



NO. SO (STAND) 1-16/2016
GOVERNMENT OF THE PUNJAB
SPECIALIZED HEALTH CARE AND MEDICAL
EDUCATION DEPARTMENT

Dated Lahore, the 01st February, 2018

To,

All Concern Companies,

SUBJECT: DRAFT OF THE GENERALIZED SPECIFICATIONS OF BURN / PLASTIC SURGERY MEDICAL EQUIPMENT.

The draft of generalized specifications of the given below Burn / Plastic Surgery medical equipment is being uploaded on official website of the SHC&ME department, Govt of the Punjab i.e. "health.punjab.gov.pk". In case of any grievance, you are requested to submit your representations in the office of the undersigned up to **07-02-2018 till 04:00 p.m.**

1. Burn Shower Trolley
2. Air Handling / Filtration Unit
3. Operating Microscope (for Plastic & Reconstruction surgery)
4. Wound management system (VAC)
5. Fiber Optic Bronchoscope
6. Versa Jet G / Hydro Surgery Device
7. Tunable Pulse Dye Laser Machine
8. Electrotherapy / Electrical Muscle Stimulator with Tens
9. Wax Bath
10. Ultrasound Therapy with Vacuum Unit
11. Hydroculator
12. Liposuction system with cannula set
13. Electric Micro-pigmentation 7 Dermabrasion system


SECTION OFFICER (STANDARDIZATION)

C.C.

1. Mr. Abdul Wahab, Computer Programmer / Incharge ICT Cell, SHC & ME Department (with request to upload the same on Official website of this department today positively).
2. P.A to Special Secretary (D&F), SHC & ME Department, Govt. of the Punjab.
3. P.A to Procurement Specialist, SHC & ME Department, Govt. of the Punjab.

**SPECIALIZED HEALTH CARE AND
MEDICAL EDUCATION
DEPARTMENT**

GOVERNMENT OF THE PUNJAB



Health Department

**PRODUCT VOCABULARY MEDICAL
STORE (PVMS) OF BURN / PLASTIC
SURGERY SPECIALITY**

Volume - I, 2018

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Clinical Specialty	Burn / Plastic Surgery
Generic Name	BURN SHOWER TROLLEY (ELECTRO-HYDRAULIC)
Clinical Purpose	It is used to give shower to burnt patients in comfortable environment with ease for caregivers.
TECHNICAL SPECIFICATIONS	
<ul style="list-style-type: none"> • Should be comfortable for patients and easier handling and access for caregivers. • The control panel should be easily accessible to caregivers. • Electric height adjustment 600mm to 950 mm or better • Secure stainless steel side rails, swing down for transfer and lock up position during use. • 04 lockable castors • Trendelenburg and Reverse Trendelenburg of +12° and -2° • All side rails and main frame should be in stainless steel with cathaphoresis treatment against corrosion and also have anti corrosion epoxy paint. • Medical graded mattress easily removable with medical graded pillow of flame retardant material (Waterproof)(QTY.IO to specify) • 4 bumpers • Length: 2000mm or better • Width: 870 mm or better • Height: 600mm to 950 mm or better (from floor to patient) • Minimum acceptable patient load: 180 Kg or better • Shower control panel, wall mounted • Hand held Control panel to provide comfort and security to patients in the best hygienic conditions. • One tap stainless steel to shower the patient with thermostatic mixer and a pressure controller. • Another tap stainless steel to wash and disinfect the shower trolley. • Temperature should be digitally indicated on the control panel. • Stainless steel waste disposer with a timed shut off valve and outflow control valve with 1000 mm diameter siphon. • Built-in Rechargeable Battery for backup control of table in case of main power failure up to 30 min backup with all parameters running • Stainless steel inward collapsible side rails 	
ACCESSORIES:	
<ul style="list-style-type: none"> • Drainage Hose of min 100mm diameter or better, length as per site requirement • Power Cord / Charger • Shower with wall mount fitting • Medical graded pillow of flame retardant material (Waterproof) • Operating Manual & Service Manual 	
OPTIONAL:	
<ul style="list-style-type: none"> • Foot pedal for height adjustment 	

Clinical Specialty	Burn / Plastic Surgery
Generic Name	WOUND MANAGEMENT SYSTEM (VAC)
Clinical Purpose	Promotes wound healing by applying a vacuum through a special sealed dressing. The continued vacuum draws out fluid from the wound and increases blood flow to the area.
TECHNICAL SPECIFICATIONS	
<ul style="list-style-type: none"> • Non invasive wound closure system capable for delivering negative pressure to the wound site, applied by tubing with decompressing foam dressing, continuously and intermittently to accelerate the rate of new tissue formation • Touch Pad/Button control therapy unit, power cord and handling case • Digital Display for all Parameters • Capable of creating negative pressure of -200 mmHg or better. • Intensity controlled& • Negative pressure sense facility For accurate therapy, pressure maintenance • Collection bag, single use with bacterial filter and solidifier • PVC suction tubing with clamp, sterile, 180 cm • Polyurethane granulation foam permeable membrane 30x20 cm • Canister 500-1000 mL • Filter system for VAC machine • Electrical data: 240V frequency 50/60 Hz • Maximum power consumption 15 W • Built-in Battery backup of 24 hrs. Or better. 	
ACCESSORIES:	
<ul style="list-style-type: none"> • Small black foam vacuum dressing set sterile • Medium black foam vacuum dressing set sterile • Large black foam vacuum dressing set sterile • Operating manual & Service Manual (Hard and Soft Copy) 	
Note: Vendor must ensure the supply of consumables for complete life cycle of equipment and must quote the perspective price.	
OPTIONAL:	

Clinical Specialty	Burn / Plastic Surgery
Generic Name	FIBRE OPTIC BRONCHOSCOPE
Clinical Purpose	It is used by a clinician to diagnose the diseases in the breathing passages (airways) of the lungs.
TECHNICAL SPECIFICATIONS	
<ul style="list-style-type: none"> • State of art for lungs diagnostic and therapeutic procedures • With suction facility • Fully immersible and re-processible • Should ideal for diagnoses and therapeutic lesions in the peripheral areas of the lung • Direction of view : 0° forward • Depth of field : 3 - 50mm • Angle of View: 85° - 120° • Channel Diameter: 2.0mm – 2.8 mm • Distal Tip Diameter: 4.8mm – 6.0 mm • Insertion tube diameter : 4.8mm – 6.0mm • Working Length: 540mm - 600 mm • Angulations: Up (140° – 200°) • Angulations: Down : (90° – 160°) • System should have capability to attach with generic recording system <p>Lamp:</p> <ul style="list-style-type: none"> • LED Light Source / Halogen Light Source with fiber optic cable (IO to Specify) 	
ACCESSORIES:	
<ul style="list-style-type: none"> • Complete with standard set of accessories • Cleaning/maintenance kit • Case as per OEM • Pressure compensation cap • Leakage tester • Biopsy forceps • Grasping biopsy • Operating Manual & Service Manual 	
OPTIONAL:	

Clinical Specialty	Burn / Plastic Surgery
Generic Name	TUNABLE PULSE DYE LASER MACHINE WITH COOLING SYSTEM
Clinical Purpose	It is used to treat benign facial redness due to dilated or excess blood vessels. It uses a concentrated beam of light that targets blood vessels in the skin destroying the blood vessel while leaving the surrounding skin undamaged.
TECHNICAL SPECIFICATIONS	
<ul style="list-style-type: none"> • The pulsed dye laser is most effective system for treating thicker and deeper vascular lesions like port wine stains, hemangiomas etc. and post burn pigmented scars targeting oxyhaemoglobin and Melanin. • Laser type pulse dye laser (Liquid state laser) • Wavelength: 585-595 nm +/- 2% • Laser hand piece with spot sizes ranging from 5 to 12 mm, with automatic spot recognition • System should guarantee a homogeneous beam profile for safe and precise treatment • Skin cooling system: cold air/Cryogen • Pulse duration / width: From 0.5 to 40 millisecond • Repetition rate: 2 Hz • Aiming beam: Red or green • Beam Delivery: Optical Fiber • Emission control: Foot switch or Finger switch • Control panel: 10 – 12 inch LCD color touch screen • Safety Protection against electric shock • Power supply: 220v/30A, 50/60 Hz <p>Cooling system (Imported):</p> <ul style="list-style-type: none"> • Immediate skin cooling system via cold air • Digital display for easy operation • Through only filtered ambient air chilled to -10°C • Different speed selection air flow • A non-contact skin cooling before, during and after treatments without interfering with laser application or requiring additional preparation time • Reduce pain and thermal tissue damage • Power required: 230-240V, 50/60 Hz • Treatment tube length: 180 cm • Air flow: 1300 L/min 	
ACCESSORIES:	
<ul style="list-style-type: none"> • Laser hand pieces: 5mm, 7mm, 10mm, 12mm • Fiber Assembly 3- meter • Corneal Shield • 10KVA Stabilizer (Imported) • Protective doctor and patient goggles • User Manual & Service Manual 	
OPTIONAL:	

Clinical Specialty	Burn / Plastic Surgery
Generic Name	POWER ASSISTED LIPOSUCTION SYSTEM WITH CANNULA SETS
Clinical Purpose	It is used to perform a minimally invasive cosmetic procedure used to remove localized areas of fat from the body through a small thin tube called a cannula. The fat from the targeted area is suctioned from the body through this tube to help patients achieve a slim and balanced appearance.
TECHNICAL SPECIFICATIONS	
<ul style="list-style-type: none"> • Power assisted liposuction device with built-in infiltration system having flow rate 1-25/hr (450ml/min) or better • Suction system with autoclavable jars from the same manufacturer • Suction jar capacity 2L or better at rate of 60L/min • Hand piece featuring 2mm reciprocating movement at rate of 2500-5000 strokes per minute or better • High medical graded stainless steel cannulas for multi-use-purpose 	
ACCESSORIES:	
<ul style="list-style-type: none"> • Reusable infiltration cannula, 3.0mm diameter, 25cm length • Reusable cannula, 2-3mm diameter, 15-20cm length, 18-22 hole, Straight • Reusable cannula, 3-4mm diameter, 25-30cm length, Mercedes • Reusable cannula, 3-5mm diameter, 30cm length, Las Vegas • Reusable cannula, 4.0mm diameter, 25cm length, Toledo • Reusable cannula, 2-3mm diameter, 15-20cm length, Single hole Standard • Cannula handle connector with air vent • Cannula handle connector without air vent • Luer Lock Adapter • Infiltration needle, sterile, 0.9mm diameter, 7cm length • Electric control unit with built-in infiltration pump • Electric hand piece with handle • Electronic micro-motor with 4 meter cable, autoclavable • Quiver for electric hand piece with holder, 30cm, autoclavable • Suction system with 2 autoclavable jars from the same manufacturer • Infiltration tubing set, 4 meter, disposable, sterile (100 tubing) • Aspiration tubing set, 4 meter, disposable, sterile (100 tubing) • Bacterial filters for suction • Foot pedal for liposuction and suction system • Imported Mobile trolley for electric console, suction system and accessories • Sterilization Case with Lid • Power cable • User manual & Service Manual 	
Note: Quantities will be specified by IO	
OPTIONAL:	

Clinical Specialty	Burn / Plastic Surgery
Generic Name	HYDRO SURGERY DEVICE FOR WOUND DEBRIDEMENT
Clinical Purpose	It enables a surgeon to precisely select, excise and evacuate nonviable tissue, bacteria and contaminants from wounds, burns and soft tissue injuries with the help of water.
TECHNICAL SPECIFICATIONS	
<ul style="list-style-type: none"> • The Hydro Surgery Device to enable surgeon to precisely select, excise, and evacuate nonviable tissue, bacteria and contaminants from wounds, burns and soft tissue injuries • Should create smooth wound bed with maximum dermal preservation on soft burnt tissues • Main Console • Continuous mode of operation • Variable control of power with digital display • Indicator Lamps in case any fault arises • Motor Speed up to 7000rpm • 220V, 50Hz 	
ACCESSORIES:	
<ul style="list-style-type: none"> • Foot Control • Hand piece of following sizes: <ol style="list-style-type: none"> 1. 15°/14mm 2. 45°/14mm 3. 45°/8mm • Power Cord • Service Manual & Operating Manual 	
OPTIONAL:	

Clinical Specialty	Burn / Plastic Surgery
Generic Name	ULTRASOUND THERAPY WITH VACUUM UNIT
Clinical Purpose	It is used to provide deep heating to soft tissues in the body including muscles, tendons, joints, and ligaments.
TECHNICAL SPECIFICATIONS	
<ul style="list-style-type: none"> • Capable of generating 1 and 3 MHz with large and small multi-frequency heads suitable of ultrasound therapy, electro-therapy & combination therapy • Ultrasound Mode: Continuous mode and Pulsed mode • Pulse frequency: 16, 48 100Hz • Duty cycle: 5, 10, 20, 50, 80% (Pulsed) and 100% (Continuous) • Number of ultrasound connections: 02 or better • Number of Vacuum electrode connections: 02 or better • Intensity: 0-2 W/cm² continuous, 0-3 W/cm² pulsed • Modulation: Amplitude modulation, duty cycle modulation • Programmable positions: Minimum 200 • Current channels: 2, independent, fully galvanic-ally isolated • Current types: 16 current types and 30 or more variants • Digital display of time: 30 min • Contact control for automatic power switch off and treatment time in case of insufficient contact • 10 free programmable positions • Power Supply – 220V – 50Hz 	
ACCESSORIES:	
<ul style="list-style-type: none"> • StatUS applicator (5cm²), 1-3 MHz • Vacuum unit with all vacuum electrode and sponges • Complete with 5 Gel bottles, Straps and Moist pads • Electrodes for electrotherapy of 2 different size • All necessary cables and straps • Trolley (Locally supplied) • User Manual & Service Manual 	
OPTIONAL:	
<ul style="list-style-type: none"> • Imported trolley from same manufacturer • Stationery electrode technique 	

Clinical Specialty	Burn / Plastic Surgery
Generic Name	HYDROULATOR
Clinical Purpose	It is used to help raise the temperature of soft tissues directly below the surface of the skin.
TECHNICAL SPECIFICATIONS	
<ul style="list-style-type: none"> • Mobile wheel type unit for 12 moist packs of approx. 25 x 30 cm size • Tank capacity approx. 68 Liters • Detachable insert 3 racks • Temperature up to 71 to 73⁰C or better • Power consumption Max. 1000W • 220V – 50Hz • Moist packs 25 x 30cm (12) 	
ACCESSORIES:	
OPTIONAL:	

Clinical Specialty	Burn / Plastic Surgery
Generic Name	WAX BATH
Clinical Purpose	It is used by hand therapists in a hospital setting along with an exercise program to apply heat to improve mobility by warming the connective tissues
TECHNICAL SPECIFICATIONS	
Mobile paraffin bath unit with 4 castors Approx. 28 Liter or better capacity Bath for dipping treatment of arms and legs Indirect Heating through heat transfer liquid for even heat distribution Thermostatic temperature control up to 90°C with overheating safety device Stainless steel inner tank construction Splash cover 220V – 50Hz	
ACCESSORIES:	
<ul style="list-style-type: none"> • Heat transfer liquid (water) • Paraffin Wax: 50kg (IO to specify) 	
OPTIONAL:	
<ul style="list-style-type: none"> • Imported trolley from same manufacturer 	

Clinical Specialty	Burn / Plastic Surgery
Generic Name	ELECTRIC MICRO-PIGMENTATION & DERMABRASION SYSTEM
Clinical Purpose	It used an exfoliating technique that uses a rotating instrument to remove the outer layers of skin, usually on the face to improve the appearance of skin. Some of the conditions it can treat include fine lines, sun damage, acne scars, and uneven texture.
TECHNICAL SPECIFICATIONS	
<ul style="list-style-type: none"> • The micro pigmentation system for pigmentation in reconstructive & cosmetic surgery for eyelids, eyebrow after burns or pigmentation of areola etc. • Pigmentation needle penetration depth: up to 1.25mm • Dermabrasion system consists of Diamond coated dermabraders for removal of epidermis and superficial dermis of hypertrophied scars, pigmented lesion, nevus etc. • Dermabraders transmission RPM: 16,000 RPM or more • Both micro pigmentation and Dermabrasion system are controlled with a single compact electric control unit, power 220V AC 	
ACCESSORIES:	
<ul style="list-style-type: none"> • Electric control unit with foot pedal • Electric Micro-motor with cable (autoclave able) • Micro-pigmentation hand piece • 03 headed pigmentation needle • 07 Headed pigmentation needle • Ready to use pigments, 12.4ml dispensers, various colors (Quantity IO to specify) • Hand piece rack • Pigments dispenser rack • Dermabrasion hand piece with spray nozzle • CONE shaped bur, 10 mm diameter • PEAR shaped bur, 7mm diameter • BUD shaped bur, small, 7mm diameter • BUD shaped bur, large, 18mm diameter • CYLINDER shaped bur, 12mm diameter • Service & Operating Manual 	
Note: All are IO to specify quantities of accessories	
OPTIONAL:	

Clinical Specialty	Burn / Plastic Surgery
Generic Name	ELECTROTHERAPY / ELECTRICAL MUSCLE STIMULATOR WITH TENS
Clinical Purpose	It is used for rehabilitation purposes, in the prevention of disuse muscle atrophy which can occur after injuries, such as damage to bones, joints, muscles, ligaments and tendons.
TECHNICAL SPECIFICATIONS	
<ul style="list-style-type: none"> • Two or more independent channels and one channel • Comprises of Electrotherapy unit and Vacuum therapy unit • Built-in touch screen minimum 5 Inch or better for alpha numeric and Graphic monitoring and display of data • Electrotherapy unit has 16 or more current type (per channel) • Minimum 200 or better programmable positions • Pre-programmed treatment • Number of vacuum electrode connection: 02 or more • Vacuum pressure modes: Continuous mode and Pulsed mode 	
ACCESSORIES:	
<ul style="list-style-type: none"> • Electrotherapy unit with all electrodes of different sizes and cables • Point electrodes rubber electrodes, Straps and moist pads • Vacuum unit with vacuum electrodes, sponges and cable • Power supply 220V-50Hz • Trolley (locally Supplied) • User Manual & Service Manual 	
OPTIONAL:	

Clinical Specialty	Burn / Plastic Surgery
Generic Name	OPERATING MICROSCOPE (FOR PLASTIC & RECONSTRUCTIVE SURGERY)
Clinical Purpose	It is an optical microscope specifically designed to be used in a Burn / Plastic Surgery to perform microsurgery.
TECHNICAL SPECIFICATIONS	
<u>Microsurgical System for Plastic & Reconstructive Surgery equipped with:</u>	
<ul style="list-style-type: none"> • Optical head with swive-able and tilt-able suspension via programmable ergonomic hand grips for control of functions • Mobile floor stand with, magnetic brake system, Auto balancing • Rotatable joint arms • Overhead clearance • Effortless positioning in all directions via gross focus handles for all movements for plastic & reconstructive surgery with hand controls for all functions • Motorized lateral XY movement • Motorized internal focusing / internal focal length adjustment from 225mm to 500mm or better via front lens • Motorized zoom ratio 1:6 • Fiber optic illumination • Two wide angle oculars 10 / 12.5X with dioptic fixation • 300W Xenon light source illumination system with adjustable brightness and quick changeover to integrated back-up identical xenon lamp with display of remaining life • Wireless multifunction foot control panel with back-up cable • Double beam splitter for documentation with dual ports for face to face position • Stereoscopic co-observer head with 3 axis inclination and image erection, straight eyepiece head with two oculars 10X / 12.5X with dioptic fixation for spectacle wears and one set of serializable caps • Coaxial fiber optic illumination with electronically adjustable depth-of-field • automatic iris control automatic adjustment of light intensity according to the working distance • overhead display of operative parameters of the system • integrated ports for documentation and co-observation • memory for personal setting of various surgeons to their own personal configuration including parameters for magnification • Three chip HD video camera in the optical system with HD video recorder for recording that can also be recorded on USB with integrated 19" or better medical graded monitor • 40" external HD LED display 	
ACCESSORIES:	
<ul style="list-style-type: none"> • One set of serializable caps • Dust covers • Operate able on 220V AC, 50Hz • Operating Manual with a Soft Copy • Service Manual with a Soft Copy 	
OPTIONAL:	
<ul style="list-style-type: none"> • Laser compatible • Two binocular tubes 0° – 180°, that can be tilted as well as retracted with control of magnification field of view and IPD adjustment 	

Clinical Specialty	Burn / Plastic Surgery
Generic Name	AIR HANDLING/FILTRATION UNITS
Clinical Purpose	It consists of blower, heating or cooling elements filter racks or chambers, sound attenuators, and dampers and is connect to a ductwork ventilation system that distributes the conditioned air through the building and returns it to the AHU.
TECHNICAL SPECIFICATIONS	
<ul style="list-style-type: none"> • A complete independent self-contained package based air conditioner of Medical grade for operation theatre. • Pre filter section should be able to remove large airborne particles from the air e.g. dust plant spores, fertilizers and other OR particles. • Metallic frame based Pre- filter should be at-least 10micron with efficiency 80-95%. • Synthetic fiber or glass media based Bag filter section should have light weight, high efficiency, low resistance and easy installation as well. • AHU should have door to access the integral parts of the system for repair and maintenance purpose. • The system should have safe plenty drain access. • The system must be quoted with compatible DX cooling coil of high grade. • The backward curved shaped blower should be belt driven by three phase blower motor with NEMA standards. The installed assembly should be compatible with required CFMs. • Entire air conditioning should be able to control within the temperature range 20-42 degree Celsius. It should control temperature, fan speed, cooling and heating over the prescribed range. • A high metallic grade heat exchanger condenser along with fan. • Propeller fan with motor. • High efficiency hermetic scroll type compressor. • Filter direr and humidifier for humidification control of air supply. • The system must be able to control humidity within the range 30-60% of RH or ideally it should be 45-55% of RH. • A high metallic grade heating coil/electric heater. • A high grade refrigerant should be preferred. • HEPA filters at the inlet of air supply in OT room .(price to be quoted per square feet) • System must be connected to existing HVAC system of the hospital. The firm must survey and quote in accordance with the required items needed to connect HVAC with AHU including ducting (in per square feet / running feet) and any other required item for this purpose. • The system should have provision of future upgradation of the operation theatre with the Laminar Air Flow system i-e the system must be installed in accordance with this future upgradation provision. <p>Ducting:</p> <ul style="list-style-type: none"> • A high level GIS 24AWG sheet along with 1” insulation and 26AWG fine cladding sheet. Entire assembly should be rust free. • Ducting price should be quoted in per square feet / running feet. The estimated length for both in and out of air is 150-200 feet (firm is directed to survey the site before quoting item)(A comprehensive survey can be done before giving supply order). <p>Power supply and Protection:</p> <ul style="list-style-type: none"> • Three phase power supply along with separate DB installation with independent control. • Power failure relay. • Fault alarm system. • Proper earthling and grounding. <p>Standards:</p> <ul style="list-style-type: none"> • ASHRAE, European, EN DIN 81249-1, EN13501-1, D1 Mechanical stability and T2 type thermal stability, sound reduction 50dB. 	
ACCESSORIES:	
OPTIONAL:	