



Plasma cutting application

Vocational and technical schools

Examples of plasma uses

Welding technology

Students learning the metal-working trade are trained in welding, cutting, forming and finishing processes. Fabrication projects range from thin plate ornamental pieces to heavy structural framework where cutting and gouging techniques are developed.

Systems: Powermax45® XP or Powermax65 SYNC™

Automotive body repair

For students learning the auto-body trade, projects include removing corroded or collision damaged body and floor panels. Panels are typically .8 mm (22 gauge) thick and are cut away for the installation of replacement panels.

Systems: Powermax30 XP or 45 XP

Auto mechanics

Auto mechanic student projects include engine repair and transmission rebuilding. Common cutting applications are mounting bracket fabrication and exhaust system replacement.

Systems: Powermax30 XP or 45 XP

Metal artwork

Ornamental or metal art students learn to cut a variety of ferrous and non-ferrous metals. Most common are mild steel, aluminum, stainless steel, copper and bronze. The stock and thickness also varies from thin wall tubular metal to thick flat plate.

Systems: Powermax30 XP, 45 XP, or Powermax65 SYNC

Key advantages of Powermax systems

- Simple controls make setup and operation easy.
- Piercing capability makes starting interior cuts easy.
- High cut quality reduces or eliminates secondary operations, such as grinding.
- Drag-cutting technology makes it easy to follow a line or template.
- Gouging process efficiently removes existing welds with reduced noise and smoke over conventional methods.
- System portability offers ease of use at various locations.
- Controlled arc and high cutting speeds reduce heat-affected zone and warping.
- Cut a variety of ferrous and non-ferrous metals including mild steel, stainless and aluminum – painted or rusted.
- Pilot arc control feature enables uninterrupted cutting on expanded metal.
- Machine torches are available for use on cutting machines such as X-Y tables, robots and track cutting systems.

Training materials specifically for plasma cutting and gouging can be downloaded from the “For Educators” section of the Hypertherm web site. Hypertherm also offers an educational discount on systems and torches through our distribution partners.

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