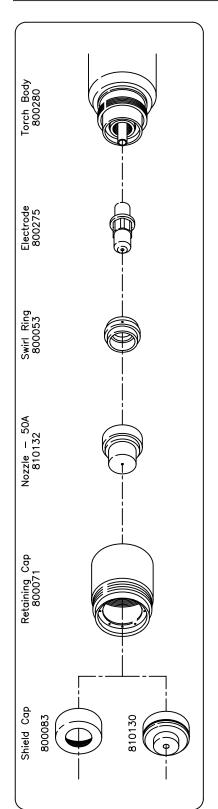
## **Cutting Charts**

The following conditions are intended to give the operator the best starting point to use when making a cut on a particular material type and thickness and may not reflect optimum conditions. Different metal compositions, consumable parts wear, and air quality will affect the cutting speeds and torch height.

## **Cutting Chart Index**

Material	Current	Page
Mild Steel	30-50 Amps	4-9
Mild Steel	75-100 Amps	4-10
Stainless Steel	30-50 Amps	4-11
Stainless Steel	75-100 Amps	4-12
Aluminum	30-50 Amps	4-13
Aluminum	75-100 Amps	4-14



Grate Cutting Speed Travel Speed (mm/min) (ipm)	10,160 205 5,205	180	165	7,620 155 3,935	130	100		1.270 25 635
Travel Speed (ipm) (mm/r	400	350	325	300	250	190	155	20
Arc Voltage (volts)	105	105	105	105	105	105	105	115
Torch Height Iches) (mm)	1.5	1.5	1.5	1.5	1.5	2	2	ъ
Torch F (inches)	1/16	1/16	1/16	1/16	1/16	.075	.075	1/8
Arc Current (amps)	30	30	30	30	30	30	50	20
Gas Pressure (psi)	85	85	85	85	85	85	85	85
Jaterial Thickness inches) (mm)	(28 GA)	(26 GA)		(20 GA)		1.5	М	9
Material (inches)	.015	.018	.024	.035	.048	1/16	1/8	1/4

\*Gas pressure with set/run switch in the set position 1 inch = 25.4 mm; 1 psi = .0689 bar = 6.895 KPa

Figure 4-4 Mild Steel Cutting Chart (30-50 amps)

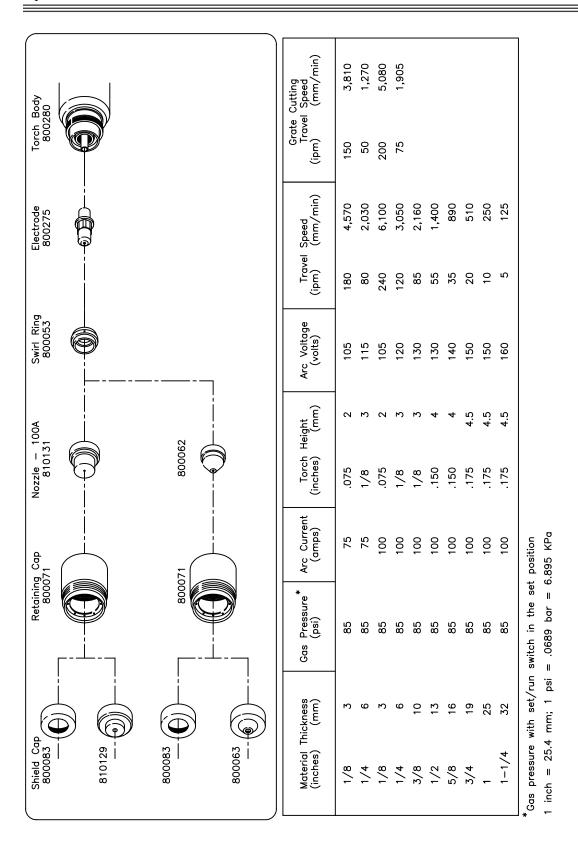
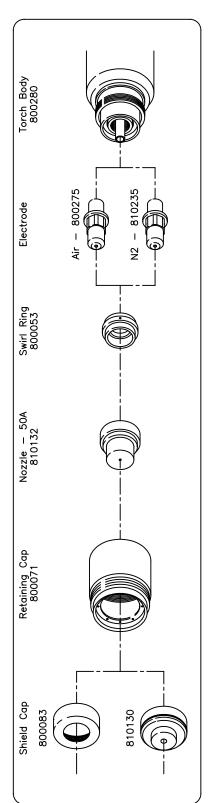


Figure 4-5 Mild Steel Cutting Chart (75-100 amps)



4,190	3,680	3,430	3,175	2,415	1,525	1,270	
165	145	135	125	92	09	20	
8,125	7,110	009'9	6,100	4,570	3,050	2,540	890
320	280	260	240	180	120	100	35
110	110	110	110	110	110	115	120
1.5	1.5	1.5	1.5	1.5	2	2	М
1/16	1/16	1/16	1/16	1/16	.075	.075	1/8
30	30	30	30	30	30	50	20
85	85	85	85	85	85	85	85
(28 GA)	(26 GA)	(24 GA)	(20 GA)	(18 GA)	1.5	ю	9
.015	.018	.024	.035	.048	1/16	1/8	1/4
	(28 GA) 85 30 1/16 1.5 110 320 8,125 165	(28 GA) 85 30 1/16 1.5 110 320 8,125 165 (26 GA) 85 30 1/16 1.5 110 280 7,110 145	(28 GA)     85     30     1/16     1.5     110     320     8,125     165       (26 GA)     85     30     1/16     1.5     110     280     7,110     145       (24 GA)     85     30     1/16     1.5     110     260     6,600     135	(28 GA)       85       30       1/16       1.5       110       320       8,125       165         (26 GA)       85       30       1/16       1.5       110       280       7,110       145         (24 GA)       85       30       1/16       1.5       110       240       6,100       125	(28 GA)       85       30       1/16       1.5       110       320       8,125       165         (26 GA)       85       30       1/16       1.5       110       260       6,600       135         (20 GA)       85       30       1/16       1.5       110       240       6,100       125         (18 GA)       85       30       1/16       1.5       110       180       4,570       95	(28 GA)         85         30         1/16         1.5         110         320         8,125         165           (26 GA)         85         30         1/16         1.5         110         260         6,600         135           (20 GA)         85         30         1/16         1.5         110         240         6,100         125           (18 GA)         85         30         1/16         1.5         110         180         4,570         95           1.5         85         30         0.75         2         110         120         3,050         60	85       30       1/16       1.5       110       320       8,125       1         85       30       1/16       1.5       110       260       6,600       1         85       30       1/16       1.5       110       240       6,100       1         85       30       1/16       1.5       110       180       4,570         85       30       .075       2       115       10       2,540

\*Gas pressure with set/run switch in the set position 1 inch =  $25.4 \, \text{mm}$ ; 1 psi =  $.0689 \, \text{bar}$  =  $6.895 \, \text{KPa}$ 

When using nitrogen as the cutting gas, the speeds and arc voltages will be slightly different than shown in the chart. Note:

Figure 4-6 Stainless Steel Cutting Chart (30-50 amps)

Note: When using nitrogen as the cutting gas, the speeds and arc voltages will be slightly different than shown in the chart.

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

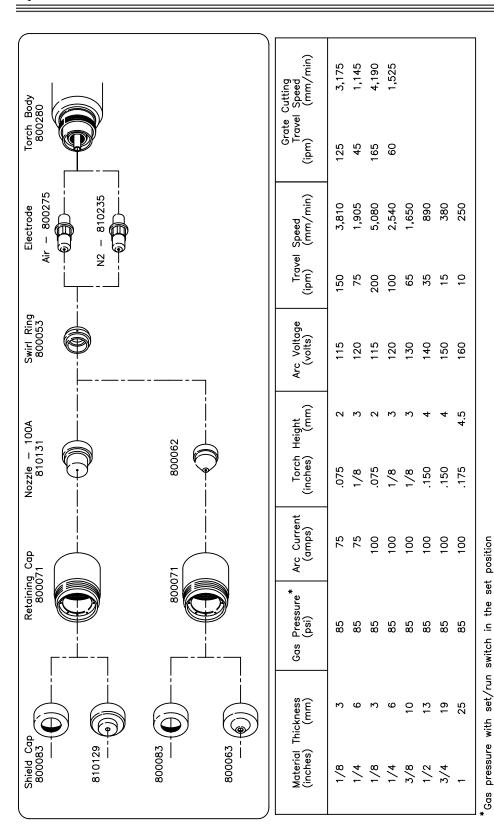
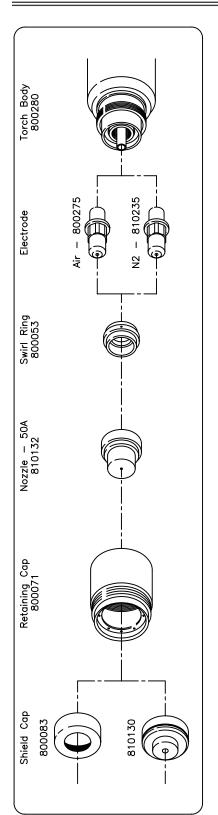


Figure 4-7 Stainless Steel Cutting Chart (75-100 amps)

Figure 4-7 Stainless Steel Cutting Chart (75-100 amps



Material Thickness (inches) (mm)	kness (mm)	Gas Pressure (psi)	Arc Current (amps)	Torch Height (inches) (mm)	Height (mm)	Arc Voltage (volts)	Travel (ipm)	Travel Speed (ipm) (mm/min)	Grate Travel (ipm)	Grate Cutting Travel Speed (ipm) (mm/min)
1/32	ω	85	30	1/16	1.5	110	300	7,620	150	3,810
1/16	1.5	85	30	1/16	1.5	110	250	6,350	130	3,300
1/8	М	85	20	.075	2	120	165	4,190	85	2,160
1/4	9	85	50	1/8	ы	125	70	1,775	35	890
3/8	10	85	20	.150	4	130	45	1,140		

 $^*$ Gas pressure with set/run switch in the set position 1 inch = 25.4 mm; 1 psi = .0689 bar = 6.895 KPa

When using nitrogen as the cutting gas, the speeds and arc voltages will be slightly different than shown in the chart. Note:

Figure 4-8 Aluminum Cutting Chart (30-50 amps)

Note: When using nitrogen as the cutting gas, the speeds and arc voltages will be slightly different than shown in the chart.

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

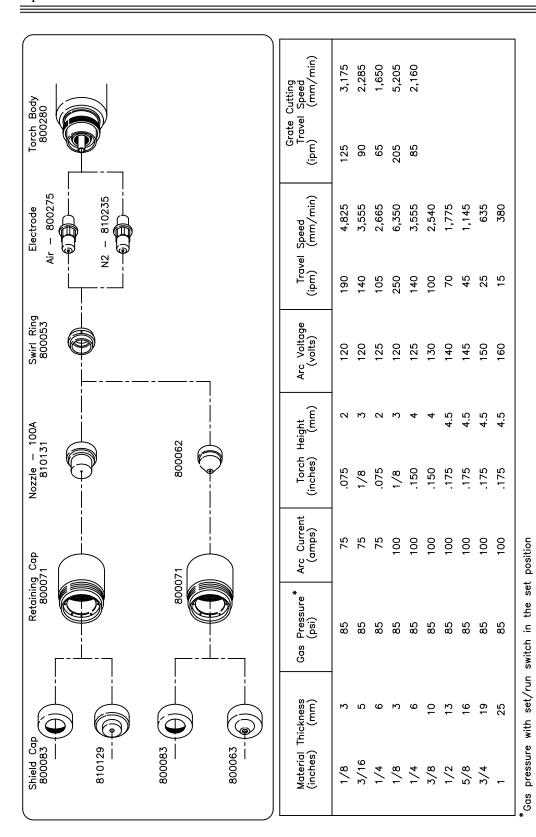


Figure 4-9 Aluminum Cutting Chart (75-100 amps)