

Parameters	Specification Points	Compliance	Deviation , if any
1.1	The dental chair and unit is required for dental examination and Dental surgery.		
2	OPERATIONAL REQUIREMENTS		
2.1	The complete unit with dental chair and hand-pieces is required		
2.2	Complete unit with Micro motor, Air Rotor, Air motor, Ultrasonic Scalar, Micro motor (3000 to 40,000 rpm range) and Motorized suction .		
3	TECHNICAL SPECIFICATIONS:		
3.1	<i>DENTAL CHAIR SPECIFICATIONS:</i>		
	1.Fully motorized hydraulically self-adjusting chair with lifting capacity of (135 kg to 200kgs).		
	2) Corrosion free construction and durable scratch resistant epoxy paint finish.		
	3) Should have seamless Ultra-thin upholstery to facilitate easy Cleaning / disinfecting.		
	4) Double articulating headrest for comfortable support. Should have flip head rest to be used on patient on wheel chairs.		
	5) Footswitch with multifunction. It should provide all chairs Movement, adjustable and programmable position, movement of return to zero and emergency stop.		
	6) The hand-rest should be fully adjustable and should rotate out of the way of the patient when he steps off.		
3.2	<i>DENTAL UNIT SPECIFICATIONS:</i>		
	1.Should be attached to the chair with overhead delivery system to accommodate up to following 4 modules:		
	a) One Turbine connections with hand piece.		
	b) One air-motor connection with air-motor and hand-pieces (straight & contra)		
	c) One fibre optic air rotor connection with quick disconnect coupling and light cure unit to be attached to the same coupling.		
	e) All the controls of the chairs should be touch pad on doctor's and Assistants sides.		
	2) The designed should be such that it can be simply cleaned and disinfected to reduce the possibility of cross infection. Autoclavable pad should be provided on the Unit where the hand pieces are placed.		
	3) Should have reservoirs of water and disinfectant with automatic pressurization		
	4) Should have a non-retraction valve to avoid the reflux of contaminated materials.		
	5) <i>Automatic hand pieces selection through sensitive pneumatic Valves(OPTIONAL)</i>		

	6) Should have warm/ cold water syringe		
	7) Integrated 17 inches LCD/TFT Monitor should be provided for RVG		
3.3	SPITTOON/ WATER UNIT SPECIFICATIONS:		
	1. Removable porcelain bowl, cup filler and spittoon nozzles which can be cleaned easily.		
	2. Water should ON in the spittoon automatically as soon as the switch is put on for the spittoon.		
	3. Adjustable timer up to 15 seconds should be there to adjust timing of the water flow in the spittoon		
	4. One 3 way syringe also should be there on the assistant side		
	5. Should have Hi/Low suction with easy reach filters. The high suction should be powered through a motorized unit.		
	6. Swivel spittoon should be provided.		
3.4	OPERATING LIGHT SPECIFICATIONS:		
	1. With luminosity of 20000 lux and 25000 lux with 620 degree of rotation of light arms movements.		
	2. Should get On and OFF with No-touch system for maintaining proper sterilization while working.		
	3. Colour temperature of light should be around 5000 Angstroms		
	4. Light should allow Vertical, Horizontal and Axial and Diagonal Movements for proper focusing.		
3.5	OIL FREE COMPRESSOR (MEDICAL GRADE)		
	1. It should have Air moisture filter.		
	2. It should have Non-retraction valve.		
	3. It should have pressure gage with noiseless system.		
	4. It should have Air tank (capacity of 30-40Lt)		
	5. It should have Auto cut-off switch.		
	6. It should give medical grade Air which is absolutely oil free.		
	TECHNICAL FEATURES		
	1200-1500 RPM, 230 voltage/50 Hz		
3.6	LED LIGHT CURE UNIT/ MODULAR LIGHT CURE UNIT SPECIFICATIONS:		
	3.6.1 Advance in the power output of light emitting diodes (LEDs) have allowed a LED light curing Unit(LCU) with an 8mm diameter light guide tip to achieve a similar depth of cure in a camphorquinone photo initiated composite, as a halogen LCU		
	3.6.2. Blue LEDs can be used as photos detectors and may be of future use in dental radiometers		
	3.6.3. When assessing the output from an LCU it is not only important to know the spectrum and irradiance, but also whether the emission is pulsed or continuous.		
3.7	Foot Control: Single foot control for all instruments with variable speed control.		
3.8	Dental Stool: Stable with 5-castor base, with load stabilizing gas spring. Backrest tilt should be adjustable-2 Nos.(One for Dental surgeon and one for Assistant)		
3.9	Modular Furniture's with sink and tap, as per the site requirement (12ft x 2 fit)		
4	It should have one in- built Peizon LED (fibre optic) ultrasonic scalar (frequency 28-36 KHz) with 4 scalar tips and one set of Periocurette tips.		
	4.1.1 Foot Control: Single foot control for all chairs movements and control for air motor, air rotor and ultrasonic scalar.		
	4.1.2 .Two intensity cold light halogen light, rotatable in 2 axis. Should be supplied with 4 spare bulbs		
	4.1.3 .Should have LED X-ray viewer		
	4.1.5. 17 inch Monitor (original from the company) should be provided for RVG.		
4.2	SYSTEM CONFIGURATION ACCESSORIES, SPARE AND CONSUMABLES		
	4.2.1. System as specified		

	4.2.2 All consumables required for installation and Standardization of the system to be given free of cost.		
5	ENVIRONMENTAL FACTORS :		
	5.1 The unit shall be capable of being store continuously in ambient temperature of 0- 50degree C and relative humidity of 15-90%		
	5.2.The unit shall be capable of operating continuously in ambient temperature of 10-40 degree C and relative humidity of 15-90S.		
	5.3 Complete installation of the system including water input and drainage system has been installed.		
6	POWER SUPPLY:		
	6.1 Power input to be 220-240 V AC, 50 Hz fitted with Indian plug.		
	6.2 Voltage corrector/stabilizer of appropriate rating meeting ISI Specifications (Input 160-260 V and output 220-240 V and 50 Hz)		
7	STANDARDS, SAFETY AND TRAINING:		
	7.1. Complete system should be FDA, CE, UL or BIS approved product.		
	7.2 Manufacturer should have ISO certification for quality standards.		
	7.3 Electrical safety conforms to standards for electrical safety IEC-60601/IS-13450.		
	7.4. Provision for Remote Diagnostics through RS-232C-serial interface or equivalent.		
8	DOCUMENTATION:		
	8.1 User/Technical/ Maintenance manuals to be supplied in English.		
	8.2. Certificate of calibration and inspection.		
	8.3 List of Equipments available for providing calibration and routine Preventive Maintenance Support. As per manufacturer documentation in service/ technical manual.		
	8.4 List of important spare parts and accessories with their part number and costing.		
	8.5. Log book with instruction for daily, weekly, monthly and quarterly maintenance cheek List. The job description of the hospital technician and company service engineer should be clearly spelt out.		
	Equipment with 5 years warranty and thereafter 5 years CMC will be taken for the purpose of price evaluation.		
	Should confirm to all international safety standards, turnkey installation and with warranty /CMC as indicated and which shall be considered for the evaluation of the price bids.		
	Note: Dental chair should have Whip Arm supporting system for the rotatory instrument for easy and convenient for the operator.		