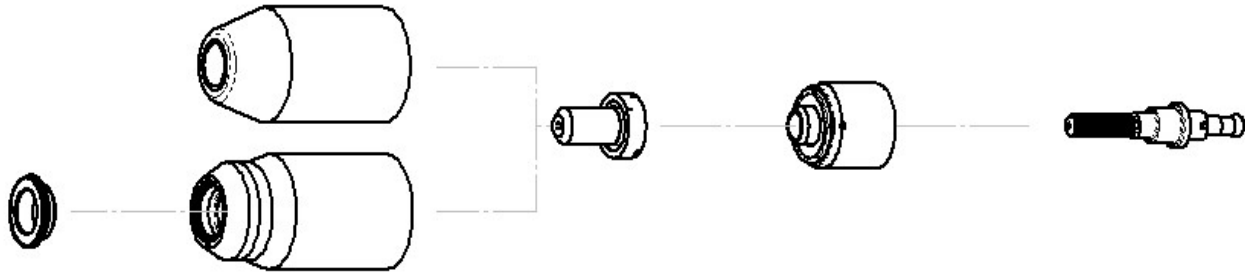


Mild Steel

40A

Air Plasma / Air Shield



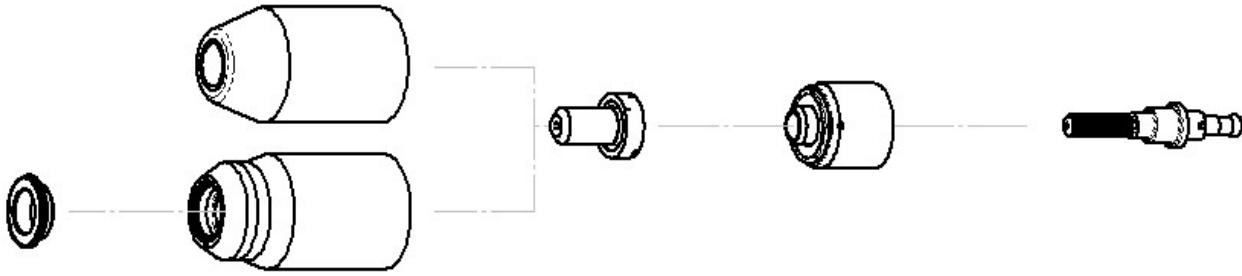
Deflector	Standard Shield Cup Maximum Life Shield Cup	Tip	Starter Cartridge Heavy Duty Starter Cartridge	Electrode
9-8243	9-8218 9-8237	9-8208	9-8213 9-8277	9-8232

Material Thickness			Gas Pressure (Air)	Arc Voltage	Torch Working Height	Travel Speed	Initial Piercing Height	Pierce Delay	Kerf Width @ Rec. Speed
(GA)	(in)	inch	PSI (torch lead length)	Volts	(in)	(ipm)	(in)	(sec)	(in)
20		0.036	70 (25') 75 (50')	101	0.14	160	0.18	0.0	0.05
16		0.060		103	0.14	140	0.18	0.0	0.05
14		0.075		105	0.14	120	0.18	0.1	0.06
12		0.105		108	0.14	80	0.18	0.2	0.06
10		0.135		110	0.14	60	0.18	0.3	0.06
	3/16	0.188		111	0.14	55	0.18	0.4	0.06
	1/4	0.250		117	0.14	40	0.18	0.5	0.07
	3/8	0.375		119	0.14	25	0.18	1.2	0.07
	1/2	0.500		120	0.14	15	0.2	2.0	0.07

Material Thickness	Gas Pressure (Air)	Arc Voltage	Torch Working Height	Travel Speed	Initial Piercing Height	Pierce Delay	Kerf Width @ Rec. Speed
(mm)	Bar (torch lead length)	Volts	(mm)	(mm/min)	(mm)	(sec)	(mm)
1	4.8 (7.6m) 5.2 (15.2m)	101	3.6	3990	4.6	0.0	1.1
2		105	3.6	2920	4.6	0.1	1.4
3		109	3.6	1810	4.6	0.3	1.5
4		110	3.6	1470	4.6	0.3	1.6
5		112	3.6	1345	4.6	0.4	1.6
6		116	3.6	1100	4.6	0.5	1.7
8		118	3.6	815	4.6	1.0	1.7
10		119	3.6	595	4.6	1.5	1.8
12		<b>120</b>	<b>3.6</b>	<b>435</b>	<b>5.1</b>	<b>2.0</b>	<b>1.8</b>

**BOLD TYPE** indicates maximum piercing parameters.

**Stainless Steel  
40A  
Air Plasma / Air Shield**



Deflector	Standard Shield Cup Maximum Life Shield Cup	Tip	Starter Cartridge Heavy Duty Starter Cartridge	Electrode
9-8243	9-8218 9-8237	9-8208	9-8213 9-8277	9-8232

Material Thickness			Gas Pressure (Air)	Arc Voltage	Torch Working Height	Travel Speed	Initial Piercing Height	Pierce Delay	Kerf Width @ Rec. Speed
(GA)	(in)	inch	PSI (torch lead length)	Volts	(in)	(ipm)	(in)	(sec)	(in)
18		0.050	75 (25') 80 (50')	110	0.19	60	0.20	0.00	0.07
16		0.063		100	0.19	50	0.20	0.00	0.07
14		0.078		105	0.19	45	0.20	0.10	0.07
12		0.109		110	0.19	40	0.20	0.20	0.07
10		0.141		108	0.19	35	0.20	0.30	0.07
	3/16	0.188		110	0.19	30	0.20	0.40	0.07
	1/4	0.250		120	0.19	18	0.20	0.50	0.08
	<b>3/8</b>	<b>0.375</b>		<b>126</b>	<b>0.19</b>	<b>10</b>	<b>0.20</b>	<b>2.00</b>	<b>0.08</b>
	1/2	0.500		118	0.19	8	Edge start		0.09

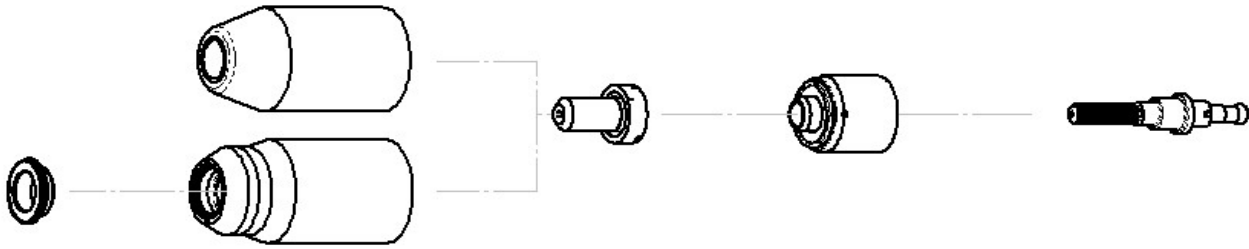
Material Thickness	Gas Pressure (Air)	Arc Voltage	Torch Working Height	Travel Speed	Initial Piercing Height	Pierce Delay	Kerf Width @ Rec. Speed
(mm)	Bar (torch lead length)	Volts	(mm)	(mm/min)	(mm)	(sec)	(mm)
1	5.2 (7.6) 5.5 (15.2)	112	4.8	1670	4.8	0.0	1.7
2		105	4.8	1140	5.1	0.1	1.8
3		109	4.8	980	5.1	0.2	1.8
4		109	4.8	845	5.1	0.3	1.8
5		111	4.8	715	5.1	0.4	1.8
6		118	4.8	525	5.1	0.5	2.0
8		123	4.8	350	5.1	1.5	2.0
<b>10</b>		<b>125</b>	<b>4.8</b>	<b>245</b>	<b>5.1</b>	<b>2.0</b>	<b>2.0</b>
12		120	4.8	215	Edge Start		2.2

**BOLD TYPE** indicates maximum piercing parameters. **BOLD ITALIC** indicates edge starts only.

Aluminum

40A

Air Plasma / Air Shield



Deflector	Standard Shield Cup Maximum Life Shield Cup	Tip	Starter Cartridge Heavy Duty Starter Cartridge	Electrode
9-8243	9-8218 9-8237	9-8208	9-8213 9-8277	9-8232

Material Thickness			Gas Pressure (Air)	Arc Voltage	Torch Working Height	Travel Speed	Initial Piercing Height	Pierce Delay	Kerf Width @ Rec. Speed
(GA)	(in)	inch	PSI (torch lead length)	Volts	(in)	(ipm)	(in)	(sec)	(in)
20		0.040	70 (25') 75 (50')	95	0.16	300	0.16	0.0	0.06
16		0.063		97	0.16	170	0.16	0.0	0.06
12		0.097		113	0.16	100	0.16	0.2	0.07
11		0.125		115	0.16	90	0.18	0.3	0.07
9		0.160		113	0.18	85	0.18	0.4	0.07
	3/16	0.188		116	0.18	75	0.18	0.5	0.07
	<b>1/4</b>	<b>0.250</b>		<b>128</b>	<b>0.18</b>	<b>30</b>	<b>0.18</b>	<b>1.0</b>	<b>0.08</b>
	3/8	0.375		150	0.18	10	Edge Start		0.09

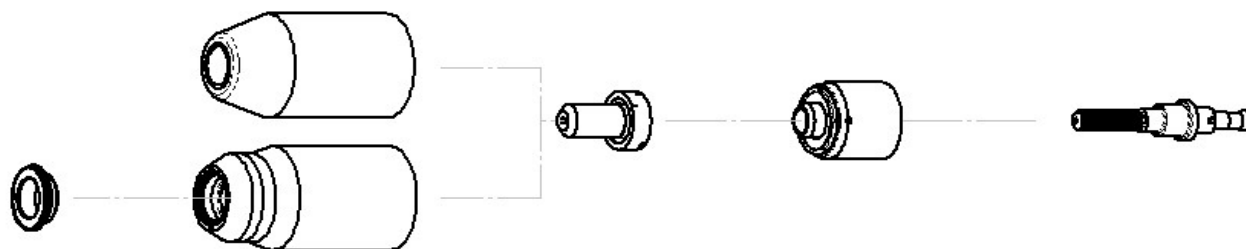
Material Thickness	Gas Pressure (Air)	Arc Voltage	Torch Working Height	Travel Speed	Initial Piercing Height	Pierce Delay	Kerf Width @ Rec. Speed
(mm)	Bar (torch lead length)	Volts	(mm)	(mm/min)	(mm)	(sec)	(mm)
1.0	4.8 (7.6m) 5.2 (15.2m)	95	4.1	7620	4.1	0.0	1.5
2.0		104	4.1	3500	4.1	0.2	1.6
3.0		115	4.1	2350	4.6	0.3	1.7
4.0		113	4.6	2170	4.6	0.4	1.7
5.0		118	4.6	1740	4.6	0.5	1.8
<b>6.0</b>		<b>125</b>	<b>4.6</b>	<b>1015</b>	<b>4.6</b>	<b>0.8</b>	<b>1.9</b>
8.0		139	4.6	500	Edge Start		2.0
10.0		153	4.6	180	Edge Start		2.2

**BOLD TYPE** indicates maximum piercing parameters. **BOLD ITALIC** indicates edge starts only.

Mild Steel

60A

Air Plasma / Air Shield



Deflector	Standard Shield Cup Maximum Life Shield Cup	Tip	Starter Cartridge Heavy Duty Starter Cartridge	Electrode
9-8243	9-8218 9-8237	9-8210	9-8213 9-8277	9-8232

Material Thickness			Gas Pressure (Air)	Arc Voltage	Torch Working Height	Travel Speed	Initial Piercing Height	Pierce Delay	Kerf Width @ Rec. Speed
(GA)	(in)	inch	PSI (torch lead length)	Volts	(in)	(ipm)	(in)	(sec)	(in)
16		0.060	85 (25')	118	0.19	290	0.19	0.00	0.08
14		0.075		120	0.19	285	0.19	0.10	0.08
11		0.120		118	0.19	180	0.19	0.10	0.08
10		0.135		119	0.19	176	0.19	0.10	0.07
	3/16	0.188		121	0.19	100	0.19	0.20	0.08
	1/4	0.250		122	0.19	80	0.19	0.30	0.08
	3/8	0.375		124	0.19	50	0.19	0.50	0.09
	<b>1/2</b>	<b>0.500</b>		<b>132</b>	<b>0.19</b>	<b>26</b>	<b>0.19</b>	<b>0.75</b>	<b>0.10</b>
	5/8	0.625		135	0.19	19	Edge Start		0.10
	3/4	0.750		136	0.19	14	Edge Start		0.08
	1	1.000	150	0.19	6	Edge Start		0.11	

Material Thickness	Gas Pressure (Air)	Arc Voltage	Torch Working Height	Travel Speed	Initial Piercing Height	Pierce Delay	Kerf Width @ Rec. Speed
(mm)	Bar (torch lead length)	Volts	(mm)	(mm/min)	(mm)	(sec)	(mm)
1	5.9 (7.6m) 6.2 (15.2m)	115	4.8	7540	4.8	0	2.1
2		120	4.8	7015	4.0	0.10	1.9
3		118	4.8	4570	4.8	0.10	0.1
4		120	4.8	3650	4.8	0.20	1.9
5		121	4.8	2465	4.8	0.20	2.1
6		122	4.8	2145	4.8	0.30	2.0
8		123	4.8	1635	4.8	0.40	2.2
10		125	4.8	1180	4.8	0.60	2.4
<b>12</b>		<b>130</b>	<b>4.8</b>	<b>795</b>	<b>4.8</b>	<b>0.75</b>	<b>2.4</b>
15		134	4.8	530	Edge Start		2.4
20		138	4.8	325	Edge Start		2.2
25		149	4.8	165	Edge Start		2.7

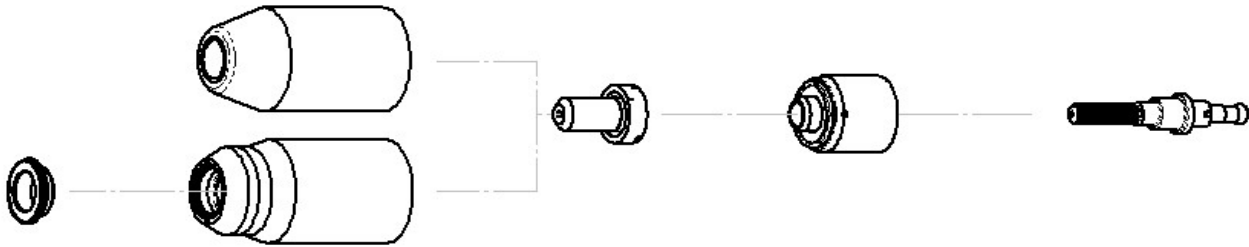
**BOLD TYPE** indicates maximum piercing parameters. **BOLD ITALIC** indicates edge starts only.



**Stainless Steel**

**60A**

**Air Plasma / Air Shield**



Deflector	Standard Shield Cup Maximum Life Shield Cup	Tip	Starter Cartridge Heavy Duty Starter Cartridge	Electrode
9-8243	9-8218 9-8237	9-8210	9-8213 9-8277	9-8232

Material Thickness			Gas Pressure (Air)	Arc Voltage	Torch Working Height	Travel Speed	Initial Piercing Height	Pierce Delay	Kerf Width @ Rec. Speed
(GA)	(in)	inch	PSI (torch lead length)	Volts	(in)	(ipm)	(in)	(sec)	(in)
16		0.063	85 (25') 90 (50')	119	0.19	350	0.20	0.00	0.05
14		0.078		116	0.19	300	0.20	0.10	0.07
11		0.125		123	0.19	150	0.20	0.10	0.07
10		0.141		118	0.19	125	0.20	0.10	0.08
	3/16	0.188		122	0.19	90	0.20	0.20	0.08
	1/4	0.250		123	0.19	65	0.20	0.30	0.09
	3/8	0.375		130	0.19	30	0.20	0.50	0.09
	<b>1/2</b>	<b>0.500</b>		<b>132</b>	<b>0.19</b>	<b>21</b>	<b>0.20</b>	<b>0.90</b>	<b>0.08</b>
	5/8	0.625		132	0.19	14	Edge Start		0.11
	3/4	0.750		135	0.19	10	Edge Start		0.10

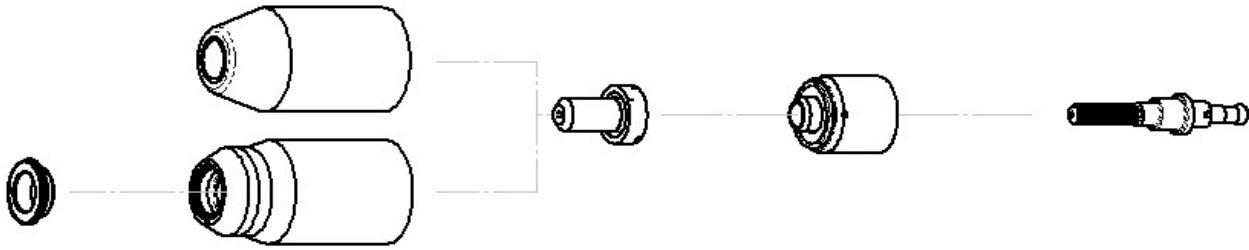
Material Thickness	Gas Pressure (Air)	Arc Voltage	Torch Working Height	Travel Speed	Initial Piercing Height	Pierce Delay	Kerf Width @ Rec. Speed
(mm)	Bar (torch lead length)	Volts	(mm)	(mm/min)	(mm)	(sec)	(mm)
1	5.9 (7.6m) 6.2 (15.2m)	124	4.8	10890	5.1	0.00	0.8
2		116	4.8	7560	5.1	0.10	1.7
3		122	4.8	4365	5.1	0.10	1.7
4		119	4.8	2865	5.1	0.20	2.1
5		122	4.8	2195	5.1	0.20	2.1
6		123	4.8	1790	5.1	0.30	2.2
8		127	4.8	1190	5.1	0.40	2.2
10		130	4.8	725	5.1	0.50	2.2
<b>12</b>		<b>132</b>	<b>4.8</b>	<b>580</b>	<b>5.1</b>	<b>0.90</b>	<b>2.1</b>
15		132	4.8	405	Edge Start		2.6
20		136	4.8	230	Edge Start		2.5

**BOLD TYPE** indicates maximum piercing parameters. **BOLD ITALIC** indicates edge starts only.

Aluminum

60A

Air Plasma / Air Shield



Deflector	Standard Shield Cup Maximum Life Shield Cup	Tip	Starter Cartridge Heavy Duty Starter Cartridge	Electrode
9-8243	9-8218 9-8237	9-8210	9-8213 9-8277	9-8232

Material Thickness			Gas Pressure (Air)	Arc Voltage	Torch Working Height	Travel Speed	Initial Piercing Height	Pierce Delay	Kerf Width @ Rec. Speed
(GA)	(in)	inch	PSI (torch lead length)	Volts	(in)	(ipm)	(in)	(sec)	(in)
16		0.064	85 (25') 90 (50')	123	0.25	440	0.25	0.00	0.08
14		0.079		126	0.25	300	0.25	0.10	0.09
11		0.120		128	0.25	250	0.25	0.10	0.09
	3/16	0.188		132	0.25	170	0.25	0.20	0.09
	1/4	0.250		132	0.25	85	0.25	0.30	0.09
	3/8	0.375		141	0.25	45	0.25	0.50	0.10
	<b>1/2</b>	<b>0.500</b>		<b>148</b>	<b>0.25</b>	<b>30</b>	<b>0.25</b>	<b>0.80</b>	<b>0.09</b>
	5/8	0.625		145	0.19	18	Edge Start		0.08
	3/4	0.750		147	0.19	12	Edge Start		0.10

Material Thickness	Gas Pressure (Air)	Arc Voltage	Torch Working Height	Travel Speed	Initial Piercing Height	Pierce Delay	Kerf Width @ Rec. Speed
(mm)	Bar (torch lead length)	Volts	(mm)	(mm/min)	(mm)	(sec)	(mm)
1	5.9 (7.6m) 6.2 (15.2m)	118	6.4	17010	6.4	0.00	1.8
2		126	6.4	7680	6.4	0.10	2.3
3		128	6.4	6410	6.4	0.10	2.3
4		130	6.4	5230	6.4	0.20	2.3
5		132	6.4	4010	6.4	0.20	2.4
6		132	6.4	2640	6.4	0.30	2.4
8		137	6.4	1630	6.4	0.40	2.4
10		142	6.4	1085	6.4	0.60	2.4
<b>12</b>		<b>146</b>	<b>6.4</b>	<b>845</b>	<b>6.4</b>	<b>0.70</b>	<b>2.3</b>
15		146	4.8	540	Edge Start		2.1
20		148	4.8	260	Edge Start		2.5

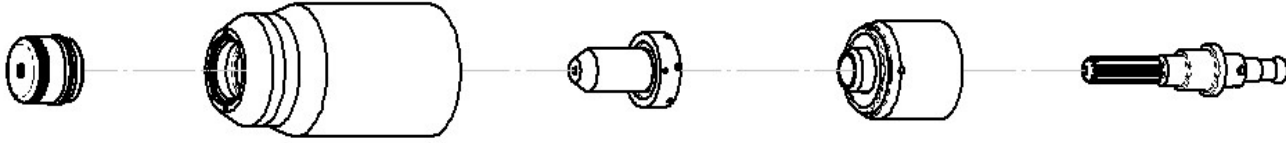
**BOLD TYPE** indicates maximum piercing parameters. **BOLD ITALIC** indicates edge starts only.

4T.09 Recommended Cutting Speeds for Machine and Automated Torches With Shielded Tip

Mild Steel

40A

Air Plasma / Air Shield



Shield Cap	Maximum Life Shield Cup	Tip	Starter Cartridge Heavy Duty Starter Cartridge	Electrode
9-8245	9-8237	9-8208	9-8213 9-8277	9-8232

Material Thickness			Gas Pressure (Air)  PSI (torch lead length)	Arc Voltage  Volts	Torch Working Height  (in)	Travel Speed  (ipm)	Initial Piercing Height  (in)	Pierce Delay  (sec)	Kerf Width @ Rec. Speed  (in)
(GA)	(in)	inch							
20		0.036	75 (25') 80 (50')	107	0.16	130	0.16	0.0	0.06
16		0.060		113	0.16	120	0.16	0.0	0.06
14		0.075		108	0.16	90	0.16	0.1	0.06
12		0.105		111	0.16	75	0.16	0.2	0.06
10		0.135		114	0.16	65	0.16	0.3	0.07
	3/16	0.188		115	0.16	65	0.16	0.4	0.07
	1/4	0.250		118	0.16	45	0.16	0.5	0.07
	3/8	0.375		123	0.16	23	0.16	1.2	0.08
	1/2	0.500		128	0.16	18	0.16	2.0	0.08

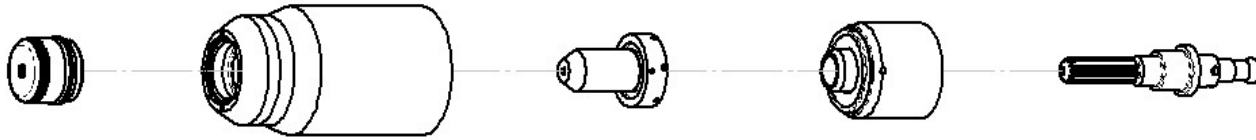
Material Thickness	Gas Pressure (Air)	Arc Voltage	Torch Working Height	Travel Speed	Initial Piercing Height	Pierce Delay	Kerf Width @ Rec. Speed
(mm)	Bar (torch lead length)	Volts	(mm)	(mm/min)	(mm)	(sec)	(mm)
1	5.2 (7.6) 5.5 (15.2)	108	4.1	3266	4.1	0.0	1.4
2		108	4.1	2239	4.1	0.0	1.5
3		112	4.1	1794	4.1	0.1	1.7
4		114	4.1	1651	4.1	0.2	1.7
5		115	4.1	1578	4.1	0.3	1.7
6		117	4.1	1256	4.1	0.4	1.7
8		121	4.1	853	4.1	0.5	1.7
10		124	4.1	565	4.1	1.2	1.8
<b>12</b>		<b>127</b>	<b>4.1</b>	<b>485</b>	<b>4.1</b>	<b>2.0</b>	<b>1.9</b>

**BOLD TYPE** indicates maximum piercing parameters.

Stainless Steel

40A

Air Plasma / Air Shield



Shield Cap	Maximum Life Shield Cup	Tip	Starter Cartridge Heavy Duty Starter Cartridge	Electrode
9-8245	9-8237	9-8208	9-8213 9-8277	9-8232

Material Thickness			Gas Pressure (Air)	Arc Voltage	Torch Working Height	Travel Speed	Initial Piercing Height	Pierce Delay	Kerf Width @ Rec. Speed
(GA)	(in)	inch	PSI (torch lead length)	Volts	(in)	(ipm)	(in)	(sec)	(in)
18		0.050	75 (25') 80 (50')	110	0.16	60	0.16	0.0	0.06
16		0.063		108	0.16	50	0.16	0.1	0.07
14		0.078		114	0.16	45	0.16	0.1	0.07
12		0.109		113	0.16	40	0.16	0.2	0.07
10		0.141		116	0.16	35	0.16	0.3	0.07
	3/16	0.188		115	0.16	30	0.16	0.4	0.07
	1/4	0.250		118	0.16	20	0.16	1.2	0.07
	3/8	0.375		125	0.16	15	0.16	1.8	0.08
	1/2	0.500		127	0.16	10	0.16	2.0	0.08

Material Thickness	Gas Pressure (Air)	Arc Voltage	Torch Working Height	Travel Speed	Initial Piercing Height	Pierce Delay	Kerf Width @ Rec. Speed
(mm)	Bar (torch lead length)	Volts	(mm)	(mm/min)	(mm)	(sec)	(mm)
1	5.2 (7.6) 5.5 (15.2)	109	4.1	1670	4.1	0.0	1.7
2		114	4.1	1140	4.1	0.1	1.8
3		114	4.1	980	4.1	0.2	1.8
4		116	4.1	845	4.1	0.3	1.8
5		115	4.1	725	4.1	0.4	1.8
6		117	4.1	565	4.1	0.5	2.0
8		122	4.1	440	4.1	1.5	2.0
10		125	4.1	360	4.1	1.8	2.0
<b>12</b>		<b>127</b>	<b>4.1</b>	<b>280</b>	<b>4.1</b>	<b>2.0</b>	<b>2.2</b>

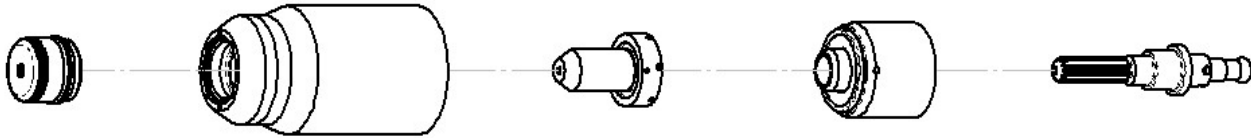
**BOLD TYPE** indicates maximum piercing parameters.



Aluminum

40A

Air Plasma / Air Shield



Shield Cap	Maximum Life Shield Cup	Tip	Starter Cartridge Heavy Duty Starter Cartridge	Electrode
9-8245	9-8237	9-8208	9-8213 9-8277	9-8232

Material Thickness			Gas Pressure (Air)	Arc Voltage	Torch Working Height	Travel Speed	Initial Piercing Height	Pierce Delay	Kerf Width @ Rec. Speed
(GA)	(in)	inch	PSI (torch lead length)	Volts	(in)	(ipm)	(in)	(sec)	(in)
20		0.040	75 (25') 80 (50')	110	0.19	300	0.20	0.0	0.06
16		0.063		113	0.19	170	0.20	0.1	0.07
12		0.097		120	0.19	100	0.20	0.2	0.07
11		0.125		125	0.19	90	0.20	0.3	0.07
9		0.160		126	0.19	85	0.20	0.4	0.07
	3/16	0.188		128	0.19	70	0.20	0.5	0.07
	1/4	0.250		137	0.19	30	0.20	1.0	0.08
	3/8	0.375		145	0.19	10	0.20	2.0	0.09

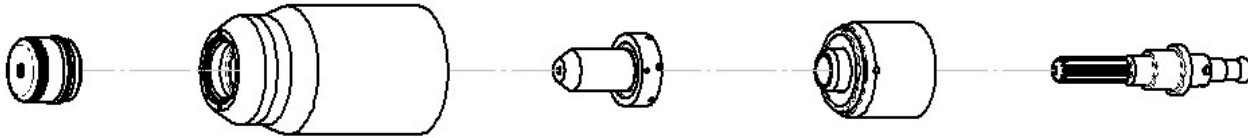
Material Thickness	Gas Pressure (Air)	Arc Voltage	Torch Working Height	Travel Speed	Initial Piercing Height	Pierce Delay	Kerf Width @ Rec. Speed
(mm)	Bar (torch lead length)	Volts	(mm)	(mm/min)	(mm)	(sec)	(mm)
1.0	5.2 (7.6) 5.5 (15.2)	110	4.8	7660	5.1	0.0	1.6
2.0		116	4.8	3490	5.1	0.2	1.8
3.0		124	4.8	2350	5.1	0.3	1.8
4.0		126	4.8	2170	5.1	0.4	1.8
5.0		129	4.8	1630	5.1	0.6	1.8
6.0		135	4.8	990	5.1	1.0	1.9
8.0		141	4.8	500	5.1	1.6	2.0
<b>10.0</b>		<b>146</b>	<b>4.8</b>	<b>180</b>	<b>5.1</b>	<b>2.1</b>	<b>2.3</b>

**BOLD TYPE** indicates maximum piercing parameters.

Mild Steel

60A

Air Plasma / Air Shield



Shield Cap	Maximum Life Shield Cup	Tip	Starter Cartridge Heavy Duty Starter Cartridge	Electrode
9-8238	9-8237	9-8210	9-8213 9-8277	9-8232

Material Thickness			Gas Pressure (Air)	Arc Voltage	Torch Working Height	Travel Speed	Initial Piercing Height	Pierce Delay	Kerf Width @ Rec. Speed
(GA)	(in)	inch	PSI (torch lead length)	Volts	(in)	(ipm)	(in)	(sec)	(in)
16		0.060	85 (25')	128	0.19	250	0.20	0.00	0.09
14		0.075		129	0.19	237	0.20	0.10	0.09
11		0.120		126	0.19	200	0.20	0.10	0.08
10		0.135		128	0.19	142	0.20	0.10	0.09
	3/16	0.188		132	0.19	115	0.20	0.20	0.09
	1/4	0.250		134	0.19	80	0.20	0.30	0.08
	3/8	0.375		132	0.19	34	0.20	0.70	0.10
	<b>1/2</b>	<b>0.500</b>		<b>144</b>	<b>0.19</b>	<b>23</b>	<b>0.20</b>	<b>0.75</b>	<b>0.10</b>
	5/8	0.625		150	0.19	14	Edge Start		0.10
	3/4	0.750		145	0.19	14	Edge Start		0.10
	1	1.000	160	0.19	4	Edge Start		0.12	

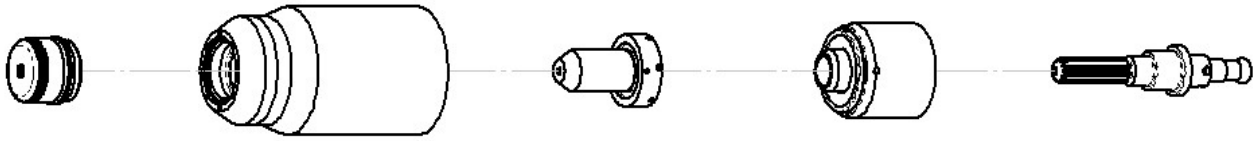
Material Thickness	Gas Pressure (Air)	Arc Voltage	Torch Working Height	Travel Speed	Initial Piercing Height	Pierce Delay	Kerf Width @ Rec. Speed
(mm)	Bar (torch lead length)	Volts	(mm)	(mm/min)	(mm)	(sec)	(mm)
1	5.9 (7.6m) 6.2 (15.2m)	127	4.8	6804	5.1	0	2.2
2		129	4.8	5942	5.1	0.10	2.2
3		126	4.8	5080	5.1	0.10	0.1
4		130	4.8	3316	5.1	0.20	2.3
5		132	4.8	2794	5.1	0.20	2.2
6		134	4.8	2230	5.1	0.30	2.1
8		133	4.8	1425	5.1	0.40	2.3
10		134	4.8	822	5.1	0.60	2.5
<b>12</b>		<b>141</b>	<b>4.8</b>	<b>646</b>	<b>5.1</b>	<b>0.75</b>	<b>2.5</b>
15		148	4.8	419	Edge Start		2.6
20		147	4.8	318	Edge Start		2.7
25		159	4.8	118	Edge Start		3.0

**BOLD TYPE** indicates maximum piercing parameters. **BOLD ITALIC** indicates edge starts only.

Stainless Steel

60A

Air Plasma / Air Shield



Shield Cap	Maximum Life Shield Cup	Tip	Starter Cartridge Heavy Duty Starter Cartridge	Electrode
9-8238	9-8237	9-8210	9-8213 9-8277	9-8232

Material Thickness			Gas Pressure (Air)	Arc Voltage	Torch Working Height	Travel Speed	Initial Piercing Height	Pierce Delay	Kerf Width @ Rec. Speed	
(GA)	(in)	inch	PSI (torch lead length)	Volts	(in)	(ipm)	(in)	(sec)	(in)	
16		0.063	85 (25')	110	0.13	165	0.20	0.00	0.06	
14		0.078		116	0.13	155	0.20	0.10	0.07	
11		0.125		118	0.13	125	0.20	0.10	0.07	
10		0.141		126	0.13	80	0.20	0.10	0.09	
	3/16	0.188		125	0.13	75	0.20	0.20	0.09	
	1/4	0.250		90 (50')	127	0.13	60	0.20	0.30	0.08
	3/8	0.375			134	0.13	28	0.20	0.50	0.08
	<b>1/2</b>	<b>0.500</b>			<b>136</b>	<b>0.19</b>	<b>17</b>	<b>0.25</b>	<b>0.75</b>	<b>0.09</b>
	5/8	0.625			131	0.13	14	Edge Start		0.08
	3/4	0.750			142	0.19	10	Edge Start		0.11

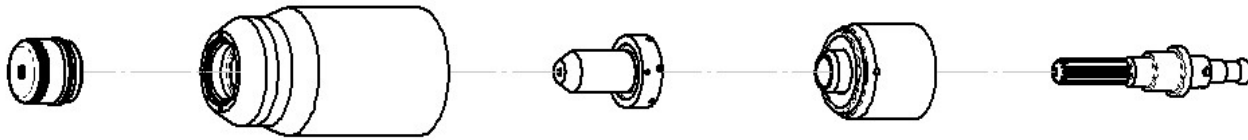
Material Thickness	Gas Pressure (Air)	Arc Voltage	Torch Working Height	Travel Speed	Initial Piercing Height	Pierce Delay	Kerf Width @ Rec. Speed
(mm)	Bar (torch lead length)	Volts	(mm)	(mm/min)	(mm)	(sec)	(mm)
1	5.9 (7.6m) 6.2 (15.2m)	101	3.3	4590	5.1	0.00	1.2
2		116	3.3	3925	5.1	0.10	1.7
3		118	3.3	3285	5.1	0.10	1.7
4		126	3.3	1985	5.1	0.20	2.2
5		125	3.3	1850	5.1	0.20	2.1
6		127	3.3	1605	5.1	0.30	2.1
8		131	3.3	1100	5.1	0.40	2.1
10		134	3.3	670	5.1	0.50	2.1
<b>12</b>		<b>136</b>	<b>4.8</b>	<b>490</b>	<b>6.4</b>	<b>0.90</b>	<b>2.2</b>
15		132	3.3	375	Edge Start		2.6
20		144	4.8	230	Edge Start		2.5

**BOLD TYPE** indicates maximum piercing parameters. **BOLD ITALIC** indicates edge starts only.

Aluminum

60A

Air Plasma / Air Shield



Shield Cap	Maximum Life Shield Cup	Tip	Starter Cartridge Heavy Duty Starter Cartridge	Electrode
9-8238	9-8237	9-8210	9-8213 9-8277	9-8232

Material Thickness			Gas Pressure (Air)	Arc Voltage	Torch Working Height	Travel Speed	Initial Piercing Height	Pierce Delay	Kerf Width @ Rec. Speed
(GA)	(in)	inch	PSI (torch lead length)	Volts	(in)	(ipm)	(in)	(sec)	(in)
16		0.064	85 (25') 90 (50')	118	0.13	350	0.25	0.00	0.07
14		0.079		118	0.13	350	0.25	0.10	0.08
11		0.120		123	0.13	275	0.25	0.10	0.08
	3/16	0.188		125	0.13	140	0.25	0.20	0.08
	1/4	0.250		132	0.13	80	0.25	0.30	0.08
	3/8	0.375		135	0.13	45	0.25	0.50	0.08
	<b>1/2</b>	<b>0.500</b>		<b>140</b>	<b>0.13</b>	<b>26</b>	<b>0.25</b>	<b>0.80</b>	<b>0.08</b>
	5/8	0.625		148	0.19	18	Edge start		0.10
	3/4	0.750		155	0.19	12	Edge start		0.11

Material Thickness	Gas Pressure (Air)	Arc Voltage	Torch Working Height	Travel Speed	Initial Piercing Height	Pierce Delay	Kerf Width @ Rec. Speed
(mm)	Bar (torch lead length)	Volts	(mm)	(mm/min)	(mm)	(sec)	(mm)
1	5.9 (7.6m) 6.2 (15.2m)	118	6.4	8890	6.4	0.00	2
2		118	6.4	8890	6.4	0.10	2.0
3		123	6.4	7070	6.4	0.10	2.1
4		124	6.4	5095	6.4	0.20	2.0
5		126	6.4	3335	6.4	0.20	2.0
6		130	6.4	2370	6.4	0.30	2.0
8		134	6.4	1570	6.4	0.40	2.0
10		136	6.4	1070	6.4	0.60	2.0
<b>12</b>		<b>139</b>	<b>6.4</b>	<b>765</b>	<b>6.4</b>	<b>0.70</b>	<b>2.0</b>
15		146	4.8	515	Edge start		2.4
20		157	4.8	260	Edge start		2.7

**BOLD TYPE** indicates maximum piercing parameters. **BOLD ITALIC** indicates edge starts only.