

ISO 9001
BUREAU VERITAS
Certification



ROLLWELL

Weld Surfacing for steelmill rolls

(Division of Wearresist Technologies Pvt. Ltd.)

ROLLWELL Consumables

ROLLWELL Cladding machines

ROLLWELL Know how



YOUR ROLL WELDING PARTNER



COMPLETE ROLL CARE SOLUTION WITH MATERIALS, TECHNOLOGY & MACHINES.

Flux



Wire



Machine

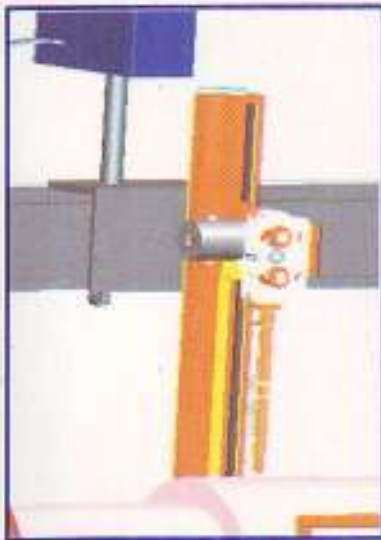


ROLLWELL consumables are available in Open arc (OA) and Submerged arc (SA) process. Submerged arc wires are designed to work with specific type of fluxes. Fluxes are available in drum pack or in bags with controlled grain sizes.

ROLLWELL RANGE OF CONSUMABLES

A range of properties can be obtained, depending upon the composition of the weld deposit and the subsequent heat treatment procedure. Compositions are restricted by metallurgical factors affecting both hot and cold cracking. Weld process can be selected on roll material, deposition rate and cost of product. Some of features of ROLLWELL products are

- Elevated temperature oxidation resistance.
- Resistance to localized pitting and crevice corrosion.
- Maximum resistance to stress corrosion
- Maximum resistance to stress corrosion cracking and corrosion fatigue.
- Maximum tempering resistance to prevent softening during service.
- Resistance to thermal and thermo mechanical fatigue.
- High thermal conductivity.
- Low coefficient of thermal expansion.
- High hardness and resistance to abrasive and adhesive wear.
- High strength and toughness, good weld ability, reasonably priced.



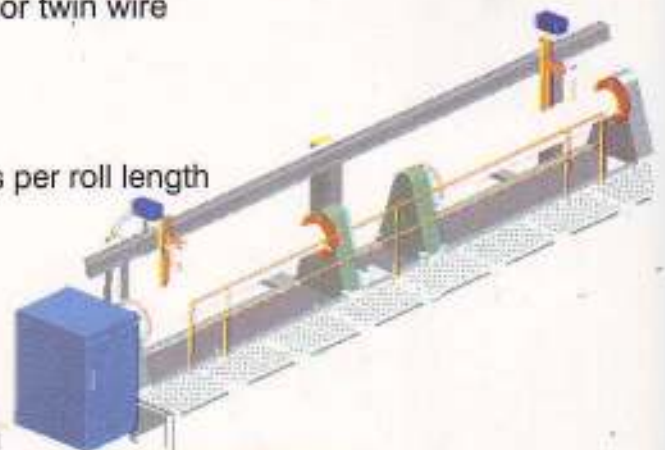
ROLLWELL KNOW HOW








- New generation technology
- Consistency in roll performance.
- Back up of company involved heavily with steel industry applications
- R&D setup.
- Heat treatment knowledge & knowledge to design the furnaces



ROLLWELL CLADDING MACHINES








- Heavy duty machine.
- Multi process : open arc / submerged arc - Single or twin wire
- Single or twin Welding torch
- Suitable for welding /cladding of rolls
- Head stocks & tails stock length can be adjusted as per roll length
- One/two rolls can be welded together.
- Electronic Controller.
- Each parameter changeable during welding
- Constant welding speed for complex work pieces.
- Permanent automatic adjustment of set welding and movement parameters
- Fully programmable for welding parameters and machine functions
- Highly customizable via the extensive list of options available
- Highly versatile : can be fitted into almost any working environment .
- Meets all safety standards for use inside metallic structures.



Product Name	Process	Composition %	Mechanical Properties	Description	Applications	Microstructure
RW-42	OA/SA	C-0.1 Cr-12.8 Ni-2.5 Mo-1.0 Mn-1.0 Si-0.45 Nb V Cu-upto 2%	HRC 40-45	RW-42 weld deposit produces a ferritic-martensitic stainless steel weld metal. The presence of nickel and molybdenum along with low carbon results in enhanced ductility. The following precaution recommended during use-removal of fatigue zones, preheating and maintaining the temperature during welding, peening of each layer and slow cooling after welding ensures uniform hardness.	The weld metal is suitable for welding of AISI type 410, 414 stainless steels, repair welding of ASTM OA-8 NM casting, rebuilding of stainless steel rolls of matching composition and areas where good resistance to abrasive wear along with corrosion properties are desired. Also used for continuous castor Roll cladding in steel mill such as mco - 13 CrMo 4.4, 16 CrMo 4.4, 21 CrMoV 5.11, 42 CrMo 4	
RW-45	OA/SA	C - 0.025 Cr - 14.00 Mn - 1.20 Ni - 1.00	HRC 38-45	RW-45 weld metal deposit resists scaling upto 800°C in oxidizing atmosphere free from sulfur, ammonia and hydrogen and also possesses excellent H2S stress corrosion cracking resistance free austenitic stainless steel. The weld deposits are reachable with high resistance to sulfidation cracking and pitting corrosion.	Surfacing of continuous casting rolls and similar applications in steel plants, conveyor screws, valves and valve seats, steam and gas turbine components and for machine parts subject to corrosive environment or elevated temperature service.	
RW-47	OA/SA	C - 0.1 Mn - 1.0 Cr - 13.0 (Other- Si, Mo, Ni, Nb, Cu, V upto 6%)	HRC 40-46	RW-47 has good resistance to thermal fatigue and corrosion with good wear properties. Especially suitable for manufacturing of new rolls with two layers with high carbon base metal.	All continuous casting Roll like Cement cooled Roller, water cool roller jacket roller etc.	
RW-48	OA/SA	C - 0.15 Mn - 1.08 Cr - 13.0 (Other- Si, Mo, Ni, Ti, V upto 5%)	HRC 40-44	RW-48 is a tubular wire for open arc welding with high deposit of chromium steel alloy for hot wear application. High deposition rate especially suitable for manufacturing of new rolls with two layer with low carbon base metal.	used on some types of continuous casting machine rolls.	
RW-49	OA/SA	C - 0.352 Mn - 1.65 Cr - 7.33 (Other- Si, Mo, W, Ti, upto 4%)	HRC 52-60 (Depending on Procedure)	RW-49 deposits chrome-tungsten-molybdenum that combines resistance to cracking, abrasion, impact thermal shock and compressive loading multiple layers. deposit up to 3/4" can be made on rolls using proper procedures. structure is mainly martensitic.	General hot and cold applications, blooming, slabbing mill rolls, scale breaker rolls and auxiliary rolls.	
RW-150	OA/SA	C - 0.04 Mn - 1.0 Cr - 4.5 (Other- Si, Mo, Nb upto 4.5%)	—	RW-150 is a high alloy which enables steel with 1.4% carbon to be welded successfully.	used on some types of continuous casting machine rolls.	
RW-170	OA/SA	C - 0.3 Mn - 1.0 Cr - 5.0 (Other- Si, Mo, Cu, upto 4.5%)	HRC 55-58	RW-170 good wear and thermal fatigue properties.	Back-up rolls, pinch rolls.	

Standard wire diameters : 2.40 mm, 2.80 mm, 3.20 mm - Supplied in 12.5 Kgs/ 15.0 Kgs layer wound vacuum packed plastic spool or in 125 Kgs / 250 Kgs corrugated drums. Also available in 1.20 mm / 1.60 mm / 2.00mm diameter and in other type of packaging on request.

The list of products is not a limiting list, please do not hesitate to contact us for other available products

Product Name	Process	Composition %	Mechanical Properties	Description	Applications	Microstructure
RW-180	OA/SA	C - 0.03 Mn - 0.75 Cr - 13.0 (Other - Si, Mo, Cu upto 4.5%)	HRC 40-45	RW-180 gives good bead finishing and smooth surface after machining. It has good resistance to thermal fatigue and corrosion with good wear properties.	Used on some type of continuous casting machine rolls.	
RW-200	OA/SA	C - 0.12 Mn - 1.0 Cr - 12.0 (Other - Si upto 4.5%)	HRC 40-45	RW-200 gives good resistance to thermal fatigue and corrosion with good wear properties.	Continuous casting machine rolls.	
RW-300	OA/SA	C - 0.1 Mn - 1.0 Cr - 12.5 (Other - Si, Ni, Mo, Cu upto 4.5%)	HRC 40-45	RW-300 gives good toughness properties and moderate tensile strength. It has very good resistance to thermal fatigue and corrosion with good wear properties.	All continuous casting machine rolls.	
RW-400	OA/SA	C - 0.7 Mn - 1.5 Cr - 5.0 (Other - Si, Ni, Mo, Nb upto 6%)	HRC 50-55	RW-400 has improved resistance to abrasion when compared with RW-170, with excellent thermal fatigue properties. Equivalent wear properties as double post and differentially hardened cast steels.	Blooming, Slabbing mill rolls, early roughing stands, HSM slabbing mill rolls, tube mill elongator roll, brass cooler rolls, plate mill leveler and back-up rolls.	
RW-500	OA/SA	C - 0.08 Mn - 1.0 Cr - 9.0 (Other - Si, Ni, Mo, upto 3.5%)	HRC 36-42	RW-500 has good resistance to thermal fatigue and corrosion with wear properties.	Continuous casting machine rolls.	
RW-800	OA/SA	C - 0.1 Mn - 1.0 Cr - 0.1 (Other - Si, Ni, Mo, upto 1.5%)	-	RW-800 weld material has a high level of Molybdenum for improved toughness.	Buffer material between incompatible roll and banding materials.	
RW-900	OA/SA	C - 0.25 Mn - 1.0 Cr - 12.0 (Other - Si, V, Mo, upto 1.5%)	HRC 50	RW-900 has improved resistance to wear when compared to RW-500 but with the same benefits of corrosion and thermal fatigue resistance.	Pickl rolls, hot strip mill table rolls, some continuous billet & continuous casting rolls.	

Standard wire diameters : 2.40 mm, 2.80 mm, 3.20 mm - Supplied in 12.5 Kgs/ 15.0 Kgs. layer wound vacuum packed plastic spool or in 125 Kgs / 250 Kgs corrugated drums. Also available in 1.20 mm / 1.60 mm / 2.00mm diameter and in other type of packaging on request.

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