

NATIONAL INSTITUTE OF SCIENCE EDUCATION AND RESEARCH, JATNI
Notice Inviting E-Tender No. NC-000006-CH1807-19-20

Vendor Name		Heidolph	BUCHI	Discovery	KAF
SL. No.	Rotary Evaporator Complete set up				
	Rotary Evaporator (ISO and CE certified)	Yes	Yes	No	No
	1. Rotary Evaporator with hand lifts provisions or motorized or electronics.	Yes	Yes	Yes	Not Specified
	2. 1 liter Evaporating flask and 1 liter receiving flask should be come as a standard.	Yes	Yes	Yes	Not Specified
	3. Evaporating flask from 50ml-5000 ml or better.	Yes	Yes	No	Not Specified
	4. Height Adjustment provision for evaporating flask from 150 ~160 mm.	Yes	Yes	Yes	Not Specified
	5. Display: LCD display, shows temperature, rotation speed, set and attainable vacuum and have the timer functions.	Yes	Yes	Yes	Not Specified
	6. Speed : 20-280 rpm or better.	Yes	Yes	Yes	Not Specified
	7. Integrated vacuum controller having the provision for vacuum program which helps to find the pressure level for the first boiling point automatically.	Yes	Yes	No	Not Specified
	8. Heating bath with precise temperature control ambient to 200°C having capacity more than 1000W or better.	Yes	Yes	Yes	Not Specified
	9. Heating bath material of bath volume 4 liter or more should be made of stainless steel which can accommodate up to 5litre Evaporating flask. Handles and drain spout should be available for safely remove the heating bath media.	Yes	Yes	No	Not Specified
	10. Heating bath with safetyBath Temperature Accuracy: $\pm 1^{\circ}\text{C}$.	Yes	Yes	Yes	Not Specified

11. Safest bath will power off if temperature overshoots by 5°C or runs in dry and a separate ON/OFF switch for heating for events unintentional heat up. Secondary over temperature cut-off at 250° C.	Yes	Yes	Not mentioned in technical sheet	Not Specified
12. Chemical resistant system, vertical condenser with condensate surface of 1400 cm ² or more. Necessary Stand with clamp to support condenser should come as a standard supply.	Yes	Yes	No	Not Specified
13. Preferably detachable operating panel which helps to operate the system inside the fume hood.	Yes	Yes	No	Not Specified
14. All parts which are in contact with the media should be consist of GRAPHITE filled PTFE.	Yes	Yes	Yes	Not Specified
15. PTFE vacuum seal with FKM O-rings provides high resistance to chemical which reduces the frequent replacement of vacuum seal or better features.	Yes	Yes	No	Not Specified
16. Precise vapor tube with proper sleeve to add more strength and easily removes from drive after a long run of use.	Yes	Yes	No	Not Specified
17. Provision for ventilation and replenishment valves better not have the ground joints which could helps to reduce the vacuum leakage and also prevents from frequent glass breakage or better features .	Yes	Yes	No	Not Specified
18. Electrical Supply as per Indian Standard.	Yes	Yes	Yes	Not Specified
19. Protection Class – IP 20 or better.	Yes	Yes	Yes	Not Specified
Vacuum Pump (ISO and CE certified)	Yes	Yes	No	Not Specified
1. Two Staged oil –free, clean vacuum pump, chemical resistant diaphragm type universal vacuum pump can be used for any other application in laboratory irrespective of rotary evaporator.	Yes	Yes	Yes	Not Specified
2. Vacuum range less than or equal to 7 mbar.	Yes	Yes	Yes	Not Specified

	3. Suction capacity of 1.8 to 2.0 m ³ /h.	Yes	Yes	Yes	Not Specified
	4. Vacuum could be controlled via valve operated vacuum controllers.	Yes	Yes	Yes	Not Specified
	5. Sound pressure level up to 1 m distance--40-45 dBA or better .	Yes	Yes	Yes	Not Specified
	6. Electrical Supply as per Indian Standard	Yes	Yes	Yes	Not Specified
	7. Protection Class – IP 40 or better.	Yes	Yes	No	Not Specified
	Re-circulating Chiller (ISO and CE certified)	Yes	Yes	No	Not Specified
	1. Temperature ranges from -10°C to +25 °C.	Yes	Yes	Yes	Not Specified
	2. Temperature Control Accuracy: ±1 °C.	Yes	Yes	Yes	Not Specified
	3. Digital display of actual and set temperature.	Yes	Yes	Yes	Not Specified
	4. Cooling Capacity at+ 15°C should be 550 W.	Yes	Yes	Yes	Not Specified
	5. Maximum Pressure Flow Rate: 2-10 liter/min or better.	Yes	Yes	No	Not Specified
	6. Electrical Supply as per Indian Standard.	Yes	Yes	Yes	Not Specified
2	Warranty: 03 year on-site comprehensive warranty	Yes	Yes	Yes	Yes

Note: KAF International did not provide any detailed information in any form and they did not mention/specify any model. However, they did provide many useless documents. 1 model specified by Discovery does not meet all the specification. The models quoted by Heidolph and Buchi satisfy all specifications.

Following is my recommendation:

Heidolph: Qualified, Buchi: Qualified, Discovery: Disqualified and KAF: Disqualified

Bidvaha Bagh