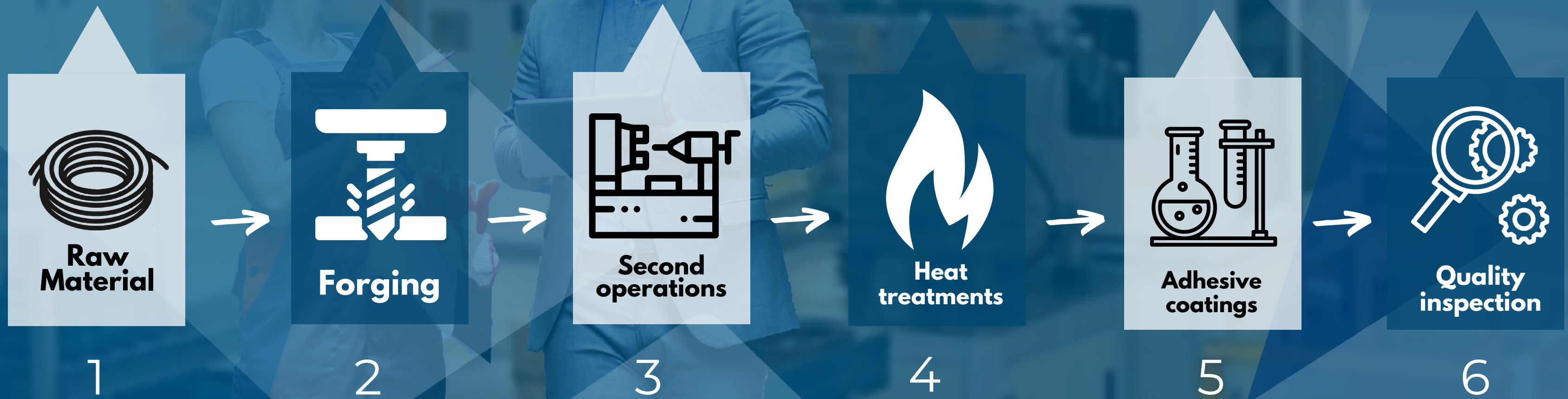
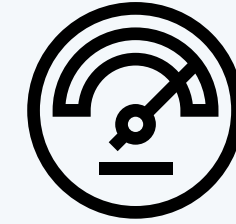
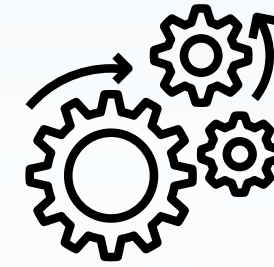
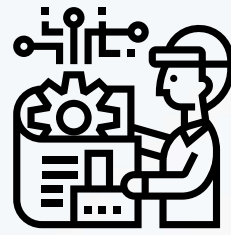


PROCESSES





1. Raw material

EQUIPMENT

Carbon steel:

- SAE ASTM Standard
- JIS Standard
- DIN Standard

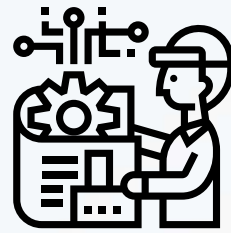
Mexican raw material

PROCESSES

- Annealing
- Chemical cleaning
- Wire drawing
- Phosphate Coating

CAPACITY

Process	Capacity per month	Occupied
Annealing	900 TONS	65%



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

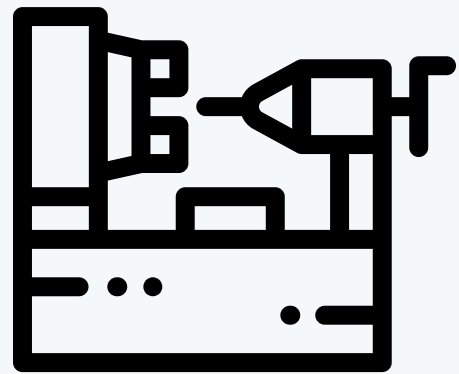
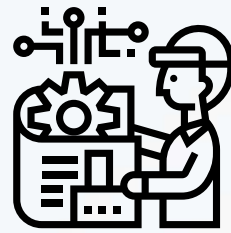


CAPACITY

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



2. Forging



3. 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

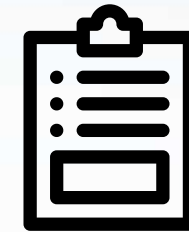
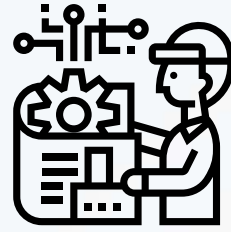
UNC
UNF

Thread Cutting
Thread Rolling
Tap Tite

Mathread

CAPACITY

Process	Capacity per month	Occupied
Threaded and knurling	1000 TONS	60%
Milling, Brooved, drilling of heads	150 TONS	70%




4. Heat treatments

Licenses
AIAG
 Automotive Industry Action Group
 CQI-9

EQUIPMENT

- Heat treatment and tempering
- Carbonitride
- Hydrogen Embrittlement

SPECIFICATIONS

Hardness

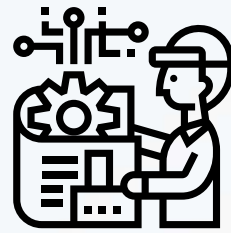
Grade 2
 Grade 5

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%



EQUIPMENT

- Cr3 Zinc plating (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

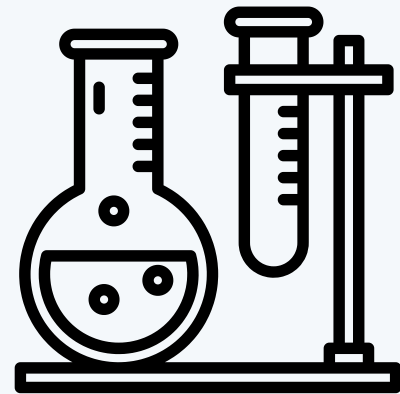
In-house finishes

- 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%



5. Adhesive coatings

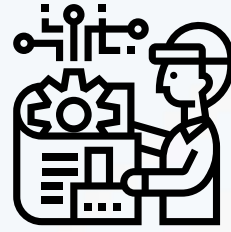
Licenses



Automotive Industry Action Group

CQI-11 CQI-12





6. 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%



All our processes are
IN-HOUSE.

