



सामग्री प्रबंधन प्रभाग
भारतीय प्रौद्योगिकी संस्थान मुंबई
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Addendum I

Purchase Requisition No. 1000013327 (SRM / RFX No. 6100000260)

The added specifications to the earlier specifications mentioned in the tender, please note these are additional requirements to whatever mentioned in original tender document.

1. An additional deep type thermocouple to be included to know the melt temperature better, this is in addition to whatever mentioned in the initial tender document.
2. There should be a cup type material addition mechanism in to the melt, this will be for point 7 mentioned in the original tender document specifications.
3. The mold heating should be provided up to 500°C.
4. **Induction Melting Power supply unit.** Should be preferably of International and reputed make. Induction power supply of 25-30 KW with 10000 Hz frequency. Power supply should be provided with all controls, safety Interlocks and ease of operation for Induction melting of alloys/Metal specified in technical specification. Should be operated at standard 3 phase, 415 volt, 50Hz with a power factor of 0.95 and above, at all power level. The Induction power supply should be capable to melt the charge of 2 kg or 5 kg or 10kg of Alloys/Metal. Melting time for 10kg metal should not be more than 20-22 minutes.
5. **Induction Melting Coil:** The Induction Coil made from Higher electrical conductivity Copper, should be an Interchangeable type with other similar or lower capacity coil. Interchanging or replacement of Coil should be less than one hour time. These induction melting coils should be fitted to a common co-axial feed through and manual tilting lever. At the other end of Co-Axial power feed through a set of flexible power leads to connect up to the Induction melting power supply unit. These melting coil units would be supported from their base by a bracket attached to the coaxial feed through. The melting coil and tilting assembly should be designed for manual rotational pour of the molten metal. The different required cooling coils as mentioned above i.e. of 2 kg, 5 kg and 10kg melting should be included in the commercial bid in the price of the equipment.
6. The ultimate vacuum should be achieved with the quoted pumping systems in maximum of 15 minutes. Preferably International well recognized brand pumps should be quoted.



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7. There should be least degassing from the melting chamber, the bidder should mention what measures have been taken to ensure that
8. All the International pressure vessel norms need to be followed while designing the melting chamber and these should be shared in the technical bid to justify the values take for e.g. thickness etc.
9. Chiller /water recirculator/ cooling water supply should be included in the commercial bid.
10. All the required accessories including gaskets, or rings, oils, crucibles, gauges, sensors or any other required accessories should be included by the bidder considering at least 100 operations of melting.
11. There should not be any other expenses or hidden charges or accessories that need to be purchased beyond the final prices budgeted and should not be asked at the time of installation or later.
12. All the operating manuals for the sub components and equipment in the entire setup should be provided. These includes vacuum, recirculator, power supply etc.
13. A Warranty of three years should be included for the entire setup of Induction melting furnace.
14. All the installation, commissioning and training cost should be included in the price bid
15. A user list should be included and five reference letters from the users where the bidder has supplied induction furnace in past has to be included. Based on the feedback in these five letters the decision by the user will be taken. An order copy (without pricing) of these five supporting customers should be included in technical bid. Please note without these letters (with contact details included) from customers the technical bid will be rejected. These should be operating at the installed places mentioned in these letters for at least five years.
16. The induction furnace supplied by the bidder should be referred in peer reviewed papers, a support of this should be included in the technical bid.

for *S. Sankar*
Joint Registrar (MM)