

CASE STUDY - Vessel Nozzle Weld Profiles

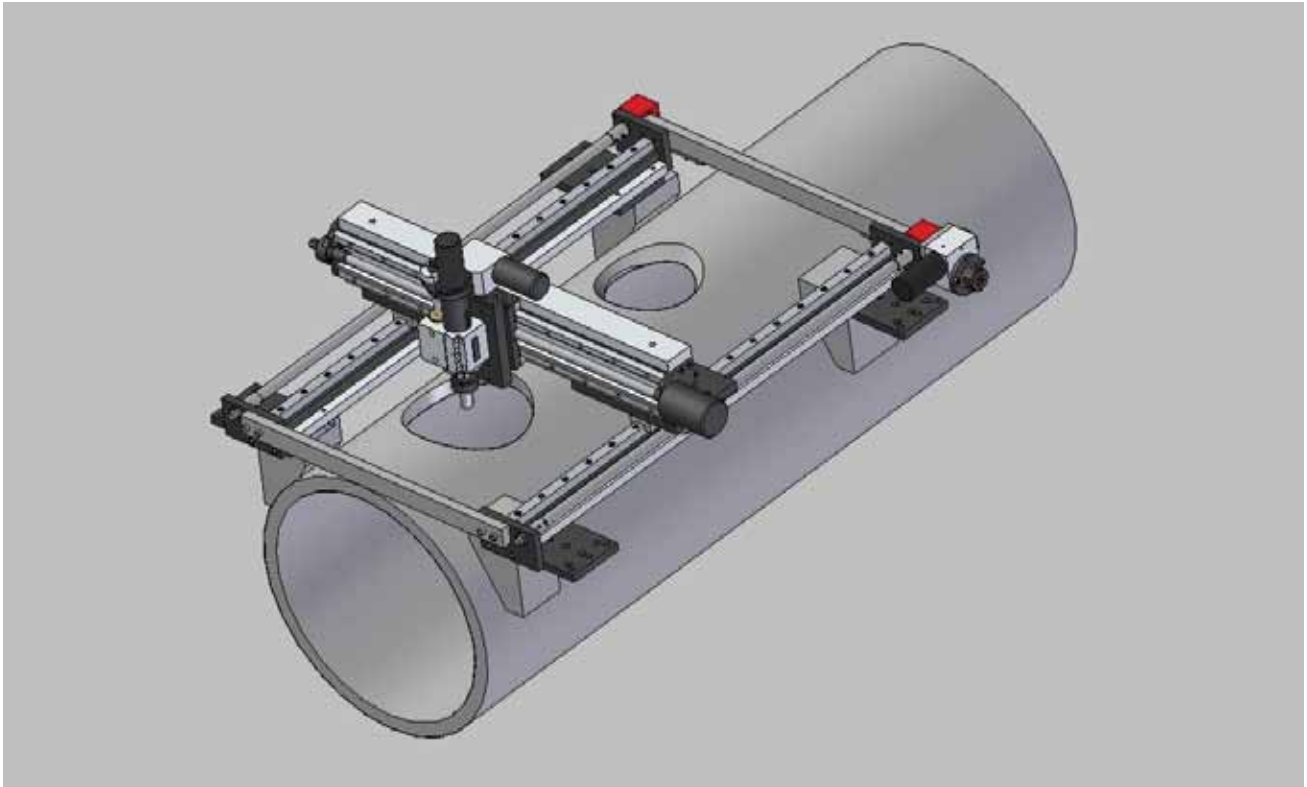
- **Requirement:** Large vessels with heavy schedule pipe require holes and weld preparations to be made for the nozzles. A prep would be traditionally flame cut and then hand ground to the required angle or profile. Mirage developed a system to mechanically cut the weld profile on the vessel.
- **Location:** Saudi Arabia – 5m diameter vessels – 120mm plate thickness
- **Equipment:** Mirage VNWP1000 weld prep tool with magnetic clamping. We are now working on developing a completely autonomous CNC gantry milling system to cut and prep the hole.

For the weld prep the mechanical machine was mounted onto the vessel using the magnetic feet and the cutter was stepped manually down in 8mm steps and rotated with the head capable of being set at the required angle to enable 95% completion of the profile.



The machine working on a vessel profiling a 37.5 degree weld prep on 120mm thick plate.

CASE STUDY - Vessel Nozzle Weld Profiles



- PC software controlled with user friendly program interface
- Industrial standard servo driven axis controls
- Cut and profile at the same setting
- No requirement for “flame cutting”
- Quick chain clamp mounting
- Any angle operation
- Covers any nozzle diameter up to 1m in any vessel diameter
- Profile tools available for J’ preps