

HIGH PRESSURE HOT WATER AND STEAM JET CLEANING EQUIPMENT**1. PURPOSE:**

High pressure hot water and steam jet cleaning equipment is required for cleaning of Steam Turbine governing components & HP Turbines joint plane fasteners of supercritical sets using jet of hot water and steam to make the components free from dust, oil & grease.

**2. SPECIFICATIONS:**

2.1 Pressure range of hot water : 50 to 150 bar

(Infinity adjustable)

2.2 Water flow rate : 880 to 1760 litre /Hour.

(Infinity adjustable)

2.3 Hot water temperature : 30 to 150 degree c.

(Infinity adjustable)

2.4 Steam flow : 600-880 litre /Hour.

2.5 Volume of detergent tank : 2x20 litre

2.6 Volume of fuel tank : 45 litre or more.

2.7 Fuel for heating : Diesel

2.8 Weight : To be inform by the vendor.

2.9 The main unit shall be complete with the following:-

- a) High pressure hose 10 M long : 1 No.
- b) High pressure nozzle : 1 No.
- c) Electric cable 20 M long : 1 No.
- d) ¾" Water connecting coupling : 1 No.
- e) The unit is fitted with water structural unit for second spraying gun.
- f) Equipment to be portable and trolley mounted.

2.10 The machine should have following features:-

- a) Make of the water pump motor: Siemens/ABB/Crompton Greaves/Bharat Bijlee
- b) Make of the contactor/relay/PB: Siemens/ABB/Salzer
- c) Make of the selector switch: Salzer/Siemens/KayCee/Jyoti
- d) The equipment should conform to different safety standards.
- e) Hydraulic hose should be of reputed make to handle high pressure and high temperature steam.
- f) The supply voltage available in BHEL is 415V±5%, 3ph.+E (without neutral), 50Hz.
- g) The machine should have safety interlocks with respect to leakages.

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**3.0 SPARES (MANDATORY SPARE):**

Electrical and mechanical spares for two years of trouble free operation should be quoted separately detailing description of item, part no., and recommended quantity. Along with the other items following electrical spare to be included:-

- a) Contactor/Relay: 01 no. each type.
- b) PB/Selector switches/Pressure switch: 01 no. each type.
- c) Arc generator/Spark plug: 01 no. each type.
- d) Arc source/HT transformer: 01 no. each type.

**4.0 COMMISSIONING:**

Commissioning of the machine is to be carried out at BHEL Haridwar works, under the supervision of the supplier's representative, this should be confirmed in the offer.

**5.0 GUARANTEE/WARRANTY:**

Guarantee/Warranty of 24 months after successful commissioning of the machine at BHEL works to be provided by the supplier.

**6.0 MANUALS:**

6.1 3 Copies of operation and maintenance manual are to be supplied along with the machine. This should be confirmed in the quotation.

6.2 The document should have the detail list of bought out items.

7.0 Catalogue of the machine quoted, should be sent along with the offer.

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