



STEERING, SUSPENSION, HYDRAULIC  
AND FORGING PARTS

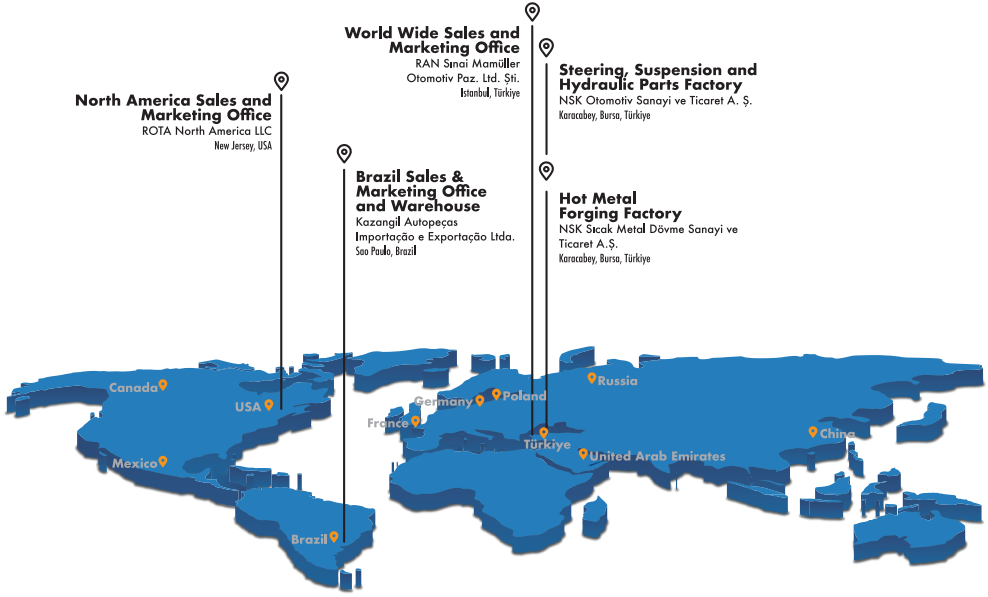


 **ROTA**<sup>®</sup>



We have 2 factories located at Bursa; also have sales and marketing offices at Istanbul, New Jersey and a warehouse in São Paulo.

# We Are Everywhere



📍 Our Locations

📍 The locations we go to fairs

AAPEX, Agritechnica, Automec, Automechanika Dubai, Automechanika Frankfurt, Automechanika İstanbul, Automechanika Moscow, Automechanika Shanghai, Bauma, CTO, IAA, Truck World, Solutrans, Expo Transporte ANPACT, HDAW - Heavy Duty Aftermarket Week

We manufacture 15.000+ references product. Our product range includes tie rod end, ball joint, outer tie rod, inner tie rod, steering cylinder rot, axial tie rod, centre rod, rod-strut stabilizer, axial joint, v stay arm (v-rod), torque rod, repair kit, hydraulic top link, hydraulic steering cylinder, king pin kit for commercial vehicles, agricultural tractors, construction machines and special vehicles. Also we produce open-die forged parts, closed-die forged parts, machined forged parts, rubber-metal parts for many industries, especially automotive.

# We manufacture 15.000+ references product



**WATCH THE  
CORPORATE FILM**  
[https://vimeo.com/  
showcase/4171282](https://vimeo.com/showcase/4171282)



**15.000+**  
product in range



**300+**  
new product/year



Exporting  
**100+** countries



**250+** customers  
all around the world



**600+**  
employees



**20.500m<sup>2</sup>+** closed  
**33.300m<sup>2</sup>+** total  
production area



Factories located  
in Bursa where is  
the heart of Turkish  
Automotive Industry  
Ecosystem, securing  
continuous improve-  
ment



**2.400.000+** pcs/  
year  
production capacity



**70+** years  
industry experience



Customized  
tailor-made solutions  
with **patented  
designs**

# Exporting 100+ countries

We are exporting 70% of our production to 100+ countries. We manufacture under the complete production supervision 2 factories at the best quality, competitive prices and on time. We make a difference in our sector as an original equipment manufacturer with original product warranty, product liability and after-sales service support.



Quality check with actual road data and field tests



In-house Test Center



In-house tooling design and tooling production



Approved Design Center



Global partner of leading **OEM and Tier-1 companies**



**25+** years OEM experience



**4 - 6 week** lead time and **less logistics cost** compared to Far East



Highly dedicated and customer-centric team and management. Our customer relations rated **4.7** out of 5.



**Environment-friendly production** backed up with ISO 14001 Environmental Management System



Stands behind its products with a warranty policy securing up to **24 months or 150,000 km**

# Integrated 2 Factories

We produce the products in integrated 2 factories with its molding room, hot metal forging, rubber metal, production and planning, assembly and packaging, R&D, engineering, quality, logistics units.



Steering, Suspension and  
Hydraulic Parts Factory

CLOSED AREA	TOTAL AREA
16.000m <sup>2</sup>	25.200m <sup>2</sup>



Hot Metal Forging  
Factory

CLOSED AREA	TOTAL AREA
4.500m <sup>2</sup>	5.300m <sup>2</sup>

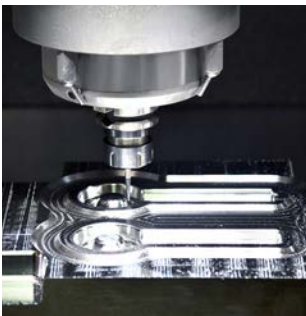


**Total Factory  
Areas**

CLOSED AREA	TOTAL AREA
20.500m <sup>2</sup>	30.500m <sup>2</sup>

## MOLDING ROOM

Molds and tools needed for production unit are transferred by method unit to CNC machines via computer-aided design (CAD/CAM) and the process is completed upon the realization of mold-tool production on the benches.



## HOT METAL FORGING

Hot metal forging factory capacity is 12.000 ton thanks to its friction presses and gravity hammers. Hot metal forging factory manufactures carbon and alloy steel parts in various sizes and shapes, weighing from 0,25 kg up to 20kg.



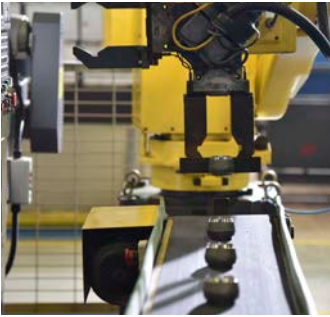
## RUBBER – METAL UNIT

In our state-of-the-art machines, the surface treatment of metals is done which includes degreasing, sandblasting and adhesive application. Then, the vulcanization process is applied to rubber-metal parts with predefined pressure, temperature and time parameters. This is followed by deburring and marking processes.



## **PRODUCTION AND PLANNING**

All production operations are designed in accordance with continuous flow principles. Our production carries by qualified production staff. They work with lean manufacturing principles. All of our production operations are planned and controlled via an ERP system.



## **ASSEMBLY AND PACKAGING**

Packaging and assembly unit operates with the principle of meeting all customer demands. Pallets which are packed with computer-aided packing list software, are loaded on rack system which automatically loads and unloads and then shipped to customers as per their orders.



## **R&D**

R&D activities by closely keeping up with emerging technologies in the production industry. With CAE analyses, field tests, test equipment capable of testing all product lines, we infuse our experience into the products in the most proper manner.



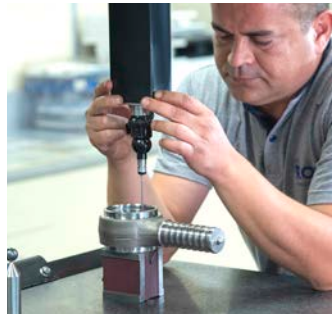
## **ENGINEERING**

Product designs are developed with the support of Solid Works CAD software as a standard. Risk areas are identified with FEA analyses and accordingly products are improved. As a result, parts which ensure highest levels of driving safety are designed with minimum costs.



## **QUALITY**

We primarily target at keeping customer satisfaction always at higher levels thanks to a feedback mechanism ranging from material acceptance quality control, process control to customers in order to ensure sustainability. We carry out internal process audits with T-card audit systematic; both internal and vendor audits with our VDA-certified auditors.



## **LOGISTICS**

We have the logistics infrastructure which will meet timely delivery expectations of OEM and automotive aftermarket market customers. Produced product are ready-to-ship materials with automatic shelf system. We use road, sea freight and air freight shipment methods according to customer request.



# Explore our part solution areas

Our parts offer solution for commercial vehicles, agricultural vehicles, construction vehicles and special vehicles. Also we serve many industries with our forged parts.



## Commercial Vehicles

European and American commercial vehicles such as heavy duty truck & trailer, bus, light trucks and vans.



## Agricultural Vehicles

Tractors and combine harvester.







## Construction Vehicles

Backhoe loaders, wheel excavators, graders, wheel loaders, telehandlers, forklifts.



## Special Vehicles

Cranes, fire trucks, military vehicles, municipal vehicles and etc.



## Other Industries

Open-die forging parts , closed-die forging parts, machined parts and rubber-metal parts offer solution to many industries.



# Wide Product Range

We specially design our products according to where they work. Then we manufacture them with the focus of quality. The products offer a safe and easy driving experience. They are ready to work in most difficult conditions with a long service life.




▶ **WATCH THE PRODUCT FILMS**  
<https://vimeo.com/showcase/4108473>




## TIE ROD (DRAG LINK)


### Features

- PUR dust cover 


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- Special cap design 


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- 100% torque measurement 


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- Bearing optimisation 


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- Suitable steel tubing 


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- Corrosion resistance 


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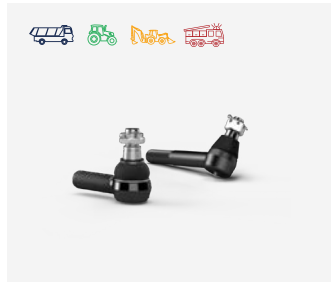
- DIN 960 bolt 

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- Patented** C type adapter 


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- Precision twisting 




## TIE ROD END


### Features

- PUR dust cover 


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- Special cap design 


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- 100% torque measurement 


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- Bearing optimisation 


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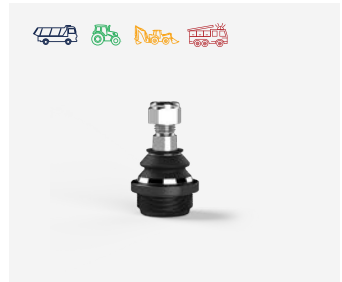
- Corrosion resistance 

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- Optimized Body Design 


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- Ball Stud Induction Application 




## BALL JOINT


### Features

- PUR dust cover 


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- Special cap design 


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- 100% torque measurement 


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- Bearing optimisation 

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- Corrosion resistance 

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- Ball Stud Induction Application 



### **KNIFEHEAD ROD**






**Features**

PUR dust cover	
Special cap design	
100% torque measurement	
Bearing optimisation	
Corrosion resistance	



### **OUTER TIE ROD END**

**Features**

PUR dust cover	
Special cap design	
100% torque measurement	
Bearing optimisation	
Corrosion resistance	



### **STEERING CYLINDER ROD**









**Features**

PUR dust cover	
Special cap design	
100% torque measurement	
Bearing optimisation	
Corrosion resistance	



### **TIE ROD ASSEMBLY**








**Features**

PUR dust cover	
Special cap design	
100% torque measurement	
Bearing optimisation	
Suitable steel tubing	
Corrosion resistance	
DIN 960 bolt	
<b>Patented</b> teflon bearing	



### **INNER TIE ROD END**





**Features**

PUR dust cover	
Special cap design	
100% torque measurement	
Bearing optimisation	
Corrosion resistance	
Optimized Body Design	
Ball Stud Induction Application	



### **AXIAL JOINT**

**Features**

PUR dust cover	
100% torque measurement	
Corrosion resistance	
<b>Patented</b> teflon bearing	
Ball Stud Induction Application	



# ROTA®

STEERING, SUSPENSION, HYDRAULIC  
AND FORGING PARTS



## HYDRAULIC STEERING CYLINDER

### Features

PUR dust cover	
100% torque measurement	
Bearing optimisation	
Corrosion resistance	
100% size control	
100% leakage test according to ISO 4406 CE 18/15/12 standard	
Nas 9 level pre-assembly sterilization	
Pipe in EN 10305-1 + c H8 standards	



## HYDRAULIC TOP LINK

### Features

Hook design	
Corrosion resistance	
100% size control	
100% leakage test according to ISO 4406 CE 18/15/12 standard	
Nas 9 level pre-assembly sterilization	
Pipe in EN 10305-1 + c H8 standards	



## ROD / STRUT, STABILISER

### Features

PUR dust cover	
Special cap design	
100% torque measurement	
Bearing optimisation	
Suitable steel tubing	
Corrosion resistance	
Ball Stud Induction Application	



## V STAY ARM (V-ROD)

### Features

Corrosion resistance	
<b>Patented</b> teflon bearing	
100% angular control	
Flange mounting with special design press	
Repair kit in OEM standart	
<b>Patented</b> snap ring lock	



## TORQUE ROD

### Features

Corrosion resistance	
100% angular control	
Repair kit in OEM standart	
<b>Patented</b> snap ring lock	



## REPAIR KIT, TORQUE & V ROD

### Features

Corrosion resistance	
Production in OEM standart	
<b>Patented</b> snap ring lock	



### **KING PIN KIT**

#### **Features**

- Pins from carbon steel and alloy steel such as C45, C50 En8d, SAE 8620, 20 MnCr5
- Hardening by heat treatment
- Easy assembly
- High quality bushings and bearings
- Long product life



### **THREE POINT LINKAGE SYSTEM**

#### **Features**

- Optimized hook design
- Corrosion resistance
- Dimensional control
- Leakage test
- Sterilization
- High quality tube
- Product life test
- Special welding process
- Lower lift arm hook design



### **OPEN-DIE FORGING PARTS**

#### **Advantages**

- Small order lots can be produced
- Dies with lower costs may require
- Longer parts can be forged

#### **Features**

- 100% crack control
- Traceability by lot



### **CLOSE-DIE FORGING PARTS**

#### **Advantages**

- Forging strength is higher and fatigue resistance is stronger
- Forged parts have better compactness
- Internal and surface defects are at minimum level
- Suitable for mass production of high-volume and high-efficiency products
- Product quality does not change significantly

#### **Features**

- 100% crack control
- Traceability by lot



### **MACHINED FORGING PARTS**

#### **Advantages**

- Solutions for forging and machining in one place
- Turning, milling, drilling, cutting, boring etc. parts machining options

#### **Features**

- 100% crack control
- Traceability by lot



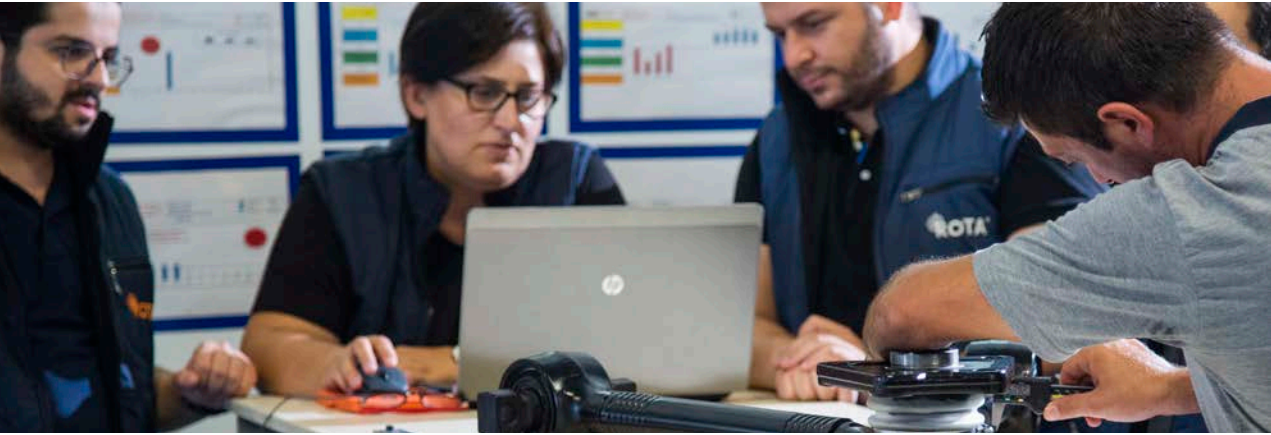
### **RUBBER METAL PARTS**

#### **Advantages**

- In house surface treatments including degreasing, sandblasting and bonding applications
- Compliant with the EU fire protection standard EN45545

#### **Features**

- Traceability by lot



# Our guide always international standards

We hold important quality management system certifications and add value to our products through environmentally friendly production practices. We also conduct thorough product tests, including both static and dynamic analyses, within its own production facilities.

## QUALITY MANAGEMENT SYSTEMS AND CERTIFICATIONS

We are holding; IATF 16949:2016, ISO 9001:2015, ISO 14001:2015, ISO 45001:2018, ISO 15613:2005, EAC and INMETRO certificates. In addition our company TecDoc Certified Data Supplier with ROTA brand.

We also add value to products with our technology, an innovative approach and environment friendly production understanding.



## COMPREHENSIVE PRODUCT TESTS

We analyze products with static and dynamic tests. Some of test we apply to the products in our own production facilities are as follows.

- Buckling Test
- Bending Test
- Cap Push Out Test
- Ball Pin Pull Out Test
- Radial Clearance Test
- Clamping Test

- Servo Hydraulic, Centre Rod Fatigue Test
- Tie Rod End Wearing Test
- Servo Hydraulic Molecule (Repair Kit) Fatigue Test
- Stiffness Test

- Stiffness Test
- Rubber Adhesion Test
- Hydraulic Cylinder Leakage Tests
- Hydraulic Cylinder Life Test

# OEM/OES References

We are proud of our extensive global and local OEM/OES reference portfolio. We collaborate closely with our partners on co-design projects, further solidifying our commitment to innovation and excellence. With over 25 years of established relationships, we are solid solution partner to our clients.

## COMMERCIAL VEHICLE MANUFACTURERS



## AGRICULTURAL AND CONSTRUCTION VEHICLE MANUFACTURERS



## SYSTEM AND OEM PART MANUFACTURERS





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