Specifications for End Suction Centrifugal Pumps with accessories

1. **Introduction**

The End suction centrifugal pumps with accessories will be used for circulating chilled water in the existing clean room plants at Semiconductor Materials Laboratory (SML) of RRCAT, Indore.

2. **Scope of supply**

The scope of the tender includes the supply, installation, testing and commissioning of End suction centrifugal pumps (02 Nos) with accessories including butterfly valves (08 Nos) and Tee (02 Nos) of appropriate flow diversion in the already existing chilled water pipelines.

3. **Bidder's Qualification Criteria**

The bidder should be either an original equipment manufacturer (OEM) or its authorized representative/dealer. Authorized representative/dealer should submit along with its bid, a valid authorization letter from the OEM.

4. **Bid Evaluation Criteria**

4.1 The bidder should quote for the complete item i.e. End suction centrifugal pumps with accessories, installation and commissioning as mentioned in the scope of the supply.

4.2 The bidder should provide point wise compliance of their offer in the enclosed compliance sheet. The compliance table should include the numbers/ values against each specified parameters wherever applicable.

4.3 All technical literature/catalog pertinent to End suction centrifugal pumps should be provided along with the quotation.

5. Item description

Sr. No.	Item	Quantity
1	End suction centrifugal pumps	02 Nos.
2	Tee	02 Nos.
3	Butterfly valve	08 Nos.

6. **Technical Specifications**

Technical specifications of the End suction centrifugal pumps with accessories are as follows:

End Suction Centrifugal Pumps

Pump Type	:	End suction centrifugal pumps
Working medium	:	Chilled water with ethylene glycol 10%
Temperature	:	5 °C to ambient

Inlet connection	:	65 mm to match with the existing lines
Outlet connection	:	50 mm to match with the existing lines
Typical flow rate	:	60 cmh (Cubic metre per hour)
Typical working Pressure	:	26 metre WG (Water Gauge) Minimum
Material of construction	:	Housing- Cast iron, Impeller- Cast iron or bronze
Power supply	:	415V, 50 Hz, 3 phase

Tee

Tee should have inlet and outlet matching with the above End Suction Centrifugal Pumps with following specifications

Type	Equal Tee
Material of construction	Alloy steel
Size	80 mm

Butterfly valves

Butterfly valves should be matching with the existing chilled water lines and should have following specifications

Size	:	80 mm
Class	:	PN 10
Body	:	Alloy steel
Disc	:	Stainless steel
Seat	:	EPDM (Ethylene Propylene Diene Monomer)
Flanges	:	PN 10 / PN 16

7. Special Notes for Vendors

7.1 Vendors are welcome to visit the site at RRCAT to evaluate the exact requirement prior to offering their bids.

7.2 The offer should include all the above items and also the installation and commissioning of the items. Incomplete offer or offers without including Installation and commissioning are liable to be rejected.

7.3 Any other item deemed to be necessary for the successful completion of the job should invariably be included in the offer.

7.4 All the offered items should have a minimum warranty of 1 year from the date of acceptance at RRCAT.

8. Acceptance Criteria

The vendor has to demonstrate the performance of the offered items after the installation and commissioning at RRCAT site. The supply shall finally be accepted after satisfactory demonstration at RRCAT site.