



# **SHREE RAM**

**ALLOY STEEL CORPORATION**

STOCKIST : Alloy Steel, Die Steel,  
Carbon Steel, Round Flats & Special Steel



- [www.srasco.com](http://www.srasco.com) -



## Infrastruture & Background

Our Company is an Indian Based Company. We manufacture all type of steel items. We enjoy an enviable reputation in manufacture and supply of steel item. We have the pleasure of presenting to you an innovation and comprehensive collection of steel product. Our vast experience in this field has given us the knowledge and expertise to gain a competitive edge in the highly demanding Indian Market.

We are committed to continuously improve and upgrade our infrastructure to world class standards. Our material stocking capacity in our yards together is over 600 tons and have over 12 cutting machines running at these centers to serve the ever increasing delivery requirement of our esteemed clients.

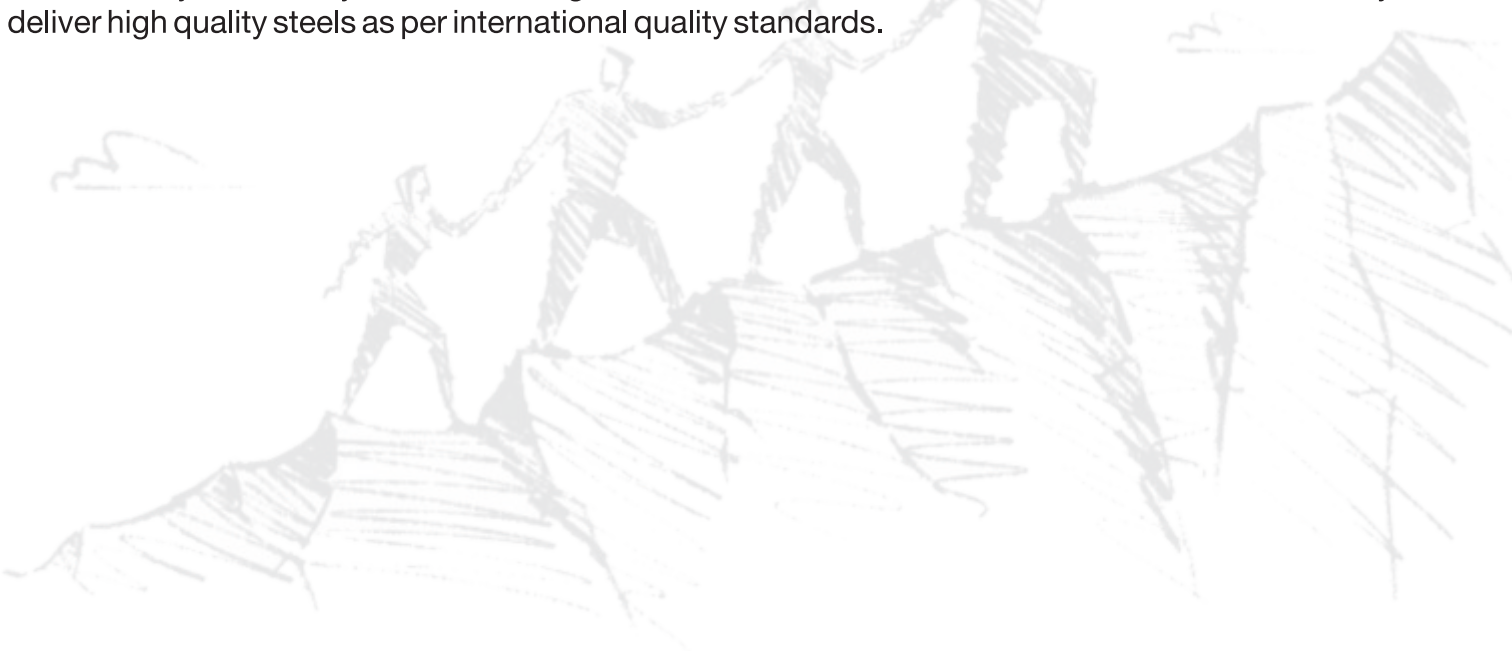
We have our own machining shop which can help our customers with some value addition and also save their downtime with regards to raw material. With overall staff strength of over 18 dedicated people we can also claim to have one of the fastest responding people to the queries of our end users.

## About Us

Shree Ram Alloy Steels having more than 20 years of business expertise, we offer to our customers wide range of Tool steel and Hardening Steel. Our complete assortment entails Alloy Steels and Industrial Tool Steels. These products are fabricated in the state-of-the-art production facilities of our suppliers.

Our range of products includes Alloy Steels, Tool Steels, Carbon Steel, Case Hardening Steel, Alloy Steel Plates, Alloy Steel Round Bars, Carbon Alloy Steel Bar, Industrial Tool Steels, Oil Hardening Tool Steel, Hot Work Tool Steel, High Carbon High Chromium Steel, Spring Steel, Direct Hardening Steel and many more. Our range is widely used in the Metal fabrication, Engineering, Chemical, Electrical, Electronics units and other industries.

We have created a large vendor base to procure high grade Steels from the renowned companies of the market. Furthermore, we have also created modern logistic and supply, quality assurance and warehousing divisions to meet the variegated demands of the customers. Our all infrastructural wings are efficiently handled by the team of diligent executives and workers, who works with full efficiency to deliver high quality steels as per international quality standards.





## Our Team

We are supported by a team of experienced professionals, which we have appointed after rigorous selection process and personal interview. All these professionals possess vast industry experience and knowledge and are masters of their respective work. Our professionals utilize their experience and knowledge to carry out all the business related activities in a systematic manner and with perfection. Along with this, these professionals work in tandem with the patrons to understand their need and offer them products according to it. To keep our professionals updated with latest technology and market dynamics, we organize various workshops and skill enhancement classes on regular interval.

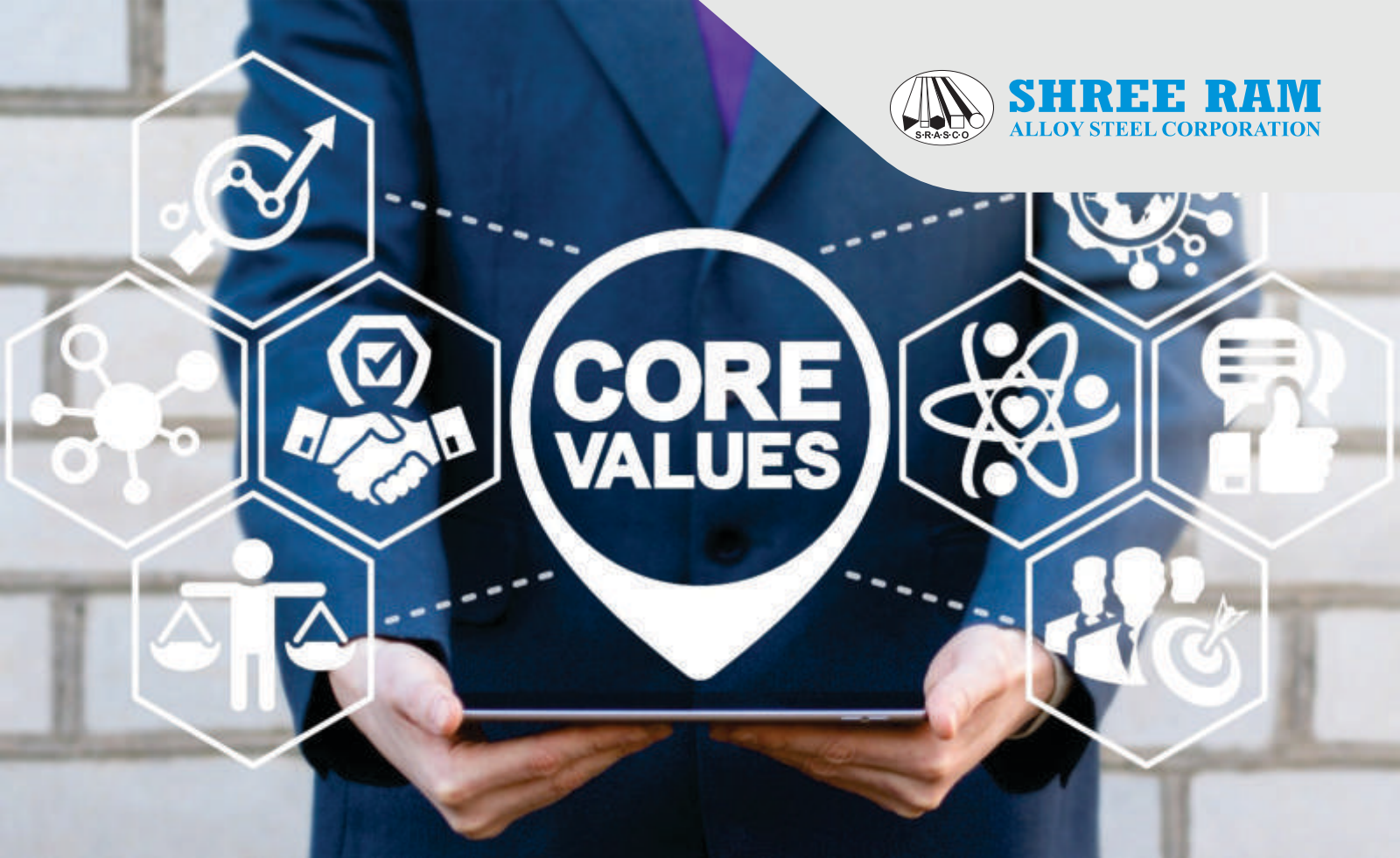
## Why Us?

- Large production capacity
- Ethical business policies
- Superior quality products
- Customer oriented process
- Timely delivery of products
- Strong focus on quality compliance
- Easy mode of payment
- Distribution network





**SHREE RAM**  
ALLOY STEEL CORPORATION



## Core Values

- Accountability
- Commitment
- Excellence
- Innovation
- Integrity
- Trust







**SHREE RAM**  
ALLOY STEEL CORPORATION



## We Committed To



Best  
Service



Product  
Service  
Quality



Value  
For  
Money



Moral  
Ethics





## Stock List

### BLACK ROUND :

16, 18, 20, 22, 25, 28, 32, 36, 40, 45, 50, 56, 60, 65, 70, 80, 90, 100, 105, 110, 115, 120, 125, 130, 140, 150, 160, 170, 180, 200, 210, 220, 230, 240, 250, 260, 270, 280, 290, 300 Up to 500 MM

### BLACK FLAT

25 MM X 6, 10, 13, 16, 20 MM  
32 MM X 6, 10, 13, 16, 20, 25 MM  
40 MM X 6, 10, 13, 16, 20, 25 MM  
50 MM X 6, 10, 13, 16, 20, 25, 32, 40 MM  
65 MM X 6, 10, 13, 16, 20, 25, 40, 50 MM  
80 MM X 6, 10, 13, 16, 20, 25, 32, 40, 50 MM  
100 MM X 6, 10, 13, 16, 20, 25, 32, 40, 50 MM  
125 MM X 13, 16, 20, 25, 32, 40, 50, 65, 80, 100 MM  
150 MM X 13, 16, 20, 25, 32, 40, 50, 65, 80, 100, 130 MM  
200 MM X 13, 16, 20, 25, 32, 40, 50, 65, 80, 100, 130 MM  
250 MM X 20, 25, 32, 40, 50, 65, 80, 100, 130 MM  
300 MM X 25, 32, 40, 50, 65, 80, 100, 130 MM  
350 MM X 25, 32, 40, 50, 65, 80, 100, 130 MM  
400 MM X 25, 32, 40, 50, 65, 80, 100, 130 MM

## Chemical Composition

GRADE	C	Mn	Si	S	P	Cr	Ni	Mo
EN-8	.35-.45	.60-1.00	.10-.35	.050MAX	.050MAX	-	-	-
EN-8D	.40-.45	.70-.90	.05-.35	.060 MAX	.060 MAX	-	-	-
EN-9	.50-.60	.50-.80	.05-.35	.040 MAX	.040 MAX	-	-	-
EN-19	.35-.45	.50-.80	.10-.35	.040	.040	.90-1.40	-	.20-.40
EN-24	.35-.45	.45-.70	.10-.35	.040	.040	.90-1.40	1.30-1.80	.20-.40
EN-31	.90-1.20	.30-.75	.10-.35	.040	.040	1.00-1.60	-	-
EN-41B	.35-.45	60 Max	.10-.45	.040	.040	1.50-1.80	40 MAX	.10-.25
EN-47	.45-.55	.50-.80	.50 Max	.040	.040	.80-1.20	-	-
20MnCr5	.17-.22	1.10-1.40	.10-.35	.035	.035	1.00-1.30	-	-
SAE-4140	.38-.43	.75-1.00	.20-.35	.035	.035	.80-1.10	.15-.25	-
SAE-8620	.18-.23	.70-.90	.20-.35	.040	.040	.40-.60	.40-.70	.15-.25
EN-353	.20 Max	.50-1.00	.35 Max	.040	.040	.75-1.25	1.00-1.50	.80-.15
EN-36C	.12-.18	.30-.60	.10-.35	.040	.040	.60-1.10	3.00-3.75	.10-.25
OHNS	.85-1.00	1.00-1.20	.15-.35	.03	.03	.50-.70	-	-
WPS-D3	2.0-2.35	.60	.60	.03	.03	11-13.50	.30	-
WPS-D2	1.40-1.60	.60	.60	.03	.03	11.0-13.0	.30	.70-1.20
H11	.33-.43	.20-.50	.80-1.20	.03	.03	4.75-5.50	.30	1.10-1.60
H13	.32-.45	.20-.50	.80-1.20	.03	.03	4.75-5.50	.30	1.10-1.75
DIN 1.2714	.50-.60	.65-.95	.10-.40	<.004	<.015	1.0-1.20	1.50-1.80	.45-.55
P20 1.2311	.40	1.45	.30	-	-	1.95	-	0.20
P20 1.2738	.35-.45	1.30-1.60	.20-.40	Max .035	Max .030	1.80-2.10	.90-1.20	.15-.25
P20 1.2316	.33-.43	Max 1.00	Max 1.00	Max .005	-	15.0-17.0	Max 1.00	1.00-1.30



## Product Type

### Circles

We are involved in the manufacturing of high quality forged circle. Forged steel circle manufactured by us are used for various engineering application across the industries.

#### Dimensional Specification

Up to 1200 MM outer diameter

#### Material Specification

Our circles are available in:

Carbon Steel.

Alloy Steel.



### Block

We manufacture high quality Blocks. We always believe in manufacturing excellent quality steel blocks with no compromise on quality.

#### Dimensional Specification

Any size upto our capability.

#### Material Specification

Our blocks are available in:

Carbon Steel.

Alloy Steel.



### Flat

Our Sharp Cornered forged flats do not require torch/flame cutting. Any thickness within our capabilities can be produced on one of our three steam driven hammers, our capabilities are as follows:

#### Dimensional Specification

Length up to 120°, No minimum requirement.

#### Material Specification

Our flat are available in:

Carbon Steel.

Alloy Steel.



### Ring

Our modern equipment allows us the flexibility to produce rings in a variety of grades and configurations. These forged rings are available in different diameters, weights and thickness which can be used for enormous purposes.

#### Dimensional Specification

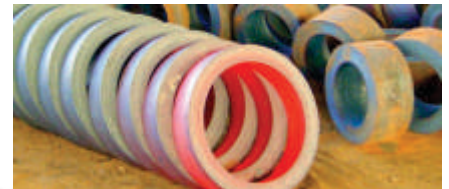
Up to 1000 MM outer diameter

#### Material Specification

Our rings are available in:

Carbon Steel.

Alloy Steel.



### Round Bar

Forged rounds are available in any diameter within our capabilities. Forged bars offer refined grains and improved strength.

#### Dimensional Specification

Any size Up to 500 MM outer diameter

#### Material Specification

Our bars are available in:

Carbon Steel.

Alloy Steel.



### Forger Spindles

Our forging experts are capable of producing special shapes, send us your drawing.

- + Size and weight upon application
- + Save time on machining from solid bar
- + No minimum requirement

#### Material Specification

Our spindles are available in:

Carbon Steel.

Alloy Steel.





## Weight Formulas

<b>ROUND</b>	: OD (MM) X OD (MM) X 0.0019 WEIGHT PER FEET.
<b>HAXAGON</b>	: OD (MM) X OD (MM) X 0.0021 WEIGHT PER FEET.
<b>SQUARE</b>	: OD (MM) X OD (MM) X 0.0024 WEIGHT PER FEET.
<b>PIPE</b>	: OD (MM) - THICKNESS X THICKNESS X 0.0075 WEIGHT PER FLEET.
<b>FLATS</b>	: WIDTH (MM) X THICKNESS (MM) X 8/1000 WEIGHT PER MTR.
<b>PLATE</b>	: LENGTH (MTR) X WIDTH (MTR) X THINKNES MM X 8 WEIGHT PER PLATE.



**:: Special material for Plastic Moulding Dies ::**

Round & Flats, All Size Ready in Stock

**GRADE : 1.2311, 1.2738 + Ni, 1.2316**

**MS ALANG FLATS & ROUNDS**

**C45 FLATS & ROUNDS**





## Products

**En-8D**

**En-9**

**En-19**

**En-24**

**En-31**

**En-41-B**

**OHNS**

**WPS-D3**

**WPS-D2**

**HOTDIE-H11**

**HOTDIE-H13**

**DB-6/DIN 1.2714**

### **OUR CONSTRUCTIVE PRODUCTS**

**En-47**

**20 Mn Cr-5**

**SAE-4140**

**SAE-8620**

**En-353**

**En-36**

**SILVER STEEL**

**P20 1.2311**

**P20 1.2738 + Ni**

**P20 1.2316**

**MS PLATE**

**C45 PLATE**



## EN-8D

### Specification of En-8D

Standards	Designation	Length	Diameter	Type	Certification
ASTM	A510	6-12m	8-120mm	En8D Carbon Steel Round Bar	ISO 9001:2008

### Chemical Composition of En-8D

GRADE	Chemical Composition %				
	C	Si	Mn	S	P
EN-8D	0.40-0.45	0.05-0.35	0.70-0.90	0.060 MAX	0.060 MAX

### Applications of En-8D

Typical applications of En-8d steel round bar include :

- ✦ Gears
- ✦ Shafts
- ✦ Axles
- ✦ Bolts
- ✦ Studs
- ✦ Crane Wheels
- ✦ Machine Parts



### Physical Properties of En-8D

Physical Properties	Metric	Imperial
Density	7.85 g/cm <sup>3</sup>	0.284 lb/in <sup>3</sup>

### Mechanical Properties of En-8D

Grade	Tensile Strength (Mpa)	Yield Strength (Mpa)	Elongation in 100-150 mm(%)	Reduction in Area	Hardness
En8D	≥380	≥210	≥25	≥50	≤111HB





## EN-9

### Specification of En-9

Standards	Designation
ASTM	B 473

### Chemical Composition of En-9

GRADE	Chemical Composition %				
	C	Si	Mn	S	P
En-9	0.50-0.60	0.015-0.035	0.50-0.80	0.4 Max	0.035 Max

### Applications of En-9

En-9 steel is suitable for engineering applications which require higher strength and wear resistance. Typical applications include:

- ✦ Shafts
- ✦ Axes
- ✦ Knives
- ✦ Bushes
- ✦ Crankshafts
- ✦ Screws
- ✦ Sprockets
- ✦ Springs
- ✦ Cylinders
- ✦ Cams
- ✦ Sickles
- ✦ Wood Working Drills
- ✦ Small Gears
- ✦ Machine Tools
- ✦ Keys and Hammers



## EN-19

### Specification of En-19

Standards	Designation
AISI	4140

### Chemical Composition of En-19

GRADE	Chemical Composition %						
	C	Si	Mn	S	P	Cr	Mo
EN-19	0.35-0.45	0.10-0.35	0.50-0.80	max 0.040	max 0.040	0.90-1.40	0.20-0.40

### Applications of En-19

- ✦ Automotive Gears and Parts
- ✦ Shafts
- ✦ Towing Pins
- ✦ Load Bearing Tie Rods
- ✦ Oil & Gas Industry Applications





## EN-24

### Specification of En-24

Standards	Designation
AISI	4340

### Chemical Composition of En-24

GRADE	Chemical Composition %							
	C	Si	Mn	S	P	Cr	Ni	Mo
En-24	0.35-0.45	0.10-0.35	0.45-0.70	≤0.040	≤0.040	0.90-1.40	1.30-1.80	0.20-0.40

### Applications of En-24

- ✦ High Strength Shafts
- ✦ Punches & Dies
- ✦ Drill Bushings
- ✦ Retaining Rings
- ✦ Gears



## EN-31

### Specification of En-31

Standards	Designation
-	52100

### Chemical Composition of En-31

GRADE	Chemical Composition %					
	C	Si	Mn	S	P	Cr
EN-31	0.90-1.20	0.10-0.35	0.30-0.75	0.040 Max	0.040 Max	1.00-1.60

### Applications of En-31

Typical applications for EN-31 steel include

- ✦ Taps
- ✦ Gauges
- ✦ Swaging Dies
- ✦ Ejector Pins
- ✦ Ball
- ✦ Roller Bearings

It is a good quality steel for wear resisting machine parts and for press tools which do not merit a more complex quality.





## EN-41-B

### Chemical Composition of En-41-B

GRADE	Chemical Composition %							
	C	Si	Mn	S	P	Cr	Mo	Al
En-41-B	0.35-0.45	0.10-0.45	60MAX	0.040	0.040	1.50-1.80	0.10-0.25	1.90-1.30

### Applications of En-41-B

EN-41-B is used for applications that require high wear resistance and abrasion in the automotive, textile and general engineering industries.

Typical applications

- ✦ Connecting Rods
- ✦ Injection Moulding Equipment
- ✦ Small Extrudes
- ✦ Hydraulic Cylinders
- ✦ Valve Stems
- ✦ Gears and Pinions
- ✦ Brick Press Plates
- ✦ Die Inserts
- ✦ Clutch Plates
- ✦ Valve and Gate Parts
- ✦ Gudgeon
- ✦ Cams
- ✦ Track and Shackle Pins
- ✦ Piston Pins



## EN-47

### Specification of En-47

Standards	Designation
AISI	6150

### Chemical Composition of En-47

GRADE	Chemical Composition %						
	C	Si	Mn	S	P	Cr	V
EN-47	0.45-0.55	0.50	0.50-0.80	0.06	0.06	0.80-1.20	0.15

### Applications of En-47

En47 spring steel is used widely in the motor vehicle industry and many general engineering applications. Suitable for applications that require high tensile strength and toughness.

Typical applications include

- ✦ Crankshafts
- ✦ Steering knuckles
- ✦ Gears
- ✦ Spindles
- ✦ Pumps





## 20 Mn Cr-5

### Specification of 20 Mn Cr-5

Standards	Designation
AISI	5120

### Chemical Composition of 20 Mn Cr-5

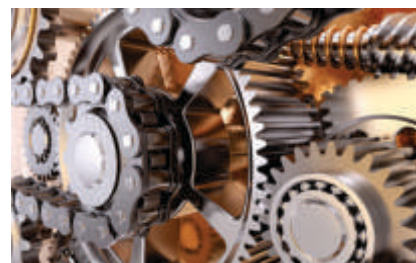
GRADE	Chemical Composition %					
	C	Si	Mn	S	P	Cr
20 Mn Cr-5	0.17-0.22	0.10 -0.40	1.10-1.40	0.035	0.035	1.00-1.30

### Applications of 20 Mn Cr-5

20 Mn Cr- 5 | 1.7147 gearing steel is widely used for a variety of applications in the used to the gearings in rotating machinery.

Typical applications such as

- Valve Bodies
- Machine Tools
- Double-Headed Bolts
- Pumps
- Gears
- Electric Locomotives
- Fittings
- Boring Machine
- Steel Rolling Equipment
- Tractors
- Railway Vehicle
- Internal Combustion Engine
- Bolts
- Mining Machinery
- The High Load of the Wheel
- Roller
- Shaft Sleeve
- Transmission Shaft on the Steel Ball



## SAE-4140

### Specification of SAE-4140

Standards	Designation
AISI	4140

### Chemical Composition of SAE-4140

GRADE	Chemical Composition %						
	C	Si	Mn	S	P	Cr	Ni
EN-19/ 708M40	0.38- 0.43	0.20- 0.35	0.75- 1.00	0.35	0.35	0.80- 1.10	0.15- 0.25

### Applications of SAE-4140

- Automotive Gears and Parts
- Shafts
- Towing Pins
- Load Bearing Tie Rods
- Oil & Gas Industry Applications





## SAE-8620

### Specification of SAE-8620

Standards	Designation
ASTM	A29

### Chemical Composition of SAE-8620

GRADE	Chemical Composition %							
	C	Si	Mn	S	P	Cr	Ni	Mo
SAE8620	0.18-0.23	0.15-0.35	0.7-0.9	0.040	0.035	0.4-0.6	0.4-0.7	0.15-0.25

### Applications of SAE-8620

The SAE 8620 can be used for a number of medium-strength applications such as

- ✦ Camshafts
- ✦ Fasteners
- ✦ Gears
- ✦ Chains/Chain Pins



## En-353

### Chemical Composition of En-353

GRADE	Chemical Composition %							
	C	Si	Mn	S	P	Ch	Mo	Ni
En-353	0.10-0.20	0.10-0.35	0.50-1.00	0.040 Max	0.040 Max	0.75-1.25	0.08-0.15	1.00-1.50

### Applications of En-353

Acceptable for many automobile applications such as

- ✦ Heavy-Duty Gear
- ✦ Shaft
- ✦ Pinion
- ✦ Camshafts
- ✦ Gudgeon
- ✦ Pins



## En-36C

### Specification of En-36C

Standards	Designation
AISI	3415

### Chemical Composition of En-36C

GRADE	Chemical Composition %							
	C	Si	Mn	S	P	Cr	Ni	Mo
En-36C	0.12-0.18	0.10-0.35	0.30-0.60	0.05 Max	0.05 Max	0.60-1.10	3.00-3.75	0.10-0.25

### Applications of En-36C

As a carburizing steel grade, it is suitable for roller and ball bearings of an extra light section, airplane and motor crankshafts requiring hard surfaces for roller paths, connecting rods with case-hardened ends, as well as highly stressed gudgeon pins, gears, and certain types of collect.



## OHNS CW1

### Specification of OHNS

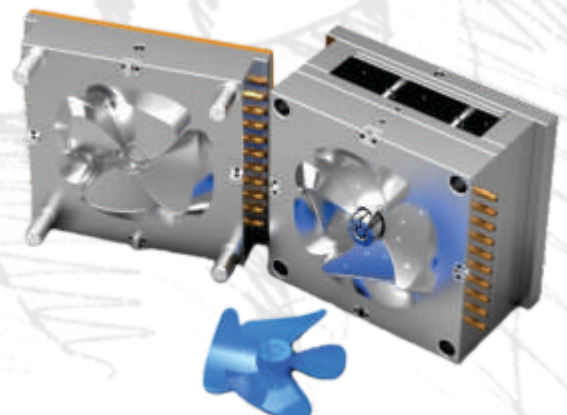
Standards	Designation
TOOL STEEL	01

### Chemical Composition of OHNS CW1

GRADE	Chemical Composition %						
	C	Si	Mn	S	P	Cr	W
OHNS	0.85-1.00	0.15-0.35	1.00-1.20	0.03 Max	0.03 Max	0.50-0.70	0.50-0.70

### Applications of OHNS

- Blanking and Stamping Dies
- Punches
- Rotary Shear Blades
- Thread Cutting Tools
- Milling Cutters
- Reamers
- Measuring Tools
- Gauging Tools
- Woodworking Tools
- Broaches
- Chasers





## WPS-D3

### Chemical Composition of WPS-D3

GRADE	Chemical Composition %									
	C	Si	Mn	S	P	Cr	Ni	V	Cu	W
WPS-D3	2.00-2.35	0.60	0.60	0.03	0.03	11.00-13.50	0.30	1.00	0.02	1.00

### Applications of WPS -D3

AISI D3 Cold Work Steel has high strength, good hardenability and wear resistance. D3 is suitable for applications such as complex blanking and forming tools for long runs and for hard and abrasive materials.

#### Typical Applications

- ✦ Highly stressed cutting
- ✦ Stone processing tools
- ✦ Shear blades for cutting
- ✦ Punching tools for thin sheets
- ✦ Drawing and deep drawing tools
- ✦ Highly wear-resistant plastic moulds
- ✦ Pressure pads
- ✦ Profile rolls
- ✦ Deep drawing
- ✦ Shear knives for thin sheets
- ✦ Knives for paper and plastics



## WPS-D2

### Chemical Composition of WPS-D2

GRADE	Chemical Composition %										
	C	Si	Mn	S	P	Cr	Mo	Ni	V	Cu	Co
WPS-D2	1.40-1.60	0.60	0.60	0.03	0.03	11.00-13.00	0.70-1.20	0.30	1.10	0.25	1.00

### Applications of WPS-D2

#### Typical applications for D2 Steel

- ✦ Stamping or Forming Dies
- ✦ Punches
- ✦ Forming Rolls
- ✦ Knives
- ✦ slitters
- ✦ shear blades
- ✦ Tools
- ✦ Scrap choppers
- ✦ Tyre shredders



## HOTDIE-H11

### Chemical Composition of HOTDIE-H11

GRADE	Chemical Composition %										
	C	Si	Mn	S	P	Cr	Mo	Ni	V	Cu	Fe
<b>HOTDIE H-11</b>	0.33-0.43	0.80-1.20	0.20-0.50	0.03	0.03	4.75-5.50	1.10-1.60	0.3	0.30-0.60	0.25	Balance

### Applications of HOTDIE H-11

H11 alloy steel is often used for highly stressed structural parts such as aircraft landing gear.

Some typical applications

- ✦ Hot Punches
- ✦ Die Casting Dies
- ✦ Forging Dies
- ✦ Hot Shear Blades
- ✦ Hot Gripper Dies
- ✦ Extrusion Tooling

The tools produced from H11 chromium hot-work steels can be cooled using water without damage as these steels have low carbon and alloy contents. We are reliable supplier of AISI H11 tool steel and we offer and delivery satisfactory quality of H-11 tool steel. Contact us for best offer of AISI H11 steel materials.



## HOTDIE-H13

### Chemical Composition of HOTDIE-H13

GRADE	Chemical Composition %									
	C	Si	Mn	S	P	Cr	Mo	Ni	V	Cu
<b>HOTDIE H-13</b>	0.32-0.45	0.80-1.20	0.20-0.50	0.03	0.03	4.75-5.50	1.10-1.75	0.30	0.80-1.20	0.25

### Applications of HOTDIE H-13

- ✦ Hot Forging and Pressing Dies
- ✦ Extrusion Dies
- ✦ Mandrels and Punches
- ✦ Hot Chisels
- ✦ Pressure Pads
- ✦ Extrusion Stems
- ✦ Rams
- ✦ Blanking and Bending Tools
- ✦ Hot Heading Tools
- ✦ Backer Blocks



## DB 6 / DIN 1.2714 Die Tool Steel

### Chemical Composition of DB 6 / DIN 1.2714 Die Tool Steel

GRADE	Chemical Composition %								
	C	Si	Mn	S	P	Cr	Mo	Ni	V
DB 6 / DIN 1.2714	0.50-0.60	0.10-0.40	0.65-0.95	<0.004	<0.015	1.0-1.20	0.45-0.55	1.50-1.80	0.07-0.12

### Properties of DB 6 / DIN 1.2714 Die Tool Steel

The exceptional hot work pre-solidified tool steel has great toughness and high wear resistance. DB-6 die steel condition in strengthened condition in exceptional cases. Normally it's working hardness is 360 - 430 BHN.

### Applications of DB 6 / DIN 1.2714 Die Tool Steel

Dies for specially drop and close die forgings for

- ✦ Hammers & Mechanical Presses
- ✦ Shearing Blades
- ✦ Die Moulds
- ✦ Tools
- ✦ Shoe Blocks



## P20 1.2311

### Chemical Composition of P20 1.2311

GRADE	Chemical Composition %				
	C	Si	Mn	Cr	Mo
P20 1.2311	0.40	0.30	1.45	1.95	0.20

### Properties of P20 1.2311

Prehardened plastic mould steel with good machinability, better than steel grade Mat. No. 1.2312, suitable for texturing.

### Applications of P20 1.2311

- ✦ Plastic Moulds
- ✦ Mould Frames for Plastic Moulds
- ✦ Large Injection Moulds
- ✦ Pressure Casting Dies
- ✦ Recipient Sleeves



## P20 1.2738 + Ni

### Compatible Specification of P20 1.2738

Grade - 1.2738 + Ni

### Chemical Composition of P20 1.2738

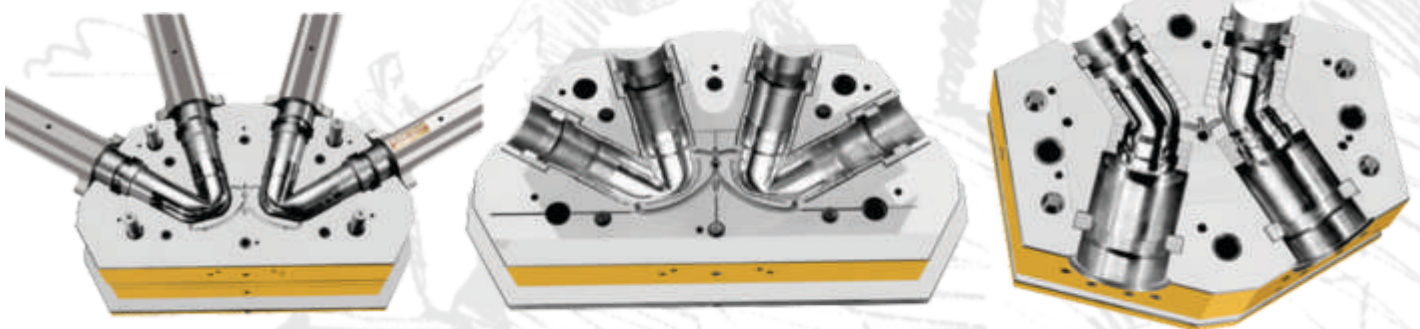
GRADE	Chemical Composition %							
	C	Si	Mn	S	P	Cr	Mo	Ni
<b>P20 1.2738</b>	0.35- 0.45	0.20- 0.40	1.30- 1.60	Max 0.035	Max 0.030	1.80- 2.10	0.15- 0.25	0.90- 1.20

### Properties of P20 1.2738 + Ni

1. The material already process quenching and tempering heat treatment first before dispatching from the factory in order to reduce customer's cost.
2. High Hardenability.
3. Good stability in hardness.
4. The toughness and wear resistance are good, and surface is similar to mirror after grind.
5. Easy to cut and process.
6. Steel can be through nitrogeneration and flame hardening treatment in order to increase the hardness and wearability of mould surface.

### Applications of P20 1.2738 + Ni

- ✦ Plastic injection mould steel
- ✦ The mould steel for plastic products with surface gloss and semitransparent
- ✦ High strength mould plate, structural shaft
- ✦ Large-scale mould
- ✦ The form is complicated and high-precision products







## P20 1.2316

### Chemical Composition of P20 1.2316

GRADE	Chemical Composition %						
	C	Si	Mn	S	Cr	Mo	Ni
P20 1.2316	0.33-0.43	Max 1.00	Max 1.00	Max 0.005	15.00-17.00	1.00-1.30	Max 1.00

### Properties of P20 1.2316

1. 1.2316(ESR) has high degree of uniformity, purity and cleanliness through ESR (Electro Slag Re-Melted) process.
2. Pre-Hardened Condition of 1.2316(ESR) Steel has been quenched and tempered before shipped in order to lower cost of customers. Customers can save the time of heat-treatment and avoid quenching-crack.
3. The homogenization of hardness.
4. Good Polishability, toughness, and wear-resisting properties.
5. Good machinability.



### Applications of P20 1.2316

- Injection Mould for Plastics
- Die-Casting Mould
- Moulding of Corrosive Material (PVC)

## MS Plate / C-45 Plate

We are supplier of various range of Mild Steel Plates / C45 and profile cuttings at industry leading rates to the clients. These are made from high grade mild steel. These are available in a variety of sizes and as per the client's specifications. These are structural quality steel plate used for a large variety of general construction, engineering and industrial applications.

Thickness Available : 1 mm to 350 mm  
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Length Available : 5000 mm to 12500 mm  
Also available in any cut to size profiles.







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