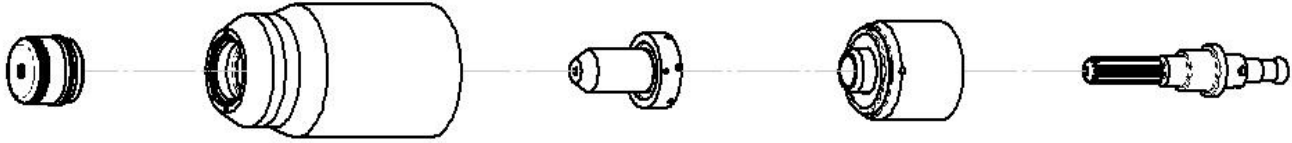


4T.09 Recommended Cutting Speeds for Machine and Automated Torches With Shielded Tip

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)	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	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
12		127	4.1	485	4.1	2.0	1.9

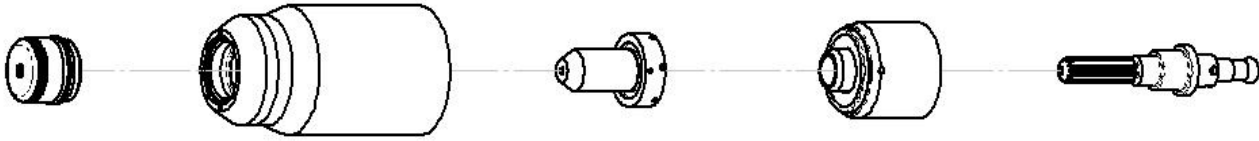
BOLD TYPE indicates maximum piercing parameters.

CUTMASTER A120

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	4.1	0.0	0.06
16		0.063		108	0.16	50	4.1	0.1	0.07
14		0.078		114	0.16	45	4.1	0.1	0.07
12		0.109		113	0.16	40	4.1	0.2	0.07
10		0.141		116	0.16	35	4.1	0.3	0.07
	3/16	0.188		115	0.16	30	4.1	0.4	0.07
	1/4	0.250		118	0.16	20	4.1	1.2	0.07
	3/8	0.375		125	0.16	15	4.1	1.8	0.08
	1/2	0.500		127	0.16	10	4.1	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
12		127	4.1	280	4.1	2.0	2.2

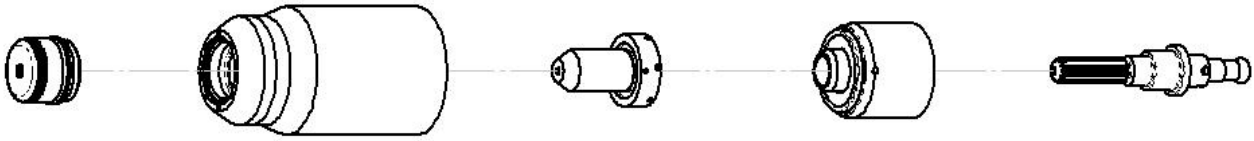
BOLD TYPE indicates maximum piercing parameters.

CUTMASTER A120

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
10.0		146	4.8	180	5.1	2.1	2.3

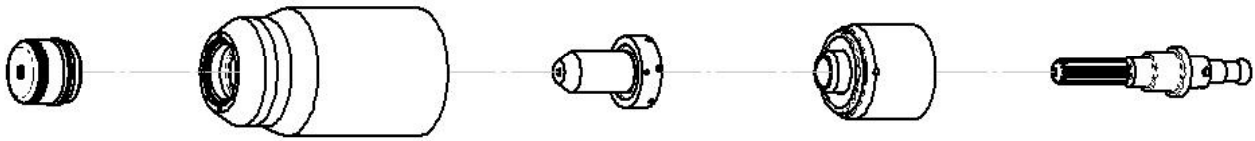
BOLD TYPE indicates maximum piercing parameters.

CUTMASTER A120

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		90 (50')	132	0.19	34	0.20	0.70	0.10
	1/2	0.500		144	0.19	23	0.20	0.75	0.10	
	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
12		141	4.8	646	5.1	0.75	2.5
15		148	4.8	419	<i>Edge Start</i>		2.6
20		147	4.8	318	<i>Edge Start</i>		2.7
25		159	4.8	118	<i>Edge Start</i>		3.0

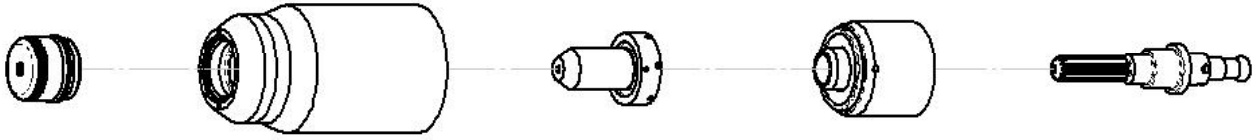
BOLD TYPE indicates maximum piercing parameters. ***BOLD ITALIC*** indicates edge starts only.

CUTMASTER A120

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	
	1/2	0.500		136	0.19	17	0.25	0.75	0.09	
	5/8	0.625		131	0.13	14	<i>Edge Start</i>		0.08	
	3/4	0.750		142	0.19	10	<i>Edge Start</i>		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
12		136	4.8	490	6.4	0.90	2.2
15		132	3.3	375	Edge Start		2.6
20		144	4.8	230	Edge Start		2.5

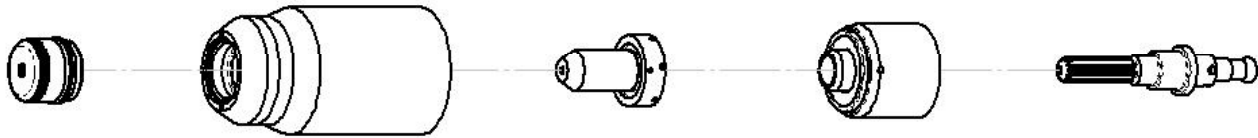
BOLD TYPE indicates maximum piercing parameters. **BOLD ITALIC** indicates edge starts only.

CUTMASTER A120

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	0.20	0.00	0.07
14		0.079		118	0.13	350	0.20	0.10	0.08
11		0.120		123	0.13	275	0.20	0.10	0.08
	3/16	0.188		125	0.13	140	0.20	0.20	0.08
	1/4	0.250		132	0.13	80	0.20	0.30	0.08
	3/8	0.375		135	0.13	45	0.20	0.50	0.08
	1/2	0.500		140	0.13	26	0.20	0.80	0.08
	5/8	0.625		148	0.19	18	<i>Edge start</i>		0.10
	3/4	0.750		155	0.19	12	<i>Edge start</i>		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
12		139	6.4	765	6.4	0.70	2.0
15		146	4.8	515	<i>Edge start</i>		2.4
20		157	4.8	260	<i>Edge start</i>		2.7

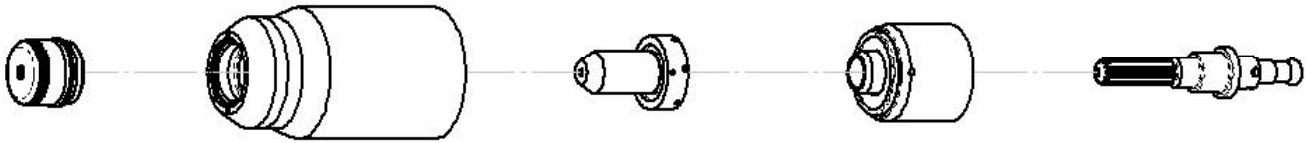
BOLD TYPE indicates maximum piercing parameters. ***BOLD ITALIC*** indicates edge starts only.

CUTMASTER A120

Mild Steel

80A

Air Plasma / Air Shield



Shield Cap	Maximum Life Shield Cup	Tip	Starter Cartridge Heavy Duty Starter Cartridge	Electrode
9-8239	9-8237	9-8211	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') 90 (50')	115	0.13	280	0.20	0.00	0.06
11		0.120		112	0.13	190	0.20	0.10	0.06
10		0.135		110	0.13	176	0.20	0.20	0.06
	3/16	0.188		122	0.19	135	0.20	0.30	0.08
	1/4	0.250		127	0.19	100	0.20	0.40	0.09
	3/8	0.375		134	0.19	40	0.20	0.50	0.10
	1/2	0.500		136	0.19	36	0.20	0.60	0.10
	5/8	0.625		145	0.19	18	<i>Edge Start</i>		0.11
	3/4	0.750		147	0.19	14	<i>Edge Start</i>		0.11
	7/8	0.875		146	0.19	10	<i>Edge Start</i>		0.12
	1.000	1.000		152	0.187	8	<i>Edge Start</i>		0.13

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)	116	3.3	7895	5.1	0.00	1.6
2		114	3.3	6395	5.1	0.10	1.6
3		112	3.3	4895	5.1	0.10	1.5
4		115	4.8	4025	5.1	0.30	1.7
5		123	4.8	3300	5.1	0.30	2.0
6		126	4.8	2735	5.1	0.40	2.2
8		131	4.8	1745	5.1	0.50	2.5
10		134	4.8	1000	5.1	0.50	2.6
12		136	4.8	935	5.1	0.60	2.6
15		143	4.8	580	5.1	0.80	2.8
20		147	4.8	325	<i>Edge Start</i>		2.9
25		151	4.8	210	<i>Edge Start</i>		3.2

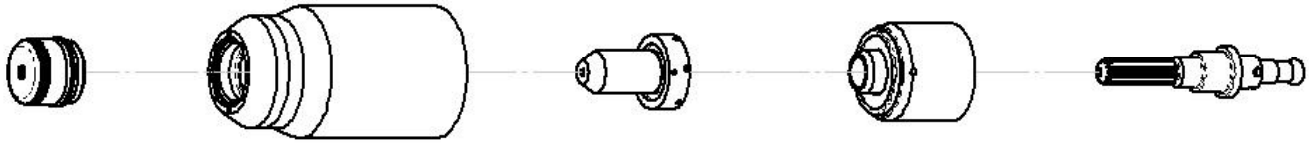
BOLD TYPE indicates maximum piercing parameters. ***BOLD ITALIC*** indicates edge starts only.

CUTMASTER A120

Stainless Steel

80A

Air Plasma / Air Shield



Shield Cap	Maximum Life Shield Cup	Tip	Starter Cartridge Heavy Duty Starter Cartridge	Electrode
9-8239	9-8237	9-8211	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')	114	0.125	340	0.2	0.00	0.06	
11		0.125		115	0.125	260	0.2	0.10	0.06	
10		0.141		116	0.125	250	0.2	0.10	0.06	
	3/16	0.188		115	0.125	170	0.2	0.20	0.07	
	1/4	0.250		118	0.125	85	0.2	0.30	0.08	
	3/8	0.375		90 (50')	127	0.19	45	0.25	0.40	0.09
	1/2	0.500		136	0.19	16	0.25	0.75	0.11	
	5/8	0.625		143	0.19	10	<i>Edge Start</i>		0.12	
	3/4	0.750		146	0.19	8	<i>Edge Start</i>		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)	114	3.2	9410	5.1	0.00	1.5
2		114	3.2	8120	5.1	0.00	1.4
3		115	3.2	6830	5.1	0.10	1.4
4		116	3.2	5635	5.1	0.20	1.5
5		115	3.2	4010	5.1	0.20	1.8
6		117	3.2	2640	5.1	0.30	2.0
8		123	4.8	1630	6.4	0.40	2.1
10		128	4.8	1030	6.4	0.60	2.2
12		134	4.8	565	6.4	0.75	2.6
15		141	4.8	295	Edge Start		3.0
20		147	4.8	185	Edge Start		2.8

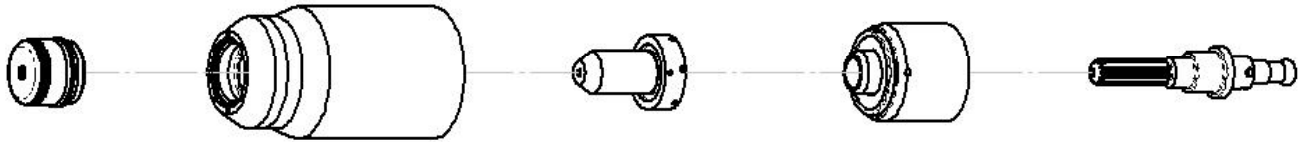
BOLD TYPE indicates maximum piercing parameters. **BOLD ITALIC** indicates edge starts only.

CUTMASTER A120

Aluminum

80A

Air Plasma / Air Shield



Shield Cap	Maximum Life Shield Cup	Tip	Starter Cartridge Heavy Duty Starter Cartridge	Electrode
9-8239	9-8237	9-8211	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')	115	0.13	320	0.2	0.00	0.09
11		0.120		120	0.13	240	0.2	0.10	0.08
	3/16	0.188		122	0.13	165	0.2	0.20	0.08
	1/4	0.250		124	0.13	100	0.2	0.30	0.10
	3/8	0.375		140	0.19	60	0.2	0.40	0.09
	1/2	0.500		142	0.19	36	0.2	0.60	0.11
	5/8	0.625		148	0.19	26	0.2	0.75	0.11
	3/4	0.750		155	0.19	16	<i>Edge Start</i>		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)	113	3.3	9020	5.1	0.00	2.4
2		116	3.3	7595	5.1	0.00	2.2
3		120	3.3	6165	5.1	0.10	2.0
4		121	3.3	5045	5.1	0.20	2.1
5		122	3.3	3955	5.1	0.20	2.2
6		124	3.3	2905	5.1	0.30	2.3
8		132	4.8	2010	5.1	0.40	2.3
10		140	4.8	1430	5.1	0.50	2.3
12		142	4.8	1045	5.1	0.60	2.6
15		146	4.8	730	5.1	0.75	2.7
20		157	4.8	330	Edge Start		3.2

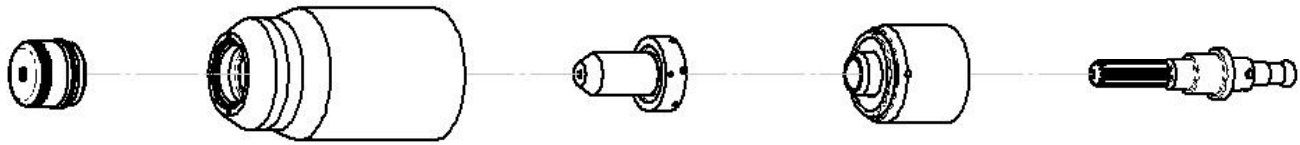
BOLD TYPE indicates maximum piercing parameters. **BOLD ITALIC** indicates edge starts only.

CUTMASTER A120

Mild Steel

100A

Air Plasma / Air Shield



Shield Cap	Maximum Life Shield Cup	Tip	Starter Cartridge Heavy Duty Starter Cartridge	Electrode
9-8239	9-8237	9-8233	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)
	1/4	0.250	75 (25') 75 (50')	114	0.16	85	0.18	0.00	0.08
	3/8	0.375		112	0.16	70	0.18	0.20	0.09
	1/2	0.500		115	0.16	40	0.18	0.30	0.10
	5/8	0.625		123	0.16	30	0.18	0.40	0.10
	3/4	0.750		127	0.16	20	0.18	0.80	0.11
	1	1.000		133	0.16	12	Edge Start		0.12
	1-1/4	1.250		135	0.16	8	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)
6		114	4.1	2210	4.6	0.00	2.0
8		113	4.1	1960	4.6	0.10	2.2
10		112	4.1	1665	4.6	0.20	2.3
12		114	4.1	1185	4.6	0.30	2.4
15		121	4.1	830	4.6	0.40	2.5
20		128	4.1	475	5.0	0.80	2.8
25		133	4.1	315	Edge Start		2.9
30		134	4.1	230	Edge Start		3.1

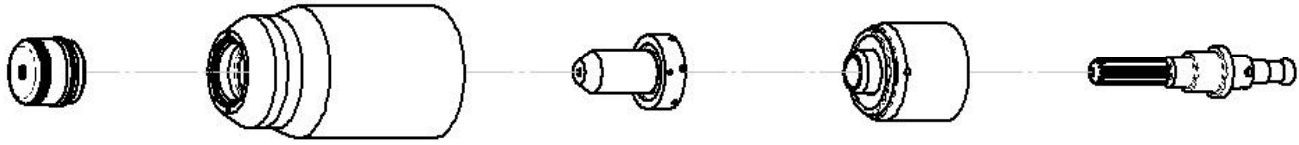
BOLD TYPE indicates maximum piercing parameters. **BOLD ITALIC** indicates edge starts only.

CUTMASTER A120

Stainless Steel

100A

Air Plasma / Air Shield



Shield Cap	Maximum Life Shield Cup	Tip	Starter Cartridge Heavy Duty Starter Cartridge	Electrode
9-8239	9-8237	9-8212	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)
	1/4	0.250	75 (25')	114	0.16	110	0.18	0.00	0.08
	3/8	0.375		116	0.16	70	0.18	0.10	0.09
	1/2	0.500		119	0.16	45	0.18	0.30	0.10
	5/8	0.625	75 (50')	130	0.19	20	0.23	2.00	0.11
	3/4	0.750		135	0.19	15	0.23	2.80	0.11
	1	1.000		140	0.19	10	<i>Edge Start</i>		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)
6	5.2 (7.6m) 5.2 (15.2m)	114	4.1	2900	4.6	0.00	2.0
8		115	4.1	2265	4.6	0.10	2.2
10		116	4.1	1685	4.6	0.20	2.4
12		118	4.1	1285	4.6	0.30	2.4
15		127	4.6	685	5.7	2.00	2.7
20		136	4.8	360	5.7	2.80	2.8
25		140	4.8	260	Edge Start		2.8

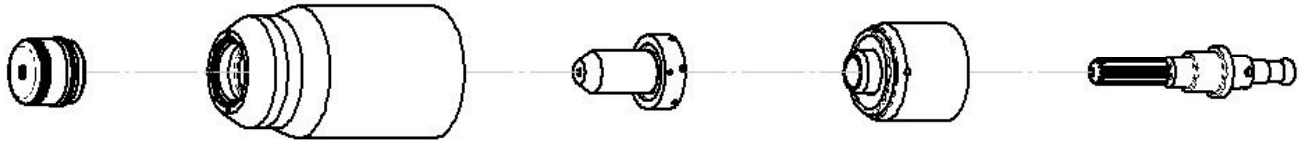
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CUTMASTER A120

Aluminum

100A

Air Plasma / Air Shield



Shield Cap	Maximum Life Shield Cup	Tip	Starter Cartridge Heavy Duty Starter Cartridge	Electrode
9-8239	9-8237	9-8212	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)
	1/4	0.250	75 (25')	121	0.18	110	0.19	0.00	0.10
	3/8	0.375		129	0.18	60	0.19	0.20	0.10
	1/2	0.500	75 (50')	135	0.18	45	0.19	0.30	0.11
	5/8	0.625		133	0.18	32	0.19	0.60	0.11
	3/4	0.750		138	0.18	25	0.19	2.00	0.11
	1	1.000		143	0.18	15	Edge Start		0.14

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)
6	5.2 (7.6m) 5.2 (15.2m)	120	4.6	2920	4.8	0.00	2.5
8		125	4.6	2135	4.8	0.10	2.5
10		130	4.6	1470	4.8	0.20	2.6
12		134	4.6	1230	4.8	0.30	2.7
15		134	4.6	905	4.8	0.60	2.9
20		139	4.6	595	6.0	2.00	3.0
25		143	4.6	395	<i>Edge Start</i>		3.6

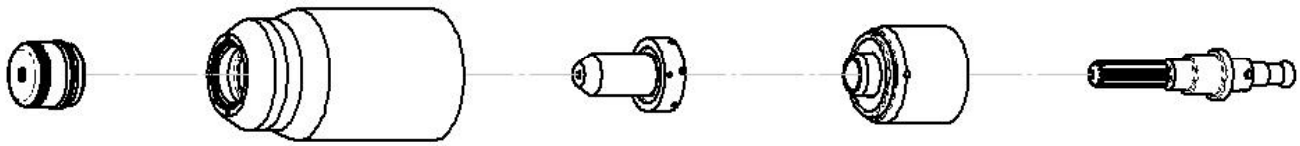
BOLD TYPE indicates maximum piercing parameters. **BOLD ITALIC** indicates edge starts only.

CUTMASTER A120

Mild Steel

120A

Air Plasma / Air Shield



Shield Cap	Maximum Life Shield Cup	Tip	Starter Cartridge Heavy Duty Starter Cartridge	Electrode
9-8256	9-8237	9-8233	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)
	1/4	0.250	80 (25') 80 (50')	139	0.125	160	0.20	0.20	0.11
	3/8	0.375		140	0.125	85	0.20	0.20	0.11
	1/2	0.500		142	0.125	75	0.20	0.50	0.10
	5/8	0.625		144	0.125	45	0.20	0.70	0.11
	3/4	0.750		150	0.125	30	0.25	1.50	0.12
	7/8	0.875		158	0.175	25	Edge Start		0.13
	1	1.000		160	0.175	22	Edge Start		0.14
	1-1/4	1.250		165	0.175	15	Edge Start		0.17
	1-1/2	1.500		171	0.175	8	Edge Start		0.15

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)
6	5.5 (7.6m) 5.5 (15.2m)	139	4.8	4270	5.08	0.20	2.8
8		140	4.8	3070	5.1	0.2	2.8
10		140	6.4	2120	5.08	0.30	2.8
12		142	6.4	1960	5.08	0.50	2.8
15		143	4.8	1355	5.08	0.70	2.8
20		152	4.8	725	6.4	1.6	3.1
25		160	4.8	570	Edge Start		3.6
30		164	4.8	430	Edge Start		4.0
35		168	4.8	290	Edge Start		4.3
40		173	4.45	150	Edge Start		4.4

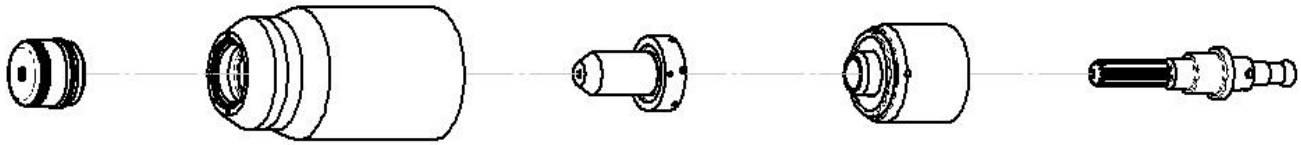
BOLD TYPE indicates maximum piercing parameters. **BOLD ITALIC** indicates edge starts only.

CUTMASTER A120

Stainless Steel

120A

Air Plasma / Air Shield



Shield Cap	Maximum Life Shield Cup	Tip	Starter Cartridge Heavy Duty Starter Cartridge	Electrode
9-8256	9-8237	9-8233	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)
	1/4	0.250	80 (25')	140	0.13	180	0.20	0.30	0.11
	3/8	0.375		140	0.13	100	0.20	0.40	0.12
	1/2	0.500		142	0.15	65	0.25	0.80	0.12
	5/8	0.625		152	0.15	40	0.25	1.00	0.12
	3/4	0.750	80 (50')	150	0.15	26	Edge Start		0.13
	1	1.000		155	0.15	16	Edge Start		0.13
	1-1/4	1.250		165	0.15	8	Edge Start		0.13

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)
6	5.5 (7.6m) 5.5 (15.2m)	140	4.8	4800	5.1	0.3	2.8
8		140	4.8	3520	5.1	0.4	2.7
10		140	4.8	2410	5.1	0.6	3.0
12		142	4.8	1850	6.4	0.8	3.1
15		149	6.4	1190	6.4	1.0	3.1
20		151	6.4	620	<i>Edge Start</i>		3.3
25		155	6.4	420	<i>Edge Start</i>		3.3
30		162	6.4	260	<i>Edge Start</i>		3.3

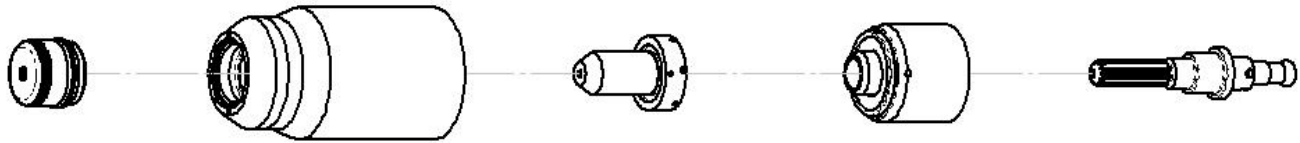
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CUTMASTER A120

Aluminum

120A

Air Plasma / Air Shield



Shield Cap	Maximum Life Shield Cup	Tip	Starter Cartridge Heavy Duty Starter Cartridge	Electrode
9-8256	9-8237	9-8233	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)
	1/4	0.250	80 (25') 80 (50')	140	0.13	180	0.20	0.20	0.10
	3/8	0.375		142	0.13	110	0.20	0.30	0.11
	1/2	0.500		148	0.13	75	0.20	0.50	0.11
	5/8	0.625		156	0.15	45	0.25	0.80	0.11
	3/4	0.750		158	0.15	35	Edge Start		0.11
	1	1.000		164	0.15	23	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)
6	5.5 (7.6m) 5.5 (15.2m)	140	4.8	4770	5.1	0.2	2.6
8		141	4.8	3650	5.1	0.3	2.6
10		143	4.8	2660	5.1	0.4	2.7
12		147	4.8	2100	5.1	0.5	2.8
15		154	4.8	1355	6.4	0.8	2.8
20		159	4.8	845	Edge Start		2.9
25		164	4.8	605	Edge Start		3.0

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