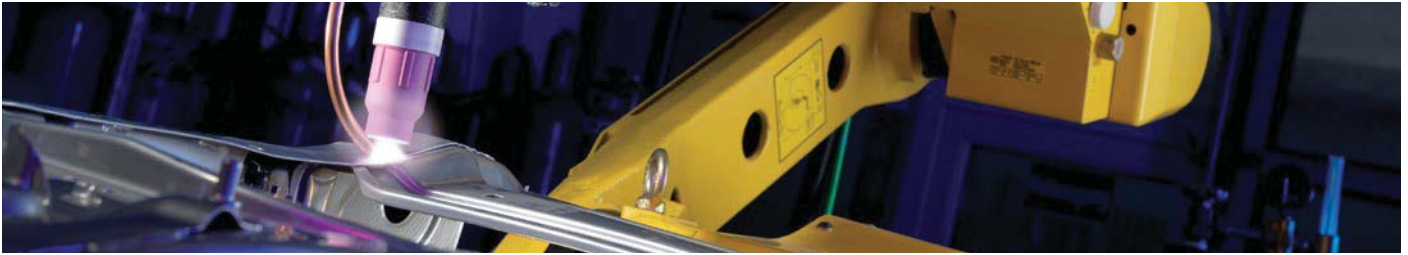


TIG Welding Torch System

“ABITIG® MT” liquid cooled



Efficient all-rounder ...

With its compact design and pre-settable electrode, the ABITIG® welding torch system is an efficient solution for welding work on components with simple geometries.

Torches of different capacities with cable assembly outlets at the side, are available for a wide range of different welding tasks.

Advantages that speak for themselves:

- Long service life cycles thanks to excellent heat dissipation combined with the smallest of design sizes
- Cable assembly outlet at the side reducing cable wear
- Tungsten electrode can be pre-set from the rear
- Tried-and-trusted design principle in common with ABITIG® handheld torches

Degree of automation:

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

Typical areas of application:



- Automotice construction
- Bicycle industry
- Container and pipe construction
- Machine and steel construction
- Aviation and aerospace industry

Material:

- Chrome-nickel steels
- Duplex steels
- Nickel basic materials
- Mixed compounds
- Aluminium materials
- Magnesium materials
- Copper materials
- Special materials

Robot interface:

- Conventional robot
(Cable assembly external):
 - Robot mount CAT3
 - Fixed bracket RTM

up to
500 A



* 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)

“ABITIG® MT” liquid cooled System Overview & Technical Data

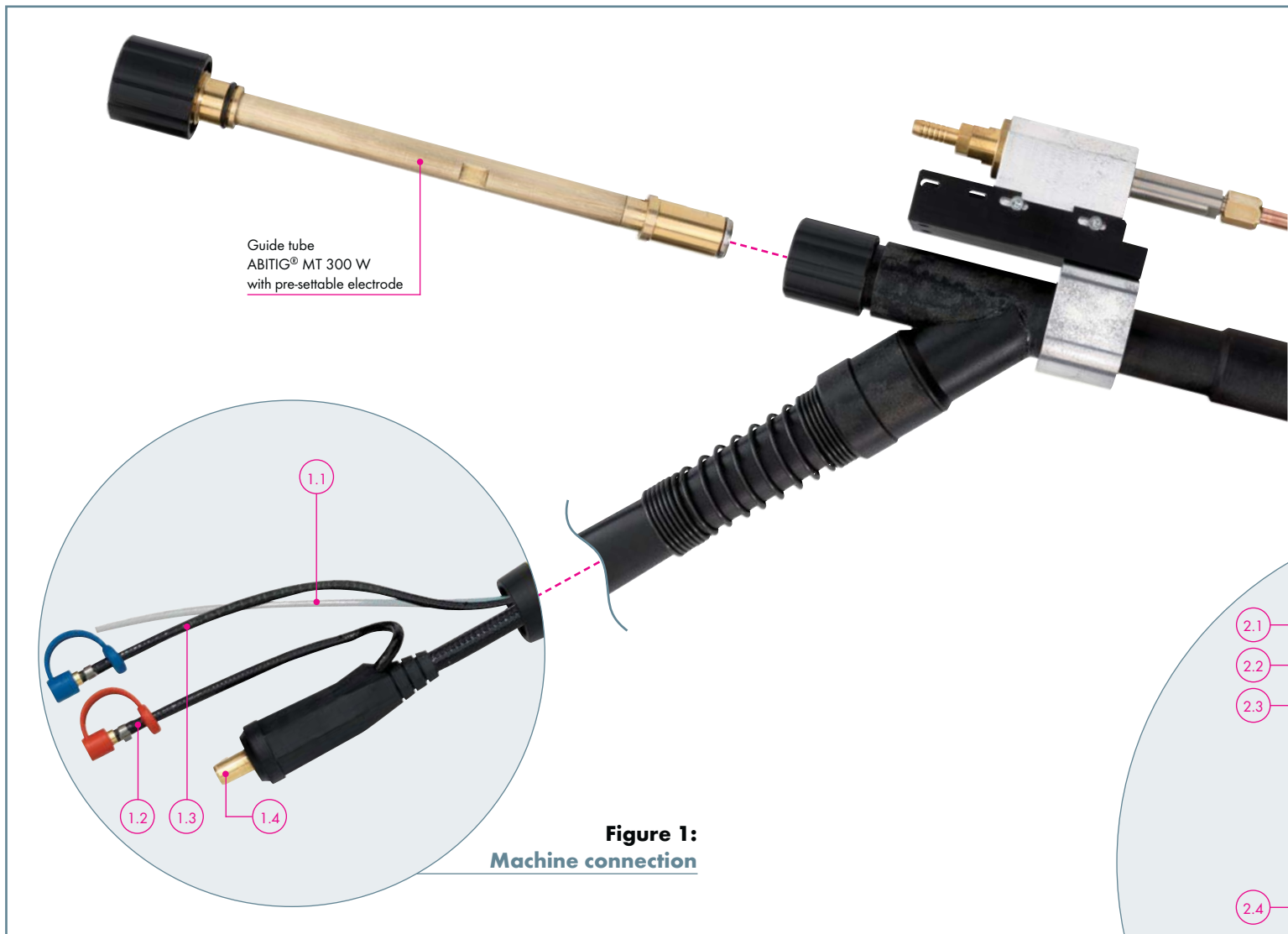
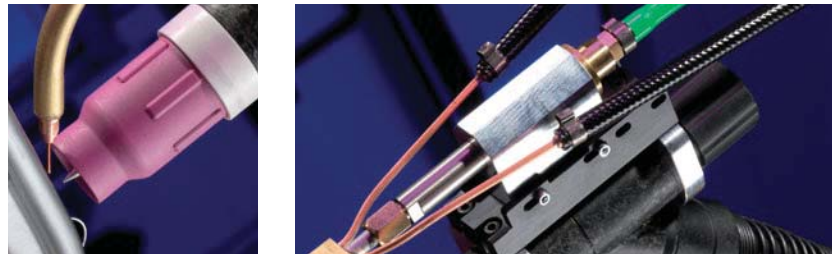
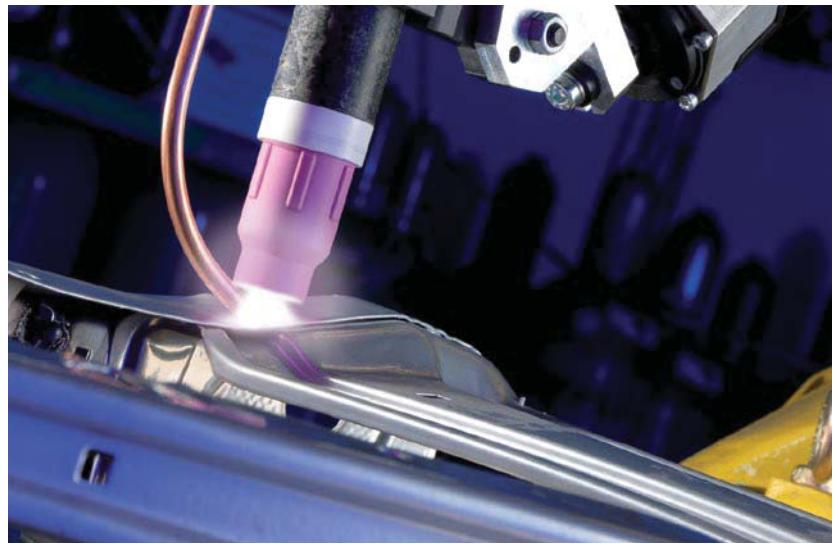
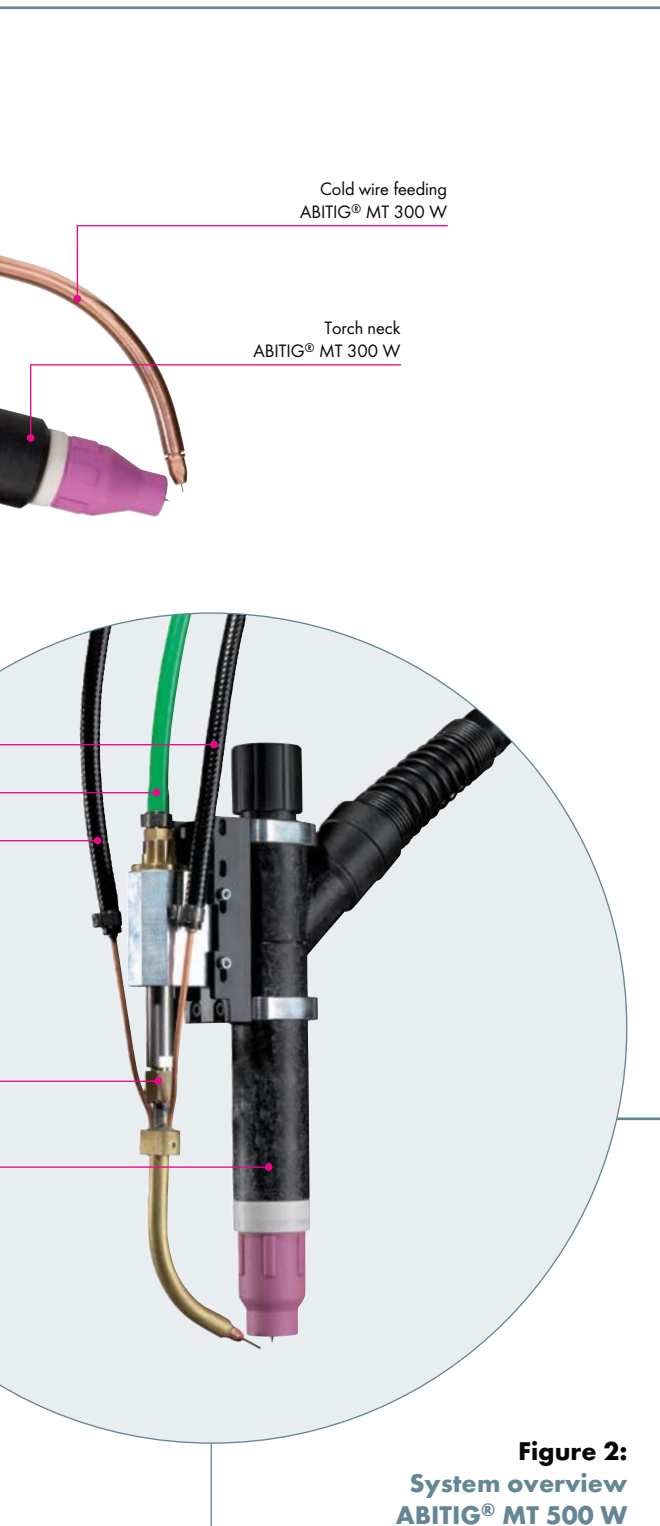


Figure 1:
Machine connection

- 1.1 Hose for inert gas feed
- 1.2 Coolant return hose with closure
- 1.3 Coolant feed hose with closure
- 1.4 Sturdy brass connector with high-grip rubber bend protection (machine connection available for all standard power sources)

Figure 2:
System overview ABITIG® MT 500 W

- 2.1 Coolant feed hose
- 2.2 Wire conduit
- 2.3 Coolant return hose
- 2.4 Feeding tube liquid cooled (optional)
- 2.5 Torch body ABITIG® MT 500 W



Technical data (EN 60 974-7):

ABITIG® MT 300 W

Type of cooling:	liquid cooled
Rating:	300 A DC 210 A AC
Duty cycle:	100 %
Electrode-Ø:	1.6-4.8 mm
Torch geometries:	0°

ABITIG® MT 500 W

Type of cooling:	liquid cooled
Rating:	500 A DC 350 A AC
Duty cycle:	100 %
Electrode-Ø:	1.6-6.4 mm
Torch geometries:	0°

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.

"ABITIG® MT" liquid cooled Torch Necks & Wear Parts

ABITIG® MT 300 W

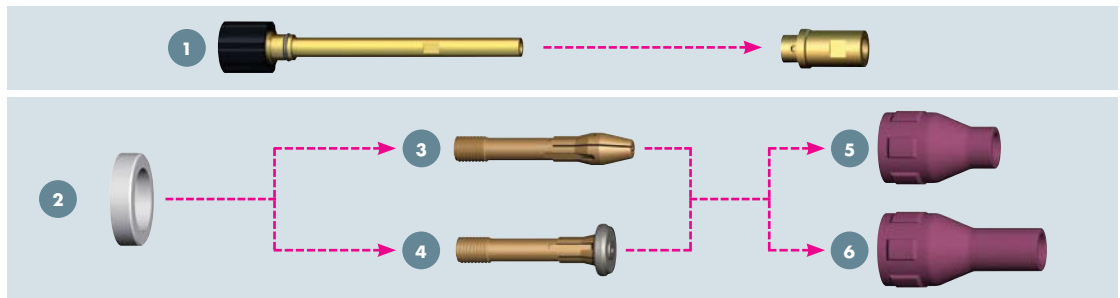


Torch neck

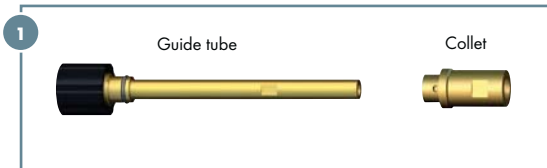
Features	Part-No.
ABITIG® MT 300 W Standard	779.2020

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

Wear parts for ABITIG® MT 300 W



1 Guide tube with collet (1 pc.)



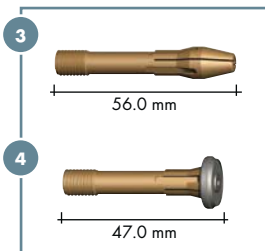
Type	Part-No.
Guide tube cpl.	778.1030
Collet	778.1140
O-ring (20 pcs.)	165.0079

2 Insulator (1 pc.)



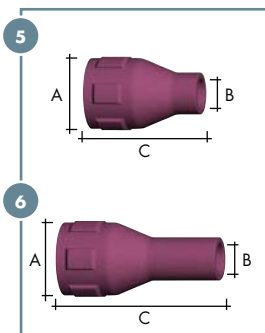
Type	Part-No.
Standard	775.1043

3 Electrode holder 4 Gas diffuser (5 pcs.)



Type	Wire-Ø	Part-No.	
		Electrode holder	Gas diffuser
Standard	Ø 1.6	775.0062	773.0172
	Ø 2.0	775.0067	773.0177
	Ø 2.4	775.0063	773.0173
	Ø 3.2	775.0064	773.0174
	Ø 4.0	775.0065	773.0175
	Ø 4.8	775.0066	773.0176

5 Gas nozzle, short 6 Gas nozzle, long (10 pcs.)



Short type	Ø A	Ø B	Length C	Part-No.
Ceramic	Ø 23.5	Ø 7.5	37.0 mm	775.0081
	Ø 23.5	Ø 10.0	37.0 mm	775.0082
	Ø 23.5	Ø 13.0	37.0 mm	775.0083
	Ø 23.5	Ø 15.0	37.0 mm	775.0084

Long type	Ø A	Ø B	Length C	Part-No.
Ceramic	Ø 23.5	Ø 7.5	52.0 mm	775.2171
	Ø 23.5	Ø 10.0	52.0 mm	775.2172
	Ø 23.5	Ø 13.0	52.0 mm	775.2173
	Ø 23.5	Ø 15.0	52.0 mm	775.2174

"ABITIG® MT" liquid cooled Torch Necks & Wear Parts

ABITIG® MT 500 W



Torch neck

Features

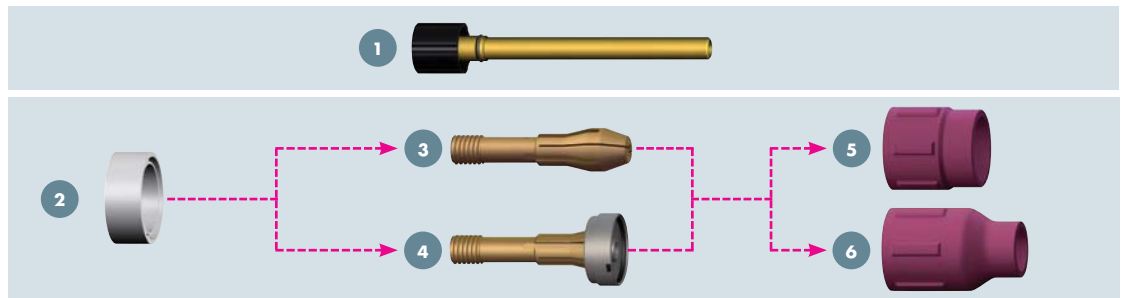
ABITIG® MT 500 W Standard

Part-No.

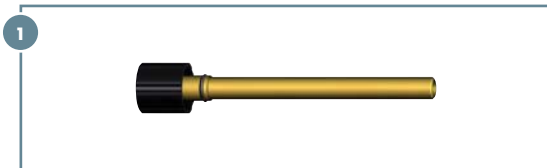
779.6020

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

Wear parts for ABITIG® MT 500 W



- 1 Guide tube**
(1 pc.)



Type

Guide tube cpl.
O-ring (20 pcs.)

Part-No.

779.6026
165.0079

- 2 Insulator**
(1 pc.)



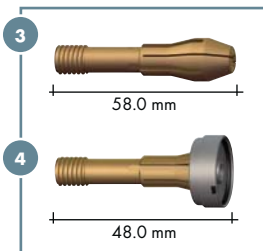
Type

Standard

Part-No.

779.6033

- 3 Electrode holder**
4 Gas diffuser
(5 pcs.)



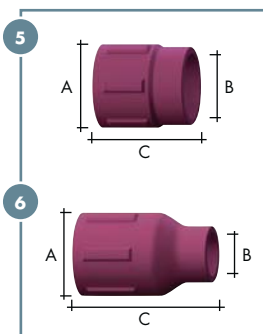
Type

Wire-Ø

Part-No.

		Electrode holder		Gas diffuser
Standard	Ø 1.6	779.6044	779.6058	
	Ø 2.0	779.6049	779.6063	
	Ø 2.4	779.6045	779.6059	
	Ø 3.2	779.6046	779.6060	
	Ø 4.0	779.6047	779.6061	
	Ø 4.8	779.6048	779.6062	
	Ø 6.4	779.6050	779.6064	

- 5 Gas nozzle, short**
6 Gas nozzle, long
(10 pcs.)



Short type

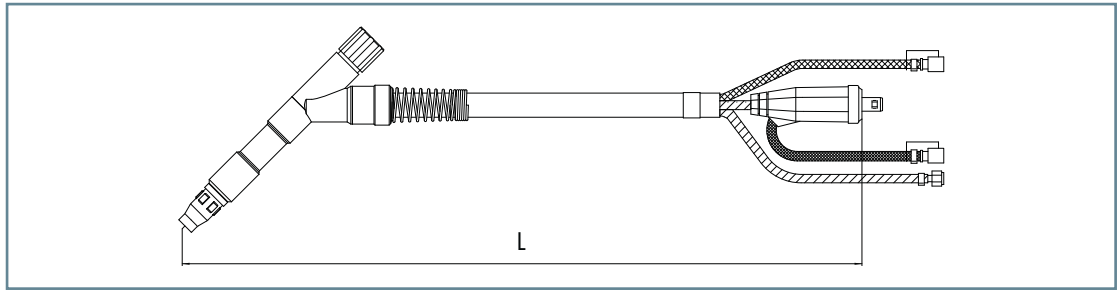
	Ø A	Ø B	Length C	Part-No.
Ceramic	Ø 31.0	Ø 24.0	34.0 mm	778.1189

Long type

	Ø A	Ø B	Length C	Part-No.
Ceramic	Ø 31.0	Ø 12.5	48.0 mm	778.1183
	Ø 31.0	Ø 16.0	48.0 mm	778.1184
	Ø 31.0	Ø 19.5	48.0 mm	778.1188

"ABITIG® MT" liquid cooled Cable Assemblies, Cold Wire Feeding & Accessories

Cable assemblies



On account of the large number of connection variants and cable assembly lengths we cannot list every part number here. Please contact your application consultant to find the optimum solution for your requirements. When you inquire, please have all the relevant information on hand, such as connection variant, make and type of power source, description of wire feed case, pin assignment for the control cable and individual connections for the airblast function.

Cold wire feeding



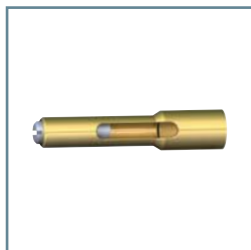
Cold wire feeding for ABITIG® MT

Type	Part-No.
Cold wire feeding cpl. ABITIG® MT 300W	779.6514.1
Cold wire feeding cpl. ABITIG® MT 500W	779.6500
Feeding tube ABITIG® MT liquid cooled (optional)	779.6505

Feed nozzle

Type	Diameter	Part-No.
Standard	0.8 mm	967.0329
	1.0 mm	967.0330
	1.2 mm	967.0331
	1.6 mm	967.0332

Accessories



Setting gauge ABITIG® MT

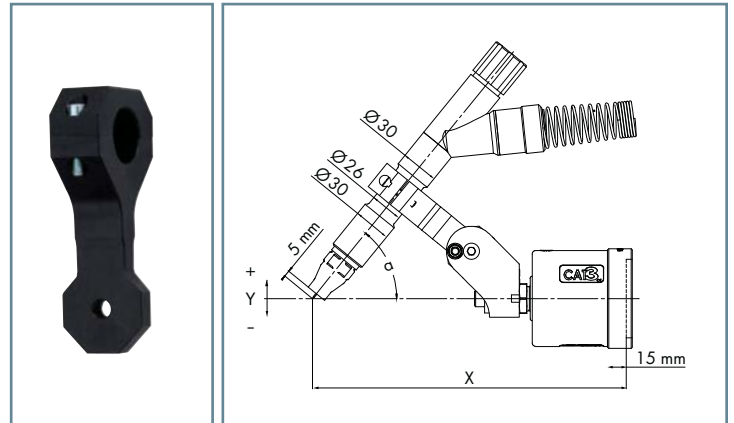
for torch type	Part-No.
ABITIG® MT 300W	778.1157

"ABITIG® MT" liquid cooled Holder & TCP Geometries

Clamp holder MT 26 for ABITIG® MT 300 W

in connection with CAT3 cpl.

Torch type	X	Y	α	Part-No.
	(mm)			
ABITIG® MT 300W	245	0	40°	780.0258



Clamp holder MT 35 for ABITIG® MT 500 W

in connection with CAT3 cpl.

Torch type	X	Y	α	Part-No.
	(mm)			
ABITIG® MT 500W	275	0	40°	780.0292

