

Consumable selection

Standard cutting (0°)

Most of the consumables on the following pages are designed for standard (straight) cutting, when the torch is perpendicular to the workpiece.

Bevel cutting (0° to 45°)

Consumables for 130 A and 260 A bevel cutting are specifically designed for bevel cutting. 400 A consumables can be used for standard cutting and bevel cutting, but bevel-specific, 400 A cut charts are provided for convenience.

Marking

Any of the consumable sets can also be used for marking with argon or nitrogen. Marking parameters are shown at the bottom of each cut chart. The quality of the marks will vary depending on the marking process, cut process, material type, material thickness, and material surface finish. For best mark quality, use the argon marking process settings. For all marking processes the depth of the mark can be increased by reducing the marking speed, or the depth can be decreased by increasing the marking speed. Argon marking currents can be increased by up to 30% to increase the depth of the mark. When marking with an argon process at 25 amperes or greater, the process will start with air before changing to argon, and a thicker, darker mark will be seen at the start of the mark. When using the argon marking processes, mark and cut individual parts. Marking the entire nest prior to cutting may lead to reduced consumable life. For better results intersperse cuts and marks. Poor quality marking or burn-through may occur with material less than 1.5 mm (0.06 inches or 16 gauge).

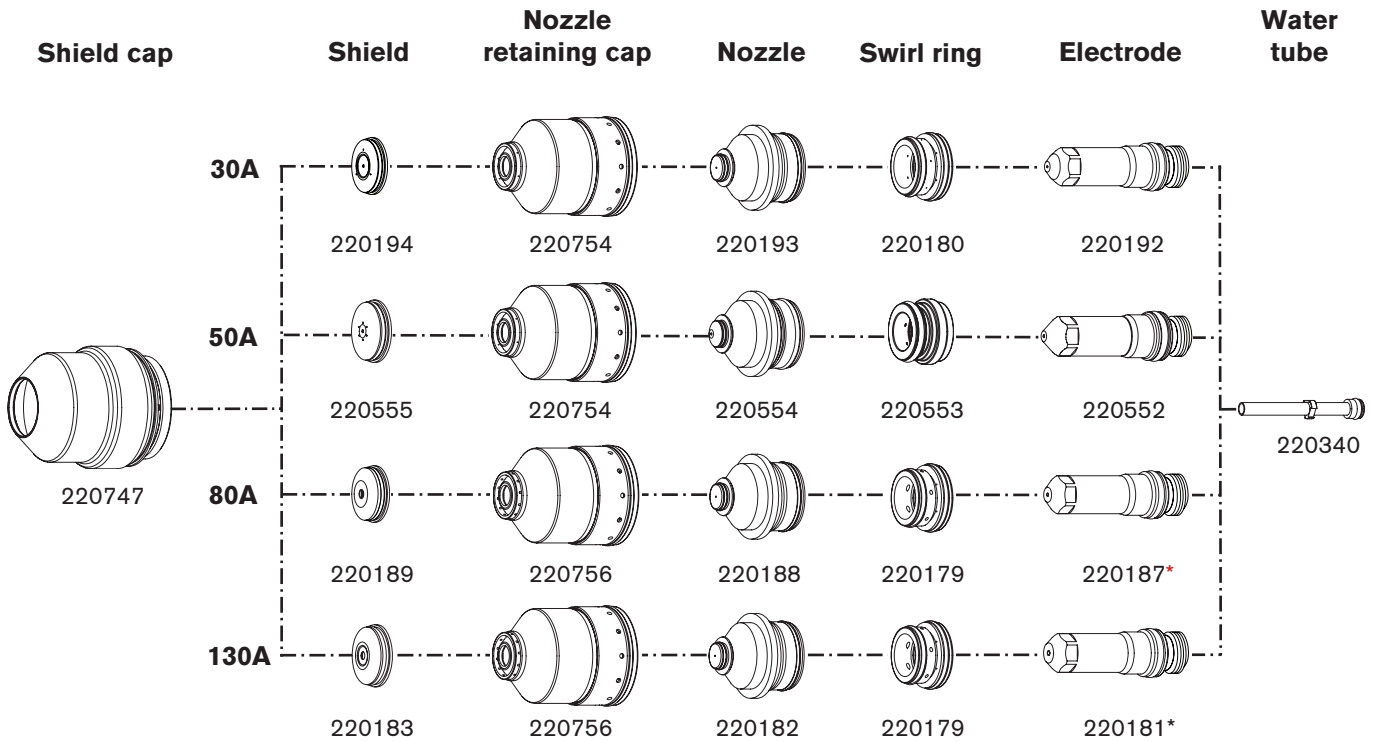
Consumables for mirror-image cutting

See the *Parts List* section in this manual for part numbers.

SilverPlus electrodes

SilverPlus electrodes provide increased life when the average cut duration is short (< 60 seconds), and cut quality is not the most critical requirement. SilverPlus electrodes are available for **80 amp and 130 amp** mild steel O₂ / Air cutting **with the HPR130XD Manual Gas**. Part numbers can be found on the following page.

Mild steel

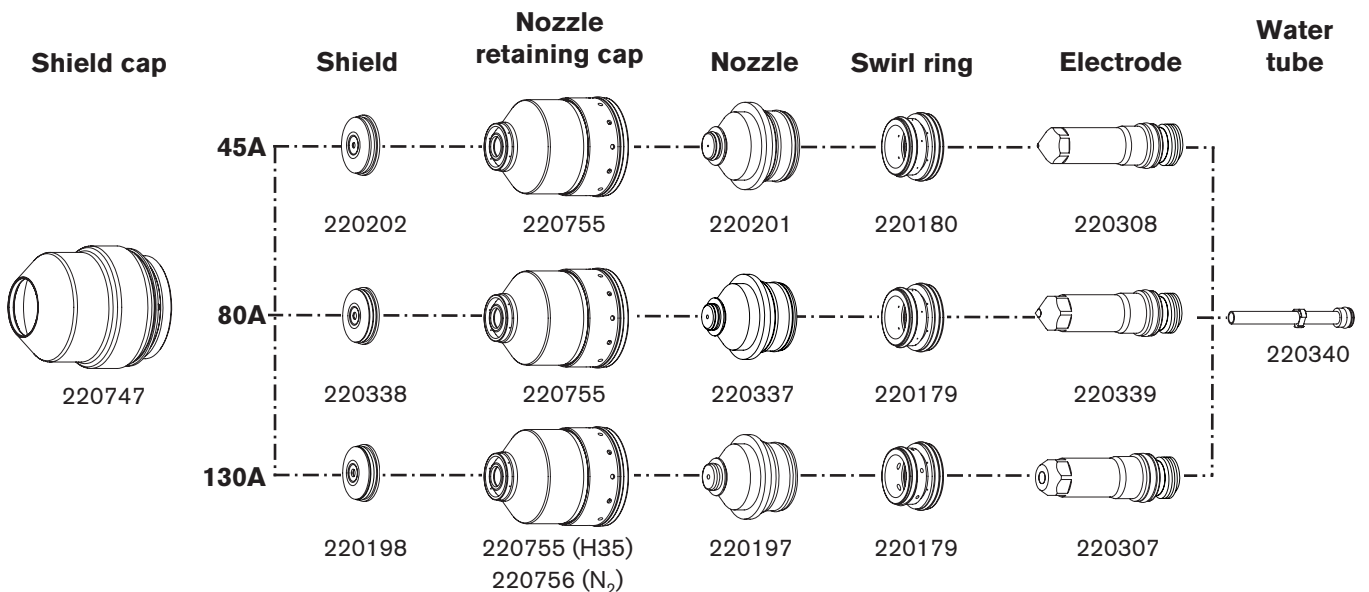


* SilverPlus electrodes are available for the following process.

Mild steel, 80 amp, O₂ / Air – 420566

Mild steel, 130 A, O₂ / Air – 220665

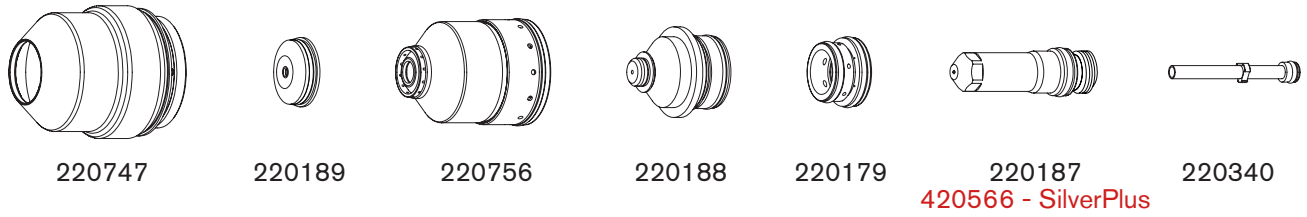
Stainless steel



OPERATION

Mild steel O₂ Plasma / Air Shield 80 A

Flow rates – lpm/scfh		
	O ₂	Air
Preflow	0 / 0	76 / 161
Cutflow	23 / 48	41 / 87



Metric

Select Gases		Set Preflow		Set Cutflow		Material Thickness	Arc Voltage	Torch-to-Work Distance	Cutting Speed	Initial Pierce Height		Pierce Delay Time
Plasma gas	Shield gas	Plasma gas	Shield gas	Plasma gas	Shield gas					mm	Volts	
O ₂	Air	50	30	72	30	2	112	2.5	9810	3.8	150	0.1
						2.5	115		7980			
						3	117		6145			
						4	120	2.0	4300	4.0	200	
						5	121		3670			
						6	123		3045			
					8	125	2430	5.0	250			
					10	127	1810					
					12	130	1410					
					15	133	1030	6.3	250			
					20	135	545			0.9		

English

Select Gases		Set Preflow		Set Cutflow		Material Thickness	Arc Voltage	Torch-to-Work Distance	Cutting Speed	Initial Pierce Height		Pierce Delay Time
Plasma gas	Shield gas	Plasma gas	Shield gas	Plasma gas	Shield gas					inches	Volts	
O ₂	Air	50	30	72	30	0.075	112	0.10	400	0.15	150	0.1
						0.105	115		290			
						0.135	117		180			
						3/16	120	0.08	155	0.16	200	
						1/4	123		110			
						5/16	125		96			
					3/8	127	75	0.20	250			
					1/2	130	50					
					5/8	133	37					
					3/4	135	25	0.25	250	0.9		

Marking

Select Gases		Set Preflow		Set Cutflow		Amperage	Torch-to-Work Distance		Marking Speed		Arc Voltage
Plasma gas	Shield gas	Plasma gas	Shield gas	Plasma gas	Shield gas		A	mm	inches	mm/m	
N ₂	N ₂	10	10	10	10	15	2.5	0.10	6350	250	130
Ar	Air	50	10	50	10	15	3.0	0.12	2540	100	78

PARTS LIST

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 A	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
420566	SilverPlus electrode: 80 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	2