

MIG/MAG Welding Torch System

"ABIROB® 350GC" air cooled



Sturdy, durable & economic ...

ABIROB® 350GC – in the typical design of an air cooled CO₂ welding torch – is mainly used for automated welding in the Asian market.

The changeable torch with a high capacity which enables long duty cycles. Its intelligent interface guarantees fast and reproducible maintenance and thus avoids downtimes.

The welding torch system is available for all standard wire feeder connections (ABICOR BINZEL®, MOTOMAN®, PANASONIC®, OTC®).

Advantages that speak for themselves:

- Compatible with Asian CO₂ torches
- Changeable torch neck with intelligent pin fixing reduces line downtimes and costs
- Optimum temperature behaviour guarantees long service life for wear parts
- High-grade cable assemblies guarantee a long service life
- Sturdy torch design provides high crash stability

Degree of automation:

Low	Medium	High
-----	--------	------

Application areas:



- Automobile construction
- Suppliers (Tier 1, Tier 2)
- Bicycle industry
- Container construction

Material:

- Construction steels (coated / non-coated)
- Chrome-nickel steels
- Duplex steels
- Nickel basic materials

Robot interface:

- Conventional robot
(Cable assembly on the outside):
 - Robot mount CAT3
 - Fixed bracket RTM
- Hollow wrist robot
(Cable assembly on the inside):
 - Robot mount iCAT
 - Bracket iSTM (for robots with integrated collision software)
- Hollow wrist robot
(Cable assembly on the outside):
 - Robot mount CAT3
 - Fixed bracket RTM

* Definition of the degree of automation:

- Low = Torch neck change not possible
- Medium = Torch neck change possible (manually)
- High = Torch neck change possible (manually & automatically)

up to
350 A



"ABIROB® 350GC" air cooled System Overview & Technical Data

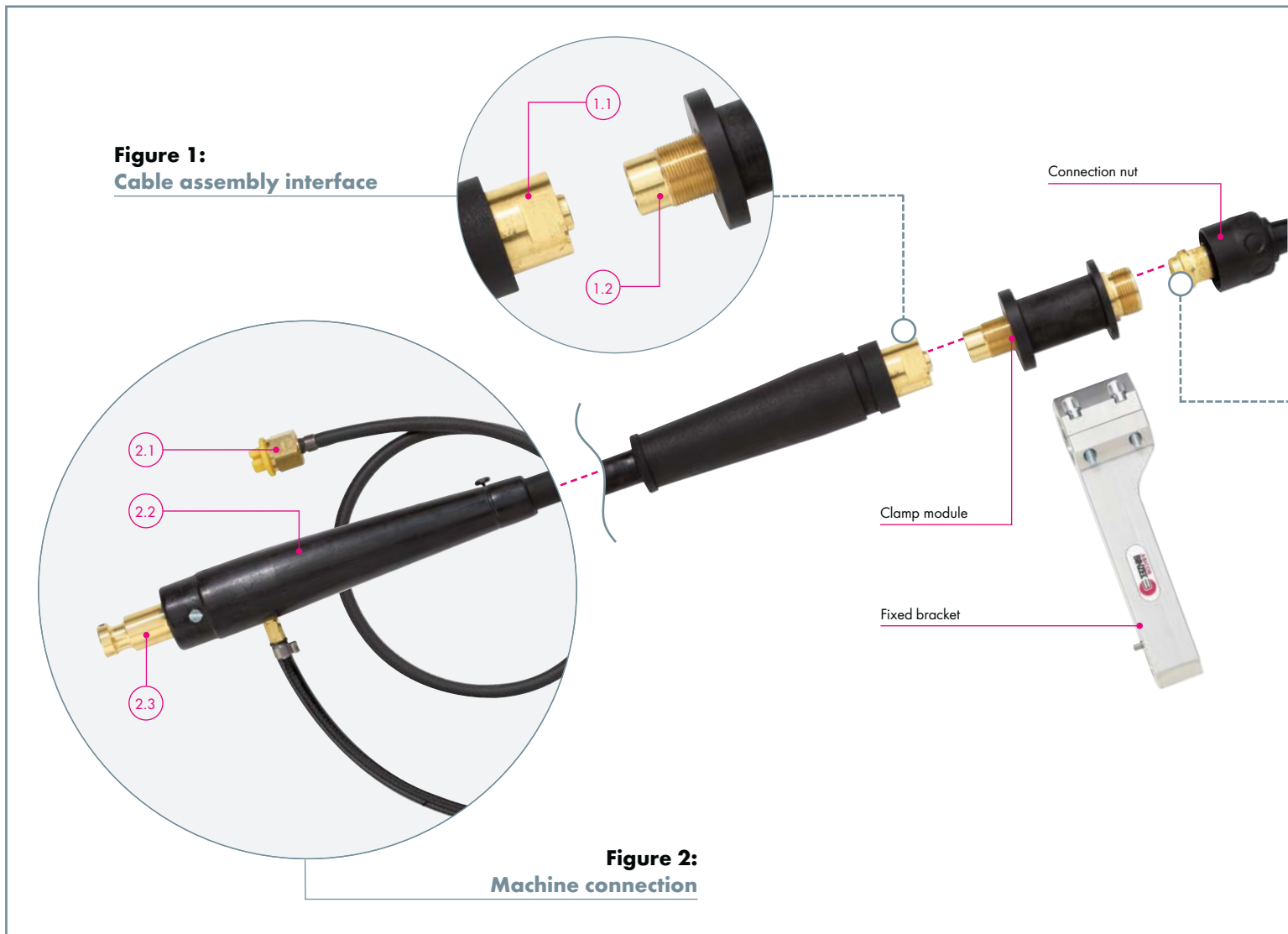


Figure 1:
Cable assembly interface

- 1.1 Straightforward attachment of the cable assembly through connection nut
- 1.2 Clamp module - the holder does not need to be opened for consistent changing of cable assembly and torch neck

Figure 2:
Machine connection

- 2.1 Airblast hose with blanking plug (optional)
- 2.2 Flexible casing for protection in every position
- 2.3 Power connection available for all standard wire feeders

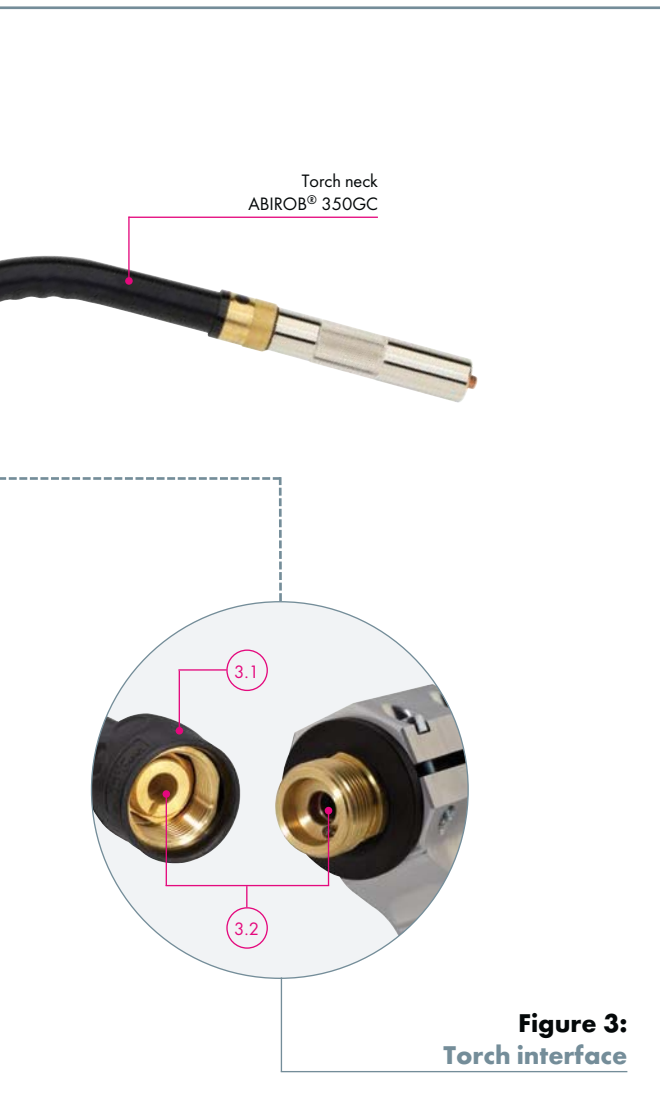


Figure 3:
Torch interface

- 3.1 High-grip connection nut – for a fast and tight connection
- 3.2 Lock pin and groove – for reproducible torch neck changing



Technical data (EN 60 974-7):

ABIROB® 350GC

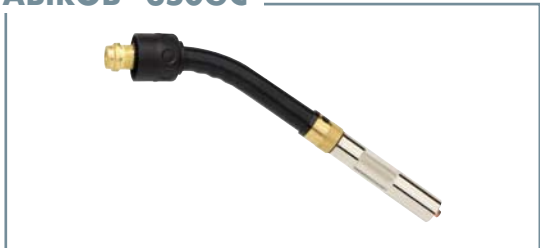
Type of cooling:	air cooled
Rating:	350 A CO ₂ 300 A Mixed gases M21 (EN ISO 14175)
Duty cycle:	100 %
Wire-Ø:	0.8- 1.2 mm
Torch geometries:	30°/35°

Note on the technical data:

Rating data were determined under normal conditions at low to medium reflected heat, free air circulation and at 28 °C ambient temperature. When used under more difficult conditions, the rating data must be reduced by 10 - 20 %. The rating data are reduced by up to 35 % for pulse arc welding.

"ABIROB® 350GC" air cooled Torch Necks & Wear Parts

ABIROB® 350GC



Torch neck

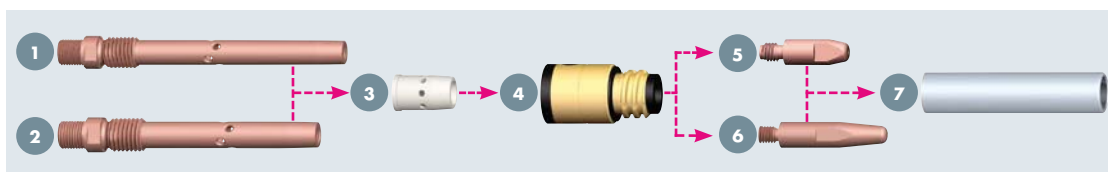
Features	30°	Part-No.	35°
Standard	-	-	980.0004.1
Short	980.0027.1	-	-
Long	980.0028.1	-	-

Wear parts and fittings are not included in the scope of delivery! Please order these separately and according to the application!

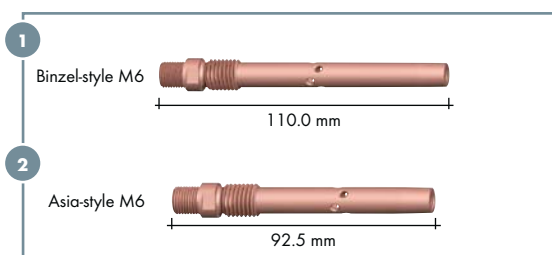
Neck liner

for	for torch geometry	Wire-Ø	Part-No.
Steel	35° Standard	Ø 0.8-1.2	980.0033.5
Steel	30° short	Ø 0.8-1.2	980.0035.5
Steel	30° long	Ø 0.8-1.2	980.0036.5

Wear parts for ABIROB® 350GC

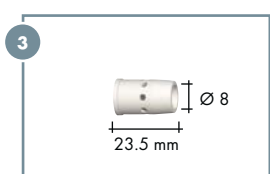


- 1 Binzel-style contact tip holder
- 2 Asia-style contact tip holder (5 pcs.)



Type	Part-No.
Binzel-style M6 copper	142.0152
Asia-style M6 copper	142.0143.5

- 3 Gas diffuser (10 pcs.)



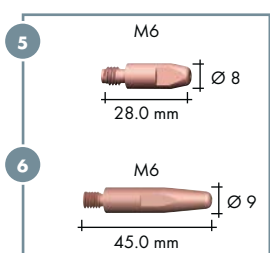
Type	Part-No.
Standard	980.0019.10

- 4 Gas nozzle holder (10 pcs.)



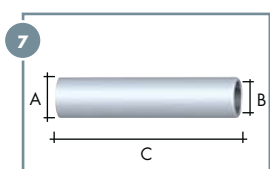
Type	Part-No.
Standard	980.0142.10

- 5 Binzel-style M6 contact tip
- 6 Asia-style M6 contact tip (10 pcs.)



Type	Wire-Ø	Part-No.	
		M6 Binzel-style	M6 Asia-style
CuCrZr	Ø 0.8	140.0054	-
	Ø 0.9	-	140.1355
	Ø 1.0	140.0245	140.1356
	Ø 1.2	140.0382	140.1357

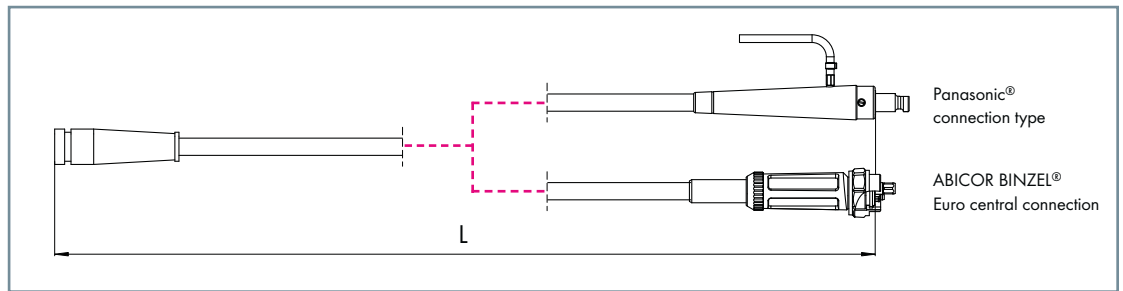
- 7 Gas nozzle (10 pcs.)



Type	Ø A	Ø B	Length C	Part-No.
Conical	Ø 20.0	Ø 12.0	89.5 mm	145.0558.10
Conical	Ø 20.0	Ø 13.0	89.5 mm	145.0573.10
Bottle form	Ø 20.0	Ø 14.0	89.5 mm	145.0559.10
Cylindrical	Ø 20.0	Ø 15.0	89.5 mm	145.0557.10

"ABIROB® 350GC" air cooled Cable Assemblies & Accessories

Cable assemblies and connection types



Cable assemblies cpl.

with connection type	Length	Part-No.
ABICOR BINZEL® Euro central connection	1.10 m	980.0030
PANASONIC®	1.10 m	980.0029.1

The control cable is not pre-wired at the machine end. Power source specific types on request.
The steel liner \varnothing 0.8-1.2 mm is included in the scope of delivery. Please order other versions separately.

Clamp module and connection nut

Type	Part-No.
Clamp module 350GC	980.0006.1
Connection nut	980.0081

Options

Type	Part-No.
Wire brake module	980.0143.1
CAT3 connection kit	780.0716.1

Liners

For connection type	Type	Wire- \varnothing	to L=1.3 m
ABICOR BINZEL® Euro central connection	Liner steel black ¹	\varnothing 0.8-1.2	124.0145.1
PANASONIC®	Liner steel black ¹	\varnothing 0.8-1.2	124.0147

¹ For the use of non-alloyed and low-alloyed steels. The totally insulated wire feed prevents damage caused by "micro-arcing" on the wire. This allows optimal current transfer inside the contact tube, improving the welding process. The insulated steel liner must always be used for power sources with optimal welding wire sensors. Liners for aluminium and special wires on request.

Accessories



Alignment jig

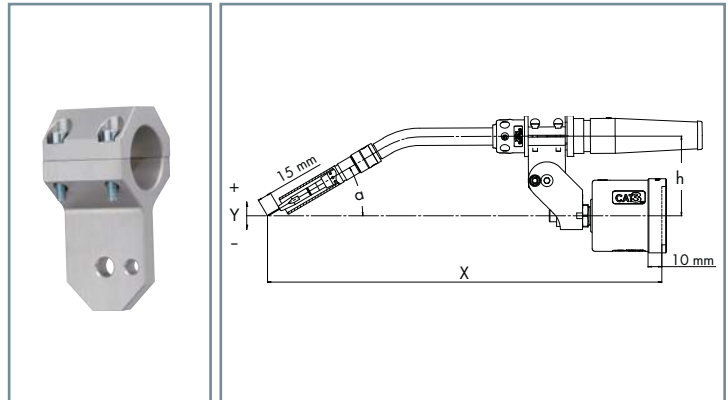
for torch type	Torch geometry	Part-No.
ABIROB® 350GC	35°	837.0551.1
Standard		

"ABIROB® 350GC" air cooled Holder & TCP Geometries

Torch holder for ABIROB® 350GC

in connection with CAT3 cpl.

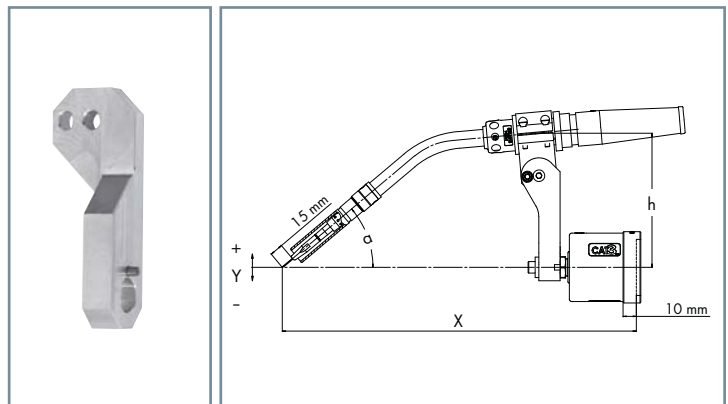
Torch type	Torch geometry	X	Y	h	α	Part-No.
ABIROB®	30°	453	86	86	0°	780.0145
350GC	35°	415	-39	86	35°	780.0145



CAT3 holder for ABIROB® 350GC

in connection with CAT3 and holder 780.0145

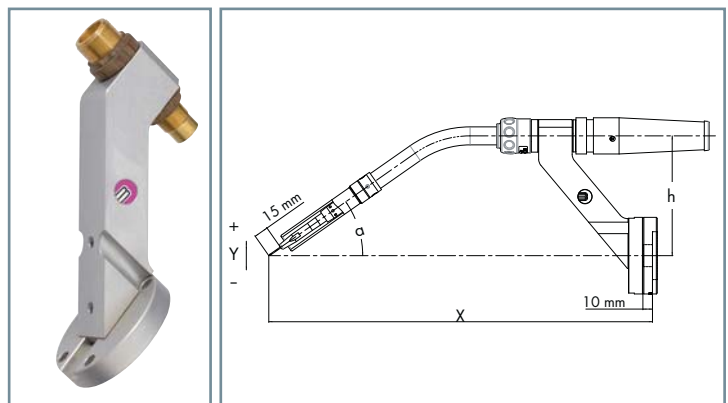
Torch type	Torch geometry	X	Y	h	α	Part-No.
ABIROB®	30°	437	151	151	30°	780.0872.1
350GC	35°	400	26	151	35°	780.0872.1



I-bracket for ABIROB® 350GC

for robots with collision software

Torch type	Torch geometry	X	Y	h	α	Part-No.
ABIROB®	35°	400	0	125	35°	780.0183
350GC						



Further holders are available on request.