



# Birla Institute of Technology & Science, Pilani

K K Birla Goa Campus

Purchase Division

## REQUEST FOR QUOTATION

GSTIN: 30AAATB2599R1ZC

Enquiry No: BPGC/DBT Builder/Inquiry/2022-23 /003

Date: 26/10/2022

BITS PILANI K.K. BIRLA GOA CAMPUS invites quotations for the supply of below mentioned item.

Sr. No.	Description of Items	Qty
1.	<p><b><u>50L Fermenter:</u></b></p> <p>Scale-up from 250 ml to 40 L on a wide variety of autoclavable / Single-Use Bioreactors.</p> <p>Auto culture modes offer process control for microbial and cell culture applications at the touch of a button.</p> <p>Ready for process. Unbox and install in minutes.</p> <p>Save critical lab space with a minimal footprint.</p> <p>Flexible universal connections for analog sensors or digital Mettler Toledo ISM sensors offer unsurpassed flexibility.</p> <p>Steam Generator Unit</p> <p>User-defined DO cascades offer process flexibility.</p> <p>Air Compressor</p> <p>Oxygen Generator</p> <p>Automatic gas mixing algorithms for simplified control</p> <p>View your entire process with expanded trend screen.</p> <p>Access your data from anywhere with SCADA, IP network, and remote monitoring capabilities.</p>	1

### Terms and conditions:

1. Quotation must be valid for at least 90 days.
2. The GSTIN should invariably be mentioned in your offer.
3. Kindly attach a GST certificate and PAN card copy along with the quote.
4. Prices:
  - i. In case of multiple options of same product, bidders are requested to quote only one best option and not multiple options.
  - ii. Payment terms: Within 30 days after the delivery and installation of the item at BITS Pilani K. K. Birla Goa Campus.
5. Delivery and installation should be made within 4 - 6 weeks of getting a confirmed order.
6. The suppliers shall provide the banking details along with their quote on their letterhead duly signed and stamped.



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7. Quotations shall be submitted as below;

Quotation should contain all the technical details and specification of the product. It should contain price along with terms and conditions, compliance certificates, proprietary certificates (if applicable), any other certificates/details etc. Quotation should have file name as: inquiry\_2022\_vendorname.doc in word format.

8. For any clarification, you may kindly contact Prof. M. Srikanth (email: [procurement@goa.bits-pilani.ac.in](mailto:procurement@goa.bits-pilani.ac.in)) till 10/11/2022.

9. All quotations must reach to the Purchase Manager, BITS PILANI K.K. BIRLA GOA CAMPUS, 403 726 by 17.00 Hrs on or before 10/11/2022.

Purchase Office



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## Annexure:

Sr. No.	Specifications and Components: (Basic)	
1	Bacteria/Yeast/Fungi	yes
2	Insect	yes
3	Interchangeable Vessels	yes
4	Mammalian/Animal	yes
5	Plant/Algae	yes
6	Power supply	IEC-C14 (with regional plug types); 100 – 120/208 – 240 ( $\pm 10\%$ ) V, 50/60 Hz, 10 A, Single Phase
7	Stem cells	yes
8	Validatable	yes
9	Water supply	Quick-connect; 10 psig (0.69 barg)
10	Number of parallel units	Single unit
11	Communication	2 × USB (software updates, serial communication) Ethernet (SCADA, IP Network)
12	User Interface	7 in projected capacitive touchscreen
13	Power supply	100 – 120/208 – 240 V $\pm 10\%$ , 50/60 Hz
14	Dimensions (W × D × H)	
15	Weight w/o accessories	
16	<b>General Requirements</b>	Glass/single-use vessels (40-50L) or GMP Grade SS Vessel (40-50L)
		Temperature Control
		pH, DO, Foam Control
		Agitator and Sparger
17	Total Capacity	40L - 50L
18	Maximum Working Capacity	32-40L
19	Minimum Working Capacity	10L
20	Jacket Volume	4.3L
21	Jacket Type	Simple
22	Top Head	Flat Plate
23	Bottom Head	ASME Hemispherical
24	Vessel Design Pressure	40.0 PSIG / 2.76 bar @149°C, full vacuum
25	Jacket Design Pressure	50 PSIG / 3.45 bar @149°C
26	Hydrotest Pressure Vessel	66 PSIG / 4.55 bar
27	Hydrotest Pressure Jacket	106 PSIG / 7.31 bar
28	Vessel Design Temperature	-4°F - 300°F / -20°C - 149°C
29	Jacket Design Temperature	-4°F - 300°F / -20°C - 149°C
30	Product Contact/Interior Surface	<15 $\mu\text{in}$ (0.38mm) Ra., EP & Nitric Passivated (SF4)
31	Exposed External Surface Finish	<30 $\mu\text{in}$ (0.76mm) Ra. & Nitric Passivated (SF3)

In case of SS Vessel



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32	Utility Skid	The piping for utility steam, process steam, water, process air, instrument air and other process gases is located on a skid-mounted piping module and offers the following features
33	Gassing (Gas Supply)	Push-connect fittings accept 1/4 in tubing or hose barb fitting; Autoclavable vessels: 10 psig (0.69 barg), Single-use vessels: 6 psig (0.44 barg)
34	Monitoring and Control	HMI and PC Control (Remote Access)
35	Exhaust condensation	Water-cooled or Electric heater band
36	Controller	Adjustable color touch screen display provides the operator interface for controlling the system. Integration of auxiliary equipment or control software is easily managed through conveniently placed serial, USB, and analog inputs and outputs connections.
37	Automated Sterilization	A user defined sterilization program is used to automate the valve operation required to sterilize the vessel, and piping within the sterile envelope. The sterilization program can be used to perform both full vessel and or empty vessel sterilization cycles.
38	Pumps	Variable Speed Pump
39	Aeration System	Filtered, regulated, process air will be piped to the skid (by end user) and connected to a manifold outside the sterile barrier.
40	Gas Flow Control and Gas Mix	Cascade option
41	Pressure Control	
<b>Components and Accessories</b>		
42	Variable-Speed Pump	
43	Tri-port	
44	Septum Kit	
45	Compression	
46	Blind Plug	
47	Vessel connection kit	
48	Electrolyte Solution	
49	<b>Batch Control</b>	HMI and PC Control (Remote Access)
50	Polyurethane Tubing	
51	Rotameter Kit	
52	Gas Regulator Tower / Pressure Regulator Kit	
53	Addition Vessels and Bottles	Autoclavable assemblies designed for process additions of acid, base, antifoam, nutrient or any other solutions. They can also be used to collect product or waste from a continuous process.
54	pH Sensors	
55	DO Sensors	
56	Exhaust Condenser	
57	Secondary pH/DO/Redox Transmitter	
58	Redox Sensor	
59	Foam/Level Detection	
60	Sterile Sampling Kit	



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61	Steam Generator	
62	Oxygen and compressed air generators	
63	<b>Documentation</b>	IQ, OQ, PQ

