

### Bid Document

Bid Details	
Bid End Date/Time	20-07-2020 19:00:00
Bid Opening Date/Time	20-07-2020 19:30:00
Bid Life Cycle (From Publish Date)	90 (Days)
Bid Offer Validity (From End Date)	30 (Days)
Ministry/State Name	Ministry Of Railways
Department Name	Na
Organisation Name	N/a
Office Name	Eastern Railway
Total Quantity	2
Item Category	ICU Ventilator
MSE Exemption for Years of Experience and Turnover	No
Startup Exemption for Years of Experience and Turnover	No
Document required from seller	OEM Authorization Certificate *In case any bidder is seeking exemption from Experience / Turnover Criteria, the supporting documents to prove his eligibility for exemption must be uploaded for evaluation by the buyer
Bid to RA enabled	No
Inspection Required	No

### EMD Detail

Required	No
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### ePBG Detail

Required	No
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### Splitting

Bid splitting not applied.

## ICU Ventilator ( 2 pieces )

### Technical Specifications

[\\* As per GeM Category Specification](#)

Specification	Specification Name	Values	Bid Requirement (Allowed Values)
Standards	Certifications for the product	-	*
	Certification number and date	-	*
	Confirmity to quality management standards	ISO 9001 & ISO 13485	*
	Confirmity to electrical safety standards	IEC 60601-1 or ISO 80601-2-12 or BIS equivalent	*
Performance Parameters	UMDNS Code	17-429	*
	Scope of item	Intensive care ventilators are defined as mechanical ventilators that can be configured to provide invasive ventilation (e.g., with an endotracheal tube or tracheostomy tube) or noninvasive ventilation (eg, with a face mask)	*
	Clinical application	Mechanical ventilators are life support devices that move gas (e.g., air and/or oxygen) to and from a patient's lungs. These devices may provide temporary or permanent respiration for patients who cannot breathe on their own, or who require assistance maintaining adequate ventilation	*
	<b>Patient Type</b>	Adult & pediatric	Adult & pediatric
	<b>Type of technology</b>	Turbine	Turbine
	<b>Tidal volume in ml</b>	50 ml or less - 1500 ml or more	50 ml or less - 1500 ml or more
	<b>Respiration rate, breaths/min</b>	up to 80 or more	up to 80 or more
	<b>Trigger mechanism</b>	Pressure /flow	Pressure /flow

	FiO2%	21-100	*
	<b>Inspiratory flow rate, L/min</b>	up to 150 or more	up to 150 or more
	<b>Inspiratory pressure, cm H2O</b>	upto 80 or more	upto 80 or more
	<b>IE ratio</b>	1:10 to 4:1	1:10 to 4:1
	<b>Sigh breath function</b>	Yes	Yes
	PEEP/CPAP, cm H2O	upto 40 or more	*
	Pressure support, cm H2O	0-40 or more	*
	Leak compensation	Yes	*
	Auto 100%/Increase O2 button	Yes	*
	<b>Control panel lock</b>	Yes	Yes
	<b>Facility for double lung ventilation</b>	Yes	Yes
Patient Assessment Tools	Maximum wave forms displayed	3 (Pressure and time, volume and time , flow and time)	*
	<b>Number of loops</b>	2 loops (P-V, F-V) with facility of saving of 2 Loops for reference	2 loops (P-V, F-V) with facility of saving of 2 Loops for reference
	Maximum trending time in hrs	≥24 hr	*
	<b>Lung recruitment tools (PV loops) / OLT (Open lung tools)</b>	No	No
	<b>Lung mechanics visualization tool</b>	No	No
	<b>Capnography/CO2 monitoring</b>	No	No
	<b>Esophageal / transpulmonary pressure monitoring</b>	No	No
	<b>Stress index</b>	No	No
	Modes of ventilation	Volume controlled, Pressure Controlled, Pressure Support, SIMV with Pressure support ,SIMV with volume control with pressure support, ,CPAP/PEEP,Inverse Ratio Ventilation,Non invasive ventilation,Apnea /back	*

	up ventilation, SIMV (VC) with Pressure support; SIMV (PC) with Pressure Support; SIMV (PRVC) with Pressure Support	
<b>ASV(Adaptive support ventilation) or ALT</b>	No	No
<b>APRV/Bivent/Bi level</b>	Yes	Yes
<b>MMV +PSV /ASV or ALPV or Automode</b>	No	No
<b>PRVC/Auto flow</b>	Yes	Yes
<b>High flow oxygen therapy</b>	No	No
<b>Automatic weaning system provided</b>	No	No
<b>Volume Support</b>	No	No
Ventilation monitoring facility	The Ventilator is a Microprocessor Controlled ventilator with integrated facility for Ventilation monitoring	*
Monitored / Displayed parameters	Peak inspiratory pressure , Mean airway pressure, PEEP pressure, Tidal volume, Minute volume, Spontaneous minute volume, FiO2 (analyzed %), Respiratory rate , Inspiratory time, Expiratory time, IE ratio, Plateau Pressure	*
Availability of Status indicator for Ventilator mode, Battery life, patient data, alarm settings, clock etc on display	Yes	*
Patient alarms	Low/high FiO2, Low/high minute volume , Low inspiratory pressure , High pressure, Low PEEP , High PEEP , Apnea, Continuous high pressure/occlusion, Inverse IE, High respiratory rate, Breathing circuit	*

	disconnect	
Equipment alarms	Gas-supply failure , Power failure, Vent inoperative, Low battery, Self-diagnostic	*
<b>Non-forced Slow Vital Capacity</b>	No	No
<b>Physiologic Dead space</b>	No	No
<b>RSBI</b>	Yes	Yes
<b>Imposed work of Breathing ( WOB<sub>i</sub>)</b>	No	No
<b>Expiratory Time constant ( T<sub>cexp</sub>)</b>	No	No
<b>Compliance static and dynamic</b>	No	No
<b>Inspired and expired resistance</b>	No	No
<b>Occlusion pressure</b>	No	No
<b>Inspiratory and expiratory hold</b>	Yes	Yes
<b>Spontaneous frequency</b>	Yes	Yes
<b>Total peep, intrinsic peep, extrinsic peep</b>	Yes	Yes
<b>Expiratory block is autoclavable and no routine calibration required</b>	Yes	Yes
<b>Auto compensation for ET Tube</b>	No	No
<b>Facility for automatic compliance &amp; Leakage compensation for circuit available</b>	Yes	Yes
<b>RS 232 out put port</b>	Yes	Yes
<b>USB/Memory card</b>	No	No
Availability of Remote alarm/display port	Yes	*
Facility to Report (vent alarms and patient status)	Yes	*
<b>HLT Compliant out put</b>	Yes	Yes

<b>Type of coloured display</b>	TFT	TFT
<b>Display should be touch screen</b>	Yes	Yes
<b>NIV (Non Invasive Ventilation) to be possible in all modes of ventilation available</b>	Yes	Yes
<b>Size of display (in inches)</b>	12	12
<b>Graphic display have automatic scaling facility for waves</b>	Yes	Yes
Power supply	220-240 V , 50 Hz AC single phase	*
<b>Provision of UPS</b>	No	No
<b>Backup time in hrs</b>	NA if not provided	NA if not provided
Internal backup battery	Yes	*
Backup time for internal battery in mins	45 mins or more	*
<b>Built in air source</b>	Turbine (In built)	Turbine (In built)
<b>Availability of stand alone compressor</b>	No	No
<b>Compressor certification</b>	Both European CE and US FDA	Both European CE and US FDA
<b>Compressor shall provide an oil free Medical air, with Peak output flow should be minimum 150 LPM and Air quality complying with ISO compressed air purity class</b>	NA (for turbine)	NA (for turbine)
Medical Air Compressor should automatically activate in the event of wall air supply loss and replacement of internal filters should be performed without removing the compressor, have washable air filter	NA (for turbine)	*
<b>Seller shall ensure compatibility of compressor with ventilator</b>	NA for Turbine	NA for Turbine

	<b>Inbuilt nebulizer with particle size less than 3 micron</b>	No	No
	<b>Comprehensive Warranty in years</b>	5	5
Additional Accessories	Reusable silicon breathing circuits for Adult, pediatric and Neonatal	2 each	*
	NV mask(Reusable)-Small, medium and large	2 Each	*
	Length of Power cord in m	>3 m	*
	<b>Type of flow sensor</b>	Reusable	Reusable
	No of reusable flow sensor	2 no.	*
	<b>No of disposable flow sensor</b>	NA	NA
	Autoclavable exhalation valve/expiratory cassette / filter	NA for flow Sensor	*
	<b>Humidifier: Servo controlled with digital monitoring of inspired gas temperature with heating wire</b>	NA	NA
Miscellaneous Parameters	Trolley for ventilator with circuit holding arm	Yes	*
	Number of installations in Central /State/PSU Govt Hospitals ( Hint: Seller should supply a performance certificate of the device to the buyer incase demanded after placement of order)	>3	*
	OEM/Reseller (if supplied by reseller shall ensure uninterrupted availability of all spares for 10 years)	Yes	*
	Availability of toll free facility for technical support maintained by OEM or authorized	Yes	*

agencies		
During the warranty period it shall be ensured that all the break down calls are attended with in 24 hrs and the complete details of service agents / contact details should be furnished to buyer and consignee at time of supplies	Yes	*
User/Technical/Maintenance manuals to be supplied in English in hard and soft copy	Yes	*
Details of equipments and procedures required for local calibration and routine maintenance to be supplied and advanced maintenance task documentation also to be furnished	Yes	*
List of important spares and accessories, with their part numbers and price lists to be supplied to the buyer at the time of supplying the equipment	Yes	*
Demonstration of equipment and training to be provided after completing supplies before acceptance	Yes	*
The Principal Manufacturer must have direct Presence/approved service center In India	Yes	*
Copies of reports and certifications to be furnished to buyer on demand at time of supplies	Yes	*

\* Specifications highlighted in bold are the Golden Parameters.

\* Bidders may note that In respect of non-golden Parameters, the specifications 'Values' chosen by Buyer will generally be preferred over 'Bid requirement ( allowed Values) by the Buyer.

#### **Additional Specification Documents**



**Consignees/Reporting Officer and Quantity**

S.No.	Consignee/Reporting Officer	Address	Quantity	Delivery Days
1	Himangshu Mondal	811214,EASTERN RAILWAY MAIN HOSPITAL,JAMALPUR, DISTT- MUNGER (BIHAR) PIN 811214	2	30

**Special terms and conditions for category ICU Ventilator**

1. Comprehensive warranty Comprehensive warranty shall include preventive maintenance including calibration as per technical/ service /operational manual of the manufacturer, service charges and spares,. During the warranty period commencing from date of the successful completion of warranty period, Service personnel shall visit each consignee site as recommended in the manufacturer's technical/ service /operational manual, at least once in six months. warranty shall not be including the consumables .Further there will be 98% uptime warranty during warranty period on 24 (hrs) X 7 (days) X 365 (days) basis, with penalty, to extend warranty period by double the downtime period.Service centresDetails of Service outlets in India to render services for equipment to be furnished to buyer/consignees with complete address ,telephone numbers, e mails etc at time of making the supplies .It shall be the responsibility of seller to ensure that authorized service centres are available to cater to the areas where supplies are made within reasonable distance from where the service calls can be handled .Details of toll free numbers for service call and online registration of service requests also to be provided buyer/consignee at the time of supplies.Source of supplyIt shall be responsibility of seller to provide Documents regarding source of equipments such as copy of Performa invoice or any other documents to establish that the products supplied are manufactured by OEM indicated and sourced from them.Packing and MarkingMedical equipments being very delicate and sensitive packing for the goods should be strong and durable enough to withstand transit including transshipment (if any), rough handling, open storage etc. without any damage, deterioration etc. .The size, weights and volumes of the packing cases, remoteness of the final destination of the goods, availability or otherwise of transport and handling facilities at all points during transit up to final destination,. Quality of packing, the manner of marking within & outside the packages and provision of accompanying documentation shall take in to consideration the type of medical equipments being supplied. The accessories shall be suitably labelled and packed .Each of the package shall be marked on three sides with indelible paint of proper quality: indicating contract number and date , brief description of goods including quantity ,. Packing list reference number , country of origin of goods and any other relevant details.Spare PartsSeller shall provide materials, information etc. pertaining to spare parts manufactured and supplied by the OEM . It shall be ensured that the required spares are available for purchase at least for 10 years from date of supplies .In case due to any reasons the production of the spare parts is discontinued sufficient advance notice should be given to the buyer/consignee before such discontinuation to provide adequate time to purchase the required spare parts etc. Further, OEM and their service centres/dealers shall carry sufficient inventories to assure ex-stock supply of consumables and spares for the equipments so that the same are available.OEM or reseller shall always accord most favoured client status to the buyer/consignee and shall give the most competitive price for spares and consumables of its machines/equipments supplied.Installation, Training, ManualsSeller shall be responsible to carry out Installation & commissioning, Supervision and Demonstration of the goods. They shall provide required jigs and tools for assembly, minor civil works for the completion of the installation and Training of Consignee's representatives for operating and maintaining the equipment and Supplying required number of operation & maintenance manual for the goods. In case the category parameters are specifying any requirements

regarding the installations , training and manuals the same shall also be applicable. Electrical safety checking Sellers are required to make sure that they furnish the list of equipments for carrying out routine and preventive maintenance to buyer/consignee. They should make sure to periodically check the electrical safety aspects as per BIS Safety Standards or equivalent .In case they do not have required equipment for such testing should ensure that the equipments checked for electrical safety compliance through labs with facilities for such checking during every preventive maintenance call. Software All software updates should be provided free of cost during warranty period.

## **Bid Specific Additional Terms and Conditions**

1. Scope of supply (Bid price to include all cost components) : Supply Installation Testing Commissioning of Goods and Training of operators and providing Statutory Clearances required (if any)
2. **Nominated Inspection Agency:** On behalf of the Buyer organization, any one of the following Inspection Agency would be conducting inspection of stores before acceptance: Pre-dispatch Inspection at Seller Premises (applicable only if pre-dispatch inspection clause has been selected in ATC): Inspection By RITES against MTC and MGC. Post Receipt Inspection at consignee site before acceptance of stores: Consignee
3. Pre-dispatch inspection at Seller premises (Fee/Charges to be borne by the BUYER): Before dispatch, the goods will be inspected by Buyer / Consignee or their Authorized Representative or by Nominated External Inspection Agency (independently or jointly with Buyer or Consignee as decided by the Buyer) at Seller premises (or at designated place for inspection as declared / communicated by the seller) for their compliance to the contract specifications. Fee/Charges taken by the External inspection Agency and any external laboratories testing charges shall be borne by the Buyer. For in-house testing, the Sellers will provide necessary facilities free of cost. Seller shall notify the Buyer through e-mail about readiness of goods for pre-dispatch inspection and Buyer will notify the Seller about the Authorized Representative/ Nominated External Inspection Agency and the date for testing. The goods would be dispatched to consignee only after clearance in pre-dispatch inspection. Consignee's right of rejection as per GTC in respect of the goods finally received at his location shall in no way be limited or waived by reason of the goods having previously been inspected, tested and passed by Buyer/ Consignee or its Nominated External Inspection Agency prior to the goods' shipment. While bidding, the sellers should take into account 7 days for inspection from the date of email offering the goods for inspection. Any delay in inspection beyond 7 days shall be on the part of the buyer and shall be regularised without Liquidated Damages.

[This Bid is also governed by the General Terms and Conditions](#)

**---Thank You---**