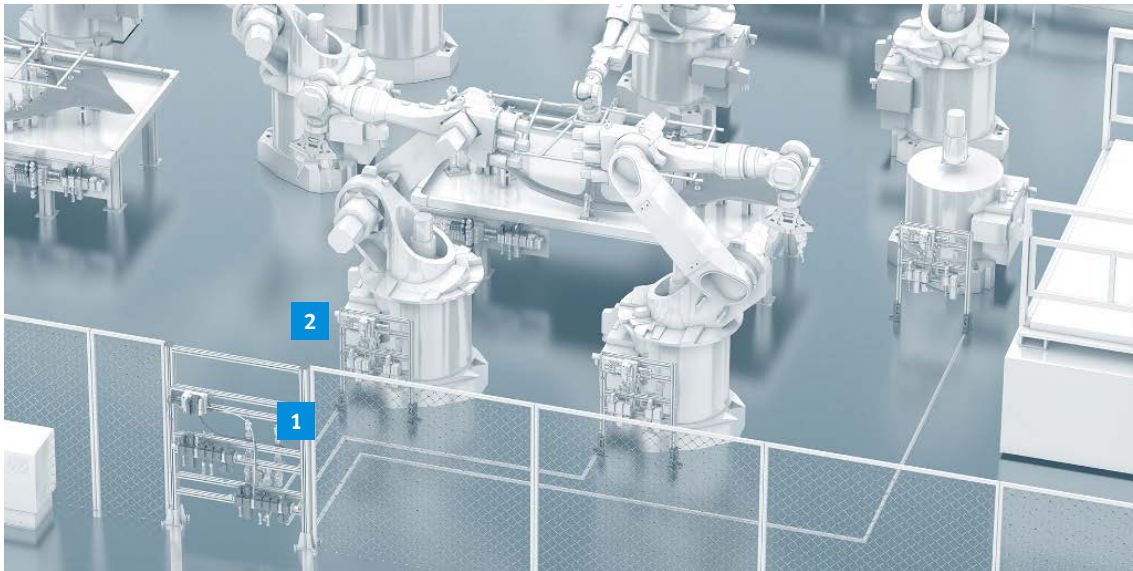


# Compressed air and cooling water supply for welding guns



## Highlights

- Equipment inline with the application: from basic functions to function integration with process monitoring and diagnostic management
- Tailor-made: design precisely matched to the customer requirements
- Compliance with the standards, directives, product releases and specific requirements applicable in the body-in-white environment
- Defined mechanical, pneumatic and electrical interfaces

## Project idea

Ready-to-install complete solution for controlling and monitoring the compressed air and cooling water supply of complete welding lines or individual welding robots, with a focus on process reliability and efficient installation.

## Requirements

- Integration into existing car body production plants
- Prevention of water leakage when replacing the electrode caps
- Quicker installation and less space required

## Ready to install solutions

Application-specific complete solutions: pretested and with a structured, bundled media supply.

Using

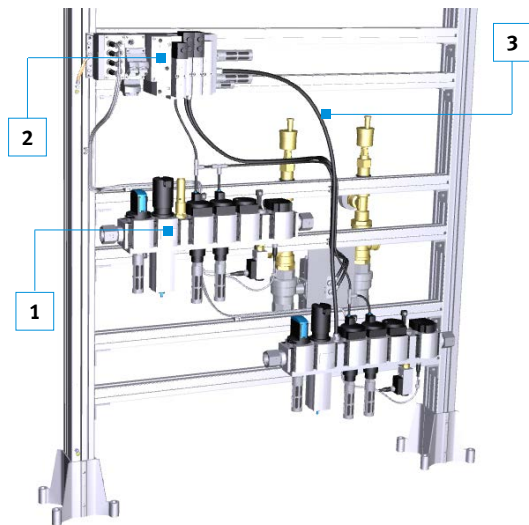
- 1** hall installation plates (HIP) and
- 2** robot installation plates (RIP)

compressed air and cooling water are supplied to the production cells in car body production plants.

# Compressed air and cooling water supply for welding guns

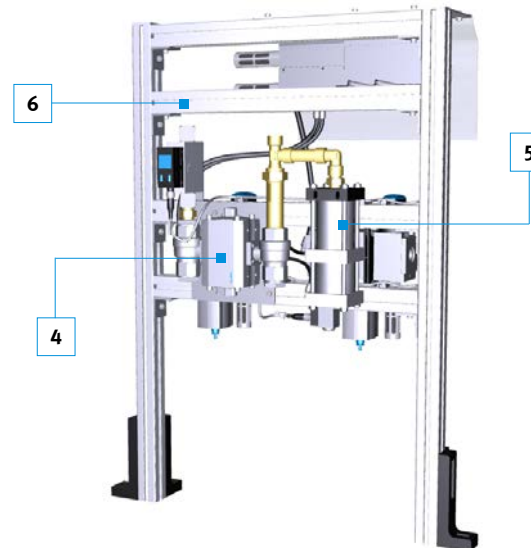
## System set-up for hall installation plates (HIP) and robot installation plates (RIP)

### Compressed air preparation:



- 1 Compressed air service unit
- 2 Valve terminal or individual valves
- 3 Accessories: cables, tubing and fittings

### Cooling water supply:



- 4 Cooling water supply
- 5 Water withdrawal
- 6 Frame

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# Compressed air and cooling water supply for welding guns

## Types of configuration

Standard: compressed air and cooling water on different sides



Modular solution



Compressed air and cooling water on one side

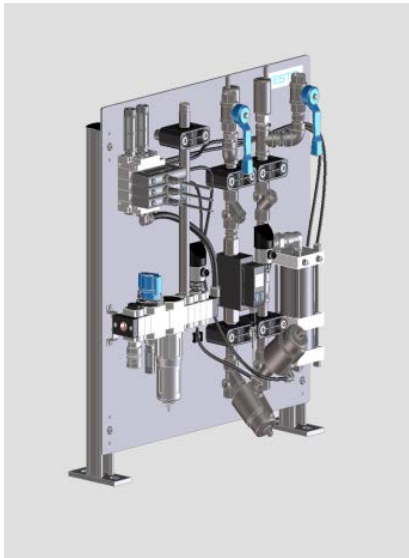


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# Compressed air and cooling water supply for welding guns

## Types of configuration

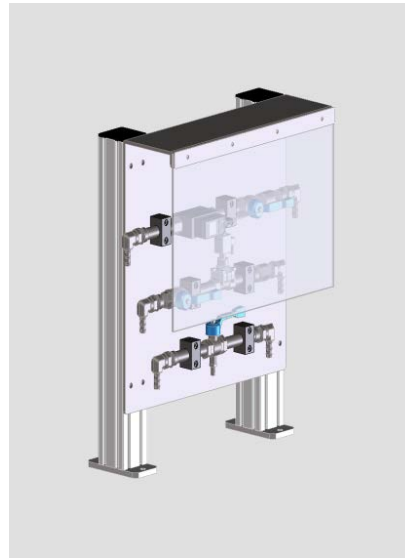
Installation  
on a plate



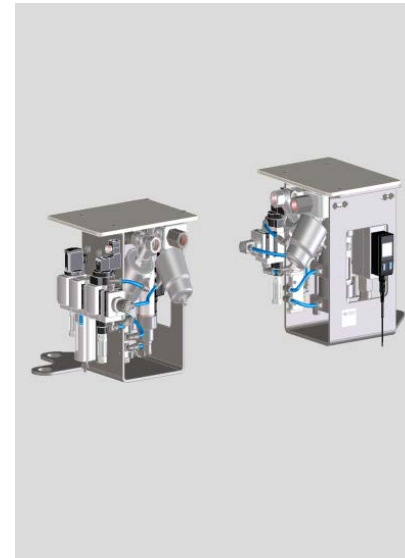
Installation  
on a rail



Installation  
on a frame



Direct installation  
on the robot



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# Compressed air and cooling water supply for welding guns

## Products and solutions

**FESTO**



### MS series service units

- A comprehensive concept for compressed air preparation
- For simple standard applications and application-specific solutions
- With integrated safety technology as well as pressure and flow sensors
- Maximum flow rates with minimum space requirement



### Angle seat valve VZXF

- Sturdy: suitable for contaminated or gaseous media up to a viscosity of 600 mm<sup>2</sup>/s
- Stainless steel design with high thermal resistance
- Closes reliably when pressure drops thanks to N/C function
- Versions: Gas: closes with the media flow, Fluids: closes against the media flow



### Withdrawal cylinder D63x2-64-SA

- For quick replacement of the electrode caps: cooling water is quickly withdrawn from the welding gun cooling water circuit and water inlet and outlet are reliably shut off
- Prevents water leakage when replacing the electrode caps
- Tandem cylinder



### Standards-based valve terminal VTSA/VTSA-F

- Unique: mix of 5 valve sizes on one valve terminal
- Complete valve range: ISO size 3 with flow rate of up to 4000 l/min
- Complete range for vertical stacking and comprehensive diagnostics concept
- Vacuum generator with air saving function as module standard
- Safety@Festo: PROFIsafe module CPX-FVDA-P2 for PM-switching outputs up to 1.5 A



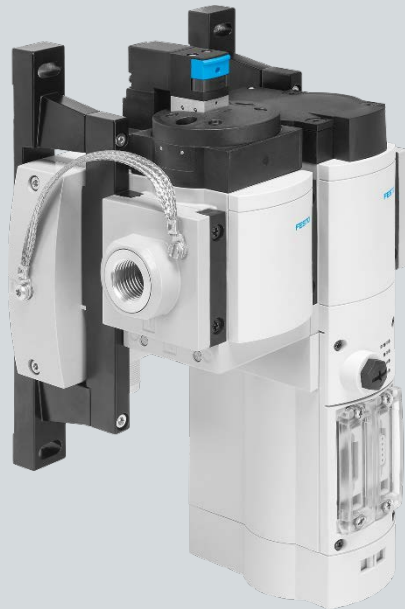
### Flow sensors SFAW

- Cooling circuit monitoring: SFAW measures the volume, temperature and flow rate of liquid media
- Easy to install
- Sensor can be rotated through 360° in the direction of flow
- Monitoring for leaks and line breaks
- Rotatable display, which switches between red and blue for visual feedback on system status, making it easy to read off and operate after installation

# Compressed air and cooling water supply for welding guns

## Product highlight

**FESTO**



### Energy efficiency module MSE6-E2M

This world first enables you to save compressed air and energy in your system. The energy efficiency module is a completely new, intelligent combination of service units, sensors and fieldbus technology.

The module monitors and regulates the compressed air supply fully automatically.

### 3 core functions:

- Automatic shut-off of the compressed air in stand-by mode
- Automatic detection and notification of leakages
- Condition and system monitoring via PROFIBUS