

EnDotec DO^{*}04

Gas Shielded, Peripheric Continuous Electrode For Semi-Automatic

DESCRIPTION

Exclusive, gas shielded, metal cored alloy wire ideal for maintenance and repair applications or batch manufacturing where the highest integrity welding, efficiency and productivity are required. The slag-free deposit is of the martensitic stainless steel type with hardness increased through precipitation (structural hardening). On stainless steels and alloys with high nickel content, structure and hardness depend on dilution. Highly alloyed with controlled additive amounts, this alloy composition offers the following advantages...

- Hardness obtained with first pass maintained to max working temperature 1020°F (550°C)
- Excellent corrosion and oxidization resistance at temperatures up to 1200°F (650°C)
- Excellent metal-to-metal friction resistance
- Ideal for use as cladding with no risk of cracking
- Exceptional positional weldability
- Good corrosion resistance in high temperature gaseous media: Combustion chambers, diesel engines, valves.
- Low heat input for low dilution
- Good corrosion resistance in saline environment, with cavitation resistance
- No buttering layer necessary when coating heat-resistant steels of CrMo/CrMoV type
- Unique peripheral arc characteristics
- Maximized weld metal recovery
- Regular bead profile, virtually spatter free
- Wide parameter range Faster deposition rates for reduced labor costs

APPLICATIONS

- Rods for hot extrusion profiles
- Feed rolls
- Sizing mandrels
- Hot working dies
- Clipping beds
- Furnace components
- Valve seats and heads
- Curving tram lines
- Blow out preventers (BOP)

PROCEDURE FOR USE:

Equipment EnDotec continuous electrodes are compatible with most conventional, constant voltage power sources. Models with programmable, pulsed arc, metal transfer modes offer optimal performance. Eutectic Corporation recommends using wire drive systems using 4 feed rollers - smooth rollers for 0.045" (1.2mm) diameter and knurled rollers for 1/16" (1.6mm) diameter - as well as polyamide liners.

Preparation: Remove old welding deposits and worn metal completely with ExoTrodé.

Preheating: depends on the steel's carbon equivalent and the workpiece size, thickness and geometry. Eutectic recommends...

CE < 0.2: Preheat not necessary

CE 0.2-0.4: Preheat 210° - 390°F (100-200°C)

CE 0.4-0.8: Preheat 390° - 660°F (200-350°C)

NOTE that 12-14% Mn steels should never be preheated and the workpiece temperature during welding should be kept below 480°F (250°C).

WELDING TECHNIQUE : For multi-pass, downhand coating push the electrode down the workpiece at an angle of 70/80° to ensure optimum fusion.

TECHNICAL DATA: Typical hardness: 48 HRC

Heat Treatment

Quenching temperature: 1900°F (1040°C)

Stress relief annealing 2x2 hours at 1380°F (750°C)

Current polarity: DC(+) Recommended: 100% Argon

Shielding Gas Alternative: 95% Ar + 5% CO₂

Flow (l/min): 16

	Diameter	Voltage	Amperage
Short Arc	1.2mm	15-20	80-200
Transfer Mode	1.6mm	19-27	150-300
Spray Arc	1.2mm	26-28	230-300
Transfer Mode	1.6mm	27.5-33	250-400