



AUTOGEN-RITTER GmbH

Arc-welding torches MIG-MAG WIG/TIG Plasma Spare parts

Quality Welding Solutions since 1920.

EN

CLW 50 TIG cladding torches





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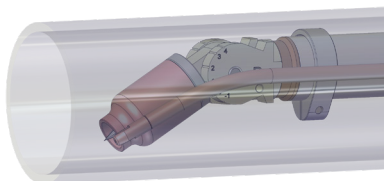
TIG cladding torch CLW 50

The CLW 50 TIG welding torch for cladding applications has been specially designed for demanding industrial applications and offers users numerous advantages:

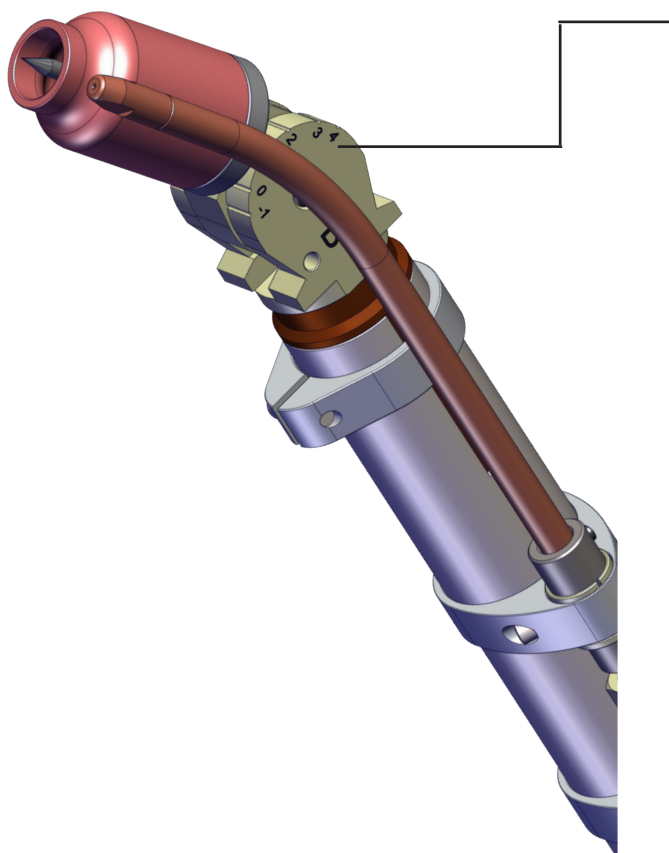
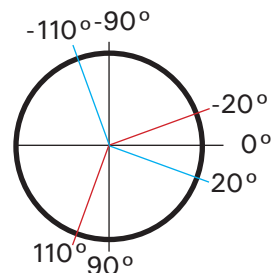
- Minimum pipe diameter at $\pm 90^\circ$ is 4.7 in
- Cold/hot wire versions available
- Various machine-side versions (direct connection and with hose package)
- Markings on the torch head for easy adjustment and reproducibility

Pipe diameter

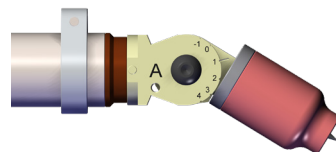
Minimal pipe diameter 3.2 in when torch head is positioned at $\pm 30^\circ$



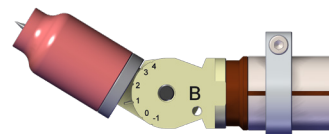
Universally adjustable torch head

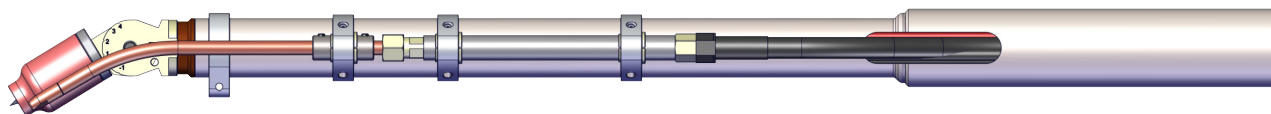


A-side:
-20° - +110°



B-side:
-110° - +20°



**Technical data TIG cladding torch CLW 50**CLW 50

Technical data according to EN 60 974-7

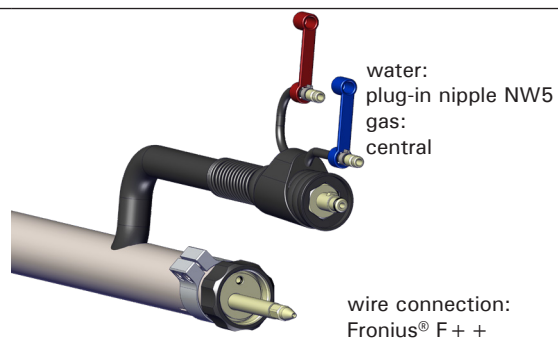
Rating* ¹ :	400 A DC at 100 % Duty cycle
Tungsten electrodes-Ø:	2.4 - 4.0 mm
Hot wire current:	max. 150 A
Ø-filler wire:	0.8 - 1.6 mm
Length of cable hose package:	standard up to 4 m

*¹Cooling capacity of at least 1.0kW with a cable hose package length of 4m and a welding torch inlet pressure of the cooling liquid of 3–6bar. Additional energy inputs due to individual applications must be taken into account.



Overview torch connections for CLW 50 with direct connection

Fronius® direct connection



Different connections on request!

Configurator cladding torch with direct connection

Torch type	WL (working length)	Connection type	Cable hose package length	Cold / hot wire	Torch connection for power source
20007	10	0	05	H	F0
20007 CLW 50	10	0	05	H	<u>Fronius®</u> Compact connection TIG gas central, water: plug-in nipple NW5; wire: Fronius®-connection F + + F0
	15	with direct connection	10	Cold / hot wire	
	20		15		
			20		

Different power source connections on request!

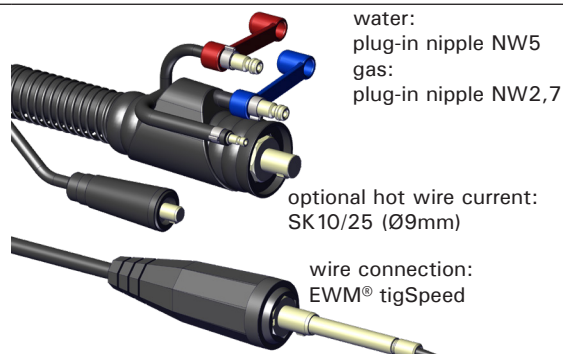
Delivery condition

All TIG cladding torches are equipped with spare parts Ø3.2mm and contact tip Ø1,0mm.

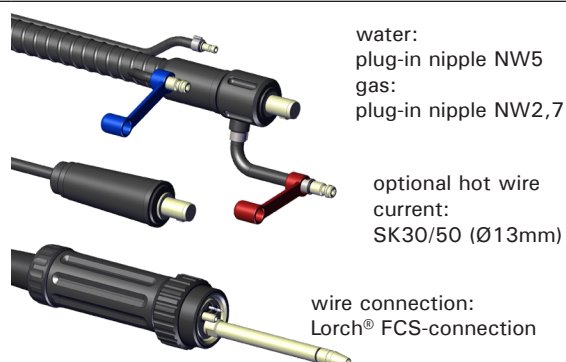


Overview torch connections for CLW 50 with cable hose package

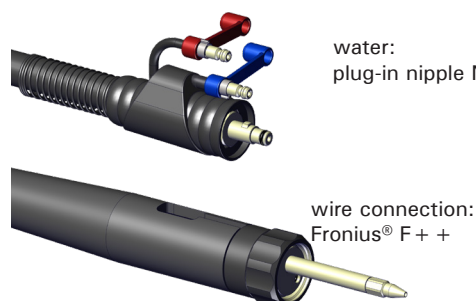
TIG compact connection EWM® SK35/50 (Ø13mm)



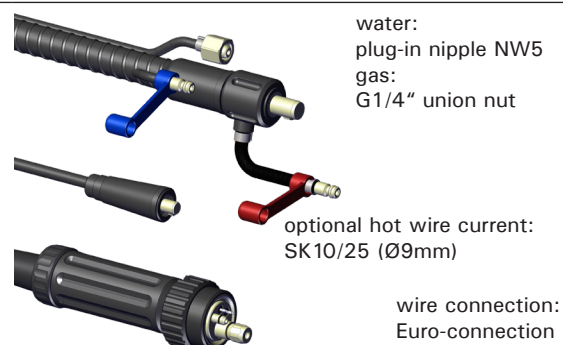
BSB-connection SK35/50 (Ø13mm) suitable Lorch®



TIG compact connection Fronius® gas central



BSB-connection SK35/50 (Ø13mm)



Different connections on request!

Configurator cladding torch with cable hose package

Torch type	WL (working length)	Connection type	Cable hose package length	Cold-/ hot wire	Torch connection for power source
20007	10	1	10	H	E0
20007 CLW 50	10	1	10	H	<u>EWM®</u> TIG compact connection SK35/50 (Ø13mm) water: plug-in nipple NW5; gas: plug-in nipple NW2,7; wire: EWM® tigSpeed; opt. hot wire current: SK10/25 (Ø9mm) E0
	15		15	C	
	20		20		<u>Lorch®</u> BSB-connection SK35/50 (Ø13mm) water: plug-in nipple NW5; gas: plug-in nipple NW2,7 wire: Lorch® FCS-connection; opt. hot wire current: SK35/50 (Ø13mm) L0
			25		<u>Fronius®</u> Compact connection TIG gas central, water: plug-in nipple NW5; wire: Fronius® connection F + + F0
			30		
			35		<u>Other connections</u> BSB-connection SK35/50 (Ø13mm) water: plug-in nipple NW5; gas: G1/4" union nut; wire: Euro-ZA opt. hot wire current: SK10/25(Ø9mm) 40
			40		

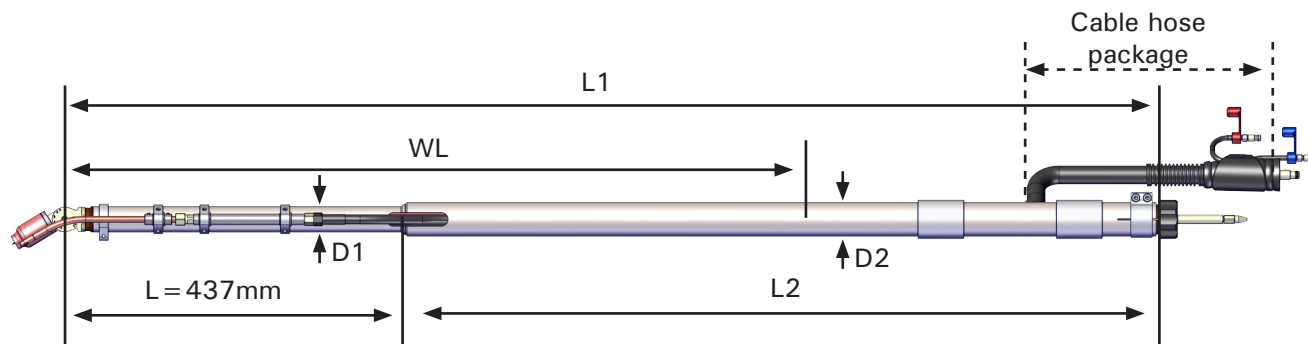
Different power source connections on request!

Delivery condition

All TIG cladding torches are equipped with spare parts
Ø3.2mm and contact tip Ø1,0mm.

Overview TIG cladding torch CLW 50

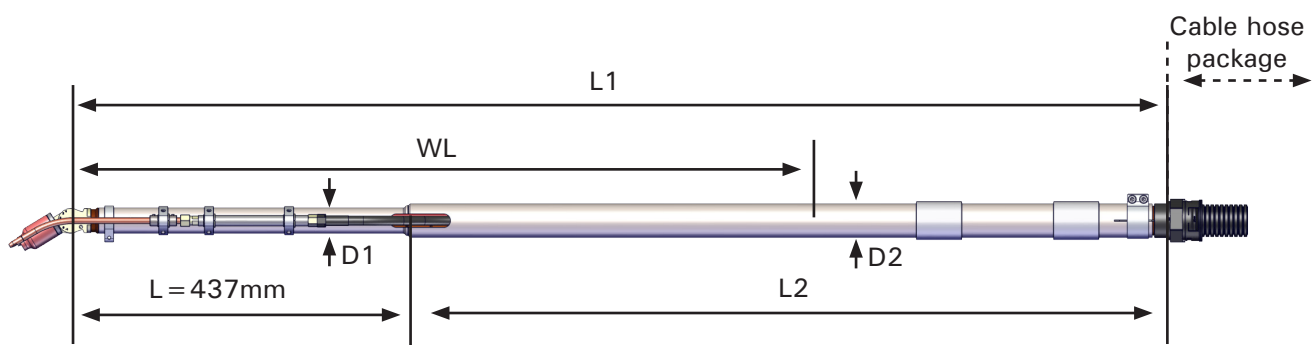
CLW 50 torch with direct connection



Welding torch CLW 50

D1 [mm]	D2 [mm]	WL [mm]	L1 [mm]	L2 [mm]	Cable hose packages are available in [m]
34	45	1000	1440	1003	0.5
		1500	1940	1503	1.0
		2000	2440	2003	1.5
					2.0

CLW 50 torch with cable hose package

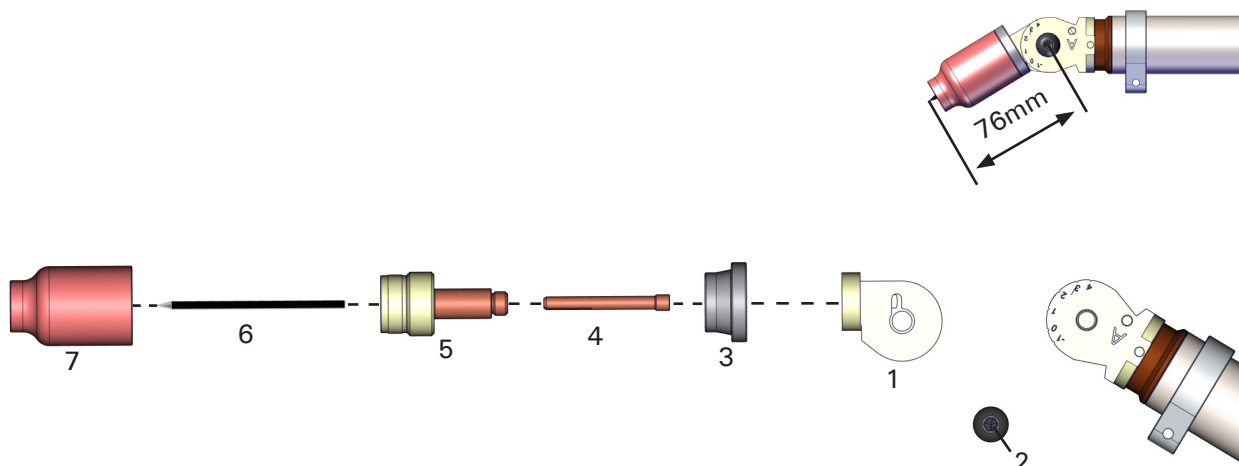


Welding torch CLW 50

D1 [mm]	D2 [mm]	WL [mm]	L1 [mm]	L2 [mm]	Cable hose packages are available in [m]
34	45	1000	1440	1003	1.0
		1500	1940	1503	1.5
		2000	2440	2003	2.0
					2.5
					3.0
					3.5
					4.0

Cable hose length is always specified up to the wire connection! Additional connections are 0.5m longer!

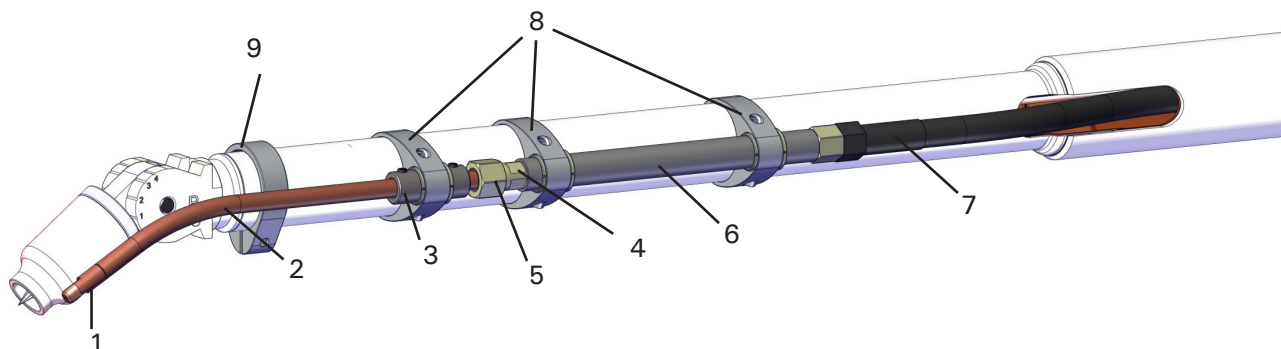
Spare parts CLW 50



Spare parts

Pos.	Part No.	Description	Pos.	Part No.	Description
1	200070010	Torch head CLW 50	6	0458001S4	Tungsten electrode Ø2.4mm, L = 75mm
2	0083001	Screw M8x30 (PU = 5)		0458002S4	Tungsten electrode Ø3.2mm, L = 75mm
3	2000720002	Insulator CLW 50		0458003S4	Tungsten electrode Ø4.0mm, L = 75mm
4	11704 XX	Collet, l = 50mm (VE = 5)	7	57N74	Ceramic Nozzle Size 8 for big gas lens, Ø12.5, l = 48mm (PU = 10)
Collets are available in Ø2.4/3.2/4.0mm Please insert XX for tungsten electrode diameter. Example: Ø2.4 mm is: 24; Part-No.: = 11704 24				53N88	Ceramic Nozzle Size 10 for big gas lens, Ø16.0, l = 48mm (PU = 10)
5	45V64	Big gas lens Ø2.4mm, l = 50mm		53N87	Ceramic Nozzle Size 12 for big gas lens, Ø19.5, l = 48mm (PU = 10)
	995795	Big gas lens Ø3.2mm, l = 50mm		53N89	Ceramic Nozzle Size 16 for big gas lens, Ø25.5, l = 48mm (PU = 10)
	45V63	Big gas lens Ø4.0mm, l = 50mm			

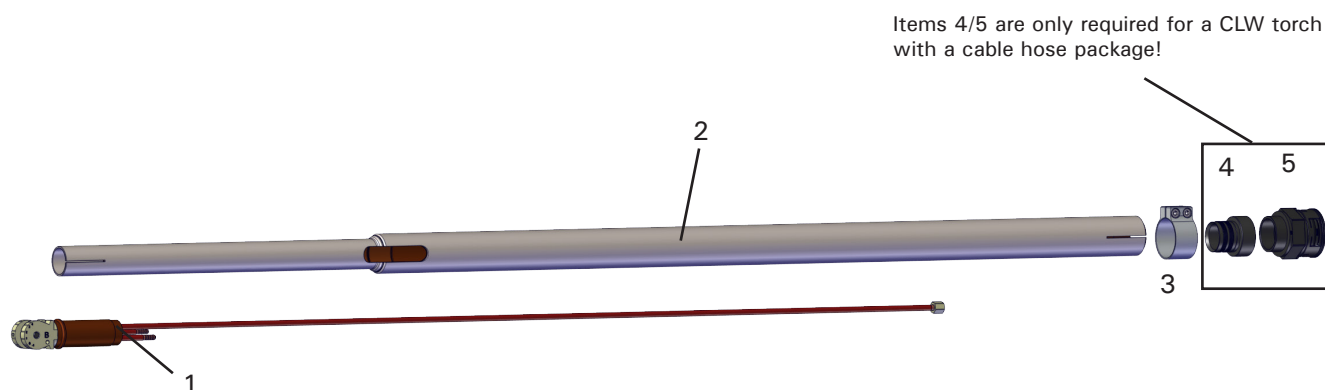
Spare parts CLW 50 cold-/ hot wire components



Spare parts

Pos.	Part No.	Description	Pos.	Part No.	Description
1	22576 XX	Contact tip M6x28, ø in mm / CuCrZr (PU = 10) Contact tips are available in Ø0.8/1.0/1.2/1.4/1.6mm Please insert XX tungsten electrode diameter. Example: Ø1.0 mm is: 10; Part-No.: = 22576 10	7	200070030	Wire conduits tube WL = 1000mm
2	200070020	Wire conduits tube		200070031	Wire conduits tube WL = 1500mm
3	200070021	Insulator tube for wire conduits		200070032	Wire conduits tube WL = 2000mm
4	200070022	Wire conduits tube	8	200070025	Clamp cpl. for wire conduits
5	200070023	Nut for wire conduits tube	9	200070026	Clamping clip cpl. for torch body
6	200070024	Wire conduits tube			

Overview torch body CLW 50

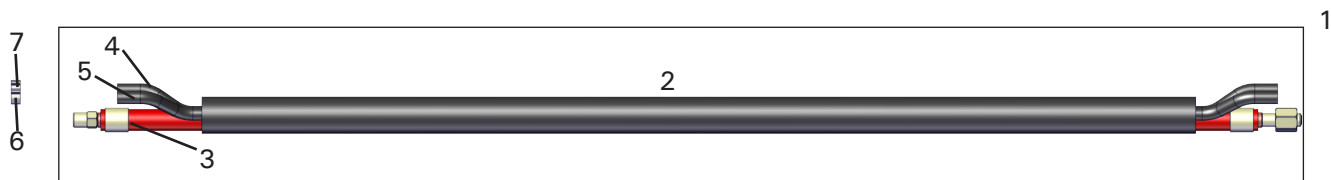


Spare parts

Pos.	Part No.	Description	Pos.	Part No.	Description
1	200071000	Torch body CLW 50	3	200021050	Clamp for CLW torch
2	200071010	Torch tube CLW 50 WL = 1000	4	994100154	Adapter for CLW torch
	200071015	Torch tube CLW 50 WL = 1500	5	350049994	Hose connector
	200071020	Torch tube CLW 50 WL = 2000			

Cable hose package cold / hot wire CLW 50 for direct connection

Cable hose package cold / hot wire for direct connection



Spare parts

Pos.	Part No.	Description	Pos.	Part No.	Description
1	20YY791XX	Cable hose package cold / hot wire for direct connection Cable hose packages are available in 0.5m increments from 0.5m (05) to 2.0m (20) for WL 1000mm (10)/ 1500mm (15)/ 2000mm (20) Please insert at YY WL and at XX length of the cable hose package. Example: WL = 1000mm an Cable hose length 1.5m; Part-No.: = 201079115	3	2000792XXD	Power cable X m cpl. for direct connection
2	0550305	Rubber outer cover 25x1,5 (PU = 40m)	4	E008546	Rubber hose (PU = 40m)
			5	0550104S	Rubber hose (PU = 100m)
			6	03210901	Single ear clamp D = 9.0 (PU = 100)
			7	03211001	Single ear clamp D = 10.0 (PU = 100)

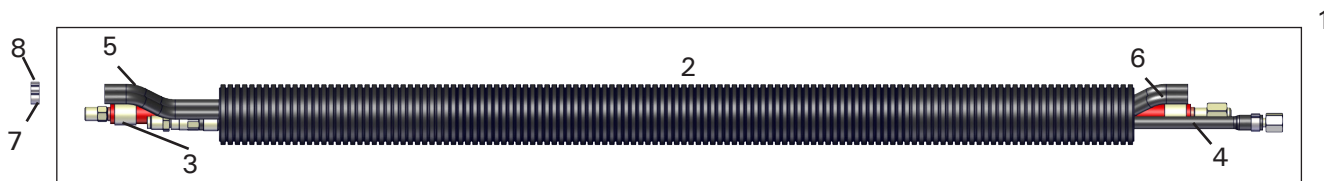
Pos. 3 is available in 0.5m increments from 0.5m (05) to 3.0m (30). For WL = 1500mm, an additional 0.5m must be taken into account, and for WL = 2000mm, an additional 1.0m must be taken in account.

Please insert at XX the length.

Example: Pos.3 for cable hose package length 1.0m and WL = 2000m results in: 1m + 1m = 2.0m (20); Part-No.: = 200079220D

Cable hose package cold / hot wire CLW 50

Cable hose package for cold wire



Spare parts

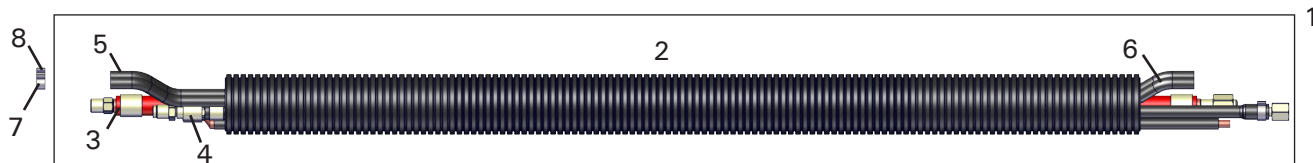
Pos.	Part No.	Description	Pos.	Part No.	Description
1	20YY791XXC	Cable hose package for cold wire Cable hose packages are available in 0.5m increments from 1.0m (10) to 4.0m (40) for WL 1000mm (10)/ 1500mm (15)/ 2000mm (20) Please insert at YY WL and at XX length of the cable hose package. Example: WL = 1000mm an Cable hose length 2.5m; Part-No.: = 201079125C	4	2000793XXC	Outer liner X m cpl. for cold wire
2	05505141	Corrugated tube LW 36mm (PU=30m)	5	E008546	Rubber hose (PU=40m)
3	2000792XX	Power cable X m cpl.	6	0550104S	Rubber hose (PU=100m)
			7	03210901	Single ear clamp D=9.0 (PU=100)
			8	03211001	Single ear clamp D=10.0 (PU=100)
			no fig.	0550305	Rubber outer cover 25x1,5 (PU=40m)

Pos. 3/4 are available in 0.5m increments from 1.0m (10) to 5.0m (50). For WL=1500mm, an additional 0.5m must be taken into account (only for pos. 3), and for WL=2000mm, an additional 1.0m must be taken in account (only for pos. 3).

Please insert at XX the length.

Example: Pos.3 for cable hose package length 1.0m and WL=2000m results in: 1m + 1m = 2.0m (20); Part-No.: = 200079220

Cable hose package for hot wire



Spare parts

Pos.	Part No.	Description	Pos.	Part No.	Description
1	20YY791XXH	Cable hose package for hot wire	4	2000793XXH	Outer liner X m cpl. for hot wire
	20YY791XXH1	Cable hose package for hot wire Fronius®		2000793XXH1	Outer liner X m cpl. for hot wire Fronius®
		Cable hose packages are available in 0.5m increments from 1.0m (10) to 4.0m (40) for WL 1000mm (10)/ 1500mm (15)/ 2000mm (20) Please insert at YY WL and at XX length of the cable hose package. Example: WL = 1000mm an Cable hose length 2.5m; Part-No.: = 201079125H	5	E008546	Rubber hose (PU=40m)
2	05505141	Corrugated tube LW 36mm (PU=30m)	6	0550104S	Rubber hose (PU=100m)
3	2000792XX	Power cable X m cpl.	7	03210901	Single ear clamp D=9.0 (PU=100)
			8	03211001	Single ear clamp D=10.0 (PU=100)
			no fig.	0550305	Rubber outer cover 25x1,5 (PU=40m)

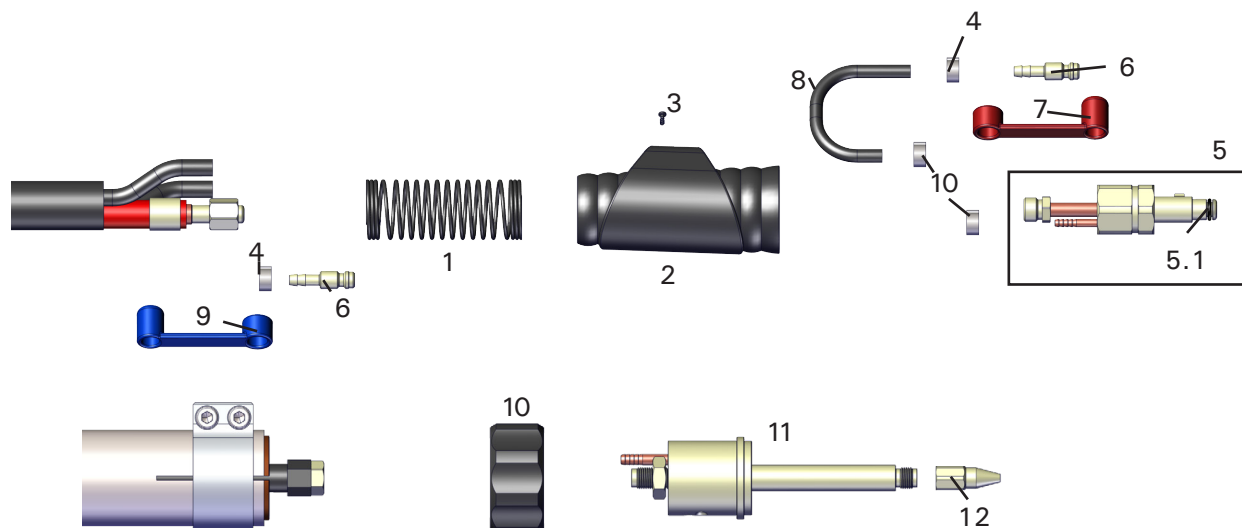
Pos. 3/4 are available in 0.5m increments from 1.0m (10) to 5.0m (50). For WL=1500mm, an additional 0.5m must be taken into account (only for pos. 3), and for WL=2000mm, an additional 1.0m must be taken in account (only for pos. 3).

Please insert at XX the length.

Example: Pos.3 for cable hose package length 1.0m and WL=2000m results in: 1m + 1m = 2.0m (20); Part-No.: = 200079220

Machine-side CLW 50 connection with direct connection

Fronius® direct connection

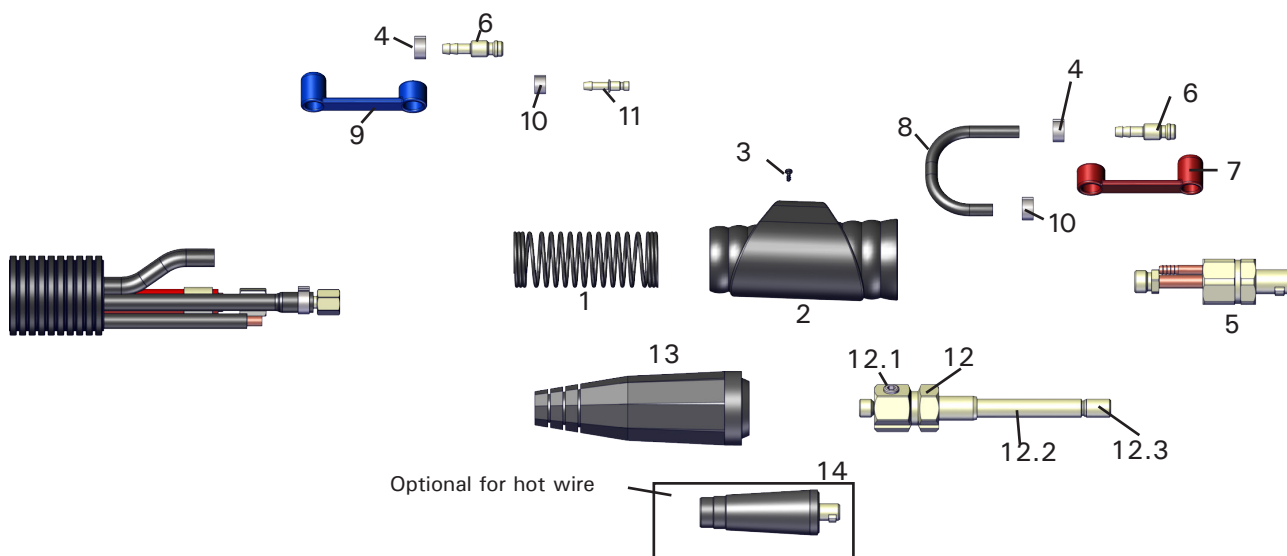


Spare parts

Pos.	Part No.	Description	Pos.	Part No.	Description
1	300022731	Spring for housing	8	E008546	Rubber hose (PU = 40m)
2	30002273	Housing for compact connection TIG gas central	9	45050339	Water stop blue (PU = 10)
3	300022735	Screw torx (PU = 20)	10	03210901	Single ear clamp D = 9.0 (PU = 100)
4	03211001	Single ear clamp D = 10.0 (PU = 100)	11	2151700F	Nut for Fronius® connection
5	300022714	Compact connector TIG gas central	12	21515025	Central connector for Fronius® F + +
5.1	0072000	O-ring 7x2mm (PU = 20)	13	215150250	Liner positioner for liner Ø4.0mm
6	2990800	Water plug-in nipple NW5 (PU = 10)		215150251	Liner positioner for liner Ø4.7mm
7	45050340	Water stop red (PU = 10)			

Machine-side CLW 50 connection with cable hose package

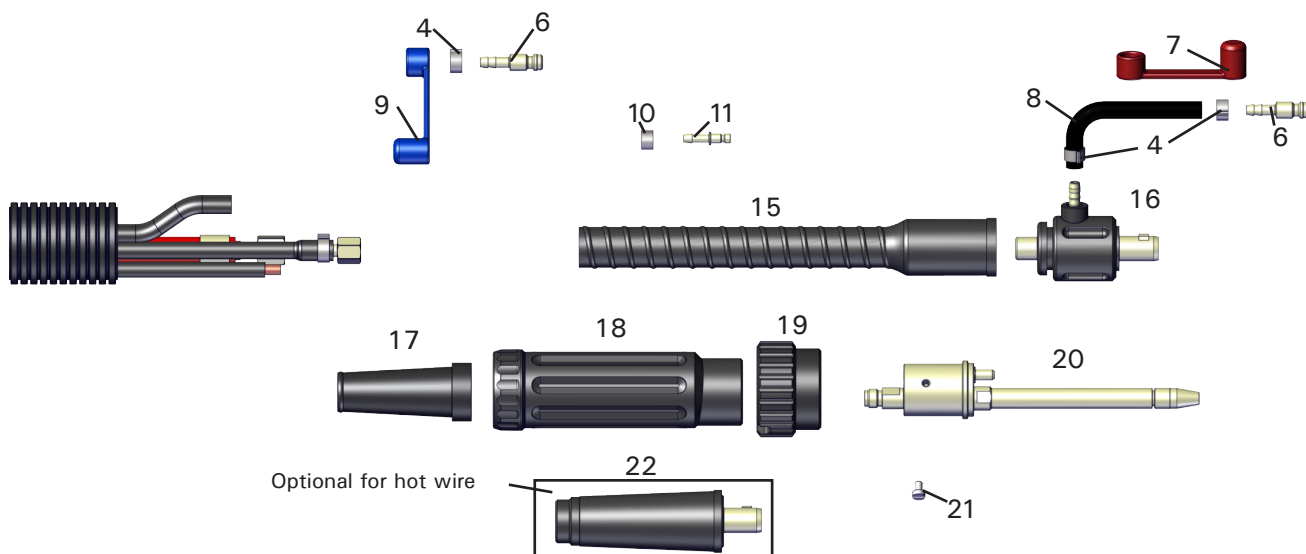
TIG compact connection EWM® SK35/50 (Ø13mm) with gas: plug-in nipple NW2.7;
water: plug-in nipple NW5; wire connection: EWM® tigSpeed;
optional: hot wire connection: SK10/25 (Ø9mm)



Spare parts

Pos.	Part No.	Description	Pos.	Part No.	Description
1	300022731	Spring for housing	10	03210901	Single ear clamp D = 9.0 (PU = 100)
2	30002273	Housing for compact connection TIG gas central	11	ARTR-0501	Plug-in nipple NW2.7 (PU = 10)
3	300022735	Screw torx (PU = 20)	12	99400002	Plug for wire connection
4	03211001	Single ear clamp D = 10.0 (PU = 100)	12.1	994000039	Grub screw M8x8
5	300022725	Compact connector TIG	12.2	994100167	Liner connector for tigSpeed EWM®
6	2990800	Water plug-in nipple NW5 (PU = 10)	12.3	99400004	union nut
7	45050340	Water stop red (PU = 10)	13	9940000135	Housing for liner connection
8	E008546	Rubber hose (PU = 40m)	14	3001201	Plug SK10/25 (Ø9mm)
9	45050339	Water stop blue (PU = 10)			

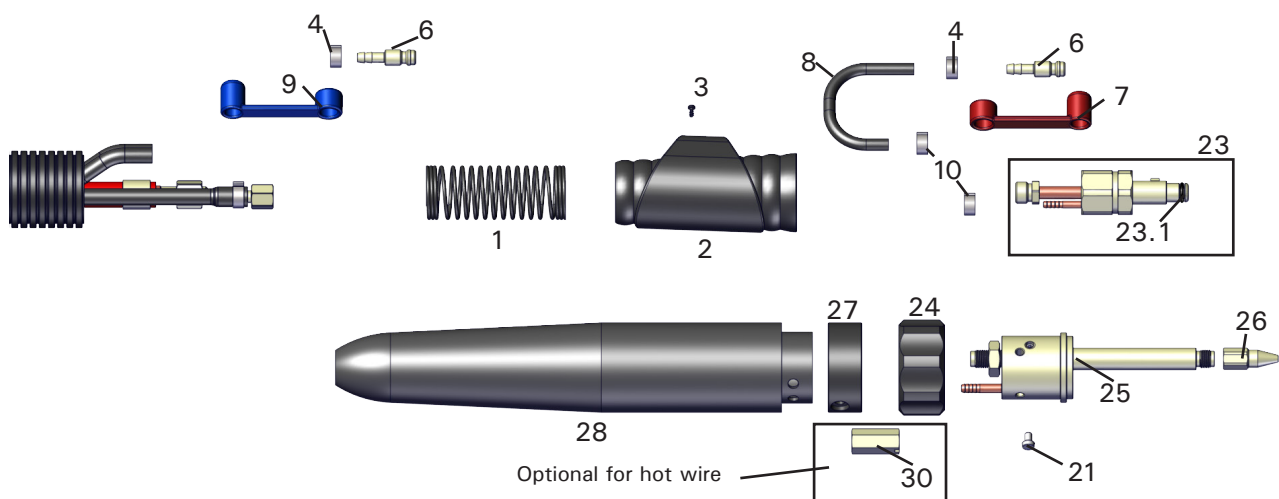
**BSB-connection SK35/50 (Ø13mm) suitable Lorch® with gas: plug-in nipple NW2.7;
water: plug-in nipple NW5; wire connection: Lorch® FCS-connection;
optional: hot wire connection: SK35/50 (Ø13mm)**



Spare parts

Pos.	Part No.	Description	Pos.	Part No.	Description
4	03211001	Single ear clamp D = 10.0 (PU = 100)	16	3595110S1	BSB connector SK35/50 (Ø13mm)
6	2990800	Water plug-in nipple NW5 (PU = 10)	17	2151200	PVC kink protection
7	45050340	Water stop red (PU = 10)	18	2251601	Gun plug housing
8	E008546	Rubber hose (PU = 40m)	19	2151700	Plug nut
9	45050339	Water stop blue (PU = 10)	20	24115052	Liner connector Lorch® FCS
10	03210901	Single ear clamp D = 9.0 (PU = 100)	21	0040601	Screw M4x6 (PU = 10)
11	ARTR-0501	Plug-in nipple NW2.7 (PU = 10)	22	3001206	Plug SK35/50 (Ø13mm)
15	0331025	Kink protection			

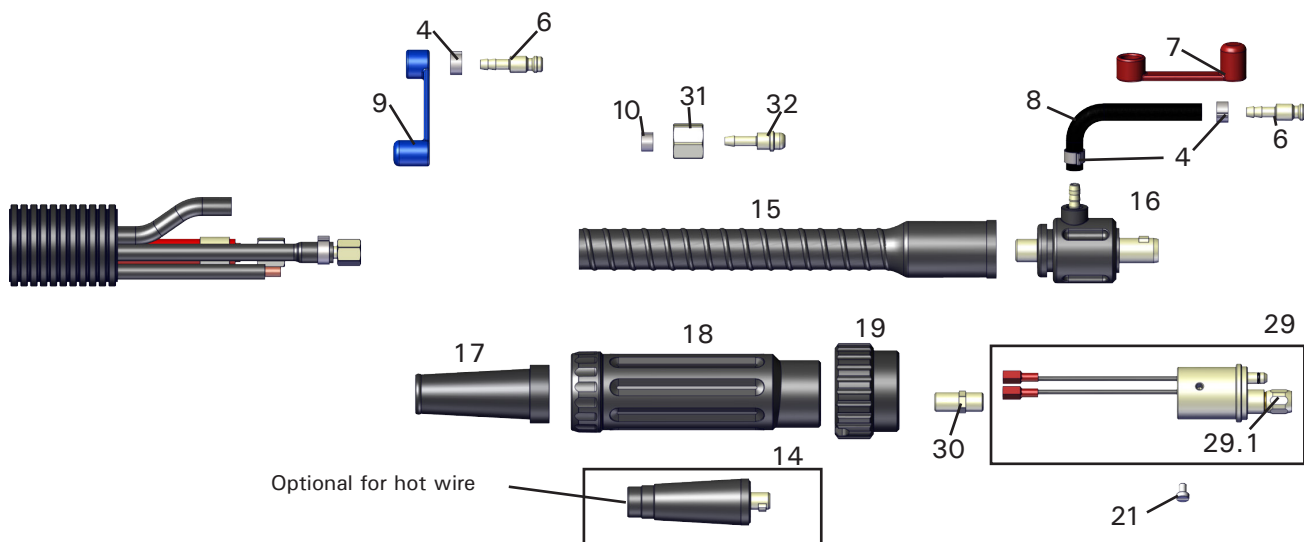
**TIG compact connection Fronius® gas central;
water: plug-in nipple NW5; wire connection: Fronius® F++**



Spare parts

Pos.	Part No.	Description	Pos.	Part No.	Description
1	300022731	Spring for housing	23	300022714	Compact connector TIG gas central
2	30002273	Housing for compact connection TIG gas central	23.1	0072000	O-ring 7x2mm (PU = 20)
3	300022735	Screw torx (PU = 20)	24	2151700F	Nut for Fronius® connection
4	03211001	Single ear clamp D = 10.0 (PU = 100)	25	21515025	Central connector for Fronius® F + +
6	2990800	Water plug-in nipple NW5 (PU = 10)	26	215150250	Liner positioner for liner Ø4.0mm
7	45050340	Water stop red (PU = 10)		215150251	Liner positioner for liner Ø4.7mm
8	E008546	Rubber hose (PU = 40m)	27	2151601F	Ring for rubber kink
9	45050339	Water stop blue (PU = 10)	28	2151600F	Rubber kink
10	03210901	Single ear clamp D = 9.0 (PU = 100)	30	21502031	long nut
21	0040601	Screw M4x6 (PU = 10)			

**BSB-connection SK35/50 (Ø13mm) with gas: G1/4" union nut;
water: plug-in nipple NW5; wire connection: Euro-connection;
optional: hot wire connection: SK10/25 (Ø9mm)**



Spare parts

Pos.	Part No.	Description	Pos.	Part No.	Description
4	03211001	Single ear clamp D = 10.0 (PU = 100)	17	2151200	PVC-kink protection
6	2990800	Water plug-in nipple NW5 (PU = 10)	18	2251601	Gun plug housing
7	45050340	Water stop red (PU = 10)	19	2151700	Plug nut
8	E008546	Rubber hose (PU = 40m)	21	0040601	Screw M4x6 (PU = 10)
9	45050339	Water stop blue (PU = 10)	29	2151505	Euro-connector
10	03210901	Single ear clamp D = 9.0 (PU = 100)	29.1	2151501	Liner positioner nut
14	3001201	Plug SK10/25 (Ø9mm)	30	2411501	Threaded Nipple
15	0331025	Kink protection	31	0313001	Union nut G1/4"
16	3595110S1	BSB-connector SK35/50 (Ø13mm)	32	0311004	Connector G1/4"



Wire conduits and liners for CLW 50

PTFE liners – for Euro connectoin

(Aluminum (AlMg, AlSi etc.), Stainless steel (chrome-nickel, VA, V2A etc.), Special alloys (CuSi etc.), Carbon steel (G3Si1, SG2 etc.))

Wire-Ø [mm]	Dimension [mm]	Color	Collet (PU = 10)	O-ring (PU = 10)	Fig.	Liner cpl.	bundles (100m)
0.6 – 0.9	1.5 x 4.0	blue	2155740	0031500		34115X0*	3411500
0.8 – 1.2	2.0 x 4.0	red	2155740	0031500		34120X0*	3412000
1.2 – 1.6	2.7 x 4.7	yellow	2415747	0031500		34727X0*	3472700

Combi PTFE liners – for Euro connection

(Aluminum (AlMg, AlSi etc.), Stainless steel (chrome-nickel, VA, V2A etc.), Special alloys (CuSi etc.), Carbon steel (G3Si1, SG2 etc.))

Wire-Ø [mm]	Dimension [mm]	Color	Collet (PU = 10)	Bras liner 0,3m with con- nection sleeve	Abb.	Liner cpl.	bundles (100m)
0.6 – 0.9	1.5 x 4.0	blue	2155740	3412200300		34115X0K*	3411500
0.8 – 1.2	2.0 x 4.0	red	2155740	3412200300		34120X0K*	3412000
1.2 – 1.6	2.7 x 4.7	yellow	2415747	3452200300		34727X0K*	3472700

The O-rings used have the part number.: 0031500 (PU = 10).

* Wire conduits and liners available in standard length in 3 or 4 / 5 / 6m. Please insert the length at **X**.
Example: 3 m ist: 3; Art.-Nr.: = 34115**3**0
Contact us for different length.



Impressum:

Autogen-Ritter GmbH
Otto-Lilienthal-Ring 5
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