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REQUEST FOR PROPOSAL (RFP)

SUPPLY, INSTALLATION, TESTING & COMMISSIONING OF “MEDICAL GAS PIPELINE SYSTEM(MGPS)” FOR CANCER CARE HOSPITALS AT ACCF.

Tender Ref No. RFP No: ACCF/MGPS/25-26/99 Date:28/04/2025

CORRIGENDUM-1

Date: 14-05-2025

Query Resolution

Technical Specifications:

SR. No.	Tender Specifications	Changes / amendment / clarification asked	ACCF Clarification / Amendment
1	Responsibility of the bidder: All Gas Outlets in MOT (i.e. O2, N2O, MA4, MA7, Vacuum, CO2 (if required), etc.) will come with OT Pendants (Under MOT RFP	Pendant mentioned in MGPS BOQ (for Dhubri location)	Pendants to be supplied as per tender
2	Responsibility of the bidder: The following systems/Items must be from the same principal company/Manufacturer a) Control Panels b) Area & Master Alarm c) AGSS d) All types of Outlets	Only Beacon madeas is common in all 4 categories. That's mean every one has to take these items from Beacon madeas only. please include Gentec as well in all imported make list	Make: Ohio Medical (USA) and Draeger (Germany) will be considered additionally in AGSS part.
3	Responsibility of Consignee/ TIE/Interconnection to LMO Tank (Optional Price should be quoted):Institute will provide connecting trench from manifold/plant room to hospital building if MGPS plant/manifold room is not within the same hospital building as per clause no 5, but asked for price as per clause no 26.1	discrepancy in clauses	The institute will provide a trench and Bidder need to consider 50MTR

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4	SCOPE AND TECHNICAL SPECIFICATION: Automatic changeover from LMO source to manifolds with a control panel. The Panel should be IMPORTED / INDIGENOUS WITH EU CE-certified Components. It should be able to handle to peak flow from the LMO tank. The panel should work as a pressure	not mentioned in BOQ	Quote as per the BOQ only
5	18 Line Isolation Valves- Imported: As per clause 18.1, 18.2	Wrong specification mentioned	No change
6	19 Medical Gas Area Alarm (Imported): As per Clause 19	Wrong specification mentioned	No change
7	SCOPE AND TECHNICAL SPECIFICATION: Pendants	Technical specification not found	Quote as per the BOQ description, complete requirements of specifications have been covered
8	Important dates: End Date & Time 19.05.2025, 1500 Hrs	Please extend the End Date till 29.05.2025, 1500 Hrs.	Please refer date corrigendum.
9	For indigenous items quoted with CDSCO licensed manufacturers, each Item must hold an individual CDSCO license for each item separately.	CDSCO Licence requirement as in tender you have asked for CDSCO License for each items separately. Kindly change that single License can work for all the indigenous items.	As per the tender Specifications
10	Technical Specification	All the critical component like fully automatic control panel , Alarms AVSU , outlets , pendant should be CE certified with 4 digit notified body	As per the tender
11	Clause 2.5 Trench work and override bridge required for MGPS comes under the purview of the civil work	Requesting you to kindly remove this condition from the scope of the bidder.	Clause 2.5 Trench work and override bridge required for LMO will be in ACCF scope.
12		Please include ISO standard.	
13	Technical Specification: Platform for Tank, air compressor and Vacuum pump will be responsibility of the bidder with shed as per their requirement.	Please remove this from the scope of the bidder since it's a pure civil contractor work. The footprint of the equipment will be provided but the respective shed and platform to be constructed by the consignee.	No change.

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14	Technical Specification: Automatic changeover from LMO source to manifolds with a control panel. The Panel should be IMPORTED / INDIGENOUS WITH EU CE-certified Components. It should be able to handle to peak flow from the LMO tank. The panel should work as a pressure	If the auto changeover required in the control panel, than the LMO input pressure should be minimum 14.5 Bar. Kindly ensure with the LMO supplier.	Technical Specification: Automatic changeover from LMO source to manifolds with a control panel. The Panel should be IMPORTED / INDIGENOUS WITH EU CE-certified Components. It should be able to handle to peak flow from the LMO tank. The panel should work as a pressure at 14.5 Bar.
15	1 no of Suction Regulator and 1 no of 1000 ml for ICU and 600 ml forwards (as per BOQ) polysulfone /polycarbonate collection jar.	Please confirm the qty of the ward vacuum unit respectively 1000ml and 600ml.	As per design matrix
16	Low flow ward vacuum unit - Should have vacuum levels: 0-250 mm of Hg +/-10%	The mentioned Low Flow ward vacuum is not present in the BOQ please give clarity on this.	Quote as per BOQ
17	Suction Regulator and 2nos. 1500ml or more polysulfone/ polycarbonate collection jar and both to be mounted on a trolley.	The specification not matching with the BOQ. Please confirm which capacity consider (2000ml as per BOQ or 1500ml as per Technical Specification)	Suction Regulator and 2nos. 2000ml or more polysulfone/ polycarbonate collection jar and both to be mounted on a trolley.
18	Anaesthetic Gas Scavenging System (AGSS) of minimum 1500LPM as Primary & 1500 LPM as Standby, It should be US FDA / European CE Certified with 4 digital notified body number or American ETL/ American UL listed (In case of NFPA 99c the control panel of Plant must be UL/ETL Listed and Undertaking from the manufacturer must be submitted for using the same control panel in the system offered)and should comply with HTM 02-01/ NFPA 99 C/EN/ISO 7396-1./DIN	The capacity of the AGSS system is not matching with the mentioned capacity in BOQ. Please confirm which one to consider (1500 LPM as primary and 1500 LPM as standby ---this is as per Technical specification or 520 LPM as primary and 520 LPM as standby ---this is as per BOQ)	520 LPM as primary and 520 LPM as standby
19	Bidder should be responsible for antistatic rubber flooring in the manifold room and thickness of flooring not less than 1inch.	The flooring of the manifold room should be under the scope of civil work. Please look into this.	Antistatic Flooring is not in Bidder's scope.
20	2.B Brief Schedule of Requirement & Other Details:Within 60 days of issue of Work Order for	Need 4 - 5 month for each L2 & L3 Sites	150 days from the date of issuance of Work Order for L2 site & 120 days for L3 sites and or handover of the site, whichever is later.

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	L3 sites and 75 days for L2 sites from the date of issue of work order.		However, the duration needs to be discussed with the main contractor and incorporated in their master schedule based on the work front availability and depending on the sequence of work.
21	AMC/CMC	There is no separate sheet for calculating CMC / AMC and Warranty value	Refer 6.7.4 The cost of CMC and AMC shall be as follows: - AMC will be 1% and CMC would be 4% of the Work Order/ Purchase Order Value (excluding GST). Thereafter, 4% increase every year over previous year value. Applicable GST shall be paid extra against valid GST Invoice.
22	AMC/CMC	There is no separate sheet for calculating CMC / AMC and Warranty value	Refer 6.7.4 The cost of CMC and AMC shall be as follows: - AMC will be 1% and CMC would be 4% of the Work Order/ Purchase Order Value (excluding GST). Thereafter, 4% increase every year over previous year value. Applicable GST shall be paid extra against valid GST Invoice.
23	Clause 6.3.7: All incidental work including civil, electrical or mechanical work required for installation of the System will be the responsibility of the Contractor. The contract price as offered in the price bid and agreed shall be all inclusive. No separate payment shall be made other than the contracted price.	Responsibility of Consignee / TIE	Civil works, like making pedestal in the plant room will be done by L&T / ACCF scope
24	Clause 6.3.9 Earthing arrangements for all the equipment shall be completed as per standard practice.	Responsibility of Consignee / TIE	Earth pits will be executed by L&T / ACCF further connection from pit to panel is in bidder's Scope
25	6.7.4 The cost of CMC and AMC shall be as follows: - AMC will be 1% and CMC would be 4% of the Work Order/ Purchase Order Value (excluding GST). Thereafter, 4% increase every year over	Need to Consider AMC @ 2.0% : CMC @ 6.0% & Escalation @ 6.% each year	No change

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	previous year value. Applicable GST shall be paid extra against valid GST Invoice.		
26	7.3.1 All incidental work including civil, electrical or mechanical work required for installation of the System will be the responsibility of the Contractor.	Responsibility of Consignee / TIE	Civil works, like making pedestal in the plant room will be done by L&T / ACCF scope
27	7.4.3If it is found that to meet the performance criteria, any extra equipment is required the same will be provided free of cost by the supplier.	Specification should be as per BOQ	No change
28	Clause 1: Technical Bid Opening (online) 19.05.2025, 1600 Hrs	we seek to revise the date for submission of the tender upto 31.05.2025, 1600 Hrs.	Pls refer date corrigendum
29	Clause 6.7: Maintenance Contract (CMC & AMC)	We ask for any one, either AMC or CMC, it will help us to prepare proper costing for the project	Refer 6.7.4 The cost of CMC and AMC shall be as follows: - AMC will be 1% and CMC would be 4% of the Work Order/ Purchase Order Value (excluding GST). Thereafter, 4% increase every year over previous year value. Applicable GST shall be paid extra against valid GST Invoice.
30		Need layout of Liquid Medical oxygen Plant for the cost estimation of Interconnection from LMO to CMO	50 mtr distance can be considered. Any addition or deletion will be done on prorated basis, based on actual quantity.
31	Timeline for Execution of work: * On page no.3 Timeline for Execution of Work mention Within 60 days of issue of Work Order for L3 sites and 75 days for L2 sites from the date of issue of work order. * On page no. 27 Completion of Installation and Commissioning mention 150days from the date of issuance of Work Order for Dhubri & Tinsukia and 120 days for remaining sites or handover of the site, whichever is later	Kindly Amend Timeline for Execution of work for 120 to 150 Days per site.	150 days from the date of issuance of Work Order for L2 site & 120 days for L3 sites and or handover of the site, whichever is later. However, the duration needs to be discussed with the main contractor and incorporated in their master schedule based on the work front availability and depending on the sequence of work

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32	Format- T7: Manufacturer's Authorization Form(MAF) (for Distributor)	<p>We respectfully request the removal of the Manufacturer's Authorisation Format (MAF) requirement for the following reasons:</p> <p>a. Since an approved make list has already been provided in the price schedule, the MAF becomes redundant as the L1 contractor is contractually bound to adhere to the approved make list.</p> <p>b. With MAF being mandatory for submission, we have observed that each approved OEM is providing MAF to only a single chosen bidder; as a result, there is limited chance of participating in this tender, which restricts competition. Even if the OEM of one equipment authorizes his dealer to participate, the said dealer does not distribute other equipment, which would make his participation impossible.</p> <p>c. There are about 40 unique items in the BOQ. Successfully arranging MAF for these 40 items will require MAFs from at least 10 different OEMs, which makes participation in this tender a herculean task and also binds contractors with fewer OEMs to meet this criteria, which ultimately leads to less competitive pricing.</p> <p>We request you to eliminate the need for MAF so we may freely engage with all OEMs and quote the most competitive prices to ACCF.</p>	<p>MAF is required.</p> <p>The Manufacturer's Form / Manufacturer's Authorisation Form (Format T6 / T7 as applicable) is mandatory for the following major items:</p> <ol style="list-style-type: none"> 1- Fully Automatic Control Panel 2- Gas Outlets 3- Compressed Air System 4- Air Drier 5- Vacuum Pump 6- AGSS System 7- Medical Grade Copper Pipe 8- all Alarm System 9- Pendant 10. Air compressor 11. Vacuum Pump
33	Format- T7: Manufacturer's Authorization Form (for Distributor)	<p>For point no. 2 of the MAF form, manufacturers are responsible only for their standard warranty terms. Extended warranty/ AMC/ CMC is under the scope of the bidder.</p> <p>For point no. 3 of the MAF form, manufacturer is responsible only for the manufacture and supply of the equipment within the stipulated timeline.</p>	No change.

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		<p>Installation & commissioning is in the scope of the bidder only.</p> <p>In view of the above, please allow the manufacturers to re-phrase the MAF form accordingly.</p>	
34	<p>Technical Specifications: Clause No. 2.16- The following systems/Items must be from the same principal company/ Manufacturer a) Control Panels b) Area & Master Alarm c) AGSS d) All types of Outlets</p>	<p>We request you to remove this point, as</p> <ol style="list-style-type: none"> 1) An approved make list is already provided for each of these items, which are all imported makes. 2) As mentioned in the price schedule, there is only one approved manufacturer whose name is mentioned against all 4 of these items (control panels, area & master alarms, AGSS, all types of outlets), which is Beacon Medaes. This contradicts the approved make list. 	<p>Make: Ohio Medical (USA) and Draeger (Germany) will be considered additionally in AGSS part.</p>
35	<p>Format- T10: Statement of Deviation (Technical Specification)</p>	<p>The hospital packages include various source equipment and accessories with multiple manufacturers. So please allow the bidder to fill up and sign the Statement of Deviations (if any), instead of the manufacturers. Leaflets/ technical brochures/ product datasheets shall be uploaded along with the bid.</p>	<p>Deviation can be highlighted if you find any from our BOQ & Specifications. Any better specification may be considered.</p>
36	<p>Format- T11: Para-wise Compliance</p>	<p>The hospital packages include various source equipment and accessories with multiple manufacturers. So please allow the bidder to fill up and sign the Para-wise Compliance sheet, instead of the manufacturers. Leaflets/ technical brochures/ product datasheets shall be uploaded along with the bid</p>	<p>Deviation can be highlighted if you find any from our BOQ & Specifications. Any better specification may be considered.</p>
37	<p>Clause No. 2.21.3 c)- CMC (Comprehensive Maintenance Contract) Rates as per price schedule (if asked for) Clause No. 2.21.3 d)- Bidder shall also quote CMC / AMC rates (exclusive of GST) for a period as prescribed</p>	<p>Please clarify where bidders are to quote for CMC/ AMC in the price bid as there are no separate columns in the price schedule.</p>	<p>Refer 6.7.4 The cost of CMC and AMC shall be as follows: - AMC will be 1% and CMC would be 4% of the Work Order/ Purchase Order Value (excluding GST). Thereafter, 4% increase every year over</p>

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	<p>under Section-VII, post comprehensive warranty period. The Rates of CMC for the prescribed period shall be shown separately in the respective columns of price bid format if asked.</p> <p>The cost of CMC and AMC shall be as follows: AMC will be 1% and CMC would be 4% of the work order / purchase order (excluding GST). Thereafter, 4% increase every year over previous year value. Applicable GST shall be paid extra against valid GST invoice.</p>	The above clause contradicts this clause. Please clarify which clause is applicable.	previous year value. Applicable GST shall be paid extra against valid GST Invoice.
38	<p>The cost of CMC and AMC shall be as follows: AMC will be 1% and CMC would be 4% of the work order / purchase order (excluding GST). Thereafter, 4% increase every year over previous year value. Applicable GST shall be paid extra against valid GST invoice.</p>	<p>Assuming that the value of the purchase order is Rs. X, please confirm whether our understanding of the CMC charges below is correct:</p> <p>Year 1: under warranty Year 2: under warranty Year 3: 4% * X * 1.042 Year 4: 4% * X * 1.043 Year 5: 4% * X * 1.044 Year 6: 4% * X * 1.045 Year 7: 4% * X * 1.046 Year 8: 4% * X * 1.047 Year 9: 4% * X * 1.048</p> <p>Kindly confirm if our understanding is correct, or provide the correct calculation.</p>	<p>Assuming that the value of the purchase order is Rs. 100, CMC charges shall be as below:</p> <p>Year 1: under warranty Year 2: under warranty Year 3: 4% * 100 * 1 Year 4: 4% * 100 * 1.04 Year 5: 4% * 100 * 1.04 * 1.04 Year 6: 4% * 100 * 1.04 * 1.04 * 1.04 and so on.</p>
39	<p>Timeline for Execution of Work- Within 60 days of issue of Work Order for L3 sites and 75 days for L2 sites from the date of issue of work order</p> <p>Completion of Installation and Commissioning- 150days from the date of issuance of Work Order for Dhubri & Tinsukia and 120 days for remaining sites or handover of the site, whichever is later.</p>	As specified, separate timelines have been indicated in both the pages. Please clarify which completion period should we consider.	150 days from the date of issuance of Work Order for L2 site & 120 days for L3 sites and or handover of the site, whichever is later. However, the duration needs to be discussed with the main contractor and incorporated in their master schedule based on the work front availability and depending on the sequence of work

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40	Clause No. 1.3.5- The Applicant is required to submit the hard copies of selected key documents of the technical proposal within due date of submission of the proposal.	Please clarify whether the date of submission of the hard copies is the same as the date of online submission, i.e., 19.05.2025, 1500 Hrs. Please clarify	As it is an online tender so hard copy submission is not required
41	Technical Specification: 3.9 Platform for Tank, air compressor and Vacuum pump will be responsibility of the bidder with shed as per their requirement.	Please remove this from the scope of the bidder since it's a pure civil contractor work. The footprint of the equipment will be provided but the respective shed and platform to be constructed by the consignee	Shed is not required as it will in closed plant room. Civil Platforms will be executed by L&T / ACCF

BOQ queries and resolution

Sl.No	Tender Specifications	Approved Make	Changes / amendment / clarification required	ACCF Clarification / Amendment
	OXYGEN SYSTEM			
1	Supply, Installation, Testing and commissioning of Surface mounted front loading Oxygen outlets (first and second fix assembly) Terminal units shall be gas-specific and only accept the correct medical gas probe. Gas specific components shall be pin-indexed to ensure that a correct gas specific assembly is achieved so that in the normal course of dismantling for repair or maintenance, parts from other gases cannot inadvertently be used. Wall mounted terminal units shall incorporate an anti-rotation pin to engage with connected downstream medical equipment ensuring correct orientation.	Beacon Medaes-(USA / UK) / Ohio medical-USA / Draeger- Germany	Please make this as Draeger Germany /India since Draeger makes Indigenous outlet as well.	No Change- All makes were imported
2	Supply, Installation, Testing and Commissioning of 10 +10 size manifold (Secondary supply) complete with middle frame with chain for individual	Aktiv technologies/Draeger-	1. Kindly Mention that single CDSCO manufacturer can give authorization to more than two bidders because in	Any bidder who obtains authorisation from available CDSCO-approved manufacturers

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	<p>cylinder (D Type) along with Non-Return Valves & Pigtails for every cylinder.</p> <p>Each header bar shall have a respective number of cylinder pigtail connections to suit cylinder valves as per IS 3224/ BS, incorporating a check valve at the header connection. The high-pressure header bar shall be designed in such a manner that it can be extended to facilitate additional cylinder connections. Each header bar assembly shall be provided with a high-pressure shut-off valve. The manifold should be hydraulically tested to 3000 psig.</p>	India /CDSCO Licensed Manufacturer Make	india only 3-4 companies are holding CDSCO so if you will restrict one Manufacturer for one bidder than it will be difficult to participate everyone.	is acceptable for tender participation. Ensure the CDSCO certificate of the manufacturer is submitted in bid.
3	<p>Supply, Installation, Testing and Commissioning of a Fully Automatic pneumatic-operated control panel with a digital display for Oxygen. Having a constant flow output of over 1500 Lpm at 4.2 bar pressure.</p> <p>It shall be fully automatic, including shifting to the secondary bank when the service bank is exhausted, with an automatic reset of the replaced bank to primary status. Semi-automatic manifolds are not acceptable</p>	Beacon Medaes-(USA / UK) / Ohio medical-USA / Draeger- Germany	1. Kindly Add Equivalent in make list or add (MediCop Slovenia Germany)	No change
4	<p>SITC of O2 Emergency Manifold 5+5 as per technical specifications.</p> <p>The emergency manifold(s) should comply with IS/ ISO-7396-1 standards. The emergency system shall have arrangements for jumbo cylinders, and it shall be compatible with Class-D type bulk cylinders. The manifold shall consist of two high-pressure header bar assemblies to facilitate the</p>	Aktiv technologies/Draeger-India /CDSCO Licensed Manufacturer Make	1. Kindly Mention that single CDSCO manufacturer can give authorization to more than 5 bidders because in india only 3-4 companies are holding CDSCO so if you will restrict one Manufacturer for one bidder than it will be difficult to participate everyone.	Any bidder who obtains authorisation from available CDSCO-approved manufacturers is acceptable for tender participation. Ensure the CDSCO certificate of the manufacturer is submitted in bid.

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	connection of primary and secondary cylinder supplies. Each header bar shall be provided with the respective numbers of cylinder pigtail connections to suit cylinder valves as per IS 3224/ BS/ ASME, incorporating a check valve at the header connection. The high-pressure header bar shall be designed in such a manner that it can be extended to facilitate additional cylinder connections. Each header bar assembly shall be provided with a high-pressure shut-off valve. The manifold should be hydraulically tested to 3000 psig.			
5	Supply, Installation, Testing and commissioning of Emergency control panel with 2 Nos of High flow regulators (1500 LPM) and isolation valve for Oxygen Having a constant flow output of over 1500 lpm at 4.2 bar pressure for the emergency bank.	Beacon Medaes-(USA / UK) / Ohio medical-USA / Draeger- Germany	1. Kindly Add Equivalent in make list or add (MediCop Slovenia Germany)	No change
6	Supply, Installation, Testing and commissioning of Surface mounted front loading Oxygen outlets (first and second fix assembly) Terminal units shall be gas-specific and only accept the correct medical gas probe. Gas specific components shall be pin-indexed to ensure that a correct gas specific assembly is achieved so that in the normal course of dismantling for repair or maintenance, parts from other gases cannot inadvertently be used. Wall mounted terminal units shall incorporate an anti-rotation pin to engage with connected downstream medical equipment ensuring correct orientation.	Beacon Medaes-(USA / UK) / Ohio medical-USA / Draeger- Germany	1. Kindly Add Equivalent in make list or add (MediCop Slovenia Germany)	No change

Sl.No	Tender Specifications	Approved Make	Changes / amendment / clarification required	ACCF Clarification / Amendment
7	H.P. tubing having anti-static core white colour 5mtrs with heat conversion for Oxygen as per ISO Standards	Aktiv technologies/Draeger-India /CDSCO Licensed Manufacturer Make	1. Kindly Mention that single CDSCO manufacturer can give authorization to more than 5 bidders because in india only 3-4 companies are holding CDSCO so if you will restrict one Manufacturer for one bidder than it will be difficult to particate everyone.	Any bidder who obtains authorisation from available CDSCO-approved manufacturers is acceptable for tender participation. Ensure the CDSCO certificate of the manufacturer is submitted in bid.
8	Supply, Installation, Testing and Commissioning of a Fully Automatic pneumatic-operated control panel with a digital display for Oxygen....	Beacon Medaes-(USA / UK) / Ohio medical-USA / Draeger- Germany Make	Please add the following make: 1. Delta- P, Italy 2. Air Liquide, France	No change
9	Supply, Installation, Testing and commissioning of Surface mounted front loading Oxygen outlets (first and second fix assembly).....	Beacon Medaes-(USA / UK) / Ohio medical-USA / Draeger- Germany Make	Please add the following make: 1. Delta- P, Italy 2. Air Liquide, France	No change
10	Supply, Installation, Testing and commissioning of Emergency control panel with 2 Nos of High flow regulators (1500 LPM).....	Beacon Medaes-(USA / UK) / Ohio medical-USA / Draeger- Germany Make	Please add the following make: 1. Delta- P, Italy 2. Air Liquide, France	No change
11	Supply, Installation, Testing and commissioning of Surface mounted front loading outlets (first and second fix assembly)	Beacon Medaes-(USA / UK) / Ohio medical-USA / Draeger- Germany Make	Please add the following make: 1. Delta- P, Italy 2. Air Liquide, France	No change
12	Supply, Installation, Testing and Commissioning of a Fully Automatic pneumatic-operated control panel with a digital display for Oxygen. Having a constant flow output of over 1500 Lpm at 4.2 bar pressure. It shall be fully automatic, including shifting to the secondary bank when the service bank is exhausted, with an automatic reset of the replaced	Beacon Medaes-(USA / UK) / Ohio medical-USA / Draeger- Germany Make	1. Kindly Add Equivalent in make list or add (MD-SRL ITALY)	No change

Sl.No	Tender Specifications	Approved Make	Changes / amendment / clarification required	ACCF Clarification / Amendment
	bank to primary status. Semi-automatic manifolds are not acceptable			
13	<p>SITC of O2 Emergency Manifold 5+5 as per technical specifications.</p> <p>The emergency manifold(s) should comply with IS/ ISO-7396-1 standards. The emergency system shall have arrangements for jumbo cylinders, and it shall be compatible with Class-D type bulk cylinders. The manifold shall consist of two high-pressure header bar assemblies to facilitate the connection of primary and secondary cylinder supplies. Each header bar shall be provided with the respective numbers of cylinder pigtail connections to suit cylinder valves as per IS 3224/ BS/ ASME, incorporating a check valve at the header connection. The high-pressure header bar shall be designed in such a manner that it can be extended to facilitate additional cylinder connections. Each header bar assembly shall be provided with a high-pressure shut-off valve. The manifold should be hydraulically tested to 3000 psig.</p>	Aktiv technologies/Draeger-India /CDSCO Licensed Manufacturer Make	1. Kindly Mention that single CDSCO manufacturer can give authorization to more than two bidders because in india only 3-4 companies are holding CDSCO so if you will restrict one Manufacturer for one bidder than it will be difficult to particate everyone.	Any bidder who obtains authorisation from available CDSCO-approved manufacturers is acceptable for tender participation. Ensure the CDSCO certificate of the manufacturer is submitted in bid.
14	<p>Supply, Installation, Testing and commissioning of Emergency control panel with 2 Nos of High flow regulators (1500 LPM) and isolation valve for Oxygen</p> <p>Having a constant flow output of over 1500 lpm at 4.2 bar pressure for the emergency bank.</p>	Beacon Medaes-(USA / UK) / Ohio medical-USA / Draeger- Germany	1. Kindly Add Equivalent in make list or add (MD-SRL ITALY)	No change
15	Supply, Installation, Testing and commissioning of Surface mounted front loading Oxygen outlets (first and second fix assembly)	Beacon Medaes-(USA / UK) / Ohio medical-USA / Draeger- Germany	1. Kindly Add Equivalent in make list or add (MD-SRL ITALY)	No change

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	Terminal units shall be gas-specific and only accept the correct medical gas probe. Gas specific components shall be pin indexed to ensure that a correct gas specific assembly is achieved so that in the normal course of dismantling for repair or maintenance, parts from other gases cannot inadvertently be used. Wall mounted terminal units shall incorporate an anti-rotation pin to engage with connected downstream medical equipment ensuring correct orientation.			
16	H.P. tubing having anti-static core white colour 5mtrs with heat conversion for Oxygen as per ISO Standards	Aktiv technologies/Draeger-India /CDSCO Licensed Manufacturer Make	1. Kindly Mention that single CDSCO manufacturer can give authorization to more than two bidders because in India only 3-4 companies are holding CDSCO so if you will restrict one Manufacturer for one bidder than it will be difficult to participate everyone.	Any bidder who obtains authorisation from available CDSCO-approved manufacturers is acceptable for tender participation. Ensure the CDSCO certificate of the manufacturer is submitted in bid.
	NITROUS OXIDE SYSTEM			
17	Supply, Installation, Testing and Commissioning of 4+4 size manifold (Primary & Secondary supply) complete with middle frame with chain for individual cylinder (D Type) along with Non-Return Valves for every cylinder.	Aktiv technologies/Draeger-India /CDSCO Licensed Manufacturer Make	1. Kindly Mention that single CDSCO manufacturer can give authorization to more than 5 bidders because in India only 3-4 companies are holding CDSCO so if you will restrict one Manufacturer for one bidder than it will be difficult to participate everyone.	Any bidder who obtains authorisation from available CDSCO-approved manufacturers is acceptable for tender participation. Ensure the CDSCO certificate of the manufacturer is submitted in bid.
18	Supply, Installation, Testing and commissioning of Single cylinder Emergency Nitrous oxide arrangement using a high flow double gauge Regulator.	Aktiv technologies/Draeger-India /CDSCO Licensed Manufacturer Make	1. Kindly Mention that single CDSCO manufacturer can give authorization to more than 5 bidders because in India only 3-4 companies are holding CDSCO so if you will restrict one Manufacturer for one bidder than it will be difficult to participate everyone.	Any bidder who obtains authorisation from available CDSCO-approved manufacturers is acceptable for tender participation. Ensure the CDSCO certificate of the manufacturer is submitted in bid.

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19	Supply, Installation, Testing and Commissioning of Fully Automatic control panel for Nitrous Oxide along with heaters Having a min. flow out put of over 500 LPM at 4.2 bar pressure.	Beacon Medaes-(USA / UK) / Ohio medical-USA / Draeger- Germany	1. Kindly Add Equivalent in make list or add (MediCop Slovenia Germany)	No Change
20	Supply, Installation, Testing and commissioning of Surface mounted front loading outlets (first and second fix assembly)	Beacon Medaes-(USA / UK) / Ohio medical-USA / Draeger- Germany	1. Kindly Add Equivalent in make list or add (MediCop Slovenia Germany)	No Change
21	H.P. tubing having anti static core Blue color 5mtrs with Keat conversion for Nitrous Oxide as per ISO Standards	Aktiv technologies/Draeger-India /CDSCO Licensed Manufacturer Make	1. Kindly Mention that single CDSCO manufacturer can give authorization to more than 5 bidders because in india only 3-4 companies are holding CDSCO so if you will restrict one Manufacturer for one bidder than it will be difficult to particate everyone.	Any bidder who obtains authorisation from available CDSCO-approved manufacturers is acceptable for tender participation. Ensure the CDSCO certificate of the manufacturer is submitted in bid.
22	Supply, Installation, Testing and Commissioning of Fully Automatic control panel for Nitrous Oxide....	Beacon Medaes-(USA / UK) / Ohio medical-USA / Draeger- Germany Make	Please add the following make: 1. Delta- P, Italy 2. Air Liquide, France	No change
23	Supply, Installation, Testing and Commissioning of 4+4 size manifold (Primary & Secondary supply) complete with middle frame with chain for individual cylinder (D Type) along with Non-Return Valves for every cylinder.	Aktiv technologies/Draeger-India /CDSCO Licensed Manufacturer Make	1. Kindly Mention that single CDSCO manufacturer can give authorization to more than two bidders because in india only 3-4 companies are holding CDSCO so if you will restrict one Manufacturer for one bidder than it will be difficult to particate everyone.	Any bidder who obtains authorisation from available CDSCO-approved manufacturers is acceptable for tender participation. Ensure the CDSCO certificate of the manufacturer is submitted in bid.
24	Supply, Installation, Testing and commissioning of Single cylinder Emergency Nitrous oxide arrangement using a high flow double gauge Regulator.	Aktiv technologies/Draeger-India /CDSCO Licensed Manufacturer Make	1. Kindly Mention that single CDSCO manufacturer can give authorization to more than two bidders because in india only 3-4 companies are holding CDSCO so if you will restrict one	Any bidder who obtains authorisation from available CDSCO-approved manufacturers is acceptable for tender participation. Ensure the CDSCO

Sl.No	Tender Specifications	Approved Make	Changes / amendment / clarification required	ACCF Clarification / Amendment
			Manufacturer for one bidder than it will be difficult to participate everyone.	certificate of the manufacturer is submitted in bid.
25	Supply, Installation, Testing and Commissioning of Fully Automatic control panel for Nitrous Oxide along with heaters Having a min. flow out put of over 500 LPM at 4.2 bar pressure.	Beacon Medaes-(USA / UK) / Ohio medical-USA / Draeger- Germany	1. Kindly Add Equivalent in make list or add (MD-SRL ITALY)	No Change
26	Supply, Installation, Testing and commissioning of Surface mounted front loading outlets (first and second fix assembly)	Beacon Medaes-(USA / UK) / Ohio medical-USA / Draeger- Germany	1. Kindly Add Equivalent in make list or add (MD-SRL ITALY)	No change
27	H.P. tubing having anti-static core Blue colour 5mtrs with Keat conversion for Nitrous Oxide as per ISO Standards	Aktiv technologies/Draeger-India /CDSCO Licensed Manufacturer Make	1. Kindly Mention that single CDSCO manufacturer can give authorization to more than two bidders because in india only 3-4 companies are holding CDSCO so if you will restrict one Manufacturer for one bidder than it will be difficult to participate everyone.	Any bidder who obtains authorisation from available CDSCO-approved manufacturers is acceptable for tender participation. Ensure the CDSCO certificate of the manufacturer is submitted in bid.
	CARBON DIOXIDE SYSTEM			
28	Supply, Installation, Testing and commissioning of 2+2 size manifold (Primary & Secondary supply) complete with middle frame with chain for individual cylinder (VF size) along with Non Return Valves for every cylinder.	Aktiv technologies/Draeger-India /CDSCO Licensed Manufacturer Make	1. Kindly Mention that single CDSCO manufacturer can give authorization to more than 5 bidders because in india only 3-4 companies are holding CDSCO so if you will restrict one Manufacturer for one bidder than it will be difficult to participate everyone.	Any bidder who obtains authorisation from available CDSCO-approved manufacturers is acceptable for tender participation. Ensure the CDSCO certificate of the manufacturer is submitted in bid.
29	Supply, Installation, Testing and commissioning of Single cylinder manifold Emergency Carbon dioxide arrangement using a high-flow double gauge Regulator.	Aktiv technologies/Draeger-India /CDSCO Licensed Manufacturer Make	1. Kindly Mention that single CDSCO manufacturer can give authorization to more than 5 bidders because in india only 3-4 companies are holding CDSCO so if you will restrict one Manufacturer for one bidder than it will be difficult to participate everyone.	Any bidder who obtains authorisation from available CDSCO-approved manufacturers is acceptable for tender participation. Ensure the CDSCO certificate of the manufacturer is submitted in bid.

Sl.No	Tender Specifications	Approved Make	Changes / amendment / clarification required	ACCF Clarification / Amendment
30	Supply, Installation, Testing and commissioning of Fully Automatic control panel for Carbon dioxide Having a min. flow out put of over 500 LPM at 4.2 bar pressure.	Beacon Medaes-(USA / UK) / Ohio medical-USA / Draeger- Germany	1. Kindly Add Equivalent in make list or add (MediCop Slovenia Germany)	No Change
31	Supply, Installation, Testing and commissioning of Surface mounted front loading outlets (first and second fix assembly)	Beacon Medaes-(USA / UK) / Ohio medical-USA / Draeger- Germany	1. Kindly Add Equivalent in make list or add (MediCop Slovenia Germany)	No Change
32	H.P. tubing having anti-static core Blue color 5mtrs with Keat conversion for Carbon dioxide as per ISO Standards	Aktiv technologies/Draeger-India /CDSCO Licensed Manufacturer Make	1. Kindly Mention that single CDSCO manufacturer can give authorization to more than 5 bidders because in india only 3-4 companies are holding CDSCO so if you will restrict one Manufacturer for one bidder than it will be difficult to particate everyone.	Any bidder who obtains authorisation from available CDSCO-approved manufacturers is acceptable for tender participation. Ensure the CDSCO certificate of the manufacturer is submitted in bid.
33	Supply, Installation, Testing and commissioning of Fully Automatic control panel for Carbon dioxide...	Beacon Medaes-(USA / UK) / Ohio medical-USA / Draeger- Germany Make	Please add the following make: 1. Delta- P, Italy 2. Air Liquide, France	No change
34	Supply, Installation, Testing and commissioning of Surface mounted front loading outlets (first and second fix assembly)	Beacon Medaes-(USA / UK) / Ohio medical-USA / Draeger- Germany Make	Please add the following make: 1. Delta- P, Italy 2. Air Liquide, France	No change
35	Supply, Installation, Testing and commissioning of 2+2 size manifold (Primary & Secondary supply) complete with middle frame with chain for individual cylinder (VF size) along with Non Return Valves for every cylinder.	Aktiv technologies/Draeger-India /CDSCO Licensed Manufacturer Make	1. Kindly Mention that single CDSCO manufacturer can give authorization to more than two bidders because in india only 3-4 companies are holding CDSCO so if you will restrict one Manufacturer for one bidder than it will be difficult to particate everyone.	Any bidder who obtains authorisation from available CDSCO-approved manufacturers is acceptable for tender participation. Ensure the CDSCO certificate of the manufacturer is submitted in bid.
36	Supply, Installation, Testing and commissioning of Single cylinder manifold	Aktiv technologies/Draeger-	1. Kindly Mention that single CDSCO manufacturer can give authorization	Any bidder who obtains authorisation from available

Sl.No	Tender Specifications	Approved Make	Changes / amendment / clarification required	ACCF Clarification / Amendment
	Emergency Carbon dioxide arrangement using a high-flow double gauge Regulator.	India /CDSCO Licensed Manufacturer Make	to more than two bidders because in india only 3-4 companies are holding CDSCO so if you will restrict one Manufacturer for one bidder than it will be difficult to participate everyone.	CDSCO-approved manufacturers is acceptable for tender participation. Ensure the CDSCO certificate of the manufacturer is submitted in bid.
37	Supply, Installation, Testing and commissioning of Fully Automatic control panel for Carbon dioxide Having a min. flow out put of over 500 LPM at 4.2 bar pressure.	Beacon Medaes-(USA / UK) / Ohio medical-USA / Draeger- Germany	1. Kindly Add Equivalent in make list or add (MD-SRL ITALY)	No change
38	Supply, Installation, Testing and commissioning of Surface mounted front loading outlets (first and second fix assembly)	Beacon Medaes-(USA / UK) / Ohio medical-USA / Draeger- Germany	1. Kindly Add Equivalent in make list or add (MD-SRL ITALY)	No change
39	H.P. tubing having anti-static core Blue color 5mtrs with Keat conversion for Carbon dioxide as per ISO Standards	Aktiv technologies/Draeger-India /CDSCO Licensed Manufacturer Make	1. Kindly Mention that single CDSCO manufacturer can give authorization to more than two bidders because in india only 3-4 companies are holding CDSCO so if you will restrict one Manufacturer for one bidder than it will be difficult to participate everyone.	Any bidder who obtains authorisation from available CDSCO-approved manufacturers is acceptable for tender participation. Ensure the CDSCO certificate of the manufacturer is submitted in bid.
	Air compressor for Medical Air & AGSS			
40	Supply, Installation, Testing and commissioning of One number of Air receivers, Vertically mounted welded carbon steel, having capacity of 2000 litres and receiver should have all necessary controls, piping and safety fittings with an automatic drain with manual by-pass. It should be pressure test certified by a competent authority.	Airtech/Multitech/B-tech	RELIABLE	Airtech/Multitech/B-tech/RELIABLE
41	Supply, Installation, Testing and commissioning of Surface mounted front loading double locked outlets (first and second fix assembly)	Beacon Medaes-(USA / UK) / Ohio medical-USA / Draeger- Germany Make	Please add the following make: 1. Delta- P, Italy 2. Air Liquide, France	No change

Sl.No	Tender Specifications	Approved Make	Changes / amendment / clarification required	ACCF Clarification / Amendment
42	Supply, Installation, Testing and commissioning of Duplex air filters, pre-filter, oil filter, dust filter, activated carbon filters and bacterial filter. Each filter should be fitted with differential pressure gauges to monitor filter performance with all necessary controls, piping and safety fittings.	Domnick Hunter-UK/ Delta -P/Trident	We request incorporation of make- Domnick Hunter- UK in air dryer package also, as filtration system and dryer system are supplied under a single package. We request incorporation of make- Summits in air filter package also, as filtration system and dryer system are supplied under a single package.	Accepted
43	Supply, Installation, Testing and commissioning of Duplex Air dryer system, capacity of each should be 100% of plant design flow 50 CFM, include a dew -point hygrometer, Co measurement and display with a minimum accuracy of $\pm 3^{\circ}\text{C}$, Duplex desiccant dryers should be used and in a range from -20°C to -60°C with a set point of -46°C . It should have an integrated automatic purge control system	Beacon Medas / Summits /Trident	We request incorporation of make- Domnick Hunter- UK in air dryer package also, as filtration system and dryer system are supplied under a single package. We request incorporation of make- Summits in air filter package also, as filtration system and dryer system are supplied under a single package.	No change
44	Supply, Installation, Testing and commissioning of One number of Air receivers, Vertically mounted welded carbon steel, having capacity of 2000 litres and receiver should have all necessary controls, piping and safety fittings with an automatic drain with manual by-pass. It should be pressure test certified by a competent authority.	Airtech/Multitech/B- tech	Kindly Consider also. Reliable make list in the equipment	Airtech/Multitech/B- tech/RELIABLE
45	Supply, Installation, Testing and commissioning of Duplex air filters, pre-filter, oil filter, dust filter, activated carbon filters and bacterial filter. Each filter should be fitted with differential pressure gauges to monitor filter performance with all necessary controls, piping and safety fittings.	Domnick Hunter-UK/ Delta -P/Trident	Kindly Consider Draeger Germany in the make list	Domnick Hunter-UK/ Delta - P/Trident/ Draeger-Germany

Sl.No	Tender Specifications	Approved Make	Changes / amendment / clarification required	ACCF Clarification / Amendment
46	Supply, Installation, Testing and commissioning of Duplex Air dryer system, capacity of each should be 100% of plant design flow 50 CFM, include a dew -point hygrometer, Co measurement and display with a minimum accuracy of $\pm 3^{\circ}\text{C}$, Duplex desiccant dryers should be used and in a range from -20°C to -60°C with a set point of -46°C . It should have an integrated automatic purge control system	Kindly Consider Draeger Germany in the make list	Kindly Consider Draeger Germany in the make list	Draeger Germany will be considered
47	Supply, Installation, Testing and commissioning of Surface mounted front loading double locked outlets (first and second fix assembly): a) Medical Air-4bar	Beacon Medaes-(USA / UK) / Ohio medical-USA / Draeger- Germany	Pleae make this as Draeger Germany /India since Draeger makes Indigenous outlet as well.	No change
48	Supply and installation of Duplex pressure regulating system, should have Pressure regulator, Isolation valve, Pressure indicator for Medical Air regulation with an bypass arrangement. Which includes 4 numbers of isolation valves, 2 numbers of regulators, 2 numbers of pressure indicator and Pressure relief valve.	Genetics / CDSCO approved	Kindly Consider Draeger Germany in the make list	Draeger Germany will be considered
49	Supply, Installation, Testing and commissioning of quad compressed air system complete with 04 nos. of 57 CFM capacity Non-lubricated, Reciprocating, Air-cooled type Base Frame mounted Air compressors with 15 HP motors, each compressor having 50% of the plant design flow at 8.5 bar delivery pressure. The total Estimated working capacity of the plant is 3000 lpm and it is suitable for both continuous and frequent start/stop operation at a nominal required outlet pressure.	Anestiwata - Japan/ Ingersoll Rand- Germany / Atlas Copco-Belgium / Coair-Korea	1. Kindly Add Equivalent in make list or add (MediCop Slovenia Germany)	No change

Sl.No	Tender Specifications	Approved Make	Changes / amendment / clarification required	ACCF Clarification / Amendment
50	Supply, Installation, Testing and commissioning of Duplex Air dryer system, capacity of each should be 100% of plant design flow 50 CFM, include a dew -point hygrometer, Co measurement and display with a minimum accuracy of $\pm 3^{\circ}\text{C}$, Duplex desiccant dryers should be used and in a range from -20°C to -60°C with a set point of -46°C . It should have an integrated automatic purge control system	Domnick Hunter-UK/ Delta -P/Trident	1. Kindly Add Equivalent in make list or add (MediCop Slovenia Germany)	No Change
51	a) Medical Air-4 bar	Beacon Medaes-(USA / UK) / Ohio medical-USA / Draeger- Germany	1. Kindly Add Equivalent in make list or add (MediCop Slovenia Germany)	No Change
52	b) Surgical Air-7 bar	Beacon Medaes-(USA / UK) / Ohio medical-USA / Draeger- Germany	1. Kindly Add Equivalent in make list or add (MediCop Slovenia Germany)	No Change
53	Supply and installation of Duplex pressure regulating system, should have Pressure regulator, Isolation valve, Pressure indicator for Medical Air regulation with an bypass arrangement. Which includes 4 numbers of isolation valves, 2 numbers of regulators, 2 numbers of pressure indicator and Pressure relief valve.	Genetics / CDSCO approved	Kindly Mention that single CDSCO manufacturer can give authorization to more than 5 bidders because in india only 3-4 companies are holding CDSCO so if you will restrict one Manufacturer for one bidder than it will be difficult to particate everyone.	Any bidder who obtains authorisation from available CDSCO-approved manufacturers is acceptable for tender participation. Ensure the CDSCO certificate of the manufacturer is submitted in bid.
54	HP colour coded black Tubing as per ISO Standards	Aktiv technologies/Draeger-India /CDSCO Licensed Manufacturer Make	Kindly Mention that single CDSCO manufacturer can give authorization to more than 5 bidders because in india only 3-4 companies are holding CDSCO so if you will restrict one Manufacturer for one bidder than it will be difficult to particate everyone.	Any bidder who obtains authorisation from available CDSCO-approved manufacturers is acceptable for tender participation. Ensure the CDSCO certificate of the manufacturer is submitted in bid.

Sl.No	Tender Specifications	Approved Make	Changes / amendment / clarification required	ACCF Clarification / Amendment
55	Supply, Installation, Testing and commissioning of quad compressed air system complete with 04 nos. of 57 CFM capacity Non-lubricated, Reciprocating, Air-cooled type Base Frame mounted Air compressors with 15 HP motors, each compressor having 50% of the plant design flow at 8.5 bar delivery pressure. The total Estimated working capacity of the plant is 3000 lpm and it is suitable for both continuous and frequent start/stop operation at a nominal required outlet pressure.	Anestiwata - Japan/ Ingersoll Rand- Germany / Atlas Copco-Belgium / Coair-Korea	1. Kindly Add Equivalent in make list or add (MD-SRL ITALY)	No change
56	Supply, Installation, Testing and commissioning of One number of Air receivers, Vertically mounted welded carbon steel, having capacity of 2000 litres and receiver should have all necessary controls, piping and safety fittings with an automatic drain with manual by-pass. It should be pressure test certified by a competent authority.	Airtech/Multitech/B- tech	1. Kindly Add Equivalent in make list or add (AMBA MEDINEX)	No change
57	Supply, Installation, Testing and commissioning of Duplex air filters, pre-filter, oil filter, dust filter, activated carbon filters and bacterial filter. Each filter should be fitted with differential pressure gauges to monitor filter performance with all necessary controls, piping and safety fittings.	Domnick Hunter-UK/ Delta -P/Trident	1. Kindly Add Equivalent in make list or add (MD-SRL ITALY)	No change
58	Supply, Installation, Testing and commissioning of Duplex Air dryer system, capacity of each should be 100% of plant design flow 50 CFM, include a dew -point hygrometer, Co measurement and display with a minimum accuracy of $\pm 3^{\circ}\text{C}$, Duplex desiccant dryers should be used and in a range from -20°C to -60°C with a set point of -46°C . It should have an integrated automatic purge control system	Beacon Medas / Summits /Trident	1. Kindly Add Equivalent in make list or add (MD-SRL ITALY)	No change

Sl.No	Tender Specifications	Approved Make	Changes / amendment / clarification required	ACCF Clarification / Amendment
59	a) Medical Air-4 bar	Beacon Medaes-(USA / UK) / Ohio medical-USA / Draeger- Germany	1. Kindly Add Equivalent in make list or add (MD-SRL ITALY)	No change
60	b) Surgical Air-7 bar	Beacon Medaes-(USA / UK) / Ohio medical-USA / Draeger- Germany	1. Kindly Add Equivalent in make list or add (MD-SRL ITALY)	No change
61	Supply and installation of Duplex pressure regulating system, should have Pressure regulator, Isolation valve, Pressure indicator for Medical Air regulation with an bypass arrangement. Which includes 4 numbers of isolation valves, 2 numbers of regulators, 2 numbers of pressure indicator and Pressure relief valve.	Genetics / CDSCO approved	1. Kindly Mention that single CDSCO manufacturer can give authorization to more than two bidders because in india only 3-4 companies are holding CDSCO so if you will restrict one Manufacturer for one bidder than it will be difficult to particate everyone.	Any bidder who obtains authorisation from available CDSCO-approved manufacturers is acceptable for tender participation. Ensure the CDSCO certificate of the manufacturer is submitted in bid.
62	HP colour coded black Tubing as per ISO Standards	Aktiv technologies/Draeger-India /CDSCO Licensed Manufacturer Make	1. Kindly Mention that single CDSCO manufacturer can give authorization to more than two bidders because in india only 3-4 companies are holding CDSCO so if you will restrict one Manufacturer for one bidder than it will be difficult to particate everyone.	Any bidder who obtains authorisation from available CDSCO-approved manufacturers is acceptable for tender participation. Ensure the CDSCO certificate of the manufacturer is submitted in bid.
	VACUUM SYSTEM			
63	Supply, Installation, Testing and commissioning of One number of vacuum receivers, Vertically mounted Mild steel, each receiver capable of supply 3000 litres at 450 mm hg pressure and receiver should have all necessary controls and safety fittings with an automatic drain with manual by-pass.	Airtech/Multitech/B-tech	RELIABLE	Airtech/Multitech/B-tech/RELIABLE
64	Supply, Installation, Testing and commissioning of combined Electrical Control Panel for compressed	Reputed	Please provide technical specifications of the electrical control panels with	Its complete room wiring along with internal wiring

Sl.No	Tender Specifications	Approved Make	Changes / amendment / clarification required	ACCF Clarification / Amendment
	air system and Vacuum System & complete with plant Room wiring. The panel should have energy and running hours meter. Connecting Cables and accessories for all equipments should be considered .		sequencing operation details of the air compressors and vacuum pumps. Also please clarify whether room wiring is only for compressors & vacuum pumps motors, OR total internal wiring including light fittings, exhaust fan etc.	
65	Supply, Installation, Testing and Commissioning of Triplex Vacuum pumps, should be air-cooled, Oil sealed Rotary vane type. The total estimated capacity of the plant is 2250 LPM primary and 2250 LPM secondary supply and tertiary supply 2250 LPM. The pump inlet should be filtered and the exhaust should incorporate non-return valves to protect both the vacuum system. This system shall be capable of removing of oil and smoke particles from the exhaust.	BUSCH Germany / Ingersoll Rand- Germany / Beacon Medaes(USA/UK) / Gardener Denevar/Becker- Germany	1. Kindly Add Equivalent in make list or add (MediCop Slovenia Germany)	No change
66	Supply, Installation, Testing and commissioning of Medical Duplex bacterial filters should be fitted, each containing a replaceable filter element and incorporating a moisture drainage trap bowl. The pressure drop through a clean filter passing the total design flow rate should not exceed 25 mmHg at a vacuum of 475 mmHg. The bacteria filter manually operated isolating valves, arranged to allow either sub-assembly to be on stream.	Walker-UK / Dominick Hunter/Solberg/ Trident	1. Kindly Add Equivalent in make list or add (MediCop Slovenia Germany)	No change
67	Supply, Installation, Testing and commissioning of Surface mounted front loading double locked Vacuum out lets, (first and second fix assembly)	Beacon Medaes-(USA / UK) / Ohio medical-USA / Draeger- Germany	1. Kindly Add Equivalent in make list or add (MediCop Slovenia Germany)	No change
68	High Pressure color coded yellow Tube as per ISO Standards	Aktiv technologies/Draeger-	1. Kindly Mention that single CDSCO manufacturer can give authorization	Any bidder who obtains authorisation from available

Sl.No	Tender Specifications	Approved Make	Changes / amendment / clarification required	ACCF Clarification / Amendment
		India /CDSCO Licensed Manufacturer Make	to more than 5 bidders because in india only 3-4 companies are holding CDSCO so if you will restrict one Manufacturer for one bidder than it will be difficult to participate everyone.	CDSCO-approved manufacturers is acceptable for tender participation. Ensure the CDSCO certificate of the manufacturer is submitted in bid.
69	Supply, Installation, Testing and commissioning of Surface mounted front loading double locked Vacuum out lets, (first and second fix assembly)	Beacon Medaes-(USA / UK) / Ohio medical-USA / Draeger- Germany Make	Please add the following make: 1. Delta- P, Italy 2. Air Liquide, France	No change
70	Supply, Installation, Testing and Commissioning of Triplex Vacuum pumps, should be air-cooled, Oil sealed Rotary vane type. The total estimated capacity of the plant is 2250 LPM primary and 2250 LPM secondary supply and tertiary supply 2250 LPM. The pump inlet should be filtered and the exhaust should incorporate non-return valves to protect both the vacuum system. This system shall be capable of removing of oil and smoke particles from the exhaust.	BUSCH Germany / Ingersoll Rand- Germany / Beacon Medaes(USA/UK) / Gardener Denevar/Becker- Germany	Please amend this as: BUSCH Germany/India	No change
71	Supply, Installation, Testing and commissioning of One number of vacuum receiver, Vertically mounted Mild steel, each receiver capable of supply 3000 liters at 450 mm hg pressure and receiver should have all necessary controls and safety fittings with an automatic drain with manual by-pass.	Airtech/Multitech/B-tech	Kindly Consider also: "Reliable Equipment" in the make list	Airtech/Multitech/B-tech/RELIABLE
72	Supply, Installation, Testing and commissioning of Medical Duplex bacterial filters should be fitted, each containing a replaceable filter element and incorporating a moisture drainage trap bowl. The pressure drop through a clean filter passing the total design flow rate should not exceed 25 mmHg at a vacuum of 475 mmHg. The bacteria filter	Walker-UK / Dominick Hunter/Solberg/ Trident	Kindly Consider Draeger Germany in the make list	Walker-UK / Dominick Hunter/Solberg/ Trident/Draeger-Germany

Sl.No	Tender Specifications	Approved Make	Changes / amendment / clarification required	ACCF Clarification / Amendment
	manually operated isolating valves, arranged to allow either sub-assembly to be on stream.			
73	Supply, Installation, Testing and commissioning of Surface mounted front loading double locked Vacuum out lets, (first and second fix assembly)	Beacon Medaes-(USA / UK) / Ohio medical-USA / Draeger- Germany	Pleae make this as Draeger Germany /India since Draeger makes Indigenous outlet as well.	No change
74	Supply, Installation, Testing and Commissioning of Triplex Vacuum pumps, should be air-cooled, Oil sealed Rotary vane type. The total estimated capacity of the plant is 2250 LPM primary and 2250 LPM secondary supply and tertiary supply 2250 LPM. The pump inlet should be filtered and the exhaust should incorporate non-return valves to protect both the vacuum system. This system shall be capable of removing of oil and smoke particles from the exhaust.	BUSCH Germany / Ingersoll Rand- Germany / Beacon Medaes(USA/UK) / Gardener Denevar/Becker- Germany	1. Kindly Add Equivalent in make list or add (MD-SRL ITALY)	No change
75	Supply, Installation, Testing and commissioning of One number of vacuum receiver, Vertically mounted Mild steel, each receiver capable of supply 3000 liters at 450 mm hg pressure and receiver should have all necessary controls and safety fittings with an automatic drain with manual by-pass.	Airtech/Multitech/B-tech	1. Kindly Add Equivalent in make list or add (AMBA MEDINEX)	Airtech/Multitech/B-tech/RELIABLE
76	Supply, Installation, Testing and commissioning of Medical Duplex bacterial filters should be fitted, each containing a replaceable filter element and incorporating a moisture drainage trap bowl. The pressure drop through a clean filter passing the total design flow rate should not exceed 25 mmHg at a vacuum of 475 mmHg.The bacteria filter manually operated isolating valves, arranged to allow either sub-assembly to be on stream.	Walker-UK / Dominick Hunter/Solberg/ Trident	1. Kindly Add Equivalent in make list or add (MD-SRL ITALY)	No change

Sl.No	Tender Specifications	Approved Make	Changes / amendment / clarification required	ACCF Clarification / Amendment
77	Supply, Installation, Testing and commissioning of Surface mounted front loading double locked Vacuum out lets, (first and second fix assembly)	Beacon Medaes-(USA / UK) / Ohio medical-USA / Draeger- Germany	1. Kindly Add Equivalent in make list or add (MD-SRL ITALY)	No change
78	High Pressure color coded yellow Tube as per ISO Standards	Aktiv technologies/Draeger-India /CDSCO Licensed Manufacturer Make	1. Kindly Mention that single CDSCO manufacturer can give authorization to more than two bidders because in india only 3-4 companies are holding CDSCO so if you will restrict one Manufacturer for one bidder than it will be difficult to participate everyone.	Any bidder who obtains authorisation from available CDSCO-approved manufacturers is acceptable for tender participation. Ensure the CDSCO certificate of the manufacturer is submitted in bid.
	ANESTHETIC GAS SCAVENGING SYSTEM (AGSS)			
79	<p>Anaesthetic Gas Scavenging System (AGSS) of minimum 520 LPM as Primary & 520 LPM as Standby, It should have US FDA / European CE Certified with 4 digital notified body number or American ETL/ American UL listed (In-case of NFPA 99c the control panel of Plant must be UL/ETL Listed and Undertaking from manufacturer must be submitted for using the same control panel in the system offered)and should comply with HTM 02- 01/ NFPA 99 C/EN/ISO 7396-1.</p> <p>Supply, Installation, Testing and commissioning of control panel should be provided, AGSS pump to house the isolating switch, starter, MCB, ammeter, hours run meter, hand/auto switch, alarm and BMS contacts. The control panel should have all design flow with one pump not running. The control panel should have all necessary controls and safety fittings. Controls signal as per HTM.</p>	BECKER /Atlas Copco/ Delta -P	As specified, separate pump capacities have been indicated in both the pages. Please clarify which capacity should we consider.	Pump capacity to be considered as 520LPM as primary and 520LPM as standby

Sl.No	Tender Specifications	Approved Make	Changes / amendment / clarification required	ACCF Clarification / Amendment
80	<p>Anaesthetic Gas Scavenging System (AGSS) of minimum 520 LPM as Primary & 520 LPM as Standby, It should have US FDA / European CE Certified with 4 digital notified body number or American ETL/ American UL listed (In-case of NFPA 99c the control panel of Plant must be UL/ETL Listed and Undertaking from manufacturer must be submitted for using the same control panel in the system offered)and should comply with HTM 02- 01/ NFPA 99 C/EN/ISO 7396-1.</p> <p>Supply, Installation, Testing and commissioning of control panel should be provided, AGSS pump to house the isolating switch, starter, MCB, ammeter, hours run meter, hand/auto switch, alarm and BMS contacts. The control panel should have all design flow with one pump not running. The control panel should have all necessary controls and safety fittings. Controls signal as per HTM.</p>	BECKER /Atlas Copco/ Delta -P	AKTIV	BECKER /Atlas Copco/ Delta -P/ Ohio medical-USA / Draeger- Germany
81	<p>Anaesthetic Gas Scavenging System (AGSS) of minimum 520 LPM as Primary & 520 LPM as Standby, It should have US FDA / European CE Certified with 4 digital notified body number or American ETL/ American UL listed (In-case of NFPA 99c the control panel of Plant must be UL/ETL Listed and Undertaking from manufacturer must be submitted for using the same control panel in the system offered)and should comply with HTM 02- 01/ NFPA 99 C/EN/ISO 7396-1.</p> <p>Supply, Installation, Testing and commissioning of control panel should be provided, AGSS pump to</p>	BECKER /Atlas Copco/ Delta -P	Kindly Add Equivalent in make list or add (MediCop Slovenia Germany)	BECKER /Atlas Copco/ Delta -P/ Ohio medical-USA / Draeger- Germany

Sl.No	Tender Specifications	Approved Make	Changes / amendment / clarification required	ACCF Clarification / Amendment
	house the isolating switch, starter, MCB, ammeter, hours run meter, hand/auto switch, alarm and BMS contacts. The control panel should have all design flow with one pump not running. The control panel should have all necessary controls and safety fittings. Controls signal as per HTM.			
82	Supply, Installation, Testing and commissioning of AGSS terminal unit (first and second fix assembly)		Please specify the approved makes of the AGSS terminal units.	Beacon Medaes-(USA / UK) / Ohio medical-USA / Draeger-Germany
83	<p>Anaesthetic Gas Scavenging System (AGSS) of minimum 520 LPM as Primary & 520 LPM as Standby, It should have US FDA / European CE Certified with 4 digital notified body number or American ETL/ American UL listed (In-case of NFPA 99c the control panel of Plant must be UL/ETL Listed and Undertaking from manufacturer must be submitted for using the same control panel in the system offered)and should comply with HTM 02- 01/ NFPA 99 C/EN/ISO 7396-1.</p> <p>Supply, Installation, Testing and commissioning of control panel should be provided, AGSS pump to house the isolating switch, starter, MCB, ammeter, hours run meter, hand/auto switch, alarm and BMS contacts. The control panel should have all design flow with one pump not running. The control panel should have all necessary controls and safety fittings. Controls signal as per HTM.</p>	BECKER /Atlas Copco/ Delta -P	1. Kindly Add Equivalent in make list or add (MD-SRL ITALY)	No change

Sl.No	Tender Specifications	Approved Make	Changes / amendment / clarification required	ACCF Clarification / Amendment
84	Supply, Installation, Testing and commissioning of AGSS terminal unit (first and second fix assembly)		Type of outlet and Make is missing	Beacon Medaes-(USA / UK) / Ohio medical-USA / Draeger-Germany
	PIPELINE DISTRIBUTION SYSTEM			
85	42 mm OD x 1.2 mm thick		As per the market standard we supply 1.5mm Thickness instead of 1.2mm .	Accepted
86	54 mm OD x 1.2 mm thick		As per the market standard we supply 1.5mm Thickness instead of 1.2mm .	Accepted
87	Supply, Installation, Testing and commissioning of Isolation Valve assembly as per HTM/ EN for medical gas services, provision for padlock assembly. All valve should be gas-specific.	RB Italy /Conex Banninger/Aktiv Technologies	Kindly Consider Draeger Germany in the makelist	RB Italy /Conex Banninger/Aktiv Technologies/Draeger - Germany
88	Supply and installation of AVSU box (valve boxes) with all its accessories with valve and pressure/vacuum gauges, NIST connectors with lockable arrangement and breakable glass cover.(CDSCO approved)	Aktiv technologies/Draeger-India /CDSCO Licensed Manufacturer Make	Kindly Consider"Draeger India/Germany" in the makelist	Accepted
89	2 valve configuration with-15 O2, 28 VAC		Consider Vacuum Group Valve size 22mm instead of 28mm for all ACU Box	2 valve configuration with-15 O2, 22 VAC
90	3 valve configuration with -15 O2, 15 MA4, 28 VAC		Consider Vacuum Group Valve size 22mm instead of 28mm for all ACU Box	3 valve configuration with -15 O2, 15 MA4, 22 VAC
91	4 valve configuration with -15 O2, 15 N2O, 15 MA4, 28 VAC		Consider Vacuum Group Valve size 22mm instead of 28mm for all ACU Box	4 valve configuration with -15 O2, 15 N2O, 15 MA4, 22 VAC
92	Supply, Installation, Testing and commissioning of Isolation Valve assembly as per HTM/ EN for medical gas services, provision for padlock	RB Italy /Conex Banninger/Aktiv Technologies	Kindly ADD CDSCO Manufacturer Make also.	No change

Sl.No	Tender Specifications	Approved Make	Changes / amendment / clarification required	ACCF Clarification / Amendment
	assembly. All valve should be gas-specific.			
93	Supply, Installation, Testing and commissioning of Isolation Valve assembly as per HTM/ EN for medical gas services, provision for padlock assembly. All valve should be gas-specific.	RB Italy /Conex Banninger/Aktiv Technologies	1. Kindly ADD CDSCO Manufacturer Make also.	No change
94	Supply and installation of AVSU box (valve boxes) with all its accessories with valve and pressure/vacuum gauges, NIST connectors with lockable arrangement and breakable glass cover.(CDSCO approved)	Aktiv technologies/Draeger-India /CDSCO Licensed Manufacturer Make	Kindly Mention that single CDSCO manufacturer can give authorization to more than 5 bidders because in india only 3-4 companies are holding CDSCO so if you will restrict one Manufacturer for one bidder than it will be difficult to participate everyone.	Any bidder who obtains authorisation from available CDSCO-approved manufacturers is acceptable for tender participation. Ensure the CDSCO certificate of the manufacturer is submitted in bid.
95	Supply and installation of AVSU box (valve boxes) with all its accessories with valve and pressure/vacuum gauges, NIST connectors with lockable arrangement and breakable glass cover.(CDSCO approved)	Aktiv technologies/Draeger-India /CDSCO Licensed Manufacturer Make	Kindly Mention that single CDSCO manufacturer can give authorization to more than two bidders because in india only 3-4 companies are holding CDSCO so if you will restrict one Manufacturer for one bidder than it will be difficult to participate everyone.	Any bidder who obtains authorisation from available CDSCO-approved manufacturers is acceptable for tender participation. Ensure the CDSCO certificate of the manufacturer is submitted in bid.
96	2 valve configuration with -15 O2, 28 VAC		Kindly change the Vacuum Pipe Size 22MM	Accepted
97	3 valve configuration with -15 O2, 15 MA4, 28 VAC			
98	4 valve configuration with -15 O2, 15 N2O, 15 MA4, 28 VAC			
	ALARM SYSTEM			
99	Providing and fixing alarm system for Medical gas system complete consisting of pressure sensors, panel and the control cabling, all wiring shall be within 1mm sq multi-core data cable, PVC pipe for data cable. The panel shall be self-contained low voltage (less than 24 V)-	Beacon Medaes-(USA / UK) / Ohio medical-USA / Draeger- Germany	Kindly add make AKTIV	No change

Sl.No	Tender Specifications	Approved Make	Changes / amendment / clarification required	ACCF Clarification / Amendment
100	<p>Supply, Installation and commissioning of master alarms should be capable of monitoring Followings</p> <ol style="list-style-type: none"> 1. Gases in the Manifold and Plant Room 2. Liquid oxygen line pressure 3. Manifold Bank pressure 4. Emergency O2 Bank pressure 5. N2O 6. N2O Emergency 7. Air 4 Bar 8. Air 7 bar 9. Vacuum 10. CO2 11. AGSS 12. ALL floor alarm panels' status <p>Interconnecting cables and conduits should be included with this item</p> <p>The system should have EU CE under the class II A category, having 4-digit numbers from the notified body / American UL listed/American EL listed. The Master Alarm should display numeric values of all positive and negative gas pressures along the LED/LCD Indicator. It should be capable of displaying the pressure of each gas along with the fault Set 13 and pressure High/ Low alarm with indication. It should be capable of integrating with the Hospital BMS system</p>	Beacon Medaes-(USA / UK) / Ohio medical-USA / Draeger- Germany	Kindly add make AKTIV	No change
101	<p>Supply, Installation, Testing and Commissioning of single Arm pendant: It shall comply with ISO. The system should be provided as factory-assembled modules for single-arm configurations. The pendant frame shall be constructed from extruded aluminium alloy 6063 T6. The aluminium</p>	Aktiv technologies/Draeger-India /Beacon Medaes/CDSCO Licensed Manufacturer Make	It is our understanding that the manufacturer (as per the approved make list) supplying the single arm pendant shall also supply the medical gas outlets for the pendant. Please clarify	Yes, since we have not considered these outlets in the BOQ quantity, the pendant should be supplied with the outlets.

Sl.No	Tender Specifications	Approved Make	Changes / amendment / clarification required	ACCF Clarification / Amendment
	<p>extrusions used to contrast the pendant shall be of approximate wall thickness not less than 2 mm. The external surfaces should be powder-coated, which ensures a shield against infectious agents. The pendant lids shall be removable to allow access to the aluminium sections. Segregation shall be provided within the side sections to ensure that services are not accessible when removing the lids. It should have one arm 800 mm. It should have 100kgs of weight-bearing capacity of the arms. It can rotate from 0 to 330 degrees. The pendant should have Friction brakes. It should have pre-piped outlet points (oxygen outlets, Air, Nitrous oxide, Vacuum outlet, and AGSS outlet)with NIST connection.</p>			
102	<p>Supply, Installation and commissioning of master alarms should be capable of monitoring Followings</p> <ol style="list-style-type: none"> 1. Gases in the Manifold and Plant Room 2. Liquid oxygen line pressure 3. Manifold Bank pressure 4. Emergency O2 Bank pressure 5. N2O 6. N2O Emergency 7. Air 4 Bar 8. Air 7 bar 9. Vacuum 10. CO2 11. AGSS 12. ALL floor alarm panels' status <p>Interconnecting cables and conduits should be included with this item</p>	<p>Beacon Medaes-(USA / UK) / Ohio medical-USA / Draeger- Germany</p>	<p>Kindly Add Equivalent in make list or add (MediCop Slovenia Germany)</p>	<p>No change</p>

Sl.No	Tender Specifications	Approved Make	Changes / amendment / clarification required	ACCF Clarification / Amendment
	The system should have EU CE under the class II A category, having 4-digit numbers from the notified body / American UL listed/American EL listed. The Master Alarm should display numeric values of all positive and negative gas pressures along the LED/LCD Indicator. It should be capable of displaying the pressure of each gas along with the fault Set 13 and pressure High/ Low alarm with indication. It should be capable of integrating with the Hospital BMS system			
103	Supply, Installation, Testing and Commissioning of single Arm pendant: It shall comply with ISO. The system should be provided as factory-assembled modules for single-arm configurations. The pendant frame shall be constructed from extruded aluminium alloy 6063 T6. The aluminium extrusions used to contrast the pendant shall be of approximate wall thickness not less than 2 mm. The external surfaces should be powder-coated, which ensures a shield against infectious agents. The pendant lids shall be removable to allow access to the aluminium sections. Segregation shall be provided within the side sections to ensure that services are not accessible when removing the lids. It should have one arm 800 mm. It should have 100kgs of weight-bearing capacity of the arms. It can rotate from 0 to 330 degrees. The pendant should have Friction brakes. It should have pre-piped outlet points (oxygen outlets, Air, Nitrous oxide, Vacuum outlet, and AGSS outlet) with NIST connection.	Aktiv technologies/Draeger-India /Beacon Medaes/CDSCO Licensed Manufacturer Make	Kindly Mention that single CDSCO manufacturer can give authorization to more than 5 bidders because in india only 3-4 companies are holding CDSCO so if you will restrict one Manufacturer for one bidder than it will be difficult to particate everyone.	Any bidder who obtains authorisation from available CDSCO-approved manufacturers is acceptable for tender participation. Ensure the CDSCO certificate of the manufacturer is submitted in bid.
104	Providing and fixing alarm system for medical gas system complete consisting of pressure sensors,	Beacon Medaes-(USA /	1. Kindly Add Equivalent in make list or add (MediCop Slovenia Germany)	No change

Sl.No	Tender Specifications	Approved Make	Changes / amendment / clarification required	ACCF Clarification / Amendment
	panel and the control cabling, all wiring shall be within 1mm sq multi-core data cable, PVC pipe for data cable. The panel shall be self-contained low voltage (less than 24 V)-	UK) / Ohio medical-USA / Draeger- Germany		
105	<p>The bed head panel is made of high-strength extruded aluminium. It is powder-coated to make it aesthetically appealing and long-lasting. The panel is divided into different sections to segregate low-voltage, high voltage and medical gas chambers. The panel consist of special railings to hang various items like humidifier bottles, vaccine baskets, examination lamps, suction jars, IV poles, etc. which facilitate patient treatment.</p> <p>Supply, Installation, Testing and commissioning of 1500 mm Bed head panel. It shall have provision for the following services</p>	Aktiv technologies/Draeger-India/CDSCO Licensed Manufacturer Make	please mention whether the pendants are single duct or double duct	As per the specifications
106	<p>The bed head panel is made of high-strength extruded aluminium. It is powder-coated to make it aesthetically appealing and long-lasting. The panel is divided into different sections to segregate low-voltage, high voltage and medical gas chambers. The panel consist of special railings to hang various items like humidifier bottles, vaccine baskets, examination lamps, suction jars, IV poles, etc. which facilitate patient treatment.</p> <p>Supply, Installation, Testing and commissioning of 1500 mm Bed head panel. It shall have provision for the following services</p>	Aktiv technologies/Draeger-India/CDSCO Licensed Manufacturer Make	Kindly Mention that single CDSCO manufacturer can give authorization to more than 5 bidders because in india only 3-4 companies are holding CDSCO so if you will restrict one Manufacturer for one bidder than it will be difficult to particate everyone.	Any bidder who obtains authorisation from available CDSCO-approved manufacturers is acceptable for tender participation. Ensure the CDSCO certificate of the manufacturer is submitted in bid.

Sl.No	Tender Specifications	Approved Make	Changes / amendment / clarification required	ACCF Clarification / Amendment
107	<p>The bed head panel is made of high-strength extruded aluminium. It is powder-coated to make it aesthetically appealing and long-lasting. The panel is divided into different sections to segregate low-voltage, high voltage and medical gas chambers. The panel consist of special railings to hang various items like humidifier bottles, vaccine baskets, examination lamps, suction jars, IV poles, etc. which facilitate patient treatment.</p> <p>Supply, Installation, Testing and Commissioning of 1800mm Bed head panel. It shall have provision for the following services</p>	Aktiv technologies/Draeger-India/CDSCO Licensed Manufacturer Make	1. Kindly Mention that single CDSCO manufacturer can give authorization to more than 5 bidders because in india only 3-4 companies are holding CDSCO so if you will restrict one Manufacturer for one bidder than it will be difficult to particate everyone.	Any bidder who obtains authorisation from available CDSCO-approved manufacturers is acceptable for tender participation. Ensure the CDSCO certificate of the manufacturer is submitted in bid.
108	<p>Back Pressure Compensated Flow meter shall be of accurate gas flow measurement and control within a range of 0-15 litres per minute for use in a variety of respiratory therapy gas delivery systems. The flow tube and shroud components shall be made of good-quality plastic. They shall be supplied with a plastic transparent reusable humidifier.</p> <p>A) Control within a range of 0-15 LPM. B) It should meet strict precision and durability standard. C) The flow meter body should be made of brass chrome plated materials. D) The flow tube and shroud components should be made of clear, impact resistant polycarbonate. E) Flow tube should have large and expanded 0-15 LPM range for improved readability at low flows. F) Inlet filter of stainless steel wire mesh to</p>	Aktiv technologies/Draeger-India/CDSCO Licensed Manufacturer Make	1. Kindly Mention that single CDSCO manufacturer can give authorization to more than 5 bidders because in india only 3-4 companies are holding CDSCO so if you will restrict one Manufacturer for one bidder than it will be difficult to particate everyone.	Any bidder who obtains authorisation from available CDSCO-approved manufacturers is acceptable for tender participation. Ensure the CDSCO certificate of the manufacturer is submitted in bid.

Sl.No	Tender Specifications	Approved Make	Changes / amendment / clarification required	ACCF Clarification / Amendment
	prevent entry of foreign particles G) The humidifier bottle is made of unbreakable & reusable polycarbonate /polysulfone/polypropylene material autoclavable at 121 degree centigrade.			
109	Inter Connection from LMO to CMO(Including copper pipe , Isolation valve , fittings and support)	Reputed	Please confirm the Distance from LMO battery limit as well as size of the pipe .	50 Mtr
110	Providing and fixing alarm system for Medical gas system complete consisting of pressure sensors, panel and the control cabling, all wiring shall be within 1mm sq multi-core data cable, PVC pipe for data cable. The panel shall be self-contained low voltage (less than 24 V)-	Beacon Medaes-(USA / UK) / Ohio medical-USA / Draeger- Germany	1. Kindly Add Equivalent in make list or add (MD-SRL ITALY)	No change
111	Supply, Installation and commissioning of master alarms should be capable of monitoring Followings 1. Gases in the Manifold and Plant Room 2. Liquid oxygen line pressure 3. Manifold Bank pressure 4. Emergency O2 Bank pressure 5. N2O 6. N2O Emergency 7. Air 4 Bar 8. Air 7 bar 9. Vacuum 10. CO2 11. AGSS 12. ALL floor alarm panels' status Interconnecting cables and conduits should be included with this item	Beacon Medaes-(USA / UK) / Ohio medical-USA / Draeger- Germany	1. Kindly Add Equivalent in make list or add (MD-SRL ITALY)	No change

Sl.No	Tender Specifications	Approved Make	Changes / amendment / clarification required	ACCF Clarification / Amendment
	The system should have EU CE under the class II A category, having 4-digit numbers from the notified body / American UL listed/American EL listed. The Master Alarm should display numeric values of all positive and negative gas pressures along the LED/LCD Indicator. It should be capable of displaying the pressure of each gas along with the fault Set 13 and pressure High/ Low alarm with indication. It should be capable of integrating with the Hospital BMS system			
112	Supply, Installation, Testing and Commissioning of single Arm pendant: It shall comply with ISO. The system should be provided as factory-assembled modules for single-arm configurations. The pendant frame shall be constructed from extruded aluminium alloy 6063 T6. The aluminium extrusions used to contrast the pendant shall be of approximate wall thickness not less than 2 mm. The external surfaces should be powder-coated, which ensures a shield against infectious agents. The pendant lids shall be removable to allow access to the aluminium sections. Segregation shall be provided within the side sections to ensure that services are not accessible when removing the lids. It should have one arm 800 mm. It should have 100kgs of weight-bearing capacity of the arms. It can rotate from 0 to 330 degrees. The pendant should have Friction brakes. It should have pre-piped outlet points (oxygen outlets, Air, Nitrous oxide, Vacuum outlet, and AGSS outlet)with NIST connection.	Aktiv technologies/Draeger-India /Beacon Medaes/CDSCO Licensed Manufacturer Make	1. Kindly Mention that single CDSCO manufacturer can give authorization to more than two bidders because in india only 3-4 companies are holding CDSCO so if you will restrict one Manufacturer for one bidder than it will be difficult to particate everyone.	Any bidder who obtains authorisation from available CDSCO-approved manufacturers is acceptable for tender participation. Ensure the CDSCO certificate of the manufacturer is submitted in bid.
113	The bed head panel is made of high strength	Aktiv technologies/Draeger-	1. Kindly Mention that single CDSCO manufacturer can give authorization	Any bidder who obtains authorisation from available

Sl.No	Tender Specifications	Approved Make	Changes / amendment / clarification required	ACCF Clarification / Amendment
	<p>extruded aluminium. It is powder-coated to make it aesthetically appealing and long-lasting. The panel is divided into different sections to segregate low-voltage, high voltage and medical gas chambers. The panel consist of special railings to hang various items like humidifier bottles, vaccine baskets, examination lamps, suction jars, IV poles, etc. which facilitate patient treatment.</p> <p>Supply, Installation, Testing and commissioning of 1500 mm Bed head panel. It shall have provision for the following services</p>	India/CDSCO Licensed Manufacturer Make	to more than two bidders because in india only 3-4 companies are holding CDSCO so if you will restrict one Manufacturer for one bidder than it will be difficult to particate everyone.	CDSCO-approved manufacturers is acceptable for tender participation. Ensure the CDSCO certificate of the manufacturer is submitted in bid.
114	<p>The bed head panel is made of high strength extruded aluminium. It is powder-coated to make it aesthetically appealing and long-lasting. The panel is divided into different sections to segregate low-voltage, high voltage and medical gas chambers. The panel consist of special railings to hang various items like humidifier bottles, vaccine baskets, examination lamps, suction jars, IV poles, etc. which facilitate patient treatment.</p> <p>Supply, Installation, Testing and Commissioning of 1500mm Bed head panel. It shall have provision for the following services</p>	Aktiv technologies/Draeger-India/CDSCO Licensed Manufacturer Make	1. Kindly Mention that single CDSCO manufacturer can give authorization to more than two bidders because in india only 3-4 companies are holding CDSCO so if you will restrict one Manufacturer for one bidder than it will be difficult to particate everyone.	Any bidder who obtains authorisation from available CDSCO-approved manufacturers is acceptable for tender participation. Ensure the CDSCO certificate of the manufacturer is submitted in bid.
115	<p>The bed head panel is made of high strength extruded aluminium. It is powder-coated to make it aesthetically appealing and long-lasting. The panel is divided into different sections to segregate low-voltage, high voltage and medical gas chambers. The panel consist of special railings</p>	Aktiv technologies/Draeger-India/CDSCO Licensed Manufacturer Make	1. Kindly Mention that single CDSCO manufacturer can give authorization to more than two bidders because in India only 3-4 companies are holding CDSCO so if you will restrict one Manufacturer for one bidder than it will be difficult to particate everyone.	Any bidder who obtains authorisation from available CDSCO-approved manufacturers is acceptable for tender participation. Ensure the CDSCO certificate of the manufacturer is submitted in bid.

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	<p>to hang various items like humidifier bottles, vaccine baskets, examination lamps, suction jars, IV poles, etc. which facilitate patient treatment.</p> <p>Supply, Installation, Testing and Commissioning of 1500mm Bed head panel. It shall have provision for the following services</p>			
116	<p>The bed head panel is made of high-strength extruded aluminium. It is powder-coated to make it aesthetically appealing and long-lasting. The panel is divided into different sections to segregate low-voltage, high voltage and medical gas chambers. The panel consist of special railings to hang various items like humidifier bottles, vaccine baskets, examination lamps, suction jars, IV poles, etc. which facilitate patient treatment.</p> <p>Supply, Installation, Testing and Commissioning of 1800mm Bed head panel. It shall have provision for the following services</p>	Aktiv technologies/Draeger-India/CDSCO Licensed Manufacturer Make	1. Kindly Mention that single CDSCO manufacturer can give authorization to more than two bidders because in india only 3-4 companies are holding CDSCO so if you will restrict one Manufacturer for one bidder than it will be difficult to particate everyone.	Any bidder who obtains authorisation from available CDSCO-approved manufacturers is acceptable for tender participation. Ensure the CDSCO certificate of the manufacturer is submitted in bid.
117	<p>Back Pressure Compensated Flow meter shall be of accurate gas flow measurement and control within a range of 0-15 litres per minute for use in a variety of respiratory therapy gas delivery systems. The flow tube and shroud components shall be made of good-quality plastic. They shall be supplied with a plastic transparent reusable humidifier.</p> <p>A) Control within a range of 0-15 LPM. B) It should meet strict precision and durability standard.</p>	Aktiv technologies/Draeger-India/CDSCO Licensed Manufacturer Make	1. Kindly Mention that single CDSCO manufacturer can give authorization to more than two bidders because in india only 3-4 companies are holding CDSCO so if you will restrict one Manufacturer for one bidder than it will be difficult to particate everyone.	Any bidder who obtains authorisation from available CDSCO-approved manufacturers is acceptable for tender participation. Ensure the CDSCO certificate of the manufacturer is submitted in bid.

Sl.No	Tender Specifications	Approved Make	Changes / amendment / clarification required	ACCF Clarification / Amendment
	<p>C) The flow meter body should be made of brass chrome plated materials.</p> <p>D) The flow tube and shroud components should be made of clear, impact resistant polycarbonate.</p> <p>E) Flow tube should have large and expanded 0-15 LPM range for improved readability at low flows.</p> <p>F) Inlet filter of stainless steel wire mesh to prevent entry of foreign particles</p> <p>G) The humidifier bottle is made of unbreakable & reusable polycarbonate /polysulfone/polypropylene material autoclavable at 121 degree centigrade.</p>			
	Ward Vaccum Unit			
118	The vacuum unit shall include vacuum regulator along with 0-760 mm of Hg vacuum gauge of 2 ½" size dial,600 ml capacity reusable plastic collection bottle with overflow safety trap with plastic slide wall mounted type.	Aktiv technologies/Draeger-India/CDSCO Licensed Manufacturer Make	1. Kindly Mention that single CDSCO manufacturer can give authorization to more than two bidders because in india only 3-4 companies are holding CDSCO so if you will restrict one Manufacturer for one bidder than it will be difficult to particate everyone.	Any bidder who obtains authorisation from available CDSCO-approved manufacturers is acceptable for tender participation. Ensure the CDSCO certificate of the manufacturer is submitted in bid.
119	The vacuum unit shall include vacuum regulator along with 0-760 mm of Hg vacuum gauge of 2 ½" size dial,600 ml capacity reusable plastic collection bottle with overflow safety trap with plastic slide wall mounted type.	Aktiv technologies/Draeger-India/CDSCO Licensed Manufacturer Make	1. Kindly Mention that single CDSCO manufacturer can give authorization to more than 5 bidders because in india only 3-4 companies are holding CDSCO so if you will restrict one Manufacturer for one bidder than it will be difficult to particate everyone.	Any bidder who obtains authorisation from available CDSCO-approved manufacturers is acceptable for tender participation. Ensure the CDSCO certificate of the manufacturer is submitted in bid.
	THEATRE VACUUM UNIT			
120	It shall be trolley mounted. The unit shall include one regular having gauge and mounted on the trolley stand, having two reusable each 2000 ml plastic collection bottles mounted on the base of the trolley unit and connected with regulator &	Aktiv technologies/Draeger-India/CDSCO Licensed Manufacturer Make	1. Kindly Mention that single CDSCO manufacturer can give authorization to more than two bidders because in india only 3-4 companies are holding CDSCO so if you will restrict one	Any bidder who obtains authorisation from available CDSCO-approved manufacturers is acceptable for tender participation. Ensure the CDSCO

Sl.No	Tender Specifications	Approved Make	Changes / amendment / clarification required	ACCF Clarification / Amendment
	low-pressure tube interconnections. The collection jar is made of unbreakable material, which is fully auto-cleavable at 121 degrees centigrade		Manufacturer for one bidder than it will be difficult to participate everyone.	certificate of the manufacturer is submitted in bid.
	It shall be trolley mounted. The unit shall include one regular having gauge and mounted on the trolley stand, having two reusable each 2000 ml plastic collection bottles mounted on the base of the trolley unit and connected with regulator & low-pressure tube interconnections. The collection jar is made of unbreakable material, which is fully auto-cleavable at 121 degrees centigrade	Aktiv technologies/Draeger-India/CDSCO Licensed Manufacturer Make	1. Kindly Mention that single CDSCO manufacturer can give authorization to more than 5 bidders because in india only 3-4 companies are holding CDSCO so if you will restrict one Manufacturer for one bidder than it will be difficult to participate everyone.	Any bidder who obtains authorisation from available CDSCO-approved manufacturers is acceptable for tender participation. Ensure the CDSCO certificate of the manufacturer is submitted in bid. One OEM can give authorisation to multiple bidder.
121	For Quality Assurance Kindly add parameters of HTM 02 to check the quality of work after installation for the whole system of Medical gas pipeline system		Kindly ADD that the entire installation should be done under direct supervision of the qualified and trained engineer who is certified as authorised person of HTM0201 and should be awarded as level 4 professional award. Handover certificate should also be signed by him with registration number. Aadhar card of engineer, Valid certificate and valid authorisation in the name of bidder should be submitted along with the bid. He should issue a report against handover of satisfactory installation as per guidelines of HTM02. And should be submitted to the authorities with handover documents.	Not required

Sl.No	Tender Specifications	Approved Make	Changes / amendment / clarification required	ACCF Clarification / Amendment
122	For Quality Assurance Kindly add parameters of HTM 02 to check the quality of work after installation for the whole system of medical gas pipeline system		Kindly ADD that the entire installation should be done under direct supervision of the qualified and trained engineer who is certified as authorised person of HTM0201 and should be awarded as level 4 professional award. Handover certificate should also be signed by him with registration number. He should issue a report against handover of satisfactory installation as per guidelines of HTM02. And should be submitted to the authorities with handover documents.	Not required
123	Quality check of medical gas pipeline system.		In Every three months bidders need to visit the site after installation to ensure if there any breakthrough & proper working as per norms mentioned in HTM02	As per the tender
124	Quality check of medical gas pipeline system.		In Every three months bidders need to visit the site after installation to ensure if there any breakthrough & proper working as per norms mentioned in HTM02	As per the tender
125	For indigenous items quoted with CDSCO licensed manufacturers, each Item must hold an individual CDSCO license for each item separately.		CDSCO Licence requirement as in tender you have asked for CDSCO License for each items separately. Kindly change that single License can work for all the indigenous items.	No change
126	For indigenous items quoted with CDSCO licensed manufacturers, each Item must hold an individual CDSCO license for each item separately.		CDSCO Licence requirement as in tender you have asked for CDSCO License for each items separately.	No change

Sl.No	Tender Specifications	Approved Make	Changes / amendment / clarification required	ACCF Clarification / Amendment
			Kindly change that single License can work for all the indigenous items.	
	Oxygen Flow meter			
127	<p>Back Pressure Compensated Flow meter shall be of accurate gas flow measurement and control within a range of 0-15 litres per minute for use in a variety of respiratory therapy gas delivery systems. The flow tube and shroud components shall be made of good-quality plastic. They shall be supplied with a plastic transparent reusable humidifier.</p> <p>A) Control within a range of 0-15 LPM. B) It should meet strict precision and durability standard. C) The flow meter body should be made of brass chrome plated materials. D) The flow tube and shroud components should be made of clear, impact resistant polycarbonate. E) Flow tube should have large and expanded 0-15 LPM range for improved readability at low flows. F) Inlet filter of stainless steel wire mesh to prevent entry of foreign particles G) The humidifier bottle is made of unbreakable & reusable polycarbonate /polysulfone/polypropylene material autoclavable at 121 degree centigrade.</p>	Aktiv technologies/Draeger-India/CDSCO Licensed Manufacturer Make	<p>1. Kindly Mention that single CDSCO manufacturer can give authorization to more than 5 bidders because in India only 3-4 companies are holding CDSCO so if you will restrict one Manufacturer for one bidder than it will be difficult to participate everyone.</p>	Any bidder who obtains authorisation from available CDSCO-approved manufacturers is acceptable for tender participation. Ensure the CDSCO certificate of the manufacturer is submitted in bid.
128	<p>1) Fully Automatic Control panels (Oxygen, Nitrous Oxide, Carbon DI oxide) 2) O2, N2O, CO2, MA4, SA7, VAC & AGSS outlets 3) Alarm system- area alarms & master alarms</p>		We request incorporation of an alternate make- DeltaP SRL, Italy against these items. DeltaP is already an approved make for the AGSS system in this tender.	No Change

Sl.No	Tender Specifications	Approved Make	Changes / amendment / clarification required	ACCF Clarification / Amendment
			Product catalogue along with updated CE 4-digit NB certificates have been attached.	
129	1) Fully Automatic Control panels (Oxygen, Nitrous Oxide, Carbon DI oxide) 2) O2, N2O, CO2, MA4, SA7, VAC & AGSS outlets 3) Alarm system- area alarms & master alarms 4) AGSS system	1) Fully Automatic Control panels (Oxygen, Nitrous Oxide, Carbon DI oxide) 2) O2, N2O, CO2, MA4, SA7, VAC & AGSS outlets 3) Alarm system- area alarms & master alarms 4) AGSS system	We have observed that only foreign makes are being allowed for these items (AGSS, control panels, alarms and gas outlets). We request you to ensure that these items are manufactured in their foreign country of origin and not manufactured/assembled in India to ensure consistently high quality, durability and performance across these items.	No Change
130	Combined	High pressure tubes for Oxygen, Nitrous Oxide, Carbon di oxide, Medical/ Surgical Air & Vacuum	The quantities of these items are mentioned as "1 Lot". Please provide approximate quantities for these items to maintain uniformity among the bidders and avoid ambiguity.	5 Mtr

131	As per BOQ SL NO: 1,2, 3.6,7,8,9,11, 12, 13,16,25, 31, 51, 52, 53, 54,60,61,62,63,64,65,67,68:	BOQ asked for following approved make: Aktiv technologies/Draeger-India/CDSCO Licensed Manufacturer Make	Apart from Aktiv technology and Dragger other reputed manufacturer having CDSCO license are also eligible and considered as approved make	No Change
132	As per BOQ SL NO: 2,4,5,9,10, 14,15,22,23,30:	Beacon Medaes-(USA / UK) / Ohio medical-USA / Draeger- Germany Make	GENTEC make may be included in approved make list	No change.
133	As per BOQ SL NO: 6,11,16, 25, 31	Lot	Unit shall be in Metre instead of Lot and quantity to be specified	5mtr to be considered

Sl.No	Tender Specifications	Approved Make	Changes / amendment / clarification required	ACCF Clarification / Amendment
134	As per BOQ SL NO: 17	Air compressor for Medical Air & AGSS Anestiwata - Japan/ Ingersoll Rand- Germany / Atlas Copco-Belgium / Coair-Korea	1. Active type AGSS does not required any Medical air 2. FS Curtis may be included in approved make list	No change
135	As per BOQ SL NO: 18 and 27	Airtech/Multitech/B-tech	Other reputed makes may also included for receivers	New Makes : Airtech/Multitech/B-tech/reliable
136	As per BOQ SL NO: 20	Duplex desiccant dryers should be used and in a range from –20°C to –60°C with a set point of –46°C. It should have an integrated automatic purge control system	-40 Deg set point shall be sufficient	No change
137	As per BOQ SL NO: 26	VACUUM SYSTEM (BUSCH Germany / Ingersoll Rand- Germany /Beacon Medaes(USA/UK) / Gardener Denevar/Becker-Germany)	Anest lwata may be included in approved make list	BUSCH Germany / Ingersoll Rand- Germany /Beacon Medaes(USA/UK) / Gardener Denevar/Becker-Germany)/Anest lwata
138	As per BOQ SL NO: 60, 61, 62, 63, 64	BHP and Pendants	Electrical switch socket/data points all are in bidder's scope??	Electrical switch socket/data points are in Bidders Scope
139	As per BOQ SL NO: 58 & 59	6 valve configuration (At Manifold room) alarm and master alarm	As BOQ already asked for Master Alarm, what is the requirement for a 6 gas alarm at manifold room	Yes. It's a 6 Valve configuration (at OT areas)

ACCF/-