

# RANOMATIC<sup>®</sup> HWT-12-G

## General Description

This alloy is comparable in all-weld-metal composition to H12 tool steel and deposits provide excellent metal-to-metal wear resistance, particularly on parts subject to high heat. The maximum deposit thickness is determined by work piece mass; check-free deposits up to ¾" thick can be made on 24" diameter parts with proper procedure. Deposits require rigid, well-powered equipment and carbide tools for machining. Deposits are difficult to flame-cut, but will withstand high compressive loading. Typical applications include steel mill leveler rolls, work rolls, vertical edger rolls, dredge ladder rolls, hot work extrusion tools, pipe forming rolls and tool steel crane wheels. Also, for tool and die repair.

## Welding Parameters

Diameter	.045"	1/16"
Current	DCRP	DCRP
Amperage	175-250	200-300
Voltage	23-27	25-30
Shielding Gas	Argon or 75% Ar 25% CO <sub>2</sub>	Argon or 75% Ar 25% CO <sub>2</sub>
Wire Extension	3/8" – 5/8"	½" – 1"

## Typical Rockwell Hardness

Two Layer	52-54
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## Deposit Characteristics

Abrasion Resistance	Excellent for metal-to-metal wear
Heat Resistance	Elevated temperature very good
Machinability	With Carbide tools
Thickness	Depends on work piece size
Check Free Deposits	Use proper pre-heating and slow cooling

## Typical Wire Chemistry

C	Mn	Si	Cr	W	V	Mo	Fe
0.4	1.1	0.5	5.1	1.35	0.4	1.5	Balance

**RANKIN<sup>®</sup>**

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