

#### **ABOUT US**

Incepted in the year 1995, Singhania International Limited has gained immense prominence over the years for its unmatched expertise in manufacturing steel wires, cold forged components and fasteners.

Headquartered in Ludhiana (Punjab), 300 km from New Delhi, the company's manufacturing unit is spread across an area of 10,000 sqm. In addition we have an indigenous packing and storage space of over 50,000 sqft for handling of incoming raw material and finished goods at Sahnewal, Punjab.

With an installed capacity of 40,000 metric tons for steel wire processing and 6,000 metric tons for fastener manufacturing, we cater to the steel wire and fastener needs of automotive OEMs and a wide range of industries, including transmission and distribution, defense, construction, white goods manufacturers, etc.

The diversified product line, with maximum market capitalization comes from the company's prudent management fueling the vision to evolve as an one-stop solution provider. SIL is driven by the passion, strength and expertise of its 150 strong workforce. **STURDFIX™** and **SFX™** are our registered trademarks in India, UK, USA, Turkey, Australia, Singapore, and China.

6 Fastening technology is our core business, And service is our guiding principle 9



### **INFRASTRUCTURE, ENGINEERING & MANUFACTURING**

In house R&D team, with experienced engineers, and our state of the art manufacturing technology and equipment, integrated with tool design and development ensures smooth functioning of all operations. This in turn helps us innovate our products and services thereby delivering highest level of quality, consistency, and cost effectiveness.

SIL has in-house spheroidizing annealing and wire drawing facility for making CHQ steel wire of diameter up to 30 mm. Our automatic temperature and atmosphere controlled bell annealing furnace ensures maximum machinability, ductility and uniform micro structure, thereby leading to enhanced surface finish to the final product.

The 10,000 sqm facility is equipped with advanced cold forging and stamping set up including:

- 6-station nut and part formers
- Multi station bolt part formers
- · Thread rolling machines
- Multi spindle nut tapping machines
- Special nut tapping machines
- Nylon washer crimping machines
- Hydraulic presses
- · Castle nut slot cutting machines
- Wire drawing machines
- · Bell annealing furnaces
- · Wire straightening & cutting machine
- · Spring washer coiling & cutting machine
- · Universal milling machine
- Surface grinder
- · Tool and cutter grinder
- Cylindrical grinder
- · Center-less grinder
- · Other auxiliary machines

Our team of experienced technical and mechanical engineers supported by their helpers, regularly maintain all our equipment as per scheduled maintenance plan, thus ensuring high reliability and fewer breakdowns of equipment.



#### **QUALITY CONTROL**

At SIL client satisfaction is the ultimate goal, which is achieved by manufacturing and supplying excellent quality, flawless products, while ensuring competitive prices and on-time delivery.

At each stage, the manufacturing process is monitored carefully, right from raw material procurement, processing till the final delivery of finished products, using advanced data monitoring software and in-line quality checks, to ensure strict compliance to automotive and industrial standards/norms. Random sampling is followed, as per sampling plan, and the components are tested (before dispatch) as per schedule frequency to ensure product performance.

The in-house laboratory and inspection department is equipped with cutting edge testing apparatus and instruments like:

- Spectrometer (Spectromaxx, Germany)
- Computerized universal testing machines (1000KN)
- Metallurgical microscope with image analyzer (1000X)
- Hardness tester (Rockwell Hardness)
- Salt spray test chamber (280L)
- Impact tester
- Coating thickness meter/gauge (Elcometer, UK)
- 3D printer
- · Metallographic cutting and polishing machine
- Ring and plug gauges
- Vernier caliper and micrometers
- Zoom camera

All our testing and measuring instruments and equipment are regularly calibrated from NABL accredited sources, ensuring further reliability of the tests performed. We can supply full chemical and mechanical test certificates as per BS EN 10204 3.1 for most of our products.

We aim to get our lab ISO 17025/NABL accredited by the end of the year 2019.



#### **MANAGEMENT SYSTEMS & CERTIFICATIONS**

SIL's operations and processes strictly adhere to ISO 9001:2015 and IATF 16949 standards. Our team of experienced engineers and quality personnel regularly audit all our processes and our critical suppliers. An integrated QMS equipped with JOB Card route, ensures 100% product traceability from the raw material stage to final dispatch, in addition to meeting our internal quality objectives.

SIL has in-house policies for minimizing environmental risks, avoiding wastages, encouraging active recycling, promoting energy saving measures, and the same is certified as per ISO 14001:2015 and ISO 45001:2018. We are actively striving towards energy conservation and using renewable clean energy sources. We also plan to conform our systems to ISO 50001 by the end of the year 2019.











#### **STANDARDS WE FOLLOW**













#### **OUR VISION**

To become an internationally recognized, fiscally robust company, sustaining undoubted leadership in the Indian and international market for fasteners and cold forged components. To become a reference point for every industry across the globe for their fastener/hardware C-part needs.

#### **OUR MISSION**

- Be a market leader and establish STURDFIX™ as a global brand by creating value for our customers through technology, innovation and cost competitiveness.
- · Continual improvement in quality, by setting up higher benchmarks in quality.
- · Exceeding customer expectations and to become their preferred supplier for fasteners and components.
- To create a safe and healthy environment for generations to come.

#### **OUR VALUES**

- · Integrity in dealings
- · Customer satisfaction and respect for people
- Continuous improvement
- · Building long-lasting business associations

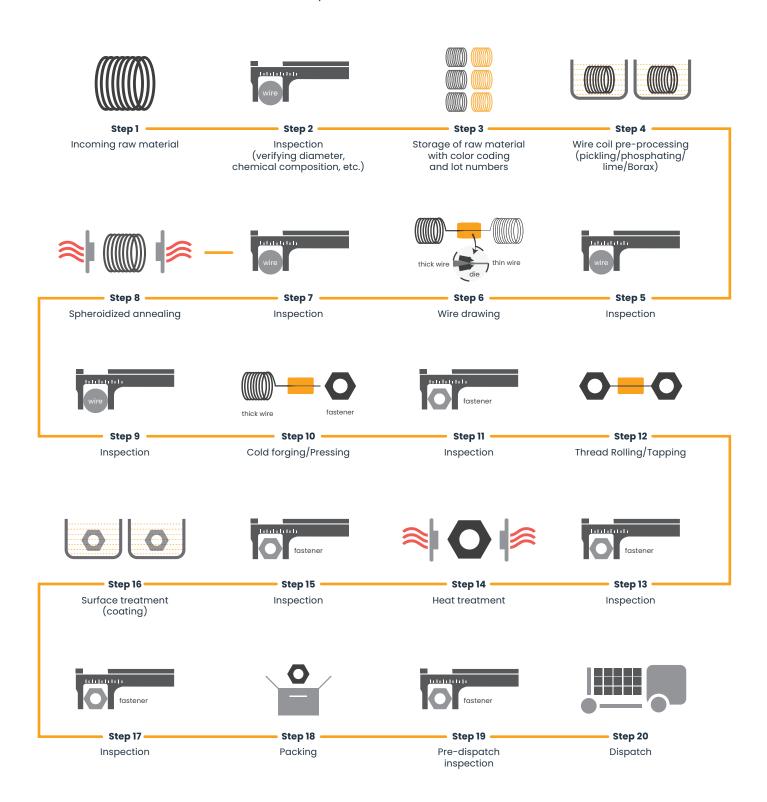
#### **OUR FUTURE PLANS**

- · Become a global fastener and C-part supply chain specialist
- Increase our export business
- · Increase our OEM client base
- · Increase our product range by adding new and advanced machinery and processes on regular basis
- Achieve and comply with the requirement of ISO 17025/NABL, CE marking and ISO 50001 by end of the year 2019
- Add new nut and bolt/screw part formers, including long stroke machines
- Add fully automatic, atmosphere controlled, heat treatment line for heat treatment of fasteners
- Add a fully automatic optical and eddy current sorting machine
- Add fully automatic packaging line for fasteners



### THE STURDFIX® MANUFACTURING PROCESS

At each and every stage of our manufacturing process, thorough testing and inspection is done, to ensure defect-free end product. Job card route is followed, and this ensures 100% traceability of the finished product. All our manufacturing process records and samples are stored for 18 months, which assist with future verification, if needed by the customer.



### **MATERIALS & GRADES**

**Carbon Steel** SAE 1008, 1010, 1018, 1020, 1022, C35, C40, C45, 1541, EN8D, EN8A, EN8M, EN1A(Pb), S35C,

S45C, S48C, S20C

**Boron Steel** SAE 10B21, 15B25, 19MnB4M, 19MnB4HCHCr, 10B35, 15B41, EN8D-B

SAE 8620, 8622, 4135, 4140, 52100, 4037, 6135, EN-19, EN-24, EN-31, EN-42, SCM420, **Alloy Steel** 

SCM435, SCM 440, 16MnCr5, 20MnCr5

**Stainless Steel** SS201, SS202, SS302, SS304L, SS304Cu, SS304H, SS304HC, SS309, SS310, SS316, SS316Ti,

SS410

#### **SURFACE FINISH**

- Trivalent Chrome Free Zinc Plating (ROHS) White, Blue, Golden Yellow, Green & Black (ISO 4042)
- Zinc Flake Coating (ISO 10683)
- Zinc Iron and Zinc Manganese Coating
- Zinc Nickel Coating
- Dacromet (Upto 1000 Hours SST)
- Geomet (Upto 1000 Hours SST)
- Zinc Phosphating
- Cadmium Plating
- Tin Plating
- Nickel/Chrome Plating
- Hot Dip Galvanizing
- **ED** Coating
- Mechanical Galvanizing



# **PRODUCT OFFERINGS | BOLTS & STUDS**

	ITEM DESCRIPTION	STANDARDS	GRADES	SIZE (diameter)	LENGTH
	1. Hexagon Socket Head Cap Screws	DIN 912, ISO 4762, BS 2470,	8.8, 10.9, 12.9, A2	M5 - M16 (3/16 - 5/8)	Upto 150 mm
	2. Hexagon Socket Countersunk Head Cap Screws	DIN 7991, ASME B18.3	8.8, 10.9, A2	M5 - M12 (3/16 - 1/2)	Upto 150 mm
	3. Hexagon Socket Button Head Screws	ISO 7380, ASME B18.3	8.8, 10.9, A2	M5 - M12 (3/16 - 1/2)	Upto 150 mm
	4. Hexalobular Socket Pan Head Screws	ISO 14583	8.8, A2	M4 - M12	Upto 150 mm
	5. Hexagon Socket Low Head Cap Screw	DIN 7984	8.8, 10.9	M5 – M14	Upto 150 mm
	6. Hexagon Socket Head Shoulder Screw	ISO 7379, ASME B18.3	12.9, A2, 18-8	3/16" - 1/2	Upto 6"
	7. Hex Head Screw Plugs	DIN 908, 910		M8 - M16	
	8. Hex Head Bolts & Screws	DIN 931, 933, 960, 961, 7990, 610 ASME B18.2.1, ASTM A307, IS 1363, 1364, BS 1083, 1768	4.8,5.6, 5.8, 6.8, 8.8, 10.9, 12.9, A2, A4, 18-8, B7, B7M	M5 - M24 (3/16 - 1")	Upto 250mm
	9. Heavy Hex Bolts & Screws	DIN 6914, 6915, ISO 7412, ASTM A325M, A490M, BS 1769	8.8S, 10.9S, A2	M12 - M24 (1/2 - 1")	Upto 250 mm
	10. Carriage Bolts/ Square Neck Bolts	DIN 603, 604, 608, ISO 8677	4.8, 5.6, 6.8, 8.8, A2	M5 - M16 (3/16"-5/8")	Upto 160 mm
<b>Community</b>	11. Hex Flange Bolt/Screw	DIN 6921, ISO 4162	5.6, 8.8, 10.9,12.9	M5 - M16	Upto 160 mm
	12. Double Ended Fully Threaded Studs	ASTM A193, A320 DIN 976, 938, 939, 940, 949	4.8, 8.8, 12.9, B7, B7M, B16	M8 - M39 (5/16 - 11/2")	Upto 1500 mm
	13. Fish Bolts/T- Bolts and other non- standard cold forged components		4.8, 5.6, 5.8, 6.8, 8.8, 10.9	M5 - M16	Upto 150 mm

# **PRODUCT OFFERINGS | NUTS**

	ITEM DESCRIPTION	STANDARDS	GRADES/CLASS	SIZE (diameter)
	1. Hex Nuts	DIN 934, 555, ISO 4032, 4034, ASTM A194	5, 6, 8, 10, 12, 85, 105, 2H, 8SBZ, 10SBZ, A2, 18-8	M5 – M30 (3/16 – 1")
	2. Lock Nuts (Thin Hex Nuts)	DIN 439, DIN 936	5, 6, 8	M5 - M20
	3. Heavy Hex Nuts	ISO 7414, ASTM A563	8, 10, 12, 8s, 10s, 2H, 2HM, A2, 18-8	M12 – M24 (1/2 – 1″)
	4. Nylock Nuts	DIN 982, 985, 6924, ISO 7040, ASME, BS	5, 6, 8, 10, A2	M5 - M16 (3/16 - 5/8)
	5. Flange Nuts	DIN 6923, ISO 4161, JIS B 1190	5, 6, 8, 10, A2	M5 - M16
	6. Flange Nylock Nuts	DIN 6926	5, 6, 8, 10	M5 - M12
	7. Castle/Slotted Nuts	DIN 935, 937	5, 6, 8, 10	M8 - M30
8	8. Collar Nuts	DIN 6331 or as per customer drawings	8, 10	M5 - M16
	9. Square Weld Nuts	DIN 928, JIS B 1196	5, 6, 8	M5 - M16
	10. Hex Weld Nuts	DIN 929, JIS B 1196	5, 6, 8	M5 - M18
	11. Weld Nuts	As per customer drawings	5, 6, 8	M5 – M14
	12. Anti Theft Nuts/ Shear Nut	As per customer drawings		M5 - M16
	13. Square Nuts	DIN 557, ASME B18.2	5, 6, 8, 10	M5 - M18
90000	14. Bushes, Spacers, Rivet Nuts, Other special cold forged components	As per customer drawings		Outer dia upto 26mm Flange dia upto 32 mm Length upto 35mm

# **PRODUCT OFFERINGS | WASHERS**

	ITEM DESCRIPTION	STANDARDS	GRADES/CLASS	SIZE (diameter)
0	1. Flat Washers	DIN 125, 433, 440, 1440, 7349, 9021, ISO 7089, 7092, ASTM F436	Carbon Steel/ Hardened & Tempered	м5 – м39
0	2. Spring Washers	DIN 127B, 7980, ASME B 18.21.1	Spring Steel/ Hardened & Tempered	мз – м48
0	3. DTI Washer	ASTM F959	Hardened & Tempered	M12 – M30
	4. HSFG Washer	BS 4395, IS 6649, DIN 6916, ISO 7415	riardened a rempered	
	5. Star Lock Washer	DIN 6797	Carbon Steel	M6 - M16
	6. Internal Star Lock Washer	DIN 6797	Curbon steel	IMIO - IMITO



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