



Vadodara Gas Limited
Replies to Bidder's Queries

SUBJECT: Procurement of 01 No. 450 SCMH Booster Compressor Package with 60 Months Comprehensive Annual Maintenance Contract (AMC) for Upgradation & Amendment of Dumad DBS.

TENDER NO.: VGL/CO/C&P-CNG/BD202409P162 Dated 30/09/2024 & **TENDER ID:** 113734.

Sl. No.	Sec. No.	Page No.	Clause No.	Subject	Bidder's Query	VGL's Reply
1	-	101 of 168	Scope of Supply 1.6	Lubricated or non-lubricated two throw balanced opposed reciprocating compressor or hydraulic booster with lube oil system and cooling system as required.	our system is non-lubricated, lube oil is not required. The required cooling system will be provided.	Ok Noted.
2	-	102 of 168	Scope of Supply 1.6	Main incoming cable from owner PDB to main control panel of the compressor through Conduit/trenches (supply, laying, testing & Commissioning in contractor Scope). Cable from owner's electronic earth pit (EE) for electronic circuit in control Panel, cables from owners main earthing ring to control panel body earth and all interconnecting Cables including complete erection accessories like double compression cable, FLP gland, cable tags, Lugs etc. as required. Further, supply, laying, testing & commissioning of cables with required FLP Gland for Air-Compressor, Co2 Flooding System, UPS, PLC, Instruments, etc. from main panel are in scope of contractor.	Please confirm the maximum possible distance between electrical room & booster compressor installation.	The Approx. distance between electrical room & booster compressor is 40 Mtr.
3	-	103 of 168	1.7.9	Relief Valves shall be provided at suction/BDV and discharge/ priority panel and in between inter stages of compressor with setting as per cl. 7.20.3 of API – 11P with R.V. venting as per cl. 7.20.4 of API-11P. All vented lines to be connected to common relief valve header	There is no requirement of relief valve at the suction/ interstate for booster compressor, as the suction is always reducing from 220 to 30 bar, both first & second stage are integral part of the single intensifier, therefore not required.	Ok Noted.



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					Applicable for online reciprocating compressors.	
4		103 of 168	1.7.6	Supply of IR type LEL detector and UV/IR flame detector	There is conflict between the clause no. 1.7.6 and 1.7.12/1.7.13. Kindly confirm the quantity of IR type LEL Gas detector and UV/IR flame detector.	02 No. GD and 02 No. FD
5		102 of 168	Scope of Supply 1.6	Y- type strainers, valves, sight flow indicators, check valves, manual drain/ traps etc. as required for various auxiliary systems i.e. lubrication system, cooling water systems etc.	Frame lube oils, cylinder lubrication is not required for booster compressor, however cooling water and hydraulic oil will be provided with necessary components. Applicable for online reciprocating compressors	Ok Noted.
6		106 of 168	DESIGN CRITERIA 3.3	Offered package shall be complete with compressor, electric motor, hydraulic pump and piping, cooling system, suction and discharge filters, instrument air dryer, oil filter, control panel, safety and control devices and other accessories required for automatic and safe operation the system. The supply shall include all interconnecting piping/tubing/cables. Cooling system shall be of closed-circuit type/ air cooled.	Discharge filter is not required because intensifier is non-lubricating type, hence during intensification oil does not comes in contact with gas. This is Applicable for online reciprocating compressors.	Ok Noted.
7		107 of 168	3.9.7	For handling of all heavy parts for maintenance purpose lifting arrangement i.e. beam fitted with chain hoist shall be provided in enclosure.	Chain hoist is not advisable in each in every compressor as it is not an anti-sparking device, however the same will be made available with maintenance team to carryout activities.	Tender Condition shall prevail.
8		108 of 168	3.10.8	The ingress of oil into CNG adversely affects vehicle emission and storage system.	During intensification oil does not comes in contact with gas, Oil mist	Ok Noted.



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				Hence in case of lubricated cylinders vendor shall supply a proven, maintenance free oil removal system with automatic and manual drain after after-cooler to remove oil from compressed gas. The offered oil mist removal system shall restrict the oil less than 1 PPM in discharge of compressor.	separator is not required therefore will not provide.	
9		109 of 168	4.1.3	Emergency stop at Compressor panel and Control Room/Sale room Shut / Stop Auto / Manuals Fault accept Fault reset CO2 cylinder by pass Test button for lamp & hooter Maintenance Over ride switch	we don't offer the CO2 bypass as it compromises the safety.	Ok Noted.
10		109 of 168	4.1.5	Motor shall be TEFV squirrel cage type in standard frame size as per IS/IEC rated for continuous duty with high efficiency and designed for star/delta starting. Motors shall be suitable for starting under specified load conditions with 75% of rated voltage at the terminals.	As per motor manufacturer minimum voltage requirement is 80% of rated voltage at motor terminal.	Ok Noted.
11		109 of 168	4.1.8	The incomers shall be provided with suitably rated switch fuse unit, ammeter, voltmeter with selector switch, energy meter, hour meter, PF meter, etc.	Multi-function meter will be provided, which communicated with PLC and same data will be shown in HMI	Ok Noted.
12		112 of 168	5.1.7	Compressor package shall be provided with min following instruments; All tripping shall be with lamp indication and annunciation. i. Temp indicator 1st, 2nd stage discharge and after- after cooler ii. Pr indication 1st, 2nd stage discharge, high & med bank. Pr switch, 2nd stage discharge, high & med bank	Due to design of compressor (Single cylinder; two stage) We will provide pressure indicator at suction of compressor & at final discharge only. One pressure switch at 2nd stage discharge One temperature transmitter at final discharge	Ok Noted.



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13		112 of 168	5.1.7	Hour meter	Non-resettable hour meter provided on HMI	Ok Noted.
14		105 of 168	2.1.1	Pressure switch and pressure gauge shall have isolation valve.	Block & bleed valves will be provided for all the pressure gauges used in high pressure gas system instead of Isolation Valve.	Ok Noted.
15		123 of 168	16.15.11	Calibration shall be done from government-approved laboratories and shall be carried out at least 15 days prior to the calibration due date. The Supplier shall keep 1 set of safety relief valves in spare for the purpose of calibration	We will provide 1 no spare safety relief valve for one GA location. Kindly confirm.	Ok Noted.
16		117 of 268	Electrical Power Consumption	GUARANTEED PARAMETERS - BOOSTER COMPRESSOR	<p>Following Clause related to power consumption is mentioned in all Hydraulic Booster Compressor tenders floated by CGD Companies/ PMCs for CGD:</p> <p>"No advantage shall be given in case bidder guaranteed electrical Power consumption is lower than 20KWH for this booster compressor package."</p> <p>We request you to kindly add the same in tender for bid rationalization</p>	<p>Power Consumption Loading Calculation;</p> <p>Differential operating cost (Ex) Ex (in Rs) = (Eb-E0) X Re X 21900</p> <p>Where, Ex = Differential electricity operating cost.</p> <p>Eb = Average total power quoted by the Supplier to be loaded for compressorpackage in KW.</p> <p>E0= Lowest average total power quoted by the any Supplier or 29 KWH whichever is lower for compressorpackage in KW</p>



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						Re -- Unit rate of electricity i.e. Rs 8.00 Note:- Guaranteed electrical Power consumption below 20 KWH is not acceptable and Further, there is no limit of the the financial loading on account of power consumption
17		107 of 168	3.9.2	The Enclosure to restrict maximum noise level to 75 dB (A) at 1 meter from the enclosure.	Kindly permit 75 dB +/- 3 dB at 1-meter distance in free field condition.	Tender Condition shall prevail.
18		110 of 168	4.3.3 Preferred makes shall be as follows	FLP Motor	Bidder requests to approve Flameproof motor Hindustan Electric Motor	Ok Noted
19		110 of 168	4.3.3 Preferred makes shall be as follows	FLP Switchgear	Kindly approve Saai Electrical, Shyam Switch Gear makes. These makes are PESO approved.	Ok Noted
20		111 of 168	4.3.3 Preferred makes shall be as follows	On Off ball/ needle valve for CNG application	For high pressure ball valve kindly approve DK LOK/ HYLOK/Dawsons-Tech make.	For High Pressure Ball Valve - Parker/Swagelock/DK LOK
21		111 of 168	4.3.3 Preferred makes shall be as follows	All high-pressure double ferrule fitting and valves shall be from SWAGELOK/ PARKER makes & shall be S.S. material only. Material of tube shall also be SS316L as per ASTM A269 Sandvik make.	We request you to add Dawsons-Tech and DK-LOK make for SS Fittings.	SS Fittings – Swagelok/Parker/DK LOK
22		111 of 168	4.3.3 Preferred makes shall be as follows	RTD	Kindly approve m/s AN instruments and m/s Pune Techtrol	Ok Noted
23		111 of 168	4.3.3 Preferred makes shall be as follows	PLC	Kindly approve ABB make PLC.	Ok Noted



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24		111 of 168	4.3.3 Preferred makes shall be as follows	SS Tube	Kindly approve Ratnamani make.	Tender Condition shall prevail.
25		111 of 168	4.3.3 Preferred makes shall be as follows	Solenoid Valve	Kindly approve Aira and Elomatic makes	Ok Noted
26		111 of 168	4.3.3 Preferred makes shall be as follows	Gas Detector	We request you to add ESP make for Gas Detector	GD - General Monitors / Crowcon / Honeywell / Sieger / Detronics / Khrome Schroder / Net safety / Ambetronics
27		111 of 168	4.3.3 Preferred makes shall be as follows	Flame Detector	We request you to add ESP make for Flame Detector	FD - General Monitors / Crowcon / Honeywell / Sieger / Detronics / Khrome Schroder / Net safety / Ambetronics
28		111 of 168	4.3.3 Preferred makes shall be as follows	PSV	We request you to add Leser make safety valve	Ok Noted
29		66 of 168	2.0 Delivery Schedule	03 Weeks from the date of approval drawing by EIC	We kindly request that you set the delivery schedule for 12 weeks from the drawing approval by the EIC.	Tender Condition shall prevail.
30		127 of 168	C.1. CNG COMPRESSOR OPERATION:	The contractor will be deployed well qualified, trained and experienced operators in 8. hourly shift pattern (A, B, C and Reliever Shift) for 365 days of operation per year including closed holidays and Sundays.	Request you to kindly confirm the no of shifts per day for operation	03 shift per day
31					Electric Power consumption is not mentioned in the subject tender document, request you to please provide the maximum Electric Power Consumption in KWH.	Please refer point no. 16 in replies to bidder's query.
32					We request you for grant us an exemption from the EMD	Tender Conditions shall prevail



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33	Vol-I	101	1.6	Mass Flow Meter at the inlet & outlet of Compressor package	2 Nos. Mass Flow Meter is required to be installed in Online Compressor to calculate package gas loss. Since there is no package gas loss in Booster Compressor being compact in size and reduced tubing. Request VGL to confirm the same.	Tender Condition shall prevail.
34	Vol-I	102	1.6	Main incoming cable from owner PDB to main control panel of the compressor through Conduit/trenches (supply, laying, testing & Commissioning in contractor Scope).	Request to specify the distance between Owner's PDB to Compressor Package.	The Approx. distance between electrical room & booster compressor is 40 Mtr.
35	Vol-I	104	1.7.14.3	One blinking aviation lamp shall be provided at top of compressor canopy suitable for hazardous area for fire indication.	Hooter is provided in case of any GD-FD or ESD signal. As the height of the Package is less than 3 mtrs, we suggest to avoid Aviation Lamp. Request for confirm the same.	Ok, Noted
36	Vol-I	110	4.3.3	1.FLP Motors-ABB/Compton/Siemens/ Bharat Bijlee	Request GAIL to confirm the same.	FLP Motors - ABB/Compton/Siemens/ Bharat Bijlee/ Hindustan Electric
37	Vol-I	111	4.3.3	8.IR Gas Detectors	Request to accept Ambetronics & ESP safety Make of IR Gas Detector having PESO Certification. We have supplied substantial package with same make and same is acceptable across all CGD Industries.	GD - General Monitors / Crowcon / Honeywell /Sieger / Detronics/ Khrome Schroder / Net safety/ Ambetronics
38	Vol-I	111	4.3.3	9.UV Flame Detectors	Request to accept Ambetronics & ESP safety Make of UV Flamedetectors having PESO Certification. We have supplied substantial package with same make and same is acceptable across all CGD Industries.	FD - General Monitors / Crowcon / Honeywell /Sieger / Detronics/ Khrome Schroder / Net safety/ Ambetronics
39	Vol-I	111	4.3.3	19.Cables and wires	Request to accept polycab Make of Cables & wire having PESO	



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					Certification. We have supplied substantial package with same make and same is acceptable across all CGD Industries.	
40		110	4.3.3 Preferred Makes List	<p>Sr. No. 1 FLP Motors: ABB/ Compton/ Siemens/ Bharat Bijlee</p> <p>Sr No. 8 IR Gas Detectors: General Monitors / Crowcon/ Honeywell/ Sieger/ Detronics/ Khrome Schroder/ Net safety.</p> <p>Sr. No. 9 UV Flame Detectors: General Monitors/ Crowcon/ Honeywell/ Sieger/ Detronics/ Khrome Schroder / Net safety</p> <p>Sr. No. 14 SS Tubes: M/s Sandvik, Sweden/ M/s Tubasax</p> <p>Sr No. 15 SS Fittings: M/s Swagelok (USA)/ M/s Parker (USA)/ M/s Hoke (Circore Instruments)/ M/s Hamlet/ M/S SSP/M/S BMT Korea/ HYLOK</p> <p>Sr. No. 18 On off ball/needle valve: M/s Parker / M/s Swageloc</p>	<p>Bidder Request to approve LHP for FLP motors (approved in all major CGDs)</p> <p>Bidder request to Approve ESP Safety/ Ambetronics (Approved in Major CGDs).</p> <p>Bidder Request to approve ESP Safety/ Ambetronics (Approved in Major CGDs).</p> <p>Bidder request to approve Jindal Saw/ Ratnamani (approved in all major CGDs).</p> <p>Bidder request to approve DK LOK (approved in all major CGDs).</p> <p>Bidder request to approve DK LOK (Approved in all major CGDs).</p>	<p>FLP Motors - ABB/Compton/Siemens/ Bharat Bijlee/ Hindustan Electric</p> <p>GD - General Monitors / Crowcon / Honeywell /Sieger / Detronics/ Khrome Schroder / Net safety/ Ambetronics</p> <p>FD - General Monitors / Crowcon / Honeywell /Sieger / Detronics/ Khrome Schroder / Net safety/ Ambetronics</p> <p>SS Tubes - M/s Sandvik, Sweden/ M/s Tubasax</p> <p>SS Fittings – Swagelok/Parker/DK LOK</p> <p>On off ball/needle valve – M/s Parker / M/s Swageloc/DKLOK</p>
41		9	2.0 (A) Name of Work/ Brief Scope of Work/ Job	PROCUREMENT OF 01 NO. 450 SCMH BOOSTER COMPRESSOR PACKAGE WITH 60 MONTHS COMPREHENSIVE ANNUAL MAINTENANCE CONTRACT (AMC) FOR UPGRADATION & AMENDMENT OF DUMAD DBS	Bidder needs clarification on which motor rating to be considered. (22KW or 37KW)	37 KW



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42		103	1.7.6 (Safety)	<p>Package enclosures shall have two IR type L.E.L detectors and two Ultra Violet (UV)/IR fire detectors in each enclosure to cover the enclosures effectively.</p> <p>Minimum one no. Gas Detector IR type which have self-check function to generate fault alarm and have 4 to 20 mA transmitter for 0 to 100% LEL shall be provided. Supplier shall provide suitable comparator like trip amplifier to generate alarm signal at 20 % LEL and trip signal at 50% LEL. Indication lamp shall be provided for fault, alarm and trip signal in LCP.</p> <p>Flame detector (UV-IR type) with self-check function and transmitter, alarm on detection of flame shall be provided. Package should have at least one no. flame detectors. Self-check function to generate fault alarm and trip alarm in case of flame detection Indication lamp shall be provided for fault and trip signal in LCP.</p>	<p>Please confirm the minimum numbers of Gas detectors and flame detectors to be considered.</p>	<p>The Minimum number are as follows:</p> <p>1) 02 nos. for GD</p> <p>2) 02 nos. for FD</p>
43		102	1.6 SCOPE OF SUPPLY FOR EACH COMPRESSOR PACKAGE:	<p>All inlet & Outlet ¾” (0.095” min wall thick) SS Tubing (Approx. 200 Mtr – Sandvik/ Tubacex) of the compressors are supply by the contractor.</p>	<p>Please confirm if the bidder needs to supply 200meters of SS tubing along with the booster.</p> <p>If the Bidder has to supply the SS tubes than is the Laying of tubes in the bidder's scope or the buyer's scope</p>	<p>The Laying of SS Tubing is in Buyer's Scope.</p>

Note: This Replies to Bidder's Queries as uploaded on n-Procure & VGL's Website. Please upload the same duly Sign and Seal with Techno-Commercial Bid as this is an Integral Part of the Tender.