**CORRIGENDUM**

**Enquiry No: M2106000001080/PGK (NIT No: 9394)**

**Description :ELECTRICALLY HEATED CNC HYDRAULIC PRESS– Qty: 1 SET**

**Extended due date for submission of offers 18.04.2012**

**Technical specification is revised as follows. All other conditions remain un-changed.**

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| **Sl. No.** | **Spec.**  **Sl. No.** | **Description** | **As per Original Specification** | **Modified AS** |
| 01 | 4.12.1.1 | Front press beams | 2 nos. of equal lengths | 4 nos. of 2100mm lengths |
| 02 | 4.12.1.2 | Rear press beams | 2 nos. of equal lengths | 4 nos. of 2100mm lengths |
| 03 | 4.12.1.5 | **Description of the Press Beams:** | The press box will consist of front and rear vertical pressing beam with provision of electrical heating and cooling duct for water cooling. Total effective heating length of front and rear beam, will be 8500 mm to heat up the effective pressed length 8400 mm of stator bar.  Total length of front and rear vertical pressing beam, preferably will be in **two** equal lengths to facilitate quick assembly on the press and easy to repair of these plates in case of maintenance. This feature will have option to operate one half (along the length) of the press if smaller length of job (pressed length of job up to 4200 mm) is processed, if situation demands.  Suitable capacity of long lasting and non-glowing electrical heaters are to be provided inside the front and rear pressing beam, to heat up the job as specified in sl.no. 3.2 above.  - Front and rear vertical pressing beam must be insulated thermally with suitable long lasting insulating laminate to prevent heat conduction from these beams to the body of the press.  - Suitable ducts are to be provided in each front and rear pressing beam, for water cooling of these pressing beams after completion of heating regime of the job as per sl.no. 3.2 above.  Normal drinking water will be provided by BHEL for cooling these pressing beams.  - BHEL will provide necessary water supply to the inlet header / one connection point of the press. Necessary pipe line from inlet header / Connection point to the front and rear vertical pressing beam is in the scope of supplier.  Flow and total quantity of water for front and rear vertical pressing beams, is to be indicated in the offer by the supplier. | The press box will consist of front and rear vertical pressing beam with provision of electrical heating and cooling duct for water cooling. Total effective heating length of front and rear beam, will be 8500 mm to heat up the effective pressed length 8400 mm of stator bar.  Total length of front and rear vertical pressing beam, will be in **FOUR** equal lengths to facilitate quick assembly on the press and easy to repair of these plates in case of maintenance. This feature will have option to operate one half i.e.4200mm, one-fourth i.e.2100mm OR two-third i.e.6300mm along the length of the press, if smaller length of job is processed, when situation demands.  Suitable capacity of long lasting and non-glowing electrical heaters are to be provided inside the front and rear pressing beam, to heat up the job as specified in sl.no. 3.2.  - Front and rear vertical pressing beam must be insulated thermally with suitable long lasting insulating laminate to prevent heat conduction from these beams to the body of the press.  - Suitable ducts are to be provided in each front and rear pressing beam, for water cooling of these pressing beams after completion of heating regime of the job as per sl.no. 3.2.  Normal drinking water will be provided by BHEL for cooling these pressing beams.  - BHEL will provide necessary water supply to the inlet header / one connection point of the press. Necessary pipe line from inlet header / Connection point to the front and rear vertical pressing beam is in the scope of supplier.  Flow and total quantity of water for front and rear vertical pressing beams, is to be indicated in the offer by the supplier. |
| 03 | 4.12.2.1 | No. of Intermediate Heating Plates | 12 nos. of Equal lengths. | 6 nos. of 4200mm lengths and 12 nos. of 2100mm lengths. |
| 04 | 4.12.2.4 | **Description of Intermediate heating plates:** | Intermediate Heating plates with electrical heating are to be provided for stack consolidation of the stator winding bar.  Total effective length of heating of the intermediate heating plates will be 8500 mm to heat up the maximum effective pressed length 8400 mm of stator bar.  Total length of intermediate heating plates, will be in two equal length to facilitate quick assembly on the press and easy to repair of these intermediate heating plates in case of maintenance. This feature will also lead to the option for operating one half (along the length) of the press if smaller length of job (pressing length of job up to 4200 mm) is processed, if situation demands. Thus total number of intermediate heating plates for effective heating length 8400 mm, will be 6X2 =12, including top and bottom most intermediate heating plates.  Width of intermediate heating plates should be kept minimum 190 mm to accommodate the maximum bar width 130 mm (refer sl.no. 3.2) along with the technological pressing rules for pressing the bar in horizontal plane.  NOTE: Technological pressing rules are not included in the scope of supply of the vendor. The same will be arranged by BHEL.  Non- glowing and suitable capacity electrical heaters are to be housed inside the intermediate heating plates. No water cooling duct is to be provided in intermediate heating plates.  Termination of electrical connection for electrical heater and temperature sensor should be provided at outer end of the intermediate heating plates, so that the same is not damaged during loading of bars and technological pressing rules. Design of heater housing and heaters should be fit for quick withdrawal and replacement of heaters under the event of failure of heaters. | Intermediate Heating plates with electrical heating are to be provided for stack consolidation of the stator winding bar.  Total effective length of heating of the intermediate heating plates will be 8500 mm to heat up the maximum effective pressed length 8400 mm of stator bar.  Total length of intermediate heating plates, will be in **6 nos. of 4200mm and 12 nos. of 2100mm** to facilitate quick assembly on the press and easy to repair of these intermediate heating plates in case of maintenance. This feature will also lead to the option for operating one half, one-fourth and two- third, along the length of the press if smaller length of job is processed, when situation demands. Thus total number of intermediate heating plates for effective heating length 8400 mm, will be **18nos**., including top and bottom most intermediate heating plates.  Width of intermediate heating plates should be kept minimum 190 mm to accommodate the maximum bar width 130 mm (refer sl.no. 3.2) along with the technological pressing rules for pressing the bar in horizontal plane.  NOTE: Technological pressing rules are not included in the scope of supply of the vendor. The same will be arranged by BHEL.  Non- glowing and suitable capacity electrical heaters are to be housed inside the intermediate heating plates. No water cooling duct is to be provided in intermediate heating plates.  Termination of electrical connection for electrical heater and temperature sensor should be provided at outer end of the intermediate heating plates, so that the same is not damaged during loading of bars and technological pressing rules. Design of heater housing and heaters should be fit for quick withdrawal and replacement of heaters under the event of failure of heaters. |
| 05 | 4.12.5.2 | **Description of the Pressing Units:** | Hydraulic pressing units 20 nos. along the effective pressing length 8400 mm of the stator bar.  Each pressing unit, for horizontal and vertical pressure will be generated by a separate and infinite variable pressure system. Provision is to be made so that horizontal and vertical pressure can be applied independently.  Pressing force for horizontal and vertical unit should be designed with reference to the closed box dimensions of the press considering the specific pressure 20-25 kg/cm² on stator bar.  Maximum pressing force for each horizontal and vertical pressing unit is to be clearly mentioned in the offer.  Opening of press box in horizontal plane should be approx.210 mm to accommodate the stator winding bar (maximum pressed width 130 mm) and pressing rules along the length of pressing before commencement of stack pressing bar.  During loading and unloading of stator bars and press planks, vertical pressing units will be in withdrawal position at rear side of the press, clearing the opening of press box for easy loading and unloading of stator bars and press planks. | Hydraulic pressing units 20 nos. along the effective pressing length 8400 mm of the stator bar.  Each pressing unit, for horizontal and vertical pressure will be generated by a variable pressure system. **Machine should be capable of operating each Horizontal & Vertical Cylinders independently**. Provision is to be made so that horizontal and vertical pressure can be applied independently.  Pressing force for horizontal and vertical unit should be designed with reference to the closed box dimensions of the press considering the specific pressure 20-25 kg/cm² on stator bar.  Maximum pressing force for each horizontal and vertical pressing unit is to be clearly mentioned in the offer.  Opening of press box in horizontal plane should be approx.210 mm to accommodate the stator winding bar (maximum pressed width 130 mm) and pressing rules along the length of pressing before commencement of stack pressing bar.  During loading and unloading of stator bars and press planks, vertical pressing units will be in withdrawal position at rear side of the press, clearing the opening of press box for easy loading and unloading of stator bars and press planks. |