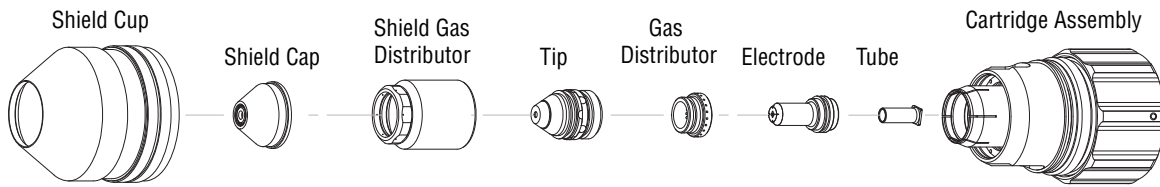


# Mild Steel

## 300A XTL

### O<sub>2</sub> Plasma / Air Shield

Flow Rates (SLPM / SCFH)		
	O <sub>2</sub>	Air
Preflow	- / -	194 / 412
Cutflow	27 / 58	160 / 340



This Art Is For Reference Only

Art# A-10270\_AB

Shield Cup	Shield Cap	Shield Gas Distributor	Tip	Plasma Gas Distributor	Electrode /Tube	Cartridge
21-1305	21-1105	21-1295	21-1160	21-1042	21-1308 9-7921	21-1300

Material Thickness			GCM-2010					Torch Height Control (THC)					Basic THC	CNC Control			
			Pre Flow Pressure (Air)		Cut Flow Rates / Pressures			Arc Voltage	Cut Height	THC Pierce Delay	Pierce Ignition Height	Elevation Height	Control Delay	Pierce Height without Elevation	Travel Speed	CNC Motion Delay	Max Kerf Width @ Rec. Speed
ga	(in)	inch	(psi)	Ball	(psi)	Ball	(psi)	(Volts)	(in) ±0.005	(sec)	(in)	(in)	(sec)	(in)	(ipm)	(sec)	(in)
-	1/2	0.500	20	100	100	NA	100	159	0.200	0.3	0.400	0.200	0.5	0.450	140	0.2	0.149
-	5/8	0.625	20	100	100	NA	100	161	0.200	0.4	0.400	0.200	0.5	0.450	115	0.3	0.179
-	3/4	0.750	20	100	100	NA	100	158	0.200	0.6	0.400	0.200	0.5	0.450	100	0.4	0.185
-	7/8	0.875	20	100	100	NA	100	161	0.200	0.8	0.400	0.200	0.5	0.450	85	0.6	0.182
-	1	1.000	20	100	100	NA	100	164	0.200	1.1	0.400	0.250	0.5	0.450	70	0.9	0.183
-	1 1/4	1.250	20	100	100	NA	100	164	0.200	1.5	0.400	0.300	0.5	0.500	50	1.2	0.193
-	1 1/2	1.500	20	100	100	NA	100	175	0.200	2.9	0.400	0.350	0.5	0.500	35	2.7	0.208
-	1 3/4	1.750	20	100	100	NA	100	179	0.200	5.3	0.400	0.400	0.5	<b>Edge</b>	25	5.2	0.250
-	2	2.000	20	100	100	NA	100	182	0.200	1.0	<b>Edge Start</b>		0.5	<b>Edge</b>	18	1.0	0.245
-	2 1/2	2.500	20	100	100	NA	100	201	0.200	1.0	<b>Edge Start</b>		0.5	<b>Edge</b>	10	1.0	0.416
-	3	3.000	20	100	100	NA	100	215	0.200	1.0	<b>Edge Start</b>		0.5	<b>Edge</b>	7	1.0	0.500

Material Thickness		GCM-2010					Torch Height Control (THC)					Basic THC	CNC Control		
		Pre Flow Pressure (Air)		Cut Flow Rates / Pressures			Arc Voltage	Cut Height	THC Pierce Delay	Pierce Ignition Height	Elevation Height	Control Delay	Pierce Height without Elevation	Travel Speed	CNC Motion Delay
(mm)	(Bar)	Ball	(Bar)	Ball	(Bar)	(Volts)	(mm) ±0.1	(sec)	(mm)	(mm)	(sec)	(mm)	(mm/ min)	(sec)	(mm)
12	1.4	100	6.9	NA	6.9	159	5.1	0.3	10.2	5.1	0.5	11.4	3700	0.2	3.6
15	1.4	100	6.9	NA	6.9	160	5.1	0.4	10.2	5.1	0.5	11.4	3100	0.3	4.3
20	1.4	100	6.9	NA	6.9	159	5.1	0.7	10.2	5.1	0.5	11.4	2430	0.5	4.7
25	1.4	100	6.9	NA	6.9	164	5.1	1.1	10.2	6.2	0.5	11.4	1830	0.9	4.6
30	1.4	100	6.9	NA	6.9	164	5.1	1.4	10.2	7.3	0.5	12.4	1410	1.1	4.8
35	1.4	100	6.9	NA	6.9	170	5.1	2.2	10.2	8.3	0.5	12.7	1080	2.0	5.1
40	1.4	100	6.9	NA	6.9	176	5.1	3.6	10.2	9.3	0.5	<b>Edge</b>	810	3.4	5.6
50	1.4	100	6.9	NA	6.9	181	5.1	1.0	<b>Edge Start</b>		0.5	<b>Edge</b>	470	1.0	5.9
60	1.4	100	6.9	NA	6.9	196	5.1	1.0	<b>Edge Start</b>		0.5	<b>Edge</b>	310	1.0	9.4
70	1.4	100	6.9	NA	6.9	208	5.1	1.0	<b>Edge Start</b>		0.5	<b>Edge</b>	220	1.0	11.7

Marking GCM 2010 ONLY 30A Arc Current	Pre Flow Pressure (N <sub>2</sub> )	Marking Flow Rates / Pressures				Arc Voltage	Marking Height	Pierce Ignition Height	THC and CNC Delay	Control Delay	Travel Speed	Marking quality degrades as thickness decreases.
	(psi) / (Bar)	Plasma (N <sub>2</sub> )		Shield (N <sub>2</sub> )		(Volts)	(in) ±0.005 / (mm) ±0.1	(in) ±0.005 / (mm) ±0.1	(sec)	(sec)	(ipm) / (mm/ min)	
		Ball	(psi) / (Bar)	Ball	(psi) / (Bar)							
15 / 1.0	80	60 / 4.1	NA	90 / 6.2	158	0.120 / 3.0	0.120 / 3.0	0	0.5	300 / 7620		

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

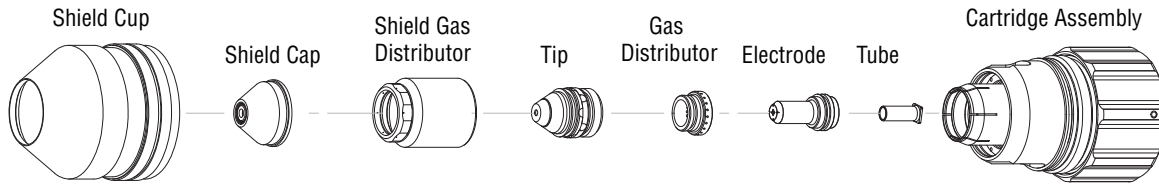
Use CCM 4.5.0 or later and Electronic Cut Chart 2.4.0 or later

# Mild Steel

## 300A XTL Bevel Cut

### O<sub>2</sub> Plasma / Air Shield

Flow Rates (SLPM / SCFH)		
	O <sub>2</sub>	Air
Preflow	- / -	194 / 412
Cutflow	27 / 58	160 / 340



This Art Is For Reference Only

Art# A-10270\_AB

Shield Cup	Shield Cap	Shield Gas Distributor	Tip	Plasma Gas Distributor	Electrode	Cartridge
21-1305	21-1105	21-1295	21-1160	21-1042	21-1308 9-7921	21-1300

Effective Material Thickness	Min. Clearance	GCM-2010					Torch Height Control (THC)					Basic THC	CNC Control		
		Pre Flow Pressure (Air)	Cut Flow Rates / Pressures				Effective Cut Height	THC Pierce Delay	Pierce Ignition Height	Elevation Height	Control Delay	Pierce Height without Elevation	Travel Speed	CNC Motion Delay	Max Kerf Width @ Rec. Speed
			Plasma (O <sub>2</sub> )	Shield (Air)											
inch	(in)	(psi)	Ball	(psi)	Ball	(psi)	(in)	(sec)	(in)	(in)	(sec)	(in)	(ipm)	(sec)	(in)
0.500	0.080	20	100	100	NA	100	0.200 - 0.550	0.3	0.400	0.200	0.5	0.450	140	0.2	0.149
0.625	0.080	20	100	100	NA	100	0.200 - 0.550	0.4	0.400	0.200	0.5	0.450	115	0.3	0.179
0.750	0.080	20	100	100	NA	100	0.200 - 0.550	0.6	0.400	0.200	0.5	0.450	100	0.4	0.185
0.875	0.080	20	100	100	NA	100	0.200 - 0.550	0.8	0.400	0.200	0.5	0.450	85	0.6	0.182
1.000	0.080	20	100	100	NA	100	0.200 - 0.550	1.1	0.400	0.250	0.5	0.450	70	0.9	0.183
1.250	0.080	20	100	100	NA	100	0.200 - 0.550	1.5	0.400	0.300	0.5	0.500	50	1.2	0.193
1.500	0.080	20	100	100	NA	100	0.200 - 0.550	2.9	0.400	0.350	0.5	0.500	35	2.7	0.208
1.750	0.080	20	100	100	NA	100	0.200 - 0.550	5.3	0.400	0.400	0.5	Edge	25	5.2	0.250
2.000	0.080	20	100	100	NA	100	0.200 - 0.550	1.0	Edge Start		0.5	Edge	18	1.0	0.245
2.500	0.080	20	100	100	NA	100	0.200 - 0.550	1.0	Edge Start		0.5	Edge	10	1.0	0.416
3.000	0.080	20	100	100	NA	100	0.200 - 0.550	1.0	Edge Start		0.5	Edge	7	1.0	0.500

Effective Material Thickness	Min. Clearance	GCM-2010					Torch Height Control (THC)					Basic THC	CNC Control		
		Pre Flow Pressure (Air)	Cut Flow Rates / Pressures				Effective Cut Height	THC Pierce Delay	Pierce Ignition Height	Elevation Height	Control Delay	Pierce Height without Elevation	Travel Speed	CNC Motion Delay	Max Kerf Width @ Rec. Speed
			Plasma (O <sub>2</sub> )	Shield (Air)											
(mm)	(mm)	(Bar)	Ball	(Bar)	Ball	(Bar)	(mm)	(sec)	(mm)	(mm)	(sec)	(mm)	(mm/min)	(sec)	(mm)
12	2.0	1.4	100	6.9	NA	6.9	5.1 - 14	0.3	10.2	5.1	0.5	11.4	3700	0.2	3.6
15	2.0	1.4	100	6.9	NA	6.9	5.1 - 14	0.4	10.2	5.1	0.5	11.4	3100	0.3	4.3
20	2.0	1.4	100	6.9	NA	6.9	5.1 - 14	0.7	10.2	5.1	0.5	11.4	2430	0.5	4.7
25	2.0	1.4	100	6.9	NA	6.9	5.1 - 14	1.1	10.2	6.2	0.5	11.4	1830	0.9	4.6
30	2.0	1.4	100	6.9	NA	6.9	5.1 - 14	1.4	10.2	7.3	0.5	12.4	1410	1.1	4.8
35	2.0	1.4	100	6.9	NA	6.9	5.1 - 14	2.2	10.2	8.3	0.5	12.7	1080	2.0	5.1
<b>40</b>	<b>2.0</b>	<b>1.4</b>	<b>100</b>	<b>6.9</b>	<b>NA</b>	<b>6.9</b>	<b>5.1 - 14</b>	<b>3.6</b>	<b>10.2</b>		<b>0.5</b>	<b>Edge</b>	<b>810</b>	<b>3.4</b>	<b>5.6</b>
<b>50</b>	<b>2.0</b>	<b>1.4</b>	<b>100</b>	<b>6.9</b>	<b>NA</b>	<b>6.9</b>	<b>5.1 - 14</b>	<b>1.0</b>	<b>Edge Start</b>		<b>0.5</b>	<b>Edge</b>	<b>470</b>	<b>1.0</b>	<b>5.9</b>
<b>60</b>	<b>2.0</b>	<b>1.4</b>	<b>100</b>	<b>6.9</b>	<b>NA</b>	<b>6.9</b>	<b>5.1 - 14</b>	<b>1.0</b>	<b>Edge Start</b>		<b>0.5</b>	<b>Edge</b>	<b>310</b>	<b>1.0</b>	<b>9.4</b>
<b>70</b>	<b>2.0</b>	<b>1.4</b>	<b>100</b>	<b>6.9</b>	<b>NA</b>	<b>6.9</b>	<b>5.1 - 14</b>	<b>1.0</b>	<b>Edge Start</b>		<b>0.5</b>	<b>Edge</b>	<b>220</b>	<b>1.0</b>	<b>11.7</b>

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

Use CCM 4.5.0 or later and Electronic Cut Chart 2.4.0 or later