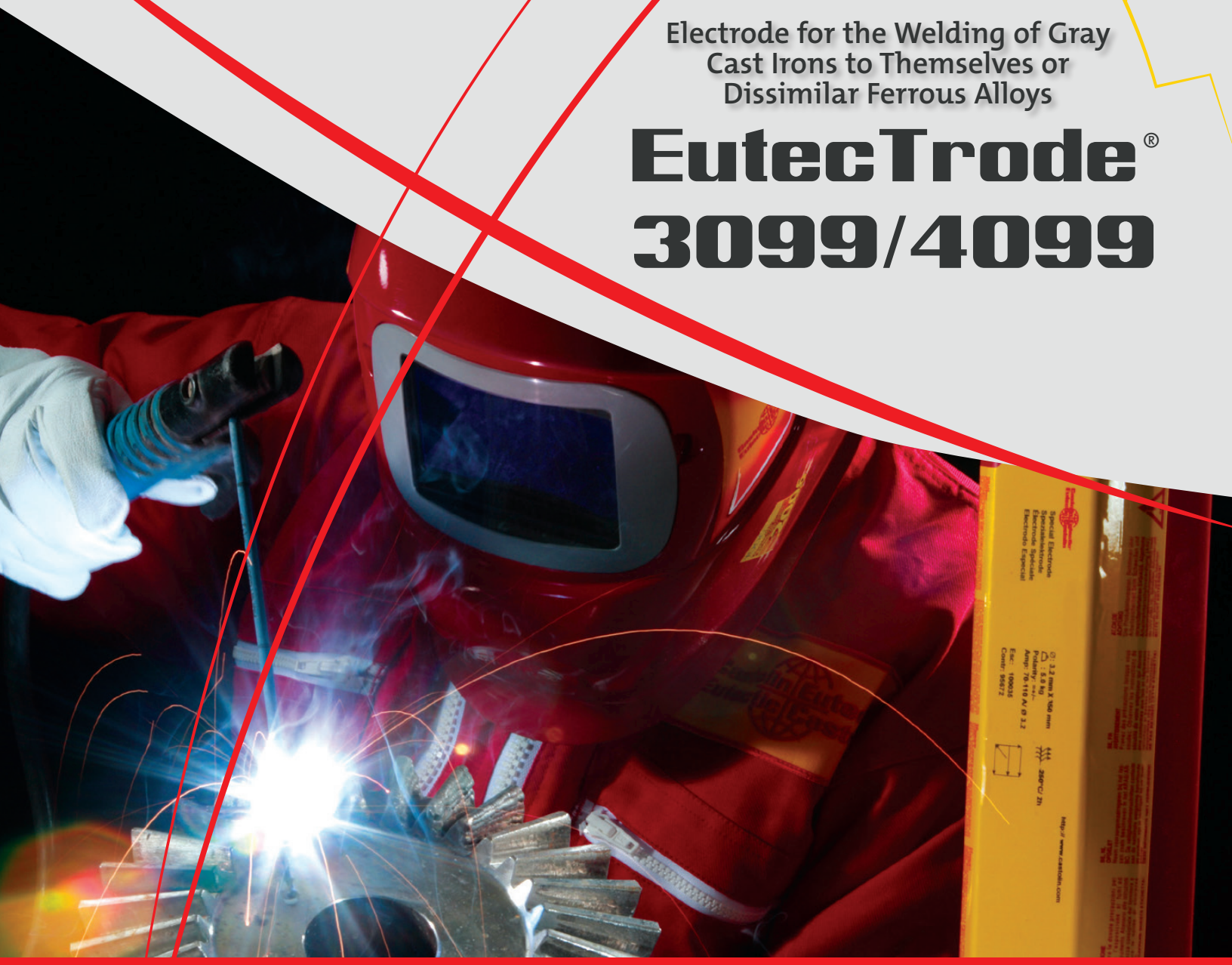
Castolin Eutectic®
Eutectic Castolin

Electrode for the Welding of Gray Cast Irons to Themselves or Dissimilar Ferrous Alloys

EutecTrode® 3099/4099



- Dilution Tolerant
- Great crack resistance
- High ductility helps maintain properties of engineering-grade castings

EutecTrode® 3099/4099

EutecTrode 3099/4099 are high nickel alloy electrodes, ideal for applications requiring dilution tolerance and/or mechanical properties matching those of most gray cast irons. With proper application, 3099 and 4099 provide sound, dense deposits for pore-free, machinable repairs and cladding.

TECHNICAL DATA

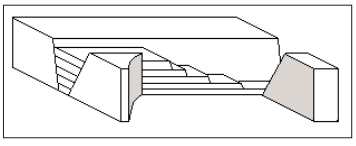
Typical Values	
Tensile Strength:	53,000 psi (365 N/mm²)
Hardness:	85 HRB
Current polarity:	AC or DCEN (electrode -)

DIAMETER	3/32" (2.4mm)	1/8" (3.2mm)	5/32" (4.0mm)	3/16" (4.8mm)
AMPERAGE	40-75	65-115	100-150	120-175

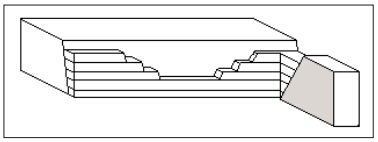
PROCEDURE FOR USE

PREPARATION: Clean joint and/or parts to be welding thoroughly. Terminate crack growth by drilling ¼" holes at the leading points. Preheat casting to 400°F, holding for 1 hour per inch of thickness. Prepare joint with Eutectic ChamferTrode® or ExoTrode®. Joints below 1" should be beveled to a V-profile; Over 1" can be beveled to either a single or double J-profile. Allow a root opening of 1/8" for full penetration welds.

TECHNIQUE: Deposit short runs no longer than 2-in. and moderately peen 2nd and subsequent passes. For long cracks in heavy castings use either a cascade and/or block deposition sequence.



Cascade Sequence: *Weld metal is deposited in overlapping layers.*



Block Sequence: *Weld metal is deposited in intervening increments.*

POST WELDING: Slow cool after welding using insulating material such as vermiculite or heat-retardant blankets.

TYPICAL APPLICATIONS

High ductility and elongation properties make these electrodes a good choice for applications where castings experience cyclical stresses. Excellent for repairing lathe beds ,bushings, gearboxes and cast iron die bodies. Ideal for heavy sections and ductile or high nickel castings.

Castolin Eutectic® Eutectic Castolin

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