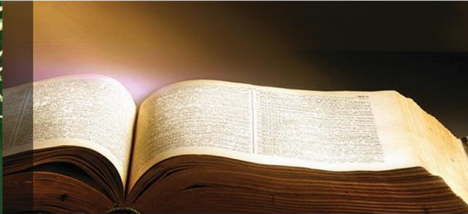




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Client : **SARDHANA PAPERS PVT LTD**

Project Details : **Technical Specification for Power Plant, Boiler and Auxiliaries**

Technical Specification

Offer Reference no. : **2024/14**

Date : **Friday, March 01, 2024**

CAD PAPER MACHINE PVT. LIMITED

Since 1972



To,

SARDHANA PAPERS PRIVATE LIMITED

Opp Power Sub Station Meerut Road

Sardhana Meerut

Uttar Pradesh, INDIA - 250342

Email : sardhanapapers@gmail.com

Kind Attention : Mr. Sanjay Rastogi ji / Mr. Naveen Gupta

Subject : Offer for Technical Specification for Power Plant, Boiler and Auxiliaries

Dear Sir,

With reference to your above-mentioned subject and subsequent discussion you had with undersigned recently, please find below our detailed techno – commercial offer for the turnkey supply of Power plant project as per below specification.

We hope that our quotation will meet your interest and should be glad to be favored with your order.

For any clarification, please feel free to contact us.

Yours faithfully,

Yours faithfully,

CAD Paper Machine Private Limited

Standard Engineering Company

Amit Mistry

Managing Director

Email: info@standardcad.com

Cell: +91 9879588493

INDEX

S.No	PARTICULAR
1	Erection Boiler, Turbine, ESP
2	Chimney
3	Boiler & Turbine Shed
4	DM Plant
5	Ash Handling
6	Fuel Handling
7	SOX, NOX
8	Non-Pressure Part, Ducting, Platform, Ladder, Railing, Elevator, MCC Panels, Cables, Electricals, Refractories, Insulation, Compressor
9	Cooling Water
10	Feed Water Tank
11	IBR Inspection
12	PRDS, High Pressure Pipeline, Low Pressure Pipeline, Turbine Oil & Centrifuge
13	Auxiliaries- Stair Case, Platform, Railings, Pipeline Support
14	Pre-operation-: Nut, Bolt, Packing, Brass steam, Taper wage etc

1.0 BOILER FABRICATION & ERECTION

Sr. no	Description of Work
A	Fabrication
1	New Boiler Non-Pressure Parts Fabrication
B	Erection
1	New Boiler Non-Pressure Parts Erection
2	New Boiler Pressure Parts Erection
3	Bought out Items
C	Welding of IBR
1	Welding of Carbon steel
2	Welding of Alloy Steel

Terms & Condition

1. All tools & tackles will be in customers scope of supply
2. Electrode, O₂, LPG & Argon gas will be in our scope and loaned by customer will be deducted to your a/c.
3. Passing charge of Boiler from boiler director will be in customer's scope.
4. Exclusion – Civil work & Insulation work painting work will be in customer's scope.
5. Hydraulic testing will be in our scope, but all commissioning work will be in the customer's scope.
6. Labour room & site store will be provided by customer at free of charge.

All nut bolts, gees seat packing material will be in customer's scope.

2.0 IBR STEAM PIPE FABRICATION & ERECTION WORK

Sr No	Description
1	Labour Charges for Fabrication & Erection of IBR Steam Pipe Line Sch.80 Size:-150 NB- Qty-200 mtr
2	Labour Charges for Fabrication & Erection of IBR Steam Pipe Line Sch.40 Size:-350 NB- Qty-600 mtr
3	Labour Charges for Fabrication & Erection of IBR Tee, Bend, Sch.80 Size:-150 NB- Qty-18 Nos.
4	Labour Charges for Fabrication & Erection of IBR Tee, Bend, Sch.40 Size:-350 NB- Qty-28 Nos.
5	Labour Charges for Fabrication & Erection of IBR Steam Trap Sch.80 Size:-25 NB Qty-20 Nos
6	Labour Charges for Fabrication & Erection of IBR Pressure Reducing System Sch.80
7	Labour Charges for Fabrication & Erection of IBR Shoe Support Size: 150 NB Qty 15 Nos.
8	Labour Charges for Fabrication & Erection of IBR Shoe Support Size: 350 NB Qty 15 Nos.
9	Charges for Radiography & its Approval for CIB Ahmedabad for 150 NB & 350 NB Steam Pipe Line Sch.80

Exclusion & Conditions

- All Consumables like Structural Steels material, & piping, fitting material will be in your scope.
- Welding machine, cutting torch, cutting gas (O₂), lifting tools & tackles & necessary manpower for allotted job will be in our scope.

Necessary manpower for the erection of Boiler, Turbine and ESP will be provided.

The estimated man days will be 45 days.

The scope of work is mentioned in detail below.

LIST OF TOOLS AND TACKLES

Sr. No	Description	Qty.
1	ALLEN-KEY-SET-1.5TO19 MM(13NOS)	1
2	ALLEN KEY- SIZE - 3 / 32"	1
3	ALLEN KEY- SIZE - 1 / 8"	1
4	DOUBLE-END-SPANNER-27 X 32	1
5	DOUBLE-END-SPANNER-14 X 15	1
6	DOUBLE-END-SPANNER-18 X 19	1
7	DOUBLE-END-SPANNER-24 X 26	1
8	DOUBLE-END-SPANNER-24 X 27	1
9	DOUBLE-END-SPANNER-30 X 32	1
10	DOUBLE-END-SPANNER-36 X 41	1
11	DOUBLE-END-SPANNER-41 X 46	1
12	SINGLE-END-SPANNER-85 MM	1
13	SINGLE-END-SPANNER-60 MM	1
14	SINGLE-END-SPANNER-70 MM	1
15	SINGLE-END-SPANNER-80 MM	1
16	RING SPANNER-24 X 27	1
17	RING-SPANNER-30 X 32	1
18	RING-SPANNER- 41X46	1
19	SINGLE-END-SPANNER-50 MM	1
20	ADJUSTABLE SPANNER-6"	1
21	SCREW DRIVER 6" NO:925	1
22	SCREW DRIVER 12" NO: 929	1
23	CIRCLIP-PLIER-EXTERNAL-6/7"	1
24	CIRCLIP-PLIER-INTERNAL-6/7"	1
25	OVER SPEED TRIP CAP REMOVAL BOLT	1

3.0 CHIMNEY

1. RCC Chimney construction work (50m height, 1.8m Diameter) from 0m to 50m. Height of construction with material.
2. Labour charges are mentioned separately.

Exclusion:

- Tools and material.

4.0 BOILER & TURBINE SHED

5.0 DM PLANT

General design data :

DM Plant :

Operating flow rate (m ³ /hr)	:	5
Net output per regeneration (m ³)	:	500
Time required for each regeneration (hrs)	:	4-5
Operation mode	:	Manual

Strong Acid Cation Unit (SAC) :

Quantity	:	1 No
Operating flow rate	:	5 m ³ /hr
Net output per regeneration	:	800 m ³
Design pressure	:	3.5 kg/cm ²
Vessel	:	MSRL
Vessel Dimension	:	800 mm Dia x 1500 mm St height
Type of resin	:	Strong Acid Cation Gel type, INDION 225-H
Regeneration Chemicals	:	32% HCl – 187.5 kg
Regeneration conc.	:	5 %
Resin Quantity	:	750 lits
Wear of resin per year	:	5-10 %
Expected life of resin	:	3 years
Waste water per regeneration	:	5.5 m ³
Pressure drop across bed	:	0.5 kg/cm ² .

DEGASSER SYSTEM:

Degasser tower

Quantity	:	1 No
Vessel	:	MSRL
Capacity	:	5 m ³ /hr
Dia	:	400 mm
Height	:	2800 mm

Degasser Sump :

MOC : MSRL
Dimension : 1000 mm Dia x 2500 mm St height
Capacity : 1960 lits

Degasser Air blower:

Nos offered : 2 nos
Make : Kay engg/ Roshan engg/Everest.
Type : Rotary
Capacity : 2.5 m3/min

Head : 0.6
HP : 0.25
MOC : CI

Degassed water pump:

Nos offered : 2 nos
Make : Johnson / KBL /Grundfos
MOC : SS 316
Type : Centrifugal
Rated capacity : 5.0 m3/hr
Discharge head : 3.5 kg/cm2
Power data : 3.0 HP/2900 RPM

Strong Base Anion Unit (SBA) :

Quantity : 2 Nos
Operating flow rate : 5 m3/hr
Net output per regeneration : 500 m3
Design : 3.5 kg/cm2
Vessel : MSRL
Vessel Dimension : 1000 mm Dia x 2500 mm MSRL
Type of resin : Strong base anion Iso-porous type, INDION FFIP
Regeneration Chemicals : 100% NaOH, 72.0 Kg
Resin Quantity : 900 ltr
Wear of resin per year : 5-10 %
Expected life of resin : 3 years
Waste water per regeneration : 10 m3
Pressure drop across bed : 0.5 kg/cm2.

Mixed Bed Unit :

Quantity : 2 Nos
Operating flow rate : 5 m3/hr

Output per regeneration	:	1500 m ³ (Once in Four days)
Design pressure	:	3.5 kg/cm ²
Vessel	:	MSRL
Vessel Dimension	:	600 mm Dia x 1600 mm
Type of resin	:	Strong acid cation iso-porous type & Strong base anion iso-porous type
Make of Resin	:	Indion 225-H & Indion FFIP
Regeneration Chemicals	:	30% HCl, 24 kg & 10.4 kg NaOH
Resin Quantity	:	90 lits Cation & 140 ltr Anion
Wear of resin per year	:	5-10 %
Expected life of resin	:	3 years cation & 2 years anion
Waste water per regeneration	:	2.3 m ³
Pressure drop across bed	:	0.5 kg/cm ² .

Note : During regeneration of MB, Compressed air will be required for 10 mins @0.4 kg/cm² pressure. If you don't provide then an additional blower will be required which we have not included in our offer presently.

Raw water pump (Customer's scope) :

Make	:	Kirloskar or any other equivalent make
MOC	:	SS 316
Type	:	Centrifugal
Rated capacity	:	5.0 m ³ /hr
Discharge head	:	30 mwc

6.0 ASH HANDLING

LIST OF ENCLOSURES

- 1 LIST OF ENCLOSURES
- 2 BASIS OF OFFER
- 3 DESIGN BASIS
- 4 CONSIDERATIONS /ASSUMPTIONS
- 5 BRIEF SYSTEM DISCRIPTION
- 6 ELECTRICAL WRITE UP
- 7 UTILITY REQUIREMENTS
- 8 SCOPE OF SUPPLY
- 9 EXCLUSIONS
- 10 TERMINAL POINTS
- 11 TECHNICAL DATA SHEET
- 12 LIST OF MAJOR BOUGHT OUT ITEMS

BRIEF SYSTEM DESCRIPTION

Boiler Bank, APH & ECO ASH HANDLING SYSTEM:

At the outlet of the Ash Hopper for Boiler Bank, ECO & APH we propose to provide suitable water cooled surge hopper along with a manually operated plate valve for isolation purpose and expansion joint to take care of any undue stress due to thermal expansion and Ash Conveying Vessel. The proposed pneumatic transporters shall be clubbed together in series in master /slave arrangement (2 master + 1 slave) & convey the fly ash at specified rate through a common heavy duty MS conveying pipeline to the Fly Ash Storage Silo. The conveyed material shall be discharged into the Fly Ash Storage Silo with the help of an end receiver provided at the end of conveying pipeline.

ESP ASH HANDLING SYSTEM:-

At the outlet of the Ash Hopper for ESP we propose to provide manually operated plate valve. The Fly ash shall be collected from three fields of ESP. ESP Field –I & ESP Field – II & III shall convey the Fly ash through dedicated Pressure Vessel and conveying line. The proposed pneumatic transporters shall be clubbed together in series in master /slave arrangement (2 master + 1 slave). The proposed pneumatic transporters shall convey the fly ash at specified rate through a heavy duty MS conveying pipeline to the Fly Ash Storage Silo. The conveyed material shall be discharged into the Fly Ash Storage Silo with the help of an end receiver provided at the end of conveying pipeline.

Level Probe shall be provided at the surge hopper of conveying vessel to initiate the conveying cycle.

415 V AC Fixed Type MCC Panel:

The MCC panel shall be single front freestanding type, floor mounted cubicle, fixed type. It shall be metal clad totally enclosed dust & vermin proof. Doors covers, barriers of MCC Panel shall be made up

of thick CRCA sheet. The bus bars shall be capable to withstand fault current & should be insulated with black colored heat shrinkable PVC sleeves with color bands at regular interval.

The incoming & outgoing feeders for MCC Panel shall be from bottom of panel through removable gland plates. MCC Bus bars shall be extendable on both sides by provision of removable end plates. It shall contain horizontal bus bar running through out of the length of the panel at top & vertical bus bars are provided in bus bar chambers/respective bays. A continuous earth bus bar of aluminum shall run throughout the full length of panel at the bottom for earthing of the panel at both ends through earthing terminals. Danger boards shall be provided at wherever required. Also each module door shall be earthed. Bus bar supporting shall be carried out on SMC/Epoxy based insulators.

Overload relays of MCC panel shall have in built feature of supply & heavy duty type. All MCB'S shall be of suitable capacity.

PLC BASED CONTROL PANEL

One No PLC based control cum mimic panel has been considered for the ash handling system. PLC based control cum mimic panel shall be vertical type, freestanding floor mounted with bottom cable entry. Allen Bradley or equivalent PLC of the other makes has been considered for the system.

PLC will be mounted inside PLC based control cum mimic panel. The PLC based control cum mimic panel shall be fabricated with 2 mm thick CRCA sheet as per manufacturer's standard design practice.

The PLC system complete with non-redundant processor, Power supply, and I/O Cards has been considered for the offered system. The 24 V DC bulk power supply shall also be non-redundant. Each digital input and output card shall be 16/32 Channels as per manufacturers' standard. Digital inputs shall be potential free, which shall be interrogated by 24V DC. All digital outputs from PLC shall be 24V DC which drive interposing relays (these shall be used for energization of solenoid valves having coil voltage 110 / 220 VAC).

Purchaser shall provide stabilized, uninterrupted control power supply for PLC system. No graphic software has been considered in our scope of supply

Make of panel shall be:

System House of Siemens

Make of PLC shall be Allen Bradley /GE Fanuc /ABB /Siemens.

Local Silo Unloading Panel:

1 No. Local Silo unloading panel shall be provided for fly ash silo and the same shall be placed on the silo operating platform. These shall be wall/column mounted type and shall be fabricated from CRCA sheet. All push buttons/indications for unloading system shall be carried out from this local panel. This unloading panel shall not be hooked up with Purchaser's DCS panel. All the cables from silo top equipments shall also be terminated in the Silo unloading panel. As such we are not envisaging any separate Junction box on silo top for the purpose.

Make of Silo unloading panel shall be:

RYB switchgear/ Vidyut Control / Advance panel & swgr/ Tricot

Power Cables:

Power cable shall be 1.1 KV grade, PVC insulated, PVC sheathed, armoured type, with stranded Aluminium conductor confirming to IS-1554

Control Cables:

Cables shall be 1.1 KV grades, PVC insulated, FRLS PVC sheathed, arm round type, multi core with copper conductor of 1.5 sq. mm size.

Signal Cables:

Signal cables shall be multi pair, color coded, PVC insulated, arm round type with 1.5 sq. mm size annealed copper conductor.

UTILITY REQUIREMENTS

CONVEYING AIR :

The conveying air requirement works out to be 0.65 M³/min. at 4.5 - 5.5 bar (g).

INSTRUMENT AIR :

The total requirement of instrument air shall be about 0.04 M³/min. FAD at 6-7 bar (g)

COOLING WATER:

The cooling water requirement shall be about 1.0 M³/hr. at 2.5 kg/cm².

SPRAY WATER:

The spray water requirement for the dust conditioner shall be 1.5 M³/hr. at 2.5 to 3.0 kg/cm².

TERMINAL POINTS

Ash	:	Outlet of ash hoppers of ECO/MDC/BAGFILTER. Outlet of Ash conditioner
Conveying air	:	Required quantity at 4.0 bar (g) at inlet of the Air Receiver the Air Receiver shall be located at a convenient Point near the Boiler within 10 mts from ESP-1
Instrument Air	:	Required quantity at 6-7 bar (g) at one point near boiler.
Spray Water	:	Required quantity at 2.5 kg/cm ² within an area of 5 M from Silo
Power	:	At the Inlets of the Drives.

7.0 FUEL HANDLING

8.0 SOX, NOX

9.0 ELECTRICALS

Sr No.	Description	Description	Quantity
1	Draft Transmitter	<p>Make: Yokogawa / Emerson Output : 4-20mA , 0.075 % Reference Accuracy Calibration Range : 0 to 700 mm WC – 05 0 to 1500 mm WC - 01 Diaphragm and Wetted Parts SS 316 Process Flanges and Adaptors : SS 316 Supply : 12-45 V DC , Output : 4-20mAa (DC) Mounting : On Vertical Standpipe Without Manifold and Display</p>	6
2	Pressure Transmitter	<p>Make: Yokogawa / Emerson Output : 4-20mA , 0.075 % Reference Accuracy Calibration Range : 0 to 60 kg / cm² Diaphragm and Wetted Parts SS 316 Process Flanges and Adaptors : SS 316 Supply : 12-45 V DC , Output : 4-20mAa (DC) Mounting : On Vertical Standpipe Without Manifold and Display</p>	2
3	Pressure Transmitter	<p>Make: Yokogawa / Emerson Output : 4-20mA , 0.075 % Reference Accuracy Calibration Range : 0 to 3 kg / cm² Diaphragm and Wetted Parts SS 316 Process Flanges and Adaptors : SS 316 Supply : 12-45 V DC , Output : 4-20mAa (DC) Mounting : On Vertical Standpipe Without Manifold and Display</p>	3
4	RTD Pt-100	<p>6 mm OD x 150 mm Long ½" Nut Make: Acryon Engineering</p>	5
5	Three Valve Manifold		6

		MOC : Carbon Steel With Nuts, Bolts and Teflon O Rings Make: GEM	
6	Two Valve Manifold		5
		MOC : Carbon Steel With Nuts, Bolts and Teflon O Rings Make: GEM	
7	K Type Thermocouple	Simplex 8 mm x 600 mm Long with ½" Nut Make : Acryon Engineering	5
8	Signal Isolator		25
		Input : 4-20mA , Output : 2 x 4-20mA Power Supply : 230 V AC, Make : Masibus	

Note :

Quote is only for Supply of Instruments

Site Calibrations shall be at extra cost which shall be discussed later

10.0 COOLING WATER

11.0 FEED WATER TANK

12.0 IBR INSPECTION

13.0 PRDS STEAM BY PASS OF TURBINE

EXCLUSIONS FOR THE OFFER

- Impulse piping to be in client's scope of supply.
- Pneumatic tubing till AFR in clients scope of supply.
- All site activities such as erection and commissioning shall be in client's scope. Supervision / guidelines for erection and commissioning will be provided by Forbes Marshall.
- All the necessary welding, pipe insulation , stress analysis , supports for piping , site civil work site IBR activities is excluded from the scope of supply.
- Safety valve outlet piping along with counter flange in client scope of supply.
- Due to continuous design improvement there might be some changes in the final scope of supply submitted along with the isometric drawings however due care shall be taken that the technical specifications are not compromised with respect to the process parameters as well as the working conditions.
- Power supply and signal cables are excluded from the scope of supply.
- Any other items not specifically mentioned in our offer is excluded from our scope of supply.



14.0 EOT CRANE

20-ton EOT crane with girders and complete electricals and crab trolleys (2 nos)

15.0 AXILLARIES & PRE-OPERATION REQUIREMENTS

16.0 DESIGN & ENGINEERING OF STEAM PIPING FOR BOILER AND EXTRACTION CUM CONDENSING TG SET.

1.0 SCOPE OF WORK

The Scope of Work considered by us is for the following piping systems.

- 1.1 H.P. Steam (67 kg/ cm²g, 490°C)
 - 1.1.1 H.P. steam line from Boiler Stop Valve to T.G. inlet.
 - 1.1.2 Initial Heating line to atmosphere for the main line to Turbine Inlet.
 - 1.1.3 H.P. steam line tapped from the above line at a suitable point to Inlet of PRDS for Ejector System and Gland Sealing system.
 - 1.1.4 H.P. Steam Line tapped from Turbine Inlet line to Inlet line of a PRDS for Process Plant.
 - 1.1.5 Drains, Traps and Vent Lines for the above Steam Lines
- 1.2 L. P. Steam (5 kg/ cm²g):
 - 1.2.1 Turbine Extraction to L.P. Steam Header in Powerhouse Area.
 - 1.2.2 L.P. Steam Header with provision for future Boiler and T.G.
 - 1.2.3 L.P. Steam from Downstream of Process PRDS to L.P. Steam Header.
 - 1.2.4 L. P. Steam from PRDS downstream to Terminal Points for Ejectors and Gland sealing steam.
 - 1.2.5 L.P Steam from L.P. Steam Header to Deaerator.
 - 1.2.6 Drains, Traps and Vents for the above Lines.
- 1.3 Spray Water to Desuperheaters:
 - 1.3.1 Feed Water from BFP Discharge Header to PRDS for Process.
 - 1.3.2 Feed Water from BFP Discharge Header to PRDS for Ejector and Gland Sealing.

2.0 SCOPE OF DESIGN AND ENGINEERING SERVICES:

For the above-mentioned scope of work the following Engineering Services shall be provided by us:

- 2.1 P & ID's
- 2.2 Piping Layout Drawings
- 2.3 Piping Isometric Drawings.
- 2.4 Design and Dwg. for L.P. Steam Header in Power House.
- 2.5 Stress Analysis as per requirements.
- 2.6 Specification of PRDS Stations and Desaperheaters.
- 2.7 Specification of Expansion Bellows for Turbine Extraction line.
- 2.8 Bill of Materials along with specifications.
- 2.9 Spring schedule and supports design.

2.10 Drawings for IBR approvals and obtaining approvals from the Director of Boilers are excluded from our scope.

3.0 EXCLUSIONS:

Our scope is only as indicated above. However, for the sake of clarity, following items are specifically excluded from our scope.

- Power house and Boiler Area Layout Dwg
- Main Equipment and Auxiliary Equipment Layouts.
- Cooling water and Condensate systems.
- Civil and structural work.
- Pipe Rack Structures and Civil Foundations.
- Supply and Erection of Materials.
- Electrical and Instrumentation work.
- Insulation work.
- IBR approval of drawings. The IBR approvals shall be obtained by the Erection Contractor.
- Any other system like C.W., D.M. Water, Instrument Air, Service Water, effluent system piping etc.

4.0 COMPLETION SCHEDULE:

We shall be able to complete the job progressively in such a way to complete the work as per your project schedule to be mutually agreed. Tentatively, it is expected to take approx. 3 Months progressively to complete the job from the date of availability of input data for Design & Engg.

5.0 VALIDITY:

Our offer shall remain valid for your acceptance for a period of 15 days from the date of this offer.

6.0 FACILITIES AT SITE:

Local Travel, Lodging and boarding for our Engineers during visit to site shall be provided by you free of costs.

17.0 PRICE SUMMARY

Sr. no	Item / Description	Quantity	Value
1	Erection Boiler, Turbine, ESP	1	₹ 1,00,00,000
2	Chimney	1	₹ 40,00,000
3	Boiler & Turbine Shed	1	₹ 60,00,000
4	DM Plant	1	₹ 50,00,000
5	Ash Handling	1	₹ 60,00,000
6	Fuel Handling	1	₹ 20,00,000
7	SOX, NOX	1	₹ 21,40,000
8	Non-Pressure Part, Ducting, Platform, Ladder, Railing, Elevator, MCC Panels, Cables, Electricals, Refractories, Insulation, Compressor	1	₹ 4,00,00,000
9	Cooling Water	1	₹ 20,00,000
10	Feed Water Tank	1	₹ 5,00,000
11	IBR Inspection	1	₹ 20,00,000
12	PRDS, High Pressure Pipeline, Low Pressure Pipeline, Turbine Oil & Centrifuge	1	₹ 15,00,000
13	Auxiliaries- Stair Case, Platform, Railing, Pipeline Support	1	₹ 50,00,000
14	Pre-operation-: Nut, Bolt, Packing, Brass steam, Taper wage etc	1	₹ 50,00,000

TOTAL ORDER VALUE : ₹ 9,11,40,000.00

The above value is ex-works and at site, GST, packing and forwarding will be extra as applicable.

18.0 TERMS & CONDITIONS :

DELIVERY SCHEDULE / TERMS OF DELIVERY

- ≡ The delivery will be as mentioned below
- ≡ Time estimated: 16-20 Weeks
- ≡ Technically and commercially clear purchase order
- ≡ Timely advance payments
- ≡ Approval of drawings, whichever is later.

PRICE OF THE EQUIPMENT – TAXES

- ≡ The price stated in this contract is subject to escalation
- ≡ The prices offered are subjected to escalation clause as under:
A = Price offered in our quotation.
B = Price of steel per MT of Indian Steel as on confirmation date.
C = Price chargeable at the time of delivery.
D = Price of steel per MT of Indian Steel at the time of delivery.
Formula: $C = A + [(A \times D/B) - A \times .65]$
- ≡ Delivery should not be delayed by the Purchaser. This may result in increase in the value of goods. The demurrages will have to be paid by the purchaser.
- ≡ Any taxes, custom duties or charges imposed in the importing country shall be paid by the Purchaser, and if paid by the Seller, Purchaser hereby agrees to repay Seller for the full amount thereof, at first request of Seller.
- ≡ Our prices quoted in Rupees are to be understood for delivery **EX-Works, unpacked and all taxes & duties are extra.**
Items covered under this category has been clearly marked (#) in the technical specification for purpose of clarity.
- ≡ The prices offered are excluding G.S.T @ 18%. The above will be charged extra as applicable at the time of delivery.
- ≡ The customer will have to arrange for Insurance. When material becomes ready for dispatch you will be intimated details of dispatch such as L/R No., Challan No. & Invoice No.
- ≡ CAD shall arrange dispatches through road transport to be recommended by customer on **Freight To-Pay basis.**

PAYMENT

The Purchaser shall pay the agreed price in accordance with the conditions of this agreement. Any delay or irregularity in the payment shall entitle the Seller to suspend the performance of this contract as well as of any other contract between the parties.

Moreover, the Seller shall have the right, with no need for any intimation to pay, to obtain interests for delayed payment, corresponding to the Indian official reference rate.

TERMS OF PAYMENT

- ≡ 40% of total Rupees order value is payable up on order placing.
- ≡ 60% payment is against presentation of Performa Invoice against staggered delivery when the materials become ready for delivery stage wise.
- ≡ All payments should be released by at par cheque / DD payable at Vapi or can be deposited with the bank against account details provided or by RTGS.

TAXES AND DUTIES

GST @ 18% will be applicable on the basic value of Goods.

GSTIN no. : 24AAACC9633N1ZE

HSN Code for Parts : 84399900

HSN code for Capital Equipment : 84392000

MSME Udyam Registration no. : UDYAM-GJ-25-0011590

PACKING

Machine will be dismantled and packed in necessary wooden cases, crates, gunny wrap and as loose pieces suitable for containerized shipment.

The approx. packing charges will be 1.0% of the total project cost.

Specifications of packing material:

- ≡ All the frames will be shrink wrapped with PVC film.
- ≡ All the rolls will be packed in wooden boxes
- ≡ Loose items will be packed in gunny bags, boxes or crates as required.

GUARANTEE

For the components, materials, and workmanship for a period of 6 months from date of commissioning or 12 months from date of supply whichever is early.

CAD Paper Machine Pvt. Limited, will extend the sub suppliers Warranty for the components supplied by them.

For the components, materials, and workmanship for a period of 12 months from date of supply whichever is early.

- ≡ Rubber covering cannot be guaranteed. The guarantee is applicable only if it is found that there is a material/covering defect.
- ≡ Bearing failure will be covered under 3rd Party analysis. The guarantee against any manufacturing defect will be provided from the OEM.
- ≡ CAD Paper Machine Pvt. Limited, will have no warranty obligation under the paragraph -
- ≡ If the buyer fails to ensure that the parts are operated and maintained in accordance with generally approved Industry practice.
- ≡ If the parts are repaired by someone other than CAD Paper Machine Pvt. Limited, without CAD's, written instructions.
- ≡ In cases of corrosion, erosion, ordinary wear, and tear of any parts which by their nature are exposed to severe wear and tear or are considered expendable
- ≡ In no event, whether based on contract, tort (including negligence), strict liability or otherwise, shall CAD Paper Machine Pvt. Limited, its employees, subcontractors or suppliers be liable to the Buyer or any third party for special, incidental, indirect, consequential, or punitive damages of any nature including, loss of use, profits or revenue, loss by reasons of plant shutdown, the inability to operate any facility at full capacity or increased expense of plant operations.
- ≡ Subject as hereinafter set out, the Seller undertakes to remedy any defect of the Equipment resulting from faulty materials or workmanship, provided such defect is notified to the Seller within (8) days from its detection and in any case within the guarantee period. The guarantee period is of 12 months from the date of delivery.
- ≡ The Seller's liability shall apply only to defects that appear under normal conditions of operation and proper use. It does not cover defects arising from the Purchaser's faulty maintenance or erection, or from alterations carried out without the Seller's consent in writing, or from repairs carried out improperly by the Purchaser, nor does it cover normal deterioration. The Seller is not responsible for failures due to negligence, accident, abuse, improper storage or maintenance, or abnormal conditions of temperature, moisture, dirt, or corrosion.
- ≡ After having received from the Purchaser a written notification of the claimed defect, the Seller shall make the appropriate test and inspections, and if the Equipment is found defective, the Seller will have the option either to repair or to replace the defective parts. The costs of dismantling and installation of the equipment as well as the cost of transportation of equipment which has been replaced, or repaired at the Seller's premises, are for the Purchaser's account.

ERECTION

Should be arranged by the buyer as per our supplied drawing

GENERAL

These general conditions shall apply, save as varied by express agreement accepted in writing by both parties. Additional or different terms proposed by the Purchaser shall not apply, unless expressly accepted in writing by the Seller. In case of

contradiction between these general conditions and any special conditions agreed upon between the parties, the special conditions shall prevail.

DRAWINGS AND DESCRIPTIVE DOCUMENTS

The weights, dimensions, capacities, prices, performance ratings and other data included in catalogues, prospectuses, illustrated matter, price lists or similar documents, constitute an approximate guide. Such data shall not be binding, save to the extent that they are by reference expressly included in this contract.

SUPPORT INFORMATION

As an accommodation to the Purchaser, the Seller will utilize available sources, and make calculations and assumptions based thereon, to meet the Purchaser's requests regarding information pertaining to connections at terminal points of the Equipment's as such points relate to design, construction and procurement of buildings, foundations, sill beams, vacuum pumps, and piping. The utilization of this information as furnished by the Seller and the consequences of such use shall remain the responsibility of the Purchaser.

SUBSEQUENT CHANGES

The Purchaser may request changes in the design, drawings and specifications, shipping instructions and shipment schedules of the Equipment. As promptly as practicable after receipt of a written request, the Seller will inform the Purchaser of the amendments to the terms and conditions of the contract (such as price, specifications, delivery schedule) which will be necessitated by the requested changes. Such changes will become effective upon the written acceptance by the Purchaser of the conditions proposed by the Seller.

The Seller reserves the right to make minor changes in detail of design, construction or arrangement of the Equipment as shall, in its judgement, constitute an improvement with respect to the former practice shown or described in the specifications.

DELIVERY

Save as otherwise agreed in writing, delivery shall be on To-Pay basis to Seller's premises. Unless special shipping instructions are received from the Purchaser substantially before the shipment date, the Seller is hereby authorized to decide on behalf of the Purchaser as to the best means of shipment and routing consistent with the nature of the equipment and shipment schedule.

The delivery date has been established on the basis of prompt receipt of the Purchaser's approval of engineering production layout drawings and receipt of the Purchaser's decision on any other engineering changes within 30 days after submission by the Seller. If the Purchaser's approvals and decisions are not received within the periods set forth above, the Seller may extend the delivery date.

The Seller will use all reasonable diligence to meet the dates schedules for delivery. However, the seller shall not be liable for any loss, damage, expense, or charges resulting from delay in delivery.

TRANSFER OF RISK

Unless otherwise agreed in writing, the risk, in respect of the Equipment shall pass to the Purchaser when the goods are handed over to the first carrier.

However, if the Purchaser refuses to take over the Equipment or if he does not so in due time, the risk (as well as the responsibility for any expenses relating to the Equipment) passes when the goods are placed at his disposal, and he commits a breach of contract by failing to take delivery.

INTELLECTUAL PROPERTY

It is agreed that all drawings, specifications, plans, software, and any other documents provided by the Seller or by anyone on his behalf (Intellectual Property), and any other property rights related to the Intellectual Property will remain the exclusive property of the Seller.

The Intellectual Property will be used exclusively to carry out the obligations referred to in the present contract and cannot be used by the Purchaser or his employees or agents for the execution of other contracts, that is, for the completion of the present contract utilizing any party(ies) which is not the Seller, without the prior written consent of the Seller. The Purchaser undertakes to maintain strictly confidential the Intellectual Property which comes into his possession or knowledge, even after the resolution of the present contract.

FORCE MAJEURE

The Seller shall not be liable for any failure or delay in performance of its obligations not be deemed to be in breach of this contract if such failure or delay has arisen from "force majeure".

Upon written notice by the Seller the deadlines for the fulfilment of contractual obligations shall be automatically extended for a period of time equal to the period of delay caused by the circumstances of force majeure plus the delay reasonably incident to the resumption of normal production.

"Force majeure" means circumstances or conditions beyond the reasonable control of either party which make it substantially impossible to fulfil its obligations or which delay such fulfilment. Shall be in particular considered as circumstances of force majeure: strike, non-delivery of material by suppliers, acts of God, war, insurrection, governmental actions, war or national emergency, acts of terrorism, protests, riot, civil commotion, lockouts, go slow, fire, explosion, flood, epidemic, strikes or other labour disputes (whether or not relating to either party's workforce), power cuts, restraints on shipping, action of states and its statutory bodies, or any other reasons beyond our control or restraints or delays affecting carriers or inability or delay in obtaining supplies of adequate or suitable materials or the discovery by the Seller of any defects in castings manufactured by the Seller for the Contract etc.

LIMITATION OF LIABILITY

The limited warranties set forth herein are exclusive and in lieu of all other warranties, express or implied by law or trade usage, including any warranties of merchantability or fitness for a particular purpose and shall be the the Purchaser's sole and exclusive remedy. Purchaser waives any other basis for recovery against Seller, and Seller shall not under any circumstances, be liable for any incidental or consequential damages, including, but not limited to loss of use, loss of anticipated profits loss of or reduced production or loss of contract.

VALIDITY

The quotation is strictly valid for **30 days** from the date of issue. However, if unforeseen increase in cost of raw material and other incidentals occurred during the course of delivery duration the quoted price shall be subject to revision.

ARBITRATION

In the event of any question of dispute arising under or in any way touching the contract, the same shall be referred by Arbitration in accordance with the Indian conciliation and Arbitration act 1996 and rules made there under. The venue of Arbitration shall be Vapi (Gujarat).

JURISDICTION

Subject to courts of Vapi in India.

TERMINATION

Order once is placed it can only be cancelled on mutually agreed terms in writing.

INSURANCE

CUSTOMER shall arrange transit insurance on prior intimation at the time of dispatch with the details of L/R No, Challan no and Invoice No.