

# Robot Peripherals

## Robot Mount "CAT3"



### It's the switch that makes the difference ...

The robot mount CAT3 is used with externally guided welding torch cable assemblies. Due to the deflection of the welding torch in a collision, the welding robot is reliably stopped by the CAT3 integrated switch-off function, which prevents damage to the welding robot and welding torch equipment.

In addition, the precise resetting accuracy allows for a fast resumption of the production process. This means that production downtimes are reduced to a minimum. The CAT3 is a process-oriented development of the established robot mounts CAT2 and CAT2-HL.

The robot mounts CAT2 and CAT2-HL can be easily exchanged with CAT3 without reprogramming the robot.

The wide range of holder and flange accessories always offer the right product solution for your application.

### Arguments that speak for themselves:

- Technically sophisticated, robust design
- Simple installation on welding robots
- Compact size for perfect accessibility
- Reliable switching function
- High resetting accuracy minimises line downtimes
- Different spring types available for adjustment to the tool weight
- Excellent protection against contamination

### Area of application:

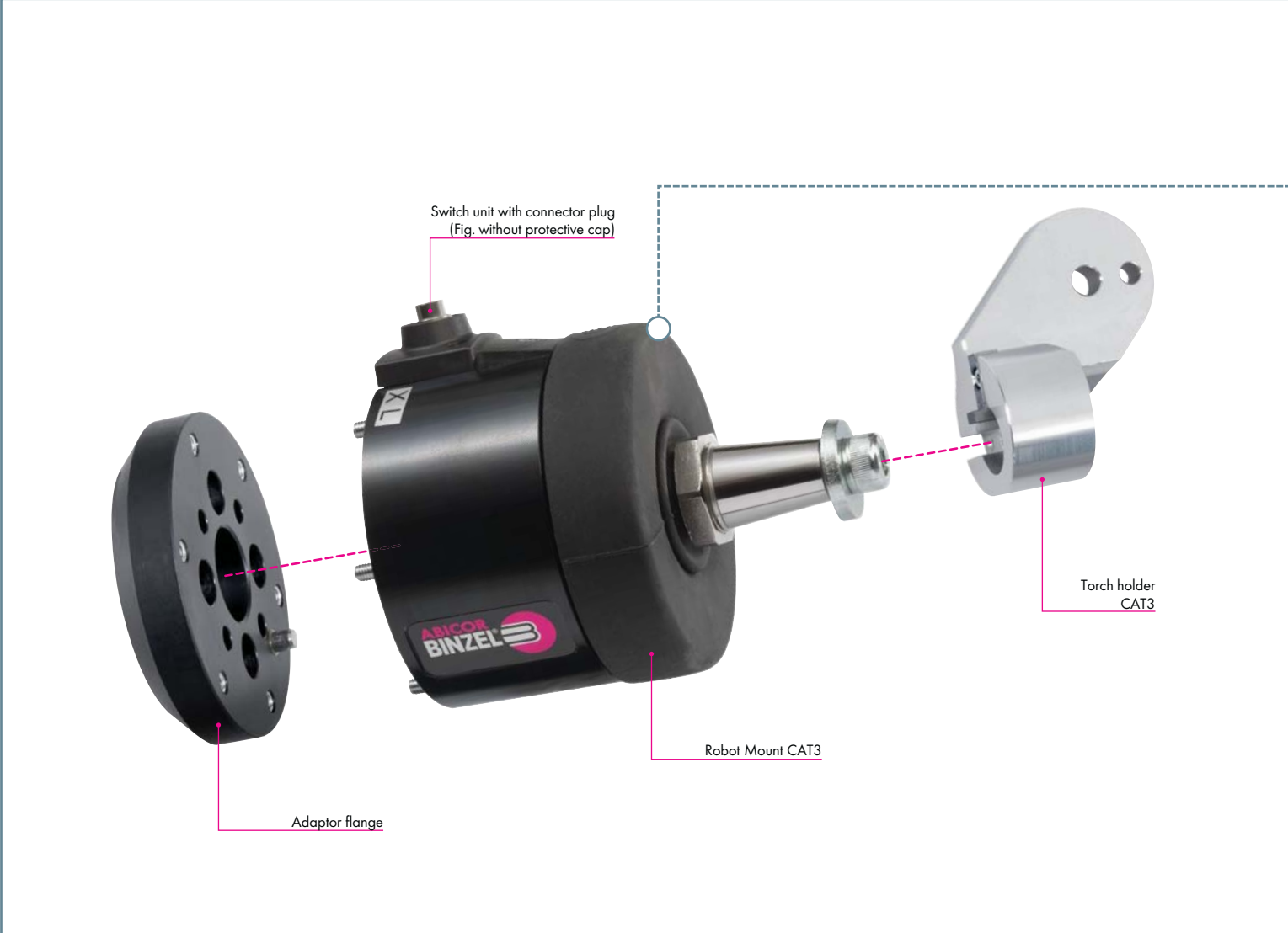


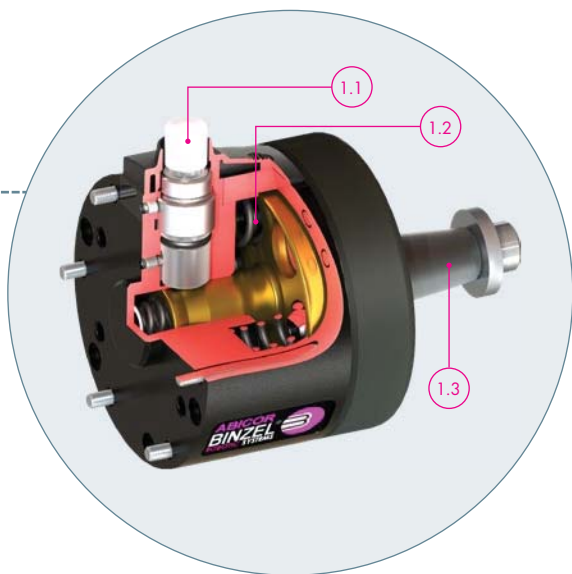
Standard welding robot with cable assembly on the outside



# Robot Mount "CAT3"

## System Overview & Technical Data





**Figure 1:**  
Cross-section CAT3

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Cross-section CAT3

- 1.1 The switch is integrated directly into the housing
- 1.2 Compression springs available in various spring sizes (M, L, XL)
- 1.3 HL-mount for reliable fastening, even at higher weights



**Technical Data:**  
**Robot Mount CAT3**

Dimensions:	Ø 77 mm, height 106 mm
Weight:	960 g (without holder and flange)
Release force:	<b>(see page 82)</b> Deflection CAT3
Switch point:	- Deflection in X- and Y-direction: 1.2° - 1.5° - Deflection in Z-direction: 1.3-1.6 mm
Max. deflection:	- Deflection in X- and Y-axis: ca. 7° - Deflection in Z-axis: 5 mm
Resetting accuracy:	<b>(see page 82)</b> X-, Y- and Z-direction: ± 0.04 mm (at 400 mm distance to the robot flange)
IP Protection class:	IP 21
Load capacity safety cut-out:	max. 30 V DC / 100 mA
Ambient temperature:	- in operation: -10 °C up to +55 °C - during storage and transportation: -10 °C up to +55 °C
Relative humidity:	- in operation: up to 70% at 20 °C - during storage and transportation: up to 70% at 20 °C

# Robot Mount "CAT3"

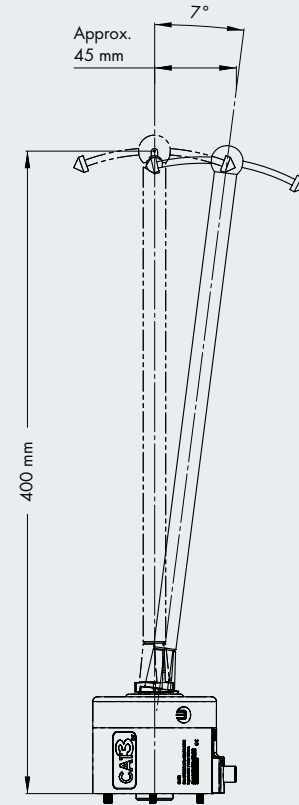
## Deflection & Release torque

### Deflection of the robot mount CAT3

Collision in direction of the X- or Y-axis  
Collision in direction of the Z-axis

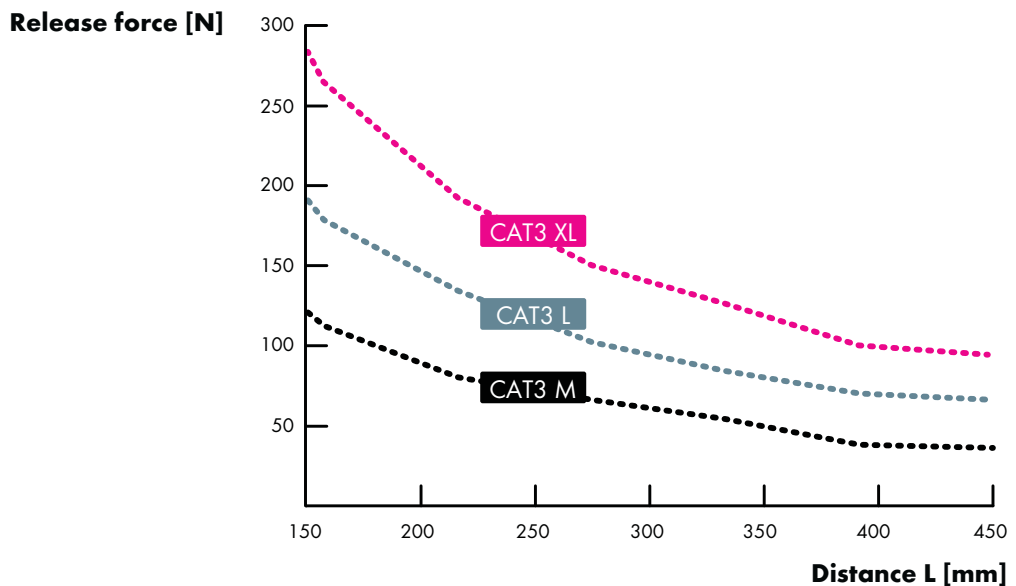


### Maximum deflection in X- and Y-axis



### Release torque of the robot mount CAT3

The following figure shows the static release force of the different spring types as a function of the distance:



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## Robot Mount & Accessories

### Robot Mount CAT3



Description	Part-No.
Robot Mount CAT3 XL	780.2050.1
Robot Mount CAT3 L	780.2051.1
Robot Mount CAT3 M	780.2052.1

A connection cable is included in the scope of the order.  
Please order the flanges and holders separately according to the robot type and welding task.

### Flanges

Description	Part-No.	
	Aluminium flange	Plastic flange
Intermediate flange <sup>1</sup> ISO 9409-1-A63	780.0514.1	780.0614.1
Intermediate flange <sup>1</sup> ISO 9409-1-A50-d31,5	780.0508.1	780.0608.1
Intermediate flange <sup>1</sup> ISO 9409-1-A125	780.0530.1	780.0630.1
Intermediate flange <sup>1</sup> ISO 9409-1-A50/D=63	780.0594.1	780.0694.1
Intermediate flange <sup>1</sup> ISO 9409-1-A31,5	780.0532.1	780.0632.1
Intermediate flange <sup>1</sup> ISO 9409-1-A100	780.0549.1	780.0649.1
Intermediate flange <sup>1</sup> ISO 9409-1-A160	780.0547.1	780.0647.1
Intermediate flange <sup>1</sup> ISO 9409-1-A40-D50	780.0591.1	780.0691.1
Intermediate flange <sup>2</sup> ISO 9409-1-A50	780.0503.1	780.0603.1
Intermediate flange <sup>2</sup> ISO 9409-1-A40	780.0504.1	780.0604.1

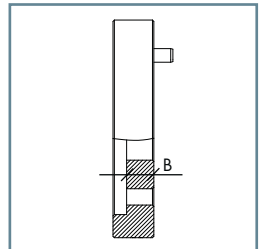
<sup>1</sup> Flange width B=15 mm (Standard version)

<sup>2</sup> Flange width B=10 mm (Special version)

Intermediate flanges are available for all standard welding robots. Please always specify the robot type.

#### Attention!

The MIG/MAG welding torches of the ABIROB® A series must be used with plastic intermediate flange.



### Spares



Pos.	Description	Part-No.
1	Bellow CAT3	780.2059.1
2	Switch cover CAT3 cpl.	780.2061.1
3	Switch cpl. CAT3	780.2062.1
4	Screw set CAT3 M4x55	780.2076.1
5	Mounting kit CAT3	780.2044.1
6	Connector cable CAT	780.0201.1

# Robot Mount "CAT3" Holders

## Halter CAT3



Pos.	Description	Part-No.
1	Holder CAT-HL <sup>1</sup>	780.0323.1
not ill.	Segment holder CAT-HL <sup>2</sup>	780.0305.1

All holders are TCP-compatible to CAT2 and CAT2-HL.

Holders are suitable for CAT3 and CAT2-HL.

For additional torch holders please refer to the ordering documents for the respective torch series.

<sup>1</sup> TCP-compatible to standard holders for CAT2 780.0202

<sup>2</sup> TCP-compatible to standard holders for CAT2 780.0147

### Comparison of the geometries between the CAT3 robotic holders and the previous versions CAT2 (standard) and CAT2-HL:

