



Premium Metal-Cored,
Gas Shielded Wire

EnD0tec[®]
DO *110

- 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

EnDotec® DO*110

EnDotec DO*110 is formulated for the all-position welding of 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 Values	
Typical Tensile Strength:	118,000 psi (810 MPa)
Typical Yield Strength:	105,000 psi (725 MPa)
Typical Elongation:	19%
Charpy Impact:	43 ft-lbs (58J) @ -60°F (-51°C)
Current & Polarity:	DCEP (+)
Shielding Gas:	1 st) 90Ar-10 CO ₂ 2 nd) 75Ar-25 CO ₂

DIAMETER	VOLTS*	AMPS	WFS	STICK-OUT	GAS FLOW	SHIELD GAS
0.045"	24-29	200-350	225-560 ipm	5/8 - 3/4"	35-45 cfh	90Ar-10CO ₂
1/16"	26-30	250-450	160-415 ipm	3/4 - 1"	35-45 cfh	90Ar-10CO ₂

*If using 75Ar-25CO₂, voltage will need to be increased 1-3 volts.

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.

PROCEDURE 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 hardenability 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).

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.

TYPICAL APPLICATIONS

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

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

