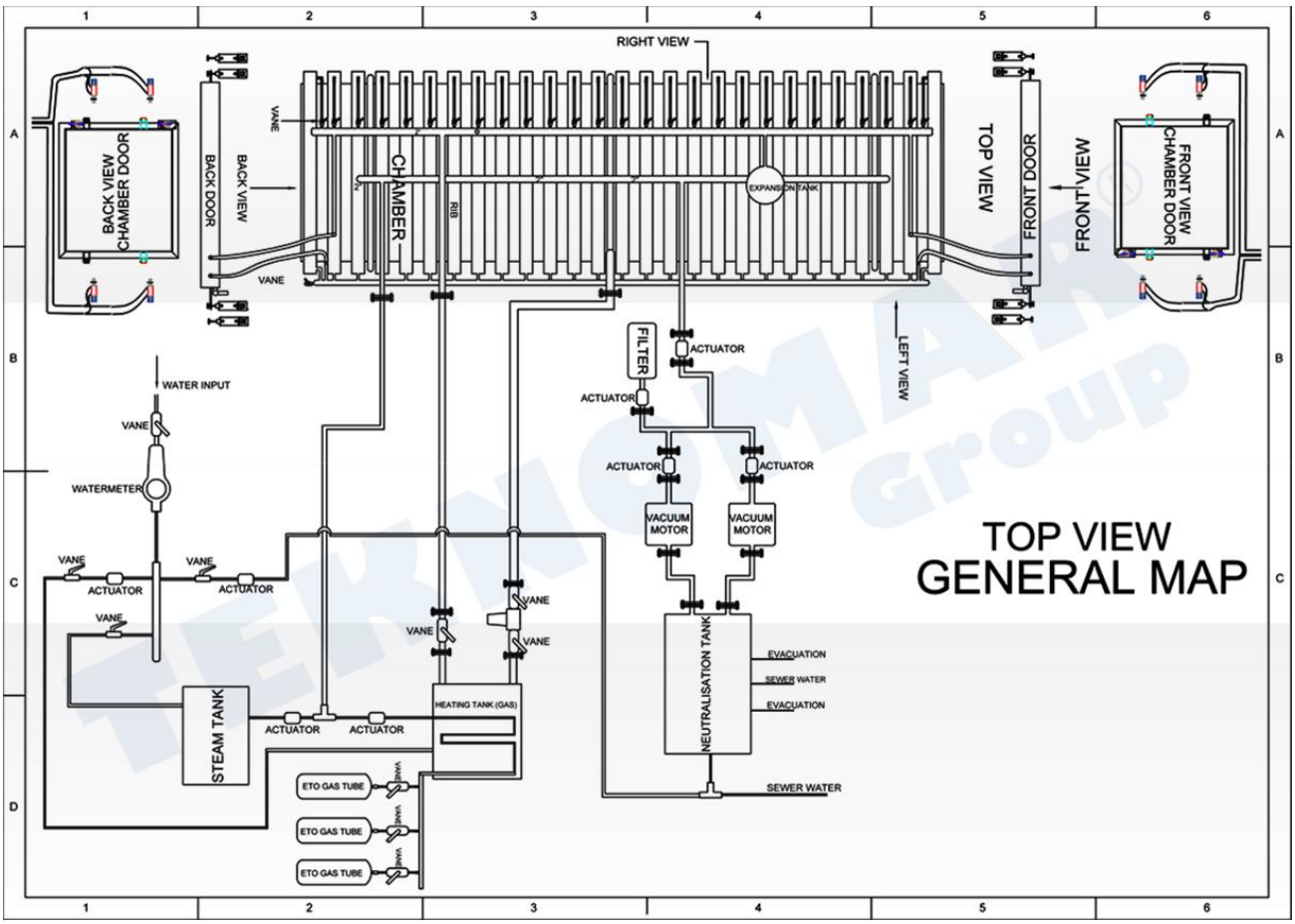
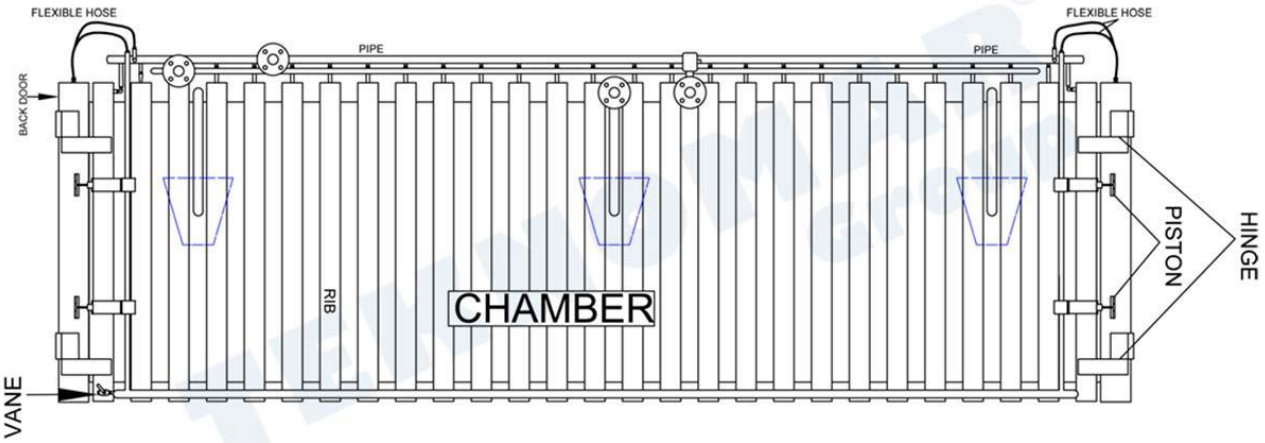
ETO C 1445

Industrial Ethylene Oxide High Technology Sterilization Device

Technical Specifications / Datasheet



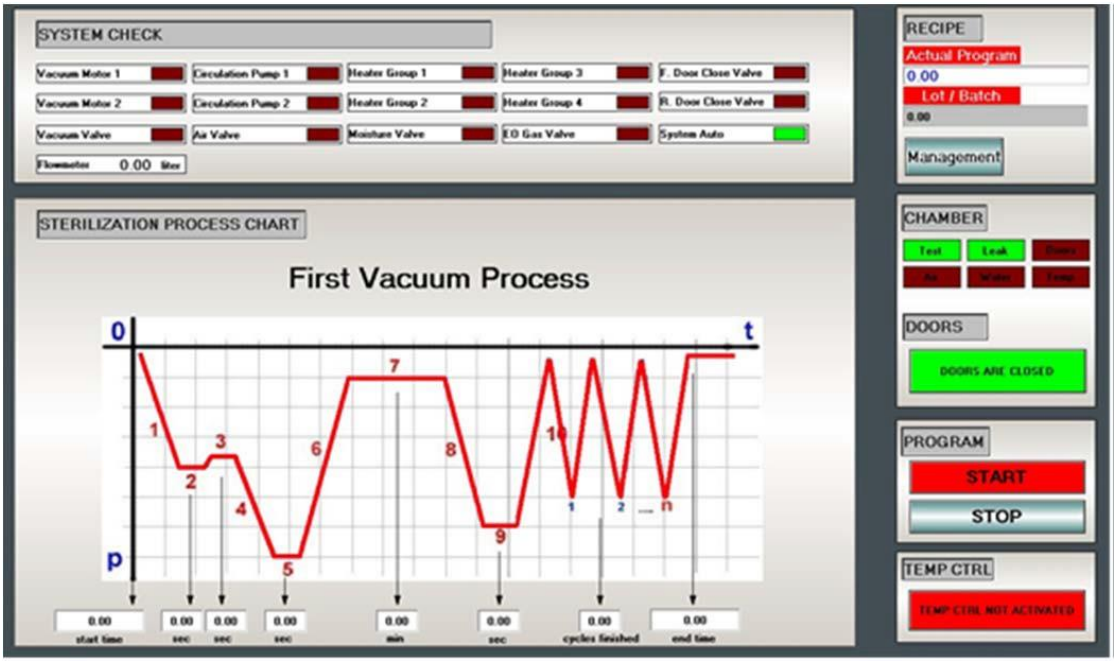


Industrial Type EO Sterilization Device END ETO C 1445			Ethylene Oxide Sterilization Device Chamber Inner Dimensions			Weigh (~kg)	Power (kW)
Chamber Volume (m^3)	Loading Pallet Number*	Door	Width (W) cm	Depth (L) cm	Height (H) cm		
0,5 Suture	-	Single	82,5	74	82,5	960	10 kW
1	-	Single	90	110	100	1450	21 kW
1,6 Suture	-	Single /	90	158	113	2000	25 kW
2,1 Suture	-	Single / Double	90	160	140	2500	30 kW
2	-	Single	120	120	140	1900	25 KW
5	-	Single	135	275	135	2800	50 kW
6	2	Single /	135	190	235/240	3500	50 kW
10	4	Single /	180	260	220	5800	60 kW
15	6	Single /	180	390	220	6600	70 kW
20	8	Double	180	520	220	8500	70 kW
27	10	Double	180	640	235/240	10000	75 kW
34	12	Double	180	780	240	12000	80 kW
40	14	Double	260	640	240	14500	100 kW
44	16	Double	260	705	240	15500	110 kW
50	18	Double	260	800	240	17000	120 kW
62,5	24	Double	260	1010	240	21000	140 kW

PRODUCT DESCRIPTION	**Teknomar Brand Industrial_Type_ETO_Sterilizer_ETO-C-1445**
TYPES OF PRODUCTS FOR STERILIZATION	Medical disposable products, non-woven products, textile, gloves, PVC and PP - PE, Syringes, absorbable and non-absorbable sutures, catheters, laparoscopic surgical instruments, implants, sensitive flexible medical products, endoscopes, rigid and semi-rigid lumen shaped tools and etc...
DEVICE CONSISTS OF SEPARATE PARTS	Device, Electrical Board, Scale, Kiosk, Water Scrubber, Machine Park
INTERIOR CHAMBER ALL MATERIAL	316L Stainless Steel
EXTERNAL OUTSIDE COVER MATERIAL	316L/304 Stainless Steel
WELDING	316L Stainless Steel
PIPING	316L/304 Stainless Steel, flexible pipes are made of plastic inside outer body reinforced
WORKING TEMPERATURE	37-55 C°

WORKING PRINCIPLE	Negative Pressure (-1 / 0 Bar); Chamber design to working under negative pressure in compliance with European regulation prevailing for pressure vessel CE MARKED. Chamber vacuum tested in our workshops.
STANDARD STERILIZATION DURATION*	About 6 hours per Cycle without loading/unloading depending on validation.

STERILIZATION PROGRAM	Unlimited Programming Capacity for different product sterilization on SCADA Software.
EO MIXTURE	Although depends on validation and local supply, System is available for each of the different ETO gas mixtures. The mixture can be; [%10 EO - %90 CO2], [%50 EO - %50 CO2], [%90 EO - %10 CO2], [%100 EO]
	Technical Note: During production, Customer undertakes to inform Manufacturer about the ETO Gas Mixture will be used in Customer Factory.
WATER CONSUMPTION	Approximate Values subject to validation
ETO GAS CONSUMPTION	850gr/m^3 for %100 ETO
HARDWARE and SOFTWARE EQUIPMENT LIST	
PLC AND IO UNIT	SIEMENS
PANEL EQUIPMENT	SIEMENS/SCHNEIDER/ABB
CONNECTORS AND RELAYS	PHONEIX contact/ABB
VACUUM LEAKAGE PROGRAM	Included
SAFETY AND INDICATORS	Banner Engineering/SIEMENS
INDUSTRIAL PC	ADVANTECH or Similar Touch Screen PC
THERMAL ISOLATION PANELS	Applied on all around the chamber, Heating Tank, Humidification Tank and relevant materials.
SCADA SYSTEM SOFTWARE	RELIANCE enables data collections, controlling and observing all sensor data: Heater, Vacuum, Humidification, EO Gas PPM, EO Gas KG, Water Consumption, Alerts, Password Levels for different users, Sterilization Reports and graphs, data acquisition of old dated sterilizations, Reports of Failures, E- mailing, Long Term Data Collection and Preservation.
SCADA SYSTEM SOFTWARE	✓ Temperature Graph (Instantly and after sterilization) ✓ Humidity Graph (Instantly and after sterilization) ✓ Pressure Graph (Instantly and after sterilization) ✓ Sensor data collection of Temperature, Humidity and pressure as data logger. ✓ Save and Print option for collected data and generation of different file format. ✓ Observing ETO temperature (C°) ✓ Observing Humidity in Generator as bar ✓ Observing Water Flow ✓ Observing Heating Tank Temp



DOOR LOCKING SYSTEM	PNEUMATIC OR MANUEL  **Example Figure of Pneumatic Door Closing**
NUMBER OF TEMPERATURE SENSOR (PER m^3)	PT100 around the chamber with several probes for homogenous measurement of chamber - Compliance with ISO 11135 - EN 1422
NUMBER OF HUMIDITY SENSOR (PER M3)	Compliance with ISO 11135 - EN 1422
NUMBER OF VACUUM SENSOR (PER M3)	Compliance with ISO 11135 - EN 1422
VACUUM PUMP	MonoBlock Vacuum Pump 10^{-1} Torr (Water Based)
SCALE	Min 300 KG ±20gr Industrial Type
EO GAS REGULATOR	Specialized ETO Gas Regulator

SECURITY LEVELS	Every user has their own password depending on their authority level(The system has 4 security level).
HEATING SYSTEM	Water Circulation Homogeneous Electrical Heating System
NEUTRALIZATION TECHNIQUE	High Effective Water Scrubber Method through Teknomar Design Stainless Steel Neutralization Tank.
SCRUBBER (OPTIONAL)	0-10 PPM Acidic System
HUMIDIFICATION TANK	Teknomar Design Stainless Steel Humidification Tank – Steam Generator.
DOOR SEALING	Vacuum and EO Gas Durable Door Rubber.
AIR INLET TO CHAMBER	Taken Through HEPA FILTER
MANUFACTURING STANDARD	CE MARKED, ISO 9001:2015, ISO 13485:2012, EN 1422, EN ISO 11135
FAT - SAT (TESTING)	Installation Qualification - Operational Qualification Documentation with accordance of ISO 11135
ENVIRONMENTAL ETO DETECTOR	(OPTIONAL)
INSTALLATION REQUIREMENTS	Water, Air (Min 6 Bar), Drainage, Exhaust, Electric (3 Phase 380-400V 50/60Hz subject to change according to Countries)