

DATA SHEET

HLL BIOTECH LIMITED, CHENNAI

inno:pharmaplan

REVIVAL OF DPT VACCINE MANUFACTURING FACILITY, PII, COONOOR

TOC Analyser

Project No : 110831

Equipment ID : TOC 01

Document No : DS/TOC 01



1	Process requirements	
1.1	TOC is the amount of carbon in an inorganic compound indicative of water quality, TOC analyser is an analytical equipment for monitoring carbon content in the given sample.	
2	Technical Specifications	
2.1	Measuring range	0.05 to 10000 µg/ ml
2.2	sample Volume	vendor to specify
2.3	Sample type	Liquid
2.4	Measurement accuracy	± 2%
2.5	Sensistivity	0.01 µg/ ml
2.6	Initial response time	< 60 secs
2.7	Measuring time	Maximum upto 5 minutes
2.8	Measurement modes	TC, TOC, TIC
2.9	Ambient temperature	10 °C to 40 °C, Sample temperature
2.10	Sample temperature	1 °C to 95 °C
2.11	Temperature accuracy	0.25 °C
2.12	Humidity	5 to 80 %, non condensing
2.13	Carrier gas	vendor to specify
2.14	Dimensions	vendor to specify
2.15	Power requirements	vendor to specify
2.16	PC specifications	vendor to specify
2.15	Quantity	1 no.
3	Material of Construction	
3.1	Enclosure material	Poly carbonate pastic, flame retrdant, UV and chemical resistant
4	Specific requirements	
4.1	Equipment should be provided with suitable detector to measure absolute mass amount of carbon di oxide resulting from sample combustion.	
4.2	The system shall disaplay TOC temperature and conductivity.	
5	Other requirements	
5.1	Automatic power off after electric furnance cools down.	
5.2	Should be able to store backup for previous calibrations.	
5.3	UV lamp/ LED lights and sensor status for local indicators	
5.4	Shall have measurement reliability for real time analysis of sample by eleiminating sensitivity to pressure change	
6	Regulatory aspects	
6.1	CE compliant	
6.2	Should meet ASTM standard test methods for online monitoring of carbon compounds in water by UV light oxidation.	
6.3	A comrehensive training programm for the operator should be provided	

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7 Safety requirements

- 7.1 Following facilities must be provided to protect personnel and equipment:
- 7.2 Emergency stop function on accessible area.
- 7.3 Alarming sensors should be provided.
- 7.4 The heat given off by the unit must be stated.
- 7.5 Arrangement of alternative power supply (UPS) to control and monitoring system.

8 Documents

- Following documents, but not limited to these, are expected from the vendor as part of the supply package in hard copy as well as editable electronic file**
- 8.1 IOQ Protocol.
 - 8.2 Operation and maintenance manuals shall be provided along with IQ and OQ documents during installation at site
 - 8.3 Calibration certificate of critical instruments with respect to the traceable national reference standard instrument and their calibration procedure.
 - 8.4 All equipment warranty should be valid for one year from the date of completion.
 - 8.5 Vendor should provide list of standard spare parts with ordering information.
 - 8.6 Vendor should provide list of change parts (if applicable) with ordering information

9 Timelines

Not Applicable

		AFI Approved for Enquiry		AFO Approved for Ordering		
		<i>blu</i>		<i>Pulley</i>		
01	09-09-2015	NRU		PULM	<input type="checkbox"/>	<input type="checkbox"/>
Rev	Date	Completed By		Checked By	AFI	AFO

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TABLE NO: 1

Equipment Id	Block Name	Room Name	Room No	Quantity
M1-TOC-01	Sterility Media Preparation and Microbiology	Lab	M1G039	1

	AFI Approved for Enquiry		AFO Approved for Ordering			
		<i>[Signature]</i>	<i>[Signature]</i>			
01	09-09-2015	NRU	PULM	<input type="checkbox"/>	<input type="checkbox"/>	
Rev	Date	Completed By	Checked By	AFI	AFO	Sheet 2/2