

Laxmi Drucken Komponenten Pvt. Ltd.

Creating smooth synergy

Our Journey With Inspiring Leaders



Karmveer Bhaurao Patil

Our Inspiration

Legendary Socio Economist established
Rayat Shikshan Sanstha having 670 Education
units with half million student studying.



Late Shri Kalgonda Patil

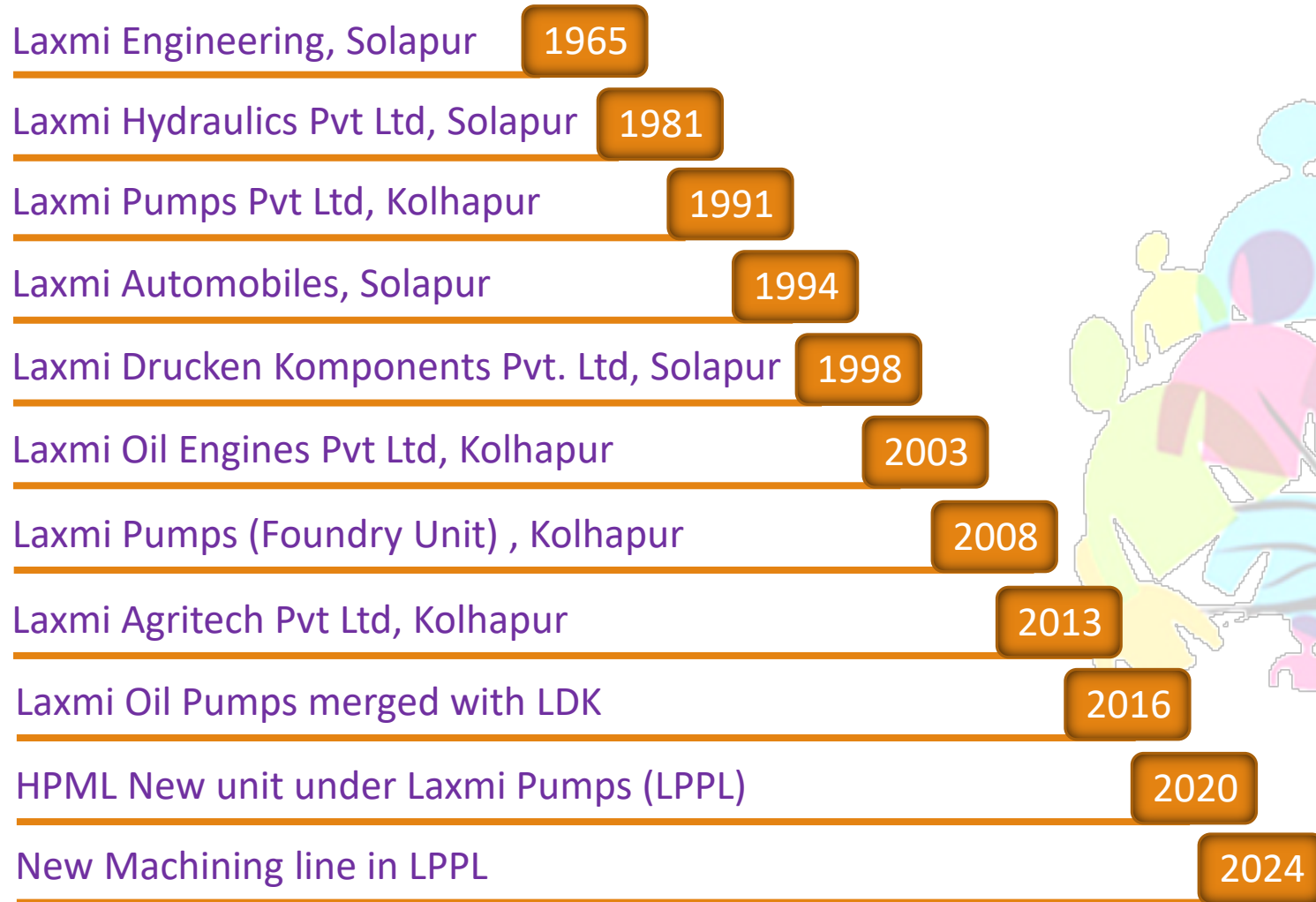
A person with an
extraordinary vision



Late Shri Jaykumar Patil

Group Chairman

Laxmi Group Growth



Current Group Turnover 80 M USD | LDK - 12 M USD

Laxmi Drucken Komponenten Pvt. Ltd. - Infrastructure



C-45 to C-51, M.I.D.C. Chincholi, Solapur

Since from 1998



- Plant (C45) is spread over area 10800 Sq. Mtr.
- Annual manufacturing setup for 85,000 Water Pumps & 80,000 Lube Oil Pumps
- 100% captive backup available (335 KW Genset)
- Works on SAP - ERP system.

Core Commitments



Creating smooth synergy between our stake holders



We shall be one of top 5 pump manufacturing companies in India with becoming preferred choice of customers.



- **Customer Focus**
 - **Quality at First**
 - **Commitment towards Environment**
 - **Create Wealth**
 - **Team Work**
 - **Innovation**
-

Leadership Team



Managing Director



Mr. Sanjiv Jaykumar Patil

Director



Mrs. U S Patil

Director Technical



Mr. S P Patil

G M Production



Mr. M S Hawashetti

G M Works



Mr. C P Pomaji

G M Quality Assu.



Mr. N F Wadekar

G M System



Mr. I B Sagari

G. Manager Technical



Mr. Rajshekhar B.

Manager Production



Mr. A C Tenge

Manager Commercial



Mr. S R Tyarla

Manager R&D



Mr. N N Thite

Design Consultant - Water Pump

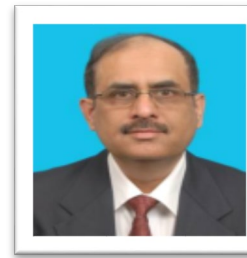


Mr. V B Kanegaonkar



Mr. Abhay Keny

Design Associates - Oil Pump



Mr. Hemant Padhye



Mr. Ajay Ahuja



Mr. S. Krishnamoorthy

Products Range



- From 0.5 to 40HP
- 100 LPM To 1500lpm
- 135 Models



- 10 LPM To 2000 LPM
- 2 Bar To 20 Bar
- 85 Models

Water Pumps

- Mono-set Pumps
- Open well Submersible Pumps
- Industrial Pumps
- Process Pumps
- Self Priming Non-clog Pumps
- Domestic Regenerative Pumps
- Engine Cooling Pumps
- Mud Pumps
- Wet Type Sewage(Vertex)Pumps

Oil Pumps

- G Rotor Pumps
 - External Gear Pumps
 - Internal Gear Pumps
-



WATER PUMP

Product Gallery (Water Pump)



Product Gallery (Water Pump)



Fresh Water Pump

Pump RPM 2450
Pressure 40.79 meter
Flow 190 m3/hr



Sea Water Pump

Pump RPM 2450
Pressure 40.79 meter
Flow 460 m3/hr
Ni-Al Bronze



Coolant Pump

Pump RPM 2294
Pressure 30.59 meter
Flow 30.18 m3/hr



Coolant Pump

Pump RPM 2700
Pressure 18.36 meter
Flow 8.16 m3/hr



Product Gallery (Water Pump)



Coolant Pump

Pump RPM 3516
Pressure 38.25 meter
Flow 31.02 m3/hr
Pump has 2 suction
& 1 delivery port



Coolant Pump

Pump RPM 5009 Pressure
65.28 meter
Flow 39 m3/hr
Aluminum Alloy Housing



HT Coolant Pump

Pump RPM 3032
Pressure 45.89 meter
Flow 150 m3/hra



LT Coolant Pump

Pump RPM 3032
Pressure 35.aaaaa2
meter
Flow 75 m3/hr



Product Gallery (Water Pump)

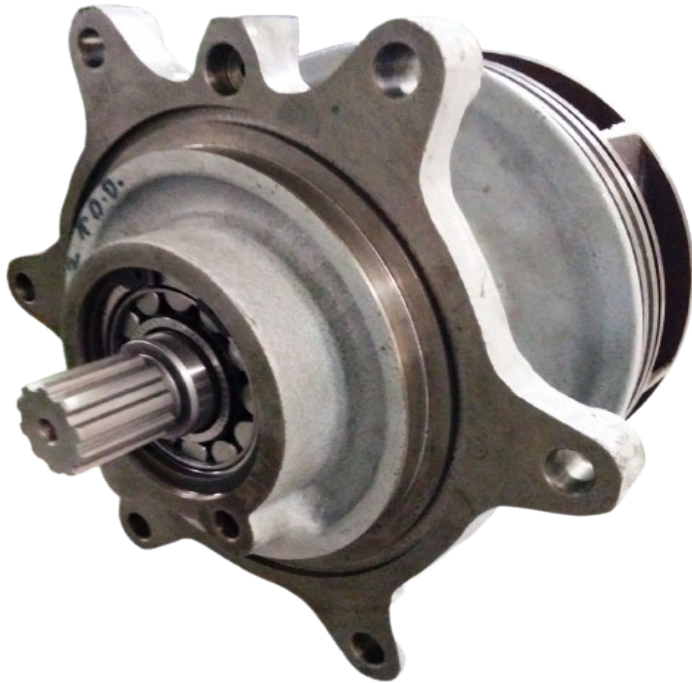


Coolant Pump

Pump RPM 2327

Pressure 22.95 meter

Flow 96 m3/hr



Coolant Pump

Pump RPM 3600

Pressure 2.85 meter

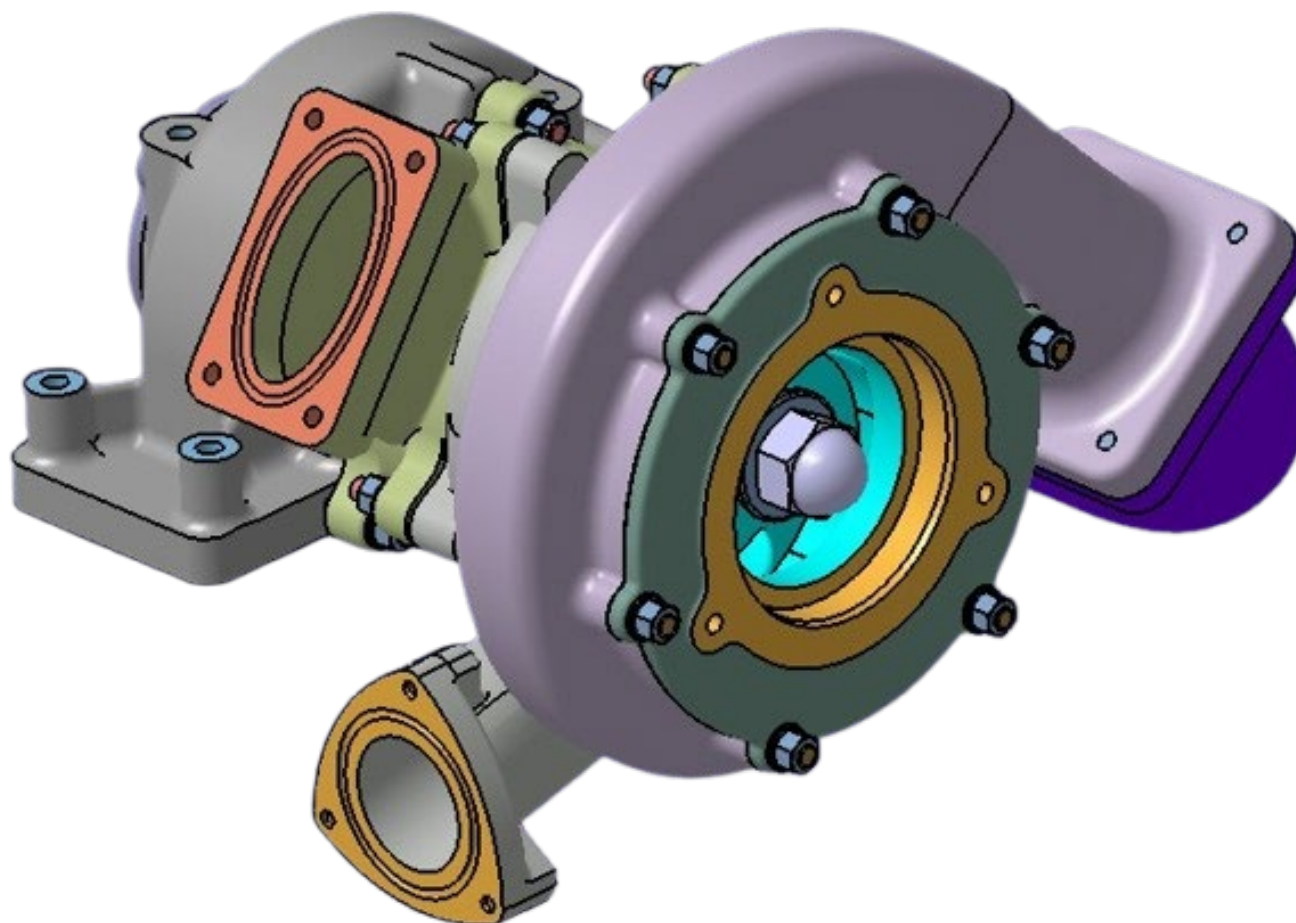
Flow 1.5 m3/hr



Current Design & Development Pump

Tandem Pump

Pump RPM 2750 | Pressure 49 meter | Flow 138 m³/hr



Accreditations (Water Pump)



- ISO- 9001:2015 System certification



- BIS product certification for Water pump



- BEE star rating approval for water pump



OIL PUMP

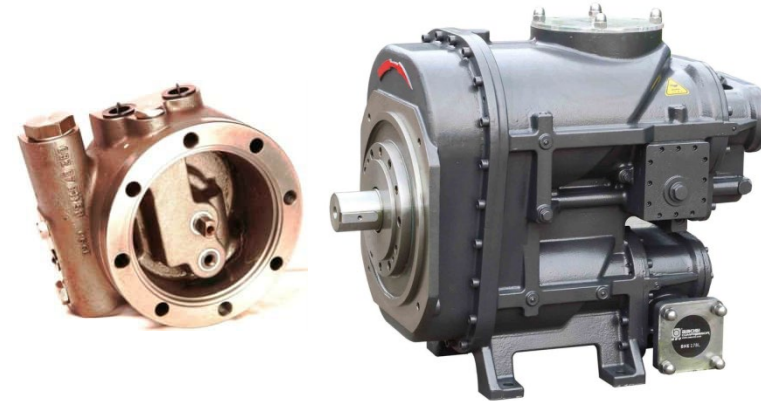
Segment We Serve (Oil Pump)



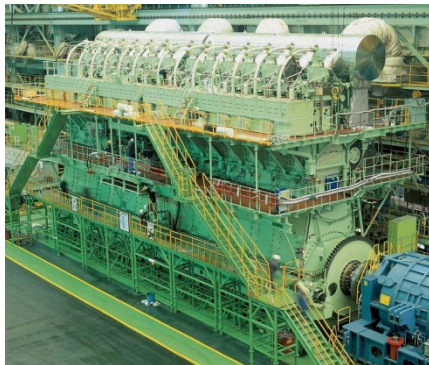
Industrial & Automotive Engine



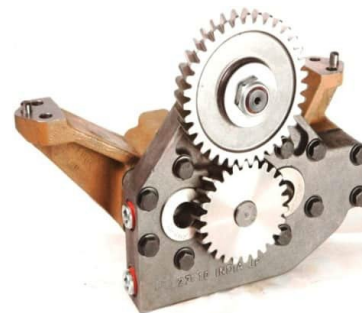
Air Compressor



Marine & Power generation Engine



Product Gallery (Oil Pump)



Product Range (Oil Pump)



Flow - 100 LPM To 300 LPM
Op. Pressure - 3.5 Bar To 4 Bar
Qty. Delivered - 2,60,000 units till Dec.2025



Flow - 10 LPM To 100 LPM
Op. Pressure - 0.5 Bar To 6 Bar
Qty. Delivered - 15,00,000 units till Dec.2025



Flow - 500 LPM To 700 LPM
Op. Pressure - 6 Bar To 7 Bar
Qty. Delivered - 40,000 units till Dec.2025



Product Range (Oil Pump)

❖ External & Internal Gear Pumps

Flow - 415 LPM To 1000 LPM

Op. Pressure - 6 Bar To 8 Bar

Total Qty. Delivered - 10,000 units till Dec.2025

Flow - 1400 LPM To 1500 LPM

Op. Pressure - 6 Bar To 8 Bar

Total Qty. Delivered - 500 units till Dec. 2025



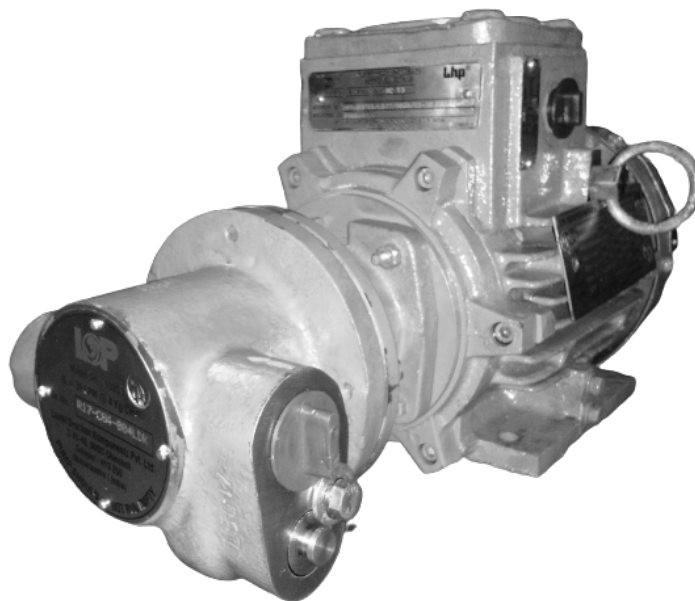
Product Range (Oil Pump)

❖ Fuel Transfer Pumps (Priming Pump)

Flow - 5 LPM To 60 LPM

Op. Pressure – 1.5 Bar To 7 Bar

Total Qty. Delivered – 1,000 units till Dec.2025



This pump is used for priming of main Lube Oil Pump and transferring oil from one tank to another tank. Driven by electric motor manufactured by LDKPL

Manufacturing Facilities



Pressurized Air (Dust Free) Assembly Shop

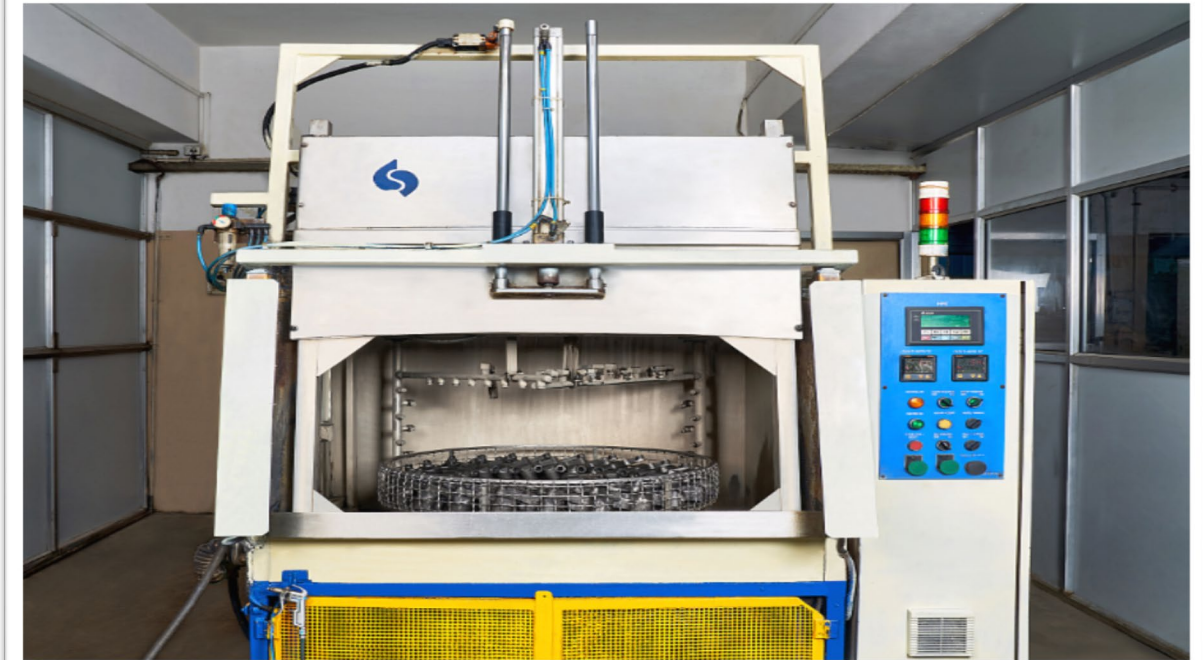
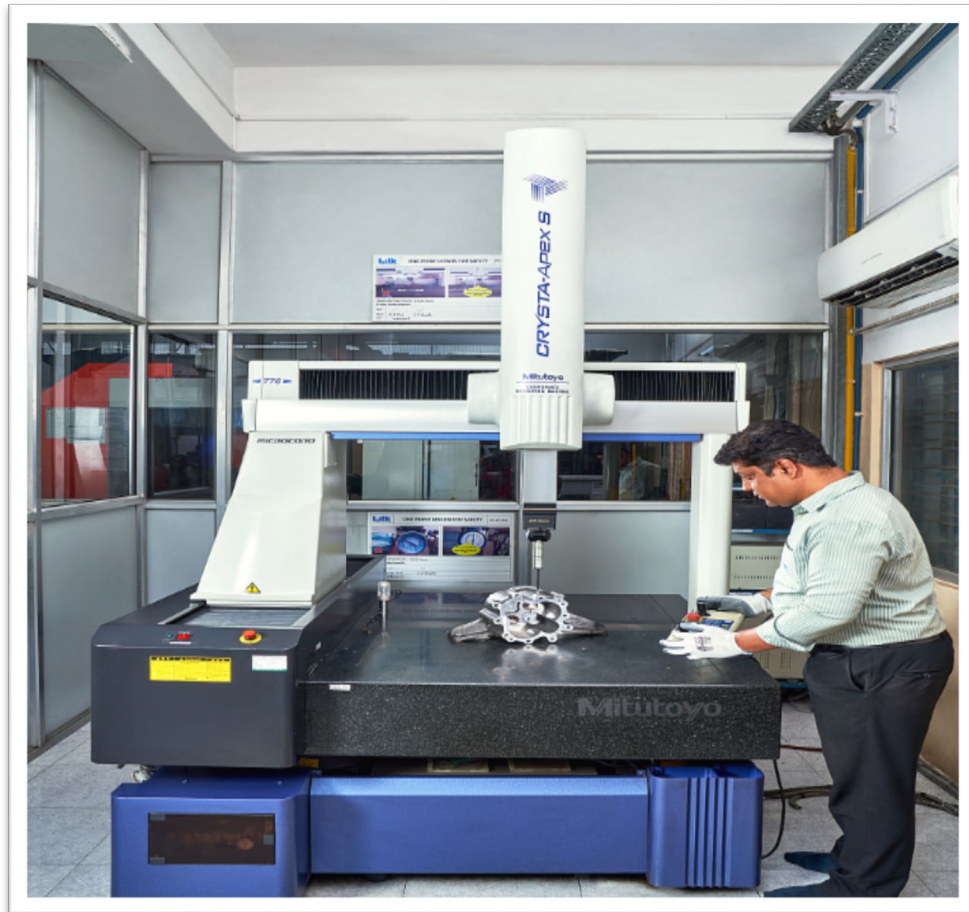


Precision machine shop with bank of VMC, CNC

Manufacturing Facilities



Customized Component Cleaning M/c



3D Co-ordinate Measuring machine

Manufacturing Facilities



In house Metallurgical & Millipore Checking Setup

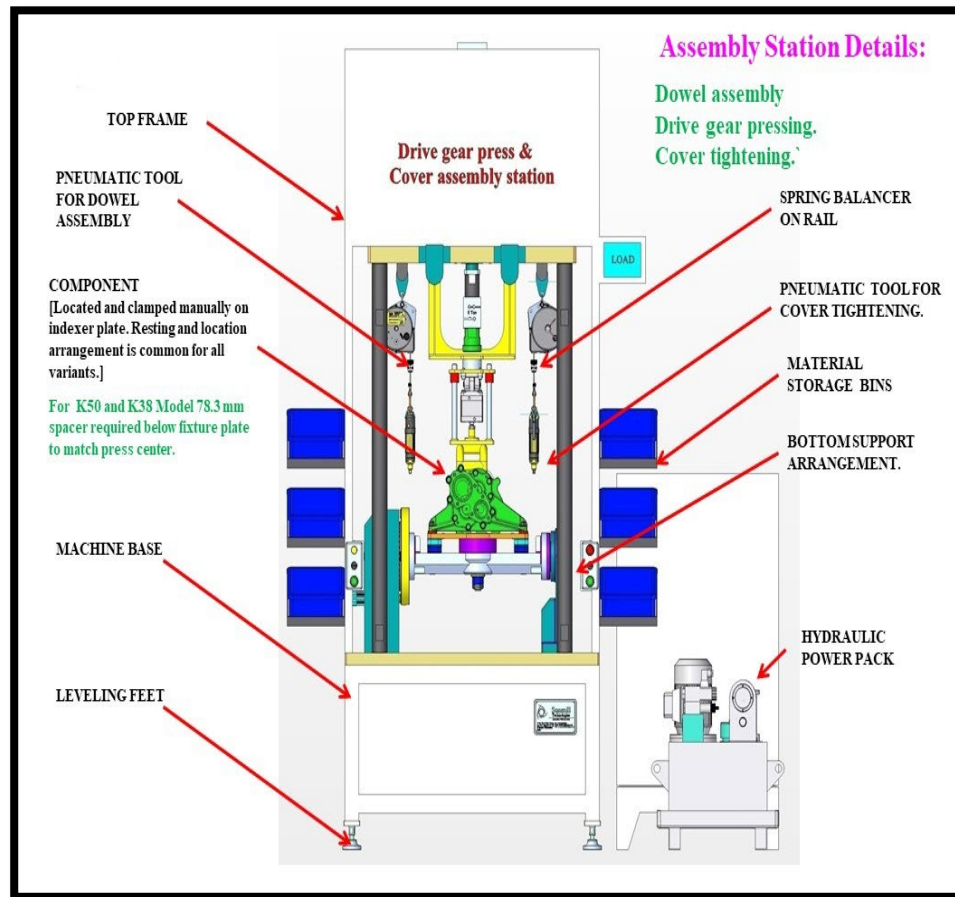


Magnaflux NDT Testing

Manufacturing Facilities



Computerized Production Test Rig (2000 LPM | 100 HP | 20 Bar)



Assembly Setup

Manufacturing Facilities



Computerized Load Cell Pressing M/c



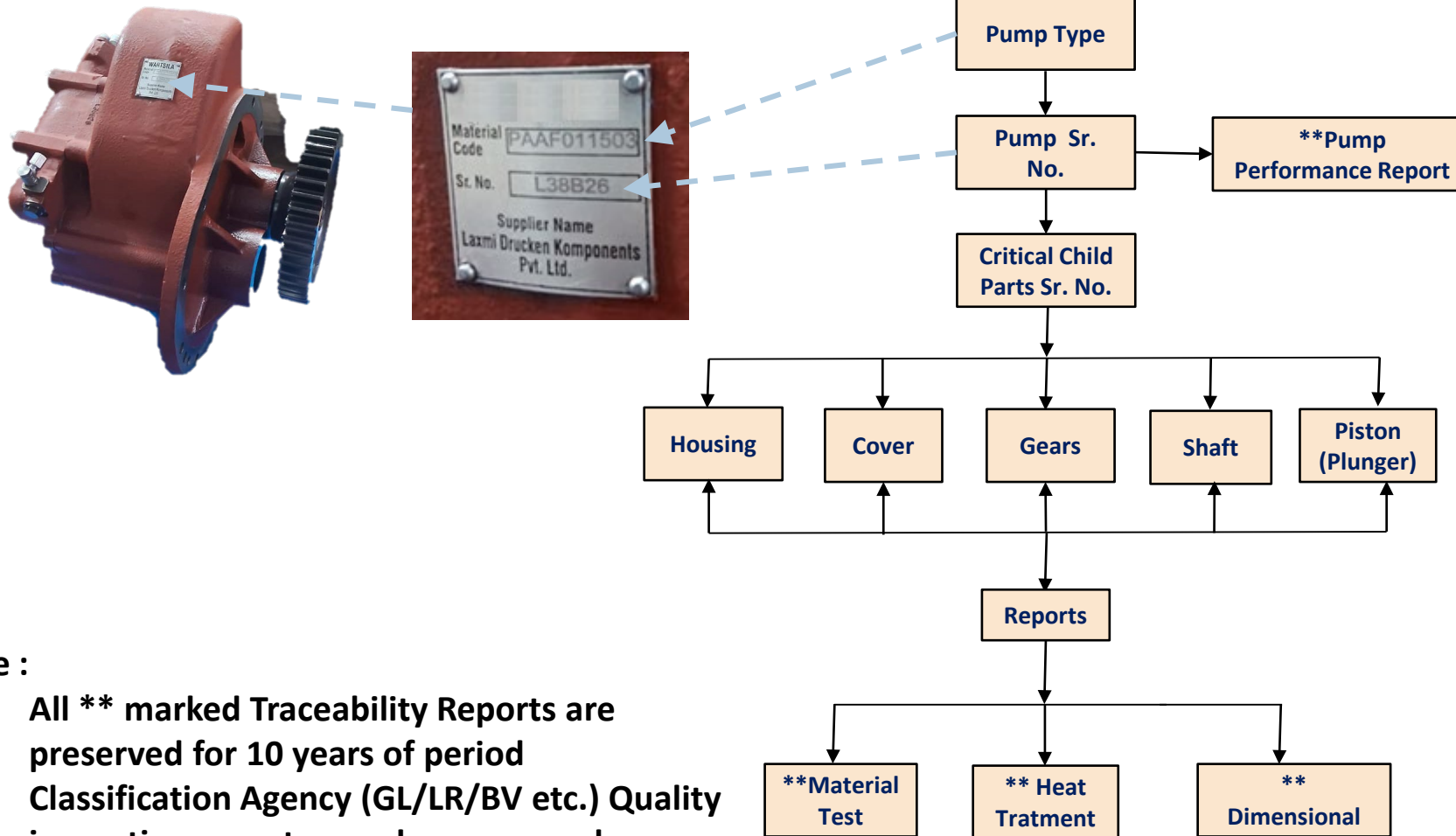
Bush OD Under Load Testing M/c



Pump Traceability System

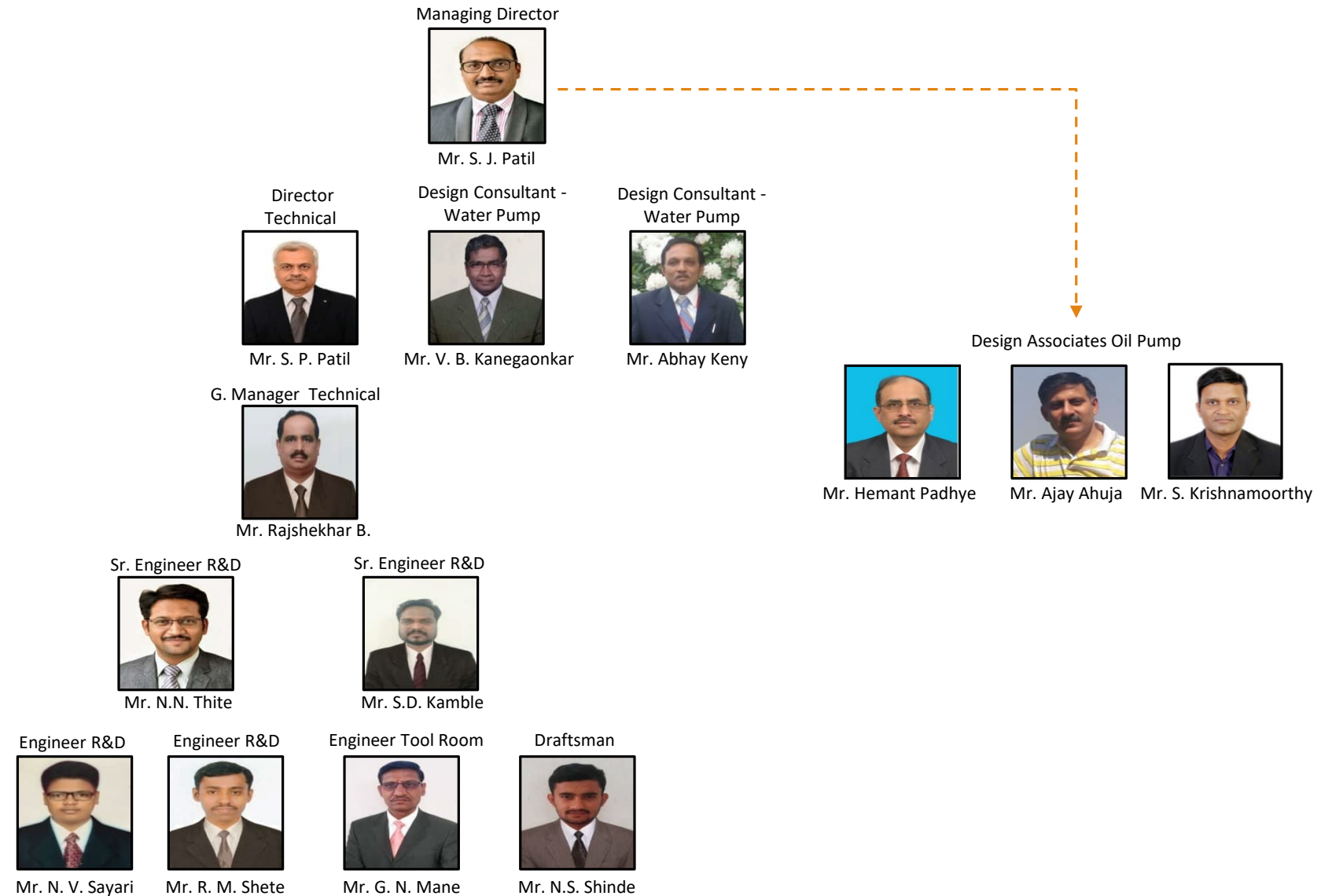


- We maintain following traceability system for all pumps manufactured in LDKPL



- **Note :**
 1. All ** marked Traceability Reports are preserved for 10 years of period
 2. Classification Agency (GL/LR/BV etc.) Quality inspection reports are also preserved.

Organization Structure for Design Department



Design Capabilities

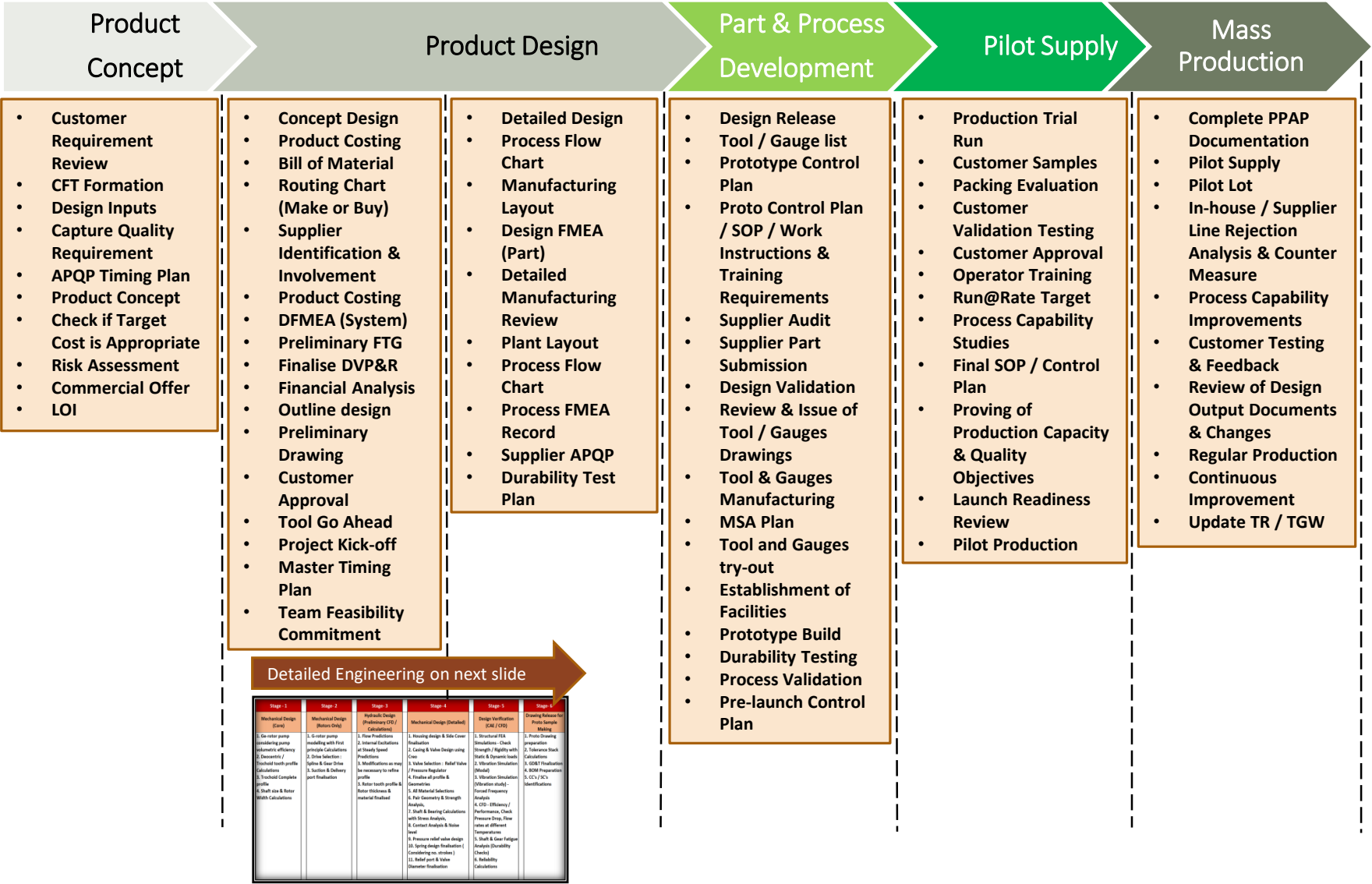


Software Available



Hardware
DELL Workstations

Product Development Process



Critical Engg. Activities in Early Phase of Engineering



Stage - 1	Stage- 2	Stage- 3	Stage- 4	Stage- 5	Stage- 6
Mechanical Design (Core)	Mechanical Design (Rotors Only)	Hydraulic Design (Preliminary CFD / Calculations)	Mechanical Design (Detailed)	Design Verification (CAE / CFD)	Drawing Release for Proto Sample Making
1. Ge-rotor pump considering pump volumetric efficiency 2. Deocentric / Trochoid tooth profile Calculations 3. Trochoid Complete profile 4. Shaft size & Rotor Width Calculations	1. G-rotor pump modelling with First principle Calculations 2. Drive Selection : Spline & Gear Drive 3. Suction & Delivery port finalisation	1. Flow Predictions 2. Internal Excitations at Steady Speed Predictions 3. Modifications as may be necessary to refine profile 3. Rotor tooth profile & Rotor thickness & material finalised	1. Housing design & Side Cover finalisation 2. Casing & Valve Design using Creo 3. Valve Selection : Relief Valve / Pressure Regulator 4. Finalise all profile & Geometries 5. All Material Selections 6. Pair Geometry & Strength Analysis, 7. Shaft & Bearing Calculations with Stress Analysis, 8. Contact Analysis & Noise level 9. Pressure relief valve design 10. Spring design finalisation (Considering no. strokes) 11. Relief port & Valve Diameter finalisation	1. Structural FEA Simulations - Check Strength / Rigidity with Static & Dynamic loads 2. Vibration Simulation (Modal) 3. Vibration Simulation (Vibration study) - Forced Frequency Analysis 4. CFD - Efficiency / Performance, Check Pressure Drop, Flow rates at different Temperatures 5. Shaft & Gear Fatigue Analysis (Durability Checks) 6. Reliability Calculations	1. Proto Drawing preparation 2. Tolerance Stack Calculations 3. GD&T Finalization 4. BOM Preparation 5. CC's / SC's Identifications

Hard Validation of Oil Pump



**In House Test Lab For capacity
from 10 LPM to 2000LPM**

Following test can be done

- | | |
|-------------------------------|--------------------------------|
| ❖ Performance characteristics | ❖ RPM Cyclic Test |
| ❖ Pressure Cyclic Test | ❖ Dirty Oil Test |
| ❖ Cavitation Test | ❖ Pressure Pulsation Test |
| ❖ Aeration Test | ❖ Relief Valve Characteristics |
| ❖ Endurance Test | |



Accreditations (Oil Pump)



Third party certification for Marine application



Det Norske Veritas & Germanischer Lloyd (DNVGL)



REGISTRO ITALIANO NAVALE (RINA)

Lloyd's Register (LR)



**Rail India Technical and Economic
Service (RITES)**



Our Valued Customers



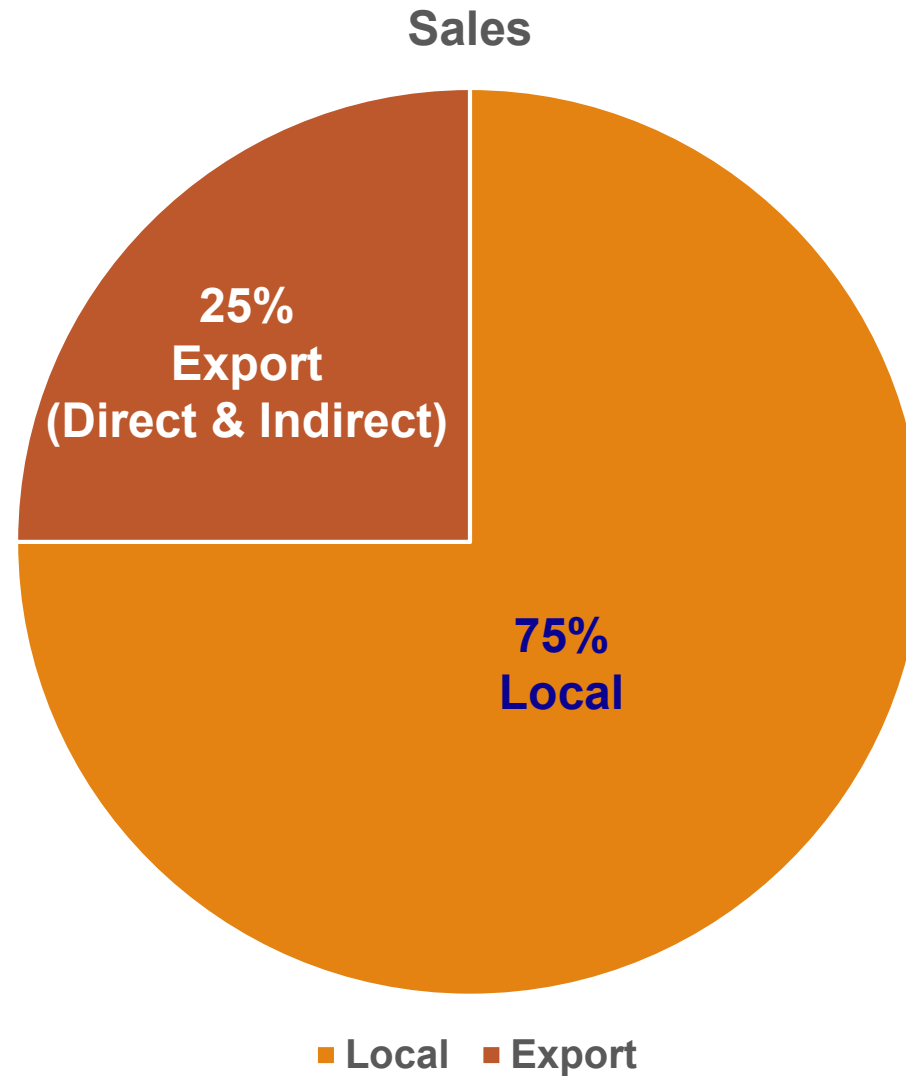
Water Pump Division



Oil Pump Division



Domestic & Export Sales Share



Recent Development Project Completed



Oil Pump - (2000 Series)

Range : Flow - 800 LPM
Op. Pressure - 8 Bar
Total Qty. Delivered - 20 units till 2025



Oil Pump - (1600 Series)

Range : Flow - 230 LPM
Op. Pressure - 6 Bar
Total Qty. Delivered - 10 units till 2025



High Horse Power Oil Pump

Range : Flow - 1150 LPM
Op. Pressure - 10.5 Bar
Total Qty. Delivered - 3 units till 2025



This pump is under trial at customer end.



Zero Debt Company

3 M USD Cash Reserves



Investment of 0.6 M USD in Plant, Building and Machinery in last Two years

Achievements



- Award for “Outstanding performance” by Government of Maharashtra
 - Awarded with the most prestigious “Rajiv Gandhi National Quality Award”
 - Honored with the “National Award for Quality Products” by Govt. of India
 - ‘Ship to Use’ & ‘Green Channel supplier’ for Lube Oil Pumps.
-

Achievements & Appreciation By Customer



Competitiveness



IMTMA Siemens Productivity Championship awards winner consequently for 5 years.



Selection of our Project for
IMTMA Competition &
Consolation Prize

Leadership Recognition Award by ACMA



ACMA - **A**utomotive **C**omponent **M**anufacturers **A**ssociation of India

Green Initiative



**Complete Solar Powered
Unit of 200 kVA**

**Apr 2023 - Mar 2026
Generation - 1 Million KW Unit**



- **Effluent Treatment Plant**
- **Gardening with Treated Sewage Water**

**Mar 2018 - Mar 2026
1.9 Millions Ltr.**

Upgradation

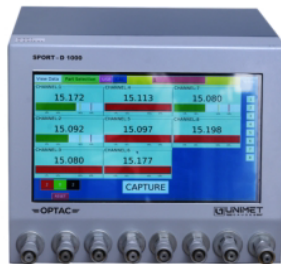
Digitalisation of Inspection



OPTAC Measuring Technologies Pvt. Ltd.
Universal Metrology & Allied Services



SPORT D 1000 MULTI-CHANNEL READOUT UNIT



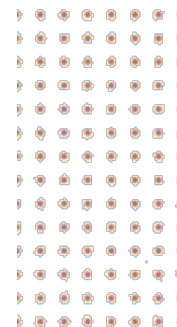
Multi-channel Electronic Readout Unit Based on Raspberry Pi Platform

- UNIMET SPORT D 1000 - Statistical Process of Real-Time Data
- This autonomous electronic readout instrument is designed for measuring ID, OD, and dynamic parameters like Taper, Ovality, Run-Out, Height, Angle, and distances and also provides statistical control parameters & graphs
- In-built multiple air transducer is provided for the air-type SPORT D unit and multiple probe inputs are provided for the multi-channel electronic SPORT D unit
- In-built Air saver facility
- It provides the facility of absolute & comparative types of readings with a count of OK / Not OK components
- Tri-color display: Red, Green, Yellow (RGY) based on the tolerance
- Real-time run-chart and SPC parameters like Cp, Cpk, etc.
- Provision of RS 232 data output and auto-offset correction to the machine
- Least count 1 $\mu\text{m}/0.1 \mu\text{m}$
- Built In wi-fi facility to connect over LAN and screen share
- Real-time auto data capture, and view data with date/ time stamp and data storage facility of 8 GB
- Facility to transfer the data on USB port

OBD Fixture with Micro-Processor Based Electronics Unit



SPORT D 1000 DIAL TYPE READOUT UNIT



Electronic Readout Unit Based on Raspberry Pi Platform

Let us create

“Smooth Synergy”

for better Tomorrow

Thank You !
