

FAST MOVING TECHNOLOGY

STÄUBLI

MRS90

Mobile Robot System



MOBILE ROBOT SYSTEM

Stäubli defines new standards

The Mobile Robot System MRS90 is an autonomously moving and navigating handling system for industrial environments.

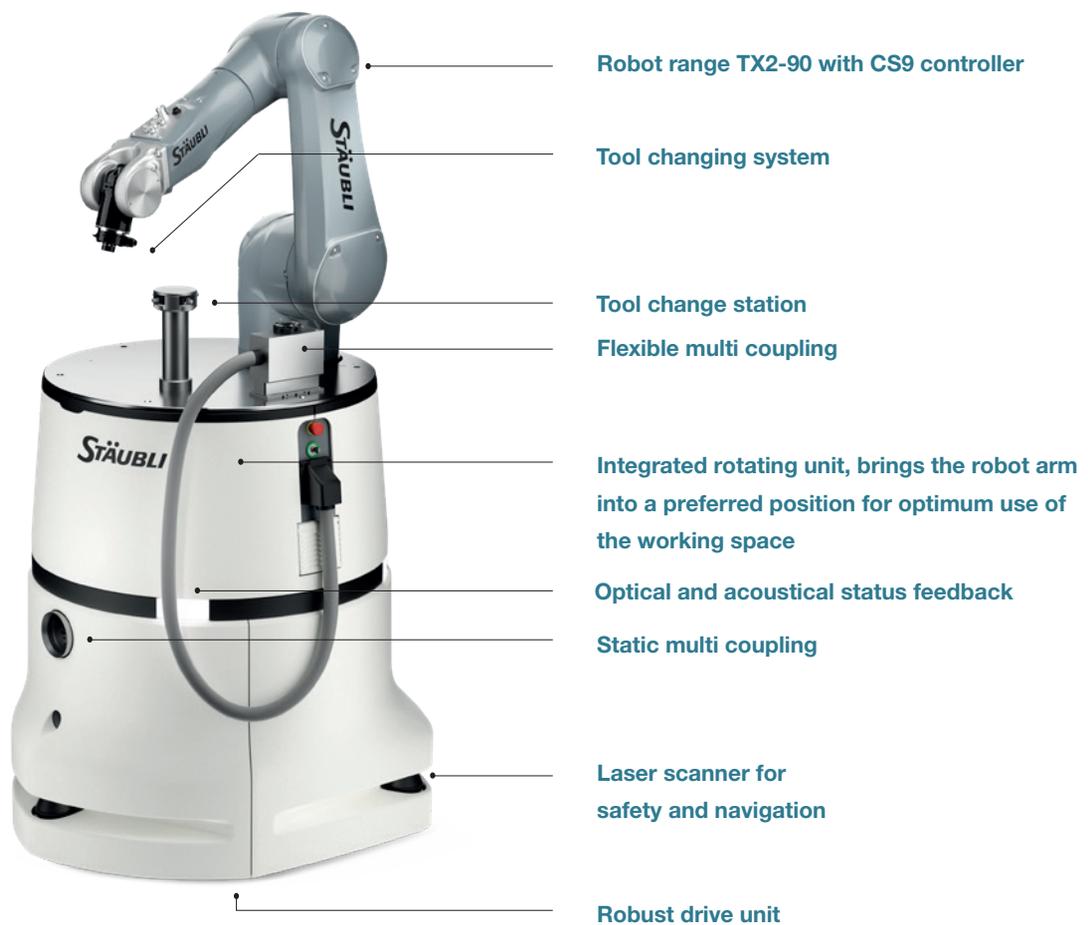
Three integrated safety laser scanners permanently scan the environment and guarantee precise navigation. In combination with the six-axis robot TX2 and the CS9

controller as well as the safety features Safe Speed, Safe Stop and Safe Zone/Safe Tool, the safe use of the robot system is guaranteed.

To work at different locations during its operation the system is equipped with multi couplings, tool changing system and tool

station. Thanks to its modular structure and robust drive technology it can be used in almost every industrial sector like provisioning, logistics, assembly or quality control.

Even more, the system charges during its work by connecting itself to a docking station.



Characteristics

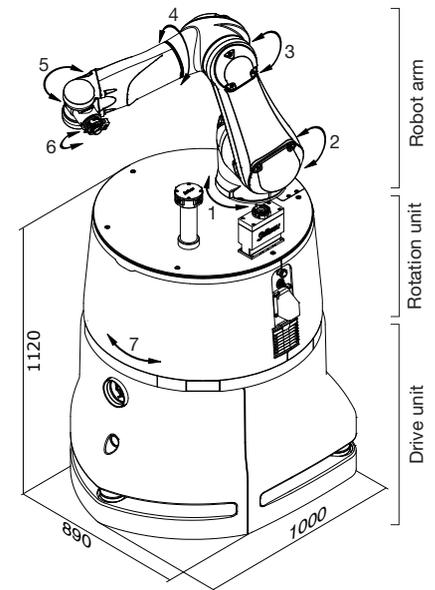
ROBOT ARM	TX2-90	TX2-90L	TX2-90XL
Reach (between axis 1 and 6)	1000 mm	1200 mm	1450 mm
Maximum load	14 kg (20 kg under conditions)	12 kg (15 kg under conditions)	7 kg (9 kg under conditions)
Nominal load	6 kg	5 kg	4 kg
Repeatability - ISO 9283	± 0,03 mm	± 0,035 mm	± 0,04 mm

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

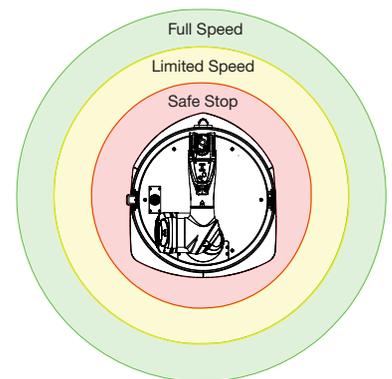
DRIVE UNIT	
Maximum speed	0,6 m/s
Position accuracy of drive unit	± 10 mm, 1°
Dimensions (without robot arm)	890 x 1120 x 1000 mm (W x H x D)
Number of laser scanners	3 (360° monitoring area)
Height of scan plane (personal safety)	150 mm
Drive type	Differential drive

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 ²
Power supply	1 x 230 V / 16 A
Interfaces	WLAN, LAN, Fieldbus ⁽¹⁾
Multi coupling	compressed air, power supply, 2 x Cat5e, 26 x 1 mm ² electrical pins
nom. battery energy	5,8 - 8,7 kWh
Compressed air tank	0,75 l ⁽²⁾ / 7 bar
Optical and acoustical effects	4 LED units and memory space for up to 16 audio files
Weight	730 kg

System components

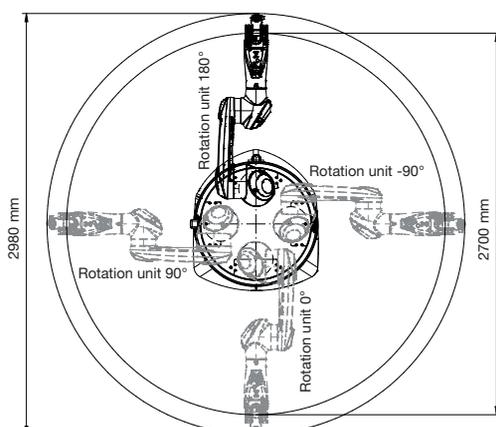


Monitoring area for safety technology

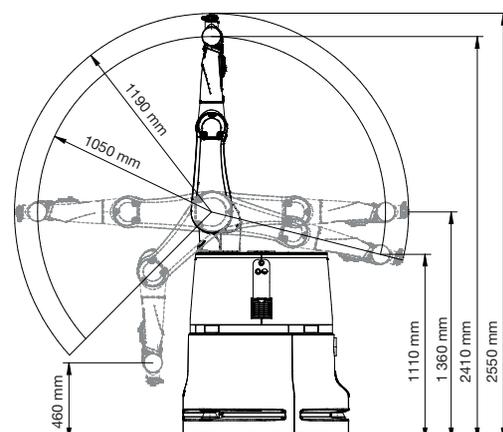


(1) more available on demand
 (2) extension possible

Save positions of rotation unit e.g. TX2-90L



Reach e.g. TX2-90L





● Stäubli Units ○ Representatives/Agents

Global presence of the Stäubli Group

www.staubli.com

