



Premium Open Arc Joining and Build-up
Wire for Low Carbon & Low Alloy Steels

TeroMatec®

OA 2020



- High deposition rate increases efficiency
- Does not require costly shielding gas
- Deposits are high in strength and ductility
- Excellent for single and multi-pass applications

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TeroMatec OA 2020 is formulated to be the ultimate joining and build-up wire for low carbon and low alloy steels. It is for both single and multi-pass welding applications. The smooth arc provides good sound deposits high in strength and ductility. An excellent choice when fit-up is poor.

TECHNICAL DATA

Typical Values	
Tensile Strength:	88,000 psi
Elongation (1=5d):	Minimum 25%
Power Source Type:	Constant Voltage and Integrated Wire Drive
Positions:	Flat and Horizontal

DIAMETER	POLARITY	VOLTS	AMPS	WFS (IPM)	STICK OUT
1/16" (1.6 mm)	DCEN	17-20	160-210	70-110	3/4"
3/32" (2.4 mm)*	DCEP	28-32	250-450	125-275	2 1/2"
7/64" (2.8 mm)	DCEN	24-32	320-550	100-250	1 1/2"

*Note: 3/32" diameter uses DC electrode positive polarity.

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!

PROCEDURE FOR USE

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

Step 2: TeroMatec OA 2020 is unlimited build-up on mild and low-alloy steels.

Step 3: Preheat the part to be hardfaced depending on its air hardenability potential and/or carbon level. For most constructional steels a nominal preheat of 150°F is suggested and for medium alloy steels, approximately 250°F.

Step 4: After checking that the welding conditions are optimal by testing on scrap metal, position the gun head at a 70-80° angle and use a "pull" technique. For fully automated welding such as hardfacing cement crusher rolls, the wire should exit at about a 10° lagging angle from top dead center. Using this technique will assure a smooth and regular weld deposit profile with the optimum level of fusion. *Note: If welding is interrupted and the part cools to room temperature, you must reheat to the original preheat temperature. For hardenable steels, slow cooling with silicone blankets, vermiculite or other heat-retardant material is advised.*

Step 5: For most applications, other than a superficial grind, finishing is not required. If some level of profiling is needed, grinding or machining can be used for more precise shaping.

TYPICAL APPLICATIONS

APPLICATIONS

Excavators - Bulldozers
Earthmoving Equipment
Farm Equipment
Buckets
Ship Decking
Debarker Drums

INDUSTRY

Quarries, Construction
Sand, Stone, Mining
Agriculture
Quarries, Mining
Shipping
Pulp & Paper



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