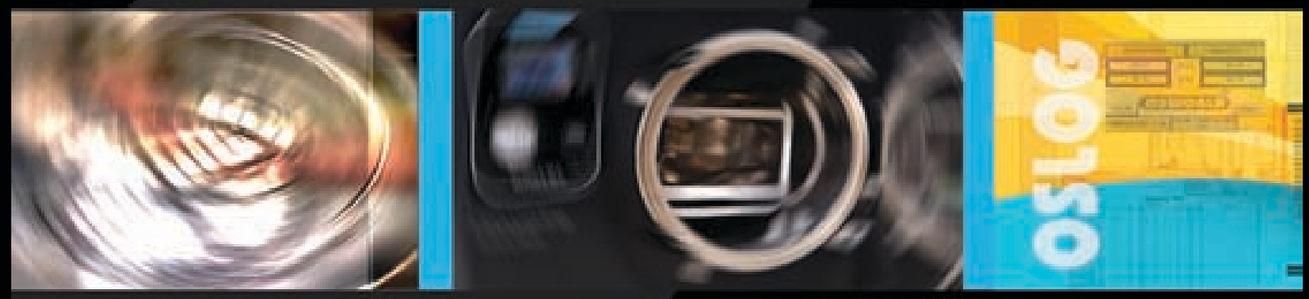
OSWORLD

Experiment With The Truth



Osworld Scientific Equipments Pvt. Ltd.

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8, Olympus Industrial Estate
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Proposed factory:
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Bhiwandi Vasai Road
Village Kalwar
Taluka Bhiwandi
Dist: Thane

Design: Light Infotainment
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Printed at:
Silver Point Press Pvt. Ltd.
www.silverpointindia.com

Artist impression of upcoming Osworld factory

Autoclave

Premium Model

Wing Nut Model

Front Loading Table Top Model

Autoclave

Autoclave

OSWORLD

Autoclave

An Autoclave is a device to sterilise equipment and supplies by subjecting them to high pressure saturated steam at 121° C or more, typically for 15-20 minutes.

In an Autoclave, water is heated in a pressurised environment to create steam. Using pressure makes it possible to heat to higher temperatures with less energy. Autoclaves are usually made of steel and have various configurations for removing air prior to pressurization.

Downward displacement autoclaves use gravity to remove air. Steam pulsing autoclaves use pulses of steam along with pressurizing and depressurizing to reach optimum pressure. Vacuum pump autoclaves suck air out for pressurization. Superatmospheric autoclaves are a combination of steam pulsing and vacuum pump techniques. Autoclaves are widely used in microbiology, medicine, tattooing, body piercing, veterinary science, mycology, dentistry, chiropody and prosthetic fabrication.

Typical loads include laboratory glassware, surgical instruments, medical waste, patient care utensils, animal cage bedding, and lysogeny broth.

A notable growing application of autoclaves is in the pre-disposal treatment and sterilization of waste material, such as pathogenic hospital waste. Machines in this category largely operate under the same principles as the original autoclave—they are able to neutralize potentially infectious agents by utilizing pressurized steam and superheated water.

Osworld offers three types of Autoclaves:

1) Premium Single Handle Lid Closure Fully Automatic Operational Model.

2) Wing Nut Lid Closure Fully Automatic Operational Model.

3) Front Loading Desk Top Fully Automatic Operational Model.

Autoclave

Premium Model

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Autoclave

Single Handle | Vertical | External Reservoir | Model OAT-SHE

Euro certification: CE certified from International Notified body, CE No: EU.IN.CE.0074-05/12

Specifications

- Construction: Double wall—inner chamber for steam, outer as cover and external reservoir for water. Steam is injected into the chamber from a reservoir; this helps in reduced steam condensation on media.
- Working chamber made of stainless steel LM 304 grade, 3.5 mm thick
- Outer cover made of stainless steel 1mm thick. Inner frame structure of solid chrome-plated finish.
- Lid, flange and bottom sheet also made of stainless steel SS 304. All joints argon welded.
- Silicon gasket
- Heavy-duty industrial flange heater
- Fully automatic operation: cycle begins by press of the START button
- Initial air purging cycle: At the beginning air is automatically removed from the chamber.
- Auto fill arrangement: Automatic water filling in reservoir
- Temperature control and display: Colour Touchscreen Display and Micro-controller. 3.5" color TFT display. Four preset programs of discard media, liquid and glassware sterilization with three user-defined programs. User-friendly menu/display, indicates all stages of sterilization cycle
- Temperature sensor: PT–100
- In-built digital timer: Timer can be adjusted as per sterilization load requirement, 1 to 99 minutes
- Automatic steam exhaust at the end of cycle
- Pressure range: 15 to 30 PSI. (Factory set at 15 PSI)
- Temperature range: 121° C to 134° C. (Factory set at 121° C)
- Temperature resolution: 0.1° C
- Temperature Accuracy: ± 0.5° C
- Pressure gauge 0-50 PSI, safety spring loaded pressure valve, steam release valve
- Hydraulically tested at 75 PSI

Autoclave

SAFETY FEATURES

- Low water level heater safeguard
- Safety high pressure release valve
- Safety high temperature cut off, included if ordered separately
- Pressure switch made in Europe; CE certified for additional safety. (Factory set at 30 PSI)
- Vacuum breaker-cum-lid locking arrangement for locking lid above 95° C
- Multiple micro-switches to sense lid closure and proper latching. Heating won't start if technical parameters are not met

ALARMS

(visual and audio with acknowledgement)

- Lid open
- Low water level
- High temperature

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Autoclave

CERTIFICATION & DOCUMENTATION

- Calibration certificate by ERTL— Mumbai with traceability to NPL— New Delhi
- Provided with IQ, OQ, PQ documentation

OPTIONAL ACCESSORIES

- Basket
- Printer Interface
- High Temp Safety Controller
- Fo printing
- PC software 21CFR Part 11 compliant
- Electrical actuator to ensure lid doesn't open under pressure
- Electromagnetic door lock made in Europe (patented design and CE marked) for locking lid under pressure. Can keep door locked up to 300 Newton pressure
- PLC-based system with 3.5" touch screen display to control
- Pressure Pulsing: Both +ve and –ve pressure pulsing is programmable
- Assisted Air Cooling: For quick cooling of chamber
- Vacuum Pump System: For automatic pre-/ post-vacuuming with pulsing
- Drying cycle
- Automatic water fill

Ordering Information

Model	Internal Size	External Size	Capacity	Weight	Shipping weight	Power	
	Diameter × Height cm	W × D × H cm	Liters	Kg	Kg	VAC, Hz	Amps
OAT-SHE 52	35 × 55	64 × 45 × 92	52	160	220	230,50	12
OAT-SHE 65	35 × 65	69 × 51 × 102	65	170	230	230,50	12
OAT-SHE 75	35 × 75	73 × 62 × 110	75	180	240	230,50	16
OAT-SHE 95	45 × 60	73 × 62 × 115	95	200	260	230,50	16
OAT-SHE 125	45 × 75	73 × 62 × 125	125	230	290	230,50	16
OAT-SHE 175	55 × 75	92 × 82 × 125	175	265	325	230,50	24

Autoclave

Wing Nut Model

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Autoclave

Wing nut lid closure | Vertical | Model OAT

Specifications

- Construction: Double wall design with single chamber for steam and water
- Inner chamber is of 2 mm thickness and is made of stainless steel. Outer cover is also made of stainless steel. Lid and flange are made of thick stainless steel
- Fully automatic operation: Cycle begins by press of the START button
- Air purging cycle, initial automatic air exhaust cycle helps create partial vacuum in the chamber. A solenoid valve vents out air during the process of steam generation. At a preset temperature the valve automatically shuts and thereafter steam pressure builds up
- Sterile time period control with an inbuilt timer which is operator programmable and can be adjusted as per sterilization load requirement. This timer operates the moment the required sterilization temperature and pressure is achieved and precisely maintains the required time
- When the cycle ends the steam is automatically exhausted
- Temperature range: 110° C to 121° C
- Temperature resolution: 0.1° C
- Temperature accuracy: ±0.5° C
- Temperature sensor: PT100 RTD Class 'A'
- Temperature Control: Microprocessor-based
- Temperature Display: LCD back-lit display
- Pressure range: 22 PSI, factory set at 15 PSI
- Pressure display: Dial gauge
- Pressure resolution: 1 PSI

CERTIFICATION & DOCUMENTATION

- Calibration certificate by ERTL– Mumbai with traceability to NPL– New Delhi
- Provided with IQ, OQ, PQ documentation

OPTIONAL ACCESSORIES:

- Basket
- Printer Interface
- High Temp Safety Control
- Colour Touchscreen Display and Micro-controller in lieu of digital LCD controller. 3.5" color TFT display, 4 preset programs of discard, media, liquid and glassware sterilization, with two user-defined programs, user-friendly menu/display, with indications of every stage of sterilizing

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Autoclave

SAFETY FEATURES

- Low water level heater safeguard
- Safety high pressure release valve
- Safety high temperature cut off. Included if ordered separately

ALARMS

- Low water level
- High temperature (included optionally)

Ordering Information

Model	Working chamber size	External Size	Capacity	Weight	Shipping weight	Power	
	Diameter × Height cm	W × D × H cm	Liters	Kg	Kg	VAC,Hz	Amps
OAT 35	30 × 50	60 × 55 × 98	35	60	80	230,50	8
OAT 52	35 × 55	65 × 55 × 100	52	70	90	230,50	12
OAT 95	45 × 60	72 × 62 × 103	95	90	130	230,50	16
OAT 125	45 × 75	72 × 62 × 118	125	100	140	230,50	16
OAT 175	55 × 75	77 × 67 × 110	175	125	155	230,50	24

Autoclave

Front Loading Table Top

SAFETY FEATURES

- Low water level heater safeguard
- Safety high pressure release valve
- Safety high temperature cut off. Included if ordered separately

ALARMS

- Low water level
- High temperature (included optionally)

OPTIONAL ACCESSORIES

- Printer Interface
- High Temp Safety Control
- Auto fill arrangement: Auto filling of water
- Vacuum pump assembly for vacuuming before and after sterilization cycle with pulsing and dry cycle

OSWORLD

Autoclave

Available in Class 'S/N' model OAT-FL-S/N and 'Class B' model OAT-FL-B

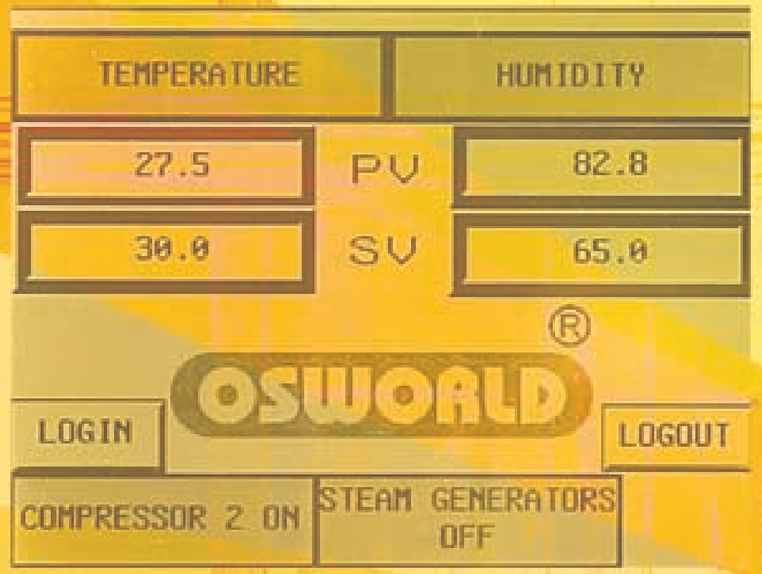
Euro certification: CE certified from International Notified body, CE No: EU.IN.CE.0074-05/12

Specifications

- Construction: Double wall design with single chamber for steam and water
- Inner chamber is of 3.5 mm thickness and is made of stainless steel; outer cover is also made of stainless steel. Lid and bottom are made of thick stainless steel
- Fully automatic operation: Cycle begins by press of the START button
- Air purging cycle automatically exhausts air within the chamber and creates partial vacuum. A solenoid valve vents out air during the process of steam generation. At a preset temperature, the valve automatically shuts and thereafter steam pressure builds up
- Sterile time period with an in-built timer which is operator programmable and can be adjusted as per sterilization load requirement. This timer operates the moment the required sterilization temperature and pressure is achieved and precisely maintains the required temperature
- Steam is automatically exhausted at the end of the cycle once sterile time period is complete
- Temperature range 110° C to 134° C programmable
- Temperature resolution 0.1° C
- Temperature accuracy ±0.5° C
- Temperature control with Colour Touchscreen Display and Micro-controller. 3.5" Color TFT display. Four preset programs of Discard, Media, Liquid and Glassware with two user-defined programs, user-friendly menu/display, indications of every stage of sterilizing cycle process
- Pressure range 10 to 30 PSI. (Factory set at 15 PSI)
- Pressure indication with dial gauge
- Pressure resolution 1 PSI

Ordering Information

Model	Working chamber size	External Size	Capacity	Weight	Shipping weight	Power	
	Diameter × Height cm	W × D × H cm	Litem	Kg	Kg	VAC, Hz	Amps
OAT-FL- 21	30 × 30	65 × 62 × 55	21	50	70	230,50	6
OAT-FL- 35	30 × 50	65 × 82 × 55	35	55	75	230,50	8
OAT-FL- 52	35 × 55	70 × 90 × 60	52	70	80	230,50	12



OSLOG

OSWORLD®

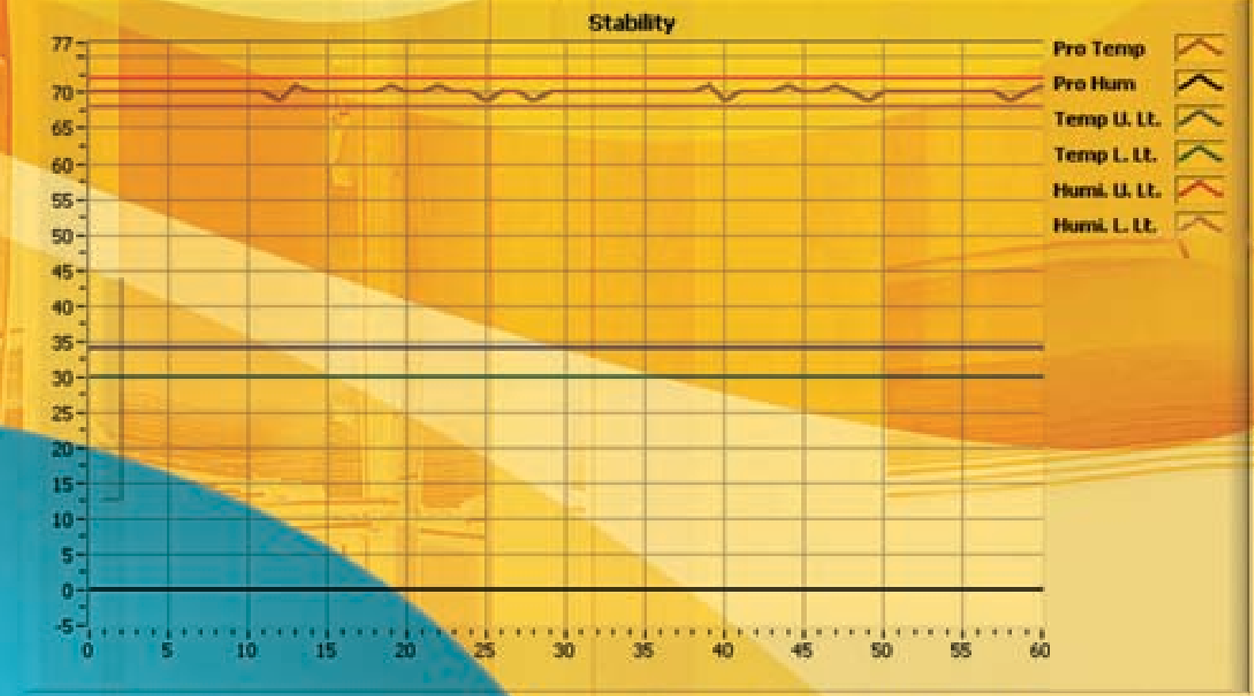
Equipment Make : Godrej
Equipment Name : IEA

Temp Limits : ± 5
Humidity Limits : ± 10
Prepared By : osworld
Print Date & Time : 01/04/2010 17:43

Equipment Id : oslog2

DATE	TIME	STABILITY				Remark
		Set Temp (°C)	Pro Temp(°C)	Set Hum(%)	Pro Hum(%)	
01/04/2010	11:01	30.0	25.3	65.0	70	
01/04/2010	11:02	30.0	24.9	65.0	69	
01/04/2010	11:03	30.0	25.8	65.0	70	
01/04/2010	11:04	30.0	24.5	65.0	69	
01/04/2010	11:05	30.0	25.1	65.0	69	
01/04/2010	11:06	30.0	25.3	65.0	70	
01/04/2010	11:07	30.0	25.0	65.0	69	
01/04/2010	11:08	30.0	25.9	65.0	71	
01/04/2010	11:09	30.0	24.5	65.0	70	
01/04/2010	11:10	30.0	25.8	65.0	70	
01/04/2010	11:11	30.0	25.7	65.0	70	
01/04/2010	11:12	30.0	25.7	65.0	70	
01/04/2010	11:13	30.0	25.8	65.0	70	
01/04/2010	11:14	30.0	24.2	65.0	70	
01/04/2010	11:15	30.0	24.9	65.0	70	

Oslog Graph



1 2 3 4 5

From Date & Time
00:00
01/04/10

To Date & Time
23:59
01/04/10

Graph Update

Temp Set Value
30

Hum Set Value
25.4

Graph Print Exit

21 CFR Part 11 Compliant Software

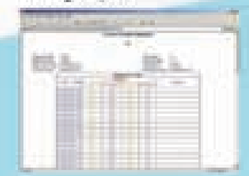
- Mean Kinetic Temperature (MKT), Audit Trail, Graphs, Tabular reports.
- Multiple user passwords
- Minimum, Maximum & Average value at the end of each report.
- Separate alarm report.
- Print/Scan frequency programmable (1 to 240 mins).
- Internal software logging every 1.5 seconds.
- Data acquisition, monitor & control (for PLC based).
- Password protection (Min 3 levels).
- Automatic acknowledgement within specified time with an alarm, log provided readings are logged for that particular alarm.
- Door opening/closing log (Magnetic log with passwords)
- Numeric as well as graphical report (common/individual)
- Roles & privileges for user, operator and administrator
- Electronic signature
- Scanner graph
- Current reading configurable (single/multiple) by user
- Channel-wise scanner alarm report
- Print frequency programmable through software
- Page length programmable
- Controller setting programmable
- Alarm logging with times (Actual high/low readings)

OSLOG Data Acquisition System Software

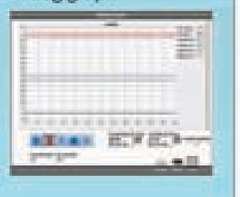
1. Login Screen

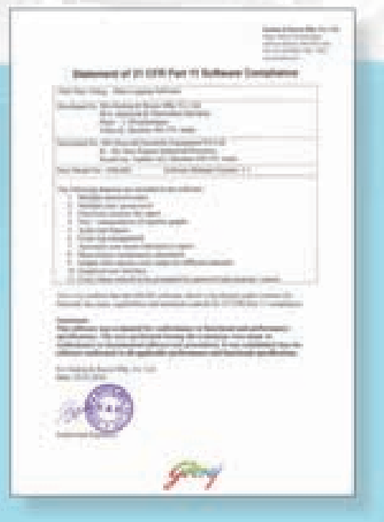
2. Security

3. Log Report



4. Log graph





OSLOG Data Storage Device (Oslog–DSD)

- Online and Offline mode. When online, it also logs data onto a pen drive.
- In offline mode, it stores data in USB pen drive. Pen drive can later be taken to PC and data downloaded using Oslog software.
- In online mode, data is continuously updated on to the PC. For retrieval of data in PC, Oslog–DSD will be connected to PC through RS232 serial port. Oslog software will scan each equipment (every 5 seconds) connected to Oslog–DSD and will store data into database file in the hard drive of the PC.
- Data logging Interval 1 to 240 minutes.
- Pen drive detection and error or USB device full indication.
- At one time max 5 nos. Oslog DSDs and 5 nos. Oscans (Datalogger) can be connected to one single Oslog Software.
- Data Stored in USB Pen drive in ASCII FAT 32 format non manipulative.
- 2 Line, 16 characters LCD display with membrane keypad.
- Oslog–DSD can be placed on front panel of equipment next to the PC for convenience.
- Extremely user-friendly and easy to operate.
- Developed exclusively for Osworld by India's reputed brand M/s Godrej & Boyce Mfg. Co. Ltd., Mumbai.

GSM Module and Internet Connectivity....

1. GSM connectivity: Connect any Osworld equipment to a GSM mobile. The equipment sends deviation alarm of temperature/humidity high/low alarm to 5 designated mobile numbers. To avoid disturbing, spurious/false alarms like door open events from not being sent, the software is programmed to send only deviations which are continuous and need to be attended.

The GSM connectivity is made applicable through our exclusive tie-up with India's most reputed brand, Godrej. Osworld has an exclusive tie-up with Godrej for hardware interfacing and software.

2. Osworld Equipment software connectivity: There are multiple ways to connect Osworld equipments to the Oslog PC software.

A) Online connectivity using Universal Modbus Protocol: In this scenario the Osworld equipment is connected to the PC directly using RS485 Universal Modbus protocol. Multiple Osworld equipments are looped once again using RS485 and finally connected to the PC. The equipment data is downloaded in micro-seconds with in-built software alarm triggers to notify break in connectivity.

This scenario is most widely used in one-on-one connectivity or connecting a few equipments in loop which are located in one room.

B) Ethernet connectivity: Equipments located in multiple rooms in one factory can be monitored/controlled from a single server using the Ethernet connectivity software module. The different computer nodes can be connected to

GSM module

Keeps track of temperature and humidity
Alerts user via SMS on high/low temperature and humidity
Connects up to five mobiles

the equipment using Cat-5 or Cat-6 cables with RJ45 connectors. The Oslog Ethernet software allows maximum 32 nos. Osworld equipment to be connected to ONE computer node in a LAN (Local Area Network) environment.

In a multiple node LAN network where multiple Osworld equipment are connected to multiple nodes, the Oslog software permits 'Unlimited Osworld Equipment to be connected to the server. Currently, the Oslog software is programmed for a Windows platform client-server set-up.

C) Internet Connectivity: A step forward is the connectivity of Osworld equipment to the Internet using the client's IP address. Osworld equipment can be viewed from anywhere in the world using Osworld dedicated Oslog Internet software. Osworld permits its clients to use Osworld web space to monitor their equipment data anytime/anywhere in the world. LIVE Equipment Data or backdated data from the main server of the equipment can be accessed and retrieved.

3) Mobile Connectivity: Osworld provides mobility feature by offering the Osworld Mobile Application on Android handphones for people on the go and who need to keep tabs on the equipment functioning constantly due to important media placed in it. Also view earlier data on the mobile by logging into the mainframe server.

4) Wireless Module: Connect any Osworld equipment wireless (without cables) at 1Km distance line of sight to the PC. Exact data download can be defined as per (from/to... date/time) convenience.

Validation

IQ, OQ, PQ documentation compliant to FDA, GLP and GMP requirement.

Developed for Osworld by Premier Validation Ltd, Europe's leading validation consultants. Their extensive and unparalleled experience in addition to the necessary regulatory knowledge has ensured that all critical parameters are considered.

Installation and Operation Qualification

This Installation and Operation Qualification is designed to validate that the Osworld Stability Chamber is installed correctly and operates according to the functional specifications and the client-user-requirement specifications. For this purpose, a number of predefined verifications and tests will be executed. Successful completion of this protocol will prove that the Osworld Stability Chamber installation was successful and that it operates according to the functional specifications and the client-user-requirement specification.

Performance Qualification

This Performance Qualification is designed to validate that the Osworld Stability Chamber performs according to the functional specifications and the client-user-requirement specifications. For this purpose, a temperature and relative humidity mapping of locations distributed across the working area of the Stability Chamber is executed, using data loggers to measure the local temperatures and relative humidity.

The testing method is based on the principles defined in the French standard NF X15-140. The testing methodology is intended for temperature and humidity-controlled units, located in a controlled environment, with a constant temperature (at one or more set points). Osworld will execute the protocols, analyze and interpret the data collected, resolve any deviations noted during the execution and prepare final Validation report.

Calibration

All measuring devices such as temperature controllers, humidity controllers along with sensors are calibrated prior to use. The quality management system approved calibration plan is implemented by highly skilled personnel.

Sensors are calibrated against master instruments which are calibrated at ERTL which is accredited to NABL, India.

NABL, India, is the signatory of Multilateral Recognition Arrangement (MLA) of International Accreditation Forum (IAF) Inc. The NABL accredited certificates issued by STQC Services are valid worldwide.

Clients: India

Alembic Pharmaceuticals Ltd.

Alkem Laboratories Ltd.

Aurobindo Pharma Ltd.

Bharat Biotech Ltd.

Cadila Healthcare Ltd.

Cipla Ltd.

Concept Pharmaceuticals Ltd.

Dr. Reddy's Laboratories Ltd.

Dr. Sabharwal's Wound Care

E.I.Dupoint Ltd.

Epsilon Laboratories Ltd.

Fresenius Kabi Oncology Ltd.

Glaxo Smithkline Ltd.

Glenmark Pharmaceuticals Ltd.

GVK Biosciences Ltd.

Haffkine Pharmaceuticals Ltd.

Hetero Drugs

Hindustan Unilever Ltd.

Incozen Pharmaceuticals Pvt. Ltd.

Indoco Remedies Ltd.

Ipca laboratories Ltd.

Jubilant Biosys Ltd.

Macleod Pharmaceuticals Ltd.

Maneesh Pharmaceuticals Ltd.

Manipal Academy of Higher Education

Merck Specialities Pvt. Ltd.

MSN Laboratories Ltd.

Mylax Laboratories Ltd.

Nicholas Piramal Ltd.

Orchid Chemicals & Pharmaceuticals Ltd.

OSWORLD

Pharmasolve Specialities India Pvt. Ltd.

Pfizer Ltd.

Piramal Healthcare Ltd.

Ranbaxy Laboratories Ltd.

Raptakos Brett & Company Ltd.

RCC Laboratories

Reliance Life Sciences Pvt. Ltd.

Richter Themis Ltd.

S. Kant Healthcare Ltd.

Sandoz Private Ltd.

Sanzyme Ltd.

Saraca Laboratories Ltd.

Sarvotam Healthcare Pvt. Ltd.

Silicon Life Sciences Pvt Ltd.

Stanex Drugs and Chemicals Pvt. Ltd.

Sun Pharmaceuticals Industries Ltd.

Themis Meidicare Ltd.

Torrent Pharmaceuticals Ltd.

Unichem Laboratories Ltd.

US Vitamin Ltd.

Unilever Industries (P) Ltd.

Vasudha Pharma Chem Ltd.

Vet India Pharmaceuticals

Virchow Biotech Ltd.

Wallace Pharmaceuticals Ltd.

Wochardt Ltd.

Zenotech Laboratories Ltd.

Zydus Cadila Ltd.

Zydus Healthcare Ltd.

OSWORLD

Experiment With The Truth

Global Presence

BUREAU VERITAS
Certification

OSWORLD SCIENTIFIC EQUIPMENTS PVT. LTD.

OSWORLD

B-44, NEW EMPIRE INDUSTRIAL PREMISES, KONDIVITA ROAD,
J.B. NAGAR, ANDHERI (E), MUMBAI – 400 059,
MAHARASHTRA, INDIA.

Bureau Veritas Certification certify that the Management System of the above organisation has been audited and found to be in accordance with the requirements of the management system standard detailed below

Standard

ISO 9001:2008

Scope of certification

MANUFACTURE AND DESPATCH OF OSWORLD BRAND OF ELECTRICAL EQUIPMENT USED FOR TESTING IN QUALITY CONTROL AND R & D LABORATORIES IN PHARMACEUTICAL INDUSTRIES.

Certification cycle start date: **09 May 2013**

Subject to the continued satisfactory operation of the organisation's Management System, this certificate expires on: **07 May 2016**

Original certification date: **09 May 2004**

Certificate No: IND13.0209H Version: 1 Revision date: **07 May 2013**

Certification Authority
A. K. SHARMA-Director

NABCB