



TESENDLER

2022



Spare parts  
catalogue





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## Introduction

We are an Egyptian company whose work is based on engineering, marketing and administrative experiences with over 20 years of practical experience

We have three branches in Egypt , USA and Oman .

We are specialized in mechanical design and manufacturing in several industrial sectors, using modern techniques of reverse engineering, in addition to steel structure, Metalwork, rubber industries, Spare parts and Feeding industries along with a wide range of infrastructure projects in Power, Railway and general industry projects.

The company is structured to provide the expertise required for the efficient coordination of all phases of work starting from project development studies, to manufacturing and installing all metalwork. The company applies state of the art technology and know-how based on worldwide sources including operating companies, international engineering firms and technology licensors.

**Tesendler** cooperates with the success partner throughout the work journey between them to complete the projects in an appropriate and acceptable manner

We take the burden of work on our own to reach success.

We will be a partner of success with a long-term relationship with our success partner based on confidence and quality.



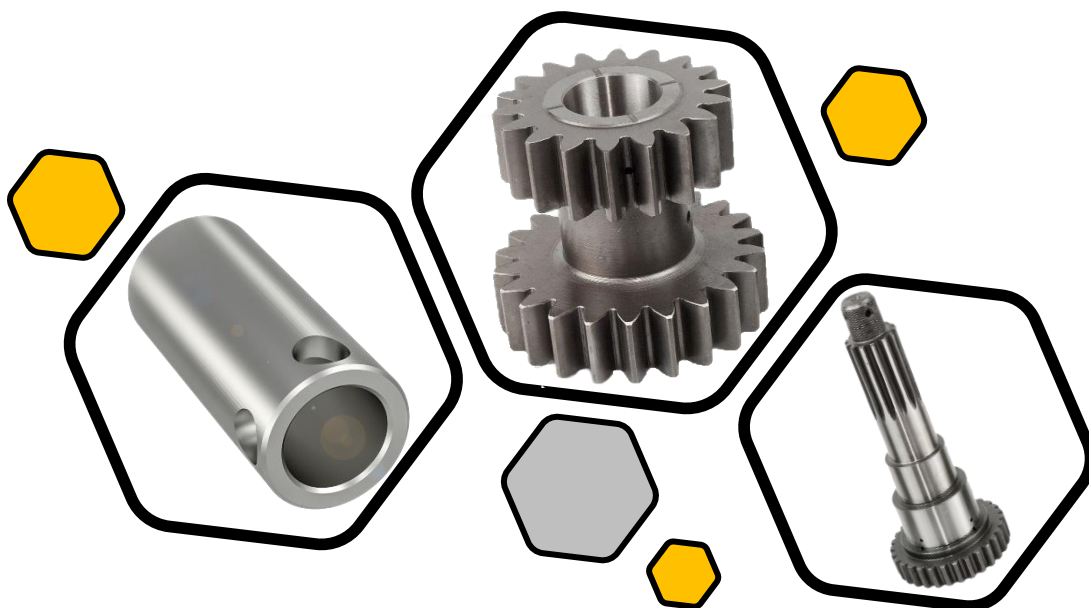
## Mechanical Spare Parts

Being an engineering and manufacturing company, we can always provide high copy spare parts for machines and equipment, while quick delivery ensures the reliability of the plants of our Customers.

The quality of the spare parts and the full technical support of **tesendler** team in order to continuously improve the product and reduce costs for production and maintenance allow us to be competitive.

**The different types of Machines spare parts that we produce are:**

1. ROLLING and ROLLING MILLS
2. STRAIGHTENING MACHINES,
3. GRINDING MACHINES,
4. HYDRAULIC CYLINDERS
5. STEEL FURNACES
6. MACHINE TOOLS
7. Custom parts
8. PRESSING and PUNCHING MACHINES,
9. PACKAGING MACHINES and SPECIAL TOOLS.. etc.



## Rubber Spare Parts

We manufacture molded rubber parts and products, which can meet strict quality and technical specifications to ensure safety and efficiency across applications. Whether they are compression or injection, we promise our customers custom molded parts that are unique to their application.

- **Compression Molding:** this is the simplest form of rubber molding. In this process, a sheet of rubber is placed inside a mold. The two halves of the mold are pressed into the sheet, forcing the sheet of rubber to take on the shape of the mold. This is one of the oldest forms of rubber molding, and it is also the crudest form of molding. Only the simplest shapes can work with this form of molding, and it often produces rubber pieces with errors in the final shape.
- **Injection Molding:** Injection molding is the most precise way to shape rubber. In this process, the rubber is heated until it has a toothpaste-like consistency. The rubber is then injected into a mold and allowed to harden. Rubber pieces created this way are strong, unlikely to lose their shape and retain the exact shape of the mold with few inconsistencies..

Our broad production molding capabilities, industrial know-how and our experience in rubber formulations position us to be a leading cost-effective manufacturer.

### List of Raw Materials Used in Rubber Industry

- Thermoplastic Polymers:
- Thermoset Polymers:
- Rubbers:
- Natural Rubber:
- Synthetic Rubbers:
- Compounding Ingredients:



## Sectors

We supply spare parts for machines and equipment present in the various industrial sectors, both on drawing and on sample; we also carry out on-site dimensional measurements and reverse engineering activities in a very short time.

- **Petroleum industry:**

- Flange
- Coupling
- Gasket
- Anchors Bolt
- Fasteners
- Internal and external thread pipes



- **Steel industry:**

- Spare Parts for stands
- gear-boxes (single, double or multiple stage gearboxes)
- Spare Parts and Components for Cooling Beds
- Custom Equipment
- Rollers
- Pinch rolls
- Couplings
- shear and flaying blade
- Custom





- **Railway industry:**

- Signal mast
- All Indoor and out support
- Rubber parts
- Custom



- **Cement industry:**

- Gears
- Hydraulic items
- Rollers/ Idlers/ Pulleys
- Wear Plates
- Mill Diaphragm
- Dip tube Assembly
- Couplings Vertical Mill Rollers Tires
- Drag Chain
- Vertical Mill rollers and Tables
- Custom



- **Textile industry:**

- CAM
- Guide for needle
- Custom



- **Pharmaceutical and Foods industry:**

- Ejector discs for cutter
- Sprockets & Gears
- Grill guides
- Handles
- Pinion gear
- Knives & Plates
- Blade guides
- Brackets
- Frames
- Covering plates for boilers
- Disks
- Custom



- **Packing industry:**

- Punching tools
- paper Blades
- gears
- Custom



- **Custom Designed spare parts:**

At **Tesendler**, we design, reverse engineer and manufacture spare parts based on customers' needs. with a low maintenance cost, high quality and cost-effective for all kinds of industries' machinery .

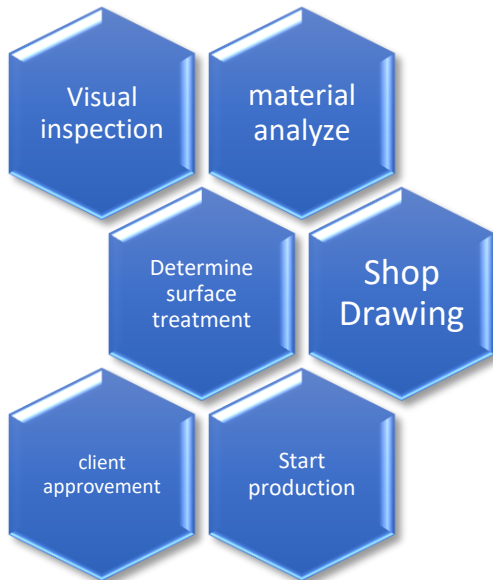
We offer a full range of services for reverse engineering, concept development manufacturing of custom components and of technical support for all industries, spare parts, and machinery.

Our engineering experts make full use of their comprehensive experience in mechanical manufacturing and design engineering, by proposing innovative custom solutions to ensure that each product meets our clients' unique requirements.

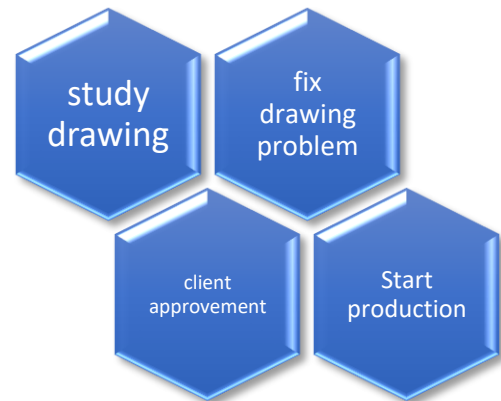


## Productions Methods

### According to the sample received



### According to the drawing specifications



## Revers Engineering

**Tesendler** uses modern techniques of reverse engineering to study and analyze materials, dimensions, hardness and tolerances to create completely identical samples to complete the production process to the fullest.

By collaborating with **Tesendler**, our reverse engineering services in manufacturing and engineering can help improve both your product and your competitive edge in the market.

In the case of local manufacturing of spare parts and steel structures for the factory and in the absence of knowledge of the metal and thermal treatment, it is necessary to use reverse engineering to identify the metal to be manufactured to complete the production process to the fullest.

## Analytical techniques include:

- ❖ Methods to determine part characteristics and to make its working drawing.
- ❖ Microscopy
- ❖ Scanning electron microscopy
- ❖ Chemical analysis
- ❖ Dimensional measurements
- ❖ 3D Metrology
- ❖ Impact, tensile and hardness testing
- ❖ X-Ray Computerized Tomography
- ❖ Material standards and their equivalence especially steel & its alloys.
- ❖ Basic information- working drawings– surface finish- fits and tolerances.
- ❖ Reverse engineering methodology.
- ❖ Economic aspects for selecting material and processes.
- ❖ Case studies for manufacturing products using reverse engineering.



# Machine capability



## Turning Machines

Universal Lathe – Turret –  
Single Spindle Automatic

01



## Milling Machines

Universal Milling – Gear  
Shaping – Gear Hobbing

02



## Pressing Machines

Hydraulic Press – Eccentric  
Press – Horizontal Forging

03



## Threading Machines

Internal Rolling – External  
Rolling

04



## CNC Machines

Horizontal & Hydraulic  
Lathe – Machine Center –  
Wire Cut – Spark Erosion

05



## Drilling Machines

Hydraulic Multi Spindle –  
Drilling – Semi-Automatic  
Drilling

06



## Shaping Machines

Cutting Off – Shaping –  
Profile Die Rolling –  
Automatic Circular Saw

07



## Rubber Machines

Compressed Rubber –  
Injected Rubber

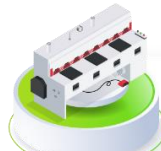
08



## Welding Machines

D.C. Welding – Spot Welding  
– Arc Welding – Spot  
Welding

09



## Grinding Machines

Surface – Cylindrical –  
Cutter Grinder – Centerless  
Grinder

10



## Surface Treatment

Hot Dip Galvanizing – Heat  
Treatment – Cold Galvanizing  
– Electro Static – Painting

11



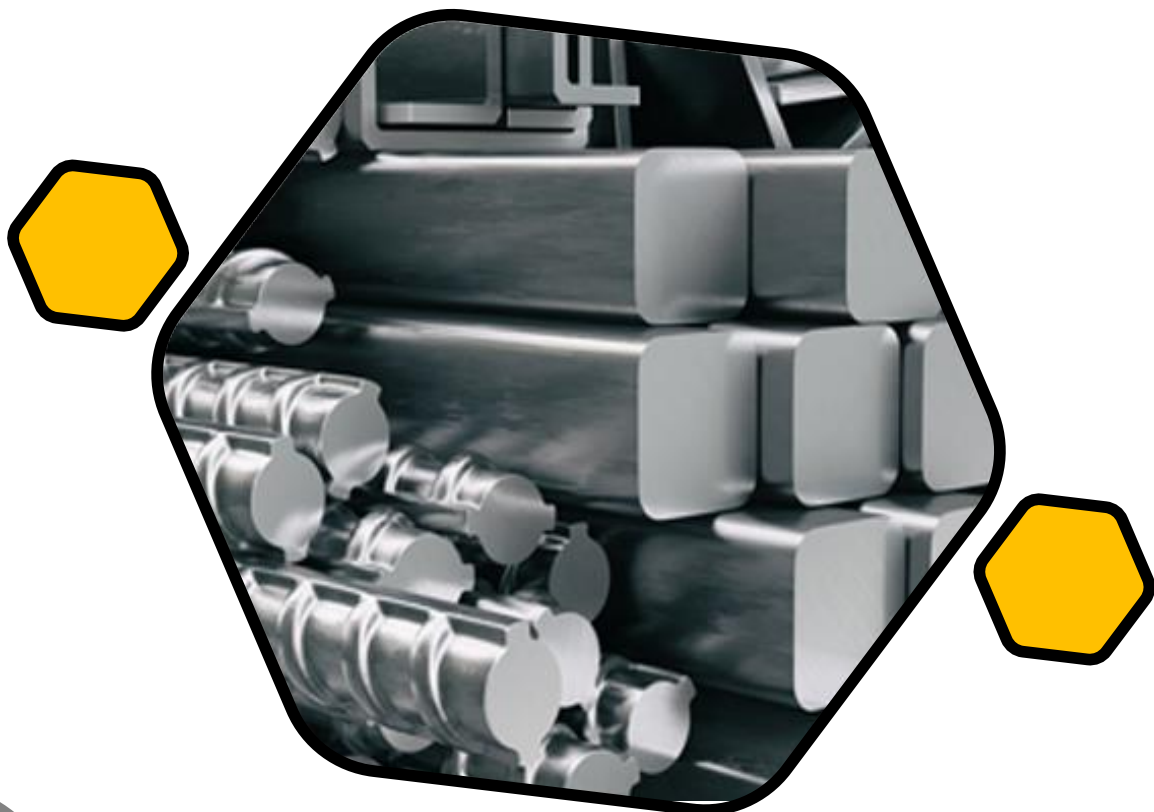
## Raw Materials

The materials used for the production of all spare parts are supplied by the major Egyptian and international suppliers and accompanied by certificates of chemical analysis and mechanical or conformity characteristics. Certificates of any additional heat treatments and non-destructive tests are also provided. All supplies are accompanied and guaranteed by accurate technical documentation.

We stand out on the market thanks to the **high quality standards** applied

### Material list:

- Alloy steel: K107, K600, K100 and W302 .. etc
- Stainless-steel: SS304, SS316, SS410, SS911 ... etc.
- Copper, yellow copper and copper alloy.
- Aluminum material
- Artelon (polyethene)
- Teflon (Poly (tetrafluoroethene))
- Carbon Steel



# Quality Procedures

Our Quality Management System is according to ISO 9001-2015. The system ensures that our product adequately complies with the standards and specifications required by the customer.

## **Quality Control:**

Our QA/QC activities guarantee that materials supplied by us comply with the required standard specifications.

We also ensure that all employees affecting the quality of the final product are well trained and equipped with calibrated measuring/monitoring instruments to perform their assigned tasks with utmost proficiency

## **Measurements labs**

1. We have a Measurements lab in each production workshop.
2. There are many different measuring devices.
3. Measurement of dimensions, lengths and tolerance.
4. Measurement of heat treatments and all surface treatment.
5. Measurement of rubber parts in terms of quality and material specification analysis.
6. All gauges are calibrated annually or according to each instrument

## **Inspection:**

Inspection activities start from the receipt of raw material through the manufacturing and final treatment until final shipment.

Computerized In-house Mechanical Testing Lab ensures that raw material is tested and approved before fabrication.

Trained QC Staff to conduct an inspection at every stage of production.

Our inspecting process includes the following documents:

- MIR - Material Inspection report.
- Inspection report.
- Visual Inspection report.
- FAT - Factory Acceptance Testing report.

## Guarantee

- We guarantee our products against manufacturing defects, and we are always available if there are any complaints
- **Tesendler** has a very developed service area. The first goal is our customer satisfaction.
- We share this philosophy with all our customers and distributors.

Our customers will trust us only if we succeed in demonstrating that we are experts.



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