



The Bolts That Hold Skyscrapers Together: Steelmetâ??s Structural-Grade Secret

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of structural and load-bearing fasteries and industrial machinery â?? where failure is not an option.

Why Structural Fasteners Demand Superior Materials

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Steels At Steelmet Industries, we engineer our cold drawn steel bright bars to meet the extreme demands of structural and load-bearing fasteners used in bridges, power plants, mining equipment, and heavy

- a?? Shear forces from structural movements
- a?? Corrosive environments (offshore, chemical plants)
- â?? Temperature extremes (-40°C to +400°C)

Our specialty:

- â?? Ultra-clean steel with sulfur â?¤0.025% for hydrogen resistance
- a?? Controlled grain flow for uniform strength in large diameters

Critical Applications in Heavy Industries

1. Civil Infrastructure

- Bridge expansion joint bolts (ASTM A490)
- Wind turbine foundation bolts (EN 14399 HV)
- Seismic retrofit anchor systems



2. Heavy Machinery

- Mining shovel bucket pins
- Crusher frame bolts
- Hydraulic press tie rods

3. Energy Sector

- Boiler tube hanger bolts (ASTM A193 B16)
- Flange bolts for high-pressure piping
 - Nuclear containment vessel studs

Technical Specifications

• Nuclear containment vessel studs Technical Specifications Grade Standard Proof Load (MPa) Charpy Impact (J) Corrosion Solution On the latter of the standard of the stand				
Technical Specifications				
Grade	Standard	Proof Load (MPa)	Charpy Impact (J)	Corrosion Solution Celo
AISI 4140	ASTM A193 B7	850+	27@-29°C	Cadmium plating
42CrMo4	EN 14399 HV	1100+	55@-40°C	Hot-dip galvanizing
B7M	NACE MR0175	725+	34@-46°C	Xylan coating
AISI 8740	ASTM A320 L7	950+	40@-60°C	PTFE impregnation

^{*}Special processing available:

- Rolled threads (vs cut) for 30% greater fatigue life
- Ultrasonic testing of 100% of critical fasteners
- Dimensional certification to EN 10204 3.1/3.2*

Why Steelmet is Trusted for Critical Fasteners

- â? **Heavy industry expertise** â?? 15+ years serving EPC contractors
- a? Large diameter capability up to 150mm



- â? Material traceability with full mill certifications
- â? Technical partnership from design to manufacturing

For structural fastener solutions that wonâ??t compromise, visit Steelmet Industriesâ?? website or request our Heavy Industry Fastener Guide.

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1. Posts

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- 1. ASTM A490
- 2. bridge bolts

3. construction
4. heavy industry fasteries
5. high-strength fasteners
6. toad-bearing bolts
7. mining equipment bolts
pressure vessel studs
fasteners

Steels, Stainless Steels **Date** 29/10/2025 लà¥?à¤?à¤? admin

