

**Technical Specification**

**STT-0074**

**Disc Tilting Machine**

1. **Purpose:** Disc tilting machine is required for tilting of steam turbine rotor disc. Disc is put on the top platform of the machine in horizontal position. The disc is tilted to vertical position. The disc is taken out & reversed along vertical axis using overhead crane and again put back on the machine on vertical position. Subsequently, the disc is tilted back to horizontal position by machine.

2. **Broad specification**

- a. Height of the top plate from shop floor : 2200mm.
- b. Load bearing capacity of top plate & machine : 3 Ton ( minimum)
- c. Bore diameter of Disc : 425mm to 605 mm
- d. Diameter of bladed disc : 1550mm to 3000mm
- e. Power Supply requirement : vendor to inform
- f. Motor capacity : vendor to inform

**Note:** Drg. of existing machine is attached at annexure-1 for reference. Dimensions given in the drg. are indicative however, top platform height i.e. 2200 mm must be maintained.

3. **Other Requirements**

- a. Electric Motor should be of reputed make like ABB, Siemens, Crompton Greaves & Kirloskar.
- b. Complete structure should be well supported & equipped with fixed ladders to facilitate movement of machine operators up & down.
- c. Railing for safety purpose as shown in the drg, to be provided.
- d. Complete structure should be of steel ( fabricated or casted) ensuring full rigidity & safe handling of disc.
- e. Vendor to give the detail of area ( LxWxH) to be occupied by machine.
- f. Vendor to give total weight of the machine.
- g. Tilting mechanism should be motorized with safe speed without any jerk.
- h. Drg of one of the disc & photograph of existing machine are enclosed for reference.
- i. Vendor should discuss the application & visit at BHEL, Hardwar for understanding application to avoid gaps/problems at later stage.
- j. Submission of mutually agreed drgs of machine showing major dimensions & its application to meet specified requirement shall be one of the criteria for technical acceptance of offer.

*Shiv  
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k. Foundation drawing/ grouting details shall be provided by vendor after PO placement. Foundation or grouting of machine at shop floor shall be constructed/done by BHEL.

- 4. **Guarantee:** Vendor to provide the guarantee of supplied equipment for 18 months from the date of successful commissioning of machine.
- 5. **Pre-Despatch Inspection:** Pre-despatch inspection will be done by BHEL at vendor's works to ensure specification compliance. Vendor to give PDI call at least 15 days in advance to BHEL before start of PDI. During inspection machine specification & operation shall be checked by BHEL team. Boarding/ lodging & travel of team shall be borne by BHEL.
- 6. **Commissioning:** Vendor to carryout erection & commission the machine at BHEL works. Final acceptance will be made by BHEL after successful commissioning of the machine which shall include successful erection on foundation & demonstration of operation as per specified requirement using BHEL disc.

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