

RR HYDRAULIC

CUSTOM FASTENER CAPABILITY STATEMENT

We manufacture what others say cannot be done.
Non-standard sizes · Exotic alloys · Tight deadlines.

10,000+ SKUs	50+ Countries	25+ Years	48hr Dispatch
------------------------	-------------------------	---------------------	-------------------------

ISO 9001:2015 CERTIFIED

Email: sales@rrhydraulics.com
Phone: +91 831 879 1454 / +91 800 9315 333
Web: www.rrhydraulics.com
Address: Thane, India — 401208



CUSTOM MANUFACTURING SPECIALIST
ISO 9001:2015 · 25+ Years · 50+ Countries

Non-Standard Dimensions

Any length, any thread form

Exotic Alloy Materials

Inconel · Hastelloy · Titanium

Specialty Coatings

Geomet · PTFE · Electroless Ni

Prototype to Production

1 pc to 1,000,000+ pcs

Full Documentation

EN 10204 3.1/3.2 · PMI · TPI

48hr Emergency Supply

Air freight · Critical schedules



RR Hydraulic — Custom Manufacturing Capability Overview

ISO 9001:2015 Certified · Direct Manufacturer · No Middlemen · Factory-Direct Pricing

RR Hydraulic is an ISO 9001:2015 certified manufacturer of industrial fasteners, flanges and pipe fittings, headquartered in Thane, Maharashtra, India. For 25+ years, we have solved the most demanding custom fastener requirements for EPC contractors, OEM manufacturers and industrial buyers across 50+ countries worldwide. We manufacture what others refuse — any size, any alloy, any specification, with full quality documentation.

10,000+ Standard SKUs All grades	Any Custom Size To drawing	50+ Countries Export reach	25+ Years Exp. Since 1999	48hr Dispatch Stock items	ISO 9001:2015 Certified
---	---	---	--	--	--------------------------------------

SIZE FLEXIBILITY

- Any bolt length — up to 3,000mm
- Any diameter — M1.6 to M100+
- Non-standard thread pitches
- Left-hand thread (LH) on request
- Fine thread (MF) available all sizes
- Custom head heights and shank profiles

MATERIAL RANGE

- Carbon Steel — all property classes
- Stainless Steel 304 / 316 / 316L / 317L
- Alloy Steel A193 B7 / B7M / L7
- Duplex 2205 / Super Duplex 2507
- Inconel 600 / 625 / 718
- Hastelloy C-276 / C-22 / B-2
- Monel 400 / K500 · Titanium Gr.2/5

THREAD FORMS

- ISO Metric (M) — coarse and fine
- UNC / UNF — Unified inch thread
- BSP Parallel / Taper (G / R)
- NPT — National Pipe Taper
- Trapezoidal (Tr) — lead screws
- ACME — 29° thread form
- Special / proprietary thread forms

HEAD FORMS

- Standard hex — DIN 931/933
- Heavy hex — ASTM A193 B7
- Square head · T-head · U-bolt
- Dome / mushroom / round head
- Pan head · CSK · Hex socket (Allen)
- Flanged head · Eye bolt · Hook bolt
- Custom profile — to customer drawing

COATINGS & FINISH

- Plain (self-colour) — as machined
- Electroplated zinc (yellow/clear)
- Hot-Dip Galvanized (HDG) — ISO 1461
- Geomet 321 / Geomet 500 — zinc flake
- PTFE coating — dry film lubricant
- Electroless Nickel — uniform thickness
- Dacromet · Sherardizing · Black oxide

DOCUMENTATION

- EN 10204 3.1 Material Test Reports
- EN 10204 3.2 Third-party MTR
- Dimensional Inspection Reports
- PMI (XRF) — Positive Material ID
- NACE MR0175 Compliance Cert
- Heat Treatment Certificates
- Hardness Test Reports (HRC/HRB)

Custom Fastener Products — What We Manufacture

Representative examples of custom and non-standard fasteners manufactured by RR Hydraulic

EXTRA-LONG BOLTS & STUDS

- Hex bolts up to 3,000mm length
- Stud bolts up to 2,500mm length
- M6 to M100 in any length
- Part thread, full thread or custom grip
- Any material — CS to Inconel 718
- Standards: DIN 931 · DIN 939 · B16.5

APPLICATIONS:

Oil & gas riser connections
Wind turbine tower bolting
Bridge structural bolting
Large press and machine frames

LEFT-HAND THREAD FASTENERS

- LH thread — all metric sizes M3–M64
- All head forms: hex, socket cap, CSK
- All materials: CS / SS / Alloy / Exotic
- LH nuts, couplings and threaded rods
- Any pitch: coarse, fine or custom
- Full traceability and MTR on request

APPLICATIONS:

Anti-loosening applications
Turnbuckles and tensioners
Rotating machinery with reverse motion
Specialist OEM applications

SPECIAL HEAD FORM BOLTS

- T-head bolts for machine slots
- Square head bolts — DIN 478/479
- Dome / mushroom head bolts
- Cheese head / pan head screws
- Hook bolts and eye bolts to drawing
- U-bolts — all pipe sizes available

APPLICATIONS:

CNC machining centres
Jig and fixture plates
Wood and structural connections
Pipe clamping and support systems

PRECISION-TURNED COMPONENTS

- CNC turned studs and pins
- Ground and hardened dowel pins
- Precision shoulder bolts / bushings
- Custom spacers and standoffs
- Hydraulic fittings — BSP / NPT ends
- Any tolerance class to drawing

APPLICATIONS:

Hydraulic and pneumatic systems
Semiconductor and clean room
Medical device manufacturing
Aerospace assembly fixtures

EXOTIC ALLOY FASTENERS

- Inconel 625 stud bolt kits
- Hastelloy C-276 bolts for HCl service
- Titanium Grade 2 bolts — 45% lighter
- Monel K500 marine fasteners
- Duplex 2205 / 2507 offshore sets
- PMI tested — XRF certificate supplied

APPLICATIONS:

Oil & gas subsea equipment
Chemical reactor pressure flanges
Offshore topsides and riser clamps
Marine heat exchangers

FLANGE BOLTING KITS

- Complete stud bolt + nut + washer kits
- Per ASME B16.5 Class 150 to 2500
- Any NPS from 1/2" to 48"
- Any material grade combination
- Colour-coded by class if required
- Bagged, tagged and labelled per flange

APPLICATIONS:

Piping spool pre-assembly kits
Shutdown and maintenance packs
Offshore topside hook-up
Refinery turnaround BOM supply

Material Manufacturing Capability — Full Range

Every standard and exotic alloy · Any grade combination · PMI testing on all exotic orders

A · METALLIC MATERIALS — STANDARD AND EXOTIC GRADES

Material Family	Common Grades	UNS / Standard	Tensile (MPa)	Max Temp	Corrosion Class	Lead Time
Carbon Steel	Grade 4.6/8.8/10.9/12.9 · A307/A	ISO 898-1	400–1220	350°C	C1–C2	24–48hr
Alloy Steel	A193 B7/B7M · A320 L7 · 4140/4	ASTM A193	860–1270	650°C	C1–C2	3–7 days
Stainless 300	SS 304/316/316L/310/321/317L/9L	ASTM A276	485–700	870°C	C3–C5	3–7 days
Stainless 400	SS 410/430/440C — Martensitic	ASTM A276	690–1900	650°C	C2–C3	5–10 days
Duplex SS	2205 (S31803) · Lean duplex 23	ASTM A182 F51	620	350°C	C5	7–14 days
Super Duplex	2507 (S32750) · Zeron 100 (S327)	ASTM A182 F53	800	300°C	C5 extreme	7–14 days
Inconel	600 · 625 · 718 · 800 · 825	ASTM B637/B446	550–1275	1175°C	C5 extreme	14–21 days
Incoloy	825 (N08825) · Incoloy 800H	ASTM B425	586	540°C	C5 extreme	14–21 days
Hastelloy	C-276 · C-22 · B-2 · B-3 · G-30	ASTM B574	690–760	1040°C	C5 extreme	14–21 days
Monel	Monel 400 (N04400) · K500 (N05051)	ASTM B164	550–1000	480°C	C5 marine	14–21 days
Titanium	Grade 2 (R50400) · Grade 5 Ti-6Al-4V	ASTM B265	345–950	315°C	C5 extreme	14–21 days
Brass / Copper	C360 Free-machining · Naval C4	ASTM B453	380–490	150°C	C2–C3	5–10 days

B · ENGINEERING POLYMER FASTENERS

Polymer	Grade	Max Temp	Chemical Resist.	Tensile (MPa)	FDA / Medical	Lead Time
Nylon PA6/PA66	Standard / Glass-filled 30%	120°C	Good (dilute acids)	70–160	Yes	5–10 days
PTFE (Teflon)	Virgin / Glass-filled	260°C	Excellent (all chem.)	14–35	Yes	7–14 days
PEEK	Standard / GF30	250°C	Excellent	100–160	Yes	10–21 days
Delrin POM	POM-H / POM-C (copolymer)	110°C	Good (most solvents)	62–70	Yes	5–10 days

Quality System & Documentation Capability

ISO 9001:2015 Certified · Full traceability · Every document available on every order

ISO 9001:2015 CERTIFIED MANUFACTURER

Complete Quality Management System · All products manufactured with full traceability and documented inspection

EN 10204 3.1 MATERIAL TEST REPORTS

Chemical composition analysis by accredited laboratory
Mechanical property test results (UTS, yield, elongation, Charpy)
Heat number traceability from mill to finished fastener
Issued with every order on exotic / alloy materials
Manufacturer or third-party 3.2 available on request

PMI — POSITIVE MATERIAL IDENTIFICATION

Portable XRF (X-ray fluorescence) spectrometer testing
Confirms alloy chemistry at our facility before dispatch
100% PMI on Inconel, Hastelloy, Duplex, Titanium, Monel
Results reported against nominal composition per UNS
Certificate issued with test instrument calibration reference

DIMENSIONAL INSPECTION REPORTS

100% inspection on all custom and non-standard orders
AQL 2.5 sampling per ISO 2859 on standard products
Calibrated gauges — Renishaw CMM for precision components
Thread gauging per ISO 1502 / ASME B1.2 / DIN 2244
Full dimensional report with tolerances and actuals

NACE MR0175 / ISO 15156

Sour service compliance documentation for H2S environments
Hardness testing per NACE requirements (22 HRC max for CS)
Sulphide stress cracking (SSC) resistance certification
Material selection compliance statement issued
Available for all stud bolt and bolt orders to oil & gas

THIRD-PARTY INSPECTION (TPI)

Bureau Veritas — witnessed inspection and certification
SGS — independent material and dimensional verification
Intertek — product conformity and quality assurance
Lloyds Register — offshore and marine certification
Customer nominated inspector — facilitated at our plant

HEAT TREATMENT CERTIFICATES

Stress relieving, annealing, normalising documentation
Quench and temper (Q&T) treatment certificates
Time-temperature charts and furnace calibration data
Available for all alloy steel and exotic alloy fasteners
Accredited heat treatment partner — NABL certified lab

STANDARDS COMPLIANCE · We manufacture to any international standard

DIN **ISO** **ASME** **ASTM** **BS EN** **API** **IS (BIS)** **JIS** **NACE** **ETA** **API 6A** **MSS SP**

Manufacturing Process & Lead Time Capability

From enquiry to delivery · Standard and urgent supply · Global export logistics

A · OUR CUSTOM MANUFACTURING PROCESS — ENQUIRY TO DELIVERY

ENQUIRY & QUOTATION

01

Send your drawing, specification or BOM. Our engineering team reviews and returns a competitive formal quotation within 24 hours. Complex exotic alloy enquiries within 48 hours.

ORDER CONFIRMATION

02

Approve quotation, issue purchase order and provide payment confirmation. We issue an order acknowledgement with production schedule and committed delivery date within 4 hours.

MATERIAL PROCUREMENT

03

Raw material sourced from accredited mills. Mill test certificates (MTR) verified on receipt. PMI testing performed on all exotic alloys before machining begins.

MANUFACTURING & QC

04

CNC turning, forging, thread rolling or machining per your specification. In-process inspection at each stage. Final inspection per ISO 2859 AQL or 100% as specified.

DOCUMENTATION & DISPATCH

05

Full documentation package prepared (MTR, inspection reports, PMI, certificates). Packed per ISPM-15 export requirements. Airfreight or sea freight as required.

Industries Served & Custom Application Examples

Custom fasteners for the most demanding industries worldwide · 25+ years engineering experience

OIL & GAS

- Custom A193 B7M stud bolts for sour service flanges (NACE MR0175)
- Inconel 625 fastener kits for subsea tree and wellhead connections
- Extra-long threaded rods M48 × 2,000mm for process skid frames
- SS 316 J-bolt anchor sets for offshore module baseplates
- ASTM F1554 Grade 105 foundation bolts for compressor frames

ASTM A193 B7 · A193 B7M · NACE MR0175 · API 6A

POWER GENERATION

- Alloy F11/F22/F91 stud bolts for high-temperature steam flanges
- Custom long-shank bolts for turbine casing alignment
- Heat-resistant Inconel 718 fasteners for gas turbine components
- ASME B16.5 Class 2500 flange bolting kits for main steam lines
- HDG foundation bolts M64 × 3,000mm for wind turbine towers

ASTM A193 B7/B16 · A182 F11/F22/F91 · ASME B16.5

CHEMICAL & PETROCHEMICAL

- Hastelloy C-276 bolts for HCl acid reactor vessel flanges
- Titanium Grade 2 fasteners for wet chlorine and sulphuric acid
- Custom PTFE-coated bolts for FGD (flue gas desulphurisation) systems
- SS 904L stud bolts for phosphoric acid plant piping
- Duplex 2205 threaded rods for chloride-containing process lines

Hastelloy · Titanium · SS 904L · ASTM B574/B337

CONSTRUCTION & INFRASTRUCTURE

- ASTM F1554 Grade 55 anchor rods for structural column base plates
- EN 14399 HV high-strength bolts for bridge and stadium steelwork
- M100 × 2,000mm HDG foundation bolts for transmission towers
- Custom T-head bolts for concrete formwork and shuttering systems
- Stainless J-bolt sets for architectural facade cladding systems

ASTM F1554 · EN 14399 · DIN 529 · ISO 6781

MARINE & OFFSHORE

- Super Duplex 2507 stud bolt kits for subsea pipeline flanges
- Monel K500 propeller shaft bolts and marine fastener kits
- SS 316 extra-long bolts for ship hull plating and structure
- Custom HDG U-bolts for pipe clamp and support systems
- Inconel 625 riser clamp bolting for deep-water umbilicals

Super Duplex 2507 · Monel K500 · SS 316 · IMO

PHARMACEUTICAL & FOOD

- PTFE-coated bolts for hygienic process equipment
- SS 316L mirror-polished fasteners for pharmaceutical vessels
- Custom Hastelloy C-22 bolts for aggressive chemical reactors
- FDA-compliant PEEK screws for food-contact equipment
- Electropolished SS 316 anchor sets for cleanroom structures

SS 316L · PEEK FDA 21 CFR · EHEDG · GMP



LET'S BUILD SOMETHING TOGETHER

Send us your drawing, specification or BOM — we'll respond with a competitive quote within 24 hours.

EMAIL

sales@rrhydraulics.com

Sales & Technical Enquiries

PHONE

+91 831 879 1454

Mon–Fri 9AM – 6PM IST

ALT. PHONE

+91 800 9315 333

Mon–Sat

WHATSAPP

+91 831 879 1454

Fastest Response — 2–4 hrs

WEBSITE

www.rrhydraulics.com

Full product range online

EXPORT

sales@rrhydraulics.com

24/7 International Support

HEAD OFFICE & MANUFACTURING FACILITY

RR Hydraulic Precision Fasteners

Building No.2 EXN-1, Rajprabha Udyog Nagar, Golani Naka, Waliv Vasi East, Thane — 401208, Maharashtra, India

HOW TO PLACE A CUSTOM ORDER

01

Send Enquiry

Email your drawing, spec or BOM to us



02

Get Quote

Formal quotation within 24 hours



03

Confirm Order

Approve, provide PO + payment



04

Receive Goods

On-time delivery + full docs

www.rrhydraulics.com

sales@rrhydraulics.com · +91 831 879 1454 · Thane, Maharashtra, India