

Tender for Procurement of Hot Rolling Cylinder Press

IIT-Madras is looking for a hot rolling cylinder press for preparing battery electrodes. The following technical specifications should be met, to qualify the technical bid. A detailed compliance statement should be provided and it should be supported by the manufacturers (OEM) product brochure or website. Information provided in the supplier/redistributor/vendor/reseller's brochure or website cannot be considered as supporting document. Technical bids without proper compliance statement will not be considered. The bidder should be an Original Equipment Manufacturer or their authorized vendors/dealers/partners. If vendors/dealers/partners are participating in the bidding, an authorization certificate should be provided.

The system should meet the following technical requirements

1. Roller width should be at least 100 mm to roll at least 95 mm width
2. The cylinder diameter should be at least 92 mm or above
3. The rolling gap thickness should be adjustable between 0 and 1.2 mm
4. Dial Gauge Accuracy should be at least 0.015mm
5. Minimum thickness that can be rolled should be 0.03 mm or lower
6. The roller should have heating provisions with the following specifications
 - a. Two independent temperature controllers with independent heating elements to enable dual-zone temperature control for the upper and lower rollers should be provided
 - b. Should reach 200°C maximum in less than one hour.
 - c. Should be able to operate at 150°C continuously
 - d. Power require for each heating element should be at between 400W and 500W
 - e. The temperature controller should be able to control temperature with +/-1°C accuracy
7. Motor & Rolling Speed:
 - a. A high torque motor (24 V DC or better) with reducing gear should be provided
 - b. A digital speed indicator display should be provided
 - c. The rolling speed of 0~25 mm /sec or 1.5 meter/ minute
 - d. Rockwell surface hardness of rollers should be 60-62 (HRC scale)
8. The machine should be capable of operating in inert atmosphere for use inside glove box.
9. Feeding boards made of PTFE should be provided
10. Optional component: In the future, the instrument should have a provision to upgrade for roll to roll system for a table-top calendering machine with a roller width up to 200 mm or more.
11. Warranty: Should provide at least 1 year warranty.
12. Installation and training should be done onsite.
13. At least two similar installations should have been made in the past five years.