

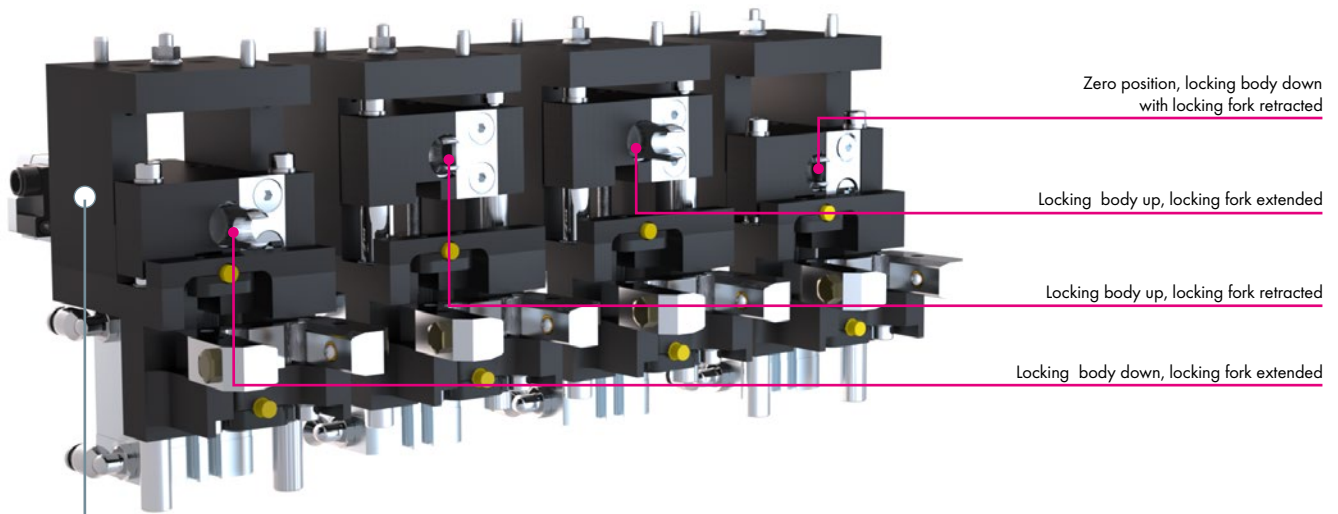
# Torch exchange station TES

Increase productivity & flexibility ...



# In detail

## System overview & technical data



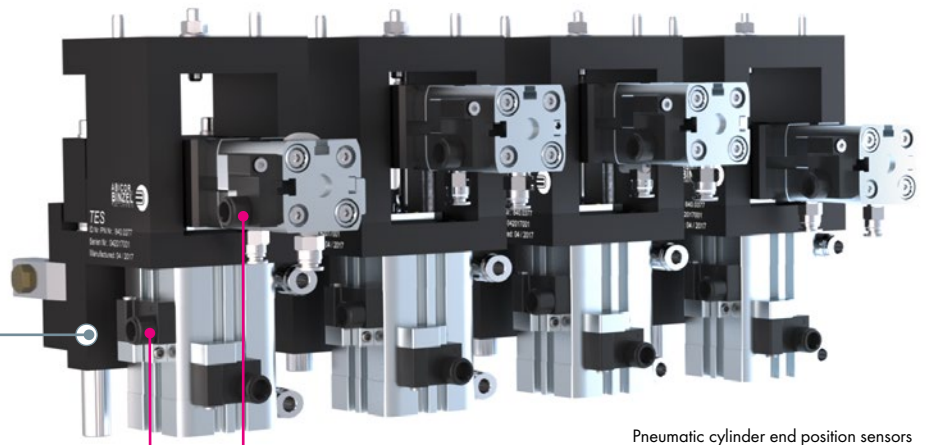
Zero position, locking body down  
with locking fork retracted

Locking body up, locking fork extended

Locking body up, locking fork retracted

Locking body down, locking fork extended

**Torch exchange station TES:**  
**Front system overview**



**Torch exchange station TES:**  
**Rear view of pneumatic connections**

Pneumatic cylinder end position sensors

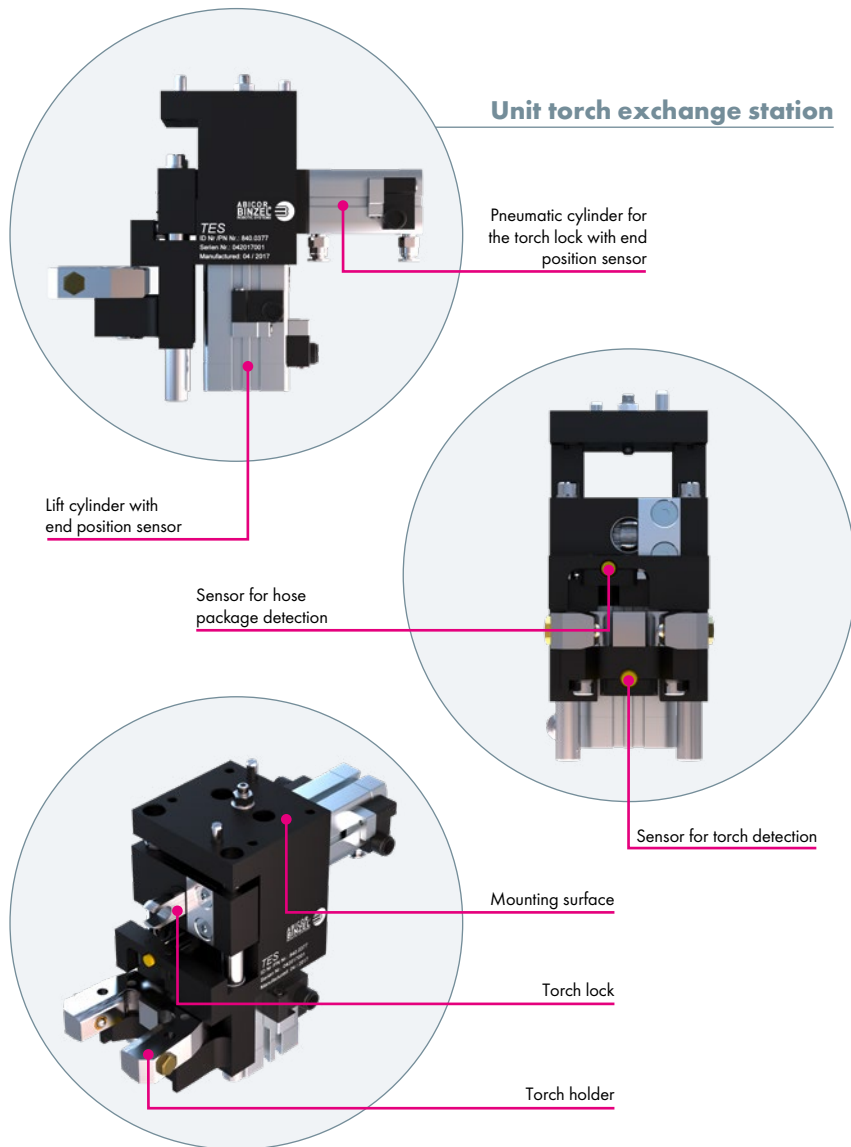
### **Torch exchange station TES.** **Increased productivity & flexibility ...**

The torch exchange station TES can be used anywhere where welding torches need to be exchanged quickly and reliably. The strengths of the system include a change of torch geometry or even preventive torch changes for servicing wear parts of a TIG welding torch ABITIG® WH or MIG/MAG WH welding torch.

Thanks to the modular system design, up to four TES units can be mated together. The exchange stations are controlled by a PLC or by integrating the TES module into a field bus system. This guarantees full control of the units status at any time.

Integrated sensors help record the position of the changing movements and recognize the position of the welding torch for the exchanging process.

The torch exchanging movement is carried out by the welding robot. This allows freedom with respect to designing the welding cell and offers excellent flexibility in positioning the exchange stations in the welding cell - regardless of whether it is on a large gantry welding system in the heavy engineering plant or in compact welding cells in mass production facilities.



In combination with the proven MIG/MAG WH welding torch necks, the integrated cutting of the wire electrodes ensures safe and secure torch exchanges, even if the wire electrode has melted to the contact tip of the welding torch due to poor arc starts, wire feed faults etc.

**Arguments that speak for themselves:**

- Simple and inexpensive solution for automatic torch exchanges
- Up to four exchange stations can be mated
- Can be used for TIG\* and MIG/MAG applications
- Simple and durable design
- Low operating and maintenance costs
- Increased uptime
- Use of different torch geometries for better part accessibility

\* Currently only without cold wire feed

**Torch exchange station TES:**  
With TIG welding torches ABITIG® WH

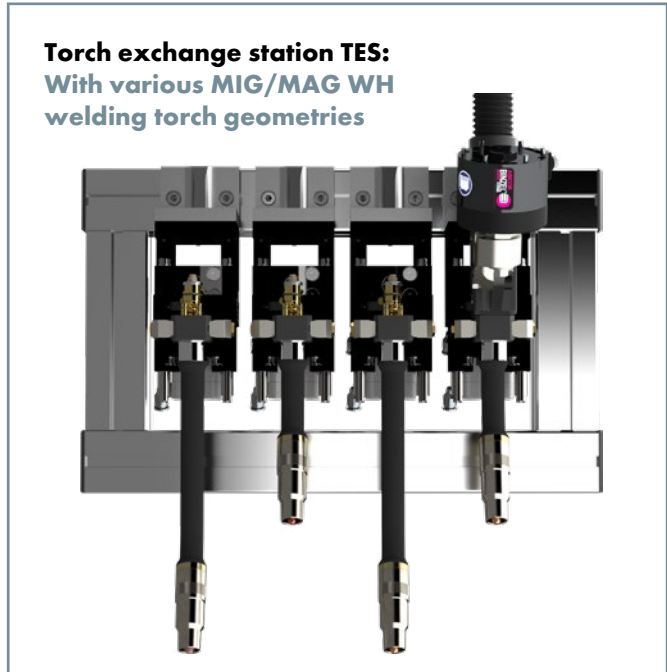


The condition of the tungsten electrode has an impact on the quality of the TIG weld. Due to the process-related wear of the electrodes, these need to be changed regularly to ensure consistent quality of the welds. Thanks to the new torch exchange station TES by ABICOR BINZEL, the TIG welding torch ABITIG® WH can be exchanged reliably and quickly at precisely the right time, the output quantity can be improved and the downtimes reduced.

**Torch exchange station TES:**  
With TIG welding torches ABITIG® WH

- Different torch geometries can be used
- System availability improved by automated torch exchange/ electrode change
- Ensures quality welds

**Torch exchange station TES:**  
With various MIG/MAG WH welding torch geometries



In the case of complex parts, various accessibility situations are normal for the robot welding torch. It often becomes necessary to use a welding torch neck of a different length, angle and output class to allow the welding process to continue.

The torch exchange station TES by ABICOR BINZEL is just the right solution in this case. The TES can accommodate up to four different MIG/MAG WH welding torches. The TES is the ideal system component for process-reliable, effective and automated MIG/MAG welding and ensures much lower downtimes for changing the welding torch geometry and/or output class, and also allows preventive changes or offline maintenance of the wear parts.

**Torch exchange station TES:**  
With various MIG/MAG WH welding torch geometries

- Different torch geometries can be used
- System availability improved by automated torch exchange/ electrode change
- Safe torch exchange by means of integrated wire cutter in the WH cable assembly

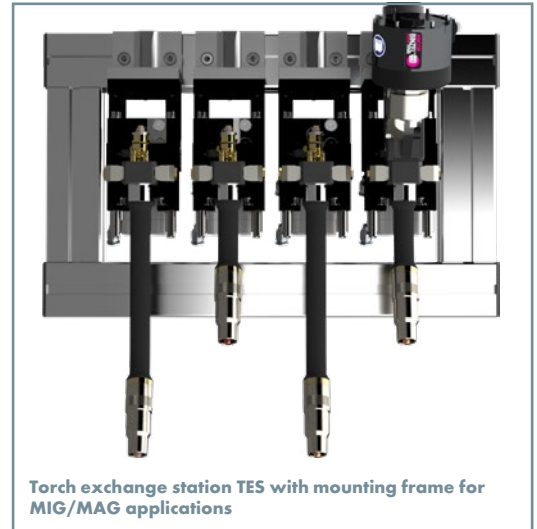
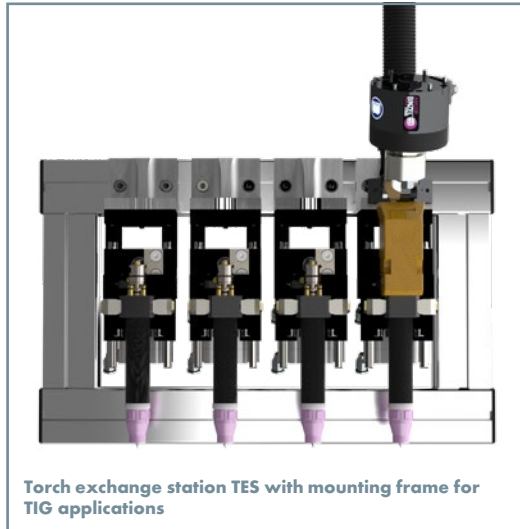
Watch on YouTube now!



# System integration

## 4-position changing station

Mounts for attaching the changing stations on request



Order	Description	Part-No.
	Torch exchange station TES without pneumatic connection set	840.0377.1 *
	Torch exchange station TES with pneumatic connection set	840.0393.1

\* Part-No. 840.0377.1 does not include solenoid valve and connection cables.

### Technical data:

#### Torch exchange station TES

**Operating pressure:**  
- max. 116 psi / min. 87 psi

**Pneumatic connection:**  
- Connection  $\varnothing$  6 mm

**Electrical connection:**  
Cable connections M12

**4 outputs**  
- Proximity switch 24 V DC / max. 200 mA  
- Switch output pnp No

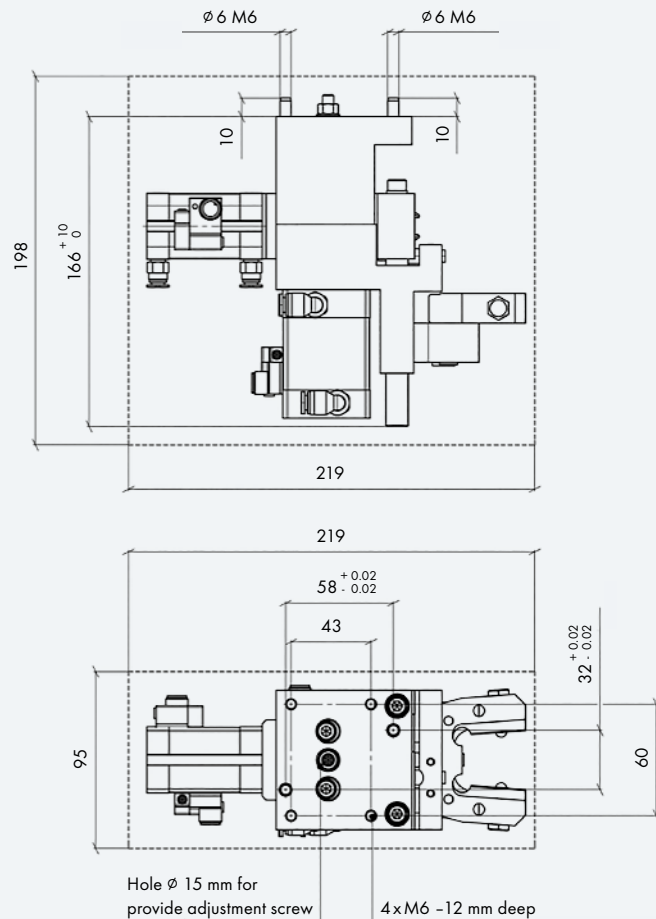
**2 outputs**  
- Proximity switch 24 V DC / max. 200 mA  
- Switch output pnp No

**2 inputs\***  
- 5/2 solenoid valves 24 V DC  
- Power consumption 2.8 W

\* Depending on the PN

### Dimensions:

#### Torch exchange station TES





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