

Cut charts

The following *Cut charts* show the consumable parts, cutting speeds and the gas and torch settings required for each process.

The numbers shown in the *Cut charts* are recommended to provide high-quality cuts with minimal dross. Because of differences between installations and material composition, adjustments may be required to obtain desired results.

Bevel cutting

See *Appendix C* in this manual for cut charts and consumables.

Marking

Any of the consumable sets can also be used for marking. Marking parameters are shown at the bottom of each cut chart. The quality of the markings will vary depending on the cut process, material type, and material thickness combination. Marking is not possible for every combination (very thin materials). Poor quality marking or burn-through may occur with material less than 1.5 mm (0.060 in or 16 gauge).

Consumables for mirror-image cutting

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

Estimated kerf-width compensation

The widths in the chart below are for reference. Differences between installations and material composition may cause actual results to vary from those shown in the table.

Metric

Process	Thickness (mm)								
	1.5	3	6	10	12	20	25	32	38
MS									
260A O ₂ / Air				2.54	2.79	3.43	3.81	4.32	4.45
200A O ₂ / Air				2.18	2.26	2.95			
130A O ₂ / Air			1.803	2.032	2.108	2.642	3.429		
80A O ₂ / Air		1.372	1.727	1.905					
50A O ₂ / O ₂	1.516	1.740	1.854						
30A O ₂ / O ₂	1.346	1.448							
SS									
260A N ₂ / Air					2.54	3.08	3.30		
260A H35 / N ₂					3.81	4.06	4.32		
200A N ₂ / N ₂				2.16	2.29	2.92			
200A H35 / N ₂				3.68	3.81	3.94			
130A H35 / N ₂				2.718	2.769	2.896			
130A N ₂ / N ₂			1.829	1.879	2.413				
80A F5 / N ₂			1.194						
45A F5 / N ₂	0.584	0.381	0.533						
45A N ₂ / N ₂	0.483	0.229	0.152						
AL									
260A N ₂ / Air					3.05	3.05	3.30		
260A H35 / N ₂					2.79	3.30	3.56		
200A N ₂ / N ₂				2.03	2.58	3.01			
200A H35 / N ₂				2.67	2.92	3.30			
130A H35 / N ₂				2.718	2.769	2.896			
130A Air / Air			2.083	2.083	2.184				
45A Air / Air	1.067	1.092	1.245						

OPERATION

Estimated kerf-width compensation - continued

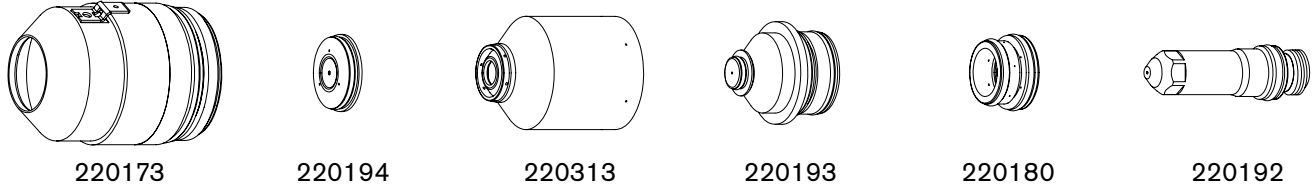
English

Process	Thickness (in)								
	0.060"	0.135"	1/4"	3/8"	1/2"	3/4"	1"	1-1/4"	1-1/2"
MS									
260A O ₂ / Air				0.100	0.110	0.135	0.150	0.170	0.175
200A O ₂ / Air				0.086	0.089	0.116			
130A O ₂ / Air			0.071	0.080	0.083	0.104	0.135		
80A O ₂ / Air		0.054	0.068	0.075					
50A O ₂ / O ₂	0.060	0.073	0.073						
30A O ₂ / O ₂	0.053	0.057							
SS									
260A N ₂ / Air					0.100	0.120	0.130		
260A H35 / N ₂					0.150	0.160	0.170		
200A N ₂ / N ₂				0.085	0.090	0.115			
200A H35 / N ₂				0.145	0.150	0.155			
130A H35 / N ₂				0.107	0.109	0.114			
130A N ₂ / N ₂			0.072	0.074	0.095				
80A F5 / N ₂			0.047						
45A F5 / N ₂	0.023	0.015	0.021						
45A N ₂ / N ₂	0.019	0.009	0.006						
AL									
260A N ₂ / Air					0.120	0.120	0.130		
260A H35 / N ₂					0.110	0.130	0.140		
200A N ₂ / N ₂				0.080	0.090	0.105			
200A H35 / N ₂				0.105	0.115	0.130			
130A H35 / N ₂				0.107	0.109	0.114			
130A Air / Air			0.082	0.082	0.086				
45A Air / Air	0.042	0.043	0.049						

Mild steel
O₂ Plasma / O₂ Shield
30 A Cutting

Flow rates - lpm/scfh		
	O ₂	Air
Preflow	0 / 0	43 / 90
Cutflow	25 / 52	0 / 0

Note: Air must be connected to use this process. It is used as the preflow gas



Metric

Select Gases		Set Preflow		Set Cutflow		Material Thickness	Arc Voltage	Torch-to-Work Distance	Cutting Speed	Initial Pierce Height		Pierce Delay Time
Plasma	Shield	Plasma	Shield	Plasma	Shield					mm	Volts	
O ₂	O ₂	78	17	94	17	0.5	114	1.3	5355	2.3	180	0.1
						0.8	115		4225			0.2
						1	116		3615			0.3
						1.2	117		2865			
						1.5	119		2210			
						2	120		1490			
		75	35	7	7	2.5	122	1.5	1325	2.7	0.4	
						3*	123		1160		0.5	
						4*	125		905		0.7	
						6*	128		665		1.0	

English

Select Gases		Set Preflow		Set Cutflow		Material Thickness	Arc Voltage	Torch-to-Work Distance	Cutting Speed	Initial Pierce Height		Pierce Delay Time		
Plasma	Shield	Plasma	Shield	Plasma	Shield					in	Volts		in	ipm
O ₂	O ₂	78	17	94	17	.018	114	0.050	215	0.090	180	0.1		
						.024			200				0.2	
						.030			115					170
						.036			116					155
						.048			117					110
						75			35				7	7
		.075	120	60										
		.105	122	50										
		.135*	123	40	0.5									
		3/16*	128	30			0.7							
		1/4*		25			1.0							

Marking

Select Gases		Set Preflow		Set Cutflow		Amperage	Torch-to-Work Distance		Marking Speed		Arc Voltage
N ₂	N ₂	10	10	10	10		Amps	mm	in	mm/min	
N ₂	N ₂	10	10	10	10	15	2.5	0.100	6350	250	105

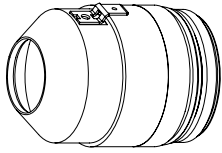
*Pierce complete is recommended for these thicknesses

OPERATION

Mild steel O₂ Plasma / O₂ Shield 50 A Cutting

Flow rates - lpm/scfh		
	O ₂	Air
Preflow	0 / 0	43 / 90
Cutflow	25 / 52	0 / 0

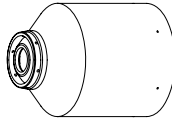
Note: Air must be connected to use this process. It is used as the preflow gas



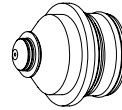
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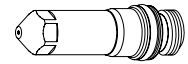
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Metric

Select Gases		Set Preflow		Set Cutflow		Material Thickness	Arc Voltage	Torch-to-Work Distance	Cutting Speed	Initial Pierce Height		Pierce Delay Time
Plasma	Shield	Plasma	Shield	Plasma	Shield					mm	Volts	
O ₂	O ₂	70	30	81	14	0.8	110	1.0	6500	2.0	200	0.0
						1	111		5000			
						1.2	112		4150			
						1.5	114	1.3	3200	2.6		
						2	115		2700			
						2.5	117		2200			
						3	119	1.5	1800	3.0		0.1
						4	121		1400			
						5	122		1200			
						6	126	2.0	950	4.0		0.2
						7	128		780			
8	130	630										

English

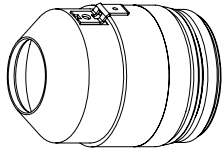
Select Gases		Set Preflow		Set Cutflow		Material Thickness	Arc Voltage	Torch-to-Work Distance	Cutting Speed	Initial Pierce Height		Pierce Delay Time
Plasma	Shield	Plasma	Shield	Plasma	Shield					in	Volts	
O ₂	O ₂	70	30	81	14	.030	110	0.04	270	0.08	200	0.0
						.036			210			
						.048			160			
						.060	114	0.05	125	0.10		
						.075	115		110			
						.105	118		80			
						.135	120	0.06	60	0.12		0.1
						3/16	121		50			
						1/4	125	0.08	35	0.16		0.2
						5/16	130		25			

Marking

Select Gases		Set Preflow		Set Cutflow		Amperage	Torch-to-Work Distance		Marking Speed		Arc Voltage
Plasma	Shield	Plasma	Shield	Plasma	Shield		Amps	mm	in	mm/min	
N ₂	N ₂	10	10	10	10	15	2.5	0.100	6350	250	118

Mild steel
O₂ Plasma / Air Shield
80 A Cutting

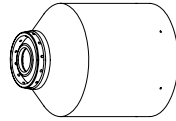
Flow rates - lpm/scfh		
	O ₂	Air
Preflow	0 / 0	76 / 161
Cutflow	23 / 48	41 / 87



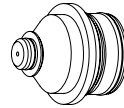
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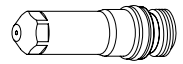
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Metric

Select Gases		Set Preflow		Set Cutflow		Material Thickness	Arc Voltage	Torch-to-Work Distance	Cutting Speed	Initial Pierce Height		Pierce Delay Time						
Plasma	Shield	Plasma	Shield	Plasma	Shield					mm	Volts		mm	mm/m	mm	factor %	seconds	
O ₂	Air	48	23	78	23	2	112	2.5	9810	3.8	150	0.1						
						2.5	115		7980									
						3	117		6145									
						4	120		4300									
						6	123		3045									
						10	127		1810									
					10	130	2.0	1410	4.0	200	0.3							
								15				133	1030	5.0	250	0.8		
								20				135	545				6.3	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	Shield	Plasma	Shield	Plasma	Shield					in	Volts		in	ipm	in	factor %
O ₂	Air	48	23	78	23	.075	112	0.100	400	0.150	150	0.1				
						.105	115		290							
						.135	117		180							
						3/16	120		155							
						1/4	123		110				0.160	200	0.3	
						3/8	127		75							
					10	130	0.080	50	0.200	250	0.7					
								5/8				133				37
								3/4				135				25

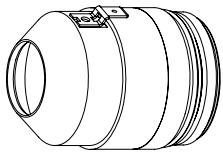
Marking

Select Gases		Set Preflow		Set Cutflow		Amperage	Torch-to-Work Distance		Marking Speed		Arc Voltage
N ₂	N ₂	10	10	10	10		Amps	mm	in	mm/min	
N ₂	N ₂	10	10	10	10	15	2.5	0.100	6350	250	130

OPERATION

Mild steel O₂ Plasma / Air Shield 130 A Cutting

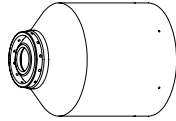
Flow rates - lpm/scfh		
	O ₂	Air
Preflow	0 / 0	102 / 215
Cutflow	33 / 70	45 / 96



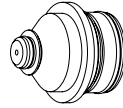
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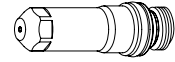
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Metric

Select Gases		Set Preflow		Set Cutflow		Material Thickness	Arc Voltage	Torch-to-Work Distance	Cutting Speed	Initial Pierce Height		Pierce Delay Time
Plasma	Shield	Plasma	Shield	Plasma	Shield					mm	Volts	
O ₂	Air	32	32	84	28	3	124	2.5	6505	5.0	200	0.1
						4	126	2.8	5550	5.6		0.2
						6	127		4035			0.3
					22	10	130	3.0	2680	6.0		0.5
						12	132	3.3	2200	6.6		0.7
						15	135	3.8	1665	7.6		1.0
			20		138	1050	1.8					
			25		141	4.0	550	Edge start	190			
			32		160	4.5	375					
			38		167		255					

English

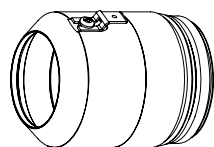
Select Gases		Set Preflow		Set Cutflow		Material Thickness	Arc Voltage	Torch-to-Work Distance	Cutting Speed	Initial Pierce Height		Pierce Delay Time
Plasma	Shield	Plasma	Shield	Plasma	Shield					in	Volts	
O ₂	Air	32	32	84	28	.135	124	0.100	240	0.200	200	0.1
						3/16	126	0.110	190	0.220		0.2
						1/4	127		150			0.3
					22	3/8	130	0.120	110	0.240		0.5
						1/2	132	0.130	80	0.260		0.7
						5/8	135	0.150	60	0.300		1.0
			3/4		138	45	1.8					
			1		141	0.160	20	Edge start	190			
			1-1/4		160	0.180	15					
			1-1/2		167		10					

Marking

Select Gases		Set Preflow		Set Cutflow		Amperage	Torch-to-Work Distance		Marking Speed		Arc Voltage
							mm	in	mm/min	ipm	
N ₂	N ₂	10	10	10	10	15	2.5	0.100	6350	250	130

Mild steel
O₂ Plasma / Air Shield
200 A Cutting

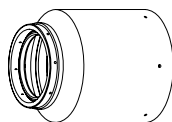
Flow rates - lpm/scfh		
	O ₂	Air
Preflow	0 / 0	128 / 270
Cutflow	39 / 82	48 / 101



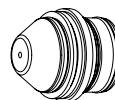
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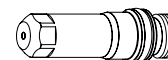
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Metric

Select Gases		Set Preflow		Set Cutflow		Material Thickness	Arc Voltage	Torch-to-Work Distance	Cutting Speed	Initial Pierce Height		Pierce Delay Time
Plasma	Shield	Plasma	Shield	Plasma	Shield					mm	Volts	
O ₂	Air	23	42	74	18	6	124	3.3	5250	6.6	200	0.2
						10	126					0.3
						12	128					0.5
						15	131	4.1	2275	8.2		0.6
						20	133					0.8
						25	143	5.1	1165	10.2		1.0
						32	145					Edge start
						38	152					Edge start
						50	163					Edge start

English

Select Gases		Set Preflow		Set Cutflow		Material Thickness	Arc Voltage	Torch-to-Work Distance	Cutting Speed	Initial Pierce Height		Pierce Delay Time	
Plasma	Shield	Plasma	Shield	Plasma	Shield					in	Volts		in
O ₂	Air	23	42	74	18	3/16	124	0.130	230	0.260	200	0.2	
						1/4						200	0.3
						3/8						126	0.5
						1/2	128	0.160	80	0.320		0.6	
						5/8	131					0.8	
						3/4	133	0.200	45	0.400		1.0	
						1	143					Edge start	
						1-1/4	145					Edge start	
						1-1/2	152					Edge start	
2	163	Edge start											

Marking

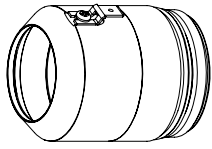
Select Gases		Set Preflow		Set Cutflow		Amperage	Torch-to-Work Distance		Marking Speed		Arc Voltage
Plasma	Shield	Plasma	Shield	Plasma	Shield		mm	in	mm/min	ipm	
N ₂	N ₂	10	10	10	10	15	2.5	0.100	6350	250	130

OPERATION

Mild steel

O₂ Plasma / Air Shield
260 A Cutting

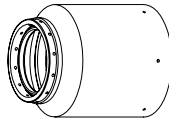
Flow rates - lpm/scfh @ 3/4" setting		
	O ₂	Air
Preflow	0 / 0	130 / 275
Cutflow	42 / 88	104 / 220



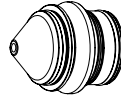
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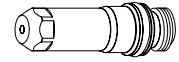
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Metric

Select Gases		Set Preflow		Set Cutflow		Material Thickness	Arc Voltage	Torch-to-Work Distance	Cutting Speed	Initial Pierce Height		Pierce Delay Time	
Plasma	Shield	Plasma	Shield	Plasma	Shield					mm	Volts		mm
O ₂	Air	22	49	76	46	6	150	2.8	6500	8.5	300	0.3	
						10			4440				
						12			3850				
				80	49	49	15	155	3.6	3130	9.0	250	0.5
							20	159		2170			0.6
							22	166		1930			0.7
							25	171		1685			0.8
							28	170		1445			0.9
							32	172		1135			1.0
				84	49	49	38	174	4.8	895	9.5	200	1.2
							44	185		580			Edge start
							50	188		405			
							58	193		290			
							64	202		195			

English

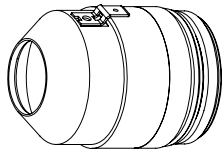
Select Gases		Set Preflow		Set Cutflow		Material Thickness	Arc Voltage	Torch-to-Work Distance	Cutting Speed	Initial Pierce Height		Pierce Delay Time	
Plasma	Shield	Plasma	Shield	Plasma	Shield					in	Volts		in
O ₂	Air	22	49	76	46	1/4	150	0.110	250	0.330	300	0.3	
						3/8			180				0.4
						1/2			145				0.5
				80	49	49	5/8	155	0.140	115	0.350	250	0.6
							3/4	159		90			0.7
							7/8	166		75			0.8
							1	171		65			0.9
							1-1/8	170		55			1.0
							1-1/4	172		45			1.2
				84	49	49	1-1/2	174	0.190	35	0.380	200	Edge start
							1-3/4	185		22			
							2	188		15			
							2-1/4	193		12			
							2-1/2	202		8			

Marking

Select Gases		Set Preflow		Set Cutflow		Amperage	Torch-to-Work Distance		Marking Speed		Arc Voltage
Plasma	Shield	Plasma	Shield	Plasma	Shield		mm	in	mm/min	ipm	
N ₂	N ₂	10	10	10	10	18	2.5	0.100	6350	250	135

Stainless steel
N₂ Plasma / N₂ Shield
45 A Cutting

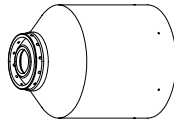
Flow rates - lpm/scfh	
N ₂	
Preflow	24 / 51
Cutflow	75 / 159



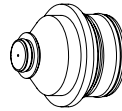
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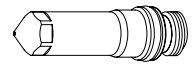
220304



220201



220180



220308

Metric

Select Gases		Set Preflow		Set Cutflow		Material Thickness	Arc Voltage	Torch-to-Work Distance	Cutting Speed	Initial Pierce Height		Pierce Delay Time
Plasma	Shield	Plasma	Shield	Plasma	Shield					mm	Volts	
N ₂	N ₂	35	5	62	49	0.8	94	2.5	6380	3.8	150	0.0
						1			5880			0.1
						1.2			5380			0.2
						1.5	4630					
						2	3935					
						2.5	3270					
						3	2550					
						4	1580		0.3			

English

Select Gases		Set Preflow		Set Cutflow		Material Thickness	Arc Voltage	Torch-to-Work Distance	Cutting Speed	Initial Pierce Height		Pierce Delay Time
Plasma	Shield	Plasma	Shield	Plasma	Shield					in	Volts	
N ₂	N ₂	35	5	62	49	.036	94	0.100	240	0.150	150	0.0
						.048			210			0.1
						.060	95		180			0.2
						.075	97		160			
						.105	101		120			
						.135	103		75			

Marking

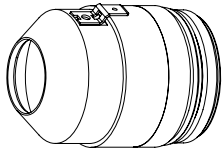
Select Gases		Set Preflow		Set Cutflow		Amperage	Torch-to-Work Distance		Marking Speed		Arc Voltage
Plasma	Shield	Plasma	Shield	Plasma	Shield		mm	in	mm/min	ipm	
N ₂	N ₂	10	10	10	10	15	2.5	0.100	6350	250	85

Note: This process produces a darker cut edge than the 45 A, F5/N₂ stainless steel process.

OPERATION

Stainless steel F5 Plasma / N₂ Shield 45 A Cutting

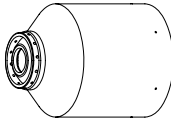
Flow rates - lpm/scfh		
	F5	N ₂
Preflow	0 / 0	43 / 91
Cutflow	8 / 17	65 / 138



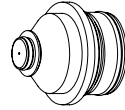
220173



220202



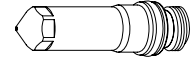
220304



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Metric

Select Gases		Set Preflow		Set Cutflow		Material Thickness	Arc Voltage	Torch-to-Work Distance	Cutting Speed	Initial Pierce Height		Pierce Delay Time
Plasma	Shield	Plasma	Shield	Plasma	Shield					mm	Volts	
F5	N ₂	35	18	62	49	0.8	99	2.5	6570	3.8	150	0.2
						1			5740			
						1.2			4905			
						1.5			3890			
						2			3175			
						2.5			2510			
						3			2010			
					4	1435						
				11	6	110	2.0	845		190	0.5	

English

Select Gases		Set Preflow		Set Cutflow		Material Thickness	Arc Voltage	Torch-to-Work Distance	Cutting Speed	Initial Pierce Height		Pierce Delay Time
Plasma	Shield	Plasma	Shield	Plasma	Shield					in	Volts	
F5	N ₂	35	18	62	49	.036	99	0.100	240	0.150	150	0.2
						.048			190			
						.060			150			
						.075			130			
						.105			90			
						.135			65			
						3/16			45			
					1/4	30						
				11	3/16	108	0.080	45		190	0.4	
					1/4	110		30			0.5	

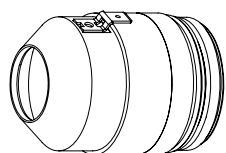
Marking

Select Gases		Set Preflow		Set Cutflow		Amperage	Torch-to-Work Distance		Marking Speed		Arc Voltage
Plasma	Shield	Plasma	Shield	Plasma	Shield		mm	in	mm/min	ipm	
N ₂	N ₂	10	10	10	10	15	2.5	0.100	6350	250	85

Note: This process produces a shinier cut edge than the 45 A, N₂/N₂ stainless steel process.

Stainless steel
F5 Plasma / N₂ Shield
80 A Cutting

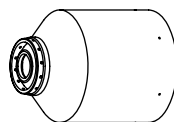
Flow rates - lpm/scfh		
	F5	N ₂
Preflow	0 / 0	67 / 142
Cutflow	31 / 65	55 / 116



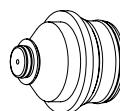
220173



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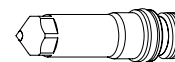
220304



220337



220179



220339

Metric

Select Gases		Set Preflow		Set Cutflow		Material Thickness	Arc Voltage	Torch-to-Work Distance	Cutting Speed	Initial Pierce Height		Pierce Delay Time
Plasma	Shield	Plasma	Shield	Plasma	Shield					mm	Volts	
F5	N ₂	33	23	65	37	4	108	3.0	2180	4.5	150	0.2
						6	112	2.5	1225	3.8		0.3
						10	120	3.0	560	4.5		0.5

English

Select Gases		Set Preflow		Set Cutflow		Material Thickness	Arc Voltage	Torch-to-Work Distance	Cutting Speed	Initial Pierce Height		Pierce Delay Time
Plasma	Shield	Plasma	Shield	Plasma	Shield					in	Volts	
F5	N ₂	33	23	65	37	.135	108	0.120	105	0.180	150	0.2
						3/16	110	0.110	60	0.170		0.3
						1/4	112	0.100	45	0.150		
						3/8	120	0.120	25	0.180		0.5

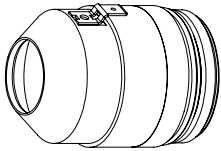
Marking

Select Gases		Set Preflow		Set Cutflow		Amperage	Torch-to-Work Distance		Marking Speed		Arc Voltage
N ₂	N ₂	10	10	10	10		mm	in	mm/min	ipm	
N ₂	N ₂	10	10	10	10	15	2.5	0.100	6350	250	95

OPERATION

Stainless steel N₂ Plasma / N₂ Shield 130 A Cutting

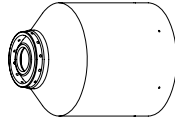
Flow rates - lpm/scfh	
N ₂	
Preflow	97 / 205
Cutflow	79 / 168



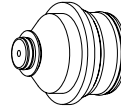
220173



220198



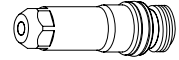
220176



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220307

Metric

Select Gases		Set Preflow		Set Cutflow		Material Thickness	Arc Voltage	Torch-to-Work Distance	Cutting Speed	Initial Pierce Height		Pierce Delay Time
Plasma	Shield	Plasma	Shield	Plasma	Shield					mm	Volts	
N ₂	N ₂	19	51	75	23	6	153	3.0	1960	6.0	200	0.3
						10	156		1300			0.5
						12	162	3.5	900	7.0		0.8
						15	167	3.8	670	Edge start		
						20	176	4.3	305			

English

Select Gases		Set Preflow		Set Cutflow		Material Thickness	Arc Voltage	Torch-to-Work Distance	Cutting Speed	Initial Pierce Height		Pierce Delay Time
Plasma	Shield	Plasma	Shield	Plasma	Shield					in	Volts	
N ₂	N ₂	19	51	75	23	1/4	153	0.120	75	0.240	200	0.3
						3/8	156		55			0.5
						1/2	162	0.140	30	0.280		0.8
						5/8	167	0.150	25	Edge start		
						3/4	176	0.170	15			

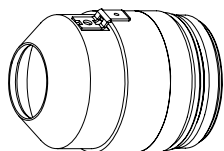
Marking

Select Gases		Set Preflow		Set Cutflow		Amperage	Torch-to-Work Distance		Marking Speed		Arc Voltage
Plasma	Shield	Plasma	Shield	Plasma	Shield		mm	in	mm/min	ipm	
N ₂	N ₂	10	10	10	10	18	2.5	0.100	6350	250	140

Note: This process produces a rougher, darker cut edge with more dross, and the cut edges are closer to perpendicular than the 130 A, H35/N₂ process.

Stainless steel
H35 Plasma / N₂ Shield
130 A Cutting

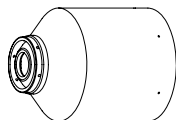
Flow rates - lpm/scfh		
	H35	N ₂
Preflow	0 / 0	76 / 160
Cutflow	26 / 54	68 / 144



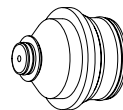
220173



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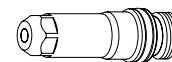
220304



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220307

Metric

Select Gases		Set Preflow		Set Cutflow		Material Thickness	Arc Voltage	Torch-to-Work Distance	Cutting Speed	Initial Pierce Height		Pierce Delay Time
Plasma	Shield	Plasma	Shield	Plasma	Shield	mm	Volts	mm	mm/m	mm	factor %	seconds
H35	N ₂	19	32	75	49	10	154	4.5	980	7.7	170	0.3
					37	12	158		820			0.5
					24	15	162		580			0.8
						20	165		360			1.3
					16	25	172		260			Edge start

English

Select Gases		Set Preflow		Set Cutflow		Material Thickness	Arc Voltage	Torch-to-Work Distance	Cutting Speed	Initial Pierce Height		Pierce Delay Time
Plasma	Shield	Plasma	Shield	Plasma	Shield	in	Volts	in	ipm	in	factor %	seconds
H35	N ₂	19	32	75	49	3/8	154	0.180	40	0.310	170	0.3
					37	1/2	158		30			0.5
					24	5/8	162		20			0.8
						3/4	165		15			1.3
					16	1	172		10			Edge start

Marking

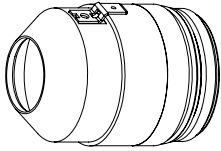
Select Gases		Set Preflow		Set Cutflow		Amperage	Torch-to-Work Distance		Marking Speed		Arc Voltage
						Amps	mm	in	mm/min	ipm	Volts
N ₂	N ₂	10	10	10	10	18	2.5	0.100	6350	250	130

Note: This process produces a smoother, shinier cut edge with less dross, and the cut edges are less perpendicular than the 130 A, N₂/N₂ process.

OPERATION

Stainless steel H35 and N₂ Plasma / N₂ Shield 130 A Cutting

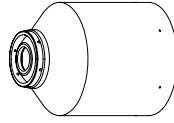
Flow rates - lpm/scfh		
	H35	N ₂
Preflow	0 / 0	97 / 205
Cutflow	13 / 28	71 / 150



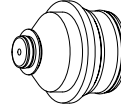
220173



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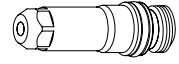
220304



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Metric

Select Gases		Set Preflow		Set Cutflow				Material Thickness	Arc Voltage	Torch-to-Work Distance	Cutting Speed	Initial Pierce Height		Pierce Delay Time
Plasma	Shield	Plasma	Shield	Plasma	Shield	Mix Gas 1	Mix Gas 2	mm	Volts	mm	mm/m	mm	factor %	seconds
H35	N ₂	19	51	75	38	32	18	6	150	3.0	1835	6.0	200	0.3
					10			153	1195		0.3			
					12			160	3.5	875	7.0	0.5		
					15			168	3.8	670	7.6	0.8		
					20			176	4.3	305	7.7	180		1.3

English

Select Gases		Set Preflow		Set Cutflow				Material Thickness	Arc Voltage	Torch-to-Work Distance	Cutting Speed	Initial Pierce Height		Pierce Delay Time
Plasma	Shield	Plasma	Shield	Plasma	Shield	Mix Gas 1	Mix Gas 2	in	Volts	in	ipm	in	factor %	seconds
H35	N ₂	19	51	75	38	32	18	1/4	150	0.120	70	0.240	200	0.3
					3/8			153	50		0.3			
					1/2			160	0.140	30	0.280	0.5		
					5/8			168	0.150	25	0.300	0.8		
					3/4			176	0.170	15	0.310	180		1.3

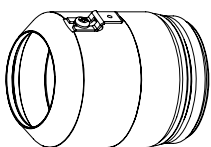
Marking

Select Gases		Set Preflow		Set Cutflow		Amperage	Torch-to-Work Distance		Marking Speed		Arc Voltage
						Amps	mm	in	mm/min	ipm	Volts
N ₂	N ₂	10	10	10	10	18	2.5	0.100	6350	250	130

Note: This process produces a smoother, shinier cut edge with less dross, and the cut edges are less perpendicular than the 130 A, N₂/N₂ process. Edge color is more silver than the H35/N₂ process.

Stainless steel
H35 Plasma / N₂ Shield
200 A Cutting

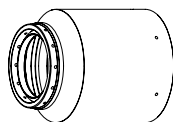
Flow rates - lpm/scfh		
	H35	N ₂
Preflow	0 / 0	116 / 245
Cutflow	30 / 63	104 / 220



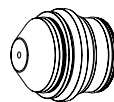
220398



220345



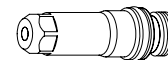
220344



220343



220342



220307

Metric

Select Gases		Set Preflow		Set Cutflow		Material Thickness	Arc Voltage	Torch-to-Work Distance	Cutting Speed	Initial Pierce Height		Pierce Delay Time	
Plasma	Shield	Plasma	Shield	Plasma	Shield					mm	Volts		mm
H35	N ₂	22	43	88	52	10	175	9.0	1620	9.0	100	100	0.5
						12	170						1450
						15	173	7.5	1200	0.7			
						20	177			820			0.8

English

Select Gases		Set Preflow		Set Cutflow		Material Thickness	Arc Voltage	Torch-to-Work Distance	Cutting Speed	Initial Pierce Height		Pierce Delay Time	
Plasma	Shield	Plasma	Shield	Plasma	Shield					in	Volts		in
H35	N ₂	22	43	88	52	3/8	175	0.350	65	0.350	100	100	0.5
						1/2	170						55
						5/8	173	0.300	45	0.300			0.7
						3/4	177						35

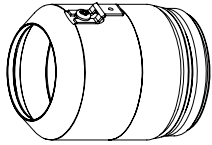
Marking

Select Gases		Set Preflow		Set Cutflow		Amperage	Torch-to-Work Distance		Marking Speed		Arc Voltage
N ₂	N ₂						mm	in	mm/min	ipm	
N ₂	N ₂	10	10	10	10	18	2.5	0.100	6350	250	140

OPERATION

Stainless steel N₂ Plasma / N₂ Shield 200 A Cutting

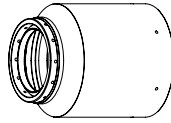
Flow rates - lpm/scfh	
N ₂	
Preflow	111 / 235
Cutflow	137 / 290



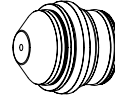
220398



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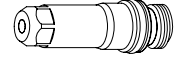
220344



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Metric

Select Gases		Set Preflow		Set Cutflow		Material Thickness	Arc Voltage	Torch-to-Work Distance	Cutting Speed	Initial Pierce Height		Pierce Delay Time
Plasma	Shield	Plasma	Shield	Plasma	Shield					mm	Volts	
N ₂	N ₂	20	42	84	42	10	160	3.8	2700	7.6	200	0.5
						12	161		2400			0.6
						15	163		1800			0.8
						20	167		1000			1.0

English

Select Gases		Set Preflow		Set Cutflow		Material Thickness	Arc Voltage	Torch-to-Work Distance	Cutting Speed	Initial Pierce Height		Pierce Delay Time
Plasma	Shield	Plasma	Shield	Plasma	Shield					in	Volts	
N ₂	N ₂	20	42	84	42	3/8	160	0.150	110	0.300	200	0.5
						1/2	161		90			0.6
						5/8	163		65			0.8
						3/4	167		45			1.0

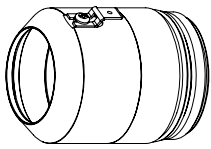
Marking

Select Gases		Set Preflow		Set Cutflow		Amperage	Torch-to-Work Distance		Marking Speed		Arc Voltage
Plasma	Shield	Plasma	Shield	Plasma	Shield		Amps	mm	in	mm/min	
N ₂	N ₂	10	10	10	10	18	2.5	0.100	6350	250	140

Stainless steel

H35 and N₂ Plasma / N₂ Shield
200 A Cutting

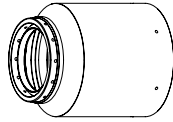
Flow rates - lpm/scfh		
	H35	N ₂
Preflow	0 / 0	116 / 245
Cutflow	11 / 24	118 / 250



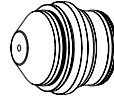
220398



220345



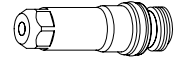
220344



220343



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220307

Metric

Select Gases		Set Preflow		Set Cutflow				Material Thickness	Arc Voltage	Torch-to-Work Distance	Cutting Speed	Initial Pierce Height		Pierce Delay Time
Plasma	Shield	Plasma	Shield	Plasma	Shield	Mix Gas 1	Mix Gas 2	mm	Volts	mm	mm/m	mm	factor %	seconds
H35	N ₂	23	41	87	41	42	20	10	161	4.0	1900	8.0	200	0.5
								12	162		1800			0.6
								15	167	4.6	1600	7.0	0.8	
								20	171	5.1	1000	7.5	1.0	

English

Select Gases		Set Preflow		Set Cutflow				Material Thickness	Arc Voltage	Torch-to-Work Distance	Cutting Speed	Initial Pierce Height		Pierce Delay Time
Plasma	Shield	Plasma	Shield	Plasma	Shield	Mix Gas 1	Mix Gas 2	in	Volts	in	ipm	in	factor %	seconds
H35	N ₂	23	41	87	41	42	20	3/8	161	0.160	75	0.320	200	0.5
								1/2	162		70			0.6
								5/8	167	0.180	60	0.270	0.8	
								3/4	171	0.200	45	0.300	1.0	

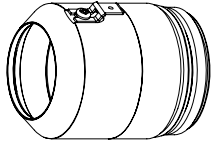
Marking

Select Gases		Set Preflow		Set Cutflow		Amperage	Torch-to-Work Distance		Marking Speed		Arc Voltage
N ₂	N ₂	10	10	10	10	Amps	mm	in	mm/min	ipm	Volts
						18	2.5	0.100	6350	250	140

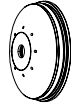
OPERATION

Stainless steel H35 Plasma / N₂ Shield 260 A Cutting

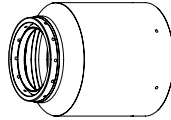
Flow rates - lpm/scfh		
	H35	N ₂
Preflow	0 / 0	127 / 270
Cutflow	40 / 84	122 / 260



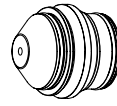
220398



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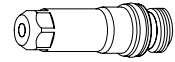
220344



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Metric

Select Gases		Set Preflow		Set Cutflow		Material Thickness	Arc Voltage	Torch-to-Work Distance	Cutting Speed	Initial Pierce Height		Pierce Delay Time
Plasma	Shield	Plasma	Shield	Plasma	Shield					mm	Volts	
H35	N ₂	12	49	85	60	10	188	11.0	1870	11.0	100	0.3
						12	173	9.0	1710	9.0		120
						15	171	7.5	1465		9.0	
						20	175		1085	0.6		
						25	180		785	0.7		
						32	185		630	1.0		
						38	186		510	Edge start		
						44	189		390			
						50	200		270			

English

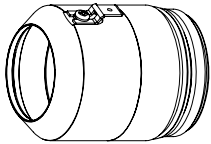
Select Gases		Set Preflow		Set Cutflow		Material Thickness	Arc Voltage	Torch-to-Work Distance	Cutting Speed	Initial Pierce Height		Pierce Delay Time
Plasma	Shield	Plasma	Shield	Plasma	Shield					in	Volts	
H35	N ₂	12	49	85	60	3/8	188	0.450	75	0.500	100	0.3
						1/2	173	0.350	65	0.350		120
						5/8	171	0.300	55	0.360	120	
						3/4	175		45			0.6
						1	180		30			0.7
						1-1/4	185		25			1.0
						1-1/2	186		20			Edge start
						1-3/4	189		15			
						2	200		10			

Marking

Select Gases		Set Preflow		Set Cutflow		Amperage	Torch-to-Work Distance		Marking Speed		Arc Voltage
							mm	in	mm/min	ipm	
N ₂	N ₂	10	10	10	10	18	2.5	0.100	6350	250	120

Stainless steel
N₂ Plasma / Air Shield
260 A Cutting

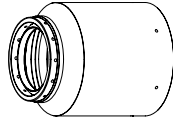
Flow rates - lpm/scfh		
	N ₂	Air
Preflow	127 / 270	0 / 0
Cutflow	54 / 114	116 / 245



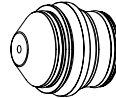
220398



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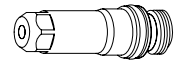
220344



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Metric

Select Gases		Set Preflow		Set Cutflow		Material Thickness	Arc Voltage	Torch-to-Work Distance	Cutting Speed	Initial Pierce Height		Pierce Delay Time	
Plasma	Shield	Plasma	Shield	Plasma	Shield					mm	Volts		mm
N ₂	Air	12	47	79	56	6	160	3.8	6375	7.5	200	0.3	
						10	157		3440				0.4
						12	161		2960				
						15	163		2520				
						20	164		1590				
						25	168		1300				
						32	171		875				
						38	179		515			Edge start	
						44	190		365				
						50	195		180				

English

Select Gases		Set Preflow		Set Cutflow		Material Thickness	Arc Voltage	Torch-to-Work Distance	Cutting Speed	Initial Pierce Height		Pierce Delay Time	
Plasma	Shield	Plasma	Shield	Plasma	Shield					in	Volts		in
N ₂	Air	12	47	79	56	1/4	160	0.150	240	0.300	200	0.3	
						3/8	157		140				0.4
						1/2	161		110				
						5/8	163		95				
						3/4	164		70				
						1	168		50				
						1-1/4	171		35				
						1-1/2	179		20			Edge start	
						1-3/4	190		14				
						2	200		6				

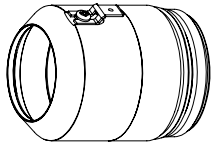
Marking

Select Gases		Set Preflow		Set Cutflow		Amperage	Torch-to-Work Distance		Marking Speed		Arc Voltage
Plasma	Shield	Plasma	Shield	Plasma	Shield		mm	in	mm/min	ipm	
N ₂	N ₂	10	10	10	10	18	2.5	0.100	6350	250	120

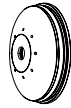
OPERATION

Stainless steel H35 and N₂ Plasma / N₂ Shield 260 A Cutting

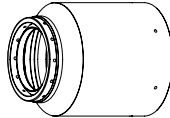
Flow rates - lpm/scfh		
	H35	N ₂
Preflow	0 / 0	132 / 280
Cutflow	13 / 27	163 / 345



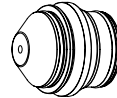
220398



220407



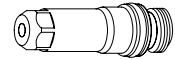
220344



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Metric

Select Gases		Set Preflow		Set Cutflow				Material Thickness	Arc Voltage	Torch-to-Work Distance	Cutting Speed	Initial Pierce Height		Pierce Delay Time	
Plasma	Shield	Plasma	Shield	Plasma	Shield	Mix Gas 1	Mix Gas 2					mm	Volts		mm
H35	N ₂	12	49	87	60	60	21	6	170	4.0	3980	8.0	200	0.3	
								10	175		2190				
								12	176		1790				0.5
								15	177		1650				0.7
								20	179		1320				0.8
								25	182		920				1.0
						40	26	32	186		755	1.2			
								38	189		510	Edge start			
								44	195		390				
								50	202		270				

English

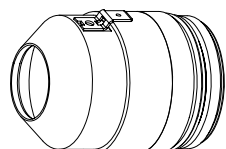
Select Gases		Set Preflow		Set Cutflow				Material Thickness	Arc Voltage	Torch-to-Work Distance	Cutting Speed	Initial Pierce Height		Pierce Delay Time	
Plasma	Shield	Plasma	Shield	Plasma	Shield	Mix Gas 1	Mix Gas 2					in	Volts		in
H35	N ₂	12	49	87	60	60	21	1/4	170	0.160	150	0.320	200	0.3	
								3/8	175		90				
								1/2	176		65				0.5
								5/8	177		55				0.7
								3/4	179		35				0.8
								1	182		30				1.0
						40	26	1-1/4	186		20	Edge start			
								1-1/2	189		15				
								1-3/4	187		10				
								2	202		10				

Marking

Select Gases		Set Preflow		Set Cutflow		Amperage	Torch-to-Work Distance		Marking Speed		Arc Voltage
							mm	in	mm/min	ipm	
N ₂	N ₂	10	10	10	10	18	2.5	0.100	6350	250	120

Aluminum
Air Plasma / Air Shield
45 A Cutting

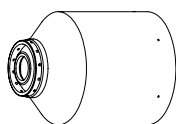
Flow rates - lpm/scfh	
Air	
Preflow	45 / 95
Cutflow	78 / 165



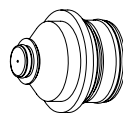
220173



220202



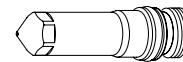
220176



220201



220180



220308

Metric

Select Gases		Set Preflow		Set Cutflow		Material Thickness	Arc Voltage	Torch-to-Work Distance	Cutting Speed	Initial Pierce Height		Pierce Delay Time
Plasma	Shield	Plasma	Shield	Plasma	Shield					mm	Volts	
Air	Air	35	19	62	49	1.2	130	2.5	4750	3.8	150	0.2
						1.5	115		4160			
						2	113		3865			
						2.5	110		3675			
						3	107		2850			
					4	102	1.8	2660	2.7	0.3		
6	117	3.0	1695	4.5	0.6							

English

Select Gases		Set Preflow		Set Cutflow		Material Thickness	Arc Voltage	Torch-to-Work Distance	Cutting Speed	Initial Pierce Height		Pierce Delay Time
Plasma	Shield	Plasma	Shield	Plasma	Shield					in	Volts	
Air	Air	35	19	62	49	.040	130	0.100	220	0.150	150	0.2
						.051	115		170			
						.064	113		160			
						.102	110		140			
						.125	102		0.070			
					3/16	114	0.120	90	0.180	0.4		
1/4	117	60	0.6									

Marking

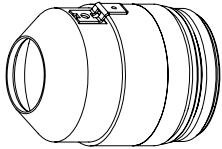
Select Gases		Set Preflow		Set Cutflow		Amperage	Torch-to-Work Distance		Marking Speed		Arc Voltage
Plasma	Shield	Plasma	Shield	Plasma	Shield		mm	in	mm/min	ipm	
N ₂	N ₂	10	10	10	10	15	2.5	0.100	6350	250	85

OPERATION

Aluminum

Air Plasma / Air Shield
130 A Cutting

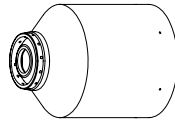
Flow rates - lpm/scfh	
Air	
Preflow	73 / 154
Cutflow	78 / 165



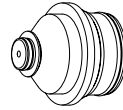
220173



220198



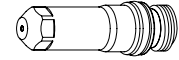
220176



220197



220179



220181

Metric

Select Gases		Set Preflow		Set Cutflow		Material Thickness	Arc Voltage	Torch-to-Work Distance	Cutting Speed	Initial Pierce Height		Pierce Delay Time
Plasma	Shield	Plasma	Shield	Plasma	Shield					mm	Volts	
Air	Air	19	31	75	23	6	153	2.8	2370	200	6.0	0.2
						10	154		3.0			1465
						12	156	1225				0.5
						15	158	3.3				1050
						20	162	3.5	725			7.0
						25	172	4.0	525		Edge start	

English

Select Gases		Set Preflow		Set Cutflow		Material Thickness	Arc Voltage	Torch-to-Work Distance	Cutting Speed	Initial Pierce Height		Pierce Delay Time	
Plasma	Shield	Plasma	Shield	Plasma	Shield					in	Volts		in
Air	Air	19	31	75	23	1/4	153	0.110	90	200	0.240	0.2	
						3/8	154		0.120			60	0.3
						1/2	156	45				0.5	
						5/8	158	0.130				40	0.260
						3/4	162	0.140	30			0.280	1.3
						1	172	0.160	20		Edge start		

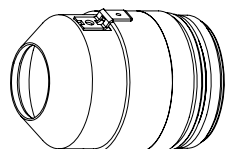
Marking

Select Gases		Set Preflow		Set Cutflow		Amperage	Torch-to-Work Distance		Marking Speed		Arc Voltage
							mm	in	mm/min	ipm	
N ₂	N ₂	10	10	10	10	18	2.5	0.100	6350	250	120

Note: This process produces a rougher cut edge that is less perpendicular than the 130 A, H35/N₂ process.

Aluminum
H35 Plasma / N₂ Shield
130 A Cutting

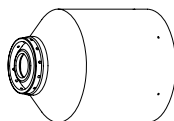
Flow rates - lpm/scfh		
	H35	N ₂
Preflow	0 / 0	76 / 160
Cutflow	26 / 54	68 / 144



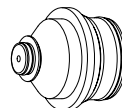
220173



220198



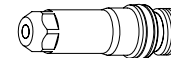
220304



220197



220179



220307

Metric

Select Gases		Set Preflow		Set Cutflow		Material Thickness	Arc Voltage	Torch-to-Work Distance	Cutting Speed	Initial Pierce Height		Pierce Delay Time	
Plasma	Shield	Plasma	Shield	Plasma	Shield	mm	Volts	mm	mm/m	mm	factor %	seconds	
H35	N ₂	19	32	75	49	10	158	4.5	1615	6.5	130	0.3	
					37	12	156					1455	0.5
					24	15						1305	0.8
						20	157					940	1.3
					16	25	176					540	Edge start

English

Select Gases		Set Preflow		Set Cutflow		Material Thickness	Arc Voltage	Torch-to-Work Distance	Cutting Speed	Initial Pierce Height		Pierce Delay Time	
Plasma	Shield	Plasma	Shield	Plasma	Shield	in	Volts	in	ipm	in	factor %	seconds	
H35	N ₂	19	32	75	49	3/8	158	0.180	65	0.260	130	0.3	
					37	1/2	156					55	0.5
					24	5/8						50	0.8
						3/4	157					40	1.3
					16	1	176					20	Edge start

Marking

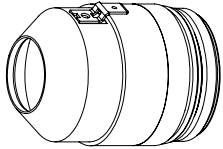
Select Gases		Set Preflow		Set Cutflow		Amperage	Torch-to-Work Distance		Marking Speed		Arc Voltage
						Amps	mm	in	mm/min	ipm	Volts
N ₂	N ₂	10	10	10	10	18	2.5	0.100	6350	250	130

Note: This process produces a smoother cut edge that is more perpendicular than the 130 A, Air/Air process.

OPERATION

Aluminum H35 and N₂ Plasma / N₂ Shield 130 A Cutting

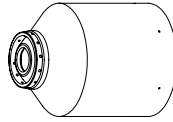
Flow rates - lpm/scfh		
	H35	N ₂
Preflow	0 / 0	97 / 205
Cutflow	13 / 28	71 / 150



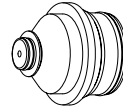
220173



220198



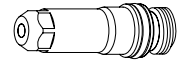
220304



220197



220179



220307

Metric

Select Gases		Set Preflow		Set Cutflow				Material Thickness	Arc Voltage	Torch-to-Work Distance	Cutting Speed	Initial Pierce Height		Pierce Delay Time
Plasma	Shield	Plasma	Shield	Plasma	Shield	Mix Gas 1	Mix Gas 2	mm	Volts	mm	mm/m	mm	factor %	seconds
H35	N ₂	19	51	75	27	32	18	6	156	3.5	2215	7.0	200	0.3
								10	158		1615			
								12	159	3.0	1455	6.0		0.5
								15	160		1215			0.8
								20	163		815			1.3

English

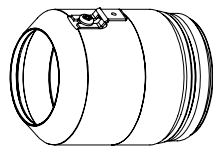
Select Gases		Set Preflow		Set Cutflow				Material Thickness	Arc Voltage	Torch-to-Work Distance	Cutting Speed	Initial Pierce Height		Pierce Delay Time
Plasma	Shield	Plasma	Shield	Plasma	Shield	Mix Gas 1	Mix Gas 2	in	Volts	in	ipm	in	factor %	seconds
H35	N ₂	19	51	75	27	32	18	1/4	156	0.140	85	0.280	200	0.3
								3/8	158		65			
								1/2	159	0.120	55	0.240		0.5
								5/8	160		45			0.8
								3/4	163		35			1.3

Marking

Select Gases		Set Preflow		Set Cutflow		Amperage	Torch-to-Work Distance		Marking Speed		Arc Voltage
						Amps	mm	in	mm/min	ipm	Volts
N ₂	N ₂	10	10	10	10	18	2.5	0.100	6350	250	130

Aluminum
H35 Plasma / N₂ Shield
200 A Cutting

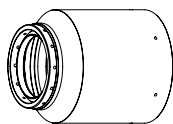
Flow rates - lpm/scfh		
	H35	N ₂
Preflow	0 / 0	113 / 240
Cutflow	34 / 72	90 / 190



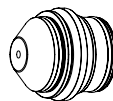
220398



220345



220347



220346



220342



220307

Metric

Select Gases		Set Preflow		Set Cutflow		Material Thickness	Arc Voltage	Torch-to-Work Distance	Cutting Speed	Initial Pierce Height		Pierce Delay Time
Plasma	Shield	Plasma	Shield	Plasma	Shield					mm	Volts	
H35	N ₂	22	43	73	43	10	152	6.4	4400	9.0	140	0.3
						12	150		3800			0.4
						15	150		3000			0.5
						20	159		1450			0.6

English

Select Gases		Set Preflow		Set Cutflow		Material Thickness	Arc Voltage	Torch-to-Work Distance	Cutting Speed	Initial Pierce Height		Pierce Delay Time
Plasma	Shield	Plasma	Shield	Plasma	Shield					in	Volts	
H35	N ₂	22	43	73	43	3/8	152	0.250	180	0.350	140	0.3
						1/2	150		140			0.4
						5/8	150		110			0.5
						3/4	159		70			0.6

Marking

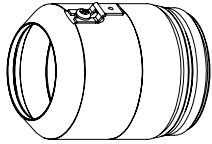
Select Gases		Set Preflow		Set Cutflow		Amperage	Torch-to-Work Distance		Marking Speed		Arc Voltage
Plasma	Shield	Plasma	Shield	Plasma	Shield		mm	in	mm/min	ipm	
N ₂	N ₂	10	10	10	10	18	2.5	0.100	6350	250	140

OPERATION

Aluminum

N₂ Plasma / N₂ Shield
200 A Cutting

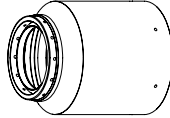
Flow rates - lpm/scfh	
N ₂	
Preflow	113 / 240
Cutflow	135 / 287



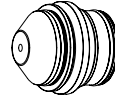
220398



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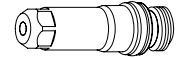
220347



220346



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220307

Metric

Select Gases		Set Preflow		Set Cutflow		Material Thickness	Arc Voltage	Torch-to-Work Distance	Cutting Speed	Initial Pierce Height		Pierce Delay Time
Plasma	Shield	Plasma	Shield	Plasma	Shield					mm	Volts	
N ₂	N ₂	22	43	73	43	10	158	6.4	4750	9.0	140	0.4
						12						0.5
						15						0.6
						20						0.8

English

Select Gases		Set Preflow		Set Cutflow		Material Thickness	Arc Voltage	Torch-to-Work Distance	Cutting Speed	Initial Pierce Height		Pierce Delay Time
Plasma	Shield	Plasma	Shield	Plasma	Shield					in	Volts	
N ₂	N ₂	22	43	73	43	3/8	158	0.250	200	0.350	140	0.4
						1/2						0.5
						5/8						0.6
						3/4						0.8

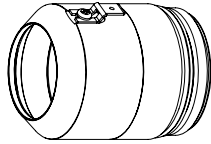
Marking

Select Gases		Set Preflow		Set Cutflow		Amperage	Torch-to-Work Distance		Marking Speed		Arc Voltage
Plasma	Shield	Plasma	Shield	Plasma	Shield		Amps	mm	in	mm/min	
N ₂	N ₂	10	10	10	10	18	2.5	0.100	6350	250	140

Aluminum

H35 and N₂ Plasma / N₂ Shield
200 A Cutting

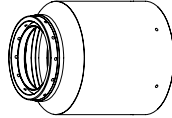
Flow rates - lpm/scfh		
	H35	N ₂
Preflow	0 / 0	121 / 256
Cutflow	13 / 27	126 / 267



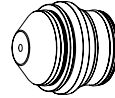
220398



220345



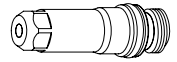
220347



220346



220342



220307

Metric

Select Gases		Set Preflow		Set Cutflow				Material Thickness	Arc Voltage	Torch-to-Work Distance	Cutting Speed	Initial Pierce Height		Pierce Delay Time
Plasma	Shield	Plasma	Shield	Plasma	Shield	Mix Gas 1	Mix Gas 2	mm	Volts	mm	mm/m	mm	factor %	seconds
H35	N ₂	22	44	73	44	42	20	10	158	6.4	4000	9.0	140	0.3
								12			3650			0.4
								15			2450			0.5
								20			1050			0.6

English

Select Gases		Set Preflow		Set Cutflow				Material Thickness	Arc Voltage	Torch-to-Work Distance	Cutting Speed	Initial Pierce Height		Pierce Delay Time
Plasma	Shield	Plasma	Shield	Plasma	Shield	Mix Gas 1	Mix Gas 2	in	Volts	in	ipm	in	factor %	seconds
H35	N ₂	22	44	73	44	42	20	3/8	158	0.250	160	0.350	140	0.3
								1/2			140			0.4
								5/8			80			0.5
								3/4			50			0.6

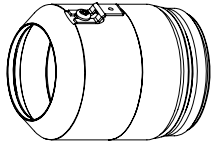
Marking

Select Gases		Set Preflow		Set Cutflow		Amperage	Torch-to-Work Distance		Marking Speed		Arc Voltage
						Amps	mm	in	mm/min	ipm	Volts
N ₂	N ₂	10	10	10	10	18	2.5	0.100	6350	250	140

OPERATION

Aluminum H35 Plasma / N₂ Shield 260 A Cutting

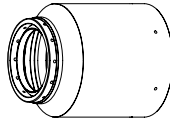
Flow rates - lpm/scfh		
	H35	N ₂
Preflow	0 / 0	127 / 270
Cutflow	33 / 70	118 / 250



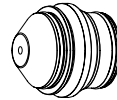
220398



220407



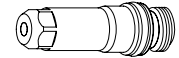
220344



220406



220405



220307

Metric

Select Gases		Set Preflow		Set Cutflow		Material Thickness	Arc Voltage	Torch-to-Work Distance	Cutting Speed	Initial Pierce Height		Pierce Delay Time
Plasma	Shield	Plasma	Shield	Plasma	Shield					mm	Volts	
H35	N ₂	12	49	76	58	6	170	11.0	7200	11.0	100	0.2
						10		10.0	6120	10.0		0.4
						12	162	7.6	5160	8.5	110	0.5
						15	163		3720			0.6
						20	166		2230	150	0.8	
						25	174		1930			
						32	175		1510	Edge start		
						38	176		1150			
						44	183		670			
						50	190		390			

English

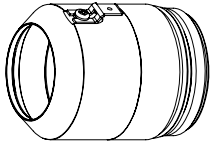
Select Gases		Set Preflow		Set Cutflow		Material Thickness	Arc Voltage	Torch-to-Work Distance	Cutting Speed	Initial Pierce Height		Pierce Delay Time
Plasma	Shield	Plasma	Shield	Plasma	Shield					in	Volts	
H35	N ₂	12	49	76	58	1/4	170	0.450	280	0.450	100	0.2
						3/8		0.400	250	0.400		0.4
						1/2	162	0.300	190	0.330	110	0.5
						5/8	163		130			0.6
						3/4	166		90	150	0.8	
						1	174		75			
						1-1/4	175		60	Edge start		
						1-1/2	176		45			
						1-3/4	183		25			
						2	190		14			

Marking

Select Gases		Set Preflow		Set Cutflow		Amperage	Torch-to-Work Distance		Marking Speed		Ar Voltage
Plasma	Shield	Plasma	Shield	Plasma	Shield		mm	in	mm/min	ipm	
N ₂	N ₂	10	10	10	10	18	2.5	0.100	6350	250	120

Aluminum
N₂ Plasma / Air Shield
260 A Cutting

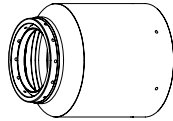
Flow rates - lpm/scfh		
	N ₂	Air
Preflow	125 / 265	0 / 0
Cutflow	50 / 105	113 / 240



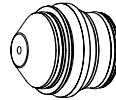
220398



220407



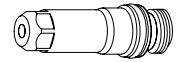
220344



220406



220405



220307

Metric

Select Gases		Set Preflow		Set Cutflow		Material Thickness	Arc Voltage	Torch-to-Work Distance	Cutting Speed	Initial Pierce Height		Pierce Delay Time
Plasma	Shield	Plasma	Shield	Plasma	Shield					mm	Volts	
N ₂	Air	12	49	74	56	6	172	6.4	7900	9.0	140	0.2
						10	171		4930			0.4
						12	164		4290	8.0	200	0.5
						15	165	3330	11.0			260
						20	171	1940		Edge start		
						25	177	1440	Edge start			
						32	191	940		Edge start		
						38	195	520	Edge start			
						44	202	320		Edge start		
						50	205	215	Edge start			

English

Select Gases		Set Preflow		Set Cutflow		Material Thickness	Arc Voltage	Torch-to-Work Distance	Cutting Speed	Initial Pierce Height		Pierce Delay Time
Plasma	Shield	Plasma	Shield	Plasma	Shield					in	Volts	
N ₂	Air	12	49	74	56	1/4	172	0.250	300	0.350	140	0.2
						3/8	171		200			0.4
						1/2	164	0.160	160	0.320	200	0.5
						5/8	165		120			0.420
						3/4	171		80	Edge start		
						1	177	55	Edge start			
						1-1/4	190	40		Edge start		
						1-1/2	195	20	Edge start			
						1-3/4	202	12		Edge start		
						2	205	8	Edge start			

Marking

Select Gases		Set Preflow		Set Cutflow		Amperage	Torch-to-Work Distance		Marking Speed		Arc Voltage
Plasma	Shield	Plasma	Shield	Plasma	Shield		mm	in	mm/min	ipm	
N ₂	N ₂	10	10	10	10	18	2.5	0.100	6350	250	120