

CHETAK INDUSTRIAL FASTENERS



Premium Strut Channel Spring Nuts & Accessories Catalogue

CHETAK High-Performance Spring Nuts are precision-engineered to provide exceptional locking capabilities, maximum slip resistance, and secure pull-out strength within standard framing channels. Designed with hardened, deep-cut teeth that firmly bite into the strut channel lips, our fasteners ensure robust stability under severe structural loads and constant industrial vibrations.

1. PRODUCT SERIES & CONFIGURATION MATRIX

Select the optimal spring nut configuration tailored to your specific strut profile and installation depth requirements.

SERIES CODE	STRUT PROFILE COMPATIBILITY	CHANNEL DEPTH	NUT BODY LENGTH	SPRING TYPE
CSN-Standard	Standard / Deep Strut Channels	1-5/8" (41 mm)	1.38" (35 mm)	Standard Regular Spring
CSN-Shallow	Light-Duty / Low Profile Channels	13/16" (21 mm)	1.13" (29 mm)	Short Pre-compressed Spring
CSN-Heavy	Back-to-Back / Double Configurations	3-1/4"+ (82 mm+)	Extended Heavy Body	Long Preload Tension Spring

2. TECHNICAL PERFORMANCE & LOAD RATINGS

All structural load ratings are engineered and independently tested in accordance with standard 12-gauge to 16-gauge cold-rolled steel framing channels.

THREAD SIZE (IMPERIAL)	THREAD SIZE (METRIC)	TYPICAL PULL- OUT CAPACITY	RECOMMENDED TORQUE LIMIT	PRIMARY APPLICATION GUIDE
1/4"-20	M6	600 – 800 lbs	6 – 8 ft-lb	Light-duty telecom racks, data center cable trays, small panels
5/16"-18	M8	850 – 950 lbs	11 – 13 ft-lb	Medium-duty junction boxes, conduit clips, instrumentation support
3/8"-16	M10	1,000 – 1,200 lbs	18 – 22 ft-lb	Industry standard framing, mechanical HVAC piping, duct anchors
1/2"-13	M12	1,500 – 1,800 lbs	30 – 35 ft-lb	Heavy structural systems, rooftop equipment mounts, solar racking

3. APPLICATION ENGINEERING & SIZING SCENARIOS

To maximize on-site deployment efficiency, configure your thread configurations according to standard commercial trade applications:

- **Electrical Enclosures & Boxes:** Use 5/16"-18 / M8 spring nuts for quick distribution box positioning.
- **Vertical Conduit & Cable Runs:** Deploy 3/8"-16 / M10 sizes combined with standard springs to maintain position during single-operator clamping.
- **Heavy Structural Framing:** Specify 1/2"-13 / M12 high-strength variations for critical load-bearing beams.

4. MATERIAL COMPOSITION & PROTECTIVE FINISHES

Environmental compatibility must be verified prior to component selection to match the expected operating conditions of the infrastructure.

FINISH TYPE	CORROSION RESISTANCE	OPTIMAL OPERATING ENVIRONMENT
Electrogalvanized (EG)	★★☆☆☆	Dry, indoor commercial infrastructure, climate-controlled spaces.
Hot-Dip Galvanized (HDG)	★★★★☆	Exposed outdoor framing, structural outdoor HVAC grids, high humidity.
Stainless Steel (304 / 316)	★★★★★	Marine infrastructure, offshore coastal solar, chemical & food-grade processing.

CRITICAL METALLURGICAL WARNING

To prevent premature structural failure driven by galvanic corrosion, always ensure that the spring material finish corresponds precisely to the metallic profile of the nut body and the host strut framing channel. Mixing dissimilar metals breaks component integrity over time.

CHETAK Industrial Fasteners • Certified Heavy-Duty Strut Components & Fastening Systems