Premium Metal-Cored, Gas Shielded Wire

EnDOtec® DO *110

WIRE

- Single or multiple pass welding on Mild and HSLA steels
- Higher deposition rates compared to solid wire
- Ideal for welding quenched and tempered HSLA steels

Castolin Eutectic®
Eutectic Castolin

DESCRIPTION:

EnDOtec DO*110 is formulated for theh all-position welding critically stressed fabrications where high impact properties are needed and where the weldment is under severe restraint. Used with low-to-medium carbon steels and HSLA steels of similar strength for both joining and build-up.

TECHNICAL DATA:

Typical Tensile Strength: 110,000 psi (760 N/mm^2)
Typical Yield Strength: 100,000 psi (660 N/mm^2)
Typical Elongation: 21%
Charpy Impact: 33ft-lbs (45J) @-60°F (-51°C)
Current & Polarity: DCEP (+) and AC Power Source Type: Constant voltage & Integrated Wire Drive
Shielding Gas: 1st.) Argon 75% + 25% Carbon Dioxide
2nd.) 100% Carbon Dioxide

TYPICAL APPLICATIONS:

Use when welding constructional steels where advanced crack-resistance is critically important.

- Tank building
- Earthmoving Equipment
- Construction Equipment
- Steel-Mill Ore Cars

PROCEDURES FOR USE:

Caution: Although a 2-roll wire drive assembly will work the optimum for maintaining arc voltage stability and consistent and smooth wire feeding is a serrated 4-roll drive assembly. **Smooth drive rolls are not recommended!**

Step 1: Remove all "old" cracked or spalled weld metal down to a sound base.

Step 2: Thoroughly clean areas to be welded of possible contaminants such as oxides, paint and debris.

Note: *When re-building 12-14% Mn steels use EnDOtec DO*05 as a cushion layer.*

Step 3: Preheat the part to be built-up depending on its air hardenabilty potential and/or carbon level. No pre-heat is necessary for low-carbon steels. For most constructional steels a nominal preheat of 150°F (65°C) is suggested and for medium alloy steels and variable cross-section parts, ~250°F (~121°C). To stress relieve, heat to 1022°F (550°C) and maintain for 1 hour per inch thickness.

Note: *If welding is interrupted and the part being welded cools to room temperature, make sure to reheat to the original preheat temperature. Slow cooling is advised using silicone blankets, vermiculite, or other environmentally suitable heat-retardant material.*

WELDING PARAMETERS

0.045" (1.2mm)	VOLTAGE	AMPERAGE	STICK-OUT	GAS FLOW	SHIELD GAS
Spray Arc	25-29	210-270	5/8" ± 1/8" (Short nozzle)	40 scfh	Ar 75% + 25% CO_2
Short Arc	17-20	140-210	9/16" ± 1/8" (Long nozzle)	35 scfh	100% CO_2

1/16" (1.6mm)	VOLTAGE	AMPERAGE	STICK-OUT	GAS FLOW	SHIELD GAS
Spray Arc	26-30	220-285	5/8" ± 1/8" (Short nozzle)	35 scfh	Ar 75% + 25% CO_2
Short Arc	17-21	160-210	9/16" ± 1/8" (Long nozzle)	30 scfh	100% CO_2

Note: Parameter adjustments will be needed depending on the size, weight, and shape of the part to be welded. For Optimum wear resistance keep to the low end of the amperage & voltage ranges.

YOUR RESOURCE FOR PROTECTION, REPAIR AND JOINING SOLUTIONS

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