

Specification of Electric Driven, Air Cooled, Quiet Model with Micro processor controls Rotary Screw Type air Compressor.

S/No	Description	Specification
1. Compressor		
1.1	Make	Make: ELGI/CHICAGO PNEUMATIC/KIRLOSKAR/reputed makes
1.2	Model:	Air cooled , Quiet Screw Type air Compressor, with Microprocessor controls
1.3	Engineering Data	
1.3.1	i) Number of stages: ii) shaft horsepower per cubic meter fad (as per ISO: 1217 and 100% flow rate) iii) specific energy / power requirement of compressor in kw/m3 FAD as per ISO:1217 i.e. taking into account all losses at 100% flow rate : i.e. at full load) iv) Working pressure at outlet discharge point. v) Oil Fill Capacity vi) Type of cooling vii) Receiver tank capacity viii) Temperature of Air leaving the outlet valve ix) Outlet size: x)Over all dimensions of unit with canopy xi) Gross weight of compressor unit with canopy .	i) one ii) 5.78 KW/m3/min at shaft iii) 5.78 KW/m3/min/at shaft iv) 7.0 Kg/cm2 nominal pressur. v) Separator tank:-86.5 Liters/First Fill – 29 liters or as suitable to compressor requirement. vi) Air cooled vii) 3 m3 Ambient +10-12 deg C ix) 2” NPT NORMAL x) 2200x1170x1920 MM APPROX. LWH or as suitable to compressor requirement . xi) 2100 kg approx. or as suitable to compressor requirement.
1.3.2	Specific Details	
A.	Flexible CLAW coupling : ROTEX 60 type/as suitable for compressor requirement	
B.	After Cooler a) Type:- VERTICAL MOUNTED b) Make:- ELGI/CHICAGO PNEUMATIC/ KIRLOSKAR/ Reputed makes c) Capacity: 3 m3	
C	Dehumidifier/ Moisture Separator with automatic drainage system: a) Type: Cyclonic	

	b) Make" ELGI/ Reputed Make
E	Air Piping a)-Types MS b)- Reputed
F	NRV`s i. Type : Mechanical ii. Make: ELGI/ CHICAGO Pneumatic/ Kirloskar/ Reputed Make
G	Rotor Screw: i) Main rotor rpm: 1485 or as suitable ii) Life of rotor screws 55000-60000 Hours
H	Oil Cooler. i. Arrangement provided to ensure that oil temperature does not rise to 55 Deg C above ambient. ii. Sump capacity : 86.5 Liters or as suitable for compressor requirement iii. Frequency of oil charges: 6000 Hours or as suitable for Compressor requirement iv. Cooling Capacity: 11820 KCAL/Hr / as suitable for compressor requirement
I	Microprocessor Controls: i) Type: Microprocessor based ii) Make: ELGI/, Model: NEURON/Reputed makes iii) Sailer Features (s) Should be provided separately with manual iv) Circuit & Ladder Diagram (s): Circuit Dia should be provided
J	Filters a) Air intake filter i) Type : Dry ii) Make: ELGI / Reputed makes iii) Cleaning periodicity; 1500 Hours or as suitable for compressor requirement iv) Replacement Periodicity: 2000-2500 Hours b) Oil Filter i) Type; SPIN ON ii) Make: ELGI/ Reputed makes iii) Replacement Periodicity: 3000 Hours or as suitable or compressor requirement C) Air Oil Separator i) Type; COALESCANT ii) Make: ELGI/Reputed makes iii) Replacement periodicity: 6000 Hours (Minimum)
K	Bearings: a) Make : SKF/TIMKIN/FAG/Reputed makes b) Type: Cylindrical roller/ taper c) Working Life: 25000-30000 Hours (Nominal) d)
L	Inter Locking safety Features: a) details of safety interlocking features should be provided later

	<p>b) Auto- stop feature when air temperature before air oil separator Exceed 105 deg.C:OK</p> <p>c) Safety relief valves:</p> <p>i) Type : MECHANICAL</p> <p>ii) Make; ELGI/ Reputed make</p>
M	<p>Oil Lubricants:</p> <p>A- Quality of first fill</p> <p>i) Lubricants: To be specified as per requirement of compressor</p> <p>ii) Compressor Oil: 29 LITERS as per requirement</p> <p>B – Lubricants To be specified as per requirement of compressor</p> <p>C- compressor Oil</p> <p>i) Type: synthetic oil</p> <p>ii) Make : ELGI Duraplus Genuine oil manufactured by Valvoline Cummins for ELGI quipment / any other reputed brand grade (equivalent): ISO VG 68.</p>
N	<p>Prime Mover/ Motor</p> <p>2.1 Engineering Data</p> <p>i)Make: SIEMENS / reputed makes, Type: SQUIRREL CAGE TEFC.</p> <p>ii)Operating Speed: Maximum 1485 RPM/ minimum 1485:RPM</p> <p>iii) Power Output:</p> <p>A .Without Service Factor of motor: 75 KV</p> <p>B. With service factor motor: 9 KV intermittent</p> <p>C. Specify service factor of motor: 1.15 Continuous 1.2 Intermittent</p> <p>D. Enegy consumption and efficiency at shaft as per ISO 1217 full load full speed: 86 KW</p> <p>E. Starter</p> <p>a) Type: Automatic start delta</p> <p>b) Make: SEIMENS/ Reputed makes</p> <p>F. coupling</p> <p>A) Type: CLAW</p> <p>B) Make: ROTEX/ Reputed Make.</p>
2.	Air Dryer
2.1	Engineering Data
	<p>i) Make / Manufacturer : ELGI / CHICAGO PNEUMATIC/KIRLOSKAR / Reputed makes</p>
	<p>ii) Type: REFRIGERATED</p> <p>iii) Model Number: ELRD 750 A of ELGI or equivalent</p> <p>iv) Cycling/ Non-Cyling: Non Cyclic</p> <p>v) Refrigerent : Type R -407 C/R 404A/any approved type</p> <p>vi) Tested flow Full flow: 21.23 M³ /min/750CFM</p> <p>vii) Outlet Pressure Dew Point(in Deg C) full flow 3° C</p> <p>viii) Pressur Drop (in/Kg/Cm²) full flow/0.2</p> <p>ix) Total dryer input power (in KW) Full flow 4.9 KW or as suitable for compressor requirement</p> <p>x) Specific Package Power (in KW/100 cfm); to be specified as per</p>

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Note: all power figure mentioned as per ISO 1217.

Special Terms & Conditions :-

N.B. PACKING CONDITIONS:- Material should be provided with standard packing which can withstand transit damage, handling and proper storage.

1. E.M.D. : Firms registered with NSIC /NWR for the trade group of this item up to their monetary limit are exempted for EMD Others Tenderers should pay E.M.D. RS. 20000.00/-as mentioned in tender notice failing which their offer is liable to be summarily rejected. and S.D. should be taken 5% before issue of purchase orders if failed to deposit within 14 days after issue of letter then R.P. Action can be done..

2. DELIVERY : Delivery within 30-60 days or earlier this should be subject to modification by C.A..

3 INSPECTION—BY RITES

4. Indicate address of your works where material can be inspected before dispatch.

5. Material is required strictly as per the drawing / specification.

6. Indicate make & brand and send complete literature of your product offered.

7. Furnish your performance details of last three years and send copy of certificate of your registration with Railways or NSIC or on Government Organizations if any.

8. Validity: - Tenderres are required to keep their offer open for at least 120 days from the date of tender opening.

9...SOURCE IF RAW MATERIAL / COMPONENTS: Please specify the names of venders from whom you intend to procure Raw Material / Component used in your product.

10.The element of ED & Sales Tax and other government levies as included by them in prices should specifically individually mentioned, without which the offer of the Tenderers may not be considered.

11.If a tenderer chooses to quote price inclusive of excise duty. They should clearly indicate the rate of excise duty and quantum of excise duty included in his price.

12. i Tenderers to give consent in a mandate form for receipt of payment through EFT.

ii Tenderers to provide the details of Bank account in line with RBI guidelines for the same. These details will include Bank name, branch name & address, type of account, Bank account No. and Bank & Branch code as appearing on MICR cheque issued by bank.

iii Tenderer to attach certificate from their bank certifying the correctness of all above mentioned information's (as mentioned in Para 13) above.

iv In case of non-payment through EFT or where EFT facility is not available, payment will be released through cheque.

13i The tenderer should quote the exact percentage of VAT that they will be charging extra.

ii While quoting the rates, tenderer should pass on (by way of reduction in prices) the set off/input tax credit that would become available to them by switching over to the system of VAT from the existing system of sales tax, duty stating the quantum of such credit per unit of the item quoted for.

iii The tenderer while quoting for tenders should give following declarations:-
 " We agree to pass on such additional set off/ input tax credit as may become available in future in respect of all the inputs used in the manufacture of the final product on the date of supply under the VAT scheme by way of reduction in price and advise the purchaser accordingly"

iv The supplier, while claiming the payment will furnish the following certificate to the paying authorities:

" We hereby declare the additional set offs/input tax credit to the tune of Rs.....has accrued and accordingly the same is being passed on to the purchaser and to that effect the payable amount may be adjusted.

v for the states in which the VAT has not yet been introduced, the existing system of sales tax shall continue.

14. Firms, who are traders, are required to indicate name & address of manufacturer works and submit the authorization letter from their Manufacturer on their letterhead along with the tender. The material supplied by the traders will be inspected at their manufacturer premises by the inspecting agency before supply.

15. Whenever all or most of the participating Tenderers quote equal rates and cartel formation is suspected. The Railways reserve the right to place order on one or more Tenderers with exclusion of the rest without assigning any reason thereof.

16. Offers for quantity less than 50% of tendered quantity will be considered unresponsive and liable to be rejected in case cartel formation is suspected. Railways, however, reserve the right to order on one or more tenderers any quantity.

17. The firms who quote in cartel is warned that their names are likely to be deleted from list of approved sources.

18. In case of item reserve to purchase from RDSO's approved sources then bulk order shall be placed on RDSO's approved sources only.

19. ELEMENT OF FREIGHT FOR INDIGENOUS PURCHASE:-

(a) In case where the consignees are more (say more than 4 or so), tenderers are required to quote for the FOR station of dispatch prices with an average freight for all consignees, which will be added to FOR station for dispatch price to get FOR destination prices.

(b) In case where the consignees are four or less, Tenderers are required to quote FOR station of dispatch price with actual freight for each individual consignee, which will be added to FOR station of dispatch price to get FOR destination prices for each individual consignee.

20. Firm shall indicate the site requirement for installation & commissioning of the Machine. In case no such requirement mention in the offer then it will be presume that there is no such requirement of the site preparation.

21. TIMELY COMMISSIONING :- In the event of contractors' failure to have M&P commissioned by the time or times respectively specified in the letter of acceptance or contract, purchaser may withhold, deduct or revoer from the contractor as penalty, a sum @ 2% (Two percent) of the price of M&P which the contractor has failed to commission as aforesaid for each and every month (part of a month being treated as a full month) during which the M&P may not have been commissioned, subject to an upper limit of 10% (ten percent) of contract value.

22 . WARRANTY:-

(a) Warranty period of M&P will be 24 months from the date of commissioning and proving out of M&P. A Maximum period of 2 (two) weeks will be allowed for attending and rectification faults during the warranty period.

(b) Maximum down time during the warranty period will be 2% (two percent) for on line M&P and 10% (Ten percent) for of line M&P calculated on quarterly basis.

(c) A penalty of 0.5% (Zero point five percent) per week of the contract value will be levied for delay in response time for attending and rectification of faults beyond specified time during the warranty period as detailed above.

(d) Maximum penalty to be levied on account of warranty failure will be 5% (Five percent) of the contract value calculated during whole of warrantee period and after that if there is any delay on the part of supplier, purchaser shall be entitled for encashment of WG Bonds. In such cases the bad performance of firm during the warranty period, the same should be recorded and circulated to all Railways. The same should be given due regard in deciding future orders on the firm and when evidence to the contrary is not available, the fir's offer may be even rejected.

23. PAYMENT TERMS:- The standard payment terms subject to recoveries if any, under the liquidated damages clause and general condition of contract will be as under:-

(a) 80% of the payment on proof of inspection certificate and & receipted Road Challan send by the Gazetted officer of indenting department to be made within 30 days of receipt of documents as specified.

(b) Balance 20% payment within 90 days after installation/commissioning and proving out test of MACHINE subject to submission of bank guarantee for an amount of 10% of contract value, as warranty security.

24 Insurance:- Insurance upto ultimate consignee must be ensured.

25 TECHNICAL COMPLIANCE:- The Tenderers should give para-wise comments on the technical specification to indicate whether the equipment offered fully meets the tender specifications. The offer should be accompanied with complete details of technical parameters

26 AUTHORIZATION LETTER:-In case the Tenderers is an agent of the manufacturer, they should clearly indicate the same and also enclose authorization certificate from the manufacturers to this effect and also mention the place where the equipment will be offered for pre-inspection before Despatch.

27 TRAINING:- The contractor during commissioning of the equipment will also train Railway staff in operation and maintenance of equipment supplied.

28 Indicate address of your works where material can be inspected before dispatch.

29 The firm should clearly indicate the CST/VAT without form C & D.

30 In case of multi items or single item with multi consignee, the inter se ranking of offers will be decided separately for the individual item and for each consignee.

31 Offer of manufacturers (OEM) or their authorized dealers shall be considered for ordering . tenderers are required to submit documents in proof of the same.

32 In case the machine is imported from outside India , tenderers shall submit proforma invoice of OEM indicating the price of the machine.

33 Tenderers are required to quote in Indian currency only otherwise their offer shall be rejected without any further information.

34 “As per the Rajasthan Tax on Entry of Goods into local Areas Act 1999. If Entry Tax is payable on commodity quoted, firms are advised to indicate rate of entry tax payable on such commodity. In case firm does not mention the rate of entry tax, it will be presumed that entry tax will be paid by the firm. If firm indicates Entry tax payable and to be paid by the purchaser and firm has not indicated the rate of tax, then maximum rate of entry tax will be loaded on firm’s offer.”