



Lakshmi Vacuum

Lakshmi Vacuum Services (P) Ltd

Vacuum Heat Treatment Services & Vacuum Furnace Manufacturers



About Lakshmi Vacuum

LAKSHMI VACUUM SERVICES PRIVATE LIMITED is a part of the Lakshmi Vacuum group of Companies and is engaged in offering Vacuum Heat Treatment services across India. Since its inception, high standards were set in attaining the goal, of achieving, total customer satisfaction, in the commercial Vacuum heat treatment sector. LVS currently operates state-of-art vacuum furnaces at its plant located at SRIPERUMBUDUR.

Salient features

- ◆ No Scaling or decarburization
- ◆ Bright surface finish.
- ◆ Uniform & gradual heating.
- ◆ Uniform temperature throughout the hot zone.
- ◆ Optimum process know – how ensures adequate soaking times, heating & cooling rate
- ◆ 360°C Gas circulations throughout the workload ensure uniform properties.
- ◆ Consistent results due to fully automatic operation.
- ◆ Best obtainable microstructure owing to all of the above criticalities.
- ◆ Entire process data can be stored & retrieved for various analyses.

Processing Capabilities

Vacuum Hardening, Vacuum Tempering, Vacuum Annealing, Vacuum Stress-relieving, Sub-zero treatment, Vacuum Ageing, Vacuum Brazing, Post Weld Heat Treatment (PWHT)

Areas of Application

Hardening & Tempering of Pressure Die-casting Dies, Plastic Injection Moulds, Plastic Compression Moulds, Cutting Tools, Hot & Warm Forging Dies, Hot & Cold Extrusion Dies, Blanking, Forming, Stamping, Progressive Dies, Valves.

Steels Processed

- ◆ Hot work Steels, Cold Work Steels.
- ◆ High Speed Steels, Stainless Steels (400 Series)
- ◆ Precipitation Hardening Steels
- ◆ All Air – Hardening Steels

IATF 16949 : 2016 Certificate by TUV - SUD



Management Service

CERTIFICATE

The Certification Body
of TÜV SÜD Management Service GmbH

certifies that

Lakshmi Vacuum Services Pvt Ltd
No. 604/2, 605/2A, Mahakavi Bharathi Nagar
Thirumudivakkam - 600044, Chennai, Tamil Nadu
India

has established and applies
a Quality Management System for

Providing Vacuum Heat Treatment
(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: 2021-12-02

Expiry date: 2024-12-01

Certificate Registration No.: 12 111 63160 TMS

IATF Certificate No.: 0436563

Head of Certification Body
Munich, 2021-12-02

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VACUUM HARDENING FURNACE – VHF 01 / 02



Characteristics	VHF 01	VHF 02
Chamber Size	900mm x 600mm x 600mm	600mm x 600mm x 400mm
Maximum Operating Temperature	1350°C	1350°C
Absolute Vacuum Level	5X 10 ⁻² Torr	5X 10 ⁻² Torr
Maximum Load Per Charge	600Kgs	450Kgs

Totally PLC Controlled with Data Logger for effective process control and recording.

VACUUM HARDENING FURNACE – VHF 03 / 04



Characteristics	VHF 03	VHF 04
Chamber Size	900mm x 900mm x 1200mm	600mm x 600mm x 900mm
Maximum Operating Temperature	1250°C	1300°C
Absolute Vacuum Level	5X 10 ⁻³ mbar	5X 10 ⁻² mbar
Maximum Load Per Charge	1Ton	600Kgs

Totally PLC Controlled with Data Logger for effective process control and recording

VACUUM TEMPERING FURNACE – VTF 01



Characteristics	VTF 01	VTF 02
Chamber Size	600mm x 600mm x 900mm	600mm x 600mm x 900mm
Maximum Operating Temperature	700°C	700°C
Absolute Vacuum Level	5X 10 ⁻¹ mbar	5X 10 ⁻¹ mbar
Maximum Load Per Charge	600Kgs	600Kgs

Totally PLC Controlled with Data Logger for effective process control and recording.

VACUUM OIL QUENCH FURNACE



Hot Zone Size	Dia 800 x 800 H
Hot Zone	Graphite
Max Temp	1100°C
Vacuum Level	5x10 ⁻² mbar
Quench Media	Oil

MATERIALS PROCESSED IN OIL QUENCH:

- HCHCR (D3)
- OHNS
- EN24, EN31, EN8,
EN19, EN9, EN42, EN44,
EN45, EN351, EN353

TEMPERING FURNACE - 06 NO(S)



Stress Reliving / Tempering
Up to 350 / 650 / 850°C

TESTING EQUIPMENTS

ROCKWELL HARDNESS TESTER



4 Nos

VICKERS HARDNESS TESTER

With load selection from 5Kgs to 50 Kgs



PORTABLE HARDNESS TESTER



TIME 5100 – 2 Nos



TIME 5100 – 1 Nos

SURFACE TABLE (1000MM X 600MM)



TESTING EQUIPMENTS

METALLURGICAL MICROSCOPE



MICRO VICKERS



Min 0.01 – 1Kgs

METALLOGRAPHIC SAMPLE PREPARATION MACHINES

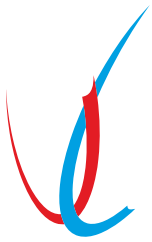


METALLOGRAPHIC MACHINES

(CUTTING, MOULDING AND POLISHING)

INDUSTRIES WE SERVE

- **Automobile Industries**
- **Automotive Industries**
- **Die Casting Industries**
- **Plastic Moulding Industries**
- **Valve Industries**
- **Petro Chemical Industries**
- **Pharmaceutical Industries**
- **Paper Industries**
- **And Many More...**



Lakshmi Vacuum

Lakshmi Vacuum Services (P) Ltd

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