

# MOTOMAN SP235

Spot Welding & Handling with the SP-series



The MOTOMAN SP235 is a high-performance standard spot welding and handling robot with a high payload of 235 kg. This robot is suitable for heavy and protruding spot welding welding guns and grippers, in particular for servo-controlled servo-controlled welding guns with robot-supported gun balancing. Its slim design allows it to be used in compact layouts. The stable wrist is especially suitable for small and fast positioning movements, which are common in spot welding applications.

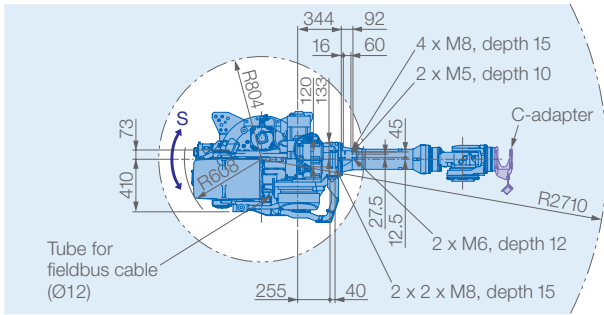
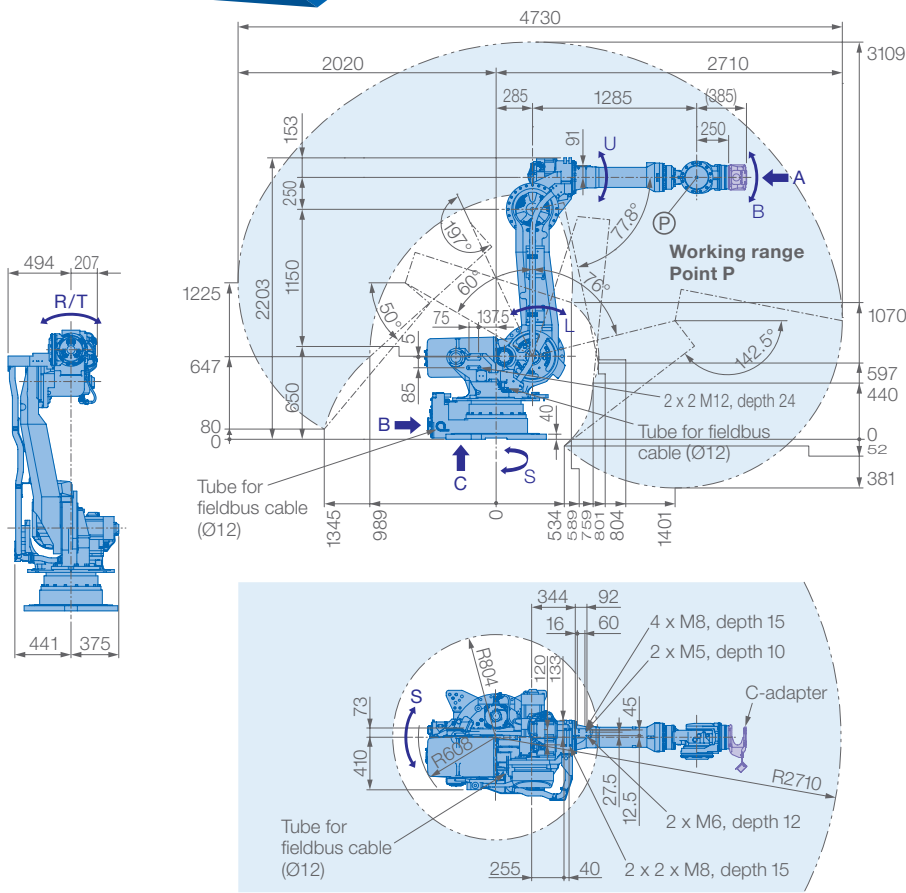
The MOTOMAN SP235 features the latest Yaskawa Sigma7 servo drive technology, is state-of-the-art in terms of dynamics and energy efficiency, and enables outstanding cycle times.

## KEY BENEFITS

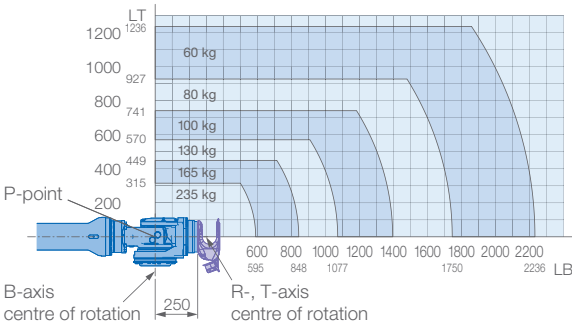
- Versatile application possibilities
- High payload (235 kg including C-adapter) and large working range (2710 mm)
- High repeatability ( $\pm 0.05$  mm)
- Slim body and compact footprint
- Integrated cable and media guide in the robot arm
- High robot density in production line possible
- Shortened process times
- High dynamics

## OPTIONS

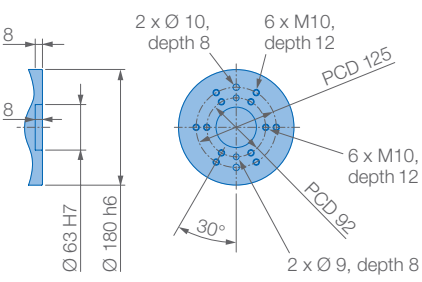
- Cable packages of various designs, easily adaptable
- C-adapter for optimal cable routing on the wrist
- Sockets and base plates
- Extended robot cables
- Fieldbus and Safety Bus options
- External drive axes, tracks
- Functional Safety Unit (FSU), area limitations
- Vision system, e.g. MotoSight 2D



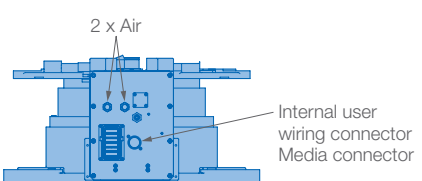
**Allowable wrist load with C-adapter**



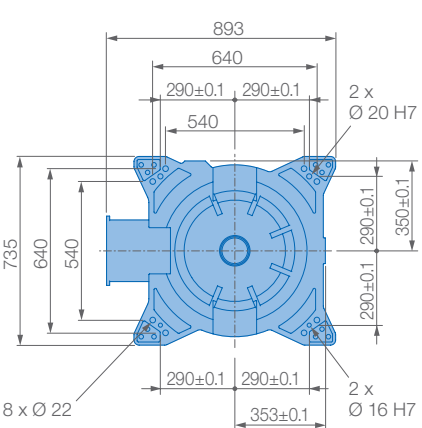
**View A**



**View B**



**View C**



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

Specifications SP235						
Axes	Maximum motion range [°]	Maximum speed [°/s]	Allowable moment [Nm]	Allowable moment of inertia [kg · m <sup>2</sup> ]	Controlled axes	6
S	±180	100	–	–	Max. payload [kg]	235 (250*)
L	+76/–60	90	–	–	Repeatability [mm]	±0.05
U	+197/–77.8	97	–	–	Max. working range R [mm]	2710
R	±205 (±360*)	120	1333 (1385*)	315 (317*)	Temperature [°C]	0 to +45
B	±120 (±125*)	120	1333 (1385*)	315 (317*)	Humidity [%]	20 – 80
T	±180 (±360*)	190	735	200	Weight [kg]	1345
					Power supply, average [kVA]	5.0

\* without C-adapter

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