

TECHNOLOGY FOR THE WELDER'S WORLD.



Robot Mount CAT3

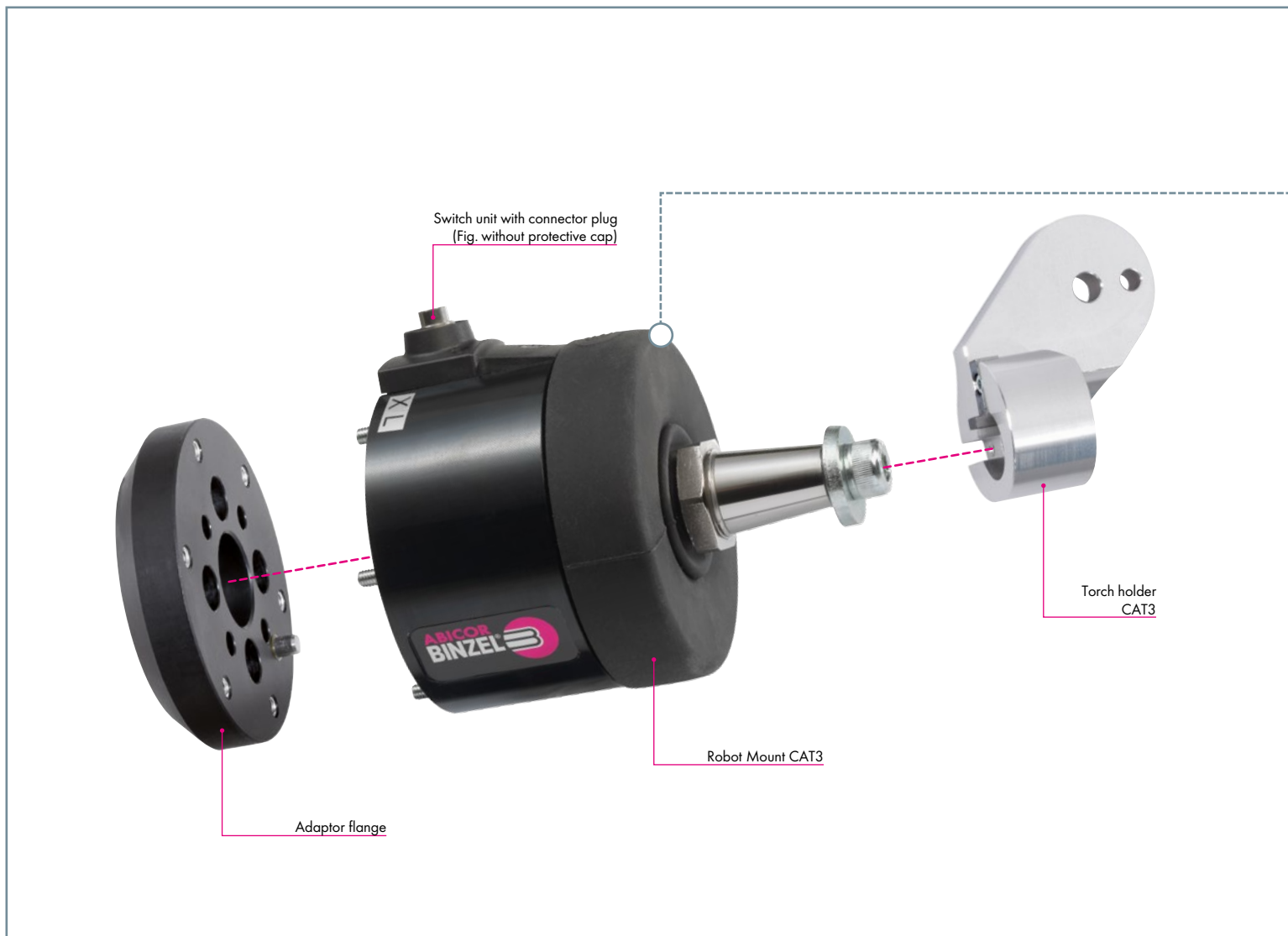
It's the switch that
makes the difference ...



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In Detail

System Overview & Technical Data



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.

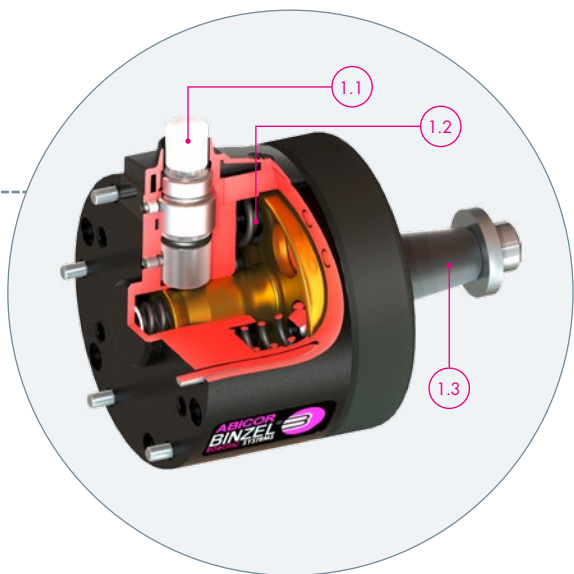
In addition, the precise resetting accuracy allows for a fast resumption of the production process. This means that production downtimes are reduced to a minimum. The CAT3 is a process-oriented development of the established robot mounts CAT2 and CAT2-HL.

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



1:
Cross-section CAT3

Figure 1:
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

Figure 2:
Deflection of the robot mount CAT3

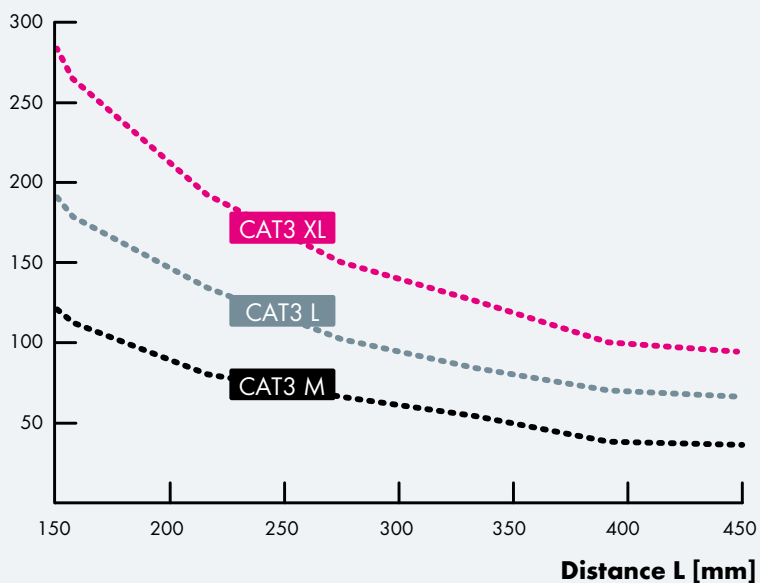
Collision in direction of the X- or Y-axis
Collision in direction of the Z-axis



Figure 3:
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:

Release force [N]

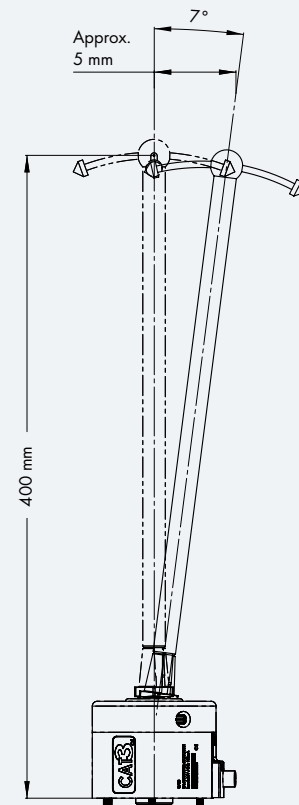




Technical Data:
Robot Mount CAT3

- Dimensions: Ø 77 mm, height 106 mm
- Weight: 960 g (without holder and flange)
- Release force: **(see figure 3)**
Deflection CAT3
- Switch point:
 - Deflection in X- and Y-direction: 1,4° - 1,7°
 - 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: **(see figure 4)**
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

Figure 4:
Maximum deflection in X- and Y-axis



Robot Mount CAT3

Robot Mount & Accessories

Robot Mount CAT3



Description

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 ¹	ISO 9409-1-A63	780.0514.1	780.0614.1
Intermediate flange ¹	ISO 9409-1-A50-d31,5	780.0508.1	780.0608.1
Intermediate flange ¹	ISO 9409-1-A125	780.0530.1	780.0630.1
Intermediate flange ¹	ISO 9409-1-A50/D=63	780.0594.1	780.0694.1
Intermediate flange ¹	ISO 9409-1-A31,5	780.0532.1	780.0632.1
Intermediate flange ¹	ISO 9409-1-A100	780.0549.1	780.0649.1
Intermediate flange ¹	ISO 9409-1-A160	780.0547.1	780.0647.1
Intermediate flange ¹	ISO 9409-1-A40-D50	780.0591.1	780.0691.1
Intermediate flange ²	ISO 9409-1-A50	780.0503.1	780.0603.1
Intermediate flange ²	ISO 9409-1-A40	780.0504.1	780.0604.1

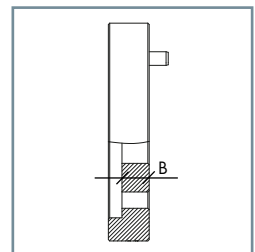
¹ Flange width B=15 mm (Standard version)

² Flange width B=10 mm (Special version)

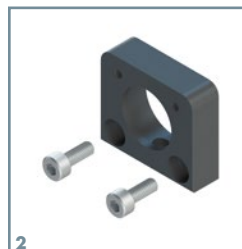
Intermediate flanges are available for all standard welding robots. Please always specify the robot type.

Attention!

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



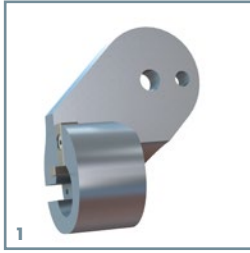
Spares



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

Holder CAT3



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

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

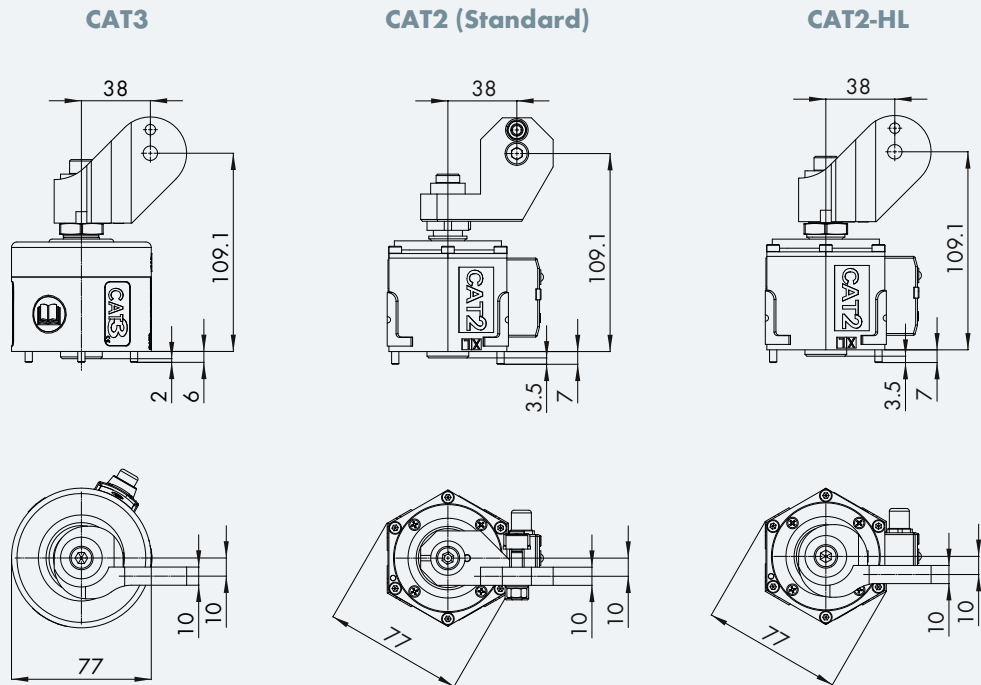
Holders are suitable for CAT3 and CAT2-HL.

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

¹ TCP-compatible to standard holders for CAT2 780.0202

² 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:



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