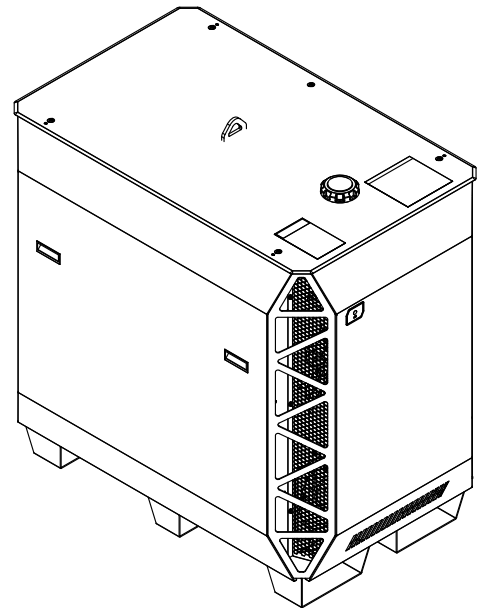


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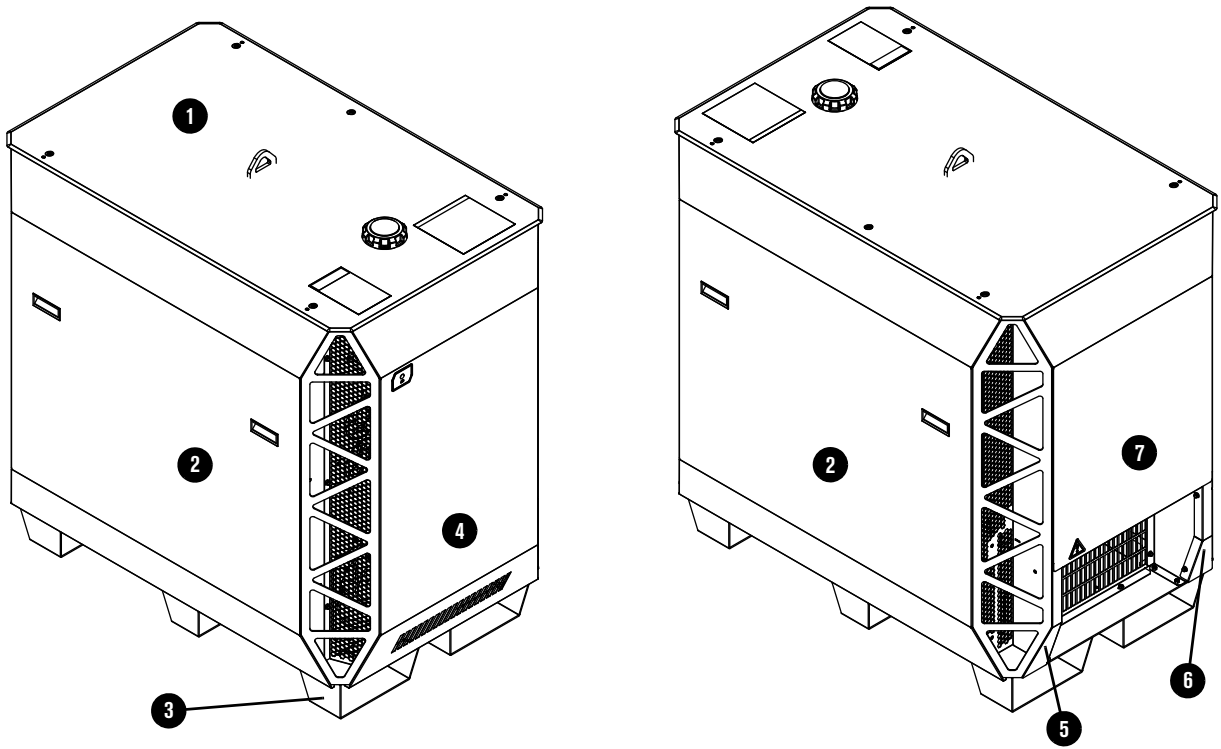
Parts List

Plasma power supply

Part number	Voltage (AC)
078640	200
078641	208
078642	220
078643	240
078644	380
078645	400
078646	415
078647	440
078648	480
078649	600

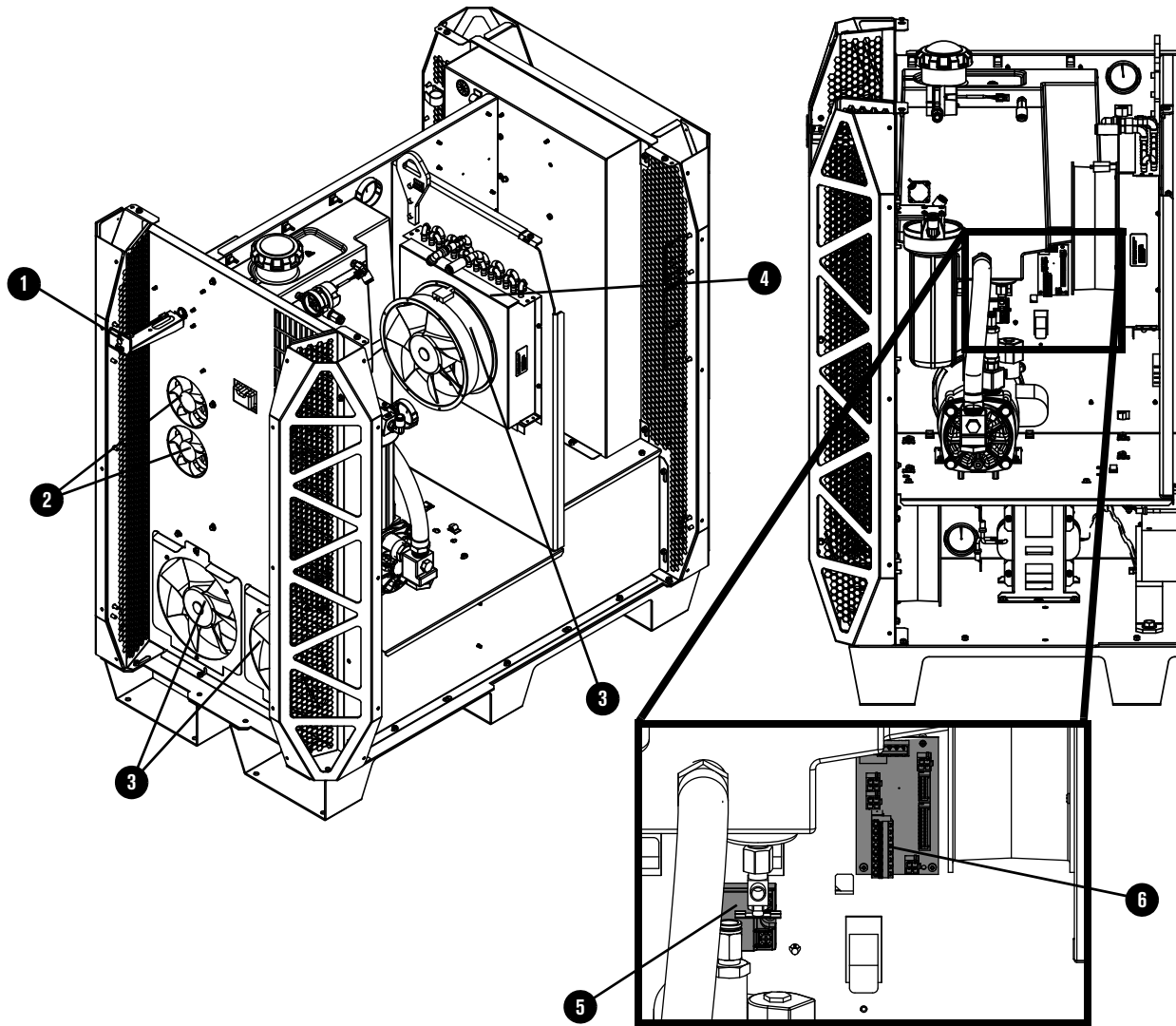


Outer panels



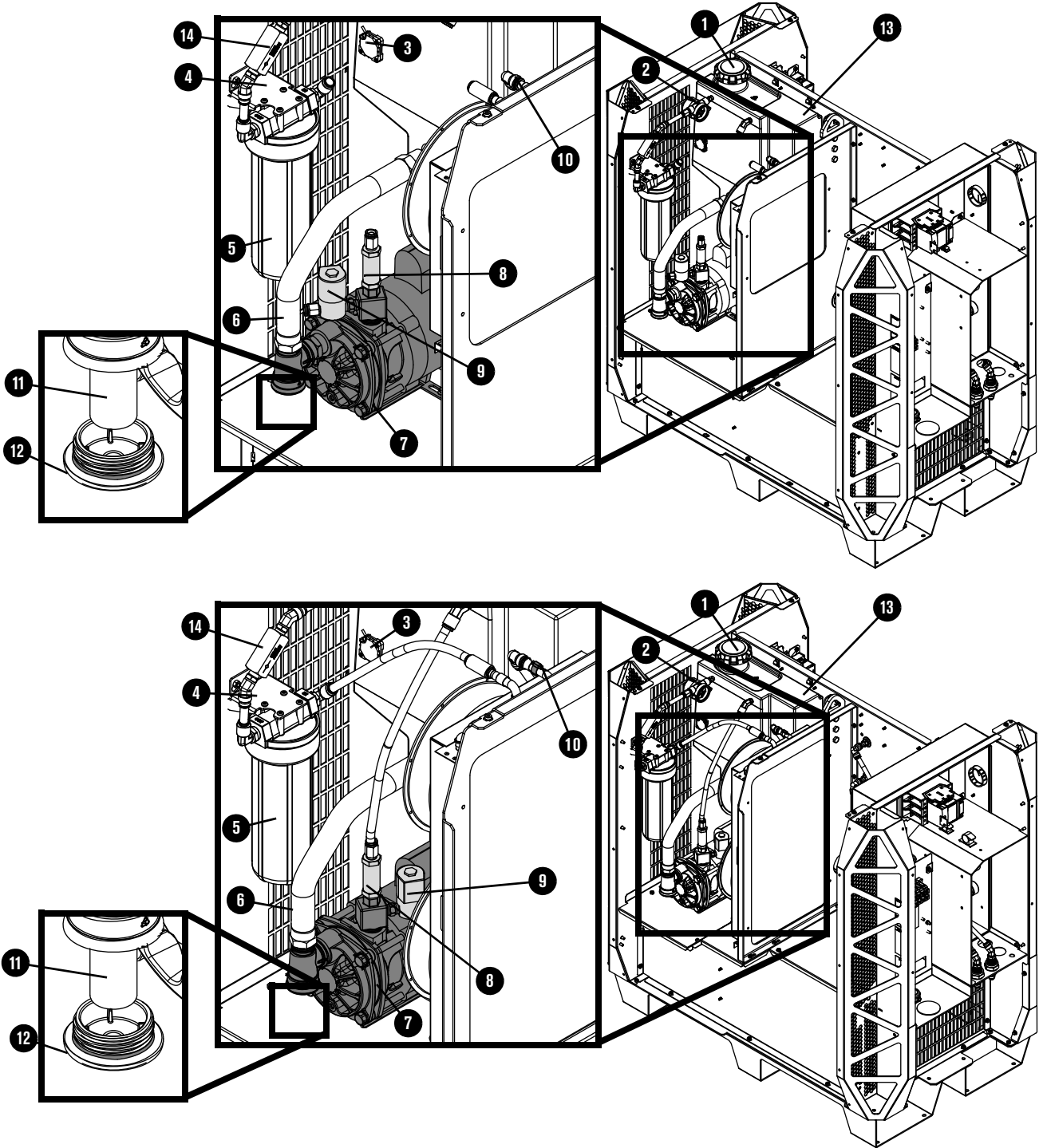
	Part number	Description	Quantity
1	428728	Top panel with labels	1
2	428838	Side panel with labels and handles	2
3	101300	Base	1
4	428725	Front panel with "H" (not shown) and power-indicator LED label	1
5	101314	Lower right (liquid-cooling) rear corner panel	1
6	101307	Lower left (control) rear corner panel	1
7	428726	Rear panel with label and handles	1

Fans



Part number	Description	Designator	Quantity	
1	429002	Power-indicator LED	–	1
2	229821	Fan: 292 cfm, 48 VDC, 120 mm (4.7 inch) diameter	CAB FAN3, CAB FAN4	2
3	229822	Fan: 890 cfm, 48 VDC, 254 mm (10 inch) diameter	HX FAN1, MAG FAN1, MAG FAN2	3
4	229924	Heat-exchanger only	–	1
5	003266	Solid state relay	–	1
6	141384	Fan power distribution PCB	PCB6	1

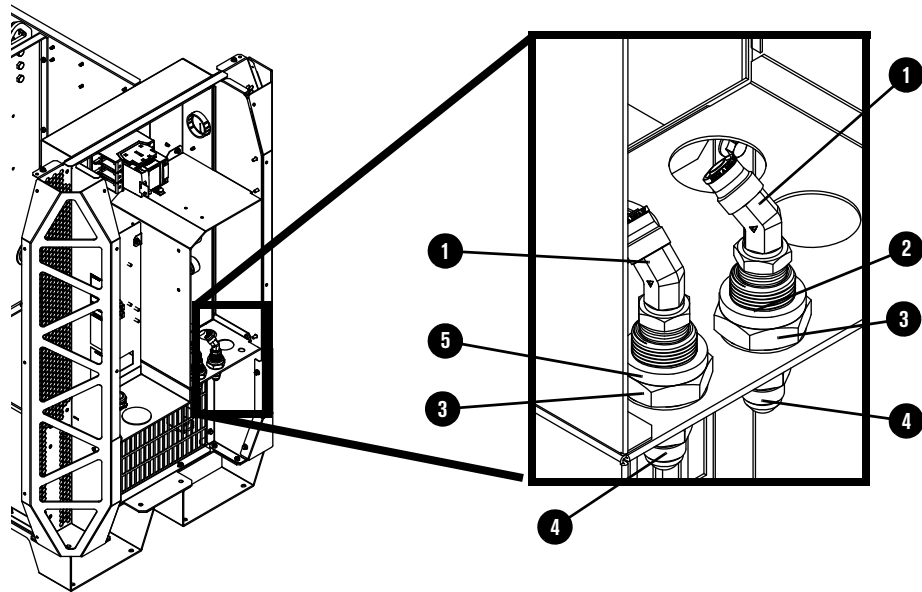
Coolant system



Part number	Description	Quantity	
1	127014	Coolant reservoir cap	1
2	229741	Coolant flow meter	1
3	229775	Coolant level sensor	1
4	101281	Coolant filter bracket	1

	Part number	Description	Quantity
5	127344	Coolant filter housing	1
	027005	Coolant filter (fine)	1
6	229777	Coolant hose (1 inch)	1
7	428729	Coolant pump and motor assembly: Adapter: 1-5/8 inch X 1 inch NPT X #16 JIC Plug with O-ring Coolant pump screen (coarse) Pump and motor Adapter: 1 inch MNPT X 1 inch MNPT hexagonal collar Adapter: 1 inch MNPT X 3/8 inch FNPT X 1/4 inch FNPT Adapter: 3/8 inch hexagonal Coolant solenoid valve assembly	1
8	006132	Coolant bypass check valve	1
9	229721	Coolant solenoid valve assembly	1
10	229654	Thermistor: Copper pipe clip with electrical connector (hidden behind panel)	1
11	127559	Coolant pump screen (coarse)	1
12	229843	Plug and O-ring	1
13	002561	Coolant reservoir	1
14	006113	Coolant check valve	1
	428766	Kit: Tubing (1 inch hose not included)	1

Coolant adapters in the rear compartment

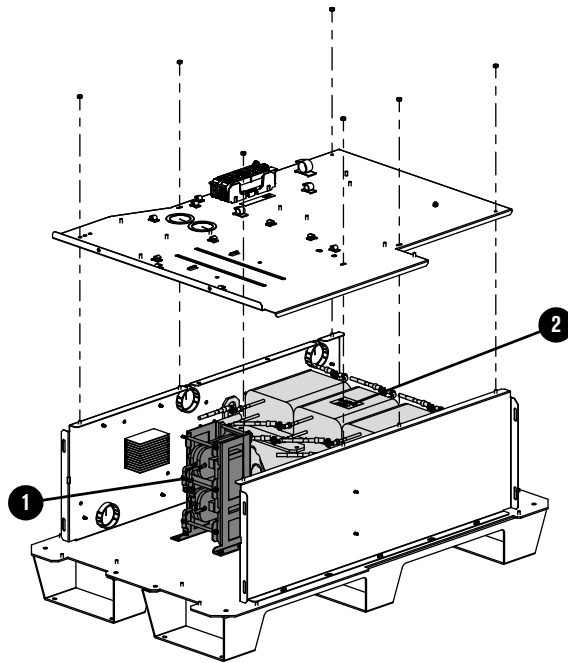


Part number	Description	Quantity
1 015889	Elbow adapter: 1/2 inch NPT X 1/2 inch tube, 45° swivel	2
2 015903	Red ring: 1.13 inches inner diameter	1
3 015888	Adapter: 1/2 inch FNPT X 1-1/2 inch length bulkhead	2
015899	Red ring: 0.87 inch inner diameter (not shown)	1
4 015029	Adapter: 1/2 inch NPT X #8 male	2
015898	Green ring: 0.87 inch inner diameter (not shown)	1
5 015902	Green ring: 1.13 inch inner diameter	1

Other adapters not shown

Part number	Description	Location	Quantity
015669	Male adapter: 3/8 inch NPT X 1/2 inch tube	in coolant solenoid valve	1
006099	Coolant drain valve: 1/4 inch NPT X 3/8 inch tube	in the bottom of the coolant reservoir	1
015073	Adapter: 1/4 inch NPT X 1/4 FPT	in the bottom of the coolant reservoir	1
015738	Elbow adapter: 1/4 inch NPT X 1/2 inch tube, 45° swivel	in the top of the coolant reservoir	1
015510	Adapter: 1/4 inch X hexagonal collar	between the flow meter and coolant reservoir	1
015663	Adapter: 1/4 inch NPT X 1/2 inch tube	in the flow meter and coolant bypass check valve	2
015668	Elbow adapter: 1/2 inch NPT X 1/2 inch tube, 90°	in the coolant filter (fine) assembly	2
104807	Nut for chopper fitting	on the back of chopper	2
015815	Elbow fitting: 1/2 inch tube X 1/2 inch tube, 90°	on the back of the chopper (2) and the heat-exchanger inlet (1)	3
015820	Fitting: 1/2 inch tube X 1/2 inch tube	heat-exchanger outlet	1

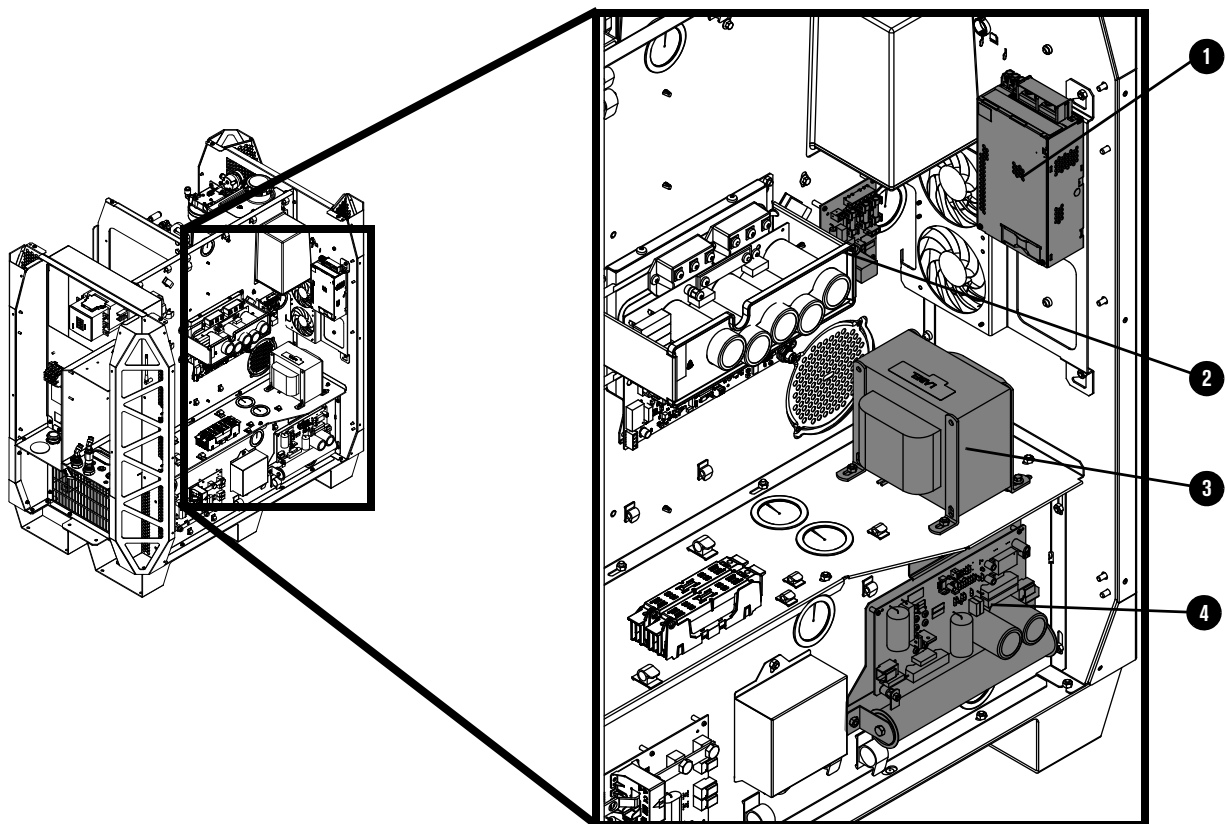
Transformer and inductor



Part number	Description	Designator	Quantity	
1	428844 Kit: Inductor 1A (top)/1B (bottom)	L1	1	
2	Transformer, horizontal, 35.7 kW, 3-phase*			
	–	200 V, 50 Hz – 60 Hz	T2	1
	–	208 V, 60 Hz		
	–	220 V, 50 Hz – 60 Hz		
	–	240 V, 60 Hz		
	–	380 V, 50 Hz – 60 Hz		
	–	400 V, 50 Hz		
	–	415 V, 50 Hz		
	–	440 V, 50 Hz – 60 Hz		
	–	480 V, 60 Hz		
–	600 V, 60 Hz			

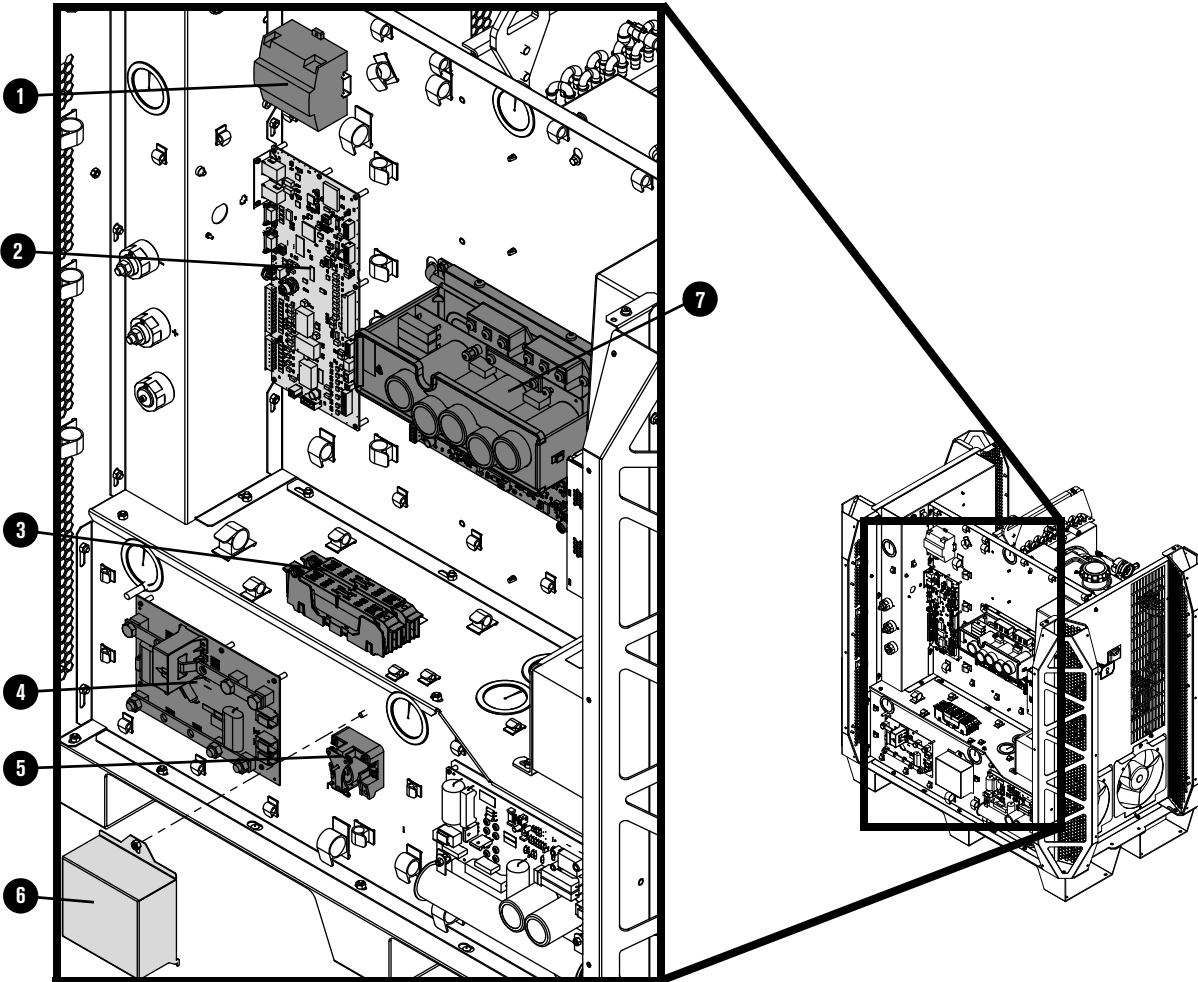
* You cannot purchase this part. Shown for reference only.

Control side – view 1



Part number	Description	Designator	Quantity	
1	229671	Power source: 88 VAC – 264 VAC to 48 VDC, 600 W	PS2	1
2	141425	Power distribution PCB	PCB7	1
	108709	Fuse: 10 A, 250 VAC, time delay (on PCB7)	F3, F4, F5	3
Control transformer assembly, 3 kVA				
3	229809	200 V, 50 Hz – 60 Hz	T1	1
	229810	208 V, 60 Hz, 3 kVA		
	229811	220 V, 50 Hz – 60 Hz		
	229812	240 V, 60 Hz		
	229813	380 V, 50 Hz		
	229814	400 V, 50 Hz		
	229815	415 V, 50 Hz		
	229816	440 V, 50 Hz – 60 Hz		
	229794	480 V, 60 Hz		
	229817	600 V, 60 Hz		
4	229678	Start circuit assembly	PCB4	1

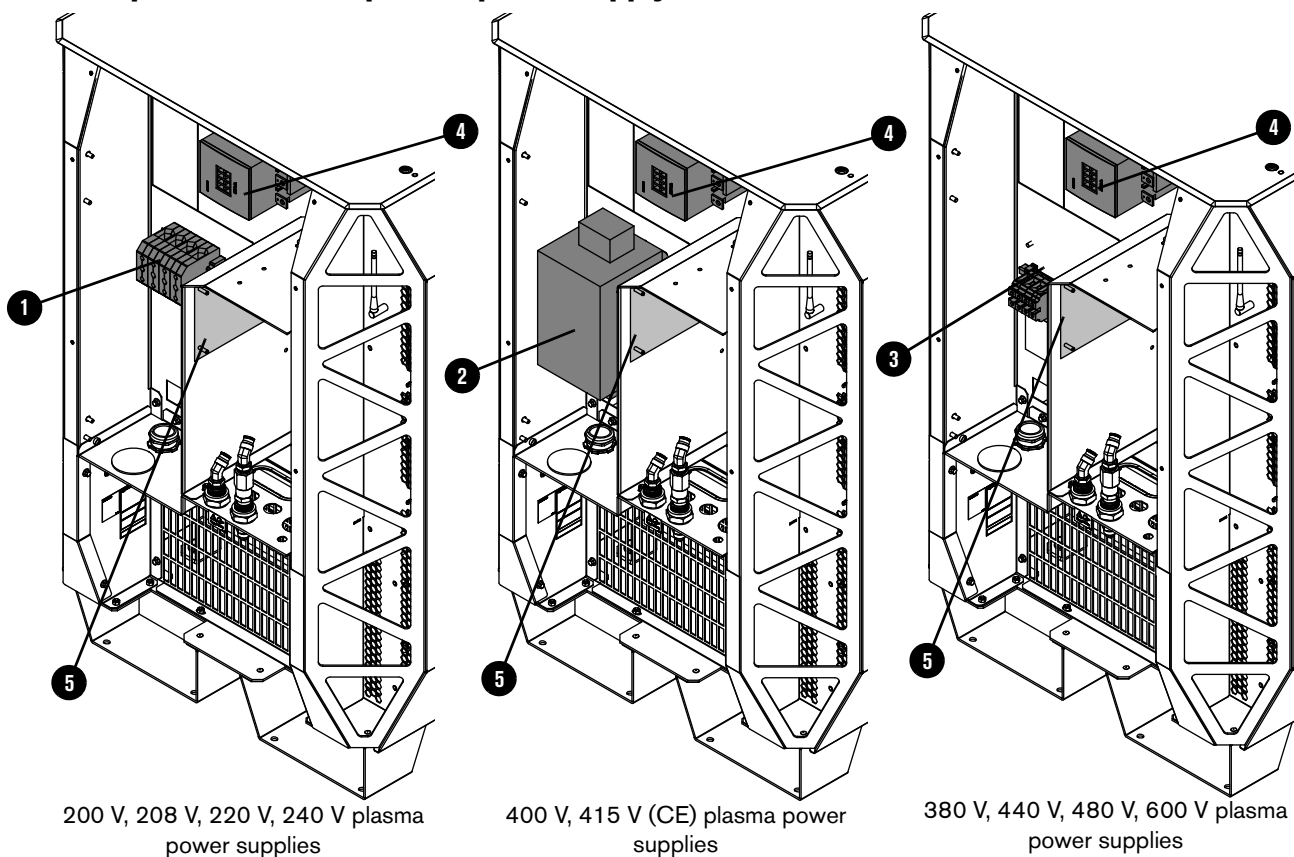
Control side – view 2



Part number	Description	Designator	Quantity	
1	229640	Power source: 88 VAC – 264 VAC to 24 VDC	PS1	1
2	428750	Control PCB	PCB1	1
3	208394	Fuse holder: 2P, 30 A, 600 V	–	1
	208395	Fuse: 8 A, 600 V, Class R (used in 380 V, 400 V, 415 V, 440 V, 480 V, 600 V)	F1, F2	2
	208397	Fuse: 15 A, 600 V, Class R (used in 200 V, 208 V, 220 V, 240 V)		
4	141371	I/O PCB	PCB5	1
5	003277	Pilot arc relay: 24 VDC, coil, 60 A 28 VDC contacts	CR1	1
6	101316	Pilot arc relay cover	–	1
7	229679	Chopper assembly	Chopper 1	1

Part number	Description	Designator	Quantity
229956	XPR170 wire harness	–	1
223399	CAN cable 0.5 m (1.6 ft) (not shown) Located between the control PCB and Chopper 2.	–	1
223400	CAN cable 1 m (3.3 ft) (not shown) Located between the control PCB and Chopper 1.	–	1

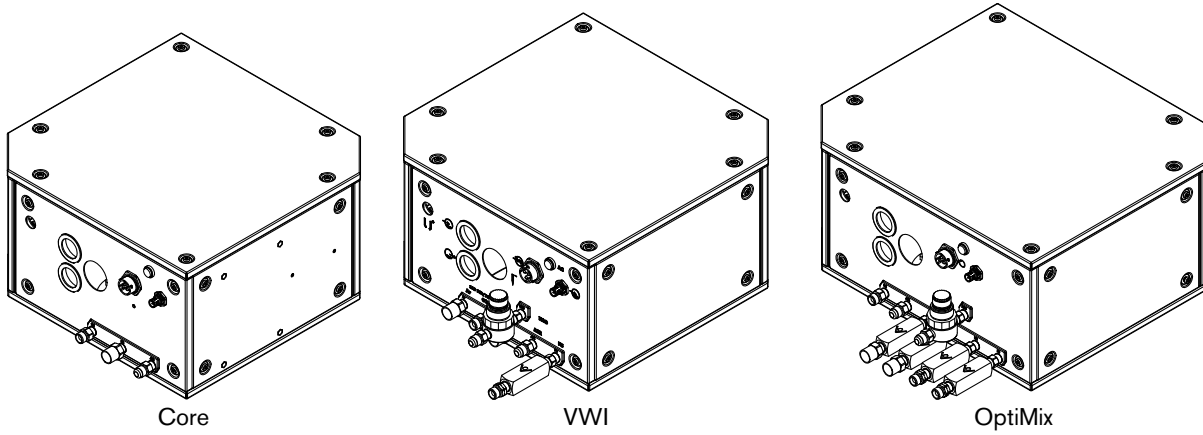
Rear compartment of the plasma power supply



Part number	Description	Designator	Quantity
1 229033	Terminal block 600 V, 200 A (200 V, 208 V, 220 V, 240 V)	TB1	1
2 209453	EMI filter with terminal block (400 V, 415 V CE)		
3 029316	Terminal block 600 V, 140 A (380 V, 440 V, 480 V, 600 V)		

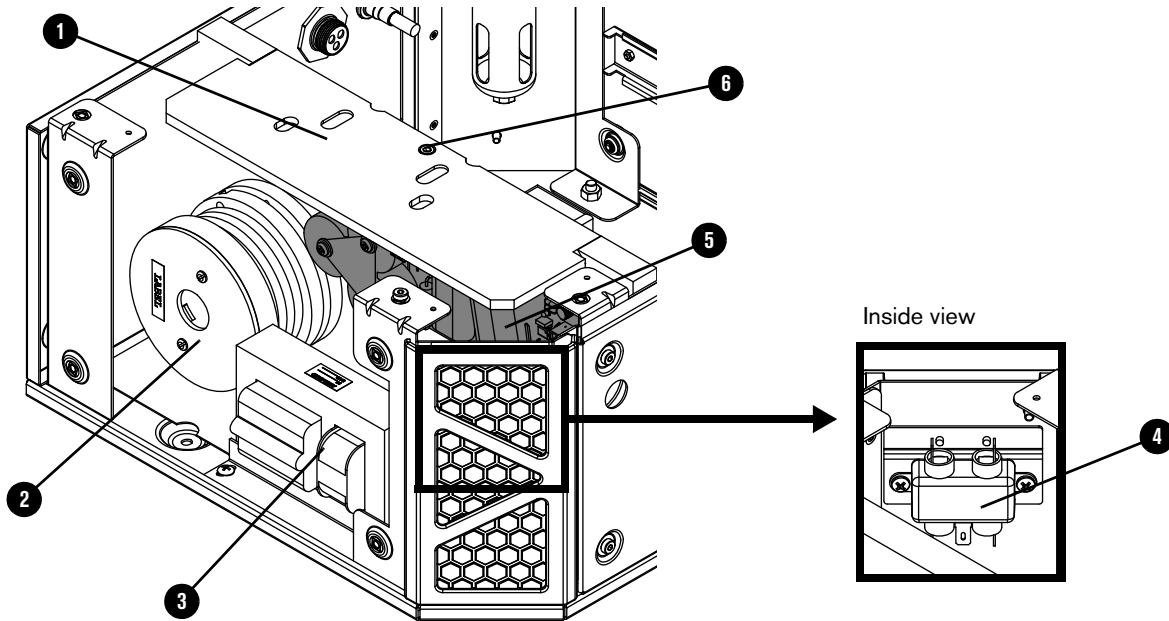
	Part number	Description	Designator	Quantity
4	003276	Main contactor (200 V, 208 V, 220 V, 240 V)	M_CON	1
	429060	Main contactor assembly (380 V, 400 V, 415 V, 440 V, 480 V, 600 V)		
5	141511	VDC3 PCB (Optional, for use with RS-422 and discrete cutting systems)	-	1

Gas connect consoles



Part number	Description
078631	Core gas connect console
078632	VWI gas connect console
078633	OptiMix gas connect console

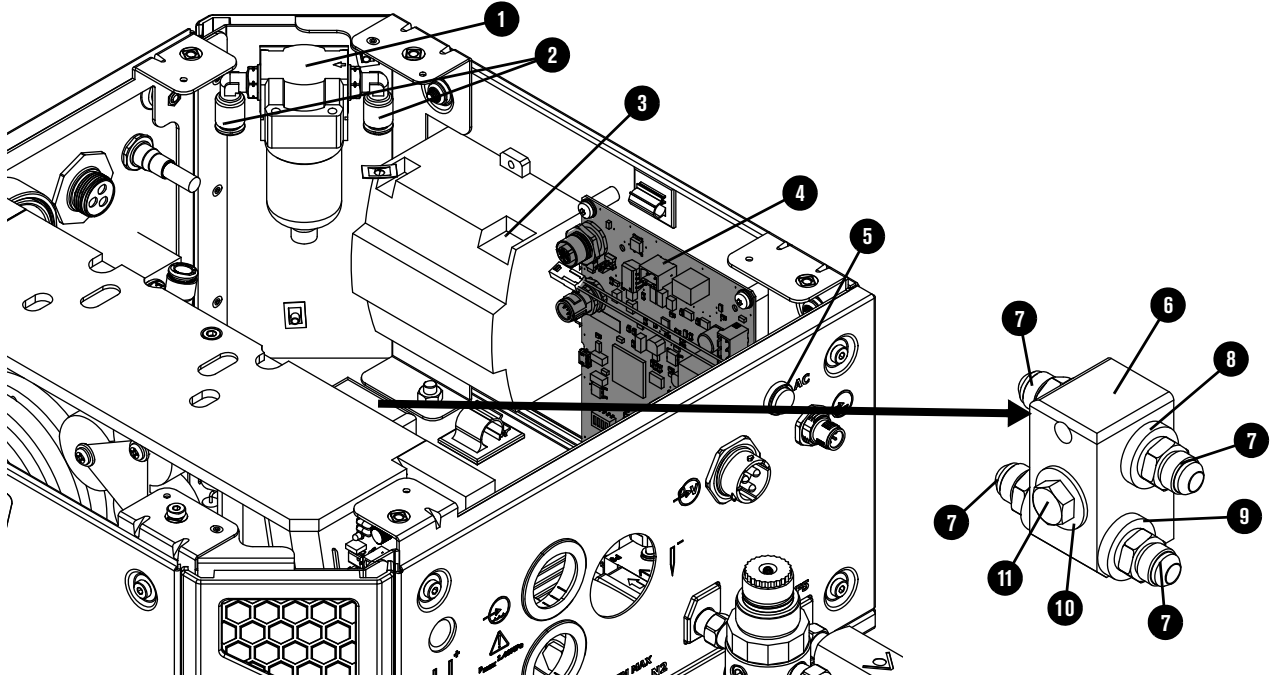
Gas connect console high-voltage side parts



Part number	Description	Console	Designator	Quantity	
1	002570	Insulator	Core, VWI, OptiMix	–	1
2	229837	Coil assembly	Core, VWI, OptiMix	T2	1
3	229838	High-frequency, high-voltage transformer	Core, VWI, OptiMix	T1	1
4	009045	EMI filter	Core, VWI, OptiMix	–	1
5	141354	High-frequency, high-voltage ignition PCB	Core, VWI, OptiMix	PCB2	1
6	075678	Socket head cap screw: M5 – 0.8 X 10 mm hexagonal	Core, VWI, OptiMix	–	1

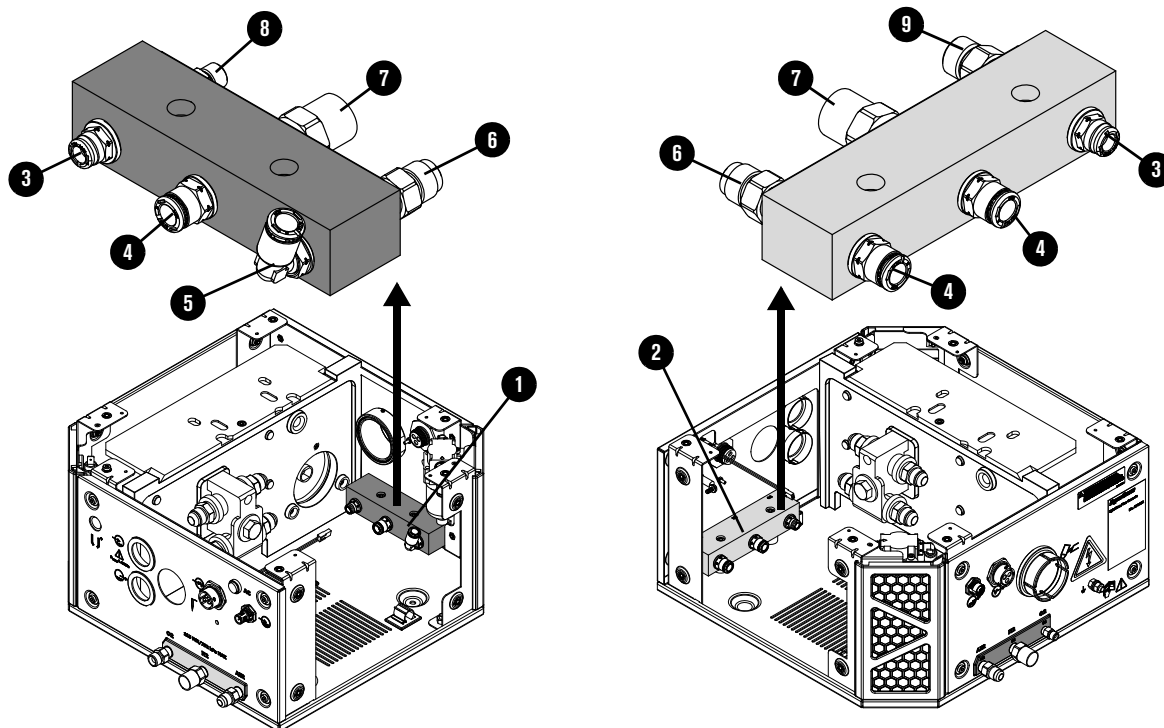
Gas connect console manifold side parts

Core, VWI, and OptiMix gas connect console manifold side



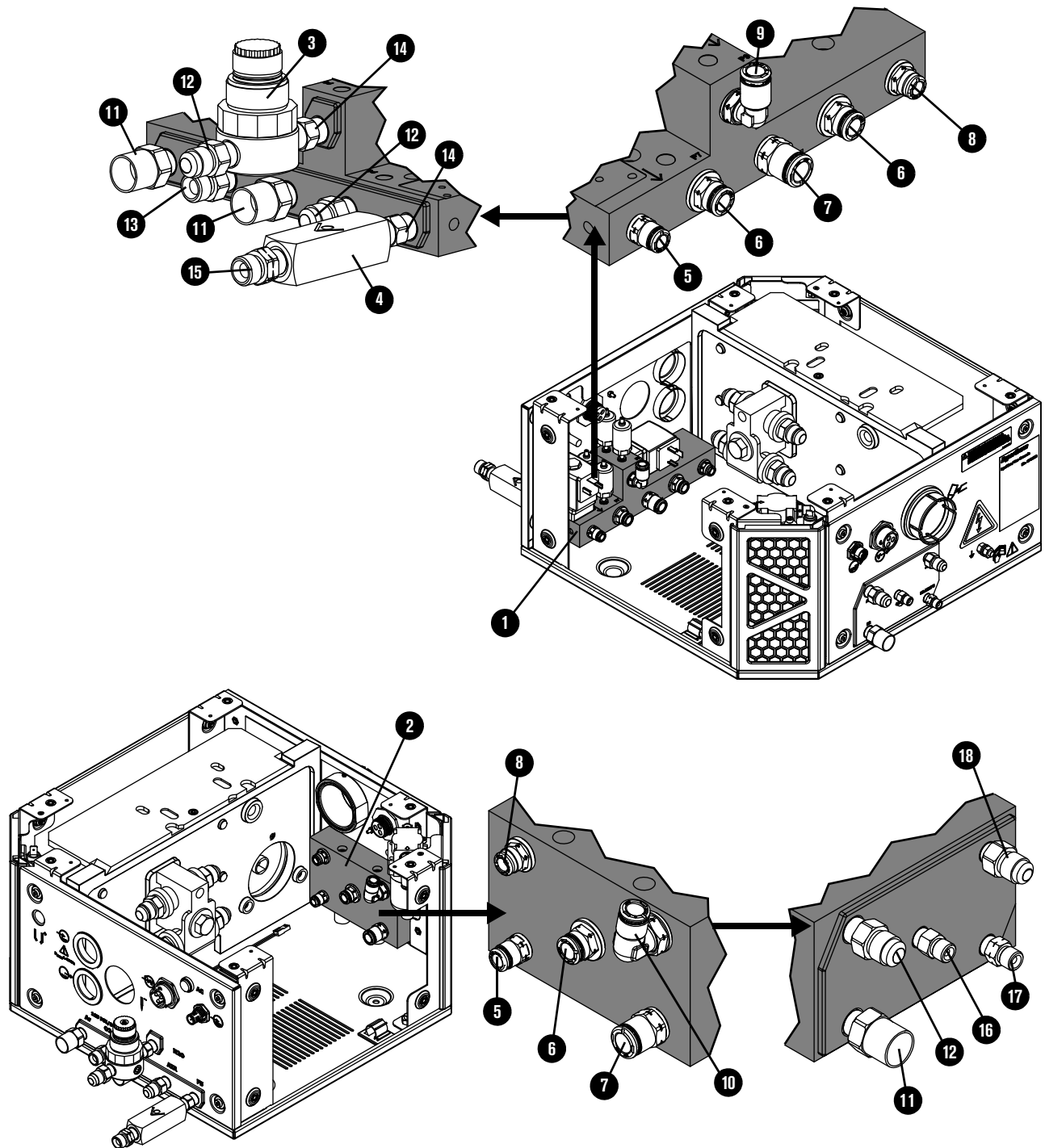
Part number	Description	Console	Designator	Quantity	
1	011151	Air filter assembly	Core, VWI, OptiMix	–	1
	011110	Air filter element	Core, VWI, OptiMix	–	1
2	015853	Male elbow adapter: 1/4 inch NPT X 5/16 inch tube	Core, VWI, OptiMix	–	2
3	229640	Power source: 88 VAC – 264 VAC to 24 VDC	VWI, OptiMix only	–	1
4	141375	Control PCB	Core, VWI, OptiMix	PCB1	1
5	229825	Green power-indicator LED assembly	Core, VWI, OptiMix	–	1
6	104757	Coolant manifold	Core, VWI, OptiMix	–	1
7	015029	Adapter: 1/2 inch NPT X #8 male	Core, VWI, OptiMix	–	4
8	015898	Green ring: 0.87 inches inner diameter	Core, VWI, OptiMix	–	2
9	015899	Red ring: 0.87 inches inner diameter	Core, VWI, OptiMix	–	2
10	075218	Washer	Core, VWI, OptiMix	–	1
11	075140	Bolt	Core, VWI, OptiMix	–	1

Core gas connect console manifolds and adapters



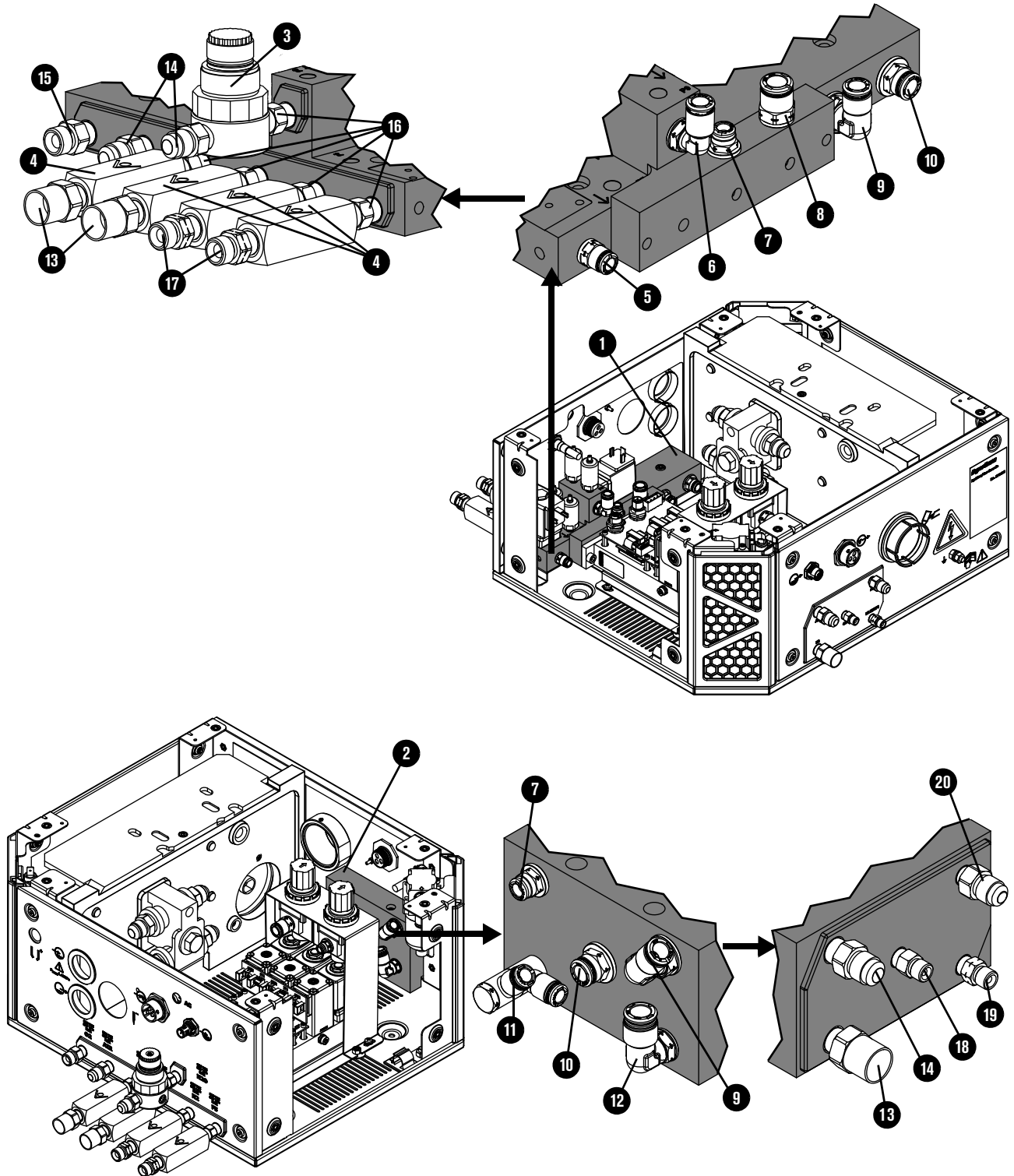
Part number	Description	Quantity	
1	104806	Manifold: Gas output (no adapters)	1
2	104802	Manifold: Gas input (no adapters)	1
Push-to-connect adapters			
3	015876	1/4 inch NPT X 1/4 inch tube	2
4	015811	1/4 inch NPT X 8 mm tube	3
5	015853	Male elbow: 1/4 inch NPT X 5/16 inch tube	1
Threaded adapters with thread sealant applied			
6	015012	1/4 inch NPT X #6 male (air output and input)	2
7	015103	1/4 inch NPT X RH 'B' inert female (nitrogen output and input)	2
8	015116	1/8 inch NPT X RH 'A' male (oxygen output)	1
9	015009	1/4 inch NPT X RH 'B' male (oxygen input)	1

VWI gas connect console input and output manifolds and adapters



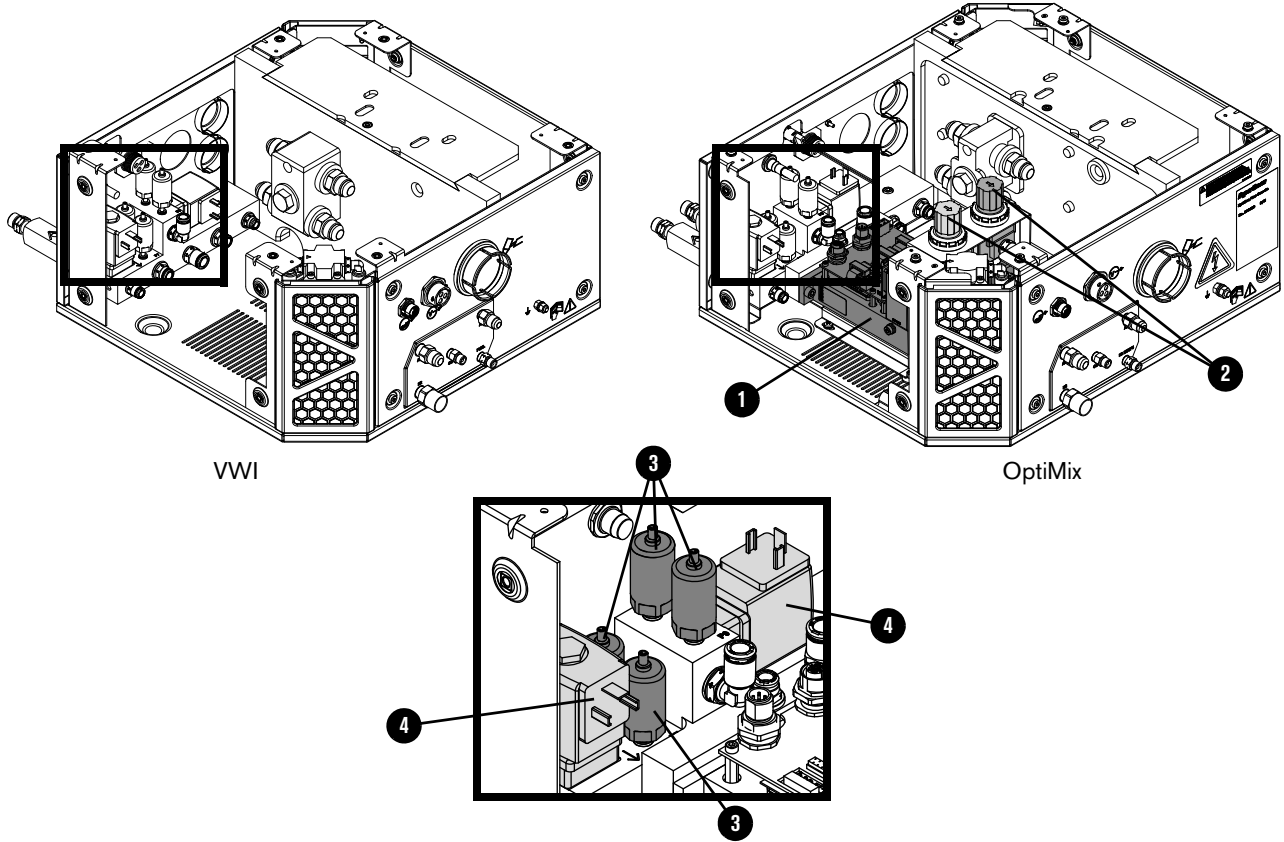
	Part number	Description	Quantity
1	229792	Manifold: Gas input (no adapters)	1
2	104843	Manifold: Gas output (no adapters)	1
3	229844	Water regulator	1
4	006157	Check valve	1
	Push-to-connect adapters		
5	015905	1/8 inch NPT X 1/4 inch tube	2
6	015910	3/8 inch NPT X 5/16 inch tube	2
7	015907	1/4 inch NPT X 3/8 inch tube	1
8	015876	1/4 inch NPT X 1/4 inch tube	1
9	015853	Elbow: 1/4 inch NPT X 5/16 inch tube, 90°	1
10	015909	Elbow: 3/8 inch NPT X 5/16 inch tube, 90°	–
	Threaded adapters with thread sealant applied		
11	015103	1/4 inch NPT X RH 'B' inert female	3
12	015012	1/4 inch NPT X #6 male	3
13	015009	1/4 inch NPT X RH 'B' male	1
14	015922	1/4 inch X hexagonal collar	2
15	015230	1/4 inch NPT X LH 'B'	1
16	015116	Adapter: 1/8 inch NPT X RH 'A' (oxygen outlet)	1
17	015210	Adapter: 1/8 inch NPT X LH 'A' male (hydrogen mix outlet)	1
18	015197	Adapter: 1/8 inch NPT X #5 male (argon outlet)	1

OptiMix gas connect console input and output manifolds and adapters



	Part number	Description	Quantity
1	229793	Manifold: Gas input (no adapters)	1
2	104843	Manifold: Gas output (no adapters)	1
3	229844	Water regulator	1
4	006157	Check valve	4
	Push-to-connect adapters		
5	015905	1/8 inch NPT X 1/4 inch tube	1
6	015853	Elbow: 1/4 inch NPT X 5/16 inch tube	1
7	015876	1/4 inch NPT X 1/4 inch tube	1
8	015907	1/4 inch NPT X 3/8 inch tube	1
9	015909	Elbow: 3/8 inch NPT X 5/16 inch tube	1
10	015910	3/8 inch NPT X 5/16 inch tube	1
11	015906	Dual connection: 1/8 inch NPT X 1/4 inch tube	1
12	015908	Elbow: 1/4 inch NPT X 3/8 inch tube	1
	Threaded adapters with thread sealant applied		
13	015103	1/4 inch NPT X RH 'B' inert female	3
14	015012	1/4 inch NPT X #6 male	3
15	015009	1/4 inch NPT X RH 'B' male	1
16	015922	1/4 inch X hexagonal collar	5
17	015230	1/4 inch NPT X LH 'B'	1
18	015116	1/8 inch NPT X RH 'A'	1
19	015210	1/8 inch NPT X LH 'A'	1
20	015197	1/8 inch NPT X #5	1

VWI and OptiMix gas connect console mixer, transducers, and valves

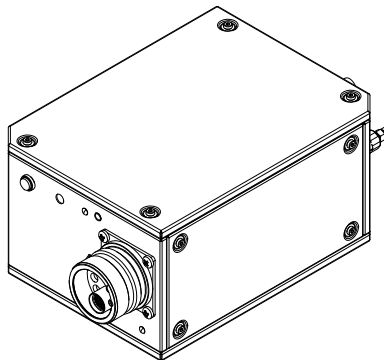


Part number	Description	Console	Designator	Quantity	
1	229703	Mixer module	OptiMix	–	1
	528057	Kit: Mixer module and cable ties	OptiMix	–	1
2	011101	Regulator	OptiMix	–	2
3	223398	Pressure transducer	VWI and OptiMix	P6 – P9	4
4	006167	Solenoid valve	VWI and OptiMix	B4, B5	2

Gas connect console wire harness, hose kit, and CAN cables

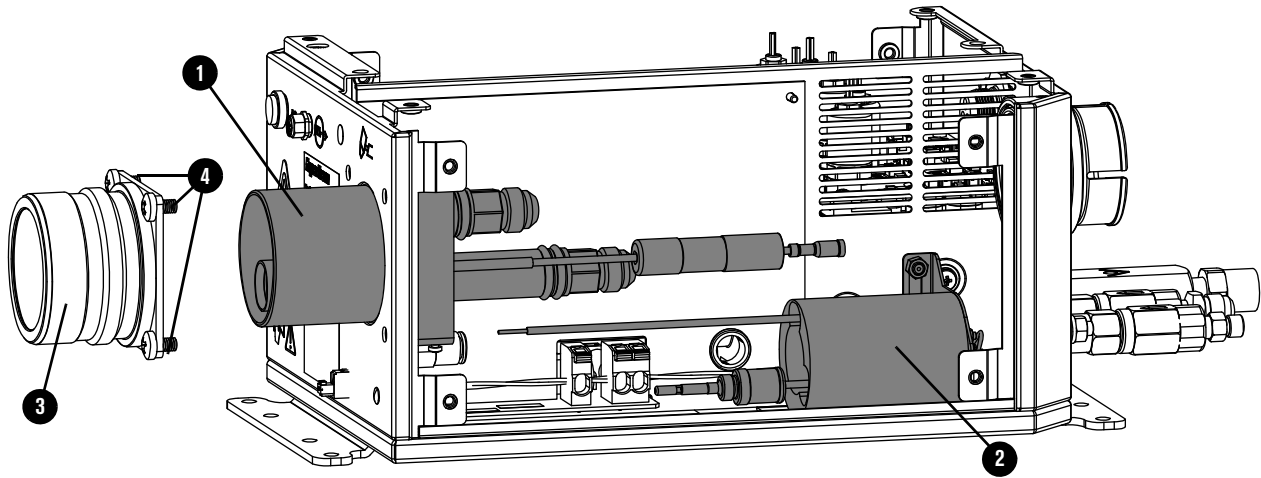
Part number	Description	Console	Quantity
229718	Wire harness	Core	1
229719	Wire harness	VWI	
229720	Wire harness	OptiMix	
428490	Kit: Tubing	Core	1
428491	Kit: Tubing	VWI	
428492	Kit: Tubing	OptiMix	
223709	CAN cable 0.38 m (1.2 ft) to external connector	Core, VWI, OptiMix	1
223710	CAN cable 0.48 m (1.6 ft) male-female	Core, VWI	1
223711	CAN cable 0.5 m (1.6 ft) male-female	OptiMix	1
223712	CAN cable 0.39 m (1.3 ft) male-female	OptiMix	1

Torch connect console



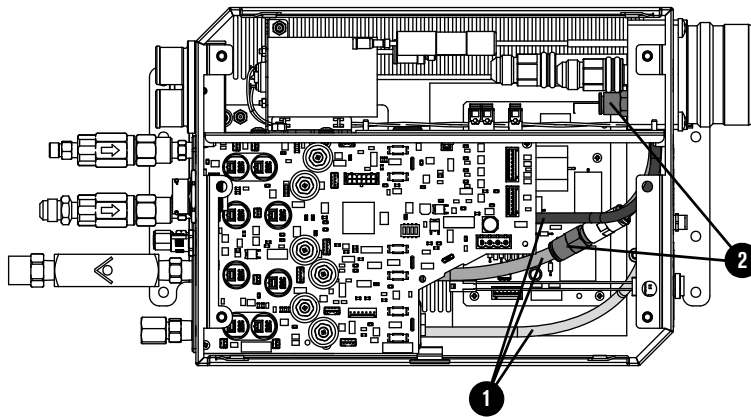
Part number	Description
078618	Torch connect console

Torch connect console Easy Connect side



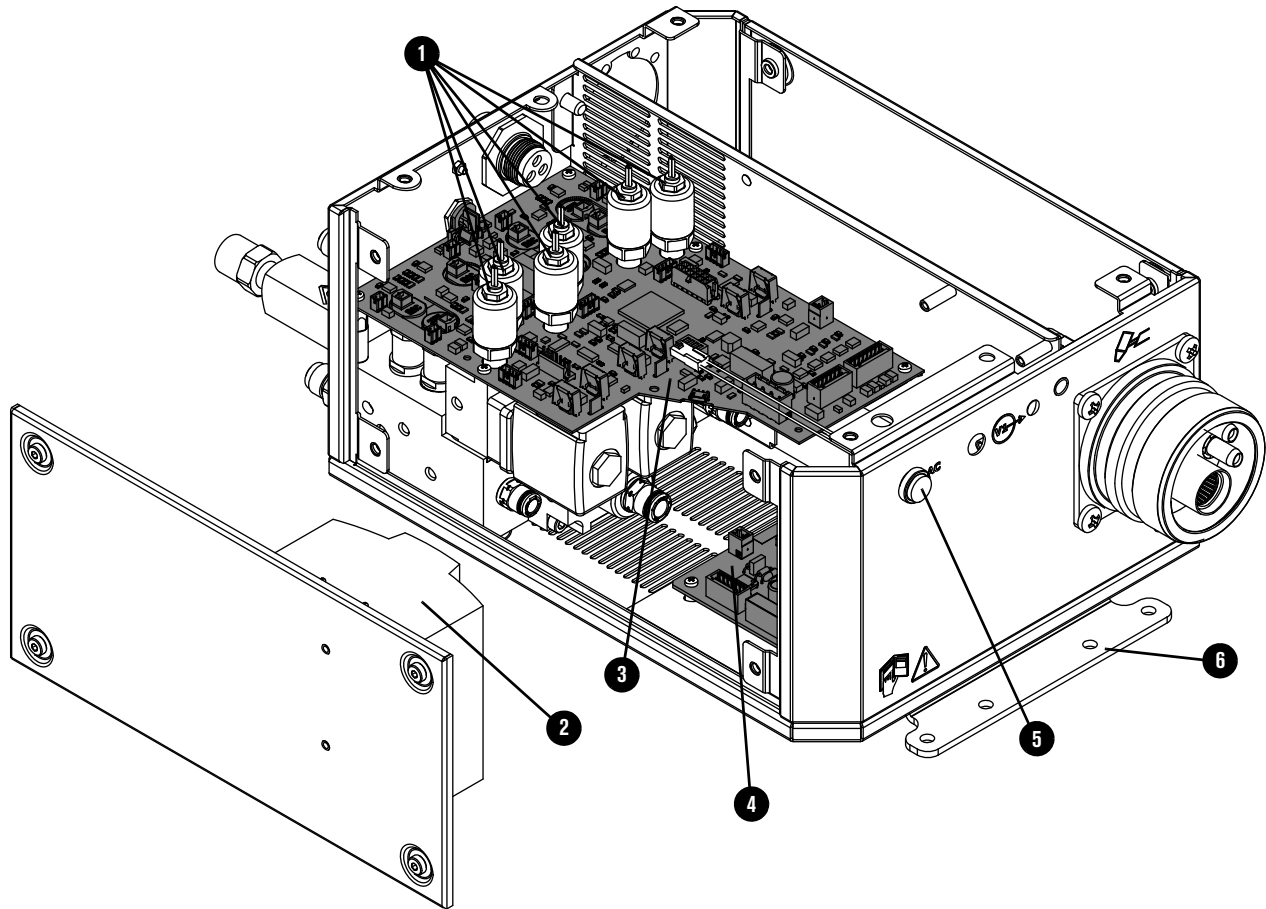
Part number	Description	Designator	Quantity	
1	428730	Torch receptacle block	—	1
2	229882	Ohmic relay and bracket	—	1
3	420376	Torch lead connector	—	1
4	075544	Machine screw: M6 X 10 mm Phillips, pan head	—	4 (3 shown)

Torch connect console – top



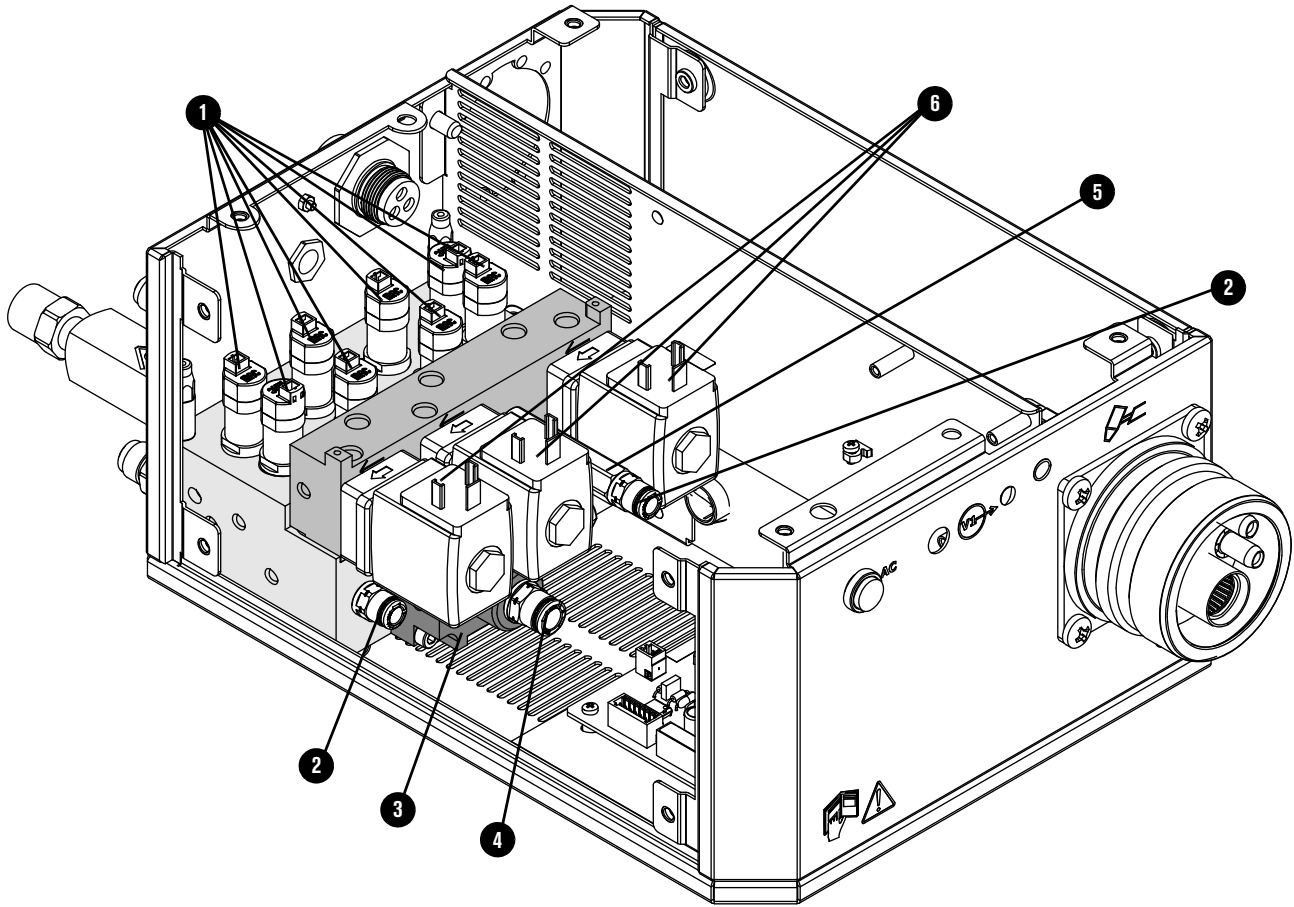
Part number	Description	Designator	Quantity	
1	428338	Kit: Tubing	—	1
2	006152	Check valve	—	2

Torch connect console manifold side - view 1



Part number	Description	Designator	Quantity	
1	223477	Pressure transducer with wire and connector	P1 – P5, P14	6
2	229640	Power source: 88 VAC – 264 VAC to 24 VDC	PS1	1
3	141334	Control PCB	PCB1	1
4	141368	Ohmic contact PCB	PCB2	1
5	229825	Green power-indicator LED assembly	–	1
6	101366	Bracket	–	2 (1 shown)
	229780	Valve cable 40 mm (1.6 inches)	–	8
	229800	Valve cable 279.4 mm (11 inches)	–	1
	229655	Wire harness	–	1

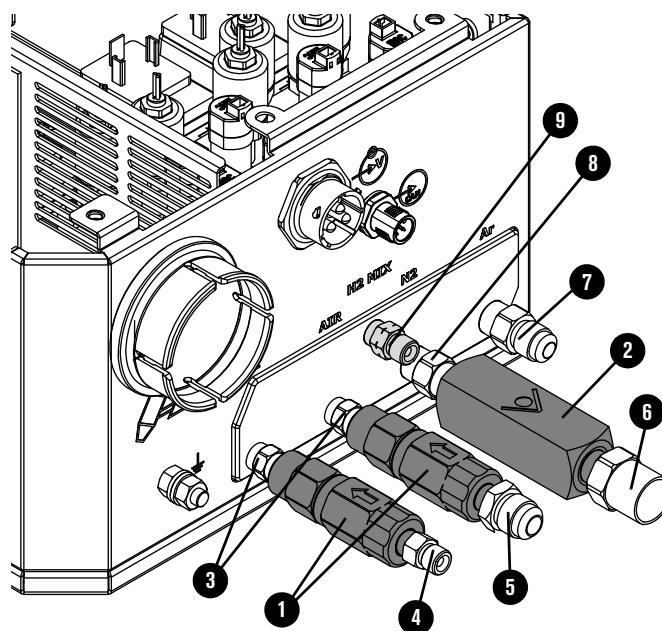
Torch connect console manifold side - view 2



Part number	Description	Designator	Quantity	
229895	Manifold assembly: <ul style="list-style-type: none"> ▪ Solenoid valves ▪ Proportional valves ▪ All manifolds ▪ All fittings 	–	1	
1	229965	Solenoid valve	V4 – V12	9 (8 shown)
	229917	Solenoid valve (229965) tool	–	
2	015905	Adapter: 1/8 inch NPT O-ring seal X 1/4 inch tube	–	2
3	428756	Bottom manifold assembly: <ul style="list-style-type: none"> ▪ Bottom manifold ▪ Adapter ▪ Critical orifice ▪ Solenoid valve 	–	1
4	015811	Adapter: 1/4 inch NPT O-ring seal X 8 mm tube	–	1

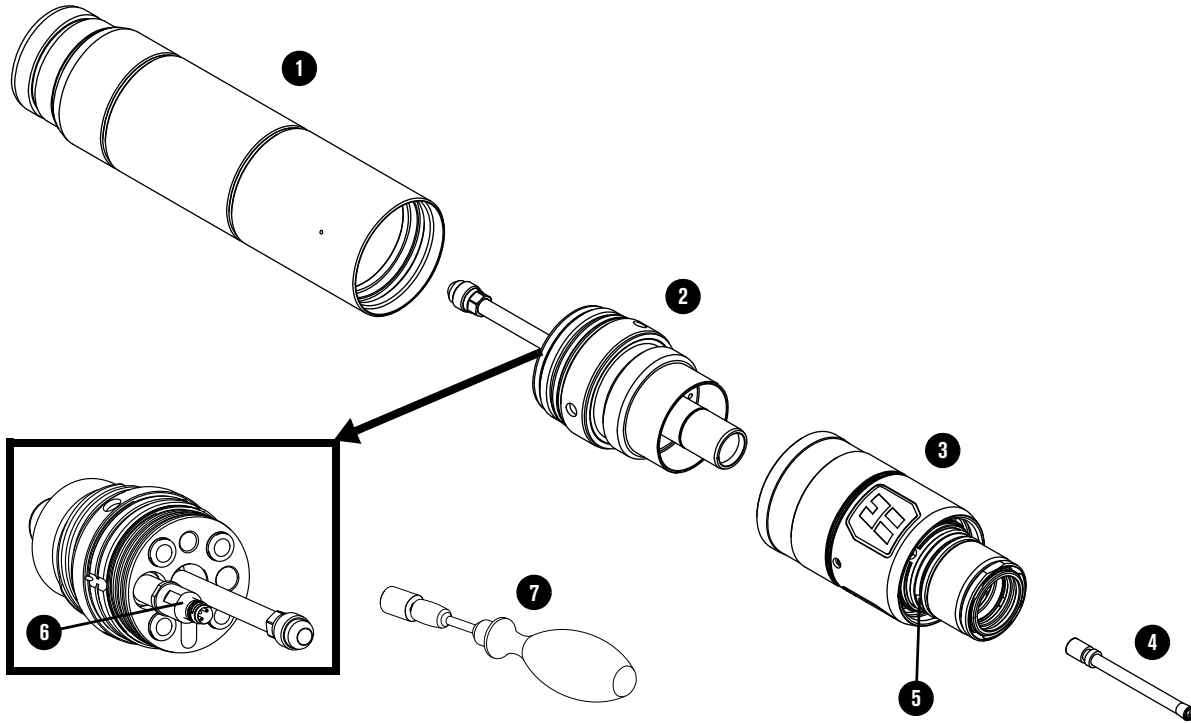
Part number	Description	Designator	Quantity
5	104406 Adapter: 1/8 inch FPT X1/8 inch NPT X1-5/8 inch	–	1
6	006167 Proportional valve	B1 – B3	3
	044508 O-ring		7

Front adapters and valves



Part number	Description	Designator	Quantity
1	006077 Check valve: 1/8 inch FPT	–	2
2	006157 Check valve: 1/4 inch NPT female	–	1
Threaded adapters with thread sealant applied			
3	015517 1/8 inch hexagonal collar	–	2
4	015116 1/8 inch NPT X RH 'A'	–	1
5	015226 1/8 inch NPT X #6 male	–	1
6	015103 1/4 inch NPT X RH 'B' inert female	–	1
7	015007 1/4 inch NPT X #5 male	–	1
8	015922 1/4 inch hexagonal collar	–	1
9	015210 1/8 inch NPT X LH 'A' male	–	1

Torch assembly



Part number	Description
1	420500 Torch mount sleeve assembly: Standard
	420501 Torch mount sleeve assembly: Short
	420502 Torch mount sleeve assembly: Extended
2	420220 Quick-disconnect/torch receptacle
3	420221 Quick-disconnect torch
4	420368 Water tube
5	044028 O-ring for quick-disconnect torch (Refer to Preventive maintenance kits on page 391.)
6	006155 Torch solenoid valve (V1)
7	229918 Torch solenoid valve (V1) tool
	006169 Torch solenoid valve connector
	428846 Torch assembly, 170 A mild steel consumables
	104879 2.25 inch spanner wrench

Torch bracket

Part number	Description
428646	Torch lifter bracket: 2.25 inch diameter sleeve

Consumable starter kits



SeeRefer to [Example configurations for consumables](#) on page 138 or the *XPR Cut Charts Instruction Manual* (809830) for specific applications.

Mild steel consumable starter kit (428840)

Part number	Description	Quantity
420231	Electrode: 50 A	1
420234	Nozzle: 50 A	1
420237	Shield: 50 A	1
420233	Swirl ring: 50 A	1
420240	Electrode: 80 A	3
420243	Nozzle: 80 A	3
420246	Shield: 80 A	2
420242	Swirl ring: 80 A – 130 A	2
420249	Electrode: 130 A	3
420252	Nozzle: 130 A	3
420255	Shield: 130 A	2
420261	Nozzle: 170 A	4
420258	Electrode: 170 A	4
420513	Shield: 170 A	3
420260	Swirl ring: 170 A	1
420276	Electrode: 220 A	3
420270	Nozzle: 220 A	3
420273	Shield: 220 A	2
420368	Swirl ring: 220 A	1
420368	Water tube	1
420200	Shield retaining cap	1
420365	Nozzle retaining cap	1
104879	2.25 inch spanner wrench	1
104119	Consumable tool	1
027055	Silicone lubricant, 1/4 ounce	1

Stainless steel and aluminum consumable starter kit (428843)

Part number	Description	Quantity
420288	Nozzle: 40 A	3
420291	Shield: 40 A	2
420297	Nozzle: 60 A	2
420296	Nozzle: 60 A H ₂ O	1
420306	Nozzle: 80 A	2
420290	Nozzle: 80 A H ₂ O	2
420469	Shield: 130 A H ₂ O	2
420356	Electrode: 130 A – 300 A	3
420315	Nozzle: 130 A	3
420318	Shield: 130 A	2
420472	Shield: 170 A H ₂ O	1
420324	Nozzle: 170 A	3
420327	Shield: 170 A	1
420303	Electrode: 40 A – 80 A	3
420309	Shield: 60 A – 80 A	2
420294	Electrode: 40 A – 80 A aluminum air/air	2
420300	Shield: 60 A – 80 A H ₂ O	2
420314	Swirl ring: 40 A – 170 A multiple processes	1
420323	Swirl ring: 60 A – 300 A multiple processes	2
420368	Water tube	1
420200	Shield retaining cap	1
420365	Nozzle retaining cap	1
104879	2.25 inch spanner wrench	1
104119	Consumable tool	1
027055	Silicone lubricant, 1/4 ounce	1

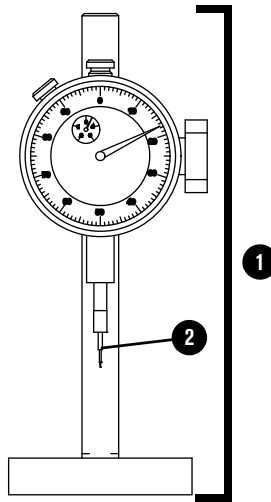
Mild steel consumable starter kit with torch (428842)

Part number	Description	Quantity
420221	Quick-disconnect torch head	1
420231	Electrode: 50 A	1
420234	Nozzle: 50 A	1
420237	Shield: 50 A	1
420233	Swirl ring: 50 A	1
420240	Electrode: 80 A	3
420243	Nozzle: 80 A	3
420246	Shield: 80 A	2
420242	Swirl ring: 80 A – 130 A	2
420249	Electrode: 130 A	3
420252	Nozzle: 130 A	3
420255	Shield: 130 A	2
420261	Nozzle: 170 A	4
420258	Electrode: 170 A	4
420513	Shield: 170 A	3
420260	Swirl ring: 170 A	1
420368	Water tube	2
420200	Shield retaining cap	2
420365	Nozzle retaining cap	2
104879	2.25 inch spanner wrench	1
104119	Consumable tool	1
027055	Silicone lubricant, 1/4 ounce	1

Stainless steel and aluminum consumable starter kit with torch (428841)

Part number	Description	Quantity
420221	Quick-disconnect torch head	1
420288	Nozzle: 40 A	3
420291	Shield: 40 A	2
420297	Nozzle: 60 A	2
420296	Nozzle: 60 A H ₂ O	1
420306	Nozzle: 80 A	2
420290	Nozzle: 80 A H ₂ O	2
420469	Shield: 130 A H ₂ O	2
420356	Electrode: 130 A – 300 A	3
420315	Nozzle: 130 A	3
420318	Shield: 130 A	2
420472	Shield: 170 A H ₂ O	1
420324	Nozzle: 170 A	3
420327	Shield: 170 A	1
420303	Electrode: 40 A – 80 A	3
420309	Shield: 60 A – 80 A	2
420294	Electrode: 40 A – 80 A aluminum air/air	2
420300	Shield: 60 A – 80 A H ₂ O	2
420314	Swirl ring: 40 A – 170 A multiple processes	1
420323	Swirl ring: 60 A – 300 A multiple processes	2
420368	Water tube	2
420200	Shield retaining cap	2
420365	Nozzle retaining cap	2
104879	2.25 inch spanner wrench	1
104119	Consumable tool	1
027055	Silicone lubricant, 1/4 ounce	1

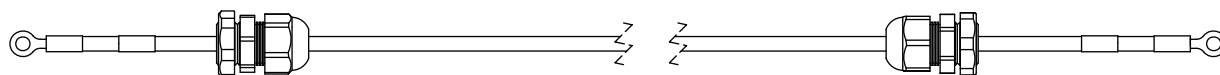
Other consumable and torch parts



	Part number	Description
1	004630	Pit depth gauge
2	004629	Gauge point
	027055	Silicone lubricant, 1/4 ounce
	104119	Consumable tool
	428764	XPR robotic torch teach accessory
	429013	XPR electrode torque tool

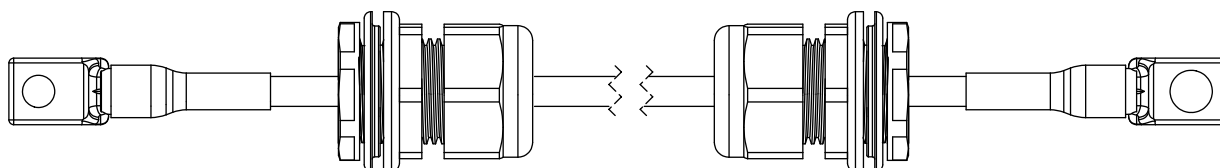
Plasma power supply to gas connect console connections

Pilot arc lead with strain relief



Part number	Length	Part number	Length
223529	3 m (9.8 feet)	223535	25 m (82 feet)
223530	4.5 m (14.8 feet)	223536	35 m (114.8 feet)
223531	7.5 m (24.6 feet)	223537	45 m (147.6 feet)
223532	10 m (32.8 feet)	223538	60 m (196.9 feet)
223533	15 m (49.2 feet)	223539	75 m (246.1 feet)
223534	20 m (65.6 feet)	—	—

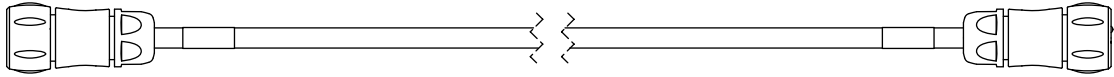
Negative lead with strain relief



Part number	Type	Length	Part number	Type	Length
223584	1/0	3 m (9.8 feet)	223745*	1/0	3 m (9.8 feet)
223585	1/0	4.5 m (14.8 feet)	223746*	1/0	4.5 m (14.8 feet)
223586	1/0	7.5 m (24.6 feet)	223747*	1/0	7.5 m (24.6 feet)
223587	1/0	10 m (32.8 feet)	223748*	1/0	10 m (32.8 feet)
223588	1/0	15 m (49.2 feet)	223749*	1/0	15 m (49.2 feet)
223589	1/0	20 m (65.6 feet)	223750*	1/0	20 m (65.6 feet)
223590	1/0	25 m (82 feet)	223751*	1/0	25 m (82 feet)
223580	2/0	35 m (114.8 feet)	223558*	2/0	35 m (114.8 feet)
223581	2/0	45 m (147.6 feet)	223559*	2/0	45 m (147.6 feet)
223582	2/0	60 m (196.9 feet)	223560*	2/0	60 m (196.9 feet)
223583	2/0	75 m (246.1 feet)	223561*	2/0	75 m (246.1 feet)

* Leads labeled with CCC mark only. CCC is defined in [Symbols and marks](#) on page 36.

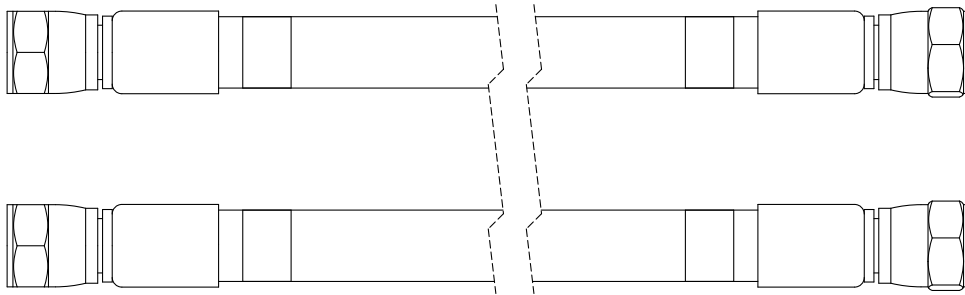
Power cable



Description: 3-position, male-female

Part number	Length	Part number	Length
223436	3 m (9.8 feet)	223446	25 m (82 feet)
223437	4.5 m (14.8 feet)	223447	35 m (114.8 feet)
223439	7.5 m (24.6 feet)	223448	45 m (147.6 feet)
223441	10 m (32.8 feet)	223449	60 m (196.9 feet)
223444	15 m (49.2 feet)	223450	75 m (246.1 feet)
223445	20 m (65.6 feet)	–	–

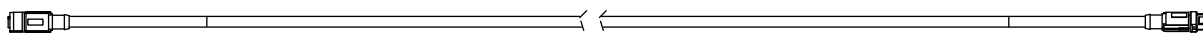
Coolant hose set



Description: 1.27 cm (0.50 inch) internal diameter

Part number	Length	Part number	Length
428475	3 m (9.8 feet)	428481	25 m (82 feet)
428476	4.5 m (14.8 feet)	428482	35 m (114.8 feet)
428477	7.5 m (24.6 feet)	428483	45 m (147.6 feet)
428478	10 m (32.8 feet)	428484	60 m (196.9 feet)
428479	15 m (49.2 feet)	428485	75 m (246.1 feet)
428480	20 m (65.6 feet)	–	–

CAN cable

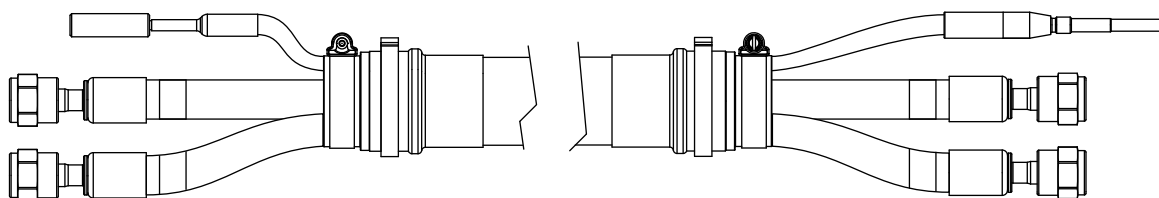


Description: 5-position, male-female

Part number	Length	Part number	Length
223417	3 m (9.8 feet)	223427	25 m (82 feet)
223418	4.5 m (14.8 feet)	223428	35 m (114.8 feet)
223420	7.5 m (24.6 feet)	223429	45 m (147.6 feet)
223422	10 m (32.8 feet)	223430	60 m (196.9 feet)
223425	15 m (49.2 feet)	223431	75 m (246.1 feet)
223426	20 m (65.6 feet)	-	-

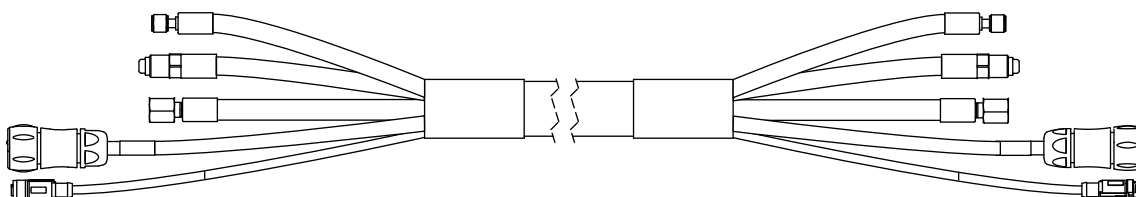
Gas connect console to torch connect console connections

Pilot arc and coolant hose set assembly (Core)



Part number	Length	Part number	Length
428454	3 m (9.8 feet)	428458	10 m (32.8 feet)
428455	4.5 m (14.8 feet)	428459	15 m (49.2 feet)
428456	6 m (19.7 feet)	428982	18 m (59.1 feet)
428457	7.5 m (24.6 feet)	-	-

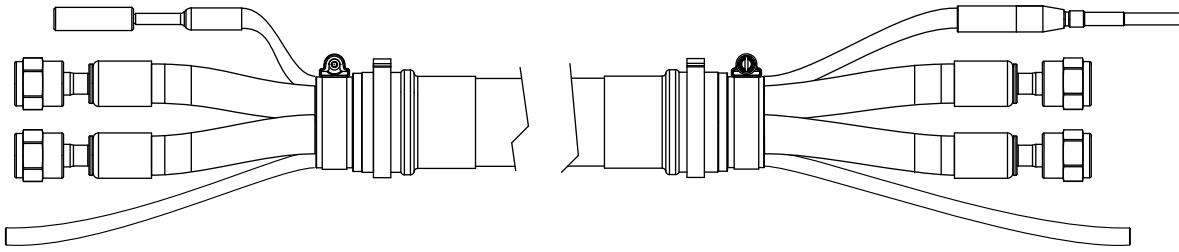
Power, CAN, and 3-gas assembly (Core)



Part number	Length	Part number	Length
428464	3 m (9.8 feet)	428468	10 m (32.8 feet)
428465	4.5 m (14.8 feet)	428469	15 m (49.2 feet)
428466	6 m (19.7 feet)	428983	18 m (59.1 feet)*
428467	7.5 m (24.6 feet)	-	-

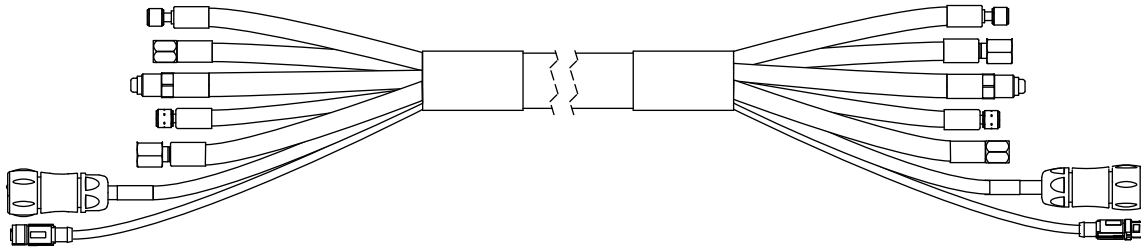
* The 18 meter (59.1 feet) assembly is compatible only with the 2 meter (6.6 feet) or 2.5 meter (8.2 feet) torch lead.

Pilot arc, coolant hose set, and shield water assembly (VWI or OptiMix)



Part number	Length	Part number	Length
428353	3 m (9.8 feet)	428357	10 m (32.8 feet)
428354	4.5 m (14.8 feet)	428358	15 m (49.2 feet)
428355	6 m (19.7 feet)	428981	18 m (59.1 feet)
428356	7.5 m (24.6 feet)	–	–

Power, CAN, and 5-gas assembly (VWI or OptiMix)

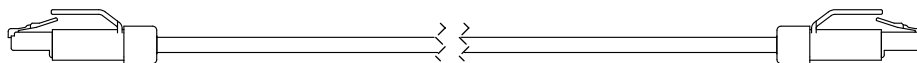


Part number	Length	Part number	Length
428363	3 m (9.8 feet)	428367	10 m (32.8 feet)
428364	4.5 m (14.8 feet)	428368	15 m (49.2 feet)
428365	6 m (19.7 feet)	428980	18 m (59.1 feet)*
428366	7.5 m (24.6 feet)	–	–

* The 18 meter (59.1 feet) assembly is compatible only with the 2 meter (6.6 feet) or 2.5 meter (8.2 feet) torch lead.

Plasma power supply to CNC connections

EtherCAT CNC interface cable

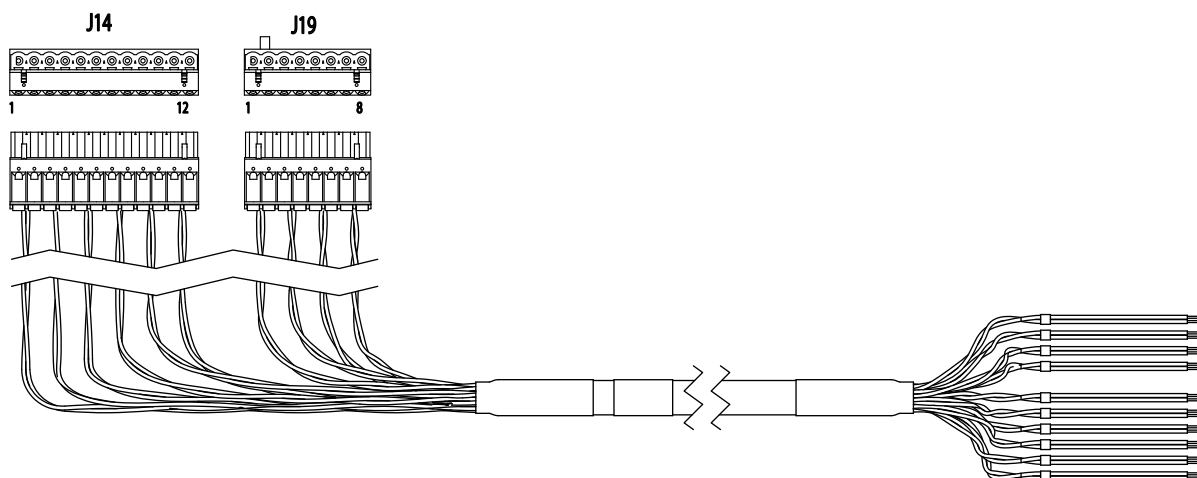


Description: RJ-45 connector, male-male, SF/UTP shield, 2 twisted pairs, 22 AWG

For more information on EtherCAT cable specifications, refer to [How to connect to the plasma power supply with EtherCAT](#) on page 147.

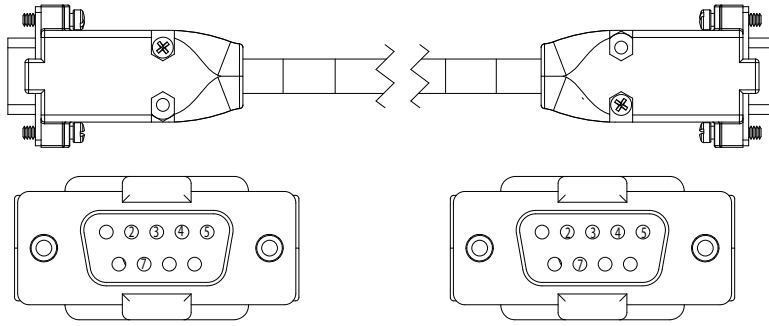
Part number	Length	Part number	Length
223506	0.3 m (1 foot)	223512	10 m (32.8 feet)
223507	0.6 m (2 feet)	223513	15 m (49.2 feet)
223508	1.5 m (4.9 feet)	223514	22.5 m (73.8 feet)
223672	2.5 m (8.2 feet)	223515	30 m (98.4 feet)
223509	3 m (9.8 feet)	223516	45 m (147.6 feet)
223510	6 m (19.7 feet)	223517	60 m (196.9 feet)
223511	7.5 m (24.6 feet)	223714	75 m (246.1 feet)

Discrete CNC interface cable



Part number	Length	Part number	Length
223691	3 m (9.8 feet)	223700	20 m (65.6 feet)
223692	4.5 m (14.8 feet)	223701	22.5 m (73.8 feet)
223693	6 m (19.7 feet)	223702	25 m (82 feet)
223694	7.5 m (24.6 feet)	223703	30 m (98.4 feet)
223695	10 m (32.8 feet)	223704	35 m (114.8 feet)
223696	12 m (39.4 feet)	223705	37.5 m (123 feet)
223697	13.5 m (44.3 feet)	223706	45 m (147.6 feet)
223698	15 m (49.2 feet)	223707	60 m (196.9 feet)
223699	16.5 m (54.1 feet)	223708	75 m (246.1 feet)

Serial CNC interface cable

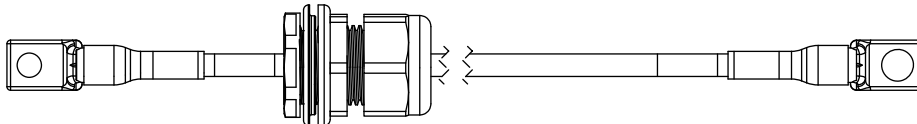


Description: 9-position, D-subminiature (D-sub) connector, male-male, RS-422

Part number	Length	Part number	Length
223673	3 m (9.8 feet)	223682	20 m (65.6 feet)
223674	4.5 m (14.8 feet)	223683	22.5 m (73.8 feet)
223675	6 m (19.7 feet)	223684	25 m (82.0 feet)
223676	7.5 m (24.6 feet)	223685	30 m (98.4 feet)
223677	10 m (32.8 feet)	223686	35 m (114.8 feet)
223678	12 m (39.4 feet)	223687	37.5 m (123 feet)
223679	13.5 m (44.3 feet)	223688	45 m (147.6 feet)
223680	15 m (49.2 feet)	223689	60 m (196.9 feet)
223681	16.5 m (54.1 feet)	223690	75 m (246.1 feet)

Plasma power supply to cutting table connection

Work lead

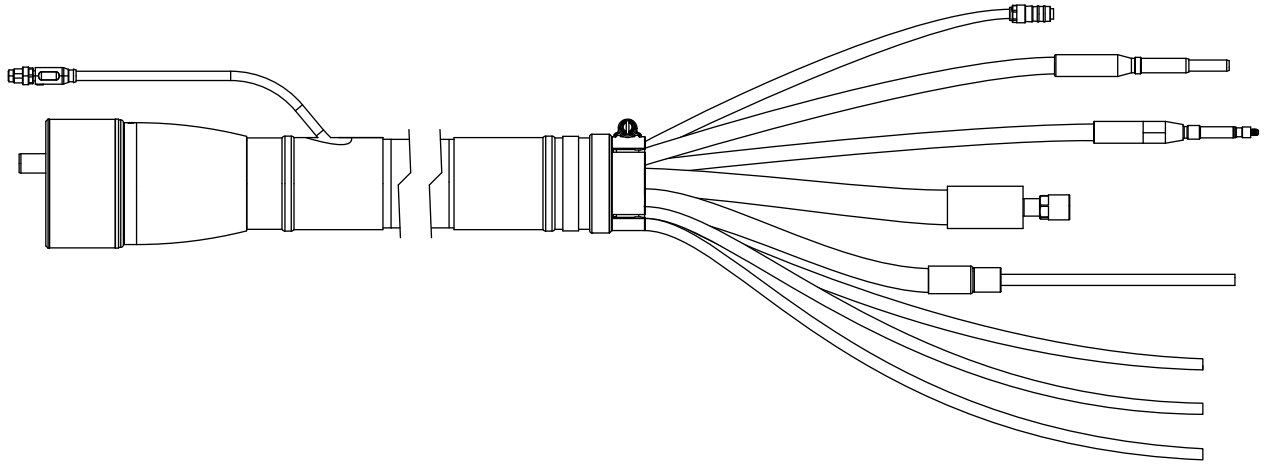


Part number	Type	Length	Part number	Type	Length
223617	1/0	3 m (9.8 feet)	223650*	1/0	3 m (9.8 feet)
223618	1/0	4.5 m (14.8 feet)	223651*	1/0	4.5 m (14.8 feet)
223619	1/0	7.5 m (24.6 feet)	223652*	1/0	7.5 m (24.6 feet)
223620	1/0	10 m (32.8 feet)	223653*	1/0	10 m (32.8 feet)
223621	1/0	15 m (49.2 feet)	223654*	1/0	15 m (49.2 feet)
223622	1/0	20 m (65.6 feet)	223655*	1/0	20 m (65.6 feet)
223623	1/0	25 m (82 feet)	223656*	1/0	25 m (82 feet)
223635	2/0	35 m (114.8 feet)	223668*	2/0	35 m (114.8 feet)
223636	2/0	45 m (147.6 feet)	223669*	2/0	45 m (147.6 feet)
223637	2/0	60 m (196.9 feet)	223670*	2/0	60 m (196.9 feet)
223638	2/0	75 m (246.1 feet)	223671*	2/0	75 m (246.1 feet)

* Leads labeled with CCC mark only. CCC is defined in [Symbols and marks](#) on page 36.

Torch connect console to torch receptacle connection

Torch lead



Part number	Length	Part number	Length
428383	2 m (6.6 feet)	428386	3.5 m (11.5 feet)
428384	2.5 m (8.2 feet)	428824	4 m (13.1 feet)
428385	3 m (9.8 feet)	428387	4.5 m (14.8 feet)

Bevel torch lead

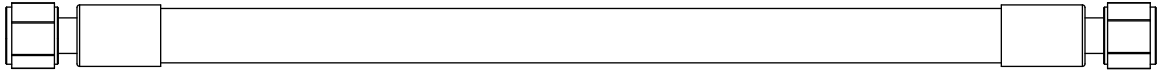
Part number	Lead length	Strain relief length	Part number	Lead length	Strain relief length
428825	2 m (6.6 feet)	0.5 m (20 inches)	428831	2 m (6.6 feet)	1.2 m (48 inches)
428826	2.5 m (8.2 feet)		428832	2.5 m (8.2 feet)	
428827	3 m (9.8 feet)		428833	3 m (9.8 feet)	
428828	3.5 m (11.5 feet)		428834	3.5 m (11.5 feet)	
428829	4 m (13.1 feet)		428835	4 m (13.1 feet)	
428830	4.5 m (14.8 feet)		428836	4.5 m (14.8 feet)	
428978	6 m (20 feet)*		428979	6 m (20 feet)*	

* The 6 meter (20 feet) lead is compatible only with gas assemblies that are 7.5 meters (24.6 feet) or less.

Supply hoses

Oxygen hose (blue)

Fittings: RH type "B" female



Part number	Length	Part number	Length
124003	3 m (9.8 feet)	124009	25 m (82 feet)
124004	4.5 m (14.8 feet)	124107	30 m (98.4 feet)
124005	7.5 m (24.6 feet)	124010	35 m (114.8 feet)
124006	10 m (32.8 feet)	124011	45 m (147.6 feet)
124007	15 m (49.2 feet)	124012	60 m (196.9 feet)
124008	20 m (65.6 feet)	124013	75 m (246.1 feet)

Nitrogen or Argon hose (black)

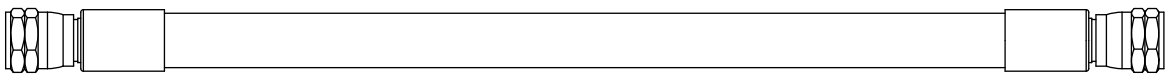
Fittings: RH type "B" male



Part number	Length	Part number	Length
124014	3 m (9.8 feet)	124020	25 m (82 feet)
124015	4.5 m (14.8 feet)	124108	30 m (98.4 feet)
124016	7.5 m (24.6 feet)	124021	35 m (114.8 feet)
124017	10 m (32.8 feet)	124022	45 m (147.6 feet)
124018	15 m (49.2 feet)	124023	60 m (196.9 feet)
124019	20 m (65.6 feet)	124024	75 m (246.1 feet)

Air hose (black)

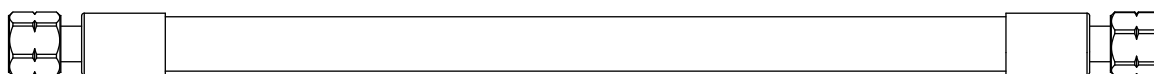
Fittings: JIC-6 female



Part number	Length	Part number	Length
124025	3 m (9.8 feet)	124031	25 m (82 feet)
124026	4.5 m (14.8 feet)	124109	30 m (98.4 feet)
124027	7.5 m (24.6 feet)	124032	35 m (114.8 feet)
124028	10 m (32.8 feet)	124033	45 m (147.6 feet)
124029	15 m (49.2 feet)	124034	60 m (196.9 feet)
124030	20 m (65.6 feet)	124035	75 m (246.1 feet)

Hydrogen or nitrogen-hydrogen (F5) (red)

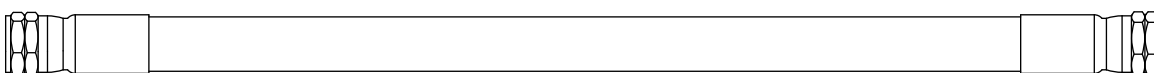
Fittings: LH type "B" female



Part number	Length	Part number	Length
124036	3 m (9.8 feet)	124042	25 m (82 feet)
124037	4.5 m (14.8 feet)	124110	30 m (98.4 feet)
124038	7.5 m (24.6 feet)	124043	35 m (114.8 feet)
124039	10 m (32.8 feet)	124044	45 m (147.6 feet)
124040	15 m (49.2 feet)	124045	60 m (196.9 feet)
124041	20 m (65.6 feet)	124046	75 m (246.1 feet)

Water (optional shield fluid) (blue)

Fittings: JIC-6 female



Part number	Length	Part number	Length
124047	3 m (9.8 feet)	124053	25 m (82 feet)
124048	4.5 m (14.8 feet)	124111	30 m (98.4 feet)
124049	7.5 m (24.6 feet)	124054	35 m (114.8 feet)
124050	10 m (32.8 feet)	124055	45 m (147.6 feet)
124051	15 m (49.2 feet)	124056	60 m (196.9 feet)
124052	20 m (65.6 feet)	124057	75 m (246.1 feet)

Preventive maintenance kits

Part number	Description
428639	Kit: Filter, torch rebuild without coolant
428640	Kit: Filter, torch rebuild with coolant
428920	Kit: Shield-fluid treatment
428878	Kit: Electronics (200 V – 240 V)
428879	Kit: Electronics (380 V – 600 V)

Tools

Part number	Description
229917	Torch connect console solenoid valve tool
229918	Torch solenoid valve tool
104879	2.25 inch spanner wrench
004629	Pit depth gauge
104119	Consumable tool
1-13897 (Hypertherm Waterjet part number)	TDS meter

Recommended spare parts

Plasma power supply – recommended spare parts

Part number	Description	Designator	Quantity
428810	Shield-fluid treatment filter	–	1
027005	Coolant filter (fine)	–	1
006113	Coolant check valve	–	1
229640	Power source: 88 VAC – 264 VAC to 24 VDC	PS1	1
229671	Power source: 88 VAC – 264 VAC to 48 VDC, 600 W	PS2	1
229679	Chopper assembly	Chopper 1	1
428750	Control PCB	PCB1	1
141371	I/O PCB	PCB5	1
141384	Fan power distribution PCB	PCB6	1
141425	Power distribution PCB	PCB7	1
108709	Fuse: 10 A, 250 VAC, time delay (on PCB7)	F3, F4, F5	2
208397*	Fuse: 15 A, 600 V, Class R (used in 200 V, 208 V, 220 V, 240 V)	F1, F2	2
208395*	Fuse: 8 A, 600 V, Class R (used in 380 V, 400 V, 415 V, 440 V, 480 V, 600 V)		2
003277	Pilot arc relay	CR1	1
003276*	Main contactor (200 V, 208 V, 220 V, 240 V)	M_CON	1
429060*	Main contactor assembly (380 V, 400 V, 415 V, 440 V, 480 V, 600 V)		1

* Voltage dependent - Select accordingly

Gas connect consoles – recommended spare parts

Part number	Description	Designator	Quantity
011110	Air filter element	–	1
223398	Pressure transducer (VWI and OptiMix only)	P6 – P9	1
006167	Solenoid valve (VWI and OptiMix only)	B4 – B5	1
141354	High-frequency, high-voltage ignition PCB	PCB2	1

Torch connect console – recommended spare parts

Part number	Description	Designator	Quantity
141368	Ohmic contact PCB	PCB2	1
223477	Pressure transducer with wire and connector	P1 – P5, P14	1
006167	Solenoid valve	B1 – B3	1
229965	Solenoid valve	V4 – V12	1

Torch – recommended spare parts

Part number	Description	Designator	Quantity
420220	Quick-disconnect/torch receptacle	–	1
420221	Quick-disconnect torch	–	1
420368	Water tube	–	1
006155	Torch solenoid valve	–	1