Purchase Order No. 05873125 (40) Dated – 13.09.2013

To M/s. Mather and Platt Pumps Ltd.,
Vishwa Mitra Kutty,
Jai Prakash Marg,
Lane No. 3, Donboli Road,
Dhanbad - 825001

P U R C H A S E O R D E R

SPECIAL NOTES:

01] Price: The above prices are FIRM and on F.O.R. Destination basis.
02] Excise Duty & Cess on ED: Included on the above price @ 6.18% on Pump, Motor, Starter & Accessories and Nil on valves as confirmed by you against submission of documentary evidence.
03] CST – Included on the above price @ 2% as confirmed by you.
04] Packing and Forwarding Charges: Included
05] Freight Charges: Included
06] Transit Insurance Charges: Included. However, for safe arrival of the materials upto the destination will be arranged & covered by you at your cost & risk.
07] Delivery: To be completed within 6(six) months from the date of issue of Purchase Order.
08] Paying Authority: General Manager(F)/IC, CMD’s Office, ECL, Sanctoria, PO: Dishergarh: Dist: Burdwan(WB), PIN- 713 333.
09] Consignee: Dy. GM(MM), Sodepur Central Stores, ECL, PO: Sunderchak, Dist. Burdwan(WB), India.
10] Terms of Payment: 100% payment shall be made through e-payment within 21 days of receipt and acceptance of materials at consignee’s end or submission of bills together with documents stipulated in the order, whichever is later. In case of e-payment the following details
furnished by you in respect of your banker, in your quotation shall be considered:

a) Name of the payee in Block Letters: MATHER AND PLATT PUMPS LIMITED.

b) Address: Mumbai-Pune Road, Chinchwad, Pune-411019 (India)

c) Bank A/C. No. of Payee: 000505001953

d) Name of the Bank: ICICI Bank

e) Name of the Branch & Branch Code: Pune Branch-0005

f) Pan Card No. of Payee: AABCD3568L

g) Indian Financial Service Code (IFS Code): ICIC0000005

11) Despatch Instruction: Materials duly packed and insured are to be despatched by road transport and consigned to the above stores on freight paid basis.

12) Inspection: Final inspection of the materials shall be carried out at the consignee's end by the authorized representative of GM(E&M)HOD, ECL after receipt of materials. However, if any stores are rejected, consignee will have liberty to:-

a) Allow the supplier for satisfactory replacement of the rejected part within a specified time and supplier will bear the cost of replacement such as freight etc. and any such replacement will be without being entitled to any extra payment.

b) Buy elsewhere the quantity of stores similar to those rejected at the risk and cost of the suppliers.

c) Terminate the contract whether in part or whole. Rejected part/quantity shall have to be removed by the supplier within 15(fifteen) days of receipt of intimation of rejection.

13) Guarantee/Warranty: Pumps (complete set with Motor & Starter) supplied must be guaranteed for satisfactory performance for a period of 12 (twelve) months from the date of Commissioning or 18(eighteen) months from the date of receipt and acceptance of materials by the consignee whichever is earlier. You shall also be responsible for removal of any defects that develop arising from faulty materials, design or workmanship and should remedy such defects at your own cost when called upon to do so. If, it becomes necessary you shall have to replace the goods without any extra cost to ECL.

14) After Sales Service: You shall have to provide prompt After Sales Service as and when required by ECL.

15) Terms and conditions of Notice Inviting Tender and/or tender documents provided to you are also an integral part of this Purchase Order.

16) Duplicate copy of this order, duly signed should be returned to this office within 10 days as a token of formal acceptance of this order. In case the duplicate copy of the order is not received as above it shall be presumed that you have accepted the order in totality for execution of the same

17) Separate bills (in triplicate)/Challans should be raised for each consignment and BC No. as mentioned in the Purchase Order should be indicated in each bill.

18) Please quote Purchase Order No. and date in all correspondence.

19) Except under specific instructions delivery to stores is restricted up to 3.00 PM on all working days except Saturdays.

20) One copy of the despatch documents of the each consignment should invariably be forwarded to this Office, ECL, HQ., Sanctoria.

21) No materials shall be dispatched against this Purchase Order after expiry of the schedule delivery period unless formal extension of Delivery period issued to you in writing from this office. Delivery of any materials against this order in violation of this clause shall be at the sole risk of the suppliers.
22] Manufacturer's Test Certificate : Manufacturer's test & Guarantee certificate for the items shall have to be provided along with each supply.

23] Price Fall Clause :
(a) You are to certify that the Prices charges for the stores under this Purchase order by you shall in no event exceed the lowest price at which you sell the stores or offer to sell the stores of identical description to any other customer during the tenure of the supply order.
(b) If any time during the said period, you reduce the sale price, sell or offers to sell such stores to any other customers at a price lower than the ordered price you shall have to forthwith notify such reduction of sale or offer to sale to us to enable us to amend the rates of the order.

24] L.D. Clause : In the event of failure to delivery or despatch the stores within the stipulated date/period in accordance with the samples and/or specifications mentioned in the supply order and in the event of breach of any of the terms and conditions mentioned in the supply order, we have the right:

a/ To recover from you, as agreed, liquidated damages, a sum not less than 0.5% (half percent) of the price of any stores which you have not been able to supply as aforesaid for each week or part of a week during which the delivery of such stores may be, in arrears limited to 10%. Where felt necessary the limit of 10% can be increased to 15%.

b/ To purchase elsewhere, after due notice to you, on your account and risk the stores not supplied or other of a similar description without canceling the supply order in respect of the consignment not yet due for supply or

c/ To cancel the supply order or a portion thereof, and if so desired to purchase the stores at your risk and cost and also

d/ To extend the period or delivery with or without penalty as may be considered fit and proper, the penalty, if imposed shall not be more than the agreed Liquidated Damages referred to in clause (a) above.

25] Security Deposit : You shall have to deposit Security Money for 10% of the ordered value (On Landed Basis) within 15 days from the date of receipt of order in the form of Bank Guarantee as per our enclosed prescribed format or in the form of Bank Draft of any Scheduled/Nationalised Bank payable at Asansol drawn in favour of “Eastern Coalfields Limited”. The Bank Guarantee should be kept valid till execution of the order complete in all respect but minimum validity should be for 6 months. The security money will be refunded to you within 30 days of satisfactory execution of the contract. For unsatisfactory performance and/or contractual failure, the security money shall be forfeited. In case you fails to deposit the security money, the order shall be cancelled and the case shall be processed to order elsewhere and your performance shall be kept recorded for future dealings with you. If the Bank Guarantee suits you, you shall be entitled to get any gain on such purchase.

26] Identification Marking : A stamp of the Manufacturer's trade marking etc should be impressed on each store. In case it is not possible to do the same due to size and nature of item then a suitable alternative identification mark should be provided.
Performance Bank Guarantee: You shall have to furnish a Bank Guarantee towards Performance Guarantee for an amount equal to 10%(ten percent) of the ordered value on landed basis, after placement of order but prior to supply of materials. The Bank Guarantee must be submitted on a Non-Judicial stamp paper of appropriate value and must be executed by any Nationalized Bank/Scheduled Bank in India as per our enclosed format. The stamp paper should be in the name of issuing Bank. The Bank Guarantee must be valid till guarantee/warranty period. You may be requested to extend the validity of the BG, in case the materials do not work satisfactorily within the validity period of BG. The above Bank Guarantee should be sent by the issuing Bank directly to order placing authority under Registered Post.

The following additional information should be incorporated in your invoice as per Central Excise Act so that ECL may avail CENVAT Credit under rule 11(2) of Central Excise Rules in case of placement of order:

I/ Name of the Consignor.
II/ Address of the Consignor
III/ Centralized Central Excise Registration No. of Consignor
IV/ Address of Corporate Office
V/ Central Excise Division
VI/ Central Excise Range
VII/ Commissionerate
VIII/ TIN No. & VAT No.
IX/ Name and Address of the Consignee
X/ Central Excise Registration No. of Consignee
XI/ Central Excise Range, Division and Commissionerate of Consignee
XII/ Description and classification of goods
XIII/ Time and Date of removal
XIV/ Mode of Transport and Vehicle Registration No. & RR No.
XV/ Rate of Duty
XVI/ Quantity and Value of Goods
XVIII/ Invoice should be in Triplicate. (Original for buyers, Duplicate for Transporter and Triplicate for Consignor/Assessee)

Information relating to ECL to be incorporated by you in your invoices:

I/ Centralized Central Excise Registration No. of ECL:
   AAACE7590EEM001
III/ Central Excise Division: Asansol II, Senraleigh Road, Asansol- 713305.
IV/ Central Excise Range: Kulti, X-10, South Road, Burnpur-713325.
V/ Commissionerate: Bolpur(West Bengal).
VI/ TIN No. & VAT No.: 19741701222 & 19741701028.
VII/ Centralized Service Tax Registration No. of ECL: AAACE7590EST007

29. Submission of Bills: i) You shall have to submit bills (5 copies) to the Consignee along with the consignment and challan along with other requisite documents, if any.
   ii) The Consignee shall then send SR Notes, challan, inspection note and 3 copies of bills (including the original) and any other requisite documents, to the paying authority.
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30. Price Certificate: You shall have to certify on the body of the bills that the prices charged against this order are not higher than that applicable to other Govt.Deptt/Organisation/DGS&D/CIL/Other Subsidiary of CIL. In case of any reduction in price during the validity of this Purchase order, then it would be your responsibility to inform ECL regarding such reduction in price and the said reduced price shall automatically be applicable to this Purchase Order from the date.

31. Integrity Pact: Submitted by you in your OFF-LINE bidding duly accepted shall be a part of the order.

32. Allocation(For Internal Use only) – To be provided by GM(E&M)HOD,ECL,HQ

Yours faithfully,
For and on behalf of
Eastern Coalfields limited

CHIEF MANAGER (PUR)

Copy to - GM(E&M)/HOD, ECL, HQ – This is covered against indent dated 21.05.2012.

Copy to - GM(MM)/IC/GM(Fin.),IC/CVO : ECL/HQ.

Copy to - Dy. GM(MM), Sodepur Central Stores, ECL.

Copy to - MM, Progress Cell, ECL, HQ.: This is covered vide IC No.71211044,dt.05.07.2012, BC No.CB/EM/P&M/13-14/77, dated 12/09/2013 for Rs.22,17,960.00, FC.No.GM(F)/Pump/13-14/41,dated 12/09/2013 for Rs.22,17,960.00.

Copy to - Chief Manager(F/MM)/Chief Manager(F/Bills) ECL,Sanctoria.

Copy to - Asstt.Commissioner, Commercial taxes, Central Section, 14, Beliaghata Road, Kolkata - 700 019.

Copy to - CGM(MM)/GM(MM) -WCL/CCL/BCCL/SECL/NCL/MCL/NECL.

Copy to - GM(F)/C&B, ECL, Sanctoria

Copy to - GM, Sodepur Area, ECL.


2. Format of Performance Bank Guarantee – Annexure “B”
ANNEXURE - X

TECHNICAL SPECIFICATION OF 38 LPS X 400 M HEAD - QUANTITY - 1 SET MULTISTAGE CENTRIFUGAL PUMP COMPLETE WITH FLP 3.3 KV ELECTRICALS.

<table>
<thead>
<tr>
<th>Duty requirement of pump</th>
<th>Motor</th>
<th>Voltage</th>
<th>Type of Starter</th>
<th>System of Earthing</th>
<th>Contactor rating of starter at AC-3 duty</th>
<th>Constructional features of Pump</th>
</tr>
</thead>
<tbody>
<tr>
<td>38 LPS, 400 M Head. (one)Set</td>
<td>FLP Squirrel Cage Induction Motor</td>
<td>3.3 KV + 6%,-9%</td>
<td>ENCLOSURE FLP SUITABLE</td>
<td>Restricted Earth Neutral</td>
<td>SUITABLE</td>
<td>Multistage</td>
</tr>
</tbody>
</table>

Description in details

Construction features of Multistage centrifugal pump: To be built up from a number of stage held together by body bolts between two end covers, which in turn incorporate the suction and delivery branches respectively.

A. The middle body shall contain the guide passages to carry the liquid being pumped from the delivery of one impeller to the eye of the next. The impeller to be single entry type with all inlet eye in the same direction. The hydraulic balance valve shall be incorporated so as to cushion end thrust.

B. Materials:

- End covers: Closed grained cast iron
- Middle bodies and partition plates: Closed grained cast iron
- Shaft: EN-8
- Impeller: Bronze
- Guide passage: Closed grained cast iron / Bronze.
- Balance valve and seating: Bronze
- Neck rings and neck bushings: Bronze
- Bearing bushes: Bronze
- Split glands and lagering rings: Bronze/ Brass
- Guide Sleeve: Bronze/ Brass
- Oil level gauge must be provided with the bearing housings at driving and non-driving ends.

C. Lubrication: To facilitate lubrication of bearing, Caps to be provided with each bearing mounting.

D. Duty conditions:

i. Capacity of the pump at a temperature 45° C , 38 lps
ii. Total head from all causes (1) 250 Mtrs , (2) 300 Mtrs & (3) 400 Mtrs.
iii. Liquid to be handled - Gritty mine water

E. ELECTRICALS:

Motor:

The pump shall be coupled directly through suitable flexible coupling to a continuously rated, Horizontal spindle, foot mounted, squirrel cage induction motor 1500 (Synchronous.) rpm and of adequate HP suitable for operation in AC 3 phase, 50 cycles per seconds, 3.3 KV + 6 %,-9% Volts supply system. The motor should have minimum class ‘B’ insulation and should conform to relevant IS. The motor should have cable entry suitable for PVCDWA copper cable of adequate size. Motor rating (in KW) should be at least 10 % more than the input (in KW) required by the pump when operating at -20% rated head and also when operating +10% rated head.

STARTER:

Suitable push button starter free standing skid mounted type and of suitable capacity to match with the above motor. The starter shall be operating on 3 phase, 50 cycles, 3.3K V +%, -9% volts system having the following protective features:

a) Thermal overload protection with time lag provision having a setting range of 75 – 150 percent of full load current

b) Earth leakage protection operation arrangement with current setting as per regulation and with time lag arrangement for restricted neutral system and provision for Test/Reset and Trip indicating lamp.

c) C) Protection against single phasing.

d) The starter must incorporate the following:
400 amps copper busbar.
Off load interlocked reversing isolator of capacity 200 percent of full load current of the motor.
Incoming outgoing and through going cable sealing and dividing box suitable for PVCDWA mining type cable.
All contactors shall be suitable for AC – 3 duty and the rating shall be as indicated in the table.
Contactors should be Andrew Yule/Larsen & Toubro/ BCH / Telemechanic /GE/ABB /reputed & proven make .
Contactor should be able to operate at 90% of the rated voltage.
A printed copy of the circuit diagram must be fixed inside the cover of the starter.
Ammeter of proper range with selector switch ,voltmeter (0- 3500 V) with selector switch , ON/OFF indication lamp.

| e) Additional accessories to accompany each pump set :- |
| Sluice valve of adequate size. |
| Non return valve of adequate size with by pass arrangement. |
| Foot valve with strainer flange type confirm IS 4038/1986 or latest amendment . |
| Priming funnel with test cock. |
| Bed plate of adequate strength and size matched to take the pump coupled with the motor. |
| One complete set of tool kit for repair of pump, motor and starter. |
| Suitable pressure gauge with pulsation dampener for the delivery side,suitable compound gauge with pulsation dampener for suction side. |

**Note:**
(a) The motor and the pumps coupled together should be supplied mounted on common base frame.
(b) The dimensional drawing and the circuit diagram of the starter should be provided along with the supply.
(c) Electricals must be DGMS approved.
(d) Copy of valid BIS Licence and valid DGMS approval duly Notorised to be submitted.
(e) Indicate -Approval No. and validity.

### 1 Operating data:

- **Head** - 400 mtr.
- **Discharge** - 38 LPS.
- **Motor KW** - 260KW.
- **Power absorbed by pump at rated head & discharge** -(in KW) -225.72KW
- **Efficiency of the pump at rated head & discharge** - 68% .
- **Suction / delivery size** - 150x100mm.
- **Liquid to be pumped** - Gritty Mine Water .
- **No. of stages** - 9.
- **NPSH available** - NPSHA-Flooded, NPSHR-2.4mtr .
- **Power absorbed by pump at -10% & at -20% of the rated head** (in KW) - 238.68KW(-10%) &255.00KW(-20%).
- **Size of the Impeller of the offered pump** - Appx. 372mm.
- **Model of pump** - 4/6 PJ Pluro-9 CHR.
- **Material of End cover / casing** - CIFG 260

### 2 Material of Middle body and partition plate : CIFG 260

### 3 Material of Impeller : Bronze

Construction- Closed type

### 4 Material of shaft : EN-8

### 5 Material of Guide passage : CIFG 260/Bronze

Construction-

Materials for guide sleeves- Bronze

### 6 Material of Balance valve and sleeve : Bronze

### 7 Bearing :Type & Material – Bronze

### 8 Material of Neck ring , neck bush , split gland , logging ring etc. :Bronze

- **Neck ring-Bronze**, Neck Brush-Bronze, Gland-Bronze, Logging ring-Brass

Provision of oil level gauge- To be provided
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<tbody>
<tr>
<td>9</td>
<td><strong>Coupling:</strong> To be provided</td>
</tr>
<tr>
<td></td>
<td>Type &amp; Material: CI</td>
</tr>
<tr>
<td>10</td>
<td><strong>Bed plate:</strong> MS Fabricated</td>
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<tr>
<td>11</td>
<td><strong>Valve:</strong> To be provided</td>
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<tr>
<td></td>
<td>Type: Sluice Valve, NRV, Foot Valve</td>
</tr>
<tr>
<td></td>
<td>Size: Sluice Valve x NRV x Foot Valve - 100X100X150mm</td>
</tr>
<tr>
<td></td>
<td>Material: Sluice Valve - Cast Steel, NRV - Cast Steel, Foot Valve - CI</td>
</tr>
<tr>
<td>12</td>
<td><strong>Motor</strong></td>
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<tr>
<td></td>
<td>Type: FLP Squirrel Induction Motor</td>
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<tr>
<td></td>
<td>Make: Marathon</td>
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<td></td>
<td>Enclosure: TEFC</td>
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<tr>
<td></td>
<td>RPM: SINC-1500 RPM</td>
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<tr>
<td></td>
<td>Voltage: 3.3KV+6%/-9%</td>
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<tr>
<td></td>
<td>Rating: 260KW</td>
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<tr>
<td></td>
<td>Insulation class: “B”</td>
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<tr>
<td></td>
<td>Cable entry: PVCDWA</td>
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<tr>
<td></td>
<td>Starting full load torque and current: Starting Torque - 260KW - 170KG.MT, Starting current 600% + tolerance</td>
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<tr>
<td>13</td>
<td><strong>Starter</strong></td>
</tr>
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<td></td>
<td>Type: Prabhu; FSHT-7 or Volga: HTF-3</td>
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<tr>
<td></td>
<td>Enclosure: FLP - Star-Delta</td>
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<td></td>
<td>Protections: As per IS/IEC: 60079-1:2007</td>
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<tr>
<td></td>
<td>Isolator - rating &amp; type: Rating 200 Amps, Type: Off load reversing</td>
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<tr>
<td></td>
<td>Bus bar - rating &amp; type: Rating: 400 Amps</td>
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<tr>
<td></td>
<td>Cable entry: Incoming-outgoing &amp; through-going</td>
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<tr>
<td></td>
<td>Contactor rating and duty: Rating: 400Amps duty - AC-3 phase</td>
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<tr>
<td></td>
<td>Ammeter, voltmeter, and ON/OFF indicating lamps: to be provided</td>
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<td>Fixing of circuit diagram: to be provided</td>
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<tr>
<td>14</td>
<td><strong>Accessories:</strong></td>
</tr>
<tr>
<td>15</td>
<td><strong>General:</strong></td>
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<td></td>
<td>The following shall be submitted alongwith the supply:</td>
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<tr>
<td></td>
<td>Characteristic curve showing head, discharge, power absorbed and efficiency (properly marked at rated head and at -10% of the rated head)</td>
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<td></td>
<td>(Family curves will not be accepted).</td>
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<td></td>
<td>Conformity to tender specification</td>
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</tbody>
</table>

**CHIEF MANAGER(P)**