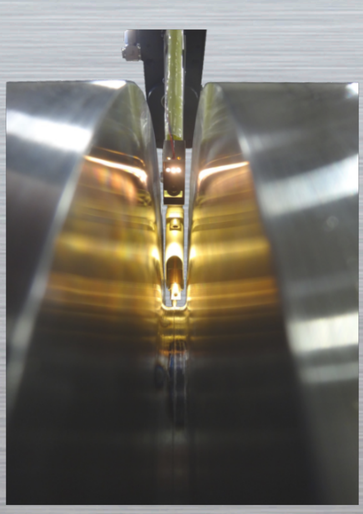
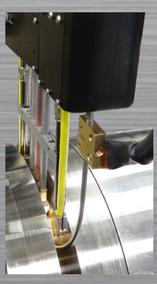
AMET®

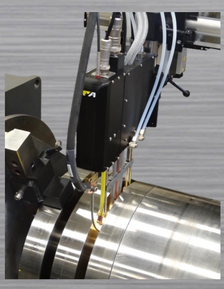
Advanced Manufacturing Engineering Technologies

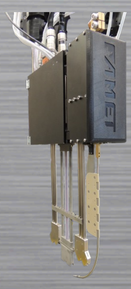
AMET® Narrow Groove GTAW Torch

The AMET® Narrow Groove Torch is designed to reduce the groove width for GTA Welding of heavy-wall joints. This torch features programmable, independently controlled motion of the oscillating electrode and wire guide via servo-motor drives with encoder feedback. AMET®s control methodology for oscillation and wire guide positioning allows for precise weld pool control and unsurpassed sidewall fusion. The torch's narrow design provides a significant reduction of filler metal volume compared to conventional torch joint designs. The AMET® designed cameras provide detailed leading and trailing views of the arc, weld pool and wire entry.



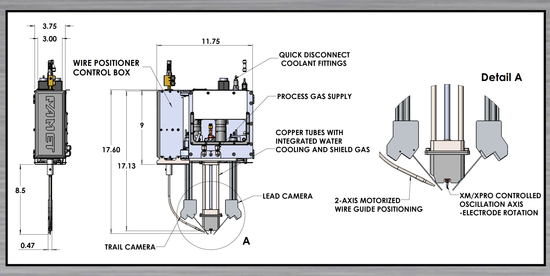






The AMET® Advantage:

- Reduced weld filler volume lowers overall heat input, residual stress, Heat Affected Zone size, arc time and consumable costs
- Electrode and wire position oscillation promote superior sidewall fusion
- AMET®'s proprietary AVC software maintains a stable arc at all angles of electrode rotation and prevents sidewall "climbing"
- Leading and trailing cameras allow excellent monitoring of weld pool
- Available in cold wire and hot wire configurations
- Optional Data Acquisition module provides weld parameter verification



Specifications:

- 100% Duty Cycle up to 300 Amps
- Minimum Groove Width: 5/8 Inches (16mm)
- Maximum Groove Depth: 8.5 Inches (215mm)
- Programmable Servo-Motor/Encoder based motion for the Electrode, Wire Guide Oscillation and Wire Feed via AMET®'s XM® or XPro Controller
  - Up to ±90° excursion
  - Independent dwell settings for ± excursions
  - Slew time programmed in seconds to traverse the ± excursion
  - Synchronized wire guide oscillation with independent excursion
  - Precision gear drive including anti-backlash technology
  - Wire guide secondary axis adjustment: 1/4" (6.35 mm) via joystick
- Compatible with AMET®'s Hot Wire Power Supply
- Available Electrode Lead Angles: 15° for Cold Wire, 10° for Hot Wire

30+ Years of Automated Welding System Excellence