



# COUSSINET ENGINEERS

IATF 16949 : 2016 certified

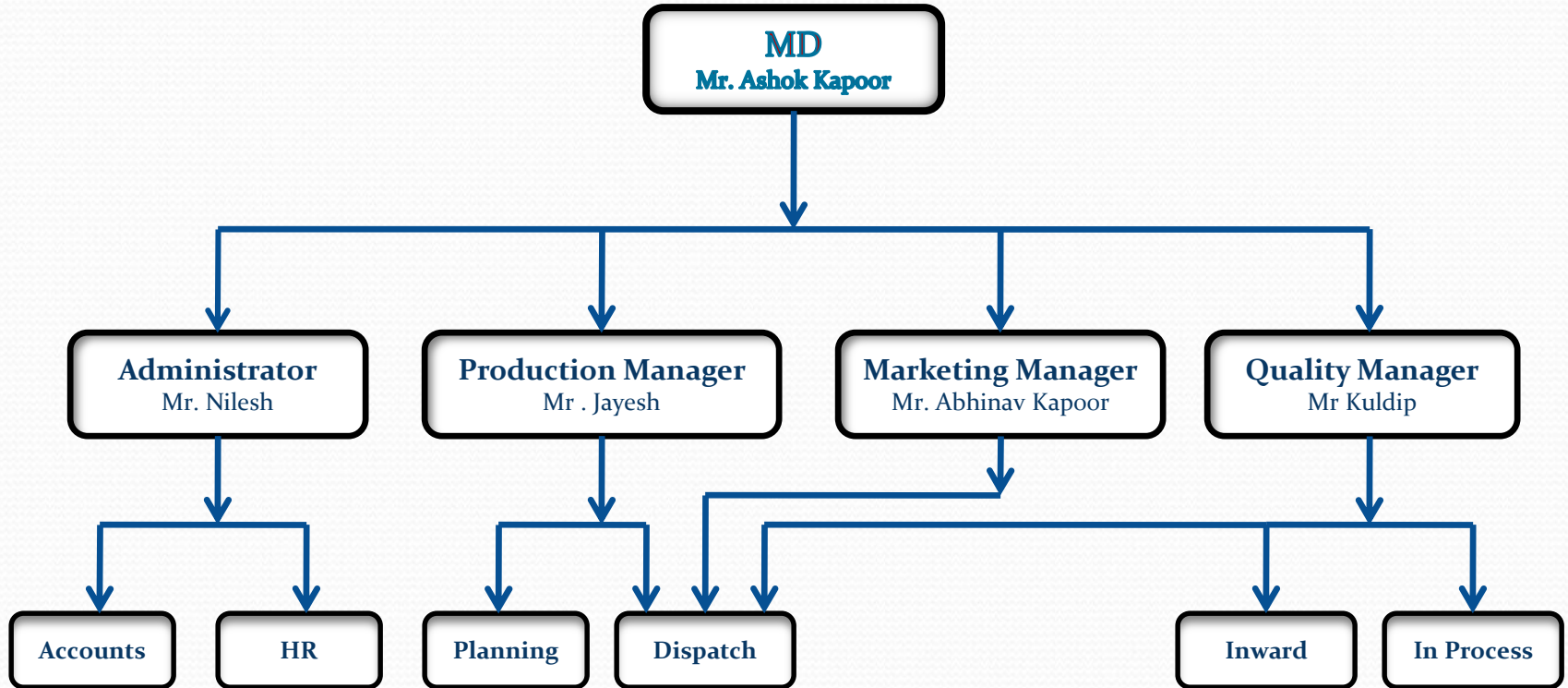


# **PROFILE**

- Year established : 1983
- Type of products : Plain shaft bearings, selector pads, injector sleeves and thrust washers
- Number of employees : 17
- Regd. Office : 32/A,B , 29/C,D Bhaktinagar  
Ind. Estate, Rajkot  
360002, Gujarat.  
India.
- Phone : 91-281-2362706
- Email : [info@coussinet.com](mailto:info@coussinet.com)
- Web : [www.coussinet.com](http://www.coussinet.com)
- Certification : IATF 16949



# CORPORATE ORGANIZATION





# **PRODUCT-APPLICATION**



**Leaf Spring Bush**



**Leaf Springs**



**Track Roller Bush**

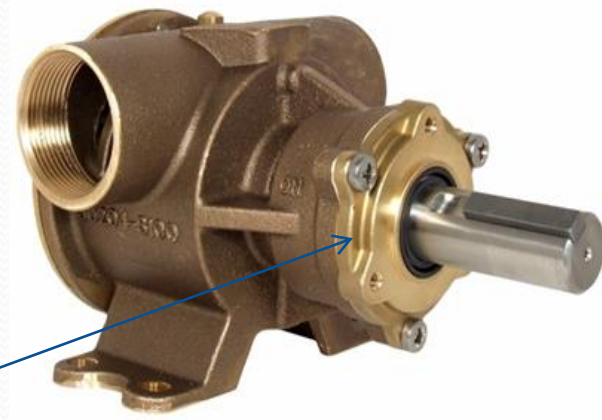


**Track Rollers**

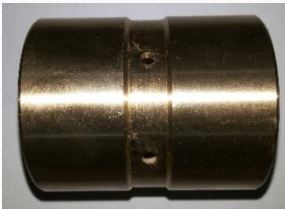
# PRODUCT-APPLICATION



**Thrust Washer**



**Pump**



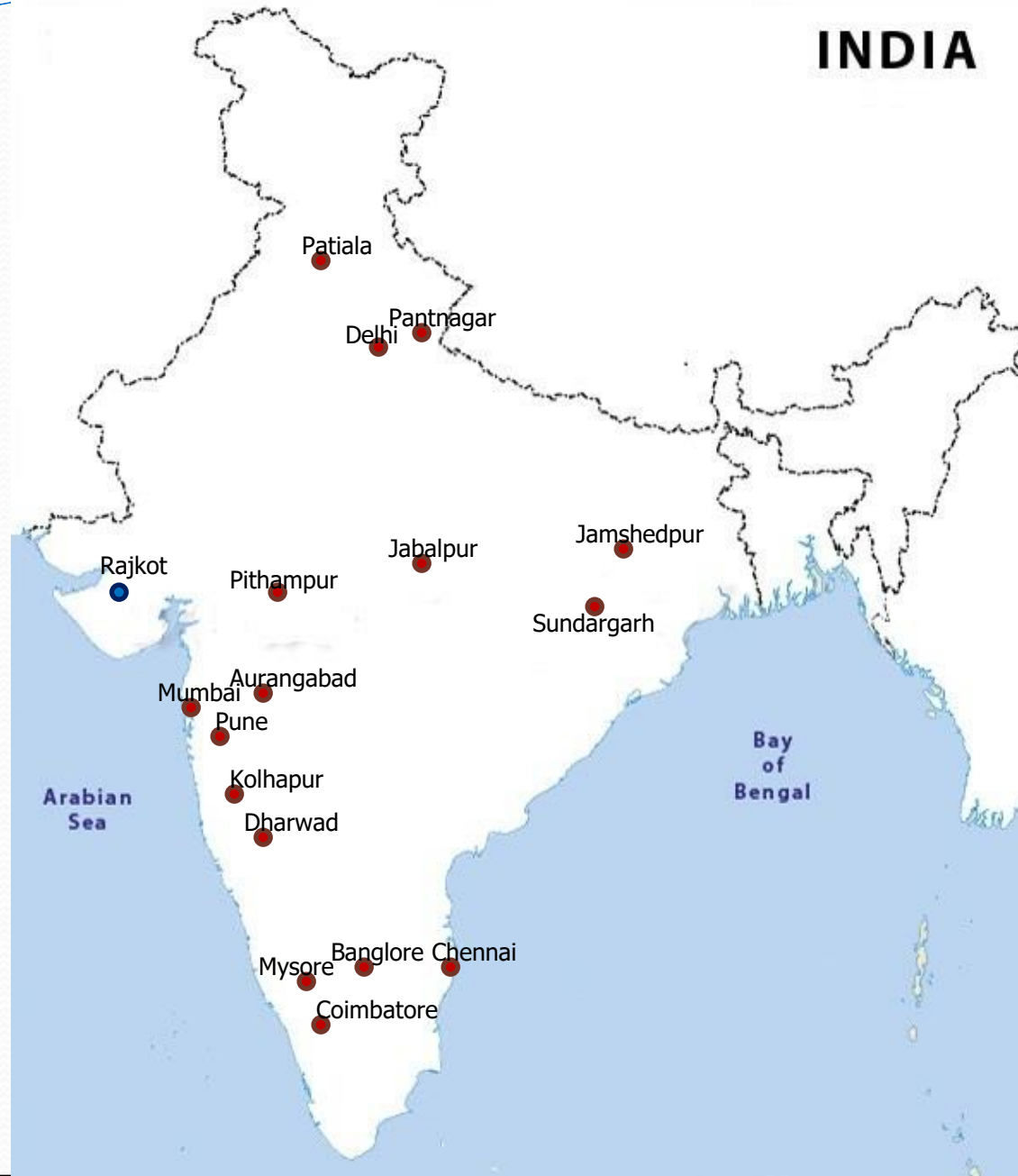
**Connecting Rod Bush**



**Connecting Rod**



# ALL INDIA REACH



- We are here
- Client Locations



# Esteemed Clients



Enriching Lives



Ashok Leyland



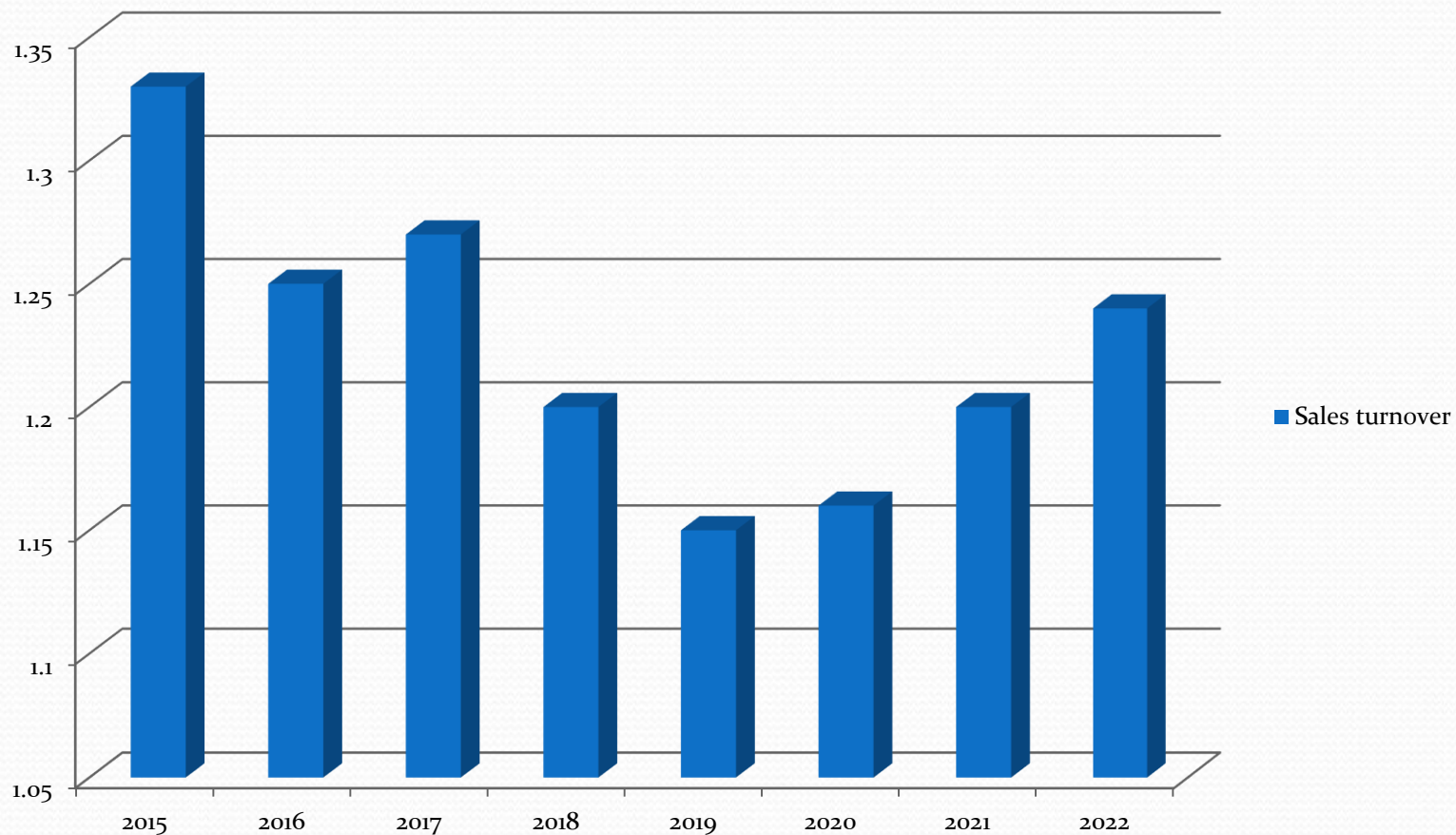
MERITOR®





# REVENUE GROWTH

Sales turnover (million US\$)



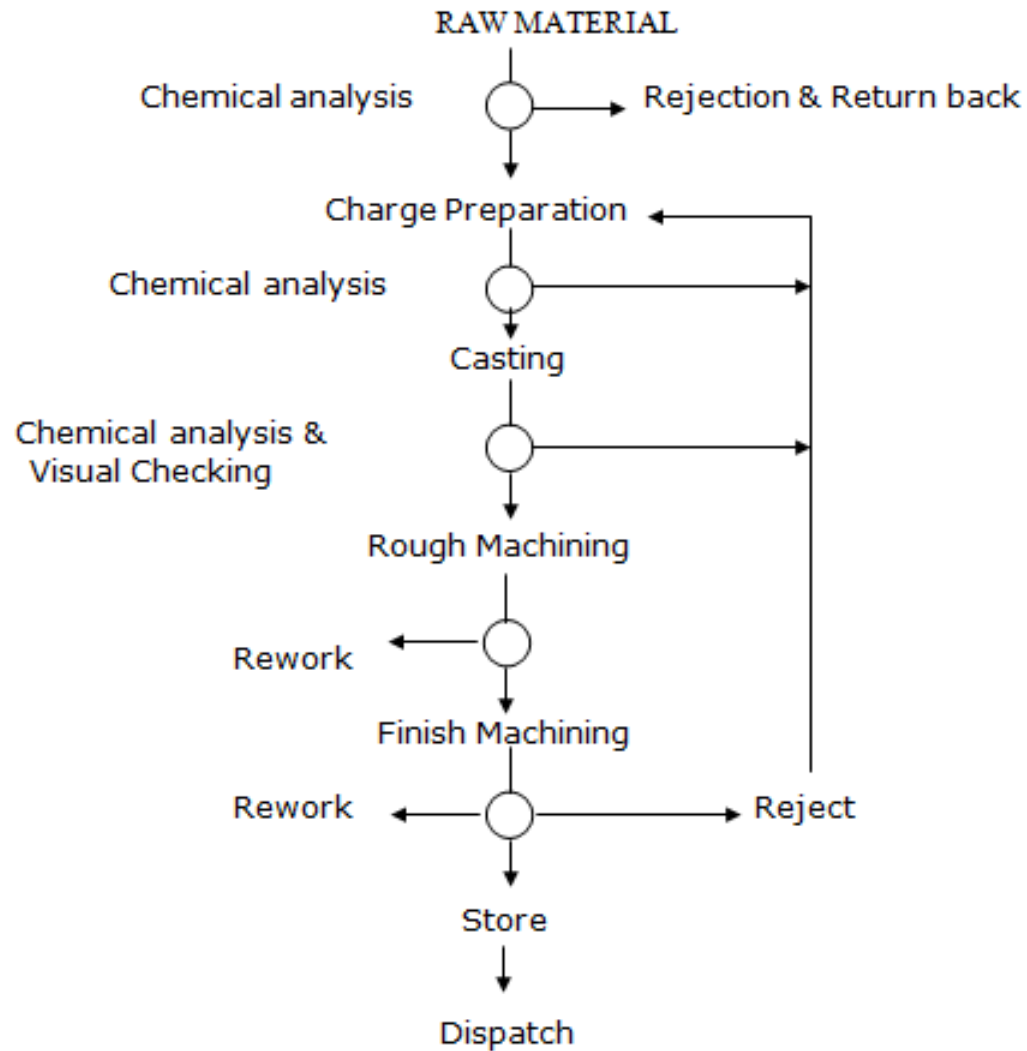


# Alloys

<u>Common name</u>	<u>Grade</u>
Phosphor bronze	IS28 Gr.I, Gr.II, Gr.III, Gr.IV., BS 1400 PBI, PB2, SAE 62,63,64,65
Leaded bronze	IS318, Gr.I, Gr.II, Gr.III, Gr.IV,Gr. V BS 1400, LB1C, LB2C, LB4C, LB5C, SAE66, SAE660
Cast Iron	EN GJL 250
Gun Metal	BS 1400 G1C, G3C.
Aluminium Bronze	IS 305, Gr.I, Gr.II, Gr. III, BS 1400 ABI, ABII
Silicon Bronze	IS 1028
Manganese Bronze	BS 1400 HTBI, HTB3C, SAE43
Phosphor bronze sheet	JIS, PBP1H, PBP2H, IS7814, PCU SN4, SAE77
Copper and Bronze sheet	BS 2874 CZ 121, CZ 124, CZ 122



# Production process flow-chart



# **DEPARTMENTS**

- Development
- Sand casting/continuous casting
- Workshop
- Quality
- Administration



# **Engineering and Development**

- CAD/CAM station
- Standards centre
- Tooling department
- Cost Analysis

# **Workshop: Operations**

- Turning
- Grooving
- Milling
- Grinding
- Boring
- Broaching
- Deburring
- Slotting

# Manufacturing Infrastructure

- Kirloskar turning machines
- HAAS VMCs and Turning centres
- Centreless cylindrical grinders
- Grooving machines
- Marking machine



- CNCs and VMCs for precision turning and boring.
- Tolerance can be achieved upto 5 microns.
- Critical shapes can be produced with inhouse tooling capability.



- Broaching for spline bushings.
- Centreless cylindrical grinders for OD finishing.





# Material Handling

- Toolings, fixtures, holders, prepared inhouse.
- Crates for easy material movement.





# Laser Marking Machine

Marking area Ø100/150/220mm

Resolution 18 Micron

Repeatability 50 Micron

Marking Speed Upto 1000 mm/sec

Machine Dimensions 700 x 500 x 600 mm



# Dispatch

- Plastic bags are used for packing bushings and washers.
- Boxes are wrapped for protection.





# Quality

- ISO 9001:2015 quality system
- Calibrated guages
- Hardness tester
- Spectrometer
- Magnifying microscope
- Surface roughness tester



# **QUALITY POLICY**

“Coussinet Engineers is committed to provide customer satisfaction in terms of quality, quantity & on time delivery.

Our policy, Quality comes first in every sphere of work, indicates our approach.

It is recognized that to achieve this policy, requirements of the customer must be understood & executed with integrated efforts.”





Management Service

# CERTIFICATE

The Certification Body  
of TÜV SÜD Management Service GmbH  
certifies that

**COUSSINET ENGINEERS**  
32-A/B, 29-C/D, Bhaktinagar Industrial Estate  
Rajkot - 360002, Gujarat  
INDIA

has established and applies  
a Quality Management System for

**Manufacture of Machined Brass,  
Bronze, C.I. & Bi-Metal Components**  
(without Product Design as per Chapter 8.3).

An audit was performed and has furnished proof  
that the requirements according to

**IATF 16949**  
First Edition 2016-10-01

are fulfilled.

Issue date: 2021-03-30

Expiry date: 2024-03-29

Certificate Registration No.: 12 111 61691 TMS

IATF Certificate No.: 0392086

Head of Certification Body  
Munich, 2021-03-31

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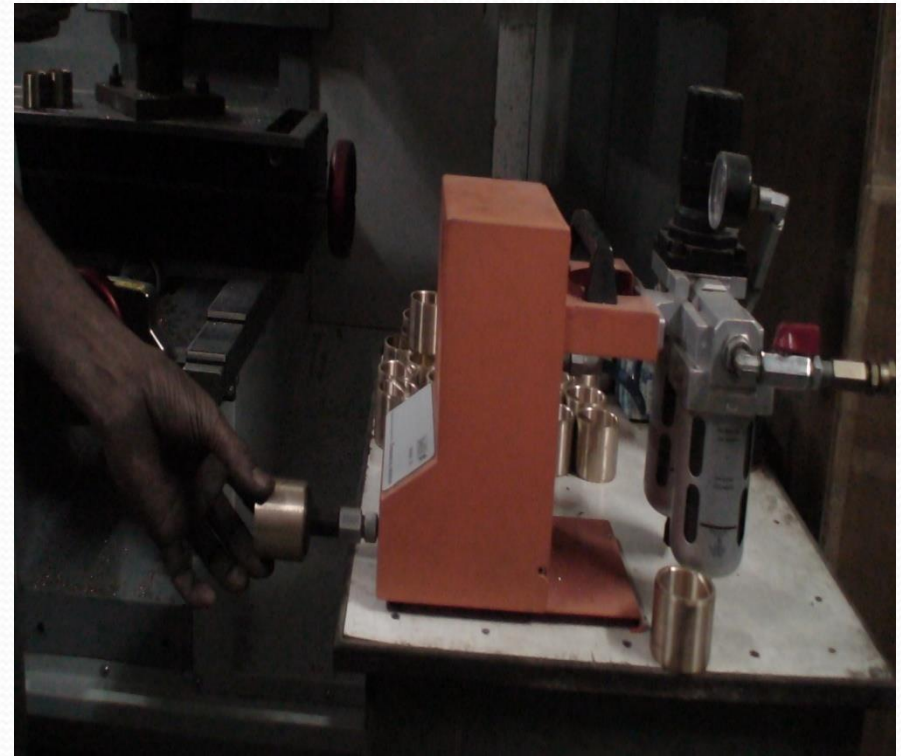
# Spectro Analysis

- 19 elements can be checked on Spectro make Spectrocheck.
- Calibrated using standard CRM samples.



# Gauges

- Mitutoyo Digital Verniers and Micrometers
- Height and Depth guages
- Baker Air guages
- Guages are calibrated semi-annually.





# Mitutoyo CV2000M4 Contour Measuring Instrument

- Linear displacement:

X axis:  $\pm(138+20L)\mu\text{m}$   $\pm(3.5+2L/100)\mu\text{m}$

\* L = Drive length (mm)

Inclining range:  $\pm 45^\circ$

- Z axis: Linear displacement:

$\pm(138+158H)\mu\text{m}$

$\pm(3.5+14H/25)\mu\text{m}$  accuracy (at 20°C)

\*H: Measurement height from the horizontal position (mm)

- Resolution: or 0.5 $\mu\text{m}$



# Vicker's Hardness Tester



Model	BV 120
Loads(kgf)	5,10,15,20,30,40,50,60,100,&120 (Loads for Vickers) 15.625,31.25,62.5
Optical Magnification	70x,140x
Maximum test height (mm)	250
Sweep of machine frame (mm)	150
Weight approx (kgs)	180
Dimension L x W x H (mm) (Approx)	660 x320 x990
Connected Load	0.1 KVA 1Phase AC 220v,50HZ



# Metallurgical Microscope

- **Stage** Graduated mechanical stage, 150x160mm in size, offers 30x30mm cross section motion reading to 0.1mm by vernier. Provided with low coaxial controls.
- **Magnification** 50X-400X for visual observation, 20X-165X for 35mm photography and 50X-400X for polaroid photography.

For: Cartridge Brass, Muntz Metal, Tin Bronze



# Mitutoyo surface roughness tester SJ210

- operates independently of mains power and make measurements on almost any part of a workpiece of practically any size.
- Complies with the applicable international standards concerning definition and calculation of the values of surface roughness parameters.





# PRODUCTS



# Bimetal bushings & bearings





# Cast Iron bushings and spacers



# Components for trucks

- Spline bushings, washers, nozzle holders, cam blocks for trucks and tractors.







# Components for Tractors and Drill-Jigs





# Components for wagons, locomotives and mine-drilling equipments



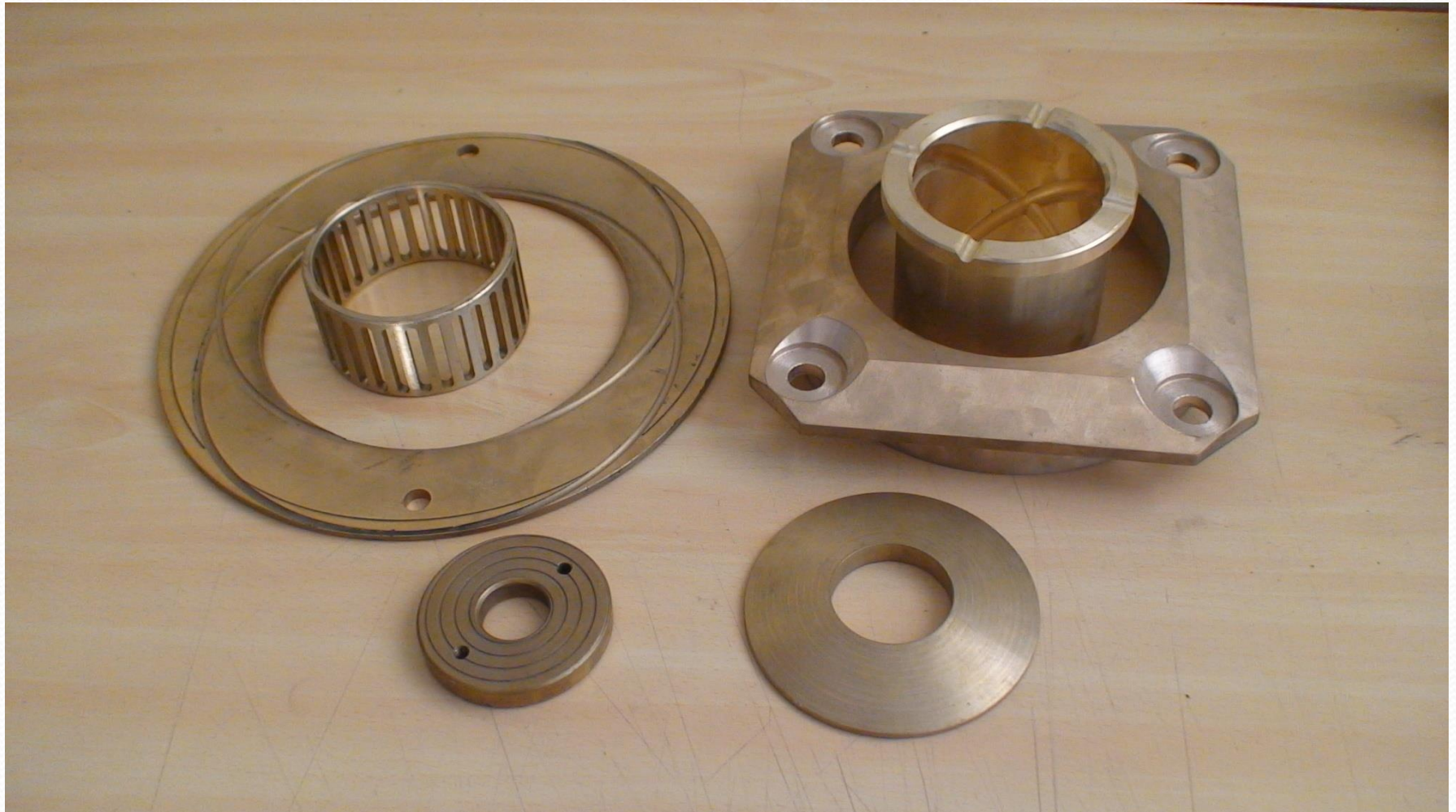
# **Track roller bushings**

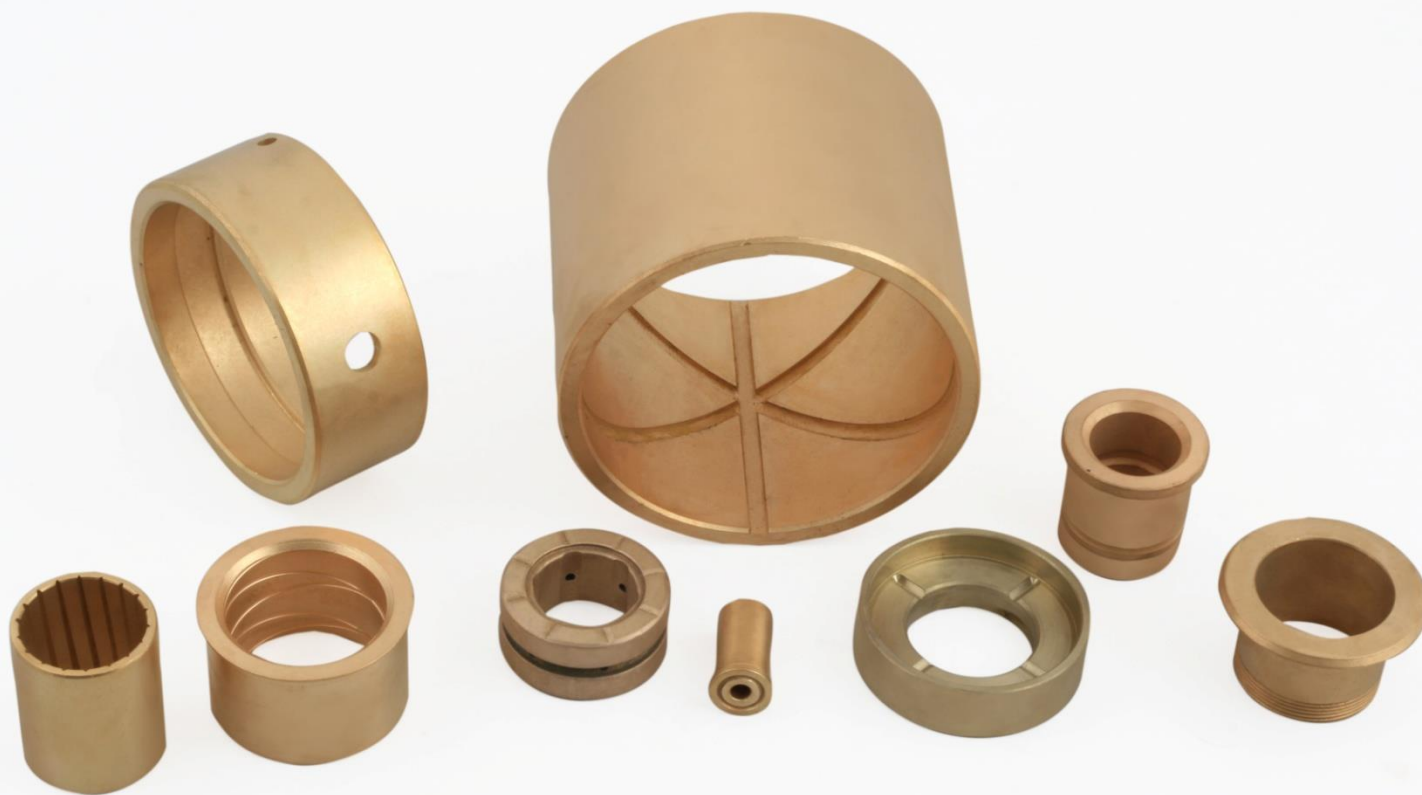
- Bushings for excavators and other undercarriage equipments.





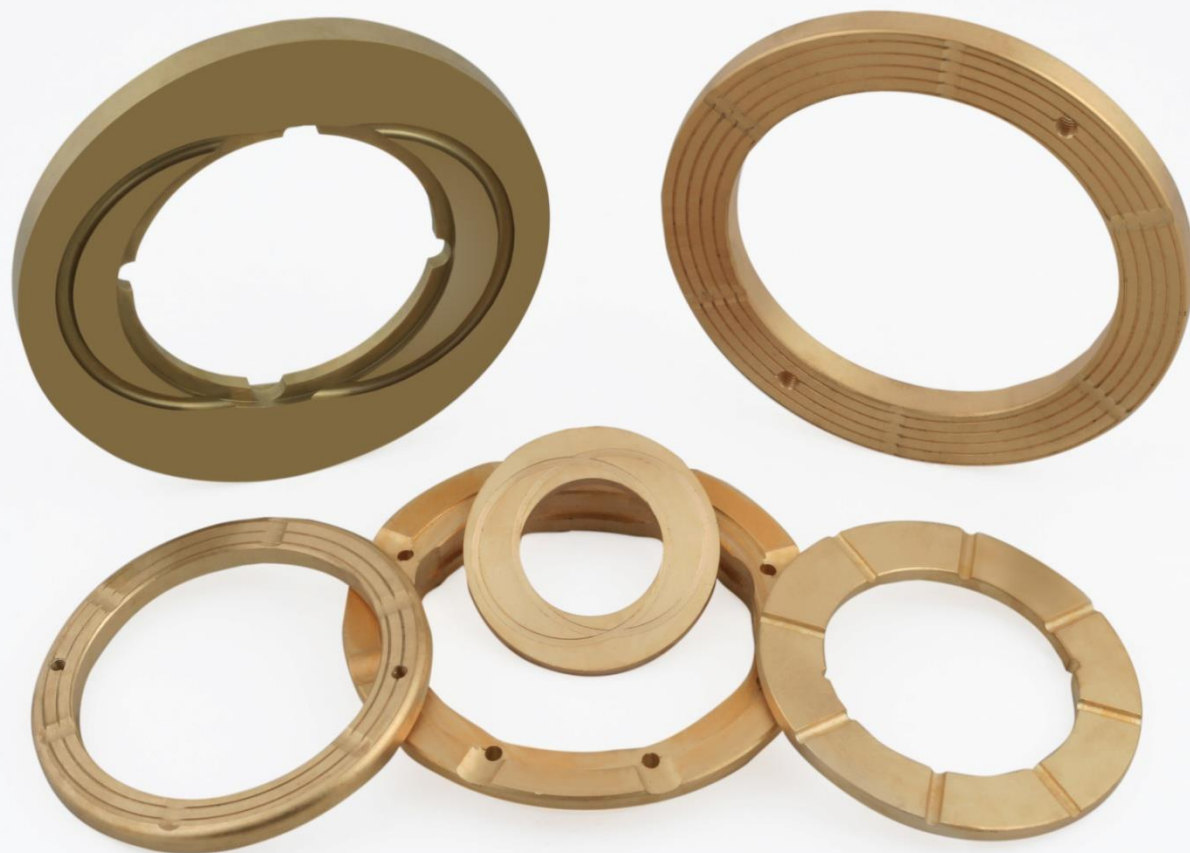
# Components for earthmoving equipments















# Components for export





# Sleeve injector holder for Mercedes engines



MERCEDES BENZ - 9060170488



MERCEDES BENZ - 3520170053



MERCEDES BENZ - 5410170188

# Floating bush and other injector sleeves





*Thank you!*

