

Technical Specifications for a Refrigerated & Heating circulator

We need a Refrigerated & Heating circulator with the following specifications. The Refrigerated & Heating circulator should allow us to work between - 50 to +150 0C with a single fluid/oil. We do not want the circulators working with multiple fluids/oils to attain the above said temperature range..

I) Bidder Eligibility

Bidder Eligibility	Compliance Yes/ No
The Bidder should have supplied at least 5 such or similar systems to IITs, NITs, IISERs, CSIR Labs or other Govt. R&D organizations in the past 1 year. and the necessary proof such as Installation/PO copies along with contact details of end user should be provided for verification. IITM reserve rights to obtain feedback from the End users and also to disqualified based on the inputs/comments from end user.	

II) Technical Specification

S.No	Description		Comply / Not Comply	Reference Page No.	Remarks if any
1.	Temperature range	- 50 to +150 deg C			
2.	Temperature stability	+/- 0.01 deg C			
3.	Temperature Selection	Touch touch Screen (TFT)			
4.	Temperature display	Digital LED / TFT -LCD			
5.	Temperature selection	Multiple selection points			
6.	Temperature calibration	RTTC inbuilt			
7.	Temperature control	Adaptive PID control			
8.	Temperature sensor	Pt 100 or equivalent			
9.	Auto start	Enables, parameter call back			
10.	Refrigeration system	Air cooled			

11.	Refrigerant	with EPA approved Refrigerant			
12.	Operating Panel	TFT Splash Proof			
13.	Programmer	Integrated			
14.	Interface	USB / RS 232			
15.	External sensor	Pt 100			
16.	Cooling capacity	~ 1000 W at + 20 deg C ~550 W at 0 deg C ~450 W at – 20 deg C ~300 W at – 30 deg C ~170 W at – 40 deg C			
17.	Bath Filing Volume	8-10 liters			
18.	Pumping capacity	20 LPM / 2/3 atm			
19.	Warranty	24 months			
20.	Certification	CE & ISO			
	Safety Features				
21.	Low liquid level alarm & shutdown				
22.	Excess temperature protection with early warning signal				
23.	Optical & audible alarm in case of fault/malfunction				
24.	The unit should be delivered at the chemistry department of the institute, installed by the company technical person and demonstrated				

(Note: It is mandatory for the bidders to provide the compliance statement in tabular column format along with catalogue page number (comply/not comply) for the Above points with document proof as required. Failing which bidders will be technically disqualified).