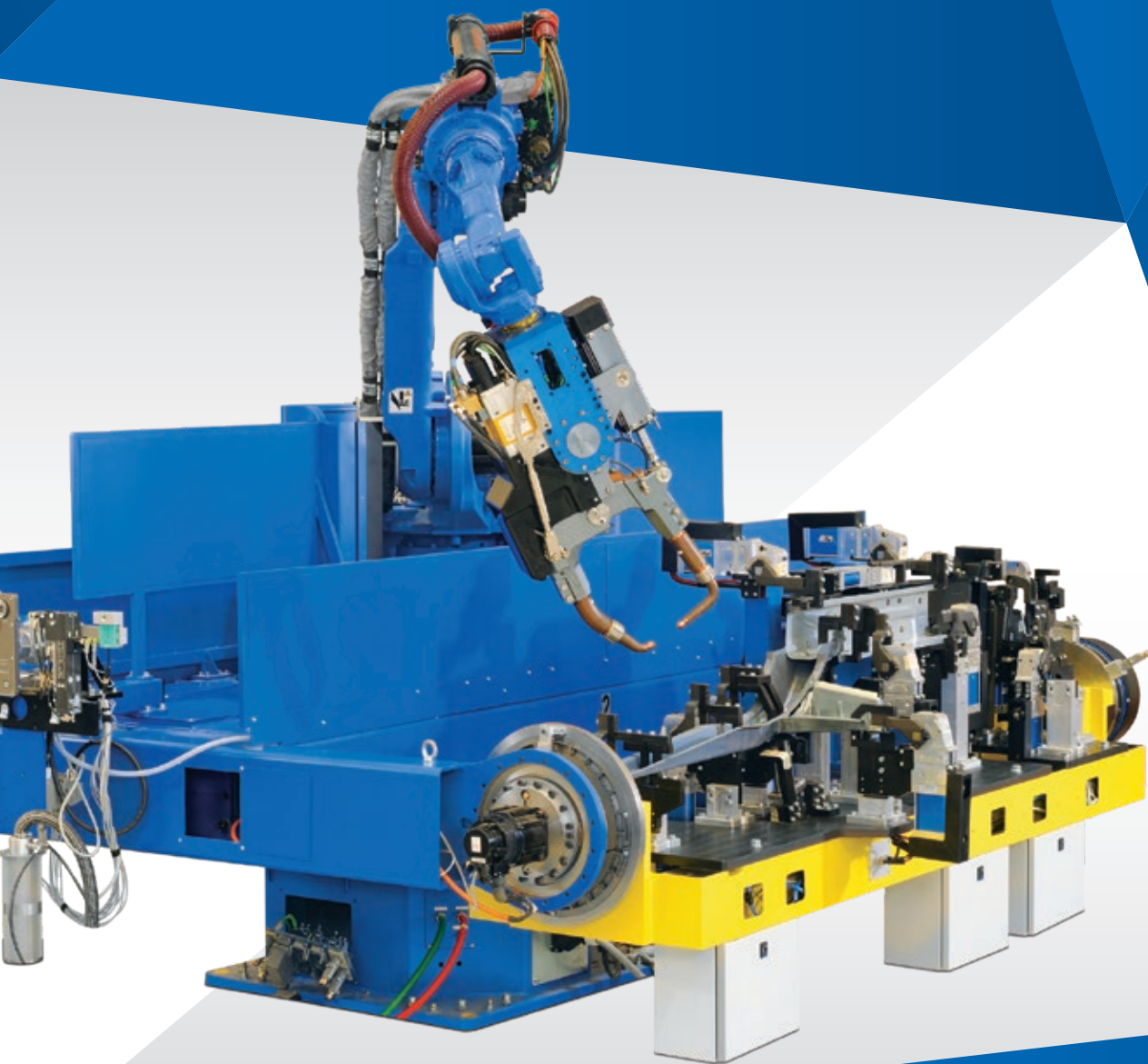


**YASKAWA**

# MOTOMAN Spot Welding Solutions

MOTOMAN SP Series / YRC1000 Robot Controller



# SP Series

## SP80



Controlled by  
YRC1000

Specifications SP80	
Controlled axes	6
Max. payload [kg]	80 (88°)
Repeatability [mm]	±0.03
Max. working range R [mm]	2236
Temperature [°C]	0 to +45
Humidity [%]	20 – 80
Weight [kg]	630
Power supply, average [kVA]	4.0

## SP100



Controlled by  
YRC1000

Specifications SP100	
Controlled axes	6
Max. payload [kg]	100 (110°)
Repeatability [mm]	±0.03
Max. working range R [mm]	2236
Temperature [°C]	0 to +45
Humidity [%]	20 – 80
Weight [kg]	660
Power supply, average [kVA]	5.0

## SP165-105



Controlled by  
YRC1000

Specifications SP165-105	
Controlled axes	6
Max. payload [kg]	105 (120°)
Repeatability [mm]	±0.05
Max. working range R [mm]	3058
Temperature [°C]	0 to +45
Humidity [%]	20 – 80
Weight [kg]	1090
Power supply, average [kVA]	5.0

# SP165



Controlled by  
YRC1000

Specifications SP165	
Controlled axes	6
Max. payload [kg]	165 (180*)
Repeatability [mm]	±0.05
Max. working range R [mm]	2702
Temperature [°C]	0 to +45
Humidity [%]	20 – 80
Weight [kg]	1020
Power supply, average [kVA]	5.0

# SP210



Controlled by  
YRC1000

Specifications SP210	
Controlled axes	6
Max. payload [kg]	210 (225*)
Repeatability [mm]	±0.05
Max. working range R [mm]	2702
Temperature [°C]	0 to +45
Humidity [%]	20 – 80
Weight [kg]	1080
Power supply, average [kVA]	5.0

# SP235



Controlled by  
YRC1000

Specifications SP235	
Controlled axes	6
Max. payload [kg]	235 (250*)
Repeatability [mm]	±0.05
Max. working range R [mm]	2710
Temperature [°C]	0 to +45
Humidity [%]	20 – 80
Weight [kg]	1345
Power supply, average [kVA]	5.0

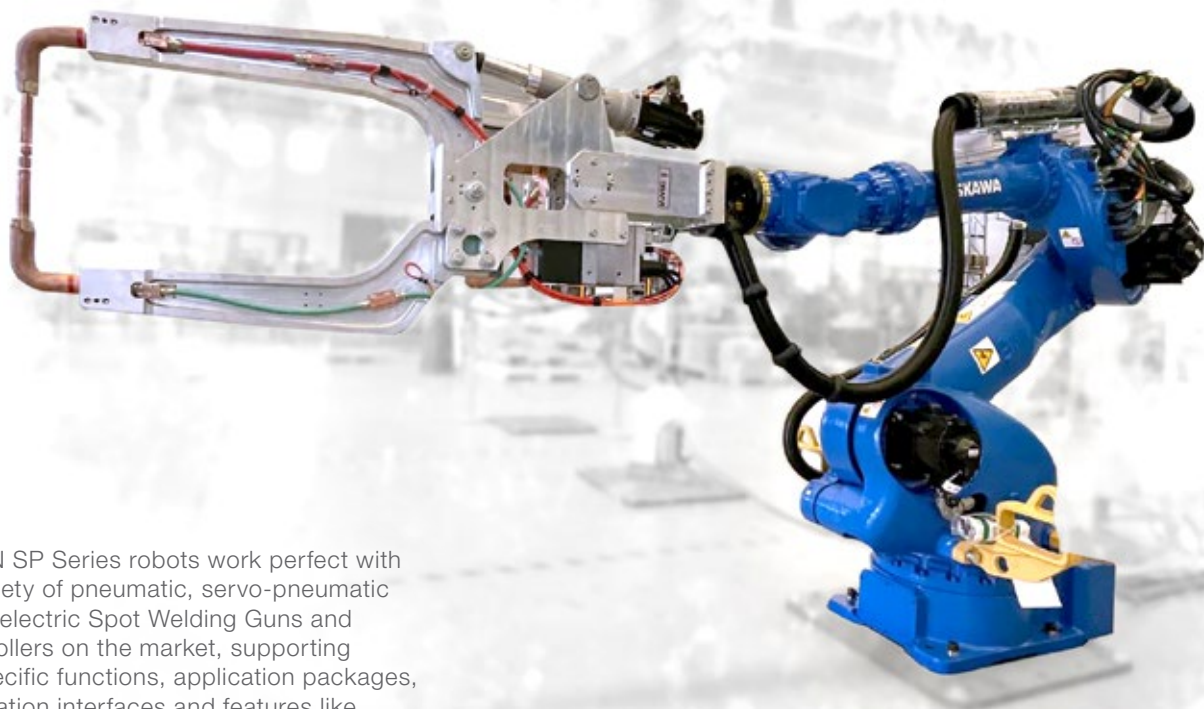
# SP150R / SP185R



Controlled by  
YRC1000

Specifications SP150R / SP185R	
Controlled axes	6
Max. payload [kg]	186,5 (200*)
Repeatability [mm]	±0.05
Max. working range R [mm]	3140
Temperature [°C]	0 to +45
Humidity [%]	20 – 80
Weight [kg]	1830
Power supply, average [kVA]	5.0

# Spot Welding Guns



MOTOMAN SP Series robots work perfect with a large variety of pneumatic, servo-pneumatic and servo-electric Spot Welding Guns and Gun Controllers on the market, supporting vendor-specific functions, application packages, communication interfaces and features like position and arm bending compensation.

Please ask for more details.

**TECNA**<sup>®</sup>  
Resistance Welding Systems & Balancers

**centerline**<sup>®</sup>  
GERMANY GmbH

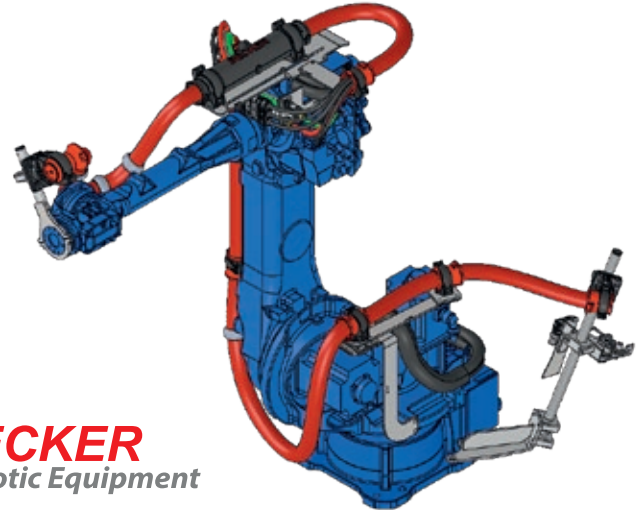
**Düring**

 **NIMAK**<sup>®</sup>  
Die perfekte Verbindung.

  
WELDING TECHNOLOGIES

# Dresspack

- Spot Welding gun wiring from robot base to wrist – 35 mm<sup>2</sup> power cord, water pipe PUR 12, motor, encoder, signal cables
- Spot Welding connection from robot base to YRC1000 controller, spot welding timer and water cooling supply



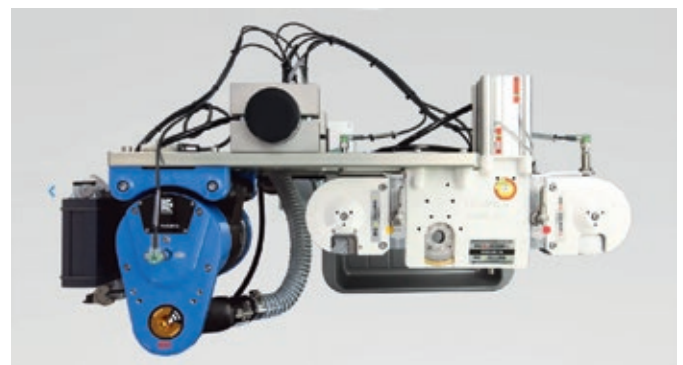
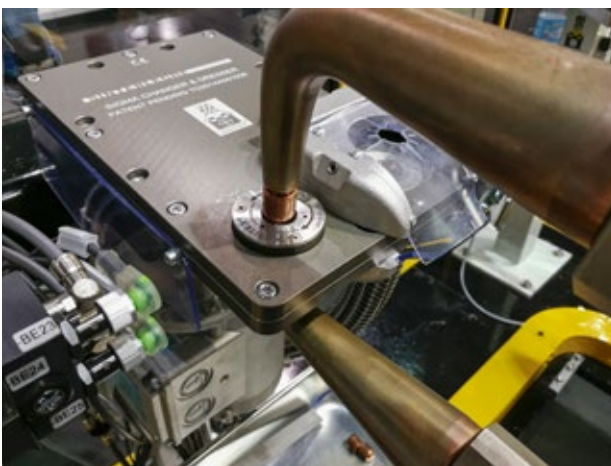
# Welding Timer

- Spot Welding Middle frequency inverter and welding controller
- Force and Stroke parametrization with robot teach pendant



# Automatic Tip Dresser & Tip Changer

The automatic Tip Dresser and Tip Changer, is used in case of a fully automated workstation, where the electrode dressing and electrode change is performed automatically. The electrodes are placed in a magazine next to the dressing unit and the electrodes on the gun are replaced by an automatic extraction and replacement system.



# Customer Service and Support.

## From the Initial Concept to the Turnkey System.

With more than 40 years of experience in system development and engineering, and wide-ranging expertise in robot technology, Yaskawa offers an all-round package tailored to your needs. Consulting also receives high priority: even if you have only a vague notion of how your workpiece is to be welded, Yaskawa will draw up a concept for you, integrate the required components and present you with a solution that will fire your imagination.



### Consulting

- In-process engineering services



### Testing

- 3D simulation
- Prototyping and pre-series production on test systems
- Performance of welding trials
- Quality control by macrosections



### Training

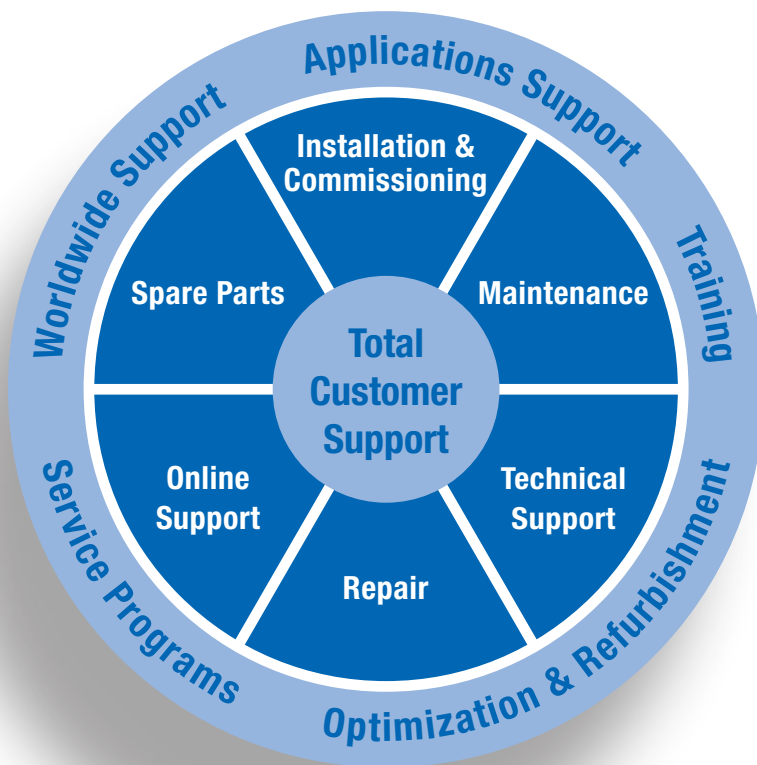
- Operator training on site or in our Academies
- Welding training













### Service

- Maintenance and repair
- Overhauls and refurbishments

# Total Customer Support



-  Process Optimization & Product Modernization
-  Support for Product Application
-  Installation & Implementation
-  Service, Warranty & Maintenance Contracts
-  Preventive Maintenance
-  Training
-  Repair
-  Detailed Reporting
-  Spare Parts
-  Inventory & Logistics Programm
-  Error Analysis & Troubleshooting

Yaskawa supports you throughout the entire product lifecycle with service products and services tailored to your needs.

The 360° all around support, the TOTAL CUSTOMER SUPPORT, not only refers to the Yaskawa products and systems but also to your applications and processes.

Through our global service network, Yaskawa is always close to you to ensure your success, because ...

**... customer satisfaction is our top priority!**

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All drawing dimensions in mm.  
Technical data may be subject to change without previous notice.  
Please request detailed drawings at [robotics@yaskawa.eu](mailto:robotics@yaskawa.eu).

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