# Section 6

# PARTS LIST

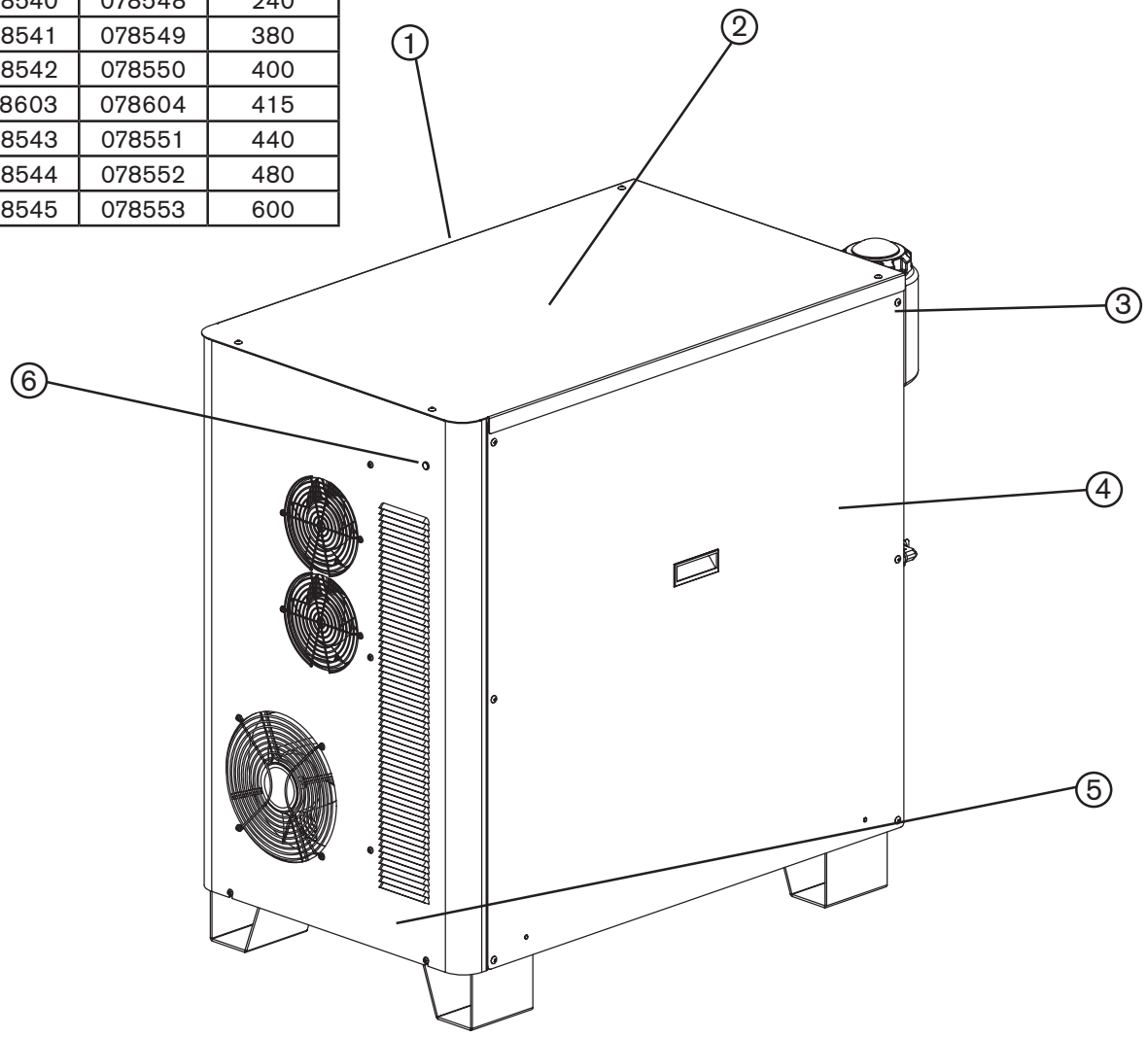
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## Power supply

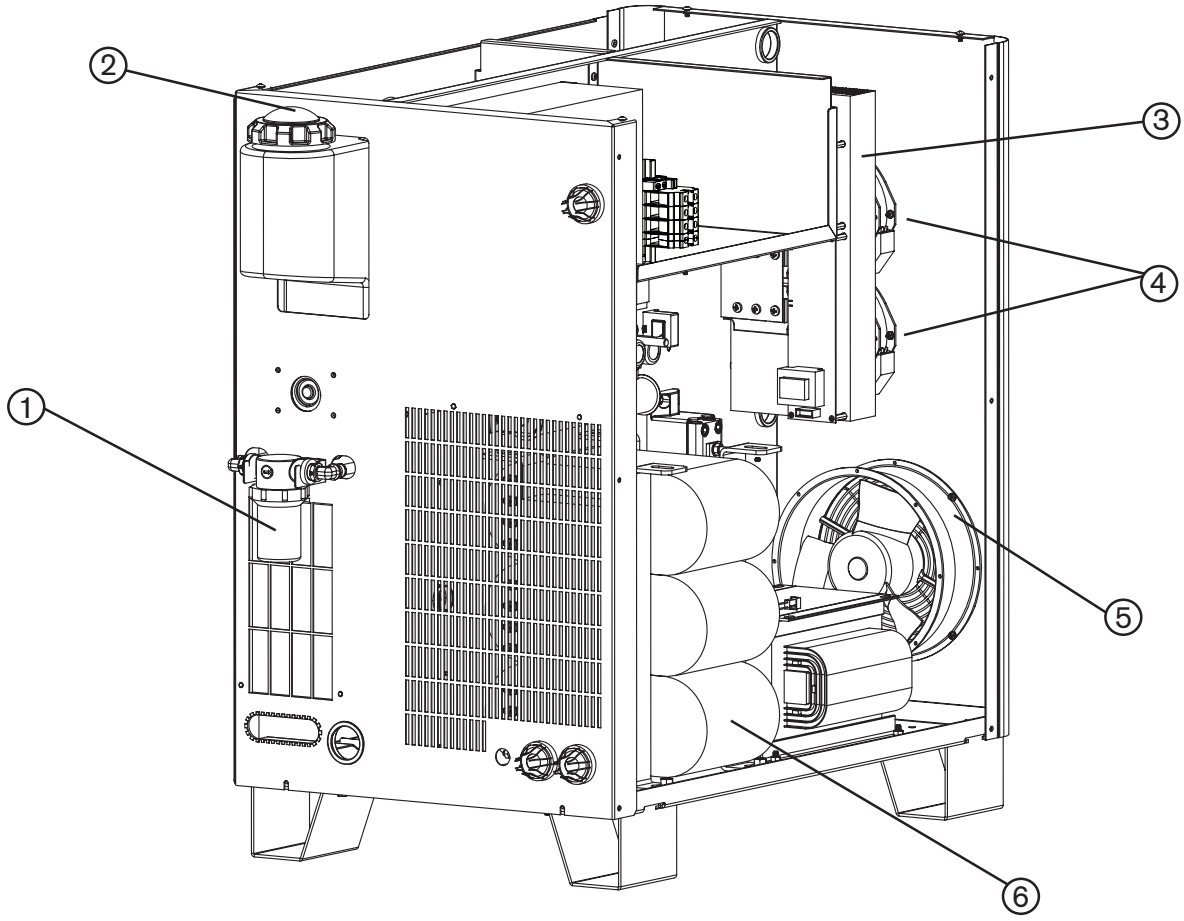
| Power supplies | | |
|---|---|---|
| **Without Hypernet** | **With Hypernet** | **Voltage (AC)** |
| 078538 | 078546 | 200/208 |
| 078539 | 078547 | 220 |
| 078540 | 078548 | 240 |
| 078541 | 078549 | 380 |
| 078542 | 078550 | 400 |
| 078603 | 078604 | 415 |
| 078543 | 078551 | 440 |
| 078544 | 078552 | 480 |
| 078545 | 078553 | 600 |

Note: Hypernet is only used to connect certain Hypertherm components to each other. An HPRXD system can be connected to the ArcGlide torch height control, and an EDGE Pro or MicroEDGE Pro CNC



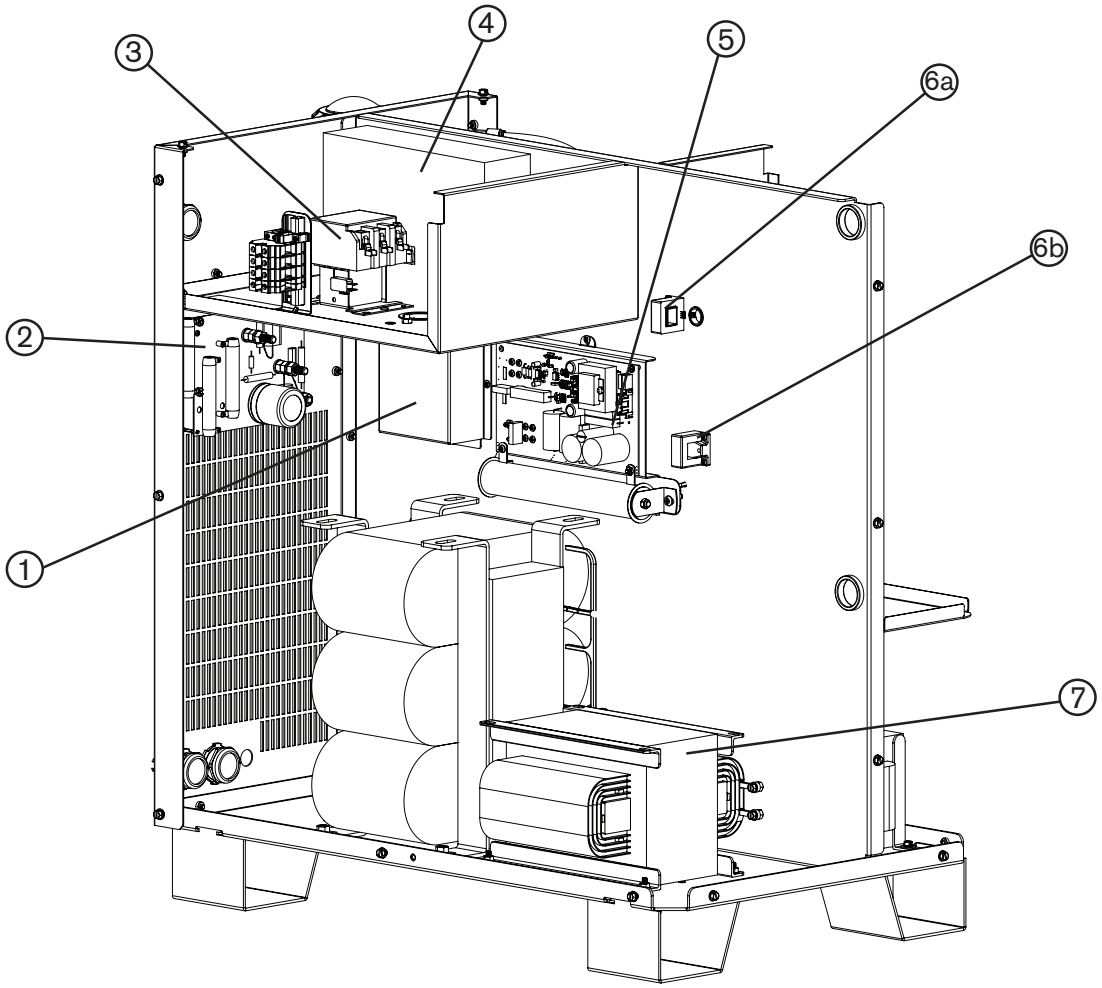

| Item | Part Number | Description | Designator | Qty. |
|---|---|---|---|---|
| 1 | See chart above | Power supply | | |
| 2 | 228328 | Panel: Top, with label | | 1 |
| 3 | 075241 | Sheet metal screws | | 1 |
| 4 | 228532 | Panel: Right or left side, with label | | 1 |
| 5 | 228531 | Panel: Front, with label | | 1 |
| 6 | 129633 | Green power lamp assembly | | 1 |
| 7 | 228611 | Kit: Hypernet upgrade (not shown) | | 1 |

## Power supply




| Item | Part Number | Description | Designator | Qty. |
|---|---|---|---|---|
| 1 | 027634 | Filter housing | | 1 |
| | 027664 | Filter element | | 1 |
| 2 | 127014 | Cap: Coolant reservoir | | 1 |
| 3 | 129792 | Chopper assembly | CH1 | 1 |
| 4 | 127039 | 6 in. fan: 230 CFM, 115 VAC 50 – 60 HZ | | 2 |
| 5 | 027079 | 10 in. fan: 450-550 CFM, 120 VAC 50 – 60 HZ | | 1 |
| 6 | 014283 | 200 volt main transformer: 19.5 KW, 3 ph, 50 HZ | T2 | 1 |
| | 014284 | 220 volt main transformer: 19.5 KW, 3 ph, 50 – 60HZ | | 1 |
| | 014282 | 240 volt main transformer: 19.5 KW, 3 ph, 60 HZ | | 1 |
| | 014303 | 380 volt main transformer: 19.5 KW, 3 ph, 50 HZ | | 1 |
| | 014283 | 400 volt main transformer: 19.5 KW, 3 ph, 50 HZ | | 1 |
| | 014283 | 415 volt main transformer: 19.5 KW, 3 ph, 50 HZ | | 1 |
| | 014284 | 440 volt main transformer: 19.5 KW, 3 ph, 50 – 60 HZ | | 1 |
| | 014282 | 480 volt main transformer: 19.5 KW, 3 ph, 60 HZ | | 1 |
| | 014281 | 600 volt main transformer: 19.5 KW, 3 ph, 60 HZ | | 1 |
| | 228309 | Kit: Thermistor replacement for main transformer | | 1 |

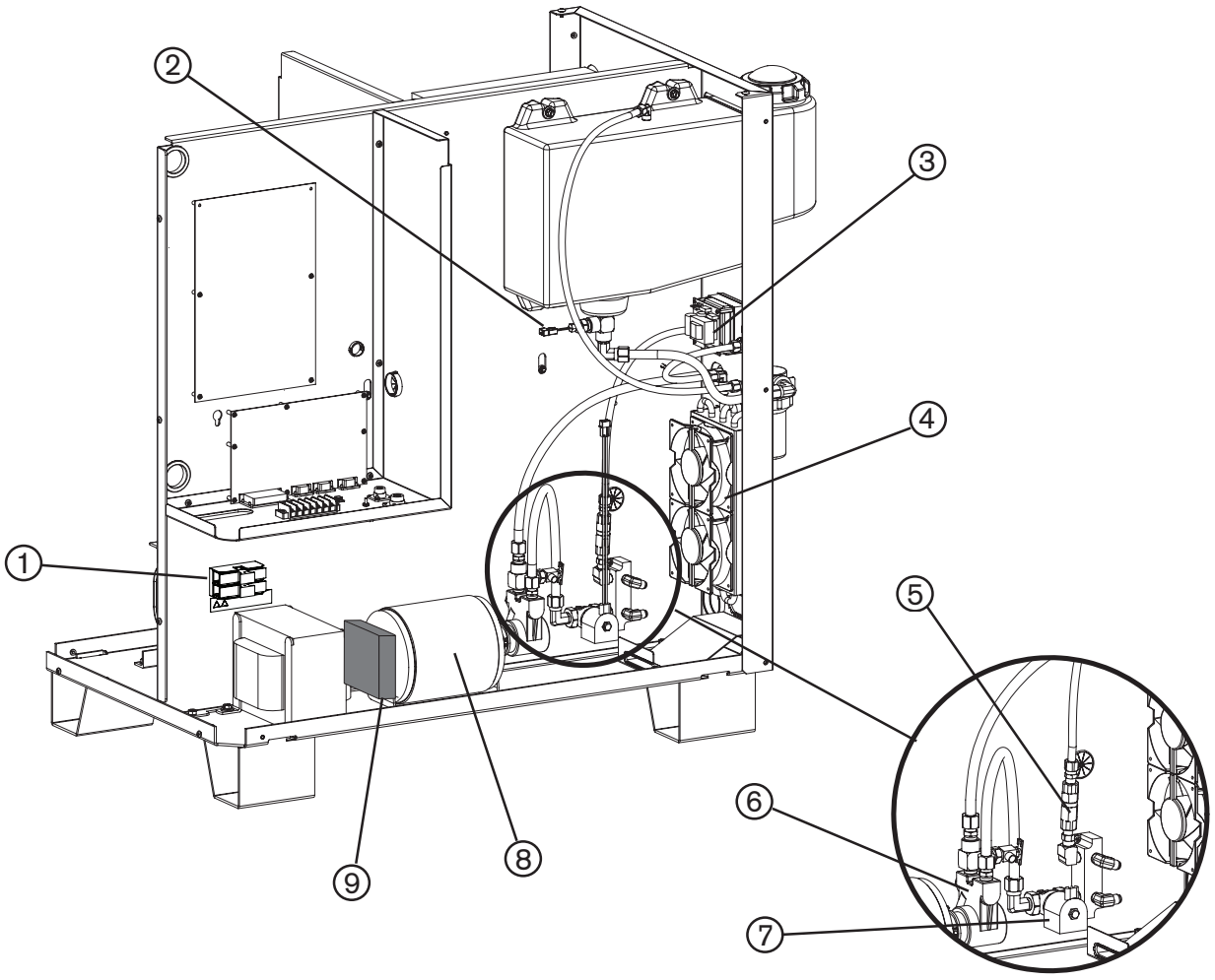
## Power supply




| Item | Part Number | Description | Designator | Qty. |
|---|---|---|---|---|
| 1 | 003149 | Relay: Pilot arc, 120 VAC | CR1 | 1 |
| 2 | 041837 | PCB: I/O | PCB6 | 1 |
| 3 | 003249 | Contactor | CON1 | 1 |
| 4 | 109036* | EMI filter: 60 A, 440 VAC 3PH | | 1 |
| 5 | 229238 | Start circuit assembly | PCB1 | 1 |
| 6a | 109004 | Current sensor: Hall 100 A, 4 volt | CS3 | 1 |
| 6b | 109004 | Current sensor: Hall 100 A, 4 volt | CS1 | 1 |
| 7 | 014280 | Inductor: 4MH | | 1 |

* 400/415 volt power supplies only

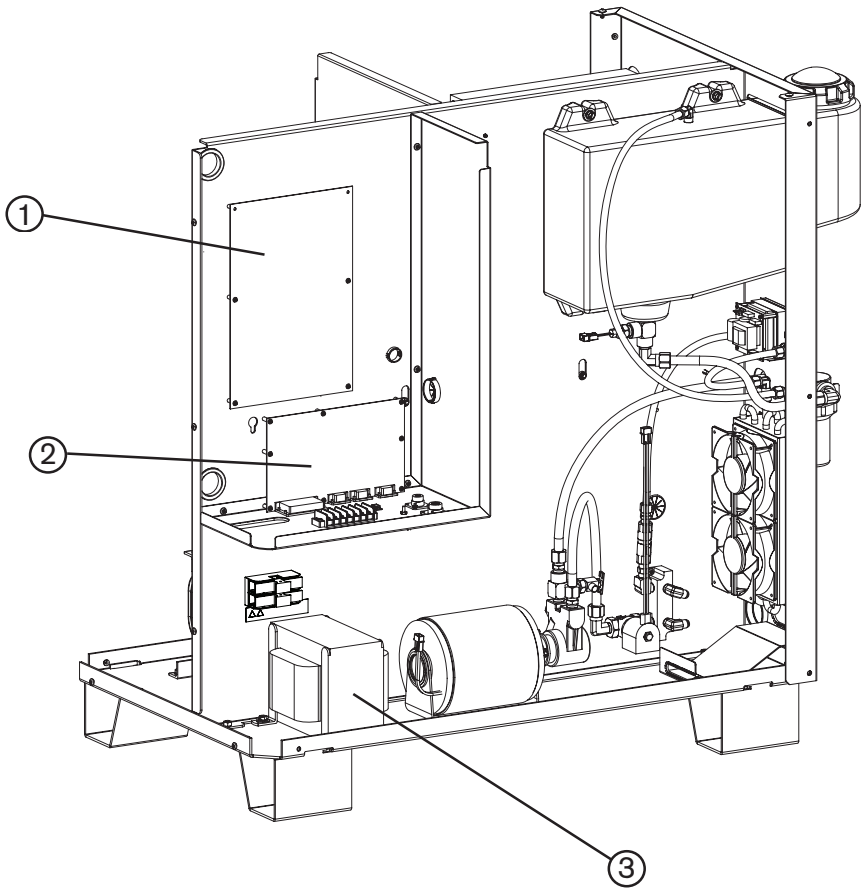
## Power supply




| Item | Part Number | Description | Designator | Qty. |
|---|---|---|---|---|
| 1 | 008551* | Fuse: 7.5 A, 600 volt | F1, F2 | 2 |
| | 008709** | Fuse: 20 A, 500 volt | F1, F2 | 2 |
| 2 | 109393 | Temperature sensor | T2 | 1 |
| 3 | 229206 | Flow switch assembly | FLS | 1 |
| 4 | 027978 | Heat exchanger assembly | | 1 |
| | 027185 | 4 in. fan | | 2 |
| 5 | 006075 | Check valve: 1/4 in. FPT | | 1 |
| 6 | 228170 | Kit: Pump with clamp | | 1 |
| 7 | 006046 | Solenoid valve assembly: 3/8 in., 240 volt | CLT SOL | 1 |
| 8 | 228538 | Kit: Motor with clamp | | 1 |
| 9 | 127039*** | Fan (for pump motor): 230 cfm, 115 VAC, 50 – 60 Hz | | 1 |
| 10 | 031122 | Pump to motor shaft coupler (not shown) | | 1 |

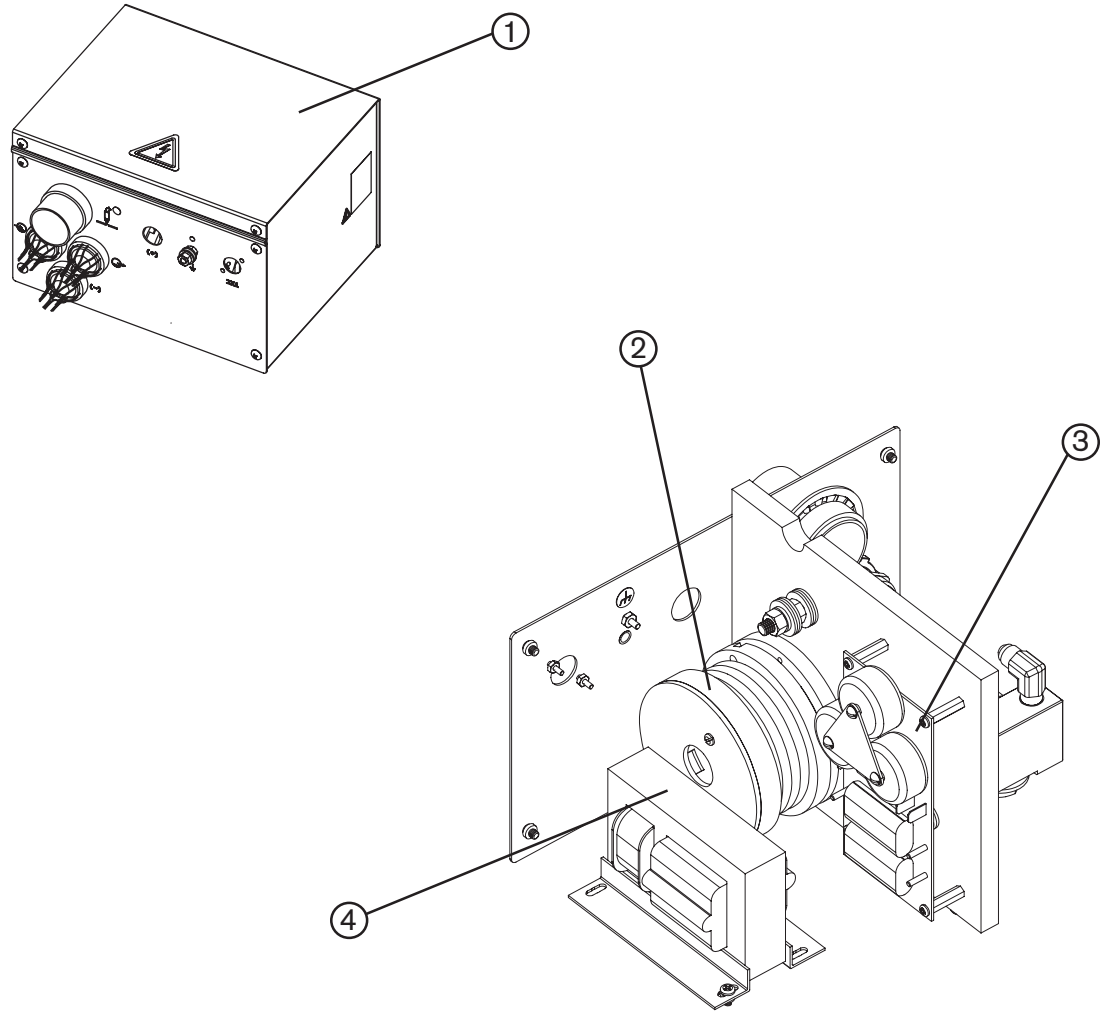
* 380, 400, 440, 480 and 600 volt power supplies
** 200/208 and 240 volt power supplies
*** 415 volt power supply only

## Power supply



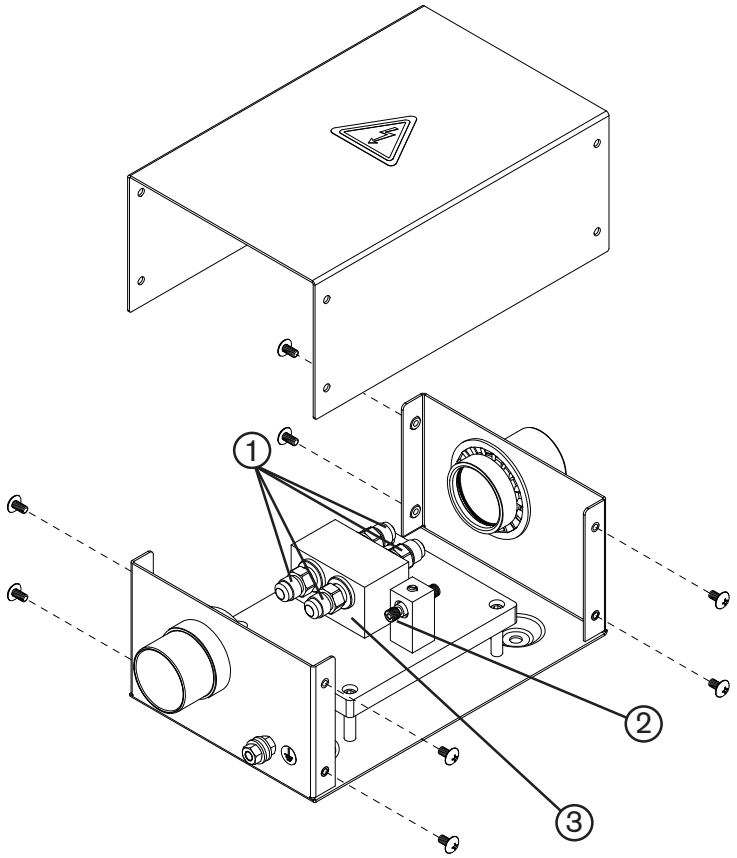

| Item | Part Number | Description | Designator | Qty. |
|---|---|---|---|---|
| 1 | 041802 | Power distribution PCB | PCB2 | 1 |
| | 108028 | Fuse: 3 A | | 1 |
| | 108075 | Fuse: 6.3 A | | 1 |
| | 108709 | Fuse: 10 A | | 1 |
| 2 | 228548 | Control PCB | PCB3 | 1 |
| 3 | 129786 | Control transformer: 200/208 volt, 50 – 60 HZ | T2 | 1 |
| | 229117 | Control transformer: 220 volt, 50 – 60 HZ | | 1 |
| | 129966 | Control transformer: 240 volt, 60 HZ | | 1 |
| | 229094 | Control transformer: 380 volt, 50 HZ | | 1 |
| | 129787 | Control transformer: 400 volt, 50 – 60 HZ | | 1 |
| | 229451 | Control transformer: 415 volt, 50 – 60 HZ | | 1 |
| | 229013 | Control transformer: 440 volt, 50 – 60 HZ | | 1 |
| | 129967 | Control transformer: 480 volt, 50 – 60 HZ | | 1 |
| | 129989 | Control transformer: 600 volt, 50 – 60 HZ | | 1 |

## Ignition console




| Item | Part Number | Description | Designator | Qty. |
|---|---|---|---|---|
| 1 | **078172** | **Ignition Console** | | |
| 2 | 129831 | Coil assembly | T2 | 1 |
| 3 | 041817 | HFHV Ignition PCB | PCB IGN | 1 |
| 4 | 129854 | Transformer | T1 | 1 |

## Torch lead junction box (Optional)



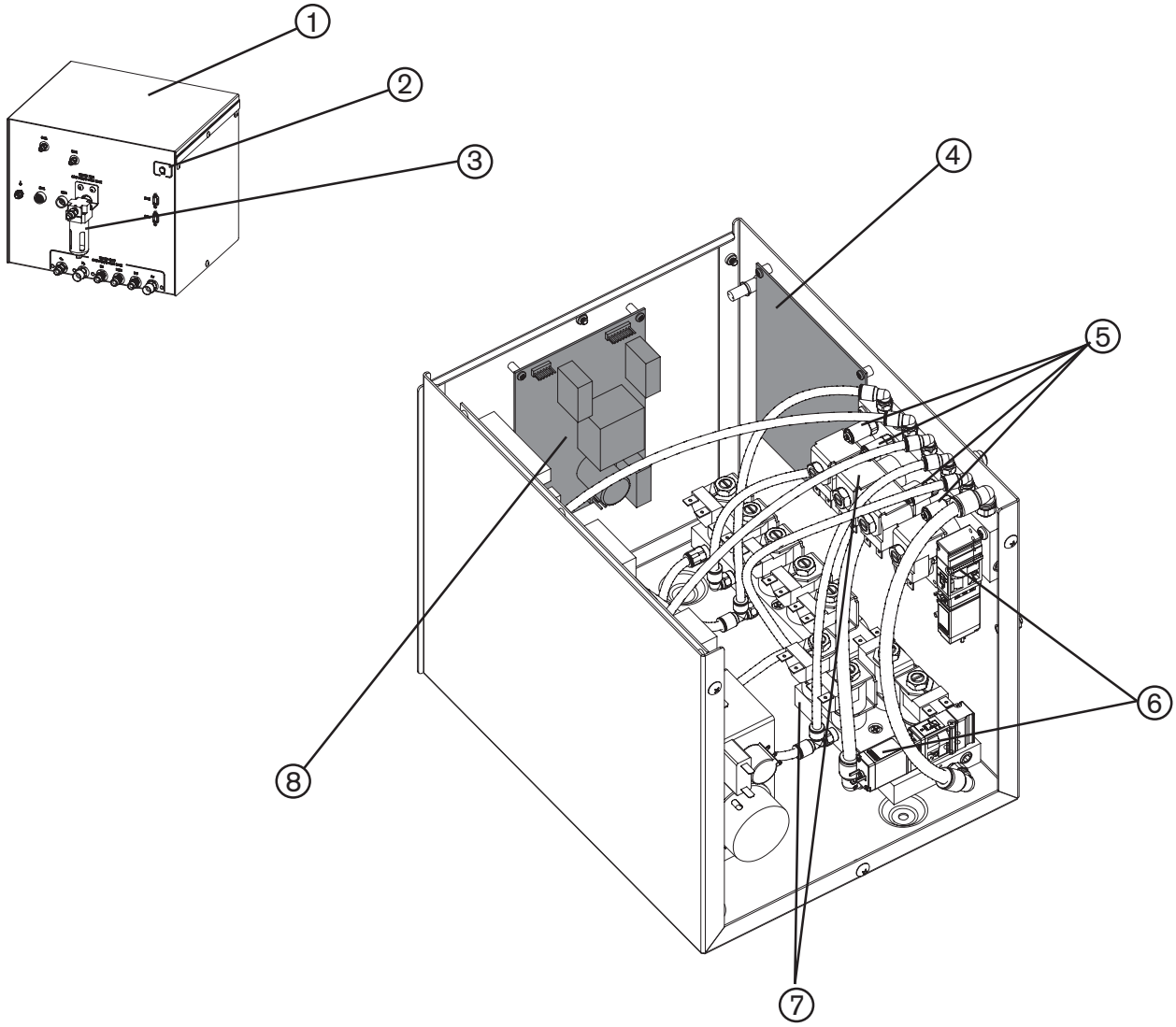

| Item | Part Number | Description | Qty. |
|---|---|---|---|
| | **078619** | **HPRXD junction box** | 1 |
| 1 | 015007 | Coolant fitting | 4 |
| 2 | 104763 | Pilot arc fitting | 1 |
| 3 | 104762 | Coolant block | 1 |

## 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**

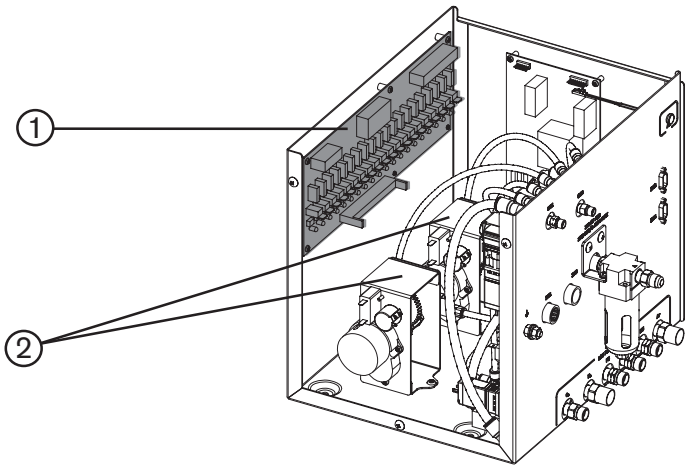
| Part no. | Description | Part no. | Description |
|---|---|---|---|
| 428420 | 3 m (10 ft) | 428425 | 10 m (35 ft) |
| 428421 | 4.5 m (15 ft) | 428426 | 12.2 m (40 ft) |
| 428339 | 5.5 m (18 ft) | 428427 | 13.7 m (45 ft) |
| 428422 | 6 m (20 ft) | 428428 | 15 m (50 ft) |
| 428423 | 7.5 m (25 ft) |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

## Selection console



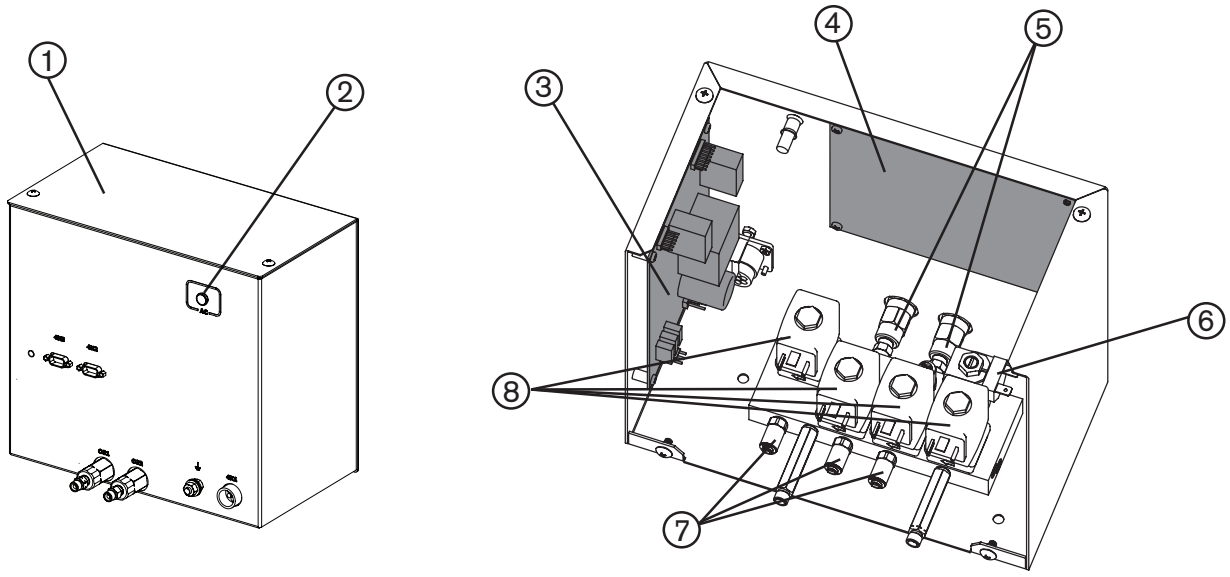

| Item | Part Number | Description | Designator | Qty. |
|---|---|---|---|---|
| 1 | **078533** | **Selection console** | | |
| 2 | 129633 | Green power lamp | | 1 |
| 3 | 011109 | Filter assembly | | 1 |
| | 011110 | Filter element | | 1 |
| 4 | 228069 | Kit: Control PCB | PCB2 | 1 |
| 5 | 005263 | 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 |
| | 006112 | Replacement solenoid coil | | |
| 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

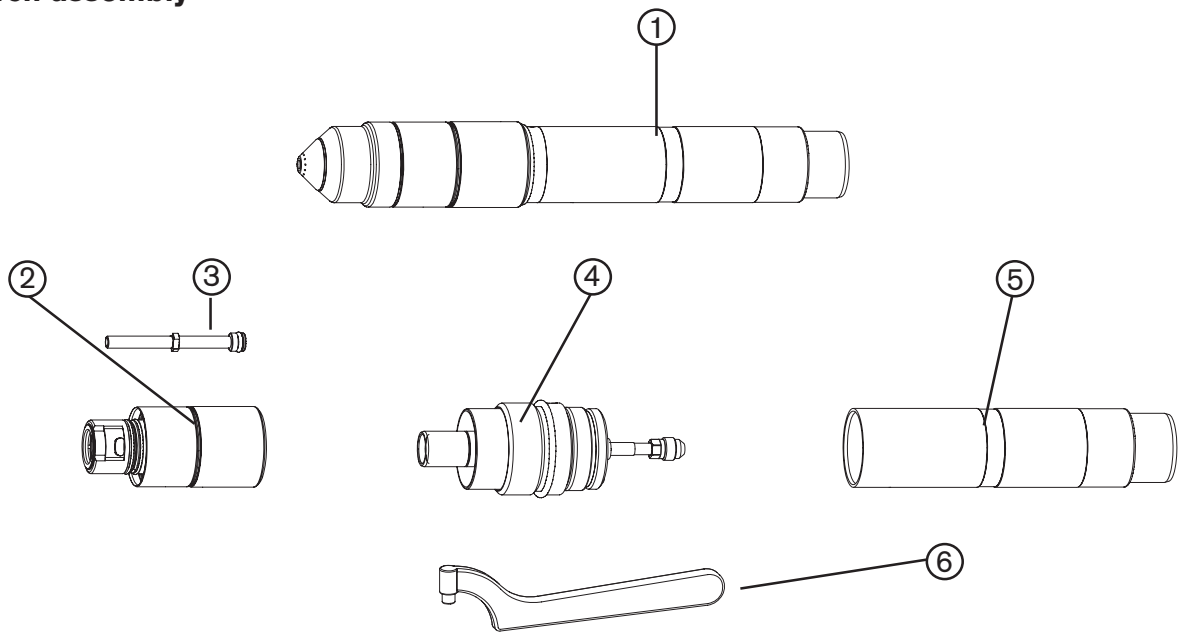



| Item | Part Number | Description | Designator | Qty. |
|---|---|---|---|---|
| 1 | **078535** | **Metering console** | | **1** |
| 2 | 129633 | Green power lamp | | 1 |
| 3 | 041897 | Power distribution PCB | PCB1 | 1 |
| | 008756 | Fuse: 5 A, 250V, slow-blow | F1 | 1 |
| 4 | 228069 | Kit: Control PCB | PCB2 | 1 |
| 5 | 006077 | Check valves | | 2 |
| 6 | 006109 | Solenoid valve | SV16 | 1 |
| | 006112 | Replacement solenoid coil | | |
| 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 | | 1 |
| | 229032 | Metering console wire harness | | 1 |

* 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.

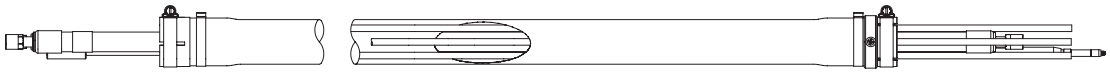
## HyPerformance torch

### Torch assembly




| Item | Part Number | Description |
|---|---|---|
| **1** | 228520 | **HPR130XD 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 in. spanner wrench |
| | 128879 | Torch kit: o-rings, water tube and seal |
| | 128880 | Quick disconnect kit: o-ring and connector |

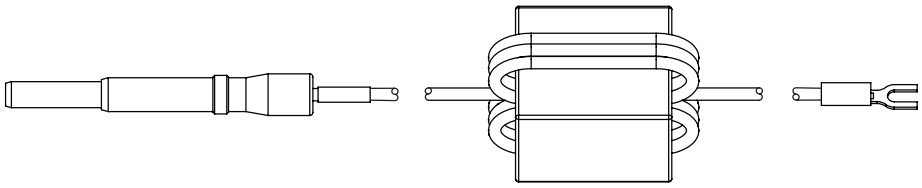
## Torch leads



| 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) |
| 228547 | 20 m (65 ft) |

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

Note: The ohmic contact wire is not part of the HPR260XD 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* for specific applications

## Mild steel consumable starter kit – 228420

| Part Number | Description | Qty. |
|---|---|---|
| 026009 | O-ring: 0.208 in. X 0.070 in. | 5 |
| 027055 | Lubricant: Silicone 1/4-oz tube | 1 |
| 044028 | O-ring: 1.364 in. X 0.070 in. | 2 |
| 104119 | Tool: Consumable removal / replacement | 1 |
| 104269 | Wrench: Spanner | 1 |
| 220179 | Swirl ring: 80 A/130 | 1 |
| 220180 | Swirl ring: 30 A | 1 |
| 220181 | Electrode: 130 A | 3 |
| 220182 | Nozzle: 130 A | 3 |
| 220183 | Shield: 130 A | 2 |
| 220187 | Electrode: 80 A | 2 |
| 220188 | Nozzle: 80 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 |
| 220552 | Electrode: 50 A | 2 |
| 220553 | Swirl ring: 50 A | 1 |
| 220554 | Nozzle: 50 A | 2 |
| 220555 | Shield: 50 A | 1 |
| 220665 | SilverPlus electrode: 130 A | 1 |
| 220747 | Shield cap: 130 A | 1 |
| 220754 | Nozzle retaining cap: 30 A | 1 |
| 220756 | Nozzle retaining cap: 130 A | 1 |

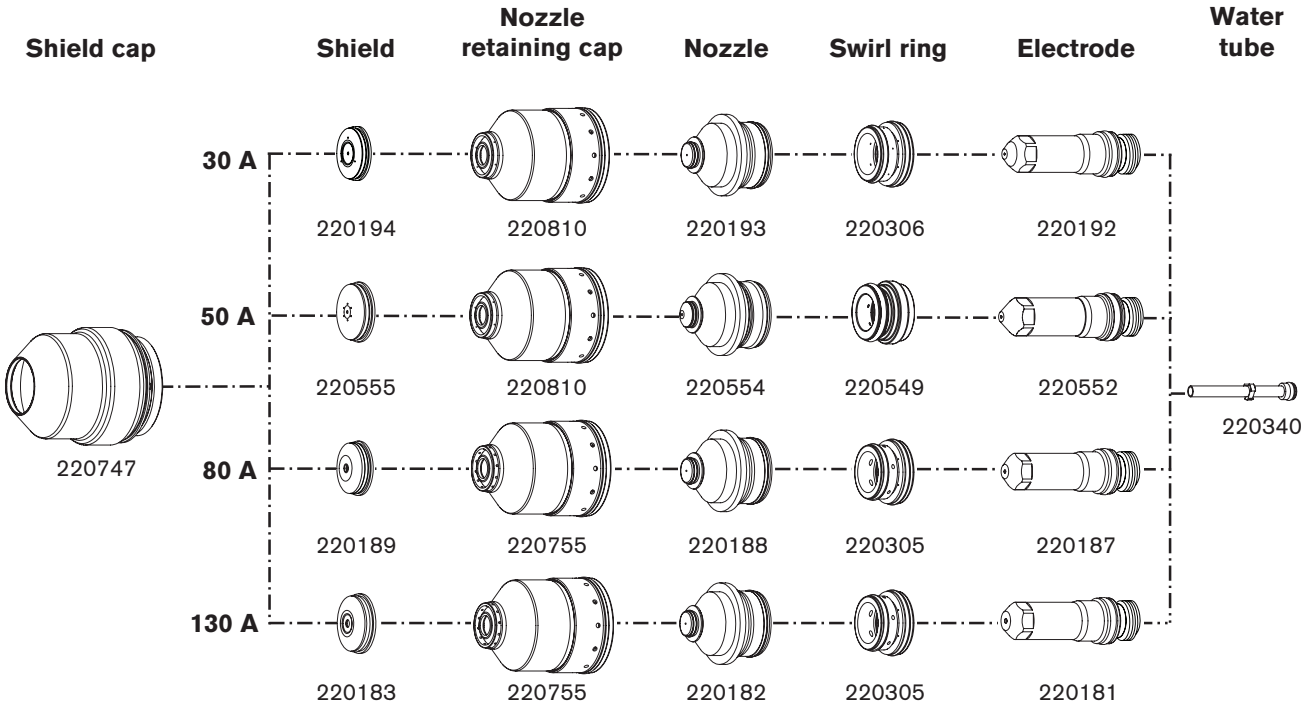
## Stainless steel and Aluminum consumable starter kit – 228421

| Part Number | Description | Qty. |
|---|---|---|
| 026009 | O-ring: 0.208 in. X 0.070 in. | 5 |
| 027055 | Lubricant: Silicone 1/4-oz tube | 1 |
| 044028 | O-ring: 1.364 in. X 0.070 in. | 2 |
| 104119 | Tool: Consumable removal / replacement | 1 |
| 104269 | Wrench: Spanner | 1 |
| 220179 | Swirl ring: 80 A/130 A | 1 |
| 220180 | Swirl ring: 30 A | 2 |
| 220197 | Nozzle: 130 A | 2 |
| 220198 | Shield: 130 A | 1 |
| 220307 | Electrode: 130 A | 2 |
| 220337 | Nozzle: 80 A | 2 |
| 220338 | Shield: 80 A | 1 |
| 220339 | Electrode: 80 A | 2 |
| 220340 | Water tube | 1 |
| 220747 | Shield cap: 130 A | 1 |
| 220755 | Nozzle retaining cap: 130 A (CCW) | 1 |
| 220756 | Nozzle retaining cap: 130 A | 1 |
| 220814 | Nozzle retaining cap: 60 A HDi | 1 |
| 220815 | Shield: 60 A HDi | 1 |
| 220847 | Nozzle: 60 A HDi | 1 |

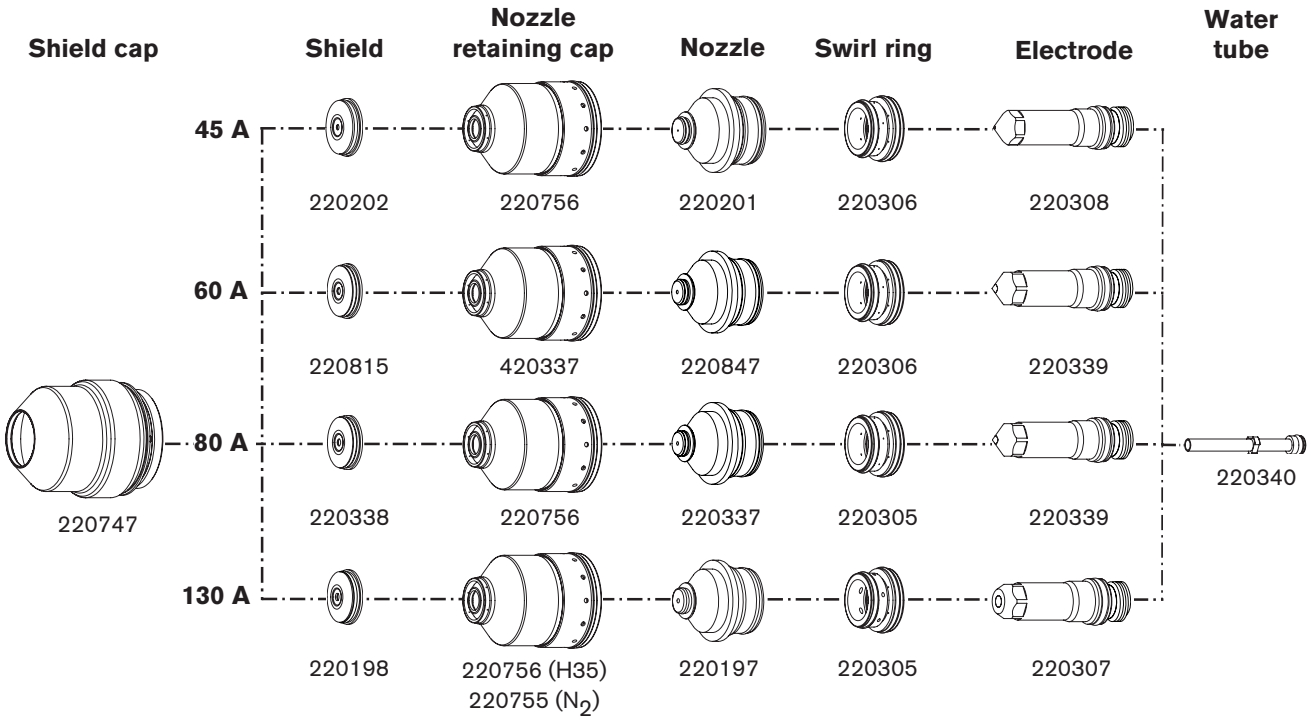
# Consumables for mirror-image cutting

## Straight cutting

### Mild steel

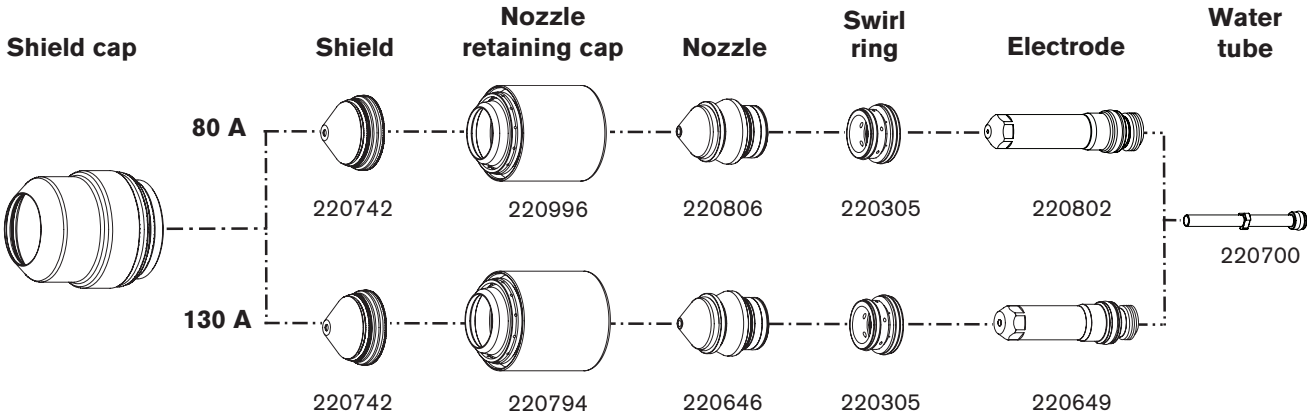


**Stainless steel**

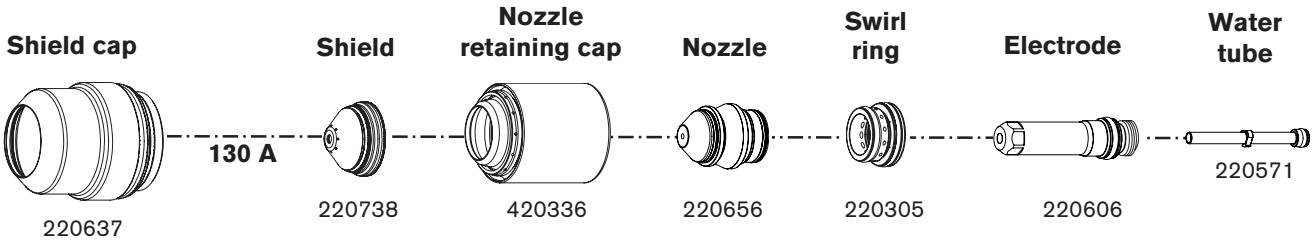


## Bevel cutting

### Mild steel




### Stainless steel



# Recommended spare parts

## Power supply

| Part Number | Description | Designator | Qty. |
|---|---|---|---|
| 129633 | Green power lamp assembly | | 1 |
| 027634 | Filter housing | | 1 |
| 027664 | Filter element | | 1 |
| 129792 | Chopper assembly | CH1 | 1 |
| 127039 | 6 in. fan: 230 CFM, 115 VAC 50 – 60 HZ | | 1 |
| 027079 | 10 in. fan: 450-550 CFM, 120 VAC 50 – 60 HZ | | 1 |
| 003149 | Relay: Pilot arc, 120 VAC | CR1 | 1 |
| 041837 | PCB: I/O | | 1 |
| 003249 | Contactor | CON1 | 1 |
| 109004 | Current sensor: Hall 100 A, 4 volt | | 1 |
| 229238 | Start circuit assembly | PCB1 | 1 |
| 008551* | Fuse: 7.5 A, 600 volt | F1, F2 | 2 |
| 228548 | Control PCB | PCB3 | 1 |
| 041802 | Power distribution PCB | PCB2 | 1 |
| 229206 | Flow switch assembly | FLS | 1 |
| 027185 | Heat exchanger fan: 4 in. | | 1 |
| 006075 | Check valve: 1/4 in. FPT | | 1 |
| 229229 | Solenoid valve assembly | CLT SOL | 1 |
| 228170 | Kit: Pump, 70 gpm, 200 psi | | 1 |
| 228538 | Kit: Motor, 1/3 HP, 240 volt, 50 – 60 HZ | | 1 |

*400, 415, 480, and 600 volt power supplies

## 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. |
|---|---|---|---|
| 041828 | Control PCB | | 1 |
| 041897 | Power distribution PCB | | 1 |
| 041822 | Valve driver PCB | | 1 |
| 006109 | Solenoid valve | | 2 |
| 005263 | Pressure sensor | | 1 |
| 228984 | Solenoid coil | | 1 |
| 006112 | Replacement solenoid coil | | 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.