

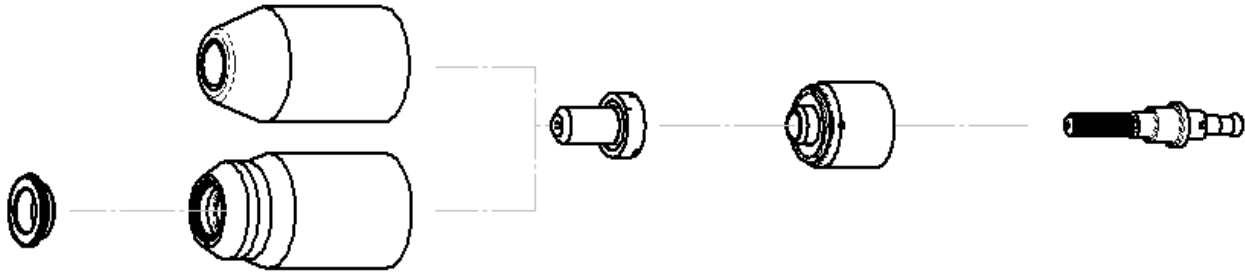
# CUTMASTER A120

## 4T.08 Recommended Cutting Speeds for Machine and Automated Torches With Exposed Tip

Mild Steel

40A

Air Plasma / Air Shield



| Deflector | Standard Shield Cup<br>Maximum Life Shield Cup | Tip    | Starter Cartridge<br>Heavy Duty Starter<br>Cartridge | Electrode |
|-----------|--|--------|--|-----------|
| 9-8243    | 9-8218<br>9-8237                               | 9-8208 | 9-8213<br>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')<br>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                    |

**CUTMASTER A120**

| 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)<br>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                     |
| <b>12</b>          |                           | <b>120</b>  | <b>3.6</b>           | <b>435</b>   | <b>5.1</b>              | <b>2.0</b>   | <b>1.8</b>              |

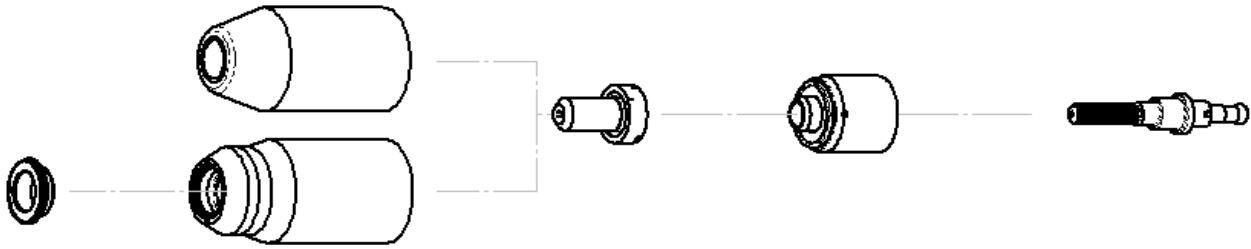
**BOLD TYPE** indicates maximum piercing parameters.

# CUTMASTER A120

## Stainless Steel

### 40A

### Air Plasma / Air Shield



| Deflector | Standard Shield Cup<br>Maximum Life Shield Cup | Tip    | Starter Cartridge<br>Heavy Duty Starter<br>Cartridge | Electrode |
|-----------|--|--------|--|-----------|
| 9-8243    | 9-8218<br>9-8237                               | 9-8208 | 9-8213<br>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')<br>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                    |
|                    | 3/8  | 0.375 |                         | 126         | 0.19                 | 10           | 0.20                    | 2.00         | 0.08                    |
|                    | 1/2  | 0.500 |                         | 118         | 0.19                 | 8            | <i>Edge start</i>       |              | 0.09                    |

# CUTMASTER A120

| 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)<br>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>              |
| <b>12</b>          |                         | <b>120</b>  | <b>4.8</b>           | <b>215</b>   | <b>Edge Start</b>       |              | <b>2.2</b>              |

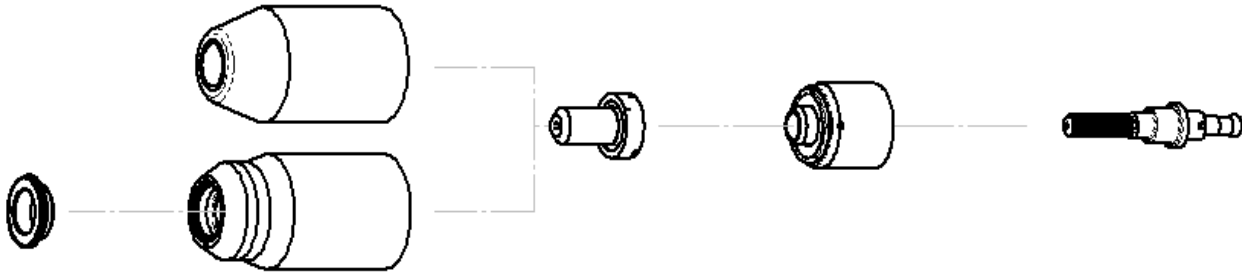
**BOLD TYPE** indicates maximum piercing parameters. **BOLD ITALIC** indicates edge starts only.

# CUTMASTER A120

## Aluminum

### 40A

### Air Plasma / Air Shield



| Deflector | Standard Shield Cup<br>Maximum Life Shield Cup | Tip    | Starter Cartridge<br>Heavy Duty Starter<br>Cartridge | Electrode |
|-----------|--|--------|--|-----------|
| 9-8243    | 9-8218<br>9-8237                               | 9-8208 | 9-8213<br>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')                | 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        | 75 (50')                | 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>             |
|                    | <b>3/8</b> | <b>0.375</b> |                         | <b>150</b>  | <b>0.18</b>          | <b>10</b>    | <b>Edge Start</b>       |              | <b>0.09</b>             |

# CUTMASTER A120

| 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)<br>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>              |
| <b>8.0</b>         |                           | <b>139</b>  | <b>4.6</b>           | <b>500</b>   | <b><i>Edge Start</i></b> |              | <b>2.0</b>              |
| <b>10.0</b>        |                           | <b>153</b>  | <b>4.6</b>           | <b>180</b>   | <b><i>Edge Start</i></b> |              | <b>2.2</b>              |

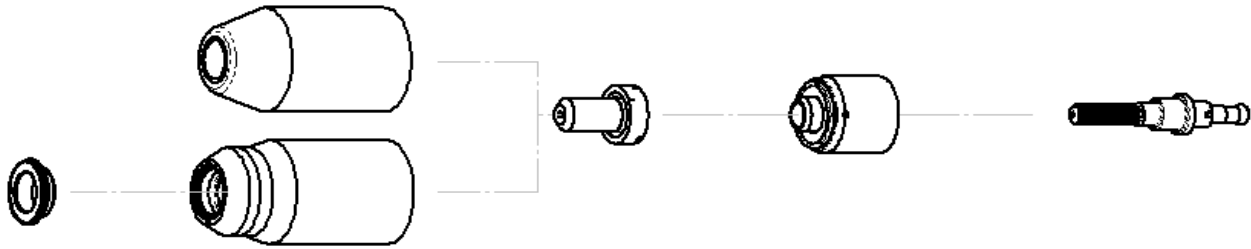
**BOLD TYPE** indicates maximum piercing parameters. **BOLD ITALIC** indicates edge starts only.

# CUTMASTER A120

Mild Steel

60A

Air Plasma / Air Shield



| Deflector | Standard Shield Cup<br>Maximum Life Shield Cup | Tip    | Starter Cartridge<br>Heavy Duty Starter<br>Cartridge | Electrode |
|-----------|--|--------|--|-----------|
| 9-8243    | 9-8218<br>9-8237                               | 9-8210 | 9-8213<br>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")<br>90 (50")    | 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                    |
|                    | 1/2  | 0.500 |                         | 132         | 0.19                 | 26                | 0.19                    | 0.75         | 0.10                    |
|                    | 5/8  | 0.625 |                         | 135         | 0.19                 | 19                | <i>Edge Start</i>       |              | 0.10                    |
|                    | 3/4  | 0.750 |                         | 136         | 0.19                 | 14                | <i>Edge Start</i>       |              | 0.08                    |
|                    | 1    | 1.000 | 150                     | 0.19        | 6                    | <i>Edge Start</i> |                         | 0.11         |                         |

# CUTMASTER A120

| 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)<br>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>              |
| <b>15</b>          |                           | <b>134</b>  | <b>4.8</b>           | <b>530</b>   | <b>Edge Start</b>       |              | <b>2.4</b>              |
| <b>20</b>          |                           | <b>138</b>  | <b>4.8</b>           | <b>325</b>   | <b>Edge Start</b>       |              | <b>2.2</b>              |
| <b>25</b>          |                           | <b>149</b>  | <b>4.8</b>           | <b>165</b>   | <b>Edge Start</b>       |              | <b>2.7</b>              |

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

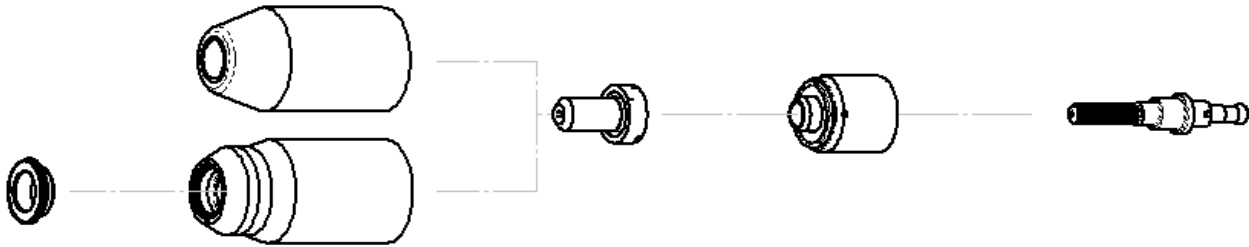


# CUTMASTER A120

Stainless Steel

60A

Air Plasma / Air Shield



| Deflector | Standard Shield Cup<br>Maximum Life Shield Cup | Tip    | Starter Cartridge<br>Heavy Duty Starter<br>Cartridge | Electrode |
|-----------|--|--------|--|-----------|
| 9-8243    | 9-8218<br>9-8237                               | 9-8210 | 9-8213<br>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')<br>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                    |
|                    | 1/2  | 0.500 |                         | 132         | 0.19                 | 21           | 0.20                    | 0.90         | 0.08                    |
|                    | 5/8  | 0.625 |                         | 132         | 0.19                 | 14           | <i>Edge Start</i>       |              | 0.11                    |
|                    | 3/4  | 0.750 |                         | 135         | 0.19                 | 10           | <i>Edge Start</i>       |              | 0.10                    |

# CUTMASTER A120

| 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)<br>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>              |
| <b>15</b>          |                           | <b>132</b>  | <b>4.8</b>           | <b>405</b>   | <b><i>Edge Start</i></b> |              | <b>2.6</b>              |
| <b>20</b>          |                           | <b>136</b>  | <b>4.8</b>           | <b>230</b>   | <b><i>Edge Start</i></b> |              | <b>2.5</b>              |

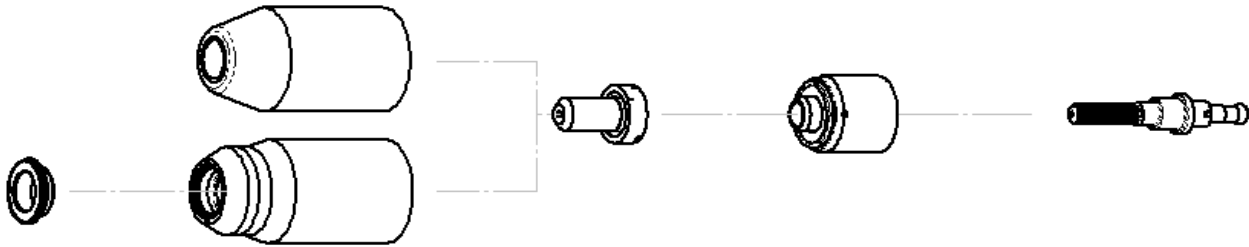
**BOLD TYPE** indicates maximum piercing parameters. **BOLD ITALIC** indicates edge starts only.

# CUTMASTER A120

Aluminum

60A

Air Plasma / Air Shield



| Deflector | Standard Shield Cup<br>Maximum Life Shield Cup | Tip    | Starter Cartridge<br>Heavy Duty Starter<br>Cartridge | Electrode |
|-----------|--|--------|--|-----------|
| 9-8243    | 9-8218<br>9-8237                               | 9-8210 | 9-8213<br>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')<br>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                    |
|                    | 1/2  | 0.500 |                         | 148         | 0.25                 | 30           | 0.25                    | 0.80         | 0.09                    |
|                    | 5/8  | 0.625 |                         | 145         | 0.19                 | 18           | <i>Edge Start</i>       |              | 0.08                    |
|                    | 3/4  | 0.750 |                         | 147         | 0.19                 | 12           | <i>Edge Start</i>       |              | 0.10                    |

# CUTMASTER A120

| 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)<br>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>              |
| <b>15</b>          |                           | <b>146</b>  | <b>4.8</b>           | <b>540</b>   | <b>Edge Start</b>       |              | <b>2.1</b>              |
| <b>20</b>          |                           | <b>148</b>  | <b>4.8</b>           | <b>260</b>   | <b>Edge Start</b>       |              | <b>2.5</b>              |

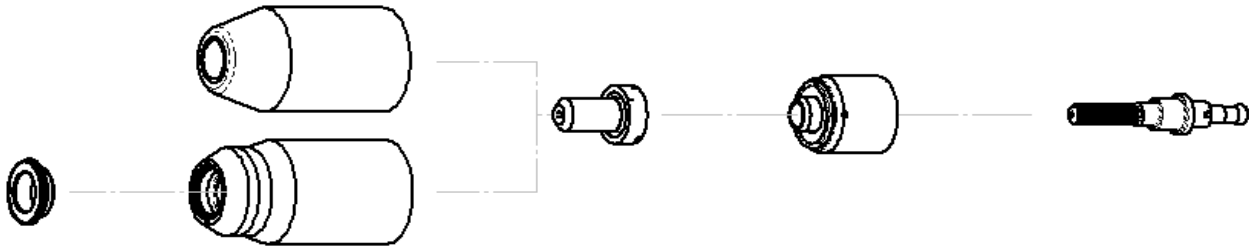
**BOLD TYPE** indicates maximum piercing parameters. **BOLD ITALIC** indicates edge starts only.

# CUTMASTER A120

Mild Steel

80A

Air Plasma / Air Shield



| Deflector | Standard Shield Cup<br>Maximum Life Shield Cup | Tip    | Starter Cartridge<br>Heavy Duty Starter<br>Cartridge | Electrode |
|-----------|--|--------|--|-----------|
| 9-8243    | 9-8218<br>9-8237                               | 9-8211 | 9-8213<br>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')<br>90 (50')    | 110         | 0.19                 | 320          | 0.20                    | 0.00         | 0.06                    |
| 11                 |      | 0.120 |                         | 113         | 0.19                 | 230          | 0.20                    | 0.10         | 0.07                    |
| 10                 |      | 0.135 |                         | 110         | 0.19                 | 180          | 0.20                    | 0.20         | 0.07                    |
|                    | 3/16 | 0.188 |                         | 110         | 0.19                 | 136          | 0.20                    | 0.30         | 0.07                    |
|                    | 1/4  | 0.250 |                         | 115         | 0.19                 | 100          | 0.20                    | 0.40         | 0.09                    |
|                    | 3/8  | 0.375 |                         | 125         | 0.19                 | 42           | 0.20                    | 0.50         | 0.09                    |
|                    | 1/2  | 0.500 |                         | 123         | 0.19                 | 40           | 0.20                    | 0.60         | 0.09                    |
|                    | 5/8  | 0.625 |                         | 133         | 0.19                 | 18           | 0.20                    | 0.75         | 0.10                    |
|                    | 3/4  | 0.750 |                         | 140         | 0.25                 | 18           | Edge Start              |              | 0.11                    |
|                    | 7/8  | 0.875 |                         | 150         | 0.25                 | 10           | Edge Start              |              | 0.11                    |
|                    | 1    | 1.000 |                         | 152         | 0.25                 | 8            | Edge Start              |              | 0.13                    |

# CUTMASTER A120

| 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)<br>6.2 (15.2m) | 109         | 4.8                  | 8915         | 5.1                     | 0.00         | 1.5                     |
| 2                  |                           | 111         | 4.8                  | 7415         | 5.1                     | 0.10         | 1.7                     |
| 3                  |                           | 113         | 4.8                  | 5915         | 5.1                     | 0.10         | 1.8                     |
| 4                  |                           | 110         | 4.8                  | 4095         | 5.1                     | 0.30         | 1.7                     |
| 5                  |                           | 111         | 4.8                  | 3325         | 5.1                     | 0.30         | 1.8                     |
| 6                  |                           | 114         | 4.8                  | 2745         | 5.1                     | 0.40         | 2.2                     |
| 8                  |                           | 120         | 4.8                  | 1775         | 5.1                     | 0.50         | 2.3                     |
| 10                 |                           | 125         | 4.8                  | 1060         | 5.1                     | 0.50         | 2.3                     |
| 12                 |                           | 123         | 4.8                  | 1025         | 5.1                     | 0.60         | 2.3                     |
| 15                 |                           | 130         | 4.8                  | 610          | 5.1                     | 0.75         | 2.5                     |
| 20                 |                           | <b>143</b>  | <b>6.4</b>           | <b>395</b>   | <b>Edge Start</b>       |              | <b>2.7</b>              |
| 25                 |                           | <b>152</b>  | <b>6.4</b>           | <b>210</b>   | <b>Edge Start</b>       |              | <b>3.2</b>              |

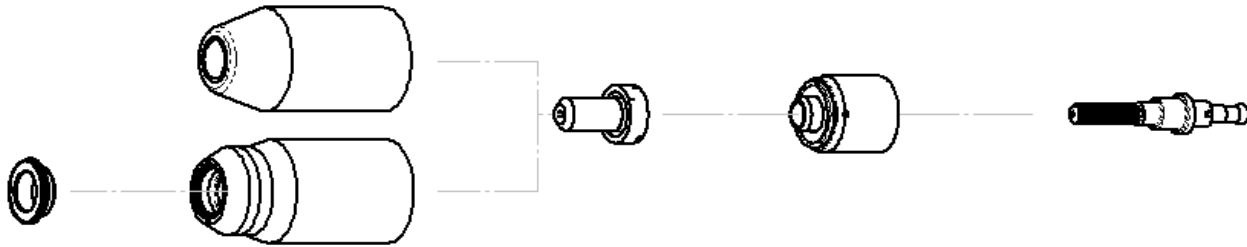
**BOLD TYPE** indicates maximum piercing parameters. **BOLD ITALIC** indicates edge starts only.

# CUTMASTER A120

Stainless Steel

80A

Air Plasma / Air Shield



| Deflector | Standard Shield Cup<br>Maximum Life Shield Cup | Tip    | Starter Cartridge<br>Heavy Duty Starter<br>Cartridge | Electrode |
|-----------|--|--------|--|-----------|
| 9-8243    | 9-8218<br>9-8237                               | 9-8211 | 9-8213<br>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')<br>90 (50')    | 110         | 0.19                 | 340          | 0.25                    | 0.00         | 0.06                    |
| 11                 |      | 0.125 |                         | 115         | .0.19                | 300          | 0.25                    | 0.10         | 0.06                    |
| 10                 |      | 0.141 |                         | 115         | 0.19                 | 280          | 0.25                    | 0.10         | 0.06                    |
|                    | 3/16 | 0.188 |                         | 115         | 0.19                 | 140          | 0.25                    | 0.20         | 0.07                    |
|                    | 1/4  | 0.250 |                         | 118         | 0.19                 | 100          | 0.25                    | 0.30         | 0.08                    |
|                    | 3/8  | 0.375 |                         | 119         | 0.19                 | 45           | 0.25                    | 0.40         | 0.08                    |
|                    | 1/2  | 0.500 |                         | 124         | 0.19                 | 26           | 0.25                    | 0.80         | 0.10                    |
|                    | 5/8  | 0.625 |                         | 133         | 0.19                 | 16           | <i>Edge Start</i>       |              | 0.10                    |
|                    | 3/4  | 0.750 |                         | 136         | 0.19                 | 10           | <i>Edge Start</i>       |              | 0.11                    |

# CUTMASTER A120

| 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)<br>6.2 (15.2m) | 108         | 4.8                  | 9020         | 6.4                      | 0.00         | 1.5                     |
| 2                  |                           | 111         | 4.8                  | 8380         | 6.4                      | 0.00         | 1.5                     |
| 3                  |                           | 114         | 4.8                  | 7730         | 6.4                      | 0.10         | 1.5                     |
| 4                  |                           | 115         | 4.8                  | 5865         | 6.4                      | 0.20         | 1.6                     |
| 5                  |                           | 115         | 4.8                  | 3410         | 6.4                      | 0.20         | 1.8                     |
| 6                  |                           | 117         | 4.8                  | 2765         | 6.4                      | 0.30         | 1.9                     |
| 8                  |                           | 119         | 4.8                  | 1815         | 6.4                      | 0.40         | 2.0                     |
| 10                 |                           | 120         | 4.8                  | 1070         | 6.4                      | 0.60         | 2.1                     |
| 12                 |                           | <b>123</b>  | <b>4.8</b>           | <b>765</b>   | <b>6.4</b>               | <b>0.80</b>  | <b>2.3</b>              |
| 15                 |                           | <b>131</b>  | <b>4.8</b>           | <b>475</b>   | <b><i>Edge Start</i></b> |              | <b>2.5</b>              |
| 20                 |                           | <b>137</b>  | <b>4.8</b>           | <b>205</b>   | <b><i>Edge Start</i></b> |              | <b>3.0</b>              |

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

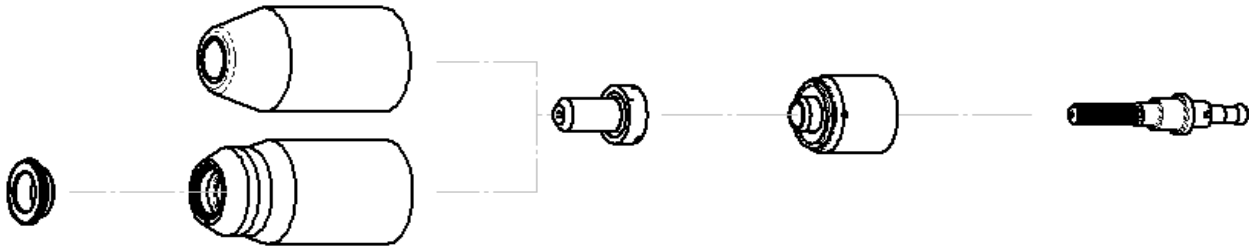


# CUTMASTER A120

Aluminum

80A

Air Plasma / Air Shield



| Deflector | Standard Shield Cup<br>Maximum Life Shield Cup | Tip    | Starter Cartridge<br>Heavy Duty Starter<br>Cartridge | Electrode |
|-----------|--|--------|--|-----------|
| 9-8243    | 9-8218<br>9-8237                               | 9-8211 | 9-8213<br>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')<br>90 (50')    | 116         | 0.25                 | 350          | 0.25                    | 0.00         | 0.10                    |
| 11                 |            | 0.120        |                         | 120         | 0.25                 | 280          | 0.25                    | 0.10         | 0.10                    |
|                    | 3/16       | 0.188        |                         | 124         | 0.25                 | 180          | 0.25                    | 0.20         | 0.10                    |
|                    | 1/4        | 0.250        |                         | 130         | 0.25                 | 110          | 0.25                    | 0.30         | 0.09                    |
|                    | 3/8        | 0.375        |                         | 136         | 0.25                 | 55           | 0.25                    | 0.40         | 0.11                    |
|                    | 1/2        | 0.500        |                         | 139         | 0.25                 | 38           | 0.25                    | 0.60         | 0.11                    |
|                    | <b>5/8</b> | <b>0.625</b> |                         | <b>136</b>  | <b>0.19</b>          | <b>26</b>    | <b>0.25</b>             | <b>0.75</b>  | <b>0.10</b>             |
|                    | <b>3/4</b> | <b>0.750</b> |                         | <b>150</b>  | <b>0.19</b>          | <b>14</b>    | <b>Edge Start</b>       |              | <b>0.12</b>             |
|                    | <b>7/8</b> | <b>0.875</b> |                         | <b>153</b>  | <b>0.19</b>          | <b>10</b>    | <b>Edge Start</b>       |              | <b>0.11</b>             |

# CUTMASTER A120

| 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)<br>6.2 (15.2m) | 114         | 6.4                  | 8890         | 6.4                     | 0.00         | 2.4                     |
| 2                  |                           | 117         | 6.4                  | 8420         | 6.4                     | 0.00         | 2.5                     |
| 3                  |                           | 120         | 6.4                  | 7170         | 6.4                     | 0.10         | 2.5                     |
| 4                  |                           | 122         | 6.4                  | 5710         | 6.4                     | 0.20         | 2.5                     |
| 5                  |                           | 125         | 6.4                  | 4315         | 6.4                     | 0.20         | 2.5                     |
| 6                  |                           | 129         | 6.4                  | 3190         | 6.4                     | 0.30         | 2.4                     |
| 8                  |                           | 133         | 6.4                  | 2070         | 6.4                     | 0.40         | 2.5                     |
| 10                 |                           | 136         | 6.4                  | 1330         | 6.4                     | 0.50         | 2.7                     |
| 12                 |                           | 138         | 6.4                  | 1060         | 6.4                     | 0.50         | 2.9                     |
| <b>15</b>          |                           | <b>137</b>  | <b>4.8</b>           | <b>745</b>   | <b>6.4</b>              | <b>0.75</b>  | <b>2.5</b>              |
| <b>20</b>          |                           | <b>151</b>  | <b>4.8</b>           | <b>325</b>   | <b>Edge Start</b>       |              | <b>3.0</b>              |

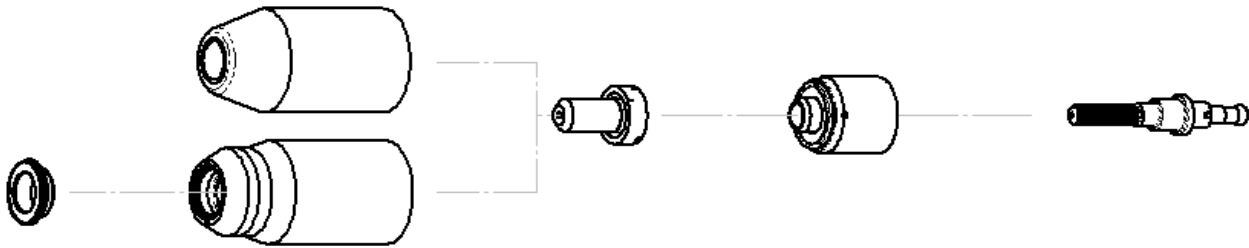
**BOLD TYPE** indicates maximum piercing parameters. **BOLD ITALIC** indicates edge starts only.

# CUTMASTER A120

Mild Steel

100A

Air Plasma / Air Shield



| Deflector | Standard Shield Cup<br>Maximum Life Shield Cup | Tip    | Starter Cartridge<br>Heavy Duty Starter<br>Cartridge | Electrode |
|-----------|--|--------|--|-----------|
| 9-8243    | 9-8218<br>9-8237                               | 9-8212 | 9-8213<br>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')                | 110         | 0.18                 | 85           | 0.20                    | 0.10         | 0.09                    |
|                    | 3/8          | 0.375        |                         | 112         | 0.18                 | 75           | 0.20                    | 0.20         | 0.09                    |
|                    | 1/2          | 0.500        |                         | 115         | 0.18                 | 45           | 0.20                    | 0.40         | 0.10                    |
|                    | 5/8          | 0.625        |                         | 118         | 0.18                 | 30           | 0.20                    | 0.60         | 0.11                    |
|                    | <b>3/4</b>   | <b>0.750</b> | 75 (50')                | <b>120</b>  | <b>0.18</b>          | <b>20</b>    | <b>0.20</b>             | <b>1.20</b>  | <b>0.12</b>             |
|                    | <b>1</b>     | <b>1.000</b> |                         | <b>123</b>  | <b>0.18</b>          | <b>15</b>    | <b>Edge Start</b>       |              | <b>0.12</b>             |
|                    | <b>1-1/4</b> | <b>1.250</b> |                         | <b>128</b>  | <b>0.18</b>          | <b>8</b>     | <b>Edge Start</b>       |              | <b>0.13</b>             |

# CUTMASTER A120

| 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)<br>5.2 (15.2m) | 110         | 4.6                  | 2200         | 5.1                      | 0.10         | 2.3                     |
| 8                  |                           | 111         | 4.6                  | 2030         | 5.1                      | 0.10         | 2.3                     |
| 10                 |                           | 112         | 4.6                  | 1790         | 5.1                      | 0.20         | 2.3                     |
| 12                 |                           | 114         | 4.6                  | 1310         | 5.1                      | 0.40         | 2.5                     |
| 15                 |                           | 117         | 4.6                  | 870          | 5.1                      | 0.60         | 2.7                     |
| <b>20</b>          |                           | <b>120</b>  | <b>4.6</b>           | <b>490</b>   | <b>5.0</b>               | <b>1.20</b>  | <b>3.0</b>              |
| <b>25</b>          |                           | <b>123</b>  | <b>4.6</b>           | <b>390</b>   | <b><i>Edge Start</i></b> |              | <b>3.0</b>              |
| <b>30</b>          |                           | <b>127</b>  | <b>4.6</b>           | <b>250</b>   | <b><i>Edge Start</i></b> |              | <b>3.2</b>              |

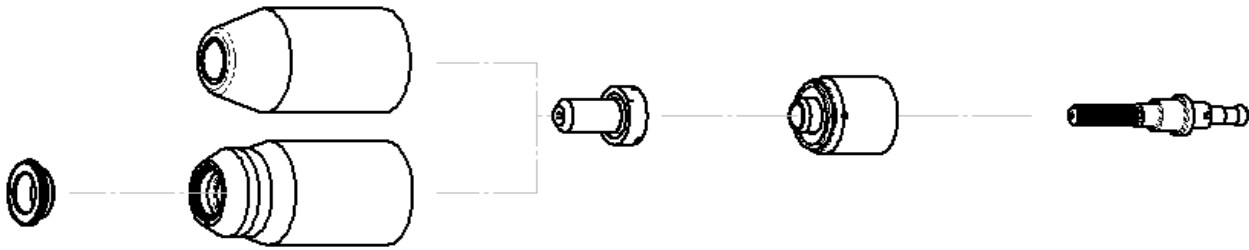
**BOLD TYPE** indicates maximum piercing parameters. **BOLD ITALIC** indicates edge starts only.

# CUTMASTER A120

Stainless Steel

100A

Air Plasma / Air Shield



| Deflector | Standard Shield Cup<br>Maximum Life Shield Cup | Tip    | Starter Cartridge<br>Heavy Duty Starter<br>Cartridge | Electrode |
|-----------|--|--------|--|-----------|
| 9-8243    | 9-8218<br>9-8237                               | 9-8212 | 9-8213<br>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')                | 102         | 0.16                 | 100          | 0.18                    | 0.00         | 0.09                    |
|                    | 3/8  | 0.375        |                         | 106         | 0.16                 | 65           | 0.18                    | 0.10         | 0.10                    |
|                    | 1/2  | 0.500        |                         | <b>109</b>  | 0.16                 | 45           | 0.18                    | 0.30         | 0.10                    |
|                    | 5/8  | 0.625        | 75 (50')                | <b>123</b>  | <b>0.19</b>          | <b>20</b>    | <b>0.23</b>             | <b>2.00</b>  | <b>0.11</b>             |
|                    | 3/4  | <b>0.750</b> |                         | <b>128</b>  | <b>0.19</b>          | <b>15</b>    | <b>Edge Start</b>       |              | <b>0.12</b>             |
|                    | 1    | <b>1.000</b> |                         | <b>135</b>  | <b>0.19</b>          | <b>10</b>    | <b>Edge Start</b>       |              | <b>0.13</b>             |

# CUTMASTER A120

| 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)<br>5.2 (15.2m) | 102         | 4.1                  | 2630         | 4.6                      | 0.00         | 2.3                     |
| 8                  |                           | 104         | 4.1                  | 2080         | 4.6                      | 0.10         | 2.4                     |
| 10                 |                           | 106         | 4.1                  | 1575         | 4.6                      | 0.20         | 2.4                     |
| 12                 |                           | 108         | 4.1                  | 1255         | 4.6                      | 0.30         | 2.4                     |
| <b>15</b>          |                           | <b>119</b>  | <b>4.6</b>           | <b>685</b>   | <b>5.7</b>               | <b>2.00</b>  | <b>2.7</b>              |
| <b>20</b>          |                           | <b>129</b>  | <b>4.8</b>           | <b>360</b>   | <b><i>Edge Start</i></b> |              | <b>3.1</b>              |
| <b>25</b>          |                           | <b>135</b>  | <b>4.8</b>           | <b>260</b>   | <b><i>Edge Start</i></b> |              | <b>3.2</b>              |

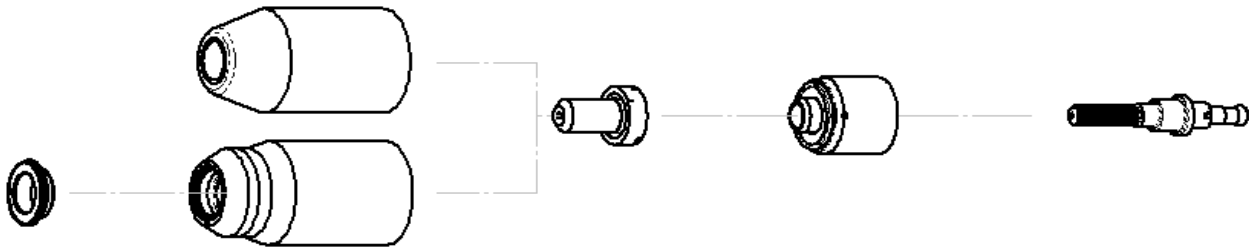
**BOLD TYPE** indicates maximum piercing parameters. **BOLD ITALIC** indicates edge starts only.

# CUTMASTER A120

Aluminum

100A

Air Plasma / Air Shield



| Deflector | Standard Shield Cup<br>Maximum Life Shield Cup | Tip    | Starter Cartridge<br>Heavy Duty Starter<br>Cartridge | Electrode |
|-----------|--|--------|--|-----------|
| 9-8243    | 9-8218<br>9-8237                               | 9-8212 | 9-8213<br>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')<br>75 (50')    | 110         | 0.19                 | 100          | 0.20                    | 0.00         | 0.09                    |
|                    | 3/8        | 0.375        |                         | 124         | 0.19                 | 65           | 0.20                    | 0.20         | 0.10                    |
|                    | 1/2        | 0.500        |                         | 128         | 0.19                 | 45           | 0.20                    | 0.30         | 0.11                    |
|                    | 5/8        | 0.625        |                         | 132         | 0.19                 | 35           | 0.20                    | 0.50         | 0.11                    |
|                    | <b>3/4</b> | <b>0.750</b> |                         | <b>135</b>  | <b>0.19</b>          | <b>20</b>    | <b>0.20</b>             | <b>2.00</b>  | <b>0.13</b>             |
|                    | <b>1</b>   | <b>1.000</b> |                         | <b>140</b>  | <b>0.19</b>          | <b>10</b>    | <b>Edge Start</b>       |              | <b>0.13</b>             |

# CUTMASTER A120

| 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)<br>5.2 (15.2m) | 109         | 4.8                  | 2630         | 5.1                     | 0.00         | 2.3                     |
| 8                  |                           | 117         | 4.8                  | 2080         | 5.1                     | 0.10         | 2.5                     |
| 10                 |                           | 125         | 4.8                  | 1575         | 5.1                     | 0.20         | 2.7                     |
| 12                 |                           | 127         | 4.8                  | 1255         | 5.1                     | 0.30         | 2.7                     |
| 15                 |                           | 131         | 4.8                  | 960          | 5.1                     | 0.50         | 2.8                     |
| <b>20</b>          |                           | <b>136</b>  | <b>4.8</b>           | <b>470</b>   | <b>6.0</b>              | <b>2.00</b>  | <b>3.3</b>              |
| <b>25</b>          |                           | <b>140</b>  | <b>4.8</b>           | <b>270</b>   | <b>Edge Start</b>       |              | <b>3.4</b>              |

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

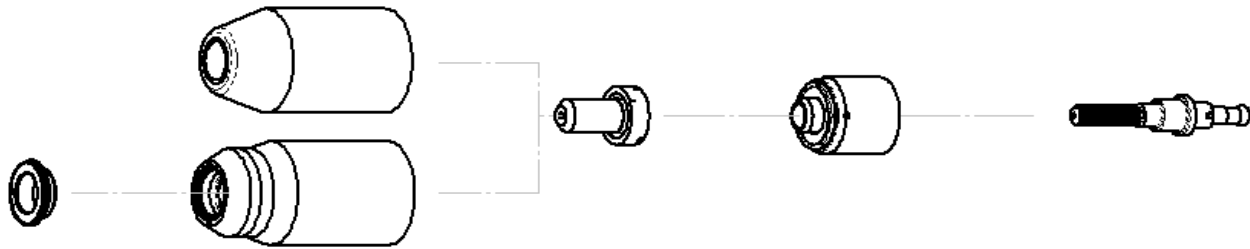


# CUTMASTER A120

Mild Steel

120A

Air Plasma / Air Shield



| Deflector | Standard Shield Cup<br>Maximum Life Shield Cup | Tip    | Starter Cartridge<br>Heavy Duty Starter<br>Cartridge | Electrode |
|-----------|--|--------|--|-----------|
| 9-8243    | 9-8218<br>9-8237                               | 9-8233 | 9-8213<br>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')<br>80 (50')    | 134         | 0.19                 | 150          | 0.25                    | 0.10         | 0.11                    |
|                    | 3/8          | 0.375        |                         | 141         | 0.19                 | 85           | 0.25                    | 0.30         | 0.11                    |
|                    | 1/2          | 0.500        |                         | 141         | 0.19                 | 70           | 0.25                    | 0.80         | 0.12                    |
|                    | 5/8          | 0.625        |                         | 146         | 0.19                 | 45           | 0.25                    | 1.00         | 0.12                    |
|                    | <b>3/4</b>   | <b>0.750</b> |                         | <b>150</b>  | <b>0.19</b>          | <b>30</b>    | <b>0.25</b>             | <b>1.20</b>  | <b>0.12</b>             |
|                    | <i>7/8</i>   | <i>0.875</i> |                         | <i>160</i>  | <i>0.25</i>          | <i>25</i>    | <i>Edge Start</i>       |              | <i>0.14</i>             |
|                    | <i>1</i>     | <i>1.000</i> |                         | <i>163</i>  | <i>0.25</i>          | <i>19</i>    | <i>Edge Start</i>       |              | <i>0.14</i>             |
|                    | <i>1-1/4</i> | <i>1.250</i> |                         | <i>168</i>  | <i>0.25</i>          | <i>12</i>    | <i>Edge Start</i>       |              | <i>0.15</i>             |
|                    | <i>1-1/2</i> | <i>1.500</i> |                         | <i>172</i>  | <i>0.25</i>          | <i>8</i>     | <i>Edge Start</i>       |              | <i>0.16</i>             |

# CUTMASTER A120

| 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)                    |
| 6.0                | 5.5 (7.6m)<br>5.5 (15.2m) | 133         | 4.8                  | 3990         | 6.4                     | 0.1          | 2.5                     |
| 8.0                |                           | 138         | 4.8                  | 2950         | 6.4                     | 0.2          | 2.7                     |
| 10.0               |                           | 141         | 4.8                  | 2100         | 6.4                     | 0.4          | 2.8                     |
| 12.0               |                           | 141         | 4.8                  | 1860         | 6.4                     | 0.6          | 2.9                     |
| 15.0               |                           | 145         | 4.8                  | 1320         | 6.4                     | 1.0          | 3.0                     |
| <b>20.0</b>        |                           | <b>153</b>  | <b>4.8</b>           | <b>720</b>   | <b>6.4</b>              | <b>1.2</b>   | <b>3.2</b>              |
| <b>25.0</b>        |                           | <b>163</b>  | <b>6.4</b>           | <b>500</b>   | <b>Edge Start</b>       |              | <b>3.6</b>              |
| <b>30.0</b>        |                           | <b>167</b>  | <b>6.4</b>           | <b>355</b>   | <b>Edge Start</b>       |              | <b>3.8</b>              |
| <b>35.0</b>        |                           | <b>170</b>  | <b>6.4</b>           | <b>255</b>   | <b>Edge Start</b>       |              | <b>4.0</b>              |
| <b>40.0</b>        |                           | <b>173</b>  | <b>6.4</b>           | <b>175</b>   | <b>Edge Start</b>       |              | <b>4.2</b>              |

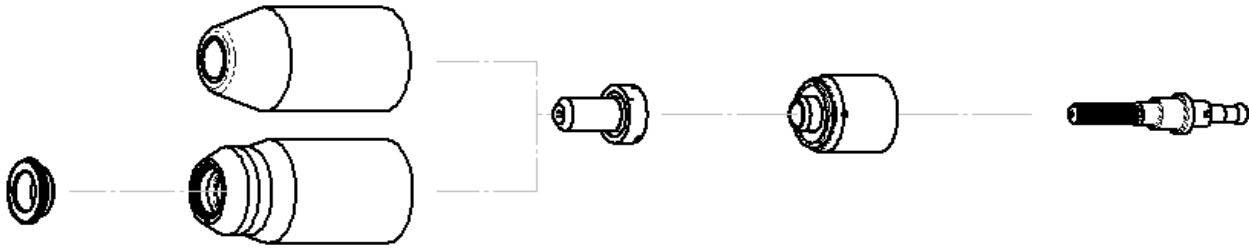
**BOLD TYPE** indicates maximum piercing parameters. **BOLD ITALIC** indicates edge starts only.

# CUTMASTER A120

## Stainless Steel

### 120A

### Air Plasma / Air Shield



| Deflector | Standard Shield Cup<br>Maximum Life Shield Cup | Tip    | Starter Cartridge<br>Heavy Duty Starter<br>Cartridge | Electrode |
|-----------|--|--------|--|-----------|
| 9-8243    | 9-8218<br>9-8237                               | 9-8233 | 9-8213<br>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')                | 133         | 0.19                 | 180          | 0.25                    | 0.20         | 0.10                    |
|                    | 3/8   | 0.375 |                         | 136         | 0.19                 | 100          | 0.25                    | 0.40         | 0.11                    |
|                    | 1/2   | 0.500 |                         | 140         | 0.19                 | 60           | 0.25                    | 0.80         | 0.11                    |
|                    | 5/8   | 0.625 | 80 (50')                | 152         | 0.25                 | 40           | 0.30                    | 1.20         | 0.13                    |
|                    | 3/4   | 0.750 |                         | 154         | 0.25                 | 26           | <i>Edge Start</i>       |              | 0.14                    |
|                    | 1     | 1.000 |                         | 159         | 0.25                 | 16           | <i>Edge Start</i>       |              | 0.14                    |
|                    | 1-1/4 | 1.250 |                         | 167         | 0.25                 | 8            | <i>Edge Start</i>       |              | 0.14                    |

# CUTMASTER A120

| 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)<br>5.5 (15.2m) | 133         | 4.8                  | 4800         | 6.4                     | 0.2          | 2.6                     |
| 8                  |                           | 135         | 4.8                  | 3520         | 6.4                     | 0.2          | 2.7                     |
| 10                 |                           | 137         | 4.8                  | 2390         | 6.4                     | 0.5          | 2.8                     |
| 12                 |                           | 139         | 4.8                  | 1750         | 6.4                     | 0.8          | 2.9                     |
| <b>15</b>          |                           | <b>149</b>  | <b>6.4</b>           | <b>1160</b>  | <b>7.6</b>              | <b>1.2</b>   | <b>3.4</b>              |
| <b>20</b>          |                           | <b>155</b>  | <b>6.4</b>           | <b>625</b>   | <b>Edge Start</b>       |              | <b>3.6</b>              |
| <b>25</b>          |                           | <b>159</b>  | <b>6.4</b>           | <b>425</b>   | <b>Edge Start</b>       |              | <b>3.6</b>              |
| <b>30</b>          |                           | <b>165</b>  | <b>6.4</b>           | <b>260</b>   | <b>Edge Start</b>       |              | <b>3.6</b>              |

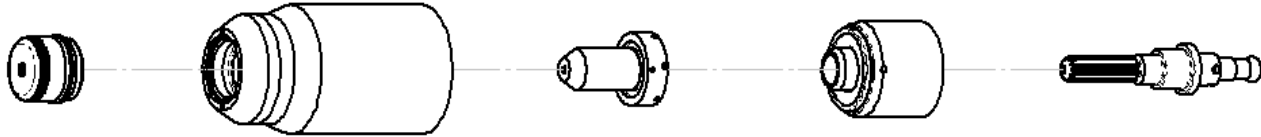
**BOLD TYPE** indicates maximum piercing parameters. **BOLD ITALIC** indicates edge starts only.

# CUTMASTER A120

Aluminum

120A

Air Plasma / Air Shield



| Deflector | Standard Shield Cup<br>Maximum Life Shield Cup | Tip    | Starter Cartridge<br>Heavy Duty Starter<br>Cartridge | Electrode |
|-----------|--|--------|--|-----------|
| 9-8243    | 9-8218<br>9-8237                               | 9-8233 | 9-8213<br>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')<br>80 (50')    | 139         | 0.19                 | 180          | 0.25                    | 0.30         | 0.11                    |
|                    | 3/8  | 0.375 |                         | 140         | 0.19                 | 110          | 0.25                    | 0.50         | 0.11                    |
|                    | 1/2  | 0.500 |                         | 143         | 0.19                 | 75           | 0.25                    | 0.80         | 0.11                    |
|                    | 5/8  | 0.625 |                         | 156         | 0.25                 | 50           | 0.30                    | 1.00         | 0.12                    |
|                    | 3/4  | 0.750 |                         | 161         | 0.25                 | 34           | <i>Edge Start</i>       |              | 0.13                    |
|                    | 1    | 1.000 |                         | 167         | 0.25                 | 23           | <i>Edge Start</i>       |              | 0.14                    |

# CUTMASTER A120

| 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)<br>5.5 (15.2m) | 139         | 4.8                  | 4770         | 6.4                      | 0.2          | 2.8                     |
| 8                  |                           | 140         | 4.8                  | 3650         | 6.4                      | 0.2          | 2.8                     |
| 10                 |                           | 140         | 4.8                  | 2660         | 6.4                      | 0.5          | 2.8                     |
| 12                 |                           | 142         | 4.8                  | 2100         | 6.4                      | 0.8          | 2.8                     |
| <b>15</b>          |                           | <b>152</b>  | <b>6.4</b>           | <b>1445</b>  | <b>7.6</b>               | <b>1.2</b>   | <b>3.0</b>              |
| <b>20</b>          |                           | <b>162</b>  | <b>6.4</b>           | <b>820</b>   | <b><i>Edge Start</i></b> |              | <b>3.4</b>              |
| <b>25</b>          |                           | <b>167</b>  | <b>6.4</b>           | <b>600</b>   | <b><i>Edge Start</i></b> |              | <b>3.4</b>              |

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

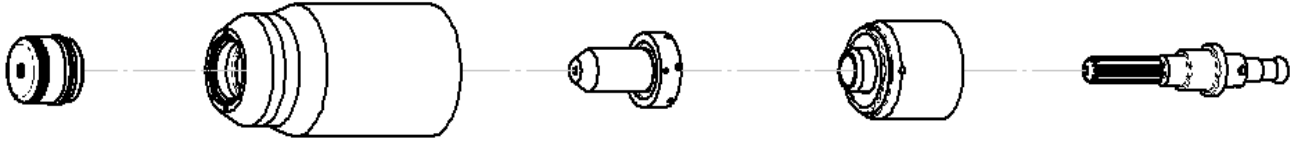
# CUTMASTER A120

## 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<br>Heavy Duty Starter<br>Cartridge | Electrode |
|------------|-------------------------|--------|--|-----------|
| 9-8245     | 9-8237                  | 9-8208 | 9-8213<br>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')<br>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                    |

# CUTMASTER A120

| 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)<br>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.

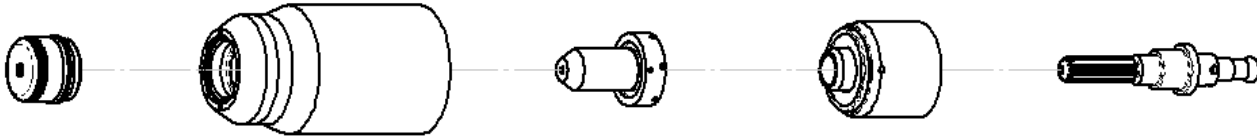


# CUTMASTER A120

Stainless Steel

40A

Air Plasma / Air Shield



| Shield Cap | Maximum Life Shield Cup | Tip    | Starter Cartridge<br>Heavy Duty Starter<br>Cartridge | Electrode |
|------------|-------------------------|--------|--|-----------|
| 9-8245     | 9-8237                  | 9-8208 | 9-8213<br>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')<br>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                    |

**CUTMASTER A120**

| 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)<br>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>              |

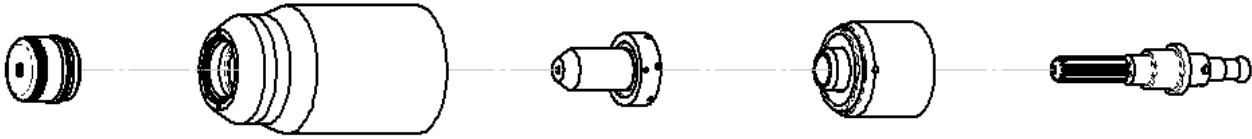
**BOLD TYPE** indicates maximum piercing parameters.

# CUTMASTER A120

Aluminum

40A

Air Plasma / Air Shield



| Shield Cap | Maximum Life Shield Cup | Tip    | Starter Cartridge<br>Heavy Duty Starter<br>Cartridge | Electrode |
|------------|-------------------------|--------|--|-----------|
| 9-8245     | 9-8237                  | 9-8208 | 9-8213<br>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')<br>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                    |

**CUTMASTER A120**

| 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)<br>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>              |

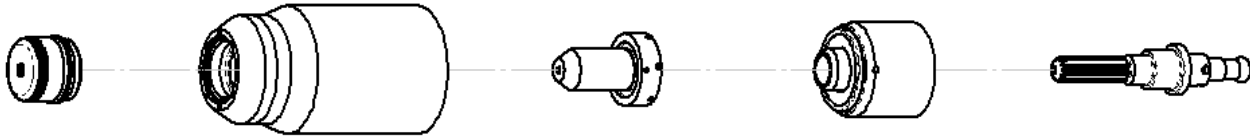
**BOLD TYPE** indicates maximum piercing parameters.

# CUTMASTER A120

Mild Steel

60A

Air Plasma / Air Shield



| Shield Cap | Maximum Life Shield Cup | Tip    | Starter Cartridge<br>Heavy Duty Starter<br>Cartridge | Electrode |
|------------|-------------------------|--------|--|-----------|
| 9-8238     | 9-8237                  | 9-8210 | 9-8213<br>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                | <i>Edge Start</i>       |              | 0.10                    |      |
|                    | 3/4  | 0.750 |                         | 145         | 0.19                 | 14                | <i>Edge Start</i>       |              | 0.10                    |      |
|                    | 1    | 1.000 | 160                     | 0.19        | 4                    | <i>Edge Start</i> |                         | 0.12         |                         |      |

# CUTMASTER A120

| 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)<br>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                 |                           | <b>141</b>  | <b>4.8</b>           | <b>646</b>   | <b>5.1</b>               | <b>0.75</b>  | <b>2.5</b>              |
| 15                 |                           | <b>148</b>  | <b>4.8</b>           | <b>419</b>   | <b><i>Edge Start</i></b> |              | <b>2.6</b>              |
| 20                 |                           | <b>147</b>  | <b>4.8</b>           | <b>318</b>   | <b><i>Edge Start</i></b> |              | <b>2.7</b>              |
| 25                 |                           | <b>159</b>  | <b>4.8</b>           | <b>118</b>   | <b><i>Edge Start</i></b> |              | <b>3.0</b>              |

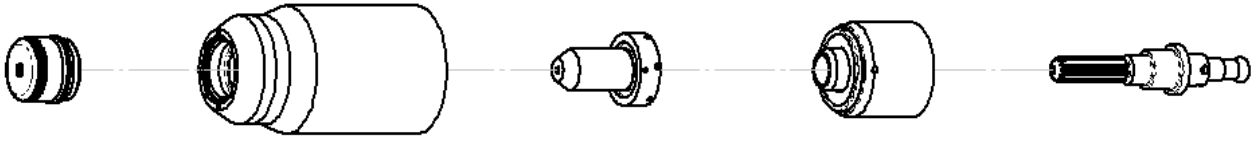
**BOLD TYPE** indicates maximum piercing parameters. **BOLD ITALIC** indicates edge starts only.

# CUTMASTER A120

Stainless Steel

60A

Air Plasma / Air Shield



| Shield Cap | Maximum Life Shield Cup | Tip    | Starter Cartridge<br>Heavy Duty Starter<br>Cartridge | Electrode |
|------------|-------------------------|--------|--|-----------|
| 9-8238     | 9-8237                  | 9-8210 | 9-8213<br>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')<br>90 (50')    | 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 |                         | 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                    |

# CUTMASTER A120

| 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)<br>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>              |
| <b>15</b>          |                           | <b>132</b>  | <b>3.3</b>           | <b>375</b>   | <b><i>Edge Start</i></b> |              | <b>2.6</b>              |
| <b>20</b>          |                           | <b>144</b>  | <b>4.8</b>           | <b>230</b>   | <b><i>Edge Start</i></b> |              | <b>2.5</b>              |

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

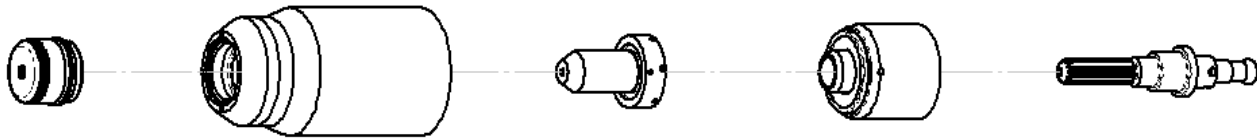


# CUTMASTER A120

Aluminum

60A

Air Plasma / Air Shield



| Shield Cap | Maximum Life Shield Cup | Tip    | Starter Cartridge<br>Heavy Duty Starter<br>Cartridge | Electrode |
|------------|-------------------------|--------|--|-----------|
| 9-8238     | 9-8237                  | 9-8210 | 9-8213<br>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')<br>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  | <b>0.500</b> |                         | <b>140</b>  | <b>0.13</b>          | <b>26</b>    | <b>0.20</b>             | <b>0.80</b>  | <b>0.08</b>             |
|                    | 5/8  | <b>0.625</b> |                         | <b>148</b>  | <b>0.19</b>          | <b>18</b>    | <b>Edge start</b>       |              | <b>0.10</b>             |
|                    | 3/4  | <b>0.750</b> |                         | <b>155</b>  | <b>0.19</b>          | <b>12</b>    | <b>Edge start</b>       |              | <b>0.11</b>             |

# CUTMASTER A120

| 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)<br>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>              |
| <b>15</b>          |                           | <b>146</b>  | <b>4.8</b>           | <b>515</b>   | <b>Edge start</b>       |              | <b>2.4</b>              |
| <b>20</b>          |                           | <b>157</b>  | <b>4.8</b>           | <b>260</b>   | <b>Edge start</b>       |              | <b>2.7</b>              |

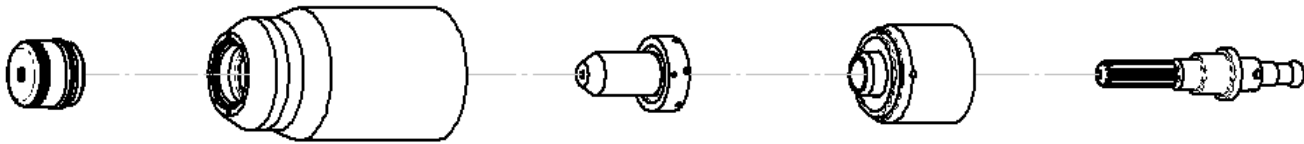
**BOLD TYPE** indicates maximum piercing parameters. **BOLD ITALIC** indicates edge starts only.

# CUTMASTER A120

Mild Steel

80A

Air Plasma / Air Shield



| Shield Cap | Maximum Life Shield Cup | Tip    | Starter Cartridge<br>Heavy Duty Starter<br>Cartridge | Electrode |
|------------|-------------------------|--------|--|-----------|
| 9-8239     | 9-8237                  | 9-8211 | 9-8213<br>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')<br>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          | <b>0.500</b> |                         | <b>136</b>  | <b>0.19</b>          | <b>36</b>    | <b>0.20</b>             | <b>0.60</b>  | <b>0.10</b>             |
|                    | 5/8          | <b>0.625</b> |                         | <b>145</b>  | <b>0.19</b>          | <b>18</b>    | <b>Edge Start</b>       |              | <b>0.11</b>             |
|                    | 3/4          | <b>0.750</b> |                         | <b>147</b>  | <b>0.19</b>          | <b>14</b>    | <b>Edge Start</b>       |              | <b>0.11</b>             |
|                    | 7/8          | <b>0.875</b> |                         | <b>146</b>  | <b>0.19</b>          | <b>10</b>    | <b>Edge Start</b>       |              | <b>0.12</b>             |
|                    | <b>1.000</b> | <b>1.000</b> |                         | <b>152</b>  | <b>0.187</b>         | <b>8</b>     | <b>Edge Start</b>       |              | <b>0.13</b>             |

# CUTMASTER A120

| 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)<br>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                 |                           | <b>136</b>  | <b>4.8</b>           | <b>935</b>   | <b>5.1</b>              | <b>0.60</b>  | <b>2.6</b>              |
| 15                 |                           | <b>143</b>  | <b>4.8</b>           | <b>580</b>   | <b>5.1</b>              | <b>0.80</b>  | <b>2.8</b>              |
| 20                 |                           | <b>147</b>  | <b>4.8</b>           | <b>325</b>   | <i>Edge Start</i>       |              | <b>2.9</b>              |
| 25                 |                           | <b>151</b>  | <b>4.8</b>           | <b>210</b>   | <i>Edge Start</i>       |              | <b>3.2</b>              |

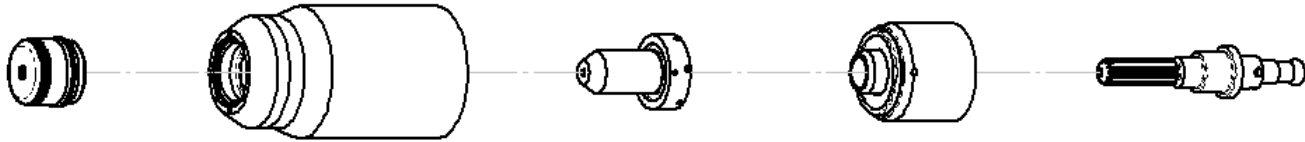
**BOLD TYPE** indicates maximum piercing parameters. **BOLD ITALIC** indicates edge starts only.

# CUTMASTER A120

Stainless Steel

80A

Air Plasma / Air Shield



| Shield Cap | Maximum Life Shield Cup | Tip    | Starter Cartridge<br>Heavy Duty Starter<br>Cartridge | Electrode |
|------------|-------------------------|--------|--|-----------|
| 9-8239     | 9-8237                  | 9-8211 | 9-8213<br>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')<br>90 (50')    | 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 |                         | 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                    |

# CUTMASTER A120

| 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)<br>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                     |
| <b>12</b>          |                           | <b>134</b>  | <b>4.8</b>           | <b>565</b>   | <b>6.4</b>               | <b>0.75</b>  | <b>2.6</b>              |
| <b>15</b>          |                           | <b>141</b>  | <b>4.8</b>           | <b>295</b>   | <b><i>Edge Start</i></b> |              | <b>3.0</b>              |
| <b>20</b>          |                           | <b>147</b>  | <b>4.8</b>           | <b>185</b>   | <b><i>Edge Start</i></b> |              | <b>2.8</b>              |

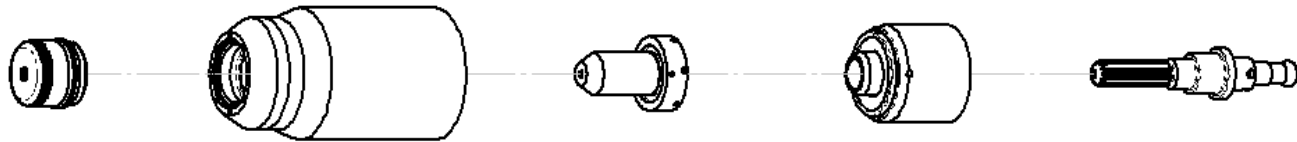
**BOLD TYPE** indicates maximum piercing parameters. **BOLD ITALIC** indicates edge starts only.

# CUTMASTER A120

Aluminum

80A

Air Plasma / Air Shield



| Shield Cap | Maximum Life Shield Cup | Tip    | Starter Cartridge<br>Heavy Duty Starter<br>Cartridge | Electrode |
|------------|-------------------------|--------|--|-----------|
| 9-8239     | 9-8237                  | 9-8211 | 9-8213<br>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')<br>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                    |

# CUTMASTER A120

| 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)<br>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                     |
| <b>15</b>          |                           | <b>146</b>  | <b>4.8</b>           | <b>730</b>   | <b>5.1</b>              | <b>0.75</b>  | <b>2.7</b>              |
| <b>20</b>          |                           | <b>157</b>  | <b>4.8</b>           | <b>330</b>   | <b>Edge Start</b>       |              | <b>3.2</b>              |

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

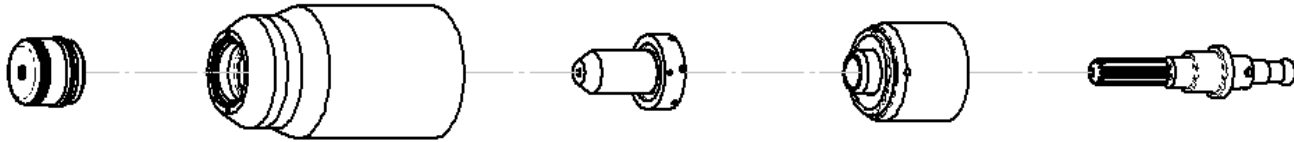


# CUTMASTER A120

Mild Steel

100A

Air Plasma / Air Shield



| Shield Cap | Maximum Life Shield Cup | Tip    | Starter Cartridge<br>Heavy Duty Starter<br>Cartridge | Electrode |
|------------|-------------------------|--------|--|-----------|
| 9-8239     | 9-8237                  | 9-8233 | 9-8213<br>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')<br>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                    |
|                    | <b>3/4</b>   | <b>0.750</b> |                         | <b>127</b>  | <b>0.16</b>          | <b>20</b>    | <b>0.18</b>             | <b>0.80</b>  | <b>0.11</b>             |
|                    | <b>1</b>     | <b>1.000</b> |                         | <b>133</b>  | <b>0.16</b>          | <b>12</b>    | <b>Edge Start</b>       |              | <b>0.12</b>             |
|                    | <b>1-1/4</b> | <b>1.250</b> |                         | <b>135</b>  | <b>0.16</b>          | <b>8</b>     | <b>Edge Start</b>       |              | <b>0.12</b>             |

# CUTMASTER A120

| 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                     |
| <b>20</b>          |                         | <b>128</b>        | <b>4.1</b>           | <b>475</b>        | <b>5.0</b>               | <b>0.80</b>  | <b>2.8</b>              |
| <b><i>25</i></b>   |                         | <b><i>133</i></b> | <b><i>4.1</i></b>    | <b><i>315</i></b> | <b><i>Edge Start</i></b> |              | <b><i>2.9</i></b>       |
| <b><i>30</i></b>   |                         | <b><i>134</i></b> | <b><i>4.1</i></b>    | <b><i>230</i></b> | <b><i>Edge Start</i></b> |              | <b><i>3.1</i></b>       |

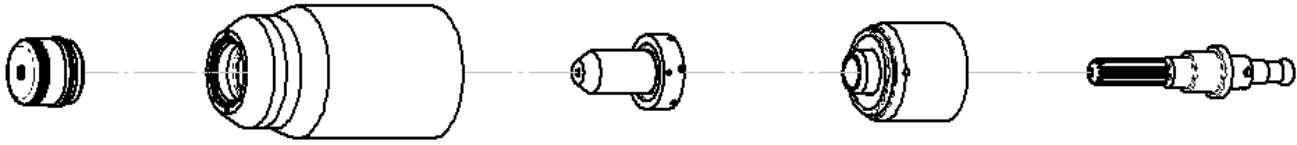
**BOLD TYPE** indicates maximum piercing parameters. **BOLD ITALIC** indicates edge starts only.

# CUTMASTER A120

**Stainless Steel**

**100A**

**Air Plasma / Air Shield**



| Shield Cap | Maximum Life Shield Cup | Tip    | Starter Cartridge<br>Heavy Duty Starter<br>Cartridge | Electrode |
|------------|-------------------------|--------|--|-----------|
| 9-8239     | 9-8237                  | 9-8212 | 9-8213<br>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        | 75 (50')                | 119         | 0.16                 | 45           | 0.18                    | 0.30         | 0.10                    |
|                    | 5/8        | 0.625        |                         | 130         | 0.19                 | 20           | 0.23                    | 2.00         | 0.11                    |
|                    | <b>3/4</b> | <b>0.750</b> |                         | <b>135</b>  | <b>0.19</b>          | <b>15</b>    | <b>0.23</b>             | <b>2.80</b>  | <b>0.11</b>             |
|                    | <b>1</b>   | <b>1.000</b> |                         | <b>140</b>  | <b>0.19</b>          | <b>10</b>    | <b>Edge Start</b>       |              | <b>0.11</b>             |

# CUTMASTER A120

| 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)<br>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                     |
| <b>20</b>          |                           | <b>136</b>  | <b>4.8</b>           | <b>360</b>   | <b>5.7</b>              | <b>2.80</b>  | <b>2.8</b>              |
| <b>25</b>          |                           | <b>140</b>  | <b>4.8</b>           | <b>260</b>   | <b>Edge Start</b>       |              | <b>2.8</b>              |

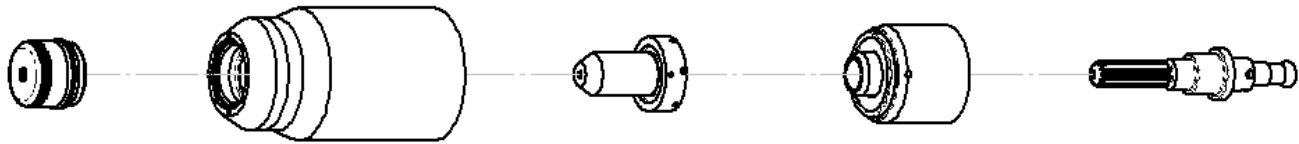
**BOLD TYPE** indicates maximum piercing parameters. **BOLD ITALIC** indicates edge starts only.

# CUTMASTER A120

Aluminum

100A

Air Plasma / Air Shield



| Shield Cap | Maximum Life Shield Cup | Tip    | Starter Cartridge<br>Heavy Duty Starter<br>Cartridge | Electrode |
|------------|-------------------------|--------|--|-----------|
| 9-8239     | 9-8237                  | 9-8212 | 9-8213<br>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                    |
|                    | <b>3/4</b> | <b>0.750</b> |                         | <b>138</b>  | <b>0.18</b>          | <b>25</b>    | <b>0.19</b>             | <b>2.00</b>  | <b>0.11</b>             |
|                    | <b>1</b>   | <b>1.000</b> |                         | <b>143</b>  | <b>0.18</b>          | <b>15</b>    | <b>Edge Start</b>       |              | <b>0.14</b>             |

# CUTMASTER A120

| 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)<br>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                     |
| <b>20</b>          |                           | <b>139</b>  | <b>4.6</b>           | <b>595</b>   | <b>6.0</b>              | <b>2.00</b>  | <b>3.0</b>              |
| <b>25</b>          |                           | <b>143</b>  | <b>4.6</b>           | <b>395</b>   | <b>Edge Start</b>       |              | <b>3.6</b>              |

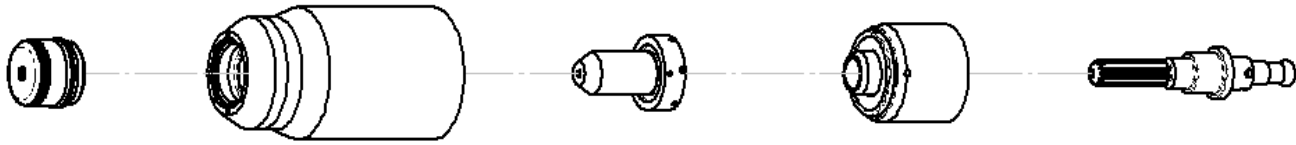
**BOLD TYPE** indicates maximum piercing parameters. **BOLD ITALIC** indicates edge starts only.

# CUTMASTER A120

Mild Steel

120A

Air Plasma / Air Shield



| Shield Cap | Maximum Life Shield Cup | Tip    | Starter Cartridge<br>Heavy Duty Starter<br>Cartridge | Electrode |
|------------|-------------------------|--------|--|-----------|
| 9-8256     | 9-8237                  | 9-8233 | 9-8213<br>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')<br>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                    |
|                    | <b>3/4</b>   | <b>0.750</b> |                         | <b>150</b>  | <b>0.125</b>         | <b>30</b>    | <b>0.25</b>             | <b>1.50</b>  | <b>0.12</b>             |
|                    | <b>7/8</b>   | <b>0.875</b> |                         | <b>158</b>  | <b>0.175</b>         | <b>25</b>    | <b>Edge Start</b>       |              | <b>0.13</b>             |
|                    | <b>1</b>     | <b>1.000</b> |                         | <b>160</b>  | <b>0.175</b>         | <b>22</b>    | <b>Edge Start</b>       |              | <b>0.14</b>             |
|                    | <b>1-1/4</b> | <b>1.250</b> |                         | <b>165</b>  | <b>0.175</b>         | <b>15</b>    | <b>Edge Start</b>       |              | <b>0.17</b>             |
|                    | <b>1-1/2</b> | <b>1.500</b> |                         | <b>171</b>  | <b>0.175</b>         | <b>8</b>     | <b>Edge Start</b>       |              | <b>0.15</b>             |

# CUTMASTER A120

| 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)<br>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                     |
| <b>20</b>          |                           | <b>152</b>  | <b>4.8</b>           | <b>725</b>   | <b>6.4</b>              | <b>1.6</b>   | <b>3.1</b>              |
| <b>25</b>          |                           | <b>160</b>  | <b>4.8</b>           | <b>570</b>   | <b>Edge Start</b>       |              | <b>3.6</b>              |
| <b>30</b>          |                           | <b>164</b>  | <b>4.8</b>           | <b>430</b>   | <b>Edge Start</b>       |              | <b>4.0</b>              |
| <b>35</b>          |                           | <b>168</b>  | <b>4.8</b>           | <b>290</b>   | <b>Edge Start</b>       |              | <b>4.3</b>              |
| <b>40</b>          |                           | <b>173</b>  | <b>4.45</b>          | <b>150</b>   | <b>Edge Start</b>       |              | <b>4.4</b>              |

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

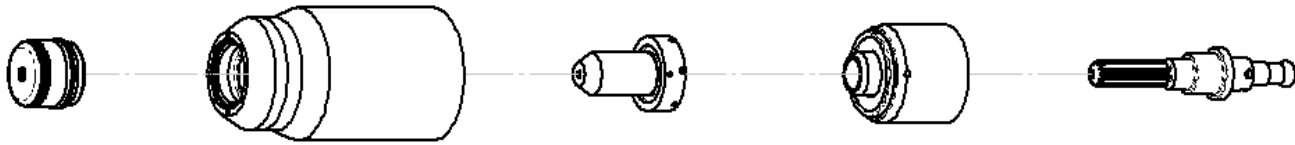


# CUTMASTER A120

Stainless Steel

120A

Air Plasma / Air Shield



| Shield Cap | Maximum Life Shield Cup | Tip    | Starter Cartridge<br>Heavy Duty Starter<br>Cartridge | Electrode |
|------------|-------------------------|--------|--|-----------|
| 9-8256     | 9-8237                  | 9-8233 | 9-8213<br>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           | <i>Edge Start</i>       |              | 0.13                    |
|                    | 1     | 1.000 |                         | 155         | 0.15                 | 16           | <i>Edge Start</i>       |              | 0.13                    |
|                    | 1-1/4 | 1.250 |                         | 165         | 0.15                 | 8            | <i>Edge Start</i>       |              | 0.13                    |

# CUTMASTER A120

| 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)<br>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                     |
| <b>15</b>          |                           | <b>149</b>  | <b>6.4</b>           | <b>1190</b>  | <b>6.4</b>              | <b>1.0</b>   | <b>3.1</b>              |
| <b>20</b>          |                           | <b>151</b>  | <b>6.4</b>           | <b>620</b>   | <b>Edge Start</b>       |              | <b>3.3</b>              |
| <b>25</b>          |                           | <b>155</b>  | <b>6.4</b>           | <b>420</b>   | <b>Edge Start</b>       |              | <b>3.3</b>              |
| <b>30</b>          |                           | <b>162</b>  | <b>6.4</b>           | <b>260</b>   | <b>Edge Start</b>       |              | <b>3.3</b>              |

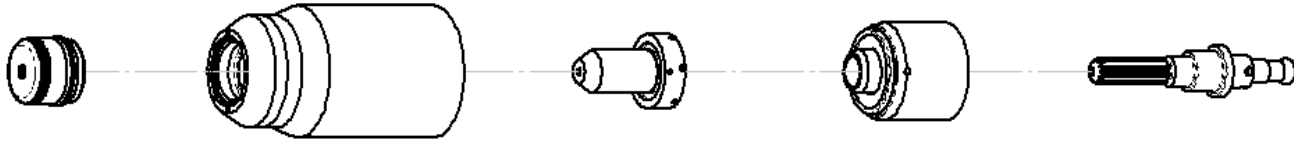
**BOLD TYPE** indicates maximum piercing parameters. **BOLD ITALIC** indicates edge starts only.

# CUTMASTER A120

Aluminum

120A

Air Plasma / Air Shield



| Shield Cap | Maximum Life Shield Cup | Tip    | Starter Cartridge<br>Heavy Duty Starter<br>Cartridge | Electrode |
|------------|-------------------------|--------|--|-----------|
| 9-8256     | 9-8237                  | 9-8233 | 9-8213<br>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                    | 0.20         | 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 | 80 (50')                | 156         | 0.15                 | 45           | 0.25                    | 0.80         | 0.11                    |
|                    | 3/4  | 0.750 |                         | 158         | 0.15                 | 35           | <i>Edge Start</i>       |              | 0.11                    |
|                    | 1    | 1.000 |                         | 164         | 0.15                 | 23           | <i>Edge Start</i>       |              | 0.12                    |

# CUTMASTER A120

| 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)<br>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                     |
| <b>15</b>          |                           | <b>154</b>  | <b>4.8</b>           | <b>1355</b>  | <b>6.4</b>              | <b>0.8</b>   | <b>2.8</b>              |
| <b>20</b>          |                           | <b>159</b>  | <b>4.8</b>           | <b>845</b>   | <b>Edge Start</b>       |              | <b>2.9</b>              |
| <b>25</b>          |                           | <b>164</b>  | <b>4.8</b>           | <b>605</b>   | <b>Edge Start</b>       |              | <b>3.0</b>              |

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