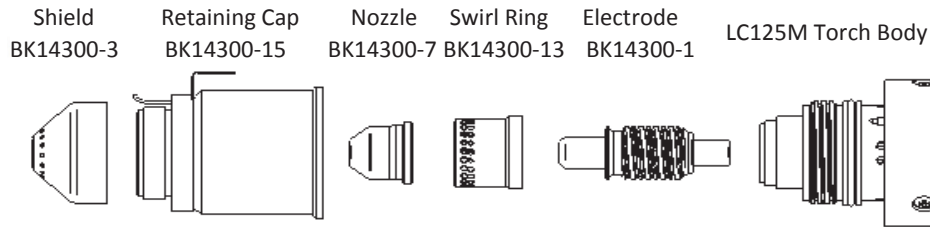


45 Amp mechanized shield consumables



Mild Steel

Material Thickness			Pressure	Pierce Delay	Pierce Height	Cutting Height	Optimum Settings		Production Settings		Kerf Width			
in		mm	psi (bar)	sec	in (mm)	in (mm)	IPM (MMPM)	Arc Voltage	IPM (MMPM)	Arc Voltage	in (mm)			
26 ga	0.018	0.5	60* (4.14*)	0.00	0.1 (2.54)	0.04 (1.02)	350 (8890)	135	500 (12700)	134	0.045 (1.1)			
22 ga	0.030	0.8					360 (9144)	135	460 (11684)	134	0.045 (1.1)			
18 ga	0.048	1.2		0.10	0.16 (4.06)	0.08 (2.03)	350 (8890)	135	410 (10414)	134	0.050 (1.3)			
16 ga	0.060	1.5					325 (8255)	135	400 (10160)	134	0.050 (1.3)			
14 ga	0.075	1.9		0.30	0.16 (4.06)	0.08 (2.03)	290 (7366)	140	325 (8255)	139	0.060 (1.5)			
12 ga	0.105	2.7					200 (5080)	142	220 (5588)	139	0.065 (1.7)			
10 ga	0.135	3.4					110 (2794)	144	167 (4242)	142	0.065 (1.7)			
3/16	0.188	4.8					80 (2032)	146	110 (2794)	143	0.065 (1.7)			
1/4	0.250	6.4					0.50	0.12 (3.05)	0.12 (3.05)	45 (1143)	152	73 (1854)	150	0.080 (2.0)
							0.60							

- 26-10 ga steel is cold rolled, 3/16 and 1/4 in steel is hot rolled

Stainless Steel

Material Thickness			Pressure	Pierce Delay	Pierce Height	Cutting Height	Optimum Settings		Production Settings		Kerf Width			
in		mm	psi (bar)	sec	in (mm)	in (mm)	IPM (MMPM)	Arc Voltage	IPM (MMPM)	Arc Voltage	in (mm)			
26 ga	0.019	0.5	70* (4.83*)	0.00	0.20 (5.1)	0.10 (2.5)	400 (10160)	150	510 (12954)	150	0.040 (1.0)			
22 ga	0.031	0.8					375 (9525)	150	475 (12065)	150	0.030 (0.8)			
18 ga	0.050	1.3		0.10	0.20 (5.1)	0.10 (2.5)	350 (8890)	150	400 (10160)	152	0.035 (0.9)			
16 ga	0.063	1.6					315 (8001)	152	400 (10160)	152	0.040 (1.0)			
14 ga	0.078	2.0		0.20	0.20 (5.1)	0.10 (2.5)	240 (6096)	154	250 (6350)	154	0.045 (1.1)			
12 ga	0.109	2.8					175 (4445)	156	185 (4699)	154	0.050 (1.3)			
10 ga	0.141	3.6					100 (2540)	156	140 (3556)	154	0.055 (1.4)			
3/16	0.188	4.8					70 (1778)	158	85 (2159)	156	0.06 (1.5)			
1/4	0.250	6.4					0.50	0.60	0.10 (2.5)	30 (762)	159	40 (1016)	157	0.06 (1.5)
							0.60							

- For 45A cutting of Stainless Steel with a 75 ft. torch, minimum input gas pressure is 100 psi.

Aluminum

Material Thickness			Pressure	Pierce Delay	Pierce Height	Cutting Height	Optimum Settings		Production Settings		Kerf Width
in		mm	psi (bar)	sec	in (mm)	in (mm)	IPM (MMPM)	Arc Voltage	IPM (MMPM)	Arc Voltage	in (mm)
1/32	0.031	0.8	60* (4.14*)	0.00	0.20 (5.1)	0.10 (2.5)	360 (9144)	152	450 (11430)	152	0.055 (1.4)
1/16	0.063	1.6		0.10			360 (9144)	154	390 (9906)	154	0.060 (1.5)
3/32	0.094	2.4		0.20			235 (5969)	156	300 (7620)	152	0.060 (1.5)
1/8	0.125	3.2		0.40	0.25 (6.4)	0.16 (4.1)	180 (4572)	160	205 (5207)	158	0.065 (1.7)
1/4	0.250	6.4					0.50	55 (1397)	162	75 (1905)	160

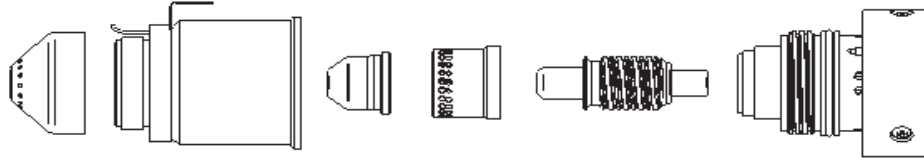
Marking

Material	Pressure	Current	Pierce Delay	Pierce Height	Cutting Height	Travel Speed	Arc Voltage
(All Thicknesses)	psi (bar)	Amps	sec	in (mm)	in (mm)	IPM (MMPM)	Volts
Mild Steel	37* (2.55*)	12	0.00	0.10 (2.54)	0.10 (2.54)	250 (6350)	177
Stainless Steel		12	0.00	0.10 (2.54)	0.10 (2.54)	250 (6350)	177
Aluminum		12	0.00	0.10 (2.54)	0.10 (2.54)	250 (6350)	177

\* Listed Gas Pressures are for 25 ft. torches. Increase Gas Pressure by 5 psi for each additional 25 ft. of torch length.

65 Amp mechanized shield consumables

Shield BK14300-3 Retaining Cap BK14300-15 Nozzle BK14300-8 Swirl Ring BK14300-13 Electrode BK14300-1 LC125M Torch Body



Mild Steel

Material Thickness			Pressure psi (bar)	Pierce Delay sec	Pierce Height in (mm)	Cutting Height in (mm)	Optimum Settings		Production Settings		Kerf Width in (mm)	Edge Start
in	mm	mm					PM (MMPM)	Arc Voltage	PM (MMPM)	Arc Voltage		
16 ga	0.060	1.5	60* (4.14*)	0.10	0.16 (4.1)	0.12 (3.0)	250 (6350)	143	295 (7493)	141	0.060 (1.5)	
10 ga	0.135	3.4		0.30			195 (4953)	145	226 (5740)	143	0.070 (1.8)	
3/16	0.188	4.8		0.50			140 (3556)	145	170 (4318)	143	0.070 (1.8)	
1/4	0.250	6.4		0.80			95 (2413)	145	115 (2921)	143	0.070 (1.8)	
3/8	0.375	9.5		1.20			50 (1270)	152	63 (1600)	148	0.075 (1.9)	
1/2	0.500	12.7		2.00	0.2 (5.1)		35 (889)	153	40 (1016)	150	0.085 (2.2)	
5/8	0.625	15.9			0.3 (7.6)		20 (508)	156	24 (610)	155	0.085 (2.2)	
3/4	0.750	19.1			0.2 (5.1)		15 (381)	162	19 (483)	160	0.090 (2.3)	Yes
7/8	0.875	22.2			10 (254)		165	14 (356)	164	0.090 (2.3)	Yes	
1	1.000	25.4			7 (178)		170	10 (254)	166	0.092 (2.3)	Yes	

- 16 and 10 ga steel is cold rolled, 3/16 - 1 in steel is hot rolled

Stainless Steel

Material Thickness			Pressure psi (bar)	Pierce Delay sec	Pierce Height in (mm)	Cutting Height in (mm)	Optimum Settings		Production Settings		Kerf Width in (mm)	Edge Start
in	mm	mm					PM (MMPM)	Arc Voltage	PM (MMPM)	Arc Voltage		
16 ga	0.063	1.6	60* (4.14*)	0.10	0.33 (8.3)	0.20 (5.1)	325 (8255)	149	425 (10795)	149	0.050 (1.3)	
10 ga	0.141	3.6		0.20			210 (5334)	151	264 (6706)	149	0.060 (1.5)	
3/16	0.188	4.8		0.40			147 (3734)	153	168 (4267)	151	0.070 (1.8)	
1/4	0.250	6.4		0.80			70 (1778)	155	90 (2286)	153	0.080 (2.0)	
3/8	0.375	9.5		1.20			43 (1092)	158	50 (1270)	157	0.090 (2.3)	
1/2	0.500	12.7		0.60	20 (508)		167	32 (813)	159	0.100 (2.5)		
5/8	0.625	15.9			19 (483)		165	22 (559)	163	0.105 (2.7)	Yes	
3/4	0.750	19.1			14 (356)		168	18 (457)	166	0.110 (2.8)	Yes	

Aluminum

Material Thickness			Pressure psi (bar)	Pierce Delay sec	Pierce Height in (mm)	Cutting Height in (mm)	Optimum Settings		Production Settings		Kerf Width in (mm)	Edge Start
in	mm	mm					PM (MMPM)	Arc Voltage	PM (MMPM)	Arc Voltage		
1/16	0.063	1.6	60* (4.14*)	0.10	0.30 (7.6)	0.20 (5.1)	345 (8763)	160	428 (10871)	160	0.070 (1.8)	
1/8	0.125	3.2		0.20			255 (6477)	150	325 (8255)	150	0.060 (1.5)	
1/4	0.250	6.4		0.40			100 (2540)	160	147 (3734)	159	0.075 (1.9)	
3/8	0.375	9.5		0.60			55 (1397)	165	70 (1778)	163	0.085 (2.2)	
1/2	0.500	12.7		1.00			35 (889)	168	45 (1143)	168	0.090 (2.3)	
5/8	0.625	15.9		0.50	22 (559)		170	30 (762)	168	0.100 (2.5)	Yes	
3/4	0.750	19.1			14 (356)		174	22 (559)	172	0.105 (2.7)	Yes	

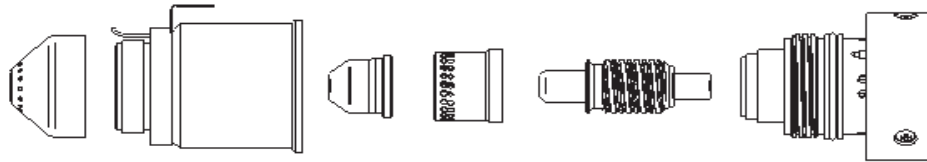
Marking

Material	Pressure	Current	Pierce Delay	Pierce Height	Cutting Height	Travel Speed	Arc Voltage
(All Thicknesses)	psi (bar)	Amps	sec	in (mm)	in (mm)	PM (MMPM)	Volts
Mild Steel	37* (2.55*)	14	0.00	0.10 (2.54)	0.10 (2.54)	250 (6350)	178
Stainless Steel		14	0.00	0.10 (2.54)	0.10 (2.54)	250 (6350)	178
Aluminum		14	0.00	0.10 (2.54)	0.10 (2.54)	250 (6350)	178

\* Listed Gas Pressures are for 25 ft. torches. Increase Gas Pressure by 5 psi for each additional 25 ft. of torch length.

85 Amp mechanized shield consumables

Shield Retaining Cap Nozzle Swirl Ring Electrode LC125M Torch Body  
 BK14300-4 BK14300-15 BK14300-9 BK14300-13 BK14300-1



Mild Steel

Material Thickness			Pressure psi (bar)	Pierce Delay sec	Pierce Height in (mm)	Cutting Height in (mm)	Optimum Settings		Production Settings		Kerf Width in (mm)	Edge Start
in	mm	IPM (MMPM)					Arc Voltage	IPM (MMPM)	Arc Voltage			
10	0.135	3.4	60* (4.14*)	0.00	0.25 (6.4)	0.12 (3.0)	260 (6604)	138	315 (8001)	137	0.050 (1.27)	
3/16	0.188	4.8		0.20			190 (4826)	140	220 (5588)	139	0.058 (1.47)	
1/4	0.250	6.4		0.50			120 (3048)	141	155 (3937)	140	0.060 (1.52)	
3/8	0.375	9.5					75 (1905)	144	88 (2235)	143	0.068 (1.73)	
1/2	0.500	12.7					40 (1016)	145	54 (1372)	145	0.078 (1.98)	
5/8	0.625	15.9		1.00	30 (762)		150	40 (1016)	147	0.085 (2.16)		
3/4	0.750	19.1			16 (406)		153	30 (762)	150	0.085 (2.16)		
7/8	0.875	22.2			1.25		16 (406)	158	22 (559)	153	0.090 (2.29)	Yes
1	1.000	25.4		1.50	13 (330)		160	16 (406)	156	0.100 (2.54)	Yes	
1 1/4	1.250	31.8			7 (178)		168	10 (254)	161	0.110 (2.79)	Yes	

- 10 ga steel is cold rolled, 3/16 - 1 1/4 in steel is hot rolled

Stainless Steel

Material Thickness			Pressure psi (bar)	Pierce Delay sec	Pierce Height in (mm)	Cutting Height in (mm)	Optimum Settings		Production Settings		Kerf Width in (mm)	Edge Start
in	mm	IPM (MMPM)					Arc Voltage	IPM (MMPM)	Arc Voltage			
10	0.141	3.6	60* (4.14*)	0.20	0.24 (6.1)	0.12 (3.0)	285 (7239)	139	345 (8763)	138	0.075 (1.91)	
3/16	0.188	4.8		0.30			210 (5334)	139	250 (6350)	138	0.075 (1.91)	
1/4	0.250	6.4		0.40			135 (3429)	139	170 (4318)	138	0.080 (2.03)	
3/8	0.375	9.5		0.50			60 (1524)	143	80 (2032)	142	0.080 (2.03)	
1/2	0.500	12.7					36 (914)	148	46 (1168)	146	0.084 (2.13)	
5/8	0.625	15.9					26 (660)	150	33 (838)	149	0.093 (2.36)	
3/4	0.750	19.1		0.80			18 (457)	154	24 (610)	153	0.105 (2.67)	Yes
7/8	0.875	22.2					16 (406)	155	19 (483)	154	0.105 (2.67)	Yes
1	1.000	25.4					11 (279)	159	14 (356)	158	0.105 (2.67)	Yes

Aluminum

Material Thickness			Pressure psi (bar)	Pierce Delay sec	Pierce Height in (mm)	Cutting Height in (mm)	Optimum Settings		Production Settings		Kerf Width in (mm)	Edge Start
in	mm	IPM (MMPM)					Arc Voltage	IPM (MMPM)	Arc Voltage			
1/8	0.125	3.2	60* (4.14*)	0.20	0.32 (8.3)	0.21 (5.3)	310 (7874)	154	360 (9144)	154	0.085 (2.16)	
1/4	0.250	6.4		0.40			140 (3556)	158	167 (4242)	158	0.090 (2.29)	
3/8	0.375	9.5		0.60			75 (1905)	160	104 (2642)	158	0.095 (2.41)	
1/2	0.500	12.7		0.80			55 (1397)	162	73 (1854)	162	0.100 (2.54)	
5/8	0.625	15.9		1.00			38 (965)	167	48 (1219)	167	0.105 (2.67)	
3/4	0.750	19.1		0.50	28 (711)		169	40 (1016)	167	0.105 (2.67)	Yes	
7/8	0.875	22.2			22 (559)		172	30 (762)	171	0.105 (2.67)	Yes	
1	1.000	25.4			15 (381)		175	20 (508)	175	0.105 (2.67)	Yes	

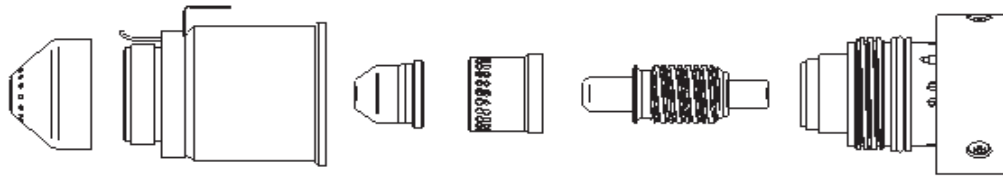
Marking

Material	Pressure	Current	Pierce Delay	Pierce Height	Cutting Height	Travel Speed	Arc Voltage
(All Thicknesses)	psi (bar)	Amps	sec	in (mm)	in (mm)	IPM (MMPM)	Volts
Mild Steel	37* (2.55*)	13	0.00	0.10 (2.54)	0.10 (2.54)	250 (6350)	188
Stainless Steel		14	0.00	0.10 (2.54)	0.10 (2.54)	250 (6350)	188
Aluminum		14	0.00	0.10 (2.54)	0.10 (2.54)	250 (6350)	188

\* Listed Gas Pressures are for 25 ft. torches. Increase Gas Pressure by 5 psi for each additional 25 ft. of torch length.

105 Amp mechanized shield consumables

Shield BK14300-4    Retaining Cap BK14300-15    Nozzle BK14300-10    Swirl Ring BK14300-13    Electrode BK14300-1    LC125M Torch Body



Mild Steel

Material Thickness			Pressure psi (bar)	Pierce Delay sec	Pierce Height in (mm)	Cutting Height in (mm)	Optimum Settings		Production Settings		Kerf Width in (mm)	Edge Start
in		mm					IPM (MMPM)	Arc Voltage	IPM (MMPM)	Arc Voltage		
1/4	0.250	6.4	60* (4.14*)	0.40	0.28 (7.1)	0.16 (4.6)	150 (3810)	145	180 (4572)	145	0.100 (2.5)	
3/8	0.375	9.5		0.50			105 (2667)	147	114 (2896)	146	0.100 (2.5)	
1/2	0.500	12.7		0.60			60 (1524)	150	73 (1854)	150	0.105 (2.7)	
5/8	0.625	15.9		1.00	0.38 (9.5)		42 (1067)	153	50 (1270)	150	0.105 (2.7)	
3/4	0.750	19.1					33 (838)	154	37 (940)	152	0.105 (2.7)	
7/8	0.875	22.2					25 (635)	156	31 (787)	155	0.110 (2.8)	
1	1.000	25.4					19 (483)	160	23 (584)	159	0.120 (3.0)	Yes
1 1/4	1.250	31.8		2.00	0.30 (7.6)		14 (356)	165	16 (406)	164	0.125 (3.2)	Yes

- All hot rolled steel

Stainless Steel

Material Thickness			Pressure psi (bar)	Pierce Delay sec	Pierce Height in (mm)	Cutting Height in (mm)	Optimum Settings		Production Settings		Kerf Width in (mm)	Edge Start	
in		mm					IPM (MMPM)	Arc Voltage	IPM (MMPM)	Arc Voltage			
1/4	0.250	6.4	60* (4.14*)	0.60	0.30 (7.6)	0.18 (4.6)	198 (5029)	158	215 (5461)	145	0.100 (2.5)		
3/8	0.375	9.5			0.35 (8.9)		90 (2286)	150	102 (2591)	148	0.105 (2.7)		
1/2	0.500	12.7			1.20		0.40 (10.2)	55 (1397)	153	69 (1753)	149	0.105 (2.7)	
5/8	0.625	15.9					0.43 (10.8)	38 (965)	166	42 (1067)	156	0.115 (2.9)	
3/4	0.750	19.1					26 (660)	160	30 (762)	158	0.120 (3.0)		
7/8	0.875	22.2		2.00	0.35 (8.9)		21 (533)	165	25 (635)	159	0.122 (3.1)	Yes	
1	1.000	25.4					17 (432)	174	20 (508)	163	0.130 (3.3)	Yes	
1 1/4	1.250	31.8					11 (279)	168	14 (356)	166	0.130 (3.3)	Yes	

Aluminum

Material Thickness			Pressure psi (bar)	Pierce Delay sec	Pierce Height in (mm)	Cutting Height in (mm)	Optimum Settings		Production Settings		Kerf Width in (mm)	Edge Start
in		mm					IPM (MMPM)	Arc Voltage	IPM (MMPM)	Arc Voltage		
1/4	0.250	6.4	60* (4.14*)	0.50	0.18 (4.6)	210 (5334)	150	225 (5715)	149	0.100 (2.5)		
3/8	0.375	9.5		0.60		0.33 (8.3)	105 (2667)	155	130 (3302)	154	0.105 (2.7)	
1/2	0.500	12.7				0.80	77 (1956)	158	93 (2362)	156	0.110 (2.8)	
5/8	0.625	15.9				1.00	0.38 (9.5)	54 (1372)	163	62 (1575)	162	0.110 (2.8)
3/4	0.750	19.1		1.20		0.40 (10.2)	38 (965)	167	41 (1041)	166	0.115 (2.9)	
7/8	0.875	22.2					29 (737)	169	34 (864)	168	0.115 (2.9)	
1	1.000	25.4					23 (584)	172	29 (737)	170	0.120 (3.0)	Yes
1 1/4	1.250	31.8		1.80		0.35 (8.9)	15 (381)	179	18 (457)	177	0.120 (3.0)	Yes

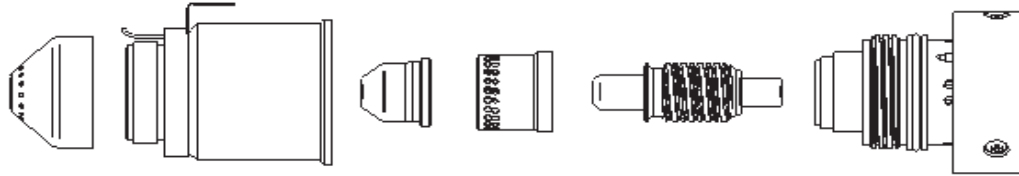
Marking

Material	Pressure	Current	Pierce Delay	Pierce Height	Cutting Height	Travel Speed	Arc Voltage
(All Thicknesses)	psi (bar)	Amps	sec	in (mm)	in (mm)	IPM (MMPM)	Volts
Mild Steel	37* (2.55*)	14	0.00	0.10 (2.54)	0.10 (2.54)	250 (6350)	184
Stainless Steel		15	0.00	0.10 (2.54)	0.10 (2.54)	250 (6350)	180
Aluminum		15	0.00	0.10 (2.54)	0.10 (2.54)	250 (6350)	184

\* Listed Gas Pressures are for 25 ft. torches. Increase Gas Pressure by 5 psi for each additional 25 ft. of torch length.

125 Amp mechanized shield consumables

Shield BK14300-4    Retaining Cap BK14300-15    Nozzle BK14300-11    Swirl Ring BK14300-13    Electrode BK14300-1    LC125M Torch Body



Mild Steel

Material Thickness		Pressure psi (bar)	Pierce Delay sec	Pierce Height in (mm)	Cutting Height in (mm)	Optimum Settings		Production Settings		Kerf Width in (mm)	Edge Start
in	mm					IPM (MMPM)	Arc Voltage	IPM (MMPM)	Arc Voltage		
1/4	0.250	60* (4.14*)	0.30	0.30 (7.6)	0.16 (4.1)	180 (4572)	145	210 (5334)	144	0.100 (2.5)	
3/8	0.375		0.50			110 (2794)	147	128 (3251)	146	0.105 (2.7)	
1/2	0.500		0.70			72 (1829)	149	88 (2235)	147	0.105 (2.7)	
5/8	0.625		1.00			50 (1270)	151	63 (1600)	150	0.110 (2.8)	
3/4	0.750		1.20			40 (1016)	153	52 (1321)	152	0.110 (2.8)	
7/8	0.875		1.80	31 (787)		156	40 (1016)	155	0.115 (2.9)		
1	1.000		2.50	23 (584)		160	32 (813)	157	0.120 (3.0)		
1 1/4	1.250		2.20	16 (406)		163	21 (533)	162	0.125 (3.2)	Yes	
1 1/2	1.500			11 (279)		168	14 (356)	168	0.125 (3.2)	Yes	

- All hot rolled steel

Stainless Steel

Material Thickness		Pressure psi (bar)	Pierce Delay sec	Pierce Height in (mm)	Cutting Height in (mm)	Optimum Settings		Production Settings		Kerf Width in (mm)	Edge Start
in	mm					IPM (MMPM)	Arc Voltage	IPM (MMPM)	Arc Voltage		
1/4	0.250	60* (4.14*)	0.50	0.30 (7.6)	0.20 (5.1)	225 (5715)	146	260 (6604)	148	0.100 (2.5)	
3/8	0.375					107 (2718)	148	152 (3861)	148	0.110 (2.8)	
1/2	0.500		0.60	0.40 (10.2)		78 (1981)	153	94 (2388)	150	0.110 (2.8)	
5/8	0.625		0.70			47 (1194)	155	60 (1524)	153	0.115 (2.9)	
3/4	0.750		1.20	0.30 (7.6)		40 (1016)	157	45 (1143)	156	0.115 (2.9)	
7/8	0.875		1.50			26 (660)	161	32 (813)	159	0.117 (3.0)	Yes
1	1.000		1.80	19 (483)		166	25 (635)	163	0.120 (3.0)	Yes	
1 1/4	1.250		2.00	14 (356)		168	18 (457)	165	0.125 (3.2)	Yes	
1 1/2	1.500		2.20	9 (229)		175	11 (279)	172	0.125 (3.2)	Yes	

Aluminum

Material Thickness		Pressure psi (bar)	Pierce Delay sec	Pierce Height in (mm)	Cutting Height in (mm)	Optimum Settings		Production Settings		Kerf Width in (mm)	Edge Start
in	mm					IPM (MMPM)	Arc Voltage	IPM (MMPM)	Arc Voltage		
1/4	0.250	60* (4.14*)	0.20	0.30 (7.6)	0.20 (5.1)	250 (6350)	150	275 (6985)	149	0.115 (2.9)	
3/8	0.375		0.40			128 (3251)	154	158 (4013)	152	0.120 (3.0)	
1/2	0.500		0.50			83 (2108)	157	112 (2845)	154	0.120 (3.0)	
5/8	0.625		0.70			63 (1600)	161	83 (2108)	159	0.120 (3.0)	
3/4	0.750		1.00			52 (1321)	164	62 (1575)	162	0.125 (3.2)	
7/8	0.875		1.60	34 (864)		167	46 (1168)	164	0.127 (3.2)		
1	1.000		2.20	32 (813)		170	40 (1016)	167	0.130 (3.3)		
1 1/4	1.250		2.50	17 (432)		178	30 (762)	173	0.130 (3.3)	Yes	
1 1/2	1.500			12 (305)		183	16 (406)	180	0.140 (3.6)	Yes	

Marking

Material	Pressure	Current	Pierce Delay	Pierce Height	Cutting Height	Travel Speed	Arc Voltage
(All Thicknesses)	psi (bar)	Amps	sec	in	in (mm)	IPM (MMPM)	Volts
Mild Steel	37* (2.55*)	15	0.00	0.10 (2.54)	0.10 (2.54)	250 (6350)	177
Stainless Steel		15	0.00	0.10 (2.54)	0.10 (2.54)	250 (6350)	184
Aluminum		16	0.00	0.10 (2.54)	0.10 (2.54)	250 (6350)	179

\* Listed Gas Pressures are for 25 ft. torches. Increase Gas Pressure by 5 psi for each additional 25 ft. of torch length.