

**GOVERNMENT OF INDIA  
DEPARTMENT OF SPACE  
VIKRAM SARABHAI SPACE CENTRE (VSSC)  
THIRUVANANTHAPURAM**

**Tender for HIGH VACUUM PUMPING SYSTEMS AND ACCESSORIES**

**Bids to be submitted online**

**Tender No.: VSSC/PURCHASE UNIT II (AVN)/VS202100310801 dated 22-09-2021**

## **A. Tender Details**

Tender No : **VSSC/PURCHASE UNIT II (AVN)/VS202100310801**

Tender Date : **22-09-2021**

Tender Classification: **GOODS**

Purchase Entity : **PURCHASE UNIT II (AVN)**

Centre : **VIKRAM SARABHAI SPACE CENTRE (VSSC)**

## **Procurement of HIGH VACUUM PUMPING SYSTEMS AND ACCESSORIES**

Procurement of HIGH VACUUM PUMPING SYSTEMS AND ACCESSORIES

### **A.1 Tender Schedule**

Bid Submission Start Date : **22-09-2021 16:55**

Bid Clarification Due Date : **01-10-2021 10:00**

Bid Submission Due Date : **26-10-2021 10:00**

Bid Opening Date : **28-10-2021 10:00**

Price Bid Opening Date : **16-11-2021 10:00**

## B. Tender Attachments

NA

## C. Bid Templates

### C.1 Technical Bid - HIGH VACUUM PUMPING SYSTEMS AND ACCESSORIES

#### 1. Turbo Molecular Pumps, 1200 LPS DN 200 ISO-F with integrated drive unit.

##### Item specifications for Turbo Molecular Pumps

SI No	Specification	Value	Compliance	Offered Specification	Remark
1	Flange Inlet	DN 200 ISO-F	Yes / No / Explain		
2	Flange outlet:	DN 40 ISO-KF	Yes / No / Explain		
3	Minimum pumping speed for N2	1200 l/s	Yes / No / Explain		
4	Cooling method:	Water	Yes / No / Explain		
5	Mounting orientation	Upside down (90 deg to 180 deg).	Yes / No / Explain		
6	Venting valve (Solenoid operated)	Required	Yes / No / Explain		
7	Remote display and control unit.	Required	Yes / No / Explain		
8	Mains cable	Mains cable (3m length) for control unit 230V AC	Yes / No / Explain		
9	Interface cable	Interface cable (to connect pump to control unit) - 3 m length.	Yes / No / Explain		
10	Stainless steel mounting bolts and nuts	Required	Yes / No / Explain		

#### 2. VACUUM PUMP, Roots pumping station with Roots pump 250 m3/hr and Rotary vane pump 60 m3/hr.

##### Item specifications for VACUUM PUMP

SI No	Specification	Value	Compliance	Offered Specification	Remark
1	Type:	Vertical pumping axis Roots pump backed by two stage rotary vane pump mounted on a common frame.	Yes / No / Explain		
2	Electrical control	Electrical control cubicle shall be provided on the unit with necessary inter connections, interlocks and remote control interfaces.	Yes / No / Explain		
3	Ultimate vacuum in blank off condition:	<1e-3 mbar.	Yes / No / Explain		
4	Roots pump specifications:	Nominal pumping speed (minimum) at 50Hz: 250 m3/hr; Operating voltage: 400V AC, 50Hz, 3-phase; Pump flange Inlet: DN 63 ISO-F; Bye-pass valve: Required in-order to operate the roots pump at high inlet pressures.	Yes / No / Explain		
5	Rotary vane pump specifications:	Nominal pumping speed (minimum) at 50Hz: 60 m3/hr; Pump flange Inlet: DN 40 ISO-KF; Pump flange Outlet: DN 40 ISO-KF; Ultimate pressure without gas ballast: <5e-3 mbar.; Integrated oil mist separator and oil return unit.	Yes / No / Explain		

### 3. ROTARY PUMP OILS, Oil for rotary vane pump - 20 litres

### 4. Pneumatically Actuated Gate Valve, High vacuum gate valve DN 200 ISO-F, 230 V, 50/60 Hz electropneumatically actuated.

#### Item specifications for Pneumatically Actuated Gate Valve

SI No	Specification	Value	Compliance	Offered Specification	Remark
-------	---------------	-------	------------	-----------------------	--------

1	Type:	Electro pneumatically actuated high vacuum gate valve with position indicator and pilot valve.	Yes / No / Explain		
2	Flange Inlet	DN 200 ISO-F	Yes / No / Explain		
3	Flange Outlet	DN 200 ISO-F	Yes / No / Explain		
4	Leak tightness:	1e-9 mbar.l/s	Yes / No / Explain		
5	Seal	FKM	Yes / No / Explain		
6	Housing material	Aluminium	Yes / No / Explain		
7	Maximum pressure	> 1.2 bar	Yes / No / Explain		
8	Minimum pressure	1e-7 mbar	Yes / No / Explain		
9	Compressed air (Min/Max)	4 bar to 7 bar	Yes / No / Explain		
10	Opening / Closing time	5 sec or less	Yes / No / Explain		
11	Operating voltage	230 V AC, 50Hz	Yes / No / Explain		

### 5. Pneumatically Actuated Vacuum Valve, Angle valve DN 40 ISO-KF.

#### Item specifications for Pneumatically Actuated Vacuum Valve

SI No	Specification	Value	Compliance	Offered Specification	Remark
1	Flange in/out	DN 40 ISO-KF	Yes / No / Explain		
2	Type	Bellows -sealed, Normally closed, electro pneumatically actuated with position indicator and pilot valve	Yes / No / Explain		
3	Housing Material	Stainless steel	Yes / No / Explain		
4	Seal	FKM	Yes / No / Explain		

5	Power supply:	200-230 V AC.	Yes / No / Explain		
---	---------------	---------------	--------------------	--	--

**6. Pneumatically Actuated Vacuum Valve, Angle valve DN 25 ISO-KF.**

**Item specifications for Pneumatically Actuated Vacuum Valve**

SI No	Specification	Value	Compliance	Offered Specification	Remark
1	Flange in/out	DN 25 ISO-KF	Yes / No / Explain		
2	Type	Bellows -sealed, Normally closed, Electro pneumatically actuated with position indicator and pilot valve	Yes / No / Explain		
3	Housing Material	Stainless steel	Yes / No / Explain		
4	Seal	FKM.	Yes / No / Explain		
5	Power supply	200-230 V AC.	Yes / No / Explain		

**7. Manual Vacuum Valve, Angle valve; Flange in/out: DN 25 ISO-KF; Type: Manual, Bellows-sealed; Housing Material: Stainless steel; Seal FKM.**

**8. VACUUM COMPONENTS AND VALVES, 90 degree elbow. DN 63 ISO-K Stainless steel.**

**9. VACUUM COMPONENTS AND VALVES, Tee, DN 40 ISO-KF Stainless steel 304/1.4301, length 130 mm.**

**10. VACUUM COMPONENTS AND VALVES, Cross, DN 63 ISO-K Stainless Steel 304/1.4301**

**11. VACUUM COMPONENTS AND VALVES, Adapter, DN 40 CF to DN 25 ISO-KF, stainless steel, L=36mm**

**12. VACUUM COMPONENTS AND VALVES, Adapter, DN 40 CF to DN 40 ISO-KF, stainless steel, L=50 mm.**

- 13. VACUUM COMPONENTS AND VALVES, Conical Adapter, DN 63 ISO-K to DN 40 ISO-KF, stainless steel, L=63 mm.**
- 14. VACUUM COMPONENTS AND VALVES, Straight Adapter, DN 63 ISO-K to DN 40 ISO-KF, stainless steel, L= 40 mm**
- 15. VACUUM COMPONENTS AND VALVES, Straight Adapter, DN 100 ISO-K to DN 40 ISO-KF stainless steel, L=40 mm.**
- 16. VACUUM COMPONENTS AND VALVES, Reducer, Straight, DN 160 ISO-K to DN 100 ISO-K, stainless steel, length 50 mm.**
- 17. VACUUM COMPONENTS AND VALVES, Reducer, Straight, DN 200 ISO-K to DN 160 ISO-K, stainless steel, length 50 mm.**
- 18. VACUUM COMPONENTS AND VALVES, Centering ring with outer ring, DN 63 ISO-K Aluminium/O-ring FKM.**
- 19. VACUUM COMPONENTS AND VALVES, Centering ring with outer ring, DN 100 ISO-K Aluminium/O-ring FKM,**
- 20. VACUUM COMPONENTS AND VALVES, Centering ring with outer ring, DN 160 ISO-K Aluminium / O-ring FKM.**
- 21. VACUUM COMPONENTS AND VALVES, Centering Ring with outer ring, DN 200 ISO-K Aluminium/O-ring FKM.**
- 22. VACUUM COMPONENTS AND VALVES, Centering ring with outer ring, DN 250 ISO-K Aluminium/O-ring FKM.**
- 23. VACUUM COMPONENTS AND VALVES, Centering ring, DN 10 ISO-KF Aluminium/O-ring FKM.**
- 24. VACUUM COMPONENTS AND VALVES, O-ring, DN 63 ISO-K FKM, 5 pieces per set.**

25. **VACUUM COMPONENTS AND VALVES, O-ring, DN 100 ISO-K FKM, 5 pieces per set.**
26. **VACUUM COMPONENTS AND VALVES, O-ring, DN 160 ISO-K FKM, 5 pieces per set.**
27. **VACUUM COMPONENTS AND VALVES- O-ring, DN 200 ISO-K FKM, 5 pieces per set.**
28. **VACUUM COMPONENTS AND VALVES, O-ring, DN 250 ISO-K FKM, 5 pieces per set.**
29. **VACUUM COMPONENTS AND VALVES, Double claw clamp, DN 63-250 ISO-K Zinc plated steel.**
30. **VACUUM COMPONENTS AND VALVES, Claw clamp, DN 63-100 ISO-K Zinc plated steel.**
31. **VACUUM COMPONENTS AND VALVES, Claw clamp, DN 160-250 ISO-K Zinc-plated steel.**
32. **VACUUM COMPONENTS AND VALVES, Corrugated Hose, DN 25 ISO-KF, Stainless steel, flexible, length 250 mm.**
33. **VACUUM COMPONENTS AND VALVES, Corrugated Hose, DN 25 ISO-KF Stainless steel, flexible, length 500 mm.**
34. **VACUUM COMPONENTS AND VALVES, Corrugated hose, DN 25 ISO-KF Stainless steel, flexible, length 750 mm.**
35. **VACUUM COMPONENTS AND VALVES, Corrugated hose, DN 40 ISO-KF Stainless steel, flexible, length 250 mm.**
36. **VACUUM COMPONENTS AND VALVES, Corrugated hose, DN 40 ISO-KF Stainless steel, flexible, length 500 mm.**
37. **VACUUM COMPONENTS AND VALVES, Corrugated hose, DN 40 ISO-KF Stainless steel, flexible, length 1000 mm.**



- 38. VACUUM COMPONENTS AND VALVES, Hexagon Head screw set, DN 75 CF Stainless steel A2, M8x45, 10 pieces per set.**
- 39. VACUUM COMPONENTS AND VALVES, Hexagon Head screw set, DN 300 CF Stainless steel A2, M10x70, 30 pieces per set.**
- 40. VACUUM COMPONENTS AND VALVES, Quick-Release clamp, DN 10/16 ISO-KF Aluminium/Plastic, for elastomer seal.**
- 41. VACUUM COMPONENTS AND VALVES, Quick-Release clamp, DN 20/25 ISO-KF Aluminium/Plastic, for elastomer seal.**
- 42. VACUUM COMPONENTS AND VALVES, Quick-Release clamp, DN 32/40 ISO-KF Aluminium/Plastic, for elastomer seal.**
- 43. VACUUM COMPONENTS AND VALVES, Blank flange, DN 10 ISO-KF Stainless steel 304/1.4301.**
- 44. VACUUM COMPONENTS AND VALVES, Blank Flange, DN 16 ISO-KF Stainless steel 304/1.4301**
- 45. VACUUM COMPONENTS AND VALVES, Blank flange, DN 25 ISO-KF Stainless steel 304/1.4301.**
- 46. VACUUM COMPONENTS AND VALVES, Blank flange, DN 40 ISO-KF Stainless steel 304/1.4301.**
- 47. VACUUM COMPONENTS AND VALVES, Centering ring, DN 40 ISO-KF Sintered metal filter, stainless steel, O-ring FKM**
- 48. VACUUM COMPONENTS AND VALVES, Centering ring, DN 25 ISO-KF Sintered metal filter, stainless steel, O-ring FKM.**

**Common Specifications (Applicable for all items)**

SI No	Specification	Value	Compliance	Offered Specification	Remark
1	Requirements for vendors	Supplier should have proven experience in supplying high vacuum pumping system of similar configuration. The supplier should have supplied at least one number of high vacuum pumping system to aerospace institution / aerospace industry, and the system should have completed at least 12 months of trouble free operation.	Yes / No / Explain		
2	Reference list of installations	The supplier should submit a reference list of installations for high vacuum pumping system to aerospace institution / aerospace industry, giving the date of supply and contact details including telephone number, postal address and e-mail address and along with the quote.	Yes / No / Explain		
3	Table of compliance	Table of compliance statement should be filled giving exact numerical values along with the quote, without which the quote will not be considered. Merely stating "comply" does not constitute sufficient technical data. In case of insufficient technical data the quote will be summarily rejected without seeking any clarifications. Specified technical data should be supported by product catalogs / datasheets / manuals /plots etc.	Yes / No / Explain		
4	Delivery period	Delivery period quoted shall be realistic and should be inclusive of installation.	Yes / No / Explain		
5	Installation	Installation to be carried out by the vendor at site.	Yes / No / Explain		

6	Dimensions of clamped-type quick release flanges (ISO-KF)	Dimensions of clamped-type quick release flanges (ISO-KF) shall be in accordance with ISO 2861 / DIN 28403.	Yes / No / Explain		
7	Dimensions of clamped and bolted flange connections (ISO-K / ISO-F) and o-rings.	Dimensions of clamped and bolted flange connections (ISO-K / ISO-F) and o-rings shall be in accordance with ISO 1609 / DIN 28404.	Yes / No / Explain		
8	Vacuum compatibility	All items should be compatible for use in high vacuum environment (1e-6 mbar).	Yes / No / Explain		
9	Leak tightness of valves	Better than 1e-8 mbar.l/s	Yes / No / Explain		
10	Make, model / part no and country of origin.	To be specified.	Yes / No / Explain		

## Supporting Documents required from Vendor

### 1. Datasheets

5 additional documents can be uploaded by the vendor

## C.2 Commercial Terms / Bid

Sl. No.	Description	Compliance	Vendor Terms
1	Warranty: One year warranty	Yes / No / Explain	
2	Security Deposit: Successful Tenderer shall submit Security Deposit equivalent to 3% of the order value valid for a period of 60 days beyond the date for completion of the Purchase Order shall be furnished. This security deposit is collected towards the performance of the Contract. The said Security Deposit shall be submitted either in the form of Bank Guarantee or Fixed Deposit receipts from Nationalised/Scheduled Banks.	Yes / No / Explain	
3	PO ordering address in full with Contact Persons Name, E-mail id, Phone No. [also attach your Quotation in PDF format without prices details].	Yes / No / Explain	
4	Foreign vendors are not permitted to quote 1. Only Class -I and Class-II Local suppliers as per make in India policy are eligible to participate in the bid. 2. The percentage of local content should be specifically mentioned in the offer, without which will be summarily rejected 3. Preference will be given to class-I Local Supplier and in their absence, class-II Local supplier will be considered.	Yes / No / Explain	
5	Taxes and other costs, if any. [Please Specify the rates]. Note: All Tax invoices issued by suppliers/service providers on or after July 01, 2017 shall invariably bear their GST registration number (GSTIN) and the applicable GST rates. In the absence of which, the invoices shall not be processed for payment.	Yes / No / Explain	
6	VSSC is a Public Funded Research Institution under the administrative control of Department of Space and is eligible for partial exemption of IGST @ 5% against IGST EXEMPTION CERTIFICATE.	Yes / No / Explain	
7	Warranty [Minimum One year from the date of Installation required. ]	Yes / No / Explain	

8	Delivery Terms [Normal delivery terms - FOR Destination (for Indigenous cases) & FOB/ FCA or Ex-works (for Import cases)].	Yes / No / Explain	
9	Delivery Period [Please Specify the period, LD Clause applicable]	Yes / No / Explain	
10	Payment [Within 30 days after receipt and acceptance for indigenous/ Sight Draft for import cases].	Yes / No / Explain	
11	Quote Validity: Minimum 180 days [for Two Part Tender] from the date of Tender opening. [Mandatory. Otherwise offer will not be considered for evaluation].	Yes / No / Explain	
12	3% Performance Bank Guarantee valid two months beyond warranty period to be provided.	Yes / No / Explain	
13	Liquidated Damages @ 0.5% per week subject to maximum of 10% of order value is applicable beyond the promised delivery schedule.	Yes / No / Explain	

<p>14</p>	<p>This is a Two-Part Tender i.e. Part 1: Technical &amp; Commercial, Part-2: Price Bid. Hence all technical &amp; commercial details shall be furnished in the Techno-Commercial Bid while price shall be indicated only in the Price Bid.</p> <p>2. This being a Two Part Tender, Technical &amp; Commercial part and Price Part separately, the tenderers should not attach any documents containing Pricing information along with Technical &amp; Commercial Bid. We do not open Part - II (Price Bid), if Part I (Technical &amp; Commercial Offer) does not meet with our technical specification requirements.</p> <p>3. Our Tender Enquiry contains technical requirements and specification. The detailed technical specification of your offer should be covered in the technical part. The Technical documents need to be attached online as single PDF file without any price information. Technical bid containing Price details will be treated as unresponsive offers and rejected.</p> <p>4. The prices are to be mentioned only in the price Bid form attached. The vendor have to compulsorily submit the compliance statement online otherwise their offer will not be considered for further evaluation. Before entering the compliance statement, vendors are advised to refer the detailed specification provided.</p> <p>5. The Technical Specification/ Drawing/ Product Catalogues/ Works Carried by vendor/ Make offered etc. as a single PDF file without any financial details has to be uploaded online mode by the vendor. This being TWO PART TENDER the PDF document uploaded should not contain any pricing details. If the attached PDF contains any pricing details the offer will be treated as unresponsive and will be summarily rejected</p>	<p>Yes / No / Explain</p>	
-----------	--	---------------------------	--

15	<p>This tender is proposed as a DOMESTIC PUBLIC TENDER. This tender is restricted only to Class-I and Class-II Local Suppliers as defined under DPIIT Order dtd 04/06/2020- Preference to Make in India Order-2017 Revision. Non-Local Suppliers need not quote. Foreign OEMs/Agents quoting on behalf of Foreign OEMs are not permitted to quote. High Sea Sales Quotes not permitted. The bids shall be in INR only.</p> <p>Tenderers are advised NOT TO UPLOAD any documents revealing the price of the main equipment, accessories, spares or AMC. They are however, requested to upload UNPRICED BIDS (i.e. Price details masked) showing appropriate break-up of components of main equipment, individual accessories and spares as desired.</p> <p>This is a TWO-PART tender i.e. Techno-Commercial Bid (Part-I) and Price Bid (Part-II) shall be submitted separately. All technical and commercial terms and conditions shall be furnished in the Techno-Commercial Bid while price shall be indicated only in the Price Bid. Uploading price details anywhere else other than the price-bid shall lead to unconditional rejection of the tender. Please make note of the same.</p> <p>Purchase preference to eligible vendors are applicable as per extant notifications issued by the Government of India.</p> <p>The Class-I/Class-II Local suppliers, at the time of submitting their offer, shall also indicate percentage of local content and provide self-certification that the item (s) offered meets the local content requirement for Class-I/Class-II Local Suppliers as the case may be. They shall also give details of location (s) at which the local value addition is made.</p>	Yes / No / Explain	
----	---	--------------------	--

16	<p>In cases if the item(s) offered exceed Rs. 10 Crores, the Class-I/Class-II Local Suppliers shall provide a Certificate from the statutory auditor or cost auditor of the company (in case of companies) or from a practicing cost accountant or practicing chartered accountant (in respect of suppliers other than companies) giving the percentage of local content.</p> <p>False Declarations will be in breach of the Code of Integrity under Rule 175 (1) (i) (h) of the General Financial Rules for which a bidder or its successors can be debarred for up to two years as per Rule 151 (iii) of the General Financial Rules along with such other actions as may be permissible under law.</p> <p>Technical Bids will be opened at the scheduled due date &amp; time. No further intimation will be sent in this regard. The schedule for price bid opening shown is only indicative. Price bids will only be opened in the case of parties who have been techno-commercially accepted, the details of which will be communicated at a later stage.</p>	Yes / No / Explain	
17	Country of Origin	Yes / No / Explain	

### C.3 Price Bid

Sl. No.	Item	Quantity	Unit Price	Currency	Total Price	Remark
1	Turbo Molecular Pumps, 1200 LPS DN 200 ISO-F with integrated drive unit.	2.00 Nos.		-		
2	VACUUM PUMP, Roots pumping station with Roots pump 250 m3/hr and Rotary vane pump 60 m3/hr.	1.00 Nos.		-		
3	ROTARY PUMP OILS, Oil for rotary vane pump - 20 litres	1.00 Nos.		-		



4	Pneumatically Actuated Gate Valve, High vacuum gate valve DN 200 ISO-F, 230 V, 50/60 Hz electropneumatically actuated.	2.00 Nos.				
5	Pneumatically Actuated Vacuum Valve, Angle valve DN 40 ISO-KF.	5.00 Nos.				
6	Pneumatically Actuated Vacuum Valve, Angle valve DN 25 ISO-KF.	3.00 Nos.				
7	Manual Vacuum Valve, Angle valve; Flange in/out: DN 25 ISO-KF; Type: Manual, Bellows-sealed; Housing Material: Stainless steel; Seal FKM.	10.00 Nos.				
8	VACUUM COMPONENTS AND VALVES, 90 degree elbow. DN 63 ISO-K Stainless steel.	1.00 Nos.				
9	VACUUM COMPONENTS AND VALVES, Tee, DN 40 ISO-KF Stainless steel 304/1.4301, length 130 mm.	2.00 Nos.				

10	VACUUM COMPONENTS AND VALVES, Cross, DN 63 ISO-K Stainless Steel 304/1.4301	1.00 Nos.					
11	VACUUM COMPONENTS AND VALVES, Adapter, DN 40 CF to DN 25 ISO-KF, stainless steel, L=36mm	1.00 Nos.					
12	VACUUM COMPONENTS AND VALVES, Adapter, DN 40 CF to DN 40 ISO-KF, stainless steel, L=50 mm.	1.00 Nos.					
13	VACUUM COMPONENTS AND VALVES, Conical Adapter, DN 63 ISO-K to DN 40 ISO-KF, stainless steel, L=63 mm.	2.00 Nos.					
14	VACUUM COMPONENTS AND VALVES, Straight Adapter, DN 63 ISO-K to DN 40 ISO-KF, stainless steel, L= 40 mm	2.00 Nos.					

15	VACUUM COMPONENTS AND VALVES, Straight Adapter, DN 100 ISO-K to DN 40 ISO-KF stainless steel, L=40 mm.	4.00 Nos.					
16	VACUUM COMPONENTS AND VALVES, Reducer, Straight, DN 160 ISO-K to DN 100 ISO-K, stainless steel, length 50 mm.	1.00 Nos.					
17	VACUUM COMPONENTS AND VALVES, Reducer, Straight, DN 200 ISO-K to DN 160 ISO-K, stainless steel, length 50 mm.	1.00 Nos.					
18	VACUUM COMPONENTS AND VALVES, Centering ring with outer ring, DN 63 ISO-K Aluminium/O-ring FKM.	5.00 Nos.					
19	VACUUM COMPONENTS AND VALVES, Centering ring with outer ring, DN 100 ISO-K Aluminium/O-ring FKM,	4.00 Nos.					

20	VACUUM COMPONENTS AND VALVES, Centering ring with outer ring, DN 160 ISO-K Aluminium / O-ring FKM.	4.00 Nos.					
21	VACUUM COMPONENTS AND VALVES, Centering Ring with outer ring, DN 200 ISO-K Aluminium/O-ring FKM.	5.00 Nos.					
22	VACUUM COMPONENTS AND VALVES, Centering ring with outer ring, DN 250 ISO-K Aluminium/O-ring FKM.	4.00 Nos.					
23	VACUUM COMPONENTS AND VALVES, Centering ring, DN 10 ISO-KF Aluminium/O-ring FKM.	10.00 Nos.					
24	VACUUM COMPONENTS AND VALVES, O-ring, DN 63 ISO-K FKM, 5 pieces per set.	2.00 Sets					
25	VACUUM COMPONENTS AND VALVES, O-ring, DN 100 ISO-K FKM, 5 pieces per set.	2.00 Sets					

26	VACUUM COMPONENTS AND VALVES, O-ring, DN 160 ISO-K FKM, 5 pieces per set.	1.00 Sets					
27	VACUUM COMPONENTS AND VALVES- O-ring, DN 200 ISO-K FKM, 5 pieces per set.	1.00 Sets					
28	VACUUM COMPONENTS AND VALVES, O-ring, DN 250 ISO-K FKM, 5 pieces per set.	1.00 Sets					
29	VACUUM COMPONENTS AND VALVES, Double claw clamp, DN 63-250 ISO-K Zinc plated steel.	16.00 Nos.					
30	VACUUM COMPONENTS AND VALVES, Claw clamp, DN 63-100 ISO-K Zinc plated steel.	24.00 Nos.					
31	VACUUM COMPONENTS AND VALVES, Claw clamp, DN 160-250 ISO-K Zinc-plated steel.	24.00 Nos.					
32	VACUUM COMPONENTS AND VALVES, Corrugated Hose, DN 25 ISO-KF, Stainless steel, flexible, length 250 mm.	2.00 Nos.					

33	VACUUM COMPONENTS AND VALVES, Corrugated Hose, DN 25 ISO-KF Stainless steel, flexible, length 500 mm.	4.00 Nos.					
34	VACUUM COMPONENTS AND VALVES, Corrugated hose, DN 25 ISO-KF Stainless steel, flexible, length 750 mm.	4.00 Nos.					
35	VACUUM COMPONENTS AND VALVES, Corrugated hose, DN 40 ISO-KF Stainless steel, flexible, length 250 mm.	3.00 Nos.					
36	VACUUM COMPONENTS AND VALVES, Corrugated hose, DN 40 ISO-KF Stainless steel, flexible, length 500 mm.	4.00 Nos.					
37	VACUUM COMPONENTS AND VALVES, Corrugated hose, DN 40 ISO-KF Stainless steel, flexible, length 1000 mm.	8.00 Nos.					

38	VACUUM COMPONENTS AND VALVES, Hexagon Head screw set, DN 75 CF Stainless steel A2, M8x45, 10 pieces per set.	5.00 Sets					
39	VACUUM COMPONENTS AND VALVES, Hexagon Head screw set, DN 300 CF Stainless steel A2, M10x70, 30 pieces per set.	2.00 Sets					
40	VACUUM COMPONENTS AND VALVES, Quick-Release clamp, DN 10/16 ISO-KF Aluminium/Plastic, for elastomer seal.	5.00 Nos.					
41	VACUUM COMPONENTS AND VALVES, Quick-Release clamp, DN 20/25 ISO-KF Aluminium/Plastic, for elastomer seal.	10.00 Nos.					
42	VACUUM COMPONENTS AND VALVES, Quick-Release clamp, DN 32/40 ISO-KF Aluminium/Plastic, for elastomer seal.	10.00 Nos.					

43	VACUUM COMPONENTS AND VALVES, Blank flange, DN 10 ISO-KF Stainless steel 304/1.4301.	3.00 Nos.					
44	VACUUM COMPONENTS AND VALVES, Blank Flange, DN 16 ISO-KF Stainless steel 304/1.4301	3.00 Nos.					
45	VACUUM COMPONENTS AND VALVES, Blank flange, DN 25 ISO-KF Stainless steel 304/1.4301.	10.00 Nos.					
46	VACUUM COMPONENTS AND VALVES, Blank flange, DN 40 ISO-KF Stainless steel 304/1.4301.	10.00 Nos.					
47	VACUUM COMPONENTS AND VALVES, Centering ring, DN 40 ISO-KF Sintered metal filter, stainless steel, O-ring FKM	3.00 Nos.					
48	VACUUM COMPONENTS AND VALVES, Centering ring, DN 25 ISO-KF Sintered metal filter, stainless steel, O-ring FKM.	3.00 Nos.					



**Common charges (Applicable for all items)**

<b>Customs Duty</b>	
<b>IGST</b>	