







# Building the right solution for your application

We understand that every project and application has unique attributes at times requiring a customized solution. We will work closely to understand your requirements, offer solutions and deliver a cost effective, high quality precision component to meet your timelines.



#### We manufacture:

Gears – Spur / Helical / Straight Bevels

Worm – Wheel Sets

**Racks & Pinions** 

Splines / Serrated Shafts & Hubs

**Timing Belt Pulleys** 

**Chain Sprockets** 

**Geared Sub Assemblies** 

### **Application:**

**Textiles** 

**Plastics** 

**Packaging** 

**Elevators** 

**Machine Tools** 

Infrastructure





### **Manufacturing Processes:**

Gear Cutting: Gear Hobbing

**Gear Shaping** 

**Thread Milling** 

**Straight Bevel Generating** 

• Grinding: Gear Profile Grinding

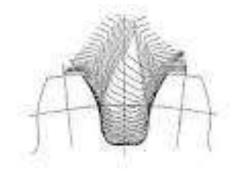
**Thread Grinding** 

Cylindrical & ID/Face Grinding

• Broaching: Splines & Keyway

CNC Machining: Turning & Milling

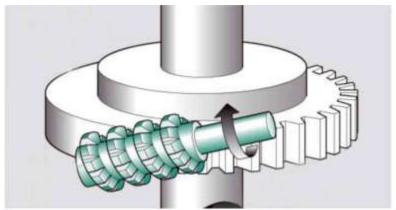
Key Seating , Band saw, etc.







### Manufacturing Process: Gear Hobbing







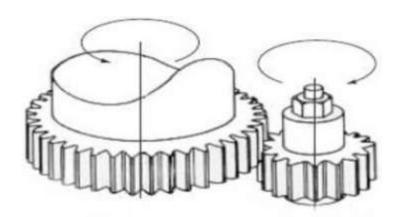






### Manufacturing Process: Shaping

Gear





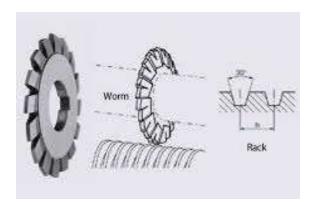






### **Thread**

### Manufacturing Process: Milling



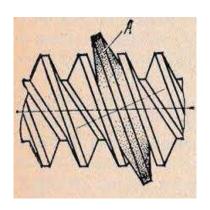




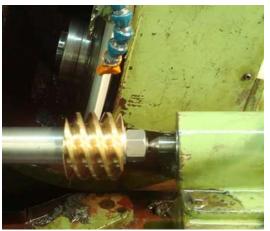




### Manufacturing Process: Grinding











### Manufacturing Capability:

Machines	Capacity Module	Capacity Max.O.D.
Hobbing Machines – 9 machines	12 Module	Ø1300mm
Gear Shapers - 5 Machines (With Rack Cutting Attachment)	8 Module	Ø500mm
Thread Milling Machines-3 Machines	10 Module (With Hob head)	Ø200 x 1000mm Long
Straight Bevel Generator – 2 Machines	6 Module	Ø300mm
Auto Cycle Milling – 1 Machine (for Bevel Gears & Spline Shafts)	5 Module	Ø125mm
Thread Grinding - 1 Machine	25 Module	Ø200 x 1000mm Long
Gear Grinding - 2 Machines	16 Module	Ø800mm

CNC Turning, CNC VTL, VMC, Key way Milling, Key Seating, Broaching, Cylindrical Grinding, etc. to support our core Gear Manufacturing Activities.



### **Manufacturing Capacity:**

Gear Type	Module	Max.O.D.
Spur – External	0.3mm to 12mm	1300mm
Spur – Internal	Up to 8mm	800mm PCD
Spur – Rack	Up to 8mm	1200mm Long
Helical	0.3mm to 12mm	1300mm
Straight Bevel	Up to 6mm	300mm
Worm Wheel (Tangential or Radial Feed)	0.3mm to 12mm	1300mm
Worm	0.75mm to 10mm	200mm (To1000mm Length)
Spline Shafts	0.5mm min.	200mm (To1000mm Length)
Sprocket	1.25" CP Max.	1300mm
Timing Belt Pulleys	Wide range of Pitches	1300mm



#### Gears – Spur, Helical, Bevel







Gears – Splines – Serrations External & Internal







#### Spur Gear with Crowning for Flexible Couplings









**Spline & Serrated Shafts** 









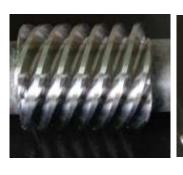
**Spline & Serrated Shafts** 







**Worm Shafts** 









#### Worm & Wheel sets







**Timing Belt Pulleys** 





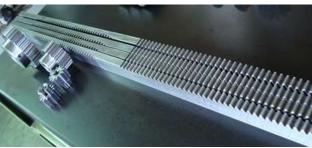






#### **Racks & Pinions**







#### Worm Gear Assembly With Flexible Axis Output







### **Quality Control:**

- Apart from Vernier Calipers, Micrometers, Gear Tooth (Flanged) Micrometers, Height Gauges, Bore Dial Gauges, Hardness Tester, we have below listed equipment for inspection of Gears:
- Gear PCD Concentricity Tester
- HOFLER EFR-S630 Lead & Involute Gear Tester
- HARBIN Lead & Involute Gear Tester
- PARKSON 15 Roll Testers for Spur, Bevels & Worm-Wheel set Up to 400mm CD
- Lead Measuring Machine Goulder Mikron.
- 3D CMM
- Various Plug/Ring/Snap/Spline/Thread Gauges according to job requirement.
- Raw materials are tested for its Chemical as well as Physical properties as per requirement and data are preserved with unique IDs. Job Cards are prepared for every batch/lot before manufacturing cycle. Stage & Final inspections carried out and data preserved with respective job cards. Jobs/Lots are identified with unique ID nos. for traceability



### **Quality Control:**

### **Surface Treatment-Thickness Checking**







### Quality Control: PCD Runout & Roll Testing









### **Quality Control:**

**Lead & Profile Checking of Gears** 









### Quality Control: Worm & Wheel Inspection

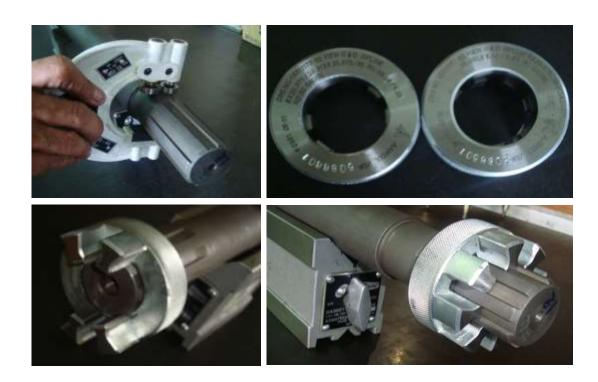








### **Quality Control**Inspection of Spline Shafts





### Challenging Jobs....



### **COST EFFECTIVE QUALITY**







R & D Jobs

Gear Subassembly for Aircraft Fuel Pump

#### **COST EFFECTIVE QUALITY**











Actuator Subassembly for Aircraft Application







R & D Jobs
Pump Gears for Agro
Application





### **Timing Gears for Screw Pumps**

(Our customer export as subassembly to Sweden, Netherlands & USA)









Gears for Pumps Application



### Duplex Worm & Wheel sets (Supplied to IMO Pumps, Sweden)









**Splined Shaft for Gearless Elevators** 





Watertight Actuator Gearboxes for Pipe extrusion plant



### Worm Gear Block & Bevel Gear Assembly for Electrical Industry













#### **Drive Shafts & Coupling Shafts**







#### Long Splined Shafts for customers at India, China and Sweden









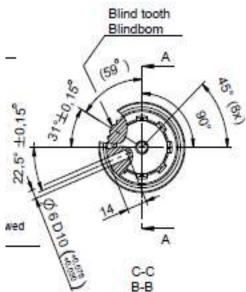


### Shafts with Serrations and Splines

(Relation of Blind Tooth of serration, Drilled Hole and Straight Spline – all in different planes)

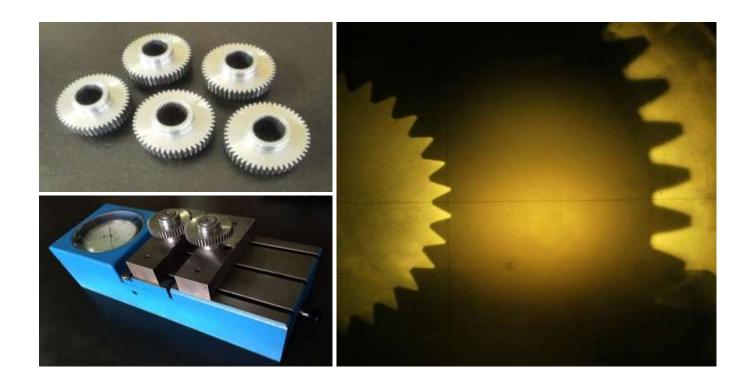








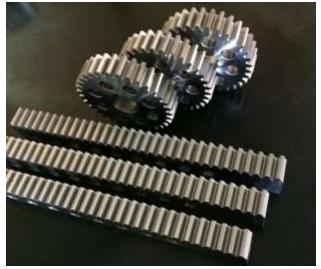
## Gear Wheel with Hub for customer at Germany (There is relation between Internal Serration and External Teeth)





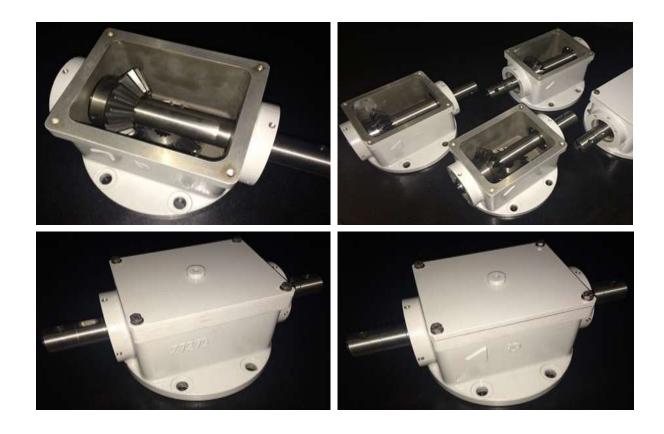
### Gears & Racks for R&D Activity





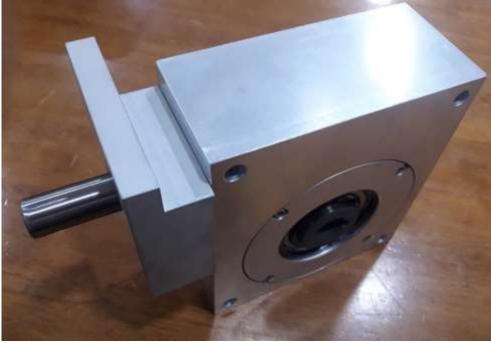


### **Bevel Gear Transmission Box**

























### Development of Timing Pulleys for Europe based customer







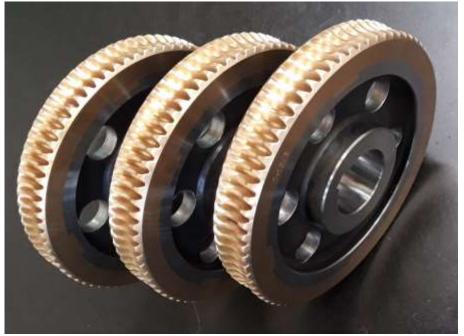


# Worm Shaft & Wheel sets customer at Europe

for









# Development of Gears for Defence to support Make in India Drive





#### COST EFFECTIVE QUALITY



#### **Our Team:**

- Proprietor and Team Leader
- Commercial & HR Activities

- Marketing & Customer Care
- Purchase
- Quality Assurance
- Planning & Production
- Sub Assemblies
- Maintenance

- Chetan Champaneri
- Sonal Champaneri
- Mehul Patel
- Manoj Sanghadia
- Jay Shroff
- Keyur Patel
- Harshit Mistry & Bhavesh Patel
- Mayur Patel
- Keyur Rana
- Anjay Tamboli
  - Bhagwansingh Kushwaha

In all we are team of 70+ members getting motivated to meet our targets...



### **Expansion & Upgradation:**

Merging of Main Unit and Unit II by increasing Floor Area for better efficiency.











### **Expansion & Upgradation:**

We have installed 3D-CMM in our QC Lab area for critical parts



Productivity & Sustainability:

Adopting Lean Manufacturing Practices by using Lean Tools like 5S, Kaizan, Kanban, etc.





Larsen & Toubro appreciated for our supply of Spline Shafts and Gears for Nuclear Power Plant Projects

#### **COST EFFECTIVE QUALITY**







ABB Awarded us as Best Supplier For Consistent Quality in 2012 & Best Supplier Exports in 2017

#### **COST EFFECTIVE QUALITY**





We are ISO 9001:2015 Certified Company



### CSR kind of Activity:

We are part of NGO, Manav Aarogya Seva Kendra With permanent projects:

- Blood Bank
- "Vatsalya"- a School for Specially abled Children (70+ beneficiary children)
- Physiotherapy Center
- Eye Donation
- Mega Medical & Surgical Camps in Tribal Area of Kaparda (yearly camp with average patients examined 2500+ & Operative 125+ every year since nine years)



C1/14d, Killa, Pardig I D C Estate, Pardi, Pardi, Vapi, Gujarat 396125