

SHANGARF TEB Medical, LLC.

Specialists in Medical Gas Pipeline Equipments





■ ABOUT US

Founded in 2007, **Shangarf Teb Engineering** Co., LLC. (STECO), Specializes in centralized medical gas piping system.

- **STECO** is a leading medical gas equipment manufacture with its high quality, innovative and solution oriented products in accordance with international standards.
- **STECO** manufactures all the major units required from modern gas network from medical gas plant through to medical gas outlet.
- **STECO** products include Degreased Copper Tube and Fitting, Lockable Line Valves, Area Alarm Valve Box, Gas Manifolds, Bed Head Units, Rigid/Retractable and Multi-Movement Pendants, Medical Gas Outlet, Flowmeter, Wall Suction, Medical Air Compressor Systems and Central Vacuum Systems.

As a clear sign of sense or responsibility in healthcare sector, all STECO products are manufactured in its production facility in accordance with ISO 9001, ISO 13485, and OHSAS 18001 quality management systems.

In our efforts to remaining at the top of industry, we have continually directed substantial resources to the research and development of our products as well as constantly refined our manufacturing process through open communication channels with our clients.

- **STECO** continues to follow its tradition of high quality while expanding to meet the needs of industry and advancing towards ever brighter future.

QUALITY POLICY

- Commit to meeting the regulatory requirements and satisfying the needs of our customers and partners.
- Strive to deliver high quality products and services to achieve total customer satisfaction.
- Perfect quality control in order to achieve superior corporate performance.
- Foster creativity and innovation as we continually advance our products and manufacturing processes.
- Maintain the quality and efficiency levels required to produce excellent products and services.

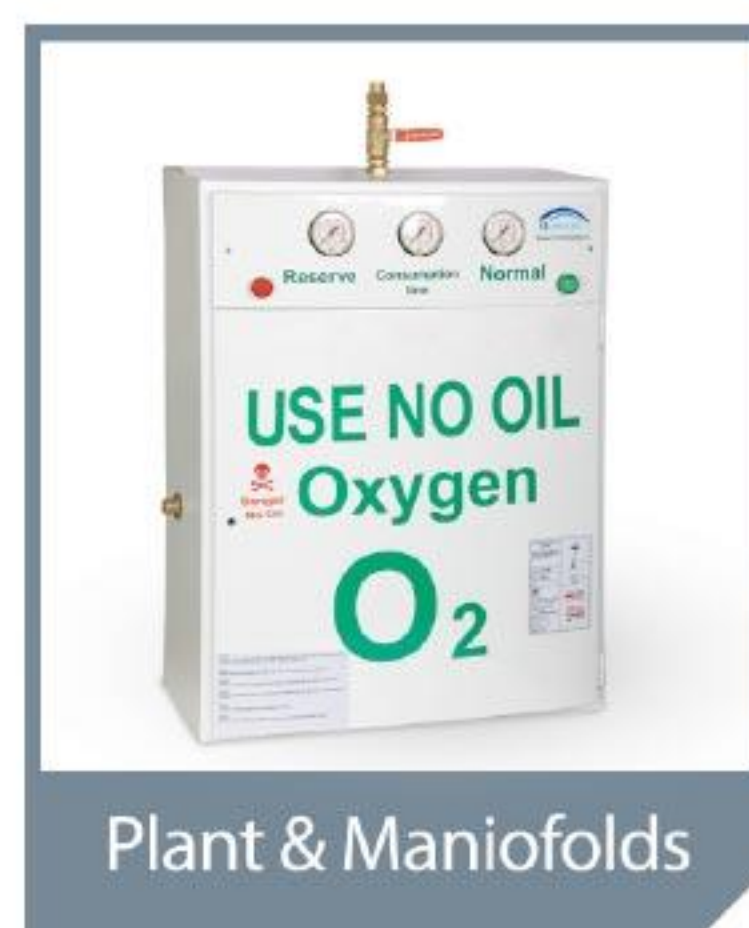


ردیف	شرح	تاریخ	وضعیت	تاریخ	وضعیت
1	تجهیزات پزشکی	1398/01/01	در حال اجرا	1398/01/01	در حال اجرا
2	تجهیزات پزشکی	1398/01/01	در حال اجرا	1398/01/01	در حال اجرا
3	تجهیزات پزشکی	1398/01/01	در حال اجرا	1398/01/01	در حال اجرا
4	تجهیزات پزشکی	1398/01/01	در حال اجرا	1398/01/01	در حال اجرا
5	تجهیزات پزشکی	1398/01/01	در حال اجرا	1398/01/01	در حال اجرا





TEB
SHANGARF TEB ENG.



SPECIALIST IN MEDICAL GAS EQUIPMENT



MEDICAL GAS MANIFOLD O₂, N₂O & CO₂

The **STE** Medical Gas Manifold Units is intended for small, medium and large-sized hospital or as medical gas source. The gas cylinder pressure is regulated in two steps. The changeover between operating side and reserve side is made automatically without any differences in the operating pressure.

SPECIFICATION:

- Fully Automatic manifold control system
- Designed to provide continuous gas supply to the hospital.
- System enables to change cylinders without any interruption on gas supply.
- Shut-off valve for distribution line.
- Alternative capacity for different gas type and hospital consumption amount.
- The unit is designed for wall mounting as standard, however, option available include floor mounted assemblies and format to suit customer requirements.
- Alternative models for connection of 1~14 cylinder on each ramp.
- Optional: touch screen, Digital display monitor for:
 - Leakage on reserve gas cylinder bank
 - High or Low outlet pressure
 - Empty position
 - Change operation side

TECHNICAL DATA:

Gases:	O ₂ ; Air, N ₂ ; N ₂ O; CO ₂ ; (all medical Gases)
Inlet Connection Dia:	22 mm
Out Let Connection Dia:	3/4 Inch
Inlet Nominal Pressure:	200 bar
Outlet Nominal Pressure:	4-6 bar (setting range 0.5-6 bar)n
Intermediate Nominal Pressure:	8 bar (Setting range 5-12 bar)
Outlet Pressure relieve Valve:	6-8 bar
Working Mode:	Fully Automatic
Working Mode:	2 Stage, 3 Regulators
Capacity:	30-120 m ³ /hr
Dimension (WxLxH)	265x600x800 mm
Regulatory Status:	Complies with Medical Device Directive 93/42/EEC Complies with EN ISO 7396-1 (Central Gas Supply Systems) Complies with BS EN 10524-2: Pressure Regulator



Model No.	Item Code.	Capacity.
STE-MF30	4000.10	30-40 m ³ /hr
STE-MM90	4000.15	90-120 m ³ /hr

MEDICAL GAS ALARM

The **STE** Medical Gas Alarm system is to inform hospital personal about none standard pressure deviation in the hospital medical gas system. It is one of the most important security products in the medical gas system. It insures that downtime, pressure changes etc. will be indicated and personal are informed in order to act according to hospital instructions.



SPECIFICATION:

- Alternative solutions from 1 gas to 4 gas (area alarm)
- Monitoring of instants gas pressure on the screen.
- Visual and voice alarm for high and low pressure valves
- To be used in manifold system (Central alarm panels)
- Touch Screen anti-microbial laminate label that actively removes bacteria
- Optional: 7" LCD Touch screen

Gases:	O2; Air, N2; N2O; CO2; (all medical Gases)
Display:	9.5" Touch screen
Power Supply:	230 VAC; 0.3A/24 VAC;1.3A
Power Consumption:	15 VA
Enclosure:	IP65
Intermediate Nominal Pressure:	8 bar (Setting range 5-12 bar)
Working temperature:	10-40 °C
Working Mode:	Fully Automatic
Dimension (WxL)	185 x 300 mm
Regulatory Status:	Complies with Medical Device Directive 93/42/EEC Complies with EN ISO 7396-1 (Central Gas Supply Systems) Complies with EN 60601-1-2 (Electromagnetic Compatibility)

Model No.	Item Code.	Capacity.
STE-DA751-1	4401.11	Single Gas (area alarm)
STE-DA751-2	4402.12	Double Gas (area alarm)
STE-DA751-3	4403.13	Triple Gas (area alarm)
STE-DA751-4	4404.14	Quadruple Gas (area alarm)
STE-DA727-1	4430.11	Central Alarm Panel
STE-MA-420	4451.xx	Digital Touch Screen

SHUT - OFF VALVE BOX

The **STE** shut-off valve boxes are manufactured under **BSEN** 13485 Medical Devices. Behind the Plexiglas you can find gauges. They have large ergonomically handles. Each box has been test pressurized and controlled for tightness. It is important that the boxes are placed so that they are easily available for authorized personnel.

SPECIFICATION:

- Suitable for O2, N2O, Air-Air 800, CO2, N2, VAC
- On plaster and under plaster models
- Lockable cover
- Manometer window enables to follow gauge valves externally
- Available with 1 to 4 gas
- Side entry size available up to 54 mm
- The valve type is a 90° shut off valve with red ergonomic handle.



TECHNICAL DATA:

Gases:	O2; Air, N2; N2O; CO2; (all medical Gases)	
Number of gases:	1 to 4 valves (DN 15~DN 40)	
Working pressure:	4-5 bar (breathing gases) 7-10 bar (instrument gases) (-0.4)-(-0.9) bar (Vacuum)	
Maximum Pressure:	16 bar	
Pressure gauges:	0-16 bar	
Pressure gauges:	Fully Automatic	
Dimension (WxLxH)	Var.	
Regulatory Status:	Complies with Medical Device Directive 93/42/EEC Complies with EN ISO 7396-1 (Central Gas Supply Systems)	

Model No.	Item Code.	Capacity.
STE-VB-1G	66.1507	With 1 gas W/O Alarm
STE-VB-2G	66.1508	With 2 gas W/O Alarm
STE-VB-3G	66.1509	With 3 gas W/O Alarm
STE-VB-4G	66.1510	With 4 gas W/O Alarm

DIGITAL ALARM VALVE BOX

The **STE** Digital Alarm Valve box make sure that the lower distribution pressure for nitrous oxide compared to oxygen is kept. The pressure is equipped with digital alarm unit monitoring the current gas pressure and giving all the visual and acoustic alarms required by standards. The signal to the gas alarm comes from pressure transmitters.

If the gas pressure rises above or sink below the set maximum or minimum limits respectively.

SPECIFICATION:

- Suitable for O2, N2O, Air-Air 800, CO2, N2, VAC
- On plaster and under plaster models
- Lockable cover
- Manometer window enables to follow gauge valves externally
- Available with 1 to 4 gas
- The valve type is a 90° shut off valve with red ergonomic handle.



Gases:	O2; Air, N2; N2O; CO2; (all medical Gases)
Number of gases:	1 to 4 valves (DN 15~DN 40)
Working pressure:	4-5 bar (breathing gases) 7-10 bar (instrument gases) (-0.4)-(-0.9) bar (Vacuum)
Maximum Pressure:	16 bar
Pressure gauges:	0-16 bar
Safety regulator capacity at 3 bar:	150 l/min
Tube dimension:	Φ15x1 mm
Pressure gauges:	Fully Automatic
Dimension (WxLxH)	Var.
Regulatory Status:	Complies with Medical Device Directive 93/42/EEC Complies with EN ISO 7396-1 (Central Gas Supply Systems) Complies with EN 60601-1-2 (Electromagnetic Compatibility)

Model No.	Item Code.	Capacity.
STE-DA751-1	4401.11	Single Gas (area alarm)
STE-DA751-2	4402.12	Double Gas (area alarm)
STE-DA751-3	4403.13	Triple Gas (area alarm)
STE-DA751-4	4404.14	Quadruple Gas (area alarm)
STE-DA727-1	4430.11	Central Alarm Panel
STE-MA-420	4451.xx	Digital Touch Screen

Medical Gas OUTLET

The **STE** medical gas outlets are designed and manufactured in IRAN under both BS-5682 and DIN 13260-2. Medical terminal units provide and easy connection of hospital ward gas equipment to the hospital gas source.



SPECIFICATION:

- Simple installation
- Elegant design
- Long life & Heavy duty
- Fast connection and disconnection
- User Friendly
- Stop Valve
- Code system utility
- Dust filter utility
- Gas: Oxygen, Nitrous Oxide, Air, Vacuum and CO₂
- Corrosion & Gas leakage resistance
- Designed for medical environment, small size and easy to clean
- Complies with color coding and description by standard
- Recessed, exposed and bed head installation versions
- All functional components are from brass
- Wall housing is compatible with all standards like DIN, BS

Gases:	O ₂ ; Air, N ₂ ; N ₂ O; CO ₂ ; (all medical Gases)
Dimensions:	Height: 73 mm, Width: 73 mm, Depth: 63 mm
Working pressure:	4-5 bar (breathing gases) 7-10 bar (instrument gases) (-0.4)-(-0.9) bar (Vacuum)
Maximum Pressure:	20 bar
Pressure gauges:	0-16 bar
Regulatory Status:	Complies with Medical Device Directive 93/42/EEC Complies with EN ISO 7396-1 (Central Gas Supply Systems) Complies with EN ISO 9170-1 (Terminal Unit) Complies with DIN 13260-2 (DIN Gas specific connection) Complies with BS 5682 (BS Gas specific connection) JIS T7101, DIN 13260-2

Model No.	O ₂	VAC	N ₂ O	Air
STE-MO-BSI	66.1359	66.1365	66.1550	66.1555
STE-MO-DIN	16.1543	16.1546	66.1551	66.1556

Bed Head Units

All **STE** Bed Head Units are manufactured under BS En 13485 Medical Devices: Quality Management Systems. Bed head units are primarily needed in patient rooms in medical facilities. Depending on their purpose, these units are equipped with medical gas outlets, high voltage and low voltage distribution of electricity, media sockets etc. STE is able to provide customized solutions regarding design and shape to meet the special demands for delivery rooms, recovery rooms and intensive care units. Reading and room lights with fluorescent lamps or LED technology are available. The bed head units have a characteristic and ergonomic design. The design can be customized to meet the overall appearance of the interior, architectural requirements and to the desires of the health care personnel.



SPECIFICATION:

- Designed for intensive care units and nursing homes
- Color coded to customer requirements
- The main unit is normally supplied in white color (RAL 9010)
- Extruded aluminum with electrostatic paint, light body structure
- Supplied pre-piped, pre-wired, fully tested and certified
- Hygienic & smooth surfaces
- Modular system, separated low voltage, high voltage and gas compartments
- Total access to all parts inside the unit by easy removal of the covers
- ABS side covers
- Green design, long life cycle
- For special projects different lengths can be applied
- Optional accessories: Medical Gas outlets, telephone outlet, UPS outlet, data outlet, nurse call system outlet, examination lamp, monitor stand
- Power input: 220V AC-50HZ



Flow meter Oxygen

The **STE** bubble flow meter shall be supplied with gas specific probes and only attach to the corresponding medical gas outlets.



SPECIFICATION:

- Appropriate to use in hospitals and emergency services
- Suitable for homecare usage
- Designed to accurate adjust and control the oxygen flow even at variant inlet pressures
(each flow meter is calibrated at 50 psi inlet pressure.)
- 0-15 lpm standard scaling markings
- Chrome plated brass trunk
- High resisting polycarbonate humidifier bottle Suitable for sterilization
- 150 ml and 200 ml capacity option
- Designed to humidify the oxygen before patient's respiration
- Elegant design
- Manufactured under BS EN 13485 medical devices



Wall Suction

The **STE** Provides reliable, safe suction in continuous flow suction procedures. It is used to remove substances from the patient's body during surgical procedures, the vacuum regulator should be connected to a wall source of vacuum using a direct probe or through a rail system.



SPECIFICATION:

- Durable break resistance, fire retardant polymer
- The compact design incorporates a clear 63mm \varnothing integral vacuum gauge
- Analog display: $\pm 5\%$ of full scale deflection
- Accurate suction control within ranges 0-300mmbar (Low-Suck) and 0-760mmbar (Hig- Suck)
- Suction jar available- 1000ml up to 4000ml with wall brackets
- Transparent bottle for easy observation on liquid
- Easy to open and close the cap
- Elegant design

MEDICAL VACUUM PLANT

The **STE** Vacuum Plant is manufactured under BS EN 13485 Medical Devices: Quality Management Systems. It provides a centralized source of vacuum, available in simplex to multi-pump configuration dependent on individual requirement to include complete package plant or modular format.

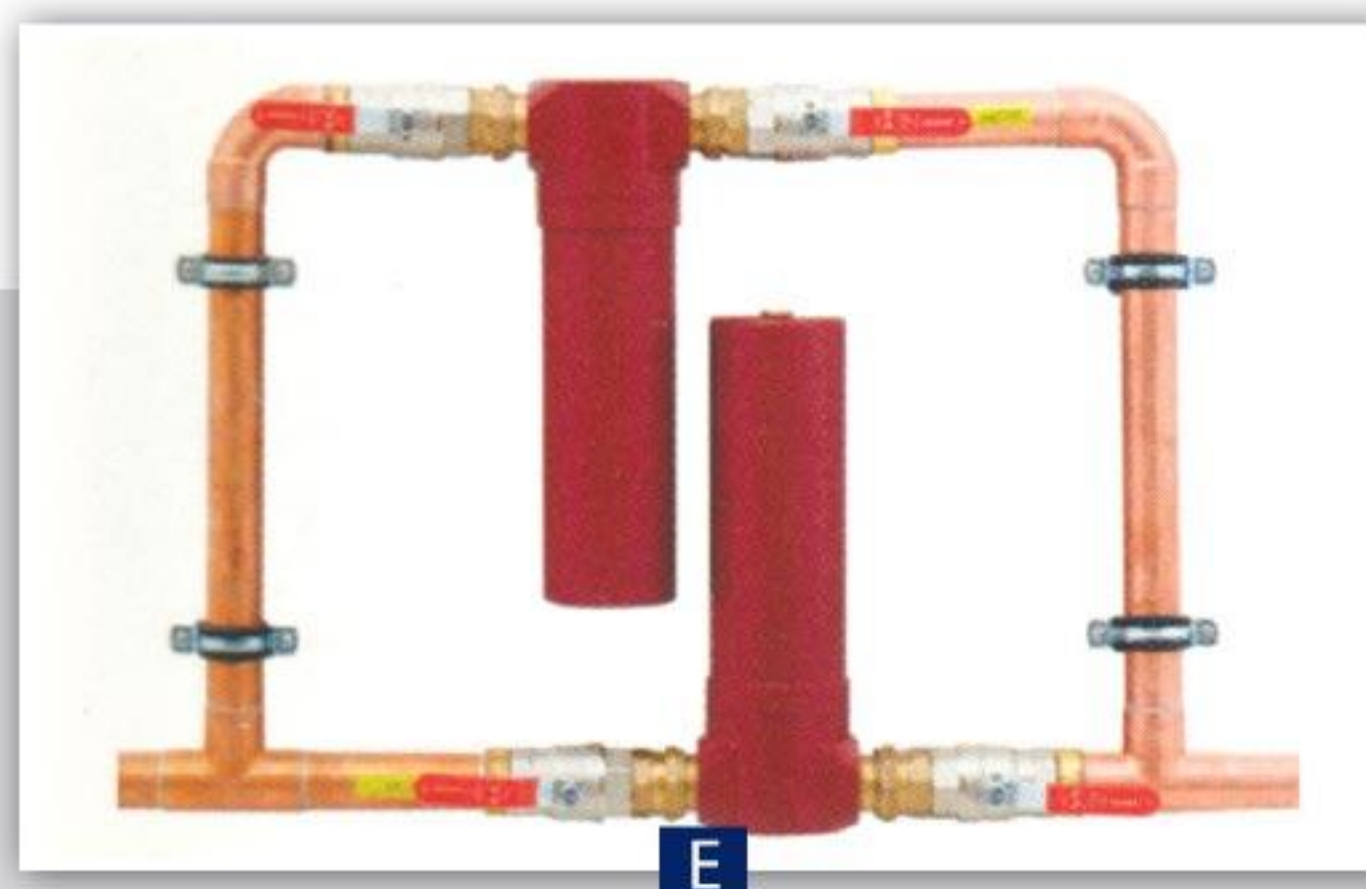
SPECIFICATION:

- Specially designed for medical applications
- Stable and long life pumps
- Lubricated rotary vane vacuum pumps
- Fully automatic control panel with original electronic brains
- High efficiency trap designed to drain liquids in vacuum pipelines
- Medical Type high efficiency Bacterial filtration
- Vertical or horizontal Vacuum tank with different capacity for different stations
- Using the best materials and standard welding for tanks, chassis and piping
- It generates low noise while operating and the signal to noise ratio is lower than 67db
- Our product is eco-friendly. It is applied with an oil fog clearer,
- so there is no oil fog existing in exhaust air

Model No.	Nominal Flow (m ³ /hr)
STE-"X"-25	25
STE-"X"-40	40
STE-"X"-63	63
STE-"X"-100	100
STE-"X"-160	160
STE-"X"-202	202
STE-"X"-250	250
STE-"X"-300	300

"X"	S = Simplex / D= Duplex T= Triplex / Q= Quadruplex
Example: STE-D-160	Duplex STE-160 m ³ /hr

- A: Vacuum Pumps
B: Control Panel
C: A: Vacuum Tank
D: Liquid Trap
E: Bacteria Filter Set



ENGINEERING, PRESENTING AND EXECUTING ALL COPPER PIPES

MEDICAL GASES AND THE MANUFACTURE OF BRASS FITTINGS

Our experienced management team and highly trained workforce ensure complete compliance to the latest health & safety and quality standards, medical gas pipeline system are an integral part of all hospitals and our dedicated approach to achieving the highest quality product at the most economical value is in the forefront of our approach. Commission of each installation and offering on going advice of the project is also available from our team.

- | | |
|------------------------------|--------------|
| 1- Flexible Connection Pipe | STE-110-10-X |
| 2- Union | STE- 402-X |
| 3- (BS, DIN, GIS) Connection | STE- 605-X |
| 4- Medical ball valve | STE- 403 - x |
| 5- Copper Pipe | |
| 6- Copper Pipe Fittings | |



FROM PLANT ROOM TO PATIENT



Unit. 7, No. 32, Firouzeh St., Lower of Valiasr Sq., Valiasr St., Tehran, Iran

021 - 8894 1228 021 - 8894 1127 INFO@STAMEDICAL.com

www.STAMEDICAL.com