



Plasma cutting application

## Gouging

### Examples of plasma uses

#### Forging and casting

Riser pads, flashing, cracks and imperfections in ferrous and non-ferrous metal parts are gouged for finished product preparation.

Systems: Powermax45® XP, 65, 85, 105 or 125

#### Back-gouging for arc welding

Metal from the reverse side of weld joints are gouged out to create a groove for weld preparation.

Systems: Powermax45® XP, 65, 85, 105 or 125

#### Removal of surplus metal

Excess weld beads, tack welds, welds holding temporary backing strips and brackets are gouged out.

Systems: Powermax45® XP, 65, 85, 105 or 125

#### Maintenance of metal structures and equipment

Various metal structures (bridges, rigging, storage tanks, piping, etc.) and equipment used in construction and repair (earth-moving machines, cranes, etc.) are maintained with plasma gouging. Existing welds and rivet heads are gouged out for replacement part installation or new welds.

Systems: Powermax45® XP, 65, 85, 105 or 125

#### Key advantages of Powermax systems

- Reduced noise and smoke over other thermal gouging methods.
- Unlike carbon-arc gouging there is no risk of metallurgical problems (e.g., high hardness or cracking) from carbon contamination.
- Long arc, in excess of 5 cm (2"), provides excellent visibility.
- Ease of transition to air plasma cutting – simply change two consumable parts.
- Gouge and cut ferrous and non-ferrous metals.
- System portability offers ease of operation in various locations.
- High metal removal rate of up to 12.52 kg (27.6 lbs) per hour with the Powermax125.
- Controlled arc and high metal removal rates reduce metal distortion.
- No vibration unlike with drills, saws, cutting discs and grinders.
- No special power supply or dedicated compressor required unlike with arc-air gouging.

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