

REQUEST FOR BUDGETARY ESTIMATE

Ref.: HSCC/SIC/HDU/ICU BED & Air Mattress/2023, Date: 20/10/2023

HSCC (India) Ltd. intends to invite on-line bids from eligible bidders, in single stage two bid system for Supply, Installation testing and commissioning of HDU/ICU BED & Air Mattress for Expansion of SIC, Safdarjung Hospital, New Delhi.

Technical Specifications and BOQ of proposed Hospital Furniture items are annexed herewith. It is requested to submit the Budgetary Quotation of the Hospital Furniture items in Company Letter Head, as per the BOQ format enclosed, in both Hard & Soft Copy within 5 days of issue of this Notice at following address:

General Manager (Procurement)

Furniture Department

HSCC (India) Ltd.,

E-6(A), Sector-1,

Noida (U.P.) - 201301.

Soft copy may please be sent to: pk_bhatia@hsccltd.co.in, l_singh@hsccltd.co.in

General Manager (Proc),

HSCC (India) Ltd.

Technical Specification

1. Hospital ICU/HDU Bed.



USE: The bed is used for critical/high dependent care of patient in ICU/HDU/Postoperative ward. They are used in intensive care unit for comfort of patient avoiding complications related to prolonged recumbent positions. They also facilitate comfortable transfer to and from emergency/OT/Ward etc. and also aid in carrying point of care process.

BED FRAME:

- i. Bed frame should be made of medical grade mild steel square /rectangular pipes of adequate cross section and thickness to provide high structural strength and stability and should be epoxy coating.
- ii. Bed should make of high quality metal of 16G (ERW) or better. Both ICU bed frame and top should be rustproof. Should have facility of easily cleaning /maintenance of ICU bed.
- iii. All the MS parts should be pre-treated/shot blasted/ dip tank and powder coated with antimicrobial and thermosetting epoxy polyester (50-60 micron or better for medical ICU beds) to control the bacterial growth. It should have good finish, rust & corrosion proof; pre treatment process should remove impurities for a long lasting life (of at least 10years) scratch resistant and bacteriostatic coating.
- iv. The powder coating on the bed frame should be compliant ROHS-lead free specifications (with test report or IEC 62321 or better).
- v. The bed top/back rest should be X-ray Lucent made of 6mm thick (or better for medical beds) compact laminate with X ray cassette hold mechanism The facility should allow to insert X-ray cassettes from either sides and both ends.
- vi. Bed should have 4 nos. of bumpers given at the four corners with excellent shock absorbing property to safeguard against patient collision injury.
- vii. Bed should be provided with telescopic infusion pole (4 nos.) with SS 304 made (or better for medical beds) chromium plated, in each corner of bed with 2 hooks and 2 With 4 hooks infusion pole should have broad base for mounting.

viii. Bed should have adequate sets of steps less DC actuator (electro-mechanical) for elevations of backrest, knee gatch and bed high-low functions/various patient positioning, they should be built of latest IP (54 or better) rating.

ix. Bed should be fully automatic with remote control, and back rest up down, knee rest up down, trendelenburg and reverse trendelenburg, hi-low position can be controlled through noiseless electro-mechanical actuators operated by soft touch control panel.

x. should be supplied with 1 no of air mattress and pump & 1 no of foam mattress.

MATTRESS PLATFORM:-

- i. Blow moulded ABS plastic four sectional fully removable mattress platforms.
- ii. Fully articulated mattress support platform with independent back and knee movement, up/down adjustments, trendelenburg and reverse trendelenburg positioning.
- iii. Should be sturdy/resilient all flat avoiding any slash, air permeable rust less and washable for easy cleaning.
- iv. Safe working load of mattress support platform should be at least 200 kg or more.
- v. Stopper or mattress non slipping mechanism at corner to avoid mattress slip.
- vi. Length of Mattress support platform support at least 1900 mm.
- vii. Width of Mattress support platform support at least 900 mm.
- viii. Overall length 220-230 cm and width 100-110 cm or conforming to above parameters.

HEAD AND FOOT BOARD

i. Head & foot end panels Should be D/B -type shapes with Blow moulded ABS (acrylonitrile-butadiene styrene) plastic with antibacterial additive & should be easily removable. It should be curved & free from sharp corners. The board locking device should allow for easy unrestricted shifting of patient in emergency and locking mechanism and should be sturdy enough to avoid any shaking or loosening of boards when in place.

SIDE board/panel

- i. Bed should have four blow moulded ABS plastic entrapment free split side boards/panel with patient remotes on inner side of head end side board/ panel, attendant remotes on outer side of head end side board/panel and nursing remotes on outer Sides of foot end side boards/panel.
- ii. Should be split type, 4 Nos. articulating side board/panel.
- iii. Should have a moulded operating drop down mechanism for safe operation and avoid hurt to patient and user/operator.

- iv. Side board/panel work with safe drop-down mechanism and completely collapsible to be stored under the mattress support platform to maintain zero transfer gaps for shifting of patient from bed to bed/trolley.
- v. They may be 4 sections and of robust/resilient material and gap between back and foot section side panel/board should be less to avoid patient entrapment when they are raised.
- vi. The central control breaking lever should be at rear end of the bed for ease of operation
- vii. Should be powered by both power and built-in rechargeable battery with LED indicator.
- viii. The height of side panel/board from sleeping deck without mattress should 350mm or better.
- ix. Provision for hanging urine-bag and drains (4 on either side) and for patient restraints.

POWERED MOVEMENTS

- i. Motorised retracting and elevating backrest movement of 60 degree or more with angle indicator.
- ii. Motorised retracting and elevating thigh section movement of 20 degree or more with angle indicator with knee gatch of 0 -40 degree(+/-2 degree) Or better
- iii. Motorized cardiac and beach chair position.
- iv. Motorised height adjustment from 375+/-25 mm to 775+/-25mm.
- v. Motorised reverse trendlenburg & trendlenburg from 0 degree to + 12 degree or more.

Angle indicator for backrest, thigh and tilt angles.

Integrated weighing scale preferred.

Weight zeroing facility to initialize bed and add-on accessory's weight before placing patient on the bed.

Must have a load bearing capacity or safe working load of more than 200 kg.

Function lockout switches on nursing remote.

SAFETY AND ELECTRIC CONTROL SYSTEM

- i. Actuator controller: should be powered both by power and built-in rechargeable battery with LED indicator.
- ii. Bed should have adequate sets of steps less DC actuator of latest technology for elevations of backrest, knee gatch and bed high-low functions should be built of latest IP (54 or better) rating.

BATTERY:

- i. Low voltage and overload charging protection.
- ii. In standby mode (powered by back up battery without the mains supply) bed operation can last at least 2 days.
- iii. In operating mode (powered by back up battery without the mains supply) bed can be operated full circle operation at least 10 full cycles (full circle operation).

Castors:

- i. The bed should have Four (4) casters of 125/150mm (5 / 6 inch). It should be made of antistatic medical grade material /polyester and should be dust proof, covered for longer life. They should be noiseless rust less and allow easy steering of bed.
- ii. The bed is equipped with central control castor brake system for locking the position of bed with braking mechanism available at each castor. The castors should be quality certified BIS/EN(latest)
- iii. Maximum weight of ICU Bed in Kg Approximate 150.
- iv. Corner buffer or bumpers are there in bed to protect patient from collision

MBEDDED CONTROL PANEL (INTERNAL SIDE)

- i. On both internal sides of side boards/panel for independent operating functions backrest, knee gatch, bed hi-low and auto settee adjustments

EMBEDDED CONTROL PANEL (EXTERNAL SIDE)

- i. On both external sides of side boards/pane/ with no wiring exposed for independent operating functions backrest, knee gatch, bed hi-low and auto settee adjustments."
- ii. CPR: One touches Motorised CPR function to flatten the entire angle and enable bed to reach lowest height for effective CPR.
- iii. CPR facility should also have additional non powered mechanical release. with a single handed release at head end on both sides.
- iv. Must qualify IEC60601-2-52, or IS 13450 (or better and latest standard), compliant. It should conform to latest electromagnetic safety standard (IEC60601-1-2, IEC60601-1) of Hospital bed.
- v. It should have zero entrapment zones and safe for user and patient (IEC60601-4 for safety).
- vi. Should have power supply single phase 210-230V 50 Ht. compatible Indian plug and conform to Indian electrical supply.
- vii. All electrical parts should have liquid Ingress protection as per IPX4 or better.
Both patient /attendant control hand set and embedded control panel on inside and outside of side panel/boards.

ICU BED FOAM MATTRESS

- a. Highly resilient. bio density>foam. loses density heel zone for gentle support to heels and ankles.
- b. Easy to clean and extremely hygienic.
- c. The dimensions of mattress shall be specified with tolerance to fit the size of the mattress support platform.
- d. The bed should be provided with 120mm (+/- 20mm) thick PU foam mattress which should be covered by material. IS waterproof. name retardant, vapour & X ray permeable. The zip & stitches for the mattress cover should be concealed. Should be compatible with supplied bed and close fitting.
- e. Material of foam

- i. Density: Upper layer (head-sacrum spine- of adequate thickness) 40-50 kg/cubic metre and heel/lower layer 30kg/cubic metre. (of adequate thickness)
- ii. Antibacterial: should be with antimicrobial agent incorporated into all components that cause inhibition of microbial growth —bacteria and fungi etc.
- iii. Disinfection of cover for example by 1000 ppm hypochlorite solution or COVID sterilely.
- iv. Therapeutic weight limit for mattress in kg- 160 +/-5%
- v. BIS and/or USFDA and/or European certified.

Certification:

- i. Electrical safety standards EN60601-2-52, IEC60601-1 or better with safety gadgets like resettable over current breaker.
- ii. Degree of protection: TYPE B. against electric shock Class II with functional earth Degree of protection of ingress of fluids: IPX0
- iii. Must qualify IS 13450 standards. It should conform to latest electromagnetic safety standard (IEC60601-1-2, IEC60601-1) of hospital bed.
- iv. It should have zero entrapment zones and safe for user and patient (IEC60601-4 for safety & ISO 14971, ISO 13485:2016) for medical devices.
- v. Should have power supply single phase 210-230V 50 Hz, compatible Indian plug and conform to Indian electrical supply.
- vi. All electrical parts should have liquid ingress protection as per IPX4 or better
- vii. USFDA and/or European CE and/or BIS Approved.
- viii. Bed and mattress (foam) should be supplied, quoted and bid by the same manufacturer/bidder; and so also its warranty/maintenance terms be done by the same bidder.
- ix. Company should have office/Service centre in Delhi/NCR.
- x. General specifications as drafted by the medical committee to be adhered.

2. Air Mattress

Overlay Specification:

- 1) Pressure relieving mattress overlay system designed for the prevention and management of pressure ulcers, up to and including grade 3 in patient with high risk of development of pressure injury due to limited mobility
- 2) It must provide active pressure relief by series of individual cells which gently inflates and deflates alternating over a 12 minutes cycle or better with adequate intervals of cell inflation, deflation and cross-over.
- 3) It must have zipped ultra two (or better) way stretch, water resistant, vapour permeable, fire retardant soft durable polyurethane coated knitted fabric top cover with special fungi static, antimicrobial bacteriostatic ingredient built into the fabric.
- 4) Modular mattress construction with minimum 16 cells comprise of 13 dynamic body cells and 3 static head section cells.
- 5) Cell material should be nylon coated polyurethane (PU) or better.
- 6) 2 Modes of therapy — allows the clinician to choose between Alternating and Constant low pressure modes.
- 7) Transport facility easy to use transport mechanism provides patient support. Cell pressures are automatically equalised, leaving a comfortable even surface
- 8) Overlay Size: Length: 200cm x Width: 88cm; or should be tolerant to fit the above bed.
- 9) Mattress cover should be Fire Retardant & BS 7175: 0, 1 & 5 certified
- 10) Mattress cover should be washable under conditions Max 95 degree Celsius (203 degree F) for 15 mins and under drying conditions: Tumble Dry up to 130 degree C (266 degree F) or Air Dry. or better.

PUMP SPECIFICATION

1. It should have compact, slim, with minimal noise and vibration.
2. variable pressure control settings — allows appropriate individual pressure settings to be set via simple control.
3. It must have visual indicators for Power and inflation/deflation.
4. It must have audible and visual alarm indicators for Low pressure, Power failure Pump technical fault.
5. It must have integral battery backup for alarms.
6. Option to mute the alarm
7. It must have integrated hanging hooks to fit most beds.
8. It must have snap fit/leak proof resilient tube connectors to secure overlay connection & to prevent accidental disconnection.
9. It must have integrated air filter to filter dust particles thereby enhancing product durability.
10. Power input 220-230V 50Hz; 12W 1A and conform to Indian electromagnetic safety standards (certified)
11. Case material should be fire resistant ABS
12. Air Filters: All service replaceable

13. Should be operable in ICU standard temperature (10-40 deg Celsius) and relative humidity conditions(15-90%)

BUGETARY QUOTATION

Name of work: Supply, Installation testing and commissioning of HDU/ICU BED & Air Mattress for Expansion of SIC, Safdarjung Hospital, New Delhi
HSCC/SIC/HDU/ICU BED & Air Mattress/2023, Date: 20/10/2023

1)	Name of Items:	1. Hospital ICU/HDU Bed (20 Nos.)
2)	Model No.:	
3)	Name of manufacturer Address:	
4)	Contact Details of the Firm submitting Budgetary Quotation:	
5)	Budgetary Cost of Equipment including 5 Years Warranty and All Taxes and Duties from Warehouse to consignee i.e. Delhi	Rs. ----- per item Rs.----- for total items
6)	5 Years Comprehensive Maintenance Cost for each items (Including GST) After Expiry of 5 Years	1 Year 2 Year 3 Year 4 Year 5 Year Total CMC of 5 years = Rs. ----- per item Total CMC of 5 years = Rs. -----for total item
	The Budgetary Cost of Equipment includes the following:	
	1)	All Taxes & Duties on FOR basis.
	3)	Inclusive of 5 years Warranty.
	4)	Delivery, Installation, testing commissioning - within 60 days from the date of issue of Purchase Order

(Sign & Stamp of Firm)

BUGETARY QUOTATION

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1)	Name of Items:	2. AIR Mattress (20 Nos.)
2)	Model No.:	
3)	Name of manufacturer Address:	
4)	Contact Details of the Firm submitting Budgetary Quotation:	
5)	Budgetary Cost of Equipment including 5 Years Warranty and All Taxes and Duties from Warehouse to consignee i.e. Delhi	Rs. ----- per item Rs.----- for total items
6)	5 Years Comprehensive Maintenance Cost for each items (Including GST) After Expiry of 5 Years	1 Year 2 Year 3 Year 4 Year 5 Year Total CMC of 5 years = Rs. ----- per item Total CMC of 5 years = Rs. -----for total item
	The Budgetary Cost of Equipment includes the following:	
1)	All Taxes & Duties on FOR basis.	
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4)	Delivery, Installation, testing commissioning - within 60 days from the date of issue of Purchase Order	

(Sign & Stamp of Firm)

Budgetary Quotation Hospital furniture for Expn. Of sports Injury Center, Safdarjung Enclave, New Delhi

S. No.	Name of Items	Unit	Quantity	Rates per Unit including of all taxes with 5 years warranty	Amount (In Rs.)
1	Hospital ICU/HDU Bed	Each	20		0
2	AIR Mattress	Each	20		0
Total Amount (In Rs.)					0