

Robot mount iCAT



Safety and flexibility in perfect symbiosis!

iCAT – the robot mount for the latest generation of welding robots with a central guided cable assembly through the 6th axis offers a high level of safety & flexibility for air and liquid cooled torches.

In case of a collision of the welding torch with the work piece, the iCAT is mechanically deflected by up to 10°. The iCAT has a buffer function in order to avoid damage at the welding torch, periphery as well as the robot. An additional safety aspect is the integrated crash protection of the iCAT which stops the robot immediately in case of a "crash".

The secret:

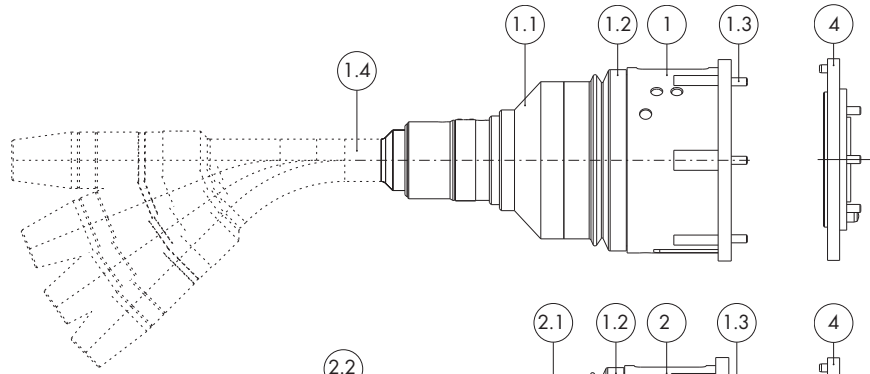
- Extremely torsion resistant cable assembly rotatable in the 6th axis over 480° (+/- 240°).
- Safety & optimal system performance due to high repeatability.
- High productivity & long life time through rugged, simple design.
- High flexibility and optimal work piece accessibility.
- Reduction of maintenance costs due to an easy assembly and handling.
- Highest reliability is offered through the comprehensive protection against dust and spatters.
- **Additional feature:** optional airblast and anti spatter injection through the cable assembly.



System overview iCAT

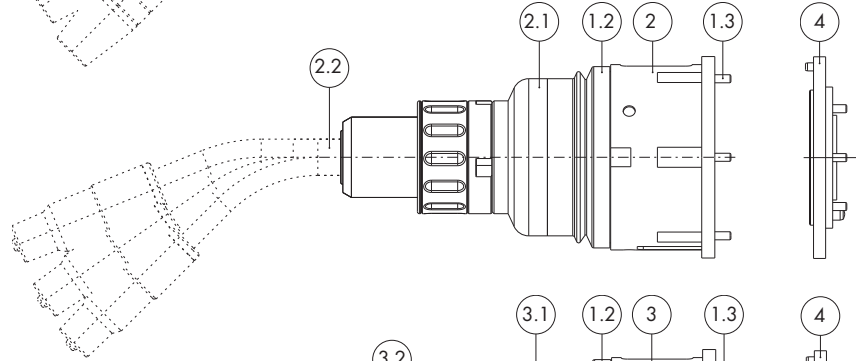
ABIROB® A

The proven air cooled system. High stability and repeatability.



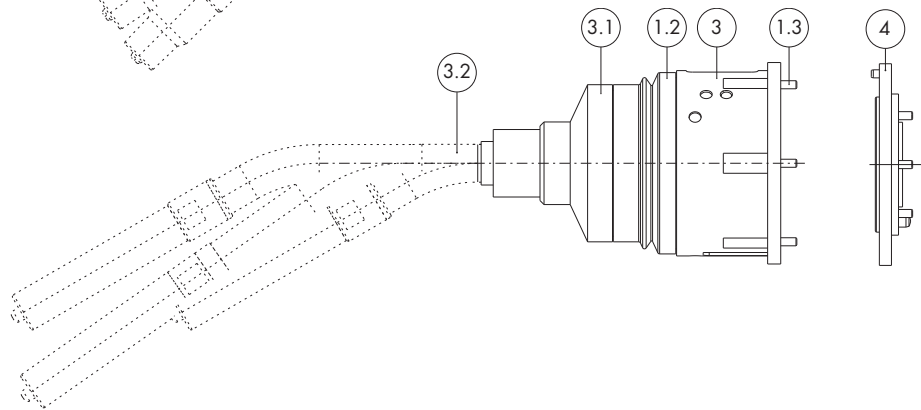
ABIROB® W

Liquid cooled for particularly demanding applications.



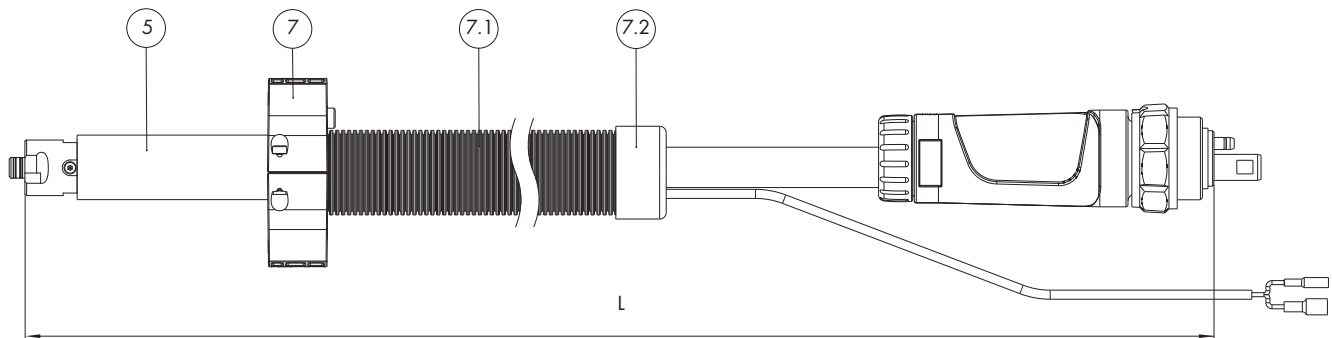
ABIROB® 350 GC

Economical and reliable in the typical Asian CO2 torch design.

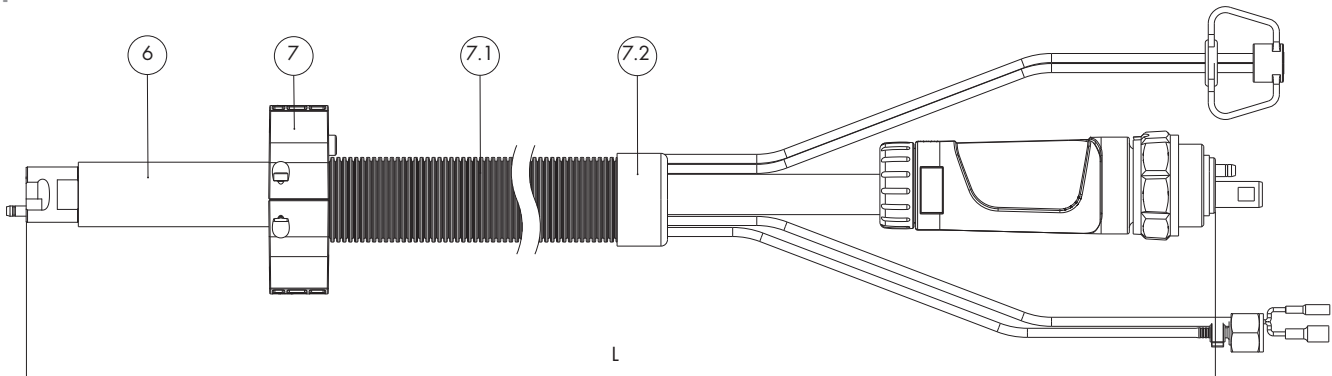


Cable assemblies for iCAT

air cooled



liquid cooled



Subject to change without notice. • Guarantee for genuine BINZEL spares only.

Note: All trademarks mentioned are property of the respective companies.

Component	Pos.	Description	Specifications	Order-no.
Robot mount iCAT	1	iCAT ABIROB® A cpl.		780.3101
	1.1	Isolation sleeve		780.3010
	1.2	Rubber boot		780.3009
	1.3	Screw M4x10		009.0268
	2	iCAT ABIROB® W kpl.		780.3130
	2.1	Isolation sleeve		780.3133
	3	iCAT ABIROB® GC cpl.		780.3110
	3.1	Isolation sleeve		780.3113
	Intermediate flange ¹	4	Robot flange for Motoman®	EA1400N / SSA 2000 or EA1900N
		Robot flange for ABB®	IRB 1600 ID	780.0589
		Robot flange for KuKa®	KR5 Arc HW	780.0590
		Robot flange for Fanuc®	Arc Mate iC Series	780.0583
		Robot flange for OTC®	AX V4 or AX V4L	780.0587
Torch neck ² ABIROB® A 300 ABIROB® A 360 ABIROB® A 500	1.4	ABIROB® A 300 45°		980.1146.1
		ABIROB® A 360 0°		980.1023
		ABIROB® A 360 22°		980.1024
		ABIROB® A 360 35°		980.1025
		ABIROB® A 360 45°		980.1026
		ABIROB® A 500 0°		980.1012
		ABIROB® A 500 22°		980.1013
		ABIROB® A 500 35°		980.1014
		ABIROB® A 500 45°		980.1015
Torch neck ² ABIROB® W 300 ABIROB® W 500	2.2	ABIROB® W 300 22°		782.0014
		ABIROB® W 300 45°		782.0015
		ABIROB® W 500 22°		782.0003
		ABIROB® W 500 35°		782.0004
		ABIROB® W 500 45°		782.0005
Torch neck ² ABIROB® 350 GC	3.2	ABIROB® 350 GC 35°		980.0004
		ABIROB® 350 GC 30° short		980.0027
		ABIROB® 350 GC 30° long		980.0028
Accessories	7	Wrist protection cpl.		400.1153
	7.1	Outer hose (length indication necessary)		109.0074
	7.2	Outer hose end piece		500.0453
		w/o fig. Protection cover (for iCAT)		191.0117
		w/o fig. Cable setting tool (for an easy mounting of the cable assembly)		980.2153
		w/o fig. TCP check tool		780.3020

¹Further robot flanges on request.

²For spare parts see ROBO-catalogue.

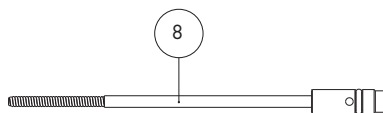
Wire-Feeder ³	Connector-type	Robot	ABIROB® torch necks		Length (L)	Liner	
			A and GC (pos. 5)	W (pos. 6)		standard ⁴	alternative
Kempfi®	euro central	Motoman® EA1400N/SSA2000	980.2006	980.2054	1.05 m	G	F/H/I/L/M
		Motoman® EA1900N	980.2007	980.2055	1.34 m	G	F/H/I/L/M
Fronius®	Fronius®	on request					
Panasonic®	Panasonic®	Motoman® EA1400N/SSA2000	980.2004	980.2052	0.94 m	B	A/C/D/E/J/K
		Motoman® EA1900N	980.2005	980.2053	1.23 m	B	A/C/D/E/J/K
SKS®	SKS®	Motoman® EA1400N/SSA2000	980.2014	980.2056	0.99 m	A	B/C/D/E/J/K
		Motoman® EA1900N	980.2015	980.2057	1.28 m	A	B/C/D/E/J/K
Miller®	Miller®	Motoman® EA1400N/SSA2000	980.2019	980.2060	1.04 m	A	B/C/D/E/J/K
		Motoman® EA1900N	980.2020	980.2061	1.35 m	A	B/C/D/E/J/K

³Further assemblies e.g. with airblast function or for other wire feeder or robot manufacturers on request.

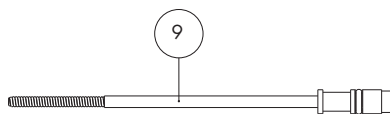
⁴Contained in the original equipment.

**Liner for air and liquid cooled cable assemblies
for steel welding**

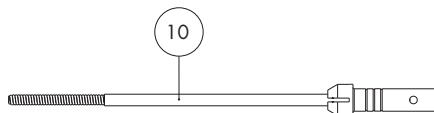
PA nipple screwed on
(for Panasonic®, Miller®, SKS®)



Brass nipple crimped
(for Panasonic®, Miller®, SKS®)

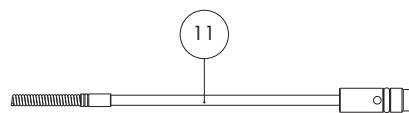


PA collet screwed on
(for Kemppi® with euro central connector)

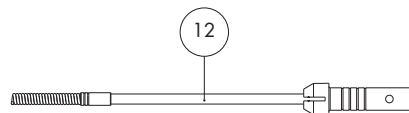


**Liner for air and liquid cooled cable assemblies
for aluminium welding**

PA nipple screwed on
(for Panasonic®, Miller®, SKS®)

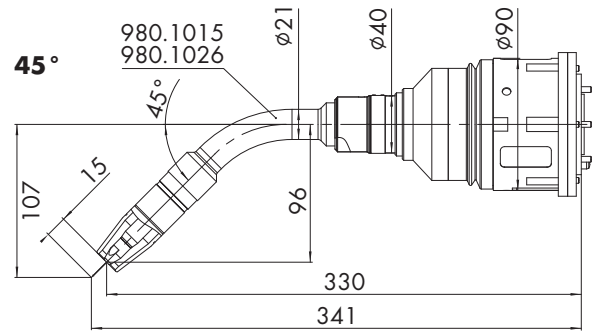
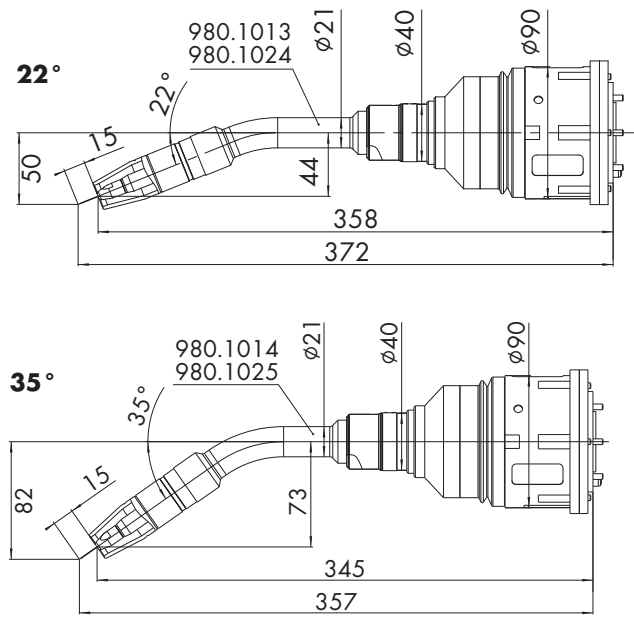


PA collet screwed on
(for Kemppi® with euro central connector)

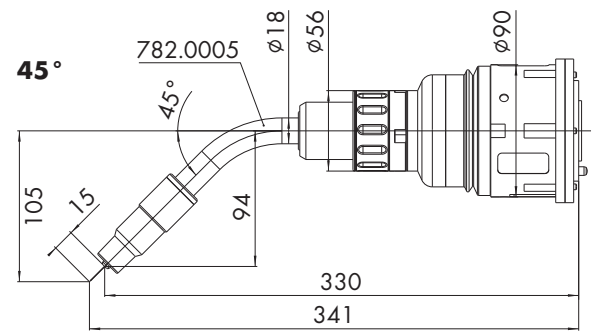
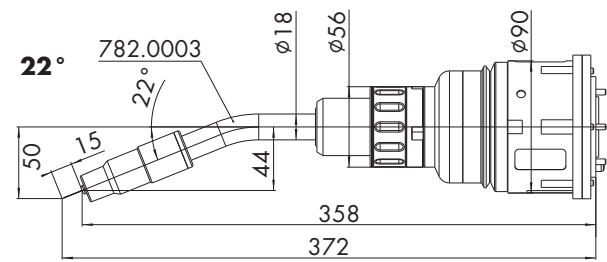


Component	No.	Pos.	Description	Order-no.
Screwed on PA nipple for steel	A	8	Liner 1.9 x 5.5 x 2200 mm; 1.0 - 1.2 mm wire	124.0163
	B	8	Liner 2.0 x 4.5 x 2200 mm; 1.0 - 1.2 mm wire; gas pressure < 2.0 bar	124.0164
	C	9	Liner 2.0 x 4.5 x 2200 mm; 1.0 - 1.2 mm wire; gas pressure < 2.0 bar	124.0165
Crimped brass nipple for steel	D	9	Liner 1.9 x 5.5 x 1300 mm; 1.0 - 1.2 mm wire	124.D070
	E	9	Liner 1.9 x 5.5 x 3400 mm; 1.0 - 1.2 mm wire	124.D075
	F	10	Liner 2.0 x 4.5 x 2000 mm; 1.0 - 1.2 mm wire; gas pressure < 2.0 bar	124.0170
Screwed on PA collet for steel	G	10	Liner 1.9 x 5.5 x 3600 mm; 1.0 - 1.2 mm wire	124.0146
	H	10	Liner 1.9 x 5.5 x 2000 mm; 1.0 - 1.2 mm wire	124.0145
	I	10	Liner 2.2 x 6.0 x 2000 mm; 1.2 - 1.6 mm wire	124.0147
Screwed on PA nipple for aluminium	J	11	Combiliner 1.0 - 1.2 mm wire; total length 2.4 m	128.M006
	K	11	Combiliner 1.2 - 1.6 mm wire; total length 2.4 m	128.M010
Screwed on PA collet for aluminium	L	12	Combiliner 1.0 - 1.2 mm wire; total length 2.4 m	128.M008
	M	12	Combiliner 1.2 - 1.6 mm wire; total length 2.4 m	128.M012

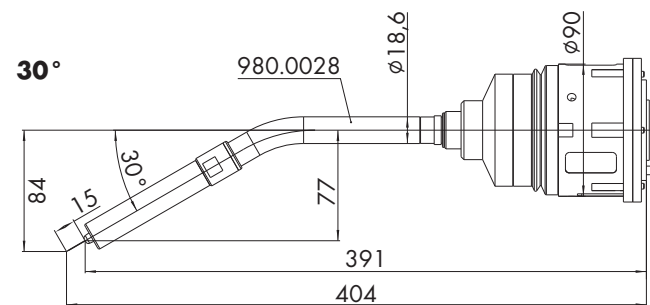
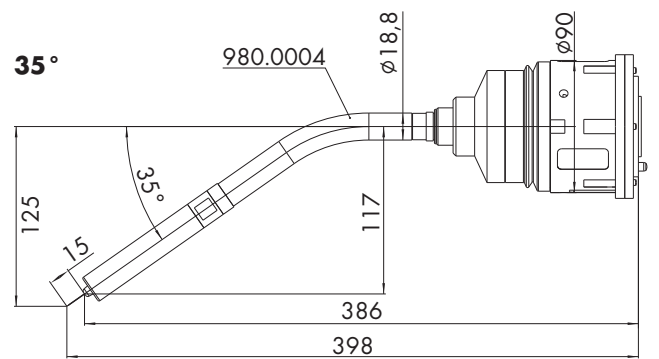
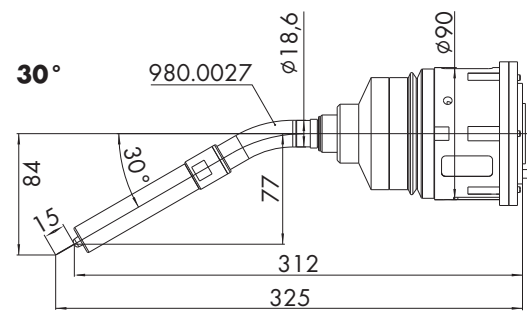
Dimensional sketch ABIROB® A (incl. robot flange)



Dimensional sketch ABIROB® W (incl. robot flange)



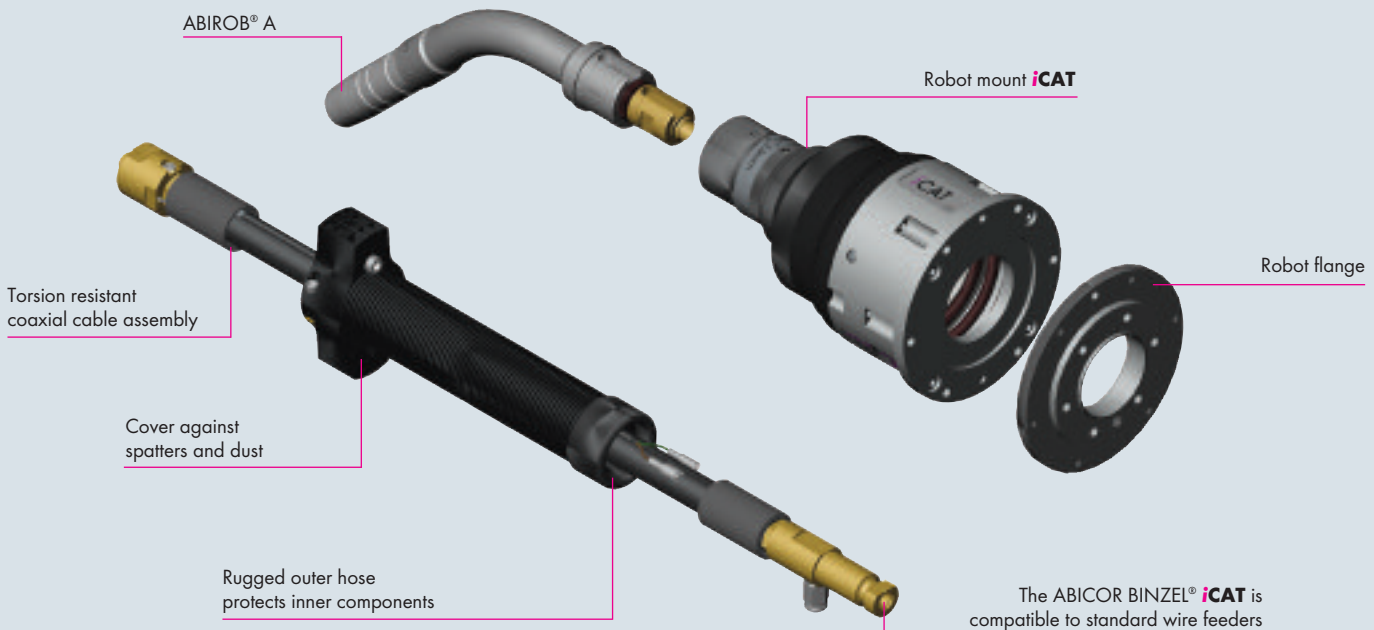
Dimensional sketch ABIROB® GC (incl. robot flange)



For detailed information about welding torches see ROBO-Catalogue or on request.

Robot mount „iCAT“

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ABICOR BINZEL®
Euro central connector



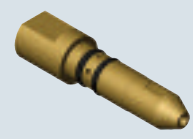
Panasonic®
style connector



Miller®
connector



Fronius®
connector



SKS®
connector

Technical Data (EN 60 974-7):

Type	Cooling	Rating at 100 % DC		Wire (mm)	Weight (incl. torch neck)
		Mixed gas	CO ₂		
iCAT ABIROB® A300	air cooled	250 A	300 A	0.8 - 1.4	approx. 2050 g
iCAT ABIROB® A360	air cooled	290 A	320 A	0.8 - 1.4	approx. 2400 g
iCAT ABIROB® A500	air cooled	320 A	350 A	0.8 - 1.6	approx. 2500 g
iCAT ABIROB® W300	liquid cooled	300 A	320 A	0.8 - 1.2	approx. 2500 g
iCAT ABIROB® W500	liquid cooled	340 A*	360 A	0.8 - 1.6	approx. 2450 g
iCAT ABIROB® 350GC	air cooled	300 A	350 A	0.8 - 1.2	approx. 2100 g

*Solutions for ratings up to 500 A at mixed gas are available on request.

Ratings determined under standard conditions at medium level of heat reflection, free air circulation and 28 °C ambient temperature. In applications with more demanding conditions the rating must be reduced by 10-20 %.

For pulsed arc welding the rating must be reduced by up to 35%.



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