

# RANOMATIC<sup>®</sup> D

- **General Description**

Deposits of Ranomatic D possess the highest hardness of any iron base alloy; as deposited Rockwell C hardness for two layer deposits is 62 to 64. This super alloy has a highly refined grain structure which will resist virtually any abrasive materials. Very often used as a substitute for more expensive tungsten carbide on drilling tools, dredge cutter heads, tool joints and other areas of high abrasion.

**Typical applications:** Oil Industry: drilling tools, tool joints, drill collars; Agriculture: cultivator points, sweeps, plows, sub-soilers, grain hammers, chisel points; Mining: drill stems, collars, augers, hammers, roll crushers, buckets and teeth; Brick & Clay: augers, feeder shoes, muller plows, pug mill paddles, screw conveyors; Construction: asphalt mixer paddles, dipper teeth, buckets, ditcher teeth; Can be applied to carbon, alloy, manganese steels, cast iron.

- **Welding Parameters**

Diameter	1/16"	0.45"	.035"
Current	DCRP	DCRP	DCRP
Amperage	175-300	170-225	90-150
Voltage	26-32	24-28	17-22
Shielding Gas	CO <sub>2</sub> or 75/25 or no gas	CO <sub>2</sub> or 75/25 or no gas	CO <sub>2</sub> or 75/25 or no gas
Wire Extension	1/2" – 1 1/4"	1/2" – 3/4"	

- **Deposit Characteristics**

Hardness (two layers)	HRC 62-64
Abrasion Resistance	Outstanding
Impact Strength	Moderate
Retains properties to:	1100°F
Machinability	Grinding only
Thickness	2 – 3 layers recommended (Multiple layers with proper procedures)
Deposit cross check	yes

- **Deposit Chemistry**

C	Mn	Si	Cr	Mo	B	Fe
2.1	0.3	1.00	10.1	0.4	0.8	Balance

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