



## EnDOtec® DO\*05

### Gas shielded metal cored alloy wire

#### Description:

Exclusive, gas shielded, metal cored alloy wire, ideal for maintenance and repair applications or batch manufacturing where highest integrity welding, efficiency and productivity are required. This non-magnetic slag free deposit with a high chromium and manganese content is ideal protection for carbon steels, high alloy steels and manganese steels.

#### EnDOtec DO\*05 Features:

- High resistance to impact pressure and metal/metal friction
- High resistance to plastic deformation, reducing local stresses
- Exceptional work-harden ability
- Machinable with normal cutting tools
- Low heat input for low dilution
- Maximum weld metal recovery
- Excellent bead appearance, no spatter, high arc stability
- Exceptional all-positional weldability
- High deposition rate for reduced labour costs
- Great flexibility in operation: 100-400 A

#### Technical Data:

##### Mechanical properties:

Tensile strength Rm:	900 MPa
Yield strength: Rp0.2	580 MPa
Elongation A5:	25-35%
Impact strength:	70J 20°C
	55J -20°C
Hardness after welding:	2510Rc
Hardness after work hardening:	43Rc

##### Shielding gases:

97.5% Ar, 2.5% CO <sub>2</sub>	
Other possible gases	
99% Ar, 1% O <sub>2</sub>	
100% Ar	
82% Ar, 18% CO <sub>2</sub>	
Flow rate:	12-16 l/min

#### Applications:

Designed for rebuilding applications, buttering layers and protective coatings on:

- Hammer and bars
- Gyratory crushers
- Drills
- Rollers
- Upright and travelling crane rollers
- Dragline teeth and leading edges
- Drive sprockets
- Rolling mill chocks

#### Procedure for use:

##### Welding Equipment:

EnDOtec continuous electrodes are compatible with most conventional, constant voltage power sources. Models with programmable, pulsed arc, metal transfer modes offer optimal performance. E+C recommends using wire drive systems fitted with 4 feed-rollers - smooth rollers for Ø 1.2 mm and knurled rollers for Ø 1.6 mm - as well as polyamide liners.

##### Preparation:

Remove old welding deposits and worn metal completely with ChamferTrode 03/04.

##### Preheating:

Preheating depends on the steel's Carbon Equivalent, and the work piece size, thickness and geometry. E+C recommends:

CE < 0.2: preheat not essential

CE 0.2 - 0.4: preheat 100-200°C

CE 0.4 - 0.8: preheat 200-350°C.

Note that 12-14% Mn steels should never be preheated and the work-piece temperature during welding should be kept below 250°C.

##### Welding parameters:

Welding current: = (+)

Diameters	1.6 mm	
Transfer mode	Short arc	Spray arc
Arc voltage (V)	16-20	27-31
Amperage (A)	110-300	270-325

##### Welding technique:

For multi-pass, down-hand coating, push the electrode along the work-piece at an angle of 70/80°, to ensure optimum fusion.

##### Machining:

Machine using carbide tipped cutting tools. Arc or plasma cutting equipment may also be used.

##### Packaging:

EnDOtec continuous electrodes are precision wound on recyclable, wire spools (DIN 8559, K300) to a standard weight of 15 kg and specially packed for optimum, storage protection.

# DIGITALWELD

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