



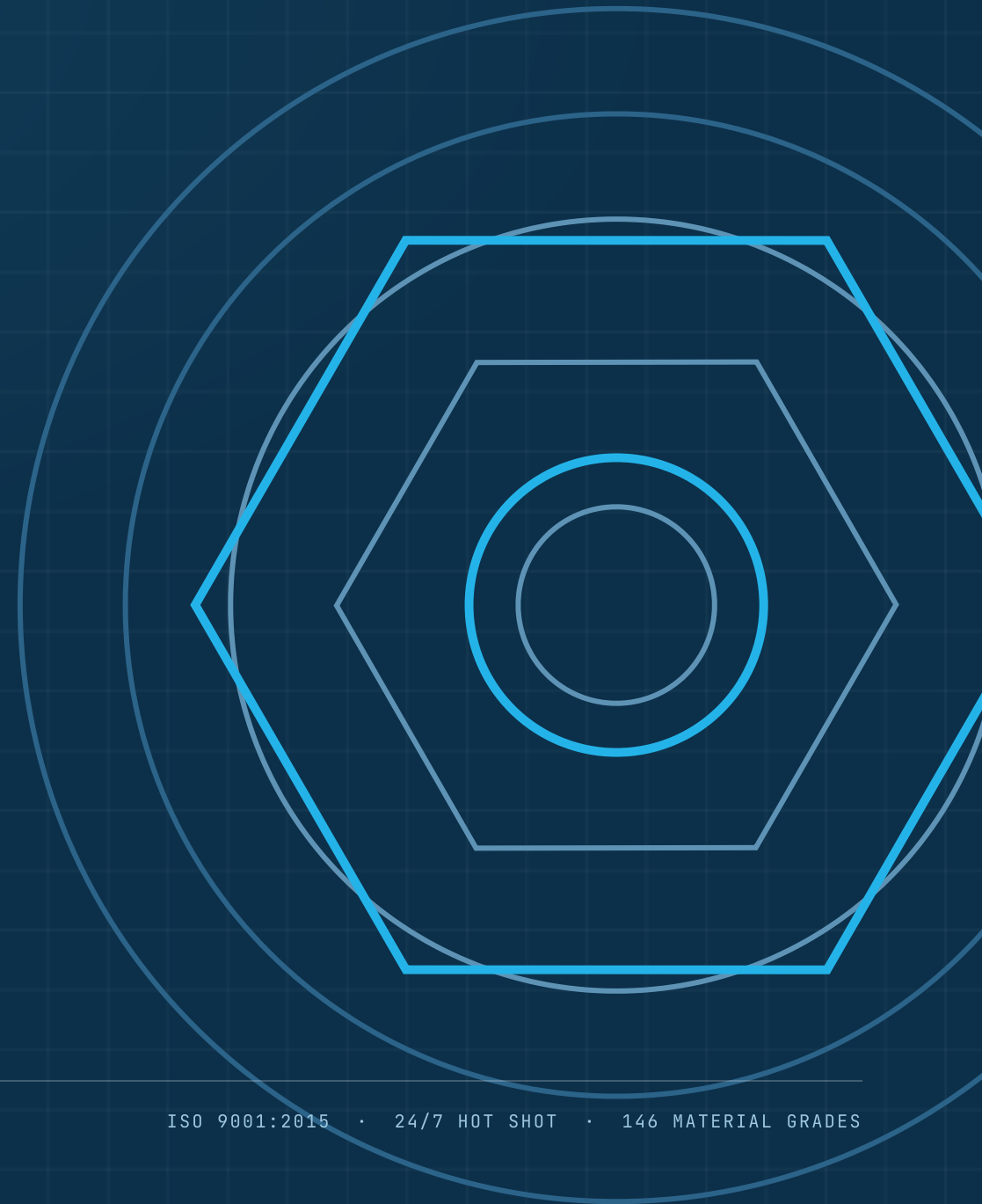
2026 TECHNICAL CATALOGUE • MANUFACTURE • STOCK • PACKAGE

Every thread, every turn, accounted for.

High-integrity precision fasteners and machined components for Oil & Gas, Power Generation, Petrochemical, Nuclear and Renewable Energy — manufactured, stocked and distributed from Houston, Texas.

INNOVATION FASTENERS • HOUSTON, TX

ISO 9001:2015 • 24/7 HOT SHOT • 146 MATERIAL GRADES



Contents.

03	Who we are Manufacturer and distributor, Houston TX
05	Products Studs, nuts, bolts, socket products and machined parts
11	Machine shop 10 processes under one roof
13	Coatings Coatings and platings for the service
15	Industries Where our fasteners work

04	How we work Manufacture, stock and package
09	Materials 146 grades, carbon steel to Hastelloy
12	Testing Inspection and testing on the bench
14	Traceability ISO 9001:2015 and EN 10204 3.1
16	Contact 24/7 hot-shot line and how to reach us

Click any line to jump to that page. Every page footer links back here.

A manufacturer and distributor of high-performance precision fasteners.

Innovation Fasteners is customer-orientated and focused on quality, on-time delivery, service and competitiveness. Our people are highly experienced in supplying special fasteners, machined components and complete packages into the world's oil, gas and power generation markets.

A fully integrated ERP system gives full traceability with real-time stock control, job scheduling and capacity visibility. Every order carries a part number, a heat lot and an ETA, from enquiry through to despatch.

When a unit is down, our machines are already running. Hot-shot manufacturing runs around the clock, seven days a week, from our Houston shop floor.

24/7

HOT-SHOT MANUFACTURING

50+

MACHINES ON THE SHOP FLOOR

146

MATERIAL GRADES WITH PUBLISHED DATA

ISO 9001

QUALITY MANAGEMENT SYSTEM

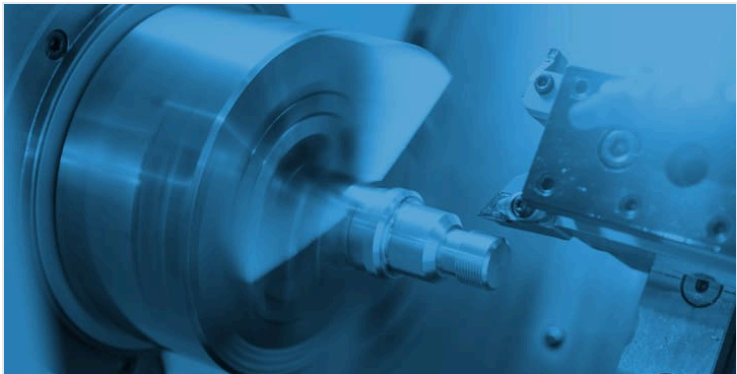
30,000

SQ FT OF MANUFACTURING, HOUSTON TX

56

CATALOGUE PRODUCTS, ALL MADE TO ORDER

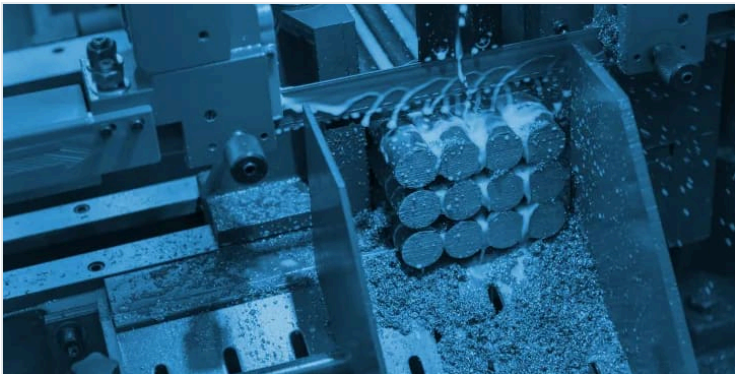
One partner, three jobs.



01 — MANUFACTURE

Built to your drawing

Fully traceable, high-integrity special fasteners and machined components to customer drawings and specifications, marked and certified from heat to hand-off.



02 — STOCK & DISTRIBUTE

Ready for despatch

ASTM-grade studbolts, nuts and fasteners held in inventory for immediate despatch, backed by an integrated ERP with real-time stock control.



03 — PACKAGE

One PO, one shipment

Flanges, fittings, gaskets, pipe and fasteners, sourced and certified together as a single pipeline package from one purchase order.

Precision fasteners for critical service.



Studbolts & studs

Full Thread Studs (Studbolts) · Double End Studs · Tap-End Studs · Threaded Rod



Nuts

Finished Hex Nuts · Heavy Hex Nuts · Machine Screw Hex Nuts · Hex Jam Nuts



Bolts & screws

Hex Head Cap Screws · Hex Head Bolts · Heavy Hex Bolts · Hex Head Machine Screws



Socket products

Socket Head Cap Screws · Low Head Socket Cap Screws · Flat Socket Cap Screws · Button Socket Cap Screws



Set screws

Socket Set Screws · Cold Formed Socket Set Screws · Custom Set Screws



Washers

Commercial Flat Washers · SAE & USS Washers · Lock Washers · Nord-Lock® Wedge Lock Washers



U-bolts

U-Bolts · Custom U-Bolts



Stay rods

Long tie rods with machined ends for structural staying.



12-point bolts

Handles more torque than standard socket or hex heads.



Double end studs

Manufactured in various lengths and diameters from #2 to 4" diameter.



Flanges & fittings

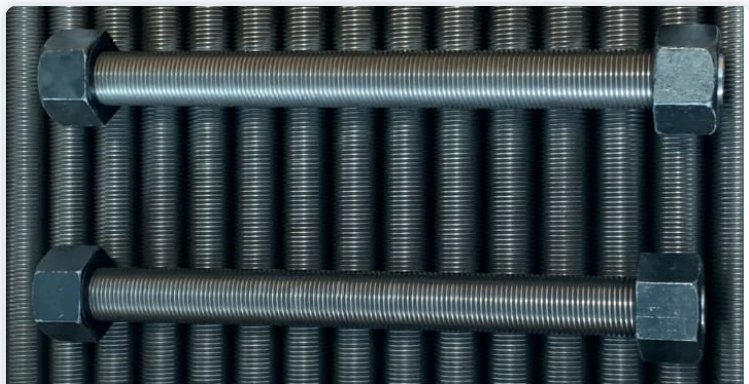
Pipe Flanges · Hex Head Pipe Plugs · Hex Socket Pipe Plugs · Square Head Pipe Plugs



Gaskets

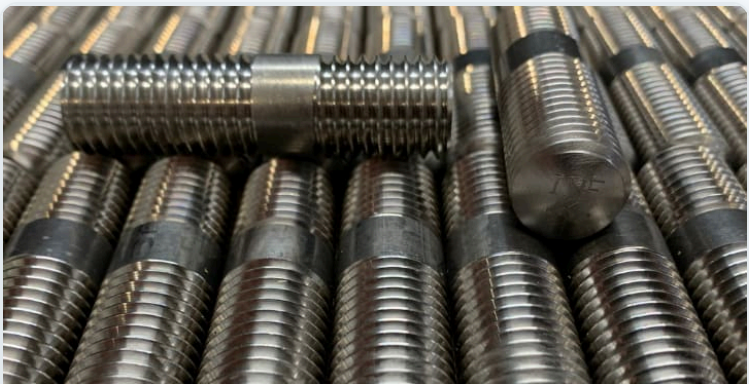
Supplied with the flanges, studs and nuts they seal — one PO, one shipment.

Every family is made to order in any grade on pages 8 and 9, to imperial or metric threads, plain or coated.



STUDBOLT & HEAVY HEX NUTS

A stud bolt is a threaded rod that is inserted into the holes of the mating flanges and then tightened, at both ends, by applying a specific torque to the steel nuts. Stud bolts are available in multiple diameter and length combinations, both imperial and metric.



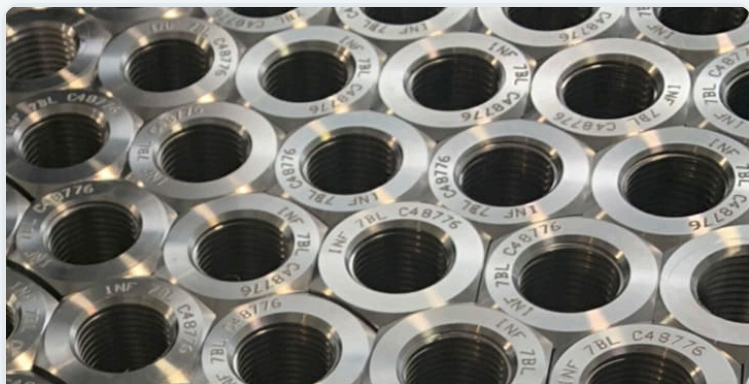
DOUBLE END & PAD STUDS

We manufacture various lengths and diameters of double end and pad studs from #2 to 4" diameter. We supply tap-end studs to AWEM, API 6A and to customer drawings. Double-end, combo studs are manufactured per drawing.



STUDBOLTS & TOMMY BAR NUTS

Studbolts with heavy hex nuts drilled for tommy bar holes are used in heavy-duty applications, often subsea. Tommy bar holes are drilled into the nuts, allowing for easy tightening and loosening with hydraulic torque equipment, providing additional leverage and torque control in challenging situations.



HEAVY HEXAGON NUTS

A heavy hex nut is a robust fastener with a thicker, wider hexagonal shape compared to standard hex nuts. Designed for high-stress applications, it provides increased bearing surface and improved torque distribution, ensuring secure connections in heavy-duty or high-pressure situations.



HEXAGON CAP NUTS

Cap nuts provide a clean, finished look for fastening applications with exposed threads. Often used in furniture, fixtures, and decorative elements, their closed-end design ensures a secure fit and protects threads from damage.



FINISHED HEXAGON NUTS

A hexagon nut is a six-sided fastener with internal threads, designed for secure connections in various applications. Its shape allows for easy tightening and loosening using wrenches or sockets, making it a reliable and versatile component.



SOCKET HEAD CAP SCREWS

Socket cap screws are commonly used in machine parts, die fixturing, and clamping. The socket head enables driving where there is not sufficient space for wrenches or sockets.



LOW HEAD SOCKET CAP SCREWS

Low head cap screws are ideal for tight spaces and low-profile fastening in machine parts, die fixturing, and clamping. The minimal head design enables easy installation where traditional tools won't fit.



COUNTER SUNK / FLAT HEAD SOCKETS

Flat head socket screws offer a flush, low-profile fastening solution for countersunk applications. The flat head design allows for a smooth, even surface, while the socket drive ensures easy installation and removal in tight spaces and various projects.



HEXAGON BOLTS

Hexagon bolts are versatile fasteners utilized across numerous industries, valued for their strength and ease of installation. Boasting a hexagonal-shaped head, they can be quickly fastened or removed with a wrench or socket.



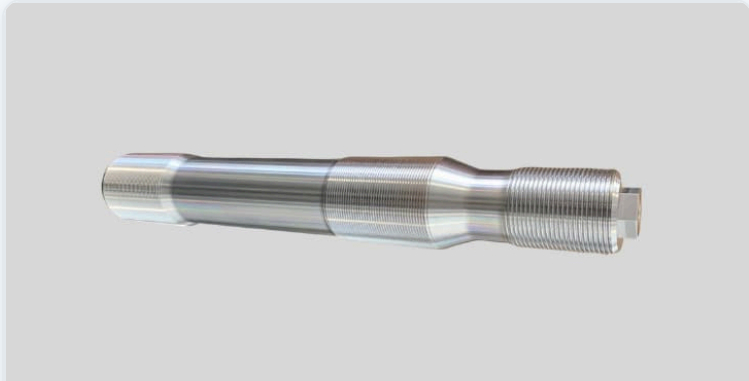
HEXAGON CAP SCREWS

Hexagon head cap screws are widely used fastening elements in various industries, known for their robust design and ease of use. These fasteners feature a hexagonal-shaped head, enabling simple application and removal with a wrench or socket.



12 POINT FLANGE BOLTS

The head makes 12 points of contact with a wrench to handle more torque than a socket head or hex head screw. The flange distributes pressure where the screw meets the surface, eliminating the need for a separate washer.



HEAT EXCHANGER STUDS

Heat exchanger studs with milled hexagons deliver robust fastening solutions for high-pressure and high-temperature applications. The milled hexagon ensures easy installation and removal, making them ideal for heat exchangers and similar equipment.



TURBINE STUDS

Turbine studs offer specialized fastening solutions for high-stress applications like turbines, where reliability and durability are paramount. Designed to withstand extreme temperatures and vibrations, they ensure secure and long-lasting connections.



HEXAGON FLANGE BOLTS

Hexagon flange bolts provide a secure and stable fastening solution, combining the versatility of hex bolts with an integrated flange. The flange eliminates the need for washers, ensuring even pressure distribution and preventing loosening in high vibration applications.



SOCKET SET SCREW

Custom machined socket screws provide tailored fastening solutions for unique applications, ensuring a perfect fit and optimal performance. Precision-engineered to meet specific design requirements, these screws offer reliable connections across diverse projects.



UBOLTS

U-bolts and clamps deliver versatile fastening and support solutions, particularly for securing pipes, tubes, and cables. With their U-shaped design, they evenly distribute pressure around the secured object, ensuring a stable and reliable connection in various applications.



MACHINED COMPONENTS

Machined components are custom-crafted parts designed to meet specific application requirements. Precision-engineered using advanced machining techniques, these components ensure a perfect fit and optimal performance in a wide range of industries and projects.

Grades from stock, certified to the heat.

The specifications a refinery, a turbine hall or a structural package is written to — held as bar, made here, and certified to the heat that went into it.

A193 ALLOY BOLTING — HIGH TEMPERATURE AND PRESSURE

- B7
- B7M
- B16
- B5

A193 STAINLESS BOLTING

- B6
- B8 Class 1
- B8 Class 2
- B8M Class 1
- B8M Class 2
- B8C Class 1
- B8C Class 2
- B8T Class 1
- B8T Class 2
- B8R
- B8S
- B8P Class 1
- B8P Class 2
- B8N Class 1B
- B8N Class 2
- B8MN Class 1B
- B8MN Class 2
- B8LN / B8MLN
- B8MLCuN Class 1B
- B8MLCuN Class 2

A320 LOW-TEMPERATURE BOLTING — CHARPY TESTED

- L7
- L7M
- L43
- L7A/B/C
- L70-L73
- L1

A320 STAINLESS BOLTING

- B8 Class 1
- B8 Class 2
- B8M Class 1
- B8M Class 2
- B8C
- B8T
- B8P
- B8F
- B8LN / B8MLN

A194 NUTS — A MATCH FOR EVERY BOLTING GRADE

- 2H
- 2HM
- 4
- 7
- 7M
- 8
- 8M
- 3
- 6
- 8C
- 8T
- 8R
- 8S
- 16
- 43

STRENGTH GRADES — SAE, ISO AND ASTM PRODUCT SPECIFICATIONS

- Grade 5 / A449
- Grade 8 / A354 BD
- A354 BC
- A307 A / B
- A325 (F3125)
- A490 (F3125)
- A540 B21-B24
- F1554 36 / 55 / 105
- A574
- Class 4.6 / 5.8
- Class 8.8
- Class 10.9
- Class 12.9
- A2 stainless (A2-70)
- A4 stainless (A4-80)
- F835
- F912
- F880
- F879
- F837
- F2281
- A563 nuts
- F594 stainless nuts
- F436 washers
- F468 nonferrous bolts
- F467 nonferrous nuts

Material certification to EN 10204 3.1 on every manufactured lot, 3.2 witnessed on request. Full chemistry and mechanical tables for all 146 grades at [innovationfasteners.com/materials](https://www.innovationfasteners.com/materials).

From carbon steel to Hastelloy.

Sour service, seawater, cryogenic and high temperature. Where a standard grade will not survive the duty, we turn the one that will.

STAINLESS STEEL BAR & BOLTING

304	304L	302	303	316	316L	321	347	410	416	431
422	440C	Nitronic 50	Nitronic 60							

NICKEL ALLOYS

Monel 400	Monel K-500	Inconel 718	Inconel 600	Inconel 625
Incoloy 800	Hastelloy C-276	Hastelloy C-22	Hastelloy B-2	
Hastelloy X	Alloy 20	AL-6XN	Inconel X-750	Nimonic 80A
Inconel 725	Incoloy 925	Incoloy 825	Incoloy 800H/HT	

BRASS & BRONZE

C36000 Brass	C46400 Naval Brass	C26000 Brass	C51000 Phosphor Bronze
C65100 Silicon Bronze	C65500 Silicon Bronze	C61400 Aluminum Bronze	
C63000 Ni-Al Bronze	C64200 Al-Si Bronze	C93200 Bearing Bronze	
C95400 Aluminum Bronze	C95500 Ni-Al Bronze		

CARBON & ALLOY STEEL

4140	4340	1018	1020	1045	1117	1144	12L14	4142	4330V
300M	ETD150	A36	817M40 (EN24)						

SUPERALLOY, PH & DUPLEX BOLTING

660	17-4 PH	Duplex 2205	Super Duplex 2507	Zeron 100	15-5 PH
17-7 PH					

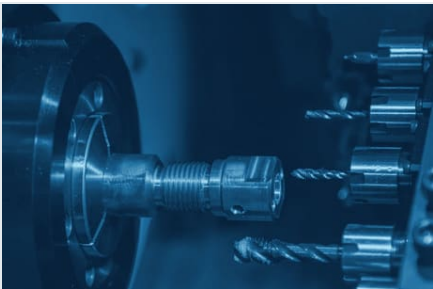
Grades not listed are sourced and certified on request. Positive material identification is standard on nickel alloys and duplex, and available on any lot.

10 processes. One roof.



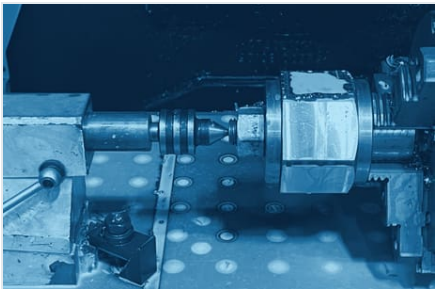
CNC Turning

27 CNC lathes turning studs, bolts, nuts and machined components from ¼ in. to large-diameter bar.



Swiss-Type Turning

Sliding-headstock lathes hold small-diameter bar at the cutting tool.



CNC Milling

Multi-axis milling for hexagons, flats, slots, flanges and the non-standard geometries that come in on customer drawings.



Polygon Turning

A synchronised polygon cutter forms hexagons, squares and flats while the part is still in the lathe.



Thread Rolling

Threads formed by displacing metal rather than cutting it.



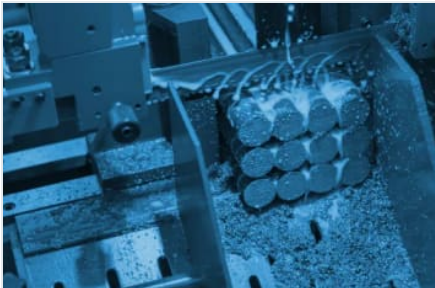
Landis Thread Cutting

Single-point and die-head threading for large diameters, special pitches, tapered and left-hand threads that rolling cannot reach.



Hydraulic Press

Internal hex sockets and drives broached into socket screws, set screws, plugs and custom fasteners.



Automatic Band Sawing

Numerically controlled saws cut certified bar to length around the clock, feeding the lathes without an operator at every machine.



Dot-Pin Marking

Every part is marked with its grade symbol, manufacturer's mark and heat identity.



Laser Marking

Fiber-laser marking of grade symbols, heat numbers, logos and 2D codes.

24/7 hot-shot manufacturing. When a line is down, our machines are already running.

Every claim on the certificate, checked on the bench.

Positive Material Identification Is the alloy what the paperwork says? ASTM E1476	Charpy V-notch impact testing Will it stay tough in the cold? ASTM A370 and E23	Tensile testing Does it meet the strength table? ASTM A370 and F606	Hardness testing Is the heat treatment right, and is it soft enough for sour service? ASTM E18 (Rockwell) and E10 (Brinell)
Magnetic particle inspection Any cracks or laps in the surface? ASTM E709 and E1444	Liquid penetrant inspection Surface defects on stainless and nickel alloys ASTM E165 and E1417	Ultrasonic testing Is the bar sound all the way through? ASTM A388 and E114	Proof load testing of nuts Will the nut carry the bolt's full load? ASTM A194 Table 3 and F606
Thread gauging and dimensional inspection Does every dimension and thread meet the drawing? ASME B1.1 threads	Coating thickness and salt spray Is the plating thick enough, and will it last? ASTM B499, B568 and E376 (thickness)	Hydrogen embrittlement relief and testing Will a plated high-strength bolt crack in service? ASTM F1941 (baking requirement above 39 HRC)	

Tensile, hardness and Charpy per lot as the specification requires; PMI, NDE and witnessed testing to order. Full method notes at [innovationfasteners.com/testing](https://www.innovationfasteners.com/testing).

The right finish for the service.

PTFE Low friction, easy break-out, the oil and gas standard Xylan® 1424 (blue) and 1070 (green) or equivalent	Zinc electroplating Economical sacrificial protection for indoor and mild service ASTM B633 (parts) and ASTM F1941 (threaded fasteners)	Hot-dip galvanizing Heavy zinc for outdoor and buried structures ASTM F2329 (fasteners) and ASTM A153 Class C	Zinc-flake coating High corrosion resistance with no hydrogen embrittlement ISO 10683	Phosphate and oil The workhorse finish on B7 studs DoD-P-16232 / MIL-DTL-16232
Black oxide A clean black finish without dimensional change MIL-DTL-13924	Silver plating Anti-galling for stainless and nickel-alloy nuts ASTM B700	Electroless nickel Uniform, hard and corrosion resistant, even inside threads ASTM B733	Passivation Restoring the stainless surface after machining ASTM A967	Cadmium plating Legacy aerospace and military finish, on request SAE AMS-QQ-P-416

Coating thickness measured and reported on every plated lot. High-strength bolting above 39 HRC is baked for hydrogen embrittlement relief, and the bake is logged on the certificate.

Certified from heat to hand-off.

ISO 9001:2015

A quality management system governing every stage of manufacture, audited and registered.

EN 10204 3.1 certification

Our certificate of conformance to the order and specification, validated by our own quality department, on every manufactured lot. 3.2 witnessed inspection to order.

Heat traceability

Every part traceable to its heat number, from enquiry through manufacture to despatch.

Dot-pin and laser marking

Permanent part-level identification with grade symbol, manufacturer's mark and heat identity, applied in-house.

Integrated ERP

Real-time stock, job scheduling and capacity visibility by department, so the ETA you are given is the ETA you get.

Certificates on demand

Customers download the certificates for their orders from the portal at any hour.

EN 10204

3.1

TRACEABLE TO THE HEAT
CERTIFICATES ON DEMAND



Trusted where a single bolt matters.



Oil & Gas — Wellhead to refinery, sour and high pressure



Power Generation — Turbine and exchanger bolting, to the outage



Military & Marine — Corrosion resistance, fully documented



Waterworks — Galvanized and stainless, outlasting the pipe



Renewable Energy — Domestic manufacture, on project schedule



Mining & Minerals — High-strength bolting for the wear cycle



On every turn.

Line down at 2 AM? Our machines are running.

EMERGENCY HOT-SHOT MANUFACTURING, AROUND THE CLOCK • 832-446-3442

ADDRESS

18401 Intercontinental Crossing Dr
Houston, TX 77073

PHONE

832-446-3442
24/7 hot-shot line

EMAIL

info@innovationfasteners.com

WEB

innovationfasteners.com
instant quotes online

HOURS

Mon–Fri 8 AM – 5 PM • Sat 8 AM – 1 PM
Hot-shot line answers around the clock

QUALITY

ISO 9001:2015 registered
EN 10204 3.1 on every lot