

# ARCTEC® WD 1043



a quality welding alloy

## GENERAL CHARACTERISTICS:

ARCTEC® WD 1043 is a work hardening, chromium manganese austenitic type steel wire with an iron base that develops an austenitic microstructure, with an exceptional combination of joining, build up and surfacing properties. ARCTEC® WD 1043 requires no external shielding to produce sound crack free deposits and will operate within a wide voltage and amperage range with voltage tolerances that are high enough to permit the use of variable speed wire feeders and drooping type power sources. The smoke level is typical of high manganese wires and the non magnetic deposit cannot be flame cut, spatter level is low, machinability is poor due to the work hardening capabilities. No special welding techniques are required.

## APPLICATIONS:

ARCTEC® WD 1043 wire provides good weld deposits for joining or build up of manganese or carbon steel base materials including manganese to manganese, mild steel, alloy or stainless steels. Materials may be repaired or surfaced with a deposit thickness of 2-3 layers or 1/4" as required. This is an excellent repair and build up wire and is used on: Steel mill wobblers, Rail frogs and crossovers, Crusher rolls, Shovel teeth, pads and buckets, Hammermill hammers, Impeller bars.

## MECHANICAL PROPERTIES:

Tensile Strength	Yield Strength	Elongation	Typical Hardness	
			As Deposited	Work Hardened
124000 psi (854 MPa)	83700 psi (577 MPa)	37%-2"	22-27 HRC	50-55 HRC

## CHEMICAL COMPOSITION:

This alloy is comprised of the following elements:

C      Mn      Si      Cr      Ni      Fe

## OPERATING PARAMETERS:

WELDING PROCESS: FCAW

POLARITY: DC Reverse

SHIELDING GAS: Not required

Operating Range			
Diameter	Stickout +/- .25"	Amps +/- 75	Volts +/- 1
7/64"(2.8mm)	1.5"(38mm)	400	27

## STANDARD SIZE AND PACKAGING:

Size	Packaging
7/64" 2.8mm	45Kg Auto Paks

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