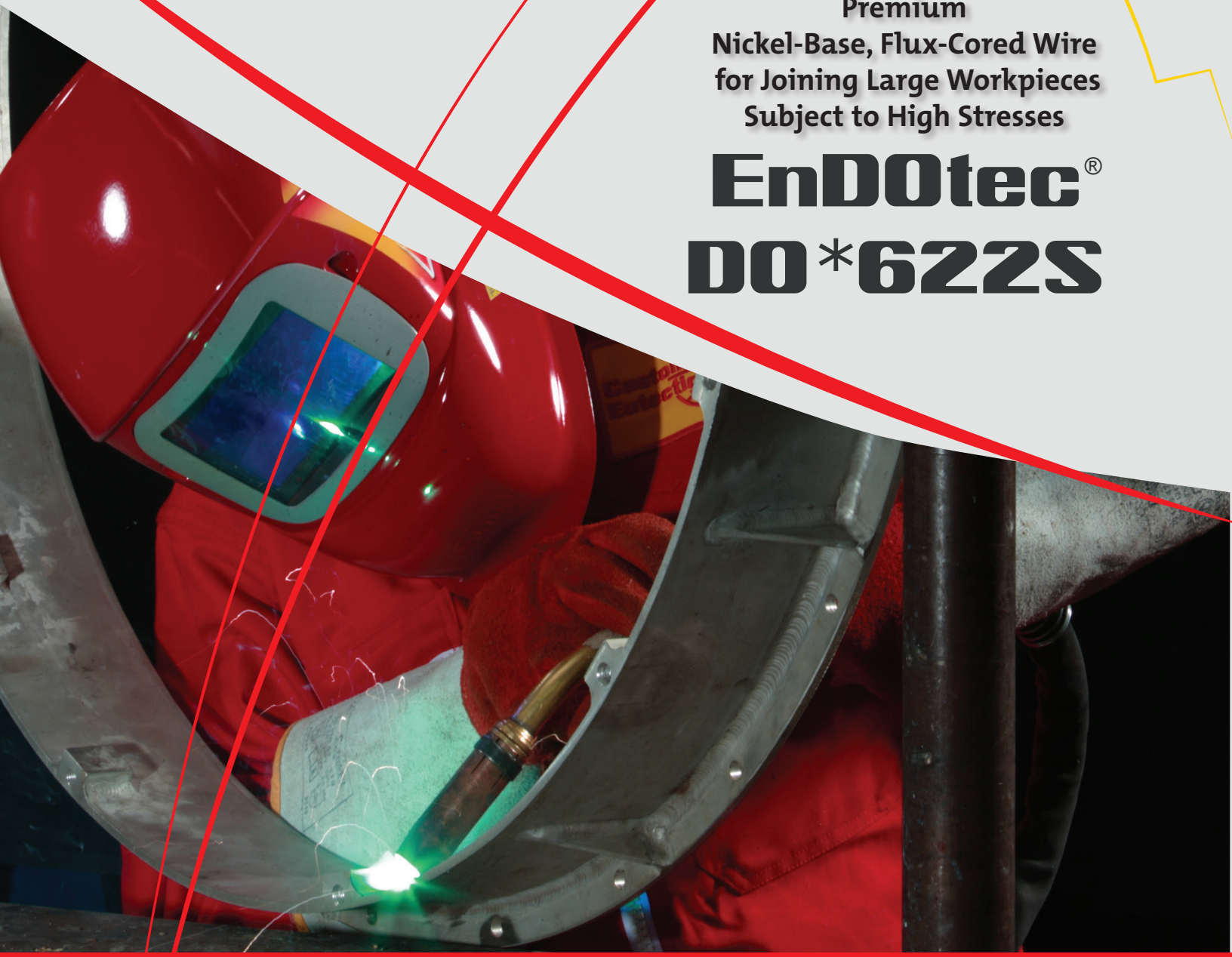
Castolin Eutectic®
Eutectic Castolin

Premium
Nickel-Base, Flux-Cored Wire
for Joining Large Workpieces
Subject to High Stresses

EnDOtec®
DO*622S



- Exceptional resistance to cracking, deposit has a thermal expansion coefficiant similar to steel
- Deposit is unaffected by heat thermal cycles and stresses induced by high temperatures over long periods of time
- Good resistance to corrosion and oxidation

EnDOtec® DO*622S

EnDOtec DO*622S is an exclusive, gas shielded, flux cored, nickel base wire, ideal for maintenance and repair applications or batch manufacturing where the highest integrity welding, efficiency and productivity are required.

Specifically developed for joining large pieces, subjected to high stresses and made of low alloy steels, high alloy steels, dissimilar steels, non-identified steels and nickel alloys.

Also suitable for protective coatings, offering excellent resistance to attack by most kinds of acids and alkalis, even in strong concentrations.

EnDOtec DO*622S was engineered to avoid brittle phases in the dilution zone, even when the base metal is an alloy steel, stainless steel, nickel or copper-based alloy.

TECHNICAL DATA

Typical Values	
Typical tensile strength:	88 ksi (610 MPa)
Typical yield strength:	55 ksi (380 MPa)
Elongation (A5%):	40%
CVN Impact Strength (at -320°F/ -196°C)	66 ft-lbs (90 J)

Diameter	Volts	Amps	Stick-Out	Shield Gas
0.045" (1.2mm)	22-33	110-270	3/4"	75%Ar-25%CO_2
1/16" (1.6mm)	22-32	120-330	3/4"	75%Ar-25%CO_2

PROCEDURE FOR USE

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

Preparation: Remove old welding deposits and worn metal with ChamferTrode®. For joining and assembly, bevel edges to a V (45°) or X, especially for parts with a large cross-section.

Preheating: This is not usually necessary. For high tensile carbon steels preheating to 212-392°F (100-200°C) can be employed.

Welding Parameters: Welding current: =(+). The use of pulsed arc technology significantly improves semi-automatic welding productivity. (See Chart Above)

Welding Positions: Horizontal Flat PA/1F/1G & PB/2G

Welding Technique: Once the workpieces are securely clamped, apply a buttering layer on the two groove faces to limit dilution with the base metal. Where there is a severe risk of hardening the base metal, make the first pass at a low amperage, pushing the torch without weaving. Carry out a dye-penetrant test. Finish filling the groove. Stress relieve by peening each deposited layer prior to applying an additional layer.

Machining: Machine using normal cutting tools. Arc or plasma cutting equipment may also be used.

TYPICAL APPLICATIONS

APPLICATIONS	INDUSTRY
Kiln Bearing Rings	Cement
Ball Ring Couplings/Clips	Cement
Rail Brakes	Railway
Mechanical Arms	Earthmoving
Chassis	Earthmoving
Ripper Teeth	Earthmoving
Bucket Arms	Earthmoving
Heat Exchangers	Chemical
Reservoirs	Chemical
Boilers	Chemical
Forging Tools	Metal Forming
Extrusion Tools	Metal Forming
Hot Molding Tools	Metal Forming

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