H.R. STEEL INDUSTRIES PVT. LTD.

SINCE 1964 · SANKRAIL, HOWRAH · INDIA

COMPANY PROFILE 2026

ONE POINT OF CONTACT FOR EVERY FASTENER.

HSFG ASSEMBLIES



TOWER BOLTS & NUTS



HEAVY HEX NUTS · COLD FORGED TO M27



ASTRALOK LOCK NUT · M24–M48



LOCK BOLTS & COLLARS



SHEAR STUDS · CERAMIC FERRULE



WHAT WE MAKE

BOLTS · NUTS · WASHERS · LOCK BOLTS · STUDS · SPECIALS



www.hrsteel.com

SANKRAIL INDUSTRIAL PARK · HOWRAH

RDSO · POWERGRID · BIS · NABL · ISO 9001

SCAN · DIGITAL CATALOGUE

ABOUT US

SIX DECADES OF FASTENERS THAT HOLD.

Two units at Sankrail, Howrah take wire rod through forging, threading, heat treatment, coating and NABL testing without the material ever leaving our gates. We work to RDSO, POWERGRID and BIS standards, because every joint we make carries the nation's traffic and power.



LATE SRI B.S. AGARWAL
Founder
1939 – 2019

62 years in fasteners

2 units at Sankrail, Howrah

12,000 MT fasteners per year

M27 cold-forged heavy hex nuts

OUR JOURNEY

1964
Family business in fasteners begins in Howrah

1990
The HRSTEEL brand is born: bolt and nut forging under one roof

2000s
Hot-dip galvanizing, zinc phosphating and zinc plating lines added in-house

2019
San Shing multi-station nut former joins the National and Sakamura lines; NABL-accredited laboratory

2023
H.R. Steel Industries Pvt. Ltd. formed; RDSO approval added to POWERGRID, BIS and NABL

2024-25
Lock bolts enter wagon and railway supply: 2.2 lakh pieces in the first year, 11.4 lakh in the second

2026
New continuous hardening & tempering line; ASTRALOK lock nut design registered

SECTORS WE SERVE



RAILWAYS
Lock bolts, axle cap screws, ASTRALOK, track hardware



BRIDGES
HSFG assemblies with DTI washers for steel bridges and metro viaducts



POWER T&D
HDG tower bolts, nuts and washers to IS 12427, POWERGRID approved



WAGONS
Swaged lock bolts and collars for every major wagon builder



WIND
Tower and foundation bolting; ASTRALOK anti-vibration nuts



SOLAR & REFINERIES
Structure fasteners, hex bolts and nuts 4.6 to 10.9

OUR PROCESS CAPABILITIES

From raw material to tested fasteners, all under one roof.

TESTING
Spectrometer and NABL laboratory

FORGING
Multi-station forming

HEAT TREATMENT
Controlled strength and toughness

GALVANIZING
HDG, zinc phosphating & zinc plating

WHY ONE PARTNER MATTERS

FIVE PROBLEMS. ONE ANSWER.

01
BOLTS THAT FAIL IN SERVICE
Every lot is tensile, proof-load and hardness tested in our own NABL lab, and traced by heat number from wire rod to carton.

02
DELIVERIES THAT SLIP
Forging, thread rolling, heat treatment, various coatings (HDG, zinc phosphating, zinc plating) and testing happen under one roof. You get a dated schedule, and we keep it.

03
JOINTS THAT LOOSEN OR CORRODE
HSFG sets with DTI washers, swaged lock bolts and vibration-tested nuts, finished in HDG, zinc phosphate or zinc plating to suit the site.

04
A DRAWING THAT DOES NOT FIT THE JOB
Our engineers redesign, prototype and test to the standard, then freeze the drawing with you before the first lot.

05
APPROVALS HOLDING UP SUPPLY
RDSO, POWERGRID, BIS and NABL approvals are already in place, so your vendor file moves instead of waiting.

THE ANSWER One factory controls all nine steps, so no problem is handed to someone else.

RM STORAGE · TESTING · WIRE PROCESSING · ANNEALING · FORGING · ROLLING · TAPPING · HEAT TREATMENT · GALVANIZING

100%	1 roof	3	Days	RDSO
LOTS TESTED IN OUR NABL LAB	ALL NINE STEPS IN-HOUSE	COATINGS IN-HOUSE: HDG · PHOSPHATE · PLATING	TO TOOL A NEW SIZE IN OUR DIE SHOP	PGCIL · BIS APPROVALS ALREADY IN PLACE



CAPABILITY

EVERYTHING UNDER ONE ROOF.

1 Raw material storage
Wire rod and bar stored by SAE grade and colour-coded (1008 to 4140 / 41Cr4), every bar marked with its heat number.

2 Testing
German spectrometer checks every heat against the mill certificate before it is released to production.

3 Wire processing
Pickling, phosphating and wire drawing in Unit II, so the forging line never waits on outside job-work.

4 Annealing
Our own annealing furnace prepares wire for cold forging of high-strength grades.

5 Forging
Bolts cold forged to M30 and hot forged to M48; heavy hex nuts cold forged to M27 and hex nuts to M30 on National and San Shing formers.

6 Rolling
Hydraulic thread rolling up to M80, so the grain follows the thread form.

7 Tapping
Nut tapping lines for standard and heavy hex nuts, with gauges checked every shift.

8 Heat treatment
Continuous hardening and tempering line plus shaker-hearth, rotary and pit furnaces, every batch logged against its heat number.

9 Galvanizing
Hot-dip galvanizing 25 MT/day in-house, with zinc phosphating 15 MT/day and zinc plating 10 MT/day.

1. RM STORAGE · 2. TESTING · 3. WIRE PROCESSING · 4. ANNEALING · 5. FORGING · 6. ROLLING · 7. TAPPING · 8. HEAT TREATMENT · 9. GALVANIZING

INSIDE OUR WORKS · IN PROCESS ORDER

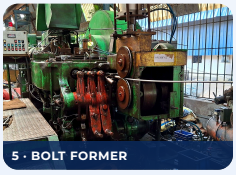

1 · RM STORAGE


2 · TESTING


3 · WIRE PROCESSING


4 · ANNEALING


5 · FORGING · UNIT II


5 · BOLT FORMER


5 · NATIONAL NUT FORMER


5 · SAN SHING FORMER


6 · THREAD ROLLING M80


7 · NUT TAPPING

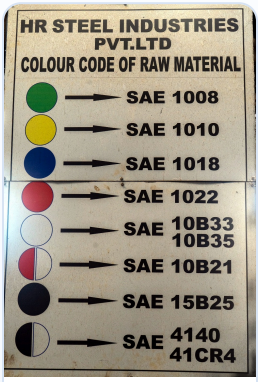

8 · HARDEN & TEMPER


9 · GALVANIZING BATH

RAW MATERIAL & TRACEABILITY

IT STARTS WITH THE STEEL. EVERY BAR KNOWS ITS HEAT.

Wire rod and bar come only from integrated steel mills with mill test certificates. On arrival every bar end is colour-coded by grade and marked with its heat number, and our spectrometer checks the chemistry against the certificate before anything goes to the formers. That heat number follows the lot through forging, heat treatment, coating and testing, onto the tag on every bag and box.



ON THE SHOP FLOOR · COLOUR CODE BOARD





BAR ENDS PAINTED BY GRADE · HEAT NUMBER WRITTEN ON EVERY BAR

COLOUR CODE OF RAW MATERIAL

- SAE 1008
- SAE 1010
- SAE 1018
- SAE 1022
- SAE 10B33 / 10B35
- SAE 10B21
- SAE 15B25
- SAE 4140 / 41Cr4

WIRE ROD & BAR FROM INDIA'S INTEGRATED STEEL PLANTS

JSW Steel · JSPL · SAIL · JAYASWAL NECO · RINL VIZAG STEEL

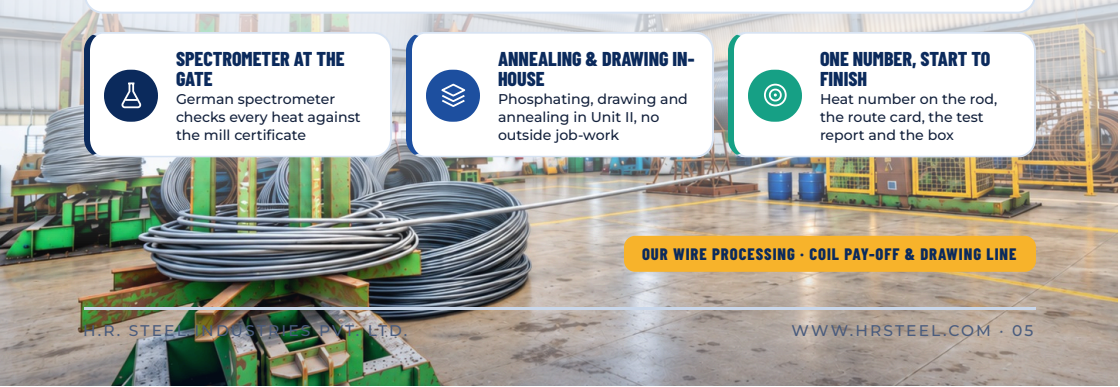
TRACEABILITY · WIRE ROD TO WAGON

1. COLOUR-CODED ROD
2. HEAT NUMBER MARKED
3. IN-PROCESS CHECKS
4. LAB REPORT PER LOT
5. TAGGED PACKING
6. THIRD-PARTY INSPECTION

SPECTROMETER AT THE GATE
German spectrometer checks every heat against the mill certificate

ANNEALING & DRAWING IN-HOUSE
Phosphating, drawing and annealing in Unit II, no outside job-work

ONE NUMBER, START TO FINISH
Heat number on the rod, the route card, the test report and the box



OUR WIRE PROCESSING · COIL PAY-OFF & DRAWING LINE

WHY H.R. STEEL

ONE PARTNER.
EVERY FASTENER, EVERY PROCESS.

USP 01

AMONG THE FEW IN INDIA COLD FORGING HEAVY HEX NUTS UP TO M27 AND STANDARD HEX NUTS UP TO M30

Most suppliers machine or hot forge at this size. Cold forging keeps the grain flow unbroken around the thread, so the nut takes proof load lot after lot with none of the scatter of a machined nut. Class 8, 10 and ASTM A194 2H, in HDG, black, zinc phosphate or zinc plated.

USP 02

EVERY PROCESS AND EVERY CONTROL INSIDE OUR OWN GATES

Wire drawing, cold and hot forging, thread rolling, heat treatment, hot-dip galvanizing, zinc phosphating, zinc plating and a NABL-accredited laboratory, all at Sankrail. Nothing goes out for job-work, so nothing comes back untraceable. That is why we can guarantee the quality, not just promise it.

USP 03

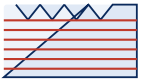
A TOOL ROOM THAT CUSTOMISES FASTENERS TO YOUR DRAWING

Our own die shop with EDM and die-making for the bolt makers and nut formers lets us tool up a new size, head form, groove or collar in days instead of months: lock bolts, axle cap screws, hook bolts, flange nuts and specials.



HRS COLD FORGED

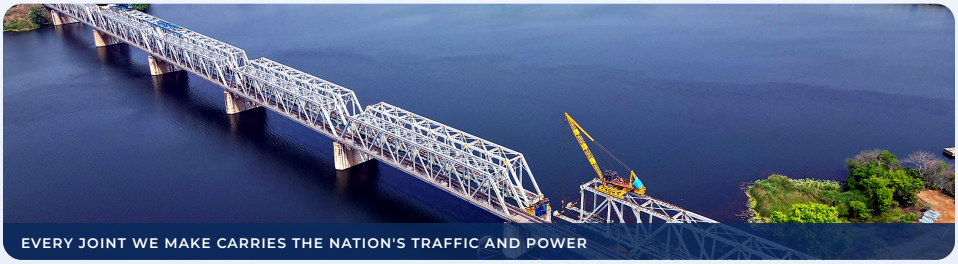
Grain flows around every thread. Full proof load, lot after lot.



MACHINED FROM BAR

Grain cut through at the thread. Weaker root, scatter in results.

Days	EDM	To drawing
TO TOOL A NEW SIZE, NOT MONTHS	IN-HOUSE DIE SHOP	LOCK BOLTS · HOOK BOLTS · SPECIALS



EVERY JOINT WE MAKE CARRIES THE NATION'S TRAFFIC AND POWER

LABORATORY & QUALITY

TESTED IN-HOUSE. ACCREDITED BY NABL.

TC-17131
NABL · ISO/IEC 17025:2017

40 T
UNIVERSAL TESTING MACHINE

100%
LOTS TESTED BEFORE DISPATCH

PROOF LOAD & TENSILE
40-tonne UTM with proof-load extension fixture

HARDNESS
Vickers and Rockwell hardness testing machines

CHEMISTRY
German spectrometer against the mill certificate

METALLOGRAPHY
Microscope with image analyser: grain flow, decarb

IMPACT
Charpy impact testing machine

VIBRATION
NAS 3350 and DIN 65151 for lock nuts

COATING
Zinc thickness and adhesion before dispatch

A CORPORATE HOUSE BEHIND THE LAB
Dedicated R&D, production and sales teams with full supply-chain infrastructure

INSIDE THE LABORATORY



HRS NABL-ACCREDITED LABORATORY · UTM, HARDNESS, IMPACT, PROFILE PROJECTOR

INSPECTED AND PASSED BY

RDSO · PGCIL · BUREAU VERITAS · TÜV · EIL · RITES





HSFG BOLTS, NUTS, WASHERS & DTI

Railway and road bridges (grade 8.8S), metro viaducts, heavy steel structures

Standard	IS 3757 / IS 6623 / EN 14399
Property class	8.8 and 10.9
Size range	M16 – M36

Projects: Chenab Bridge · Tala Bridge · Nimtita Bridge · Rishikesh Bridge · Sivok–Rangpo Bridges 13–17 · Kolkata Metro · Gorakhpur (ongoing)

HOT-DIP GALVANIZED · ZINC PHOSPHATED · ZINC PLATED · ZINC FLAKE

SUPPLIED TO

RAIL VIKAS NIGAM LIMITED (RVNL) · LARSEN & TOUBRO LIMITED · TEXMACO RAIL & ENGINEERING LIMITED · THE BRAITHWAITE BURN AND JESSOP CONSTRUCTION COMPANY LIMITED · RAHEE INFRATECH LIMITED · GPT INFRAPROJECTS LIMITED · ANUPAM NIRMAN PRIVATE LIMITED · BHARTIA INFRA PROJECTS LIMITED · PILCOM ENGINEERING · HPCL RAJASTHAN REFINERY LIMITED · SKB BUILDERS INDIA LIMITED · GAIL (INDIA) LIMITED · PUNIA CONSTRUCTION CO. · STEEL WORKS · SPACE CEM ENGINEERS PRIVATE LIMITED · TRANSRAIL LIGHTING LIMITED · ROYAL INFRACONSTRU LIMITED · BRBA INFRATECH LLP

MATCHED SETS
Bolt, nut, washer and DTI from one lot, one test report

DTI WASHERS
Direct tension indicators so site teams prove preload

RDSO B&S REGISTERED
Registration valid to 30-06-2030



HSFG ASSEMBLIES IN SERVICE · STEEL BRIDGE GIRDERS

POWERGRID APPROVED





TRANSMISSION TOWER BOLTS & NUTS

Transmission and distribution towers, substations, UHV hardware

Standard	IS 12427 (BIS licence CM/L-5100219581)
Property class	5.6 · 5.8 · 6.8 · 8.8 · 10.9
Size range	M12 – M24 (POWERGRID scope)

HOT-DIP GALVANIZED · ZINC PHOSPHATED · ZINC PLATED

SUPPLIED TO

- TRANSRAIL LIGHTING LIMITED
- KEC INTERNATIONAL LIMITED
- LARSEN & TOUBRO LIMITED
- BAJEL PROJECTS LIMITED
- TATA PROJECTS LIMITED
- KALPATARU PROJECTS INTERNATIONAL LIMITED
- CONFIDENCE STEEL EXPORT LIMITED (BANGLADESH)
- KSE ELECTRICALS PRIVATE LIMITED
- JAINCO TRANSMISSION LIMITED
- IAC ELECTRICALS PRIVATE LIMITED
- INTERNATIONAL TRANSMISSION LIMITED

IS 12427 · BIS LICENCE
CM/L-5100219581, valid to 24-01-2027

HDG IN-HOUSE
25 MT per day hot-dip galvanizing line

POWERGRID APPROVED
CC/QA&I/2025/21603/216, SMQP Rev 05

FOR STRUCTURES, PLANTS & REFINERIES

HEX BOLTS & NUTS.
EVERY GRADE, EVERY FINISH.



HEX BOLTS · 8.8 BLACK

Cold forged, rolled thread, heat treated and tempered in-house; phosphated or black.



HEX BOLT SETS · 4.6 / 4.8 ZINC PLATED

Bolt, nut, spring and plain washer supplied as matched sets, zinc plated in our own plant.



LARGE DIAMETER · M46 HDG

Hot forged to M48 × 600 mm on presses up to 200 MT, hot-dip galvanized 25 MT/day.

Standard	IS 1363 / IS 1364 / DIN 931 / DIN 933 / ISO 4014 / ISO 4017
Property class	4.6 · 4.8 · 5.6 · 6.8 · 8.8 · 10.9
Size range	M10 – M48 · cold forged to M30, hot forged to M48
Length	Up to 600 mm
Thread	Rolled, hydraulic thread rolling to M80

FINISHES

HOT-DIP GALVANIZED · ZINC PHOSPHATED · ZINC PLATED · ZINC FLAKE

SUPPLIED TO

HPCL RAJASTHAN REFINERY LIMITED · GAIL (INDIA) LIMITED · STEEL WORKS · SOLAR STRUCTURE FABRICATORS · OEM ASSEMBLERS

OUR SPECIALITY

COLD-FORGED NUTS.
HEAVY HEX TO M27, HEX TO M30.

CLASS 8 / 10 / 2H



HSFG sets, tower hardware, wind-turbine and structural joints

Standard	IS 1363 / IS 1364 / ISO 4032 / ASTM A194 2H
Grades	Class 8, 10 and ASTM 2H equivalents
Size range	Heavy hex cold forged up to M27 (our speciality); standard hex up to M30
Approval	NABL-tested proof load on every lot

HOT-DIP GALVANIZED · ZINC PHOSPHATED · ZINC PLATED



M10 – M30 · COLD FORGED
Grain flow unbroken around the thread; heavy hex to M27, standard hex to M30, among the few in India who can.

ABOVE M30 TO M48 · HOT FORGED
Large nuts hot forged on our own presses, then tapped and finished in-house.

SUPPLIED TO

POOJA FORGE · OEM ASSEMBLERS · TOWER AND BRIDGE FASTENER ASSEMBLERS



NEARLY 2 MILLION SUPPLIED SINCE 2024.





A bolt that cannot work loose: the collar is swaged permanently onto the pin, so there is no nut to vibrate off a running wagon. Sizes 3/8" to 1-1/8", alloy steel, heat treated and zinc plated in our own electroplating plant.

ZINC PLATED



Pieces per financial year · RDSO vendor directory · 2026-27 to September

RAILWAYS

PAN-INDIA SUPPLY
Zonal railways and workshops; railway OEMs Lalbaba Engineering Limited and Westinghouse Saxby Farmer Limited

UNIQUE BOX PACKING
Sealed boxes, counted and tagged per lot

EXTERNAL INSPECTION
Every lot passed by RITES, BV, TÜV or RDSO

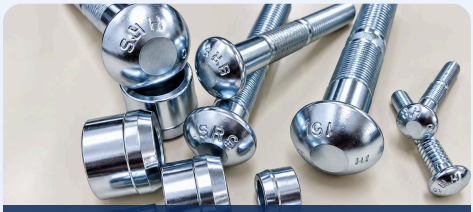
WAGON BUILDERS

ALL MAJOR BUILDERS
Texmaco, Titagarh, HEI, Jupiter, Lalbaba

COLOUR-CODED BAGS
Size and grade identified at a glance on the shop floor

INSPECTED LOTS
Proof load, hardness and plating checked before dispatch

INDIAN RAILWAYS · TEXMACO RAIL & ENGINEERING LIMITED · TITAGARH RAIL SYSTEMS LIMITED · HINDUSTHAN ENGINEERING & INDUSTRIES LIMITED · JUPITER WAGONS LIMITED · LALBABA ENGINEERING LIMITED · WESTINGHOUSE SAXBY FARMER LIMITED



LOCK BOLTS & COLLARS · ZINC PLATED, HRS MARKED



COLD-FORGED COLLARS · MADE IN-HOUSE

FOR RAILWAYS & WAGON BUILDERS

RAILWAY SPECIALS.
MADE TO THE DRAWING, PROVEN IN SERVICE.



WHEEL AXLE CAP SCREWS

RDSO registered (developmental approval, valid to 01-06-2028) for railway wheel sets. Forged, heat treated, machined and tested in-house to the RDSO drawing.

Approval	**RDSO (Wagon) · RDSO/108/1901/00056249**



SACU COUPLER BOLTS

Socket-head bolts up to 42 × 300 for SACU couplers on wagons: alloy steel, heat treated, with full traceability per lot.

Size	**Up to M42 × 300**



ALLEN BOLTS · SOCKET HEAD CAP SCREWS

Black socket head cap screws for railway and wagon hardware, made to drawing with our own tool room.

Made to	**Customer or RDSO drawing**

RDSO	RITES · BV · TÜV	BOX PACKED
THREE PRODUCT APPROVALS	THIRD-PARTY INSPECTED LOTS	COUNTED AND TAGGED PER LOT

SUPPLIED TO

INDIAN RAILWAYS · TEXMACO RAIL & ENGINEERING LIMITED · TITAGARH RAIL SYSTEMS LIMITED · HINDUSTHAN ENGINEERING & INDUSTRIES LIMITED · JUPITER WAGONS LIMITED · LALBABA ENGINEERING LIMITED · WESTINGHOUSE SAXBY FARMER LIMITED

CUSTOMISED FASTENERS

YOUR PROJECT REQUIRES IT. WE FORGE IT TO PRECISION.

Carriage bolts, rivets, turn-fit pins, double ended studs, roll-threaded foundation bolts, SACU coupler bolts, axle cap screws and anything else on your drawing: designed, tooled in our own die shop, forged, heat treated and finished in-house. HOT-DIP GALVANIZED ZINC PHOSPHATED ZINC PLATED



COLD FORGED COLLARS
For lock bolts, to drawing



FOUNDATION & LONG BOLTS
Roll threaded, HDG, M46 and above



FLANGE & PLAIN HEX NUTS
Flange nuts for solar structures



HSFG 10.9 · HDG
To drawing, M16 – M36



SPIKES
Railway track, to drawing



TOWER BOLTS & NUTS · HDG
5.6 to 10.9, POWERGRID



SHEAR STUDS & FERRULES
ISO 13918, composite decks



BOLTS, NUTS & WASHERS
Plain, spring, DTI washers

OWN TOOL ROOM	EDM	M12 – M80	TO DRAWING
DIES & PUNCHES IN-HOUSE	WIRE-CUT & SPARK EROSION	SIZE RANGE	OR TO SAMPLE

NEW · DEVELOPED IN-HOUSE

ASTRALOK.

THE SPRING-LOADED FLANGE LOCK NUT THAT STAYS TIGHT.



HOLDS PRELOAD
Stays tight under vibration and thermal cycling

STANDARD TOOLS
No pin, adhesive or second nut

REUSABLE
Back off and refit without losing lock

REPLACES IMPORTS
Indian design, M24 to M48

FROM IDEA TO TRACK · THE ASTRALOK JOURNEY

1 **PROBLEM**
Imported anti-vibration nuts on track and bridge fastenings: costly, long lead time, no local support

2 **R&D**
Spring-loaded flange nut designed by our own engineers

3 **TESTED**
NAS 3350 and DIN 65151 vibration tests passed in our NABL lab

4 **REGISTERED**
Design No. 497144-001, Govt. of India

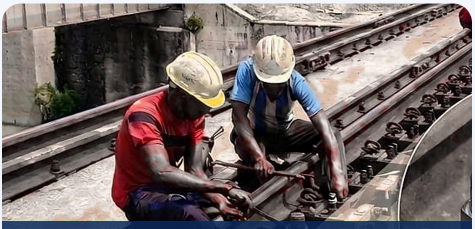
5 **ON SITE**
In service on Indian Railways track and steel-sleeper bridges

6 **NEXT**
Wind-turbine tower and foundation bolting

M24–M48	497144-001	NAS 3350	DIN 65151
SIZE RANGE	REGISTERED DESIGN	VIBRATION TEST PASSED	VIBRATION TEST PASSED

JUNKER VIBRATION TEST · PASSED
DIN 65151 / ISO 16130: the harshest test of self-loosening under transverse dynamic load





IN SERVICE · ASTRALOK M27 ON A RAILWAY BRIDGE TRACK FASTENING

We develop to RDSO generic specifications and test beyond them, because a nut on a railway bridge guards the safety of everyone who crosses it.

BRING US THE PROBLEM

WE'LL BRING THE FASTENER.

A CORPORATE HOUSE, NOT JUST A FACTORY

A dedicated R&D department, production team, sales and support team and full supply-chain infrastructure, so what we promise at enquiry is what arrives at your site.

R&D & TECHNICAL PANEL

Qualified, experienced engineers and experts on our panel, with in-depth working knowledge of vibration, spacer dampers and hardware for the electrical industry.

FASTENER EXPERTS, 30–40 YEARS

Fastener specialists with 30 to 40 years of experience in testing and execution, who review every new product before the first lot.

SALES & SUPPORT, ON TIME

A highly educated sales and support team, with every step controlled by checklists and modern systems: on-time, smooth order-to-delivery and online tracking of your goods.

YOUR CONTACTS · ONE NAMED PERSON, ENQUIRY TO INSTALLATION

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APPROVALS & CERTIFICATIONS · FOR YOUR VENDOR FILE

AUTHORITY	SCOPE / REFERENCE	VALIDITY
RDSO (B&S)	HSFG bolt assemblies	valid to 30-06-2030
RDSO (Wagon)	Lock bolts & collars	valid to 15-08-2028
RDSO (Wagon)	Wheel axle cap screw · developmental	valid to 01-06-2028
POWERGRID	Manufacturer approval CC/QA&I/2025/21603/216 · SMQP Rev 05	valid to 14-05-2028
BIS	IS 12427 licence CM/L-5100219581	valid to 24-01-2027
NABL	ISO/IEC 17025 laboratory TC-17131	valid to 18-11-2029
ISO 9001:2015	Quality management system · KDACQ202604022	valid to 01-04-2029
ISO 45001:2018	Occupational health & safety	certified
EIL	Project approvals (Larsen & Toubro Limited · SKB)	project-specific
MSME	Udyam UDYAM-WB-08-0033060	perpetual

www.hrsteel.com

Works: Sankrail Industrial Park, Dhulagarh, Howrah 711302, West Bengal, India · Unit I & Unit II

DIGITAL CATALOGUE