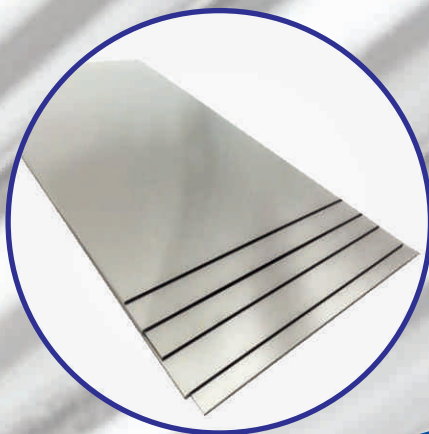
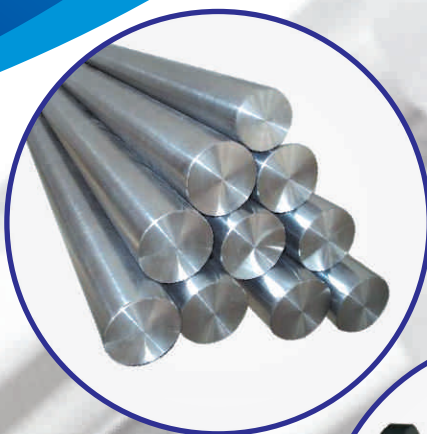
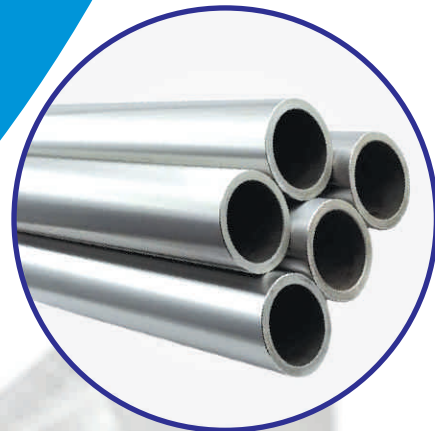


SUPERALLOY PRODUCTS



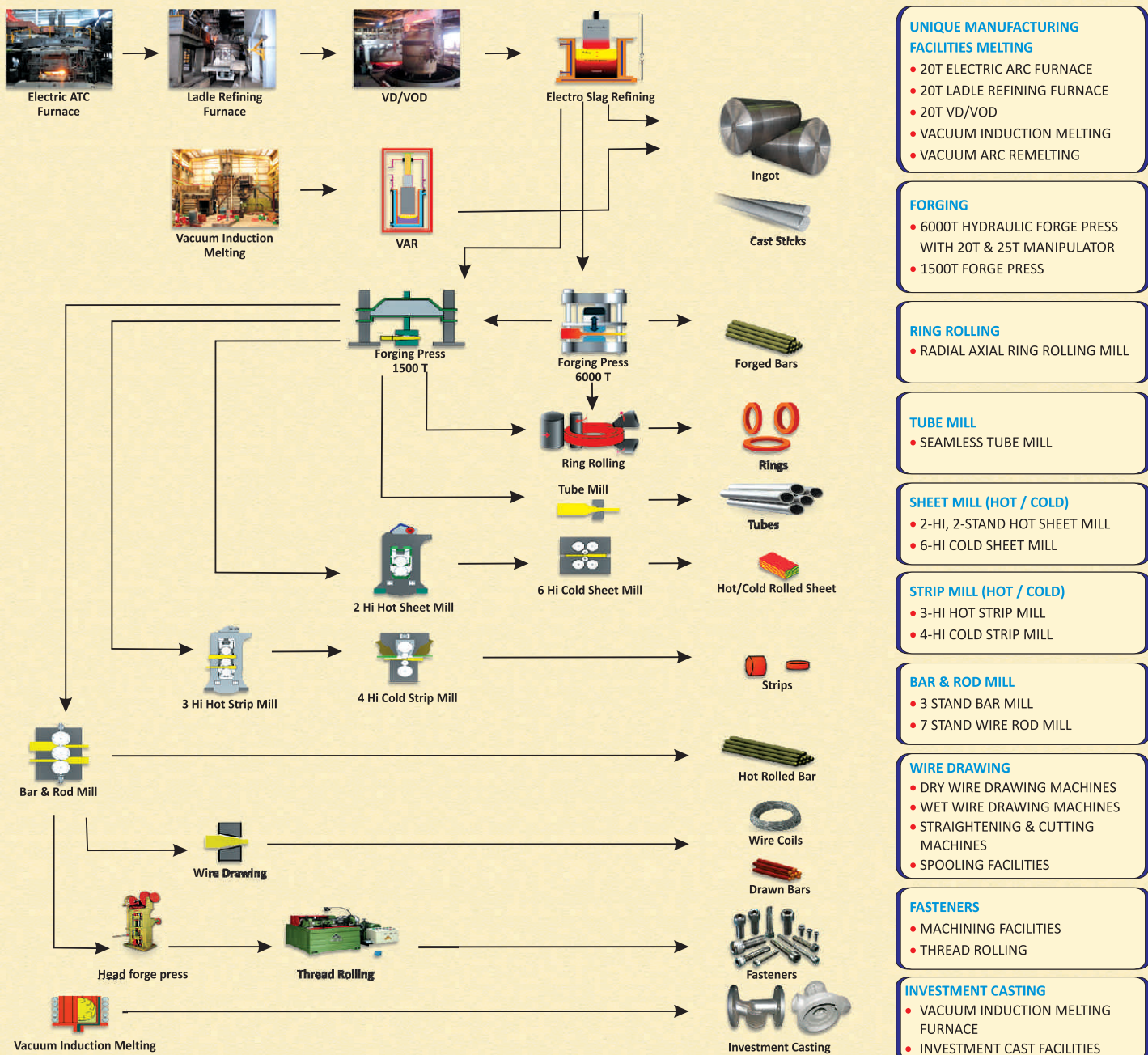
MISHRA DHATU NIGAM LIMITED
HYDERABAD, INDIA

ABOUT MIDHANI

Mishra Dhatu Nigam Limited (MIDHANI), A Govt. of India Enterprises Company was set up in 1973 at Hyderabad, INDIA. MIDHANI is an ISO 9001:2015 & AS 9100-2016 Certified company with modern metallurgical facilities and technical competence. It is listed at BSE / NSE (Code BSE:541195 / NSE:MIDHANI) with 26% shares in Public.

MIDHANI specializes in manufacturing a wide range of Superalloys, Titanium alloys and Special steels meeting stringent international standards for application in Aerospace, Defence, Energy, Space, Chemical and other hi-tech industries. With the dedicated research facilities and decades of experience, MIDHANI is capable of manufacturing more than 500 different grades of materials under single roof.

SUPER ALLOYS MANUFACTURING PROCESS IN MIDHANI



KEY WESTERN ALLOYS

International Superalloy Grade	Equivalent Midhani Grade	Conformity to International Specifications			
		UNS	ASTM	AMS	Others
ALLOY 600	SUPERNI 600	UNS N06600	ASTM B 163, B 166-B 168, B 366, B 516, B 517, B 564, B 751, B 775, B 829	AMS 5540, 5580, 5665, 5687	DIN 17742, 17750-17754
ALLOY 601	SUPERNI 601	UNS N06601	ASTM B 166-B 168, B 751, B 775, B 829		DIN 17742, 17750-17754
ALLOY 617	SUPERNI 617	UNS N06617	ASTM B 166, B 168, B 546, B 564	AMS 5887-5889	DIN 17744, 17750-17754
ALLOY 625	SUPERNI 625	UNS N06625	ASTM B 366, B 443, B 444, B 446, B 564, B 704, B 705, B 751, B 775, B 829	AMS 5581, 5599, 5666, 5837, 5869	DIN 17744, 17750-17754
ALLOY 690	SUPERNI 690	UNS N06690	ASTM B 163, B 166-B 168, B 564, B 829		
ALLOY 713	SUPERNI 713	UNS N07713		AMS 5377, 5391	
ALLOY 718	SUPERNI 718	UNS N07718	ASTM B 637, B 670	AMS 5589, 5590, 5596, 5597, 5662-5664, 5832, 5914, 5950, 5962	DIN 17744, 17750-17754
ALLOY 740	SUPERNI 740	UNS N07740			
ALLOY 76	SUPERNI 76			AMS 5390	
ALLOY 100	SUPERNI 100			AMS 5397A	EMS 55089
ALLOY 42N	SUPERNI 42N			AMS 2269	
ALLOY 738	SUPERCAST 738			AMS 5490	
ALLOY 800	SUPERFER 800	UNS N08800	ASTM B 163, A 240, B 366, B 407-B 409, A 480, B 514, B 515, B 564, B 751, B 775, B 829	AMS 5766, 5871	DIN 10028, 10095, 10302
ALLOY 825	SUPERFER 825	UNS N08825	ASTM B 163, B 366, B 423-B 425, B 564, B 704, B 705, B 751, B 775, B 829		DIN 17744, 17750-17754
ALLOY 286	SUPERFER 286	UNS S66286	ASTM A453, A638	AMS 5525, 5726, 5731, 5732, 5734, 5737, 5858, 5895, 7235	
ALLOY 80A	SUPERNI 80A	UNS N07080	ASTM B 637		DIN 17742
ALLOY 263	SUPERNI 263	UNS N07263		AMS 5872	DIN 17744, 17750-17754
ALLOY 105	SUPERNI 105				BS 4HR 100
ALLOY 75	SUPERNI 75	UNS N06075			BS HR5, HR203, HR403, HR504
ALLOY 90	SUPERNI 90	UNS N07090			BS HR2, HR202, HR402, HR501-503
ALLOY 247	SUPERCAST 247			AMS 2280	BSA-4
ALLOY V	SUPERNI 8020	UNS N06003			
ALLOY C276	SUPERNI 276	UNS N10276	ASTM B 366, B 462, B 564, B 574, B 575, B 619, B 622, B 626, B 751, B 775, B 829		DIN 17744, 17750-17754

KEY RUSSIAN ALLOYS

International Superalloy Grade	Equivalent Midhani Grade	Conformity to International Specifications
AE 435	SUPERNI 435	ASTMB473, TY14-1-1671-76 & GOST 2590-71
AE 868	SUPERNI 868	TY 14-1-1741-76
AE 602	SUPERNI 602	ASME SB 166, ASME SB 168, ASTM B 166, ASTM B 168
AE 437	SUPERNI 437	TY 14-1-168-73, TY 14-1-75-71, TY14-1-402-72 & TY 14-1-1747-76
ZC6YBE / ZC6KP / ZS6YVI	ALLOY ZC6YBE / ALLOY ZC6KP / ALLOY ZS6YVI	OCT 1-90126-85, OCT 1-90126-85
AE 696	SUPERNI 696	ASTM A240
KC20WN	SUPERCO 605	BS 4HR 100
XH67MBT10	SUPERNI 750MW	Custom Specifications
XH35BT	SUPERFER 612	GOST 19904-90, TU 108.02.118-86, TU 14-1-1530-75/1528-76/ 1665-76
XHM-1	SUPERNI 42N	Custom Specifications
XH55MBU	ICNI 718	TY 14-1-319-81/ TY 14-1-1567-76
MP35N	SUPERCO 35N	ASTM F562 / AMS 5844, 5845, 5758

QUALITY ASSURANCE

Quality Systems of MIDHANI are certified with ISO 9001:2015 and AS9100-2016. Chemical and Mechanical testing laboratories are accredited by NABL in accordance with ISO/IEC 17025:2005.

MIDHANI's quality systems are also approved by more stringent standards of Director General of Aeronautical Quality Assurance, Director General of Civil Aviation, Director General of Quality Assurance, Department of Space and Department of Atomic Energy.

Midhani has testing facilities for evaluation of Chemical properties, Mechanical properties, Non-destructive testing, Metallography and Physical properties.

SUPERALLOY PRODUCTS

INGOTS / CAST STICKS

Equipment –
Electric Arc furnace /
Vacuum Induction Melting /
Vacuum Arc Remelting
Size (dia) – 60mm to 1050mm
Weight – 0.6T to 20T



BARs & WIRES

Equipment – Hot Rolling /
Cold Drawing /
Hot Swaging
Size (dia) – 0.8mm and above
Shape – Round and Square
Supply form – Spools, Rods and Bars



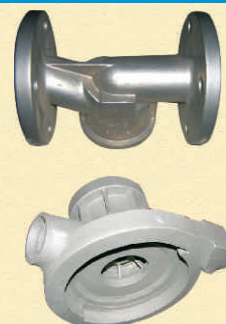
FORGINGS

Equipment – 6000T / 1500T
Hydraulic Forge press
Size (dia) – 100mm to
1000mm
Weight – Upto 4.5T



INVESTMENT CASTINGS

Equipment – Vacuum Melting
Furnace
Weight – Upto 100Kgs



RINGS

Equipment – Radial Axial Ring
Rolling Mill
Size (OD) – 320mm to
3540mm
Height – 50mm to 635mm
Weight – Upto 3.5T



SEAMLESS TUBES

Equipment – Tube Extrusion Mill
Size (OD) – 27mm to 90mm
Wall thickness – 3mm to 10mm
Max. Length – 12000mm



PLATES / SHEETS

Equipment – Hot sheet mill
Thickness – 5mm and above
Width – Upto 1100mm
Weight – Upto 130Kgs
Equipment – Cold Sheet mill
Thickness – 0.8mm and above
Width – Upto 1200mm



FASTENERS

- Hexagonal bolts
- Hexagonal socket
- Head cap screws
- Cheese Head screws
- Countersunk screws
- Locking washers and plates
- Wire locking screws and Nuts
- Studs
- Specialized and Custom made fasteners
Lock nuts and Split bushes



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