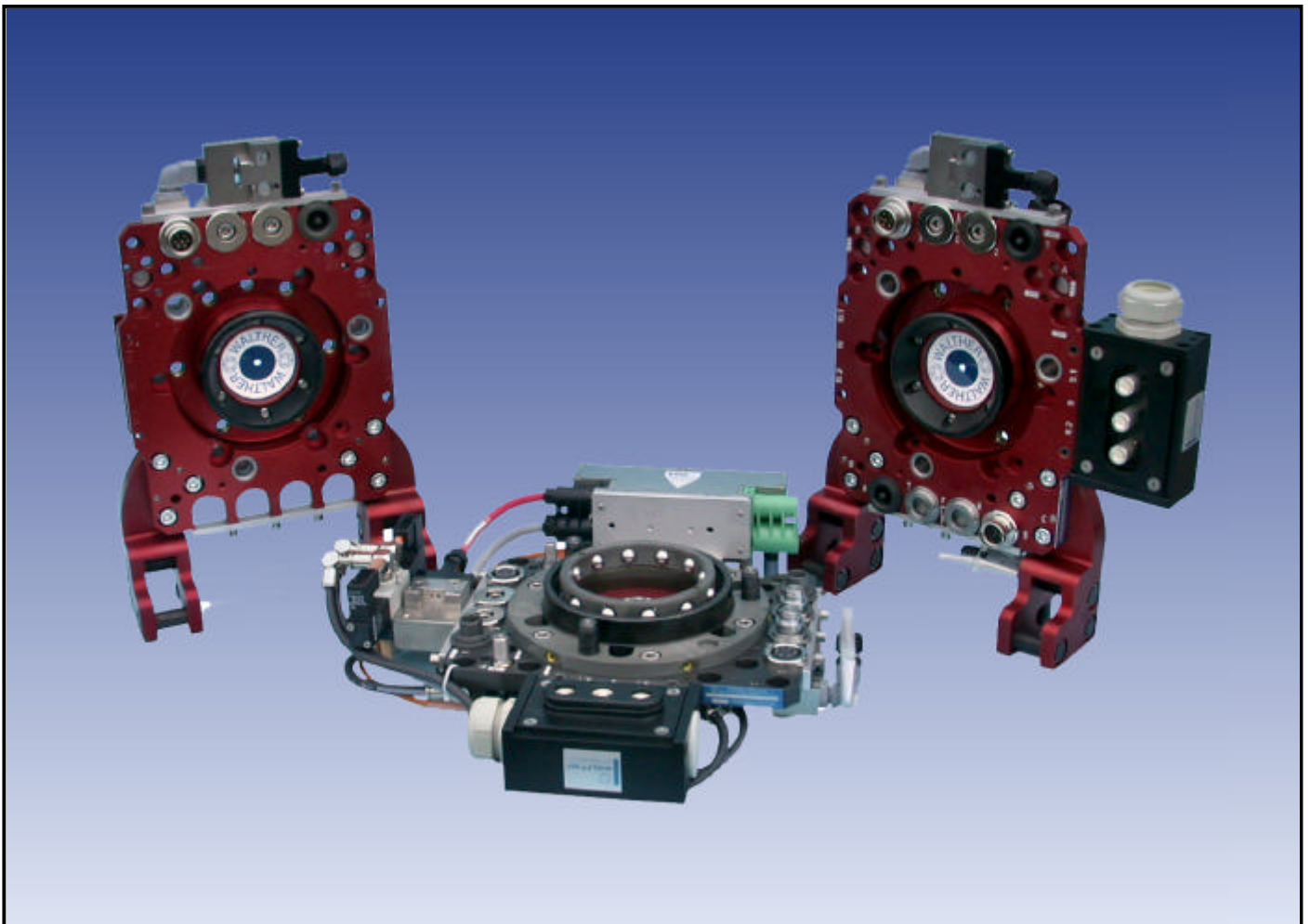


**Tool change system
for
industrial robots**

WALTHER TOOL MASTER

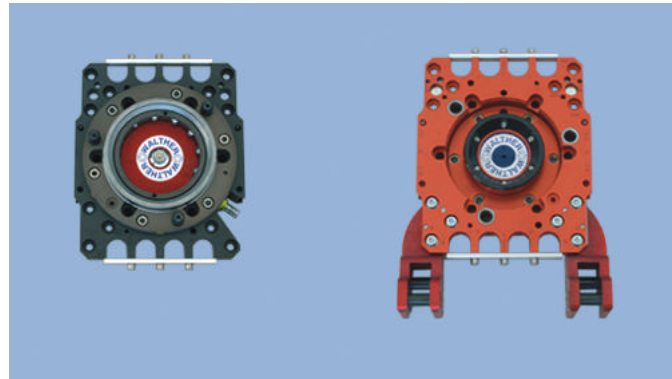


WALTHER TOOL MASTER - Tool change system for industrial robots

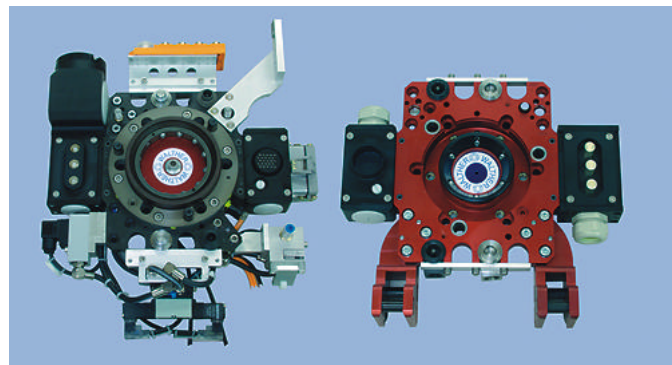
Due to a modular principle the WALTHER-quick tool change system specially meets the individual customer needs. It offers application possibilities for welding as well as gripper tools and can be equipped with different electrical or fluid transmission elements, depending on the application requirements.

Technical data:

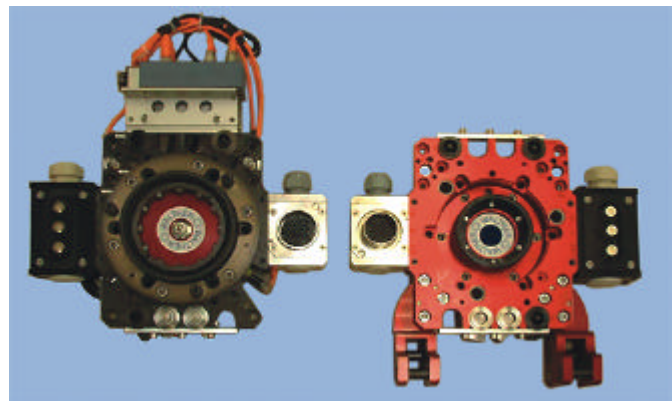
- Static load capacity up to 25,000 N (5,500 lbs)
- Light weight tool changer = under 16 kg (35 lbs) in connected position
- Very little overall height of the tool changer = max. 96 mm (3.78") in connected position
- Playfree and self-locking in connected position, even in case of pressure drop
- Very high change accuracy of 0,05 mm (.002")
- In case of a crash the emergency unlocking device disconnects the tool from the robot side also without compressed air
- Long life through robust design
- Little maintenance necessity
- The modular design with the side mounting of the media elements simplifies maintenance



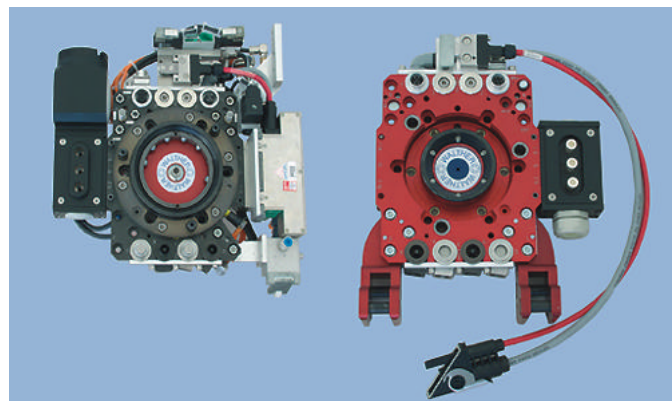
Basis-module



Version with Actor-Sensor-Box and safety circuit

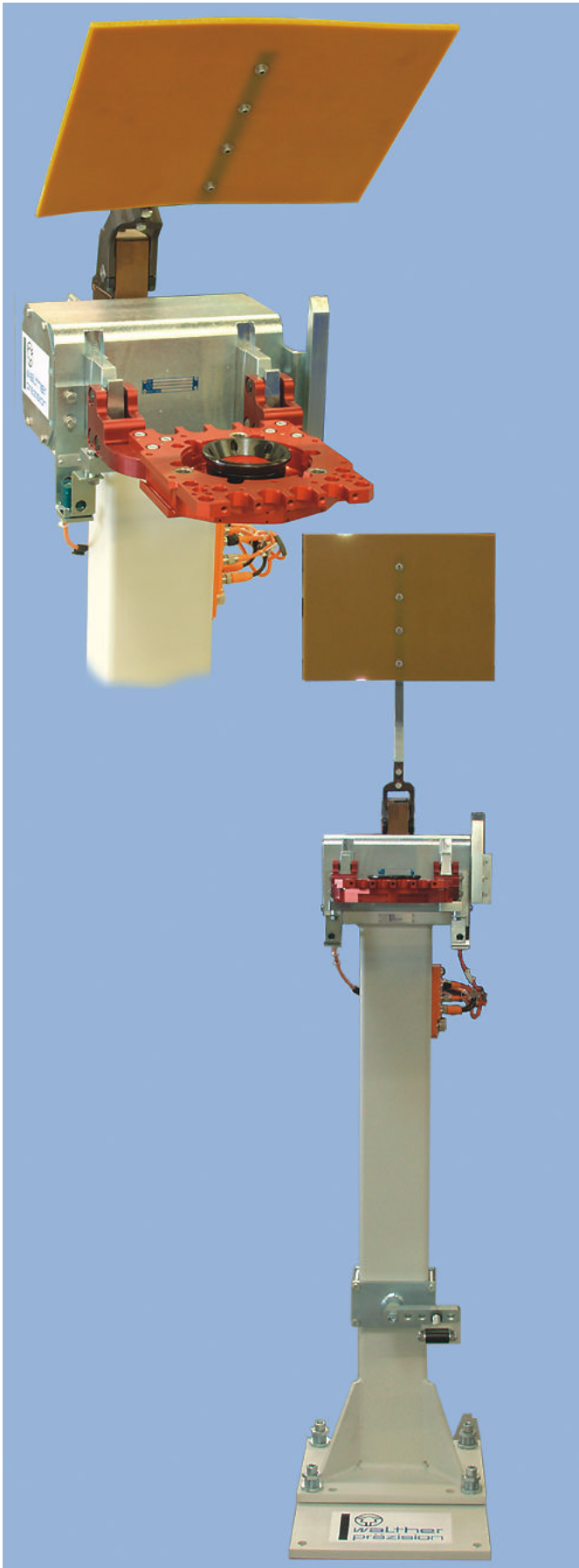


Version with data-bus-module



Version with fiber optic-bus-module
(rugged-line)

WALTHER TOOL MASTER - Tool change system for industrial robots



Gravity tool parking station with plastic hinged cover

Integrated tool parking stations are available to optimize the tool change system.

- It allows the robot to use its maximum travel speed until final dock position is reached. This speeds up the change cycle
- Safety enhancement by position monitoring of tool
- Longer system design life by optimized component interaction

The tool parking station is designed to the same modular principle as the tool changer and can be assembled with individual components.

Technical data:

- The basis of the tool parking station consists of a steel tube frame approx. 1,200 mm (4 ft) high with a fixing plate
- The tool pick up is mounted with special screws as a head on the steel tube frame and is in a floating position $\pm 0,20$ mm (.008")
- The hinged cover adapts itself flexibly to the parked tool for protection against dirt as welding sparks, etc. without pressurizing the tool side
- The position of the hinged cover as well as the position of the tool in the parking station is indicated via proximity switches
- A variable adjustable torque support guarantees an optimal horizontal alignment of the tool in the parking station
- A floor level adjustment for the parking station can be included, if required

WALTHER TOOL MASTER - Element population for the quick tool change system

Media elements: max. 8 pieces

Nominal bore	Medium	Pressure (bar/psi)	Connection	Material
10 (1/2")	cooling water	10 (145)	G 1/2" 90°	stainless steel
10 (1/2")	compressed air	10 (145)	G 1/2" 90°	Alu hardcoated



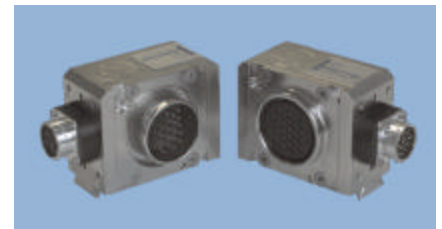
On request:
special elements for punching rivets,
welding bolts and high pressure
hydraulic



WALTHER-PRÄZISION 04/2003 • Änderungen vorbehalten • PB

Electro elements - signal connectors

Number of contacts	Amperage/ Voltage	Connection cross section	Connection	Material
24 / 36 + PE	250 V / 16 A	1,5 mm ² (~ 16 AWG)	PG 29 ^{x1)}	POM/Alu, contacts: brass, AG
17	bus data	1,5 mm ² (~ 16 AWG)	PG 21 ^{x1)}	Alu/Ni (shielded), contacts: brass, AU
2 x Fiber Optic	bus data	-	bus connector	Stainless steel / POM
5	250 V / 10 A	1,0 mm ² (~ 18 AWG)	M16 x1,5 mm	Alu/Ni (shielded), contacts: brass, AU



x1) Metric connection on request

Electro elements - welding currents

Number of contacts	Amperage/ Voltage	Connection cross section	Connection	Material
2 + PE	110 A / 630 V	16 mm ² (4 - 6 AWG)	PG 29 ^{x1)}	housing: POM contacts: brass silver plated
2 + PE	135 A / 630 V	25 mm ² (2 - 4 AWG)	PG 29 ^{x1)}	
2 + PE	200 A / 630 V	35 mm ² (2 AWG)	PG 29 ^{x1)}	

On request: connection socket for a manual connector

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