

Institute for Plasma Research
(An Autonomous Institute of Dept. of Atomic Energy)
Bhat, Gandhinagar

Eligibility Criteria (Part-1(A))

ITEM DESCRIPTION	Supply, installation, commissioning and acceptance of Oil Injected Screw Air Compressor		
Sl. No.	PARTICULARS	REMARKS	
I	Name of the Vendor		
II	IPR Enquiry NO & Date	IPR/TN/PUR/ET/1/16-17 Dated 07/04/2016	
III	Vendor Offer No & Date		
Si. No.	Criteria	Documents required to upload	Status of Documents (Uploaded/ Not-Uploaded in e-Tender Portal)
1	The bidder must have more than 5 years of experience in system integration and supply of standard air screw compressor system of similar or higher capacity mentioned in this tender document	Purchase Order copies with technical details and proof of delivery/Completion Certificate	
2	The bidder must have supplied similar or higher capacity product having single order value of Rs. 30 Lacs and above to reputed Govt. / Semi Govt. / Public Sector / Private Sector Units within last five years.	Purchase Order copies with technical details and proof of delivery/Completion Certificate	
3	Average Annual turnover of the vendor for the last three years should be at least Rs. 1.15 crore	The copies of Audited Annual Accounts/Balance Sheet along with Profit & Loss Account or CA Certified Statement for last three financial years i.e., 2012-2013, 2013-2014 and 2014-2015	

Note:

- 1) No Consortium will be allowed. The bidder must meet all the eligibility criteria by itself.**
- 2) The response to tender without submission of proof of above points will summarily be rejected without**

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TECHNICAL SPECIFICATIONS (Part-1(B))

ITEM DESCRIPTION	Supply, installation, commissioning and acceptance of Oil Injected Screw Air Compressor	
Name of Vendor		
IPR Enquiry No and Date		IPR/TN/PUR/ET/1/16-17 Dated 07/04/2016
Vendors Offer No and date		

Sr.No	Particulars	IPR Requirement	Vendor's specification	Remarks
1	Design Data			
1.1	No. of compressor systems required	1		
1.2	Compressor Type	Oil injected/oil flooded screw type		
1.3	Cooling type for cooling of oil and air	Air cooled (Coolers must be sized for the load corresponding to higher torque load of motor shaft mentioned in Sl. No. 1.10 of this table (total for both coolers) which is also equal to the minimum required motor capacity)		
1.4	Nominal discharge Pressure of air required at the end (or terminal point) of compressor system	13 bar(g) or higher		
1.5	Single Stage or Double Stage compression	Single stage		
1.6	Lubricating oil content in air at the end (or terminal point) of compressor system.	≤ 0.01 PPM By volume (Activated carbon bed may be used to achieve this. If this is used, a filter should be used at the down stream of it to filtrate 20 micron or bigger size carbon particles coming from this bed)		
1.7	Moisture content in terms of PDP in terminal point (end of compressor system) discharge air	≤ PDP (pressure dew point) 5 0 C.		
1.8	Air volume flow control or Part Load Control method	VFD (variable frequency Drive) - it should be able to vary flow at least down to 30% and on higher side up to 100% of nominal flow rate.		
1.9	Volume Flow rate in cfm (cubic feet per minute) at suction condition (atmospheric pressure and temperature)	Between 450 to 500; And as per standard capacity of supplier		
1.10	Motor shaft torque	20 % more than standard requirement for the nominal compressed air delivery mentioned in this document. This is required considering special application requirement.		
1.11	Air Temperature at the Outlet of whole compressor unit at any time in the year	< (Ambient +100C) (Gandhinagar, Gujarat atmospheric temperature should be taken into account for designing the air coolers)		
1.12	Type of delivery pipe end connection to the application at the outlet of whole unit	Bolted SS (stainless steel) flange type. Standard flanged end pipe with holes for bolting and counter blank flange should be provided by the supplier.		
1.13	Suction filter housing	It should have separate housing with its pipe assembled to the suction port of the compressor with bolted flange. Compressor (or air end) with this filter housing should not be made as one casted component)		
1.14	Air receiver tank	A vertical tank with following specs should be included towards the end (or terminal point) of air discharge (or terminal point) of the compressor system. Design pressure-17 bar (g), working pressure-15 bar (g), Internal volume: 2 m ³ maximum height-3.5 m tank construction material: carbon steel or mild steel with epoxy painting on both internal and external. pressure gauge and pressure relief valve with burst disc should be provided. leak tightness at any location: AS per design code/standard		
1.15	Design, fabrication and tests code/standard	ASME or equivalent international code/standard		
1.16	Pressure test and leak test of air receiver tank	As per design code/standard		
2	Other Specifications, supplier need to consider for Supply of Whole System			
2.1	Installation Location	Outdoor (IPR Extension Lab, Bidhata Building, Gandhinagar, Gujarat).		
2.2	Temperature and humidity variation:	As per Gandhinagar (Gujarat) weather		
2.3	Vibration and noise level	< 78 db at a distance of 1 meter from the unit. We prefer the noise level of the compressor should be as minimum as possible.		
2.4	Filters for oil and suction air	Filters for oil and suction air should be able to filtrate all particles of 20 micron or bigger size.		
2.5	Necessary instrumentation and controls	Necessary instrumentation and controls for all variable parameter should have local display with control cabinet.		
2.6	Power Supply	Power available at IPR: a) 415 V ± 10%, 50 Hz ± 5% , 3 phase, 5 wire (without back up) for heavy loads and b) 230 V ± 1%, 50 Hz ± 1Hz , single phase, 3 wire		

2.7	Air receiver tank	Air receiver tank should have necessary instruments and accessories useful for operations and tests (pressure tests and leak tests), besides whatever mentioned in this document.		
2.8	List of instrumentations and controls	Supplier should give a list of instrumentations and controls, if any, with make of it and main specifications included in the supply. This should be also uploaded with quotations/proposal for technical evaluations.		
2.9	Safety equipments and alarm	Necessary safety equipments and alarm provisions shall be provided by the supplier. The list for the same should be uploaded by the bidder along with quotations/proposals for technical evaluation.		
2.1	Support structure	To support the buffer tank on the concrete floor it should have provision of fixing with anchor-fastener. It should not require special concrete flooring. Supplier should upload the weight and dimensions of components/systems along with proposal for technical evaluation		
2.11	Mass flow rate measurement	Supplier should provide calibrated flow meter in addition with standard package to measure air volumetric or mass flow rate during acceptance test. This should be included as part of the supply.		
3	Scope of Work and Supply			
3.1	Scope of work	The offer must include the following works		
3.1.1		Fabrication and assembly of components of compressor unit with all accessories.		
3.1.2		Appropriate quality assurance and quality control, inspection and tests.		
3.1.3		Pre-dispatch inspection tests at factory site.		
3.1.4		Installation, interconnection of piping if any, acceptance tests and commissioning at IPR.		
3.1.5		Documentations related to quality controls and quality assurance and tests done at vendor's site and tests and commissioning done at IPR site.		
3.1.6		Documentations related to design, drawing, codes and standards used for different components, instrumentations, control units.		
3.1.7		Documentations and drawings required for trouble shooting during operation, maintenance and repair.		
3.2	Scope of supply			
3.2.1		One Compressor unit with electrical motor and VFD.		
3.2.2		An air receiver tank with all accessories.		
3.2.3		Oil removal system which includes bulk oil separator, oil cooler, filters and coalescers.		
3.2.4		Enclosure with support frame for compressor system's main components to reduce noise level outside of it and to safeguard from atmospheric dust and other harmful elements.		
3.2.5		Electric Control cabinet.		
3.2.6		Instrumentation and Control System which should include sufficient valves, instruments and safety equipments.		
3.2.7		Documentations related to quality controls and quality assurance and tests done at vendor's site and tests and commissioning done at IPR site.		
3.2.8		Documentations related to design, drawing, codes and standards used for different components, instrumentations and control units.		
3.2.9		Documentations and drawings required for trouble-shooting during operation, maintenance and repair.		
4	Documents for Approval Before Manufacturing			
	Following documents must be provided by the supplier for approval by IPR before manufacturing of compressor system including air receiver tank.			
4.1	List-1	GA (General Arrangement) drawing, PID (Process instrumentation drawing) and ES(Electric schematic) drawing for compressor system except air receiver tank.		
4.2	List-1	GA and volume calculations for air receiver tank.		
4.3	List-1	QA (quality assurance) and QP (quality plan) documents		
5	Tests, Commissioning, Acceptance, gaurantee/warrantee and spare parts			
5.1	Factory Acceptance Tests (FAT): FAT should include following tests and inspections at Vendor's factory before dispatch to IPR under the witness of IPR and/or IPR representatives. These will be considered as pre=dispatch inspection.			
5.1.1	FAT-1	A final pressure test shall be carried out at the factory site for air receiver tank as per design code.		
5.1.2	FAT-2	Leak test of air receiver tank as per design code.		
5.1.3	FAT-3	Operation and checking of health of all parts.		
5.1.4	FAT-4	Measurement of pressure, temperature and volume flow rate of compressed air near final delivery point (or terminal point) of the whole system.		

5.1.5	FAT-5	Measurement of oil content in compressed air near final delivery (or terminal point) of whole system. If supplier can't do, it should get it done by a third party under the witness of IPR representative. Or, supplier should give relevant design data to IPR for verification and approval before manufacturing.		
5.1.6	FAT-6	Measurement of vibration/ noise level at full load.		
5.1.7	FAT-7	Measurement of power consumption at different part load operations(30%, 60% and 100% of full load)		
5.1.8	FAT-8	Checking of all design, drawing and fabrication documentations.		
5.1.9	FAT-9	Checking of all inspection and test reports		
5.1.10	FAT-10	All results should conform to that specified by the supplier within +/- 10 % deviation.		
5.1.11	FAT-11	Vendor should intimate IPR at least 15 days in advance about the dates of above mentioned FAT.		
5.2	Installation, Commissioning and site acceptance tests (SAT) at IPR: Installation and interconnecting piping work, if any will be done by the supplier at IPR, Gandhinagar. All required tools and equipments for this purpose is in the scope of supplier. All performance tests and commissioning runs for acceptance must be carried out by the personnel and under the responsibility of the supplier. The detailed test procedure will be defined jointly by the customer and the supplier.			
	During commissioning, following tasks will be performed:			
5.2.1	SAT-1	Test of all the sequential procedures for starting the compressor unit, nominal operations for at least 1 day continuously and shut down of the compressor unit.		
5.2.2	SAT-2	Measurement of pressure, temperature and volume flow rate of compressed air near final delivery point (or terminal point) of the whole system		
5.2.3	SAT-3	Power consumption at full load and part load.		
5.2.4	SAT-4	Local oil leaks will be checked visually. There should not be any visible oil leakage.		
5.2.5	SAT-5	All results should conform to that specified by the supplier within +/- 10 % deviation.		
5.2.6	SAT-6	On successful completion of site performance tests and reception of all specified documents, the purchaser will issue a certificate of acceptance.		
5.3	Spare parts	Vendor should upload the list of spares including consumables (lubricating oils, gaskets, etc) required for at least 2 years operation and the prices for the same at the price bid (under optional item/spares)		

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TERMS & CONDITIONS (Part-1(C))

ITEM DESCRIPTION	Supply, installation, commissioning and acceptance of Oil Injected Screw Air Compressor	
Sl. No.	PARTICULARS	REMARKS
I	Name of the Supplier	
II	IPR Enquiry NO & Date	IPR/TN/PUR/ET/1/16-17 Dated 07/04/2016
III	Vendor Offer No & Date	
IV	Postal address	
V	Contact with STD code	
VI	Fax with STD code	
VII	Name of Contact person	
VIII	Mobile No.	
IX	e-mail ID	
X	Currency of offer/quotation	
	SCANNED COPY OF THE BELOW MENTIONED DOCUMENTS NEED TO UPLOAD AT www.tenderwizard.com/DAE AT THE TIME OF PARTICIPATION OF TENDER WITHIN THE PERIOD OF SUBMISSION.	"YES" OR "NO"
1	Certificates: i) Registration Certificate if Any, with DGS&D/NSIC/MSME ii) PAN (Permanent Account Number) Registration iii) Certificates of Registration for Sales Tax/ VAT/ WCT or Service Tax iv) Authorization certificate/ Agency Agreement from Manufacturer (if not manufacturer)	
	Commercial Terms for Quoted items (Please Provide Commercial terms and conditions in the below form)	
2	Price Shall be firm and fixed through out the currency of contract, in the event of placement of purchase order.	
3	Please select the CURRENCY OF OFFER / QUOTATION first	
4	Packing & Forwarding	
5	Excise duty applicable (IPR is exempted payment of Excise Duty for items mentioned in the notification (wherever applicable) as per notification no. 10/97)	
6	Custom duty applicable (IPR is exempted payment of Custom Duty for items mentioned in the notification (wherever applicable) as per notification no. 51/96-Custom dated 23-7-1996 and can place order directly on foreign manufacturers)	
7	Sales Tax/ VAT/ CST	
8	Whether any transportation is involved, if so charges mentioned for the same?	
9	Insurance	
10	Service Tax	
11	Agency Commission (for Authorised agents of Foreign Supplier)?	
12	Delivery, Installation and commissioning/ Completion period (Vendor should submit Documents/certificates to IPR within 2 weeks for approval from the date of PO and supply the material within 4 months from the date of issue of Despatch Clearance Letter and Installation & commissioning within 2 weeks from the date of site clearance.	
13	Installation and commissioning charges (if applicable)	
14	Discount	
15	Liquidated Damages:- as per Sr. No. 2.8.2 of terms and conditions of Form No IPR-LP1 attached with the tender/enquiry	
16	Terms of Payment:- as per Sr. No.2.6 of Form No IPR-LP1 (Terms and Conditions) attached with the tender/enquiry	
17	Guaranty / Warranty:- as per Sr. No.2.17 of Form No IPR-LP1 (Terms and Conditions) attached with the tender/enquiry	
18	Validity of offer/quotation:- 120 days from the date of opening of tender QUESTIONNAIRE TO BE FILLED BY BIDDER IN AND SENT ALONG WITH OFFER DULY SIGNED	
19	In the event of a purchase order, and if you are not registered with DGS&D, NSIC, MSME , Security Deposit in the form of Bank Guarantee for 10% of contract/ order value from SBI/nationalized banks or any one of the scheduled banks mentioned in the bracket (Axis Bank, HDFC Bank, ICICI Bank and IDBI Bank) valid till final acceptance of the supplied goods at IPR, wherever applicable shall be submitted .	
20	In the event of a purchase order Performance Bank Gurantee for 10% of the contract/order value from SBI/nationalized banks or any one of the scheduled banks mentioned in the bracket (Axis Bank, HDFC Bank, ICICI Bank and IDBI Bank) valid throughout the guarantee period, wherever applicable shall be submitted.	

21	I/We hereby offer to supply the stores detailed in the schedule hereto at the price given in the said schedule and agree to hold this offer open till expiry of quotation. I/We shall be bound to supply the stores hereby offered upon issue of purchase order communicating the acceptance thereof on or before the expiry of the last mentioned date. You will be at liberty to accept any one or more of the items of stores tendered for or portion of any or more of the items of such stores and I/We notwithstanding that the offer in the tender has not been accepted in whole shall be bound to supply to you- such item or items and such portion or portions of one or more of the items as may be specified in the said Purchase Order communicating the acceptance.	
22	I/we have understood the General Conditions of all Contracts and special conditions of contract governing supplies of plant and machinery in the Form No. IPR-LP1, included in the General Conditions of all Contracts and special conditions of contract governing of plant and machinery applicable to contracts placed by the Institute for Plasma Research and the instructions to Tenderer annexed to the invitation to tender Form and have thoroughly examined the specification / drawing and / or pattern quoted or referred to in the Schedule hereto and am/are fully aware of the nature of the stores required any my/our offer is to supply stores strictly in accordance with subject tender to the terms and conditions stipulated in your above Form No. IPR-LP1 and also contained in the Purchase Order Communicating acceptance of this Tender.	
23	Whether All Documents Related to tender Viewed?	
24	In case of two part tender whether unpriced quotation has been uploaded (Failing which offer will not be considered for technical evaluation)	

PRICE SCHEDULE (Part-2)

IPR Enquiry NO & Date : **IPR/TN/PUR/ET/1/16-17 Dated 07/04/2016**

From

NAME OF THE CONTRACTOR :
Offer no & date:

Sl.No	Item Description	Tendered Quantity	Unit of Measurement (UOM)	Please mention the appropriate part no and accessories that are not listed for the configuration of the system	Type of Currency	Rate			Packing and Forwarding Charges (if applicable) Per Unit		Customs Duty/ Excise Duty Per Unit**		VAT / CST	Per Unit Amount	Total Unit Cost	Freight Charges (if applicable) Per Unit			Installation / Commissioning Charges (if applicable)			Insurance (if applicable)		Total Unit Cost	Total Landed Value (Total Unit Cost x Quantity)	Remarks	
						Basic Rate	Discount (in amount)	Amount	(in %) Only	Amount	(in %) Only	Amount	(in %) Only			(in %) Only	Amount	Service Tax on Freight charges (in %) only	Amount	Charges	Service Tax on Freight charges (in %)	Amount	Charges				Amount
1	Supply of Oil Injected Screw Air Compressor	1	Nos					0.00		0.00		0.00		0.00	0.00		0.00			0.00		0.00		0.00	0.00		
2	Installation and commissioning Charges for Oil Injected Screw Air Compressor	1	Nos					0.00		0.00		0.00		0.00	0.00		0.00			0.00		0.00		0.00	0.00		
i	Optional Item/ Accessories/ Spares							0.00		0.00		0.00		0.00	0.00		0.00			0.00		0.00		0.00	0.00		
ii	Optional Item/ Accessories/ Spares							0.00		0.00		0.00		0.00	0.00		0.00			0.00		0.00		0.00	0.00		
iii	Optional Item/ Accessories/ Spares							0.00		0.00		0.00		0.00	0.00		0.00			0.00		0.00		0.00	0.00		
iv	Optional Item/ Accessories/ Spares							0.00		0.00		0.00		0.00	0.00		0.00			0.00		0.00		0.00	0.00		
v	Optional Item/ Accessories/ Spares							0.00		0.00		0.00		0.00	0.00		0.00			0.00		0.00		0.00	0.00		
vi	Optional Item/ Accessories/ Spares							0.00		0.00		0.00		0.00	0.00		0.00			0.00		0.00		0.00	0.00		
vii	Optional Item/ Accessories/ Spares							0.00		0.00		0.00		0.00	0.00		0.00			0.00		0.00		0.00	0.00		
viii	Optional Item/ Accessories/ Spares							0.00		0.00		0.00		0.00	0.00		0.00			0.00		0.00		0.00	0.00		
ix	Optional Item/ Accessories/ Spares							0.00		0.00		0.00		0.00	0.00		0.00			0.00		0.00		0.00	0.00		
x	Optional Item/ Accessories/ Spares							0.00		0.00		0.00		0.00	0.00		0.00			0.00		0.00		0.00	0.00		
xi	Optional Item/ Accessories/ Spares							0.00		0.00		0.00		0.00	0.00		0.00			0.00		0.00		0.00	0.00		
xii	Optional Item/ Accessories/ Spares							0.00		0.00		0.00		0.00	0.00		0.00			0.00		0.00		0.00	0.00		
xiii	Optional Item/ Accessories/ Spares							0.00		0.00		0.00		0.00	0.00		0.00			0.00		0.00		0.00	0.00		
xiv	Optional Item/ Accessories/ Spares							0.00		0.00		0.00		0.00	0.00		0.00			0.00		0.00		0.00	0.00		
xv	Optional Item/ Accessories/ Spares							0.00		0.00		0.00		0.00	0.00		0.00			0.00		0.00		0.00	0.00		
xvi	Optional Item/ Accessories/ Spares							0.00		0.00		0.00		0.00	0.00		0.00			0.00		0.00		0.00	0.00		
xvii	Optional Item/ Accessories/ Spares							0.00		0.00		0.00		0.00	0.00		0.00			0.00		0.00		0.00	0.00		
xviii	Optional Item/ Accessories/ Spares							0.00		0.00		0.00		0.00	0.00		0.00			0.00		0.00		0.00	0.00		
xix	Optional Item/ Accessories/ Spares							0.00		0.00		0.00		0.00	0.00		0.00			0.00		0.00		0.00	0.00		
xx	Optional Item/ Accessories/ Spares							0.00		0.00		0.00		0.00	0.00		0.00			0.00		0.00		0.00	0.00		
xxi	Optional Item/ Accessories/ Spares							0.00		0.00		0.00		0.00	0.00		0.00			0.00		0.00		0.00	0.00		
xxii	Optional Item/ Accessories/ Spares							0.00		0.00		0.00		0.00	0.00		0.00			0.00		0.00		0.00	0.00		
xxiii	Optional Item/ Accessories/ Spares							0.00		0.00		0.00		0.00	0.00		0.00			0.00		0.00		0.00	0.00		
xxiv	Optional Item/ Accessories/ Spares							0.00		0.00		0.00		0.00	0.00		0.00			0.00		0.00		0.00	0.00		
xxv	Optional Item/ Accessories/ Spares							0.00		0.00		0.00		0.00	0.00		0.00			0.00		0.00		0.00	0.00		
xxvi	Optional Item/ Accessories/ Spares							0.00		0.00		0.00		0.00	0.00		0.00			0.00		0.00		0.00	0.00		
xxvii	Optional Item/ Accessories/ Spares							0.00		0.00		0.00		0.00	0.00		0.00			0.00		0.00		0.00	0.00		
xxviii	Optional Item/ Accessories/ Spares							0.00		0.00		0.00		0.00	0.00		0.00			0.00		0.00		0.00	0.00		
xxix	Optional Item/ Accessories/ Spares							0.00		0.00		0.00		0.00	0.00		0.00			0.00		0.00		0.00	0.00		
xxx	Optional Item/ Accessories/ Spares							0.00		0.00		0.00		0.00	0.00		0.00			0.00		0.00		0.00	0.00		
GRAND TOTAL					0																						0.00

Place of Delivery: **IPR Gandhinagar**

NOTES:

- 1) If freight is not shown separately it will be treated as "FREE DELIVERY"
- 2) Details specifications and scope of work are as per Attached Annexure
- 3) If the rate cells left blank, it will be treated as "0" (ZERO)
- 4) Vendor has to select "Type of currency", its mandatory
- 5) **As per notification No. 10/97 - Central Excise, Dated 01/03/1997, IPR is entitled to avail Excise exemption wherever applicable, so please do not include Excise Duty in your offer.
- 6) **IPR is exempted payment of Custom Duty as per notification no. 51/96-Custom dated 23-7-1996
- 7) Kindly enable the Macros if you receive the "Security Warning" message. (Click on options in "Security Warning" and select "Enable this content")