



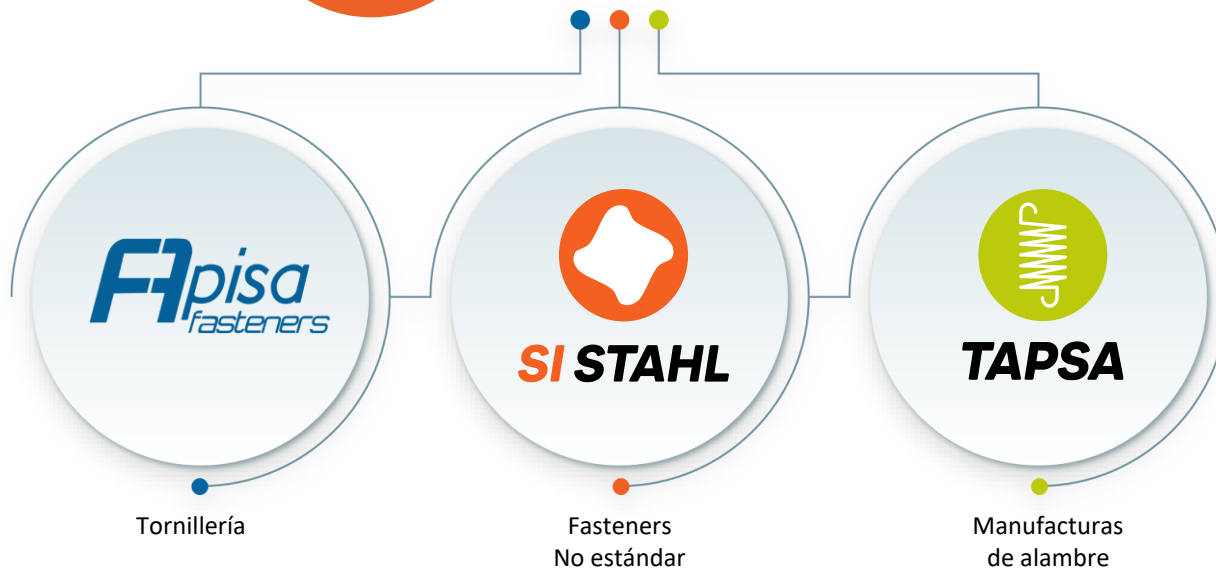
STAHL
FASTENERS

P R E S E N T A C I Ó N
E J E C U T I V A 2 0 2 4

En 2023 se conforma **STAHL FASTENERS** como un portafolio Comercial dando una solución de componentes tipo C (Fasteners, Maquinados y Manufacturas de Alambre), dando una solución más completa a nuestros clientes.

Experiencia, Ingeniería y Calidad en variedad de productos y soluciones de nuestras empresas...

STAHL
FASTENERS



A collection of various metal fasteners and components. On the left, there is a large circular flange with a central hole and a smaller L-shaped bracket below it. In the center, a long, thin metal rod is bent into a 90-degree angle. On the right, a thin wire is bent into a hook shape.

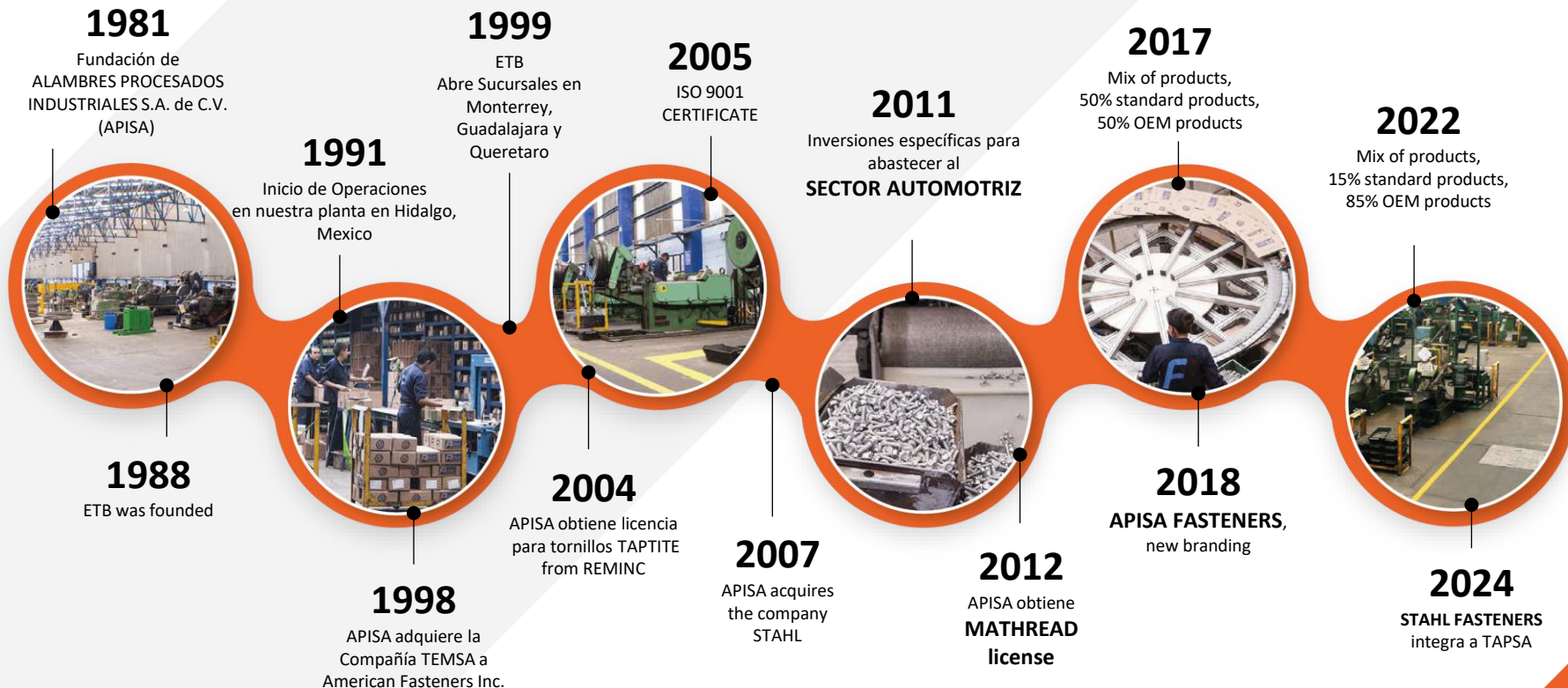
ABOUT US

SI-STAHL

We are focused on the particular needs of non-standard fasteners of our clients.

SI-STAHL is a Spin-Off of APISA, a group of Mexican companies that manufactures Fasteners for High and Medium volume.

Over 40 years, APISA STAHL evolved to manufacture Cold Forging , Machined parts and Wire Metal Products for many industries, OEM, Automotive, Home Appliance and Construction produce bolts, screws, washers, machining parts, wire forms and springs.





**44,000 m²
de instalaciones**

Compañía de
capital Mexicano



**320 personal
operativo en
nuestras diferentes
operaciones**



**+ 40 años
de experiencia**

1200

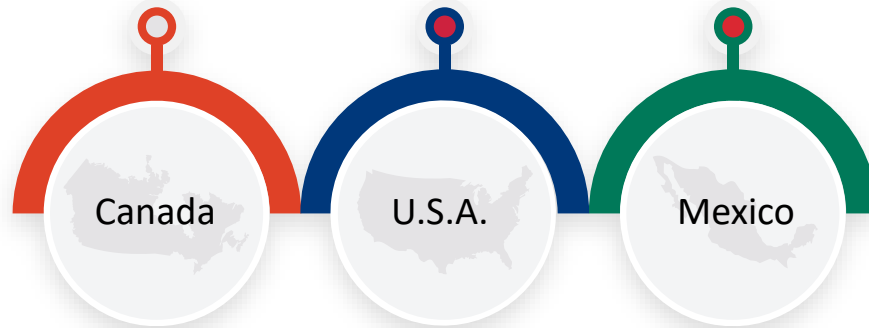
Tons per
month

In-house
Processes

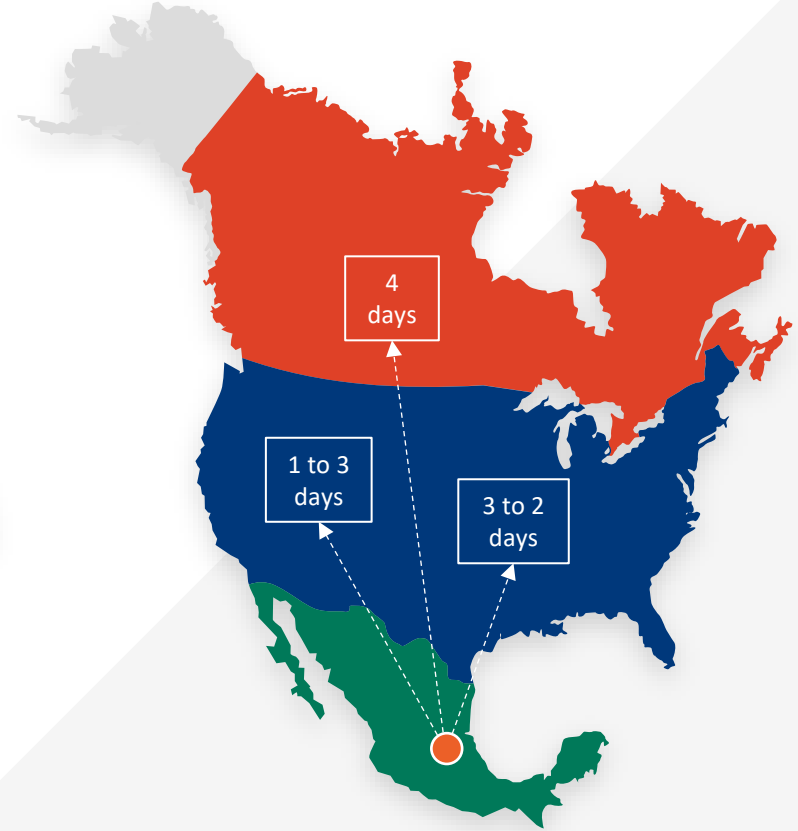


Location

The geographical location of STAHL FASTENERS helps us to have a logistic advantage with our competitors in North America.



Our main customers are located in Canada, U.S.A. and Mexico.



INDUSTRIES

Our main markets are the following



Home
appliances



Automotive



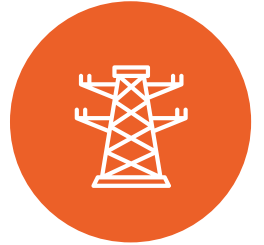
Trade screws
and fasteners



Construction



Heavy
Machinery



Energy

PROCESSES

01



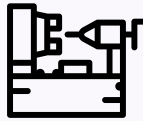
Raw
Material

02



Forging

03



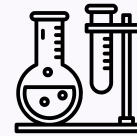
Second
operations

04



Heat
treatments

05



Adhesive
coatings

06



Quality
inspection



Raw Material



Equipment

Carbon steel

- SAE ASTM Standard
- JIS Standard
- DIN Standard

Mexican raw material



Specifications

- Annealing
- Chemical cleaning
- Wire drawing
- Phosphate Coating



Capacity

Process	Capacity per month	Occupied
Annealing	900 TONS	65%



Forging



Equipment

- Cold forging 2 seasons up to 22 mm.
- Multi-stage cold forging 3, 4, 5 and 6 strokes up to 20 mm.
- Nut forging machines with 5 and 6 stations up to 25 mm.
- Hot forging machines from 1/2" up to 2" diameter.



Specifications

Dimensions
4 mm up to 36 mm

Lenghts



MIN. 15 mm



MAX. 250 mm



Capacity

Process	Capacity per month	Occupied
Cold forming	700 TONS	60%
Heat forming	300 TONS	25%



Second operations

Licenses



Equipment

1. Rollers with washer assembly capability (Sems)
2. Roller rolling
3. Groove machining
4. Drilling
5. Knurling
6. Head machining



Specifications

Ropes

UNC
UNF

Thread Cutting
Thread Rolling
Tap Tite

Mathread



Capacity

Process	Capacity per month	Occupied
Threaded and knurling	1,000 TONS	60%
Milling, Brooved, drilling of heads	150 TONS	75%



Heat treatments

Licenses



Equipment

- Heat treatment and tempering
- Carbonitride
- Hydrogen Embrittlement



Specifications

Hardness

Grade 2
Grade 5

Class 8.8
Class 9.8
Class 10.9

A307
A394
A325
A490



Capacity

Process	Capacity per month	Occupied
Heat treatment	300 TONS	80%
Tempering	300 TONS	80%
Hydrogen Embrittlement	200 TONS	20%



Coatings

Licenses



Equipment

- Cr3 Zinc platinc (120 to 500 hrs Red Corrosion)
- RoHS compliance
- Trivalent dehydrogenated
- Magni Coating (480 to 1,000 hrs Red Corrosion)
- ND Adhesives for Loc tite, 3M, Pre coat, Nylon ropes.



Specifications

In-house finishes

- Trivalent Zinc (Cr+3) RoHS: Blue, White, Yellow, Black
- Organic phosphate + seal
- Nickel
- Magni Coating
- Hot-dip galvanizing



Capacity

Process	Capacity per month	Occupied
Zinc plating	400 TONS	70%
Magni coating	300 TONS	40%
Adhesives	2,000,000 PCS	50%
Painted heads	4,000,000 PCS	40%
Dehydrogenized	200 TONS	70%



Quality inspection



Equipment

- In-house metrology laboratory
- Microstructure Hardness and Microhardness
- Optical Comparator
- Universal Machine
- Tension, torque and elongation
- Coefficient of friction
- Salt spray chamber



Specifications

Mechanical testing Laboratory

- Tension
- Proof load
- Torque
- Microstructure Analysis
- Hardness and Microhardness
- Friction Coefficient
- Corrosion Testing
- Hydrogen Free
- Torque in Adhesives
- Automated optical selection
- Visual selection
- Qualified team with more than 10 years of experience



Capacity

Process	Capacity per month	Occupied
Optical Sorting Process	30,000,000 Pcs	85%



Materials

- Low, Medium & High Carbon Steels
- Alloy Steels
- Stainless Steels

Processes

- Bending (Manual / CNC)
- Transfer Tools Multi-Slide



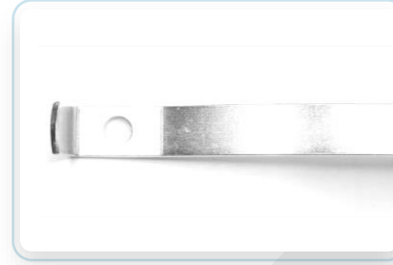
Secondary operations

- Coining
- Heading
- Piercing
- Threading
- Bending
- Flattening
- Rolling
- Welding
- Heat Treatment
- Plating and Coatings



Sizes

- Wire Diameter - 3mm to 20mm
- Length - Up to 500mm
- Custom Lengths - Over 500mm



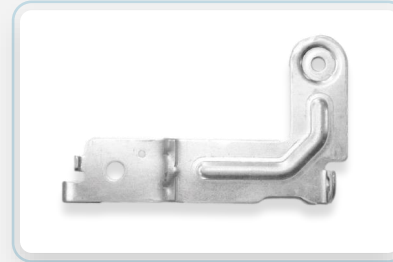
Secondary operations

- Piercing
- Threading
- Bending
- Welding
- Heat Treatment
- Plating and Coatings



Sizes

- Thicknesses Strip
0.5mm to 6mm
- Widths from 10mm to 50mm





Secondary operations

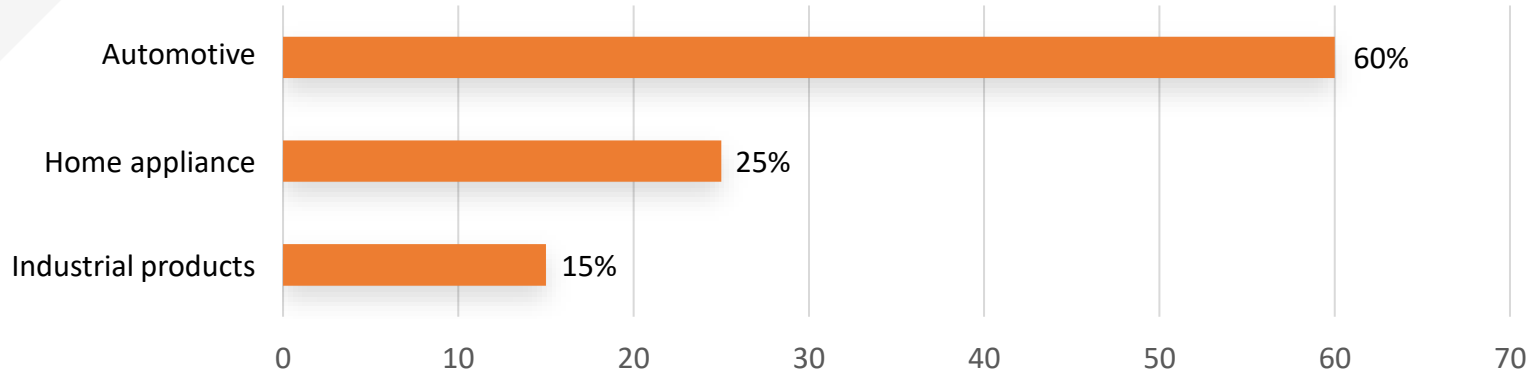
- Milling
- Threading
- Centerless Grinding
- Drilling
- Heat Treatment
- Plating and Coatings

Sizes

Round, Hexagonal, Square Products

- Wire Diameter- 3mm to 51mm
- Length- Up to 450mm
- Custom Lengths - Over 500mm

INSTALLED MONTHLY PRODUCTION CAPACITY 2023



STAHl FASTENERS manufactures en 2024

700 tons per month

With installed capacity for

1,200 tons of fasteners per month



STAHL
FASTENERS



+52 1 441 107 4773



enlace@stahlfasteners.com.mx



Carretera 431 km 1+100
Conjunto Industrial PKCO,
14 N El Colorado, El Marqués,
Qro. C.P. 76246