

QUALITY CONTROL DEPARTMENT

USER REQUIREMENT SPECIFICATION

Name of Item: LOD Oven	Protocol No.:
Functional Area: Quality Control	Page No.: 1 of 7

Name of Equipment: LOD Oven Document Reference Number: Effective Date:



QUALITY CONTROL DEPARTMENT

USER REQUIREMENT SPECIFICATION

Name of Item: LOD Oven	Protocol No.:
Functional Area: Quality Control	Page No.: 2 of 7

1.0 Approval:

Signing of this approval page of URS indicates agreement in this document. Should Modifications to the user Requirements Specification approach become necessary, an addendum will be prepared and approved.

Prepared by	Signature	Date
Checked By	Signature	Date
Reviewed By	Signature	Date
Approved By	Signature	Date



QUALITY CONTROL DEPARTMENT

USER REQUIREMENT SPECIFICATION

Name of Item: LOD Oven	Protocol No.:
Functional Area: Quality Control	Page No.: 3 of 7

2.0 Table Contents:

		Table of Contents	Page No.
1.0	Approval		2
2.0	Table of Content Introduction		3
3.0			4
4.0	Overview Definition		4
5.0	Operational Requiremen	nts	5
	5.1 Operation		5
	5.2 Power failure / Rec	covery	5
	5.3 Emergency stop		5
	5.4 Alarms and Warnin	ngs	6
6.0	Salient Features.		6
	6.1 Compatibility and	support	
	6.2 Material of constru	action	6
	6.3 Instruments & con	trols	6
7.0	Maintenance		7
8.0	Delivery.		7
9.0	Documentation		7



QUALITY CONTROL DEPARTMENT

USER REQUIREMENT SPECIFICATION

Name of Item: LOD Oven	Protocol No.:
Functional Area: Quality Control	Page No.: 4 of 7

3.0 INTRODUCTION:

This document is generated for the purpose of specifying the user requirements for a LOD Oven. The URS is provided to aid the user through the important components, variables and options necessary to procure a functional Microbiological LOD Oven that meets the User Requirement in the most cost effective method.

The URS is provided to the supplier to provide a price quote for the LOD Oven, including design and manufacture of the equipment.

The URS will be recognized as the integral part of the procurement agreement with the selected instrument vendor. The instrument supplier or vendor will abide by the information and condition set forth by this document as well as purchasing and delivery terms and condition of Client.

The LOD Oven shall be located in hot zone area of Quality Control laboratory.

The utilities and space involved needs to be discussed prior to the purchase of the equipment.

The unit and its support equipment shall be feasible to be installed in the current building facility.

The document encompasses the normal range of LOD Oven operation. Obviously technology improvements and new applications may require deviations from these specifications. These specifications are to be utilized as a guide for the user to answer the majority of the questions involved in specifying and using the equipment. Amendment may be used to round out the requirements.

4.0 **OVERVIEW DEFINITION:**

4.1 The LOD OVEN shall have the following features:

- 4.1.1. The LOD OVEN shall have control switch for operations.
- 4.1.2. The LOD OVEN shall have Circulation Blower fan motor.
- 4.1.3. The LOD OVEN shall have insulation thick puff.
- 4.1.4. The LOD OVEN shall have chemical resistant inside MOC and gas kits.
- 4.1.5. The LOD OVEN must be factory tested before installation.
- 4.1.6. The LOD OVEN shall have SS perforated trays.
- 4.1.7. The LOD OVEN shall have a port for the validation purpose.
- 4.1.8. The LOD OVEN shall have a forced air circulating system with fan for better uniformity of temperature.
- 4.1.9. The LOD OVEN shall have Temperature controlled by Microprocessor based Digital Temperature controller.
- 4.1.10. The LOD OVEN shall have temperature controlled PT 100 as sensor & safety thermostat supplied with SS wire mesh shelves & silicon.



QUALITY CONTROL DEPARTMENT

USER REQUIREMENT SPECIFICATION Name of Item: LOD Oven Protocol No.: Functional Area: Ouality Control Page No.: 5 of 7 4.2 The LOD OVEN shall be used for: For the incubation plates, culture slants. 4.3 **Technical Specifications:** 4.4.1 Capacity 90 liters : 4.4.2 **Temperature range** Room temperature to 150 °C : $\pm 0.2^{\circ}C$ 4.4.3 Accuracy : 4.4 The machine is to be used at the following environmental conditions: **4.4.1** Temperature : AMBIENT **4.4.2** Relative Humidity AMBIENT : **Base Utilities Available:** 4.5 Electrical Single Phase, 230V <u>+</u>10 % 50 HZ :

5.0 OPERATIONAL REQUIREMENTS

5.1 OPERATION:

The instruments operation shall be safe, smooth both from user and environmental standpoint.

5.2 POWER FAILURE/RECOVERY:

In the event of a power failure, the system shall shut off automatically. The system will starts automatically after getting the electricity and start functioning according to previous setting.

5.3 SAFETY FEATURE:

The system shall be stop safely in emergency.

5.4 ALARMS AND WARNINGS:

The system shall have an Emergency alarming facility. Incase any parameter goes up or down from set parameter. The LOD OVEN should produce wipe sound until further command received or all set parameter comes within the set parameter.



QUALITY CONTROL DEPARTMENT

USER REQUIREMENT SPECIFICATION

Name of Item: LOD Oven	Protocol No.:
Functional Area: Quality Control	Page No.: 6 of 7

6.0 SALIENT FEATURES

6.1 COMPATIBILITY AND SUPPORT

ELECTRIC CONTROL:

The Supplier shall utilize PID controller that shall include a communication port.

UTILITIES:

The Supplier shall specify utility requirements. The User shall ensure that the utilities are available and that the utility supply lines and piping are terminated with fittings or connections.

6.2 MATERIAL OF CONSTRUCTION:

Outer side	: Stainless Steel 304 with buff polish
Inner side	: Stainless Steel 304 Mirror Polish
Racks & Trays	: Stainless steel 316 with mirror polish

7.0 MAINTENANCE

Do's and Don'ts to be provided

- 7.1 Preventive maintenance system and checks to be provided (Maintenance and operation manuals of vendor equipment)
- 7.2 A comprehensive lubrication list and recommended lubrication schedule
- 7.3 A comprehensive recommended maintenance (regular recommended inspection intervals, wear points, recommended spare parts list)
- 7.4 Supplier shall supply 2 Copies of Operation, Installation, and Maintenance manuals., DQ, Electrical drawing

8.0 DELIVERY:

The B O D with all options, equipment, and the documentation listed below, shall be delivered to Client site. Delivery should be confirmation of the purchase order.

9.0 DOCUMENTATION

- 9.1 The Supplier shall provide the documentation for preliminary review. The Supplier shall provide documentation reflecting "as-built" condition with final delivery.
- 9.2 All final documents shall be shipped with transmittals that identify them as contractually required documents. All final documents and drawings shall reflect "As-Built" condition.
- 9.3 All documents shall be in English language and supplied with hard copies and supplied in the format



QUALITY CONTROL DEPARTMENT

USER REQUIREMENT SPECIFICATION

Name of Item: LOD Oven	Protocol No.:
Functional Area: Quality Control	Page No.: 7 of 7

identified for each document:

- 9.4 Design qualification
- 9.5 Installation Qualification
- 9.6 Operational Qualification
- 9.7 Maintenance and service manuals
- 9.8 Instrument listing
- 9.9 Material of construction