Sharp Steel & Alloys
Manufacturer & Stockist of Fasteners, Flanges, Fittings, Pipes & Bars
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Round Bars

Round, hexagonal and flat bars in stainless, duplex, carbon, alloy, nickel, titanium and brass.

We stock and supply round bars, bright bars, polished bars, black round bars, forged bars, hexagonal bars, flat bars and rods across all industrial grades. Material is available from 1 mm to 500 mm diameter to ASTM, ASME, API, AISI, BS, ANSI, DIN, JIS, MSSP and NACE standards, with mill test certificates supplied against every dispatch.

AVAILABLE GRADES

SA 276 / SA 479 TP 304 / 316 · 410 / 420 / 430 / 431 / 440C · Duplex S31803 / S32205 / S32750 · Inconel 600 / 625 / X-750 · Monel 400 / K500 · Nitronic 50 / 60 · Titanium Gr 1–12 · Aluminium 6061 / 6063 / 6082

ROUND BARS — MATERIALS

Stainless Steel	ASTM A479, A182 - 202, 303, 304, 304L, 304H, 316, 316L, 316Ti, 309, 310, 310S, 321, 321H, 317, 347, 347H, 904L
Duplex & Super Duplex	F 44, F 45, F51, F 53, F 55, F 60, F 61
Carbon Steel	ASTM A105, A350 LF2, A106 Gr A, B, C, A333 Gr 6, 3
Alloy Steel	ASTM A182 F5, F9, F11, F12, F21, F22, F91, A335 Gr P1, P11, P12, P5, P9
Nickel Alloys	Nickel 200 (UNS No. N02200), Nickel 201 (UNS No. N02201), Monel 400 (UNS No. N04400), Monel 500 (UNS No. N05500), Inconel 800 (UNS No. N08800), Inconel 825 (UNS No. N08825), Inconel 600 (UNS No. N06600), Inconel 625 (UNS No. N06625), Inconel 601 (UNS No. N06601), Hastelloy C 276 (UNS No. N10276), Alloy 20 (UNS No. N08020)
Copper Alloy Steel	C 70600 (Cu-Ni 90/10), C 71500 (Cu-Ni 70/30), UNS No. C 10100, 10200, 10300, 10800, 12000, 12200

STAINLESS STEEL & DUPLEX STEEL

Size Range	Diameter: 3.17 mm to 350 mm
Stainless Steel Grades	ASTM/ASME SA 276: TP 304, 304L, 309S, 309H, 310S, 316, 316L, 316TI, 317, 321, 347, 410, 420, 430, 431, 440A, 440B, 440C, 446. ASTM/ASME SA 479: TP 304, 304L, 304H, 309S, 309H, 310S, 310H, 316, 316H, 316L, 316TI, 317, 321, 321H, 347, 347H, 410, 430, 431, 444
Duplex Steel Grades	ASTM/ASME SA 276: UNS S31803, S32205, S32550, S32750, S32760

CARBON & ALLOY STEEL

Size Range	Diameter 1 mm to 350 mm
Carbon Steel Grades	ASTM/ASME A105 High-Strength Carbon Steel
Alloy Steel Grades	ASTM/ASME A182: Grades F5, F9, F11, F12, F22, F91. ASTM/ASME A729: Grades B11, B22

NICKEL & COPPER ALLOY

Range	3.17 MM TO 350 MM DIA pipes and tubes
Nickel Alloy	ASTM / ASME SB 160 UNS 2200 (NICKEL 200) / UNS 2201 (NICKEL 201), ASTM / ASME SB 164 UNS 4400 (MONEL 400), ASTM / ASME SB 425 UNS 8825 (INCONEL 825), ASTM / ASME SB 166 UNS 6600 (INCONEL 600) / UNS 6601 (INCONEL 601), ASTM / ASME SB 446 UNS 6625 (INCONEL 625), ASTM / ASME SB 574 UNS 10276 (HASTELLOY C 276), ASTM / ASME SB 472 UNS 8020 (ALLOY 20 / 20 CB 3)
Grades	Hastelloy C-22, C-276, C-2000
Product Types	Round Bars, Bright Bars, Polished Bars, Black Round Bars, Forged Bars, Forged Round Bars, Hexagonal Bars, Forged Hexagonal Bars, Flat Bars, Rods

HASTELLOY

Grades	Hastelloy C-22, C-276, C-2000
Product Types	Round Bars, Bright Bars, Polished Bars, Black Round Bars, Forged Bars, Forged Round Bars, Hexagonal Bars, Forged Hexagonal Bars, Flat Bars, Rods

INCONEL

Grades	Inconel 600, 601, 625, 625LCF, 686, 718, 800, 825, X-750
Size Range	Diameter: 1 mm to 200 mm
Product Types	Bars, Rods, Wires
Standards	ASTM, ASME, API, AISI, BS, ANSI, DIN, JIS, MSSP, NACE

MONEL

Grades	Monel 400, Monel K500
Range	5 mm dia to 500 mm dia in 100 mm to 6000 mm length
Standard	ASTM / ASME SB 164

NITRONIC 50

Grades	Nitronic 50 Stainless Steel
Superior Strength	Offers nearly double the yield strength at room temperature compared to Stainless Steel 316, 316L, 317, and 317L.
Exceptional Corrosion Resistance	Performs excellently in harsh environments, particularly in marine applications.
High-Temperature Performance	Maintains good mechanical properties at elevated and sub-zero temperatures.
Non-Magnetic	Remains non-magnetic even under severe cold working.
Fabrication Compatibility	Can be processed using the same equipment and procedures as Stainless Steel 300 series grades.
Efficient Cooling	Supports the same cooling techniques as Stainless Steel 316/316L and 317/317L.

NITRONIC 60

Grades	Nitronic 60 Stainless Steel
Overview	An austenitic alloy known for offering the best galling resistance among stainless steels.
Key Characteristics	Galling & Wear Resistance: Exceptional performance in high-wear applications. High Pitting Resistance: Superior to many standard stainless steels. Corrosion Resistance: Excellent resistance to crevice corrosion and chloride pitting, surpassing Stainless Steel 316. High-Temperature Performance: Maintains properties up to 982°C. Oxidation Resistance: Reliable in oxidative environments. Weldability: Pre-heating not required; supports common welding techniques such as gas metal arc, gas tungsten arc, and submerged arc methods. Hardening: Achieved through cold working.
Chemical Composition	Chromium: 16–18%, Nickel: 8–9%, Manganese: 7–9%, Silicon: 3.5–4.5%, Iron: Balance, Trace Elements: Carbon, Sulfur, Phosphorus, Nitrogen

TANTALUM

Specifications	Tantalum Bars and Rods
Material	Pure Tantalum (Ta), Tantalum-Tungsten Alloy
Grades	RO5200, RO5400, RO5252 (Ta-2.5W), RO5255 (Ta-10W)
Size Range	Diameter: 3mm to 120mm (Bars), 3mm to 100mm (Rods)
Standards	ASTM B365, ASTM B365-98
Product Types	Tantalum Bars, Tantalum-Tungsten Alloy Bars, Tantalum Rods, Tantalum Alloy Rods
Purity	≥99.95% or ≥99.99%

TITANIUM

Specifications	Titanium Round Bars
Grades	Gr1, Gr2, Gr3, Gr4, Gr5 (Ti-6AL4V ELI), Gr7, Gr9, Gr12
Standards	ASTM B348, ASTM F136, ASTM F67, AMS 4928
Size	Diameter: 4mm to 350mm, Length: 50mm to 6000mm
Payment Terms	T/T or L/C at sight
MOQ	10 kg
Packaging	Ply wooden case or as per request
Delivery Time	7 to 30 days after confirmation
Applications	Industry, Glasses, and more

TITANIUM — CHEMICAL COMPOSITION (%)

Grade	N	C	H	Fe	O	Al	V	Pa	Mo	Ni	Ti
Gr 1	0.03	0.08	0.015	0.020	0.18	—	—	—	—	—	bal
Gr 2	0.03	0.08	0.015	0.30	0.25	—	—	—	—	—	bal
Gr 3	0.05	0.08	0.015	0.30	0.35	—	—	—	—	—	bal
Gr 4	0.05	0.08	0.015	0.50	0.40	—	—	—	—	—	bal
Gr 5	0.05	0.08	0.015	0.40	0.20	5.5~6.75	3.5~4.5	—	—	—	bal
Gr 7	0.03	0.08	0.015	0.30	0.25	—	—	0.12~0.25	—	—	bal

Grade	N	C	H	Fe	O	Al	V	Pa	Mo	Ni	Ti
Gr 9	0.03	0.08	0.015	0.25	0.15	2.5~3.5	2.0~3.0	—	—	—	bal
Gr 12	0.03	0.08	0.015	0.30	0.25	—	—	—	0.2~0.4	0.6~0.9	bal

TITANIUM — MECHANICAL PROPERTIES

Grade	Tensile Strength (ksi)	Tensile Strength (MPa)	Yield Strength (ksi)	Yield Strength (MPa)	Elongation (%)
1	35	240	20	138	24
2	50	345	40	275	20
3	65	450	55	380	18
4	80	550	70	483	15
5	130	895	120	828	10
6	50	345	40	275	20
7	90	620	70	438	15
8	70	438	50	345	18

ALUMINUM

Specifications	Aluminum Bars and Plates
Grades	6061, 6063, 6082, 6101
Size	Diameter: 25mm to 510mm, Length: up to 12 feet
Finish	Hot Rolled Plate (HR), Cold Rolled Sheet (CR), 2B, 2D, BA No(8), Satin (Plastic Coated)
Form	Round, Square, Hex (A/F), Bush, Rectangle, Flat, Wire Mesh

BRASS

Specifications	BRASS
Grades	Free Cutting Brass, Leading Brass, Foreign Brass, Riveting Brass, Lead-Free Brass, Naval Brass
Forms	Round, Hexagonals, Squares, Rods, Tubes, Sheets, Strips, Foils, Busbars, Plates, Flats, Wire, Tubings, Sections, Bushes
Size	1000mm to 2500mm
Thickness	0.3mm to 25mm

KEY FEATURES & APPLICATIONS

Key Features	Applications
• Round, hexagonal, flat, forged and bright bar forms	• Shafts, fasteners and machined components
• Diameters from 1 mm up to 500 mm	• Pump and valve manufacturing
• Nitronic 50 & 60 high-strength, anti-galling grades in stock	• Marine and offshore hardware
• Exotic metals: tantalum, titanium, aluminium and brass	• Medical and surgical instruments
• Supplied to ASTM, ASME, API, AISI, BS, DIN, JIS and NACE	• General engineering and job work

QUALITY ASSURANCE

All material is supplied with EN 10204 3.1 Material Test Certificates covering chemical composition and mechanical properties. Third-party inspection (TUV, SGS, BV, Lloyds) available on request. Material is third-party marked, colour coded and packed for export dispatch worldwide.

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