



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates			Warrantee			Certified local agent or authorization			Model	Brand	Country of Origin
					YES	NO	Not Applicable	YES	NO	Not Applicable	YES	NO	Not Applicable			
LOT 01 Operating theatres																
Double-dome ceiling-mounted LED surgical light																
EQ-0	3															
	1	Ceiling-mounted surgical lighting system with two independently adjustable LED heads.														
	2	Central illuminance at 1 m shall reach at least 120,000 lux for the main head and 80,000 lux for the satellite head.														
	3	Both heads shall have independently adjustable intensity.														
	4	Colour-rendering index Ra at least 95; supplier shall declare R9 performance.														
	5	Colour temperature shall lie within approximately 3,500–5,000 K.														
	6	Light-field diameter shall be adjustable or available in a clinically suitable declared range.														
	7	Provide smooth balanced arms that hold position without drift.														
	8	Provide removable sterilizable handles, two per head.														
	9	Manufacturer-rated LED service life at least 40,000 hours.														
	10	Low radiant heat and declared total irradiance at the operating field.														
	11	Submit ceiling load, anchoring and electrical requirements before installation.														
	12	Include suspension hardware, electrical connection and structural fixing within the approved design.														
	13	Provide battery/UPS-backed illumination for at least 30 minutes, reconciled with the hospital-approved essential power supply where applicable.														
	14	Verify illuminance, movement, stability and emergency-power performance after installation.														
	15	State illuminance separately for each head at the specified working distance.														
	16	State light-field diameters d10 and d50 and the test distance.														
	17	State depth of illumination and usable working-distance range.														
	18	State shadow-dilution performance with representative obstructions.														
	19	State red colour-rendering index R9 separately from Ra.														
	20	State total irradiance and irradiance-to-illuminance ratio under stated test conditions.														
	21	State intensity adjustment range and endoscopic/ambient-light mode availability.														
	22	Both heads shall be independently switched and positioned.														



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	23	Handles and control surfaces shall tolerate the approved disinfection method.															
	24	State sterilization method and validated cycle limits for the removable handles.															
	25	State ceiling height range, suspension drop and minimum clearance.															
	26	Submit arm travel envelope and collision-clearance drawing for the room.															
	27	Provide structural anchoring design approved for the actual ceiling construction.															
	28	State arm rotation limits and whether cable twisting limits continuous rotation.															
	29	State behavior on mains failure and automatic restoration.															
	30	State replacement module/driver availability and field replacement procedure.															
	31	Measure each head's illuminance at commissioning with a calibrated lux meter.															
	32	Verify ceiling fasteners, arm braking, electrical safety and backup-power operation.															
	33	Submit exact manufacturer, model/version and country of manufacture for this line.															
	34	Identify all exclusions and dependencies on existing hospital infrastructure for this line.															
	35	Provide a priced spare/accessory/consumable schedule for this line, including local stock evidence and replenishment lead time.															
	36	Provide a signed delivery/acceptance checklist matching this item's specifications and included components.															
	TOTAL MAXIMUM SCORE — item is eligible only if all Mandatory clauses comply																
Double-jar surgical suction unit																	
EQ-0	4																
	1	Medical electric suction device with oil-free pump and continuously adjustable vacuum.															
	2	Vacuum control shall cover gentle aspiration through at least -600 mmHg for the intended adult/surgical use.															
	3	Vacuum gauge shall be readable and calibrated in kPa or mmHg.															
	4	Free-air flow at least 30 L/min unless a higher requirement is specified below.															
	5	Collection containers shall be transparent, impact resistant and clearly graduated.															
	6	Provide overflow shutoff and a hydrophobic bacterial filter between collection system and pump.															
	7	Supply patient tubing, vacuum tubing, connecting fittings and two spare bacterial filters.															
	8	Reusable containers shall have validated cleaning/disinfection or sterilization instructions.															
	9	Provide continuous-duty rating appropriate to the intended department.															



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	10	Demonstrate vacuum regulation, free-air flow and overflow protection at commissioning.															
	11	Surgical high-flow configuration: free-air flow at least 40 L/min.															
	12	Supply two collection jars, each at least 3 L.															
	13	Provide foot control and a stable trolley with brakes.															
	14	Surgical suction shall provide free-air flow of at least 20 L/min and adjustable maximum vacuum of at least –70 kPa; neonatal low-pressure suction shall provide finely regulated low vacuum suitable for newborns.															
	15	Vacuum shall be continuously adjustable from near zero to the rated maximum with a readable kPa/mmHg gauge; neonatal variants shall include a positive low-suction limiter.															
	16	Provide an easily accessible vacuum adjustment and readable gauge.															
	17	The suction unit shall be rated for continuous clinical operation without thermal shutdown during a 60-minute functional test.															
	18	Provide two reusable, transparent collection jars of at least 2 L usable capacity each for the double-jar unit, or the item-specific stated capacity for other suction devices, with overflow protection.															
	19	Provide overflow shutoff and a compatible hydrophobic/bacterial filter before the pump.															
	20	All relevant components shall withstand the manufacturer-validated cleaning, disinfection or sterilization method required for their specified clinical reuse; include validated instructions.															
	21	Provide clearly labelled patient and vacuum connections to avoid reversed assembly.															
	22	Operating noise shall not exceed 65 dB(A) at 1 m under normal load unless a more restrictive item-specific limit is stated.															
	23	The mandatory base package shall include components needed for routine operation; for price jars, lids, filters and patient tubing separately, provide separate unit replacement prices and Yemen replenishment lead times for five years.															
	24	Test vacuum regulation, flow and overflow protection at acceptance.															
	25	Demonstrate safe emptying, cleaning and filter replacement without contaminating the pump.															
	26	Provide exact manufacturer, model/version and country of manufacture, evidenced by manufacturer catalogue and product label; no unidentifiable or mixed-model substitute is acceptable.															
	27	The quoted price shall include all item-specific accessories, installation and commissioning stated here; any site infrastructure connection shall be listed and coordinated before contract award.															
	28	Supply a five-year spare/accessory/consumable price list and evidence of an authorized service/replenishment route to Yemen; identify lead times, without reducing the mandatory base package.															
	29	Provide a signed delivery/acceptance checklist matching this item's specifications and included components.															
TOTAL MAXIMUM SCORE — Item is eligible only if all Mandatory clauses comply																	
Electrosurgical unit (ESU)																	
EQ-0	6																
	1	Electrosurgical generator with monopolar cutting/coagulation and bipolar coagulation.															
	2	Monopolar cut output shall reach at least 300 W at the manufacturer-declared test load.															
	3	Bipolar coagulation output shall reach at least 50 W at the declared load.															



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4		Provide pure cut, blended cut and at least two coagulation modes.								
5		Display selected mode and output setting clearly.								
6		Provide separate activation tones for cutting and coagulation.								
7		Provide split return-electrode contact-quality monitoring with alarm and output inhibition on unsafe contact.								
8		Automatic self-test and fault indication shall be provided.								
9		Provide hand-switch and foot-switch activation as appropriate to the mode.								
10		Supply one dual-pedal footswitch, two reusable handpieces and compatible active electrodes.								
11		Supply one bipolar forceps with cable and one spare bipolar cable.								
12		Supply 100 compatible adult split return electrodes and connecting cable.								
13		Provide a mobile stand where required for safe use.								
14		Verify monopolar/bipolar power and return-electrode safety with an electrosurgical analyzer.								
15		Vessel sealing and advanced laparoscopic functions are not implied by this basic specification.								
16		The ESU shall deliver at least 300 W monopolar cut, 120 W monopolar coagulation and 70 W bipolar coagulation at manufacturer-specified test loads, with adjustable settings.								
17		The specified assembly shall accommodate the intended patient/load and fit the approved installation or storage space; submit dimensioned manufacturer evidence before award.								
18		The ESU shall incorporate output-voltage limiting and provide manufacturer-tested open-circuit voltage documentation for each selected mode; modes exceeding the manufacturer's validated patient-accessory rating are not acceptable.								
19		The supplied configuration shall include available blend settings and their intended clinical applications as an operational feature, with manufacturer evidence and acceptance demonstration.								
20		The supplied configuration shall include bipolar activation method and whether auto-stop is included as an operational feature, with manufacturer evidence and acceptance demonstration.								
21		Use connectors that clearly distinguish active, return and bipolar accessories.								
22		Supply all compatible return-electrode monitoring technology and compatible split-electrode references as part of the item-specific starting package; include manufacturer catalogue references to verify continuing availability in Yemen.								
23		Demonstrate inhibition of monopolar output when return-electrode contact is unacceptable.								
24		The ESU shall accept manufacturer-validated split return electrodes in adult and paediatric sizes; include a paediatric starter pack where paediatric surgery is intended.								
25		Footswitch shall be stable, clearly marked and suitable for the operating-room cleaning environment.								
26		Provide an insulated active-electrode storage holster.								
27		Reusable electrodes and cables shall have validated cleaning/sterilization instructions.								
28		The supplied configuration shall include reusable accessory service-life limits and inspection criteria as an operational feature, with manufacturer evidence and acceptance demonstration.								



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	29	Continuous operation shall be supported for routine clinical sessions; thermal overload protection shall prevent hazardous output and reset only after the fault is cleared.														
	30	State compatible smoke-evacuation arrangements; separately price smoke extraction if required by the IPC review.														
	31	Provide instructions on interaction with monitoring electrodes and implanted electronic devices.														
	32	Measure output accuracy at representative loads and settings using a suitable analyzer.														
	33	Test return-electrode fault detection and hand/foot activation before acceptance.														
	34	Train staff in burns prevention, safe accessory inspection and flammable-agent precautions.														
	35	Provide exact manufacturer, model/version and country of manufacture, evidenced by manufacturer catalogue and product label; no unidentifiable or mixed-model substitute is acceptable.														
	36	The quoted price shall include all item-specific accessories, installation and commissioning stated here; any site infrastructure connection shall be listed and coordinated before contract award.														
	37	Supply a five-year spare/accessory/consumable price list and evidence of an authorized service/replenishment route to Yemen; identify lead times, without reducing the mandatory base package.														
	38	Provide a signed delivery/acceptance checklist matching this item's specifications and included components.														
TOTAL MAXIMUM SCORE — item is eligible only if all Mandatory clauses comply																
Integrated anesthesia workstation with ventilator - cylinder / medical-compressor air supply																
EQ-0	9															
	1	Complete anesthesia workstation with integrated ventilator for adult and pediatric use.														
	2	Gas supply shall include oxygen and air; nitrous-oxide capability is optional only if an approved supply exists.														
	3	Supply complete gas-specific connections for BOTH a medical oxygen cylinder and a medical-air cylinder, including high-pressure-rated cylinder regulators, pressure gauges, secured cylinder mounting/stand and compatible low-pressure hoses. Match the actual hospital cylinder valves; all connection components are included per workstation.														
	4	Provide oxygen-supply failure warning and hypoxic-mixture prevention appropriate to the gas system.														
	5	Provide monitored fresh-gas flow and an emergency/manual oxygen-delivery pathway.														
	6	Include a calibrated vaporizer for one hospital-approved volatile anesthetic agent, with agent-specific filling and interlock where applicable.														
	7	Provide a circle breathing system with CO2 absorber and adjustable pressure-limiting valve.														
	8	Provide manual/spontaneous bag ventilation and mechanical ventilation.														
	9	Ventilation modes shall include volume control, pressure control and SIMV/pressure support or equivalent clinically approved modes.														
	10	Tidal-volume settings shall cover at least 50–1,500 mL for the declared adult/pediatric population.														
	11	Respiratory-rate settings shall cover at least 4–60 breaths/min.														



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12		PEEP shall be adjustable across at least 0–20 cmH2O.								
13		Monitor inspired oxygen, airway pressure, tidal volume and minute ventilation.								
14		Continuous EtCO2 monitoring and a capnogram shall be supplied within the workstation package or an explicitly allocated compatible monitor.								
15		Provide high/low pressure, low minute-volume, apnea/disconnection, oxygen and power-failure alarms.								
16		Provide automated or guided pre-use leak and compliance checks.								
17		Provide at least 30 minutes of critical workstation/monitor AND compressor-air-source operation during mains failure at the documented test setting. Include a correctly sized external UPS if the internal battery does not power the compressor. Demonstrate actual backup operation in both gas-source configurations; oxygen supply must remain available.								
18		Provide anesthetic-gas scavenging interface and all components required to connect to the approved disposal system.								
19		Supply two reusable adult and two reusable pediatric breathing circuits.								
20		Supply adult and pediatric reservoir bags, masks and 50 compatible breathing filters.								
21		Supply two CO2-absorbent fills and 20 EtCO2 sampling lines/adapters as applicable.								
22		Supply all gas hoses, regulators, breathing connectors and a stable lockable trolley.								
23		Commission using an anesthesia/ventilator analyzer with documented leak, oxygen, pressure, volume and alarm checks.								
24		The workstation shall support BOTH configurations with all specified clinical modes: (A) a medical O2 cylinder plus a medical-air cylinder, with the compressor isolated/not running; and (B) the supplied dedicated medical air compressor plus an independent medical O2 source. Both O2 and AIR inlets shall accept the full 3.5-5 bar (350-500 kPa) range. Cylinder-only air operation and compressor-air operation are mandatory, not optional upgrades.								
25		The medical O2 inlet shall accept regulated oxygen from a cylinder OR a compatible hospital medical O2 pipeline at 3.5-5 bar. Include the cylinder pressure regulator, cylinder and pipeline connectors, gauge and hoses sized for the full continuous/peak demand. An ordinary low-flow patient oxygen flowmeter/regulator is not accepted as the sole device gas-supply assembly.								
26		The medical-air inlet shall accept regulated air at 3.5-5 bar from EITHER a medical-air cylinder OR the supplied dedicated medical air compressor; compatible hospital medical-air pipeline supply shall also be supported. Include all approved source-selection connections. The compressor shall be independently isolatable; cylinder-air operation shall not depend on the compressor running.								
27		Supply labelled gas-specific O2 and AIR hoses, cylinder regulators and compatible cylinder/pipeline/compressor connectors for BOTH configurations. Include an approved source-selection arrangement; no improvised cross-gas adapters or unapproved Y-connectors are acceptable. All gas-path materials shall be suitable for the identified medical gas.								
28		Supply one dedicated manufacturer-approved oil-free medical air compressor with EACH workstation, integral or securely mounted externally, with intake/final filtration, moisture separation/drying, pressure regulation, gauge, pressure relief and overtemperature protection. Provide documented breathing-air quality and compatibility; full peak/continuous gas demand shall be met at the actual installation conditions.								



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29		Provide a manufacturer-approved air-source changeover/selection system between cylinder/pipeline air and compressor air, with safe isolation and non-return protection. Demonstrate switching in both directions on a test lung without hazardous pressure excursions or loss of the specified ventilation; no hardware replacement, new licence or paid upgrade shall be needed to use either configuration.								
30		Display or indicate oxygen supply pressure at the workstation.								
31		Display or indicate air supply pressure at the workstation.								
32		Provide non-return and isolation protection on O2 and AIR supplies to prevent cross-flow, wrong-gas connection and back-pressurization of cylinders or compressor. Test low-pressure/source-failure alarms for each gas and the approved compressor-failure response; include compatible reserve-air/changeover components needed for the specified operation.								
33		Fresh-gas flow shall be adjustable from low-flow settings to at least 10 L/min total, with independently monitored oxygen and air flows and an oxygen-hypoxia prevention system.								
34		The workstation shall support low-flow anesthesia at 1 L/min total fresh-gas flow or less while inspired oxygen monitoring and alarms remain operational.								
35		Oxygen flush control shall be identifiable and protected against accidental sustained activation.								
36		During mains failure, retain the specified emergency oxygen/manual ventilation pathway and audible/visual power warning. Compressor operation shall have the backup power required by clause 17. A medical air compressor supplies AIR only: both configurations still require an independent medical O2 source; compressor-only operation shall not be claimed to provide oxygen-enriched ventilation.								
37		If nitrous oxide is offered, demonstrate automatic protection against delivery of a hypoxic gas mixture when oxygen pressure falls.								
38		The vaporizer shall be approved by its manufacturer for use with the offered mounting system.								
39		Supply one keyed, agent-specific sevoflurane vaporizer with adjustable concentration from 0 to at least 8%; it shall be compatible with the offered workstation and validated operating conditions.								
40		Provide visible agent-level indication on the supplied vaporizer.								
41		Provide the filling adapter required for the hospital-approved anesthetic bottle system.								
42		Vaporizer mounting shall prevent incorrect seating and leakage in normal use.								
43		Where multiple vaporizer positions are fitted, interlocking shall prevent simultaneous activation.								
44		The delivered configuration shall include and demonstrate the specified any temperature, pressure or tilt restrictions affecting vaporizer accuracy; it shall meet any explicit item-specific minimum in this schedule, with manufacturer test evidence at acceptance.								
45		Separately price a second agent-specific vaporizer; do not include an unapproved agent by default.								
46		The circle breathing system shall be suitable for both adult and paediatric ventilation, include low-resistance inspiratory/expiratory valves, and pass the manufacturer leak and compliance tests.								
47		Inspiratory and expiratory valves shall be accessible for inspection and approved reprocessing.								
48		Provide a visible or otherwise verifiable manual/mechanical ventilation selection.								
49		The breathing bag shall have secure support and a clinically accessible connection.								



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50		An adjustable APL valve shall be fitted for manual ventilation, with a pressure setting range including at least 5–60 cmH ₂ O and protection from excessive pressure.														
51		Provide a reusable or replaceable CO ₂ absorber canister of at least 1 L capacity with compatible medical-grade soda lime and a starter supply sufficient for commissioning and training.														
52		Describe the safe procedure and ventilation implications of changing the CO ₂ absorber during a case.														
53		The ventilator shall compensate for breathing-circuit compliance and changes in fresh-gas flow so delivered volume remains within the stated tidal-volume accuracy.														
54		Provide dimensioned installation drawings for the workstation, supplied compressor, secured cylinder mount/stand and any UPS, with maintenance clearances, electrical load and approved gas demand. Confirm fit and available utilities at each receiving hospital before delivery; no unpriced essential mounting or electrical components shall be omitted.														
55		Delivered tidal-volume accuracy shall be within ±10% or ±10 mL, whichever is greater, over the manufacturer-validated paediatric/adult range.														
56		Inspiratory pressure shall be adjustable from at least 5 to 50 cmH ₂ O above PEEP, with pressure-delivery accuracy within ±3 cmH ₂ O or ±10%, whichever is greater.														
57		Inspiratory time and I:E ratio shall be adjustable to support at least I:E 1:1 through 1:4 in controlled ventilation.														
58		The ventilator shall permit an inspiratory pause or plateau-pressure measurement manoeuvre while maintaining high-pressure protection.														
59		Pressure support shall be adjustable from at least 5 to 30 cmH ₂ O above PEEP, with adjustable patient-trigger sensitivity and apnea backup ventilation.														
60		Apnea in spontaneous or pressure-support mode shall trigger an audible/visual alarm and automatic backup controlled ventilation after an adjustable delay.														
61		Ventilation settings shall remain visible while changing the selected parameter.														
62		Settings requiring confirmation shall not take effect through accidental single-key contact.														
63		Provide pressure waveform display during mechanical ventilation.														
64		Provide clear separation of measured and set tidal-volume values.														
65		Measured respiratory rate shall cover at least 0–100 breaths/min and minute volume at least 0–20 L/min for the stated adult/paediatric application.														
66		Provide accessible condensate management or water traps in the breathing and sampling circuits without allowing liquid to enter patient valves or sensors.														
67		Provide removable parts and a written reassembly check following reprocessing.														
68		Inspired-oxygen measurement shall include calibration instructions and sensor-life information.														
69		Inspired oxygen concentration shall be displayed over 21–100% with configurable high and low alarms and an accuracy within ±3 percentage points in the clinical range.														
70		Continuous EtCO ₂ waveform and numeric monitoring shall support adult and paediatric circuits; provide the appropriate sampling adapters and water traps if sidestream technology is used.														
71		Supply water traps and sampling interfaces appropriate to the supplied adult and pediatric circuits.														
72		The capnography sample-gas exhaust shall connect to a safe scavenging or manufacturer-approved return path without contaminating the breathing circuit.														
73		Agent-gas monitoring is an optional separately priced enhancement; the mandatory supplied configuration shall still provide inspired oxygen and EtCO ₂ monitoring through the specified workstation or separately scheduled monitor.														



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74		Provide adjustable inspired-oxygen alarm limits.								
75		Provide adjustable low/high EtCO2 and apnea alarms in the supplied capnography device.								
76		Clinical alarms shall distinguish high-priority from advisory conditions; silence shall be time-limited and active hazards shall automatically re-annunciate.								
77		A silenced alarm condition shall remain visually indicated.								
78		Provide low-battery warning before loss of powered ventilation.								
79		The supplied item shall provide the power-failure safeguard or battery function described here, with audible/visual warning and automatic recovery; verify at commissioning against the item-specific duration and performance limits.								
80		The device shall retain at least 24 hours of alarm/event history for screen review; electronic export may be supplied as an enhancement.								
81		The gas-scavenging connection shall be distinct from the breathing circuit and clearly labelled.								
82		Provide an anesthesia-gas scavenging interface compatible with the hospital exhaust design, including relief protection against excessive suction or back pressure.								
83		Scavenging shall discharge only through a site-approved waste-anesthetic-gas arrangement.								
84		Provide an itemized list of circuit connector sizes and all transition adapters.								
85		Supply an independently usable manual resuscitation bag accessible at the workstation; reconcile with separately scheduled resuscitation sets.								
86		All relevant components shall withstand the manufacturer-validated cleaning, disinfection or sterilization method required for their specified clinical reuse; include validated instructions.								
87		The mandatory base package shall include components needed for routine operation; for price oxygen sensors, flow sensors, water traps, seals, sampling lines and absorber canisters separately, provide separate unit replacement prices and Yemen replenishment lead times for five								
88		The described component shall be user-serviceable or replaceable by the authorized service team, with the necessary service information and five-year availability in Yemen.								
89		Provide a pre-use checklist covering gas source, leak test, valves, ventilator, vaporizer and scavenging.								
90		Verify oxygen-concentration alarm operation using an approved test method at commissioning.								
91		Verify adult and pediatric delivered volumes at multiple settings using calibrated test equipment.								
92		Verify pressure limits and disconnection alarms using a test lung.								
93		At acceptance, demonstrate the emergency manual oxygen pathway, mains-failure response and compressor-failure/source-changeover response using a test lung. Demonstrate that switching air sources preserves the specified ventilation and that loss of O2 produces the appropriate warning; an air compressor shall never be represented as an O2 generator.								
94		Verify vaporizer identity, calibration status, mounting and leak integrity before clinical use.								
95		Record at least 30 minutes of actual critical workstation/monitor and compressor backup runtime at the documented test setting, using the included battery/UPS and the actual gas configuration. Identify all powered loads and verify uninterrupted source transition and low-battery warnings; oxygen must be independently supplied throughout the test.								



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96		Train anesthesia users and biomedical staff in BOTH cylinder O2/cylinder AIR and medical-compressor AIR/O2 configurations, cylinder regulation, safe source selection, compressor filters/dryer maintenance, power/gas failure and manual recovery. Provide a bilingual quick-reference gas connection diagram and documented practical competency checks.								
97		The described component shall be user-serviceable or replaceable by the authorized service team, with the necessary service information and five-year availability in Yemen.								
98		The supplied monitor allocation shall identify which physiological functions come from the separately scheduled patient monitor and which are included in this workstation, separately for each hospital.								
99		Provide exact manufacturer, model/version and country of manufacture, evidenced by manufacturer catalogue and product label; no unidentifiable or mixed-model substitute is acceptable.								
100		The quoted workstation unit price shall include one dedicated medical air compressor, both gas-source configurations, cylinder regulators, gauges, approved source-selection hardware, secured cylinder mounting/stand, hoses, connectors, required UPS, installation and acceptance tests. Consumable oxygen/air refills and construction of an O2 plant/pipeline are separate site supply obligations, not functions of the air compressor.								
101		Supply a five-year spare/accessory/consumable price list and evidence of an authorized service/replenishment route to Yemen; identify lead times, without reducing the mandatory base package.								
102		Provide a signed delivery/acceptance checklist matching this item's specifications and included components.								
103		Manufacturer documentation for the exact offered workstation AND compressor shall confirm both configurations in clauses 24-29, the full 3.5-5 bar inlet range and rated continuous/peak gas demand. The previous no-compressor-only restriction is superseded: the complete delivered package must include and demonstrate BOTH cylinder-air and compressor-air operation with an independent medical O2 source.								
104		Where EtCO ₂ is provided by a separately scheduled monitor, identify that monitor by BOQ line and show compatible sampling, display and alarm operation during commissioning.								
105		Provide a per-workstation packing list identifying all cylinder O2/cylinder AIR fittings, compressor/dryer/filter components, source-selection parts, backup-power items, breathing circuits, sensors, absorbent and sampling accessories. Give part numbers, included quantities and replenishment prices; neither gas-source configuration may be supplied as an unpriced optional kit.								
106		Before acceptance, test the exact delivered system in configuration A (O2 cylinder + AIR cylinder, compressor isolated) AND configuration B (supplied compressor + medical O2 source). At 3.5 and 5 bar gas-inlet test points verify pressure/volume delivery, FIO ₂ /EtCO ₂ monitoring, source/pressure alarms, safe air-source changeover and mains backup with calibrated equipment and a test lung; submit signed results for each configuration.								
TOTAL MAXIMUM SCORE — Item is eligible only if all Mandatory clauses comply										
Portable glucometer										
EQ-0	16									
1		Portable quantitative blood-glucose meter for professional clinical use.								
2		Measurement range shall cover at least 20–600 mg/dL or an equivalent mmol/L range.								
3		Provide selectable or clearly labelled measurement units.								
4		Require small capillary blood sample, proposed maximum 2 microlitres.								
5		Display result within approximately 15 seconds.								



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6		Provide low/high result warnings and error messages for inadequate sample or strip failure.								
7		Supply 200 compatible test strips and 200 single-use safety lancets per meter.								
8		Supply control solutions covering at least two control levels and a documented quality-control procedure.								
9		The supplied strips shall remain stable within the labelled hospital storage range, include clear in-use expiry and support at least 30–55% hematocrit with manufacturer-listed interferences.								
10		Supply batteries, protective case and evidence of performance for the intended patient population.								
11		Identify ongoing strip/control costs and local availability.								
12		Capillary results outside the validated clinical conditions shall require laboratory confirmation under hospital policy.								
13		The instrument shall measure across the full clinically intended range with readable resolution and an accuracy claim supported by manufacturer test evidence; item-specific numerical limits elsewhere in this schedule govern acceptance.								
14		Specified measurement accuracy shall be maintained at the receiving hospital's controlled operating temperature and humidity; provide the manufacturer validation range.								
15		Provide calibration/verification instructions and traceable test evidence appropriate to the instrument.								
16		The specified assembly shall accommodate the intended patient/load and fit the approved installation or storage space; submit dimensioned manufacturer evidence before award.								
17		Battery-powered equipment shall include a rechargeable battery, a clear state-of-charge/low-battery indication and enough capacity for at least 60 minutes of normal use, unless a stricter duration is specified.								
18		All included strips, sensors or reagents shall remain usable under the labelled storage conditions achievable in the hospital; provide protective packaging and expiry labels.								
19		Verify representative low, mid and high measurements using suitable reference equipment or control materials.								
20		The mandatory base package shall include components needed for routine operation; for provide replacement sensor/consumable references with package sizes and prices, provide separate unit replacement prices and Yemen replenishment lead times for five years.								
21		The portable test shall use the specified patient specimen (capillary whole blood where applicable) and require no more than 20 µL per routine test unless the item's core clause is stricter.								
22		A routine test result shall be displayed within five minutes after sample introduction, using the manufacturer-validated measurement principle and supplied consumables.								
23		List known interferences and limitations from the manufacturer instructions.								
24		The measurement system shall support at least 30–55% hematocrit for the intended adult population, with manufacturer-listed interferences supplied.								
25		Provide control materials and a documented internal quality-control procedure.								
26		Consumables shall be delivered with at least 75% of labelled shelf life remaining; in-use life after opening shall be at least the manufacturer-validated period printed on the package.								
27		Routine lot changes shall use supplied coding/calibration materials, with no unpriced proprietary tool or service call required for routine user calibration.								
28		Provide training in sample collection, infection control and unexpected-result verification.								
29		Provide exact manufacturer, model/version and country of manufacture, evidenced by manufacturer catalogue and product label; no unidentifiable or mixed-model substitute is acceptable.								
30		The quoted price shall include all item-specific accessories, installation and commissioning stated here; any site infrastructure connection shall be listed and coordinated before contract award.								



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates			Warrantee			Certified local agent or authorization			Model	Brand	Country of Origon
	31	Supply a five-year spare/accessory/consumable price list and evidence of an authorized service/replenishment route to Yemen; identify lead times, without reducing the mandatory base package.														
	32	Provide a signed delivery/acceptance checklist matching this item's specifications and included components.														
TOTAL MAXIMUM SCORE — item is eligible only if all Mandatory clauses comply																



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates			Warrantee			Certified local agent or authorization			Model	Brand	Country of Origin
LOT 02 Surgical instruments and sets																
Cervical/perineal tear repair set																
EQ-0	18															
	1	Reusable surgical instruments made from corrosion-resistant surgical stainless steel appropriate to the instrument function.														
	2	Instrument size, pattern and manufacturer catalogue number shall be declared for every component.														
	3	Instruments shall be free of burrs, sharp unintended edges, pitting and plating defects.														
	4	Hinged instruments shall open smoothly and ratchets shall engage and release correctly.														
	5	Supply a perforated instrument tray with lid sized to the complete set and compatible with the hospital sterilizer.														
	6	Provide validated cleaning, inspection, lubrication and steam-sterilization instructions.														
	7	Sims vaginal specula, small and large: 1 of each size.														
	8	Vaginal-wall retractors, assorted sizes: 2 pieces.														
	9	Sponge-holding forceps, approximately 24–25 cm: 2 pieces.														
	10	Long artery forceps, approximately 18–20 cm: 4 pieces.														
	11	Mayo-Hegar needle holders, approximately 18–20 cm: 2 pieces.														
	12	Toothed tissue forceps, approximately 18–20 cm: 2 pieces.														
	13	Plain dressing forceps, approximately 18–20 cm: 2 pieces.														
	14	Mayo scissors, approximately 17 cm: 1 piece.														
	15	Metzenbaum scissors, approximately 18 cm: 1 piece.														
	16	Kidney dish, approximately 250 mm: 1 piece.														
	17	Provide a component-level quotation matching each listed instrument and quantity.														
	18	Every scheduled instrument shall have the specified function, compatible jaw/tip design and surgical-grade corrosion-resistant material; include an itemized catalogue cross-reference.														
	19	Every instrument in the stated set shall be supplied in the scheduled function and size; substitutions require ADRA clinical approval before award and cannot reduce set completeness.														
	20	Reusable instruments shall have corrosion-resistant medical instrument materials appropriate to their cutting, clamping or retracting function.														
	21	Provide manufacturer marking or traceable identification on instruments where practical.														
	22	Ratchets, hinges and box joints shall move freely and close without misalignment.														



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates			Warrantee			Certified local agent or authorization			Model	Brand	Country of Origin	
	23	Cutting instruments shall cut cleanly and have protected tips for transport.															
	24	Provide validated cleaning, lubrication and sterilization instructions.															
	25	Supply a compartmented/perforated tray or compatible organizer with protection for delicate tips.															
	26	Reusable instruments shall arrive clean and protected in nonsterile packaging; the hospital shall receive validated cleaning and steam-sterilization instructions before first use.															
	27	Perform a signed component count and functional inspection with the receiving theatre team.															
	28	The mandatory base package shall include components needed for routine operation; for provide individual replacement prices so damaged instruments can be replaced without buying a full set, provide separate unit replacement prices and Yemen replenishment lead times for five years. Provide exact manufacturer, model/version and country of manufacture, evidenced by manufacturer catalogue and product label; no unidentifiable or mixed-model substitute is acceptable.															
	29	The quoted price shall include all item-specific accessories, installation and commissioning stated here; any site infrastructure connection shall be listed and coordinated before contract award.															
	30	Supply a five-year spare/accessory/consumable price list and evidence of an authorized service/replenishment route to Yemen; identify lead times, without reducing the mandatory base package.															
	31	Provide a signed delivery/acceptance checklist matching this item's specifications and included components.															
	32	TOTAL MAXIMUM SCORE — item is eligible only if all Mandatory clauses comply															
General surgery instrument set			خزفء ءرفءء عملفاء ءءفءء														
EQ-0	19																
	1	Reusable surgical instruments made from corrosion-resistant surgical stainless steel appropriate to the instrument function.															
	2	Instrument size, pattern and manufacturer catalogue number shall be declared for every component.															
	3	Instruments shall be free of burrs, sharp unintended edges, pitting and plating defects.															
	4	Hinged instruments shall open smoothly and ratchets shall engage and release correctly.															
	5	Supply a perforated instrument tray with lid sized to the complete set and compatible with the hospital sterilizer .															
	6	Provide validated cleaning, inspection, lubrication and steam-sterilization instructions.															
	7	Scalpel handles No.3 and No.4: 1 of each.															
	8	Mayo scissors, straight and curved: 1 of each.															
	9	Metzenbaum scissors, approximately 18 cm: 1 piece.															
	10	Toothed tissue forceps, short and long: 1 of each.															
	11	Plain tissue forceps, short and long: 1 of each.															
	12	Mosquito artery forceps, straight and curved: 3 of each.															
	13	Medium artery forceps, straight and curved: 6 of each.															

Page 14 of 126



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates			Warrantee			Certified local agent or authorization			Model	Brand	Country of Origin
14		Kocher forceps: 4 pieces.														
15		Allis tissue forceps: 4 pieces.														
16		Babcock forceps: 2 pieces.														
17		Sponge-holding forceps: 2 pieces.														
18		Mayo-Hegar needle holders, 16 cm and 20 cm: 1 of each.														
19		Towel clamps: 6 pieces.														
20		Langenbeck retractors, assorted sizes: 2 pieces.														
21		Deaver retractors, assorted sizes: 2 pieces.														
22		Malleable retractors, assorted sizes: 2 pieces.														
23		Yankauer suction tip with compatible connector: 1 piece.														
24		Stainless-steel bowls: 2 pieces.														
25		Kidney dish: 1 piece.														
26		Provide a component-level quotation matching each listed instrument and quantity.														
27		Every scheduled instrument shall have the specified function, compatible jaw/tip design and surgical-grade corrosion-resistant material; include an itemized catalogue cross-reference.														
28		Every instrument in the stated set shall be supplied in the scheduled function and size; substitutions require ADRA clinical approval before award and cannot reduce set completeness.														
29		Reusable instruments shall have corrosion-resistant medical instrument materials appropriate to their cutting, clamping or retracting function.														
30		Provide manufacturer marking or traceable identification on instruments where practical.														
31		Ratchets, hinges and box joints shall move freely and close without misalignment.														
32		Cutting instruments shall cut cleanly and have protected tips for transport.														
33		Provide validated cleaning, lubrication and sterilization instructions.														
34		Supply a compartmented/perforated tray or compatible organizer with protection for delicate tips.														
35		Reusable instruments shall arrive clean and protected in nonsterile packaging; the hospital shall receive validated cleaning and steam-sterilization instructions before first use.														
36		Perform a signed component count and functional inspection with the receiving theatre team.														
37		The mandatory base package shall include components needed for routine operation; for provide individual replacement prices so damaged instruments can be replaced without buying a full set, provide separate unit replacement prices and Yemen replenishment lead times for five years. Provide exact manufacturer, model/version and country of manufacture, evidenced by manufacturer catalogue and product label; no unidentifiable or mixed-model substitute is acceptable.														
38																



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates			Warrantee			Certified local agent or authorization			Model	Brand	Country of Origin	
39		The quoted price shall include all item-specific accessories, installation and commissioning stated here; any site infrastructure connection shall be listed and coordinated before contract award.															
40		Supply a five-year spare/accessory/consumable price list and evidence of an authorized service/replenishment route to Yemen; identify lead times, without reducing the mandatory base package.															
41		Provide a signed delivery/acceptance checklist matching this item's specifications and included components.															
TOTAL MAXIMUM SCORE — item is eligible only if all Mandatory clauses comply																	
General-anesthesia intubation set																	
EQ-0	20																
1		One complete airway set for adult and pediatric intubation and emergency ventilation.															
2		Include one adult and one pediatric self-inflating bag, oxygen reservoirs and appropriate masks.															
3		Include one laryngoscope handle with Macintosh blades sizes 2, 3 and 4 and Miller blade size 1.															
4		Include one spare handle or complete spare light/power assembly.															
5		Include cuffed endotracheal tubes, internal diameters 4.0–8.5 mm in 0.5 mm steps, two of each size.															
6		Include ten oropharyngeal airways spanning pediatric and adult sizes.															
7		Include two adult and two pediatric intubating stylets with atraumatic tips.															
8		Include one adult and one pediatric Magill forceps.															
9		Include two adult tracheal introducers and two pediatric introducers appropriate to the tube sizes.															
10		Include one cuff-pressure manometer and two 10 mL cuff-inflation syringes.															
11		Include two supraglottic airways each in sizes 1, 2, 3, 4 and 5, subject to clinical approval.															
12		Provide an organized washable case and a detailed component checklist.															
13		All disposable airway items shall be individually sterile and labelled with size and expiry.															
14		Proposed kit composition and overlap with separately listed airway items require clinical sign-off.															
15		The specified assembly shall accommodate the intended patient/load and fit the approved installation or storage space; submit dimensioned manufacturer evidence before award.															
16		The specified assembly shall accommodate the intended patient/load and fit the approved installation or storage space; submit dimensioned manufacturer evidence before award.															
17		The supplied configuration shall include reusable versus single-use patient-contact components as an operational feature, with manufacturer evidence and acceptance demonstration.															
18		Provide a validated reprocessing procedure for each reusable component.															
19		Provide a pre-use functional inspection procedure.															
20		The mandatory base package shall include components needed for routine operation; for price replacement valves, seals, blades or other wearable parts as applicable, provide separate unit replacement prices and Yemen replenishment lead times for five years.															

Page 16 of 126



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates			Warrantee			Certified local agent or authorization			Model	Brand	Country of Origin
	21	Demonstrate complete assembly and safe functional operation with the receiving clinical team.														
	22	Provide exact manufacturer, model/version and country of manufacture, evidenced by manufacturer catalogue and product label; no unidentifiable or mixed-model substitute is acceptable.														
	23	The quoted price shall include all item-specific accessories, installation and commissioning stated here; any site infrastructure connection shall be listed and coordinated before contract award.														
	24	Supply a five-year spare/accessory/consumable price list and evidence of an authorized service/replenishment route to Yemen; identify lead times, without reducing the mandatory base package.														
	25	Provide a signed delivery/acceptance checklist matching this item's specifications and included components.														
TOTAL MAXIMUM SCORE — item is eligible only if all Mandatory clauses comply																
Instrument sterilization containers																
EQ-0	21															
	1	One proposed starter set containing three reusable instrument sterilization containers in small, medium and large sizes.														
	2	Containers shall be validated for the offered steam sterilization cycles and load type.														
	3	Provide perforated internal instrument baskets.														
	4	Container body shall be corrosion resistant with robust handles.														
	5	Provide secure locking lids and tamper-evident closure or equivalent system.														
	6	Provide manufacturer-approved filter/valve system and compatible gaskets.														
	7	Include 100 replacement filters per container if disposable filters are used, or declare validated reusable-filter life.														
	8	Provide load-identification holders and cycle labels.														
	9	Confirm container dimensions against the sterilizer chamber and actual instrument sets.														
	10	Supply reprocessing instructions and demonstrate dry, intact sterile-barrier performance after a representative cycle.														
	11	Provide exact catalogue reference and unit-of-issue for every supplied component.														
	12	Patient- and chemical-contact materials shall be compatible with the specified clinical use and cleaning/disinfection method and shall be free from prohibited latex where direct contact is expected.														
	13	Provide manufacturer labels showing lot/batch traceability where applicable.														
	14	Expiring supplies shall be delivered with at least 75% of labelled shelf life remaining and storage conditions compatible with the hospital supply chain.														
	15	All reusable components shall have validated cleaning/reprocessing instructions; all single-use components shall be labelled as such and supplied in the quantities specified for this item.														
	16	Inspect quantities, packaging integrity and component identity at receipt.														
	17	Provide exact manufacturer, model/version and country of manufacture, evidenced by manufacturer catalogue and product label; no unidentifiable or mixed-model substitute is acceptable.														
	18	The quoted price shall include all item-specific accessories, installation and commissioning stated here; any site infrastructure connection shall be listed and coordinated before contract award.														



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates			Warrantee			Certified local agent or authorization			Model	Brand	Country of Origin	
	19	Supply a five-year spare/accessory/consumable price list and evidence of an authorized service/replenishment route to Yemen; identify lead times, without reducing the mandatory base package.															
	20	Provide a signed delivery/acceptance checklist matching this item's specifications and included components.															
TOTAL MAXIMUM SCORE — item is eligible only if all Mandatory clauses comply																	
Laparotomy set																	
EQ-0	22																
	1	Reusable surgical instruments made from corrosion-resistant surgical stainless steel appropriate to the instrument function.															
	2	Instrument size, pattern and manufacturer catalogue number shall be declared for every component.															
	3	Instruments shall be free of burrs, sharp unintended edges, pitting and plating defects.															
	4	Hinged instruments shall open smoothly and ratchets shall engage and release correctly.															
	5	Supply a perforated instrument tray with lid sized to the complete set and compatible with the hospital sterilizer.															
	6	Provide validated cleaning, inspection, lubrication and steam-sterilization instructions.															
	7	Scalpel handles No.3 and No.4: 1 of each.															
	8	Mayo scissors, straight and curved: 1 of each.															
	9	Long Metzenbaum scissors: 1 piece.															
	10	Toothed tissue forceps, short and long: 1 of each.															
	11	Plain tissue forceps, short and long: 1 of each.															
	12	Artery forceps, straight and curved: 6 of each.															
	13	Kocher forceps: 4 pieces.															
	14	Allis forceps: 4 pieces.															
	15	Babcock forceps: 4 pieces.															
	16	Non-crushing bowel clamps, straight and curved: 2 of each.															
	17	Mayo-Hegar needle holders, medium and long: 1 of each.															
	18	Sponge-holding forceps: 2 pieces.															
	19	Towel clamps: 6 pieces.															
	20	Self-retaining abdominal retractor with blades: 1 complete assembly.															
	21	Deaver retractors, assorted sizes: 2 pieces.															



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates			Warrantee			Certified local agent or authorization			Model	Brand	Country of Origin
	22	Malleable retractors, assorted sizes: 2 pieces.														
	23	Poole suction tip with connector: 1 piece.														
	24	Stainless-steel bowls: 2 pieces.														
	25	Kidney dish: 1 piece.														
	26	Provide a component-level quotation matching each listed instrument and quantity.														
	27	Every scheduled instrument shall have the specified function, compatible jaw/tip design and surgical-grade corrosion-resistant material; include an itemized catalogue cross-reference.														
	28	Every instrument in the stated set shall be supplied in the scheduled function and size; substitutions require ADRA clinical approval before award and cannot reduce set completeness.														
	29	Reusable instruments shall have corrosion-resistant medical instrument materials appropriate to their cutting, clamping or retracting function.														
	30	Provide manufacturer marking or traceable identification on instruments where practical.														
	31	Ratchets, hinges and box joints shall move freely and close without misalignment.														
	32	Cutting instruments shall cut cleanly and have protected tips for transport.														
	33	Provide validated cleaning, lubrication and sterilization instructions.														
	34	Supply a compartmented/perforated tray or compatible organizer with protection for delicate tips.														
	35	Reusable instruments shall arrive clean and protected in nonsterile packaging; the hospital shall receive validated cleaning and steam-sterilization instructions before first use.														
	36	Perform a signed component count and functional inspection with the receiving theatre team.														
	37	The mandatory base package shall include components needed for routine operation; for provide individual replacement prices so damaged instruments can be replaced without buying a full set, provide separate unit replacement prices and Yemen replenishment lead times for five years. Provide exact manufacturer, model/version and country of manufacture, evidenced by manufacturer catalogue and product label; no unidentifiable or mixed-model substitute is acceptable.														
	38	The quoted price shall include all item-specific accessories, installation and commissioning stated here; any site infrastructure connection shall be listed and coordinated before contract award.														
	40	Supply a five-year spare/accessory/consumable price list and evidence of an authorized service/replenishment route to Yemen; identify lead times, without reducing the mandatory base package.														
	41	Provide a signed delivery/acceptance checklist matching this item's specifications and included components.														
		TOTAL MAXIMUM SCORE — item is eligible only if all Mandatory clauses comply														
Minor surgery and suturing set																
EQ-0	23															
	1	Reusable surgical instruments made from corrosion-resistant surgical stainless steel appropriate to the instrument function.														
	2	Instrument size, pattern and manufacturer catalogue number shall be declared for every component.														
	3	Instruments shall be free of burrs, sharp unintended edges, pitting and plating defects.														



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates	Warrantee	Certified local agent or authorization	Model	Brand	Country of Origin
4		Hinged instruments shall open smoothly and ratchets shall engage and release correctly.								
5		Supply a perforated instrument tray with lid sized to the complete set and compatible with the hospital sterilizer.								
6		Provide validated cleaning, inspection, lubrication and steam-sterilization instructions.								
7		Scalpel handle No.3: 1 piece.								
8		Straight scissors, approximately 14–16 cm: 1 piece.								
9		Curved scissors, approximately 14–16 cm: 1 piece.								
10		Toothed tissue forceps, approximately 14–16 cm: 1 piece.								
11		Plain dressing forceps, approximately 14–16 cm: 1 piece.								
12		Mosquito artery forceps, straight and curved: 2 of each.								
13		Mayo-Hegar needle holder, approximately 16 cm: 1 piece.								
14		Small hand-held retractors: 2 pieces.								
15		Towel clamps: 2 pieces.								
16		Kidney dish: 1 piece.								
17		Provide a component-level quotation matching each listed instrument and quantity.								
18		Every scheduled instrument shall have the specified function, compatible jaw/tip design and surgical-grade corrosion-resistant material; include an itemized catalogue cross-reference.								
19		Every instrument in the stated set shall be supplied in the scheduled function and size; substitutions require ADRA clinical approval before award and cannot reduce set completeness.								
20		Reusable instruments shall have corrosion-resistant medical instrument materials appropriate to their cutting, clamping or retracting function.								
21		Provide manufacturer marking or traceable identification on instruments where practical.								
22		Ratchets, hinges and box joints shall move freely and close without misalignment.								
23		Cutting instruments shall cut cleanly and have protected tips for transport.								
24		Provide validated cleaning, lubrication and sterilization instructions.								
25		Supply a compartmented/perforated tray or compatible organizer with protection for delicate tips.								
26		Reusable instruments shall arrive clean and protected in nonsterile packaging; the hospital shall receive validated cleaning and steam-sterilization instructions before first use.								
27		Perform a signed component count and functional inspection with the receiving theatre team.								
28		The mandatory base package shall include components needed for routine operation; for provide individual replacement prices so damaged instruments can be replaced without buying a full set, provide separate unit replacement prices and Yemen replenishment lead times for five years.								



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates			Warrantee			Certified local agent or authorization			Model	Brand	Country of Origin	
	29	Provide exact manufacturer, model/version and country of manufacture, evidenced by manufacturer catalogue and product label; no unidentifiable or mixed-model substitute is acceptable.															
	30	The quoted price shall include all item-specific accessories, installation and commissioning stated here; any site infrastructure connection shall be listed and coordinated before contract award.															
	31	Supply a five-year spare/accessory/consumable price list and evidence of an authorized service/replenishment route to Yemen; identify lead times, without reducing the mandatory base package.															
	32	Provide a signed delivery/acceptance checklist matching this item's specifications and included components.															
	TOTAL MAXIMUM SCORE — item is eligible only if all Mandatory clauses comply																
Stainless-steel bowls, trays and kidney dishes																	
EQ-0	24																
	1	Each proposed supply set shall include three stainless-steel bowls of approximately 250, 500 and 1,000 mL.															
	2	Include two kidney dishes of approximately 200 and 250 mm length.															
	3	Include one instrument tray of approximately 300 mm × 200 mm with lid.															
	4	Minimum stainless-steel grade 304 or appropriate documented surgical-grade equivalent.															
	5	All items shall have smooth rolled edges and no sharp burrs.															
	6	Surfaces shall resist pitting, corrosion and repeated steam sterilization.															
	7	Provide manufacturer cleaning and sterilization instructions.															
	8	The specified assembly shall accommodate the intended patient/load and fit the approved installation or storage space; submit dimensioned manufacturer evidence before award.															
	9	The item shall fit the approved room and doorway dimensions; submit a manufacturer dimensioned drawing and weight so the purchaser can verify placement before award.															
	10	Patient-facing metal surfaces shall be smooth, corrosion-resistant and cleanable; stainless steel components shall be at least grade 304 where this grade is specified for the item.															
	11	Load-bearing surfaces shall safely support the item-specific minimum load stated in this schedule without permanent deformation during acceptance testing.															
	12	Edges, welds and fasteners shall be smooth, secure and accessible for cleaning.															
	13	All exposed surfaces shall tolerate routine hospital detergent and at least one commonly used healthcare disinfectant at the manufacturer-approved concentration without corrosion or damage.															
	14	Moving or wearing parts shall be individually replaceable through an authorized Yemen service route for at least five years after acceptance.															
	15	Inspect assembly, stability and surface condition at delivery before use.															
	16	Demonstrate all adjustments, locks and brakes fitted to the offered item.															
	17	Provide exact catalogue reference and unit-of-issue for every supplied component.															
	18	Patient- and chemical-contact materials shall be compatible with the specified clinical use and cleaning/disinfection method and shall be free from prohibited latex where direct contact is expected.															
	19	Provide manufacturer labels showing lot/batch traceability where applicable.															



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates			Warrantee			Certified local agent or authorization			Model	Brand	Country of Origin	
	20	Expiring supplies shall be delivered with at least 75% of labelled shelf life remaining and storage conditions compatible with the hospital supply chain.															
	21	All reusable components shall have validated cleaning/reprocessing instructions; all single-use components shall be labelled as such and supplied in the quantities specified for this item.															
	22	Inspect quantities, packaging integrity and component identity at receipt.															
	23	Provide exact manufacturer, model/version and country of manufacture, evidenced by manufacturer catalogue and product label; no unidentifiable or mixed-model substitute is acceptable.															
	24	The quoted price shall include all item-specific accessories, installation and commissioning stated here; any site infrastructure connection shall be listed and coordinated before contract award.															
	25	Supply a five-year spare/accessory/consumable price list and evidence of an authorized service/replenishment route to Yemen; identify lead times, without reducing the mandatory base package.															
	26	Provide a signed delivery/acceptance checklist matching this item's specifications and included components.															
	TOTAL MAXIMUM SCORE — Item is eligible only if all Mandatory clauses comply																
LOT 03 Recovery and preparation																	
Adult and children bag-valve-mask set																	
EQ-0	25																
	1	Each set shall contain one adult and one pediatric self-inflating resuscitation bag.															
	2	Bags shall refill without compressed gas and allow oxygen enrichment when a supply is connected.															
	3	Each bag shall have a non-rebreathing patient valve and oxygen reservoir.															
	4	Supply oxygen tubing for each bag.															
	5	Supply adult masks in two sizes and pediatric masks in two sizes appropriate to the offered bags.															
	6	Masks shall be transparent with a soft sealing rim.															
	7	Pediatric bag shall have a pressure-limiting valve with clearly identified override if provided.															
	8	Manufacturer shall declare intended patient weight ranges and bag volumes.															
	9	Reusable patient-contact components shall have validated cleaning and steam-reprocessing instructions where applicable.															
	10	Supply a protective storage case and perform leak/valve tests at delivery.															
	11	The specified assembly shall accommodate the intended patient/load and fit the approved installation or storage space; submit dimensioned manufacturer evidence before award.															
	12	The specified assembly shall accommodate the intended patient/load and fit the approved installation or storage space; submit dimensioned manufacturer evidence before award.															
	13	The supplied configuration shall include reusable versus single-use patient-contact components as an operational feature, with manufacturer evidence and acceptance demonstration.															
	14	Provide a validated reprocessing procedure for each reusable component.															
	15	Provide a pre-use functional inspection procedure.															



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates			Warrantee			Certified local agent or authorization			Model	Brand	Country of Origin	
	16	The mandatory base package shall include components needed for routine operation; for price replacement valves, seals, blades or other wearable parts as applicable, provide separate unit replacement prices and Yemen replenishment lead times for five years.															
	17	Demonstrate complete assembly and safe functional operation with the receiving clinical team.															
	18	Provide exact manufacturer, model/version and country of manufacture, evidenced by manufacturer catalogue and product label; no unidentifiable or mixed-model substitute is acceptable.															
	19	The quoted price shall include all item-specific accessories, installation and commissioning stated here; any site infrastructure connection shall be listed and coordinated before contract award.															
	20	Supply a five-year spare/accessory/consumable price list and evidence of an authorized service/replenishment route to Yemen; identify lead times, without reducing the mandatory base package.															
	21	Provide a signed delivery/acceptance checklist matching this item's specifications and included components.															
	TOTAL MAXIMUM SCORE — item is eligible only if all Mandatory clauses comply																
Adult/paediatric laryngoscope set																	
EQ-0	26																
	1	Reusable diagnostic laryngoscope set with bright LED illumination.															
	2	Handle and blades shall have a standardized compatible connection.															
	3	Provide a corrosion-resistant handle with secure battery compartment.															
	4	Supply rechargeable power with charger or readily available batteries as appropriate to the offered handle.															
	5	Supply spare light/power components or a complete backup handle.															
	6	Blades shall lock securely and have smooth atraumatic edges.															
	7	Provide validated blade reprocessing instructions and handle cleaning instructions.															
	8	Supply a protective case with individual blade retention.															
	9	Demonstrate illumination and correct locking of every blade.															
	10	Supply Macintosh blades sizes 1, 2, 3 and 4, one of each.															
	11	Supply Miller straight blades sizes 0 and 1, one of each.															
	12	Provide one adult and one pediatric handle.															
	13	The specified assembly shall accommodate the intended patient/load and fit the approved installation or storage space; submit dimensioned manufacturer evidence before award.															
	14	The specified assembly shall accommodate the intended patient/load and fit the approved installation or storage space; submit dimensioned manufacturer evidence before award.															
	15	The supplied configuration shall include reusable versus single-use patient-contact components as an operational feature, with manufacturer evidence and acceptance demonstration.															
	16	Provide a validated reprocessing procedure for each reusable component.															
	17	Provide a pre-use functional inspection procedure.															



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates			Warrantee			Certified local agent or authorization			Model	Brand	Country of Origin	
	18	The mandatory base package shall include components needed for routine operation; for price replacement valves, seals, blades or other wearable parts as applicable, provide separate unit replacement prices and Yemen replenishment lead times for five years.															
	19	Demonstrate complete assembly and safe functional operation with the receiving clinical team.															
	20	Provide exact manufacturer, model/version and country of manufacture, evidenced by manufacturer catalogue and product label; no unidentifiable or mixed-model substitute is acceptable.															
	21	The quoted price shall include all item-specific accessories, installation and commissioning stated here; any site infrastructure connection shall be listed and coordinated before contract award.															
	22	Supply a five-year spare/accessory/consumable price list and evidence of an authorized service/replenishment route to Yemen; identify lead times, without reducing the mandatory base package.															
	23	Provide a signed delivery/acceptance checklist matching this item's specifications and included components.															
	TOTAL MAXIMUM SCORE — item is eligible only if all Mandatory clauses comply																
Glucometer and thermometer																	
EQ-0	29																
	1	Portable quantitative blood-glucose meter for professional clinical use.															
	2	Measurement range shall cover at least 20–600 mg/dL or an equivalent mmol/L range.															
	3	Provide selectable or clearly labelled measurement units.															
	4	Require small capillary blood sample, proposed maximum 2 microlitres.															
	5	Display result within approximately 15 seconds.															
	6	Provide low/high result warnings and error messages for inadequate sample or strip failure.															
	7	Supply 200 compatible test strips and 200 single-use safety lancets per meter.															
	8	Supply control solutions covering at least two control levels and a documented quality-control procedure.															
	9	The supplied strips shall remain stable within the labelled hospital storage range, include clear in-use expiry and support at least 30–55% hematocrit with manufacturer-listed interferences.															
	10	Supply batteries, protective case and evidence of performance for the intended patient population.															
	11	Identify ongoing strip/control costs and local availability.															
	12	Capillary results outside the validated clinical conditions shall require laboratory confirmation under hospital policy.															
	13	Include one digital clinical thermometer with display resolution 0.1 °C.															
	14	Thermometer shall cover approximately 32–42 °C and have accuracy within ±0.2 °C over the clinical range.															
	15	Supply 100 compatible probe covers if required by the thermometer design.															
	16	Thermometer shall include batteries and validated cleaning instructions.															
	17	The instrument shall measure across the full clinically intended range with readable resolution and an accuracy claim supported by manufacturer test evidence; item-specific numerical limits elsewhere in this schedule govern acceptance.															

Page 24 of 126



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates			Warrantee			Certified local agent or authorization			Model	Brand	Country of Origin	
	18	Specified measurement accuracy shall be maintained at the receiving hospital's controlled operating temperature and humidity; provide the manufacturer validation range.															
	19	Provide calibration/verification instructions and traceable test evidence appropriate to the instrument.															
	20	The specified assembly shall accommodate the intended patient/load and fit the approved installation or storage space; submit dimensioned manufacturer evidence before award.															
	21	Battery-powered equipment shall include a rechargeable battery, a clear state-of-charge/low-battery indication and enough capacity for at least 60 minutes of normal use, unless a stricter duration is specified.															
	22	All included strips, sensors or reagents shall remain usable under the labelled storage conditions achievable in the hospital; provide protective packaging and expiry labels.															
	23	Verify representative low, mid and high measurements using suitable reference equipment or control materials.															
	24	The mandatory base package shall include components needed for routine operation; for provide replacement sensor/consumable references with package sizes and prices, provide separate unit replacement prices and Yemen replenishment lead times for five years.															
	25	The portable test shall use the specified patient specimen (capillary whole blood where applicable) and require no more than 20 µL per routine test unless the item's core clause is stricter.															
	26	A routine test result shall be displayed within five minutes after sample introduction, using the manufacturer-validated measurement principle and supplied consumables.															
	27	List known interferences and limitations from the manufacturer instructions.															
	28	The measurement system shall support at least 30–55% hematocrit for the intended adult population, with manufacturer-listed interferences supplied.															
	29	Provide control materials and a documented internal quality-control procedure.															
	30	Consumables shall be delivered with at least 75% of labelled shelf life remaining; in-use life after opening shall be at least the manufacturer-validated period printed on the package.															
	31	Routine lot changes shall use supplied coding/calibration materials, with no unpriced proprietary tool or service call required for routine user calibration.															
	32	Provide training in sample collection, infection control and unexpected-result verification.															
	33	Provide exact manufacturer, model/version and country of manufacture, evidenced by manufacturer catalogue and product label; no unidentifiable or mixed-model substitute is acceptable.															
	34	The quoted price shall include all item-specific accessories, installation and commissioning stated here; any site infrastructure connection shall be listed and coordinated before contract award.															
	35	Supply a five-year spare/accessory/consumable price list and evidence of an authorized service/replenishment route to Yemen; identify lead times, without reducing the mandatory base package.															
	36	Provide a signed delivery/acceptance checklist matching this item's specifications and included components.															
TOTAL MAXIMUM SCORE — item is eligible only if all Mandatory clauses comply																	
Infusion pump																	
EQ-0	30																
	1	Volumetric infusion pump with controlled delivery through manufacturer-validated administration sets.															
	2	Flow-rate setting shall cover at least 0.1–1,200 mL/h, with appropriate low-rate increments.															
	3	Delivery accuracy shall be within ±5% under the manufacturer's specified conditions with the approved set.															
	4	Provide programmable volume-to-be-infused, infused-volume display and keep-vein-open function.															



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates	Warrantee	Certified local agent or authorization	Model	Brand	Country of Origin
5		Provide controlled bolus function with rate and volume limits.								
6		Provide anti-free-flow protection when the door is open or the set is removed.								
7		Provide air-in-line detection with alarm and infusion stop.								
8		Provide upstream/downstream occlusion detection as supported by the design.								
9		Alarms shall include air, occlusion, open door, end of infusion, low battery and power failure.								
10		Provide internal rechargeable battery for at least two hours at 25 mL/h.								
11		Supply pole clamp and 100 compatible administration sets per pump.								
12		Declare all approved set references, local availability and unit prices.								
13		Do not claim compatibility with arbitrary generic tubing without manufacturer validation.								
14		Verify flow, air detection, occlusion and free-flow protection at acceptance.								
15		Infusion setting increments shall be no greater than 0.1 mL/h below 10 mL/h and no greater than 1 mL/h at higher routine settings.								
16		At low infusion rates the pump shall maintain continuous programmed delivery without an unannounced startup delay or free flow; demonstrate at 1 mL/h during acceptance.								
17		Infusion accuracy shall be within $\pm 5\%$ using the supplied compatible set or syringe under the manufacturer-validated standard conditions.								
18		VTBI shall be programmable from at least 1 mL to 999 mL with increments of 1 mL or finer over routine clinical settings.								
19		A clinician-controlled bolus function shall have configurable dose/rate limits and a lockable control to prevent accidental activation.								
20		At completion of the programmed infusion, the pump shall alarm and either stop safely or enter a configurable KVO rate no greater than 5 mL/h.								
21		Occlusion alarm threshold shall offer at least three selectable sensitivity levels, with audible/visual alarm and automatic interruption of delivery.								
22		An occlusion shall cause audible/visual alarm and stop delivery at the selected threshold; demonstrate at one low and one medium infusion rate during acceptance.								
23		Provide clear identification of an ongoing infusion, stopped infusion and alarm state.								
24		Controls shall permit prompt stopping of infusion by the user.								
25		Provide keypad/settings lock to reduce unintended changes.								
26		The device shall retain at least 24 hours of alarm/event history retrievable from the screen or an export interface.								
27		The supplied configuration shall include any drug library or dose calculation features included; describe local configuration requirements as an operational feature, with manufacturer evidence and acceptance demonstration.								
28		The supplied item shall provide the power-failure safeguard or battery function described here, with audible/visual warning and automatic recovery; verify at commissioning against the item-specific duration and performance limits.								
29		Mounting clamp shall secure the pump without obstructing controls or damaging poles.								



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates			Warrantee			Certified local agent or authorization			Model	Brand	Country of Origin
	30	Provide validated cleaning agents and protection precautions for fluid ingress.														
	31	Test delivery at low, medium and high representative rates using the approved consumables.														
	32	Test occlusion and post-occlusion behavior using an infusion analyzer.														
	33	The delivered configuration shall include and demonstrate the specified five-year consumable pricing and replenishment arrangements for all proprietary sets or syringes; it shall meet any explicit item-specific minimum in this schedule, with manufacturer test evidence at acceptance. Provide exact manufacturer, model/version and country of manufacture, evidenced by manufacturer catalogue and product label; no unidentifiable or mixed-model substitute is acceptable.														
	34															
	35	The quoted price shall include all item-specific accessories, installation and commissioning stated here; any site infrastructure connection shall be listed and coordinated before contract award.														
	36	Supply a five-year spare/accessory/consumable price list and evidence of an authorized service/replenishment route to Yemen; identify lead times, without reducing the mandatory base package.														
	37	Provide a signed delivery/acceptance checklist matching this item's specifications and included components.														
	38	The source line does not state volumetric versus other infusion technology; quote the offered pump as a programmable volumetric infusion pump and declare compatible sets and maintenance costs.														
TOTAL MAXIMUM SCORE — item is eligible only if all Mandatory clauses comply																
Medical suction unit																
EQ-0	31															
	1	Medical electric suction device with oil-free pump and continuously adjustable vacuum.														
	2	Vacuum control shall cover gentle aspiration through at least -600 mmHg for the intended adult/surgical use.														
	3	Vacuum gauge shall be readable and calibrated in kPa or mmHg.														
	4	Free-air flow at least 30 L/min unless a higher requirement is specified below.														
	5	Collection containers shall be transparent, impact resistant and clearly graduated.														
	6	Provide overflow shutoff and a hydrophobic bacterial filter between collection system and pump.														
	7	Supply patient tubing, vacuum tubing, connecting fittings and two spare bacterial filters.														
	8	Reusable containers shall have validated cleaning/disinfection or sterilization instructions.														
	9	Provide continuous-duty rating appropriate to the intended department.														
	10	Demonstrate vacuum regulation, free-air flow and overflow protection at commissioning.														
	11	Supply a stable mobile stand with braked castors.														
	12	Supply at least two collection jars of 2 L each.														
	13	Surgical suction shall provide free-air flow of at least 20 L/min and adjustable maximum vacuum of at least –70 kPa; neonatal low-pressure suction shall provide finely regulated low vacuum suitable for newborns.														
	14	Vacuum shall be continuously adjustable from near zero to the rated maximum with a readable kPa/mmHg gauge; neonatal variants shall include a positive low-suction limiter.														



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates			Warrantee			Certified local agent or authorization			Model	Brand	Country of Origin
	15	Provide an easily accessible vacuum adjustment and readable gauge.														
	16	The suction unit shall be rated for continuous clinical operation without thermal shutdown during a 60-minute functional test.														
	17	Provide two reusable, transparent collection jars of at least 2 L usable capacity each for the double-jar unit, or the item-specific stated capacity for other suction devices, with overflow protection.														
	18	Provide overflow shutoff and a compatible hydrophobic/bacterial filter before the pump.														
	19	All relevant components shall withstand the manufacturer-validated cleaning, disinfection or sterilization method required for their specified clinical reuse; include validated instructions.														
	20	Provide clearly labelled patient and vacuum connections to avoid reversed assembly.														
	21	Operating noise shall not exceed 65 dB(A) at 1 m under normal load unless a more restrictive item-specific limit is stated.														
	22	The mandatory base package shall include components needed for routine operation; for price jars, lids, filters and patient tubing separately, provide separate unit replacement prices and Yemen replenishment lead times for five years.														
	23	Test vacuum regulation, flow and overflow protection at acceptance.														
	24	Demonstrate safe emptying, cleaning and filter replacement without contaminating the pump.														
	25	Provide exact manufacturer, model/version and country of manufacture, evidenced by manufacturer catalogue and product label; no unidentifiable or mixed-model substitute is acceptable.														
	26	The quoted price shall include all item-specific accessories, installation and commissioning stated here; any site infrastructure connection shall be listed and coordinated before contract award.														
	27	Supply a five-year spare/accessory/consumable price list and evidence of an authorized service/replenishment route to Yemen; identify lead times, without reducing the mandatory base package.														
	28	Provide a signed delivery/acceptance checklist matching this item's specifications and included components.														
	TOTAL MAXIMUM SCORE — item is eligible only if all Mandatory clauses comply															
	Multiparameter anesthesia monitor															
EQ-0	32															
	1	Continuous multiparameter monitoring with ECG, heart rate, respiration, SpO2, non-invasive blood pressure and temperature.														
	2	Provide selectable adult and pediatric patient profiles with appropriate alarm limits.														
	3	Colour display at least 10 inches for bedside viewing.														
	4	ECG monitoring using 3/5-lead cable; this is not a substitute for a diagnostic 12-lead ECG machine.														
	5	NIBP shall support manual, automatic interval and rapid measurement modes.														
	6	Display systolic, diastolic and mean arterial pressure in mmHg.														
	7	SpO2 shall display saturation, pulse rate, plethysmographic waveform and signal-quality indication.														
	8	Temperature display resolution 0.1 °C; supply a reusable temperature probe.														
	9	Provide user-adjustable audible and visual high/low physiological alarms.														



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates	Warrantee	Certified local agent or authorization	Model	Brand	Country of Origin
10		Provide technical alarms for disconnected sensors, measurement failure and low battery.								
11		Store at least 24 hours of trends and alarm events.								
12		Internal rechargeable battery shall provide at least two hours of typical monitoring; state test conditions.								
13		Supply one ECG cable, one reusable SpO2 probe and adult/pediatric NIBP cuffs as appropriate to the patient group.								
14		Supply a compatible trolley or wall mount with secure cable management.								
15		Verify ECG, pressure, SpO2 and temperature performance using appropriate test equipment at acceptance.								
16		EtCO2 module shall be supplied and enabled, with capnogram, EtCO2, inspired CO2 and airway respiratory rate.								
17		Capnography shall include apnea/disconnection alarms and adult/pediatric accessories.								
18		Supply 20 compatible sampling lines/airway adapters and water traps as applicable; confirm consumable prices.								
19		ECG monitoring shall support at least 3-lead and 5-lead operation and include one reusable 5-lead ECG cable per device for the specified patient group.								
20		Heart-rate display shall cover at least 30–250 bpm for specified patient groups with alarm limits; accuracy within ± 5 bpm or $\pm 5\%$, whichever is greater.								
21		Provide ECG lead-off detection and an obvious disconnected-sensor indication.								
22		ECG display shall provide 25 and 50 mm/s sweep speeds, selectable gain and a 50 Hz mains filter without obscuring clinically relevant rhythms.								
23		Provide common lethal-arrhythmia alarms (asystole, ventricular fibrillation and ventricular tachycardia) and a pacemaker detection indicator in the supplied software.								
24		SpO2 display shall cover 0–100%; accuracy shall be within ± 3 percentage points over 70–100% with the supplied clinically appropriate sensor.								
25		Include reusable adult and paediatric SpO2 sensors with the respective monitor; neonatal devices shall additionally include a neonatal-compatible sensor.								
26		Provide SpO2 pulse waveform or signal-quality indication to help identify unreliable readings.								
27		NIBP shall accommodate the specified patient groups with correctly sized reusable cuffs and independent overpressure protection; adult systolic measurement range shall encompass 40–260 mmHg.								
28		Provide manual start/stop and automatic interval NIBP modes.								
29		Supply reusable NIBP cuffs covering the intended patients, with a size/circumference list.								
30		At least one temperature channel with the appropriate reusable probe shall be supplied; displayed accuracy shall be within ± 0.2 °C over the clinical range.								
31		Respiratory rate shall be displayed from the offered ECG impedance or CO2 method, with configurable apnea alarm for the specified patient group.								
32		Provide adjustable audible and visual parameter alarms with clear priority indication.								
33		Alarm settings and patient category shall be reviewable on admission of a new patient.								
34		The monitor shall store at least 24 hours of numerical trends and retain alarms/events for review after temporary mains interruption.								



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates			Warrantee			Certified local agent or authorization			Model	Brand	Country of Origin	
EQ-0	35	The supplied item shall provide the power-failure safeguard or battery function described here, with audible/visual warning and automatic recovery; verify at commissioning against the item-specific duration and performance limits.															
	36	Provide a patient data clear/discharge function to prevent mixing records.															
	37	With all specified monitoring modules active, internal battery shall provide at least 60 minutes of operation and display a low-battery alarm.															
	38	Provide mounting hardware with load rating appropriate to the offered monitor.															
	39	The mandatory base package shall include components needed for routine operation; for price replacement ECG cables, SpO2 sensors, cuffs, hoses and temperature probes individually, provide separate unit replacement prices and Yemen replenishment lead times for five years.															
	40	Demonstrate all supplied parameters using appropriate calibrated simulators at acceptance.															
	41	The supplied configuration shall include mainstream or sidestream measurement technology and its adult/pediatric indications as an operational feature, with manufacturer evidence and acceptance demonstration.															
	42	EtCO ₂ monitoring shall cover at least 0–99 mmHg with waveform, respiratory-rate display and adjustable apnea alarm; accuracy shall be within ±2 mmHg or ±5% of reading in the normal clinical range.															
	43	The delivered configuration shall include and demonstrate the specified sampling flow and dead-space volume of supplied patient adapters; it shall meet any explicit item-specific minimum in this schedule, with manufacturer test evidence at acceptance.															
	44	Provide high/low EtCO2, apnea and sampling-line obstruction alarms as applicable.															
	45	Supply the water traps, sampling lines or reusable adapters required by the offered technology.															
	46	Document any restrictions on use with small pediatric patients or oxygen delivery interfaces.															
	47	Provide exact manufacturer, model/version and country of manufacture, evidenced by manufacturer catalogue and product label; no unidentifiable or mixed-model substitute is acceptable.															
	48	The quoted price shall include all item-specific accessories, installation and commissioning stated here; any site infrastructure connection shall be listed and coordinated before contract award.															
	49	Supply a five-year spare/accessory/consumable price list and evidence of an authorized service/replenishment route to Yemen; identify lead times, without reducing the mandatory base package.															
	50	Provide a signed delivery/acceptance checklist matching this item's specifications and included components.															
	TOTAL MAXIMUM SCORE — item is eligible only if all Mandatory clauses comply																
	Recovery multiparameter monitor																
EQ-0	34																
1		Continuous multiparameter monitoring with ECG, heart rate, respiration, SpO2, non-invasive blood pressure and temperature.															
2		Provide selectable adult and pediatric patient profiles with appropriate alarm limits.															
3		Colour display at least 10 inches for bedside viewing.															
4		ECG monitoring using 3/5-lead cable; this is not a substitute for a diagnostic 12-lead ECG machine.															
5		NIBP shall support manual, automatic interval and rapid measurement modes.															
6		Display systolic, diastolic and mean arterial pressure in mmHg.															
7		SpO2 shall display saturation, pulse rate, plethysmographic waveform and signal-quality indication.															



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates			Warrantee			Certified local agent or authorization			Model	Brand	Country of Origin
8		Temperature display resolution 0.1 °C; supply a reusable temperature probe.														
9		Provide user-adjustable audible and visual high/low physiological alarms.														
10		Provide technical alarms for disconnected sensors, measurement failure and low battery.														
11		Store at least 24 hours of trends and alarm events.														
12		Internal rechargeable battery shall provide at least two hours of typical monitoring; state test conditions.														
13		Supply one ECG cable, one reusable SpO2 probe and adult/pediatric NIBP cuffs as appropriate to the patient group.														
14		Supply a compatible trolley or wall mount with secure cable management.														
15		Verify ECG, pressure, SpO2 and temperature performance using appropriate test equipment at acceptance.														
16		Recovery configuration shall provide continuous ECG and apnea alarms; capnography needs shall be confirmed against the recovery-care protocol.														
17		ECG monitoring shall support at least 3-lead and 5-lead operation and include one reusable 5-lead ECG cable per device for the specified patient group.														
18		Heart-rate display shall cover at least 30–250 bpm for specified patient groups with alarm limits; accuracy within ±5 bpm or ±5%, whichever is greater.														
19		Provide ECG lead-off detection and an obvious disconnected-sensor indication.														
20		ECG display shall provide 25 and 50 mm/s sweep speeds, selectable gain and a 50 Hz mains filter without obscuring clinically relevant rhythms.														
21		Provide common lethal-arrhythmia alarms (asystole, ventricular fibrillation and ventricular tachycardia) and a pacemaker detection indicator in the supplied software.														
22		SpO2 display shall cover 0–100%; accuracy shall be within ±3 percentage points over 70–100% with the supplied clinically appropriate sensor.														
23		Include reusable adult and paediatric SpO2 sensors with the respective monitor; neonatal devices shall additionally include a neonatal-compatible sensor.														
24		Provide SpO2 pulse waveform or signal-quality indication to help identify unreliable readings.														
25		NIBP shall accommodate the specified patient groups with correctly sized reusable cuffs and independent overpressure protection; adult systolic measurement range shall encompass 40–260 mmHg.														
26		Provide manual start/stop and automatic interval NIBP modes.														
27		Supply reusable NIBP cuffs covering the intended patients, with a size/circumference list.														
28		At least one temperature channel with the appropriate reusable probe shall be supplied; displayed accuracy shall be within ±0.2 °C over the clinical range.														
29		Respiratory rate shall be displayed from the offered ECG impedance or CO2 method, with configurable apnea alarm for the specified patient group.														
30		Provide adjustable audible and visual parameter alarms with clear priority indication.														
31		Alarm settings and patient category shall be reviewable on admission of a new patient.														
32		The monitor shall store at least 24 hours of numerical trends and retain alarms/events for review after temporary mains interruption.														



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates			Warrantee			Certified local agent or authorization			Model	Brand	Country of Origin
	33	The supplied item shall provide the power-failure safeguard or battery function described here, with audible/visual warning and automatic recovery; verify at commissioning against the item-specific duration and performance limits.														
	34	Provide a patient data clear/discharge function to prevent mixing records.														
	35	With all specified monitoring modules active, internal battery shall provide at least 60 minutes of operation and display a low-battery alarm.														
	36	Provide mounting hardware with load rating appropriate to the offered monitor.														
	37	The mandatory base package shall include components needed for routine operation; for price replacement ECG cables, SpO2 sensors, cuffs, hoses and temperature probes individually, provide separate unit replacement prices and Yemen replenishment lead times for five years.														
	38	Demonstrate all supplied parameters using appropriate calibrated simulators at acceptance.														
	39	Provide exact manufacturer, model/version and country of manufacture, evidenced by manufacturer catalogue and product label; no unidentifiable or mixed-model substitute is acceptable.														
	40	The quoted price shall include all item-specific accessories, installation and commissioning stated here; any site infrastructure connection shall be listed and coordinated before contract award.														
	41	Supply a five-year spare/accessory/consumable price list and evidence of an authorized service/replenishment route to Yemen; identify lead times, without reducing the mandatory base package.														
	42	Provide a signed delivery/acceptance checklist matching this item's specifications and included components.														
TOTAL MAXIMUM SCORE — item is eligible only if all Mandatory clauses comply																
Recovery suction unit																
EQ-0	35															
	1	Medical electric suction device with oil-free pump and continuously adjustable vacuum.														
	2	Vacuum control shall cover gentle aspiration through at least -600 mmHg for the intended adult/surgical use.														
	3	Vacuum gauge shall be readable and calibrated in kPa or mmHg.														
	4	Free-air flow at least 30 L/min unless a higher requirement is specified below.														
	5	Collection containers shall be transparent, impact resistant and clearly graduated.														
	6	Provide overflow shutoff and a hydrophobic bacterial filter between collection system and pump.														
	7	Supply patient tubing, vacuum tubing, connecting fittings and two spare bacterial filters.														
	8	Reusable containers shall have validated cleaning/disinfection or sterilization instructions.														
	9	Provide continuous-duty rating appropriate to the intended department.														
	10	Demonstrate vacuum regulation, free-air flow and overflow protection at commissioning.														
	11	Supply a stable mobile stand with braked castors.														
	12	Supply at least two collection jars of 2 L each.														
	13	Surgical suction shall provide free-air flow of at least 20 L/min and adjustable maximum vacuum of at least –70 kPa; neonatal low-pressure suction shall provide finely regulated low vacuum suitable for newborns.														

Page 22 of 126



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates			Warrantee			Certified local agent or authorization			Model	Brand	Country of Origin	
14		Vacuum shall be continuously adjustable from near zero to the rated maximum with a readable kPa/mmHg gauge; neonatal variants shall include a positive low-suction limiter.															
15		Provide an easily accessible vacuum adjustment and readable gauge.															
16		The suction unit shall be rated for continuous clinical operation without thermal shutdown during a 60-minute functional test.															
17		Provide two reusable, transparent collection jars of at least 2 L usable capacity each for the double-jar unit, or the item-specific stated capacity for other suction devices, with overflow protection.															
18		Provide overflow shutoff and a compatible hydrophobic/bacterial filter before the pump.															
19		All relevant components shall withstand the manufacturer-validated cleaning, disinfection or sterilization method required for their specified clinical reuse; include validated instructions.															
20		Provide clearly labelled patient and vacuum connections to avoid reversed assembly.															
21		Operating noise shall not exceed 65 dB(A) at 1 m under normal load unless a more restrictive item-specific limit is stated.															
22		The mandatory base package shall include components needed for routine operation; for price jars, lids, filters and patient tubing separately, provide separate unit replacement prices and Yemen replenishment lead times for five years.															
23		Test vacuum regulation, flow and overflow protection at acceptance.															
24		Demonstrate safe emptying, cleaning and filter replacement without contaminating the pump.															
25		Provide exact manufacturer, model/version and country of manufacture, evidenced by manufacturer catalogue and product label; no unidentifiable or mixed-model substitute is acceptable.															
26		The quoted price shall include all item-specific accessories, installation and commissioning stated here; any site infrastructure connection shall be listed and coordinated before contract award.															
27		Supply a five-year spare/accessory/consumable price list and evidence of an authorized service/replenishment route to Yemen; identify lead times, without reducing the mandatory base package.															
28		Provide a signed delivery/acceptance checklist matching this item's specifications and included components.															
TOTAL MAXIMUM SCORE — item is eligible only if all Mandatory clauses comply																	



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates	Warrantee	Certified local agent or authorization	Model	Brand	Country of Origin
LOT 04 Intensive care and high dependency										
Airway management and resuscitation set										
EQ-0	36									
1		One complete airway set for adult and pediatric intubation and emergency ventilation.								
2		Include one adult and one pediatric self-inflating bag, oxygen reservoirs and appropriate masks.								
3		Include one laryngoscope handle with Macintosh blades sizes 2, 3 and 4 and Miller blade size 1.								
4		Include one spare handle or complete spare light/power assembly.								
5		Include cuffed endotracheal tubes, internal diameters 4.0–8.5 mm in 0.5 mm steps, two of each size.								
6		Include ten oropharyngeal airways spanning pediatric and adult sizes.								
7		Include two adult and two pediatric intubating stylets with atraumatic tips.								
8		Include one adult and one pediatric Magill forceps.								
9		Include two adult tracheal introducers and two pediatric introducers appropriate to the tube sizes.								
10		Include one cuff-pressure manometer and two 10 mL cuff-inflation syringes.								
11		Include two supraglottic airways each in sizes 1, 2, 3, 4 and 5, subject to clinical approval.								
12		Provide an organized washable case and a detailed component checklist.								
13		All disposable airway items shall be individually sterile and labelled with size and expiry.								
14		Proposed kit composition and overlap with separately listed airway items require clinical sign-off.								
15		The specified assembly shall accommodate the intended patient/load and fit the approved installation or storage space; submit dimensioned manufacturer evidence before award.								
16		The specified assembly shall accommodate the intended patient/load and fit the approved installation or storage space; submit dimensioned manufacturer evidence before award.								
17		The supplied configuration shall include reusable versus single-use patient-contact components as an operational feature, with manufacturer evidence and acceptance demonstration.								
18		Provide a validated reprocessing procedure for each reusable component.								
19		Provide a pre-use functional inspection procedure.								
20		The mandatory base package shall include components needed for routine operation; for price replacement valves, seals, blades or other wearable parts as applicable, provide separate unit replacement prices and Yemen replenishment lead times for five years.								
21		Demonstrate complete assembly and safe functional operation with the receiving clinical team.								
22		Provide exact manufacturer, model/version and country of manufacture, evidenced by manufacturer catalogue and product label; no unidentifiable or mixed-model substitute is acceptable.								



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates			Warrantee			Certified local agent or authorization			Model	Brand	Country of Origin		
	23	The quoted price shall include all item-specific accessories, installation and commissioning stated here; any site infrastructure connection shall be listed and coordinated before contract award.																
	24	Supply a five-year spare/accessory/consumable price list and evidence of an authorized service/replenishment route to Yemen; identify lead times, without reducing the mandatory base package.																
	25	Provide a signed delivery/acceptance checklist matching this item's specifications and included components.																
	TOTAL MAXIMUM SCORE — item is eligible only if all Mandatory clauses comply																	
ICU multiparameter monitor with holder																		
EQ-0	39																	
	1	Continuous multiparameter monitoring with ECG, heart rate, respiration, SpO2, non-invasive blood pressure and temperature.																
	2	Provide selectable adult and pediatric patient profiles with appropriate alarm limits.																
	3	Colour display at least 10 inches for bedside viewing.																
	4	ECG monitoring using 3/5-lead cable; this is not a substitute for a diagnostic 12-lead ECG machine.																
	5	NIBP shall support manual, automatic interval and rapid measurement modes.																
	6	Display systolic, diastolic and mean arterial pressure in mmHg.																
	7	SpO2 shall display saturation, pulse rate, plethysmographic waveform and signal-quality indication.																
	8	Temperature display resolution 0.1 °C; supply a reusable temperature probe.																
	9	Provide user-adjustable audible and visual high/low physiological alarms.																
	10	Provide technical alarms for disconnected sensors, measurement failure and low battery.																
	11	Store at least 24 hours of trends and alarm events.																
	12	Internal rechargeable battery shall provide at least two hours of typical monitoring; state test conditions.																
	13	Supply one ECG cable, one reusable SpO2 probe and adult/pediatric NIBP cuffs as appropriate to the patient group.																
	14	Supply a compatible trolley or wall mount with secure cable management.																
	15	Verify ECG, pressure, SpO2 and temperature performance using appropriate test equipment at acceptance.																
	16	ECG monitoring shall support at least 3-lead and 5-lead operation and include one reusable 5-lead ECG cable per device for the specified patient group.																
	17	Heart-rate display shall cover at least 30–250 bpm for specified patient groups with alarm limits; accuracy within ±5 bpm or ±5%, whichever is greater.																
	18	Provide ECG lead-off detection and an obvious disconnected-sensor indication.																
	19	ECG display shall provide 25 and 50 mm/s sweep speeds, selectable gain and a 50 Hz mains filter without obscuring clinically relevant rhythms.																
	20	Provide common lethal-arrhythmia alarms (asystole, ventricular fibrillation and ventricular tachycardia) and a pacemaker detection indicator in the supplied software.																



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates			Warrantee			Certified local agent or authorization			Model	Brand	Country of Origin	
21		SpO ₂ display shall cover 0–100%; accuracy shall be within ±3 percentage points over 70–100% with the supplied clinically appropriate sensor.															
22		Include reusable adult and paediatric SpO ₂ sensors with the respective monitor; neonatal devices shall additionally include a neonatal-compatible sensor.															
23		Provide SpO2 pulse waveform or signal-quality indication to help identify unreliable readings.															
24		NIBP shall accommodate the specified patient groups with correctly sized reusable cuffs and independent overpressure protection; adult systolic measurement range shall encompass 40–260 mmHg.															
25		Provide manual start/stop and automatic interval NIBP modes.															
26		Supply reusable NIBP cuffs covering the intended patients, with a size/circumference list.															
27		At least one temperature channel with the appropriate reusable probe shall be supplied; displayed accuracy shall be within ±0.2 °C over the clinical range.															
28		Respiratory rate shall be displayed from the offered ECG impedance or CO ₂ method, with configurable apnea alarm for the specified patient group.															
29		Provide adjustable audible and visual parameter alarms with clear priority indication.															
30		Alarm settings and patient category shall be reviewable on admission of a new patient.															
31		The monitor shall store at least 24 hours of numerical trends and retain alarms/events for review after temporary mains interruption.															
32		The supplied item shall provide the power-failure safeguard or battery function described here, with audible/visual warning and automatic recovery; verify at commissioning against the item-specific duration and performance limits.															
33		Provide a patient data clear/discharge function to prevent mixing records.															
34		With all specified monitoring modules active, internal battery shall provide at least 60 minutes of operation and display a low-battery alarm.															
35		Provide mounting hardware with load rating appropriate to the offered monitor.															
36		The mandatory base package shall include components needed for routine operation; for price replacement ECG cables, SpO2 sensors, cuffs, hoses and temperature probes individually, provide separate unit replacement prices and Yemen replenishment lead times for five years.															
37		Demonstrate all supplied parameters using appropriate calibrated simulators at acceptance.															
38		Provide exact manufacturer, model/version and country of manufacture, evidenced by manufacturer catalogue and product label; no unidentifiable or mixed-model substitute is acceptable.															
39		The quoted price shall include all item-specific accessories, installation and commissioning stated here; any site infrastructure connection shall be listed and coordinated before contract award.															
40		Supply a five-year spare/accessory/consumable price list and evidence of an authorized service/replenishment route to Yemen; identify lead times, without reducing the mandatory base package.															
41		Provide a signed delivery/acceptance checklist matching this item's specifications and included components.															
42		Provide ECG, SpO ₂ , non-invasive blood pressure, respiratory rate and temperature functions with adult and paediatric accessories; EtCO ₂ is not included in this source line unless separately priced.															
TOTAL MAXIMUM SCORE — item is eligible only if all Mandatory clauses comply																	

ICU ventilator, adult/pediatric/neonatal - cylinder / medical-compressor air supply



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates	Warrantee	Certified local agent or authorization	Model	Brand	Country of Origin
1		Full-featured intensive-care ventilator approved by its manufacturer for invasive ventilation of adults, children and neonates, including premature infants within the documented neonatal weight range. Supply the neonatal software, hardware and all activation licences in the base price.								
2		Provide non-invasive ventilation with patient-category-specific leak compensation, including neonatal nasal CPAP; supply two neonatal patient-interface starter sets in appropriate small sizes.								
3		Provide volume-controlled and pressure-controlled assist/control modes.								
4		Provide SIMV with pressure support and spontaneous CPAP/pressure-support modes.								
5		Across the selectable patient categories, set tidal volume shall cover at least 2–2,000 mL, including 2 mL in neonatal mode. Neonatal volume-targeted ventilation shall be enabled and supplied, not an unpurchased option.								
6		Set respiratory-rate range shall cover at least 2–150 breaths/min across the adult, pediatric and neonatal categories. Provide neonatal-appropriate inspiratory-time and apnea settings.								
7		PEEP/CPAP shall be adjustable from at least 0 to 20 cmH ₂ O, with fine adjustments of 1 cmH ₂ O or smaller in neonatal mode and continuous pressure monitoring.								
8		FiO ₂ shall be adjustable from 21% to 100% in all patient categories, with continuous inspired-oxygen measurement, calibration facility and adjustable high/low oxygen alarms.								
9		Provide adjustable patient triggering appropriate to all three patient groups; neonatal flow-trigger settings shall include 0.2 L/min or lower. Apnea shall initiate an audible/visual alarm and automatic backup ventilation.								
10		Display pressure, flow and volume waveforms and monitored tidal volume, minute volume, airway pressure and respiratory rate.								
11		Provide high/low pressure, high/low minute-volume, apnea, disconnection, oxygen, gas-supply, battery and power alarms.								
12		Internal battery shall support at least 60 minutes of ventilation at a declared adult test setting.								
13		Supply one dedicated manufacturer-approved oil-free medical air compressor with EACH ventilator, integral or securely trolley-mounted, in the base price. The ventilator shall ALSO operate from a regulated medical-air cylinder with the compressor isolated/not running. Both configurations shall support all specified adult/pediatric/neonatal functions; a turbine-only substitute without the compressor and cylinder-air capability is not compliant.								
14		Support BOTH (A) medical O ₂ cylinder + medical-air cylinder and (B) supplied medical air compressor + independent medical O ₂ source. Both gas inlets shall operate across 3.5-5 bar; compatible hospital medical-gas pipeline supply shall also be accepted. An air compressor replaces the AIR source only and does not generate O ₂ ; no oxygen-enriched operation without an independent approved O ₂ source is claimed.								
15		Supply a stable lockable trolley, compressor mounting, heated humidifier approved for adult/pediatric/neonatal use, inspiratory heated-wire control, patient-end temperature probe and circuit-support arm.								
16		Supply two complete adult, two pediatric and two neonatal breathing circuits with compatible humidifier chambers, connectors and water-management components. Include ten manufacturer-approved filters per applicable category; neonatal patient-end dead space and resistance shall remain within the manufacturer limits.								



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates	Warrantee	Certified local agent or authorization	Model	Brand	Country of Origin
17		Supply one adult/pediatric test lung and one neonatal test lung; include two reusable neonatal proximal flow sensors, plus two reusable adult/pediatric sensors where required by the design, and their calibration accessories.								
18		Demonstrate ventilator performance, alarms and battery operation with a calibrated analyzer.								
19		Neonatal ventilation is INCLUDED. The supplied neonatal mode shall permit 2 mL set tidal volume and proximal flow measurement; manufacturer evidence shall confirm the minimum supported weight. Verify neonatal setup, sensors, circuit dead space and low-volume delivery before acceptance.								
20		Supply all licences for volume assist/control, pressure assist/control, SIMV with pressure support, CPAP/pressure support, neonatal pressure-limited ventilation with volume targeting and neonatal nasal CPAP. Manufacturer-equivalent mode names are acceptable when equivalent functions are documented.								
21		Delivered tidal-volume accuracy shall be within $\pm(10\%$ of the set value + 1 mL) in neonatal mode, and $\pm(10\%$ of the set value + 10 mL) in adult/pediatric mode, under manufacturer-defined test conditions. Verify representative low-volume neonatal settings with a calibrated neonatal-capable analyzer.								
22		The supplied compressor shall include intake/final filtration, oil-free compression, moisture separation/drying, pressure regulation, gauge, reservoir/accumulator where needed and pressure-relief protection. Supply an approved cylinder-air/compressor-air selection arrangement with isolation and non-return protection, plus gas-specific O ₂ /AIR cylinder regulators, gauges, mounts/stand, hoses and compatible connectors. Verify breathing-air quality and full gas-demand capacity.								
23		Inspiratory pressure shall be adjustable from at least 5 to 50 cmH ₂ O above PEEP, with pressure-delivery accuracy within ± 3 cmH ₂ O or $\pm 10\%$, whichever is greater.								
24		Adult inspiratory-flow capability shall reach at least 120 L/min. The compressor and reservoir shall support the full operating demand without pressure collapse; verify continuous and transient performance with the offered ventilator.								
25		Inspiratory time shall cover at least 0.1–2 seconds in neonatal mode and 0.2–5 seconds in adult/pediatric modes; provide adjustable I:E ratio and inspiratory-time limits appropriate to each supplied mode.								
26		Provide adjustable inspiratory rise time with at least three selectable levels or a continuous range; neonatal adjustment shall permit controlled pressure delivery without excessive overshoot.								
27		Provide neonatal flow-trigger sensitivity including 0.2 L/min or lower and adult/pediatric flow-trigger adjustment covering at least 0.5–10 L/min. Display the active trigger setting and prevent inappropriate patient-category selection.								
28		Provide patient-category-specific apnea timing and automatic backup ventilation; the neonatal apnea-delay setting shall include 5–20 seconds. Verify detection and backup operation using a neonatal test lung.								
29		Provide adjustable high respiratory-rate alarm.								
30		Provide adjustable high and low oxygen-concentration alarms.								
31		Provide circuit leak test and circuit compliance/resistance compensation or an equivalent validated checkout.								
32		Provide pressure-volume and flow-volume loops for respiratory assessment.								
33		Provide inspiratory and expiratory hold maneuvers where supported for the declared patient population.								



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates	Warrantee	Certified local agent or authorization	Model	Brand	Country of Origin
34		Display peak pressure, PEEP, measured respiratory rate, expired tidal volume and minute ventilation in all patient categories; provide plateau pressure, compliance and resistance when valid for the selected mode and patient category.								
35		The exhalation valve assembly shall be removable for the manufacturer's validated reprocessing procedure.								
36		Provide low-dead-space neonatal proximal flow sensing with manufacturer-approved neonatal circuits and validated cleaning/calibration instructions. Supply all necessary sensors and cables; adult-only sensing hardware is not acceptable for neonatal use.								
37		NIV and neonatal CPAP shall provide leak compensation and high-leak/disconnection alarms appropriate to their approved interfaces. Demonstrate alarm operation and safe backup when leak exceeds the supported range.								
38		The complete system, including compressor and humidifier, shall operate on 220-240 V AC, 50 Hz with suitable protections and a maximum-load schedule. Provide separate audible/visual warnings for O2 failure, AIR source low pressure and compressor failure. Cylinder-air operation shall remain available when the compressor is switched off; backup power shall meet clause 43.								
39		Compressor safety shall include overtemperature protection, pressure relief and serviceable filters/moisture-management components. Routine servicing and replacement parts shall be available through an identified authorized Yemen service route for at least five years.								
40		Supply patient-end temperature probe and compatible heated-wire leads for the included humidifier.								
41		Humidifier shall indicate probe faults and excessive temperature.								
42		Provide a condensate-management arrangement compatible with the manufacturer-approved breathing circuit.								
43		Provide at least 60 minutes of complete ventilator AND active air-source operation during mains loss at the documented adult test setting. Include a correctly rated external UPS if the internal battery does not power the compressor. Demonstrate backup in both configurations, including neonatal operation; an independently available medical O2 source remains necessary.								
44		The device shall meet its stated clinical performance at the receiving hospital's verified altitude and controlled room environment, without an unpriced derating kit.								
45		Provide trend review for measured ventilation parameters.								
46		Retain at least 24 hours of alarm/event history with screen review or USB export and protect stored records after mains failure.								
47		Separately price high-flow oxygen therapy if available; this is not a substitute for the specified ventilation modes.								
48		Acceptance shall test adult, pediatric AND neonatal modes in BOTH cylinder O2/cylinder AIR configuration (compressor isolated) and supplied-compressor AIR/medical O2 configuration. Verify volume, pressure, PEEP, FIO2, triggering, gas-source/disconnection/apnea alarms, leak compensation and air-source changeover, including 3.5 and 5 bar inlet test points, with a calibrated neonatal-capable analyzer.								
49		Provide and demonstrate manufacturer-approved source selection in both directions between cylinder/pipeline AIR and compressor AIR, without hazardous pressure excursions or loss of the specified ventilation. Demonstrate mains-to-battery/UPS changeover, low-battery and compressor-failure alarms in adult and neonatal tests; no additional licence, hardware replacement or unpriced upgrade shall be required.								



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates	Warrantee	Certified local agent or authorization	Model	Brand	Country of Origin
50		Train ICU/neonatal users and biomedical staff in BOTH gas-source configurations, gas-specific cylinder regulators and connectors, air-source selection, compressor maintenance, neonatal sensors/circuits, humidification, alarms and emergency manual ventilation. Supply a bilingual connection diagram, attendance records and practical competency checks; explicitly explain that compressor AIR does not replace medical O2.								
51		Provide a priced two-year list of exhalation valves, sensors, filters and circuit consumables based on declared usage assumptions.								
52		Provide exact manufacturer, model/version and country of manufacture, evidenced by manufacturer catalogue and product label; no unidentifiable or mixed-model substitute is acceptable.								
53		The ventilator unit price shall include one dedicated compressor, all equipment needed for both cylinder-air and compressor-air configurations, O2/AIR cylinder regulators and gauges, secured mounts/stand, source-selection hardware, hoses, connectors, required UPS, installation and testing. Medical-gas refills and building an O2 plant/pipeline are separate site supply obligations; an ordinary low-flow oxygen-therapy regulator is not a substitute for the rated gas-supply package.								
54		Supply a five-year spare/accessory/consumable price list and evidence of an authorized service/replenishment route to Yemen; identify lead times, without reducing the mandatory base package.								
55		Provide a signed delivery/acceptance checklist matching this item's specifications and included components.								
TOTAL MAXIMUM SCORE — item is eligible only if all Mandatory clauses comply										
Portable suction unit										
EQ-0	42									
1		Medical electric suction device with oil-free pump and continuously adjustable vacuum.								
2		Vacuum control shall cover gentle aspiration through at least -600 mmHg for the intended adult/surgical use.								
3		Vacuum gauge shall be readable and calibrated in kPa or mmHg.								
4		Free-air flow at least 30 L/min unless a higher requirement is specified below.								
5		Collection containers shall be transparent, impact resistant and clearly graduated.								
6		Provide overflow shutoff and a hydrophobic bacterial filter between collection system and pump.								
7		Supply patient tubing, vacuum tubing, connecting fittings and two spare bacterial filters.								
8		Reusable containers shall have validated cleaning/disinfection or sterilization instructions.								
9		Provide continuous-duty rating appropriate to the intended department.								
10		Demonstrate vacuum regulation, free-air flow and overflow protection at commissioning.								
11		Portable configuration with carry handle and at least one 1 L jar. 3L								
12		Rechargeable battery shall provide at least 30 minutes operation at the manufacturer-declared test load.								



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates			Warrantee			Certified local agent or authorization			Model	Brand	Country of Origin	
13		Include mains charger and battery-status indication.															
		Surgical suction shall provide free-air flow of at least 20 L/min and adjustable maximum vacuum of at least –70 kPa; neonatal low-pressure suction shall provide finely regulated low vacuum suitable for newborns.															
		Vacuum shall be continuously adjustable from near zero to the rated maximum with a readable kPa/mmHg gauge; neonatal variants shall include a positive low-suction limiter.															
		Provide an easily accessible vacuum adjustment and readable gauge.															
		The suction unit shall be rated for continuous clinical operation without thermal shutdown during a 60-minute functional test.															
		Provide two reusable, transparent collection jars of at least 2 L usable capacity each for the double-jar unit, or the item-specific stated capacity for other suction devices, with overflow protection.															
		Provide overflow shutoff and a compatible hydrophobic/bacterial filter before the pump.															
		All relevant components shall withstand the manufacturer-validated cleaning, disinfection or sterilization method required for their specified clinical reuse; include validated instructions.															
		Provide clearly labelled patient and vacuum connections to avoid reversed assembly.															
		Operating noise shall not exceed 65 dB(A) at 1 m under normal load unless a more restrictive item-specific limit is stated.															
		The mandatory base package shall include components needed for routine operation; for price jars, lids, filters and patient tubing separately, provide separate unit replacement prices and Yemen replenishment lead times for five years.															
		Test vacuum regulation, flow and overflow protection at acceptance.															
		Demonstrate safe emptying, cleaning and filter replacement without contaminating the pump.															
		Provide exact manufacturer, model/version and country of manufacture, evidenced by manufacturer catalogue and product label; no unidentifiable or mixed-model substitute is acceptable.															
		The quoted price shall include all item-specific accessories, installation and commissioning stated here; any site infrastructure connection shall be listed and coordinated before contract award.															
		Supply a five-year spare/accessory/consumable price list and evidence of an authorized service/replenishment route to Yemen; identify lead times, without reducing the mandatory base package.															
		Provide a signed delivery/acceptance checklist matching this item's specifications and included components.															
	TOTAL MAXIMUM SCORE — item is eligible only if all Mandatory clauses comply																
	LOT 05 Maternity and obstetrics																

Abdominal hysterectomy set

EQ-0	43									
1		Reusable surgical instruments made from corrosion-resistant surgical stainless steel appropriate to the instrument function.								
2		Instrument size, pattern and manufacturer catalogue number shall be declared for every component.								
3		Instruments shall be free of burrs, sharp unintended edges, pitting and plating defects.								
4		Hinged instruments shall open smoothly and ratchets shall engage and release correctly.								
5		Supply a perforated instrument tray with lid sized to the complete set and compatible with the hospital sterilizer.								



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates			Warrantee			Certified local agent or authorization			Model	Brand	Country of Origin
6		Provide validated cleaning, inspection, lubrication and steam-sterilization instructions.														
7		Scalpel handles No.3 and No.4: 1 of each.														
8		Mayo scissors, straight and curved: 1 of each.														
9		Long Metzenbaum scissors, approximately 23 cm: 1 piece.														
10		Long toothed and plain tissue forceps: 2 of each.														
11		Artery forceps, straight and curved: 6 of each.														
12		Kocher forceps: 4 pieces.														
13		Allis tissue forceps: 4 pieces.														
14		Heaney hysterectomy clamps, long curved: 4 pieces.														
15		Long pedicle clamps suitable for abdominal hysterectomy: 4 pieces.														
16		Long Mayo-Hegar needle holders: 2 pieces.														
17		Sponge-holding forceps: 2 pieces.														
18		Towel clamps: 4 pieces.														
19		Self-retaining abdominal retractor with compatible blades: 1 complete assembly.														
20		Deaver retractors, assorted sizes: 2 pieces.														
21		Malleable retractors, assorted sizes: 2 pieces.														
22		Bladder retractor: 1 piece.														
23		Suction tip: 1 piece.														
24		Stainless-steel bowl and kidney dish: 1 of each.														
25		Provide a component-level quotation matching each listed instrument and quantity.														
26		Every scheduled instrument shall have the specified function, compatible jaw/tip design and surgical-grade corrosion-resistant material; include an itemized catalogue cross-reference.														
27		Every instrument in the stated set shall be supplied in the scheduled function and size; substitutions require ADRA clinical approval before award and cannot reduce set completeness.														
28		Reusable instruments shall have corrosion-resistant medical instrument materials appropriate to their cutting, clamping or retracting function.														
29		Provide manufacturer marking or traceable identification on instruments where practical.														
30		Ratchets, hinges and box joints shall move freely and close without misalignment.														



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates			Warrantee			Certified local agent or authorization			Model	Brand	Country of Origin	
	31	Cutting instruments shall cut cleanly and have protected tips for transport.															
	32	Provide validated cleaning, lubrication and sterilization instructions.															
	33	Supply a compartmented/perforated tray or compatible organizer with protection for delicate tips.															
	34	Reusable instruments shall arrive clean and protected in nonsterile packaging; the hospital shall receive validated cleaning and steam-sterilization instructions before first use.															
	35	Perform a signed component count and functional inspection with the receiving theatre team.															
	36	The mandatory base package shall include components needed for routine operation; for provide individual replacement prices so damaged instruments can be replaced without buying a full set, provide separate unit replacement prices and Yemen replenishment lead times for five years. Provide exact manufacturer, model/version and country of manufacture, evidenced by manufacturer catalogue and product label; no unidentifiable or mixed-model substitute is acceptable.															
	37	The quoted price shall include all item-specific accessories, installation and commissioning stated here; any site infrastructure connection shall be listed and coordinated before contract award.															
	38	Supply a five-year spare/accessory/consumable price list and evidence of an authorized service/replenishment route to Yemen; identify lead times, without reducing the mandatory base package.															
	39	Provide a signed delivery/acceptance checklist matching this item's specifications and included components.															
	40	TOTAL MAXIMUM SCORE — item is eligible only if all Mandatory clauses comply															
Cesarean abdominal retractor																	
EQ-0	44																
	1	Reusable cesarean abdominal/bladder retractor of a clinician-approved pattern.															
	2	Proposed pattern: Doyen-type hand-held bladder retractor, blade width approximately 60 mm.															
	3	Surgical-grade corrosion-resistant stainless steel appropriate to the instrument function.															
	4	Blade shall have a smooth atraumatic profile and rounded edges.															
	5	Handle shall provide secure wet-glove grip.															
	6	The supplied configuration shall include blade length, curvature and overall instrument length as an operational feature, with manufacturer evidence and acceptance demonstration.															
	7	Provide validated cleaning and steam-sterilization instructions.															
	8	Supply protective packaging and manufacturer catalogue identification.															
	9	Confirm whether a hand-held or self-retaining design is intended before release.															
	10	Check overlap with the retractor included in the separately scheduled surgical set; do not silently remove either quantity.															
	11	The specified assembly shall accommodate the intended patient/load and fit the approved installation or storage space; submit dimensioned manufacturer evidence before award.															
	12	The specified assembly shall accommodate the intended patient/load and fit the approved installation or storage space; submit dimensioned manufacturer evidence before award.															
	13	The supplied configuration shall include reusable versus single-use patient-contact components as an operational feature, with manufacturer evidence and acceptance demonstration.															



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates			Warrantee			Certified local agent or authorization			Model	Brand	Country of Origin	
	14	Provide a validated reprocessing procedure for each reusable component.															
	15	Provide a pre-use functional inspection procedure.															
	16	The mandatory base package shall include components needed for routine operation; for price replacement valves, seals, blades or other wearable parts as applicable, provide separate unit replacement prices and Yemen replenishment lead times for five years.															
	17	Demonstrate complete assembly and safe functional operation with the receiving clinical team.															
	18	Provide exact manufacturer, model/version and country of manufacture, evidenced by manufacturer catalogue and product label; no unidentifiable or mixed-model substitute is acceptable.															
	19	The quoted price shall include all item-specific accessories, installation and commissioning stated here; any site infrastructure connection shall be listed and coordinated before contract award.															
	20	Supply a five-year spare/accessory/consumable price list and evidence of an authorized service/replenishment route to Yemen; identify lead times, without reducing the mandatory base package.															
	21	Provide a signed delivery/acceptance checklist matching this item's specifications and included components.															
TOTAL MAXIMUM SCORE — item is eligible only if all Mandatory clauses comply																	
Complete cesarean-section set																	
EQ-0	45	Reusable surgical instruments made from corrosion-resistant surgical stainless steel appropriate to the instrument function.															
	1	Instrument size, pattern and manufacturer catalogue number shall be declared for every component.															
	2	Instruments shall be free of burrs, sharp unintended edges, pitting and plating defects.															
	3	Hinged instruments shall open smoothly and ratchets shall engage and release correctly.															
	4	Supply a perforated instrument tray with lid sized to the complete set and compatible with the hospital sterilizer.															
	5	Provide validated cleaning, inspection, lubrication and steam-sterilization instructions.															
	6	Scalpel handles No.3 and No.4: 1 of each.															
	7	Mayo scissors, straight and curved: 1 of each.															
	8	Metzenbaum scissors, approximately 18 cm: 1 piece.															
	9	Toothed tissue forceps, approximately 18–20 cm: 2 pieces.															
	10	Plain tissue forceps, approximately 18–20 cm: 2 pieces.															
	11	Artery forceps, straight, approximately 16–18 cm: 6 pieces.															
	12	Artery forceps, curved, approximately 16–18 cm: 6 pieces.															
	13	Kocher forceps, approximately 18–20 cm: 4 pieces.															
	14	Allis tissue forceps, approximately 18–20 cm: 4 pieces.															
	15																



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates	Warrantee	Certified local agent or authorization	Model	Brand	Country of Origin
16		Sponge-holding forceps, approximately 24–25 cm: 2 pieces.								
17		Mayo-Hegar needle holders, approximately 18–20 cm: 2 pieces.								
18		Towel clamps, approximately 13 cm: 4 pieces.								
19		Doyen bladder retractor, approximately 45–60 mm blade width: 1 piece.								
20		Langenbeck retractors, medium: 2 pieces.								
21		Deaver retractor, medium: 1 piece.								
22		Green-Armytage uterine forceps: 6 pieces.								
23		Poole suction tip with compatible connector: 1 piece.								
24		Stainless-steel bowls: 2 pieces.								
25		Kidney dish, approximately 250 mm: 1 piece.								
26		Provide a component-level quotation matching each listed instrument and quantity.								
27		Every scheduled instrument shall have the specified function, compatible jaw/tip design and surgical-grade corrosion-resistant material; include an itemized catalogue cross-reference.								
28		Every instrument in the stated set shall be supplied in the scheduled function and size; substitutions require ADRA clinical approval before award and cannot reduce set completeness.								
29		Reusable instruments shall have corrosion-resistant medical instrument materials appropriate to their cutting, clamping or retracting function.								
30		Provide manufacturer marking or traceable identification on instruments where practical.								
31		Ratchets, hinges and box joints shall move freely and close without misalignment.								
32		Cutting instruments shall cut cleanly and have protected tips for transport.								
33		Provide validated cleaning, lubrication and sterilization instructions.								
34		Supply a compartmented/perforated tray or compatible organizer with protection for delicate tips.								
35		Reusable instruments shall arrive clean and protected in nonsterile packaging; the hospital shall receive validated cleaning and steam-sterilization instructions before first use.								
36		Perform a signed component count and functional inspection with the receiving theatre team.								
37		The mandatory base package shall include components needed for routine operation; for provide individual replacement prices so damaged instruments can be replaced without buying a full set, provide separate unit replacement prices and Yemen replenishment lead times for five years. Provide exact manufacturer, model/version and country of manufacture, evidenced by manufacturer catalogue and product label; no unidentifiable or mixed-model substitute is acceptable.								
38		The quoted price shall include all item-specific accessories, installation and commissioning stated here; any site infrastructure connection shall be listed and coordinated before contract award.								
39		Supply a five-year spare/accessory/consumable price list and evidence of an authorized service/replenishment route to Yemen; identify lead times, without reducing the mandatory base package.								
40										



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates	Warrantee	Certified local agent or authorization	Model	Brand	Country of Origin
	41	Provide a signed delivery/acceptance checklist matching this item's specifications and included components.								
		TOTAL MAXIMUM SCORE — item is eligible only if all Mandatory clauses comply								
		Complete delivery instrument set								
EQ-0	46									
	1	Reusable surgical instruments made from corrosion-resistant surgical stainless steel appropriate to the instrument function.								
	2	Instrument size, pattern and manufacturer catalogue number shall be declared for every component.								
	3	Instruments shall be free of burrs, sharp unintended edges, pitting and plating defects.								
	4	Hinged instruments shall open smoothly and ratchets shall engage and release correctly.								
	5	Supply a perforated instrument tray with lid sized to the complete set and compatible with the hospital sterilizer.								
	6	Provide validated cleaning, inspection, lubrication and steam-sterilization instructions.								
	7	Artery forceps, straight, approximately 14–16 cm: 2 pieces.								
	8	Artery forceps, curved, approximately 14–16 cm: 2 pieces.								
	9	Umbilical-cord scissors, approximately 16 cm: 1 piece.								
	10	Episiotomy scissors, angled, approximately 16–18 cm: 1 piece.								
	11	Mayo-Hegar needle holder, approximately 16–18 cm: 1 piece.								
	12	Toothed tissue forceps, approximately 14–16 cm: 1 piece.								
	13	Plain dressing forceps, approximately 14–16 cm: 1 piece.								
	14	Sponge-holding forceps, approximately 24–25 cm: 2 pieces.								
	15	Kidney dish, approximately 250 mm: 1 piece.								
	16	Stainless-steel bowl, approximately 500 mL: 1 piece.								
	17	Provide a component-level quotation matching each listed instrument and quantity.								
	18	Every scheduled instrument shall have the specified function, compatible jaw/tip design and surgical-grade corrosion-resistant material; include an itemized catalogue cross-reference.								
	19	Every instrument in the stated set shall be supplied in the scheduled function and size; substitutions require ADRA clinical approval before award and cannot reduce set completeness.								
	20	Reusable instruments shall have corrosion-resistant medical instrument materials appropriate to their cutting, clamping or retracting function.								
	21	Provide manufacturer marking or traceable identification on instruments where practical.								
	22	Ratchets, hinges and box joints shall move freely and close without misalignment.								



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates			Warrantee			Certified local agent or authorization			Model	Brand	Country of Origin	
	23	Cutting instruments shall cut cleanly and have protected tips for transport.															
	24	Provide validated cleaning, lubrication and sterilization instructions.															
	25	Supply a compartmented/perforated tray or compatible organizer with protection for delicate tips.															
	26	Reusable instruments shall arrive clean and protected in nonsterile packaging; the hospital shall receive validated cleaning and steam-sterilization instructions before first use.															
	27	Perform a signed component count and functional inspection with the receiving theatre team.															
	28	The mandatory base package shall include components needed for routine operation; for provide individual replacement prices so damaged instruments can be replaced without buying a full set, provide separate unit replacement prices and Yemen replenishment lead times for five years. Provide exact manufacturer, model/version and country of manufacture, evidenced by manufacturer catalogue and product label; no unidentifiable or mixed-model substitute is acceptable.															
	29	The quoted price shall include all item-specific accessories, installation and commissioning stated here; any site infrastructure connection shall be listed and coordinated before contract award.															
	30	Supply a five-year spare/accessory/consumable price list and evidence of an authorized service/replenishment route to Yemen; identify lead times, without reducing the mandatory base package.															
	31	Provide a signed delivery/acceptance checklist matching this item's specifications and included components.															
	32																
TOTAL MAXIMUM SCORE — item is eligible only if all Mandatory clauses comply																	
Dilation and curettage (D&C) set																	
EQ-0	47																
	1	Reusable surgical instruments made from corrosion-resistant surgical stainless steel appropriate to the instrument function.															
	2	Instrument size, pattern and manufacturer catalogue number shall be declared for every component.															
	3	Instruments shall be free of burrs, sharp unintended edges, pitting and plating defects.															
	4	Hinged instruments shall open smoothly and ratchets shall engage and release correctly.															
	5	Supply a perforated instrument tray with lid sized to the complete set and compatible with the hospital sterilizer.															
	6	Provide validated cleaning, inspection, lubrication and steam-sterilization instructions.															
	7	Sims vaginal specula, small and large: 1 of each size.															
	8	Anterior vaginal-wall retractor: 1 piece.															
	9	Sponge-holding forceps: 2 pieces.															
	10	Tenaculum forceps: 2 pieces.															
	11	Uterine sound with readable graduations: 1 piece.															
	12	Double-ended Hegar dilators covering approximately 3–12 mm: 1 complete graded set; declare each size.															
	13	Uterine curettes, blunt, small/medium/large: 1 of each size.															



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates			Warrantee			Certified local agent or authorization			Model	Brand	Country of Origin	
	14	Uterine curettes, sharp, small/medium/large: 1 of each size, subject to obstetric-team approval.															
	15	Ovum forceps: 1 piece.															
	16	Long dressing forceps: 1 piece.															
	17	Kidney dish: 1 piece.															
	18	MVA kit is separately listed under the separately scheduled manual vacuum aspiration kit; clinical selection of procedures remains with the obstetric team.															
	19	Provide a component-level quotation matching each listed instrument and quantity.															
	20	Every scheduled instrument shall have the specified function, compatible jaw/tip design and surgical-grade corrosion-resistant material; include an itemized catalogue cross-reference.															
	21	Every instrument in the stated set shall be supplied in the scheduled function and size; substitutions require ADRA clinical approval before award and cannot reduce set completeness.															
	22	Reusable instruments shall have corrosion-resistant medical instrument materials appropriate to their cutting, clamping or retracting function.															
	23	Provide manufacturer marking or traceable identification on instruments where practical.															
	24	Ratchets, hinges and box joints shall move freely and close without misalignment.															
	25	Cutting instruments shall cut cleanly and have protected tips for transport.															
	26	Provide validated cleaning, lubrication and sterilization instructions.															
	27	Supply a compartmented/perforated tray or compatible organizer with protection for delicate tips.															
	28	Reusable instruments shall arrive clean and protected in nonsterile packaging; the hospital shall receive validated cleaning and steam-sterilization instructions before first use.															
	29	Perform a signed component count and functional inspection with the receiving theatre team.															
	30	The mandatory base package shall include components needed for routine operation; for provide individual replacement prices so damaged instruments can be replaced without buying a full set, provide separate unit replacement prices and Yemen replenishment lead times for five years. Provide exact manufacturer, model/version and country of manufacture, evidenced by manufacturer catalogue and product label; no unidentifiable or mixed-model substitute is acceptable.															
	31	The quoted price shall include all item-specific accessories, installation and commissioning stated here; any site infrastructure connection shall be listed and coordinated before contract award.															
	32	Supply a five-year spare/accessory/consumable price list and evidence of an authorized service/replenishment route to Yemen; identify lead times, without reducing the mandatory base package.															
	33	Provide a signed delivery/acceptance checklist matching this item's specifications and included components.															
	34	TOTAL MAXIMUM SCORE — item is eligible only if all Mandatory clauses comply															
Electric surgical suction unit																	
EQ-0	48																
	1	Medical electric suction device with oil-free pump and continuously adjustable vacuum.															
	2	Vacuum control shall cover gentle aspiration through at least -600 mmHg for the intended adult/surgical use.															



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates	Warrantee	Certified local agent or authorization	Model	Brand	Country of Origin
3		Vacuum gauge shall be readable and calibrated in kPa or mmHg.								
4		Free-air flow at least 30 L/min unless a higher requirement is specified below.								
5		Collection containers shall be transparent, impact resistant and clearly graduated.								
6		Provide overflow shutoff and a hydrophobic bacterial filter between collection system and pump.								
7		Supply patient tubing, vacuum tubing, connecting fittings and two spare bacterial filters.								
8		Reusable containers shall have validated cleaning/disinfection or sterilization instructions.								
9		Provide continuous-duty rating appropriate to the intended department.								
10		Demonstrate vacuum regulation, free-air flow and overflow protection at commissioning.								
11		Supply a stable mobile stand with braked castors.								
12		Supply at least two collection jars of 2 L each.								
13		Surgical suction shall provide free-air flow of at least 20 L/min and adjustable maximum vacuum of at least -70 kPa; neonatal low-pressure suction shall provide finely regulated low vacuum suitable for newborns.								
14		Vacuum shall be continuously adjustable from near zero to the rated maximum with a readable kPa/mmHg gauge; neonatal variants shall include a positive low-suction limiter.								
15		Provide an easily accessible vacuum adjustment and readable gauge.								
16		The suction unit shall be rated for continuous clinical operation without thermal shutdown during a 60-minute functional test.								
17		Provide two reusable, transparent collection jars of at least 2 L usable capacity each for the double-jar unit, or the item-specific stated capacity for other suction devices, with overflow protection.								
18		Provide overflow shutoff and a compatible hydrophobic/bacterial filter before the pump.								
19		All relevant components shall withstand the manufacturer-validated cleaning, disinfection or sterilization method required for their specified clinical reuse; include validated instructions.								
20		Provide clearly labelled patient and vacuum connections to avoid reversed assembly.								
21		Operating noise shall not exceed 65 dB(A) at 1 m under normal load unless a more restrictive item-specific limit is stated.								
22		The mandatory base package shall include components needed for routine operation; for price jars, lids, filters and patient tubing separately, provide separate unit replacement prices and Yemen replenishment lead times for five years.								
23		Test vacuum regulation, flow and overflow protection at acceptance.								
24		Demonstrate safe emptying, cleaning and filter replacement without contaminating the pump.								
25		Provide exact manufacturer, model/version and country of manufacture, evidenced by manufacturer catalogue and product label; no unidentifiable or mixed-model substitute is acceptable.								
26		The quoted price shall include all item-specific accessories, installation and commissioning stated here; any site infrastructure connection shall be listed and coordinated before contract award.								
27		Supply a five-year spare/accessory/consumable price list and evidence of an authorized service/replenishment route to Yemen; identify lead times, without reducing the mandatory base package.								



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates			Warrantee			Certified local agent or authorization			Model	Brand	Country of Origin
	28	Provide a signed delivery/acceptance checklist matching this item's specifications and included components.														
		TOTAL MAXIMUM SCORE — item is eligible only if all Mandatory clauses comply														
Handheld fetal Doppler																
EQ-0	49															
	1	Handheld fetal Doppler for antenatal fetal-heart detection.														
	2	Fetal-heart-rate measurement range shall cover at least 50–240 beats/min.														
	3	Measurement accuracy shall be within ± 2 beats/min or $\pm 2\%$, whichever is greater, under stated test conditions.														
	4	Supply one obstetric probe approximately 2 MHz or 3 MHz.														
	5	Probe shall be water resistant and cleanable according to the manufacturer instructions.														
	6	Provide numeric display and audible fetal-heart output.														
	7	Provide adjustable speaker volume and headphone output if available.														
	8	Provide battery-status indication and automatic power-off when idle.														
	9	Supply rechargeable batteries and charger or readily available replaceable batteries.														
	10	Supply protective case and 250 mL ultrasound gel.														
	11	Confirm manufacturer-declared diagnostic ultrasound safety compliance and intended obstetric use.														
	12	The 50–120 beats/min range appearing in the older attachment is not adopted; it is too narrow for the proposed device specification.														
	13	The delivered configuration shall include and demonstrate the specified ultrasound operating frequency and acoustic output information; it shall meet any explicit item-specific minimum in this schedule, with manufacturer test evidence at acceptance.														
	14	Fetal heart-rate display shall cover at least 50–210 bpm, with stated accuracy within ± 2 bpm under adequate signal conditions.														
	15	The delivered configuration shall include and demonstrate the specified signal-loss and poor-signal indications; it shall meet any explicit item-specific minimum in this schedule, with manufacturer test evidence at acceptance.														
	16	Provide clear distinction between fetal measurements and any maternal pulse input.														
	17	Internal battery shall maintain essential monitoring or operation for at least 60 minutes, transfer automatically without loss of settings, and recharge from mains; a stricter item-specific duration prevails.														
	18	Probe cable and connector shall resist strain during routine clinical use.														
	19	Provide manufacturer-approved probe cleaning and disinfection instructions.														
	20	The mandatory base package shall include components needed for routine operation; for price replacement ultrasound probes and cables separately, provide separate unit replacement prices and Yemen replenishment lead times for five years.														
	21	Verify fetal-rate display with a suitable simulator and demonstrate signal-loss behavior.														
	22	Provide the complete supplied accessory list and each catalogue reference.														



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates			Warrantee			Certified local agent or authorization			Model	Brand	Country of Origin	
	23	The supplied configuration shall include performance test conditions supporting the claimed specification as an operational feature, with manufacturer evidence and acceptance demonstration.															
	24	The described component shall be user-serviceable or replaceable by the authorized service team, with the necessary service information and five-year availability in Yemen.															
	25	Provide cleaning instructions for all patient-contact and frequently touched surfaces.															
	26	Demonstrate the intended clinical functions with the installed accessories at handover.															
	27	Provide exact manufacturer, model/version and country of manufacture, evidenced by manufacturer catalogue and product label; no unidentifiable or mixed-model substitute is acceptable.															
	28	The quoted price shall include all item-specific accessories, installation and commissioning stated here; any site infrastructure connection shall be listed and coordinated before contract award.															
	29	Supply a five-year spare/accessory/consumable price list and evidence of an authorized service/replenishment route to Yemen; identify lead times, without reducing the mandatory base package.															
	30	Provide a signed delivery/acceptance checklist matching this item's specifications and included components.															
	TOTAL MAXIMUM SCORE — item is eligible only if all Mandatory clauses comply																
EQ-0	Manual removal of placenta set																
	51	Reusable surgical instruments made from corrosion-resistant surgical stainless steel appropriate to the instrument function.															
	1	Instrument size, pattern and manufacturer catalogue number shall be declared for every component.															
	2	Instruments shall be free of burrs, sharp unintended edges, pitting and plating defects.															
	3	Hinged instruments shall open smoothly and ratchets shall engage and release correctly.															
	4	Supply a perforated instrument tray with lid sized to the complete set and compatible with the hospital sterilizer.															
	5	Provide validated cleaning, inspection, lubrication and steam-sterilization instructions.															
	6	Long sponge-holding forceps, approximately 25 cm: 2 pieces.															
	7	Sims vaginal specula, small and large: 1 of each size.															
	8	Long artery forceps, approximately 20 cm: 2 pieces.															
	9	Long plain dressing forceps, approximately 20–25 cm: 1 piece.															
	10	Scissors, approximately 17–20 cm: 1 piece.															
	11	Kidney dish and stainless-steel bowl: 1 of each.															
	12	Manual placental removal is a clinical procedure; this set shall be reviewed as an assisting instrument pack and shall not be interpreted as an instruction for instrument extraction.															
	13	Provide a component-level quotation matching each listed instrument and quantity.															
	14	Every scheduled instrument shall have the specified function, compatible jaw/tip design and surgical-grade corrosion-resistant material; include an itemized catalogue cross-reference.															
	15																



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates			Warrantee			Certified local agent or authorization			Model	Brand	Country of Origin		
EQ-0	16	Every instrument in the stated set shall be supplied in the scheduled function and size; substitutions require ADRA clinical approval before award and cannot reduce set completeness.	50															
	17	Reusable instruments shall have corrosion-resistant medical instrument materials appropriate to their cutting, clamping or retracting function.																
	18	Provide manufacturer marking or traceable identification on instruments where practical.																
	19	Ratchets, hinges and box joints shall move freely and close without misalignment.																
	20	Cutting instruments shall cut cleanly and have protected tips for transport.																
	21	Provide validated cleaning, lubrication and sterilization instructions.																
	22	Supply a compartmented/perforated tray or compatible organizer with protection for delicate tips.																
	23	Reusable instruments shall arrive clean and protected in nonsterile packaging; the hospital shall receive validated cleaning and steam-sterilization instructions before first use.																
	24	Perform a signed component count and functional inspection with the receiving theatre team.																
	25	The mandatory base package shall include components needed for routine operation; for provide individual replacement prices so damaged instruments can be replaced without buying a full set, provide separate unit replacement prices and Yemen replenishment lead times for five years. Provide exact manufacturer, model/version and country of manufacture, evidenced by manufacturer catalogue and product label; no unidentifiable or mixed-model substitute is acceptable.																
	26	The quoted price shall include all item-specific accessories, installation and commissioning stated here; any site infrastructure connection shall be listed and coordinated before contract award.																
	27	Supply a five-year spare/accessory/consumable price list and evidence of an authorized service/replenishment route to Yemen; identify lead times, without reducing the mandatory base package.																
	28	Provide a signed delivery/acceptance checklist matching this item's specifications and included components.																
	29	TOTAL MAXIMUM SCORE — item is eligible only if all Mandatory clauses comply																
	Manual Vacuum Aspiration Kit																	
	EQ-0	52																
EQ-0	1	Manual vacuum aspiration kit intended for uterine aspiration by trained personnel.	50															
	2	Provide a double-valve aspirator of approximately 60 mL capacity or clinically equivalent design.																
	3	Provide a means to maintain vacuum and indicate correct preparation according to the manufacturer instructions.																
	4	Supply compatible cannulae in sizes 4, 5, 6, 7, 8, 9, 10 and 12 mm, two of each proposed size.																
	5	Cannula tips shall be smooth and atraumatic with clearly marked sizes.																
	6	Include all required adapters, spare valve parts and manufacturer-approved lubricant if applicable.																
	7	Clearly identify which components are reusable and which are single-use.																
	8	Provide validated cleaning/high-level disinfection or sterilization instructions for reusable parts.																
	9	Supply a protective storage case and illustrated instructions.																



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates			Warrantee			Certified local agent or authorization			Model	Brand	Country of Origin	
	10	Demonstrate vacuum retention and train the designated clinical users.															
	11	Confirm kit composition and cannula sizes with the obstetric team before release.															
	12	The specified assembly shall accommodate the intended patient/load and fit the approved installation or storage space; submit dimensioned manufacturer evidence before award.															
	13	The specified assembly shall accommodate the intended patient/load and fit the approved installation or storage space; submit dimensioned manufacturer evidence before award.															
	14	The supplied configuration shall include reusable versus single-use patient-contact components as an operational feature, with manufacturer evidence and acceptance demonstration.															
	15	Provide a validated reprocessing procedure for each reusable component.															
	16	Provide a pre-use functional inspection procedure.															
	17	The mandatory base package shall include components needed for routine operation; for price replacement valves, seals, blades or other wearable parts as applicable, provide separate unit replacement prices and Yemen replenishment lead times for five years.															
	18	Demonstrate complete assembly and safe functional operation with the receiving clinical team.															
	19	Provide exact manufacturer, model/version and country of manufacture, evidenced by manufacturer catalogue and product label; no unidentifiable or mixed-model substitute is acceptable.															
	20	The quoted price shall include all item-specific accessories, installation and commissioning stated here; any site infrastructure connection shall be listed and coordinated before contract award.															
	21	Supply a five-year spare/accessory/consumable price list and evidence of an authorized service/replenishment route to Yemen; identify lead times, without reducing the mandatory base package.															
	22	Provide a signed delivery/acceptance checklist matching this item's specifications and included components.															
TOTAL MAXIMUM SCORE — Item is eligible only if all Mandatory clauses comply																	
Postpartum hemorrhage and tear-repair set																	
EQ-0	54																
	1	Reusable surgical instruments made from corrosion-resistant surgical stainless steel appropriate to the instrument function.															
	2	Instrument size, pattern and manufacturer catalogue number shall be declared for every component.															
	3	Instruments shall be free of burrs, sharp unintended edges, pitting and plating defects.															
	4	Hinged instruments shall open smoothly and ratchets shall engage and release correctly.															
	5	Supply a perforated instrument tray with lid sized to the complete set and compatible with the hospital sterilizer.															
	6	Provide validated cleaning, inspection, lubrication and steam-sterilization instructions.															
	7	Sims vaginal specula, small and large: 1 of each size.															
	8	Sponge-holding forceps, approximately 24–25 cm: 2 pieces.															
	9	Long artery forceps, approximately 18–20 cm: 4 pieces.															
	10	Mayo-Hegar needle holders, approximately 18–20 cm: 2 pieces.															



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates	Warrantee	Certified local agent or authorization	Model	Brand	Country of Origin
11		Toothed tissue forceps, approximately 18–20 cm: 2 pieces.								
12		Plain dressing forceps, approximately 18–20 cm: 2 pieces.								
13		Mayo scissors, approximately 17 cm: 1 piece.								
14		Metzenbaum scissors, approximately 18 cm: 1 piece.								
15		Vaginal-wall retractors, assorted sizes: 2 pieces.								
16		Stainless-steel bowl and kidney dish: 1 of each.								
17		This instrument set does not include uterotronics, blood products or a uterine-balloon tamponade device.								
18		Provide a component-level quotation matching each listed instrument and quantity.								
19		Every scheduled instrument shall have the specified function, compatible jaw/tip design and surgical-grade corrosion-resistant material; include an itemized catalogue cross-reference.								
20		Every instrument in the stated set shall be supplied in the scheduled function and size; substitutions require ADRA clinical approval before award and cannot reduce set completeness.								
21		Reusable instruments shall have corrosion-resistant medical instrument materials appropriate to their cutting, clamping or retracting function.								
22		Provide manufacturer marking or traceable identification on instruments where practical.								
23		Ratchets, hinges and box joints shall move freely and close without misalignment.								
24		Cutting instruments shall cut cleanly and have protected tips for transport.								
25		Provide validated cleaning, lubrication and sterilization instructions.								
26		Supply a compartmented/perforated tray or compatible organizer with protection for delicate tips.								
27		Reusable instruments shall arrive clean and protected in nonsterile packaging; the hospital shall receive validated cleaning and steam-sterilization instructions before first use.								
28		Perform a signed component count and functional inspection with the receiving theatre team.								
29		The mandatory base package shall include components needed for routine operation; for provide individual replacement prices so damaged instruments can be replaced without buying a full set, provide separate unit replacement prices and Yemen replenishment lead times for five years. Provide exact manufacturer, model/version and country of manufacture, evidenced by manufacturer catalogue and product label; no unidentifiable or mixed-model substitute is acceptable.								
30		The quoted price shall include all item-specific accessories, installation and commissioning stated here; any site infrastructure connection shall be listed and coordinated before contract award.								
31		Supply a five-year spare/accessory/consumable price list and evidence of an authorized service/replenishment route to Yemen; identify lead times, without reducing the mandatory base package.								
32		Provide a signed delivery/acceptance checklist matching this item's specifications and included components.								
33		TOTAL MAXIMUM SCORE — item is eligible only if all Mandatory clauses comply								



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates			Warrantee			Certified local agent or authorization			Model	Brand	Country of Origin
1		Reusable surgical instruments made from corrosion-resistant surgical stainless steel appropriate to the instrument function.														
2		Instrument size, pattern and manufacturer catalogue number shall be declared for every component.														
3		Instruments shall be free of burrs, sharp unintended edges, pitting and plating defects.														
4		Hinged instruments shall open smoothly and ratchets shall engage and release correctly.														
5		Supply a perforated instrument tray with lid sized to the complete set and compatible with the hospital sterilizer.														
6		Provide validated cleaning, inspection, lubrication and steam-sterilization instructions.														
7		Reusable bivalve vaginal specula, small, medium and large: 1 of each size.														
8		Sims vaginal speculum, medium: 1 piece.														
9		Sponge-holding forceps, approximately 24–25 cm: 2 pieces.														
10		Uterine sound with readable graduations: 1 piece.														
11		Tenaculum forceps, approximately 24 cm: 1 piece.														
12		Plain dressing forceps, approximately 20 cm: 1 piece.														
13		Scissors, approximately 16–18 cm: 1 piece.														
14		Kidney dish: 1 piece.														
15		The source term sterile describes intended use; reusable instruments supplied non-sterile shall be clearly labelled for reprocessing before use.														
16		Provide a component-level quotation matching each listed instrument and quantity.														
17		Every scheduled instrument shall have the specified function, compatible jaw/tip design and surgical-grade corrosion-resistant material; include an itemized catalogue cross-reference.														
18		Every instrument in the stated set shall be supplied in the scheduled function and size; substitutions require ADRA clinical approval before award and cannot reduce set completeness.														
19		Reusable instruments shall have corrosion-resistant medical instrument materials appropriate to their cutting, clamping or retracting function.														
20		Provide manufacturer marking or traceable identification on instruments where practical.														
21		Ratchets, hinges and box joints shall move freely and close without misalignment.														
22		Cutting instruments shall cut cleanly and have protected tips for transport.														
23		Provide validated cleaning, lubrication and sterilization instructions.														
24		Supply a compartmented/perforated tray or compatible organizer with protection for delicate tips.														
25		Reusable instruments shall arrive clean and protected in nonsterile packaging; the hospital shall receive validated cleaning and steam-sterilization instructions before first use.														



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates			Warrantee			Certified local agent or authorization			Model	Brand	Country of Origon
26		Perform a signed component count and functional inspection with the receiving theatre team.														
27		The mandatory base package shall include components needed for routine operation; for provide individual replacement prices so damaged instruments can be replaced without buying a full set, provide separate unit replacement prices and Yemen replenishment lead times for five years. Provide exact manufacturer, model/version and country of manufacture, evidenced by manufacturer catalogue and product label; no unidentifiable or mixed-model substitute is acceptable.														
28		The quoted price shall include all item-specific accessories, installation and commissioning stated here; any site infrastructure connection shall be listed and coordinated before contract award.														
29		Supply a five-year spare/accessory/consumable price list and evidence of an authorized service/replenishment route to Yemen; identify lead times, without reducing the mandatory base package.														
30		Provide a signed delivery/acceptance checklist matching this item's specifications and included components.														
31																
TOTAL MAXIMUM SCORE — item is eligible only if all Mandatory clauses comply																



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification			Certificates			Warrantee			Certified local agent or authorization			Model	Brand	Country of Origin
LOT 06 Neonatal care																		
Medical oxygen cylinder pressure regulator with flowmeter and humidifier (ordinary regulator)																		
EQ-0	56																	
1		Medical oxygen cylinder pressure regulator for routine oxygen therapy; supply as a complete regulator, pressure gauge, flowmeter and detachable humidifier assembly. This item is not an air/oxygen blender.																
2		Suitable for high-pressure medical oxygen cylinders filled up to 200 bar; rated maximum inlet working pressure shall be at least 200 bar, marked permanently on the regulator.																
3		Provide a clearly readable cylinder-pressure gauge covering at least 0–250 bar with units in bar; pressure gauge accuracy shall be class 2.5 or better.																
4		The regulator shall reduce cylinder pressure to a stable nominal outlet pressure of approximately 4 bar appropriate to the supplied flowmeter; include a pressure-relief safety device.																
5		Supply an oxygen-calibrated flowmeter adjustable over 0–15 L/min, with readable 1 L/min or finer graduations through the routine clinical range and a stable zero-flow shutoff.																
6		Flow accuracy shall be within ±10% of reading or ±0.5 L/min, whichever is greater, under the rated conditions; provide manufacturer test evidence.																
7		Supply a cylinder-valve connection verified against the actual receiving-hospital oxygen cylinders before delivery; include the correct oxygen-rated connector and sealing parts in the unit price. Unsafe improvised adapters are unacceptable.																
8		Gas-wetted parts shall be oxygen-compatible corrosion-resistant metal; use a durable brass regulator body or equivalent oxygen-service construction, with permanently identified oxygen service.																
9		The complete gas path shall be cleaned and supplied free of oil, grease and hydrocarbon contamination; provide oxygen-use warnings.																
10		Provide a detachable reusable humidifier bottle of at least 200 mL with visible fill marks, leak-tight lid, pressure relief where required and manufacturer-validated reprocessing instructions.																
11		Supply an oxygen-therapy tubing outlet compatible with standard hospital oxygen tubing, secured against accidental disconnection, plus two 2 m tubing lengths per regulator.																
12		Flowmeter shall be protected by a transparent impact-resistant cover; scale, knob and pressure gauge shall remain legible during normal use.																
13		At zero-flow setting, the assembly shall have no detectable external leakage at rated inlet pressure when tested using an approved oxygen-compatible leak test.																



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates	Warrantee	Certified local agent or authorization	Model	Brand	Country of Origin
	14	Maintain the specified flow across the rated cylinder-pressure operating range; regulator and flowmeter shall remain securely attached without rotation or leakage in normal use.								
	15	Commission using a calibrated pressure/flow analyzer; verify gauge indication, regulated outlet pressure, 5/10/15 L/min flow settings, leak integrity and relief-device function.								
	16	Train users in cylinder securing, gradual valve opening, checking cylinder contents, humidifier hygiene and closing/depressurizing after use; prohibit oil and grease.								
	17	Supply two spare cylinder-connection sealing washers/O-rings per regulator and one spare humidifier bottle; all spare parts shall be oxygen-compatible and manufacturer-approved.								
	18	For neonatal low-flow therapy, use a separately suitable precision low-flow device when prescribed; this 0–15 L/min regulator does not provide controlled FiO2 and shall not replace a neonatal air/oxygen blender.								
	19	Provide exact manufacturer, model and country of manufacture, catalogue data and pressure/flow ratings; product labelling shall identify medical oxygen service and traceable batch/serial information.								
	20	Unit price shall include regulator, gauge, flowmeter, humidifier, cylinder connector, tubing, specified spares, delivery and commissioning; oxygen cylinders are not added under this line.								
	21	Provide a minimum 12-month warranty and a five-year local replacement route for seals, flowmeters, gauges and humidifier bottles, with unit spare prices.								
	22	Supply English instructions and Arabic safety/use guidance; provide a signed acceptance checklist confirming correct cylinder fit, leak-free operation and measured flow.								
		TOTAL MAXIMUM SCORE — Item is eligible only if all Mandatory clauses comply								
EQ-0	57	Color Doppler Ultrasound System with 3 Probes								
	1	Diagnostic ultrasound system with trolley, probe holders and image/report storage.								
	2	Provide B-mode, M-mode and dual-image display.								
	3	Provide tissue harmonic imaging and adjustable depth, gain, focus and time-gain compensation.								
	4	Provide distance, area, circumference and volume measurements.								
	5	Provide obstetric measurements including BPD, HC, AC, FL and gestational-age calculations.								
	6	Provide freeze, cine review, image zoom and patient identification.								
	7	Colour display at least 15 inches.								



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates	Warrantee	Certified local agent or authorization	Model	Brand	Country of Origin
8		Supply one convex probe with a frequency range covering approximately 2–5 MHz.								
9		Supply one linear probe with a frequency range covering approximately 5–12 MHz.								
10		At least two active probe ports or a clearly documented compatible probe-switching solution.								
11		Store and export still images, cine loops and reports through USB or an equivalent standard interface.								
12		Include a compatible medical image printer and 20 rolls/packs of paper if print documentation is required by the hospital.								
13		Include 5 L of ultrasound gel and approved probe-cleaning instructions.								
14		Provide electrical protection and an appropriately sized UPS for safe shutdown if not covered by an existing supply.								
15		Demonstrate image quality with a suitable test phantom and all supplied probes.								
16		Colour-flow, power Doppler and pulsed-wave spectral Doppler shall be included.								
17		Supply a third probe: endocavitary/transvaginal, approximately 5–9 MHz.								
18		Provide Doppler velocity measurements and RI/PI calculations.								
19		Supply 100 single-use endocavitary probe covers.								
20		Provide validated high-level disinfection instructions and compatible disinfectant/reprocessing accessories.								
21		DICOM export shall be included if the receiving hospital has a compatible imaging workflow; otherwise quote it separately.								
22		The delivered configuration shall include and demonstrate the specified transducer model, frequency band and application for each supplied probe; it shall meet any explicit item-specific minimum in this schedule, with manufacturer test evidence at acceptance.								
23		Convex-probe B-mode shall provide selectable imaging depth of at least 20 cm for adult abdominal studies, with on-screen depth scale.								
24		The delivered configuration shall include and demonstrate the specified axial/lateral resolution test method and manufacturer performance data; it shall meet any explicit item-specific minimum in this schedule, with manufacturer test evidence at acceptance.								
25		The delivered configuration shall include and demonstrate the specified frame-rate performance for representative abdominal and obstetric presets; it shall meet any explicit item-specific minimum in this schedule, with manufacturer test evidence at acceptance.								
26		Provide adjustable dynamic range and image processing controls.								
27		Provide selectable focal zones and transmit frequency settings.								
28		Provide annotations, body markers and measurement calipers.								
29		The delivered configuration shall include and demonstrate the specified cine-memory capacity and review functions; it shall meet any explicit item-specific minimum in this schedule, with manufacturer test evidence at acceptance.								
30		Provide fetal biometry measurements and gestational-age/estimated-fetal-weight calculations for routine obstetric examination in the base software.								
31		Provide patient-identification fields and date/time on saved images and reports.								
32		Store at least 100 patient examinations or equivalent clinical records, with USB export in a common nonproprietary format when electronic records are part of the item.								



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates	Warrantee	Certified local agent or authorization	Model	Brand	Country of Origin
33		Exported records shall preserve patient identifiers according to the configured hospital workflow.								
34		Provide a method to back up records and clear patient data before external servicing.								
35		All software needed for the specified imaging modes and measurements shall be fully licensed for at least the warranty term; no recurring fee is permitted for mandatory functions.								
36		The supplied item shall provide the power-failure safeguard or battery function described here, with audible/visual warning and automatic recovery; verify at commissioning against the item-specific duration and performance limits.								
37		Provide accessible probe holders that prevent cable strain and probe falls.								
38		All relevant components shall withstand the manufacturer-validated cleaning, disinfection or sterilization method required for their specified clinical reuse; include validated instructions.								
39		Standard warranty shall cover transducer elements and cable manufacturing defects for the full equipment warranty period; physical misuse exclusions must be documented.								
40		Test all probes for element dropout and image uniformity using an appropriate phantom.								
41		Demonstrate distance-measurement accuracy and image/export workflow at commissioning.								
42		Provide clinical applications training using the included probes and software packages.								
43		The mandatory base package shall include components needed for routine operation; for price replacement probes and estimate repair/replacement turnaround in Yemen, provide separate unit replacement prices and Yemen replenishment lead times for five years.								
44		The delivered configuration shall include and demonstrate the specified pW Doppler velocity range, PRF range and angle-correction limits; it shall meet any explicit item-specific minimum in this schedule, with manufacturer test evidence at acceptance.								
45		Provide adjustable spectral baseline, wall filter and sample-volume size.								
46		Provide adjustable colour gain, colour box and velocity scale.								
47		PW Doppler shall display and freeze spectral trace with angle correction and permit manual caliper measurement; automatic trace may be added.								
48		The specified assembly shall accommodate the intended patient/load and fit the approved installation or storage space; submit dimensioned manufacturer evidence before award.								
49		Supply an approved endocavitary probe disinfection container or explicitly identify the existing compatible reprocessing arrangement.								
50		Probe covers shall be latex-free or clearly labelled with material and allergy precautions.								
51		Display acoustic output indices applicable to the offered modes.								
52		Provide training on prudent acoustic output and exposure-time control, particularly in obstetric use.								
53		The delivered configuration shall include and demonstrate the specified if DICOM is selected, list storage, print and worklist functions separately and include integration testing; it shall meet any explicit item-specific minimum in this schedule, with manufacturer test evidence at acceptance.								
54		Provide exact manufacturer, model/version and country of manufacture, evidenced by manufacturer catalogue and product label; no unidentifiable or mixed-model substitute is acceptable.								
55		The quoted price shall include all item-specific accessories, installation and commissioning stated here; any site infrastructure connection shall be listed and coordinated before contract award.								
56		Supply a five-year spare/accessory/consumable price list and evidence of an authorized service/replenishment route to Yemen; identify lead times, without reducing the mandatory base package.								
57		Provide a signed delivery/acceptance checklist matching this item's specifications and included components.								



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates	Warrantee	Certified local agent or authorization	Model	Brand	Country of Origin
TOTAL MAXIMUM SCORE — Item is eligible only if all Mandatory clauses comply										
Double-surface LED phototherapy unit										
EQ-0	58									
	1	Double-surface neonatal LED phototherapy system providing overhead and under-body treatment surfaces.								
	2	Blue-light therapeutic output shall be concentrated approximately within 450–470 nm.								
	3	Each treatment surface shall have a manufacturer-declared irradiance map at the prescribed working distance.								
	4	Proposed minimum measured spectral irradiance 30 microW/cm²/nm over the declared effective treatment area in intensive mode.								
	5	Provide adjustable intensity or a clearly defined treatment setting.								
	6	Provide patient treatment timer and total lamp-hour counter.								
	7	Provide safe height/position adjustment and secure locks.								
	8	Lower treatment surface shall be compatible with the supplied transparent/support mattress arrangement.								
	9	Provide overtemperature protection and documented infant-surface temperature limits.								
	10	Supply an irradiance meter calibrated for the emitted spectrum.								
	11	Supply neonatal eye protection in suitable sizes, at least 20 sets.								
	12	LED modules shall have a manufacturer-rated lifetime of at least 40,000 h; replacement modules and drivers shall remain orderable for at least five years after acceptance.								
	13	Verify both surfaces' irradiance and uniformity at commissioning; do not add the two central irradiance values as proof of whole-body dose.								
	14	The supplied configuration shall include wavelength band and peak wavelength for each light source as an operational feature, with manufacturer evidence and acceptance demonstration.								
	15	The delivered configuration shall include and demonstrate the specified irradiance at the specified treatment distance for upper and lower surfaces separately; it shall meet any explicit item-specific minimum in this schedule, with manufacturer test evidence at acceptance.								
	16	The supplied configuration shall include effective treatment area and irradiance uniformity across that area as an operational feature, with manufacturer evidence and acceptance demonstration.								
	17	The delivered configuration shall include and demonstrate the specified the compatible radiometer model and calibration requirements; it shall meet any explicit item-specific minimum in this schedule, with manufacturer test evidence at acceptance.								
	18	Provide height/distance indicators and positioning instructions.								
	19	The described component shall be user-serviceable or replaceable by the authorized service team, with the necessary service information and five-year availability in Yemen.								
	20	Protect the infant from exposed electrical parts and excessive surface temperature.								
	21	Provide accessible controls and elapsed treatment-time display.								
	22	All relevant components shall withstand the manufacturer-validated cleaning, disinfection or sterilization method required for their specified clinical reuse; include validated instructions.								
	23	Measure irradiance at representative positions using a compatible calibrated meter at acceptance.								



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates			Warrantee			Certified local agent or authorization			Model	Brand	Country of Origin	
	24	Train staff in distance setting, eye protection, temperature monitoring and cleaning.															
	25	Provide exact manufacturer, model/version and country of manufacture, evidenced by manufacturer catalogue and product label; no unidentifiable or mixed-model substitute is acceptable.															
	26	The quoted price shall include all item-specific accessories, installation and commissioning stated here; any site infrastructure connection shall be listed and coordinated before contract award.															
	27	Supply a five-year spare/accessory/consumable price list and evidence of an authorized service/replenishment route to Yemen; identify lead times, without reducing the mandatory base package.															
	28	Provide a signed delivery/acceptance checklist matching this item's specifications and included components.															
TOTAL MAXIMUM SCORE — item is eligible only if all Mandatory clauses comply																	
Infant Weighing Scale																	
EQ-0	61																
	1	Digital infant scale with secure cradle-shaped weighing tray.															
	2	Capacity at least 20 kg.															
	3	Readability 5 g or better.															
	4	Provide tare and motion-stabilized hold functions.															
	5	Display shall be readable without lifting the infant.															
	6	Tray shall be removable or fully accessible for cleaning.															
	7	Provide smooth rounded edges and non-slip feet.															
	8	Operate on batteries; supply mains adapter if supported.															
	9	Provide overload and low-battery indication.															
	10	Supply calibration certificate and verify at multiple loads using traceable weights.															
	11	The instrument shall measure across the full clinically intended range with readable resolution and an accuracy claim supported by manufacturer test evidence; item-specific numerical limits elsewhere in this schedule govern acceptance.															
	12	Specified measurement accuracy shall be maintained at the receiving hospital's controlled operating temperature and humidity; provide the manufacturer validation range.															
	13	Provide calibration/verification instructions and traceable test evidence appropriate to the instrument.															
	14	The specified assembly shall accommodate the intended patient/load and fit the approved installation or storage space; submit dimensioned manufacturer evidence before award.															
	15	Battery-powered equipment shall include a rechargeable battery, a clear state-of-charge/low-battery indication and enough capacity for at least 60 minutes of normal use, unless a stricter duration is specified.															
	16	All included strips, sensors or reagents shall remain usable under the labelled storage conditions achievable in the hospital; provide protective packaging and expiry labels.															
	17	Verify representative low, mid and high measurements using suitable reference equipment or control materials.															
	18	The mandatory base package shall include components needed for routine operation; for provide replacement sensor/consumable references with package sizes and prices, provide separate unit replacement prices and Yemen replenishment lead times for five years.															



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates			Warrantee			Certified local agent or authorization			Model	Brand	Country of Origin	
	19	Provide exact manufacturer, model/version and country of manufacture, evidenced by manufacturer catalogue and product label; no unidentifiable or mixed-model substitute is acceptable.															
	20	The quoted price shall include all item-specific accessories, installation and commissioning stated here; any site infrastructure connection shall be listed and coordinated before contract award.															
	21	Supply a five-year spare/accessory/consumable price list and evidence of an authorized service/replenishment route to Yemen; identify lead times, without reducing the mandatory base package.															
	22	Provide a signed delivery/acceptance checklist matching this item's specifications and included components.															
	TOTAL MAXIMUM SCORE — item is eligible only if all Mandatory clauses comply																
Low-pressure neonatal suction unit																	
EQ-0	62																
	1	Electric suction unit specifically intended for neonatal low-pressure aspiration.															
	2	Provide precise vacuum regulation within 0 to -150 mmHg; the low-pressure range shall be clearly marked.															
	3	Provide pressure limiting or a protected control that prevents unintended high adult suction settings.															
	4	Gauge resolution shall allow neonatal low-pressure settings to be read clearly.															
	5	Provide at least one transparent graduated collection jar of 500 mL or greater.															
	6	Provide overflow shutoff and a hydrophobic bacterial filter.															
	7	Supply neonatal suction tubing and sterile catheters of 5, 6 and 8 Fr, 10 of each size.															
	8	Supply two spare bacterial filters.															
	9	Provide a stable compact stand or carry handle.															
	10	Document the neonatal operating range and verify vacuum limitation at commissioning.															
	11	Clinical suction pressure shall be set by staff according to the neonatal protocol; the maximum device capability is not a prescribed setting.															
	12	Surgical suction shall provide free-air flow of at least 20 L/min and adjustable maximum vacuum of at least –70 kPa; neonatal low-pressure suction shall provide finely regulated low vacuum suitable for newborns.															
	13	Vacuum shall be continuously adjustable from near zero to the rated maximum with a readable kPa/mmHg gauge; neonatal variants shall include a positive low-suction limiter.															
	14	Provide an easily accessible vacuum adjustment and readable gauge.															
	15	The suction unit shall be rated for continuous clinical operation without thermal shutdown during a 60-minute functional test.															
	16	Provide two reusable, transparent collection jars of at least 2 L usable capacity each for the double-jar unit, or the item-specific stated capacity for other suction devices, with overflow protection.															
	17	Provide overflow shutoff and a compatible hydrophobic/bacterial filter before the pump.															
	18	All relevant components shall withstand the manufacturer-validated cleaning, disinfection or sterilization method required for their specified clinical reuse; include validated instructions.															
	19	Provide clearly labelled patient and vacuum connections to avoid reversed assembly.															



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates	Warrantee	Certified local agent or authorization	Model	Brand	Country of Origin
	20	Operating noise shall not exceed 65 dB(A) at 1 m under normal load unless a more restrictive item-specific limit is stated.								
	21	The mandatory base package shall include components needed for routine operation; for price jars, lids, filters and patient tubing separately, provide separate unit replacement prices and Yemen replenishment lead times for five years.								
	22	Test vacuum regulation, flow and overflow protection at acceptance.								
	23	Demonstrate safe emptying, cleaning and filter replacement without contaminating the pump.								
	24	Provide exact manufacturer, model/version and country of manufacture, evidenced by manufacturer catalogue and product label; no unidentifiable or mixed-model substitute is acceptable.								
	25	The quoted price shall include all item-specific accessories, installation and commissioning stated here; any site infrastructure connection shall be listed and coordinated before contract award.								
	26	Supply a five-year spare/accessory/consumable price list and evidence of an authorized service/replenishment route to Yemen; identify lead times, without reducing the mandatory base package.								
	27	Provide a signed delivery/acceptance checklist matching this item's specifications and included components.								
		TOTAL MAXIMUM SCORE — item is eligible only if all Mandatory clauses comply								
Maternal multiparameter monitor										
EQ-0	63									
	1	Continuous multiparameter monitoring with ECG, heart rate, respiration, SpO2, non-invasive blood pressure and temperature.								
	2	Provide selectable adult and pediatric patient profiles with appropriate alarm limits.								
	3	Colour display at least 10 inches for bedside viewing.								
	4	ECG monitoring using 3/5-lead cable; this is not a substitute for a diagnostic 12-lead ECG machine.								
	5	NIBP shall support manual, automatic interval and rapid measurement modes.								
	6	Display systolic, diastolic and mean arterial pressure in mmHg.								
	7	SpO2 shall display saturation, pulse rate, plethysmographic waveform and signal-quality indication.								
	8	Temperature display resolution 0.1 °C; supply a reusable temperature probe.								
	9	Provide user-adjustable audible and visual high/low physiological alarms.								
	10	Provide technical alarms for disconnected sensors, measurement failure and low battery.								
	11	Store at least 24 hours of trends and alarm events.								
	12	Internal rechargeable battery shall provide at least two hours of typical monitoring; state test conditions.								
	13	Supply one ECG cable, one reusable SpO2 probe and adult/pediatric NIBP cuffs as appropriate to the patient group.								
	14	Supply a compatible trolley or wall mount with secure cable management.								
	15	Verify ECG, pressure, SpO2 and temperature performance using appropriate test equipment at acceptance.								



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates	Warrantee	Certified local agent or authorization	Model	Brand	Country of Origin
16		Configure as a maternal monitor with adult and large-adult cuffs; fetal monitoring is supplied separately under the separately scheduled fetal monitor.								
17		ECG monitoring shall support at least 3-lead and 5-lead operation and include one reusable 5-lead ECG cable per device for the specified patient group.								
18		Heart-rate display shall cover at least 30–250 bpm for specified patient groups with alarm limits; accuracy within ± 5 bpm or $\pm 5\%$, whichever is greater.								
19		Provide ECG lead-off detection and an obvious disconnected-sensor indication.								
20		ECG display shall provide 25 and 50 mm/s sweep speeds, selectable gain and a 50 Hz mains filter without obscuring clinically relevant rhythms.								
21		Provide common lethal-arrhythmia alarms (asystole, ventricular fibrillation and ventricular tachycardia) and a pacemaker detection indicator in the supplied software.								
22		SpO ₂ display shall cover 0–100%; accuracy shall be within ± 3 percentage points over 70–100% with the supplied clinically appropriate sensor.								
23		Include reusable adult and paediatric SpO ₂ sensors with the respective monitor; neonatal devices shall additionally include a neonatal-compatible sensor.								
24		Provide SpO ₂ pulse waveform or signal-quality indication to help identify unreliable readings.								
25		NIBP shall accommodate the specified patient groups with correctly sized reusable cuffs and independent overpressure protection; adult systolic measurement range shall encompass 40–260 mmHg.								
26		Provide manual start/stop and automatic interval NIBP modes.								
27		Supply reusable NIBP cuffs covering the intended patients, with a size/circumference list.								
28		At least one temperature channel with the appropriate reusable probe shall be supplied; displayed accuracy shall be within ± 0.2 °C over the clinical range.								
29		Respiratory rate shall be displayed from the offered ECG impedance or CO ₂ method, with configurable apnea alarm for the specified patient group.								
30		Provide adjustable audible and visual parameter alarms with clear priority indication.								
31		Alarm settings and patient category shall be reviewable on admission of a new patient.								
32		The monitor shall store at least 24 hours of numerical trends and retain alarms/events for review after temporary mains interruption.								
33		The supplied item shall provide the power-failure safeguard or battery function described here, with audible/visual warning and automatic recovery; verify at commissioning against the item-specific duration and performance limits.								
34		Provide a patient data clear/discharge function to prevent mixing records.								
35		With all specified monitoring modules active, internal battery shall provide at least 60 minutes of operation and display a low-battery alarm.								
36		Provide mounting hardware with load rating appropriate to the offered monitor.								
37		The mandatory base package shall include components needed for routine operation; for price replacement ECG cables, SpO ₂ sensors, cuffs, hoses and temperature probes individually, provide separate unit replacement prices and Yemen replenishment lead times for five years.								
38		Demonstrate all supplied parameters using appropriate calibrated simulators at acceptance.								
39		Provide exact manufacturer, model/version and country of manufacture, evidenced by manufacturer catalogue and product label; no unidentifiable or mixed-model substitute is acceptable.								
40		The quoted price shall include all item-specific accessories, installation and commissioning stated here; any site infrastructure connection shall be listed and coordinated before contract award.								



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates	Warrantee	Certified local agent or authorization	Model	Brand	Country of Origin
	41	Supply a five-year spare/accessory/consumable price list and evidence of an authorized service/replenishment route to Yemen; identify lead times, without reducing the mandatory base package.								
	42	Provide a signed delivery/acceptance checklist matching this item's specifications and included components.								
		TOTAL MAXIMUM SCORE — item is eligible only if all Mandatory clauses comply								
Modern neonatal incubator										
EQ-0	64									
	1	Stationary neonatal intensive-care incubator; a transport incubator is not an equivalent substitute.								
	2	Double-wall transparent canopy with access doors, portholes and tubing access.								
	3	Provide servo-controlled air-temperature and skin-temperature modes.								
	4	Air-temperature set range shall cover at least 20–37 °C with protected access to any higher-temperature setting.								
	5	Skin-temperature set range shall cover at least 34–37 °C with protected access to any higher-temperature setting.								
	6	Display air temperature, skin temperature and setpoint with 0.1 °C resolution.								
	7	Provide independent overtemperature protection.								
	8	Provide audible/visual alarms for high/low temperature, probe disconnection, airflow failure, power failure and system faults.								
	9	Provide controlled humidification with removable cleanable water reservoir; declare humidity range and accuracy.								
	10	Mattress tray shall slide for access and offer head-up/head-down tilt.								
	11	Supply neonatal mattress, two reusable skin probes and compatible fixation patches.								
	12	Provide a stable stand with brakes and storage shelf.								
	13	The delivered configuration shall include and demonstrate the specified supplier shall state room-temperature limits and demonstrate operation at the receiving site's controlled ambient conditions; it shall meet any explicit item-specific minimum in this schedule, with manufacturer test evidence								
	14	Perform incubator analyzer testing for temperature stability, uniformity, alarms and humidity performance.								
	15	Oxygen enrichment, if offered, shall include independent oxygen measurement and alarms; do not assume the incubator provides ventilation.								
	16	The delivered configuration shall include and demonstrate the specified temperature control accuracy, stability and uniformity under declared ambient conditions; it shall meet any explicit item-specific minimum in this schedule, with manufacturer test evidence at acceptance.								
	17	The specified assembly shall accommodate the intended patient/load and fit the approved installation or storage space; submit dimensioned manufacturer evidence before award.								
	18	The supplied configuration shall include measured internal noise at the infant position and test conditions as an operational feature, with manufacturer evidence and acceptance demonstration.								
	19	The delivered configuration shall include and demonstrate the specified humidity set range, measurement accuracy and water-quality requirements; it shall meet any explicit item-specific minimum in this schedule, with manufacturer test evidence at acceptance.								
	20	Humidifier reservoir shall be accessible for validated cleaning without exposing electrical parts to water.								
	21	Provide water-low indication where required for safe humidification.								



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates			Warrantee			Certified local agent or authorization			Model	Brand	Country of Origin	
22		The supplied configuration shall include the method used to limit condensation on the canopy as an operational feature, with manufacturer evidence and acceptance demonstration.															
23		Provide skin-probe attachment instructions and compatible replacement probes.															
24		The supplied device shall implement alarm-delay settings and protected access to high-temperature mode as an enabled safety function, with audible/visual indication where relevant and a documented simulated-fault acceptance test.															
25		Demonstrate independent overtemperature cutoff separately from the normal controller.															
26		Portholes shall latch securely and permit nursing access without opening the full canopy.															
27		Provide tubing ports that minimize accidental compression or disconnection of lines.															
28		Mattress and tray shall be removable for cleaning and disinfection.															
29		The specified assembly shall accommodate the intended patient/load and fit the approved installation or storage space; submit dimensioned manufacturer evidence before award.															
30		The supplied configuration shall include whether weighing scale, oxygen control or X-ray tray are included or optional as an operational feature, with manufacturer evidence and acceptance demonstration.															
31		If oxygen enrichment is included, provide oxygen inlet requirements and fire-safety instructions.															
32		Provide a filter replacement schedule and initial spare air-filter set.															
33		The supplied item shall provide the power-failure safeguard or battery function described here, with audible/visual warning and automatic recovery; verify at commissioning against the item-specific duration and performance limits.															
34		Provide accessible braking and stable positioning with the canopy open.															
35		Use an incubator analyzer to record temperature distribution and recovery after door opening.															
36		Verify all installed temperature, airflow, probe and power alarms.															
37		Train staff to avoid servo-probe displacement and inappropriate oxygen enrichment.															
38		Provide exact manufacturer, model/version and country of manufacture, evidenced by manufacturer catalogue and product label; no unidentifiable or mixed-model substitute is acceptable.															
39		The quoted price shall include all item-specific accessories, installation and commissioning stated here; any site infrastructure connection shall be listed and coordinated before contract award.															
40		Supply a five-year spare/accessory/consumable price list and evidence of an authorized service/replenishment route to Yemen; identify lead times, without reducing the mandatory base package.															
41		Provide a signed delivery/acceptance checklist matching this item's specifications and included components.															
42		Offered device shall be a stationary closed incubator, not a transport incubator; identify infant air-control and skin-servo-control modes, humidity provisions and compatible reusable probes.															
TOTAL MAXIMUM SCORE — item is eligible only if all Mandatory clauses comply																	
Neonatal endotracheal tubes																	
EQ-0	65																
1		One proposed starter lot of sterile single-use neonatal endotracheal tubes.															
2		Supply uncuffed tubes of internal diameter 2.5, 3.0, 3.5 and 4.0 mm, 10 of each size.															



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates			Warrantee			Certified local agent or authorization			Model	Brand	Country of Origin	
EQ-0	3	Tube size shall be permanently marked and packaging shall identify internal diameter.															
	4	Provide depth graduations and a radiopaque line.															
	5	Tube shall have a smooth atraumatic tip.															
	6	Standard 15 mm connector shall fit the supplied neonatal breathing equipment.															
	7	Each tube shall be individually sterile with lot number and expiry.															
	8	The supplied configuration shall include material and latex status as an operational feature, with manufacturer evidence and acceptance demonstration.															
	9	Provide exact catalogue reference and unit-of-issue for every supplied component.															
	10	Patient- and chemical-contact materials shall be compatible with the specified clinical use and cleaning/disinfection method and shall be free from prohibited latex where direct contact is expected.															
	11	Provide manufacturer labels showing lot/batch traceability where applicable.															
	12	Expiring supplies shall be delivered with at least 75% of labelled shelf life remaining and storage conditions compatible with the hospital supply chain.															
	13	All reusable components shall have validated cleaning/reprocessing instructions; all single-use components shall be labelled as such and supplied in the quantities specified for this item.															
	14	Inspect quantities, packaging integrity and component identity at receipt.															
	15	Provide exact manufacturer, model/version and country of manufacture, evidenced by manufacturer catalogue and product label; no unidentifiable or mixed-model substitute is acceptable.															
	16	The quoted price shall include all item-specific accessories, installation and commissioning stated here; any site infrastructure connection shall be listed and coordinated before contract award.															
	17	Supply a five-year spare/accessory/consumable price list and evidence of an authorized service/replenishment route to Yemen; identify lead times, without reducing the mandatory base package.															
	18	Provide a signed delivery/acceptance checklist matching this item's specifications and included components.															
	TOTAL MAXIMUM SCORE — item is eligible only if all Mandatory clauses comply																
	Neonatal laryngoscope set																
EQ-0	66																
EQ-0	1	Reusable diagnostic laryngoscope set with bright LED illumination.															
	2	Handle and blades shall have a standardized compatible connection.															
	3	Provide a corrosion-resistant handle with secure battery compartment.															
	4	Supply rechargeable power with charger or readily available batteries as appropriate to the offered handle.															
	5	Supply spare light/power components or a complete backup handle.															
	6	Blades shall lock securely and have smooth atraumatic edges.															
	7	Provide validated blade reprocessing instructions and handle cleaning instructions.															



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates			Warrantee			Certified local agent or authorization			Model	Brand	Country of Origin	
	8	Supply a protective case with individual blade retention.															
	9	Demonstrate illumination and correct locking of every blade.															
	10	Supply Miller straight blades sizes 00, 0 and 1, one of each.															
	11	Provide one neonatal/pediatric handle.															
	12	The specified assembly shall accommodate the intended patient/load and fit the approved installation or storage space; submit dimensioned manufacturer evidence before award.															
	13	The specified assembly shall accommodate the intended patient/load and fit the approved installation or storage space; submit dimensioned manufacturer evidence before award.															
	14	The supplied configuration shall include reusable versus single-use patient-contact components as an operational feature, with manufacturer evidence and acceptance demonstration.															
	15	Provide a validated reprocessing procedure for each reusable component.															
	16	Provide a pre-use functional inspection procedure.															
	17	The mandatory base package shall include components needed for routine operation; for price replacement valves, seals, blades or other wearable parts as applicable, provide separate unit replacement prices and Yemen replenishment lead times for five years.															
	18	Demonstrate complete assembly and safe functional operation with the receiving clinical team.															
	19	Provide exact manufacturer, model/version and country of manufacture, evidenced by manufacturer catalogue and product label; no unidentifiable or mixed-model substitute is acceptable.															
	20	The quoted price shall include all item-specific accessories, installation and commissioning stated here; any site infrastructure connection shall be listed and coordinated before contract award.															
	21	Supply a five-year spare/accessory/consumable price list and evidence of an authorized service/replenishment route to Yemen; identify lead times, without reducing the mandatory base package.															
	22	Provide a signed delivery/acceptance checklist matching this item's specifications and included components.															
	TOTAL MAXIMUM SCORE — item is eligible only if all Mandatory clauses comply																
Neonatal masks, sizes 0 and 1																	
EQ-0	67																
	1	Each supply unit is proposed as one pair of neonatal resuscitation masks: one size 0 and one size 1.															
	2	Masks shall have transparent domes for observation.															
	3	Provide a soft anatomically suitable sealing rim.															
	4	Connector shall match the supplied neonatal bag and T-piece system.															
	5	The specified assembly shall accommodate the intended patient/load and fit the approved installation or storage space; submit dimensioned manufacturer evidence before award.															
	6	Reusable masks shall have validated cleaning and disinfection/sterilization instructions.															
	7	Masks shall be latex free or clearly declare latex content for clinical approval.															
	8	Provide exact catalogue reference and unit-of-issue for every supplied component.															



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates			Warrantee			Certified local agent or authorization			Model	Brand	Country of Origon	
9		Patient- and chemical-contact materials shall be compatible with the specified clinical use and cleaning/disinfection method and shall be free from prohibited latex where direct contact is expected.															
10		Provide manufacturer labels showing lot/batch traceability where applicable.															
11		Expiring supplies shall be delivered with at least 75% of labelled shelf life remaining and storage conditions compatible with the hospital supply chain.															
12		All reusable components shall have validated cleaning/reprocessing instructions; all single-use components shall be labelled as such and supplied in the quantities specified for this item.															
13		Inspect quantities, packaging integrity and component identity at receipt.															
14		Provide exact manufacturer, model/version and country of manufacture, evidenced by manufacturer catalogue and product label; no unidentifiable or mixed-model substitute is acceptable.															
15		The quoted price shall include all item-specific accessories, installation and commissioning stated here; any site infrastructure connection shall be listed and coordinated before contract award.															
16		Supply a five-year spare/accessory/consumable price list and evidence of an authorized service/replenishment route to Yemen; identify lead times, without reducing the mandatory base package.															
17		Provide a signed delivery/acceptance checklist matching this item's specifications and included components.															
TOTAL MAXIMUM SCORE — item is eligible only if all Mandatory clauses comply																	

Neonatal pulse oximeter

EQ-0	68									
1		Portable pulse oximeter with continuous SpO2 and pulse-rate display.								
2		Display plethysmographic waveform or signal-quality/perfusion indication.								
3		SpO2 resolution 1 percentage point; accuracy within ±3 percentage points over 70–100% under the stated validation conditions.								
4		Pulse-rate measurement range shall cover at least 30–240 beats/min.								
5		User-adjustable audible/visual alarms for high/low SpO2 and pulse rate.								
6		Provide sensor-disconnection and low-battery alarms.								
7		Rechargeable battery shall support at least four hours of typical use.								
8		Store trend data for at least 24 hours.								
9		Supply mains charger and protective carrying case.								
10		Demonstrate function with a compatible oximeter simulator; factory documentation shall support patient-group accuracy claims.								
11		The manufacturer shall explicitly validate the monitor and supplied sensors for neonatal use.								
12		Supply two reusable neonatal sensors and 50 neonatal fixation wraps or 20 disposable neonatal sensors.								
13		Neonatal motion/low-perfusion performance shall be documented.								
14		An adult-only fingertip oximeter is not acceptable.								



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates			Warrantee			Certified local agent or authorization			Model	Brand	Country of Origin
	15	The delivered configuration shall include and demonstrate the specified saturation accuracy with test conditions and validated patient population; it shall meet any explicit item-specific minimum in this schedule, with manufacturer test evidence at acceptance.														
	16	The delivered configuration shall include and demonstrate the specified pulse-rate range and accuracy; it shall meet any explicit item-specific minimum in this schedule, with manufacturer test evidence at acceptance.														
	17	The supplied configuration shall include motion and low-perfusion performance claims with supporting manufacturer evidence as an operational feature, with manufacturer evidence and acceptance demonstration.														
	18	Provide sensor-off indication and signal-quality information.														
	19	The delivered configuration shall include and demonstrate the specified averaging-time choices and their effect on displayed readings; it shall meet any explicit item-specific minimum in this schedule, with manufacturer test evidence at acceptance.														
	20	The supplied item shall provide the power-failure safeguard or battery function described here, with audible/visual warning and automatic recovery; verify at commissioning against the item-specific duration and performance limits.														
	21	The specified assembly shall accommodate the intended patient/load and fit the approved installation or storage space; submit dimensioned manufacturer evidence before award.														
	22	Provide extension cables only where approved for the offered sensor technology.														
	23	Test pulse rate, saturation display and alarms using a compatible simulator; simulator checks do not establish clinical accuracy.														
	24	Provide exact manufacturer, model/version and country of manufacture, evidenced by manufacturer catalogue and product label; no unidentifiable or mixed-model substitute is acceptable.														
	25	The quoted price shall include all item-specific accessories, installation and commissioning stated here; any site infrastructure connection shall be listed and coordinated before contract award.														
	26	Supply a five-year spare/accessory/consumable price list and evidence of an authorized service/replenishment route to Yemen; identify lead times, without reducing the mandatory base package.														
	27	Provide a signed delivery/acceptance checklist matching this item's specifications and included components.														
TOTAL MAXIMUM SCORE — item is eligible only if all Mandatory clauses comply																
Neonatal radiant warmer/resuscitation table																
EQ-0	69															
	1	Neonatal radiant warmer with integral resuscitation table.														
	2	Provide manual heating and skin-servo control modes.														
	3	Display set temperature, measured skin temperature and heater output separately.														
	4	Skin-temperature set range shall cover at least 34–37 °C; resolution 0.1 °C.														
	5	Provide independent overtemperature cutoff.														
	6	Audible/visual alarms shall cover high/low skin temperature, probe failure, power failure and heater/system faults.														
	7	Heater shall move clear for clinical access while maintaining secure positioning.														
	8	Provide examination light and integrated resuscitation timer.														
	9	Supply mattress with waterproof cover and transparent protective side panels.														
	10	Provide tilt adjustment and a stable mobile stand with brakes.														



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates			Warrantee			Certified local agent or authorization			Model	Brand	Country of Origin
11		Supply two reusable skin probes and 50 compatible fixation patches.														
12		Provide shelves/brackets for separately listed resuscitation equipment.														
13		Verify temperature control, alarms and electrical safety at commissioning.														
14		Suction, blender and T-piece units are separate scheduled items unless explicitly included and reconciled in the offer.														
15		The delivered configuration shall include and demonstrate the specified heater power and warm-up behavior; it shall meet any explicit item-specific minimum in this schedule, with manufacturer test evidence at acceptance.														
16		The delivered configuration shall include and demonstrate the specified skin-temperature accuracy with the supplied probe; it shall meet any explicit item-specific minimum in this schedule, with manufacturer test evidence at acceptance.														
17		Radiant warmer manual mode shall permit staged heater adjustment and trigger an audible/visual unattended-use reminder to prevent prolonged unmonitored heating.														
18		Skin-probe disconnection shall trigger an alarm and automatic limitation of heater output to prevent prolonged unregulated heating.														
19		An independent overtemperature cutout shall interrupt heater output and require fault correction before controlled reset.														
20		Skin probe and heater controls shall be clearly identifiable during emergency use.														
21		The specified assembly shall accommodate the intended patient/load and fit the approved installation or storage space; submit dimensioned manufacturer evidence before award.														
22		Side panels shall latch securely and open without uncontrolled release.														
23		Provide access around the infant for airway management and resuscitation.														
24		An X-ray cassette tray is optional; the base radiant warmer shall allow safe access for neonatal imaging without obstructing resuscitation and shall maintain heater stability.														
25		The delivered configuration shall include and demonstrate the specified examination-light illuminance and adjustment range; it shall meet any explicit item-specific minimum in this schedule, with manufacturer test evidence at acceptance.														
26		Provide cleaning access to the mattress platform, side panels and heater guard.														
27		Verify radiant heat distribution and servo response using appropriate test equipment.														
28		Verify manual-mode alarms and probe-disconnection behavior.														
29		Train staff on probe placement, skin assessment and safe heater positioning.														
30		Provide exact manufacturer, model/version and country of manufacture, evidenced by manufacturer catalogue and product label; no unidentifiable or mixed-model substitute is acceptable.														
31		The quoted price shall include all item-specific accessories, installation and commissioning stated here; any site infrastructure connection shall be listed and coordinated before contract award.														
32		Supply a five-year spare/accessory/consumable price list and evidence of an authorized service/replenishment route to Yemen; identify lead times, without reducing the mandatory base package.														
33		Provide a signed delivery/acceptance checklist matching this item's specifications and included components.														
TOTAL MAXIMUM SCORE — item is eligible only if all Mandatory clauses comply																



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates			Warrantee			Certified local agent or authorization			Model	Brand	Country of Origon	
EQ-0	1	Neonatal self-inflating manual resuscitation bag intended for term and preterm infants.	72														
	2	Bag shall refill without an external compressed-gas supply.															
	3	Provide non-rebreathing patient valve and pressure-relief valve with documented opening pressure.															
	4	Supply oxygen reservoir and oxygen inlet tubing.															
	5	Provide neonatal masks sizes 0 and 1 with transparent domes and soft sealing rims.															
	6	Provide a manometer port or compatible pressure-monitoring accessory.															
	7	Provide PEEP-valve connection and one manufacturer-approved PEEP valve where supported for neonatal use.															
	8	Manufacturer shall state bag volume and intended patient weight range.															
	9	Reusable components shall have validated reprocessing instructions.															
	10	Supply one protective storage case and demonstrate valve/pressure-relief function.															
	11	The specified assembly shall accommodate the intended patient/load and fit the approved installation or storage space; submit dimensioned manufacturer evidence before award.															
	12	The specified assembly shall accommodate the intended patient/load and fit the approved installation or storage space; submit dimensioned manufacturer evidence before award.															
	13	The supplied configuration shall include reusable versus single-use patient-contact components as an operational feature, with manufacturer evidence and acceptance demonstration.															
	14	Provide a validated reprocessing procedure for each reusable component.															
	15	Provide a pre-use functional inspection procedure.															
	16	The mandatory base package shall include components needed for routine operation; for price replacement valves, seals, blades or other wearable parts as applicable, provide separate unit replacement prices and Yemen replenishment lead times for five years.															
	17	Demonstrate complete assembly and safe functional operation with the receiving clinical team.															
	18	Provide exact manufacturer, model/version and country of manufacture, evidenced by manufacturer catalogue and product label; no unidentifiable or mixed-model substitute is acceptable.															
	19	The quoted price shall include all item-specific accessories, installation and commissioning stated here; any site infrastructure connection shall be listed and coordinated before contract award.															
	20	Supply a five-year spare/accessory/consumable price list and evidence of an authorized service/replenishment route to Yemen; identify lead times, without reducing the mandatory base package.															
	21	Provide a signed delivery/acceptance checklist matching this item's specifications and included components.															
TOTAL MAXIMUM SCORE — item is eligible only if all Mandatory clauses comply																	
Neonatal T-piece resuscitator																	
EQ-0	72																
EQ-0	1	Neonatal T-piece resuscitation device intended for controlled pressure ventilation and CPAP during newborn resuscitation.	72														
	2	Provide independently adjustable peak inspiratory pressure and PEEP.		72													



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates			Warrantee			Certified local agent or authorization			Model	Brand	Country of Origin
	3	Provide a clearly readable airway-pressure manometer.														
	4	Provide an adjustable maximum-pressure relief control protected against accidental change.														
	5	Document achievable pressure ranges and the gas flow required for correct operation.														
	6	Supply gas inlet tubing and approved connectors.														
	7	Supply ten neonatal T-piece circuits and masks sizes 0 and 1.														
	8	Provide a test lung for pre-use verification.														
	9	The T-piece shall connect to its approved gas source. Where controlled neonatal FIO2 is required, a compatible air/oxygen blender and medical-air source remain necessary under the approved resuscitation setup. EQ-056 is now a cylinder oxygen regulator and cannot substitute for that blender.														
	10	Train users to verify delivered pressure and PEEP before use.														
	11	Confirm the availability of continuous gas flow; a self-inflating bag under the separately scheduled neonatal bag-mask set remains a separate backup.														
	12	The delivered configuration shall include and demonstrate the specified approved gas inlet pressure ranges and connector standards; it shall meet any explicit item-specific minimum in this schedule, with manufacturer test evidence at acceptance.														
	13	The delivered configuration shall include and demonstrate the specified outlet flow range and flow limitations at each pressure setting; it shall meet any explicit item-specific minimum in this schedule, with manufacturer test evidence at acceptance.														
	14	Delivered pressure or oxygen concentration shall remain within the item-specific tolerances stated elsewhere in this schedule across the rated operating flow.														
	15	Provide a pre-use calibration/check procedure with the necessary test accessories.														
	16	Provide clear instructions for loss of either source gas and the required backup arrangement.														
	17	The described component shall be user-serviceable or replaceable by the authorized service team, with the necessary service information and five-year availability in Yemen.														
	18	Verify output with an independent calibrated oxygen/pressure analyzer as applicable.														
	19	Provide exact manufacturer, model/version and country of manufacture, evidenced by manufacturer catalogue and product label; no unidentifiable or mixed-model substitute is acceptable.														
	20	The quoted price shall include all item-specific accessories, installation and commissioning stated here; any site infrastructure connection shall be listed and coordinated before contract award.														
	21	Supply a five-year spare/accessory/consumable price list and evidence of an authorized service/replenishment route to Yemen; identify lead times, without reducing the mandatory base package.														
	22	Provide a signed delivery/acceptance checklist matching this item's specifications and included components.														
TOTAL MAXIMUM SCORE — item is eligible only if all Mandatory clauses comply																
Obstetric electric suction unit																
EQ-0	73															
	1	Medical electric suction device with oil-free pump and continuously adjustable vacuum.														
	2	Vacuum control shall cover gentle aspiration through at least -600 mmHg for the intended adult/surgical use.														



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates	Warrantee	Certified local agent or authorization	Model	Brand	Country of Origin
3		Vacuum gauge shall be readable and calibrated in kPa or mmHg.								
4		Free-air flow at least 30 L/min unless a higher requirement is specified below.								
5		Collection containers shall be transparent, impact resistant and clearly graduated.								
6		Provide overflow shutoff and a hydrophobic bacterial filter between collection system and pump.								
7		Supply patient tubing, vacuum tubing, connecting fittings and two spare bacterial filters.								
8		Reusable containers shall have validated cleaning/disinfection or sterilization instructions.								
9		Provide continuous-duty rating appropriate to the intended department.								
10		Demonstrate vacuum regulation, free-air flow and overflow protection at commissioning.								
11		Supply a stable mobile stand with braked castors.								
12		Supply at least two collection jars of 2 L each.								
13		Surgical suction shall provide free-air flow of at least 20 L/min and adjustable maximum vacuum of at least -70 kPa; neonatal low-pressure suction shall provide finely regulated low vacuum suitable for newborns.								
14		Vacuum shall be continuously adjustable from near zero to the rated maximum with a readable kPa/mmHg gauge; neonatal variants shall include a positive low-suction limiter.								
15		Provide an easily accessible vacuum adjustment and readable gauge.								
16		The suction unit shall be rated for continuous clinical operation without thermal shutdown during a 60-minute functional test.								
17		Provide two reusable, transparent collection jars of at least 2 L usable capacity each for the double-jar unit, or the item-specific stated capacity for other suction devices, with overflow protection.								
18		Provide overflow shutoff and a compatible hydrophobic/bacterial filter before the pump.								
19		All relevant components shall withstand the manufacturer-validated cleaning, disinfection or sterilization method required for their specified clinical reuse; include validated instructions.								
20		Provide clearly labelled patient and vacuum connections to avoid reversed assembly.								
21		Operating noise shall not exceed 65 dB(A) at 1 m under normal load unless a more restrictive item-specific limit is stated.								
22		The mandatory base package shall include components needed for routine operation; for price jars, lids, filters and patient tubing separately, provide separate unit replacement prices and Yemen replenishment lead times for five years.								
23		Test vacuum regulation, flow and overflow protection at acceptance.								
24		Demonstrate safe emptying, cleaning and filter replacement without contaminating the pump.								
25		Provide exact manufacturer, model/version and country of manufacture, evidenced by manufacturer catalogue and product label; no unidentifiable or mixed-model substitute is acceptable.								
26		The quoted price shall include all item-specific accessories, installation and commissioning stated here; any site infrastructure connection shall be listed and coordinated before contract award.								
27		Supply a five-year spare/accessory/consumable price list and evidence of an authorized service/replenishment route to Yemen; identify lead times, without reducing the mandatory base package.								



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates	Warrantee	Certified local agent or authorization	Model	Brand	Country of Origin
	28	Provide a signed delivery/acceptance checklist matching this item's specifications and included components.								
		TOTAL MAXIMUM SCORE — item is eligible only if all Mandatory clauses comply								
Resuscitation clock/timer										
EQ-0	74									
	1	Clock/timer intended for newborn resuscitation timing.								
	2	Provide an easily visible seconds display.								
	3	Provide count-up elapsed-time function with start, stop and reset.								
	4	Provide audible alerts that can be controlled by the user.								
	5	Display shall be readable from the resuscitation position.								
	6	Operate on mains with battery backup or long-life battery.								
	7	Provide a secure wall/table mounting arrangement.								
	8	Case shall be cleanable with routine hospital disinfectants.								
	9	Include batteries and verify timing against a reference clock.								
	10	Confirm whether the separately scheduled neonatal radiant warmer already includes a timer; retain this separate line unless formally removed.								
	11	The instrument shall measure across the full clinically intended range with readable resolution and an accuracy claim supported by manufacturer test evidence; item-specific numerical limits elsewhere in this schedule govern acceptance.								
	12	Specified measurement accuracy shall be maintained at the receiving hospital's controlled operating temperature and humidity; provide the manufacturer validation range.								
	13	Provide calibration/verification instructions and traceable test evidence appropriate to the instrument.								
	14	The specified assembly shall accommodate the intended patient/load and fit the approved installation or storage space; submit dimensioned manufacturer evidence before award.								
	15	Battery-powered equipment shall include a rechargeable battery, a clear state-of-charge/low-battery indication and enough capacity for at least 60 minutes of normal use, unless a stricter duration is specified.								
	16	All included strips, sensors or reagents shall remain usable under the labelled storage conditions achievable in the hospital; provide protective packaging and expiry labels.								
	17	Verify representative low, mid and high measurements using suitable reference equipment or control materials.								
	18	The mandatory base package shall include components needed for routine operation; for provide replacement sensor/consumable references with package sizes and prices, provide separate unit replacement prices and Yemen replenishment lead times for five years.								
	19	Provide exact manufacturer, model/version and country of manufacture, evidenced by manufacturer catalogue and product label; no unidentifiable or mixed-model substitute is acceptable.								
	20	The quoted price shall include all item-specific accessories, installation and commissioning stated here; any site infrastructure connection shall be listed and coordinated before contract award.								
	21	Supply a five-year spare/accessory/consumable price list and evidence of an authorized service/replenishment route to Yemen; identify lead times, without reducing the mandatory base package.								
	22	Provide a signed delivery/acceptance checklist matching this item's specifications and included components.								



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates	Warrantee	Certified local agent or authorization	Model	Brand	Country of Origin
		TOTAL MAXIMUM SCORE — Item is eligible only if all Mandatory clauses comply								
		LOT 07 Emergency outpatient and diagnostics								
		12-lead ECG machine								
EQ-0	75									
	1	Diagnostic ECG machine acquiring 12 leads simultaneously through a 10-wire patient cable.								
	2	Provide manual and automatic ECG recording modes.								
	3	Display multiple ECG waveforms and lead-off indication.								
	4	Selectable recording speeds shall include 25 and 50 mm/s.								
	5	Selectable gain shall include 5, 10 and 20 mm/mV.								
	6	Diagnostic frequency response shall be declared; provide a diagnostic mode suitable for adult and pediatric recordings.								
	7	Provide mains-interference and muscle filters with clear identification of filter settings on the report.								
	8	Store at least 100 patient ECG records.								
	9	Provide thermal printout or supplied compatible printer showing all 12 leads.								
	10	Provide USB or equivalent export in a commonly readable format.								
	11	Internal rechargeable battery shall allow at least one hour of recording or 100 automatic ECGs.								
	12	Supply adult limb electrodes, six chest electrodes, one patient cable and 20 rolls/packs of compatible paper.								
	13	Supply pediatric electrode accessories if pediatric diagnostic use is intended.								
	14	Demonstrate calibration pulse, lead identification and record/export functions.								
	15	The delivered configuration shall include and demonstrate the specified sampling rate and ADC resolution; it shall meet any explicit item-specific minimum in this schedule, with manufacturer test evidence at acceptance.								
	16	The delivered configuration shall include and demonstrate the specified frequency response in diagnostic and monitoring/filter modes; it shall meet any explicit item-specific minimum in this schedule, with manufacturer test evidence at acceptance.								
	17	Provide selectable mains and baseline filters with clear indication of filter use.								
	18	The supplied configuration shall include lead configurations and simultaneous acquisition capability as an operational feature, with manufacturer evidence and acceptance demonstration.								
	19	The delivered configuration shall include and demonstrate the specified paper speeds and ECG gain settings; it shall meet any explicit item-specific minimum in this schedule, with manufacturer test evidence at acceptance.								
	20	Provide lead-reversal/lead-off guidance where supported.								
	21	The delivered configuration shall include and demonstrate the specified internal record capacity and USB/network export formats; it shall meet any explicit item-specific minimum in this schedule, with manufacturer test evidence at acceptance.								
	22	Automatic interpretation is an optional aid; the base ECG shall record, display and print diagnostic-quality 12-lead traces for adult and paediatric patients without it.								



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates			Warrantee			Certified local agent or authorization			Model	Brand	Country of Origin
	23	Print patient identifiers, date/time, speed, gain and active filters on the report.														
	24	Supply reusable limb and chest electrodes or the approved adhesive-electrode configuration.														
	25	The supplied item shall provide the power-failure safeguard or battery function described here, with audible/visual warning and automatic recovery; verify at commissioning against the item-specific duration and performance limits.														
	26	The mandatory base package shall include components needed for routine operation; for price patient cables, electrodes, thermal printhead and paper, provide separate unit replacement prices and Yemen replenishment lead times for five years.														
	27	Verify ECG amplitude, timebase and lead functions using an ECG simulator.														
	28	Provide exact manufacturer, model/version and country of manufacture, evidenced by manufacturer catalogue and product label; no unidentifiable or mixed-model substitute is acceptable.														
	29	The quoted price shall include all item-specific accessories, installation and commissioning stated here; any site infrastructure connection shall be listed and coordinated before contract award.														
	30	Supply a five-year spare/accessory/consumable price list and evidence of an authorized service/replenishment route to Yemen; identify lead times, without reducing the mandatory base package.														
	31	Provide a signed delivery/acceptance checklist matching this item's specifications and included components.														
	TOTAL MAXIMUM SCORE — item is eligible only if all Mandatory clauses comply															
Adult and pediatric resuscitation bag set																
EQ-0	76															
	1	Each set shall contain one adult and one pediatric self-inflating resuscitation bag.														
	2	Bags shall refill without compressed gas and allow oxygen enrichment when a supply is connected.														
	3	Each bag shall have a non-rebreathing patient valve and oxygen reservoir.														
	4	Supply oxygen tubing for each bag.														
	5	Supply adult masks in two sizes and pediatric masks in two sizes appropriate to the offered bags.														
	6	Masks shall be transparent with a soft sealing rim.														
	7	Pediatric bag shall have a pressure-limiting valve with clearly identified override if provided.														
	8	Manufacturer shall declare intended patient weight ranges and bag volumes.														
	9	Reusable patient-contact components shall have validated cleaning and steam-reprocessing instructions where applicable.														
	10	Supply a protective storage case and perform leak/valve tests at delivery.														
	11	The specified assembly shall accommodate the intended patient/load and fit the approved installation or storage space; submit dimensioned manufacturer evidence before award.														
	12	The specified assembly shall accommodate the intended patient/load and fit the approved installation or storage space; submit dimensioned manufacturer evidence before award.														
	13	The supplied configuration shall include reusable versus single-use patient-contact components as an operational feature, with manufacturer evidence and acceptance demonstration.														
	14	Provide a validated reprocessing procedure for each reusable component.														



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates			Warrantee			Certified local agent or authorization			Model	Brand	Country of Origin	
	15	Provide a pre-use functional inspection procedure.															
	16	The mandatory base package shall include components needed for routine operation; for price replacement valves, seals, blades or other wearable parts as applicable, provide separate unit replacement prices and Yemen replenishment lead times for five years.															
	17	Demonstrate complete assembly and safe functional operation with the receiving clinical team.															
	18	Provide exact manufacturer, model/version and country of manufacture, evidenced by manufacturer catalogue and product label; no unidentifiable or mixed-model substitute is acceptable.															
	19	The quoted price shall include all item-specific accessories, installation and commissioning stated here; any site infrastructure connection shall be listed and coordinated before contract award.															
	20	Supply a five-year spare/accessory/consumable price list and evidence of an authorized service/replenishment route to Yemen; identify lead times, without reducing the mandatory base package.															
	21	Provide a signed delivery/acceptance checklist matching this item's specifications and included components.															
	TOTAL MAXIMUM SCORE — item is eligible only if all Mandatory clauses comply																
Adult Digital Blood Pressure Monitor																	
EQ-0	77																
	1	Automated upper-arm non-invasive blood-pressure monitor for adult clinical use.															
	2	Display systolic pressure, diastolic pressure and pulse rate.															
	3	Provide manufacturer evidence of clinical validation for the intended population.															
	4	Pressure-measurement accuracy shall be within ±3 mmHg or the applicable validated specification.															
	5	Include standard-adult and large-adult cuffs with printed arm-circumference ranges.															
	6	Provide automatic inflation, controlled deflation and overpressure protection.															
	7	Provide an error indication for failed measurement or incorrect cuff conditions.															
	8	Operate from batteries and supplied mains adapter.															
	9	Provide memory for at least 30 readings.															
	10	Provide a protective case and verify pressure calibration before handover.															
	11	The instrument shall measure across the full clinically intended range with readable resolution and an accuracy claim supported by manufacturer test evidence; item-specific numerical limits elsewhere in this schedule govern acceptance.															
	12	Specified measurement accuracy shall be maintained at the receiving hospital's controlled operating temperature and humidity; provide the manufacturer validation range.															
	13	Provide calibration/verification instructions and traceable test evidence appropriate to the instrument.															
	14	The specified assembly shall accommodate the intended patient/load and fit the approved installation or storage space; submit dimensioned manufacturer evidence before award.															
	15	Battery-powered equipment shall include a rechargeable battery, a clear state-of-charge/low-battery indication and enough capacity for at least 60 minutes of normal use, unless a stricter duration is specified.															
	16	All included strips, sensors or reagents shall remain usable under the labelled storage conditions achievable in the hospital; provide protective packaging and expiry labels.															



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates			Warrantee			Certified local agent or authorization			Model	Brand	Country of Origin	
	17	Verify representative low, mid and high measurements using suitable reference equipment or control materials.															
	18	The mandatory base package shall include components needed for routine operation; for provide replacement sensor/consumable references with package sizes and prices, provide separate unit replacement prices and Yemen replenishment lead times for five years.															
	19	Provide exact manufacturer, model/version and country of manufacture, evidenced by manufacturer catalogue and product label; no unidentifiable or mixed-model substitute is acceptable.															
	20	The quoted price shall include all item-specific accessories, installation and commissioning stated here; any site infrastructure connection shall be listed and coordinated before contract award.															
	21	Supply a five-year spare/accessory/consumable price list and evidence of an authorized service/replenishment route to Yemen; identify lead times, without reducing the mandatory base package.															
	22	Provide a signed delivery/acceptance checklist matching this item's specifications and included components.															
TOTAL MAXIMUM SCORE — item is eligible only if all Mandatory clauses comply																	
Adult Stethoscope																	
EQ-0	78																
	1	Adult clinical stethoscope with dual-head chestpiece or a tunable diaphragm.															
	2	Chestpiece shall be corrosion resistant and easy to disinfect.															
	3	Provide high- and low-frequency auscultation capability.															
	4	Tubing shall be flexible, durable and free from kinks.															
	5	Provide adjustable binaural ear tubes and comfortable sealing eartips.															
	6	Supply one spare diaphragm and one spare pair of eartips.															
	7	Patient-contact rim shall be non-chill.															
	8	All relevant components shall withstand the manufacturer-validated cleaning, disinfection or sterilization method required for their specified clinical reuse; include validated instructions.															
	9	Supply a storage pouch and demonstrate clear acoustic transmission.															
	10	Provide the complete supplied accessory list and each catalogue reference.															
	11	The supplied configuration shall include performance test conditions supporting the claimed specification as an operational feature, with manufacturer evidence and acceptance demonstration.															
	12	The described component shall be user-serviceable or replaceable by the authorized service team, with the necessary service information and five-year availability in Yemen.															
	13	Provide cleaning instructions for all patient-contact and frequently touched surfaces.															
	14	Demonstrate the intended clinical functions with the installed accessories at handover.															
	15	Provide exact manufacturer, model/version and country of manufacture, evidenced by manufacturer catalogue and product label; no unidentifiable or mixed-model substitute is acceptable.															
	16	The quoted price shall include all item-specific accessories, installation and commissioning stated here; any site infrastructure connection shall be listed and coordinated before contract award.															
	17	Supply a five-year spare/accessory/consumable price list and evidence of an authorized service/replenishment route to Yemen; identify lead times, without reducing the mandatory base package.															



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates	Warrantee	Certified local agent or authorization	Model	Brand	Country of Origin
	18	Provide a signed delivery/acceptance checklist matching this item's specifications and included components.								
		TOTAL MAXIMUM SCORE — item is eligible only if all Mandatory clauses comply								
Adult Weighing Scale with Height Meter										
EQ-0	79									
	1	Adult platform weighing scale with integrated height-measuring rod.								
	2	Weighing capacity at least 200 kg.								
	3	Weight graduation 0.1 kg or finer.								
	4	Height-measurement range shall cover approximately 60–200 cm.								
	5	Height graduation 0.5 cm or finer.								
	6	Provide stable non-slip platform and easily readable display.								
	7	Provide zero and tare functions where applicable.								
	8	For electronic design, include batteries and/or mains adapter.								
	9	Provide overload indication/protection.								
	10	Supply calibration certificate and verify with traceable test weights.								
	11	The instrument shall measure across the full clinically intended range with readable resolution and an accuracy claim supported by manufacturer test evidence; item-specific numerical limits elsewhere in this schedule govern acceptance.								
	12	Specified measurement accuracy shall be maintained at the receiving hospital's controlled operating temperature and humidity; provide the manufacturer validation range.								
	13	Provide calibration/verification instructions and traceable test evidence appropriate to the instrument.								
	14	The specified assembly shall accommodate the intended patient/load and fit the approved installation or storage space; submit dimensioned manufacturer evidence before award.								
	15	Battery-powered equipment shall include a rechargeable battery, a clear state-of-charge/low-battery indication and enough capacity for at least 60 minutes of normal use, unless a stricter duration is specified.								
	16	All included strips, sensors or reagents shall remain usable under the labelled storage conditions achievable in the hospital; provide protective packaging and expiry labels.								
	17	Verify representative low, mid and high measurements using suitable reference equipment or control materials.								
	18	The mandatory base package shall include components needed for routine operation; for provide replacement sensor/consumable references with package sizes and prices, provide separate unit replacement prices and Yemen replenishment lead times for five years.								
	19	Provide exact manufacturer, model/version and country of manufacture, evidenced by manufacturer catalogue and product label; no unidentifiable or mixed-model substitute is acceptable.								
	20	The quoted price shall include all item-specific accessories, installation and commissioning stated here; any site infrastructure connection shall be listed and coordinated before contract award.								
	21	Supply a five-year spare/accessory/consumable price list and evidence of an authorized service/replenishment route to Yemen; identify lead times, without reducing the mandatory base package.								
	22	Provide a signed delivery/acceptance checklist matching this item's specifications and included components.								



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates			Warrantee			Certified local agent or authorization			Model	Brand	Country of Origin
TOTAL MAXIMUM SCORE — item is eligible only if all Mandatory clauses comply																
Compressor nebulizer																
EQ-0	80															
	1	Compressor-driven jet nebulizer intended for hospital use.														
	2	Manufacturer-declared aerosol MMAD shall lie within approximately 1–5 micrometres using the specified test solution.														
	3	Nebulization rate at least 0.2 mL/min under stated test conditions.														
	4	Supply adult mask, pediatric mask, mouthpiece, tubing and medication chamber.														
	5	Medication chamber capacity shall cover approximately 2–8 mL.														
	6	Provide replaceable intake filter and five spare filters.														
	7	Reusable accessories shall have validated cleaning/disinfection instructions.														
	8	The delivered configuration shall include and demonstrate the specified compressor flow, pressure, noise and duty cycle; it shall meet any explicit item-specific minimum in this schedule, with manufacturer test evidence at acceptance.														
	9	Provide thermal protection and a stable case with carry handle.														
	10	Demonstrate aerosol generation and provide local accessory availability.														
	11	Duty cycle shall be at least 30 minutes on/30 minutes off, or better; state any cooling requirement.														
	12	Provide the complete supplied accessory list and each catalogue reference.														
	13	The supplied configuration shall include performance test conditions supporting the claimed specification as an operational feature, with manufacturer evidence and acceptance demonstration.														
	14	The described component shall be user-serviceable or replaceable by the authorized service team, with the necessary service information and five-year availability in Yemen.														
	15	Provide cleaning instructions for all patient-contact and frequently touched surfaces.														
	16	Demonstrate the intended clinical functions with the installed accessories at handover.														
	17	Provide exact manufacturer, model/version and country of manufacture, evidenced by manufacturer catalogue and product label; no unidentifiable or mixed-model substitute is acceptable.														
	18	The quoted price shall include all item-specific accessories, installation and commissioning stated here; any site infrastructure connection shall be listed and coordinated before contract award.														
	19	Supply a five-year spare/accessory/consumable price list and evidence of an authorized service/replenishment route to Yemen; identify lead times, without reducing the mandatory base package.														
	20	Provide a signed delivery/acceptance checklist matching this item's specifications and included components.														
TOTAL MAXIMUM SCORE — item is eligible only if all Mandatory clauses comply																
Examination Light, Mobile LED																
EQ-0	83															
	1	Mobile LED examination light with adjustable arm and head.														

Page 82 of 126



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates	Warrantee	Certified local agent or authorization	Model	Brand	Country of Origin
	2	Illuminance at least 20,000 lux at the manufacturer-specified clinical working distance; state the distance.								
	3	Colour-rendering index at least 90.								
	4	Colour temperature approximately 3,500–5,000 K.								
	5	Provide adjustable intensity.								
	6	Arm shall hold position without drift.								
	7	Provide stable wheeled base with brakes.								
	8	Patient-facing surfaces shall be smooth and cleanable.								
	9	Declared LED life at least 20,000 hours.								
	10	Verify illumination and stability at the installed working position.								
	11	Provide the complete supplied accessory list and each catalogue reference.								
	12	The supplied configuration shall include performance test conditions supporting the claimed specification as an operational feature, with manufacturer evidence and acceptance demonstration.								
	13	The described component shall be user-serviceable or replaceable by the authorized service team, with the necessary service information and five-year availability in Yemen.								
	14	Provide cleaning instructions for all patient-contact and frequently touched surfaces.								
	15	Demonstrate the intended clinical functions with the installed accessories at handover.								
	16	Provide exact manufacturer, model/version and country of manufacture, evidenced by manufacturer catalogue and product label; no unidentifiable or mixed-model substitute is acceptable.								
	17	The quoted price shall include all item-specific accessories, installation and commissioning stated here; any site infrastructure connection shall be listed and coordinated before contract award.								
	18	Supply a five-year spare/accessory/consumable price list and evidence of an authorized service/replenishment route to Yemen; identify lead times, without reducing the mandatory base package.								
	19	Provide a signed delivery/acceptance checklist matching this item's specifications and included components.								
		TOTAL MAXIMUM SCORE — item is eligible only if all Mandatory clauses comply								
General Ultrasound System with 2 Probes										
EQ-0	84									
	1	Diagnostic ultrasound system with trolley, probe holders and image/report storage.								
	2	Provide B-mode, M-mode and dual-image display.								
	3	Provide tissue harmonic imaging and adjustable depth, gain, focus and time-gain compensation.								
	4	Provide distance, area, circumference and volume measurements.								
	5	Provide obstetric measurements including BPD, HC, AC, FL and gestational-age calculations.								



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates	Warrantee	Certified local agent or authorization	Model	Brand	Country of Origin
6		Provide freeze, cine review, image zoom and patient identification.								
7		Colour display at least 15 inches.								
8		Supply one convex probe with a frequency range covering approximately 2–5 MHz.								
9		Supply one linear probe with a frequency range covering approximately 5–12 MHz.								
10		At least two active probe ports or a clearly documented compatible probe-switching solution.								
11		Store and export still images, cine loops and reports through USB or an equivalent standard interface.								
12		Include a compatible medical image printer and 20 rolls/packs of paper if print documentation is required by the hospital.								
13		Include 5 L of ultrasound gel and approved probe-cleaning instructions.								
14		Provide electrical protection and an appropriately sized UPS for safe shutdown if not covered by an existing supply.								
15		Demonstrate image quality with a suitable test phantom and all supplied probes.								
16		Two probes only are required for this item: convex and linear.								
17		Colour/PW Doppler is an optional separately priced upgrade; the source schedule does not explicitly require it.								
18		The delivered configuration shall include and demonstrate the specified transducer model, frequency band and application for each supplied probe; it shall meet any explicit item-specific minimum in this schedule, with manufacturer test evidence at acceptance.								
19		Convex-probe B-mode shall provide selectable imaging depth of at least 20 cm for adult abdominal studies, with on-screen depth scale.								
20		The delivered configuration shall include and demonstrate the specified axial/lateral resolution test method and manufacturer performance data; it shall meet any explicit item-specific minimum in this schedule, with manufacturer test evidence at acceptance.								
21		The delivered configuration shall include and demonstrate the specified frame-rate performance for representative abdominal and obstetric presets; it shall meet any explicit item-specific minimum in this schedule, with manufacturer test evidence at acceptance.								
22		Provide adjustable dynamic range and image processing controls.								
23		Provide selectable focal zones and transmit frequency settings.								
24		Provide annotations, body markers and measurement calipers.								
25		The delivered configuration shall include and demonstrate the specified cine-memory capacity and review functions; it shall meet any explicit item-specific minimum in this schedule, with manufacturer test evidence at acceptance.								
26		Provide fetal biometry measurements and gestational-age/estimated-fetal-weight calculations for routine obstetric examination in the base software.								
27		Provide patient-identification fields and date/time on saved images and reports.								
28		Store at least 100 patient examinations or equivalent clinical records, with USB export in a common nonproprietary format when electronic records are part of the item.								
29		Exported records shall preserve patient identifiers according to the configured hospital workflow.								
30		Provide a method to back up records and clear patient data before external servicing.								



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates			Warrantee			Certified local agent or authorization			Model	Brand	Country of Origin	
31		All software needed for the specified imaging modes and measurements shall be fully licensed for at least the warranty term; no recurring fee is permitted for mandatory functions.															
		The supplied item shall provide the power-failure safeguard or battery function described here, with audible/visual warning and automatic recovery; verify at commissioning against the item-specific duration and performance limits.															
		Provide accessible probe holders that prevent cable strain and probe falls.															
		All relevant components shall withstand the manufacturer-validated cleaning, disinfection or sterilization method required for their specified clinical reuse; include validated instructions.															
		Standard warranty shall cover transducer elements and cable manufacturing defects for the full equipment warranty period; physical misuse exclusions must be documented.															
		Test all probes for element dropout and image uniformity using an appropriate phantom.															
		Demonstrate distance-measurement accuracy and image/export workflow at commissioning.															
		Provide clinical applications training using the included probes and software packages.															
		The mandatory base package shall include components needed for routine operation; for price replacement probes and estimate repair/replacement turnaround in Yemen, provide separate unit replacement prices and Yemen replenishment lead times for five years.															
		Provide exact manufacturer, model/version and country of manufacture, evidenced by manufacturer catalogue and product label; no unidentifiable or mixed-model substitute is acceptable.															
		The quoted price shall include all item-specific accessories, installation and commissioning stated here; any site infrastructure connection shall be listed and coordinated before contract award.															
		Supply a five-year spare/accessory/consumable price list and evidence of an authorized service/replenishment route to Yemen; identify lead times, without reducing the mandatory base package.															
		Provide a signed delivery/acceptance checklist matching this item's specifications and included components.															
TOTAL MAXIMUM SCORE — item is eligible only if all Mandatory clauses comply																	
EQ-0	85	Hemoglobinometer, Portable															
1		Portable quantitative hemoglobin analyzer for professional clinical use.															
		Measurement range shall cover at least 0–25 g/dL.															
		Result resolution 0.1 g/dL.															
		Accept capillary and venous whole blood as validated by the manufacturer.															
		Required sample volume shall be 20 microlitres or less.															
		Provide result within approximately 60 seconds.															
		Supply 200 compatible cuvettes/tests and 200 single-use safety lancets.															
		Supply manufacturer-recommended controls covering at least two levels.															
		Provide documented accuracy, precision and comparison with a reference method; evaluate claimed performance before award.															
		Operate on batteries/rechargeable power with supplied adapter where applicable.															
	TOTAL MAXIMUM SCORE — item is eligible only if all Mandatory clauses comply																



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates			Warrantee			Certified local agent or authorization			Model	Brand	Country of Origin	
11		The delivered configuration shall include and demonstrate the specified consumable storage temperature, shelf life, in-use stability and interference limitations; it shall meet any explicit item-specific minimum in this schedule, with manufacturer test evidence at acceptance.															
12		Provide carrying case, cleaning tools and quality-control instructions.															
13		Include operator training and initial control verification at commissioning.															
14		The instrument shall measure across the full clinically intended range with readable resolution and an accuracy claim supported by manufacturer test evidence; item-specific numerical limits elsewhere in this schedule govern acceptance.															
15		Specified measurement accuracy shall be maintained at the receiving hospital's controlled operating temperature and humidity; provide the manufacturer validation range.															
16		Provide calibration/verification instructions and traceable test evidence appropriate to the instrument.															
17		The specified assembly shall accommodate the intended patient/load and fit the approved installation or storage space; submit dimensioned manufacturer evidence before award.															
18		Battery-powered equipment shall include a rechargeable battery, a clear state-of-charge/low-battery indication and enough capacity for at least 60 minutes of normal use, unless a stricter duration is specified.															
19		All included strips, sensors or reagents shall remain usable under the labelled storage conditions achievable in the hospital; provide protective packaging and expiry labels.															
20		Verify representative low, mid and high measurements using suitable reference equipment or control materials.															
21		The mandatory base package shall include components needed for routine operation; for provide replacement sensor/consumable references with package sizes and prices, provide separate unit replacement prices and Yemen replenishment lead times for five years.															
22		The portable test shall use the specified patient specimen (capillary whole blood where applicable) and require no more than 20 µL per routine test unless the item's core clause is stricter.															
23		A routine test result shall be displayed within five minutes after sample introduction, using the manufacturer-validated measurement principle and supplied consumables.															
24		List known interferences and limitations from the manufacturer instructions.															
25		The measurement system shall support at least 30–55% hematocrit for the intended adult population, with manufacturer-listed interferences supplied.															
26		Provide control materials and a documented internal quality-control procedure.															
27		Consumables shall be delivered with at least 75% of labelled shelf life remaining; in-use life after opening shall be at least the manufacturer-validated period printed on the package.															
28		Routine lot changes shall use supplied coding/calibration materials, with no unpriced proprietary tool or service call required for routine user calibration.															
29		Provide training in sample collection, infection control and unexpected-result verification.															
30		Provide exact manufacturer, model/version and country of manufacture, evidenced by manufacturer catalogue and product label; no unidentifiable or mixed-model substitute is acceptable.															
31		The quoted price shall include all item-specific accessories, installation and commissioning stated here; any site infrastructure connection shall be listed and coordinated before contract award.															
32		Supply a five-year spare/accessory/consumable price list and evidence of an authorized service/replenishment route to Yemen; identify lead times, without reducing the mandatory base package.															
33		Provide a signed delivery/acceptance checklist matching this item's specifications and included components.															
TOTAL MAXIMUM SCORE — item is eligible only if all Mandatory clauses comply																	



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates			Warrantee			Certified local agent or authorization			Model	Brand	Country of Origin
1		Medical electric suction device with oil-free pump and continuously adjustable vacuum.														
2		Vacuum control shall cover gentle aspiration through at least -600 mmHg for the intended adult/surgical use.														
3		Vacuum gauge shall be readable and calibrated in kPa or mmHg.														
4		Free-air flow at least 30 L/min unless a higher requirement is specified below.														
5		Collection containers shall be transparent, impact resistant and clearly graduated.														
6		Provide overflow shutoff and a hydrophobic bacterial filter between collection system and pump.														
7		Supply patient tubing, vacuum tubing, connecting fittings and two spare bacterial filters.														
8		Reusable containers shall have validated cleaning/disinfection or sterilization instructions.														
9		Provide continuous-duty rating appropriate to the intended department.														
10		Demonstrate vacuum regulation, free-air flow and overflow protection at commissioning.														
11		Supply a stable mobile stand with braked castors.														
12		Supply at least two collection jars of 2 L each.														
13		Surgical suction shall provide free-air flow of at least 20 L/min and adjustable maximum vacuum of at least -70 kPa; neonatal low-pressure suction shall provide finely regulated low vacuum suitable for newborns.														
14		Vacuum shall be continuously adjustable from near zero to the rated maximum with a readable kPa/mmHg gauge; neonatal variants shall include a positive low-suction limiter.														
15		Provide an easily accessible vacuum adjustment and readable gauge.														
16		The suction unit shall be rated for continuous clinical operation without thermal shutdown during a 60-minute functional test.														
17		Provide two reusable, transparent collection jars of at least 2 L usable capacity each for the double-jar unit, or the item-specific stated capacity for other suction devices, with overflow protection.														
18		Provide overflow shutoff and a compatible hydrophobic/bacterial filter before the pump.														
19		All relevant components shall withstand the manufacturer-validated cleaning, disinfection or sterilization method required for their specified clinical reuse; include validated instructions.														
20		Provide clearly labelled patient and vacuum connections to avoid reversed assembly.														
21		Operating noise shall not exceed 65 dB(A) at 1 m under normal load unless a more restrictive item-specific limit is stated.														
22		The mandatory base package shall include components needed for routine operation; for price jars, lids, filters and patient tubing separately, provide separate unit replacement prices and Yemen replenishment lead times for five years.														
23		Test vacuum regulation, flow and overflow protection at acceptance.														
24		Demonstrate safe emptying, cleaning and filter replacement without contaminating the pump.														
25		Provide exact manufacturer, model/version and country of manufacture, evidenced by manufacturer catalogue and product label; no unidentifiable or mixed-model substitute is acceptable.														



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates			Warrantee			Certified local agent or authorization			Model	Brand	Country of Origin	
	26	The quoted price shall include all item-specific accessories, installation and commissioning stated here; any site infrastructure connection shall be listed and coordinated before contract award.															
	27	Supply a five-year spare/accessory/consumable price list and evidence of an authorized service/replenishment route to Yemen; identify lead times, without reducing the mandatory base package.															
	28	Provide a signed delivery/acceptance checklist matching this item's specifications and included components.															
TOTAL MAXIMUM SCORE — item is eligible only if all Mandatory clauses comply																	
Nebulizer, continuous-duty																	
EQ-0	88																
	1	Compressor-driven jet nebulizer intended for hospital use.															
	2	Manufacturer-declared aerosol MMAD shall lie within approximately 1–5 micrometres using the specified test solution.															
	3	Nebulization rate at least 0.2 mL/min under stated test conditions.															
	4	Supply adult mask, pediatric mask, mouthpiece, tubing and medication chamber.															
	5	Medication chamber capacity shall cover approximately 2–8 mL.															
	6	Provide replaceable intake filter and five spare filters.															
	7	Reusable accessories shall have validated cleaning/disinfection instructions.															
	8	The delivered configuration shall include and demonstrate the specified compressor flow, pressure, noise and duty cycle; it shall meet any explicit item-specific minimum in this schedule, with manufacturer test evidence at acceptance.															
	9	Provide thermal protection and a stable case with carry handle.															
	10	Demonstrate aerosol generation and provide local accessory availability.															
	11	Compressor shall be rated for continuous-duty hospital operation without a mandatory cooling interruption.															
	12	Provide the complete supplied accessory list and each catalogue reference.															
	13	The supplied configuration shall include performance test conditions supporting the claimed specification as an operational feature, with manufacturer evidence and acceptance demonstration.															
	14	The described component shall be user-serviceable or replaceable by the authorized service team, with the necessary service information and five-year availability in Yemen.															
	15	Provide cleaning instructions for all patient-contact and frequently touched surfaces.															
	16	Demonstrate the intended clinical functions with the installed accessories at handover.															
	17	Provide exact manufacturer, model/version and country of manufacture, evidenced by manufacturer catalogue and product label; no unidentifiable or mixed-model substitute is acceptable.															
	18	The quoted price shall include all item-specific accessories, installation and commissioning stated here; any site infrastructure connection shall be listed and coordinated before contract award.															
	19	Supply a five-year spare/accessory/consumable price list and evidence of an authorized service/replenishment route to Yemen; identify lead times, without reducing the mandatory base package.															
	20	Provide a signed delivery/acceptance checklist matching this item's specifications and included components.															



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates			Warrantee			Certified local agent or authorization			Model	Brand	Country of Origin	
		TOTAL MAXIMUM SCORE — item is eligible only if all Mandatory clauses comply															
Otoscope and Ophthalmoscope Set																	
EQ-0	89																
	1	Diagnostic otoscope and direct ophthalmoscope set with compatible handle/power source.															
	2	Otoscope shall provide bright illumination and at least 3× magnification.															
	3	Supply reusable ear specula in at least three sizes and 100 compatible disposable specula.															
	4	Otoscope window shall allow easy removal/cleaning; pneumatic connection supplied if supported.															
	5	Ophthalmoscope shall provide multiple aperture sizes and red-free filter.															
	6	Ophthalmoscope focusing range shall cover approximately -20 to +20 dioptres or wider.															
	7	Provide LED or equivalent long-life light source.															
	8	Supply rechargeable handle and charger or approved readily available batteries.															
	9	Supply a spare light/power component appropriate to the design.															
	10	Provide a protective fitted case and cleaning instructions.															
	11	Demonstrate optics and illumination for both heads.															
	12	Provide the complete supplied accessory list and each catalogue reference.															
	13	The supplied configuration shall include performance test conditions supporting the claimed specification as an operational feature, with manufacturer evidence and acceptance demonstration.															
	14	The described component shall be user-serviceable or replaceable by the authorized service team, with the necessary service information and five-year availability in Yemen.															
	15	Provide cleaning instructions for all patient-contact and frequently touched surfaces.															
	16	Demonstrate the intended clinical functions with the installed accessories at handover.															
	17	Provide exact manufacturer, model/version and country of manufacture, evidenced by manufacturer catalogue and product label; no unidentifiable or mixed-model substitute is acceptable.															
	18	The quoted price shall include all item-specific accessories, installation and commissioning stated here; any site infrastructure connection shall be listed and coordinated before contract award.															
	19	Supply a five-year spare/accessory/consumable price list and evidence of an authorized service/replenishment route to Yemen; identify lead times, without reducing the mandatory base package.															
	20	Provide a signed delivery/acceptance checklist matching this item's specifications and included components.															
		TOTAL MAXIMUM SCORE — item is eligible only if all Mandatory clauses comply															
Oxygen concentrator, 10 L/min																	
EQ-0	91																
	1	Medical oxygen concentrator intended for continuous stationary hospital use, with wheels or carrying handles.															



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates	Warrantee	Certified local agent or authorization	Model	Brand	Country of Origin
2		Delivered oxygen concentration shall remain 93% ±3% at the maximum specified continuous flow under rated operating conditions.								
3		Provide a continuously adjustable flowmeter with clearly marked L/min scale.								
4		Provide an integral oxygen-concentration monitor and low-concentration alarm.								
5		Provide audible/visual power-failure and equipment-fault alarms.								
6		The delivered configuration shall include and demonstrate the specified outlet pressure and the flow/concentration performance across the operating range; it shall meet any explicit item-specific minimum in this schedule, with manufacturer test evidence at acceptance.								
7		Supply oxygen tubing, adult/pediatric cannula starter packs and manufacturer-approved fire-safety connectors where specified by the design.								
8		Supply replaceable intake filters and one spare filter set.								
9		The specified powered unit shall operate on the verified site electrical supply (normally 220–240 V AC, 50 Hz) with appropriately rated protections and connections; submit a connection/load schedule.								
10		Demonstrate concentration at maximum rated flow using a calibrated oxygen analyzer.								
11		A low-pressure concentrator shall not be assumed compatible with an anesthesia machine, ventilator, CPAP or blender without written pressure/flow compatibility evidence.								
12		Maximum continuous oxygen flow shall be at least 10 L/min; a pulse-dose setting number is not an acceptable substitute.								
13		The concentrator shall deliver oxygen concentration at least 90% ±3 percentage points across its rated flow range, with a low-purity alarm.								
14		The delivered configuration shall include and demonstrate the specified outlet pressure at rated flow and any downstream equipment restrictions; it shall meet any explicit item-specific minimum in this schedule, with manufacturer test evidence at acceptance.								
15		The concentrator shall reach its stated clinical oxygen concentration within 10 minutes of startup under normal ambient conditions.								
16		Provide continuous purity monitoring with low-oxygen alarm.								
17		Oxygen purity below 85% shall activate an audible/visual alarm within 15 minutes of sustained low concentration during rated-flow operation.								
18		The described component shall be user-serviceable or replaceable by the authorized service team, with the necessary service information and five-year availability in Yemen.								
19		The concentrator shall sustain the specified flow and purity at the receiving site's verified altitude and controlled ambient conditions; no unpriced derating kit shall be required.								
20		The specified powered unit shall operate on the verified site electrical supply (normally 220–240 V AC, 50 Hz) with appropriately rated protections and connections; submit a connection/load schedule.								
21		Provide accessible inlet filtration and a filter-maintenance indicator or schedule.								
22		The described component shall be user-serviceable or replaceable by the authorized service team, with the necessary service information and five-year availability in Yemen.								
23		Oxygen-compatible outlet and tubing shall be supplied without oil-contaminated fittings.								
24		Noise shall not exceed 65 dB(A) at 1 m during normal clinical operation unless a stricter item-specific limit is stated.								
25		Battery operation is required only where the item explicitly says portable or battery-powered; other wheeled equipment may be mains-powered if the specified power cord and safe transport arrangement are supplied.								
26		Test oxygen concentration and flow with calibrated analyzers after warm-up.								



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates			Warrantee			Certified local agent or authorization			Model	Brand	Country of Origin	
	27	Train users in fire prevention, placement clearances, filter cleaning and backup oxygen arrangements.															
	28	Do not connect to an anesthesia machine, CPAP or ventilator unless the full pressure/flow/purity interface is approved by both manufacturers.															
	29	Provide exact manufacturer, model/version and country of manufacture, evidenced by manufacturer catalogue and product label; no unidentifiable or mixed-model substitute is acceptable.															
	30	The quoted price shall include all item-specific accessories, installation and commissioning stated here; any site infrastructure connection shall be listed and coordinated before contract award.															
	31	Supply a five-year spare/accessory/consumable price list and evidence of an authorized service/replenishment route to Yemen; identify lead times, without reducing the mandatory base package.															
	32	Provide a signed delivery/acceptance checklist matching this item's specifications and included components.															
	TOTAL MAXIMUM SCORE — Item is eligible only if all Mandatory clauses comply																
Oxygen Cylinder with Regulator and Flowmeter																	
EQ-0	92																
	1	Medical-oxygen cylinder supplied with a compatible pressure regulator and flowmeter.															
	2	Proposed cylinder water capacity 40 L; final size and fill pressure shall match hospital refill logistics.															
	3	Cylinder shall be marked for medical oxygen with serial number, working pressure and valid test date.															
	4	Provide the locally compatible oxygen valve connection and protective valve cap.															
	5	Regulator shall have cylinder-pressure indication and overpressure protection.															
	6	Flowmeter shall cover at least 0–15 L/min for patient oxygen therapy.															
	7	Provide a stable trolley with cylinder restraint.															
	8	Supply oxygen tubing and compatible patient connectors.															
	9	Provide a filled cylinder with medical-oxygen quality documentation where legally permitted and included in the contract.															
	10	For use as a machine backup, supply a separate pressure-regulated machine connection matched to that equipment; a patient flowmeter is not sufficient.															
	11	The delivered configuration shall include and demonstrate the specified cylinder water capacity, nominal oxygen content and service pressure separately; it shall meet any explicit item-specific minimum in this schedule, with manufacturer test evidence at acceptance.															
	12	Provide cylinder identification, valve standard and valid inspection/hydrostatic-test documentation.															
	13	Regulator inlet shall match the supplied cylinder valve without unsafe adapters.															
	14	Provide clear high-pressure and regulated-output indication.															
	15	Supply a calibrated flowmeter covering at least 0–10 L/min for the 10 L/min concentrator, with readable markings and stable operation in its intended upright position.															
	16	Supply a secure cylinder trolley or wall restraint appropriate to cylinder size.															
	17	Provide oxygen-clean components and documented leak testing at commissioning.															



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates			Warrantee			Certified local agent or authorization			Model	Brand	Country of Origion	
	18	Provide a documented local Yemen refill/service arrangement and a compatible replacement route for the complete supplied assembly.															
	19	Provide exact manufacturer, model/version and country of manufacture, evidenced by manufacturer catalogue and product label; no unidentifiable or mixed-model substitute is acceptable.															
	20	The quoted price shall include all item-specific accessories, installation and commissioning stated here; any site infrastructure connection shall be listed and coordinated before contract award.															
	21	Supply a five-year spare/accessory/consumable price list and evidence of an authorized service/replenishment route to Yemen; identify lead times, without reducing the mandatory base package.															
	22	Provide a signed delivery/acceptance checklist matching this item's specifications and included components.															
	23	Provide cylinder, valve, regulator and flowmeter as one compatible set; document the cylinder size, fill pressure and local exchange/refill route.															
	TOTAL MAXIMUM SCORE — item is eligible only if all Mandatory clauses comply																
Portable pulse oximeter																	
EQ-0	99																
	1	Portable pulse oximeter with continuous SpO2 and pulse-rate display.															
	2	Display plethysmographic waveform or signal-quality/perfusion indication.															
	3	SpO2 resolution 1 percentage point; accuracy within ±3 percentage points over 70–100% under the stated validation conditions.															
	4	Pulse-rate measurement range shall cover at least 30–240 beats/min.															
	5	User-adjustable audible/visual alarms for high/low SpO2 and pulse rate.															
	6	Provide sensor-disconnection and low-battery alarms.															
	7	Rechargeable battery shall support at least four hours of typical use.															
	8	Store trend data for at least 24 hours.															
	9	Supply mains charger and protective carrying case.															
	10	Demonstrate function with a compatible oximeter simulator; factory documentation shall support patient-group accuracy claims.															
	11	Supply one adult reusable sensor and one pediatric reusable sensor.															
	12	Handheld configuration is preferred for ward observation and patient transfer.															
	13	The delivered configuration shall include and demonstrate the specified saturation accuracy with test conditions and validated patient population; it shall meet any explicit item-specific minimum in this schedule, with manufacturer test evidence at acceptance.															
	14	The delivered configuration shall include and demonstrate the specified pulse-rate range and accuracy; it shall meet any explicit item-specific minimum in this schedule, with manufacturer test evidence at acceptance.															
	15	The supplied configuration shall include motion and low-perfusion performance claims with supporting manufacturer evidence as an operational feature, with manufacturer evidence and acceptance demonstration.															
	16	Provide sensor-off indication and signal-quality information.															
	17	The delivered configuration shall include and demonstrate the specified averaging-time choices and their effect on displayed readings; it shall meet any explicit item-specific minimum in this schedule, with manufacturer test evidence at acceptance.															



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates			Warrantee			Certified local agent or authorization			Model	Brand	Country of Origin	
	18	The supplied item shall provide the power-failure safeguard or battery function described here, with audible/visual warning and automatic recovery; verify at commissioning against the item-specific duration and performance limits.															
	19	The specified assembly shall accommodate the intended patient/load and fit the approved installation or storage space; submit dimensioned manufacturer evidence before award.															
	20	Provide extension cables only where approved for the offered sensor technology.															
	21	Test pulse rate, saturation display and alarms using a compatible simulator; simulator checks do not establish clinical accuracy.															
	22	Provide exact manufacturer, model/version and country of manufacture, evidenced by manufacturer catalogue and product label; no unidentifiable or mixed-model substitute is acceptable.															
	23	The quoted price shall include all item-specific accessories, installation and commissioning stated here; any site infrastructure connection shall be listed and coordinated before contract award.															
	24	Supply a five-year spare/accessory/consumable price list and evidence of an authorized service/replenishment route to Yemen; identify lead times, without reducing the mandatory base package.															
	25	Provide a signed delivery/acceptance checklist matching this item's specifications and included components.															
TOTAL MAXIMUM SCORE — item is eligible only if all Mandatory clauses comply																	
Ward suction machine																	
EQ-1	101																
	1	Medical electric suction device with oil-free pump and continuously adjustable vacuum.															
	2	Vacuum control shall cover gentle aspiration through at least -600 mmHg for the intended adult/surgical use.															
	3	Vacuum gauge shall be readable and calibrated in kPa or mmHg.															
	4	Free-air flow at least 30 L/min unless a higher requirement is specified below.															
	5	Collection containers shall be transparent, impact resistant and clearly graduated.															
	6	Provide overflow shutoff and a hydrophobic bacterial filter between collection system and pump.															
	7	Supply patient tubing, vacuum tubing, connecting fittings and two spare bacterial filters.															
	8	Reusable containers shall have validated cleaning/disinfection or sterilization instructions.															
	9	Provide continuous-duty rating appropriate to the intended department.															
	10	Demonstrate vacuum regulation, free-air flow and overflow protection at commissioning.															
	11	Supply a stable mobile stand with braked castors.															
	12	Supply at least two collection jars of 2 L each.															
	13	Surgical suction shall provide free-air flow of at least 20 L/min and adjustable maximum vacuum of at least –70 kPa; neonatal low-pressure suction shall provide finely regulated low vacuum suitable for newborns.															
	14	Vacuum shall be continuously adjustable from near zero to the rated maximum with a readable kPa/mmHg gauge; neonatal variants shall include a positive low-suction limiter.															
	15	Provide an easily accessible vacuum adjustment and readable gauge.															



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates			Warrantee			Certified local agent or authorization			Model	Brand	Country of Origin
	16	The suction unit shall be rated for continuous clinical operation without thermal shutdown during a 60-minute functional test.														
	17	Provide two reusable, transparent collection jars of at least 2 L usable capacity each for the double-jar unit, or the item-specific stated capacity for other suction devices, with overflow protection.														
	18	Provide overflow shutoff and a compatible hydrophobic/bacterial filter before the pump.														
	19	All relevant components shall withstand the manufacturer-validated cleaning, disinfection or sterilization method required for their specified clinical reuse; include validated instructions.														
	20	Provide clearly labelled patient and vacuum connections to avoid reversed assembly.														
	21	Operating noise shall not exceed 65 dB(A) at 1 m under normal load unless a more restrictive item-specific limit is stated.														
	22	The mandatory base package shall include components needed for routine operation; for price jars, lids, filters and patient tubing separately, provide separate unit replacement prices and Yemen replenishment lead times for five years.														
	23	Test vacuum regulation, flow and overflow protection at acceptance.														
	24	Demonstrate safe emptying, cleaning and filter replacement without contaminating the pump.														
	25	Provide exact manufacturer, model/version and country of manufacture, evidenced by manufacturer catalogue and product label; no unidentifiable or mixed-model substitute is acceptable.														
	26	The quoted price shall include all item-specific accessories, installation and commissioning stated here; any site infrastructure connection shall be listed and coordinated before contract award.														
	27	Supply a five-year spare/accessory/consumable price list and evidence of an authorized service/replenishment route to Yemen; identify lead times, without reducing the mandatory base package.														
	28	Provide a signed delivery/acceptance checklist matching this item's specifications and included components.														
TOTAL MAXIMUM SCORE — item is eligible only if all Mandatory clauses comply																
Ward vital-signs monitor																
EQ-1	102															
	1	Continuous multiparameter monitoring with ECG, heart rate, respiration, SpO2, non-invasive blood pressure and temperature.														
	2	Provide selectable adult and pediatric patient profiles with appropriate alarm limits.														
	3	Colour display at least 10 inches for bedside viewing.														
	4	ECG monitoring using 3/5-lead cable; this is not a substitute for a diagnostic 12-lead ECG machine.														
	5	NIBP shall support manual, automatic interval and rapid measurement modes.														
	6	Display systolic, diastolic and mean arterial pressure in mmHg.														
	7	SpO2 shall display saturation, pulse rate, plethysmographic waveform and signal-quality indication.														
	8	Temperature display resolution 0.1 °C; supply a reusable temperature probe.														
	9	Provide user-adjustable audible and visual high/low physiological alarms.														
	10	Provide technical alarms for disconnected sensors, measurement failure and low battery.														



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates	Warrantee	Certified local agent or authorization	Model	Brand	Country of Origin
11		Store at least 24 hours of trends and alarm events.								
12		Internal rechargeable battery shall provide at least two hours of typical monitoring; state test conditions.								
13		Supply one ECG cable, one reusable SpO2 probe and adult/pediatric NIBP cuffs as appropriate to the patient group.								
14		Supply a compatible trolley or wall mount with secure cable management.								
15		Verify ECG, pressure, SpO2 and temperature performance using appropriate test equipment at acceptance.								
16		ECG monitoring shall support at least 3-lead and 5-lead operation and include one reusable 5-lead ECG cable per device for the specified patient group.								
17		Heart-rate display shall cover at least 30–250 bpm for specified patient groups with alarm limits; accuracy within ± 5 bpm or $\pm 5\%$, whichever is greater.								
18		Provide ECG lead-off detection and an obvious disconnected-sensor indication.								
19		ECG display shall provide 25 and 50 mm/s sweep speeds, selectable gain and a 50 Hz mains filter without obscuring clinically relevant rhythms.								
20		Provide common lethal-arrhythmia alarms (asystole, ventricular fibrillation and ventricular tachycardia) and a pacemaker detection indicator in the supplied software.								
21		SpO ₂ display shall cover 0–100%; accuracy shall be within ± 3 percentage points over 70–100% with the supplied clinically appropriate sensor.								
22		Include reusable adult and paediatric SpO ₂ sensors with the respective monitor; neonatal devices shall additionally include a neonatal-compatible sensor.								
23		Provide SpO2 pulse waveform or signal-quality indication to help identify unreliable readings.								
24		NIBP shall accommodate the specified patient groups with correctly sized reusable cuffs and independent overpressure protection; adult systolic measurement range shall encompass 40–260 mmHg.								
25		Provide manual start/stop and automatic interval NIBP modes.								
26		Supply reusable NIBP cuffs covering the intended patients, with a size/circumference list.								
27		At least one temperature channel with the appropriate reusable probe shall be supplied; displayed accuracy shall be within ± 0.2 °C over the clinical range.								
28		Respiratory rate shall be displayed from the offered ECG impedance or CO ₂ method, with configurable apnea alarm for the specified patient group.								
29		Provide adjustable audible and visual parameter alarms with clear priority indication.								
30		Alarm settings and patient category shall be reviewable on admission of a new patient.								
31		The monitor shall store at least 24 hours of numerical trends and retain alarms/events for review after temporary mains interruption.								
32		The supplied item shall provide the power-failure safeguard or battery function described here, with audible/visual warning and automatic recovery; verify at commissioning against the item-specific duration and performance limits.								
33		Provide a patient data clear/discharge function to prevent mixing records.								
34		With all specified monitoring modules active, internal battery shall provide at least 60 minutes of operation and display a low-battery alarm.								
35		Provide mounting hardware with load rating appropriate to the offered monitor.								



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates	Warrantee	Certified local agent or authorization	Model	Brand	Country of Origin
36		The mandatory base package shall include components needed for routine operation; for price replacement ECG cables, SpO2 sensors, cuffs, hoses and temperature probes individually, provide separate unit replacement prices and Yemen replenishment lead times for five years.								
37		Demonstrate all supplied parameters using appropriate calibrated simulators at acceptance.								
38		Provide exact manufacturer, model/version and country of manufacture, evidenced by manufacturer catalogue and product label; no unidentifiable or mixed-model substitute is acceptable.								
39		The quoted price shall include all item-specific accessories, installation and commissioning stated here; any site infrastructure connection shall be listed and coordinated before contract award.								
40		Supply a five-year spare/accessory/consumable price list and evidence of an authorized service/replenishment route to Yemen; identify lead times, without reducing the mandatory base package.								
41		Provide a signed delivery/acceptance checklist matching this item's specifications and included components.								
		TOTAL MAXIMUM SCORE — item is eligible only if all Mandatory clauses comply								
LOT 09 Monitoring and infusion										
Cardiotocograph (CTG) fetal monitor										
EQ-1	103									
1		External cardiotocograph for antepartum and intrapartum monitoring.								
2		Monitor fetal heart rate using pulsed Doppler ultrasound and uterine activity using external TOCO transducer.								
3		Fetal-heart-rate measurement range shall cover at least 50–240 beats/min.								
4		Provide a maternal/fetal signal differentiation method or clear signal-coincidence warning when maternal pulse is acquired.								
5		Display fetal heart rate, uterine activity, signal quality and time.								
6		Provide fetal-movement event marker.								
7		Provide user-adjustable high/low fetal-heart-rate and signal-loss alarms.								
8		Provide simultaneous traces on integrated thermal printer with selectable chart speed.								
9		Store and replay at least 24 hours of monitoring records.								
10		Internal rechargeable battery shall provide at least one hour of operation.								
11		Supply one ultrasound transducer, one TOCO transducer, event marker and three belt sets.								
12		Supply 20 packs/rolls of compatible recording paper and 1 L ultrasound gel.								
13		Twin-fetus monitoring shall be quoted as a separately identified option unless clinically approved as mandatory.								
14		Demonstrate transducer operation, alarms, recording and battery function.								
15		The delivered configuration shall include and demonstrate the specified ultrasound operating frequency and acoustic output information; it shall meet any explicit item-specific minimum in this schedule, with manufacturer test evidence at acceptance.								
16		Fetal heart-rate display shall cover at least 50–210 bpm, with stated accuracy within ±2 bpm under adequate signal conditions.								



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates			Warrantee			Certified local agent or authorization			Model	Brand	Country of Origin	
EQ-1	17	The delivered configuration shall include and demonstrate the specified signal-loss and poor-signal indications; it shall meet any explicit item-specific minimum in this schedule, with manufacturer test evidence at acceptance.	104														
	18	Provide clear distinction between fetal measurements and any maternal pulse input.															
	19	Internal battery shall maintain essential monitoring or operation for at least 60 minutes, transfer automatically without loss of settings, and recharge from mains; a stricter item-specific duration prevails.															
	20	Probe cable and connector shall resist strain during routine clinical use.															
	21	Provide manufacturer-approved probe cleaning and disinfection instructions.															
	22	The mandatory base package shall include components needed for routine operation; for price replacement ultrasound probes and cables separately, provide separate unit replacement prices and Yemen replenishment lead times for five years.															
	23	Verify fetal-rate display with a suitable simulator and demonstrate signal-loss behavior.															
	24	The CTG shall monitor at least one fetal heart rate and uterine activity simultaneously with alarms and chart recording; twin monitoring may be offered as an additional feature.															
	25	Provide external uterine-activity transducer and compatible belts.															
	26	CTG shall display and record uterine activity with a zero/baseline adjustment suitable for external tocodynamometer monitoring.															
	27	Provide fetal-movement event marking by the patient or operator.															
	28	The delivered configuration shall include and demonstrate the specified printing speed choices and the paper grid standard; it shall meet any explicit item-specific minimum in this schedule, with manufacturer test evidence at acceptance.															
	29	CTG shall continuously print at least one hour of fetal-heart and contraction traces and retain a reviewable electronic record through a brief power interruption.															
	30	Provide clearly labelled time, fetal channel and uterine-activity traces.															
	31	Automated CTG interpretation is optional; the base system shall provide readable fetal-heart and contraction traces and alarms for independent clinical interpretation.															
	32	CTG shall provide adjustable fetal-rate high/low alarms and a separate poor-signal warning without presenting invalid values as reliable measurements.															
	33	Supply starter recording paper and specify its exact recurring supply reference.															
	34	Provide exact manufacturer, model/version and country of manufacture, evidenced by manufacturer catalogue and product label; no unidentifiable or mixed-model substitute is acceptable.															
	35	The quoted price shall include all item-specific accessories, installation and commissioning stated here; any site infrastructure connection shall be listed and coordinated before contract award.															
	36	Supply a five-year spare/accessory/consumable price list and evidence of an authorized service/replenishment route to Yemen; identify lead times, without reducing the mandatory base package.															
	37	Provide a signed delivery/acceptance checklist matching this item's specifications and included components.															
TOTAL MAXIMUM SCORE — item is eligible only if all Mandatory clauses comply																	
Defibrillator with ECG																	
EQ-1	104																
1		Biphasic defibrillator with ECG monitor, manual defibrillation and AED mode.	105														
2		Provide synchronized cardioversion with visible synchronization markers.															



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates	Warrantee	Certified local agent or authorization	Model	Brand	Country of Origin
3		Selectable energy shall include low pediatric settings and reach at least 200 J; declare available steps and waveform.								
4		Provide adult and pediatric treatment accessories appropriate to the offered device.								
5		Display ECG from monitoring electrodes and defibrillation electrodes/paddles.								
6		Provide charge-ready indication and safe internal energy discharge.								
7		Provide event recording and export or integral printout.								
8		Provide user-adjustable ECG/heart-rate alarms.								
9		Internal rechargeable battery shall support at least two hours monitoring or 50 shocks at maximum energy; state test conditions.								
10		Supply one ECG cable and one set of reusable adult/pediatric paddles if the device supports them.								
11		Supply ten adult and five pediatric adhesive defibrillation electrode sets compatible with AED/manual operation.								
12		Supply spare rechargeable battery and charger where the design permits field replacement.								
13		Transcutaneous pacing shall be included as a proposed emergency-care requirement, with compatible electrodes.								
14		Provide a test load/self-test facility and demonstrate energy delivery using a calibrated analyzer.								
15		Confirm the pediatric AED age/weight indication in the manufacturer instructions; do not assume neonatal AED approval.								
16		The delivered configuration shall include and demonstrate the specified delivered-energy accuracy over the supported patient impedance range; it shall meet any explicit item-specific minimum in this schedule, with manufacturer test evidence at acceptance.								
17		The supplied item shall provide the power-failure safeguard or battery function described here, with audible/visual warning and automatic recovery; verify at commissioning against the item-specific duration and performance limits.								
18		The delivered configuration shall include and demonstrate the specified eCG heart-rate range, waveform display speed and gain options; it shall meet any explicit item-specific minimum in this schedule, with manufacturer test evidence at acceptance.								
19		Provide lead-off indication and distinguish ECG monitoring from therapy-pad connections.								
20		Synchronization markers shall be visible before synchronized shock delivery.								
21		The supplied configuration shall include whether synchronization resets after a shock and show this during training as an operational feature, with manufacturer evidence and acceptance demonstration.								
22		The specified assembly shall accommodate the intended patient/load and fit the approved installation or storage space; submit dimensioned manufacturer evidence before award.								
23		AED prompts shall be clear and identify safe-contact and shock-delivery stages.								
24		Provide impedance/contact indication for adhesive therapy electrodes.								
25		The specified powered unit shall operate on the verified site electrical supply (normally 220–240 V AC, 50 Hz) with appropriately rated protections and connections; submit a connection/load schedule.								
26		Pacing mode shall identify demand versus fixed/asynchronous operation.								
27		Supply therapy electrodes approved for both pacing and defibrillation where combined use is intended.								



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates			Warrantee			Certified local agent or authorization			Model	Brand	Country of Origin
EQ-1	105															
	28	Prevent unintended shock delivery through protected controls and the required confirmation sequence.														
	29	The supplied configuration shall include automatic internal disarm time after charging without a shock as an operational feature, with manufacturer evidence and acceptance demonstration.														
	30	The supplied device shall implement self-test frequency and ready-for-use status indication as an enabled safety function, with audible/visual indication where relevant and a documented simulated-fault acceptance test.														
	31	The delivered configuration shall include and demonstrate the specified event data fields, storage capacity and export/printing method; it shall meet any explicit item-specific minimum in this schedule, with manufacturer test evidence at acceptance.														
	32	The delivered configuration shall include and demonstrate the specified electrode shelf life, storage range and replenishment lead time; it shall meet any explicit item-specific minimum in this schedule, with manufacturer test evidence at acceptance.														
	33	Rechargeable battery shall display low-charge and fault/end-of-life warnings and shall be replaceable by the authorized service provider without replacing the complete device.														
	34	Measure delivered energy at low, medium and maximum settings using a defibrillator analyzer.														
	35	Verify synchronized shock timing and pacing output with a suitable analyzer.														
	36	Demonstrate AED workflow using a training/test arrangement without patient connection.														
	37	Train staff in shock safety, synchronized cardioversion, pediatric accessories and daily readiness checks.														
	38	Provide exact manufacturer, model/version and country of manufacture, evidenced by manufacturer catalogue and product label; no unidentifiable or mixed-model substitute is acceptable.														
	39	The quoted price shall include all item-specific accessories, installation and commissioning stated here; any site infrastructure connection shall be listed and coordinated before contract award.														
	40	Supply a five-year spare/accessory/consumable price list and evidence of an authorized service/replenishment route to Yemen; identify lead times, without reducing the mandatory base package.														
41	Provide a signed delivery/acceptance checklist matching this item's specifications and included components.															
TOTAL MAXIMUM SCORE — item is eligible only if all Mandatory clauses comply																
Multiparameter patient monitor																
EQ-1	105															
1	1	Continuous multiparameter monitoring with ECG, heart rate, respiration, SpO2, non-invasive blood pressure and temperature.														
	2	Provide selectable adult and pediatric patient profiles with appropriate alarm limits.														
	3	Colour display at least 10 inches for bedside viewing.														
	4	ECG monitoring using 3/5-lead cable; this is not a substitute for a diagnostic 12-lead ECG machine.														
	5	NIBP shall support manual, automatic interval and rapid measurement modes.														
	6	Display systolic, diastolic and mean arterial pressure in mmHg.														
	7	SpO2 shall display saturation, pulse rate, plethysmographic waveform and signal-quality indication.														
	8	Temperature display resolution 0.1 °C; supply a reusable temperature probe.														
	9	Provide user-adjustable audible and visual high/low physiological alarms.														



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates	Warrantee	Certified local agent or authorization	Model	Brand	Country of Origin
10		Provide technical alarms for disconnected sensors, measurement failure and low battery.								
11		Store at least 24 hours of trends and alarm events.								
12		Internal rechargeable battery shall provide at least two hours of typical monitoring; state test conditions.								
13		Supply one ECG cable, one reusable SpO2 probe and adult/pediatric NIBP cuffs as appropriate to the patient group.								
14		Supply a compatible trolley or wall mount with secure cable management.								
15		Verify ECG, pressure, SpO2 and temperature performance using appropriate test equipment at acceptance.								
16		ECG monitoring shall support at least 3-lead and 5-lead operation and include one reusable 5-lead ECG cable per device for the specified patient group.								
17		Heart-rate display shall cover at least 30–250 bpm for specified patient groups with alarm limits; accuracy within ± 5 bpm or $\pm 5\%$, whichever is greater.								
18		Provide ECG lead-off detection and an obvious disconnected-sensor indication.								
19		ECG display shall provide 25 and 50 mm/s sweep speeds, selectable gain and a 50 Hz mains filter without obscuring clinically relevant rhythms.								
20		Provide common lethal-arrhythmia alarms (asystole, ventricular fibrillation and ventricular tachycardia) and a pacemaker detection indicator in the supplied software.								
21		SpO ₂ display shall cover 0–100%; accuracy shall be within ± 3 percentage points over 70–100% with the supplied clinically appropriate sensor.								
22		Include reusable adult and paediatric SpO ₂ sensors with the respective monitor; neonatal devices shall additionally include a neonatal-compatible sensor.								
23		Provide SpO2 pulse waveform or signal-quality indication to help identify unreliable readings.								
24		NIBP shall accommodate the specified patient groups with correctly sized reusable cuffs and independent overpressure protection; adult systolic measurement range shall encompass 40–260 mmHg.								
25		Provide manual start/stop and automatic interval NIBP modes.								
26		Supply reusable NIBP cuffs covering the intended patients, with a size/circumference list.								
27		At least one temperature channel with the appropriate reusable probe shall be supplied; displayed accuracy shall be within ± 0.2 °C over the clinical range.								
28		Respiratory rate shall be displayed from the offered ECG impedance or CO ₂ method, with configurable apnea alarm for the specified patient group.								
29		Provide adjustable audible and visual parameter alarms with clear priority indication.								
30		Alarm settings and patient category shall be reviewable on admission of a new patient.								
31		The monitor shall store at least 24 hours of numerical trends and retain alarms/events for review after temporary mains interruption.								
32		The supplied item shall provide the power-failure safeguard or battery function described here, with audible/visual warning and automatic recovery; verify at commissioning against the item-specific duration and performance limits.								
33		Provide a patient data clear/discharge function to prevent mixing records.								
34		With all specified monitoring modules active, internal battery shall provide at least 60 minutes of operation and display a low-battery alarm.								



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates	Warrantee	Certified local agent or authorization	Model	Brand	Country of Origin
	35	Provide mounting hardware with load rating appropriate to the offered monitor.								
	36	The mandatory base package shall include components needed for routine operation; for price replacement ECG cables, SpO2 sensors, cuffs, hoses and temperature probes individually, provide separate unit replacement prices and Yemen replenishment lead times for five years.								
	37	Demonstrate all supplied parameters using appropriate calibrated simulators at acceptance.								
	38	Provide exact manufacturer, model/version and country of manufacture, evidenced by manufacturer catalogue and product label; no unidentifiable or mixed-model substitute is acceptable.								
	39	The quoted price shall include all item-specific accessories, installation and commissioning stated here; any site infrastructure connection shall be listed and coordinated before contract award.								
	40	Supply a five-year spare/accessory/consumable price list and evidence of an authorized service/replenishment route to Yemen; identify lead times, without reducing the mandatory base package.								
	41	Provide a signed delivery/acceptance checklist matching this item's specifications and included components.								
		TOTAL MAXIMUM SCORE — item is eligible only if all Mandatory clauses comply								
Syringe pump										
EQ-1	106									
	1	Programmable single-channel syringe infusion pump.								
	2	Accept manufacturer-validated syringe brands in 10, 20, 30 and 50/60 mL sizes.								
	3	Automatically detect syringe size and identify incorrect loading.								
	4	Flow setting shall start at 0.1 mL/h or lower, with 0.1 mL/h increments at low rates.								
	5	Maximum flow shall reach at least 1,000 mL/h when compatible with syringe size; disclose size-dependent limits.								
	6	Specified delivery accuracy shall be within ±2% under the manufacturer's stated test conditions.								
	7	Provide volume-to-be-infused, infused-volume display and configurable keep-vein-open function.								
	8	Provide controlled bolus delivery with clear bolus volume/rate display.								
	9	Provide selectable occlusion thresholds and anti-bolus protection after occlusion release.								
	10	Alarms shall include occlusion, syringe disengagement, near-empty, end of infusion, battery and mains failure.								
	11	Retain programme data following power interruption without an unsafe automatic restart.								
	12	Internal rechargeable battery shall provide at least four hours at 5 mL/h using a 50 mL syringe.								
	13	Supply pole clamp, mains cable and the validated syringe-brand/size list.								
	14	Verify flow accuracy, occlusion alarm and battery operation at commissioning.								
	15	Infusion setting increments shall be no greater than 0.1 mL/h below 10 mL/h and no greater than 1 mL/h at higher routine settings.								
	16	At low infusion rates the pump shall maintain continuous programmed delivery without an unannounced startup delay or free flow; demonstrate at 1 mL/h during acceptance.								



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates			Warrantee			Certified local agent or authorization			Model	Brand	Country of Origin	
EQ-1	17	Infusion accuracy shall be within ±5% using the supplied compatible set or syringe under the manufacturer-validated standard conditions.	107														
	18	VTBI shall be programmable from at least 1 mL to 999 mL with increments of 1 mL or finer over routine clinical settings.															
	19	A clinician-controlled bolus function shall have configurable dose/rate limits and a lockable control to prevent accidental activation.															
	20	At completion of the programmed infusion, the pump shall alarm and either stop safely or enter a configurable KVO rate no greater than 5 mL/h.															
	21	Occlusion alarm threshold shall offer at least three selectable sensitivity levels, with audible/visual alarm and automatic interruption of delivery.															
	22	An occlusion shall cause audible/visual alarm and stop delivery at the selected threshold; demonstrate at one low and one medium infusion rate during acceptance.															
	23	Provide clear identification of an ongoing infusion, stopped infusion and alarm state.															
	24	Controls shall permit prompt stopping of infusion by the user.															
	25	Provide keypad/settings lock to reduce unintended changes.															
	26	The device shall retain at least 24 hours of alarm/event history retrievable from the screen or an export interface.															
	27	The supplied configuration shall include any drug library or dose calculation features included; describe local configuration requirements as an operational feature, with manufacturer evidence and acceptance demonstration.															
	28	The supplied item shall provide the power-failure safeguard or battery function described here, with audible/visual warning and automatic recovery; verify at commissioning against the item-specific duration and performance limits.															
	29	Mounting clamp shall secure the pump without obstructing controls or damaging poles.															
	30	Provide validated cleaning agents and protection precautions for fluid ingress.															
	31	Test delivery at low, medium and high representative rates using the approved consumables.															
	32	Test occlusion and post-occlusion behavior using an infusion analyzer.															
	33	The delivered configuration shall include and demonstrate the specified five-year consumable pricing and replenishment arrangements for all proprietary sets or syringes; it shall meet any explicit item-specific minimum in this schedule, with manufacturer test evidence at acceptance.															
	34	Provide exact manufacturer, model/version and country of manufacture, evidenced by manufacturer catalogue and product label; no unidentifiable or mixed-model substitute is acceptable.															
	35	The quoted price shall include all item-specific accessories, installation and commissioning stated here; any site infrastructure connection shall be listed and coordinated before contract award.															
	36	Supply a five-year spare/accessory/consumable price list and evidence of an authorized service/replenishment route to Yemen; identify lead times, without reducing the mandatory base package.															
37	Provide a signed delivery/acceptance checklist matching this item's specifications and included components.																
TOTAL MAXIMUM SCORE — item is eligible only if all Mandatory clauses comply																	
Volumetric infusion pump																	
EQ-1	107	Volumetric infusion pump with controlled delivery through manufacturer-validated administration sets.	108														
1	Flow-rate setting shall cover at least 0.1–1,200 mL/h, with appropriate low-rate increments.																
2																	



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates	Warrantee	Certified local agent or authorization	Model	Brand	Country of Origin
3		Delivery accuracy shall be within $\pm 5\%$ under the manufacturer's specified conditions with the approved set.								
4		Provide programmable volume-to-be-infused, infused-volume display and keep-vein-open function.								
5		Provide controlled bolus function with rate and volume limits.								
6		Provide anti-free-flow protection when the door is open or the set is removed.								
7		Provide air-in-line detection with alarm and infusion stop.								
8		Provide upstream/downstream occlusion detection as supported by the design.								
9		Alarms shall include air, occlusion, open door, end of infusion, low battery and power failure.								
10		Provide internal rechargeable battery for at least two hours at 25 mL/h.								
11		Supply pole clamp and 100 compatible administration sets per pump.								
12		Declare all approved set references, local availability and unit prices.								
13		Do not claim compatibility with arbitrary generic tubing without manufacturer validation.								
14		Verify flow, air detection, occlusion and free-flow protection at acceptance.								
15		Infusion setting increments shall be no greater than 0.1 mL/h below 10 mL/h and no greater than 1 mL/h at higher routine settings.								
16		At low infusion rates the pump shall maintain continuous programmed delivery without an unannounced startup delay or free flow; demonstrate at 1 mL/h during acceptance.								
17		Infusion accuracy shall be within $\pm 5\%$ using the supplied compatible set or syringe under the manufacturer-validated standard conditions.								
18		VTBI shall be programmable from at least 1 mL to 999 mL with increments of 1 mL or finer over routine clinical settings.								
19		A clinician-controlled bolus function shall have configurable dose/rate limits and a lockable control to prevent accidental activation.								
20		At completion of the programmed infusion, the pump shall alarm and either stop safely or enter a configurable KVO rate no greater than 5 mL/h.								
21		Occlusion alarm threshold shall offer at least three selectable sensitivity levels, with audible/visual alarm and automatic interruption of delivery.								
22		An occlusion shall cause audible/visual alarm and stop delivery at the selected threshold; demonstrate at one low and one medium infusion rate during acceptance.								
23		Provide clear identification of an ongoing infusion, stopped infusion and alarm state.								
24		Controls shall permit prompt stopping of infusion by the user.								
25		Provide keypad/settings lock to reduce unintended changes.								
26		The device shall retain at least 24 hours of alarm/event history retrievable from the screen or an export interface.								
27		The supplied configuration shall include any drug library or dose calculation features included; describe local configuration requirements as an operational feature, with manufacturer evidence and acceptance demonstration.								



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates			Warrantee			Certified local agent or authorization			Model	Brand	Country of Origin
28		The supplied item shall provide the power-failure safeguard or battery function described here, with audible/visual warning and automatic recovery; verify at commissioning against the item-specific duration and performance limits.														
29		Mounting clamp shall secure the pump without obstructing controls or damaging poles.														
30		Provide validated cleaning agents and protection precautions for fluid ingress.														
31		Test delivery at low, medium and high representative rates using the approved consumables.														
32		Test occlusion and post-occlusion behavior using an infusion analyzer.														
33		The delivered configuration shall include and demonstrate the specified five-year consumable pricing and replenishment arrangements for all proprietary sets or syringes; it shall meet any explicit item-specific minimum in this schedule, with manufacturer test evidence at acceptance. Provide exact manufacturer, model/version and country of manufacture, evidenced by manufacturer catalogue and product label; no unidentifiable or mixed-model substitute is acceptable.														
34																
35		The quoted price shall include all item-specific accessories, installation and commissioning stated here; any site infrastructure connection shall be listed and coordinated before contract award.														
36		Supply a five-year spare/accessory/consumable price list and evidence of an authorized service/replenishment route to Yemen; identify lead times, without reducing the mandatory base package.														
37		Provide a signed delivery/acceptance checklist matching this item's specifications and included components.														
TOTAL MAXIMUM SCORE — Item is eligible only if all Mandatory clauses comply																
LOT 10 Sterilization and decontamination																
Additional steam autoclave with integrated vacuum dryer, approximately 100–150 L																
EQ-1 108																
1		Hospital steam sterilizer, nominal chamber capacity 100–150 L, with automatic pre-vacuum air removal AND an integrated post-vacuum drying system for wrapped surgical instruments and porous loads. Drying shall be included in the quoted base configuration, not an optional accessory or separate hot-air sterilizer.														
2		Validated selectable cycles at 121 °C and 134 °C; display cycle phase and elapsed time.														
3		Pressure chamber and door shall be corrosion-resistant stainless steel, grade 316L or equivalent validated for repeated steam cycles; provide dimensioned loading drawings confirming compatibility with the specified trays and sterilization drums.														
4		Automatic monitoring and recording of chamber temperature, pressure and exposure time.														
5		Door interlock shall prevent opening while the chamber is pressurized or unsafe to access.														
6		Independent overtemperature protection, pressure relief and low-water protection.														
7		Leak-test and air-removal test programmes appropriate to the offered pre-vacuum design.														
8		Cycle records shall identify cycle number, date, selected programme and pass/fail status; include printer or export facility.														
9		Integral electric steam generator or an explicitly priced compatible steam supply package.														
10		Supply loading trays/baskets and a compatible loading aid where required by chamber height.														
11		Supply one spare door gasket and commissioning stock of chemical and biological indicators.														

Page 104 of 126



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates			Warrantee			Certified local agent or authorization			Model	Brand	Country of Origin
12		The specified powered unit shall operate on the verified site electrical supply (normally 220–240 V AC, 50 Hz) with appropriately rated protections and connections; submit a connection/load schedule.														
13		Acceptance shall include complete sterilization and integrated drying cycles using representative wrapped instrument and porous loads at the rated load. Record cycle data and drying results. Wet packs, visible water on instruments or a configuration requiring open-door air drying shall not be accepted.														
14		Provide evidence of applicable pressure-vessel and sterilizer safety compliance; specify standard editions in the offer.														
15		Nominal chamber capacity 100–150 L, as specified in the source quantity schedule.														
16		The specified assembly shall accommodate the intended patient/load and fit the approved installation or storage space; submit dimensioned manufacturer evidence before award.														
17		Sterilizer usable chamber shall accept the stated nominal load category and its supplied loading rack, with a validated wrapped-instrument cycle at the manufacturer-rated maximum load.														
18		Provide validated cycles for wrapped instruments and unwrapped emergency instruments, with exposure time/temperature recorded and load limits marked in the operating instructions.														
19		The delivered configuration shall include and demonstrate the specified cycle temperature tolerance, exposure-time control and sensor accuracy; it shall meet any explicit item-specific minimum in this schedule, with manufacturer test evidence at acceptance.														
20		Provide integrated, automatically controlled post-vacuum drying with all required vacuum pump, heated chamber/jacket functions and filtered air admission. Drying parameters shall form part of validated programmes for wrapped metal and porous loads; no manual door-opening drying procedure is acceptable.														
21		Provide cycle-abort indication with a clear warning that an aborted load is not released as sterile.														
22		Provide control access that prevents unauthorized alteration of validated cycle parameters.														
23		Record failed cycles and the reason for interruption in the cycle report.														
24		Independent overtemperature/overpressure protection shall stop heating and inhibit opening under pressure; reset shall require correction of the fault and an authorized action.														
25		Provide safe isolation for maintenance and a controlled procedure for power interruption during a cycle.														
26		Accessible hot surfaces shall be guarded or insulated and carry appropriate warnings.														
27		The specified assembly shall accommodate the intended patient/load and fit the approved installation or storage space; submit dimensioned manufacturer evidence before award.														
28		The delivered configuration shall include and demonstrate the specified feedwater quality limits including conductivity and hardness; it shall meet any explicit item-specific minimum in this schedule, with manufacturer test evidence at acceptance.														
29		The delivered configuration shall include and demonstrate the specified water consumption per representative cycle and peak drain temperature; it shall meet any explicit item-specific minimum in this schedule, with manufacturer test evidence at acceptance.														
30		The specified assembly shall accommodate the intended patient/load and fit the approved installation or storage space; submit dimensioned manufacturer evidence before award.														
31		Supply the complete vacuum and drying utility package, including required cooling-water/condensate connections or self-contained alternative. The quoted price shall include components needed to run both sterilization and drying at the verified site utilities.														
32		Include drain connections and cooling arrangements needed by the approved local installation.														
33		Supply basket/tray dimensions and a loading diagram for the offered chamber.														
34		Provide the pressure-vessel documentation required for installation and inspection at the receiving site.														



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates			Warrantee			Certified local agent or authorization			Model	Brand	Country of Origin	
	35	Provide sensor calibration records identifying traceable temperature and pressure references.															
	36	Submit installation qualification and operational qualification protocols before commissioning.															
	37	Perform installation, operational and performance qualification with hospital-approved wrapped instrument, porous and drum load patterns. Demonstrate repeatable dry-load results and document permissible load limits and cycle/drying settings before clinical release.															
	38	Use compatible chemical and biological monitoring according to the validated release protocol; indicator results do not replace cycle data.															
	39	Train CSSD staff in load preparation, packaging, test interpretation, cycle failure and traceability.															
	40	The mandatory base package shall include components needed for routine operation; for provide service intervals and prices for door seals, filters, valves, heaters and vacuum-system parts, provide separate unit replacement prices and Yemen replenishment lead times for five years.															
	41	Provide on-site authorized service response in Yemen for sterilizer cycle failures, including diagnostic access and corrective action during the warranty.															
	42	Provide exact manufacturer, model/version and country of manufacture, evidenced by manufacturer catalogue and product label; no unidentifiable or mixed-model substitute is acceptable.															
	43	The quoted price shall include all item-specific accessories, installation and commissioning stated here; any site infrastructure connection shall be listed and coordinated before contract award.															
	44	Supply a five-year spare/accessory/consumable price list and evidence of an authorized service/replenishment route to Yemen; identify lead times, without reducing the mandatory base package.															
	45	Provide a signed delivery/acceptance checklist matching this item's specifications and included components.															
TOTAL MAXIMUM SCORE — item is eligible only if all Mandatory clauses comply																	
Autoclave water distillation or treatment unit																	
EQ-1	109																
	1	Complete water-treatment package sized for the sterilizers offered under items 1 or 5 at the receiving hospital.															
	2	Analyze available feed water before final design, including hardness, conductivity and microbiological risks relevant to the equipment.															
	3	Provide pretreatment, softening, reverse osmosis and/or deionization as needed to meet the sterilizer manufacturer's feed-water limits.															
	4	The delivered configuration shall include and demonstrate the specified guaranteed treated-water flow in L/h under the measured feed-water conditions; it shall meet any explicit item-specific minimum in this schedule, with manufacturer test evidence at acceptance.															
	5	Provide a closed treated-water tank and delivery pump if required by sterilizer demand.															
	6	Include conductivity monitoring and a sampling point.															
	7	Include pressure gauges, isolation valves, backflow prevention and a safe reject-water connection.															
	8	All water-contact materials shall be compatible with the required water quality.															
	9	Supply all interconnecting pipework and fittings within the agreed installation scope.															
	10	Include one full replacement set of consumable filters and treatment cartridges.															
	11	Test treated water against the sterilizer manufacturer's acceptance limits and issue a report.															



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification			Certificates			Warrantee			Certified local agent or authorization			Model	Brand	Country of Origin
	12	The delivered configuration shall include and demonstrate the specified source-water analysis assumptions and required pretreatment; it shall meet any explicit item-specific minimum in this schedule, with manufacturer test evidence at acceptance.																
	13	The delivered configuration shall include and demonstrate the specified product-water conductivity and hardness achievable under the stated feed conditions; it shall meet any explicit item-specific minimum in this schedule, with manufacturer test evidence at acceptance.																
	14	The delivered configuration shall include and demonstrate the specified nominal and worst-case treated-water production rate; it shall meet any explicit item-specific minimum in this schedule, with manufacturer test evidence at acceptance.																
	15	The delivered configuration shall include and demonstrate the specified storage-tank useful capacity and wetted material; it shall meet any explicit item-specific minimum in this schedule, with manufacturer test evidence at acceptance.																
	16	The delivered configuration shall include and demonstrate the specified recovery ratio, wastewater flow and drain requirements; it shall meet any explicit item-specific minimum in this schedule, with manufacturer test evidence at acceptance.																
	17	Include an appropriate treated-water sampling point.																
	18	Provide conductivity monitoring or a defined regular testing arrangement.																
	19	Provide a sanitization procedure for storage and distribution components.																
	20	The mandatory base package shall include components needed for routine operation; for state filter/membrane replacement criteria and cost per treated-water volume, provide separate unit replacement prices and Yemen replenishment lead times for five years.																
	21	Verify treated-water quality against the selected sterilizer's requirements before use.																
	22	Provide exact manufacturer, model/version and country of manufacture, evidenced by manufacturer catalogue and product label; no unidentifiable or mixed-model substitute is acceptable.																
	23	The quoted price shall include all item-specific accessories, installation and commissioning stated here; any site infrastructure connection shall be listed and coordinated before contract award.																
	24	Supply a five-year spare/accessory/consumable price list and evidence of an authorized service/replenishment route to Yemen; identify lead times, without reducing the mandatory base package.																
	25	Provide a signed delivery/acceptance checklist matching this item's specifications and included components.																
	26	Provide outlet water quality compatible with the offered autoclave manufacturer, with prefiltration and service intervals determined from the measured site feed-water quality.																
TOTAL MAXIMUM SCORE — item is eligible only if all Mandatory clauses comply																		
Biological/chemical indicator starter stock																		
EQ-1	110																	
	1	One starter lot shall contain 1,000 steam process indicator strips or integrators compatible with the selected cycles.																
	2	Include 10 rolls of steam indicator tape.																
	3	Include 50 self-contained biological indicators for steam sterilization with matching positive controls as required by the test protocol.																
	4	Include 30 air-removal test packs appropriate to the installed pre-vacuum sterilizer.																
	5	Supply a compatible biological-indicator incubator/reader if an existing suitable reader is not confirmed.																
	6	Each indicator shall carry lot number, expiry, storage requirements and manufacturer instructions.																
	7	Different chemical-indicator types shall be clearly identified; a process indicator shall not be represented as proof of sterility.																
	8	Provide interpretation charts, record forms and staff training.																



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates	Warrantee	Certified local agent or authorization	Model	Brand	Country of Origin
	9	Provide exact catalogue reference and unit-of-issue for every supplied component.								
	10	Patient- and chemical-contact materials shall be compatible with the specified clinical use and cleaning/disinfection method and shall be free from prohibited latex where direct contact is expected.								
	11	Provide manufacturer labels showing lot/batch traceability where applicable.								
	12	Expiring supplies shall be delivered with at least 75% of labelled shelf life remaining and storage conditions compatible with the hospital supply chain.								
	13	All reusable components shall have validated cleaning/reprocessing instructions; all single-use components shall be labelled as such and supplied in the quantities specified for this item.								
	14	Inspect quantities, packaging integrity and component identity at receipt.								
	15	Provide exact manufacturer, model/version and country of manufacture, evidenced by manufacturer catalogue and product label; no unidentifiable or mixed-model substitute is acceptable.								
	16	The quoted price shall include all item-specific accessories, installation and commissioning stated here; any site infrastructure connection shall be listed and coordinated before contract award.								
	17	Supply a five-year spare/accessory/consumable price list and evidence of an authorized service/replenishment route to Yemen; identify lead times, without reducing the mandatory base package.								
	18	Provide a signed delivery/acceptance checklist matching this item's specifications and included components.								
		TOTAL MAXIMUM SCORE — item is eligible only if all Mandatory clauses comply								
CSSD PPE and spill kit starter lot										
EQ-1	111									
	1	Supply one departmental starter lot with an itemized packing list.								
	2	Include 10 pairs of reusable heavy-duty utility gloves in mixed sizes.								
	3	Include 10 reusable fluid-resistant aprons and 10 pairs of protective boots in approved sizes.								
	4	Include 10 reusable splash goggles or face shields.								
	5	Include 100 single-use medical masks and 100 pairs of examination gloves in mixed sizes.								
	6	Include two body-fluid spill kits with absorbent material, scoop, scraper, disposal bags and appropriate disinfectant instructions.								
	7	Include three 30–50 L pedal-operated, washable waste bins with matching lids and identification labels.								
	8	Reusable protective items shall withstand the manufacturer-specified cleaning and disinfection method.								
	9	Disinfectant labels shall identify active ingredient, concentration, dilution and expiry.								
	10	Provide exact catalogue reference and unit-of-issue for every supplied component.								
	11	Patient- and chemical-contact materials shall be compatible with the specified clinical use and cleaning/disinfection method and shall be free from prohibited latex where direct contact is expected.								
	12	Provide manufacturer labels showing lot/batch traceability where applicable.								
	13	Expiring supplies shall be delivered with at least 75% of labelled shelf life remaining and storage conditions compatible with the hospital supply chain.								



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates			Warrantee			Certified local agent or authorization			Model	Brand	Country of Origin
14		All reusable components shall have validated cleaning/reprocessing instructions; all single-use components shall be labelled as such and supplied in the quantities specified for this item.														
		Inspect quantities, packaging integrity and component identity at receipt.														
		Provide exact manufacturer, model/version and country of manufacture, evidenced by manufacturer catalogue and product label; no unidentifiable or mixed-model substitute is acceptable.														
		The quoted price shall include all item-specific accessories, installation and commissioning stated here; any site infrastructure connection shall be listed and coordinated before contract award.														
		Supply a five-year spare/accessory/consumable price list and evidence of an authorized service/replenishment route to Yemen; identify lead times, without reducing the mandatory base package.														
		Provide a signed delivery/acceptance checklist matching this item's specifications and included components.														
		TOTAL MAXIMUM SCORE — item is eligible only if all Mandatory clauses comply														
PPE, healthcare-waste bins and sharps containers																
EQ-1	114															
1		Supply one IPC starter lot with all components itemized in the financial offer.														
		Include 10 pairs of reusable utility gloves, 10 fluid-resistant aprons and 10 splash face shields.														
		Include 100 single-use medical masks and 100 pairs of examination gloves in mixed sizes.														
		Include six 30–50 L washable pedal-operated waste bins with lids.														
		Include 50 single-use sharps containers, nominal capacity 5 L.														
		Sharps containers shall be puncture resistant, leak resistant and have secure temporary and final closure.														
		Containers shall have visible fill lines and biohazard identification.														
		Waste segregation colours and labels shall follow the hospital-approved scheme.														
		Supply 100 compatible waste liners per bin size.														
		Provide exact catalogue reference and unit-of-issue for every supplied component.														
		Patient- and chemical-contact materials shall be compatible with the specified clinical use and cleaning/disinfection method and shall be free from prohibited latex where direct contact is expected.														
		Provide manufacturer labels showing lot/batch traceability where applicable.														
		Expiring supplies shall be delivered with at least 75% of labelled shelf life remaining and storage conditions compatible with the hospital supply chain.														
		All reusable components shall have validated cleaning/reprocessing instructions; all single-use components shall be labelled as such and supplied in the quantities specified for this item.														
		Inspect quantities, packaging integrity and component identity at receipt.														
		Provide exact manufacturer, model/version and country of manufacture, evidenced by manufacturer catalogue and product label; no unidentifiable or mixed-model substitute is acceptable.														
		The quoted price shall include all item-specific accessories, installation and commissioning stated here; any site infrastructure connection shall be listed and coordinated before contract award.														



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates			Warrantee			Certified local agent or authorization			Model	Brand	Country of Origin
	18	Supply a five-year spare/accessory/consumable price list and evidence of an authorized service/replenishment route to Yemen; identify lead times, without reducing the mandatory base package.														
	19	Provide a signed delivery/acceptance checklist matching this item's specifications and included components.														
		TOTAL MAXIMUM SCORE — item is eligible only if all Mandatory clauses comply														
Sterilization-pouch heat sealer																
EQ-1	117															
	1	Medical pouch heat sealer compatible with validated steam-sterilization paper/film packaging.														
	2	Usable sealing length at least 300 mm.														
	3	Continuous seal width at least 10 mm or a manufacturer-validated equivalent seal geometry.														
	4	Adjustable sealing temperature covering the supplied pouch manufacturer's validated range.														
	5	Controlled sealing time or controlled transport speed, depending on design.														
	6	Temperature indication and overtemperature protection.														
	7	Integral pouch cutter or a separate compatible cutter supplied.														
	8	Supply two pouch-roll widths suitable for the hospital's instrument loads, at least two rolls of each width.														
	9	Supply one spare heating element/sealing strip set appropriate to the design.														
	10	Demonstrate uniform sealing without channels, scorching or delamination using the actual supplied pouches.														
	11	Usable chamber and loading area shall accommodate the instrument sets and maximum load stated for this item without crowding or blocking circulation.														
	12	The operating range and control accuracy shall meet the item-specific clinical temperature limits elsewhere in this schedule; overtemperature protection shall stop unsafe operation.														
	13	Provide clear cycle completion and fault indication.														
	14	All relevant components shall withstand the manufacturer-validated cleaning, disinfection or sterilization method required for their specified clinical reuse; include validated instructions.														
	15	Provide a repeatable daily performance-check procedure and acceptance criteria.														
	16	The described component shall be user-serviceable or replaceable by the authorized service team, with the necessary service information and five-year availability in Yemen.														
	17	Demonstrate performance on representative hospital instruments or packaging before acceptance.														
	18	The delivered configuration shall include and demonstrate the specified seal width, feed speed and temperature adjustment range; it shall meet any explicit item-specific minimum in this schedule, with manufacturer test evidence at acceptance.														
	19	Provide controlled heating and indication that operating temperature has been reached.														
	20	The supplied configuration shall include compatible pouch widths and packaging materials as an operational feature, with manufacturer evidence and acceptance demonstration.														
	21	Demonstrate seal continuity and integrity using the approved pouch material.														



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates	Warrantee	Certified local agent or authorization	Model	Brand	Country of Origin
	22	Supply instructions and starter materials for routine seal-quality checks.								
	23	Provide exact manufacturer, model/version and country of manufacture, evidenced by manufacturer catalogue and product label; no unidentifiable or mixed-model substitute is acceptable.								
	24	The quoted price shall include all item-specific accessories, installation and commissioning stated here; any site infrastructure connection shall be listed and coordinated before contract award.								
	25	Supply a five-year spare/accessory/consumable price list and evidence of an authorized service/replenishment route to Yemen; identify lead times, without reducing the mandatory base package.								
	26	Provide a signed delivery/acceptance checklist matching this item's specifications and included components.								
		TOTAL MAXIMUM SCORE — item is eligible only if all Mandatory clauses comply								
Ultrasonic instrument cleaner, approximately 30 L										
EQ-1	118									
	1	Ultrasonic cleaner for reusable surgical instruments before sterilization.								
	2	Nominal tank capacity approximately 30 L; declare usable working volume and basket dimensions.								
	3	Ultrasonic operating frequency approximately 35–45 kHz.								
	4	Provide adjustable cleaning timer covering at least 1–30 minutes.								
	5	Provide controlled heating with adjustable setpoint up to at least 60 °C.								
	6	Provide temperature display and overtemperature protection.								
	7	Tank shall be stainless steel with drain valve and lid.								
	8	Supply a removable instrument basket that keeps instruments off the tank bottom.								
	9	Provide degassing mode or a validated degassing procedure.								
	10	Supply compatible detergent starter stock and its instructions.								
	11	Cleaning-cycle validation shall include a recognized cavitation/performance test.								
	12	Ultrasonic cleaning shall not be represented as a sterilization process.								
	13	Usable chamber and loading area shall accommodate the instrument sets and maximum load stated for this item without crowding or blocking circulation.								
	14	The operating range and control accuracy shall meet the item-specific clinical temperature limits elsewhere in this schedule; overtemperature protection shall stop unsafe operation.								
	15	Provide clear cycle completion and fault indication.								
	16	All relevant components shall withstand the manufacturer-validated cleaning, disinfection or sterilization method required for their specified clinical reuse; include validated instructions.								
	17	Provide a repeatable daily performance-check procedure and acceptance criteria.								
	18	The described component shall be user-serviceable or replaceable by the authorized service team, with the necessary service information and five-year availability in Yemen.								



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates			Warrantee			Certified local agent or authorization			Model	Brand	Country of Origin	
	19	Demonstrate performance on representative hospital instruments or packaging before acceptance.															
	20	The delivered configuration shall include and demonstrate the specified ultrasonic operating frequency and effective output power; it shall meet any explicit item-specific minimum in this schedule, with manufacturer test evidence at acceptance.															
	21	The delivered configuration shall include and demonstrate the specified nominal tank volume separately from working fill volume; it shall meet any explicit item-specific minimum in this schedule, with manufacturer test evidence at acceptance.															
	22	Provide removable instrument basket and a lid.															
	23	Provide controlled heating, timer and safe drainage.															
	24	Provide a degassing procedure and a method of checking cavitation performance.															
	25	Instruments shall not rest directly on the ultrasonic tank base during operation.															
	26	Validate detergent compatibility, loading pattern and cleaning process with the CSSD team.															
	27	Provide exact manufacturer, model/version and country of manufacture, evidenced by manufacturer catalogue and product label; no unidentifiable or mixed-model substitute is acceptable.															
	28	The quoted price shall include all item-specific accessories, installation and commissioning stated here; any site infrastructure connection shall be listed and coordinated before contract award.															
	29	Supply a five-year spare/accessory/consumable price list and evidence of an authorized service/replenishment route to Yemen; identify lead times, without reducing the mandatory base package.															
	30	Provide a signed delivery/acceptance checklist matching this item's specifications and included components.															
TOTAL MAXIMUM SCORE — item is eligible only if all Mandatory clauses comply																	
LOT 12 Pharmacy and cold chain																	
30-day electronic temperature logger																	
EQ-1 127																	
	1	Electronic temperature data logger for refrigerated medicine or vaccine storage.															
	2	Measurement range shall cover at least -20 to +50 °C.															
	3	Accuracy within ±0.5 °C over the 0–10 °C range.															
	4	Display resolution 0.1 °C.															
	5	Configurable logging interval including five minutes.															
	6	Memory capacity at least 30 days at five-minute intervals.															
	7	Provide minimum/maximum display and configurable high/low alarms.															
	8	Provide USB or equivalent data export without a recurring subscription.															
	9	Supply traceable calibration certificate covering the intended storage range.															
	10	External probe shall be supplied where needed to keep the display outside the refrigerator.															



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates			Warrantee			Certified local agent or authorization			Model	Brand	Country of Origin
EQ-1	11	Supply battery and software/accessories needed for immediate use.														
	12	Confirm which of the five loggers serve vaccines and apply the corresponding programme requirements.														
	13	The instrument shall measure across the full clinically intended range with readable resolution and an accuracy claim supported by manufacturer test evidence; item-specific numerical limits elsewhere in this schedule govern acceptance.														
	14	Specified measurement accuracy shall be maintained at the receiving hospital's controlled operating temperature and humidity; provide the manufacturer validation range.														
	15	Provide calibration/verification instructions and traceable test evidence appropriate to the instrument.														
	16	The specified assembly shall accommodate the intended patient/load and fit the approved installation or storage space; submit dimensioned manufacturer evidence before award.														
	17	Battery-powered equipment shall include a rechargeable battery, a clear state-of-charge/low-battery indication and enough capacity for at least 60 minutes of normal use, unless a stricter duration is specified.														
	18	All included strips, sensors or reagents shall remain usable under the labelled storage conditions achievable in the hospital; provide protective packaging and expiry labels.														
	19	Verify representative low, mid and high measurements using suitable reference equipment or control materials.														
	20	The mandatory base package shall include components needed for routine operation; for provide replacement sensor/consumable references with package sizes and prices, provide separate unit replacement prices and Yemen replenishment lead times for five years.														
	21	Provide exact manufacturer, model/version and country of manufacture, evidenced by manufacturer catalogue and product label; no unidentifiable or mixed-model substitute is acceptable.														
	22	The quoted price shall include all item-specific accessories, installation and commissioning stated here; any site infrastructure connection shall be listed and coordinated before contract award.														
	23	Supply a five-year spare/accessory/consumable price list and evidence of an authorized service/replenishment route to Yemen; identify lead times, without reducing the mandatory base package.														
	24	Provide a signed delivery/acceptance checklist matching this item's specifications and included components.														
	25	Record and retain at least 30 days of continuous temperature history and display current, minimum and maximum readings with calibration documentation.														
	TOTAL MAXIMUM SCORE — item is eligible only if all Mandatory clauses comply															
EQ-1	128	Pharmacy refrigerator, 2–8°C														
	1	Purpose-built pharmacy refrigerator maintaining +2 to +8 °C throughout the usable loaded storage space.														
	2	Proposed net usable capacity at least 200 L; confirm pharmacy stock needs before release.														
	3	Forced-air circulation or equivalent design providing documented temperature uniformity.														
	4	Digital controller and external temperature display with 0.1 °C resolution.														
	5	Provide high/low temperature and door-open alarms.														
	6	Provide power-failure alarm with battery-supported alarm function.														
	7	Provide lockable door and adjustable easy-clean shelves.														
	8	Provide independent calibrated temperature logger under the separately scheduled temperature logger or explicitly supplied with the unit.														



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates	Warrantee	Certified local agent or authorization	Model	Brand	Country of Origin
9		Provide automatic defrost that does not expose products to unacceptable temperature excursions.								
10		The specified powered unit shall operate on the verified site electrical supply (normally 220–240 V AC, 50 Hz) with appropriately rated protections and connections; submit a connection/load schedule.								
11		Provide access for condenser cleaning and a voltage-protection device.								
12		Demonstrate temperature mapping under a representative load before acceptance.								
13		This pharmacy refrigerator is not automatically accepted for vaccine storage without applicable EPI/PQS approval.								
14		Usable storage volume shall meet the capacity specified for this refrigerator, excluding shelves or airflow zones that cannot safely hold products.								
15		Controlled chamber or cabinet temperature shall remain within the item-specific clinical range throughout its usable space under the rated load and site ambient condition.								
16		The delivered configuration shall include and demonstrate the specified maximum rated ambient temperature and test classification; it shall meet any explicit item-specific minimum in this schedule, with manufacturer test evidence at acceptance.								
17		The supplied item shall provide the power-failure safeguard or battery function described here, with audible/visual warning and automatic recovery; verify at commissioning against the item-specific duration and performance limits.								
18		Provide adjustable high/low alarms around the specified 2–8 °C storage band, with audible/visual indication and event recording.								
19		Provide protected access to temperature setpoint and alarm configuration.								
20		Provide an alarm battery replacement and periodic test procedure.								
21		After a routine brief door opening, the refrigerator shall recover to 2–8 °C within the manufacturer-validated period under the rated ambient condition, without freezing stored products.								
22		Provide shelving/load-position guidance to maintain internal air circulation.								
23		The delivered configuration shall include and demonstrate the specified defrost method and condensate-disposal arrangement; it shall meet any explicit item-specific minimum in this schedule, with manufacturer test evidence at acceptance.								
24		The delivered configuration shall include and demonstrate the specified refrigerant type, service charge and local service requirements; it shall meet any explicit item-specific minimum in this schedule, with manufacturer test evidence at acceptance.								
25		The refrigerator shall have compressor restart delay and high/low voltage protection compatible with the site power system; supply correctly rated protection and wiring data.								
26		Provide local audible/visual high/low temperature and power-failure alarms in the base refrigerator; a remote alarm contact may be quoted separately.								
27		Use an independent calibrated logger for loaded temperature mapping at multiple positions.								
28		Acceptance mapping duration and load pattern shall be approved before the test begins.								
29		Train pharmacy staff in temperature excursions, alarm response and emergency stock relocation.								
30		Provide exact manufacturer, model/version and country of manufacture, evidenced by manufacturer catalogue and product label; no unidentifiable or mixed-model substitute is acceptable.								
31		The quoted price shall include all item-specific accessories, installation and commissioning stated here; any site infrastructure connection shall be listed and coordinated before contract award.								
32		Supply a five-year spare/accessory/consumable price list and evidence of an authorized service/replenishment route to Yemen; identify lead times, without reducing the mandatory base package.								
33		Provide a signed delivery/acceptance checklist matching this item's specifications and included components.								



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates	Warrantee	Certified local agent or authorization	Model	Brand	Country of Origin
TOTAL MAXIMUM SCORE — item is eligible only if all Mandatory clauses comply										
Reusable ice packs										
EQ-1	129									
	1	Reusable water/ice pack for the vaccine carriers and cold box selected under items 128 and 129.								
	2	Shape and capacity shall match the selected carrier/cold-box model.								
	3	Leak-resistant durable plastic construction with secure closure.								
	4	Provide a clear maximum-fill mark and space for freeze expansion where applicable.								
	5	Material shall tolerate repeated freeze/thaw cycles.								
	6	Provide instructions for filling, conditioning and cleaning.								
	7	Supply only the water-pack configuration specified in the chosen product instructions.								
	8	The ten separately scheduled packs are additional/spare packs; each carrier and cold box shall include its complete operating pack set.								
	9	Confirm compatible pack volume before procurement.								
	10	Provide exact catalogue reference and unit-of-issue for every supplied component.								
	11	Patient- and chemical-contact materials shall be compatible with the specified clinical use and cleaning/disinfection method and shall be free from prohibited latex where direct contact is expected.								
	12	Provide manufacturer labels showing lot/batch traceability where applicable.								
	13	Expiring supplies shall be delivered with at least 75% of labelled shelf life remaining and storage conditions compatible with the hospital supply chain.								
	14	All reusable components shall have validated cleaning/reprocessing instructions; all single-use components shall be labelled as such and supplied in the quantities specified for this item.								
	15	Inspect quantities, packaging integrity and component identity at receipt.								
	16	Provide exact manufacturer, model/version and country of manufacture, evidenced by manufacturer catalogue and product label; no unidentifiable or mixed-model substitute is acceptable.								
	17	The quoted price shall include all item-specific accessories, installation and commissioning stated here; any site infrastructure connection shall be listed and coordinated before contract award.								
	18	Supply a five-year spare/accessory/consumable price list and evidence of an authorized service/replenishment route to Yemen; identify lead times, without reducing the mandatory base package.								
	19	Provide a signed delivery/acceptance checklist matching this item's specifications and included components.								
TOTAL MAXIMUM SCORE — item is eligible only if all Mandatory clauses comply										
Vaccine carrier										
EQ-1	130									
	1	Insulated vaccine carrier with a documented current WHO PQS listing or other explicitly approved EPI qualification.								
	2	Proposed net vaccine capacity at least 1.5 L.								



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates			Warrantee			Certified local agent or authorization			Model	Brand	Country of Origin
	3	Proposed cold life at least 24 hours at +43 °C under the applicable published test method.														
	4	Provide the complete matched set of water packs required for rated performance.														
	5	Provide a tight-closing insulated lid and durable carrying handle/strap.														
	6	Internal compartment shall be cleanable and protect vaccine containers from physical damage.														
	7	Provide a freeze-prevention configuration or documented pack-conditioning procedure appropriate to freeze-sensitive vaccines.														
	8	Supply temperature-monitoring device or clearly allocate an appropriate logger.														
	9	Provide product-specific loading and pack-conditioning instructions.														
	10	Approve route duration, capacity and qualification record with the EPI team before release.														
	11	The delivered configuration shall include and demonstrate the specified net vaccine storage capacity with the specified coolant-pack arrangement; it shall meet any explicit item-specific minimum in this schedule, with manufacturer test evidence at acceptance.														
	12	The supplied configuration shall include the exact pack type, pack quantity and packing diagram as an operational feature, with manufacturer evidence and acceptance demonstration.														
	13	The delivered configuration shall include and demonstrate the specified documented cold-life performance under the specified test ambient conditions; it shall meet any explicit item-specific minimum in this schedule, with manufacturer test evidence at acceptance.														
	14	The delivered configuration shall include and demonstrate the specified whether the configuration requires conditioned ice packs, cool water packs or freeze-preventive technology; it shall meet any explicit item-specific minimum in this schedule, with manufacturer test evidence at														
	15	Provide explicit instructions to avoid freezing freeze-sensitive vaccines.														
	16	The delivered configuration shall include and demonstrate the specified compatible temperature monitoring devices and their placement; it shall meet any explicit item-specific minimum in this schedule, with manufacturer test evidence at acceptance.														
	17	Verify casing, lid seal, latches and all coolant packs at acceptance.														
	18	Train staff in packing, pack conditioning and post-trip cleaning.														
	19	Provide exact manufacturer, model/version and country of manufacture, evidenced by manufacturer catalogue and product label; no unidentifiable or mixed-model substitute is acceptable.														
	20	The quoted price shall include all item-specific accessories, installation and commissioning stated here; any site infrastructure connection shall be listed and coordinated before contract award.														
	21	Supply a five-year spare/accessory/consumable price list and evidence of an authorized service/replenishment route to Yemen; identify lead times, without reducing the mandatory base package.														
	22	Provide a signed delivery/acceptance checklist matching this item's specifications and included components.														
TOTAL MAXIMUM SCORE — item is eligible only if all Mandatory clauses comply																
Vaccine cold box																
EQ-1	131															
	1	Insulated vaccine cold box with a documented current WHO PQS listing or other explicitly approved EPI qualification.														
	2	Proposed net vaccine capacity at least 15 L.														
	3	Proposed cold life at least 96 hours at +43 °C under the applicable published test method.														



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates			Warrantee			Certified local agent or authorization			Model	Brand	Country of Origin
	4	Supply the full matched water-pack set required for rated performance.														
	5	Provide robust insulated lid, secure closure and carrying handles.														
	6	Inner and outer surfaces shall be impact resistant and washable.														
	7	Supply the prescribed barrier/packing arrangement for freeze-sensitive vaccines.														
	8	Provide a temperature-monitoring device or explicitly allocate a compatible logger.														
	9	The specified assembly shall accommodate the intended patient/load and fit the approved installation or storage space; submit dimensioned manufacturer evidence before award.														
	10	Approve route duration, capacity and qualification record with the EPI team before release.														
	11	The delivered configuration shall include and demonstrate the specified net vaccine storage capacity with the specified coolant-pack arrangement; it shall meet any explicit item-specific minimum in this schedule, with manufacturer test evidence at acceptance.														
	12	The supplied configuration shall include the exact pack type, pack quantity and packing diagram as an operational feature, with manufacturer evidence and acceptance demonstration.														
	13	The delivered configuration shall include and demonstrate the specified documented cold-life performance under the specified test ambient conditions; it shall meet any explicit item-specific minimum in this schedule, with manufacturer test evidence at acceptance.														
	14	The delivered configuration shall include and demonstrate the specified whether the configuration requires conditioned ice packs, cool water packs or freeze-preventive technology; it shall meet any explicit item-specific minimum in this schedule, with manufacturer test evidence at														
	15	Provide explicit instructions to avoid freezing freeze-sensitive vaccines.														
	16	The delivered configuration shall include and demonstrate the specified compatible temperature monitoring devices and their placement; it shall meet any explicit item-specific minimum in this schedule, with manufacturer test evidence at acceptance.														
	17	Verify casing, lid seal, latches and all coolant packs at acceptance.														
	18	Train staff in packing, pack conditioning and post-trip cleaning.														
	19	Provide exact manufacturer, model/version and country of manufacture, evidenced by manufacturer catalogue and product label; no unidentifiable or mixed-model substitute is acceptable.														
	20	The quoted price shall include all item-specific accessories, installation and commissioning stated here; any site infrastructure connection shall be listed and coordinated before contract award.														
	21	Supply a five-year spare/accessory/consumable price list and evidence of an authorized service/replenishment route to Yemen; identify lead times, without reducing the mandatory base package.														
	22	Provide a signed delivery/acceptance checklist matching this item's specifications and included components.														
TOTAL MAXIMUM SCORE — item is eligible only if all Mandatory clauses comply																
LOT 13 Laundry infection prevention and safety																
CO2 or clean-agent fire extinguisher, 5–6 kg																
EQ-1	133															
	1	Portable extinguisher for the approved electrical-equipment fire risk and room conditions.														
	2	Nominal extinguishing-agent charge 5–6 kg as in the source schedule; exact agent shall be selected by the fire-safety assessor.														
	3	CO2 and clean-agent options shall not be treated as interchangeable without a documented suitability assessment.														



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates			Warrantee			Certified local agent or authorization			Model	Brand	Country of Origin
	4	Provide fire rating, agent identification, operating instructions and manufacture date on the cylinder.														
	5	Cylinder shall have valid pressure testing and locally serviceable filling/maintenance arrangements.														
	6	Provide tamper seal, safety pin and insulated discharge horn where applicable.														
	7	Include wall bracket or stable floor stand and Arabic/English location signage.														
	8	Provide staff demonstration and a maintenance inspection tag.														
	9	Confirm safe use in small occupied rooms and compatibility with nearby oxygen equipment before selection.														
	10	The delivered configuration shall include and demonstrate the specified extinguishing agent, fire rating and operating-temperature range; it shall meet any explicit item-specific minimum in this schedule, with manufacturer test evidence at acceptance.														
	11	Provide manufacturer instructions, pressure/charge inspection method and service label.														
	12	Mount the extinguisher in an accessible position approved by the hospital safety officer.														
	13	Provide a documented local Yemen refill/service arrangement and a compatible replacement route for the complete supplied assembly.														
	14	Confirm agent suitability for the exact room, electrical hazards and occupied-space evacuation plan before procurement.														
	15	Provide exact manufacturer, model/version and country of manufacture, evidenced by manufacturer catalogue and product label; no unidentifiable or mixed-model substitute is acceptable.														
	16	The quoted price shall include all item-specific accessories, installation and commissioning stated here; any site infrastructure connection shall be listed and coordinated before contract award.														
	17	Supply a five-year spare/accessory/consumable price list and evidence of an authorized service/replenishment route to Yemen; identify lead times, without reducing the mandatory base package.														
	18	Provide a signed delivery/acceptance checklist matching this item's specifications and included components.														
	TOTAL MAXIMUM SCORE — item is eligible only if all Mandatory clauses comply															
EQ-1 135 Digital platform scale, 100 kg minimum																
	1	Digital platform scale for weighing laundry, not for patients.														
	2	Maximum weighing capacity at least 100 kg.														
	3	Readability 0.1 kg or finer.														
	4	Platform shall accept the hospital's laundry containers; proposed minimum 400 mm × 400 mm.														
	5	Provide tare and zero functions.														
	6	Display shall be readable while a laundry container is on the platform.														
	7	Provide overload protection and low-battery indication where applicable.														
	8	Platform and frame shall resist moisture and routine cleaning.														



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates	Warrantee	Certified local agent or authorization	Model	Brand	Country of Origin
9		Supply mains adapter and rechargeable battery where supported.								
10		Supply calibration certificate and verify accuracy at multiple loads.								
11		The item shall fit the approved room and doorway dimensions; submit a manufacturer dimensioned drawing and weight so the purchaser can verify placement before award.								
12		Patient-facing metal surfaces shall be smooth, corrosion-resistant and cleanable; stainless steel components shall be at least grade 304 where this grade is specified for the item.								
13		Load-bearing surfaces shall safely support the item-specific minimum load stated in this schedule without permanent deformation during acceptance testing.								
14		Edges, welds and fasteners shall be smooth, secure and accessible for cleaning.								
15		All exposed surfaces shall tolerate routine hospital detergent and at least one commonly used healthcare disinfectant at the manufacturer-approved concentration without corrosion or damage.								
16		Moving or wearing parts shall be individually replaceable through an authorized Yemen service route for at least five years after acceptance.								
17		Inspect assembly, stability and surface condition at delivery before use.								
18		Demonstrate all adjustments, locks and brakes fitted to the offered item.								
19		The instrument shall measure across the full clinically intended range with readable resolution and an accuracy claim supported by manufacturer test evidence; item-specific numerical limits elsewhere in this schedule govern acceptance.								
20		Specified measurement accuracy shall be maintained at the receiving hospital's controlled operating temperature and humidity; provide the manufacturer validation range.								
21		Provide calibration/verification instructions and traceable test evidence appropriate to the instrument.								
22		The specified assembly shall accommodate the intended patient/load and fit the approved installation or storage space; submit dimensioned manufacturer evidence before award.								
23		Battery-powered equipment shall include a rechargeable battery, a clear state-of-charge/low-battery indication and enough capacity for at least 60 minutes of normal use, unless a stricter duration is specified.								
24		All included strips, sensors or reagents shall remain usable under the labelled storage conditions achievable in the hospital; provide protective packaging and expiry labels.								
25		Verify representative low, mid and high measurements using suitable reference equipment or control materials.								
26		The mandatory base package shall include components needed for routine operation; for provide replacement sensor/consumable references with package sizes and prices, provide separate unit replacement prices and Yemen replenishment lead times for five years.								
27		Provide exact manufacturer, model/version and country of manufacture, evidenced by manufacturer catalogue and product label; no unidentifiable or mixed-model substitute is acceptable.								
28		The quoted price shall include all item-specific accessories, installation and commissioning stated here; any site infrastructure connection shall be listed and coordinated before contract award.								
29		Supply a five-year spare/accessory/consumable price list and evidence of an authorized service/replenishment route to Yemen; identify lead times, without reducing the mandatory base package.								
30		Provide a signed delivery/acceptance checklist matching this item's specifications and included components.								
TOTAL MAXIMUM SCORE — item is eligible only if all Mandatory clauses comply										
Laundry PPE, spill kit and waste bins										
EQ-1	137									
1		Supply one departmental starter lot with an itemized packing list.								



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates			Warrantee			Certified local agent or authorization			Model	Brand	Country of Origin	
	2	Include 10 pairs of reusable heavy-duty utility gloves in mixed sizes.															
	3	Include 10 reusable fluid-resistant aprons and 10 pairs of protective boots in approved sizes.															
	4	Include 10 reusable splash goggles or face shields.															
	5	Include 100 single-use medical masks and 100 pairs of examination gloves in mixed sizes.															
	6	Include two body-fluid spill kits with absorbent material, scoop, scraper, disposal bags and appropriate disinfectant instructions.															
	7	Include three 30–50 L pedal-operated, washable waste bins with matching lids and identification labels.															
	8	Reusable protective items shall withstand the manufacturer-specified cleaning and disinfection method.															
	9	Disinfectant labels shall identify active ingredient, concentration, dilution and expiry.															
	10	Provide exact catalogue reference and unit-of-issue for every supplied component.															
	11	Patient- and chemical-contact materials shall be compatible with the specified clinical use and cleaning/disinfection method and shall be free from prohibited latex where direct contact is expected.															
	12	Provide manufacturer labels showing lot/batch traceability where applicable.															
	13	Expiring supplies shall be delivered with at least 75% of labelled shelf life remaining and storage conditions compatible with the hospital supply chain.															
	14	All reusable components shall have validated cleaning/reprocessing instructions; all single-use components shall be labelled as such and supplied in the quantities specified for this item.															
	15	Inspect quantities, packaging integrity and component identity at receipt.															
	16	Provide exact manufacturer, model/version and country of manufacture, evidenced by manufacturer catalogue and product label; no unidentifiable or mixed-model substitute is acceptable.															
	17	The quoted price shall include all item-specific accessories, installation and commissioning stated here; any site infrastructure connection shall be listed and coordinated before contract award.															
	18	Supply a five-year spare/accessory/consumable price list and evidence of an authorized service/replenishment route to Yemen; identify lead times, without reducing the mandatory base package.															
	19	Provide a signed delivery/acceptance checklist matching this item's specifications and included components.															
TOTAL MAXIMUM SCORE — item is eligible only if all Mandatory clauses comply																	
LOT 14 Engineering and utilities																	

Medical UPS and IPS system for operating-room equipment, 15 kVA

EQ-1	139									
1		Supply one integrated engineered package containing an online UPS and a medical isolated-power system; these are separate functions.								
2		Provisional UPS nominal capacity 15 kVA as in the source schedule; determine final kVA and kW from an approved connected-load schedule.								
3		Online double-conversion UPS with automatic static bypass and maintainable isolation/bypass arrangements.								
4		Proposed battery autonomy at least 30 minutes at the approved critical load; provide the manufacturer's runtime calculation.								



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates			Warrantee			Certified local agent or authorization			Model	Brand	Country of Origin
5		Provide a medical isolation transformer, insulation monitoring and local audible/visual alarms appropriate to the room classification.														
6		Provide transformer temperature and overload monitoring where required by the approved design.														
7		Supply labelled outgoing circuits, protective devices, equipotential bonding and medical sockets within the approved scope.														
8		UPS and isolation-system arrangement shall be compatible with the generator and earthing system.														
9		Submit a single-line diagram and protection/earthing design for the medical location before procurement.														
10		Include battery rack/enclosure and safe ventilation/access for maintenance.														
11		Commission using insulation, earth continuity, alarms, transfer and battery-runtime tests.														
12		The specified assembly shall accommodate the intended patient/load and fit the approved installation or storage space; submit dimensioned manufacturer evidence before award.														
13		The UPS shall be rated for at least 15 kVA continuous apparent power and at least 12 kW active power, subject to the approved site load study; UPS and medical isolated power circuits shall be clearly separated.														
14		The unit shall operate at 220–240 V AC, 50 Hz on the approved hospital circuit and include appropriate voltage protection for supply fluctuations.														
15		The specified assembly shall accommodate the intended patient/load and fit the approved installation or storage space; submit dimensioned manufacturer evidence before award.														
16		Provide a battery calculation including load, efficiency, aging allowance and local temperature.														
17		Provide maintenance bypass switching instructions and an isolation/lockout diagram.														
18		The medical isolation monitor shall continuously supervise insulation condition and provide audible/visual alarm on a fault, with a user-accessible test function and commissioning record.														
19		Locate audible/visual medical isolation alarms where staff can observe and respond.														
20		Provide a labelled distribution schedule and as-built single-line diagram.														
21		Provide circuit protection coordinated with the approved single-line diagram so a fault on one final circuit does not unnecessarily interrupt other medical circuits.														
22		Verify equipotential bonding and protective-earth continuity at all included endpoints.														
23		Test alarm annunciation, insulation-monitor response and transformer temperature alarms where fitted.														
24		Test power transfers and bypass procedures at the approved load.														
25		Record battery autonomy at the accepted critical load, not at an unspecified percentage.														
26		Provide replacement battery references and a safe battery disposal arrangement.														
27		Final medical-location classification and applicable electrical code edition require the responsible electrical engineer's approval.														
28		Provide exact manufacturer, model/version and country of manufacture, evidenced by manufacturer catalogue and product label; no unidentifiable or mixed-model substitute is acceptable.														
29		The quoted price shall include all item-specific accessories, installation and commissioning stated here; any site infrastructure connection shall be listed and coordinated before contract award.														



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates			Warrantee			Certified local agent or authorization			Model	Brand	Country of Origin
	30	Supply a five-year spare/accessory/consumable price list and evidence of an authorized service/replenishment route to Yemen; identify lead times, without reducing the mandatory base package.														
	31	Provide a signed delivery/acceptance checklist matching this item's specifications and included components.														
	32	The 15 kVA value is an initial planning capacity; supply a site-specific load schedule and calculations for UPS, isolation transformer and battery autonomy for each clinically essential circuit.														
	33	Provide a single-line diagram identifying normal supply, UPS, medical isolated power, changeover, protective devices, earth/insulation monitoring and alarms; clearly state what is included in the priced package.														
	34	Demonstrate isolation monitoring alarms, protective-earth continuity, transfer behaviour and loaded UPS runtime using calibrated instruments after installation.														
	TOTAL MAXIMUM SCORE — item is eligible only if all Mandatory clauses comply															
Operating-room air-conditioning and ventilation unit, 2-ton inverter																
EQ-1	140															
	1	Two 2-ton inverter cooling units are retained as the quantity-schedule allowance; final selection shall follow a room heat-load calculation.														
	2	Nominal cooling capacity approximately 24,000 BTU/h per unit, subject to the approved engineering design.														
	3	Each inverter cooling unit shall provide at least the source-specified nominal 2-ton cooling capacity and maintain the agreed room setpoint at the verified Aden/Abyan outdoor design condition; submit rated capacity at that condition.														
	4	Provide serviceable filters, accessible coils and a trapped condensate drain.														
	5	Include mounting, refrigerant pipework, insulation, electrical isolators and commissioning within the approved scope.														
	6	Air shall not blow directly across the sterile field.														
	7	Ordinary split air-conditioning alone shall not be accepted as a complete operating-room ventilation system.														
	8	A separate coordinated ventilation design shall define filtered outdoor air, air-change rate, pressure relationship, humidity and exhaust requirements.														
	9	Agree temperature/humidity setpoints, filter classes and commissioning criteria with the hospital IPC team and mechanical engineer.														
	10	Demonstrate the installed cooling performance and submit ventilation balancing/pressure results for the complete approved system.														
	11	Tender release for this item is conditional on an approved mechanical design and a clear BOQ installation boundary.														
	12	The specified assembly shall accommodate the intended patient/load and fit the approved installation or storage space; submit dimensioned manufacturer evidence before award.														
	13	Each inverter cooling unit shall provide at least the source-specified nominal 2-ton cooling capacity and maintain the agreed room setpoint at the verified Aden/Abyan outdoor design condition; submit rated capacity at that condition.														
	14	The described component shall be user-serviceable or replaceable by the authorized service team, with the necessary service information and five-year availability in Yemen.														
	15	The delivered configuration shall include and demonstrate the specified supply airflow, fan settings and sound levels; it shall meet any explicit item-specific minimum in this schedule, with manufacturer test evidence at acceptance.														
	16	Provide a condensate route that avoids stagnant water and contamination risk.														
	17	The delivered configuration shall include and demonstrate the specified refrigerant type and service availability; it shall meet any explicit item-specific minimum in this schedule, with manufacturer test evidence at acceptance.														
	18	Provide isolation and maintenance access without opening the sterile ceiling unnecessarily.														



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates	Warrantee	Certified local agent or authorization	Model	Brand	Country of Origin		
19		The delivered configuration shall include and demonstrate the specified define which components provide outdoor air, exhaust and pressure control in the coordinated design; it shall meet any explicit item-specific minimum in this schedule, with manufacturer test evidence at acceptance.										
		Approve air-change rate, filtration level and pressure cascade in the complete ventilation design; the split-unit capacity alone does not define these.										
		Approve humidity control capability and limits for expected seasonal conditions.										
		Verify cooling performance with the agreed room load and document measured supply/room conditions.										
		Where ventilation works are included, provide test-and-balance records with measured supply, exhaust and room differential pressure.										
		Train maintenance staff in filters, coil cleaning, condensate checks and alarm response.										
		Provide exact manufacturer, model/version and country of manufacture, evidenced by manufacturer catalogue and product label; no unidentifiable or mixed-model substitute is acceptable.										
		The quoted price shall include all item-specific accessories, installation and commissioning stated here; any site infrastructure connection shall be listed and coordinated before contract award.										
		Supply a five-year spare/accessory/consumable price list and evidence of an authorized service/replenishment route to Yemen; identify lead times, without reducing the mandatory base package.										
		Provide a signed delivery/acceptance checklist matching this item's specifications and included components.										
		Supply the specified inverter cooling unit with rated cooling capacity approximately 2 tons and all brackets, refrigerant pipework, drainage, cable and controls required for installation.										
		The split air-conditioning unit alone does not meet an operating-room ventilation design; declare any fresh-air, filtration, air-change and pressure-control works as a separately priced engineering scope.										
	TOTAL MAXIMUM SCORE — item is eligible only if all Mandatory clauses comply											
	LOT 10 Sterilization and decontamination — additional items											
	Mobile UV-C lamp for supplementary operating-room disinfection (unoccupied rooms only)											
EQ-1	141											
1		Mobile UV-C room-disinfection lamp for supplementary terminal disinfection of UN-OCCUPIED operating rooms after routine manual cleaning and disinfection; it shall not be described as a substitute for instrument sterilization or ventilation.										
		Use ozone-free low-pressure UV-C lamps with a nominal germicidal wavelength of 253.7/254 nm; no intentional ozone-generation mode is permitted.										
		Supply a mobile unit with at least two replaceable 30 W germicidal lamps, or an equivalent UV-C lamp configuration meeting the specified measured dose; electrical watts alone do not demonstrate disinfection performance.										
		At the declared treatment position and distance, demonstrate delivery of at least 40 mJ/cm2 to directly exposed target surfaces within 30 minutes. This is a project procurement test target, not a universal sterilization claim.										
		Provide independent laboratory evidence of at least 3-log bacterial reduction for a named test organism under stated distance, exposure time and surface conditions; the offered configuration shall match the tested device.										
		Supply a documented room-positioning and exposure plan for each receiving operating room, accounting for maximum distance, furniture, shadowed surfaces and multiple treatment positions.										
		The lamp shall operate ONLY when the room has been evacuated and secured. Provide conspicuous Arabic/English warnings at the controls and room entrance.										
		Provide an interlocked door sensor for each treated room, or a complete relocatable entrance-interlock kit; opening the door shall immediately stop UV-C emission.										



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9		Provide independent occupancy/motion detection that immediately stops emission when a person enters the treatment zone; demonstrate coverage at commissioning.								
10		After any door or occupancy interruption, UV-C output shall remain off until deliberate manual reset and a new start sequence; automatic restart is prohibited.								
11		Provide key-operated or password-protected start control accessible only to trained authorized users.								
12		Provide remote start from outside the treatment room, using a wired external control or suitable wireless controller supplied with the unit.								
13		Provide a start delay of at least 30 seconds with audible and visible countdown warning, enabling staff to leave and secure the room.								
14		Provide adjustable treatment timer covering at least 1–60 minutes, automatic lamp shutoff at cycle end and clear completion/fault indication.								
15		Provide an emergency-stop control and a clearly labelled external stop function; either shall immediately interrupt lamp power.								
16		Provide a visible running indicator outside the room or on the supplied external controller, indicating UV-C emission and cycle status.								
17		On loss and restoration of mains power the lamps shall remain off until deliberate restart, without uncontrolled resumption of a previous cycle.								
18		Provide a stable corrosion-resistant wheeled stand, at least two lockable castors and secure protected lamp mounts; the unit shall resist accidental tipping in normal movement.								
19		Lamps shall have guards/retainers that protect against contact and breakage without invalidating the documented UV-C dose distribution.								
20		Use smooth wipe-clean housing and supply manufacturer-approved cleaning instructions for the housing, reflectors and lamps.								
21		Supply at least one complete spare lamp set, one spare fuse set and the required door-interlock/control accessories per unit.								
22		Provide an operating-hours meter and a lamp replacement limit not exceeding the manufacturer-validated useful UV-C output life.								
23		Operate on 220–240 V AC, 50 Hz, with protective earthing where required, fuse/overcurrent protection and hospital-compatible plug.								
24		Provide electrical safety and UV photobiological risk-assessment documentation applicable to the offered complete unit; a bare lamp certificate is insufficient.								
25		Commission with a calibrated 254 nm radiometer/dosimeter. Record irradiance, exposure time and calculated/measured dose at representative room locations; identify shadowed areas requiring repositioning or manual disinfection.								
26		Demonstrate door interlock, occupancy stop, emergency stop, delayed start, power-restoration lockout and timer shutdown; submit signed test records.								
27		Train IPC, theatre and biomedical staff on evacuation, door control, dose planning, cleaning, lamp replacement and breakage response; patient/staff exposure is prohibited.								
28		Supply English operating/service manuals, Arabic quick-use and safety instructions, lamp data and a practical mercury-lamp breakage/disposal procedure.								
29		Provide at least 12 months warranty and five-year availability of lamps, control parts and sensors through an identified Yemen service route, with spare prices.								
30		One complete unit is proposed for each hospital; quantities require purchaser confirmation. Obtain hospital IPC approval of the room protocol before clinical operation; do not claim whole-room sterility.								
TOTAL MAXIMUM SCORE — item is eligible only if all Mandatory clauses comply										



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification	Certificates	Warrantee	Certified local agent or authorization	Model	Brand	Country of Origin
Stainless-steel sterilization drums, assorted set of six										
EQ-1	142									
1		Supply one assorted set of SIX reusable stainless-steel sterilization drums for each hospital, for validated steam processing of dressings, linen and compatible instruments. Quantity unit is one set, not one individual drum.								
2		Each set shall comprise two small, two medium and two large drums, complete with lids, handles and closing mechanisms.								
3		Small nominal size: diameter approximately 200 mm and height 150 mm; acceptable dimensional tolerance $\pm 10\%$, subject to verified autoclave fit.								
4		Medium nominal size: diameter approximately 240 mm and height 180 mm; acceptable dimensional tolerance $\pm 10\%$, subject to verified autoclave fit.								
5		Large nominal size: diameter approximately 290 mm and height 240 mm; acceptable dimensional tolerance $\pm 10\%$, subject to verified autoclave fit.								
6		Body and lid shall be medical-use corrosion-resistant stainless steel, AISI 304 minimum or equivalent, with material identification/certificate.								
7		Body sheet thickness shall be at least 0.8 mm, sufficiently rigid to retain shape under normal loading and repeated autoclaving.								
8		All drums shall tolerate repeated validated steam sterilization at both 121 degrees C and 134 degrees C, including pre-vacuum and post-vacuum drying.								
9		Provide circumferential steam-entry perforations with an operable sliding band/shutter or a manufacturer-validated filtered design allowing steam penetration and condensate removal.								
10		Steam-entry and closure components shall be accessible for cleaning; the open/closed position of any shutter shall be visibly identifiable.								
11		Supply a validated steam-permeable sterile-barrier wrapping system for use with the drums. An unfiltered drum alone shall not be presented as a sterile barrier for storage.								
12		Where filtered drums are supplied, include compatible medical steam filters and documented replacement intervals; the filter arrangement shall retain its integrity through the specified cycle.								
13		Starter wrap/filter stock shall cover at least 20 full processing cycles for every drum in the set; list compatible replacement part numbers and unit prices.								
14		Lid shall seat securely and have positive latches/clamps preventing accidental opening during handling; lids shall remain matched to the correct drum size.								
15		Provide rigid heat-resistant carrying handles, securely attached, with no sharp edges, loose joints or exposed hazardous fasteners.								
16		Internal and external surfaces shall be smooth, free of burrs, crevices, corrosion and rough welds that impede cleaning or damage wraps.								
17		Provide permanent size, manufacturer and traceable batch/serial marking, resistant to repeated cleaning and steam cycles.								
18		Provide a label holder or compatible traceability area for load identifier, processing date and release status without obstructing steam openings.								
19		Supply a written maximum loading mass and loading pattern for each size, supported by manufacturer instructions and hospital cycle qualification.								
20		Verify each drum fits the actual 100–150 L autoclave chamber, loading rack and door aperture with the required steam-circulation clearance. Submit dimensions before delivery.								
21		The six-drum set is not assumed to fit simultaneously in one cycle; supply a loading diagram showing the validated number and size per cycle.								
22		Provide manufacturer-validated cleaning, rinsing, drying, inspection and reassembly instructions; identify incompatible chemicals and detergents.								



Item ID	No	Equipment / Detailed technical requirement	Catalogue page / evidence	Supplier Technical Specification			Certificates			Warrantee			Certified local agent or authorization			Model	Brand	Country of Origon
23		Reusable closure parts shall be serviceable, with spare latches/shutter fasteners supplied as appropriate to the offered design.																
24		At receipt inspect all six drums for size, material evidence, lid fit, latch operation, handle integrity and smooth edges; reject damaged or corroded units.																
25		Demonstrate steam penetration and drying in a representative loaded drum using the approved cycle and appropriate chemical monitoring; record the load arrangement.																
26		Sterile release shall follow the hospital validated cycle data, dry-load check and chemical/biological monitoring protocol; an external indicator colour change alone is insufficient.																
27		After processing, handle closures and wraps only according to the validated aseptic procedure. Wet, damaged, opened or compromised barriers require reprocessing.																
28		Storage duration shall follow validated barrier integrity and hospital event-related storage policy; no unsupported fixed period of sterility shall be claimed.																
29		Supply six complete drums, starter wrapping/filter stock, operating/reprocessing instructions and packing list in the price of each set; provide at least 12 months manufacturing-defect warranty.																
30		Provide onsite CSSD user instruction and signed acceptance record; proposed allocation is one six-drum set to Khanfar and one to Al-Nashmah, subject to purchaser quantity confirmation.																
TOTAL MAXIMUM SCORE — Item is eligible only if all Mandatory clauses comply																		