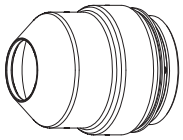
Mild steel

O_2 Plasma / O_2 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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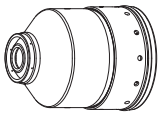
220194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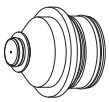
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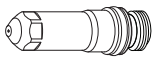
220180


220192


220340

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	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			
			35		7	**2**	120	1.5	1490	2.7		0.4
						2.5	122		1325			
			75			**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	in	Factor %	Seconds
O_2	O_2	78	17	94	17	**0.018**	114	0.050	215	0.090	180	0.1
						0.024			200			
						0.030	115		170			0.2
						0.036	116		155			0.3
						0.048	117		110			
						0.060	119		85			
			35		7	**0.075**	120	0.060	60	0.110		0.4
						0.105	122		50			
			75			**0.135***	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
						Amps	mm	in	mm/min	ipm	Volts
N_2	N_2	10	10	10	10	**15**	2.5	0.10	6350	250	105
Ar	Air	90	10	90	10	**9**	2.5	0.10	2540	100	80

* Pierce complete is recommended for these thicknesses

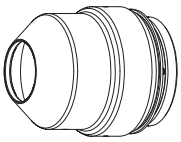
Mild steel

O_2 Plasma / O_2 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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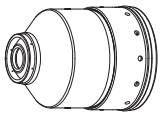
220555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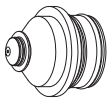
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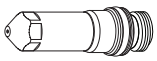
220553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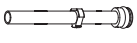

220340

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	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			0.1
						3	119	1.5	1800	3.0		0.2
						4	121		1400			0.3
						5	122		1200			0.4
						6	126	2.0	950	4.0		0.5
						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	in	ipm	in	Factor %	Seconds
O_2	O_2	70	30	81	14	**0.030**	110	0.04	270	0.08	200	0.0
						0.036			210			
						0.048	112		160			
						0.060	114	0.05	125	0.10		
						0.075	115		110			
						0.105	118		80			0.1
						0.135	120	0.06	60	0.12		0.2
						3/16	121		50			0.3
						1/4	125	0.08	35	0.16		0.5
						5/16	130		25			

Marking

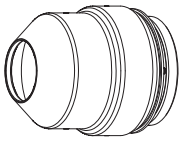
Select Gases		Set Preflow		Set Cutflow		**Amperage**	Torch-to-Work Distance		Marking Speed		Arc Voltage
						Amps	mm	in	mm/min	ipm	Volts
N_2	N_2	10	10	10	10	**15**	2.5	0.10	6350	250	118
Ar	Air	90	10	90	10	**9**	2.5	0.10	2540	100	77

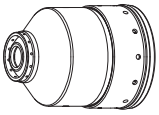
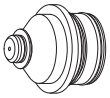
Mild steel

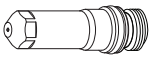
O_2 Plasma / Air Shield

80 A Cutting

Flow rates – lpm/scfh		
	O_2	Air
Preflow	0 / 0	76 / 161
Cutflow	23 / 48	41 / 87





220747 220189 220756 220188 220179 220187 220340

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			0.2
						4	120	2.0	4300	4.0	200	
						6	123		3045			0.3
						10	127		1810			0.5
					10	**12**	130		1410	5.0	250	0.7
						15	133		1030			0.8
						20	135	2.5	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 %	Seconds
O_2	Air	48	23	78	23	**0.075**	112	0.100	400	0.150	150	0.1
						0.105	115		290			
						0.135	117		180			0.2
						3/16	120	0.080	155	0.160	200	
						1/4	123		110			0.3
						3/8	127		75			0.5
					10	**1/2**	130		50	0.200	250	0.7
						5/8	133		37			0.8
						3/4	135	0.100	25	0.250		0.9

Marking

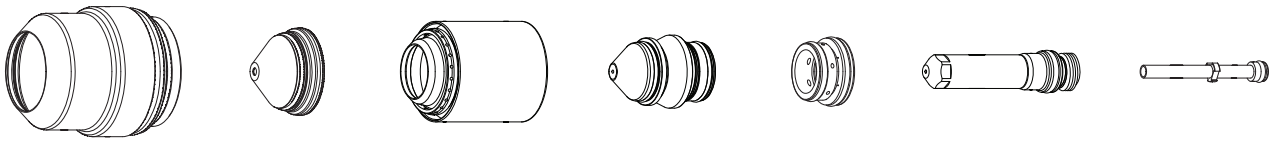
Select Gases		Set Preflow		Set Cutflow		**Amperage**	Torch-to-Work Distance		Marking Speed		Arc Voltage
						Amps	mm	in	mm/min	ipm	Volts
N_2	N_2	10	10	10	10	**15**	2.5	0.10	6350	250	130
Ar	Air	50	10	50	10	**15**	3.0	0.12	2540	100	78

Mild steel bevel cutting

O_2 Plasma / Air Shield

80 A Cutting

Flow rates – lpm/scfh		
	O_2	Air
Preflow	0 / 0	47 / 100
Cutflow	23 / 48	47 / 100



220637 220742 220845 220806 220179 220802 220700

Metric

Select Gases		Set Preflow		Set Cutflow		Minimum Clearance	**Equivalent Material Thickness**	Torch-to-Work Distance	Cutting Speed	Initial Pierce Height		Pierce Delay Time
Plasma	Shield	Plasma	Shield	Plasma	Shield	mm	**mm**	mm	mm/m	mm	factor %	seconds
O_2	Air	48	39	78	39	2.0	**2**	2.5 – 8.6	9810	3.8	150	0.1
							2.5		7980			
							3		6145			0.2
							4	2.0 – 8.6	4300	4.0	200	
							6		3045			0.3
							10		1810			0.5
					17		**12**		1410	5.0	250	0.7
							15		1030			0.8
							20	2.5 – 8.6	545	6.3		0.9

English

Select Gases		Set Preflow		Set Cutflow		Minimum Clearance	**Equivalent Material Thickness**	Torch-to-Work Distance	Cutting Speed	Initial Pierce Height		Pierce Delay Time
Plasma	Shield	Plasma	Shield	Plasma	Shield	in	**in**	in	ipm	in	factor %	seconds
O_2	Air	48	39	78	39	0.08	**0.75**	0.1 – 0.34	400	0.150	150	0.1
							0.105		290			
							0.135		180			0.2
							3/16	0.08 – 0.34	155	0.160	200	
							1/4		110			0.3
							3/8		75			0.5
					17		**1/2**		50	0.200	250	0.7
							5/8		37			0.8
							3/4	0.1 – 0.34	25	0.250		0.9

Marking

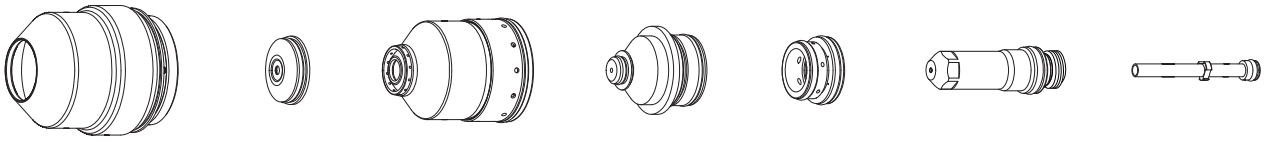
Select Gases		Set Preflow		Set Cutflow		**Amperage**	Torch-to-Work Distance		Marking Speed		Arc Voltage
						Amps	mm	in	mm/min	ipm	Volts
N_2	N_2	10	10	10	10	**15**	2.5	0.10	6350	250	130
Ar	Air	50	10	50	10	**15**	3.0	0.12	2540	100	78

Mild steel

O_2 Plasma / Air Shield

130 A Cutting

Flow rates – lpm/scfh		
	O_2	Air
Preflow	0 / 0	102 / 215
Cutflow	33 / 70	45 / 96



220747 220183 220756 220182 220179 220181 220340

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	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		
						12	132	3.3	2200	6.6		0.5
						15	135	3.8	1665	7.6		0.7
			52			**20**	138		1050			1.0
						25	141	4.0	550		190	1.8
						32	160	4.5	375	Edge start		
						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	in	ipm	in	Factor %	Seconds
O_2	Air	32	32	84	28	**0.135**	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		
						1/2	132	0.130	80	0.260		0.5
						5/8	135	0.150	60	0.300		0.7
			52			**3/4**	138		45			1.0
						1	141	0.160	20		190	1.8
						1-1/4	160	0.180	15	Edge start		
						1-1/2	167		10			

Marking

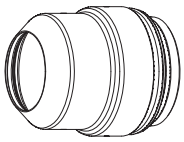
Select Gases		Set Preflow		Set Cutflow		**Amperage**	Torch-to-Work Distance		Marking Speed		Arc Voltage
						Amps	mm	in	mm/min	ipm	Volts
N_2	N_2	10	10	10	10	**15**	2.5	0.10	6350	250	130
Ar	Air	50	10	50	10	**15**	3.0	0.12	2540	100	75

Mild steel bevel cutting

O_2 Plasma / Air Shield

130 A

Flow rates – lpm/scfh		
	O_2	Air
Preflow	0 / 0	64 / 135
Cutflow	33 / 70	45 / 96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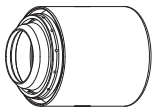
220742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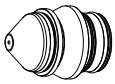
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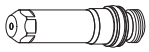
220179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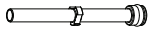
220700

Note: Bevel angle range is 0° to 45°

Metric

Select Gases		Set Preflow		Set Cutflow		Minimum Clearance	**Equivalent Material Thickness**	Torch-to-Work Distance	Cutting Speed	Initial Pierce Height		Pierce Delay Time
Plasma	Shield	Plasma	Shield	Plasma	Shield	mm	**mm**	mm	mm/m	mm	Factor %	Seconds
O_2	Air	15	23	84	21	2.0	**3**	2.5 – 8.6	6505	5.0	200	0.1
							4	2.8 – 8.6	5550	5.6		0.2
							6		4035			0.3
					15		**10**	3.0 – 8.6	2680	6.0		
							12	3.3 – 8.6	2200	6.6		0.5
							15	3.8 – 8.6	1665	7.6		0.7
							20		1050			1.0
							25	4.0 – 8.6	550		190	1.8
			33				**32***	4.5 – 8.6	375	10.2	220	4.0
							38		255	Edge start		

English

Select Gases		Set Preflow		Set Cutflow		Minimum Clearance	**Equivalent Material Thickness**	Torch-to-Work Distance	Cutting Speed	Initial Pierce Height		Pierce Delay Time
Plasma	Shield	Plasma	Shield	Plasma	Shield	in	**in**	in	ipm	in	Factor %	Seconds
O_2	Air	15	23	84	21	0.080	**0.135**	0.100 – 0.340	240	0.200	200	0.1
							3/16	0.110 – 0.340	190	0.220		0.2
							1/4		150			0.3
					15		**3/8**	0.120 – 0.340	110	0.240		
							1/2	0.130 – 0.340	80	0.260		0.5
							5/8	0.150 – 0.340	60	0.300		0.7
							3/4		45			1.0
							1	0.160 – 0.340	20		190	1.8
			33				**1-1/4***	0.180 – 0.340	15	0.4	220	4.0
							1-1/2		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	**15**	2.5	0.10	6350	250	130
Ar	Air	50	10	50	10	**15**	3.0	0.12	2540	100	75

* Suggestions for piercing 32 mm (1-1/4 in) mild steel: 1. Turn preflow on during IHS, 2. Use ohmic contact during IHS, 3. Use pierce complete when piercing