

CUT CHARTS

The cut chart information on the following pages will enable you to successfully cut or gouge using the MAX100 system.

Caution: Before cutting, check all settings and adjustments. Also, check for damaged torch parts and worn consumable parts.

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MAX100 Machine/PAC130 Hand Torch

Mild Steel Cutting

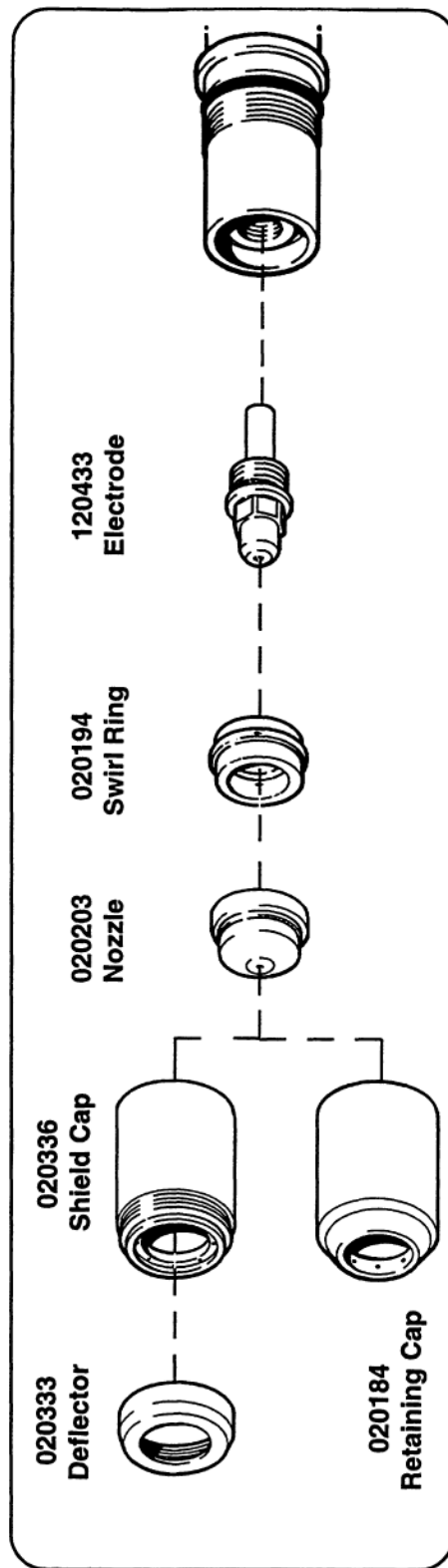
Plasma Gas: Air

Current Setting: 40 Amps

Consumables: Non-Shielded



CUTTING



Material Thickness (inches) (GA) (mm)	Plasma Gas Pressure in TEST (psi/bar)	Torch-to-work Distance (inches) (mm)	Arc Current Setting (amps)	Arc Voltage Setting (volts)	Duty Cycle (%)	Normal Plate Travel Speed (ipm) (mm/min)	Pierce Time (sec)	Expanded Metal Travel Speed (ipm) (mm/min)	Plasma Gas (Air) Inlet Pressure (psi/bar)
(28 GA)	65*/4.5	5/64	40	90	100	340		240	6100
(26 GA)		5/64		90		320		225	5720
(24 GA)		5/64		95		285		200	5080
.035		5/64		100		235		165	4190
(18 GA)		5/64		100		170		120	3050
1/16		5/64		105		150	0.50	105	2670
.075		5/64		105		130	0.50	90	2290
1/8		5/64		105		85	1.00	60	1520
.158		1/8		110		60	1.50	40	1020
.197		1/8		120		45	1.50	30	760
1/4		1/8		120		30	1.75		
3/8		1/8		125		08	2.00		

1 inch = 25.4 mm; 1 psi = .0689 bar = 6.895 KPa

* Plasma Gas Pressure setting is for 25-ft. (7.6 m) leads. Add 5 psi (.34 bar) for 50-ft (15 m) leads. Add 10 psi (.7 bar) for 75-ft. (23 m) leads.

MAX100 Machine/PAC130 Hand Torch



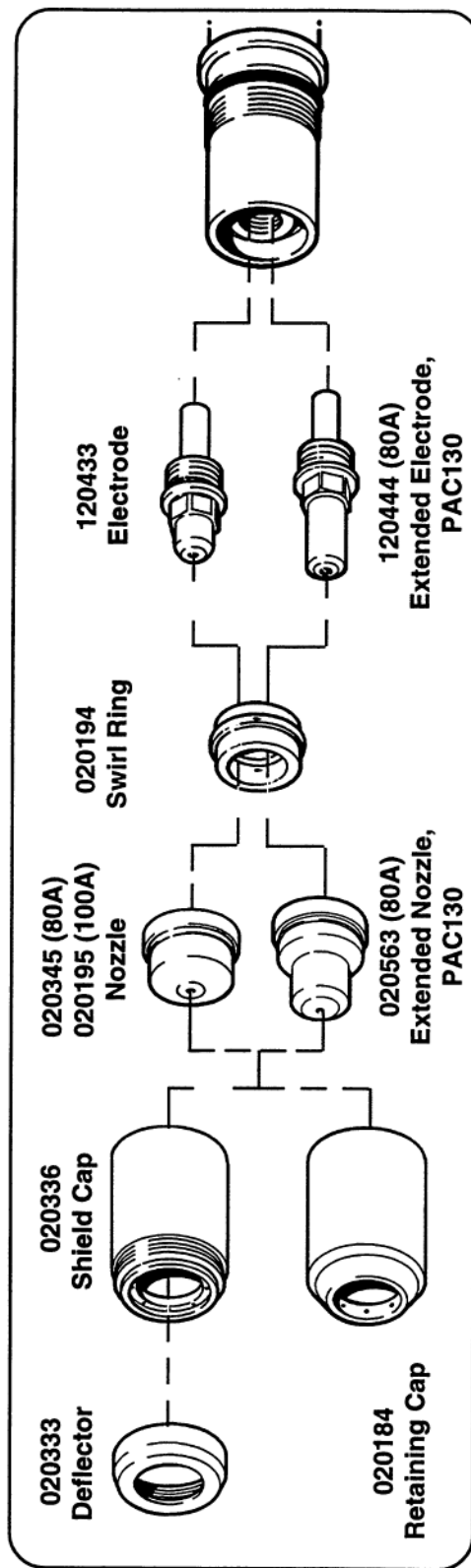
CUTTING

Mild Steel Cutting

Plasma Gas: Air

Current Setting: 80 Amp / 100 Amp

Consumables: Non-Shielded



Material Thickness (inches) (mm)	Plasma Gas Pressure in TEST (psi/bar)	Torch-to-work Distance (inches) (mm)	Arc Current Setting (amps)	Arc Voltage Setting (volts)	Duty Cycle (%)	Normal Plate Travel Speed (ipm) (mm/min)	Pierce Time (sec)	Plasma Gas (Air) Inlet Pressure (psi/bar)
1/8 3	65*/4.5	1/8 3	80	100	100	200 5080	0.50	90-120/6.2-8.3
3/16 5		1/8 3	80	110	100	120 3050	0.50	
1/4 6		5/32 4	80	120	100	95 2400	0.75	
3/8 10		5/32 4	100	115	80	55 1400	1.00	
1/2 13		5/32 4	100	125	80	40 1000	1.25	
5/8 16		3/16 5	100	130	80	25 750	1.50	
3/4 19		3/16 5	100	140	80	20 500		
7/8 22		1/4 6	100	145	80	15 380		
1 25		1/4 6	100	150	80	10 250		
1-1/4 32		1/4 6	100	160	80	05 130		

1 inch = 25.4 mm; 1 psi = .0689 bar = 6.895 KPa

* Plasma Gas Pressure setting is for 25-ft. (7.6 m) leads. Add 5 psi (.34 bar) for 50-ft. (15 m) leads. Add 10 psi (.7 bar) for 75-ft. (23 m) leads.

NOT A REPAIR PART

MAX100 Machine/PAC130 Hand Torch

Mild Steel Cutting

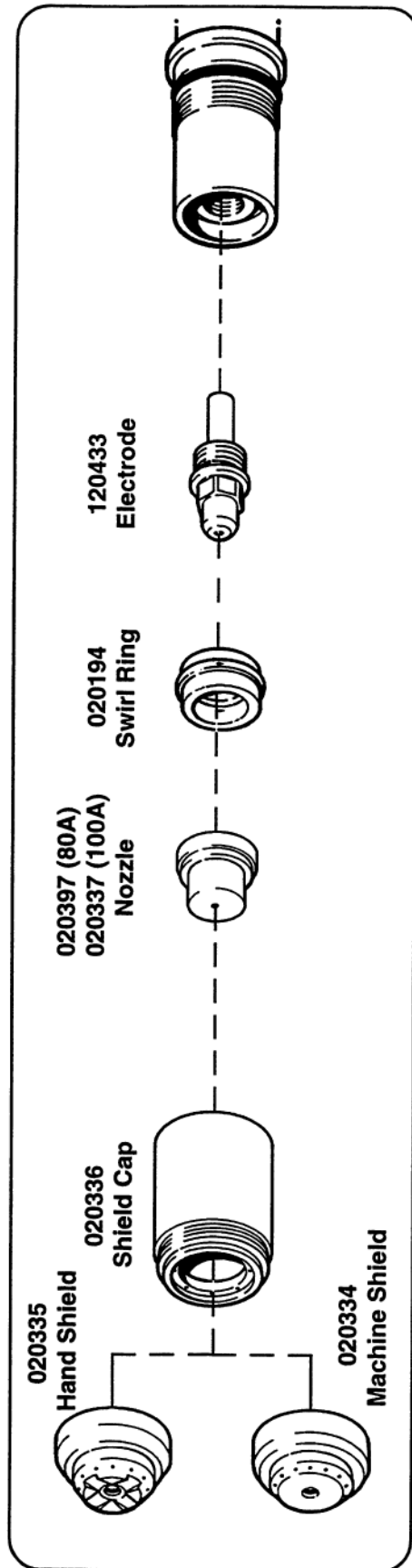
Plasma Gas: Air

Current Setting: 80 Amps / 100 Amps

Consumables: Shielded



CUTTING



Material Thickness (inches) (mm)	Plasma Gas Pressure in TEST (psi/bar)	Torch-to-work Distance (inches) (mm)	Arc Current Setting (amps)	Arc Voltage Setting (volts)	Duty Cycle (%)	Normal Plate Travel Speed (ipm) (mm/min)	Pierce Time (sec)	Plasma Gas (Air) Inlet Pressure (psi/bar)
1/4 6	60*1/4	1/8 3	80	130	100	90 2290	0.75	90-120/6.2-8.3
3/8 10		1/8 3	100	125	80	50 1270	1.00	
1/2 13		1/8 3	100	130	80	35 890	1.25	
5/8 15		5/32 4	100	140	80	25 640	1.50	
3/4 19		3/16 5	100	150	80	15 380		
1 25		1/4 6	100	160	80	10 250		

1 inch = 25.4 mm; 1 psi = .0689 bar = 6.895 KPa

* Plasma Gas Pressure setting is for **25-ft.** (7.6 m) leads. Add **5 psi** (.34 bar) for **50-ft** (15 m) leads. Add **10 psi** (.7 bar) for **75-ft.** (23 m) leads.

MAX100 Machine/PAC130 Hand Torch

Aluminum Cutting

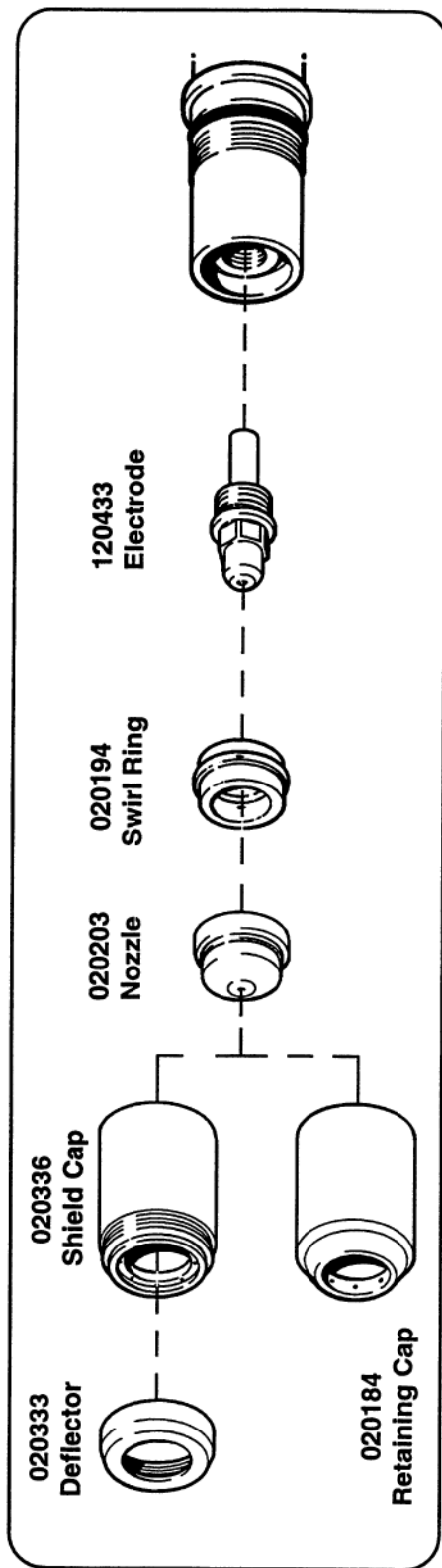
Plasma Gas: Air

Current Setting: 40 Amp

Consumables: Non-Shielded



CUTTING



Material Thickness (inches) (mm)	Plasma Gas Pressure in TEST (psi/bar)	Torch-to-work Distance (inches) (mm)	Arc Current Setting (amps)	Arc Voltage Setting (volts)	Duty Cycle (%)	Normal Plate Travel Speed (ipm) (mm/min)	Pierce Time (sec)	Expanded Metal Travel Speed (ipm) (mm/min)	Plasma Gas (Air) Inlet Pressure (psi/bar)
1/32 .8	65*/4.5	5/64	40	90	100	240	0.50	165	90-120/6.2-8.3
1/16 1.5		5/64		100		150	0.75	105	
3/32 2.4		5/64		100		110	1.00	75	
1/8 3		5/64		105		85	1.00	60	
1/4 6		1/8		120		30	1.25		
3/8 10		1/8		125		08	1.50		

1 inch = 25.4 mm; 1 psi = .0689 bar = 6.895 KPa

* Plasma Gas Pressure setting is for 25-ft. (7.6 m) leads. Add 5 psi (.34 bar) for 50-ft (15 m) leads. Add 10 psi (.7 bar) for 75-ft. (23 m) leads.

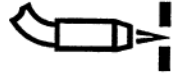
MAX100 Machine/PAC130 Hand Torch

Aluminum Cutting

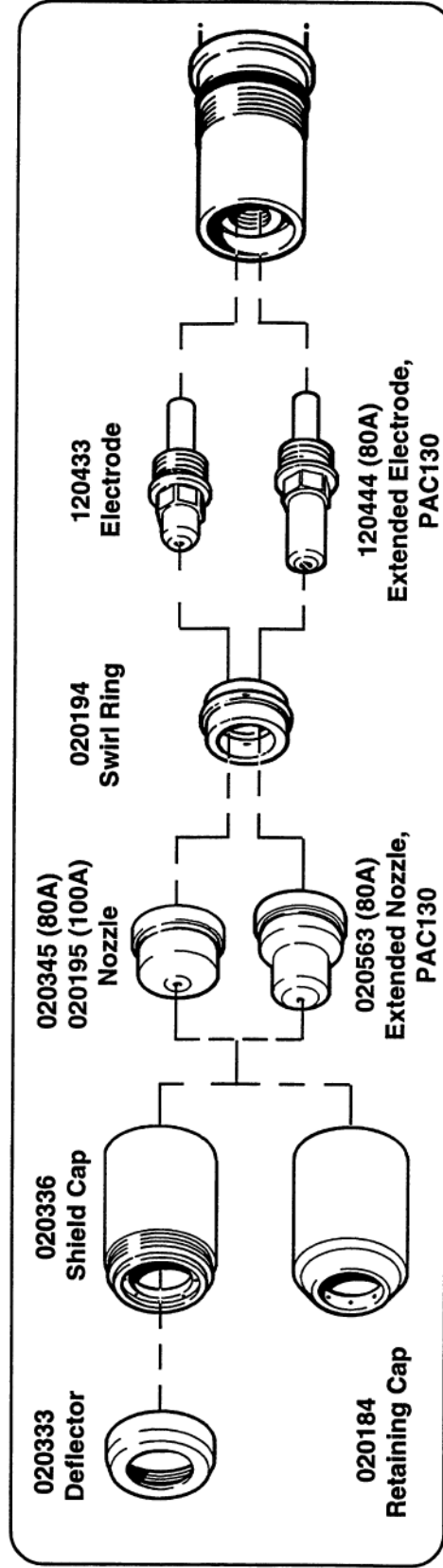
Plasma Gas: Air

Current Setting: 80 Amp / 100 Amp

Consumables: Non-Shielded



CUTTING



Material Thickness (inches) (mm)	Plasma Gas Pressure In TEST (psi/bar)	Torch-to-work Distance (inches) (mm)	Arc Current Setting (amps)	Arc Voltage Setting (volts)	Duty Cycle (%)	Normal Plate Travel Speed (ipm) (mm/min)	Pierce Time (sec)	Plasma Gas (Air) Inlet Pressure (psi/bar)
1/8 3	65*/4.5	1/8 3	80	110	100	170 4320	0.50	90-120/6.2-8.3
1/4 6		5/32 4	80	125	100	60 1500	0.75	
3/8 10		5/32 4	100	120	80	40 1020	1.00	
1/2 13		5/32 4	100	130	80	30 760	1.25	
5/8 15		3/16 5	100	135	80	15 380	1.50	
3/4 19		3/16 5	100	145	80	10 250		
1 25		1/4 6	100	155	80	05 125		

1 inch = 25.4 mm; 1 psi = .0689 bar = 6.895 KPa

* Plasma Gas Pressure setting is for 25-ft. (7.6 m) leads. Add 5 psi (.34 bar) for 50-ft (15 m) leads. Add 10 psi (.7 bar) for 75-ft. (23 m) leads.

MAX100 Machine/PAC130 Hand Torch

Aluminum Cutting

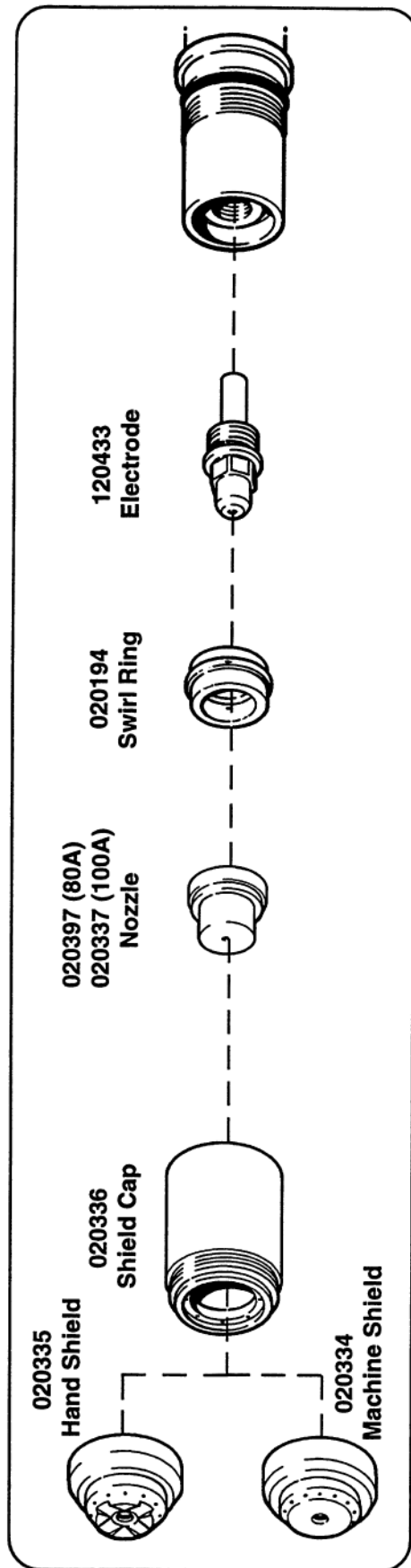
Plasma Gas: Air

Current Setting: 80 Amp / 100 Amp

Consumables: Shielded



CUTTING



Material Thickness (inches) (mm)	Plasma Gas Pressure in TEST (psi/bar)	Torch-to-work Distance (inches) (mm)	Arc Current Setting (amps)	Arc Voltage Setting (volts)	Duty Cycle (%)	Normal Plate Travel Speed (ipm) (mm/min)	Pierce Time (sec)	Plasma Gas (Air) Inlet Pressure (psi/bar)
1/4	60*4	1/8	80	130	100	55	0.75	90-120/6.2-8.3
3/8		1/8	100	130	80	35	1.00	
1/2		5/32	100	140	80	25	1.25	
5/8		5/32	100	145	80	15	1.50	
3/4		3/16	100	155	80	10		

1 inch = 25.4 mm; 1 psi = .0689 bar = 6.895 KPa

* Plasma Gas Pressure setting is for 25-ft. (7.6 m) leads. Add 5 psi (.34 bar) for 50-ft (15 m) leads. Add 10 psi (.7 bar) for 75-ft. (23 m) leads.

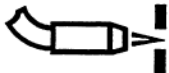
MAX100 Machine/PAC130 Hand Torch

Stainless Steel Cutting

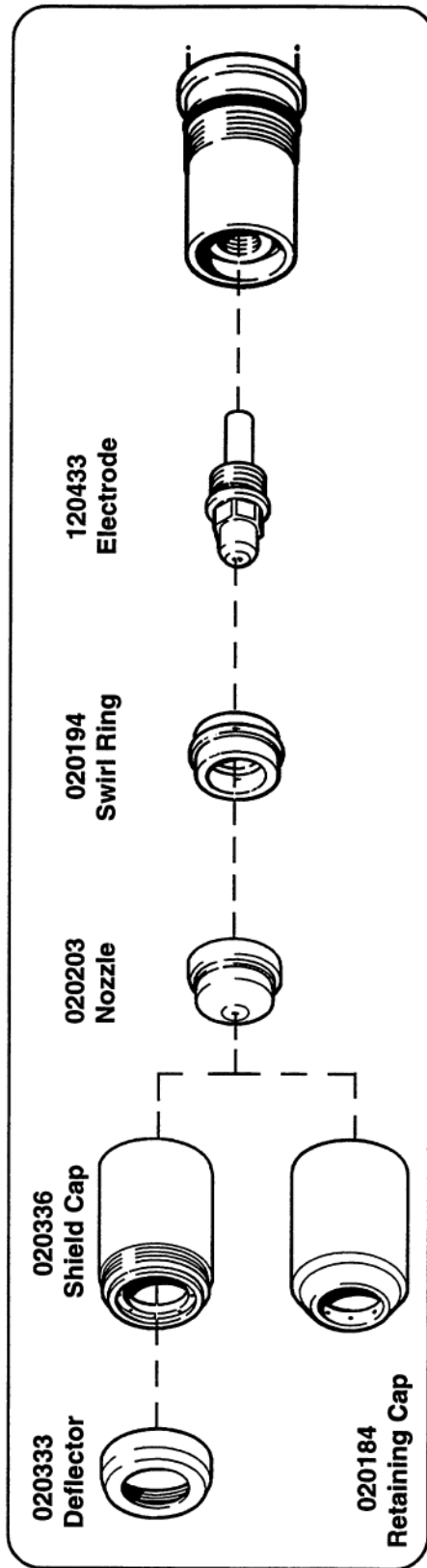
Plasma Gas: Air

Current Setting: 40 Amp

Consumables: Non-Shielded



CUTTING



Material Thickness (inches) (GA)	Plasma Gas Pressure in TEST (psi/bar)	Torch-to-work Distance (inches) (mm)	Arc Current Setting (amps)	Arc Voltage Setting (volts)	Duty Cycle (%)	Normal Plate Travel Speed (ipm) (mm/min)	Pierce Time (sec)	Expanded Metal Travel Speed (ipm) (mm/min)	Plasma Gas (Air) Inlet Pressure (psi/bar)
(28 GA)	65*/4.5	5/64	40	100	100	290	7400	200	5080
(26 GA)		5/64		100		270	6860	190	4830
(24 GA)		5/64		105		240	6100	170	4320
1/32	.8	5/64		105		200	5080	140	3560
(18 GA)		5/64		110		145	3680	100	2540
1/16	1.5	5/64		110		130	3300	90	2290
1/8	3	5/64		120		75	1910	50	1270
1/4	6	1/8		130		30	760		
3/8	10	1/8		135		8	200		
									90-120/6.2-8.3

1 inch = 25.4 mm; 1 psi = .0689 bar = 6.895 KPa

* Plasma Gas Pressure setting is for 25-ft. (7.6 m) leads. Add 5 psi (.34 bar) for 50-ft (15 m) leads. Add 10 psi (.7 bar) for 75-ft. (23 m) leads.

MAX100 Machine/PAC130 Hand Torch

Stainless Steel Cutting

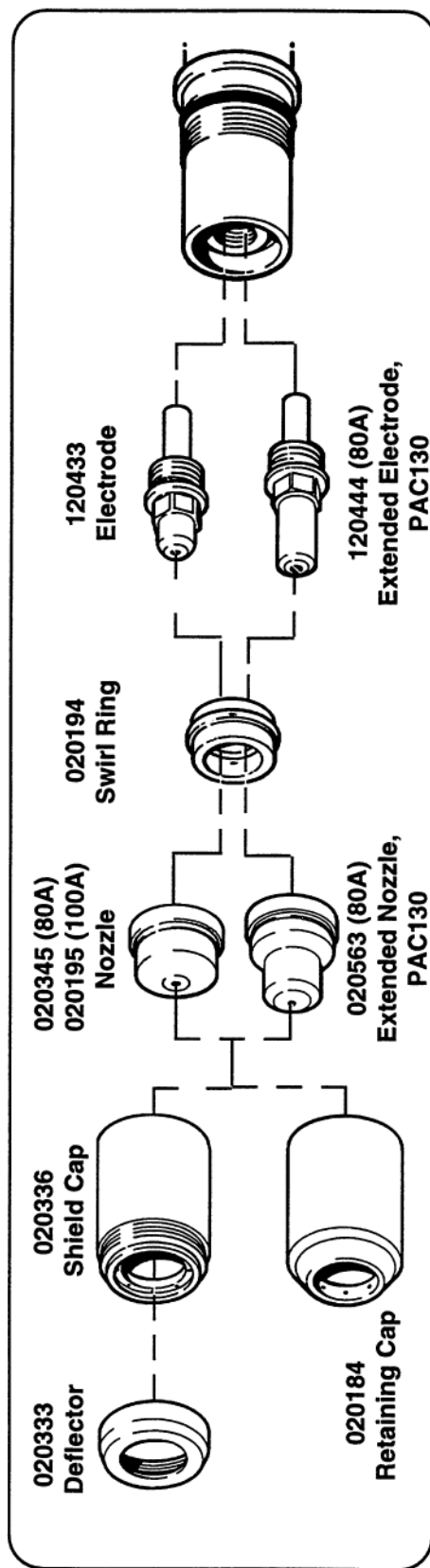
Plasma Gas: Air

Current Setting: 80 Amp / 100 Amp

Consumables: Non-Shielded



CUTTING



Material Thickness (inches) (mm)	Plasma Gas Pressure in TEST (psi/bar)	Torch-to-work Distance (inches) (mm)	Arc Current Setting (amps)	Arc Voltage Setting (volts)	Duty Cycle (%)	Normal Plate Travel Speed (ipm) (mm/min)	Pierce Time (sec)	Plasma Gas (Air) Inlet Pressure (psi/bar)
1/8	65*/4.5	1/8	80	125	100	170	0.50	90-120/6.2-8.3
1/4		5/32	80	125	100	80	0.75	
3/8		5/32	100	130	80	45	1.00	
1/2		5/32	100	135	80	30	1.25	
5/8		3/16	100	135	80	25	1.50	
3/4		3/16	100	140	80	15		
1		1/4	100	145	80	10		

1 inch = 25.4 mm; 1 psi = .0689 bar = 6.895 KPa

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MAX100 Machine/PAC130 Hand Torch

Stainless Steel Cutting

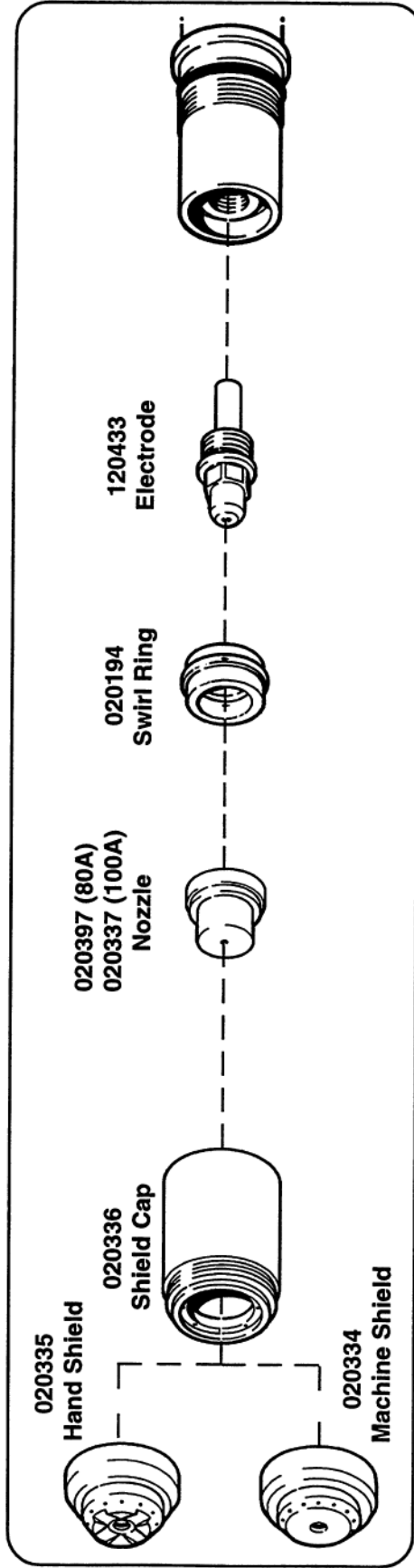
Plasma Gas: Air

Current Setting: 80 Amp / 100 Amp

Consumables: Shielded



CUTTING



Material Thickness (inches) (mm)	Plasma Gas Pressure in TEST (psi/bar)	Torch-to-work Distance (inches) (mm)	Arc Current Setting (amps)	Arc Voltage Setting (volts)	Duty Cycle (%)	Normal Plate Travel Speed (ipm) (mm/min)	Pierce Time (sec)	Plasma Gas (Air) Inlet Pressure (psi/bar)
1/4	60*1/4	1/8	80	130	100	75	0.75	90-120/6.2-8.3
3/8		1/8	100	135	80	40	1.00	
1/2		1/8	100	140	80	30	1.25	
5/8		5/32	100	140	80	20	1.50	
3/4		3/16	100	145	80	15		
1		1/4	100	150	80	8		

1 inch = 25.4 mm; 1 psi = .0689 bar = 6.895 KPa

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MAX100 Machine/PAC130 Hand Torch

Stainless Steel Cutting

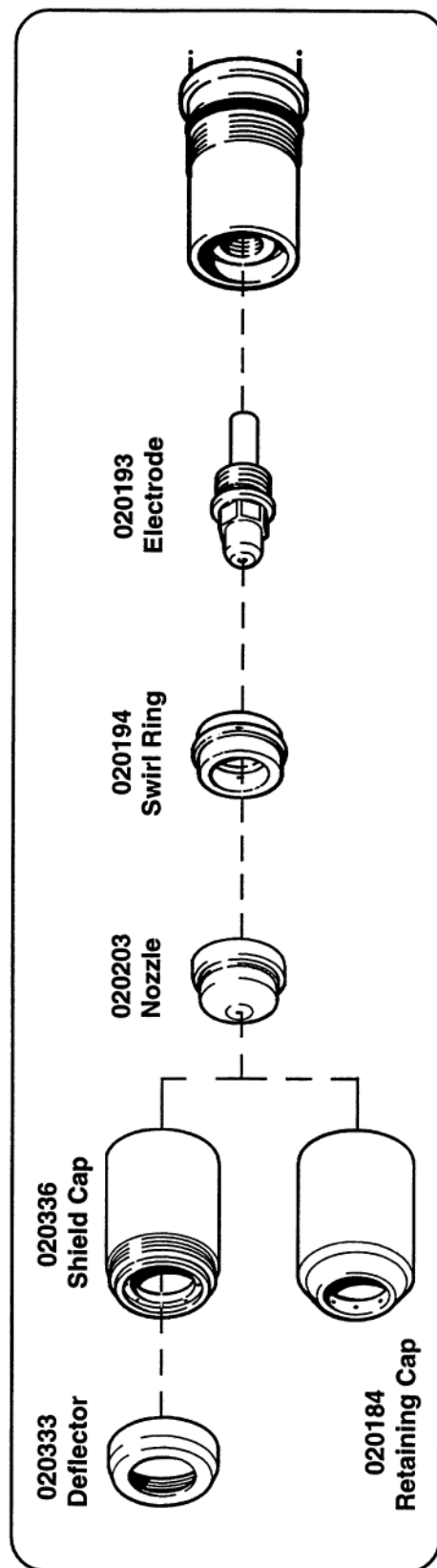
Plasma Gas: Nitrogen

Current Setting: 40 Amp

Consumables: Non-Shielded



CUTTING



Material Thickness (inches) (GA) (mm)	Plasma Gas Pressure in TEST (psi/bar)	Torch-to-work Distance (inches) (mm)	Arc Current Setting (amps)	Arc Voltage Setting (volts)	Duty Cycle (%)	Normal Plate Travel Speed (ipm) (mm/min)	Pierce Time (sec)	Plasma Gas (Air) Inlet Pressure (psi/bar)
(28 GA)	65*/4.5	5/64	2	105	100	260	6600	90-120/6.2-8.3
(26 GA)		5/64	2	105		240	6100	
(24 GA)		5/64	2	110		215	5460	
1/32		5/64	2	110		180	4570	
(18 GA)		5/64	2	115		130	3300	
1/16		5/64	2	115		120	3050	0.50
1/8		5/64	2	125		65	1650	1.00
1/4		1/8	3	135		25	640	1.75

1 inch = 25.4 mm; 1 psi = .0689 bar = 6.895 KPa

* Plasma Gas Pressure setting is for **25-ft.** (7.6 m) leads. Add **5 psi** (.34 bar) for **50-ft** (15 m) leads. Add **10 psi** (.7 bar) for **75-ft.** (23 m) leads.

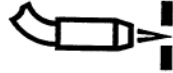
MAX100 Machine/PAC130 Hand Torch

Stainless Steel Cutting

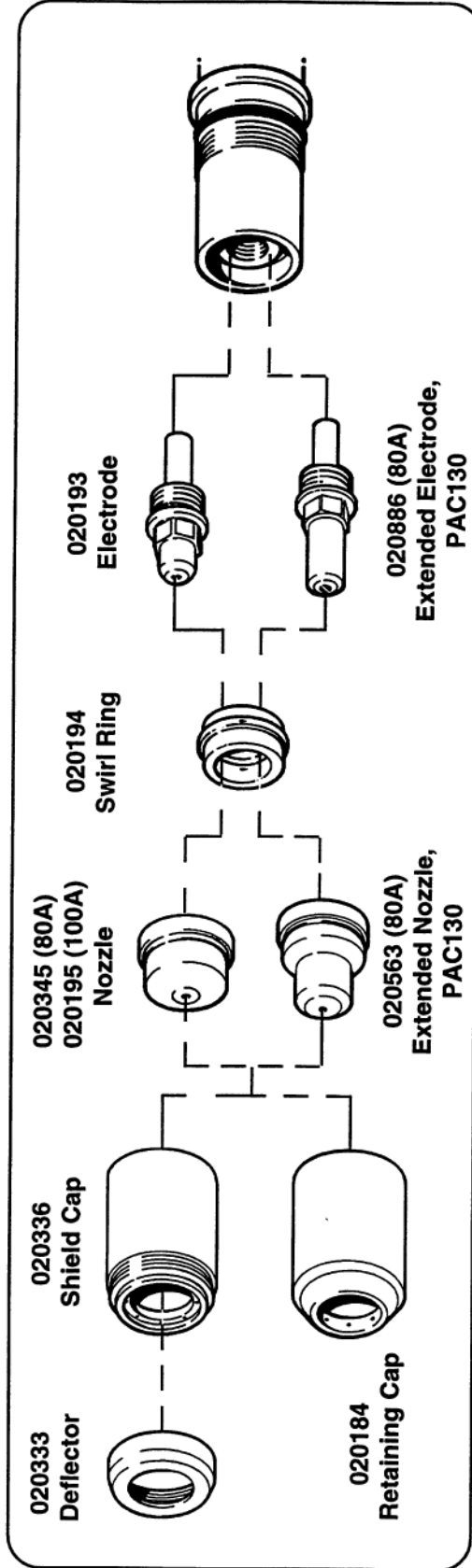
Plasma Gas: Nitrogen

Current Setting: 80 Amp / 100 Amp

Consumables: Non-Shielded



CUTTING



Material Thickness (inches) (mm)	Plasma Gas Pressure In TEST (psi/bar)	Torch-to-work Distance (inches) (mm)	Arc Current Setting (amps)	Arc Voltage Setting (volts)	Duty Cycle (%)	Normal Plate Travel Speed (ipm) (mm/min)	Pierce Time (sec)	Plasma Gas (Air) Inlet Pressure (psi/bar)
1/8	65*/4.5	1/8	80	130	100	150	0.50	90-120/6.2-8.3
1/4		5/32	80	130	100	70	0.75	
3/8		5/32	100	135	80	40	1.00	
1/2		5/32	100	140	80	25	1.25	
5/8		3/16	100	140	80	20	1.50	
3/4		3/16	100	145	80	12		

1 inch = 25.4 mm; 1 psi = .0689 bar = 6.895 KPa

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MAX100 Machine/PAC130 Hand Torch

Stainless Steel Cutting

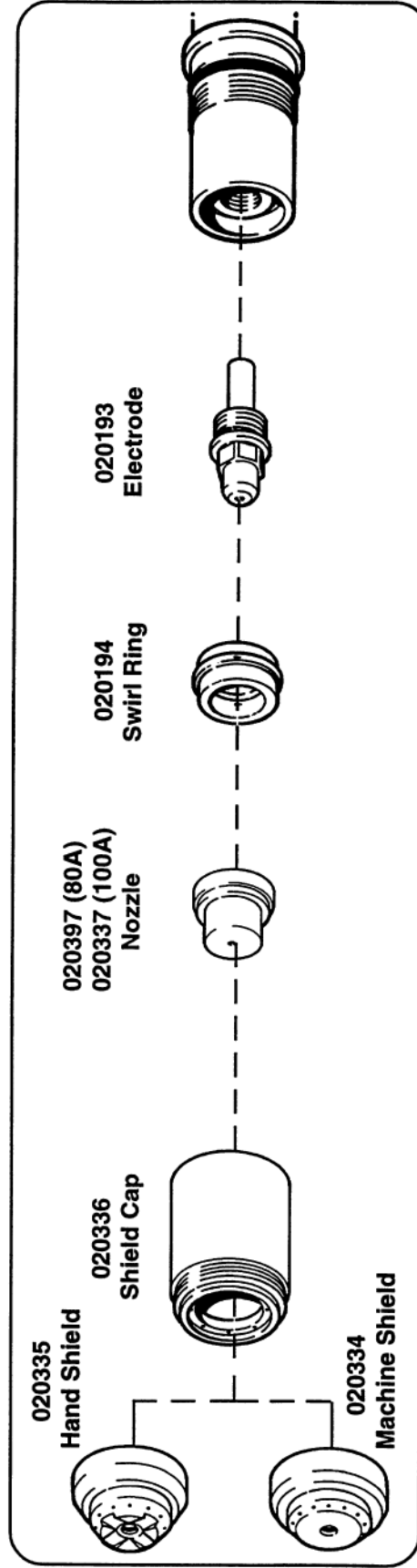
Plasma Gas: Nitrogen

Current Setting: 80 Amp / 100 Amp

Consumables: Shielded



CUTTING



Material Thickness (inches) (mm)	Plasma Gas Pressure In TEST (psi/bar)	Torch-to-work Distance (inches) (mm)	Arc Current Setting (amps)	Arc Voltage Setting (volts)	Duty Cycle (%)	Normal Plate Travel Speed (ipm) (mm/min)	Pierce Time (sec)	Plasma Gas (Air) Inlet Pressure (psi/bar)
1/4 6	60*1/4	1/8 3	80	135	100	65 1650	0.75	90-120/6.2-8.3
3/8 10		1/8 3	100	140	80	35 890	1.00	
1/2 13		1/8 3	100	145	80	25 640	1.25	
5/8 15		5/32 4	100	145	80	15 380	1.50	
3/4 19		3/16 5	100	150	80	12 310		

1 inch = 25.4 mm; 1 psi = .0689 bar = 6.895 KPa

* Plasma Gas Pressure setting is for **25-ft.** (7.6 m) leads. Add **5 psi** (.34 bar) for **50-ft** (15 m) leads. Add **10 psi** (.7 bar) for **75-ft.** (23 m) leads.

PAC130 Hand Torch

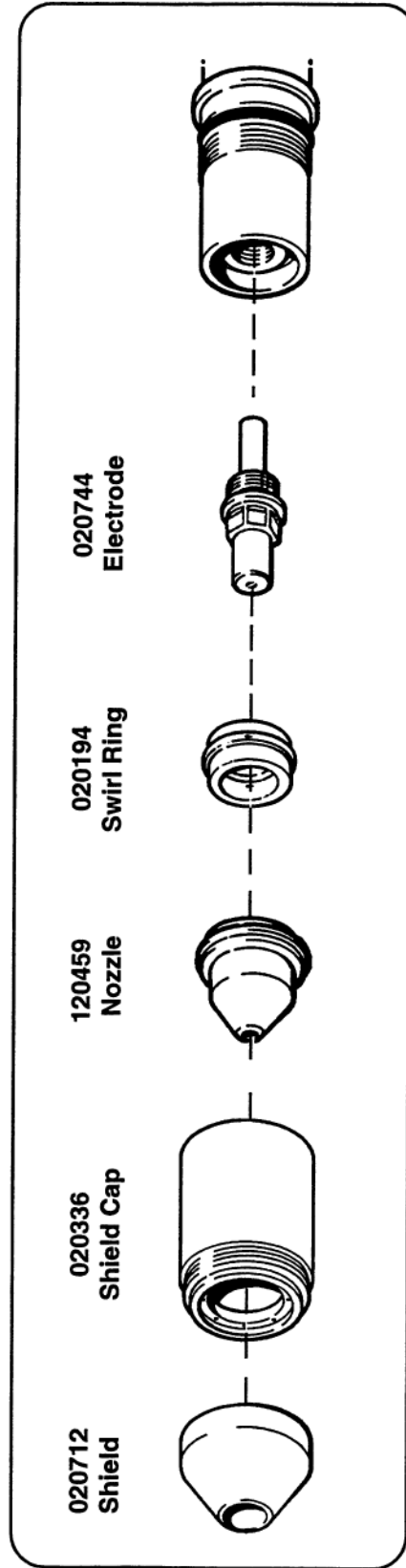
Mild Steel Gouging

Plasma Gas: Air

Current Setting: 100 Amp



GOUGING



Torch-to-work Angle of inclination ° (Degrees)	Plasma Gas Pressure in TEST (psi/bar)	Torch-to-work Distance (inches) (mm)	Arc Current Setting (amps)	Duty Cycle (%)	Normal Plate Travel Speed (ipm) (mm/min)	Plasma Gas (Air) Inlet Pressure (psi/bar)
40-45°	50*/3.4	1/16 1.5	100	80	15 380	90-120/6.2-8.3

1 inch = 25.4 mm; 1 psi = .0689 bar = 6.895 KPa

* Plasma Gas Pressure setting is for 25-ft. (7.6 m) leads. Add 5 psi (.34 bar) for 50-ft (15 m) leads. Add 10 psi (.7 bar) for 75-ft. (23 m) leads.