

Plasma Welding Torch ABIPLAS® WELD CT and MT



ABIPLAS® WELD – the new torch generation ...

... for the automated Plasma welding.

The new Plasma welding torch series stands for highest economic efficiency. Due to the rugged design and reproducible adjustments it suits ideally for robots and semiautomatic machines.

The extremely stable welding process allows a spatter free welding and high quality welding seams. Expensive reworks are not necessary anymore. The Plasma welding torches cover a rating up to 300 A in the Plasma key hole welding.

The Features:

- Small design for best accessibility
- High lifetime of wear parts through optimal torch cooling
- Only few wear parts – easy handling

Technical data (EN 60974-7):

ABIPLAS® WELD 150 CT 20

Type of cooling:	liquid cooled
Welding current:	80–150 A
Duty cycle:	100 %
Welding speed:	Vs up to 4.0 m/min.
Electrode diameter:	1.2–3.6 mm

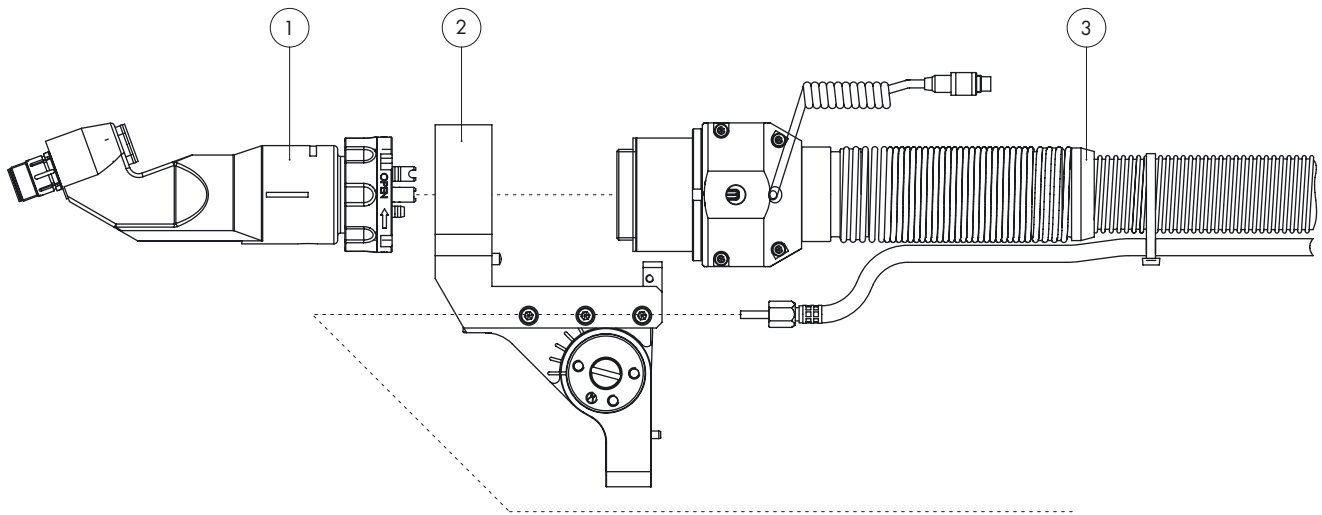
ABIPLAS® WELD 250 MT

ABIPLAS® WELD 250 CT 20

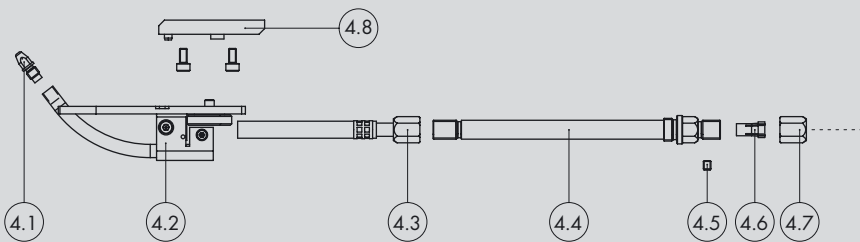
Type of cooling:	liquid cooled
Welding current:	max. 300 A
Duty cycle:	100 %
Welding speed:	Vs up to 4.0 m/min.
Electrode diameter:	3.0–4.5 mm



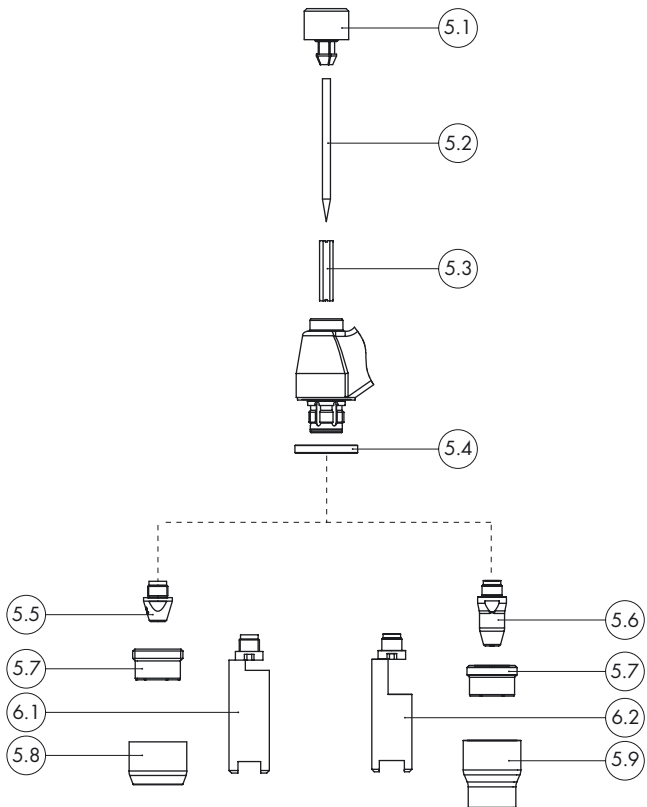
System overview ABIPLAS® WELD CT



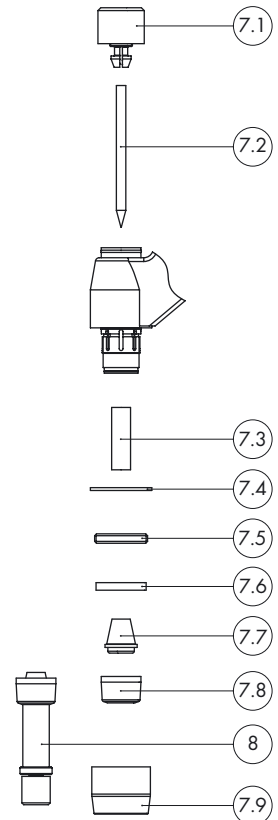
4 Cold wire feeding set



**Wear parts
ABIPLAS® WELD 150 CT**



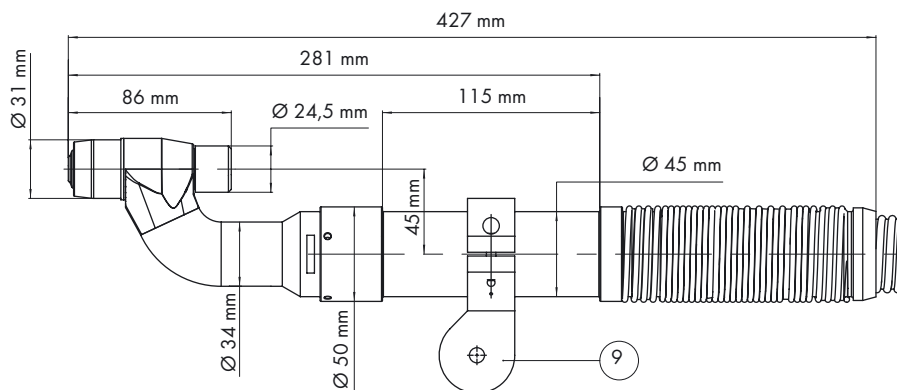
**Wear parts
ABIPLAS® WELD 250 CT/MT**



Component	Pos.	Description	Spec.	Order-No.	
Torch body for CT torches	1	Torch body ABIPLAS® WELD 150CT 20		698.3020	
		Torch body ABIPLAS® WELD 250CT 20		698.5001	
Torch mount for CT torches	Page 6	CAT2-HL (XL)		780.2040	
	2	Segment holder Plasma CT ECO Line		780.0317	
	Page 6	Flange for CAT2-HL	Plastic		
Cable assemblies ABIPLAS® WELD ECO	3	ABIPLAS® WELD ECO cpl., liquid cooled, Connector SBI®	L=1.35 m	698.3088	
		ABIPLAS® WELD ECO cpl., liquid cooled, Connector SBI®	L=6.00 m	698.3019	
		ABIPLAS® WELD ECO cpl., liquid cooled, Connector EWM®	L=4.00 m	698.3098	
		ABIPLAS® WELD ECO cpl., liquid cooled, Connector Castolin®	L=4.00 m	698.3101	
Cold wire feeding set	4	Cold wire feeding set for ABIPLAS® WELD 150 CT20		698.3100	
		Cold wire feeding set for ABIPLAS® WELD 250 CT20		698.5041	
Cold wire feeding Component parts	4.1	Wire feeding tip	Ø 0.6 mm	967.0335	
		Wire feeding tip	Ø 0.8/0.9 mm	967.0329	
		Wire feeding tip	Ø 1.0 mm	967.0330	
		Wire feeding tip	Ø 1.2 mm	967.0331	
		Wire feeding tip	Ø 1.6 mm	967.0332	
	4.2	Cold wire feeding		698.3086	
	4.3	Guiding wire feeding hose for ABIPLAS® WELD 150 CT20	L=67 mm	156.0282	
		Guiding wire feeding hose for ABIPLAS® WELD 250 CT20	L=92 mm	156.0291	
	4.4	Guide tube		698.3084	
	4.5	Set screw		009.0266	
	4.6	Retaining nipple		131.0001	
	4.7	Cap nut		963.0016	
	4.8	Holder cpl. (only for ABIPLAS® WELD 250 CT20)		698.5040	
	Wear parts ABIPLAS® WELD 150 CT	5.1	Torch cap standard	Ø 1.6 mm	698.2033
			Torch cap standard	Ø 2.4 mm	698.2030
		Torch cap standard	Ø 3.2 mm	698.2012	
		Torch cap long, L=75 mm	Ø 3.2 mm	698.2043	
		Torch cap long, L=100 mm	Ø 3.2 mm	698.2046	
5.2		Tungsten electrode standard (Cathode), L=57 mm	Ø 1.6 mm	698.0065	
		Tungsten electrode standard (Cathode), L=57 mm	Ø 2.4 mm	698.0066	
		Tungsten electrode standard (Cathode), L=57 mm	Ø 3.2 mm	698.0067	
		Tungsten electrode long (Cathode), L=67 mm	Ø 2.4 mm	698.2061	
5.3		Centering ceramic	Ø 3.2 mm	698.2035	
		Centering ceramic	Ø 1.6 mm	698.2032	
		Centering ceramic	Ø 2.4 mm	698.2020	
5.4		Insulation ring	Ø 3.2 mm	699.0041	
5.5		Plasma nozzle	Ø 1.2 mm	698.2036	
		Plasma nozzle	Ø 1.4 mm	698.2037	
		Plasma nozzle	Ø 1.6 mm	698.2038	
		Plasma nozzle	Ø 1.8 mm	698.2014	
		Plasma nozzle	Ø 2.0 mm	698.2015	
		Plasma nozzle	Ø 2.3 mm	698.2017	
		Plasma nozzle	Ø 2.6 mm	689.2018	
5.6		Plasma nozzle long	Ø 3.0 mm	698.2057	
		Plasma nozzle long	Ø 1.6 mm	698.2058	
		Plasma nozzle long	Ø 2.0 mm	689.2059	
5.7		Gas diffuser	Ø 2.6 mm	698.2009	
5.8		Shielding gas nozzle		699.0071	
5.9		Shielding gas nozzle long		698.2060	
6.1		Alignment gauge		698.2019	
6.2		Alignment gauge long		698.2062	

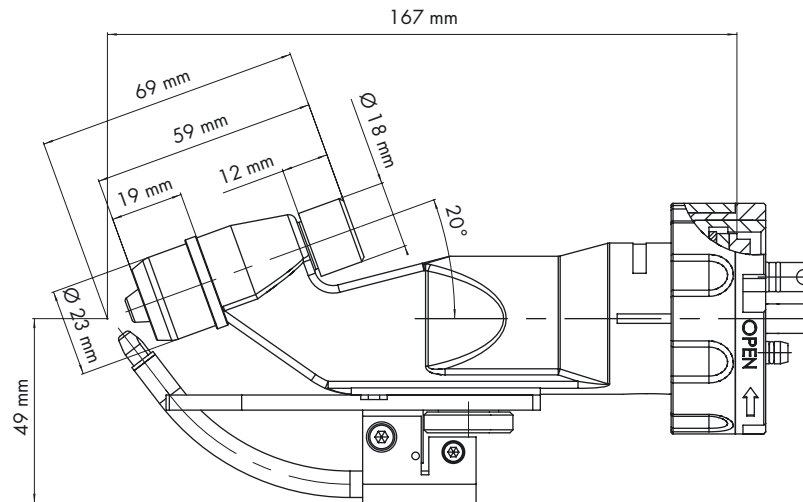
Component	Pos.	Description	Spec.	Order-No.
Wear parts ABIPLAS® WELD 250 CT/MT	7.1	Torch cap cpl.	Ø 3.2 mm	698.5053.1
		Torch cap cpl.	Ø 4.0 mm	698.5055.1
		Torch cap cpl.	Ø 4.8 mm	698.5057.1
		Torch cap standard	Ø 5.0 mm	698.5024
	7.2	Tungsten electrode (WR 2), L=75mm	Ø 3.2 mm	698.5047.5
		Tungsten electrode (WR 2), L=75mm	Ø 4.0 mm	698.5048.5
		Tungsten electrode (WR 2), L=75mm	Ø 4.8 mm	698.5049.5
		Tungsten electrode (Cathode), L=75mm	Ø 5.0 mm	698.4076
	7.3	Centering ceramic	Ø 3.2 mm	698.5050.5
		Centering ceramic	Ø 4.0 mm	698.5051.5
		Centering ceramic	Ø 4.8 mm	698.5052.5
		Centering ceramic	Ø 5.0 mm	698.5027
	7.4	Insulation ring		698.5028
	7.5	Disposing ring		698.5029
	7.6	Gas diffuser		698.5030
	7.7	Plasma nozzle	Ø 3.0 mm	698.5044
		Plasma nozzle	Ø 3.5 mm	698.5033
		Plasma nozzle	Ø 4.0 mm	698.5045
		Plasma nozzle	Ø 4.5 mm	698.5046
	7.8	Fastening nut		698.5032
7.9	Shielding gas nozzle		698.5031	
8	Alignment gauge		698.5035	
Accessories	w/o fig.	Cable assembly holder		191.0039
		Sharpener for plastic liner		191.0064
		Hose cutter for plastic liner		191.0062
		Spare blade for hose cutter		191.0063

Dimensional sketch ABIPLAS® WELD 250 MT

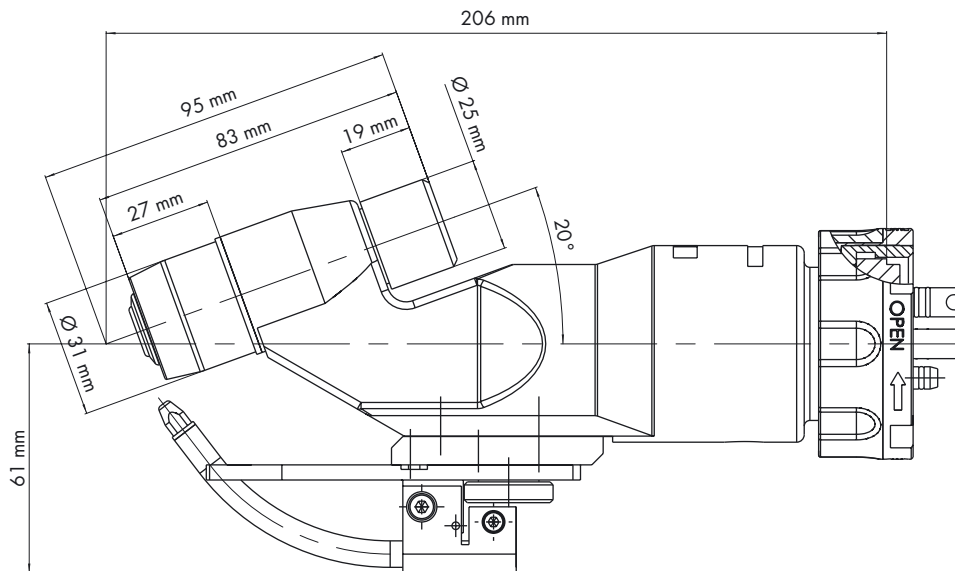


Component	Pos.	Description	Spec.	Order-No.
Cable assemblies ABIPLAS® WELD MT	w/o fig.	ABIPLAS® WELD 250 MT, Connector SBI®	L=6.0 m	698.5113
		ABIPLAS® WELD 250 MT, Connector SBI®	L=1.5 m	698.5114
Torch mount for MT torches	9	Clamp holder		963.0007
	Page 6	CAT2-HL (XL)		780.2040
	w/o fig.	Holder CAT2-HL standard		780.0323
	Page 6	Flange for CAT2-HL	Plastic	
Wear parts		see position 7.1 up to 8		

Dimensional sketch ABIPLAS® WELD 150 CT20



Dimensional sketch ABIPLAS® WELD 250 CT20



Order information:

In order to assure an optimal operation, we recommend to order two torch necks per cable assembly for the first order. Downtime due to service works can be reduced to a minimum.

Torch neck geometry should be checked with an alignment gauge before every use.

Necessary information:

- Type of power source
- Cable assembly length

System information:

Robot operation:

In order to assure a smooth operation of the complete system, we recommend the use of an active water cooler. It is very important to use a cooling liquid with a very low electrical conductance value in order to avoid damage at the torch body.

Power sources:

The equipment has successfully been adopted with the following suppliers of power sources so far:

- SBI®
- MIG-O-MAT®
- EWM®
- Castolin®

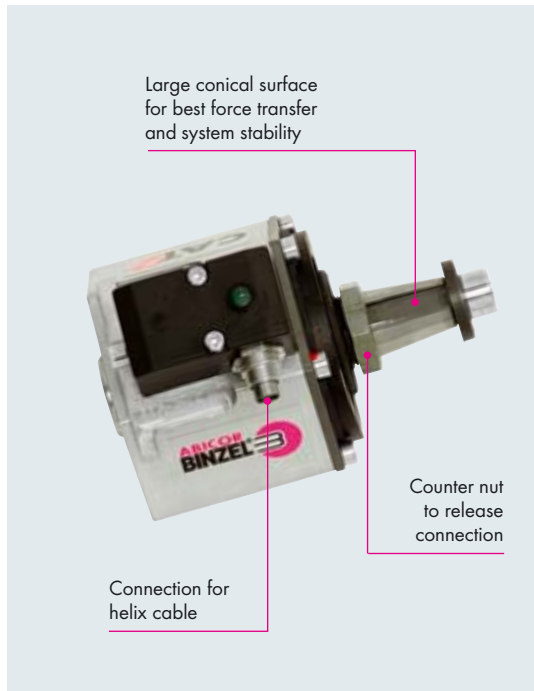
Welding Torch System ABIPLAS® WELD CT/MT

Robot mount CAT2-HL

CAT2-HL is based on the well-proven robot mount CAT2 with improved fixing section for torch mounts. Together with the welding torch system ABIPLAS® WELD CT/MT the robot mount CAT2-HL is used as standard. The mounting arm of the system is equipped with the solid and highly precise conical connection for CAT2-HL.

Features:

- Outer dimensions compatible with CAT2
- Adapter flanges, insulated
- Firm structural construction for best reproducibility
- Easy and fast assembly and disassembly



Robot mount CAT2-HL

Description	Part-No.
Robot mount CAT2-HL (M)	780.2042
Robot mount CAT2-HL (L)	780.2041
Robot mount CAT2-HL (XL)	780.2040
Helix cable cpl. (Connection CAT2-HL to cable assembly)	780.0201

Adapter flange

(Plastic, insulated)

Description	Part-No.
ISO 9409-1-A31,5	780.0632
ISO 9409-1-A40	780.0691
ISO 9409-1-A50	780.0694.1
ISO 9409-1-A63	780.0614
ISO 9409-1-A80	780.0607
ISO 9409-1-A100	780.0649
ISO 9409-1-A125	780.0630

Adapter flanges can be delivered for all common welding robots. Please indicate type and model of robot.

TIPS & TRICKS

In combination with the torch system ABIPLAS® WELD CT/MT it is recommended to use torch mount CAT2-HL (XL) with spring tension XL.



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