Geretsried, February 2008

Recommendations for welding with our new AMPCO-CORE MIG Wire

Dear customer,

Ampco Metal is now offering new hardfacing flux core MIG wire with various degrees of hardness for the welding of Ampco alloys or for overlay welding on steel.

We have made extensive tests and trials with our new AMPCO-CORE alloys. We would like to share our experiences with you, which are in some aspects significantly different to welding with our well known AMPCO-TRODE solid wires.

We welcome your feedback about your experiences with our AMPCO-CORE wire. If you have already used our AMPCO-CORE products with successful results, we would appreciate if you could share your results with us to verify and compare with our own experiences.

Welding parameters:

- MIG process
- Wire diameter: 1,6 mm
- Shielding gas: 100 % Argon, flow rate of 17 – 22 L / min.
- Welding current: DCEP (DC+)
- Welding voltage: 28-30 Volts
- Welding amperage: 360 - 400 A
- Wire feed speed: 6-7 m / min

Welding Procedure

- Preheat: Steel - 300°C is recommended, especially on parts with large mass
- Preheat: Bronze - 300°C is required
- On steel - a buffer layer of AMPCO-TRODE 10 is required before applying the AMPCO-CORE material.
- Wire stick-out: approx. 15 mm
- Direction of Gun Travel: Dragging (trailing) the gun is better than pushing the gun even if the surface after pushing looks nicer, more glossy
- Grinding away the oxidized surface after each layer is necessary. Brushing with a stainless steel brush isn't enough!
- Interpass Temperature: maintain an interpass temperature of between (280°C and 350°C) during the entire welding process. If the part gets too hot, wait until the work piece temperature comes down before continuing to deposit weld metal.
- Post Weld Treatment: cool part slowly with a welding blanket or other similar method
- Always use sufficient exhaust to extract the welding smoke and fumes. Use enough ventilation, exhaust at the arc, or both, to keep fumes and gases from your breathing zone and the general area. Always follow your employer's safety practices.

For further questions or discussions we remain at your disposal.

Best regards,

Your Ampco Metal Team