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Corrigendum I
PR No.1000011785 (RFx No.6100000183)
Pumps for Sputtering Chamber

Please Note that Technical Specifications are modified and Due Date is extended for RFx No.6100000183 Pumps for Sputtering Chamber.

Sr. No.	Technical Specification and Online RFx Clause	Previous Clause	Changed Clause
1.	Bid Submission End Date & Time of Submission (Online RFx Clause)	24.10.2019 at 13.00	01.11.2019 at 13.00
2.	Bid Opening Date & Time (Online RFx Clause)	24.10.2019 at 15.00	01.11.2019 at 15.00

Joint Registrar (MM)



INDIAN INSTITUTE OF TECHNOLOGY BOMBAY
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Revised Specifications for pumps for UHV sputtering chamber

1. Magnetically levitated turbo molecular pump

- Inlet flange – DN200CF
- Pumping speed:
 - Nitrogen – at least 1000 l/s
 - Hydrogen – at least 800 l/s
- Desired compression ratio:
 - Nitrogen – at least 10^8
 - Hydrogen – at least 10^5
- Ultimate Pressure in chamber must be in the order of 10^{-10} torr
- Maximum continuous outlet pressure – 0.1 torr
- Maximum pump speed rating - at least 35000 rpm
- Maximum inlet flange temperature - 120°C
- Must be completely oil free
- Must be water cooled
- Must come with appropriate power cable with length at least 5 metres

2. Rotary vane pump (1 phase supply)

This pump will be used for backing the above turbo pump and for roughing the chamber.

- Minimum Displacement volume:
 - At 50Hz – at least $32\text{m}^3/\text{hr}$
 - At 60Hz – at least $38\text{m}^3/\text{hr}$
- Minimum speed:
 - At 50Hz – at least $27\text{m}^3/\text{hr}$
 - At 60Hz – at least $33\text{m}^3/\text{hr}$

- Ultimate vacuum while roughing:
 - Without gas ballast – at least till $1 \cdot 10^{-3}$ mbar
 - With Gas ballast – at least till $2 \cdot 10^{-2}$ mbar
- Inlet connections – NW25 flange
- Outlet connection - Nozzle 15 mm external \varnothing removable from 3/4 in BSP tapped hole
- Maximum allowed pressure at outlet – 0.5 bar
- Max inlet pressure for water vapour – 30 mbar
- Minimum water vapour pumping rate – 0.7 kg/hr
- Must be operational in the temperature range 15 to 40°C
- Nominal rotation speed:
 - At 50Hz – at least 1400rpm
 - At 60Hz – at least 1700rpm
- Must include power cable, mist filter and spare oil for at least 1 refill