Section 6

PARTS LIST

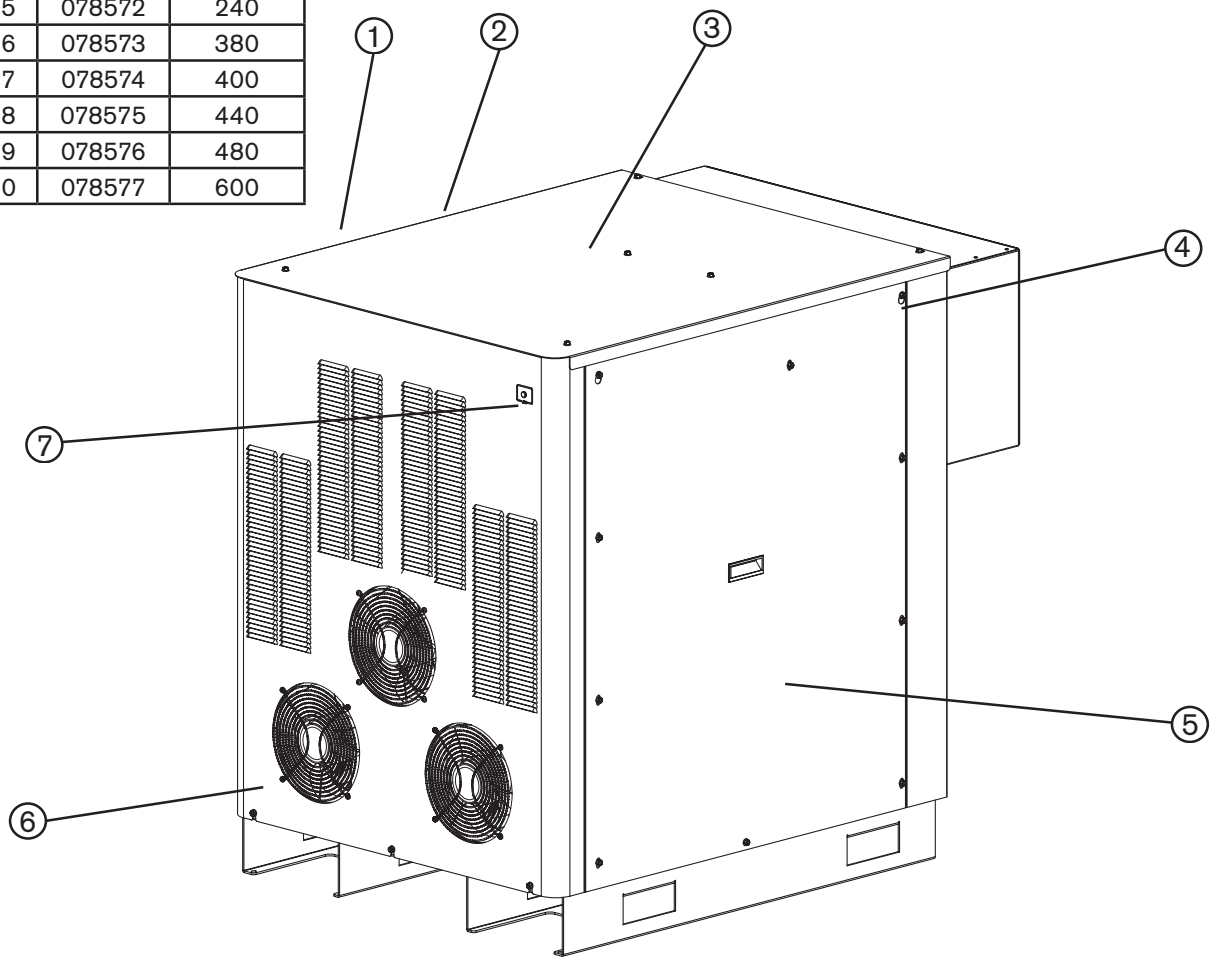
In this section:

Power supply 6-2
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Power supply

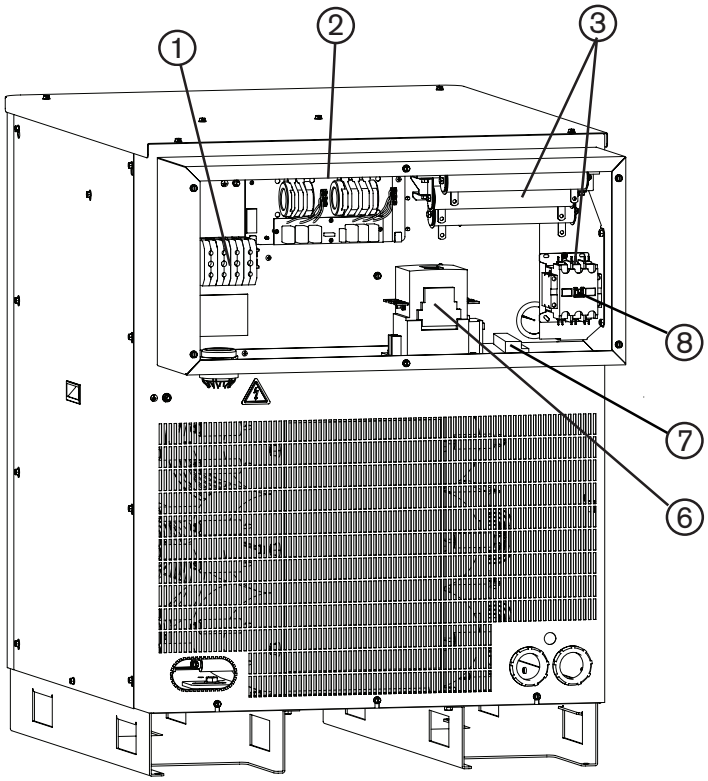
Power supplies		
Without Hypernet	**With Hypernet**	**Voltage (AC)**
078523	078570	200/208
078524	078571	220
078525	078572	240
078526	078573	380
078527	078574	400
078528	078575	440
078529	078576	480
078530	078577	600

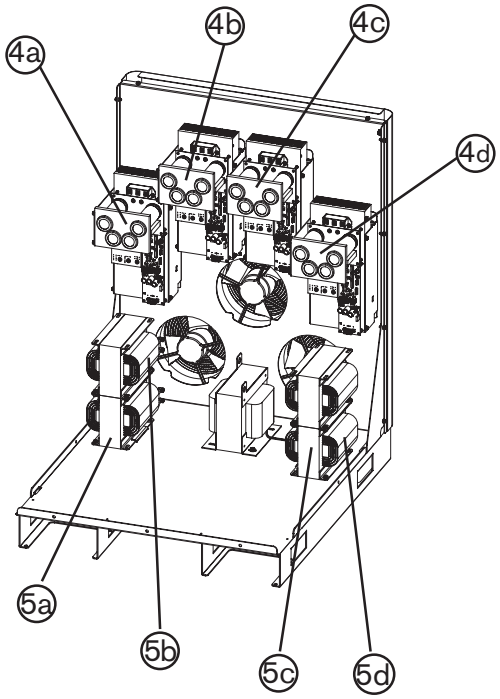
Note: The Hypernet option is currently used with the ArcGlide® torch height control. See the ArcGlide instruction manual (806450) for more information.



Item	Part Number	Description	Designator	Qty.
1	See table above	Power supply		
2	228363	Panel: Left side, with labels and handles (not shown)		1
3	228362	Panel: Top, with labels		1
4	075241	Sheet metal screws		1
5	228395	Panel: Right side, with labels and handles		1
6	228361	Panel: Front, with labels		1
7	129633	Green power lamp assembly		
8	228604	Kit: Hypernet upgrade (not shown)		1

Power supply





Item	Part Number	Description	Designator	Qty.
1	229214*	Terminal block: Input power	TB1	1
	229033**	Terminal block: Input power	TB1	1
2	229195	EMI filter (400 volt power supply only)		1
3	428064***	Kit: HPR400XD/800XD inrush-suppression circuit		1
4a	129792	Chopper assembly	CHA	1
4b	129792	Chopper assembly	CHB	1
4c	129792	Chopper assembly	CHC	1
4d	129792	Chopper assembly	CHD	1
	127039	6" fan: 230 CFM, 115 VAC 50-60 HZ		8
5a	014080	Inductor: 100 amp, 4 mH	L1	1
5b	014080	Inductor: 100 amp, 4 mH	L2	1
5c	014080	Inductor: 100 amp, 4 mH	L3	1
5d	014080	Inductor: 100 amp, 4 mH	L4	1
6	003218*	Main contactor	CON1	1
	003233**	Main contactor	CON1	1
7	428382†	Kit: HPR400XD/800XD inrush PCB		1
8	003249	Inrush contactor		1

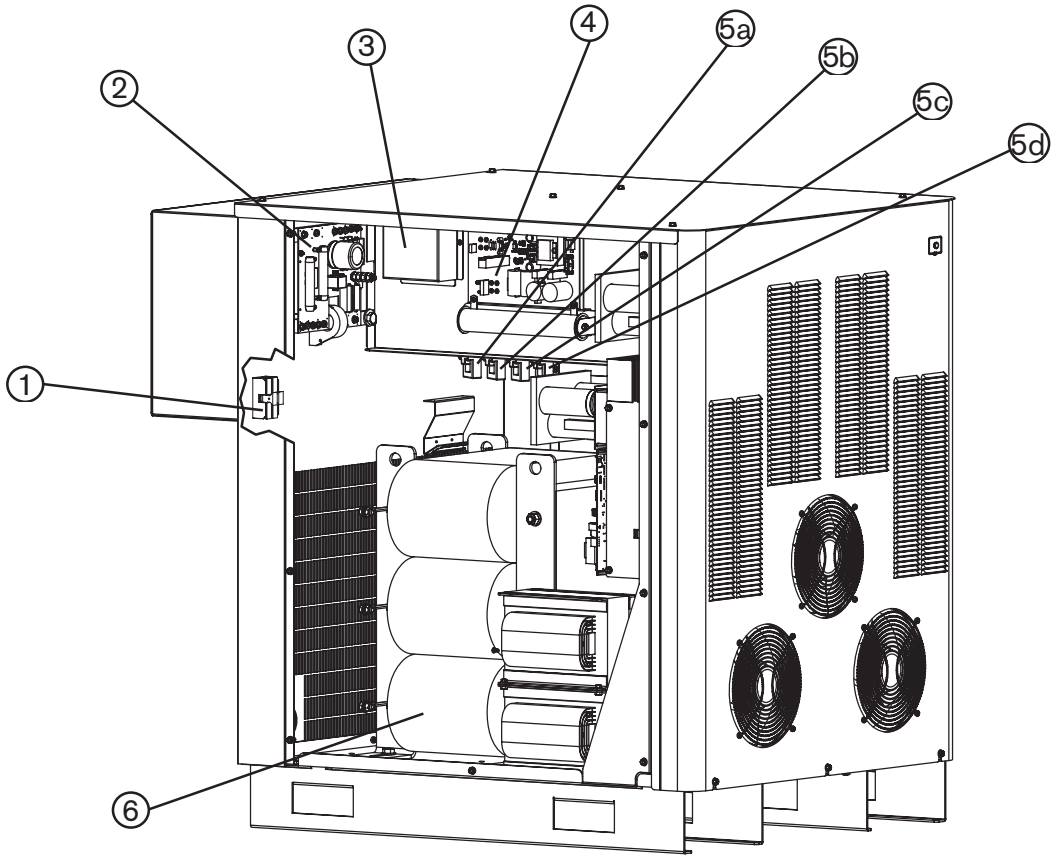
* 200, 220, and 240 volt power supplies

** 380, 400, 440, 480, and 600 volt power supplies

*** If your power supply does not have the inrush-suppression circuit, you can install kit 428064 to add it.

† If your power supply has an inrush-suppression circuit, you can install kit 428382 to upgrade it to an inrush PCB.

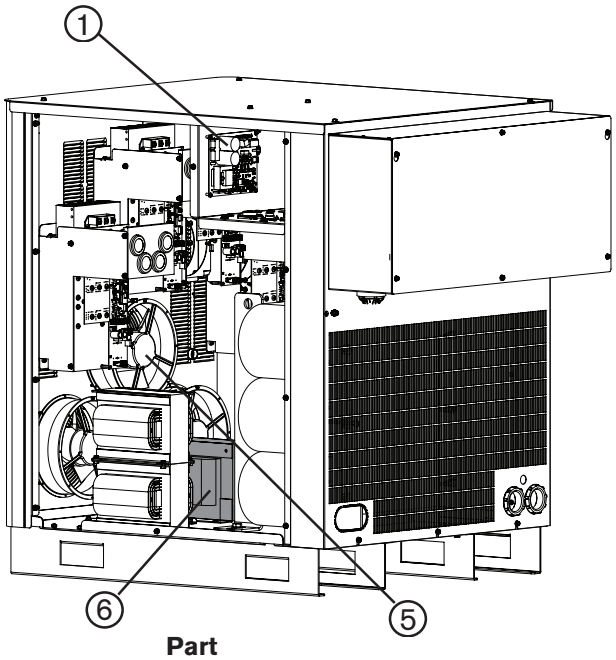
Power supply

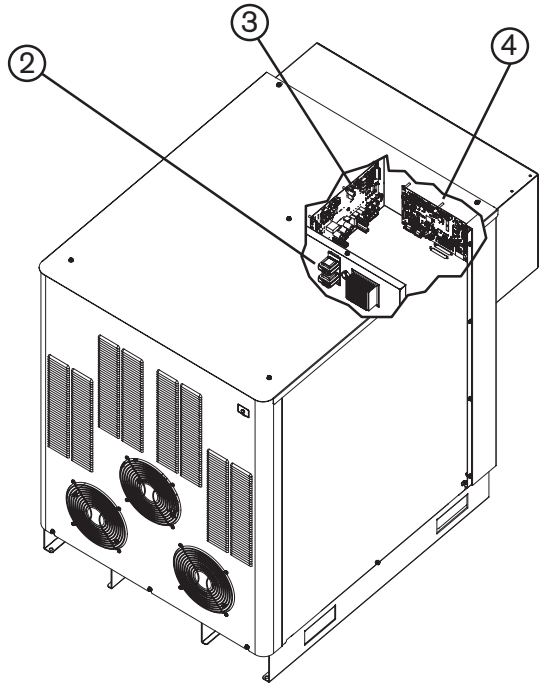


Item	Part Number	Description	Designator	Qty.
1	108847*	Fuse: 7.5 amp, 600 volt, high surge	F1, F2	2
	008709**	Fuse: 20 amp, 500 volt, slow blow	F1, F2	2
2	229213	PCB: I/O		1
3	003149***	Relay: Pilot arc, 120 VAC	CR1	1
4	229238	Start circuit assembly	PCB1	1
5a	109004	Current sensor: Hall 100 amp, 4 volt	CS1	1
5b	109004	Current sensor: Hall 100 amp, 4 volt	CS2	1
5c	109004	Current sensor: Hall 100 amp, 4 volt	CS3	1
5d	109004	Current sensor: Hall 100 amp, 4 volt	CS4	1
6	014321	200 volt main transformer: 80KW, 3 ph, 50 HZ	T2	1
	014322	220 volt main transformer: 80KW, 3 ph, 50 HZ		1
	014323	240 volt main transformer: 80KW, 3 ph, 60 HZ		1
	014324	380 volt main transformer: 80KW, 3 ph, 50 HZ		1
	014325	400 volt main transformer: 80KW, 3 ph, 50 HZ		1
	014326	440 volt main transformer: 80KW, 3 ph, 50 HZ		1
	014327	480 volt main transformer: 80KW, 3 ph, 60 HZ		1
	014328	600 volt main transformer: 80KW, 3 ph, 60 HZ		1
	228309	Kit: Thermistor replacement for main transformer		1

* 380, 400, 440, 480, and 600 volt power supplies
** 200, 220, and 240 volt power supplies
*** CR1 is located under the cover

Power supply

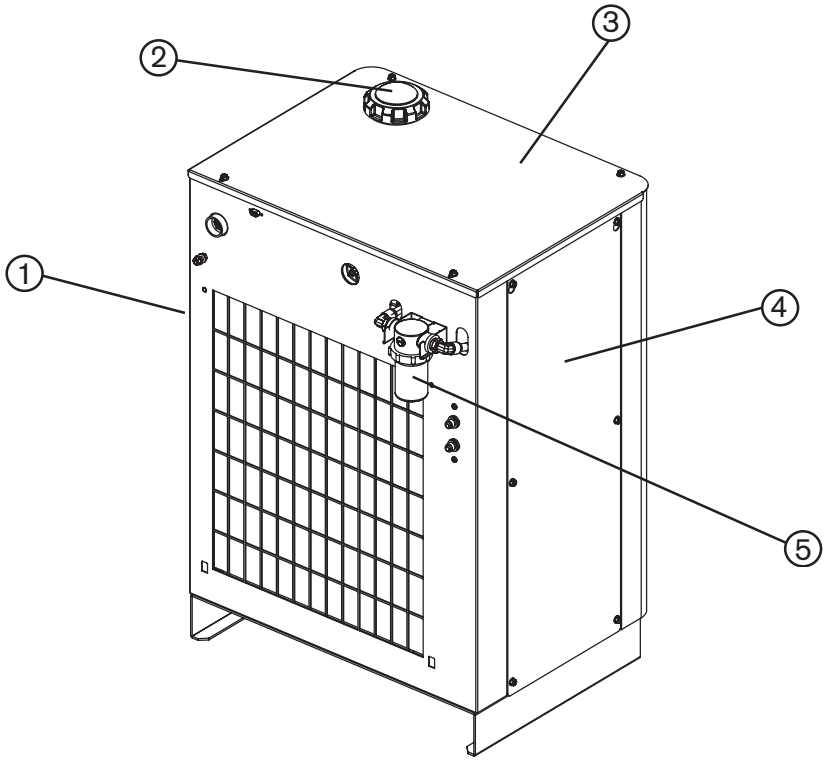




Item	Part Number	Description	Designator	Qty.
1	141027	PCB: Pump motor drive	PCB7	1
2	229212	Inductor: 5 amp, 1.4 mH		2
3	041802	**Non-Eco Design** PCB: Power distribution	PCB2	1
		A power supply with serial number **HPR400-008826** or earlier has this PCB		
	108028	Fuse: 3 amp, 250 volt	F5, F6, F7	3
	108075	Fuse: 6.3 amp, 250 volt (slow-blow)	F1, F2, F3	3
	108709	Fuse: 10 amp, 250 volt	F4	1
	229339	Non-Eco design wire harness		1
3	10078615	**Eco Design** PCB: Power distribution	PCB2	1
		A power supply with serial number **HPR400-010001** or later has this PCB		
	108028	Fuse: 3 amp, 250 volt	F5, F6, F7	3
	108075	Fuse: 6.3 amp, 250 volt (slow-blow)	F1, F2, F3	3
	108709	Fuse: 10 amp, 250 volt	F4	1
	10081508	Eco Wire harness – Necessary with the 10078615 power distribution PCB*		1
4	141030	PCB: Control	PCB3	1
5	027079	10" fan: 450-550 CFM, 120 VAC 50-60 HZ		3
6	229225	Control transformer: 400 volt, 50-60 HZ	T2	1
	229226	Control transformer: 380 volt, 50-60 HZ		1
	229227	Control transformer: 480 volt, 60 HZ		1
	229228	Control transformer: 600 volt, 60 HZ		1
	229230	Control transformer: 240 volt, 60 HZ		1
	229231	Control transformer: 200 and 208 volt, 50-60 HZ		1
	229232	Control transformer: 440 volt, 50-60 HZ		1
	229233	Control transformer: 220 volt, 50-60 HZ		1

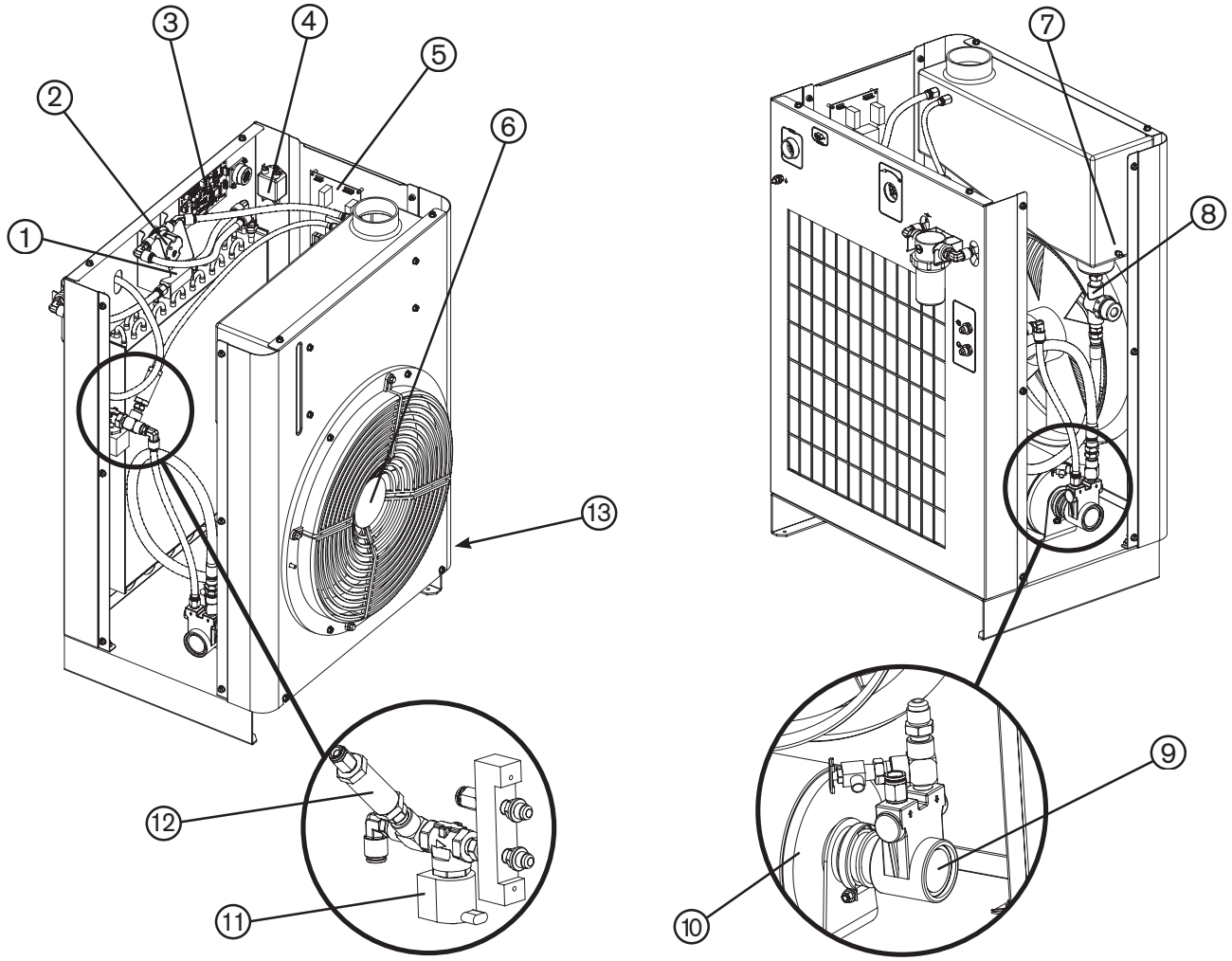
* You need the 10081508 wire harness to make connections between the 10078615 power distribution PCB and the 141030 control PCB. The 229339 wire harness is not compatible with the 10078615 power distribution PCB.

Cooler



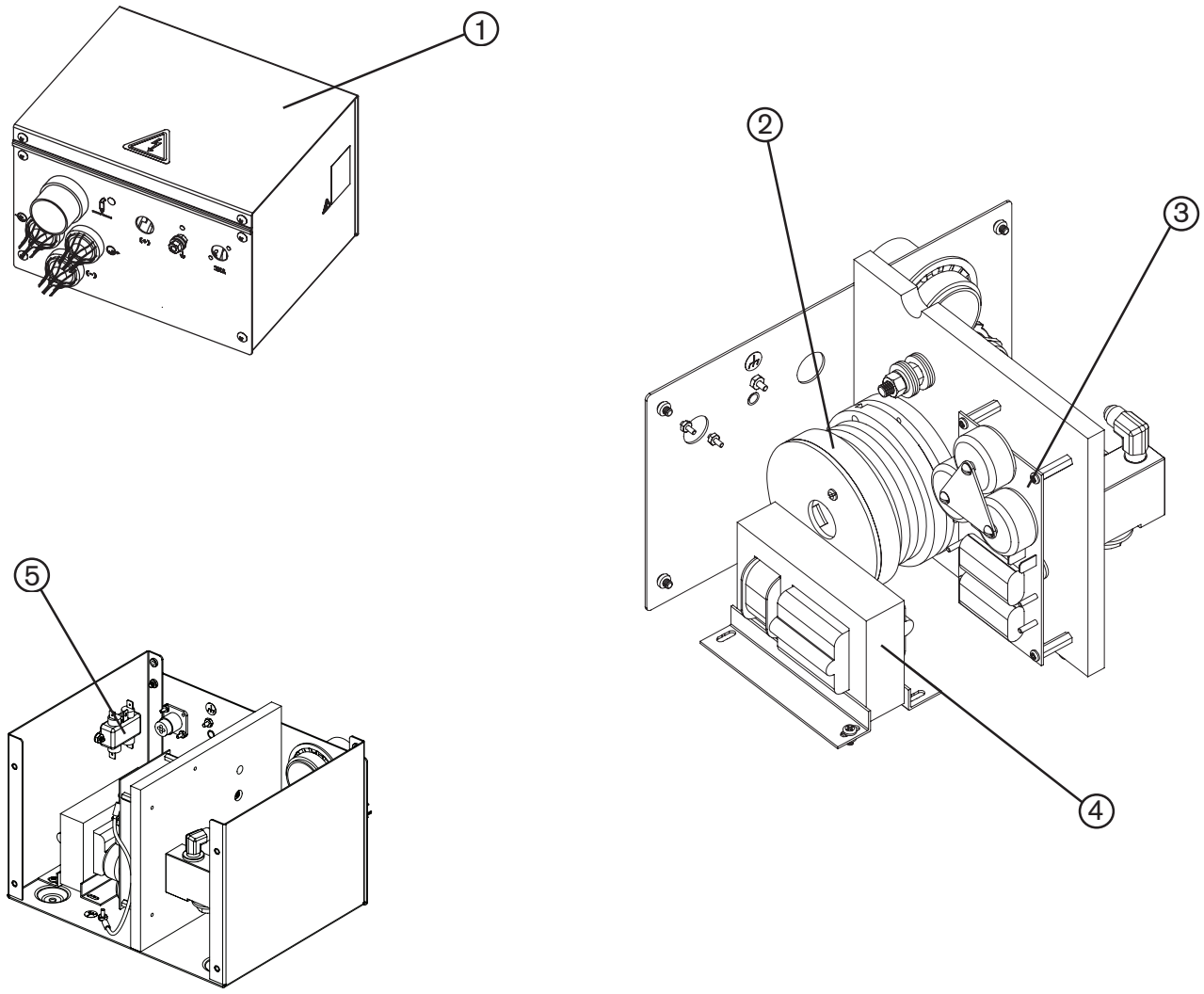
Item	Part Number	Description	Designator	Qty.
	078531	**Cooler**		
1	101022	Panel: Right side		1
2	127014	Filler cap		1
3	228366	Panel: Top, with labels		1
4	101001	Panel: Left side		1
5	027634	Filter housing		1
	027664	Filter element		1

Cooler



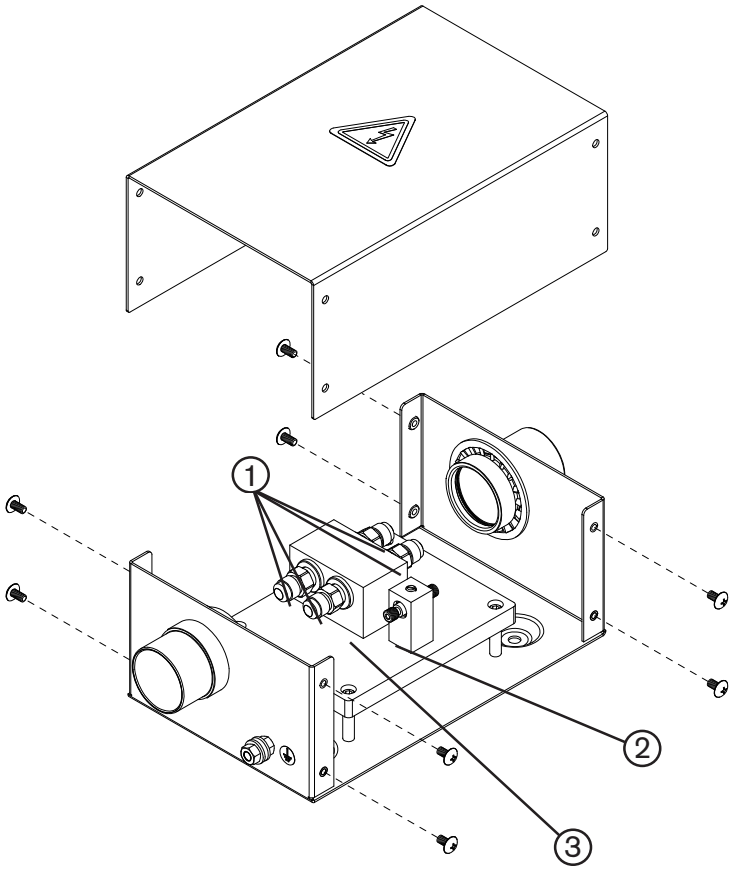
Item	Part Number	Description	Designator	Qty.
1	006113	Check valve		1
2	229235	Flow sensor: 23 lpm (6 gpm)	FS1	1
3	141033	PCB: Cooler sensor		1
4	009040	EMI filter: 250 VAC, 2 amp, 1 phase		1
5	041897	PCB: Console power distribution		1
	008756	Fuse: 5 amp, 250 volt (slow-blow)	F1	1
6	129634	Fan: 240 volt, 240 watt, 2910 cfm		1
7	229224	Temperature sensor	TS1	1
8	027926	Filter assembly: 1/2", NPT, low profile		1
9	228171	Kit: Pump with clamp		1
10	228230	Kit: Motor with clamp, 1/3 hp		1
11	229229	Solenoid valve		1
12	006132	Check valve (bypass valve): 1/4" NPT, 200 psi		1
13	109207	Capacitor (not visible)		1
	031122	Pump to motor shaft coupler (not shown)		1

Ignition console



Item	Part Number	Description	Designator	Qty.
1	**078172**	**Ignition Console**		
2	129831	Coil assembly	T2	1
3	041817	HF/HV Ignition PCB	PCB IGN	1
4	129854	Transformer	T1	1
5	009045	EMI filter		1

Torch lead junction box (Optional)



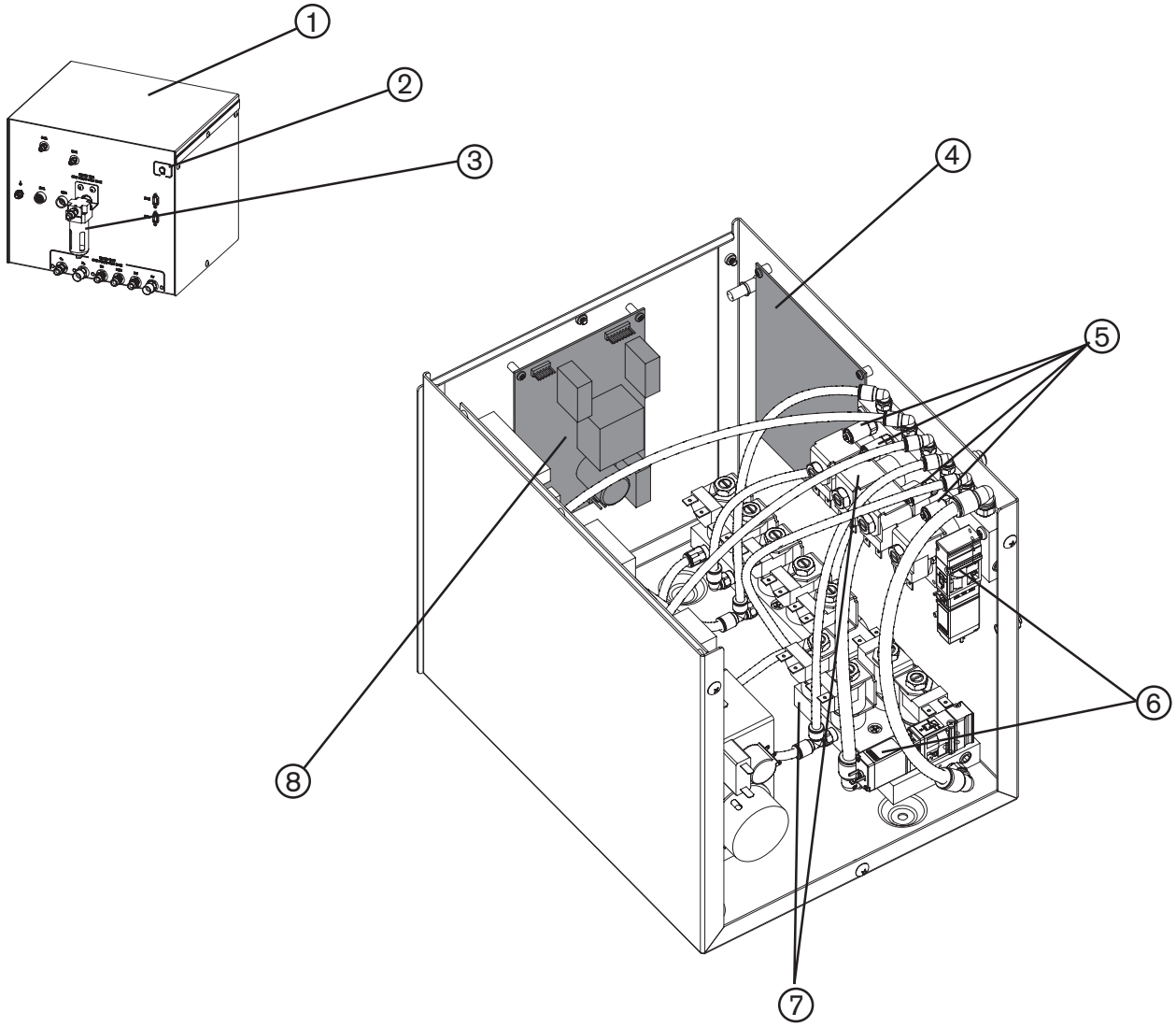
Item	Part Number	Description	Qty.
	078619	**HPRXD junction box**	1
1	015007	Coolant fitting	4
2	104763	Pilot arc fitting	1
3	104762	Coolant block	1

Ignition console to junction box leads

Caution: **Total lead length from the ignition console to the torch must be less than or equal to:**
20 m (65 feet) for HPR130XD / HPR260XD
15 m (50 feet) for HPR400XD / HPR800XD

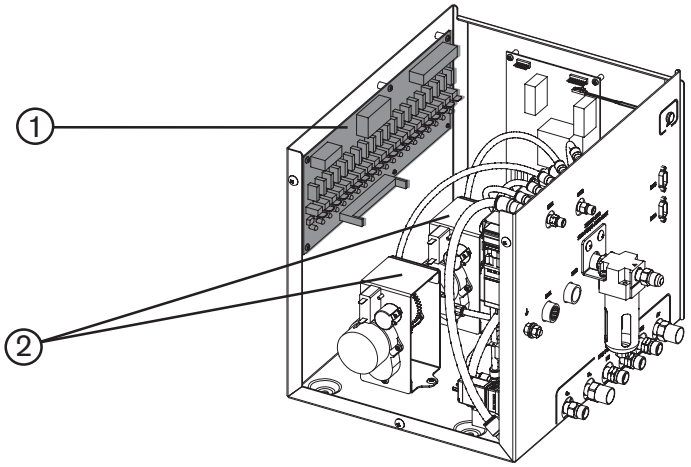
Part no.	Description	Part no.	Description
428420	3 m (10 ft)	428425	10 m (35 ft)
428421	4.5 m (15 ft)	428426	12.2 m (40 ft)
428339	5.5 m (18 ft)	428427	13.7 m (45 ft)
428422	6 m (20 ft)	428428	15 m (50 ft)
428423	7.5 m (25 ft)	428429	16.8 m (55 ft)
428424	9.1 m (30 ft)		

Selection console



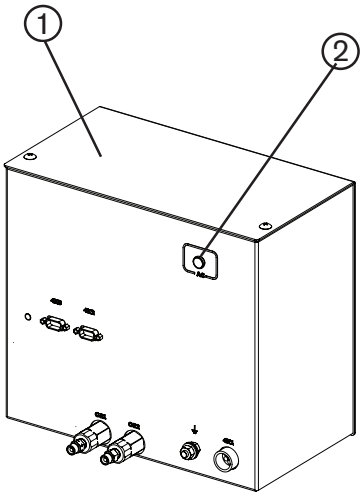
Item	Part Number	Description	Designator	Qty.
1	**078533**	**Selection console**		
2	129633	Green power lamp		1
3	011109	Filter assembly		1
	011110	Filter element		1
4	228069	Kit: Control PCB	PCB2	1
5	005263	Pressure sensor	P1 – P4	4
	123780	Pressure sensor wire harness	P1 – P4	1
6	228984	Solenoid valve	SV3 and SV10	2
7	006109	Solenoid valve	SV1 and SV2, SV4–SV9, SV11–SV15	13
8	041897	Power distribution PCB	PCB1	1
	008756	Fuse: 5A, 250V, slow blow	F1	1

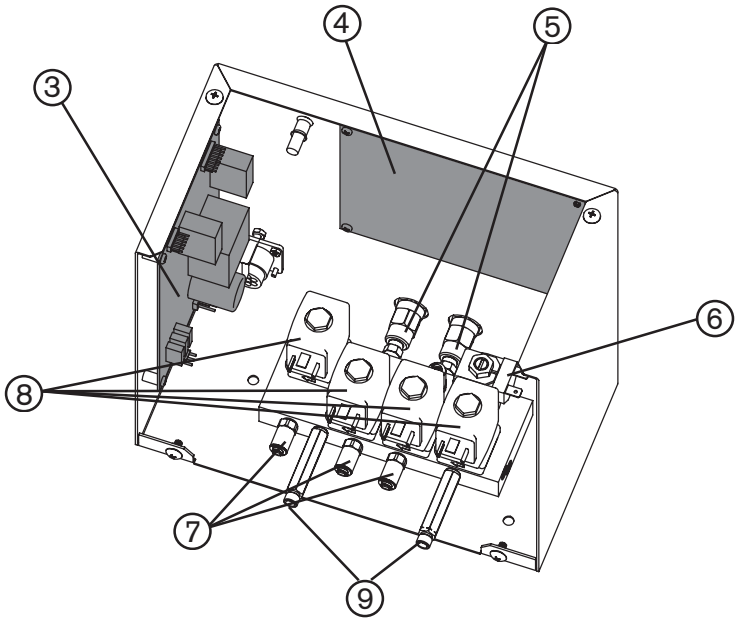
Selection console



Item	Part Number	Description	Designator	Qty.
1	041822	Valve driver PCB	PCB3	1
	008756	Fuse: 5 A, 250V, slow-blow	F1	1
2	129999	Motor valve assembly	MV1, MV2	2
	229217	Selection console wire harness		1
	228347	Hose kit		1

Metering console





Item	Part Number	Description	Designator	Qty.
1	**078535**	**Metering console**		**1**
2	129633	Green power lamp		1
3	041897	Power distribution PCB	PCB1	1
	008756	Fuse: 5 amp, 250 volt (slow-blow)	F1	1
4	228069	Kit: Control PCB	PCB2	1
5	006077	Check valves		2
6	006109	Solenoid valve	SV16	1
7	005263	Pressure transducer (3 of 4 shown)	P5-P8	4
	123802	Pressure transducer wire harness		1
8	006128*	Proportional valve	B1-B4	4
	228023**	Kit: HPR gas metering manifold upgrade (does not include Item 9)		1
	229032	Metering console wire harness		1
9	Multiple***	Push-to-connect fittings for HPRXD systems		1-2

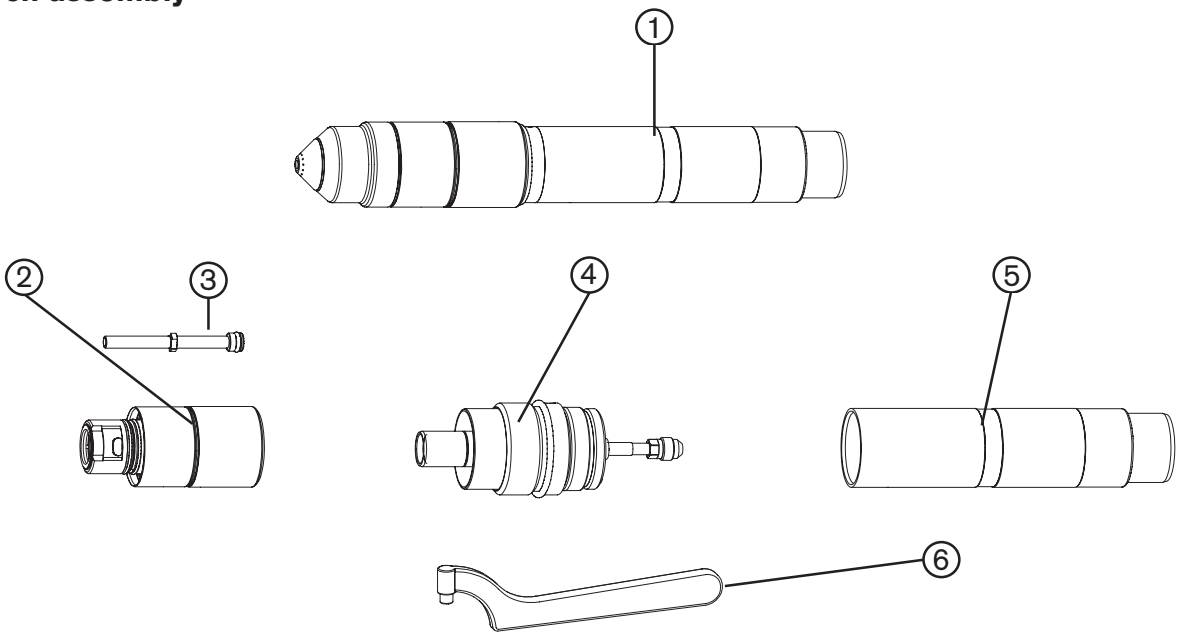
* Gas consoles with a serial number of 500134 or later take this part number

** Gas consoles with a serial number of 500133 or earlier must order this kit

***When Kit 228023 is used with an HPR130XD, HPR260XD, HPR400XD, or HPR800XD auto gas system, the following parts are also necessary: 104425 (1), 104406 (1), 015634 (2), 015732 (1), and 015731 (1).

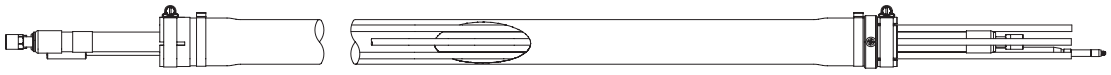
HyPerformance torch

Torch assembly



Item	Part Number	Description
1	228354	**HPR400XD machine torch assembly**
2	220706	Quick-disconnect torch
3	220571	Water tube
4	220705	Quick-disconnect receptacle
5	220789	Torch mounting sleeve assembly: Standard, 181 mm (7 in)
	220788	Torch mounting sleeve assembly: Short, 114 mm (4.5 in)
	220790	Torch mounting sleeve assembly: Long, 248 mm (9.75 in)
6	104269	2" spanner wrench
	128879	Torch kit: O-rings, water tube and seal
	128880	Quick disconnect kit: O-ring and connector

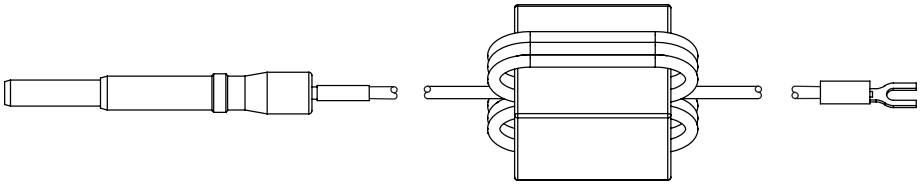
Torch leads



Part no.	Description
228291	2 m (6 ft)
228292	3 m (10 ft)
228293	4.5 m (15 ft)
228294	6 m (20 ft)
228295	7.5 m (25 ft)
228296	10 m (35 ft)
228297	15 m (50 ft)

Note: A 20 m (65 ft) torch lead is not available for HPR400XD systems

Ohmic contact wire **(Not part of the HPR400XD system. Shown for reference only.)**



Part no.	Length
123983	3 m (10 ft)
123984	6 m (20 ft)
123985	7.5 m (25 ft)
123986	9 m (30 ft)
123987	12 m (40 ft)
123988	15 m (50 ft)
123989	23 m (75 ft)
123990	30 m (100 ft)
123991	45 m (150 ft)

Consumable parts kits

Note: See *Consumable selection* or *Cut charts* in section 4 for specific applications

Mild steel parts kit – 228367

Part Number	Description	Qty.
026009	O-ring: 0.208" X 0.070"	5
027055	Lubricant: Silicone 1/4-oz tube	1
044028	O-ring: 1.364" X 0.070"	2
104119	Tool: Consumable removal / replacement	1
104269	Wrench: Spanner	1
220179	Swirl ring: 80 A/130 A	1
220180	Swirl ring: 30 A	1
220181	Electrode: 130 A	2
220182	Nozzle: 130 A	3
220183	Shield: 130 A	2
220187	Electrode: 80 A	2
220188	Nozzle: 130 A	2
220189	Shield: 80 A	1
220192	Electrode: 30 A	2
220193	Nozzle: 30 A	2
220194	Shield: 30 A	1
220340	Water tube with o-ring	1
220352	Electrode: 200 A	2
220353	Swirl ring: 200 A	1
220354	Nozzle: 200 A	3
220435	Electrode: 260 A	2
220436	Swirl ring: 260 A	1
220439	Nozzle: 260 A	3
220552	Electrode: 50 A	2
220553	Swirl ring: 50 A	1
220554	Nozzle: 50 A	2
220555	Shield: 50 A	1
220571	Water tube with o-ring (bevel)	1
220629	Electrode: 400 A	3
220631	Swirl ring: 400 A	1
220632	Nozzle: 400 A	3
220635	Nozzle retaining cap: 400 A	1
220636	Shield: 400 A	2
220637	Shield cap: 400 A	1
420566	SilverPlus Electrode: 80 A	1
220665	SilverPlus electrode: 130 A	1
220666	SilverPlus electrode: 200 A	1
220668	SilverPlus electrode: 260 A	1
420530	SilverPlus Electrode: 400 A	1
220747	Shield cap: 130 A	1
220754	Nozzle retaining cap: 30 A	1
220756	Nozzle retaining cap: 130 A	1
220757	Nozzle retaining cap: 200 A	1
220760	Nozzle retaining cap: 260 A	1
220761	Shield: 200 A	2
220764	Shield: 260 A	2

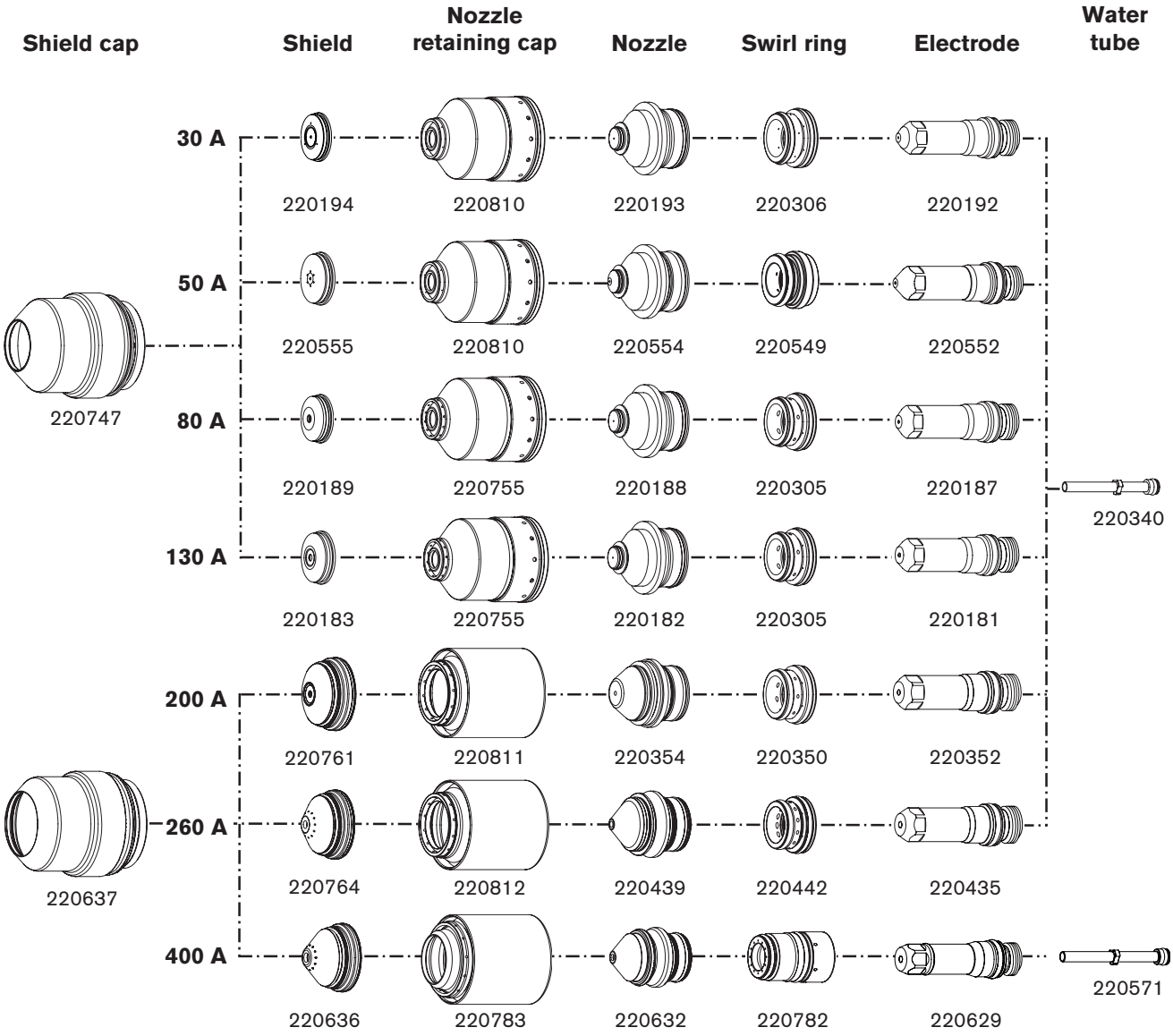
Stainless steel and aluminum parts kit – 228368

Part Number	Description	Qty.
026009	O-ring: 0.208" X 0.070"	5
027055	Lubricant: Silicone 1/4-oz tube	1
044028	O-ring: 1.364" X 0.070”	2
104119	Tool: Consumable removal / replacement	1
104269	Wrench: Spanner	1
220179	Swirl ring: 80 A/130 A mild steel	1
220180	Swirl ring: 30 A mild steel	2
220181	Electrode: 130 A mild steel	1
220197	Nozzle: 130 A stainless steel	2
220198	Shield: 130 A stainless steel	1
220307	Electrode: 130 A stainless steel	4
220337	Nozzle: 80 A stainless steel	2
220338	Shield: 80 A stainless steel	1
220339	Electrode: 80 A stainless steel	4
220340	Water tube with o-ring	1
220342	Swirl ring: 200 A stainless steel	1
220343	Nozzle: 200 A stainless steel	2
220346	Nozzle: 200 A aluminum	1
220405	Swirl ring: 260 A stainless steel/aluminum	1
220406	Nozzle: 260 A stainless steel/aluminum	2
220571	Water tube with o-ring (bevel)	1
220637	Shield cap: 400 A	1
220707	Shield: 400 A stainless steel	2
220708	Nozzle: 400 A stainless steel	3
220709	Electrode: 400 A stainless steel	3
220712	Nozzle retaining cap: 400 A stainless steel	1
220747	Shield cap: 130 A	1
220755	Nozzle retaining cap: 130 A CCW	1
220756	Nozzle retaining cap: 130 A mild steel, CW	1
220758	Nozzle retaining cap: 260 A stainless steel	1
220759	Nozzle retaining cap: 200 A aluminum	1
220762	Shield: 200 A stainless steel	1
220763	Shield: 260 A stainless steel/aluminum	1
220814	Nozzle retaining cap: 60 A HDi	1
220815	Shield: 60 A HDi, stainless steel	1
220847	Nozzle: 60 A HDi, stainless steel	2

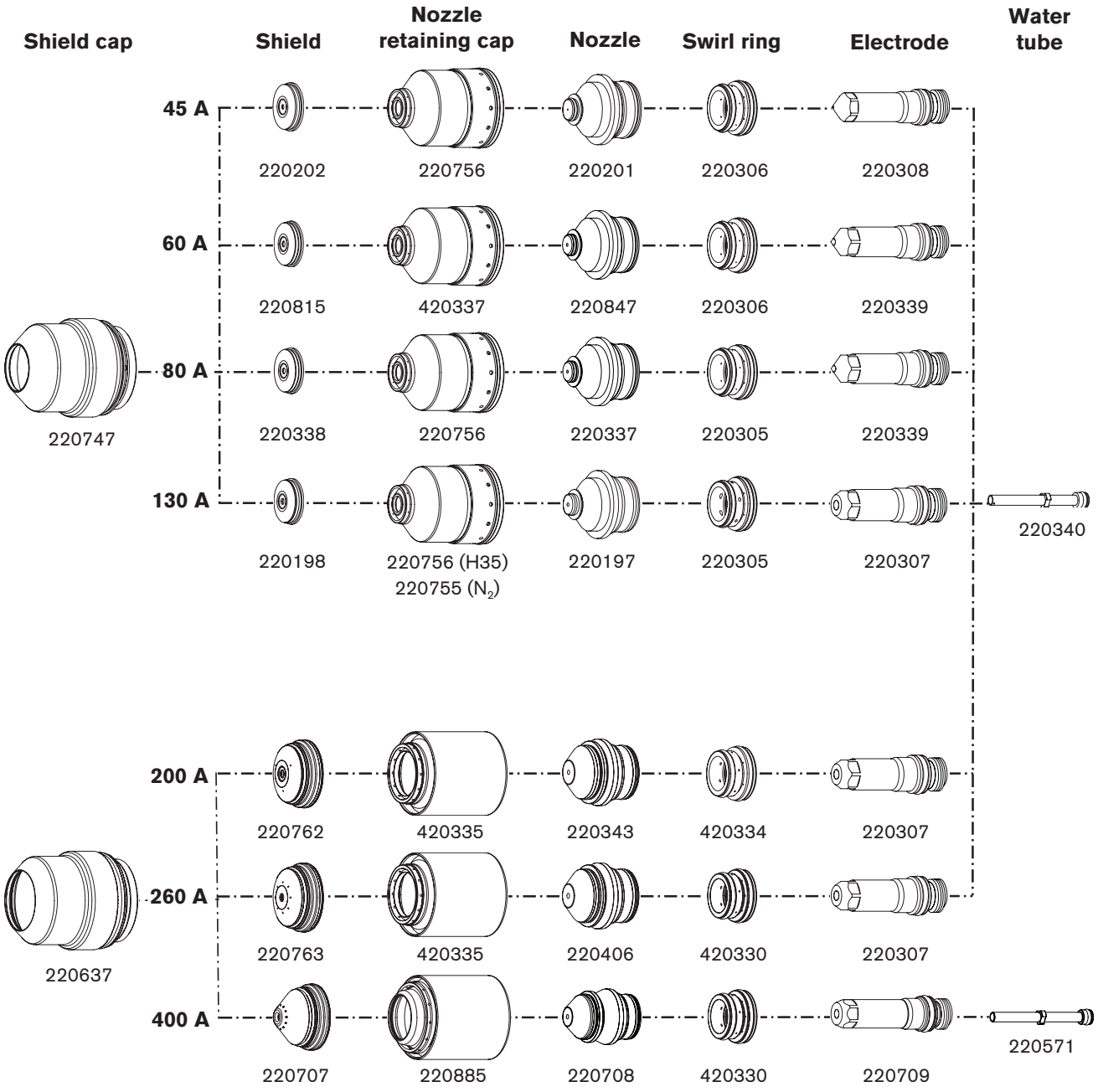
Consumables for mirror-image cutting

Straight cutting

Mild steel

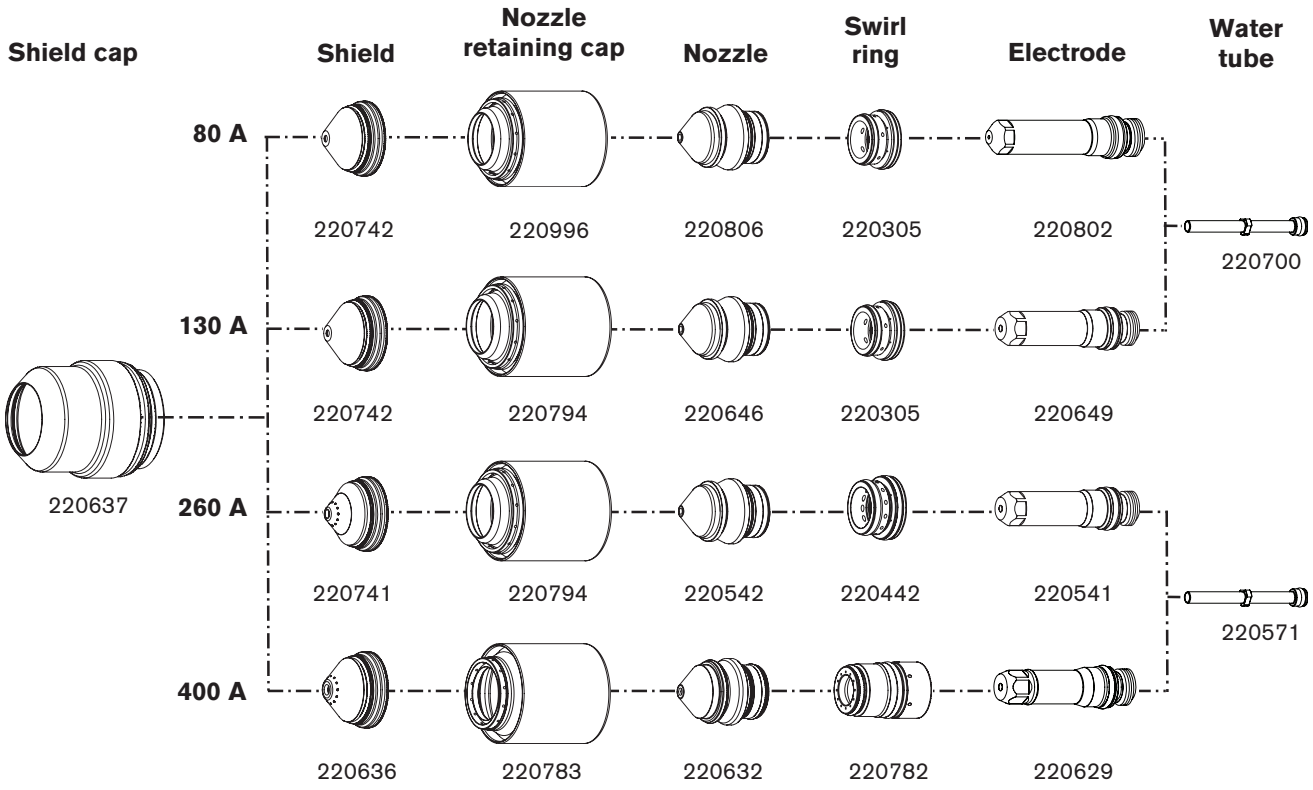


Stainless steel

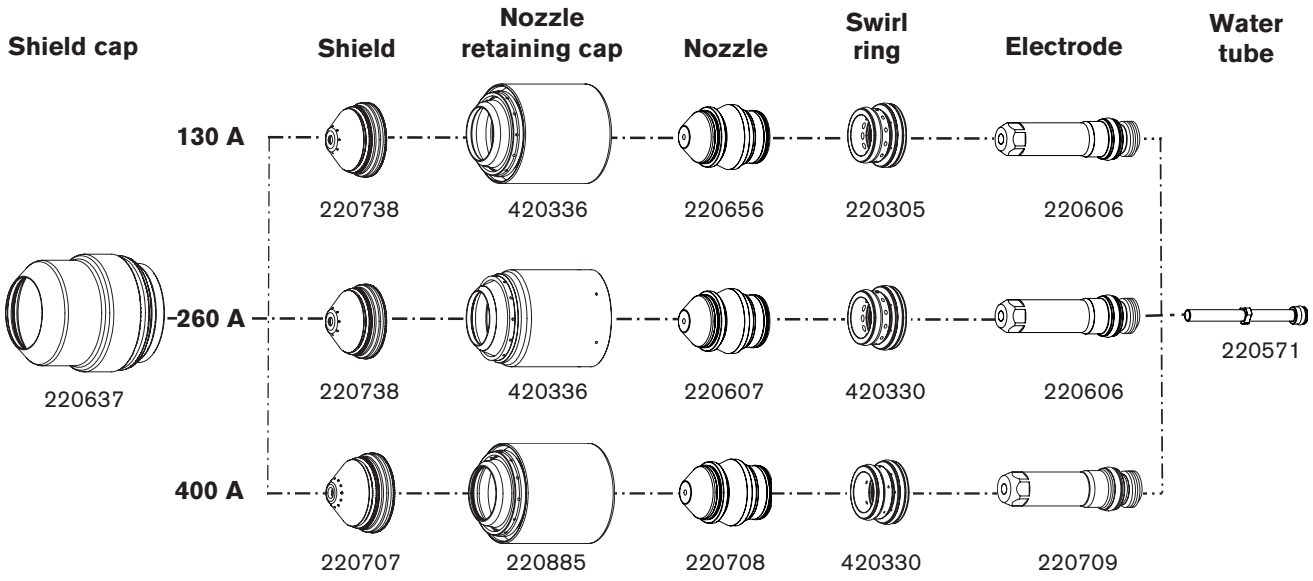


Bevel cutting

Mild steel



Stainless steel



Recommended spare parts

Power supply

Part Number	Description	Designator	Qty.
128858	Green power lamp assembly		1
129792	Chopper assembly	CH1, CH2, CH3, CH4	1
127039	6” fan: 230 CFM, 115 VAC 50-60 HZ		1
027079	10” fan: 450-550 CFM, 120 VAC 50-60 HZ		1
003149	Relay: Pilot arc, 120 VAC	CR1	1
229213	PCB: I/O		1
003232*	Contactor	CON1	1
003228**	Contactor	CON1	1
109004	Current sensor: Hall 100 amp, 4 volt	CS1, CS2, CS3, CS4	1
229238	Start circuit assembly	PCB1	1
008551	Fuse: 7.5 amp, 600 volt	F1, F2	2
141030	PCB: Control	PCB3	1
041802	PCB: Power distribution	PCB2	1
108028	Fuse: 3 amp, 250 volt	F5, F6, F7	3
108075	Fuse: 6.3 amp, 250 volt (slow-blow)	F1, F2, F3	3
108709	Fuse: 10 amp, 250 volt	F4	1
228171	Kit: Pump with clamp		1
228230	Kit: Motor with clamp		1
141027	PCB: Pump motor drive	PCB7	1

* 200/208, 220 and 240 volt power supplies
** 380, 400, 440, 480 and 600 volt power supplies

Cooler

Part Number	Description	Designator	Qty.
041897	PCB: Console power distribution		1
008756	Fuse: 5 amp, 250 volt (slow-blow)	F1	1
027634	Filter housing (on the rear panel of the cooler)		1
027664	Filter element		1
027926	Filter housing (under the coolant tank)		1
229235	Flow sensor	FS1	1
006113	Check valve: 3/8” FPT		1
229229	Solenoid valve		1
141033	PCB: Cooler sensor		1

Ignition console

Part Number	Description	Designator	Qty.
041817	HFHV Ignition PCB		1
129854	Transformer	T1	1

Selection and metering consoles

Part Number	Description	Designator	Qty.
228069	Kit: Control PCB	PCB2	1
041897	Power distribution PCB	PCB1	1
008756	Fuse: 5 amp, 250 volt (slow-blow)	F1	1
041822	Valve driver PCB	PCB3	1
008756	Fuse: 5 amp, 250 volt (slow-blow)	F1	1
228984	Solenoid valve	SV3 and SV10	2
006109	Solenoid valve	SV1, SV2, SV4-SV9, SV11-SV15	13
005263	Pressure sensor		1
011109	Air filter housing (on the rear panel of the selection console)		1
011110	Air filter element		1

Warning Label – 110647

This warning label is affixed to some power supplies. It is important that the operator and maintenance technician understand the intent of these warning symbols as described. The numbered text corresponds to the numbered boxes on the label.



1. Cutting sparks can cause explosion or fire.

1.1 Do not cut near flammables.

1.2 Have a fire extinguisher nearby and ready to use.

1.3 Do not use a drum or other closed container as a cutting table.

2. Plasma arc can injure and burn; point the nozzle away from yourself. Arc starts instantly when triggered.

2.1 Turn off power before disassembling torch.

2.2 Do not grip the workpiece near the cutting path.

2.3 Wear complete body protection.

3. Hazardous voltage. Risk of electric shock or burn.

3.1 Wear insulating gloves. Replace gloves when wet or damaged.

3.2 Protect from shock by insulating yourself from work and ground.

3.3 Disconnect power before servicing. Do not touch live parts.

4. Plasma fumes can be hazardous.

4.1 Do not inhale fumes.

4.2 Use forced ventilation or local exhaust to remove the fumes.

4.3 Do not operate in closed spaces. Remove fumes with ventilation.

5. Arc rays can burn eyes and injure skin.

5.1 Wear correct and appropriate protective equipment to protect head, eyes, ears, hands, and body. Button shirt collar. Protect ears from noise. Use welding helmet with the correct shade of filter.

6. Become trained. Only qualified personnel should operate this equipment. Use torches specified in the manual. Keep non-qualified personnel and children away.

7. Do not remove, destroy, or cover this label. Replace if it is missing, damaged, or worn.