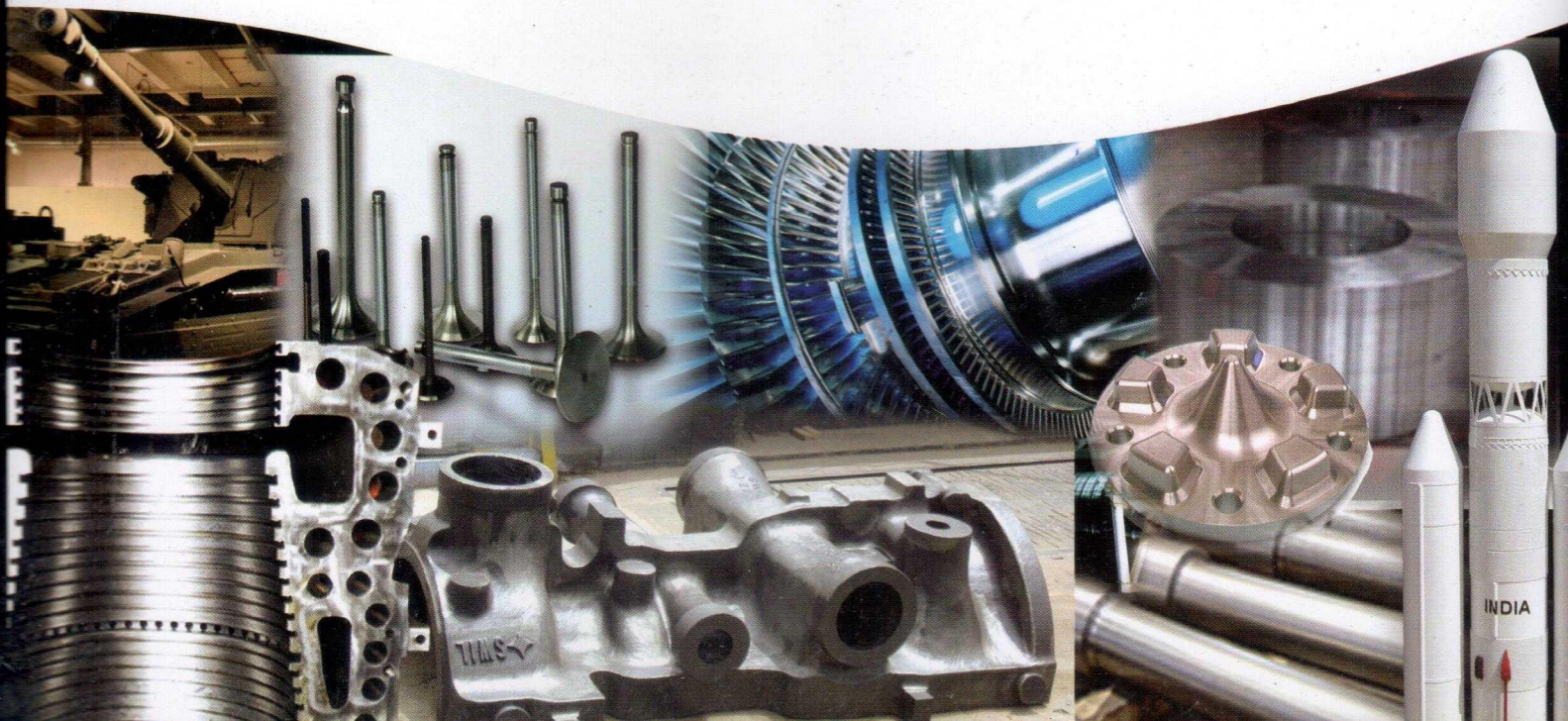
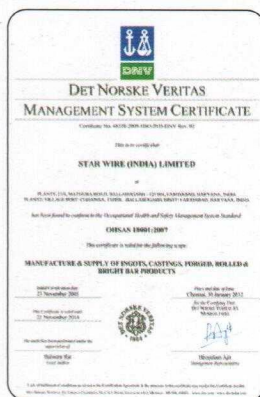
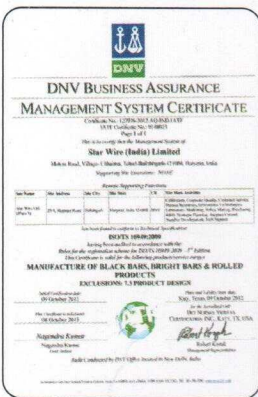


starwire

Star Wire (India) Limited is one of the leading steel plant engaged in manufacturing of High Alloy Steels, Super Alloys, and Stainless Steels for diversified engineering applications in shape of castings, forgings and rolled products in semi & finished machined condition.

Plant is fully equipped with modern equipment and testing facilities which have created confidence and ability for manufacturing sophisticated alloys for Creep, Corrosion, fatigue, wear and cryogenic applications meeting national and international specifications in various strategic sectors such as:

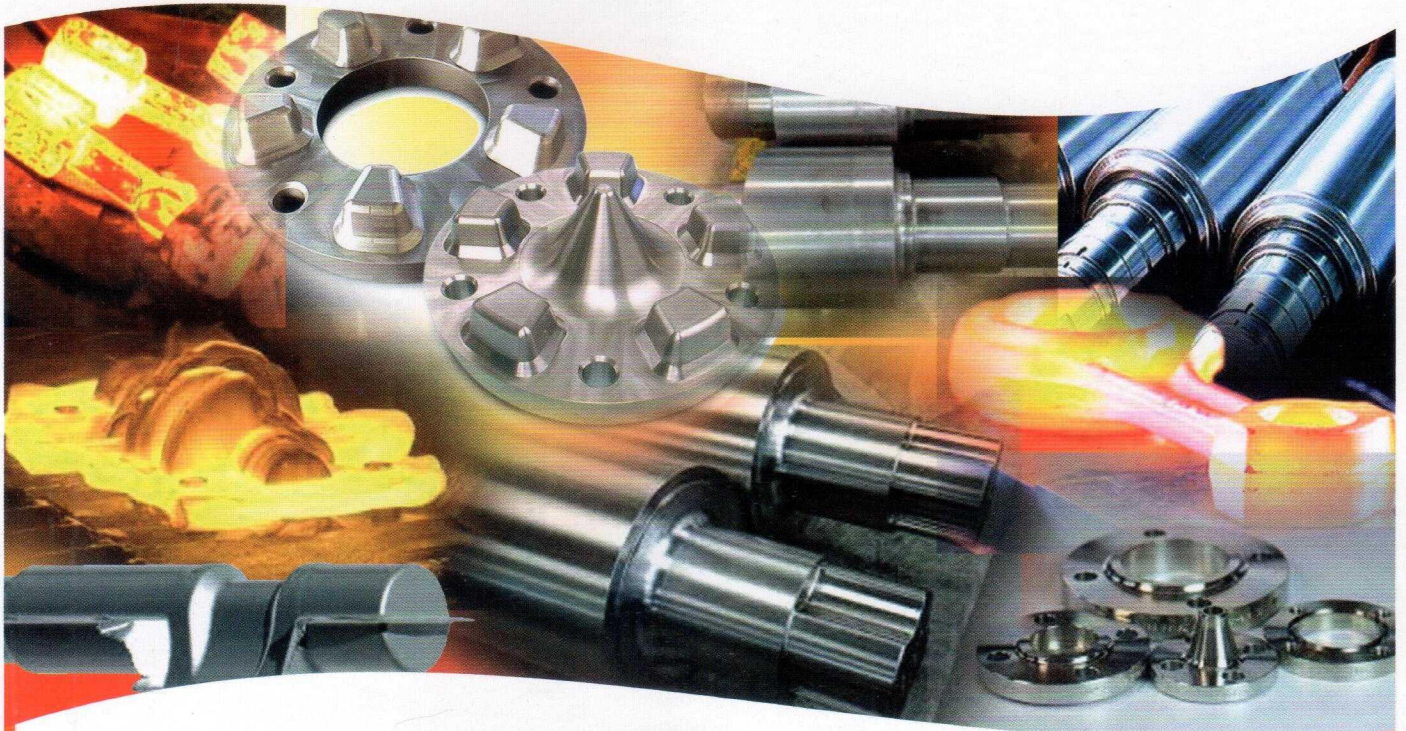
- Aviation & Space
- Automobile
- Energy
- Defense
- Oil & Gas
- Tool & Die
- General Engineering



Die Steels



Die Steels produced through Electric Arc Furnace, followed by Secondary Refining at Ladle Refining Furnace and Vacuum Degassing Station ensures Clean Steel which has low Sulphur, Phosphorus and Gas levels in the primary Melt. This helps in achieving better Quality of Die Steels, where the requirements are becoming more and more stringent due to increased consumption of these steels in Critical Industrial applications. Strict Control is exercised on Chemical Composition and other Critical parameters like temperature during forging, rolling and heat treatment, and the tight Quality Systems & Procedures help in meeting Customer's Quality Requirements in an absolute manner. The Electro Slag Remelting (ESR) technology at Star Wire can meet the very stringent Quality Requirements of Dies meant for High Pressure Applications.

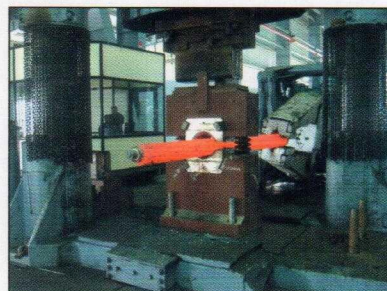


Applications

1. Cold work Dies
2. Hot Work Dies
3. Plastic Molds
4. Aluminum Extrusion
5. Die Castings

The characteristic properties of our ESR quality Die Steel

- High Wear Resistance
- Excellent Toughness
- High thermal strength
- High fatigue resistance



2000MT Forging Press



ESR Furnace with Inert atmosphere

Steel Type

Material Grades "ESR/Air Melted"

Die Steels	AISI	DIN	JIS	DIN W.Nr.	Typical Applications
	D2	X155CrVMo121	SKD11	1.2379	Cutting, Punching, Stamping tools, Shear blades, thread rolling dies.
	H11	X38CrMoV51	SKD6	1.2343	punches, mandrels, die inserts, hot shear blades, molds for plastic materials,
	H12	X40CrMoV51	SKD61	1.2606	die casting dies, forgings die, hot shear blades and extrusion tooling.
	H13	X37CrMoW51	SKD62	1.2344	mandrels, pressure pads, bolsters, die cases, die holders and adaptor rings
	L6	56NiCrMoV7	SKT4	1.2714	Rams, bolsters, mandrels, plungers, sleeves, chipping beds, press & hammer dies
	P20	40CrMnNiMo8-6-4	SKT3	1.2311	Die holders, zinc die casting dies, backers, bolsters and injection moulds
	P20S	40CrMnMoS 8-6	-	1.2312	Die holders, zinc die casting dies bolsters and injection moulds.

Forged Block:
Size 300 -
450mm Square,
Length - As per
requirement

Forged &
Machined Round:
Dia: 100-450mm,
Length - 1000mm
& above

Heat Treated
Condition: As
Forged/Annealed/
Hardened &
Tempered

Chemical Composition

	C	Si	Mn	P	S	Cr	Mo	V	Other
D2	1.45-1.60	0.10-0.60	0.20-0.60	≤ 0.030	≤ 0.030	11.0-13.0	0.70-1.00	0.70-1.0	
H11	0.33-0.41	0.80-1.20	0.25-0.50	≤ 0.030	≤ 0.020	4.80-5.50	1.10-1.50	0.30-0.50	
H12	0.32-0.40	0.90-1.20	0.30-0.60	≤ 0.035	≤ 0.035	5.00-5.60	1.30-1.60	0.15-0.40	W:1.2-1.4
H13	0.35-0.42	0.80-1.20	0.25-0.50	≤ 0.030	≤ 0.020	4.80-5.50	1.20-1.50	0.85-1.15	
L6	0.50-0.60	0.10-0.40	0.60-0.90	≤ 0.030	≤ 0.030	0.80-1.20	0.35-0.55	0.05-0.15	Ni: 1.5-1.8
P20	0.35-0.45	0.20-0.40	1.30-1.60	≤ 0.035	≤ 0.035	1.80-2.10	0.15-0.25	-	
P20S	0.35-0.45	0.30-0.50	1.40-1.60	≤ 0.030	0.05-0.10	1.80-2.00	0.15-0.25	-	

Typical Heat Treatment

Grade	Annealing	Hardening	Tempering
D2	820-850 Deg C /Furnace Cool	Preheating at 650 & 850 deg. C Hardening 1000 to 1030 Deg C	300-480 Deg C
H11	750-800 Deg C/Furnace Cool	Hardening 1000 to 1040 Deg C.	400-600 Deg C
H12	820-840 Deg C/Furnace Cool	Hardening 1000 to 1050 Deg C.	520-700 Deg C
H13	840-860 Deg C/Furnace Cool	Preheating at 720 & 820 deg. C Hardening 1000 to 1030 Deg C	530-550 Deg C
L6	650-700 Deg C/Furnace Cool	Hardening 830 to 870 deg C. /870 to 900 Deg C	400-600 Deg C
P20	710-740 Deg C/Furnace Cool	Hardening 830 to 870 Deg C	400-600 Deg C
P20S	710-740 Deg C/Furnace Cool	Hardening 830 to 870 Deg C	400-600 Deg C

Note: Preheating Before Hardening & Multiple Tempering is done as per application and recommended practice.



Star Wire (India) Limited

21/4, Mathura Road, Ballabgarh-121004, Haryana, India

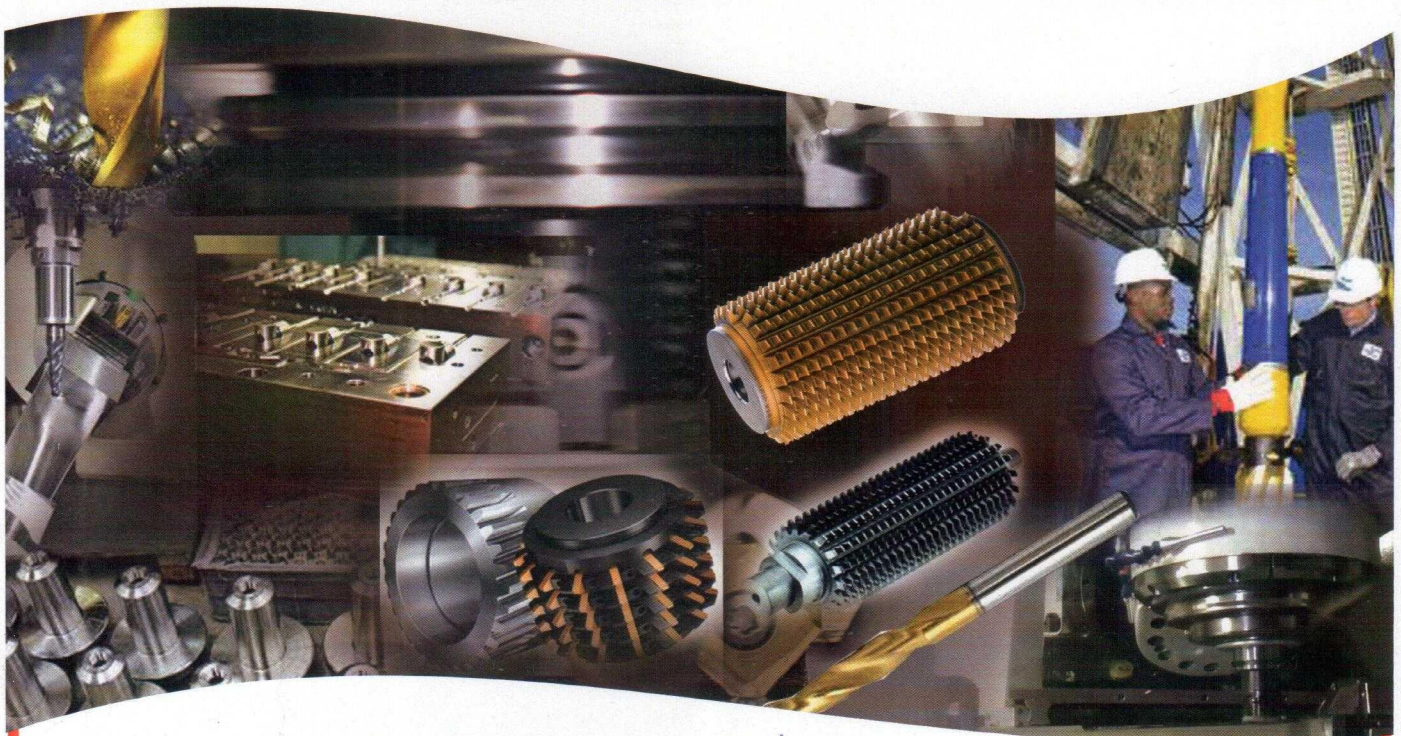
Tel: +91-129 - 4094200, Fax: +91-129-2241265

Email: pnsingh@starwire.in, Web: www.starwire.in



High Speed Steel

High Speed Steels produced through Electric Arc Furnace, followed by Secondary Refining at Ladle Refining Furnace and Vacuum Degassing Station ensures Clean Steel which has low Sulphur, Phosphorus and Gas levels in the primary Melt. This eventually helps in achieving better Quality of Forged and Rolled Products. Strict Control is exercised on Chemical Composition and other Critical parameters like temperature during forging, rolling and heat treatment, and the tight Quality Systems & Procedures help in meeting Customer's Quality Requirements in an absolute manner. Important equipment like Forging Press and Rolling Mills ensure proper hot working of High Speed Steels which helps in achieving the desired Carbide Distribution.



The characteristic properties of our High Speed Steel

- High Working Hardness
- High Wear Resistance
- Excellent Toughness
- High retention of Hardness & Red Hardness



STEEL TYPE

MATERIAL GRADES "ESR/Air Melted"

High Speed Steels	AISI	JIS	ISO	DIN W.Nr.	Typical Applications
	M2	SKH 51	HS 6-5-2	1.3343	Milling Cutters, drills, reamers, taps, broaches etc.
	M3 -2	SKH 53	HS 6-5-3	1.3344	Dies, punches, hacksaws, taps etc.
	M35	SKH 55	HS 6-5-2-5	1.3243	Hobs, milling cutters, hacksaws, broaches, reamers etc.
	M42	SKH 59	HS 2-9-1-8	1.3247	Bi-metallic bandsawblades, milling cutters, drills etc.
	T1	SKH2	HS 18-0-1	1.3355	Knives, Taps, Drills, Cutters, Wood Cutting tools etc.

Product Range

Hot Rolled,
Peeled & CG
Bars - Dia:
6mm to 90mm,
L: 3 - 6 mtr.

Heat Treated
Condition:
Spheroidize
Annealed

Forged &
Machined Bars -
Dia: 100mm -
200mm, L: 1mtr.
Min.

Chemical Composition

	C	Si	Mn	P	S	Cr	Mo	V	W	Co
M2	0.86	0.45	0.40	0.030	0.030	3.80	4.70	1.70	6.00	--
	0.94	Max	Max	Max	Max	4.50	5.20	2.00	6.70	--
M3-2	1.17	0.45	0.40	0.030	0.030	3.80	4.70	2.70	6.00	--
	1.27	Max	Max	Max	Max	4.50	5.20	3.20	6.70	--
M35	0.88	0.45	0.40	0.030	0.030	3.80	4.75	1.75	6.00	4.60
	0.95	Max	Max	Max	Max	4.50	5.20	1.90	6.70	5.00
M42	1.05	0.45	0.40	0.030	0.030	3.60	9.00	1.00	1.20	7.50
	1.12	Max	Max	Max	Max	4.40	10.00	1.30	1.80	8.50
T1	0.70	0.45	0.40	0.030	0.030	3.80	--	1.00	17.5	--
	0.78	Max	Max	Max	Max	4.50	--	1.20	18.5	--

Typical Heat Treatment

Grade	Annealing	Hardening	Tempering
M2	Heating up to 860 - 880 deg. C, soaking for 2 to 4 hours, furnace cooling to 680 deg. C, followed by air cooling	Preheating at 500 & 900 deg. C, Hardening 1180 to 1220 deg. C	Multiple tempering at 540-560 deg. C as per application, last tempering recommended at 180-200 deg. C.
M3-2		Preheating at 500 & 900 deg. C, Hardening 1180 to 1220 deg. C	
M35		Preheating at 500 & 900 deg. C, Hardening 1180 to 1220 deg. C	
M42		Preheating at 500 & 900 deg. C, Hardening 1150 to 1190 deg. C	
T1		Preheating at 500 & 900 deg. C, Hardening 1200 to 1280 deg. C	



Star Wire (India) Limited

21/4, Mathura Road, Ballabgarh-121004, Haryana, India

Tel: +91-129 - 4094200, Fax: +91-129-2241265

Email: pnsingh@starwire.in, Web: www.starwire.in



Special Steels

for Defence, Nuclear and Aerospace

Star Wire has developed systematic & scientific approach towards quality resulting in product reliability and proven record for stringent quality. Our strength in very good control in metallurgy due to melting facilities like EAF coupled Ladle Refining Furnace followed by Vacuum Degassing thereby producing very clean steel with respect to nonmetallic inclusions, dissolved gases & very low level S & P and tramp elements. Material are further refined in our most modern ESR furnace which in turn helps in achieving better quality of final products. Strict control is exercised on other critical parameters like temperature during forging, rolling and heat treatment and the tight quality systems & procedures help in meeting quality requirements in all respect.



ESR Furnace with Inert atmosphere



Hot Tensile Testing machine



2000MT Forging Press

**Leading & Proven
Manufacturer of
Critical materials for**

- ▶ Defence
- ▶ Nuclear Power
- ▶ Aerospace

NABL Accredited Lab

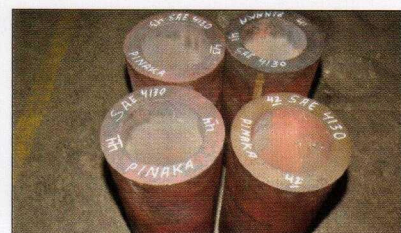
Product Developed & Supplied to **Defence, Nuclear and Aerospace**

- ▶ PINAKA Pre-forms
- ▶ End Fitting Billets
- ▶ Critical Forging for Nuclear Power Projects
- ▶ Weld Consumables
- ▶ Forging for Fuel Handling Machines
- ▶ Plates & Sheets
- ▶ Bulb Bars for Navy

Product Range

Defence	Nuclear	Aerospace
4130	403	304L
STA-59	17-4PH	316L
H-13	316L	316Ti
17-4PH	316LN	321
15-5PH	321	301
VP30	316Ti (D9)	302
15CDV6	410	201
8CD12	304L	202
NCM-221		17-4PH
NCM-223		15-5PH
		14-5PH
		15-5WPH
		15CDV6
		410
		420

- Round Bars: Dia: 10-450mm, Length- As per requirement
- Forged Block: Size 200-400mm Square , Length- As per requirement
- Disc ,Rings and Hollow Forgings: Up to 8 MT
- Plates & Sheets: Up to 1200mm wide
- Weld Consumables: Up to Dia. 5mm



Star Wire (India) Limited

21/4, Mathura Road, Ballabgarh-121004, Haryana, India

Tel: +91-129 - 4094200, Fax: +91-129-2241265

Email: pnsingh@starwire.in, Web: www.starwire.in

Engine Valve Steels

Product Introduction

These highly alloyed (Mn-Ni-Cr-Mo-N) magnetic and non-magnetic steels are used for inlet & Exhaust Valves for IC Engines, which function under conditions of severe heat and corrosion stress. These steels are known to retain their properties at elevated temperatures. Star Wire offers a bouquet of material for these demanding applications.

Manufacturing Process

Steel is produced through Electric Arc Furnace, Argon/Vacuum Oxygen Decarburizer, Ladle Refining Furnace, Vacuum Degassed routes to achieve maximum cleanliness of the steel. Ingots are then Rolled into billets and subsequently to bars. Supply conditions are met with suitable Heat Treatment as per customer's requirement. Our bright bar shop has modern facilities of peeling, center-less grinding and drawing.

Star Wire is equipped with state-of-the-art inspection facilities covering metallography lab, crack detection, mechanical properties as well as dimensional inspection.



ESR Furnace



2000MT Forging Press



Electric Arc Furnace



Dr. Foerster Eddy Current Tester



Different Standards

IS	DIN	DS	SAE	JIS
X45CrSi3/X50Cr9Si2	1.4718 X45CrSi93	En52	HNV3	SUH 1
X40Cr11Si2Mo1	1.4731 X40CrSiMo102	-	-	SUH 3
X85CrMoV18-2	1.4748 X85CrMoV182	-	-	-
X55Cr21Mn8Ni2N	1.4875 X55CrMnNiN208	21-2N	EV12	-
X55Cr22Mn9Ni4N	1.4871 X53CrMnNiN219	21-4N	EV8	SUH 35
X20Cr21Ni12N	-	21-12N	EV4	SUH 37
-	1.4866 X33CrNiMnN238	23-8N	EV16	-
-	1.4882 X50CrMnNiNbN219	21-43	-	-

Supply Conditions

- Surface :- Center less ground, Peeled and as Rolled.
 Dia. Tolerance :- ISO h9, h11, ± 0.05, +0.0 -0.05, ± 0.10mm and ± 0.20mm
 Length :- 3 to 4 meter.
 Heat Treatment :- Annealed, Hardened & Tempered, Solution Annealed.
 Size Range :- 5.30 mm to 40.00 mm.

Mechanical Properties (Longitudinal Specimen)

Grade	Condition	Yield Strength N/mm ² (min)	Tensile Strength N/mm ² (min)	Elongation % (min)	Reduction of Area %(min)	Hardness HRC (min)
En52 X45CrSi93	Hardened & Tempered	700	900-1100	14	40	27
SUH 11	"	700	900-1100	14	40	26
SUH 3	"	635	880	15	35	25
X85CrMoV18-2	"	800	1000-1200	7	12	25
21-2N	Ageing after solution - heat Treatment	550	900-1150	8	10	30
21-4N	"	580	900-1150	8	10	30
21-12N	"	400	800	30	35	25
23-8N	"	550	850	20	30	25
21-43	"	580	950	8	10	30

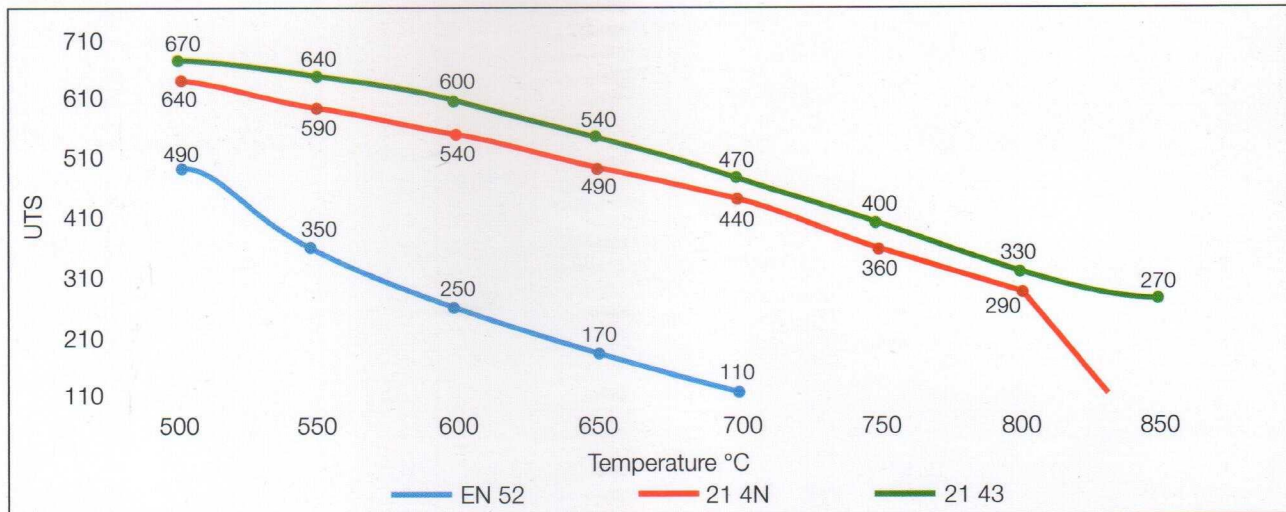
Product Properties

Grade	Supply Condition Hardness HRC	Non Metallic Inclusion Rating as per IS-4163-82	Micro Structure and grain size	Bend	
				Black bar	Bright bar
EN52 X45CrSi93	25-35, 29-35 32-38, 35-41	2.5 max in all ABCD Thick and thin series	Uniform Structure with grain size 6 or finer	3 mm per meter	1 mm per meter
SUH 11	25-35	"	"	"	"
SUH 3	25-35	"	"	"	"
X85CrMoV18-2	25-35	"	"	"	"
21-2N	30-40	"	"	"	"
21-4N	30-40	"	"	"	"
21-12N	25 min	"	"	"	"
23-8N	25-40	"	"	"	"
21-43	30 min	"	"	"	"

Chemical Composition

Grade	C	Si	Mn	P Max	S Max	Cr	Mo	Ni	N	V	Nb+ Ta	W
EN52 X45CrSi93	0.40 0.50	2.75 3.75	0.80 max	0.040	0.030	7.50 9.50	-	0.50 max	-	-	-	-
SUH 11	0.45 0.55	1.00 2.00	0.60 max	0.040	0.030	7.50 9.50	-	0.60 max	-	-	-	-
SUH 3	0.35 0.45	1.80 2.50	0.60 max	0.040	0.030	10.00 12.00	0.70 1.30	0.60 max	-	-	-	-
X85CrMoV18-2	0.80 0.90	1.00 max	1.5 max	0.040	0.030	16.50 18.50	2.00 2.50	-	-	0.30 0.60	-	-
21-2N	0.50 0.60	0.25	7.00 9.50	0.050	0.030	19.50 21.50	-	1.50 2.75	0.20 0.40	-	-	-
21-4N	0.48 0.58	0.25	8.00 10.00	0.050	0.030	20.00 22.00	-	3.25 4.50	0.35 0.50	-	-	-
21-12N	0.15 0.25	0.70 1.25	1.50 max	0.050	0.030	20.00 22.00	-	10.50 12.50	0.15 0.25	-	-	-
23-8N	0.28 0.38	0.50 1.00	1.50 3.50	0.050	0.030	22.00 24.00	-	7.00 9.00	0.25 0.35	-	-	-
21-43	0.45 0.55	0.45 max	8.00 10.00	0.050	0.030	20.00 22.00	-	3.50 5.50	0.40 0.60	-	1.8 2.5	0.8 1.5

High Temperature Tensile Strength in N/mm²



Heat Treatment

Grade	Annealing °C	Hardening °C	Tempering °C	Solution heat treatment °C	Ageing °C
En52 X45CrSi93	780/820 Air cooling	1000/1050 Oil quenching	720/820 Air cooling	-	-
SUH 11	780/820 Air cooling	1000/1050 Oil quenching	720/820 Air cooling	-	-
SUH 3	820/900 Air cooling	980/1080 Oil quenching	700/800 Air cooling	-	-
X85CrMoV18-2	820/860 Air cooling	1050/1080 Oil quenching	700/800 Air cooling	-	-
21-2N	-	-	-	1140/1180 Water quenching	760/815 Air cooling
21-4N	-	-	-	1140/1180 Water quenching	760/815 Air cooling
21-12N	-	-	-	1150/1170 Water quenching	800/830 Air cooling
23-8N	-	-	-	1150/1170 Water quenching	800/830 Air cooling
21-43	-	-	-	1160/1200 Water quenching	760/850 Air cooling



Star Wire (India) Limited

21/4, Mathura Road, Ballabgarh-121004, Haryana, India

Tel: +91-129- 4094200, Fax: +91-129-2241265

Email: girish@starwire.in, Web: www.starwire.in

Aug.2017

Energy Sector Steels

Star Wire (India) Limited is one of the leading steel plant engaged in manufacturing of High Alloy Steels, Super Alloys and Stainless Steels for diversified engineering applications in shape of castings, forgings and rolled products in semi & ready to use components in finish-machined condition .



One Stop Destination You Can Trust

(Steel Castings, Forgings & Rolled Steels -ESR & Non ESR grades)

Applications

1. Thermal Power Plants
2. Nuclear Power Plants
3. Hydro Power Plants
4. Oil and Gas Industry
5. Energy Valve & Pumps

We also produce new and complex alloys as per customer specifications for example Nickel, Chrome, Cobalt & Tungsten-based alloys for extreme applications such as :

- Super & Ultra Super Critical Parameter Steam & Gas Turbines.
- High Corrosion and Wear conditions for Hydro Turbines (Nitronic Steel)
- Low Temperature (Cryogenic) conditions for Valves

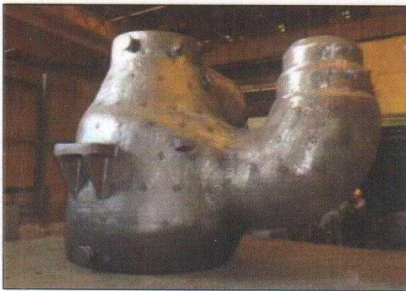
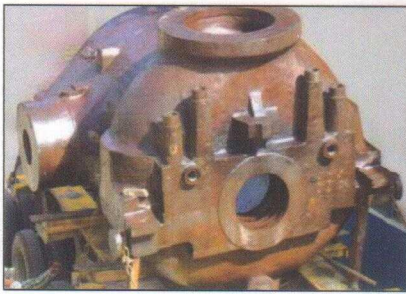
Our Valuable Customers

We deliver to all major power plant manufacturers in the energy sector worldwide such as

- ALSTOM
- ANDRITZ
- BHEL
- FUJI
- GENERAL ELECTRIC
- IMPSA
- L&T MHPS
- NTPC
- SIEMENS
- TOSHIBA
- SKODA-DOOSAN and many more...

• **Understanding Customer Needs** • **Innovative Approach** • **Long Term Partnership.**

Steel Castings for Power Sector - up to 65MT single piece



Steam Turbine Casings & Valves for Sub & Super Critical Parameter

Material Grades

- Regular supplier of large weight casting up to 800 MW turbines
- Super Critical Parameter Turbine Castings up to 35 MT single piece
- Manufacturer of castings in Creep Resistant materials since 1995
- Manufacturer of 9%-10% Cr castings since 2005 & supplied more than 2000 MT in last 5 years

Items/Components

- HP & IP Outer Casings, HP & IP Inner Casings,
- MSCV & CRV Casings, Emergency Valve Casing, Overload Valve Body
- Guide Blade Carriers, Steam Chamber, Strainer Housings, Diffusers, Flange, Bends, Inserts

GX12CrMoVNB9-1
GX12CrMoWVNB10-1-1
 (Ferritic-martensitic Steels)

EN-10213: Part 2

GP-240GH
 G20Mo5,
 G17CrMo5-5
 G17Cr Mo9-10
 G17Cr MoV5-10

ASTM A 217

WC-6, WC-9

ASTM A 389

ASTM A 487

JIS G 5151

DIN 17245

Hydro Turbine & Pumps Castings for Medium & Large Projects

Material Grades

- Regular supplier of castings for Francis & Kaplan Turbines up to 200 MW large Hydro units.
- Use VOD /AOD Process for 13/4 stainless steels
- High Impact values at sub zero temperature
- Developed NITRONIC steel for high wear resistance.
- Manufacturer of Main Inlet Valve Castings

Items/Components

- Runner Crown, Band
- Wicket Gates, Blades
- Kaplan Runner Hub Body
- Pelton Wheels
- Spherical Valve Door & Butterfly valve
- CWP Pumps Impellers, Pump Casings
- Diffusers, Bell mouth Liners

ASTM A 743,
 CA-6NM, CA-15
 CA-40,CF-8M,CF-8

EN-10283

GX4CrNi 13-4
 GX5CrNi 19-10

ASTM A 148

Gr.120/95

IS 2708, Gr. 1, 2, 3

DIN 17205

GS20Mn5,GS30Mn5
 GS42CrMo4

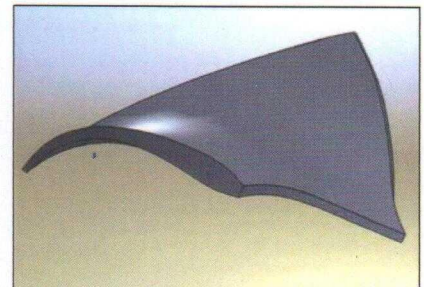
BS 3100

Gr.A2, A4, A5, A6

JIS G 5121

DIN 17445

DIN 17245

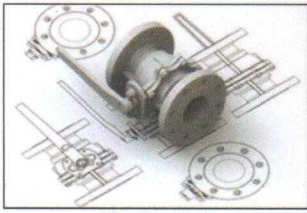


Blade Steel & Rolled/Forged Materials (ESR & Non ESR process)

- Blade Steel for Sub and Super Critical Steam/Compressor/Gas turbines
- Non Magnetic Steel for Turbo Generators such as Tension Bolt & Finger Material.
- Creep Resistant Steel for Steam/Gas turbine/Turbo Generators, Spring Forgings, Clamping Ring, Winding Support Ring and Impeller Forgings
- Steel for Shafts, Blades, Fans, Pump parts, Valves, Fasteners & Transducers
- Stainless steel for Shroud Segments for Gas Turbines

Blade Steel	Rolled/Forged Steel for Parting Plane Fasteners	Round/Flat Bars for Non Magnetic Steel For Turbo Generator
<p>ESR & NON ESR Grade BHEL / NTPC Projects X20Cr13 X22CrMoV121 X10Cr16Ni14Mo23 or X8CrNiNb1613 X12CrMoWVNb-N10-1-1 X19CrMoVNBn-1-1-1</p> <p>L&T MHPS 12 Cr Steel 12 Cr-Mo-W-V 12 Cr-Mo-W-V-Nb 09 Cr-1Mo-V-Nb-N</p> <p>Toshiba 11 Cr-Mo-V-W-Nb-N 10.7 Cr-Mo-V-Nb-N</p> <p>ALSTOM X22CrMoV121 X20Cr13</p> <p>TRIVENI ENGINEERING X22CrMoV121 X20Cr13</p> <p>FINE FORGE X20Cr13 X19CrMoVNBn111 X10CrNiMoV1222 X5CrNi134</p>	<p>ESR & Non ESR Grades BHEL / NTPC Projects 21CrMoV57 21CrMoNiV4-7 1.25Cr1Mo0.75V TiB 11CrMo9-10 25Cr16Mo30V22 26NiCrMo146 26NiCrMoV11-5 X8CrNiNb1613 X10CrMoVNB9-1 X12CrMoWVNbN10-1-1 15CrMo910 X12Cr13 15Cr16Ni2 40NiCrMo65 X20Cr13 X22CrMoV121</p> <p>L&T MHPS 12 Cr Steel 12 Cr-Mo-W-V Steel 12 Cr-Mo-W-V-Nb Steel</p> <p>Toshiba 34CrMo4 40CrMoV4-6 11 Cr-Mo-V-W-Nb-N Steel 10.7 Cr-Mo-V-Nb-N Steel</p> <p>ALSTOM 34CrMo4 34CrNiMo6 28NiCrMoV8-5 30CrNiMo8 21CrMoV57</p>	<p>ESR & Non ESR Grades BHEL / NTPC Projects X40MnCrN19K X35Mn18 X120Mn12</p> <p>ALSTOM X40MnCrN19K</p> <p>Forged Components for Generator & Impeller Forging BHEL / NTPC Projects 40CrMoV69 X5MnCrMn1818 BS:2S144</p>

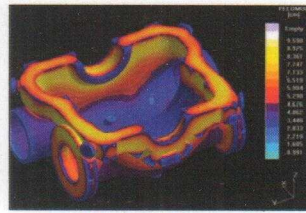
We deliver Quality with expertise from development to the finished product.



Engineering



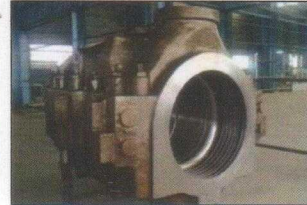
Pattern Shop



MaGma Soft Simulation



Pre- Machining



CNC Machining



2000 MT Forging Press



ESR Furnace

ENGINEERING

CAD: Based on the engineering drawings of our customers , we use latest software to develop casting drawings and 3D models.

CAE: Modern simulation software makes it possible to simulate, analyze and optimize production process from moulding to solidification.

CAM: 3-axis CNC machining technology allows us to machine high-precision castings with the highest levels of dimensional accuracy.

MANUFACTURING

Steel melts produced through Electric Arc Furnace, followed by Secondary Refining at Ladle Refining Furnace and Vacuum Degassing Station ensures Clean Steel with low Sulphur, Phosphorus and Gas levels in the primary Melt. This eventually helps in achieving better Quality of Cast, Forged & Rolled Products.

Important equipment like 2000MT OPEN DIE Forging Press and Rolling Mills ensure proper hot working of forged rolled steels which helps in achieving the desired properties.

In-house facilities for all critical operations such as melting, molding & pouring, rolling, forging, heat treatment, machining, fabrication & welding (SMAW & TIG) and NDT.

We are equipped to carry out Cast Weld constructions of similar & dissimilar materials with SMAW & TIG process as well as surface cladding and Hydro Pressure testing.

ANNUAL CAPACITY

- 4000 MT Steel Castings up to 65 MT single Pc
- 6000 MT Blade Flats in various sections
- 3000 MT Forgings

QUALITY ASSURANCE

Strict Control is exercised on chemical composition and other critical parameters like selection of scrap having minimal tramp elements, control on temperature during forging, rolling and heat treatment and our certification in accordance with ISO 9001, ISO 14001 and IBR 1950 guarantees the highest quality in an absolute manner.

- Ultrasonic testing with straight and angle probes
- Magnetic particle testing wet Method
- X-ray testing by Ir-192 & CO-60 source
- Liquid penetrant testing
- Dimensional control



Star Wire (India) Limited

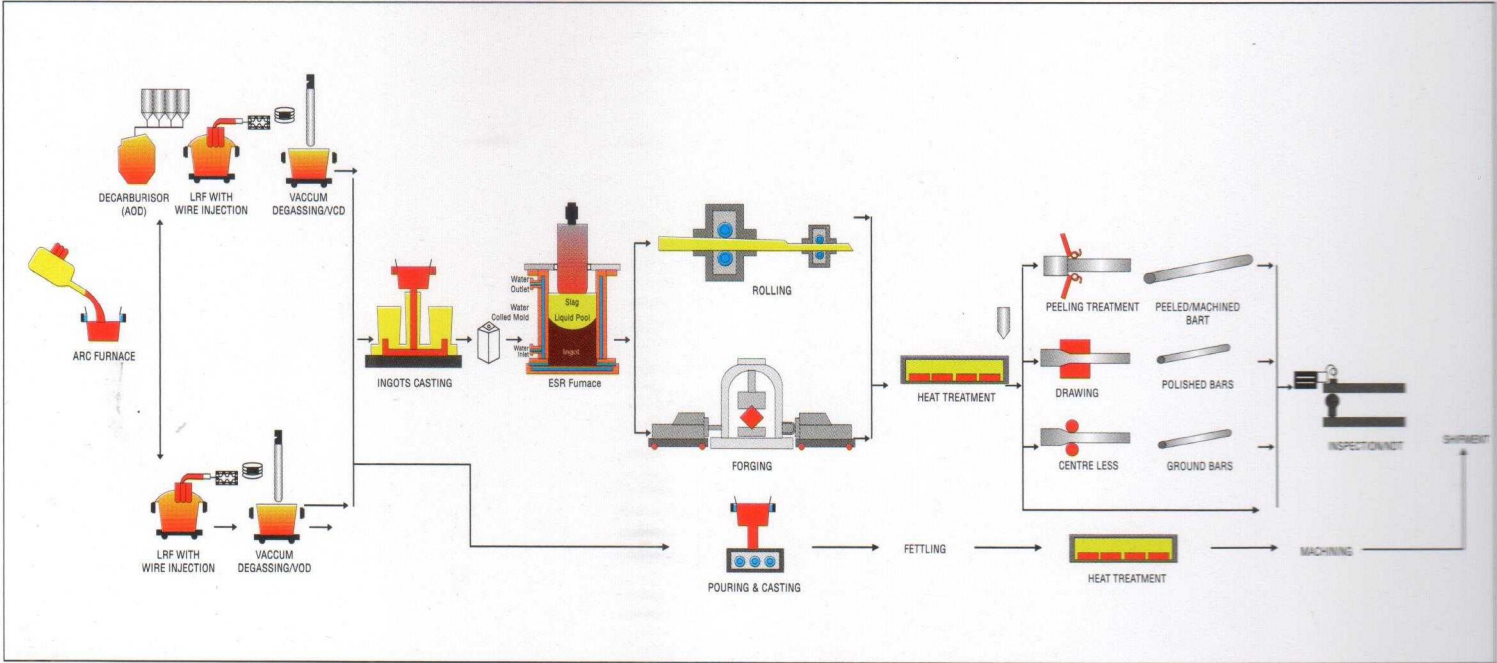
21/4, Mathura Road, Ballabgarh-121004, Haryana, India

Tel: +91-129 - 4094200, Fax: +91-129-2241265

Email: foundrymktg@starwire.in, powersectormktg@starwire.in

Web: www.starwire.in

PROCESS FLOW CHART





Star Wire (India) Limited

21/4, Mathura Road, Ballabgarh-121004, Haryana, India

Tel: +91-129- 4094200, Fax: +91-129-2241265

Email: info@starwire.in, Web: www.starwire.in

Regd. Office

35, 2nd Floor, Link Road, Lajpat Nagar - III, New Delhi - 110024