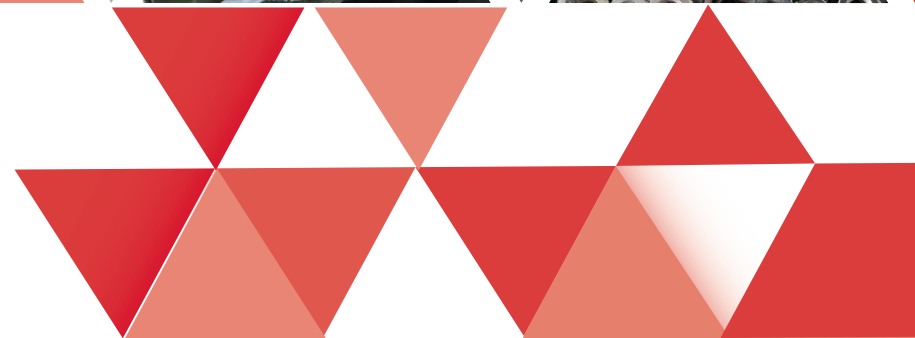
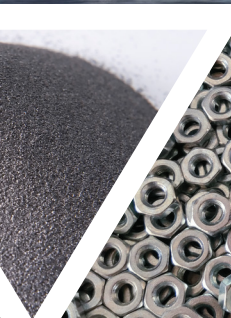
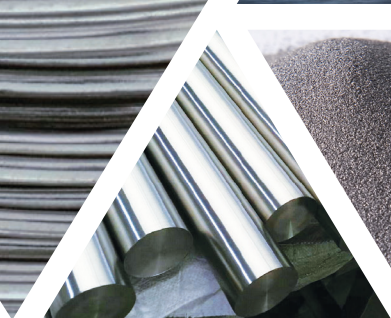
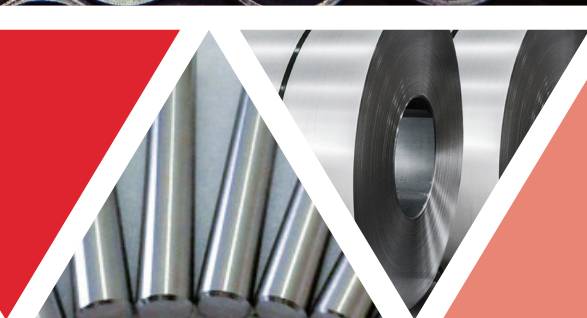
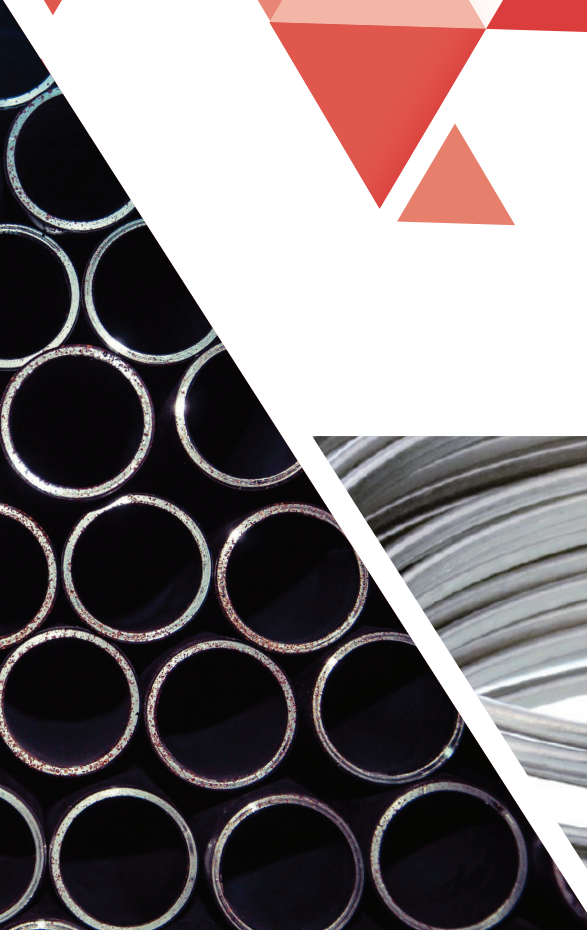




# KALAPURNA

Steel & Engineering Pvt. Ltd.

- ▶ ALUMINIUM & ALLOYS
- ▶ NICKEL & ALLOYS
- ▶ TITANIUM & ALLOYS
- ▶ STAINLESS STEEL
- ▶ COPPER & BRONZE



## INTRODUCTION

Kalapurna Steel and Engg. Pvt Ltd. is a market leader in the supply of (ferrous & non-ferrous) metal and alloys situated in Mumbai city in India. As a leading stockist and supplier of aerospace grade materials, we provide an ever expanding range of products and services to industries and R&D organizations.

Kalapurna was incorporated in 1994 and has been serving customers in a wide range of industries including Aerospace, Marine, Navy, Defence, Space, R&D Centres, Chemical, Petrochemicals, Automotive Engineering Companies, etc. Our seamless operation enable us to offer a wide array of aerospace products services. Our company has succeeded by providing high value products to industries large and small. Our company having collaboration with product manufacturers. Infact, our emphasis on meeting specific needs is a top priority. Our company focuses to provide unique solutions and source even the smallest order to meet customer specification.

Regardless of the size, Kalapurna boasts of a highly energetic and participative workforce. Our ISO 9001 as well as AS9120 certification are proof of our total commitment to the most rigorous standards of excellence and you will find more proof in every product we supply.

At Kalapurna, we plan to be one of the premier players in an industry that is constantly evolving. Even as customer demands remain ever changing and relentless in terms of scope, we are able to meet the challenges by deploying our business strategies throughout the company and staying ahead of the competition. We have proved that we can compete with the best and successfully carry out our own highly profitable niche in a very competitive business area.

Kalapurna team stands ready to work jointly and creatively with you to support your 'PROGRAMME' at the bottom level. You can expect consistency in the excellence of a product and value-added services that cater directly to your needs and all your expectations.

We look upon every assignment as an opportunity to achieve successful results with timely delivery and unsurpassed customer service.



ISO CERTIFICATION



AEROSPACE CERTIFICATION

# ALUMINIUM & ALLOYS

Aluminium and its alloys are truly versatile engineering materials. It is used in industries such as Aerospace, electrical, packing, transport, building and architecture, gas cylinders, machined components, ladders, sporting goods, road burners, furniture and lithographic plates. The main properties, which make aluminium and its alloy a valuable material, are its low density, strength weigh/strength ratio, recyclable, corrosion resistance,

durability, ductility, formability, weld ability and conductivity, As aluminium alloys developed over decades, simultaneously the fabrication processes were also perfected through matching research & development and various aluminium alloys were made available in the forms of plates, sheets, foils, extrusions, diecasting, forgings, and casting.

## FOLLOWING ARE THE AVAILABLE GRADES IN ALUMINIUM & ALLOYS

1050	1055A	1100	1145
1350	1618	2011	2017
2218	3003	3005	4026
5052	5083	5086	5154
6033	6040	6061	6063
6082	6262	7050	7068
7478	8030	8176	

## AEROSPACE GRADES

2014	2014A	2024	2219
6061	7075	7475	

## TEMPERS

T3	T31	T3511	T4
T451	T465	T6	T651
T73	T73511	T74	T74511
T76	T76511	T8	T81
T851	T8511	T9	

SPECIFICATIONS AS PER : AMS 4029, AMS 4035, AMS 4037, AMS 4044, AMS 4050, INDIAN STANDARDS (IS), BRITISH STANDARDS (BS), GOST (RUSSIAN) ETC.

Kalapurna developed this information several sources and technical literature. Kalapurna assumes no responsibility for the accuracy of this information



# NICKEL & ALLOYS

Nickel in elemental form alloyed with other metals and materials has made significant contributions to our present-day society and promises to continue to supply materials for an even more demanding future. Nickel is a versatile element and will alloy with most metals. Nickel and nickel alloys are used for a wide

variety of applications, the majority of which involve corrosion resistance and/ or heat resistance. Some of these include: Aircraft gas turbines, Steam turbine power plants, Medical applications, Nuclear power systems, Chemical and petrochemical industries.

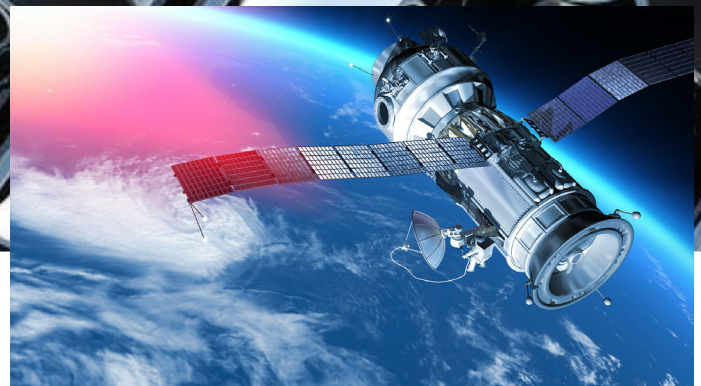
## FOLLOWING ARE THE AVAILABEL GRADES IN NICKEL & ALLOYS

Alloy C276	Alloy C22	Alloy 2000	Alloy C4
Alloy G30	Alloy B2	Alloy B3	Waspaloy
Alloy X-750	Monel R405	Alloy 400	Alloy K500
Alloy 690	Alloy 693	Alloy 800	Alloy 825
Alloy 925	Alloy 200	Alloy 201	



## SPECIFICATIONS:

AMS 4544	AMS 5552	AMS 5664	AMS 5754	AMS 5525	AMS 5597	AMS 5712	AMS 6512
AMS 4574	AMS 5580	AMS 5665	AMS 5755	AMS 5530	AMS 5599	AMS 5713	AMS 6514
AMS 4675	AMS 5587	AMS 5666	AMS 5759	AMS 5536	AMS 5608	AMS 5714	AMS 6520
AMS 4676	AMS 5588	AMS 5706	AMS 5766	AMS 5537	AMS 5660	AMS 5731	AMS 6521
AMS 4730	AMS 5589	AMS 5707	AMS 5772	AMS 5540	AMS 5661	AMS 5732	AMS 7717
AMS 4731	AMS 5590	AMS 5708	AMS 5786	AMS 5541	AMS 5662	AMS 5734	AMS 7718
AMS 5396	AMS 5596	AMS 5709	AMS 5870	AMS 5545	AMS 5663	AMS 5737	AMS 5544



# STAINLESS STEEL

STAINLESS STEEL is not a single material but the name for a family of corrosion resistant steels. Like many scientific discoveries the origins of stainless steel lies in a serendipitous accident. In 1913 Sheffield, England, Harry Brearley was investigating the development of new steel alloys for use in gun barrels. He noticed that some of these samples didn't rust and were difficult to

etch. These alloys contained around 13% chromium. The first application of these steels was in cutlery for which Sheffield subsequently became world famous. Simultaneous work in France led to the development of the first austenitic stainless steels.

## FOLLOWING ARE THE AVAILABLE GRADES IN STAINLESS & OTHER STEELS

FERRITIC	409	430	430F	XM34	430FR	182FM
MARTENSITIC STEELS	410	410S	416	420	431	446
	405	422	440 A	440 B	440 C	
DUPLEX	S32101	S32304	S32205	S32760	S32750	
AUSTENITIC	301	201	304	304L	304LN	304H
	309S	310	314	321	347	303
	305	316	316L	316LN	316Ti	317L
	904L	S31254				
PRECIPITATION HARDENED STAINLESS STEELS	Custom-450 (UNS-545000)	455 (UNS-545500)	465	630(17-4PH)	UNS 517400	17-7PH
	15-5PH	15 – 7PH	Ph 13-8 Mo(UNS-13800)	Alloy 350 (UNSS-S3500)	Alloy 355 (UNS-S35500)	
LOW ALLOY STEEL	30NC11	15CDV6	25CD4S	30NCD16	35CD4	35NCD16
	35NC6	35NCD6	16NCD13	16NCD17	32CDV13	Z6CN18
	Z10CNT	Z6CNT	Z10CNN18	Z6CNUD	Z6NCT2S	Z12CND
	Z10CNW17	28CNDT	28NC			
MARAGING STEEL	Maraging 250	Maraging 300	Maraging 350	Maraging v362		



# TITANIUM & ALLOYS

Since the introduction of titanium and titanium alloys in the early 1950s, these materials have in a relatively short time become backbone materials for the aerospace, energy, and chemical industries. The combination of high strength-to-weight ratio, excellent mechanical properties, and corrosion resistance make titanium the best material choice for many critical application. Today, titanium alloys are used for demanding applications such as static and rotating gas turbine engine components. Some of the most critical

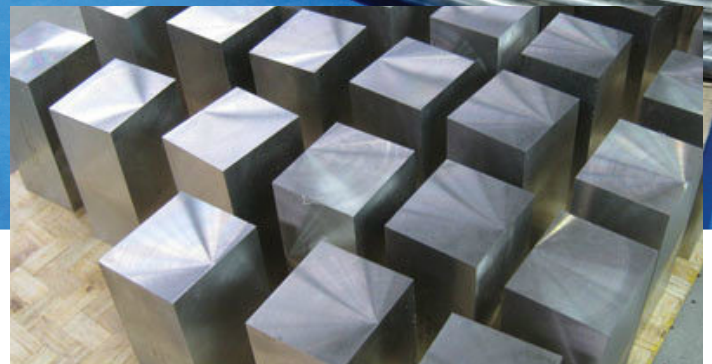
and highly-stressed civilian and military airframe parts are made of these alloys. The most widely used titanium alloy is the Ti-6Al-4V alpha-beta alloy. This alloy is well understood and is also very tolerant on variations in fabrication operations, despite its relatively poor-temperature shaping and forming characteristics compared to steel and aluminium. Alloy Ti-6Al-4V, which has limited section size hardenability, is most commonly used in the annealed condition.

## GRADES:

Gr. 1	Gr. 5	Gr.10
Gr. 2	Gr. 7	Gr. 11
Gr. 3	Gr. 8	Gr. 12
Gr.4	Gr.9	Gr. 23

## SPECIFICATIONS:

AMS 4900	AMS 4928	AMS 4978
AMS 4901	AMS 4930	AMS 4979
AMS 4902	AMS 4936	ASTM-B-265
AMS 4907	AMS 4941	ASTM-B-337
AMS 4909	AMS 4942	ASTM-B-348
AMS 4910	AMS 4965	ASTM-B-381
AMS 4911	AMS 4966	MIL-T-9046
AMS 4918	AMS 4967	MIL-T-9047
AMS 4924	AMS 4971	



# OTHER PRODUCTS

## CARBON FIBRE & GRAPHITE:

Yarn of : 5K to 25K, Gr. 745, Gr.750, Gr.763, Gr. 850, IFG (ISOMOLDED FINE GRAIN GRAPHITE)

## COBALT ALLOYS :

KC20WN	KC28WN	KC25WN
KC22WN	KC30WN	

## COPPER BRASS

Oxygen free Electronic copper	Oxygen free copper	Electrolytic Tough Pith Copper	Copper (Deoxidized Grades)
Zirconium Copper	Cadmium Copper	Chromium copper	Leaded copper
Commercial Bronze	Free-Cutting Brass	Naval Brass	Tin Bronze
Phosphor Bronze	Aluminum Bronze	Silicon Bronze	Manganese Bronze
Cupranickel "90/10"	Manganese Bronze	Tin Bronze	Aluminum Bronze

## EXPANSION, SOFT MAGNETIC, CONTROLLED EXPANSION, ELECTRICAL ALLOYS

INVAR	INVAR M-93	N42-N48-M52	DILVER-P
SUPRA-36	SUPRA-50	MU-METAL	SUPER MU-METAL
AFK-502R,524,528,584	BIMETALS	GILPHY 20,30,45,60,70,80	DURIROTELLOY-8,PER-49

## HOT WORK & COLD WORK TOOL STEEL

H21, H13, H12., H11, H10, L6, D, D2, D3, S5, S1 F1.

## MAGNETS:

SM2CO17	MbFeB	Ferrit	ALNICO
SMCO	MAGNETIC COUPLING	MAGNETIC	

## PURE BERYLLIUM, COPPER & THERE ALLOYS

UNS C17200 UNS C17300 UNS C17500 UNS C17510

## REFRACTORY MATERIAL

Tungsten	MOLYBDENUM	TZM	Ta-W
Ta & Nb	Ta + Ta	Nb + Nb	Zr + Zr

## SPECIAL METALS:

TANTALUM	TANTALUM 2.5% W	10%W
Niobium & Alloys	Zirconium & Alloys	

All material available in shape of Sheets, Plates, Coils, Shim Sheets and Foils, Tubes, Pipes and Pipe Fittings, Rods (Round, Square, Hexagonal), Wires, Flats, Strips, Flanges, Forging Ring, Blank, Disk, Fasteners and Odd Shapes.



# KALAPURNA

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