

ANNEXURE - III

Bidder Eligibility criteria I	Complied/ Not Complied	Ref. Page No.
The bidder/OEM should have supplied at least 3 similar items to IITs, NITs, IISERs, CSIR Labs or other Govt. organizations in the last One year, PO copies or installation certificates along with contact details of end user need to be submitted as the proof of supply. IIT Madras reserves its right to verify the claims submitted by the bidder and the feedback from the previous customers will be part of technical evaluation.		

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 °C with a single fluid/oil. We do not want the circulators working with multiple fluids/oils to attain the above said temperature range.

The general specifications are given below:

Specification	Complied/ Not Complied	Ref. Page No.
a. Temperature range : - 50 to +150 deg C		
b. Temperature stability : +/- 0.01 deg C		
c. Temperature Selection (TFT) : Touch touch Screen		
d. Temperature display : Digital LED / TFT -LCD		
e. Temperature selection : Multiple selection points		
f. Temperature calibration : RTTC inbuilt		
g. Temperature control : Adaptive PID control		
h. Temperature sensor : Pt 100 or equivalent		
i. Auto start back : Enables, parameter call		
j. Refrigeration system : Air cooled		
k. Refrigerant : with EPA approved		

Refrigerant		
l. Operating Panel : TFT Splash Proof		
m. Programmer : Integrated		
n. Interface : USB / RS 232		
o. External sensor : Pt 100		
p. 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		
q. Bath Filling Volume : 8-10 liters		
r. Pumping capacity : 20 LPM / 2/3 atm		
s. Warranty : 24 months		
t. Certification : CE & ISO		
Safety Features		
u. Low liquid level alarm & shutdown		
v. Excess temperature protection with early warning signal		
w. Optical & audible alarm in case of fault/malfunction		

The installation and demonstration is required by the company technical person.

(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)