

CAPABILITIES



ABOUT DYSON

Founded in 1884 as a specialty forge shop in Cleveland, Ohio, The Dyson Corporation has grown to become a leading supplier of specialty fasteners and forgings ranging in size from 1/2 to 10,000 lbs and diameters up to 26". The critical fasteners we produce are used primarily by the Military, Infrastructure, Construction, and Renewable Energy industries, and are produced to ASTM, ASME, MIL, ANSI, SAE, and DIN standards as well as to customer specifications. Dyson is an ISO 9001:2015 certified manufacturer.



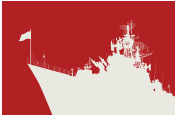
INDUSTRIES SERVED



Bridges, Locks, and Dams

Dyson Corp manufactures fasteners and raw forgings for some of the largest and most recognizable bridges in the western hemisphere including the George Washington Bridge, the Brooklyn Bridge, and the Golden Gate Bridge just to name a few. We supply fastening solutions for virtually all parts of bridge construction: cable sockets, eyebolts, bridge pins, turnbuckles, threaded rods, wire rope sockets, etc.

Dyson's tie-rods, eyebolts, forged diagonals, sleeve nuts, forged wheels and shafts, eyebolts, clevises, double-ended studs, turnbuckles, anchor bolts, upset rods and bushings are used on hydropower projects across the globe. These items are custom forged and manufactured in-house out of domestically poured steel.



Military Marine

As a Level 1 supplier to the US Military, Dyson manufactures, heat treats, and certifies critical military fasteners, forgings and bar to MIL, ASTM, and SAE specifications for government and military projects. All Dyson military products are DFARS compliant and fully lot-traceable back to the raw material pour. Comprehensive certification packages are provided with every shipment. Dyson has the capabilities of in-house, self-certification, and is an ITAR compliant manufacturer.



Highway Construction and Signage

Dyson products are used in all facets of road construction and highway signage. From heavy hex nuts used in the construction of highway guardrails, signs, and light poles, to specialty length heavy hex bolts used to erect sound deadening walls along highways, Dyson products have truly been holding America together since 1884. We are an approved manufacturer of "100% Melted and Manufactured in the USA" nuts for State Departments of Transportation. Our products are additionally used in the construction of bridges, locks & dams, seawalls, and in retrofitting critical pipeline infrastructure.



Wind Energy & Tower Construction

Dyson supplies complete assemblies for Wind Anchor Rod systems, including anchor rods per ASTM 615 Grades 75 & 90 and ASTM 722 Grade 150, coil nuts, washers, PVC sleeves, bolt caps and anti-corrosion grease. By manufacturing both the anchor rods and coil nuts in house, we are able to confirm the form, fit, and function before these products make it to the wind farm, thus preventing field failures. Our flexible manufacturing processes allow us to adjust schedules on the fly to meet the everchanging demands of your construction project.

IN-HOUSE CAPABILITIES

CUSTOM FORGING



The Dyson Corporation can forge virtually any material grade. Commonly forged materials include carbon, alloy, stainless steel, nickel alloy, super alloy and a variety of other exotic materials. Forgings are produced as raw materials to be rough-machined or finish machined in our in-house machine shop or sold as raw “black” forgings for our customers to finish machine. Open-die, mechanical, hydraulic, and hammer presses are used to produce large forgings up to 10,000 pounds. We also utilize high-speed parts formers to produce smaller, high-volume nuts and bolts, allowing us to provide domestically manufactured products at competitive prices.

MACHINING



Our extensive in-house machining capabilities include turning, milling, boring, thread cutting, thread rolling, and tapping products up to 26” diameter and 60’ in length. In addition to utilizing brand new, state of the art CNC machining centers, Dyson produces production quantity, precision products on high-speed Swiss machines, allowing us to compete on a global level of price and quality. Dyson also manufactures our own tooling in-house to ensure on-time delivery and our stringent quality standards are maintained.

HEAT TREATING



Dyson is able to control the quality of heat-treated products using (5) in-house quench and temper furnaces with the capacity to heat parts as large as 10,000 pounds and 16’ long. We also have in-line tempering furnaces as part of our high-speed nut forming machines, allowing us to provide a continuous flow from bar stock to finished blank in a matter of minutes. Dyson can quench a wide range of products using water, oil, and polymer, allowing us to heat-treat a wide range of products under one roof.

QUALITY CONTROL

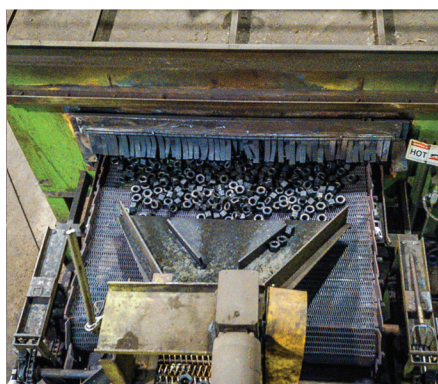


Vertical integration is key to the successful control of quality. By forging, machining, heat-treating, and assembling in-house, Dyson can control the quality of every aspect of manufacturing your product. We manufacture both internally and externally threaded products at the same facility, giving us the unique advantage of confirming thread fit of both components; especially important on threads over 5” in diameter. Dyson is ISO 9001:2015 Certified. We perform IL-I-45208A Military Inspections, use DFARS compliant or domestic materials, and are an ITAR compliant manufacturer. Products are manufactured to AASHTO, DIN, ISO, SAE, and ASTM standards.

ENGINEERING SUPPORT



We employ a team of dedicated product, design, and process engineers to assist our customers with their design challenges. Our engineers have decades of experience in forging, machining, and other mechanical disciplines and are ready to work with you to solve your complex, critical fastener needs.



PRODUCTS MANUFACTURED

Dyson is capable of manufacturing a wide range of products including forgings, critical fasteners, anchors and rods, and custom shapes. Diameters range from 1 ½" through 26" in lengths up to 60' with thread profiles in both inch and metric pitches.

The following is a partial list of items we manufacture:



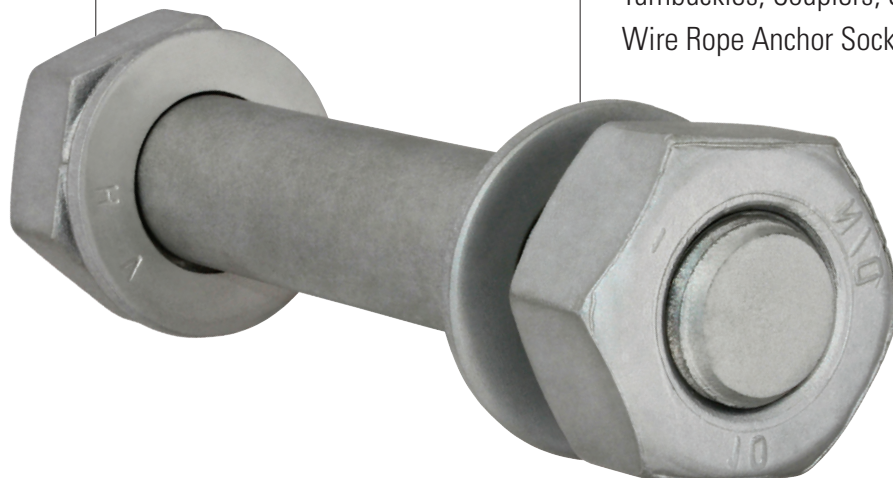
FORGED PRODUCTS

- Axles
- Custom Shapes
- Rods
- Eyebolt and Eyebolt assemblies
- Flanges
- Bar stock (Round, Hex, Square)
- Blocks
- Hooks
- Plate
- Gear blanks
- Multi-step forging
- Piston rods
- Plugs
- Rod ends
- Shafting
- Transition forgings
- Turnbuckles & Clevises
- Yoke Ends



FASTENERS

- Acorn Nuts
- Castle Nuts
- Coupler Nuts
- D-Loc™ Nuts
- Eyebolts
- Flange Bolts
- Hex Coil Nuts
- Liner Bolts
- M-Loc™ Nuts
- Nuts and Bolts:
 - Hex/Heavy Hex Jam
 - Square
 - Flange
 - 12-Point Nuts
- Sleeve Nuts
- Socket Cap Screws
- Socket Set Screws
- Spanner Nuts
- Spherical Coil Nuts
- T-Head Bolts
- U-Bolts



Threads: UN , UNC, UNF, UNR, & UNJ, Inch & Metric, Cut, Rolled or Ground, Classes 2, 3 & 5

Materials: Carbon, Alloy, Stainless, Nitronic, Inconel, Monel, Titanium, Copper, Brass, Bronze, Exotics

Coatings: Galvanized, Zinc, Phosphate, IVD, Ceramic, Wrap, Organic & Inorganics

Specials: Lockwire Holes, Self-Locking Features, Custom Secondary Machining

STUDS AND RODS

- Anchor Rods – All grades
- Bent Rods
- Continuous Threaded
- Couplers
- Double End/Single End
- Interference
- Soil Nails



CONSTRUCTION PRODUCTS

- Bridge Pins/Pin Nuts/Pilot Nuts/Drive Nuts
- Clevises & Eye Ends
- Custom Pins
- Eyebolts
- Forged Hooks
- Open & Closed Bridge Sockets
- Shackles & Yoke Ends
- Shear Keys & Pins
- Stirrup Rods, Loop Rods, U-Bolts
- Tie-Rod Assemblies
- Transition Forgings
- Turnbuckles, Couplers, & Sleeve Nuts
- Wire Rope Anchor Sockets



SHOWCASE PRODUCTS

HEAVY HEX STRUCTURAL NUTS

Dyson Corp manufactures dual-certified Heavy Hex nuts to 2H/DH as well as DH3/7 used in the highway construction and signage markets as well as waterworks, oil & gas industry, bridge construction, and other high-strength structural assembly applications. These nuts are manufactured of domestically poured steel in our Painesville, Ohio factory on a high-speed parts former and qualify for Buy America projects. We stock these items in sizes ranging from 1 1/2" through 4" and can custom manufacture sizes up to 26" in diameter.



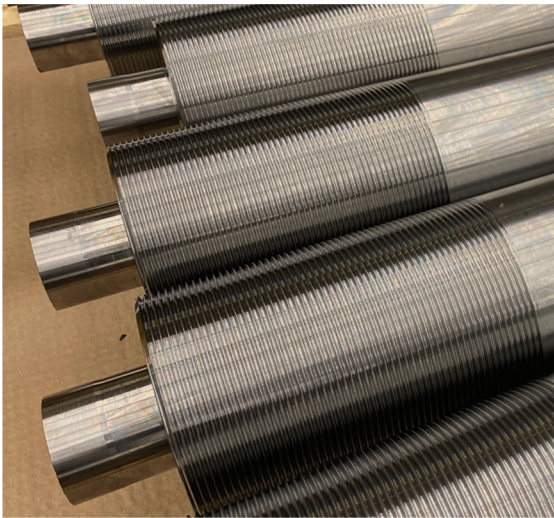
Heavy Hex Nuts are used in the highway construction and signage markets as well as waterworks, oil & gas industry, bridge construction, and other high-strength structural assembly applications



WIND TURBINE FOUNDATION ANCHOR BOLT ASSEMBLIES


Dyson Corporation has been supplying the wind energy sector for over two decades now with critical application fasteners and anchoring hardware. Our primary products are anchor bolts, coil nuts, washers, PVC sleeves, and bolt caps and anti-corrosion grease. Anchor Bolts are manufactured in ASTM 615 Grades 75 & 90 and ASTM 722 Grade 150. Dyson Corp anchor bolts have a proprietary thread design for better form, fit and function, and can be pretensioned to prevent in-field failures.





D **DYSON CORP.**
Holding America Together Since 1884

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