

# MOTOMAN SP100

Spot Welding with the SP-series



The MOTOMAN SP100 is a compact spot welding robot with 100 kg payload for servo-controlled lightweight welding guns. This technology allows very compact, cycle-time-optimized, energy-efficient and cost-effective welding cells to be installed in the smallest possible space. This robot is suitable for compact spot welding lines in car body construction with high robot density, for economical welding of small subassemblies, and for space-saving installation on a positioner.

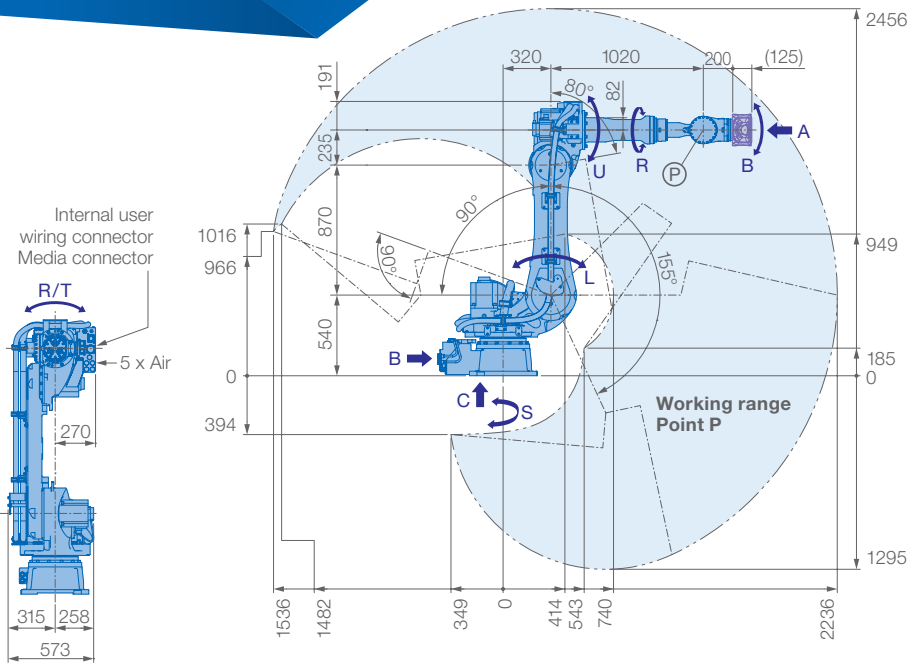
The MOTOMAN SP100 features the latest Yaskawa Sigma7 servo drive technology, is state-of-the-art in terms of dynamics and energy efficiency, and enables outstanding cycle times.

## KEY BENEFITS

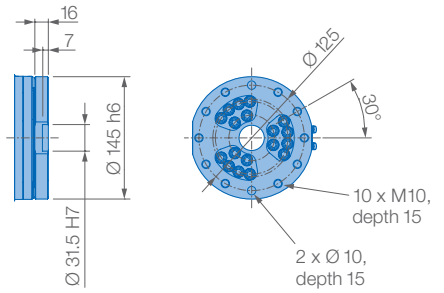
- High payload (100 kg including C-adapter) and large working range (2236 mm)
- High repeatability ( $\pm 0.03$  mm)
- Extra slim design, integrated cable and media routing via robot arm
- High robot density in production line possible
- Shortened process times
- High dynamics

## OPTIONS

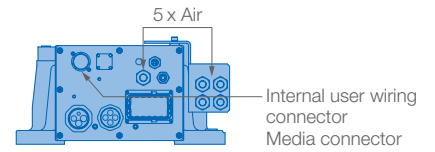
- Cable packages of various designs, easily adaptable
- C-adapter for optimal cable routing on the wrist
- Extended robot cables
- Fieldbus cards
- External drive axes, tracks
- Functional Safety Unit (FSU), area limitations
- Vision system, e.g. MotoSight 2D



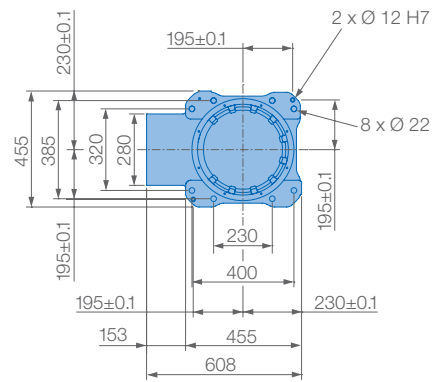
### View A



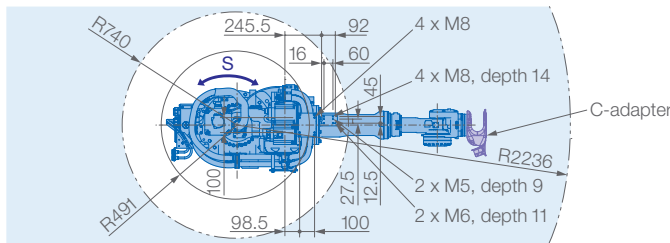
### View B



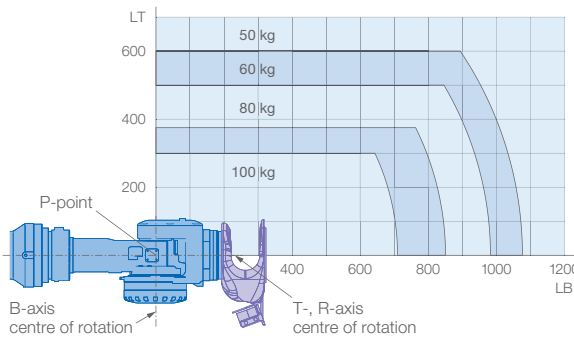
### View C



Mounting option: Floor  
IP Protection: IP54 (body), IP67 (wrist)



### Allowable wrist load with C-adapter



Specifications SP100						
Axes	Maximum motion range [°]	Maximum speed [°/s]	Allowable moment [Nm]	Allowable moment of inertia [kg · m <sup>2</sup> ]	Controlled axes	6
S	±180	140	–	–	Max. payload [kg]	100 (110*)
L	+155/-90	110	–	–	Repeatability [mm]	±0.03
U	+90/-80	130	–	–	Max. working range R [mm]	2236
R	±205 (±360*)	175	696 (721*)	58 (60*)	Temperature [°C]	0 to +45
B	±120 (±125*)	175	696 (721*)	58 (60*)	Humidity [%]	20 – 80
T	±205 (±360*)	255	294	33 (33.7*)	Weight [kg]	660
					Power supply, average [kVA]	5.0

\* without C-adapter

### Yaskawa Europe GmbH

Robotics Division  
Yaskawastraße 1  
85391 Allershausen  
Germany

Tel. +49 (0) 8166 90-0  
robotics@yaskawa.eu.com  
www.yaskawa.eu.com

YR-1-06VX110-A00  
A-04-2021, A-No. 212393