



General Note: **BHARAT HEAVY ELECTRICALS LIMITED**

(A Government of India Undertaking)
HIGH PRESSURE BOILER PLANT
PURCHASE DEPARTMENT - FOSSIL BOILERS
THIRUCHIRAPALLI - 620014
TAMILNADU (INDIA)

Page:1/3

PHONE : 0431-2574111
GRAMS : BHARATELEC
FAX NO: 0431-2520719
E-mail :
Web :

429-002/A

OFFICE COPY	Collective No.	Enquiry Date	Due Date For Quotation
	1801700251	04.03.2017	05.04.2017
Please quote Enquiry No, Date and due date in all correspondences. This is only a request for quotation and not an order			

Item	Description	Unit	Quantity	Delivery Quantity	Schedule Date
10	L172314720001001 POWER OPERATED GATE Long description PNEUMATICALLY OPERATED COAL SHUT-OFF GATE + ACCESSORIES PIPED UP/WIRED UP AND AS PER BHEL DRAWING 2-47-003-01439/Rev. 01;VAR 01 TECH. SPECIFICATION TCC 1041/REV.03 FOR 26" PIPE CARRYING PULVERISED COAL + HOT AIR. SUITABLE FOR DUAL COIL SOLENOID VALVE INPUT VOLTAGE 240V AC, 1PH, 50HZ.	NO	56.000	56.00	15.06.17

General Note:

1.The tender will be operated on Two -Part Bid basis and the vendors are requested to submit both Techno-Commercial bid and Price Bid through E-portal only

2.The materials are to be dispatched to Ennore project site (Tamil Nadu State)and the rates are to be quoted on FOR/Ennore project Site basis inclusive of Packing & Forwarding, Freight and Insurance to your account. Freight break up to be indicated in %, which is included in the quoted FOR rates.

3.Kindly refer Annexure -A(Commercial terms and conditions, Import/Indigenous), which is to be filled and submitted along with Techno-commercial offer for evaluation.

4.You are requested to note our Loading terms-Annexure-B(Import/Indigenous) and Annexure-C (Special provision for Micro and Small Enterprises)for finalizing the tender and the same will be taken for evaluation for arriving the L1 rate.

5.Vendors to note that their offer shall be in line with our attached technical specification TCC 1041/Rev-03 & Drg. 2-47-003-01439/Rev.01 quirement only. Confirmation to these specifications shall be indicated in your offer and any deviation will lead to rejection of the offer.

The offers should reach us 30 minutes before the time of opening of tenders. The offers will be opened at 14.30 hrs on the due date of tender in the presence of tenderers who have submitted their offer and who may like to be present for the tender opening.Late and delayed offers are liable to be rejected.

Yours faithfully,
For **BHARAT HEAVY ELECTRICALS LIMITED**

P. Srija Mole
SRIJA MOLE
MANAGER / PURCHASE
(FOSSIL BOILERS)
Materials Management / BOI
BHEL, TRICHY - 620 044.



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Page:2/3

1801700251 / 04.03.2017

23505

6) Annexure I(Special Terms & Conditions/Pre - Qualification requirement) is to be filled with confirmation for all the points and to be submitted along with your offer for evaluation.Deviation in the PQR-Annexure I will leads to rejection of your offer.

Note for the new suppliers who are not registered with BHEL.

1. In addition to technical and commercial conditions, you have to submit all the documents duly filled in "Supplier Registration Forms" through online (available in <http://www.bheltry.co.in/>- Online Vendor Registration- Material Management). Accordingly, SRF Registration No has to be mandatorily indicated in the offer. Subsequent to online registration, hard copies of duly filled-in Supplier Registration Forms, along with all credentials and supporting documents, Certificate of Rating from D&B (Dun & Brad) sheet or equivalent agencies (For Foreign vendors), Financial Performance / Profit & Loss Account /Balance sheet for last three years etc, (With Techno-Commercial Bid). Availability of minimum manufacturing, handling, testing and measuring facilities, to be detailed are to be mentioned clearly are to be submitted along with the offer.Apart from Qualifying the Techno-Commercial requirements of the enquiry, BHEL has the right for spot assessment of the facilities for evaluation, approval and for registration.

2. SRF No to be indicated in the Offer.

Enclosures:

- 01) Technical Specification:TCC 1041/Rev.03
- 02) Drawings: 2-47-003-01439/Rev.01
- 03) Annexure-A(Commercial Terms and conditions)
- 04) Annexure-B(Load factors)
- 05) Annexure-C (Special provision for Micro and Small Enterprises)
- 06) PQR (Annexure I)
- 07) E-procurement details
- 08) PBG Format with Bank List

"LD clause has to be confirmed without fail."

The bidder along with its associate / collaborators / sub-contractors / sub-vendors / consultants /service providers shall strictly adhere to BHEL fraud prevention policy displayed on BHEL website <http://www.bhel.com> and shall immediately bring to the notice of BHEL Management about any fraud or

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For BHARAT HEAVY ELECTRICALS LIMITED

R. Srija Mole
MANAGER / PURCHASE
(FOSSIL BOILERS)
Purchase Management / BOI
BHEL, THIRUCHIRAPALLI - 620 014.

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Page:3/3

1801700251 / 04.03.2017

23505

suspected fraud as soon as it comes to their notice.

PR Links

Material.	PR.No	PR.Item.	Quantity	Acc. Assign	Customer Number
L172314720001001	117696025	00010	28.000	U6/1723-SY-432-1-47-200	U6/1723
L172314720001001	117696026	00010	28.000	U6/1724-SY-432-1-47-200	U6/1724

list of suppliers

RFQ-5200005730

Open Tender Dummy Code

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Yours faithfully,
For BHARAT HEAVY ELECTRICALS LIMITED

P. Srija Mole
SRIJA MOLE
MANAGER / PURCHASE
(FOSSIL BOILERS)
Materials Management / BOI
THIRUCHIRAPALLI - 620 014
BHEL, TRICHY

BHARAT HEAVY ELECTRICALS LIMITED
TIRUCHIRAPALLI-620014

FUEL SYSTEMS/PRODUCT ENGINEERING (FOSSIL BOILERS)

TITLE SHEET



**SPECIFICATION FOR
POWER OPERATED SHUT OFF GATE
- KNIFE EDGE GATE VALVE WITH
PNEUMATIC ACTUATOR**

SPECIFICATION NUMBER: TCC 1041 / REVISION NO.03

REVISION STATUS

03	08-07-15	NFPA clause updated and Gasket material options revised (CL.5.6).	M.V	GSK & MTP
02	16-06-14	GASKET MATERIAL SELECTION (CL.5.6)ADDED	MCHSG	GSK & MTP
01	16-09-08	SPECIFICATION UPDATED	CSS	MTP
Rev.No.	Date	Description	Altered	Checked & Approved

	NAME	SIGNATURE	DATE
PREPARED	G.SARAVANAKUMAR	-Sd-	21.03.2007
CHECKED	M.THANDAPANI	-Sd-	21.03.2007
APPROVED	S.V.SIVARAMULU	-Sd-	21.03.2007

	SPECIFICATION FOR POWER OPERATED SHUT-OFF GATE /KNIFE EDGE GATE VALVE WITH PNEUMATIC ACTUATOR	SPECN.NO. TCC-1041 REV-03	PAGE 02/09
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1.0 SCOPE

The scope covers the design, supply, manufacture, testing, certification, marking and identification and packing for shipment of Round port Knife Edge Gate Valve assembly with Pneumatic Actuator for the specified duty conditions in Annexure.

The accessories those are to be supplied with gate, are tabulated in this document. This list is to be considered as non-exhaustive. The supplier is requested to state the items that has to be supplied to meet the intent of the requirements, which will be used during the evaluation of all potential suppliers.

The use of Supplier references, catalogue numbers shall not be deemed to supersede the performance requirements of the purchase order.

2.0 EXTENT OF SUPPLY

The following extent of supply given is not necessarily exhaustive and shall not relieve the contractor of his responsibility to provide plant, equipment and services necessary to satisfy the performance criteria and guarantees specified, safely and efficiently.

Provide 6 numbers of Operation and Maintenance (O&M) instructions.

2.1 EXCLUSIONS

None.

3.0 TERMINAL POINTS

The terminal points for the extent of supply of the valves shall be,

- Fuel inlet elbow flange at valve inlet
- Coal nozzle flange at valve outlet
- All terminals connected to JUNCTION BOX (JB) & JB shall be on supplier's scope
- Single instrument air connection to air filter regulator (interconnecting pipes by Supplier)

	SPECIFICATION FOR POWER OPERATED SHUT-OFF GATE /KNIFE EDGE GATE VALVE WITH PNEUMATIC ACTUATOR	SPECN.NO. TCC-1041 REV-03	PAGE 03/09
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4.0 TECHNICAL REQUIREMENTS

This knife edge gate valve is mounted between the fuel inlet elbow of coal – air piping and coal burner nozzle. One valve per coal pipe is envisaged. Pulverized coal – air mixture at a temperature of 90°C to 120°C flows through these gates at a velocity of 25 m/sec. The leading edge of the valve blade shall contain a 45° chamfer to eject out the accumulated dust and clean the blade guides during closing. Vendor shall include necessary provision in the valve to prevent ingress of dust and ensure friction free movement. The supplier has to ensure that the valves are suitable for operation in the specified conditions.

The supplier shall provide suitable body tapping for air to purge out the dust collected in the dead space between the body inner faces when the blade is retracted. To the body tapping supplier shall provide means for an air purge prior to valve closing. All valves shall be capable of safe, reliable operation and shall comply with the requirements of NFPA 85 / 2015 in particular to the sub-section 9.4.6.13 and 9.4.5.1.6 of less than 13.8 KPa gauge pressure for dust tight valve application.

As the coal particles are highly erosive, the valve supplier shall provide measures to combat erosion of valve internals. Vendor shall indicate the details in the offer.

Proper cable glands and tube fittings, for taking out/in cables and air tubing shall be provided. The limit switches shall be mounted on to gate valve to give signal for valve open/close condition. Overall dimensions of the gate shall be as per the attached drawing 2-47-003-01439 or 2-47-200-01750 whichever is asked for in the enquiry.

4.1 VALVE OPERATION

During service the valve is always in opened condition and will be closed only during pulveriser maintenance. The valves are remote operated by a double acting pneumatic actuator with limit switch indicating the open & closed position of the valve. Each valve shall be provided with one solenoid valve. The solenoid valve shall be energized to open and energized to close.

4.2 OPERATING ENVIRONMENT

The equipment will be required to operate in dust laden pulverized coal-air mixture, which can be expected to settle on the valve components during normal operation. The coal-air mixture is very erosive in nature and hence the interior surfaces of the valve shall be protected suitably.

	SPECIFICATION FOR POWER OPERATED SHUT-OFF GATE /KNIFE EDGE GATE VALVE WITH PNEUMATIC ACTUATOR	SPECN.NO. TCC-1041 REV-03	PAGE 04/09
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5.0 ACCESSORIES

The following accessories shall be assembled with Knife edge gate valves. The valve shall be integral part of the assembly with the power cylinder, limit switches, solenoid valve and air filter regulator and shall be supplied in fully piped up condition. Purchaser to provide only inlet air connection to the Air filter regulator.

5.1 AIR CYLINDER

The air cylinder shall be of double acting type and of heavy duty. The cylinder body shall be corrosion resistant and shall have a fine finish preferably honed that ensures minimum friction and long seal life. A self-centering cushion sleeve shall be provided at both sides of the piston. The piston rod shall be covered with leather gaiter to prevent dust and water intrusion for smooth operation.

The power cylinder shall be capable of stroking the valve to full travel on load at an air pressure of 3.0 Kg/Sq.cm (g). The material of gland seal/piston shall be suitable to withstand temperature of 120°C and a pressure of 7.0 Kg/Sq.cm (g).

5.2 SOLENOID VALVE (SV)

The heavy-duty dual coil solenoid valve shall be of ASCO make or ROTEX make with 5 ports, 2 way type and shall be as per Clause 11.3.3 of data sheet. The Solenoid valve shall be mounted at upstream side of the valve to enable easier approach at site.

5.3 AIR FILTER CUM REGULATOR (AFR)

A suitably sized air filter cum regulator of make of PLACKA / AIRMATIC / NUCON / FESTO shall be provided. The filter cum regulator shall be of metallic bowl only. The air filter cum regulator shall have the range of regulation from 6.0 kg/sq.cm (g) to 1.0 kg/sq.cm (g).

5.4 LIMIT SWITCH (LS)

Two numbers heavy duty limit switches of OMRAN or HONEYWELL make with DPDT contacts to indicate open/closed position of the valve with rating of 5A 230V AC / 0.5A 220V DC shall be provided. The enclosure shall be of IP55 class with ¾" NPT conduit for cable entry. The limit switch shall be firmly fixed on to a mounting plate.

	SPECIFICATION FOR POWER OPERATED SHUT-OFF GATE /KNIFE EDGE GATE VALVE WITH PNEUMATIC ACTUATOR	SPECN.NO. TCC-1041 REV-03	PAGE 05/09
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5.5 COPPER TUBING & FITTINGS

Necessary PVC sheathed copper tubing of sufficient wall thickness and good quality of fittings shall also form part of the assembly.

5.6 COMPRESSION GASKET SELECTION

Gasket shall be selected to withstand the higher compression load at elevated temperatures. These gaskets shall be selected for minimum design strength of 4000psi and continuous operating temperature not less than 120° C. Preferable material of gaskets is Silicone Rubber 60/70A shore a durometer or harder rated to +232°C to +260°C or Non-asbestos gasket of aramid fiber with a NBR Binder or higher grade meeting the design requirement said above. Two gaskets per gate shall be supplied.

6.0 INSPECTION AND TESTING

Supplier shall submit QP for Purchaser's review and approval. It is expected that Quality plan shall encompass the Supplier's standard inspection to satisfy all applicable design code and its testing requirements and will involve, as a minimum, the examination of material certificates, dimensional checks on parts and sub-assemblies, examination by visual or other methods for welds and material surfaces. The Purchaser's inspecting authority is to be allowed reasonable access to the Supplier's works during manufacture/ testing before delivery, in accordance with the approved Quality plan.

6.1 TESTING

1. The smooth operation of the valve shall be tested for an instrument air pressure of 3.0 kg/sq.cm.
2. Body and seat shall be tested accordingly as called for in API or MSS or any other equivalent standard.
3. Each valve shall be tested for leak as per API or MSS or any other equivalent standard for "**no visual leak**" condition.

7.0 CODES AND STANDARDS

The Supplier is required to list all the standards applicable to the equipment covered in this specification. To be provided and agreed before manufacture proceeds. Where the Supplier considers that the standards used in the design, manufacture or operation of the equipment may vary with the contents of this specification, then the matter shall be immediately brought to the written attention of Purchaser.

	SPECIFICATION FOR POWER OPERATED SHUT-OFF GATE /KNIFE EDGE GATE VALVE WITH PNEUMATIC ACTUATOR	SPECN.NO. TCC-1041 REV-03	PAGE 06/09
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8.0 DOCUMENTATION

- 8.1 Technical offer shall contain complete details as called for specification confirming the requirements point by point.
- 8.2 Completely filled in data sheet CLAUSE 11.0.
- 8.3 Supplier shall submit the dimensional drawing giving details of MOC, accessories, dimensions, pneumatic hook up diagram, actuator selection data, and valve test parameters. Drawings shall be submitted in AutoCAD format and legible hard copies.
- 8.4 Confirmation for BHEL dimensional drawing as per enquiry.
- 8.5 Supplier may separately quote for the list of spares for two years of trouble free operation.
- 8.6 Supplier to quote for commissioning spares along with the main offer.
- 8.7 Reference list.

9.0 GUARANTEE

The performance guarantee shall be given for minimum a period of 12 months from the date of commissioning or 18 months from the date of shipment whichever is earlier.

10.0 PACKING AND DESPATCH

After inspection, the assembly shall be cleaned, prepared and suitably protected for despatch in such a way as to minimize the possibility of damage and deterioration during transit and storage.

	SPECIFICATION FOR POWER OPERATED SHUT-OFF GATE /KNIFE EDGE GATE VALVE WITH PNEUMATIC ACTUATOR	SPECN.NO. TCC-1041 REV-03	PAGE 07/09
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11.0 DATA SHEET

BHEL MATERIAL CODE:L172314720001001

11.1 VALVE DATA SHEET

	BHEL SPECIFICATION	VENDOR CONFIRMATION
DESIGN PRESSURE	To comply with NFPA 85, Valve body/ flanges shall be designed for 250 class.	
NORMAL WORKING PRESSURE	300-400 mm WC	
Design temperature	120°C	
Normal working temperature	90°C	
Indoor or outdoor installation	Outdoor	
Design pressure drop	Vendor to furnish	
Maximum pipe velocity	25 m/s	
Operation/frequency of use	Normally open. Closed during mill maintenance	
Flow medium	Hot air and coal particles	
Coal particle size	75 µm and less – 75% through 200 Mesh	
Erosion	The coal particles are highly erosive and the supplier shall provide measures to combat erosion of valve internals	

11.2 Mechanical Data sheet for Power operated shut-off gate

Model No.	Supplier to furnish	
Service	Coal pipe shut-off	
Valve performance code	NFPA 85 – Dust tight Valve	
Size	Valve ID = 632 mm Ref: 2-47-003-01439/01	
End Connection - Flanged	Flange details as per enclosed drawing	
Body Tapping (Yes/No)	Yes	
Remote Operation Details	Double acting pneumatic actuator, energized to open and energized to close	
Maximum Leakage Rate	"No Visual leak" as per API/MSS or equivalent specification	
Quality Plan	Supplier to furnish	
Painting Details	As per approved QP	

	SPECIFICATION FOR POWER OPERATED SHUT-OFF GATE /KNIFE EDGE GATE VALVE WITH PNEUMATIC ACTUATOR	SPECN.NO. TCC-1041 REV-03	PAGE 08/09
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BHELMATERIAL CODE: L172314720001001

	BHEL SPECIFICATION	VENDOR CONFIRMATION
Body Ends Sealed (Yes/No)	Yes	
Joining Surfaces Protected (Yes/No)	Yes	
MATERIAL SELECTION		
Body	Carbon steel (Specify grade)	
Slide	Stainless Steel (Specify grade)	
Seals	Supplier to furnish	
Body Connector	Supplier to furnish	
Insert	Supplier to furnish	
Cover	Supplier to furnish	
Gasket	Silicone Rubber 60/70A shore a durometer or harder rated to +232°C to +260°C or Non-asbestos gasket of aramid fiber with a NBR Binder or higher grade to meet design criteria	
Fasteners	SA193 GRB7 or higher strength	

11.3 ACCESSORIES

11.3.1 POWER CYLINDER

BHEL SPECIFICATION	VENDOR CONFIRMATION
Type	
Make	
Size – Diameter x Stroke	
Selection criteria of Power cylinder	Attach calculation sheet
End Connection details (Air entry)	
Bellows provided for air cylinders - Required	
Air consumption per stroke	Nm ³ /Hr

11.3.2 LIMIT SWITCH

Type	
Make & Model	
Contact	
Rating	
Enclosure IP55 Class	
Cable entry Conduit size	

	SPECIFICATION FOR POWER OPERATED SHUT-OFF GATE /KNIFE EDGE GATE VALVE WITH PNEUMATIC ACTUATOR	SPECN.NO. TCC-1041 REV-03	PAGE 09/09
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BHEL MATERIAL CODE: L172314720001001

BHEL SPECIFICATION	VENDOR CONFIRMATION
11.3.3 Solenoid valve Type Make & Model Power supply / Coil Rating	5 Port-2way Dual coil 240V AC ± 10%
11.3.4 Air Filter Cum Regulator Make Size End Connection size at BHEL TP	 NPT (F)
11.3.5 Copper Tubing & Fitting provided	YES
11.3.6 Housing for accessories Confirm provision of box housing filter/regulator & solenoid valves	Required
11.4 Commissioning Spares Quoted with Offer	YES / NO
11.5 2/3 Years operational Spares Quoted with Offer	YES / NO
11.6 General Arrangement Drawing No.	

NOTE:

Vendor shall fill-up the valve data sheet, Mechanical data sheet, Data sheets for accessories and others (Clause 11), submit along with the offer duly signing the same.

2-47-003-01439
DRAWING NO.

ARRANGEMENT-P

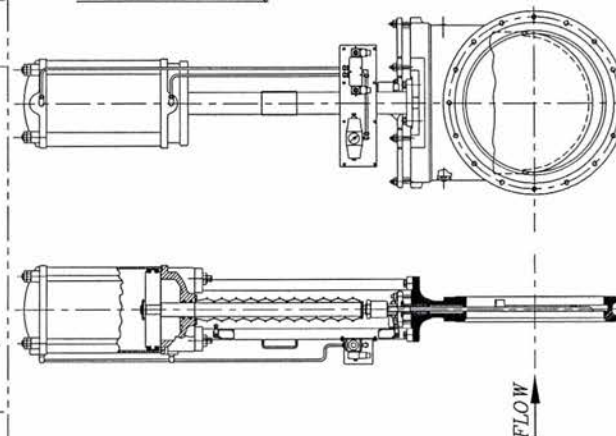
VAR No.	Nb	D _i	D _o	D _p	SIZE/Qty OF TAPPED HOLES
01	26"	632	840	768	M24/16 Nos.
02	22"	530	732	670	M20/12 Nos.
03	20"	483	675	613	M20/8 Nos.
04	28"	684	890	822	M24/16 Nos.

SPECIAL NOTE

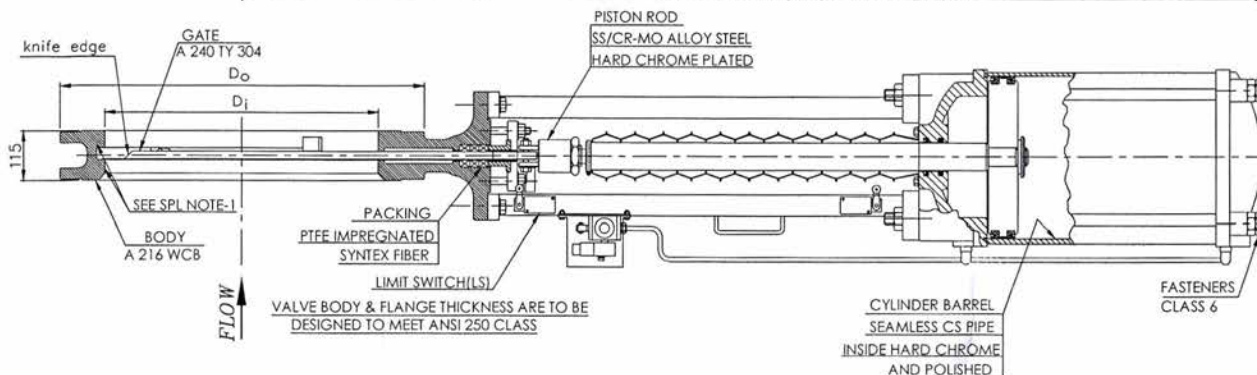
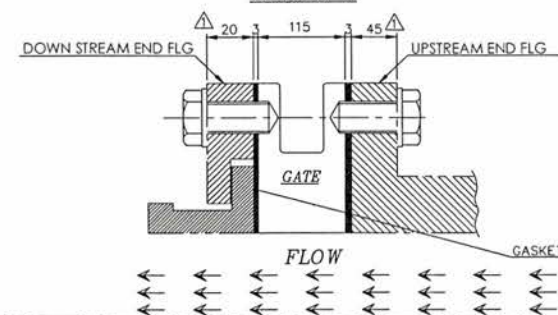
FOR TOLERANCES OF UNTOLERANCED DIMENSIONS DURING MANUFACTURE REFER PLANT STD. NO TP 023 0299

- AS THE PUL COAL PARTICLES ARE OF HIGHLY EROSION, THE VENDOR HAS TO PROVIDE SUITABLE MEASURES TO COMBAT EROSION OF VALVE INTERNALS. VENDOR TO INDICATE / CONFIRM IN THE OFFER.
- VENDOR TO SHOW PNEUMATIC HOOK UP (SCHEMATIC) DIAGRAM.
- VENDOR TO MAKE 50% QTY AS PER "ARRANGEMENT-P"; TO MAKE 50% QTY AS PER "ARRANGEMENT-Q";

ARRANGEMENT-Q



DETAIL-R



VALVE DESIGN DATA:

- | | |
|-----------------------------|---------------------|
| 1. FLOW MEDIUM | HOT AIR + PUL. COAL |
| 2. FLOW TEMPERATURE | 90 DEG C |
| 3. DESIGN TEMPERATURE | 120 DEG C |
| 4. FLOW MEDIUM VELOCITY | 25 M / SEC |
| 5. SERVICE | COAL PIPE SHUT-OFF |
| 6. CODE REQUIREMENT TO MEET | NFPA 85 |

TERMINAL POINTS OF THE VALVE:

- UPSTREAM END FLANGE t=45 mm
- DOWN STREAM END FLANGE t= 20 mm
- ELECTRICAL TERMINAL POINT AT JUNCTION BOX. (LS & SOV TO BE INTERNALLY WIRED BY VENDOR)
- SINGLE INSTRUMENT AIR CONNECTION TO AFR. (INTER CONNECTING PIPES BY VENDOR)

ACCESSORIES DATA: (VENDOR SCOPE)

- | | |
|----------------------------|---|
| SOLENOID VALVE (SOV) | DUAL COIL, HEAVY DUTY, 5 PORT, 2 WAY CURRENT RATING, REFER BHEL TECH SPECN. ASCO OR EQUIVALENT |
| AIR FILTER REGULATOR (AFR) | 3/8" SIZE METALIC BOWL, AIR SUPPLY: 0-7 BAR, MAKE- PLACKA / AIRMATIC / NUCON / FESTO |
| LIMIT SWITCH (LS) | 2NO+2NC, 240V AC-5A, / 0.5A 220V DC IP 65 / IP 55, 3/4" NPT(F) CABLE ENTRY, MAKE- HONEYWELL , OMRON; QTY=2 Nos. |
| JUNCTION BOX (JB) | ELECTRICAL TERMINAL FOR LS & SOV. |
| TUBING | 3/8" PVC COVERED COPPER |
| FASTENERS | SUITABLE FOR COMPANION FLANGES SHOWN IN "DETAIL-R" |
| GASKETS | FOR COMPANION FLANGES - t=3 mm |

REV. NO	DATE	ALT	CHD	APPROVED
01	28.11.12	ARK	GSK	MTP/JVA
1.	VARIANT NO. 4 ADDED IN THE SELECTION TABLE. FLANGE WIDTHS ARE CORRECTED			

CAUTION: The information on this drawing is the property of BHARAT HEAVY ELECTRICALS LTD. It must not be used directly or indirectly in any way without the prior written consent of the company.

TYPE OF PRODUCT
OR NAME OF
CUSTOMER/PROJECT



Bharat Heavy Electricals Ltd
UNIT: HIGH PRESSURE BOILER PLANT
TIRUCHIRAPALLI - 620014

NAME	SIGNATURE	DATE
C.S. Sekar	-sd-	090808
G.S. Kumar	-sd-	090808
ALTHANDAPANI	-sd-	160908

DEPT

CODE

TITLE

ALL DIMENSIONS ARE IN MM

PROJECTION

SCALE

WEIGHT (Kg)

REF TO ASSY / OLD DWG

DRAWING NO:

REV

2-47-003-01439

01

COAL SHUT-OFF GATE
(PNEUMATIC OPERATED)

BHEL TRICHY

MM/BOI

ANNEXURE – I

SPECIAL Terms & CONDITIONS / Pre Qualification requirements (PQR)

<u>Sl.NO</u>	<u>Description</u>	<u>Vendor Confirmation</u>
1	This tender is for the supply of Pneumatically operated round port knife edge gate as per technical specifications /Drawings attached and quantity mentioned in our enquiry.	
2	Offer of manufacturer only will be considered. The vendor shall have adequate experience in manufacturing and supply of these Items and shall produce credentials for the same without which their offer will not be considered.	
3	The vendor shall be an established Pneumatically operated round port knife edge gate (henceforth referred as Power Operated Gate) manufacturer having adequate Engineering, Manufacturing and testing facilities.	
4	Pneumatically operated round port knife edge gate model (26" size) offered shall be from the existing regular manufacturing range of the supplier. Vendor shall provide the product catalogue or general reference list for the offered power operated gate along with the offer.	
5	The supplier shall have experience of having supplied Pneumatically operated round port knife edge gate for erosive medium of coal air application. Supplier shall submit the documents in proof of the same.	
6	In addition to technical and commercial conditions, you have to submit all the documents duly filled in "Supplier Registration Forms" through online (available in http://www.bheltry.co.in/-Online Vendor Registration- Material Management). Duly filled-in Supplier Registration Forms, along with all credentials and supporting documents, Certificate of Rating from D&B (Dun & Brad) sheet or equivalent agencies (For Foreign vendors), Financial Performance / Profit & Loss Account / Balance sheet for last three years etc. (With Techno-Commercial Bid). Availability of minimum manufacturing, handling, testing and measuring facilities, to be detailed are to be mentioned clearly. All the documents to be uploaded. Apart from Qualifying the Techno- Commercial requirements of the enquiry, BHEL has the right for spot assessment of the facilities for evaluation, approval and for registration.	
7	The offers will be considered for Price Bid opening/Ordering subject to evaluation & approval as per above point 6.0 and also subject to approval by Customer/BHEL.	
8	Risk Purchase clause: "If the supplier fails to deliver the goods within the delivery specified in the purchase order, BHEL will be entitled to terminate the contract and to purchase elsewhere at the risk and cost of the seller either the whole of the goods or any part which the supplier has failed to deliver or despatch within the delivery period mentioned in the purchase order".	
9	Guarantee clause: 18 months from the date of supply or 12 months from the date of commissioning, whichever is earlier.	
10	BHEL may negotiate the L1 rate, if not meeting our budget/estimated cost.	
11	BHEL may re-float the tender opened, if L1 price is not the acceptable price to BHEL.	
12	Any deviation in specified commercial terms- Annexure A will lead to rejection of offer.	
13	New vendors to register through online as per clause 6.0. SRF No to be provided.	

Offers are liable for rejection, if not satisfying above qualifying criteria.



An ISO 9001
Company

Bharat Heavy Electricals Limited

(High Pressure Boiler Plant)

Tiruchirappalli-620 014, Tamil Nadu, India

Dept : PURCHASE-MATERIALS MANAGEMENT/BOI

ANNEXURE-A(Indigenous)

**ACCEPTANCE OF TECHNO - COMMERCIAL TERMS AND CONDITIONS BY
THE BIDDERS**

**(This techno-commercial sheet should be duly filled and signed, and should
be the part of Bid part no-I)**

Description of the Items:		Power Operated Gate
Enquiry Ref:		1801700251/04 DT 04.03.2017
Sl No.	Description	Vendor's confirmation
1	The tender will be operated on Two -Part Bid basis and the vendors are requested to submit both Techno-Commercial bid and Price Bid through E-portal only	
2	Technical: Supply shall be as per BHEL's Specification TCC 1041/Rev-03 & Drg. 2-47-003-01439/Rev.01 attached with the enquiry.	
3	Firm Price: The quoted/Finalised rates shall be Firm till execution of the supplies.	
4	Price Basis: The rates are to be quoted on FOR/Ennore project Site basis inclusive of Packing & Forwarding, Freight and Insurance to your account. Freight break up to be indicated in %, which is included in the quoted FOR rates.	
5	Payment terms: Payment term is 100% direct payment after 45 days against site acknowledged copy of LR/Delivery Challan with 10% PBG valid for the warranty period..	
6	Liquidated damages: Liquidated damages shall be 0.5% of the total order value per week or part thereof subject to a maximum of 10% of the total order value.	
7	Delivery Period: Bidder shall indicate the firm delivery period required for the delivery of the materials (FOR dispatching station), from the date of Purchase Order/date of document approval, required for delivery of the materials (FOR dispatching station).	
8	Validity: Price Validity of your offer shall be Minimum 90 days from the date of Techno-Commercial Bid opening.	
9	All applicable Taxes, duties and any other extra cost applicable shall be indicated clearly in the offer.	
10	Guarantee clause: 18 months from the date of supply or 12 months from the date of commissioning, whichever is earlier	
11	Please refer Annexure-B duly enclosed for the loading factors that will be considered for commercial terms deviations in arriving net cost to BHEL	

12	In addition to technical and commercial conditions, you have to submit all the documents duly filled in "Supplier Registration Forms" through online (available in http://www.bheltry.co.in/ - Online Vendor Registration-Material Management). Duly filled-in Supplier Registration Forms, along with all credentials and supporting documents, Certificate of Rating from D&B (Dun & Brad) sheet or equivalent agencies (For Foreign vendors), Financial Performance / Profit & Loss Account / Balance sheet for last three years etc. (With Techno-Commercial Bid). Availability of minimum manufacturing, handling, testing and measuring facilities, to be detailed are to be mentioned clearly. All the documents to be uploaded. Apart from Qualifying the Techno- Commercial requirements of the enquiry, BHEL has the right for spot assessment of the facilities for evaluation, approval and for registration. SRF No to be indicated in the part-1 offer.	
13	MSE applicability: Vendor to inform, whether MSE vendor. Documents as per Annexure-C has to be submitted along with the offer for availing the special provision for MSE vendors.	
14	SRF No is to be mandatorily indicated	



An ISO 9001
Company

Bharat Heavy Electricals Limited

(High Pressure Boiler Plant)

Tiruchirappalli-620 014, Tamil Nadu, India

Dept : PURCHASE-MATERIALS MANAGEMENT/BOI

ANNEXURE-A(Import)

ACCEPTANCE OF TECHNO - COMMERCIAL TERMS AND CONDITIONS BY THE BIDDERS

**(This techno-commercial sheet should be duly filled and signed, and should
be the part of Bid part no-I)**

Description of the Items:		Power Operated Gate
Enquiry Ref:		1801700251/04 DT 04.03.2017
Sl No.	Description	Vendor's confirmation
1	The tender will be operated on Two -Part Bid basis and the vendors are requested to submit both Techno-Commercial bid and Price Bid through E-portal only	
2	Technical: Supply shall be as per BHEL's Specification TCC 1041/Rev-03 & Drg. 2-47-003-01439/Rev.01 attached with the enquiry	
3	Firm Price: The quoted/Finalised rates shall be Firm till execution of the supplies.	
4	Price Basis: Bidders should submit their offer for CFR Chennai with freight break up details. Pls indicate the freight breakup details. FOB rate will be arrived by subtracting the corresponding freight break up from the CFR rate. BHEL reserves the right to order on FOB or CFR basis.	
5	Payment terms: "100% payment on CAD basis after 45 days from the date of receipt of documents, specified in PO, at BHEL bank with 10% PBG valid for the warranty period. Respective bank charges to respective account."	
6	Liquidated damages: Liquidated damages shall be 0.5% of the total order value per week or part thereof subject to a maximum of 10% of the total order value.	
7	Delivery Period: Bidder shall indicate the firm delivery period required for the delivery of the materials (FOR dispatching station), from the date of Purchase Order/date of document approval, required for delivery of the materials (FOR dispatching station).	
8	Validity: Price Validity of your offer shall be Minimum 90 days from the date of Techno-Commercial Bid opening.	

9	PORT OF LOADING & PORT OF DISCHARGE SHOULD BE INDICATED WITHOUT FAIL. Weight of the Total Consignment shall be indicated in the offer.	
10	Foreign Exchange rate prevailing on Techno – Commercial bid opening rate will be taken for calculation.	
11.	Please refer Annexure-B duly enclosed for the loading factors that will be considered for commercial terms deviations in arriving net cost to BHEL	
12.	Guarantee clause: 18 months from the date of supply or 12 months from the date of commissioning, whichever is earlier.	
13	In addition to technical and commercial conditions, you have to submit all the documents duly filled in “Supplier Registration Forms” through online (available in http://www.bheltry.co.in/-Online Vendor Registration- Material Management). Duly filled-in Supplier Registration Forms, along with all credentials and supporting documents, Certificate of Rating from D&B (Dun & Brad) sheet or equivalent agencies (For Foreign vendors), Financial Performance / Profit & Loss Account / Balance sheet for last three years etc. (With Techno-Commercial Bid). Availability of minimum manufacturing, handling, testing and measuring facilities, to be detailed are to be mentioned clearly. All the documents to be uploaded. Apart from Qualifying the Techno- Commercial requirements of the enquiry, BHEL has the right for spot assessment of the facilities for evaluation, approval and for registration. SRF No to be indicated in the part-1 offer.	
15	SRF No is to be mandatorily indicated	

Date:**Signature with seal**



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Dept : PURCHASE-MATERIALS MANAGEMENT/BOI

ANNEXURE-B(Indigenous)

Loading factors for the tender enquiry for requirement of Power Operated Gate

Enq No-1801700251/04 dt 04.03.2017

Sl No.	BHEL Commercial terms	Vendor Confirmation to BHEL Commercial terms	Loading Criteria for Deviations
1	Payment terms: Payment term is 100% direct payment against site acknowledged copy of LR/Delivery Challan after 45 days with 10% PBG valid for the warranty period.		Any deviation in the above payment term will attract loading as mentioned below. “Base rate of SBI (as applicable on the date of bid opening. Techno-commercial bid opening in case of two part bids) + 6% shall be considered for loading for the period of relaxation sought by bidders.
2	Liquidated damages: Liquidated damages shall be 0.5% of the total order value per week of delay or part thereof subject to a maximum of 10% of the total order value.		Any deviation from the above LD clause, loading will be applied to the extent to which it is not agreed by the bidder (at offered value).
3.	Guarantee: Guarantee clause 18 months from the date of supply or 12 months from the date commissioning, whichever is earlier.		No deviation permitted and the deviated offers are liable for rejection.
	<u>Important Note:</u> i) Payment through Bank is not preferred. In case of Payment through Bank is opted by Supplier, BHEL prefers documents submission through bank with copy of LR and door delivery of Goods to Stores with Consignee copy attached. In this case Loading will be 3% on the offered value. ii) BHEL will evaluate the offers and consider the ranking after the loading is applied as referred above wherever deviations are observed. iii) LC/Advance payment will not be operated for indigenous vendors. Offers of indigenous vendors with payment term as LC/Advance payment are liable for rejection.		



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Bharat Heavy Electricals Limited

(High Pressure Boiler Plant)

Tiruchirappalli-620 014, Tamil Nadu, India

Dept : PURCHASE-MATERIALS MANAGEMENT/BOI

ANNEXURE-B (Import)

Loading factors for the tender enquiry for the requirement of Power Operated Gate **Enq No-1801700251/04 dt 04.03.2017**

Sl No.	BHEL Commercial terms	Vendor Confirmation to BHEL Commercial terms	Loading Criteria for Deviations
1	Payment terms: BHEL Payment term is 100% payment on CAD basis after 45 days from the date of receipt of documents with 10% PBG valid for the warranty period , specified in PO, at BHEL bank Respective bank charges to respective account.		Any deviation in the above payment term will attract loading as mentioned below. “Base rate of SBI (as applicable on the date of bid opening. Techno-commercial bid opening in case of two part bids) + 6% shall be considered for loading for the period of relaxation sought by bidders.
2	Liquidated damages: Liquidated damages shall be 0.5% of the total order value per week or part thereof subject to a maximum of 10% of the total order value.		Any deviation from the above LD clause, loading will be applied to the extent to which it is not agreed by the bidder (at offered value).
3.	Guarantee: Guarantee clause 18 months from the date of supply or 12 months from the date commissioning, whichever is earlier.		No deviation permitted and the deviated offers are liable for rejection.
	<u>Important Note:</u> - In the case of Usance LCs the loading will be considered @ 1.5% on the offered Value. - For LC at sight the loading will be considered @ 3.5% on the offered Value. - Normally CAD at sight and Confirmed LCs are liable for rejection - BHEL will evaluate the offers and consider the ranking after the loading is applied as referred above wherever deviations are observed.		

ANNEXURE-C (MSME)

Clause: Special provisions for Micro & Small Enterprises (MSE)

1. In case MSE vendor participating in the tender quotes within the price band of L1+15%, they will be allowed to supply the complete package requirement subject to acceptance of L1 price by MSE vendor.
2. In case of more than one such MSE, the counter offering will be to the lowest quoted MSE vendor subject to fulfillment of Point No.1
3. MSE suppliers can avail the intended benefits only if they submit along with the offer, attested copies of either EM II certificate having deemed validity (Two years from the date of issue of acknowledgement in EM II) or valid NSIC certificate or EM II certificate along with CA certificate (Format enclosed) applicable for the year, certifying quantum of investment in plant and machinery within the permissible limit as per the act for relevant status (Micro or small) where the deemed validity of EM II is over. Date to be reckoned for determining the deemed validity will be the last date of technical bid submission. Non submission of such documents will lead to consideration of their bids at par with other bidders and MSE status of such suppliers shall be shifted to Non MSE supplier till the supplier submits these documents.

(TO BE STAMPED IN ACCORDANCE WITH STAMP ACT AND THE EXPIRY DATE OF BG MUST BE AFTER 60 DAYS FROM THE DATE OF COMPLETION OF WARRANTY PERIOD)

PERFORMANCE BANK GUARANTEE

In accordance of M/s. Bharat Heavy Electricals Limited (A Government of India undertaking, a company incorporated under the Companies Act 1956 having its Registered Office at "BHEL House", SIRI Fort, New Delhi 110 049) through its High Pressure Boiler Plant Division located at Tiruverumbur, Tiruchirapalli- 620 014 (hereinafter called 'the Company') having entered into a contract withhereinafter called 'the said contractor' which term includes 'suppliers' for the purpose of this Bond and under the terms and conditions of the contract No..... Dt Between BHEL, Trichy and as per the contract, the contractor / supplier is to furnish a performance Bank guarantee for Rs. for the due performance of the equipment to be supplied under the above referred contract and for the fulfillment of all the terms and conditions of the contract, We(indicate the name of the bank) (herein after referred to as the bank) at the request of (Contractor(s)) do here by undertake to pay the company an amount not exceeding Rs.....against any loss or damage caused to or suffered or would be caused to or suffered by the company by reason of any breach by the said contractor (s) of any of the terms and conditions contained in the said agreement.

2. We(indicate the name of the bank with full address), do hereby undertake to pay the amounts due and payable under this guarantee without any demur, merely on a demand from the Company stating that the amount claimed is due by way of loss or damage caused to or would be caused to or suffered by the Company by reason of breach by the said Contractor(s) of any of the terms and conditions contained in the said Agreement or by the reason of the contractor(s) 'failure to perform' the said agreement. Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank under this guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs._____.

3. We undertake to pay unconditionally to the Company any money so demanded notwithstanding any dispute(s) raised by the Contractor in any suit, or proceedings pending before any Court or Tribunal or Arbitration or before any other authority relating thereto our liability under this present being absolute and unequivocal. The payment under this guarantee would not wait till the disputes have been decided by any Court or Tribunal or in the arbitration proceedings or by any other authority. The payment so made by us under this Bond shall be a valid discharge of liability for payment thereunder and the Contractor(s) shall have no claim against us for making such payment.

4. We.....(indicate the name of Bank), further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said Agreement and that it shall continue to be enforceable till all the dues of the Company under or by virtue of the said Agreement have been fully paid and its claims satisfied or discharged or till _____Office / Department/ Division of the Company certifies that the terms and conditions of the said Agreement have been fully and properly carried out by the said Contractor(s) and accordingly discharges this guarantee.

5. (I) Unless a demand or claim under this guarantee is made on us in writing on or before the _____ we shall be discharged from all the liability under this guarantee thereafter. But where such claim or demand has been preferred by the Company with the Bank before the expiry of the said date, the claim shall be enforceable notwithstanding the fact that the said enforcement is effected after the said date.

(ii) For the purpose of this clause, any letter making demand on the Bank by M/s. BHEL dispatched by Registered Post with Ack.Due or by Telegram or by any Electronic media addressed to the above mentioned address of the Bank shall be deemed to be the claim / demand in writing referred to above irrespective of the fact as to whether and when the said letter reaches the Bank, as also any letter containing the said demand or claim is lodged with the bank personally.

6. We(indicate the name of Bank), further agree with the company that the Company shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said agreement or to extend time of performance by the said Contractor (s) from time to time or to postpone for any time or from time to time any of the powers exercisable by the Company against the said Contractor(s) and to forbear or enforce any of the terms and conditions relating to the said Agreement and we shall not be relieved from our liability by any reason of any such variation or extension being granted to the said Contractor(s) or for any forbearance, act or omission on the part of the company or any indulgence by the company to the said Contractor(s) or by any such matter or thing whatsoever which under the law relating would, but for this provision, have effect of not so relieving us.

7. This guarantee will not be discharged due to the change in the constitution of the Bank or the Contractor(s).

8. It shall not be necessary for the company to proceed against the contractor before proceeding against the guarantor-bank and the guarantee herein contained shall be enforceable against them notwithstanding any security, which the company may have obtained or obtain from the Contractor shall, at the time when proceedings are taken against the guarantor hereunder be outstanding or unrealised.

9. Any claim or dispute arising under the terms of this document shall only be enforced or settled in the Courts at Tiruchirapalli.

10. The guarantor hereby declare that it has power to execute this guarantee and the executant has full powers to do so on its behalf under the proper authorities granted to him/them by the guarantor.

11. We(indicate the name of Bank) lastly undertake not to revoke this guarantee during its currency except with the previous consent of the company in writing.

In witness whereof we....., (indicate the name of Bank) have hereunto setout Bank Seal the _____ day _____ month 200

BANK E-MAIL ID:

BANK PHONE NO.

BANK FAX NO:

List of Consortium Bank			
	Nationalised Bank		Nationalised Bank
1	Allahabad bank	19	Vijaya Bank
2	Andhra bank		Public Sector Banks
3	Bank of Baroda	20	IDBI
4	Canara Bank		Foreign bank
5	Corporation bank	21	CITI Bank N.A
6	Central bank	22	Deutsche Bank AG
7	Indian Bank	23	The Hongkong and Shanghai Banking Corporation Limited
8	Indian Oversea Bank	24	Standard Chartered Bank
9	Oriental bank of Commerce	25	The Royal Bank of Scotland N.V.
10	Punjab National Bank	26	J P Morgan
11	Punjab & Sindh Bank		Private bank
12	State Bank of India	27	Axis Bank
13	State Bank of Hyderabad	28	The Federal Bank Limited
14	Syndicate Bank	29	HDFC
15	State Bank of Travancore	30	Kotak Mahindra Bank
16	UCO Bank	31	ICICI
17	Union Bank of India	32	Indusind Bank
18	United Bank of India	33	Yes Bank

e- Procurement – BHEL TRICHY

Dear Sir/Madam,

BHEL Trichy has implemented e-Procurement and it is going to be the way of working in future.

The Requirement :

1. A PC with Internet connectivity &
2. DSC (Digital Signature Certificate)(**Class 3- SHA2- 2048 BIT- SIGNING & ENCRYPTION**)

The following are the benefits of e-Procurement Process.

1. Ensuring no offer is missed due to last minute submission, postal delays etc.
2. Reduced Tendering & ordering cycle time
3. Economical, smoother & speedy communication
4. Greater Transparency
5. Big step towards paperless procurement process , Minimal human error
6. No geographical barriers
7. Vendor gets alerts regarding issue of new tender enquiry, amendments, clarifications etc
8. Submission of offer from the comforts of their office from any location
9. On line clarifications
10. Direct Cost Savings such as reduced Paper costs, reduced printing costs, reduced mailing costs, reduced telephone costs and reduced fax costs.

BHEL has finalized the e-procurement service Provider

M/s m Junction services Limited, Kolkata

Godrej Water Side, 3rd Floor, Tower-1, Plot-V, Block - DP
Sector - V, Salt Lake, Kolkata-700091, West Bengal, INDIA

Please get in touch with them immediately. The contact details of the service provider is given below:

SL	NAME	e-Mail ID	Mobile No	ROLE
1	DHANARAJ.P	panneer.dhanaraj@mjunction.in	(+91) 9282403700	Customer Relationship Mgr.
2	HELP DESK	eps.customercare@mjunction.in	033 – 66106426 / 54 9163348104,9231027017	

The process of utilizing e-procurement necessitates usage of DSC (Digital Signature Certificate)(**Class 3- SHA2- 2048 BIT- SIGNING & ENCRYPTION**) and you are requested to procure the same immediately, if not presently available with you. Please note that only with DSC, you will be able to login the e-procurement secured site and take part in the tendering process.

The contact details of the DSC Certifying Authority as given below

1	e-Mudhra	http://www.e-Mudhra.com	5	NIC	www.safescrypt.com
2	GNFC	www.ncodesolutions.com	6	Safescrypt	www.safescrypt.com
3	IDRBT	www.idrbtca.org.in	7	TCS	www.tcs-ca.tcs.co.in
4	MTNLTrustline	www.mtnltrustline.com			

Your early action in this regard is highly solicited.

Regards