX2-90XL
Reach (between axis 1 and 6)	1000 mm	1200 mm	1450 mm
Maximum load	14 kg (20 kg under conditions)	12 kg (15 kg under conditions)	7 kg (9 kg under conditions)
Nominal load	7 kg	6 kg	5 kg
Repeatability - ISO 9283	± 0,03 mm	± 0,035 mm	± 0,04 mm

ROTATION UNIT	
Maximum rotation angle	350°
Safe positions	0° / ± 90° / 180°
Maximum speed	16,8 °/s
Tool change station	4 tools per station
Tool changing system	MPS032

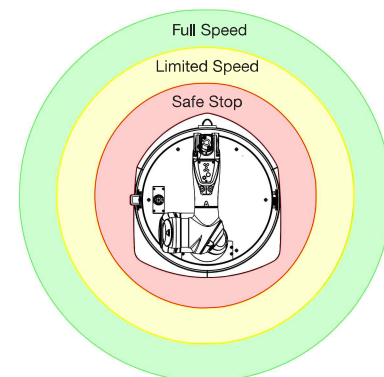
DRIVE UNIT	
Maximum speed	0,6 m/s
Position accuracy of drive unit	± 10 mm, 1°
Dimensions (without robot arm)	890 x 1120 x 1000 mm (W x H x D)
Number of laser scanners	3 (360° monitoring area)
Height of scan plane (personal safety)	150 mm
Drive type	Differential drive

TOTAL SYSTEM	
Navigation	based on laser scanner data
Protection class wrist / robot arm / total system	IP67 / IP65 / IP20
Average surface pressure on floor	max. 10 N/mm <sup>2</sup>
Power supply	1 x 230 V / 16 A
Interfaces	WLAN, LAN, Fieldbus <sup>(1)</sup>
Multi coupling	compressed air, power supply, 2 x Cat5e, 26 x 1 mm <sup>2</sup> electrical pins
Battery capacity	6,0 kWh - 9,0 kWh
Compressed air tank	0,75 l <sup>(2)</sup> / 8 bar
Optical and acoustical effects	4 LED units and memory space for up to 16 audio files
Weight	710 kg

## System components

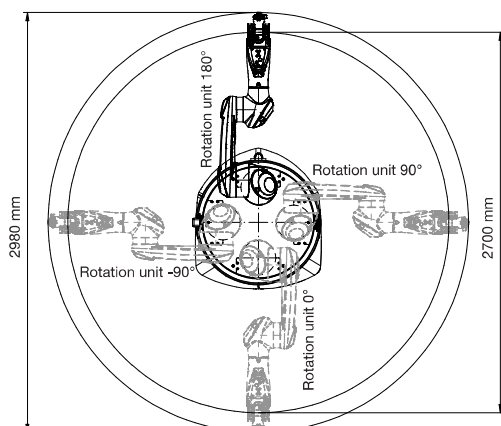


## Monitoring area for safety technology



<sup>(1)</sup> more available on demand  
<sup>(2)</sup> extension possible

## Save positions of rotation unit



## Reach e.g. TX2-90L

