

# Cutting Nozzles

## NOZZLE

- Hard drawn Tellurium copper used in one piece nozzles
  - withstands heat & wear
  - out lasts any copper nozzles
- One piece nozzle has swaged interior
  - Gas passages are mirror smooth with internal angles rounded
  - Non-turbulent more efficient gas flow.
  - Clean smooth cuts with minimal kerf loss
- Preheat ports are closely spaced around cutting orifice
  - For greater concentration of preheat flames.
- Long parallel preheat passages
  - Permit redressing of nozzle without affecting performance

### ANM (Acetylene) Nozzle for NM 250 / NM 400

| NOZZLE<br>(inch) | PLATE<br>THICKNESS<br>(mm) |
|------------------|----------------------------|
| 1/32             | 6                          |
| 3/64             | 12                         |
| 1/16             | 25,50,75                   |
| 5/64             | 100                        |
| 3/32             | 150                        |
| 1/8              | 200,250,300                |



### AGNM (Gouging) Nozzle for NM 400



| NOZZLE<br>width<br>(mm) | Maximum<br>Groove Width<br>(mm) |
|-------------------------|---------------------------------|
| 13                      | 8                               |
| 19                      | 11                              |
| 25                      | 12                              |

### PNM (LPG) Nozzle for NM 250 / NM 400

| NOZZLE<br>(inch) | PLATE<br>THICKNESS<br>(mm) |
|------------------|----------------------------|
| 1/32             | 6                          |
| 3/64             | 12                         |
| 1/16             | 25,50,75                   |
| 5/64             | 100                        |
| 3/32             | 150                        |
| 1/8              | 250                        |



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### A-Type (Acetylene) Nozzle for Cutogen 5

| NOZZLE<br>SIZE | PLATE<br>THICKNESS<br>(mm) |
|----------------|----------------------------|
| A8 (1/32")     | 6                          |
| A12 (3/64")    | 12                         |
| A16 (1/16")    | 50,75,100                  |
| A20 (5/64")    | 150                        |
| A24 (3/32")    | 200                        |
| A28 (7/64")    | 250                        |
| A32 (1/8")     | 300                        |



### P-Type (LPG) Nozzle for Cutogen 5



| NOZZLE<br>SIZE | PLATE<br>THICKNESS<br>(mm) |
|----------------|----------------------------|
| P8 (1/32")     | 6                          |
| P12 (3/64")    | 12                         |
| P16 (1/16")    | 25,50,75                   |
| P20 (5/64")    | 100                        |
| P24 (3/32")    | 150                        |
| P28 (7/64")    | 200                        |
| P32 (1/8")     | 250                        |

### Operating Data for Mild Steel cutting with ESAB Cutting Blowpipe (Injector & Nozzle Mix type) comply with ISI & ISO Standards

| Material<br>Thickness |      | Nozzle size |           | Gas pressure<br>Oxygen |     | Gas Pressure Fuel |     |         |     |
|-----------------------|------|-------------|-----------|------------------------|-----|-------------------|-----|---------|-----|
|                       |      |             |           |                        |     | Acetyline         |     | Propane |     |
| mm                    | inch |             |           | bar                    | psi | bar               | psi | bar     | psi |
| 6.0                   | 1/4" | 1/32"       | (3-6)     | 1.5                    | 20  | 0.15              | 2.0 | 0.20    | 3.0 |
| 12.0                  | 1/2" | 3/64"       | (5-12)    | 2.0                    | 30  | 0.15              | 2.0 | 0.20    | 3.0 |
| 25.0                  | 1"   | 1/16"       | (10-75)   | 2.5                    | 35  | 0.15              | 2.0 | 0.30    | 4.0 |
| 50.0                  | 2"   | 1/16"       | (10-75)   | 3.0                    | 45  | 0.15              | 2.0 | 0.30    | 4.0 |
| 75.0                  | 3"   | 1/16"       | (10-75)   | 3.5                    | 50  | 0.15              | 2.0 | 0.30    | 4.0 |
| 100.0                 | 4"   | 5/64"       | (70-100)  | 4.0                    | 60  | 0.20              | 3.0 | 0.35    | 5.0 |
| 150.0                 | 6"   | 3/32"       | (90-150)  | 4.0                    | 60  | 0.20              | 3.0 | 0.40    | 6.0 |
| 200.0                 | 8"   | 7/64"       | (140-200) | 4.0                    | 60  | 0.20              | 3.0 | 0.40    | 6.0 |
| 250.0                 | 10"  | 1/8"        | (190-250) | 4.0                    | 60  | 0.20              | 3.0 | 0.45    | 6.5 |
| 300.0                 | 12"  | 1/8"        | (250-300) | 4.5                    | 65  | 0.20              | 3.0 | 0.50    | 7.0 |