Administration of
UT of Daman & Diu.,
Office of the Directorate,
Medical and Public Health Services

N0. 3/219/P&T/Cardiac Ambulance/2019/DMHS/1355 Daman.
Date04 /02/2019

Re-inviting e-Tender Notice

The Director of Medical and Health Services, Daman & Diu on behalf of President of India, invites on line tender on https://ddtenders.gov.in from the Manufactures / Authorized Dealers / Suppliers for Purchase of Cardiac Care Ambulance under Medical & Health Services Daman & Diu.

Sr. No.	Particulars	Estimated Cost	(E.M.D.) Earnest Money Deposit	Tender Fees (Non-Refundable)	e-Tender ID No.
1	Purchase of 2 Nos of **Cardiac Care Ambulance.** Under MPLAD Scheme Daman 01 and Diu 01	₹.96.00 Lacs	₹.2,40,000/-	₹.2000/-	

Bid document downloading Start Date	:	04**.02.2019**
Bid document downloading End Date	:	25**.02.2019, 13:00 Hrs**.
Last Date & Time for receipt of Bid	:	25**.02.2019, 14.00 Hrs**.
Preliminary Stage Bid Opening Date	:	25**.02.2019, 15.30 Hrs**.
Technical Stage Bid Opening Date	:	25**.02.2019, 16.00 Hrs**.

Bidders have to submit Technical Bid and Price Bid in Electronic format only on https://ddtenders.gov.in website till the last date and time for submission. Technical Bid and Price Bid in Physical format shall not be accepted in any case.

Bid submission should be done along with tender Fees and EMD in original by R.P.A.D./Speed Post or to be deposited in the tender box kept in the office of the undersigned. However, Tender Inviting Authority shall not be responsible for any postal delay. Tenders can be downloaded from www.ddtenders.gov.in, www.daman.nic.in

1. The EMD and Tender Fees should not be forwarded by cash.

2. The Tender Fees will be accepted only in form of DD/A/c payee Cheque of any Nationalized or Scheduled Bank of India payable in Daman.

3. The EMD will be accepted in form of FDR /A/c Payee Demand Draft / Bankers Cheque or Bank Guarantee from any Commercial Banks in an acceptable form payable at Daman in favor of under signed.

The tender inviting authority reserves the right to accept or reject any or all the tender to be received without assigning any reasons thereof. Bidders shall have to post their queries on E-Mail address: ptdmhsdaman@gmail.com

In case bidder needs any clarification or if training required for participating in online tender, they can contact the following office.

For any technical related queries please call at 24 x 7 Help Desk Number 0120-4200462, 0120-4001002, 0120-4001005,0120-6277787. International Bidders are requested to prefix 91 as country code.

Note- Bidders are requested to kindly mention the URL of the Portal and Tender Id in the subject while emailing any issue along with the Contact details. For any issues/ clarifications relating to the tender(s) published kindly contact the respective Tender Inviting Authority.

Tel : 0120-4200462, 0120-4001002, 0120-4001005, 0120-6277787.

E-Mail : support-eproc[at]nic[dot]in

Sd/-
Director
Medical & Health Services
Daman & Diu
"Tel.No.0260-2230570

Copy to :-

1) In-Charge Medical Superintendent Govt. Hospital Daman.
2) CPO, Daman, for wide publicity in Newspaper.
3) I.T. Department, Daman, with a request to publish in Website.
4) Accounts Section, Daman, for information.
5) P&T Department Daman, for information.

U.T. ADMINISTRATION OF DAMAN & DIU,
OFFICE OF THE DIRECTORATE,
MEDICAL AND HEALTH SERVICES, DAMAN.

Terms and Conditions for the **"Purchase of Cardiac Care Ambulance under Medical & Health Services Daman & Diu."**

❖ Instructions to Bidders :

1) All Tender Documents can be downloaded free from the website https://ddtenders.gov.in

2) All bids should be submitted online on the website https://ddtenders.gov.in

3) The user can get a copy of instructions to online participation from the website https://ddtenders.gov.in

4) The suppliers should register on the website through the "New Supplier" link provided at the home page, the registration on the site should not be taken as registration or empanelment or any other form of registration with the tendering authority.

5) The application for training and issue of digital signature certificates should be made at least 72 hours in advance to the due date and time of tender submission.

6) For all queries regarding tender specifications and any other clauses included in the tender document should be addressed to personnel in tendering office address provided below:

The Director
Medical & Health Services,
Primary Health Centre, Moti Daman,
Daman - 396220.
Tel: 0260-2230470 / 2230570.

7) All documents scanned/attached should be legible / readable. A hard copy of the same may be send which the department will be use if required. Uploading the required documents in https://ddtenders.gov.in is essential.

8) The Bidder has to give compliance for each quoted product for any false / misleading statement in compliance found any time during the procurement process, the bid shall be outrightly rejected & EMD shall be forfeited.

Keydates:

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The Tenders shall be submitted in two-bid system, wherein the Technical bid and Commercial Bid is to be filled online on https://ddtenders.gov.in and the EMD and Tender Fee has to be submitted in Tender Box along with a covering letter. The envelope should be super scribing as **"e-Tender - Sealed Cover of Bid for Purchase of Cardiac Care Ambulance under Director Medical & Health Service Daman & Diu".** The **EMD** and **Tender Fees** should be enclosed with **BID** only.

Tender Fees (Non Refundable) ₹.2,000/- :

a. The Tender Fees should not be forwarded by cash.

b. The Tender Fees (Non Refundable) will be accepted only in form of DD/A/c payee Cheque in favor of **The Director of Medical and Health Services, Daman** from any Nationalized or Scheduled Bank of India payable in Daman.

c. All tenders must be accompanied by Tender fees as specified in schedule otherwise tender will be rejected.

Earnest Money Deposit ₹.2,40,000/- :

a. All tenders must be accompanied by EMD as specified in schedule otherwise tender will be rejected.

b. The manufacturing units who are placed in Daman are exempted for Earnest Money Deposit. For getting exemption, bidders have to furnish valid and certified documents along with the tender, otherwise tender will be rejected.

c. Any firm desires to consider exemption from payment of Earnest Money Deposit, valid and certified copies of its Registration with D.G.S. & D. should be attached to their tenders.

d. EMD can be paid in either of the form of following:
   i. A/c Payee Demand Draft
   ii. Fixed Deposit Receipts
   iii. Bank Guarantee

   In favor of **The Director of Medical and Health Services, Daman** from any Nationalized or Scheduled Bank authorized by RBI to undertake Government Business.

e. EMD should be valid upto **12 (Twelve Months)** from the date of its issuance.

f. EMD in any other forms will not be accepted.

g. EMD/Security Deposit shall be liable to be forfeited in following circumstances:

i. Tender is rejected due to failure of supply the requisite documents in proper format or giving any misleading statement or submission of false affidavit or fabricated documents.

ii. In case, the contractor does not execute the supply order placed with him within stipulated time, the EMD of the contractor will be forfeited to the Government and the contract for the supply shall terminated with no further liabilities on either party to the contract.

iii. Tenderer fails to replace the goods declared to be not of standard quality or not conforming to acceptable standards or found to be decayed/spoilt.

h. The amount of Earnest Money paid by the tenderer(s) whose tenders are not accepted will be refunded to them by cheque or Demand Draft (as may be convenient to the Tender Inviting Officer if the amount is above ₹.200/-) drawn on any Nationalized or Scheduled Bank payable at Daman. Where this mode of payment is not possible the amount will be refunded at the cost of the tenderer.

i. Only on satisfactory completion of the supply order for and on payment of all bills of the contractor, as to be admitted for payment, the amount of Security Deposit/Earnest Money will be refunded after expiry of guarantee/warranty period, if any, or any such date/period as may be mutually agreed upon.

j. In case of failure to supply the store, materials etc. ordered for, as per conditions and within the stipulated time, the name articles will be obtained from the tenderer who offered next higher rates or from any other sources, as may be decided by the tender inviting Officer and the loss to the Government on account of such purchases(s) shall be recovered from the former contractor Security Deposit/Earnest Money or bills payable. The contractor shall have no right to dispute with such procedure.

k. The Earnest Money(s) paid by the tender(s) earlier against any tender(s) or supply order(s) is not adjustable with Earnest Money required by these conditions.

Security Deposit: (SD)

a. The successful tenderer will have to pay within 10 days from the date of demand, an amount equal to 10% of the total value of articles, which may be ordered, as the amount of security deposit.

b. Non receipt of Security Deposit within stipulated time will result in automatic cancellation of the order for supply without any intimation.

c. However in case if any articles are received for which the Security Deposit may not have been deposited, the full Security Deposit as may be due from the supplier will be recovered from the bill(s) for such articles.

d. In case of failure to replace the accepted and rejected articles from the supplies made, as mentioned in the conditions the loss undergone by the Government will be recovered from the suppliers Security Deposit or payment due of any bill(s) to the extend required.

e. The Security Deposit(s) paid by the tender(s) earlier against any tender(s) or supply order(s) is not adjustable with Security Deposit required by these conditions.

f. The tender inviting officer will consider extension of time for remitting the Security Deposit as demanded. However, in case of denial to consider such extension the supplier is bound to abide by the limit given and liable to make good for the loss made to the Government on account of his failure to abide by the time limit.

❖ Conditions of Contract :

1. ACCEPTANCE OF TENDER:

a. The tender is liable for rejection due to any of the reasons mentioned below:

i. Non-Submission of tender within stipulated time online.

ii. Submission of tender physically in the Office but not submitted online on https://ddtenders.gov.in

iii. Tender is unsigned or not initialed on each page or with unauthenticated corrections.

iv. Non-payment of Earnest Money Deposit (if not exempted).

v. Non-Submission of required documents as mentioned in schedule.

vi. Conditional / vague offers.

vii. Unsatisfactory past performance of the tenderer.

viii. Items with major changes/deviations in specifications/ standard/ grade/ packing/ quality offered.

ix. Offering an accessory optional even though required to operate the instrument.

x. Submission of misleading/contradictory/false statement or information and fabricated/ invalid documents.

xi. Tenders not filled up properly.

xii. Non submission of notarized authority letter in prescribed format for imported items.

b. Any discount which the bidder wants to give has to be considered and total final bid amount has to be mentioned clearly in the price bid form on https://ddtenders.gov.in.

c. Discount offered after price bid opening will not be considered.

d. The consolidated rates entered in the online website will be taken in to account for preparing price statements. However the tender which is found technically acceptable as well as lowest in terms of evaluated rates only be considered for placing the order.

e. The Director, Medical and Health Services may seek any clarifications / explanation / documentary evidence related to offer at any stage from tenderers if required.

f. **The rate quoted should be inclusive of all taxes no extra charges will be paid and should be valid upto One Year from the date of tenderization**.

g. Orders once placed should be delivered within the given time period and should be door delivered.

h. All/Taxes/Duties/Royalties Charges payable on the sales/transport etc. within and/or outside the state shall be payable by the supplier.

i. The decision of the Tender Inviting Officer for acceptance/rejection of any articles supplied including the decision for equivalent specifications, standard and quality etc. of vehicle shall be final.

j. The right to accept or reject without assigning any reasons or all tenders in part or whole is reserved with the Tender Inviting Officer and his decision(s) on all matters relating to acceptance or rejection of the tenders as a whole or in part will be final and binding to all.

k. No separate agreement will be required to be signed by the successful tender(s) for the purpose of this contract for supply. Rates tendered/ offered in response to the concerned Tender Notice shall be considered as acceptance of all above terms and conditions for supply for all legal purpose.

l. The rate(s) quoted should be strictly for free delivery at FOR The Director Medical and Health Services Daman and will be valid and operative for supply orders issued within one year from the date of invitation of tenders.

m. Bidder / its sister concerns / companies where its Promoters / Directors either directly or indirectly are involved, should not have ever been blacklisted in tender / supplies by any state/Central Govt . Bidder should submit affidavit in this regard. The bidder should provide accurate information of litigation or arbitration resulting from contracts completed or under execution by him over the last ten years. False affidavit would lead to blacklisting and termination of the contract at any stage. In such cases all the losses that will arise out of this issue will be recovered from the Tenderer / Contractor and he will not have any defence for the same. In case of bidder / principal is involved / penalized under any investigation of CVC or any State/Central Govt. Commission in relation to the similar work project issue; the bid will be out rightly rejected.

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2. TERMS OF SUPPLY :

a. The packing and labels of all the items to be supplied under the order shall be marked with the words 'FOR U.T. OF DAMAN & DIU- NOT FOR SALE' if the items are packed in packets which are then placed or repacked within a box/ carton/ bottle/ foil, these words will be printed/ marked on both the internal/ external packs and labels. The retail price must not be printed or shown anywhere either on external or internal packs/ box/ carton/ foil.

b. In event of breakage or loss of stores during transit against requisition order the said quantity has to be replaced by the tenderer. The department will not pay separately for transit insurance and supplier will be responsible for stores.

c. Railway Receipt or other transport document should be drawn in the favor of Officer Inviting tender.

d. Railway Receipt or other transport document should not be send by VPP or through any Bank as this being a Government Office it is not possible to clear cash demands of Post Office/Bank for delivery of RR or other transport documents unless we have agreed to it as special arrangement.

e. Extension of time limit for supplies shall be considered by the Tender Inviting Officer. The extension so granted may be with levy of compensation for delay in execution of supply order up to 5% of the cost of supplies ordered for at the discretion of the authority competent to grant extension of time limit provided such request is made well in time, depending upon the circumstances and such decision in the matter will be final.

f. The supplies, vehicle etc. of inferior quality standard or of different specifications, brand, manufacturer etc other than that ordered specified and/or incomplete or broken articles will not be accepted. The supplier has to replace the same at his own cost and risk. Intimation of non-acceptance of any vehicle etc will be sent to the supplier within 10 days from the date of receipt of the stores and the same will be returned to the supplier at his own cost and risk, if he so desires and intimates accordingly within 15 days from the date of dispatch of intimation of the non-acceptance. However, if no communication is received within 15 days from the date of communication the tender Inviting Officer will not be responsible for any damages, loss etc. of such rejected articles.

g. Demurrage charges paid by the Tender Inviting Officer on account of delayed receipt of dispatch documents intimation will be recovered from the bills payable to the supplier.

h. If at any time after the order for supply of vehicle the Tender Inviting Officer shall for any reason whatsoever not require the whole or part of the quantity thereof as specified in the order the Tender Inviting Officer shall give notice in writing of the fact to the supplier(s) who shall have to claim to any payment of compensation what so ever on account of any profit or advantage which the supplier(s) might have derived from the supply of vehicle in full, but which did not derive in consequence of the full quantity of articles not having been purchased, nor shall have any claim

for compensation by reasons of any alterations having been made in the original instructions which shall invoice any curtailment of the supply originally contemplated.

i. The items as mentioned in the list are the approximate estimates invited and actual purchase may more. Accordingly the successful tenderer has no right for any loss/damages with reference to approximate requirement shown in tender and actual requirement.

j. Inspection will be carried out in the premises of DMHS Daman. If vehicle to be inspected in factory premises all expenditure to be borne by the Tenderer.

3. Bid Evaluation Methodology :

A. **Preliminary Evaluation**: Tender Fee and EMD Submission.

B. **Technical Evaluation:**

- Scrutiny of technical specifications and other relevant documents as asked by the department with the quoted specification.
- Scrutiny of Compliance Statement given by the bidder.
- Technical Demonstration if required.

C. **Financial Evaluation**: Lowest quoted offered by Technically Qualified Bidders.

4. PAYMENT TERMS :

a. 100% of the invoice amount will be paid only after supply, successful and submission of Security deposit.

b. Price escalation clause will not be entertained under any circumstances.

c. All bills should be in **TRIPLICATE** and should invariably mention the number and date of supply order.

d. All bills for amount above ₹.5000/- should be pre-receipted on a Revenue Stamp of proper value. Bills for amount exceeding ₹.5000/- not pre-receipted on Revenue Stamp of proper value will not be accepted for payment.

e. Each bill in which Sales Tax is charged must contain the following certificates on the body of the bill: **"CERTIFIED"** that the goods on which Sales Tax has been charged have not been exempted under the Central Sale Tax Act or the Rules made there under and the amount charged on account of Sales Tax on these goods is not more than what is payable under the provisions of relevant Act or Rules made there under".

f. No extra charge for forwarding, passing and insurance etc. will be paid on the rates quoted.

g. The rates should be quoted only for the base vehicle specified in the list of requirement.

h. Rates quoted for vehicle other than the required specification will not be considered.

Sd/-
Director
Medical & Health Services
Daman & Diu
"Tel.No.0260-2230570

Annexure - A

Technical Specifications for Advanced Life Support Ambulance

1. Scope, Purpose, and Classification

1.1. Scope

This document covers Advanced Life Support (ALS) ambulances built on integral monocoque panel vans that are suitable for the intended application and meet the requirements herein. This document will be used to procure an ambulance and the applicable additional systems as well as equipments.

1.2. Purpose

The Advanced life support (ALS) ambulance is defined as a vehicle for emergency medical care which provides: a driver's compartment; a patient compartment to accommodate a doctor / an emergency medical technician (EMT) / a paramedic and one patient located on the main automatic rolling stretcher cum trolley, in such a way and so positioned that the primary patient can be given advanced life-support during transit; equipment and supplies for emergency care at the scene as well as during transport and, when necessary, equipment for light rescue / extrication procedures. The ambulance should be designed and constructed to afford safety, comfort, and avoid aggravation of the patient's injury or illness.

1.3. Certified "STAR OF LIFE"

The ambulance manufacturer / supplier shall furnish the purchaser(s) citing this specification an authenticated certification and label that certifies ambulance and equipment complying with this specification and applicable amendments (if any) in effect on the date of manufacture. Ambulance vehicles so certified may display the registered "Star of Life" symbol as defined by the Department of Health, Government of Daman.

1.4. Classification: Ambulance Types, Classes and Floor Configurations

This document would specifically deal with the authorized types of Advanced Life Support (ALS) ambulances for Government of Daman with the necessary application space and facilities for Advanced Life Support devices as detailed in this documentation.

If specified by the purchaser these types can also be made specifically for neonatal, critical patient transports including those for physically challenged persons, special fire suppression packages and / or specific rescue capabilities when specified so.

2. Applicable Documents

The following document form a part of this specification, to the extent specified. Unless a specific issue is identified, the issue in effect, on date of invitation of bids or request for proposal, shall apply.

2.1 Government of Daman Specifications

Rust Proofing of the complete vehicle along with the body, should be ensured by the OEM during the construction of the base vehicle body before being converted as ALS ambulance.

The manufacturer / supplier should ensure that during the process of conversion and integration as ambulance all due care is taken for rust proofing for all the components and retrofits.

The body should be manufactured by the engine / vehicle manufacturer as an integrated monocoque panel van.

Traditional sheet metal bodies on truck / cab chassis should not be used for ambulance conversion.

2.2 Laws & Regulations

2.2.1 Indian Motor Vehicle Act (the base vehicle used for making the ambulance should be certified as an Ambulance and not any other commercial or load vehicles types).

2.2.2 Indian Pollution Control Act for New Motors Vehicles and New Motor Vehicle Engines.

2.3 Other Publications

The following documents form a part of this specifications to the extent specified, if any. Unless a specific issue is identified, the issue in effect on date of invitation for bids or request for proposal shall apply.

2.4 Order

In the event of a conflict between the text of this specification and the references cited herein, the text of this specification shall take precedence.

3. Requirements

3.1 General Vehicular Design, Types and Floor Plan

3.1.1 Design

The ambulance and the allied equipment furnished under this specification shall be the manufacturer's current commercial vehicle of the Type, Class, and Configuration specified. The ambulance shall be complete with the operating accessories, as specified herein. It shall be furnished with such modifications and attachments as may be necessary to enable the vehicle to function reliably and efficiently in sustained operation as an ALS ambulance. The design of the vehicle and the specified equipment shall permit accessibility for servicing, replacement, and adjustment of component parts and accessories with minimum disturbance to other components and systems. The term "heavy duty", as used to describe an item, shall mean in excess of the standard quantity, quality, or capacity and represents the best, most durable, strongest, etc., part, component, system, etc., that is commercially available on the OEM chassis or "Equivalent".

3.1.2 Advanced Life Support Ambulance

The base vehicle shall be OE Manufacturer's integral van with two divided rear doors with 270 degree opening and external side wall latching of the doors in the open conditions to enable safe movement of the vehicle in open patient compartment to narrow areas / lanes and by lanes for speedy and easy evacuation. This vehicle shall be suitable for subsequent ambulance conversion / modification in compliance with the requirements herein.

3.1.3 Configuration of Patient compartment

Unless otherwise specified, Configuration Advanced Life Support (ALS) shall be provided in the patient compartment. All the devices, equipments, accessories and consumables etc., should be loaded to position the patient's head forward in the vehicle.

3.1.3.1 When specified for Advanced Life Support (ALS) applications, the patient would be located on the main automatic rolling stretcher cum trolley and four secondary seated attendants / patients (in case of any mass casualties or disaster) on the squad bench (four seater) and Doctor / EMT / Paramedic on the intended head end chair. The main automatic rolling stretcher cum trolley shall be slightly off centered mounted more towards the driver side wall in such a way that it does collide with the side wall or any other fitments on it while loading or unloading.

4 Base Vehicle

The ambulance should be built on a cabin chassis of an Indian OE manufacturer or "Equivalent". Fabricated cabin on an cowl chassis won't be accepted.

4.1 Engine: Diesel, 4 Cylinder, 4 Stroke, Direct injection/Turbo charged inter cooled.

4.2 Emission Norms: BS IV

4.3 Maximum Output: Minimum 75 BHP

4.4 Transmission: Manual

4.5 Drive : Rear wheel drive

4.6 Tyres : 7.00x15 or 215R15

4.7 Axles
Front :Dead rigid beam
Rear : Live rigid

4.8 Dimension
(Patient Cabin)
Length minimum : 3200 mm +-10%
Width minimum : 1700 mm +- 10%
Height minimum :1900 mm +- 10%

4.9 Body & Chassis : Integrated type

4.10 Ground Clearance : 190 mm. Minimum

4.11 GVW : 3.0T Minimum

4.12 Suspension : Leaf springs at both front and rear

4.13 Rear Door: Centrally Divided rear doors on high quality steel hinges ensuring 180° opening for both the doors. Both the rear doors should be provided with fixed windows made from toughened glass approved for automotive use.

4.14 Warranty terms : Minimum 3 years or 3 lac Km as per standards terms of the vehicle manufactures.

4.15 Free Services : 12 Free services excluding the cost of the consumables.

5 AMBULANCE BODY & PATIENT AREA

5.1 PATIENT COMPARTMENT INTERIOR DIMENSIONAL PARAMETERS

The patient compartment shall provide a minimum of $7m^3$ space while complying with the following:

5.1.1 The length measured from the partition to the inside edge of the rear loading doors at the floor, shall be at least 2.8m. The width of the patient compartment at the floor level should me at least 1.6m. and the height of the patient compartment the height point should be minimum 1.6m.

5.2 CABIN CONVERSION OF PATIENT COMPARTMENT

5.2.1 Seamless box body construction made from GRP Sandwich Panels.

6 FLOORING

6.1 The flooring should be made up of sandwich panels of the identical specification but with required reinforcements and stiffening as per the construction and fixation requirement of the floor.

6.2 The top layer of the floor should be laid with minimum 1.5mm. thick vinyl layer laid as a joint less flooring. The flooring material should be conform with EN 426 for Dimensions, EN 428 for Overall Thickness, EN 430 for Weight, EN 433 for Residual Identification After Static Load, EN 434 Dimensional Stability, EN 435 for Flexibility, EN 660-2 for Abrasion Resistance, BS 476 Part 7 for Surface Spread of Flame, BS 476 Part 6 for Fire Propagation, IS 15061-2002 (ARAI) for Horizontal and Vertical Burning Test, ISO 140-8 for Sound Absorption, ISO 105-B02 for Color Fastness to Day Light, DIN 51130 for Slip Resistance, EN 425 for Bearing a Castor Chair, EN 423 for Resistance to Chemicals, EN 685 for Performance Classification.

7 INTERNAL STORAGE COMPARTMENTS

7.1 All the internal storage compartments, surfaces and space provisions should be made to accommodate / fix the various medical life saving medical devices, trauma equipment for transportation and immobilization, medical glassware, medical disposables and consumables, fresh and dirty linens, infusion bottles, drugs, accessories, wastes, documents, records, files etc. as per requirement in the ambulances.

7.2 The storing consoles should be designed keeping in consideration all the possible requirements of a medical work place. The patient compartment should be provided with storing console at the head end of the patient across the complete width of the patient compartment integrated to the partition wall of the driver cabin and patient cabin and overhead storing compartments along the roof.

7.3 All storage compartments should be aesthetically and ergonomically well designed. To preclude injury in the event of an accident all cabinet will be firmly anchored / fixed to the base structure of the ambulance. Storage cabinets, drawers and kits should be easily open-able but should be never ever open during transit on account of the vehicle movement.

7.4 The furniture console should be fully integrated to the side walls and there should be not be more than one joint on each of the side wall to fully integrate the furniture console. The joint should be fully finished and flushed to avoid any ingress of dust, water and impurities. The joints should be visually appealing and should be appear completely congruent in general appearance.

7.5 All the internal furniture should be produced with laminated water proof ply wood or any other composite.

8 PATIENT COMPARTMENT SEATING

All seats in the patient compartment shall conform to detailed specification as mentioned below. These will be padded and have the largest practical padded back and headrests. Padding material shall be polyester urethane foam of a medium to firm density (not less than 50 gsm), with a minimum finished thickness (padding and upholstery) of 50 mm. for seat pads, headrest and backrests. All padding and upholstery shall be fire retardant. The upholstery shall be non-absorbent, washable and impervious to disinfectants. The upholstery should be made from reinforced vinyl based materials with minimum 1.5 mm. thickness.

All seats frames, surfaces and upholstery should be designed to facilitate cleaning and disinfecting. All exposed surfaces shall be free of vent devices that should be permit the entrapment of biological contaminates. All seating positions in the patient compartment should be have vertical overhead clearance for getting into the seat and coming out.

8.1 EMT / PARAMEDIC SEATING

8.1.1 At the head end of the main patient stretcher the ambulance should be have a rear mounted foldable base EMT / Doctor seat.

8.1.2 The seat should be have two foldable armrests. When unfolded for sitting the backrest should be offer a soothing angle (more than 95 degree) to the base offering optimum comfort and safety to the occupants, who sits in directions not in line with the movement of the vehicle.

8.1.3 The back rest (without the head rest) should be minimum 500 mm. in height. The head rest should be minimum 200mm. in height.

8.1.4 SEAT SAFETY BELTS AND ANCHORAGES
All designated seating positions in the patient compartment shall be equipped with safety restraint systems appropriate for each type of seating configuration.

8.1.5 The seat should be have an headrest and retractable seat belt. The seat should be aesthetically pleasing and ergonomically well designed. The seat base should be have the largest padded backrest with contoured support for the back.

8.1.6 Padding should be furnished with polyester urethane foam of a medium to firm density and should be minimum 60 mm. on the base, backrest and headrest (at the thickest cross section of the head rest the headrest may be contoured to the lateral ends). Padding should be provide ultimate comfort to the occupants.

8.1.7 The upholstery should be of leather-match vinyl / polyurethanes / leatherette, colour in dark colors matching the interior color of the ambulance. The padding and upholstery should be fire retarded.

8.1.8 Additionally the upholstery should be non-absorbent, washable in impervious to disinfectants. The seat should be fully foldable and rear mounted providing complete clean floor below the base without any framework for fixation.

8.2 SQUAD / ATTENDANT SEAT

8.2.1 Additionally there should be a bench type seat for four squads / attendants on the co-driver side in the patient cabin. The seat base should be based on a frame made from FRP as that of the interior patient cabin conversion.

8.2.2 The seat base should be have hinged lifters to lifted it up.

8.2.3 The seat should be have a back rest on the side wall.

8.2.4 The seats should be aesthetically pleasing and ergonomically well designed.

8.2.5 Padding should be furnished with polyester urethane foam of a medium to firm density. Padding should be provide comfort to the occupants. The upholstery should be of leather-match vinyl / polyurethanes / leatherette, colour in dark colors matching the interior color of the ambulance.

8.2.6 The padding and upholstery should be fire retarded. Additionally the upholstery should be non-absorbent, washable in impervious to disinfectants.

9 IV HOLDER FOR INTRAVENOUS FLUID CONTAINERS

9.1 There should be two IV bottle holders to firmly hold IV bottles and secure these properly when the vehicle is in motion.

10 WASH BASIN

10.1 The internal furniture layout should be include a washbasin made up of stainless steel material in an aesthetic finish fully integrated with the top plate of the furniture.

10.2 The water tap of the washbasin should be operated with a foot / elbow switch at a convenient and safe place around the wash basin area, so that it is easy for the users to activate the switch and get water flow.

10.3 The tap should be operated using 12V DC water pump placed at the fresh water tank.

10.4 The capacity of the fresh water tank as well as the waste water tank should be at least 10L.

10.5 The fresh water tank should be suitably placed so that water refilling can be done easily without water spillage.

10.6 The waste water tank should be mounted below the base vehicle chassis / body frame with an easy operating valve to drain the waste water at any designated place.

11 AC SYSTEM

11.1 The patient compartment should be provided with an engine driven air conditioning system of adequate capacity matching to the total heat load of the patient compartment when fully occupied and the patient loaded.

11.2 The compressor should be engine mounted and engine run. All hoses should be machine crimped to avoid the leakages. AC system should be certified for passenger vehicle usage.

11.3 Compressor

11.3.1 Displacement: Minimum 160 m^3/Rev.

11.3.2 Cooling Capacity: Matching the cooling capacity of the driver and patient compartment.

11.3.3 Refrigerant: R-134a

11.3.4 The installation of the compressor should be done with brackets as per the requirement of the engine without any modifications to any engine components.

11.4 Evaporator**:** Cooling Capacity: 6.5 KW

11.5 Condenser**:** Roof mounted condenser unit matching to the cooling capacity of 7.5KW

12 OXYGEN, MAIN SUPPLY AND INSTALLATION

12.1 OXYGEN SYSTEM

12.1.1 The ambulance shall have medical oxygen system capable of storing and supplying minimum two 10L water capacity high pressure oxygen cylinders manufactured as per IS:7285, BIS-certified and approved by the Chief Controller of Explosives, Government of India, Nagpur. The facility provided should be for cylinders fitted with bull-nose 5/8" BSP RH (f) outlet valve as per IS:3224, BIS-certified.

The seal should be by direct contact between the bull-nose connector of the high pressure hose (from the manifold block) and the cylinder valve.

12.1.2 Two nos. of oxygen Cylinders should be included to the standard scope of supply of the ambulance.

12.1.3 The installed medical oxygen piping and outlet system shall be leak test at 150% of the rated pressure level for the respective parts (source and distribution) of the system. After the successful completion of tests, the system shall be capped then tagged with date and signature of person and firm performing the tests. Replacement of empty cylinders should be done from outside of the vehicle. Oxygen piping system should be concealed and not exposed to the elements, securely supported to prevent damage, and be readily accessible for inspection and replacement, whenever needed.

12.1.4 The cylinders should be fastened to a loading platform, which should be rigidly fix the cylinders in position ensuring that the cylinder is absolutely safe all the time it is inside the ambulance including the all the dynamic situations during the movement of the vehicle.

12.1.5 The connections at the cylinder pressure level should be done using high-pressure regulators and medical grade hose appropriate for the rated distribution pressure. The outlet of the high-pressure regulator should be connected to the terminal outlet block inside the patient compartment using medical grade oxygen tubing.

12.1.6 The patient compartment should be have an oxygen distribution block having two oxygen outlets, connected in parallel through one common feeding port. The terminal outlets should be comply with DIN-EN-ISO 9170-1:2008 standards for medical gas supplies as well as medical device directives 93/42/EEC.

12.1.7 The terminal outlets should be operate at the standard distribution pressure level corresponding to the outlet pressure of the high-pressure regulator, which is 4 - 5 bar. It should be possible to operate the outlets in one hand for the purpose of coupling and decoupling.

12.2 OXYGEN PRESSURE REGULATOR & PRESSURE DISPLAY SYSTEM

12.2.1 The pressure regulator should be meant for reducing the cylinder pressure of the oxygen tank to the distribution pressure level suitable for feeding to the medical oxygen terminal outlets as well as other inhalation and respiratory equipments in the ambulance and should be specifically designed and manufactured for use with medical oxygen. It should be have the facility to adjust the distribution pressure level as well as the pressure relief valve for safety.

12.2.2 The ambulance should be provided with two nos. of pressure regulators certified as per medical device directives 93/42/EEC.

12.2.3 The patient cabin should be have a digital display to constantly monitor the pressure level of both the cylinders as well as the distribution pressure level. The medical oxygen display should be certified as per medical device directives 93/42/EEC.

12.2.4 There should be no welded joints in the entire connection assembly of the oxygen distribution system.

13 ELECTRICAL SYSTEM

The ambulance electrical system should be equipped with, but not limited to, the following:

13.1 Specified electronics equipment and devices (including master consoles located in the cab and patient compartment).

13.2 Other specified accessory wiring.

13.3 All electrical system components and wiring should be readily accessible through access panels.

13.4 All switches, indicators, and controls should be located and installed in a manner that facilitates easy removal and servicing.

13.5 All exterior housings of lamps, switches, electronic devices, connectors, and fixtures should be corrosion resistant and weatherproof grade all preferably integrated to the exterior of the vehicle.

14 WARNING INDICATORS

14.1 The electrical system should be, incorporate an audible warning device located in the driver's compartment. It shall provide warning for open patient compartment entry doors.

15 WIRING INSTALLATION

15.1 The ambulance body and accessory electrical equipment should be served by circuit(s) separate and distinct from vehicle chassis circuits.

15.2 All wiring should be have high temperature cross-linked polyethylene or better insulation.

15.3 The use of multi conductor or ribbon cables are permitted provided they are not exposed to under hood or under vehicle temperatures/conditions.

15.4 The wiring should be permanently color coded or marked and identified.

15.5 Wiring should be routed in conduit or appropriate looms.

15.6 All added wiring should be located in accessible, enclosed, protected locations and kept at least 150mm. away from exhaust system components.

15.7 Wiring necessarily passing through an oxygen compartment should be appropriately protected from damage.

15.8 All conduits, looms, and wiring should be secured to the body or frame with insulated cable straps.

16 EMERGENCY LIGHT BAR CUM PUBLIC ADDRESS SYSTEM

16.1 Emergency Light Bar cum Public Address System at the top of the vehicle on the front end. The layout should be comprise of eight nos. of LED flashing lights, having four LED flashed on each side on the front at the top of the vehicle front facia and a speaker in the centre.

16.2 The light bar control unit should be have all the necessary control for the various components of the light bar.

16.3 It should be have a microphone. The control unit should be connected to the light bar via the connecting wires all inside a master wire sleeve.

16.4 It should be have variable tones like Wail, Yelp, Siren, Manual etc.

16.5 The operational voltage should be 12V DC.

16.6 The power consumption should be maximum 100W.

16.7 All the controls should be provided on the driver's console.

17 EXTERNAL LIGHTS & FLASHERS

17.1 There should be minimum six nos. of high intensity LED flashers in pair of red and orange on either side and rear.

17.2 On each side and rear there should be at least LED white light for general lighting the area outside the ambulance in case of dark evacuations.

18 CABIN LIGHTING & ELECTRICAL

18.1 Three lights in the patient compartment ceiling for general illumination of the compartment.

18.2 Each light will be minimum 300 mm. in length and minimum 125 mm. in width.

18.3 The depth of the lights should be flushed in the ceiling with concealed wiring.

18.4 The lights will emit pure white light of color temperature of 4000 Kelvin.

18.5 The light fixture won't have any corrosive material in it.

18.6 The light reflector should be UV protected polycarbonate, translucent and absolutely flat.

18.7 The lights will be 12V DC Operated.

18.8 The lighting fixtures should be preferably be seamless in construction without much edges and joineries in the frame and diffuser.

18.9 There should be two 12V DC operated and minimum 6" wall mounted fans one on each side of the patient compartment.

18.10 The patient compartment should be have minimum 2Nos. of 230V / 6Amp AC Sockets with switches and minimum 4 Nos. of 12V DC Sockets for the various medical and general equipments in the ambulance.

19 MARKING OF SWITCHES, INDICATORS AND CONTROL DEVICES

19.1 All switches, indicators, and control devices supplied by the manufacturer / supplier shall be indentified.

20 INVERTER

20.1 True sine wave inverter with SMPS Power Supply

20.2 Inverter Capacity - Minimum 600 watts / 800 VA

20.3 Waveform: TRUE SINUSOIDAL

20.4 Efficiency - 85% Minimum

20.5 Minimum 10 Meter length three core 10 mm. charging wire with male 15Amp. three pin ends to be provided

21 CHARGING SOCKET

21.1 There should be a spring loaded charging port.

21.2 The charging port should be allow charging of the ambulance batteries from external AC source when the ambulance is stationary.

21.3 The charging port should be located near the driver door area so that the pilot is aware that the ambulance is connected to external AC source and should be disconnected before moving the ambulance.

22 PATIENT TRANSPORT & IMMOBILIZATION EQUIPMENTS

22.1 ROLL-IN PATIENT STRETCHER CUM TROLLEY

22.1.1 The base fame of the stretcher cum trolley should be modelled to consent more comfortable and effective operations on the patient.

22.1.2 The wheels must have diameter of minimum 200 mm. and should be made from plastic tyre compound to optimise bump absorption.

22.1.3 The backrest should be infinitely adjustable having pneumatic shock-absorbers and not with fixed point adjustments.

22.1.4 The stretcher must have at least one intermediate position apart from the two distinct fully folded and fully unfolded position.

22.1.5 There should be a manually activated mechanical lock to keep the legs in completely folded position and use the trolley as a stretcher if required so under certain evacuation requirements.

22.1.6 The stretcher must be supplied with its own fixture to rigidly fix the stretcher to the floor of the ambulance. The fixture should be an integrated loading platform with three point anchorage activated automatically once the stretcher slides into position and all the three anchorage points deactivated by single latch when the stretcher to be released from the fixation platform.

22.1.7 The locking of the stretcher should be fully automatic without any manual intervention or activation of any locks or latches. The unlocking of the stretcher should be possible with one hand. The loading and unloading of the stretcher should be completely seamless and the loading wheels should not roll on the floor of the ambulance directly.

22.1.8 While loading the no part (including legs) should touch any part of the vehicle (like the rear entry foot step or the rear edge of the patient compartment at the floor level).

22.1.9 The loading platform should have an integrated foldable flap to guide the stretcher in and out of the ambulance without any part of the stretcher (including the legs) striking any part of the ambulance body including the rear footstep.

22.1.10 The loading platform should have integrated space in it to firmly accommodate a full body length spine board or even a scoop stretcher inside it for ergonomic storing. Once the loading is completed the foldable flap of the loading platform should be lifted and remain firmly in position not getting inadvertently opened when the vehicle is in move. This should be supported with pneumatic lifters.

22.1.11 The loading platform should be manufactured as an original equipment accessory by the stretcher manufacturer complying with the same standards as that of the stretcher.

22.1.12 The stretcher should be made from high grade aluminium and should not be more than 40 Kg. in weight.

22.1.13 The load capacity of the stretcher cum trolley should be 200±10 Kg.

22.1.14 The physical dimensions of the stretcher should be: Length: 200±5 cms., Width: 59±5 cms., Height: Adaptable to the height of the ambulance.

22.1.15 The stretcher must comply with Medical Device Directives (93/42/EEC) having the CE mark along with the four-digit code from the certifying agency.

22.1.16 The device must comply with EN 1789 standards.

22.2 UNIVERSAL HEAD IMMOBILISER

22.2.1 The universal head immobiliser must ensure optimum head immobilization to trauma patients. The immobiliser must have integrated universal belts for fixation with spine boards thereby allowing transportation of patients in critical conditions during long and uncomfortable journeys as well. The immobiliser should have physiological shape supporting the brain and avoiding as much as possible further compression of cranium and completing the immobilization the rachis through the cervical collar.

22.2.2 The unit should comprise of two mono block shells made of a soft plastic and a base. The mono block shells should be impermeable and should avoid absorption of any organic liquid (blood, vomit, mucous) and should be free from any seams and should have optimum thick protective film. The mono block shells should not get damaged by routinely used chemical substances or solvents in the ambulance and should remain soft in varying temperature conditions.

22.2.3 The mono block shells should be positioned on the base using wide and stable velcro system sewn to the base. Both the mono block shells must have through holes allowing inspection of the aural pavilion ALSo permitting verification of any loss of blood or liquids.

22.2.4 The holes ALSo generously accommodate the aural pavilion there by allowing the rescuer to communicate with the patient. The base should be able to accommodate two types of mono blocks for adult and paediatric patients by just removing an additional cushion in the centre of the base.

22.2.5 The device must comply with Medical Device Directives (93/42/EEC) having the CE mark along with the four-digit code from the certifying agency.

22.3 SPINE BOARD

22.3.1 The spine board should be extremely rugged in construction and should be built from high quality material thereby avoiding splintering and cracking.

22.3.2 The surface should be impervious to body fluids and secretions and should be completely seamless to eliminate ingress of fluid. It should have a firm surface for CPR & immobilization.

22.3.3 It should have compact dimensions for easy manoeuvring and should have provision for cervical collars or head immobilisers. It should have easy underside allowing easy lifting access. It should be x-ray translucent.

22.3.4 The weight of the spine board should not be more than 10 Kgs.

22.3.5 The load capacity of the spine board should be 180±10 Kg.

22.3.6 The physical dimensions of the spine board should be: Length: 180±5 cms., Width: 40±5 cms., Height: 5±0.5 cms.

22.3.7 The device must comply with Medical Device Directives (93/42/EEC) having the CE mark along with the four-digit code from the certifying agency.

22.4 SCOOP STRETCHER

22.4.1 The stretcher should be designed allowing coupling and uncoupling of any of the ends and gently scoop up the patient using the two scoops of the stretcher.

22.4.2 The stretcher should be telescopic to accommodate the tallest patient and should be folded for compact storage. The frame should be made of high quality anodised aluminum and blades should be made up of extruded aluminum.

22.4.3 The scooping blades should be fixed with aluminum frame by interposition of alloy fusions. It should have an integrated handle to select the length of the distal part of the stretcher. The scoop stretcher should be easily foldable in one swift movement.

22.4.4 It should have easy locking and unlocking nylon restraint belts to fix the patient to the stretcher. The fixture should have two points of holding the stretcher but only one point of fastening.

The fastening point should have a locking system operated by single hand with lockable twist with locking arrangement to protect any inadvertent use.

22.4.5 The stretcher must be supplied with an ambulance mount manufactured as an original accessory by the manufacturer to rigidly fix the stretcher in folded condition to the wall of the ambulance in vertical position.

22.4.6 The weight of the stretcher should not be more than 10 Kgs.

22.4.7 The load capacity of the stetcher should be 180±10 Kg.

22.4.8 The physical dimensions of the stretcher should be: Maximum Unfolded Dimension: Length: 220±5 cms., Width: 44±5 cms., Height: 6±0.5 cms. Maximum Folded Dimension: Length: 170±5 cms., Width: 44±5 cms., Height: 6±0.5 cms.

22.4.9 The device must comply with Medical Device Directives (93/42/EEC) having the CE mark along with the four-digit code from the certifying agency.

22.5 EVACUATION CHAIR

22.5.1 Evacuation Chair should be made from aluminum alloy with built-in pull through handles for easy handling.

22.5.2 The chair should have four wheels out of which two should be fixed and two should be pivoting type.

22.5.3 The evacuation chair should be mounted to the rear door (on the co-driver side).

22.5.4 The weight of the stretcher should not be more than 12 Kgs.

22.5.5 The load capacity of the wheel chair should be 150±10 Kg.

22.5.6 The physical dimensions of the wheel chair should be: Height: 90±5 cms., Width: 50±5 cms., Depth: 20±1 cms.

22.5.7 The device must comply with Medical Device Directives (93/42/EEC) having the CE mark along with the four-digit code from the certifying agency.

23 RESUSCITATION & AIRWAY MANAGEMENT EQUIPMENTS

23.1 OXYGEN FLOWMETER

23.1.1 The oxygen flow-meter should be fully compatible to the oxygen terminal outlets. These must be direct mounted and operated by oxygen supply inside the ambulance.

23.1.2 The oxygen outlet should have integrated outlet probes complying with DIN-13260-2 made up of stainless steel and manufactured as an original OE either by the terminal outlet manufacturer or the oxygen flow meter manufacturer. Any other third party manufactured probe won't be accepted.

23.1.3 The flow tube should be calibrated in the range of 0 to 15 litres per minute. The flow tube must be calibrated in dual scale thereby allowing precision settings in low flow ranges as well. The ultra accurate flow tubes must have extra accuracy in low flow ranges there by ensuring high clinical efficiency to the end users.

23.1.4 The tubes should have accuracy not exceeding +/- 0.05 LPM for flow in the range of 1 LPM. The Flow-meter body should be made of high quality chrome plated brass. Both the inner and outer tubes should be made from special clear and impact resistant high-grade polycarbonate.

23.1.5 The float be made up of stainless steel and should rest on chrome plated solid brass, vitone rubber and plastic. The humidifier must ensure moderate relative humidity to the breathing oxygen.

23.1.6 Bubble humidifier with porous diffuser should be designed to increase the humidity level with minimal noise.

23.1.7 The humidifier should be reusable and auto-clavable till 130 degree C and made of Polycarbonate.

23.1.8 The scope of supply should include insufflation kits and nasal prongs.

23.1.9 The body of the flowmeter should have a flow selector switch to bypass the flow of the oxygen through the humidifier and allow nebulization to the patient directly using the flow of the oxygen. Once the process of administering nebulizer is complete the flow selector switch can be set back to standard oxygenation.

23.1.10 The device must comply with Medical Device Directives (93/42/EEC) having the CE mark along with the four-digit code from the certifying agency.

23.1.11 The device must comply to the latest international standard ISO 15002:2008.

23.2 SUCTION ASPIRATOR

23.2.1 An electrically powered portable suction unit of highly rugged and modern design should be provided. It should be very compact, handy and housed in ergonomically designed ABS casing. The unit must have integrated oil free no maintenance piston pump ensuring high level of functionality and dependability as a professional suction unit.

23.2.2 The suction capacity of the pump should be minimum 30 LPM. The on / off switch should be water resistant. The unit should be equipped with a vacuum gauge to show the vacuum level.

23.2.3 The vacuum level should be adjustable from 0 to 630 mm. of Hg by means of a rotary control knob on the front panel of the machine, easily accessible by the Doctor / EMT / Paramedic.

23.2.4 The unit should be supplied with a 1000 ml. polycarbonate collection jar auto-clavable at 121^{o}C with overflow safety valve that, during operation, there by preventing any liquid or secretion from reaching and damaging the vacuum pump.

23.2.5 The device must have integrated built-in lead batteries allowing minimum 1hour autonomous operation. The unit should be able to work on 12V DC and 240V AC.

23.2.6 The total weight of the unit should not be more than 5 Kg. The scope of supply must include bacteria filter and suction hose.

23.2.7 The unit should be supplied with its own wall fixture to rigidly fix the unit to the ambulance wall. The fixture should be manufactured as an original equipment accessory by the manufacturer.

23.2.8 The device must comply with Medical Device Directives (93/42/EEC) having the CE mark along with the four-digit code from the certifying agency.

23.2.9 The device should be certified for application in an ambulance and the ambulance wall mount for the device must be EN1789 compliant.

23.3 INTUBATION KIT

The contents of the kit should include the following:

23.3.1 Laryngoscope Handle (Minimum 28mm. Diameter) - 1No.
Made from Chrome Plated Brass

23.3.2 Stainless Steel Fibre Optic Macintosh Blades (One each of ize: 1, 2, 3 & 4) - 1 Set

23.3.3 The laryngoscope and the blades must comply with Medical Device Directives (93/42/EEC) having the CE mark along with the four-digit code from the certifying agency.

23.3.4 The device as well as the wall mount must be manufactured in an ISO 13485 certified facility.

23.3.5 Guedel airway set (0,1,2,3,4) - 1 No.

23.3.6 Endotracheal Tube set (6,7,8,9) - 1 No.

23.3.7 Adhesive Tape - 1 No.

23.4 EMERGENCY KIT

The contents of the kit should include the following:

23.4.1 Sphygmomanometer with Adult & Paediatric Cuff

23.4.2 Stethoscope

23.4.3 Portable Oxygen Bottle 1L with Pressure Reducer and Connecting Tube

23.4.4 Resuscitator Bag with Mask (1 Adult, 1 Paediatric)

23.4.4.1 Adult Resuscitator with capacity of 1600 ml. & Paediatric Resuscitator with capacity of 500 ml. respectively
23.4.4.2 Should be CE or its equivalent certified
23.4.4.3 Components made from Latex free Silicone material
23.4.4.4 Should be Non-Toxic & Non-Allergic
23.4.4.5 Easy to disassemble/assemble for efficient cleaning
23.4.4.6 Autoclave-able
23.4.4.7 Should have reservoir bag and transparent face mask
23.4.4.8 Should have intake valve with oxygen connector & an additional connector to connect to reservoir bag
23.4.4.9 Should also be decontaminated by ETO sterilization or cold sterilization
23.4.4.10 Should have transparent, low resistance, non-rebreathing valve without any forward or backward leaks**.**
23.4.4.11 Should have pressure relief device
23.4.4.12 Should have a standard 15mm. / 22mm. (ID/OD) at the patient end which connects to all standard masks & 15mm E/T Tube connectors
23.4.4.13 Should have quick and uniform bag re-expansion
23.4.4.14 Should allow use in spontaneously breathing patients
23.4.4.15 Should allow effective IPPV

23.4.5 Portable Manual Suction Device

23.4.5.1 Should be independent of any power source and should be able to develop 500mm. of Hg of vacuum and 25 LPM of suction flow rate.
23.4.5.2 Should be simple to operate by foot, hand or knee to clear patients' airways safely and efficiently, anytime, anywhere.
23.4.5.3 All components should be easily accessible and should be remove-able, for cleaning and replacing.
23.4.5.4 Should be completely autoclave-able
23.4.5.5 The device should be complete with aspiration pump, suction vessel and over spill protection
23.4.5.6 Physical Dimensions should not exceed: Length: 220±5 mm., Width: 170±5 mm., Height: 110±5 mm.
23.4.5.7 The weight should not exceed 1.5±0.1 kg.

23.4.6 Magill Forceps

23.4.7 Universal scissor

23.4.8 Non-rebreathing Mask - Adult & Paediatric (1 Each)

23.4.8.1 Low Resistance Check valve to prevent the re-breathing through the mask
23.4.8.2 Should be CE or its equivalent certified
23.4.8.3 Should Allow exhaled gases to escape

23.4.8.4 Latex Free , Odorless, Transparent Vinyl
23.4.8.5 Adjustable elastic band
23.4.8.6 With 1.5 Lt Reservoir bag
23.4.8.7 Tubing : 7 ft length

23.4.9 Tongue forceps

23.4.10 Tourniquet

23.4.11 Plastic penlight

23.4.12 Digital Thermometer

23.4.13 Tongue Depressor

24 CARDIAC DEFIBRILLATOR CUM PATIENT MONITOR

24.1 The device should be a combined device with:

24.1.1 Therapy Unit for Defibrillation and Non-invasive Pacing
24.1.2 Monitor Unit for ECG, SpO_2, Non-invasive Blood Pressure and CO_2

24.2 The device must be supplied with its ambulance wall mount as an original accessory manufactured and certified by the manufacturer.

24.3 The ambulance mount should have built-in charger to automatically charge the internal battery of the device when the device in mounted on it.

24.4 It should be portable and lightweight - Weight should not exceed 8 (with battery)

24.5 The device with the ambulance mount and all the accessories must comply with Medical Device Directives (93/42/EEC) having the CE mark along with the four-digit code from the certifying agency.

24.6 The device with the ambulance mount must comply with EN 1789 standards.

24.7 The device must be certified against Environmental Conditions, Operational Shocks, Crash Safety Category as per RTCA/DO-160F Standard.

24.8 It should have a minimum 8 inch diagonal colour monitor with bright displays visible from any angle and in most lighting conditions.

24.9 The monitor should be able to display at least up to 6 traces simultaneously.

24.10 The device should also be certified as minimum IP X4 for waterproof & IP 5X for dust proof as per IEC 60529.

24.11 E.C.G

24.11.1 E.C.G. pick up from paddles, pads and leads
24.11.2 Multiple lead ECG monitoring
24.11.3 Facility of 12-lead ECG
24.11.4 Facility for arrhythmia detection of at least the peri-arrest rhythm disturbances
24.11.5 ST segment analysis
24.11.6 Generates audio-visual alarms for arrhythmia and set parameter
24.11.7 Lead off detection

24.12 Defibrillator

24.12.1 Should be both Manual and AED
24.12.2 Changeover from AED to manual by switching the knob or pressing the button
24.12.3 Biphasic wave form with full impedance compensation
24.12.4 Should be able to Defibrillate using either paddles or pads
24.12.5 Selection level of energy from minimum 2 joule up to 200 Joules
24.12.6 Energy selection and Charging possible from the front panel of the device and from the paddles
24.12.7 Should be able to charge to its highest energy level in less than 10 seconds.
24.12.8 User friendly method of delivering shock Specified buttons on the equipment with clear indications of steps of defibrillation
24.12.9 Should have capability to assess paddle-to-patient contact and to make compensation to the selected deliverable shock
24.12.10 On synchronized mode "SYNC" message should be flashed on the screen

24.13 AED Mode

24.13.1 Usable for 8 years to adult age group
24.13.2 Energy Output: Biphasic with energy output conforming to the latest international guidelines
24.13.3 Charge Time less than 10 seconds
24.13.4 Analysis Time less than 15 seconds
24.13.5 Loud and clear Audible Prompts **to** guide through the steps of CPR as well
24.13.6 Clearly visible Visual Prompts
24.13.7 Easy to understand and operate controls
24.13.8 Low Battery Indicator
24.13.9 Battery Capacity: At least 100 discharges for use in adults

24.14 Transcutaneous (Non-invasive) Pacing

24.14.1 Demand and Fixed modes
24.14.2 Adjustable rate and output (mA)

24.15 Pulse Oximetery

24.15.1 Should have separate displays for SpO_2, Pulse rate and Plethysmographic waveform

24.15.2 Should have bar graph displays for Pulse Amplitude and Perfusion quality indication

24.15.3 Should have a variable audible tone that varies in pitch with rise and fall of oxygen saturation

24.15.4 Should have on screen display of SpO_2 and Pulse Alarm limits readings

24.15.5 Should have audible & visual alarm for low/high pulse rate and saturation

24.15.6 Functioning and accuracy should be Low perfusion tolerant

24.15.7 Sensor Probe should be reusable

24.15.8 User selectable alarm limits

24.16 Non Invasive Blood Pressure

24.16.1 Display of systolic, diastolic and mean arterial pressures

24.16.2 Capable of making continuous, manual and interval measurements

24.16.3 Alarm Limits: Selectable alarm limits.

24.17 Battery

24.17.1 Rechargeable

24.17.2 Capable of minimum 4 hours of monitoring and giving up to minimum 100 energy shocks at the highest level.

24.17.3 Low battery and charging indicator should be there.

24.17.4 Should be capable of delivering DC shock with AC plugged in even if battery is fully discharged.

24.18 Printer

24.18.1 Minimum 100mm. wide integrated strip chart printer.

24.18.2 Prints the primary ECG lead with event annotations and event summary reports, including ECG rhythm strips and 12-lead ECG reports.

24.18.3 Should print measurements in real-time.

24.19 Communication

24.19.1 Upgradable to have the facility for Wireless data transfer via integrated GSM modem to computer and central console / receiving hospital.

25 TRANSPORT VENTILATOR

25.1 Time-cycled, volume controlled and pressure limited emergency ventilator for the controlled ventilation of patients.

25.2 Compact dimension of the ventilator should not exceed 225x100x225 mm. (WxHxD) and the weight not exceeding 3.2 Kg. maximum.

25.3 The ventilator must have integrated handle for lifting and carrying by hands as well as quick latching to all common rail and pole profiles.

25.4 Ventilation Mode: IPPV / CMV

25.5 Ventilation Frequency: 4 to 54 per minute

25.6 Minute Volume: 3 to 20 LPM

25.7 I:E Ratio: 1:1.5 Fixed. Maximum

25.8 Airway pressure: 25 to 60 mbar

25.9 Oxygen Concentration: Approx 60% in Air Mix and 100% in No Air Mix Modes.

25.10 Gas consumption of control: Not exceeding 1 LPM

25.11 Pressure Gauge Display: -10 to 80 mbar.

25.12 Both audible and visual alarms for Supply Pressure Low, Airway Pressure High and Airway Pressure Low.

25.13 The device should be supplied with the ambulance mount complying to the same standard as the ventilator as well as manufactured as an OE by the manufacturer not any retrofit item from any other sources.

25.14 The device with the ambulance mount and all the accessories must comply with Medical Device Directives (93/42/EEC) having the CE mark along with the four-digit code from the certifying agency.

25.15 The ventilator must be vibration tested and certified as per MIL STD 810 F standard.

25.16 The device must comply with EN 1789 standards.

26 SYRINGE INFUSION PUMP

26.1 The device should have continuous mode operation.

26.2 It should have programmable flow rate from 0.1 to 500 ml/hr.

26.3 It should be able to work with standard disposable syringes of varied makes and models.

26.4 There should be selectable occlusion pressure trigger level from 100 mm hg to 900 mm Hg to allow user a range of application.

26.5 The device should have a comprehensive alarm package including alarm pressure, pre alarm, end of infusion, low battery, near empty alarm, syringe disengaged alarm etc.

26.6 The device must comply with Medical Device Directives (93/42/EEC) having the CE mark along with the four-digit code from the certifying agency.

27 STANDARD MANDATORY MISCELLANEOUS EQUIPMENT

Each ambulance shall be equipped with, but not limited to the following:

27.1 Fire extinguishers: Two, (ABC dry chemical or carbon dioxide) minimum 1Kg. unit, in a quick release bracket, one mounted in the driver/cab compartment or in the body reachable from outside the vehicle and one in the patient compartment.

27.2 "No Smoking", " Oxygen Equipped" and "Fasten Seat Belts" signs: Conspicuously placed in the cab and patient compartment.

28 PORTABLE AND TRANSPORT REFRIGERATOR

The device should have active temperature regulation through compressor driven technology ensuring active temperature control independent of ambient temperature and with following features:

28.1 Capacity: Minimum 10L
28.2 Input Voltage: 12V DC
28.3 Power Consumption: Not exceeding 30W
28.4 Temperature Range: $+10^{o}$C to -18^{o}C, continuously variable through electronic thermostat
28.5 Temperature Display: Integrated Digital Display on the device
28.6 Interior Lighting inside the refrigerator chamber: Integrated LED
28.7 Compliance: CE, e-approval to 2006/28/EC (Automotive EMC Directive)

29 Rescue Tools:

29.1 12" Wrench Adjustable, Open-end
29.2 12" Screw Driver Standard Square Bar
29.3 8" Screw Driver Philips Head #2
29.4 Hacksaw with 12" Carbide Wire Blade
29.5 Vice Grip Pliers 10"
29.6 5 Ib Hammer with 15" Handle
29.7 Fire Axe But, 24" Handle
29.8 Wrecking Bar with 24" Handle
29.9 51" Crowbar Pinch Point
29.10 Bolt Cutter with 1" tip 1-1/4" jaw opening
29.11 Folding Shovel Pointed Blade
29.12 Tin Snips, Double Action 8" minimum
29.13 Gauntlets, Reinforced Leather covering past mind forearm: One pair
29.14 Rescue Blanket
29.15 Ropes 5400 Ibs Tensile Strength in 50' length in protective bags
29.16 Mastic Knife (able to cut seat belt webbings)
29.17 Spring Load centre punch
29.18 Pruning Saw
29.19 Heavy Duty 2"x4" and 4"x4" shoring cribbing blocks, various lengths.

ANNEXURE - B

SCHEDULE OF DOCUMENTS ATTACHED

Sr. No.	Document/Certificate	Uploaded & Enclosed
A.	**General Documents :**	
01.	PAN No.	Yes / No
02.	GST Registration No.	Yes / No
03.	Capacity and Quality Certificate	Yes / No
04.	Manufacturing License Copy	Yes / No
05.	Turnover Certificate of Chartered Accountants for last Two Years/ IT Returns	Yes / No
06.	Verification, Undertaking, Checklist and Documents as per Annexure - A.	Yes / No
07.	Scan copy of Terms and Conditions of the Tender Documents duly Stamped and Signed on each page.	Yes / No
08.	Scan copy of Scope of Work correctly filled with Stamped and Signed on each page.	Yes / No
09.	Affidavit Notorised on Stamp paper - As per clause mentioned at Conditions of Contract - Acceptance of Tender at point - (M)	Yes / No
B.	**Desirables :**	
01.	Original Product Literature of each quoted product.	Yes / No
02.	List of Installations / Users / Customers with Phone Numbers.	Yes / No
03.	Compliance Statement as per format on Annexure - C.	Yes / No
04.	Scan copy of Annexure - B of the Tender Documents duly Stamped and Signed.	Yes / No

It is verified that all the certificates/permissions/documents are valid and current as on date and have not been withdrawn/cancelled by the issuing authority. It is further verified that the represents at Sr.No. A-6, A-9 & B-3 declaration part are as per the format prescribed by the Administration and it is clearly and distinctly understood by me/us that the tender is liable to be rejected if on scrutiny and of these certificates is found to be not as per the prescribed format of Administration.

I/We further undertake to produce on demand the original certificate/ permission/ document for verification at any stage during the processing of the tender.

Date:

Place:

Sign & Stamp of tenderer.

ANNEXURE - C

Item Name: _____

Model Quoted: _____

Make: _____

Sr. No.	Specification asked in tender	Specification offered in quoted model	Remarks of deviation

The format should be used separately for each quoted item.

Date:

Place:

Sign & Stamp of tenderer

- **AMC / CMC Details:**

1. The Warranty/Guarantee for one year and free service clause to be clearly mentioned by the Manufacturer on their letter head. If the Authorized dealer is going to carry out the service then they have to furnish the authority letter given by the manufacturer to sale/service the specified product in this Territory.

2. Rates for ***AMC / CMC Maintenance Contract of the Vehicle*** for Seven Year should be mentioned separately in the Financial Bid. It should be clearly mentioned whether AMC / CMC will be done through company itself or its service franchise/dealers. In that case Manufacturing Company must give authority letter to such franchise/dealers on their letter head clearly mentioning free service period and AMC / CMC for period of Seven Years.

Type of AMC / CMC	**AMC Rate (excluding taxes)**	**CMC Rate (excluding taxes)**	**Executed by (manufacturers/authorized service dealers) Name and address to be specified here**
1st Year (after one year warranty)			
2nd Year			
3rd Year			
4th year			
5th Year			
6th Year			
7th year			

Note:

1. Quoted AMC / CMC price not more than 10% cost of the system, otherwise offer will be outrightly rejected. The rates of AMC / CMC price should be quoted in Indian Rupees only.

2. The Rates quoted should be excluding taxes. Taxes shall be applicable extra as prevalent in the respective Year.

3. AMC / CMC Rate should be on Manufacturers / Authorized Dealer Letter Head and not on Bidders Letter Head.

SCOPE OF WORK:

Schedule of Requirements, Specifications and Allied Technical Details :

Purchase of Cardiac Care Ambulance for the Year 2019 Under Directorate of Medical & Health Services Daman & Diu.

Sr. No.	Description	Qty. Reqd.	Offered Company	Specification	Make / Model	Compliance Yes/No
A.	**Base Vehicle :**			As per Annexure - A		
1.	Base Vehicle	02	Standard Company			
B.	**Fabrication as per Cardiac Ambulance :**					
1.	ABS Fabrication	02	Standard Company			
C.	**Medical Equipments :**					
1.	Roll-in Patient Stretcher cum trolley	02	Kartsana/ Spencer/ Jay Bhavani or "Equivalent"			
2.	Universal Head Immobilizer	02	Everise/ Spencer/ Jay bhavani or "Equivalent"			
3.	Spine Board	02	Everise/ Spencer/ Jay bhavani or "Equivalent"			
4.	Scoop Stretcher	02	Everise/ Spencer/ Jay bhavani or "Equivalent"			
5.	Evacuation Chair	02	Kartsana/ Spencer/ Jay Bhavani or "Equivalent"			
6.	Oxygen Cylinder	04	Standard Company			
7.	Oxygen Flowmeter	02	Hersill/ Draeger/ Airiquide or "Equivalent"			
8.	Suction Aspirator	02	Hersill/ Jay Bhavani/ Janak or "Equivalent"			
9.	Intubation Kit	02	Aeon Medical/ Portex/ Teleflex or "Equivalent"			
10.	Emergency Kit	02	Aeon Medical/ Portex/ Teleflex or "Equivalent"			

Sr. No.	Description	Qty. Reqd.	Offered Company	Specification	Make / Model	Compliance Yes/No
11.	Cardiac Defibrillator cum Patient Monitor	02	GS Germany/ Phillips/ Draeger or "Equivalent"			
12.	Transport Ventilator	02	Draeger/ Phillips/ Wienman or "Equivalent"			
13.	Syringe Infusion Pump	02	Fresinius/ B.Braun/ Phillips "Equivalent"			
14.	Refrigerator	02	Dometic /GE/ Samsung/ LG/ Philips/ Videocon/ Panasonic/ Kelvinator/ Voltas or "Equivalent"			
15.	Rescue Tools (1 Set)	02	Standard Company			

Sd/-

Director
Medical & Health Services
Daman & Diu
"Tel.No.0260-2230570