STE
GLASS-LINED INDUSTRIAL ELECTRIC WATER HEATER

STE - 1000/1500/2000/2500/3000

Model STE 2000-15

Electric water heater for industrial and commercial applications

- Steel glass lined tank with glass lining for corrosion protection
- Maximum working pressure 7 bar
- Manhole 400mm
- T&P relief valve factory supplied
- Factory installed NEODUL insulation with ABS jacket, meeting new Ecodesign standards in Europe
- Electric package with incoloy sheeted elements (15 to 60 kW)
- Options:
  - Factory mounted heating package with control panel including main power disconnect door interlock switch, transformer for 230 Volt control circuit, contactors, step indication lights and override switch, immersion control and hi-limit thermostat
  - Temperature gauge
  - Build-in glass lined heat exchanger for use with additional heat source (solar,heat pump or boiler); model name will change to ITE.

SAMPLE SPECIFICATION

The heater(s) shall be A. O. Smith STE series Commercial Electric water heater Model Number _STE_(1000/1500/2000/2500/3000) or an approved equal. Heater(s) shall be rated at _(15/30/45/60)_ KW, 400 V, 3 phase, 50/60 cycle AC. The heater shall be for vertical installation. Vessel shall be constructed to European Pressure Directive for 7 bar working pressure. Vessel shall be glass-lined With 3 magnesium anodes for additional corrosion protection. Entire vessel shall be insulated with 100 MM NEODUL insulation with ABS cladding. The electrical controls will be mounted on the heater in an IP 55 control cabinet. A combined temperature and pressure gage will be on the front of the heater.
There shall be ___(1 or 2)___ individually replaceable ___(15 or 30)___ KW, flange mounted, incoloy sheathed heating elements. These elements will be switched by magnetic contactors which are operated by a 230V fused control circuit. Control circuit is activated by a master pilot switch. Each element will have an override switch for manual de-activation. The thermostatic control of the contactors shall be in ___(1or 2)___ stages through thermostatic step control. This control shall fully automatically maintain the set temperature and prevent the entire electrical load from being switched on instantaneously. A manual reset high limit will cut-off power to the heating elements if temperature exceeds 95 °C. The entire water heating package shall be prewired to solderless terminal lugs, factory tested, complete with ASME temperature and pressure relief valve. Heater(s) shall have a 3 year tank warranty and 1 year on all electric components as outlined in the written warranty. Fully illustrated instruction manual included.

TECHNICAL DETAILS

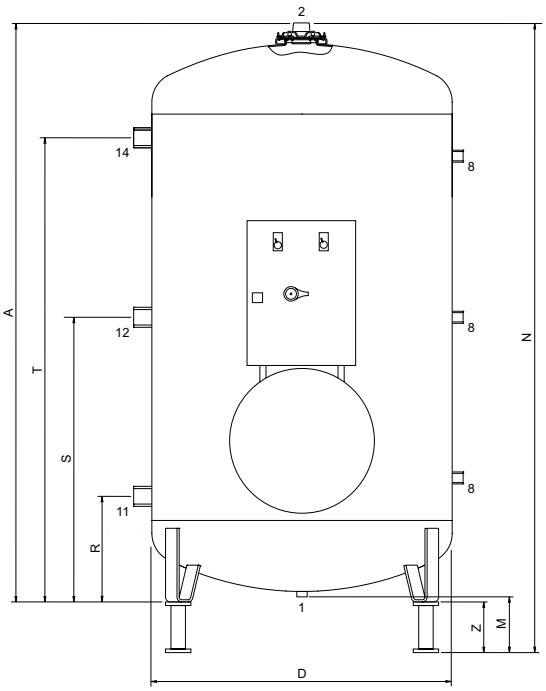
STE

		STE 1000				STE 1500				STE 2000				STE 2500				STE 3000			
		15	30	45	60	15	30	45	60	15	30	45	60	15	30	45	60	15	30	45	60
General																					
Input	kW	15	30	45	60	15	30	45	60	15	30	45	60	15	30	45	60	15	30	45	60
Current	A	22	43	65	87	22	43	65	87	22	43	65	87	22	43	65	87	22	43	65	87
Elements	-	1	1	2	2	1	1	2	2	1	1	2	2	1	1	2	2	1	1	2	2
Power supply	VAC/Hz	400 (-15%/+10%) / 50/60 Hz																			
Max. working pressure tank	kPa (bar)	700 (7)																			
Maximum operating temperature tank	°C	95																			
Number of anodes	-	3																			
Max. weight	kg	1267				1897				2254				3003				3361			
Standby loss	kWh/24h	3.5				3.7				4.1				5.6				5.8			
Draw-off capacity Tcold = 15°C/Tset = 60°C																					
Storage capacity	l	1000				1550				1880				2500				2820			
Max. temperature setting	°C	80																			
30 min. ΔT=45°C	l	944	1,087	1,231	1,374	1,384	1,527	1,671	1,814	1,648	1,791	1,935	2,078	2,144	2,287	2,431	2,574	2,400	2,543	2,687	2,830
60 min. ΔT=45°C	l	1,087	1,374	1,661	1,948	1,527	1,814	2,101	2,388	1,791	2,078	2,365	2,652	2,287	2,574	2,861	3,148	2,543	2,830	3,117	3,404
90 min. ΔT=45°C	l	1,231	1,661	2,092	2,522	1,671	2,101	2,532	2,962	1,935	2,365	2,796	3,226	2,431	2,861	3,292	3,722	2,687	3,117	3,548	3,978
120 min. ΔT=45°C	l	1,374	1,948	2,522	3,096	1,814	2,388	2,962	3,536	2,078	2,652	3,226	3,800	2,574	3,148	3,722	4,296	2,830	3,404	3,978	4,552
Continuous ΔT=45°C	l/h	287	574	861	1,148	287	574	861	1,148	287	574	861	1,148	287	574	861	1,148	287	574	861	1,148
Heating-up time ΔT=45°C	min.	209	104	69	52	324	162	108	81	393	196	131	98	522	261	174	130	589	294	196	147
Shipping data																					
Weight empty	kg	267				347				374				503				541			
Wieght incl. packaging	kg	287				367				394				523				561			
Width packaging	mm	900				1200				1200				1500				1500			
Height packaging	mm	2310				2135				3220				2195				2320			
Depth packaging	mm	1400				1700				1700				1940				1940			

DIMENSIONS

STE

		STE 1000	STE 1500	STE 2000	STE 2500	STE 3000
A	Total height without legs	2160	1985	2320	2190	2320
D	Diameter without insulation	790	1100	1100	1400	1400
	Diameter with insulation	990	1300	1300	1600	1600
M	Height cold water inlet without legs	170	220	220	220	220
N	Height hot water outlet without legs	2310	2185	2370	2245	2370
R	Height circulation connection	350	400	400	480	480
S	Height immersion well	1075	950	1045	880	1045
T	Height T&P connection	1805	1500	1690	1380	1610
Z	Height of the legs	150	200	200	200	200
1	Cold water inlet	Rp 2				
2	Hot water outlet	Rp 2				
8	Connection anode	Rp ¾				
11	Connection	Rp 2				
12	Connection	Rp 2				
14	Connection	Rp 2				
All dimensions are in mm						



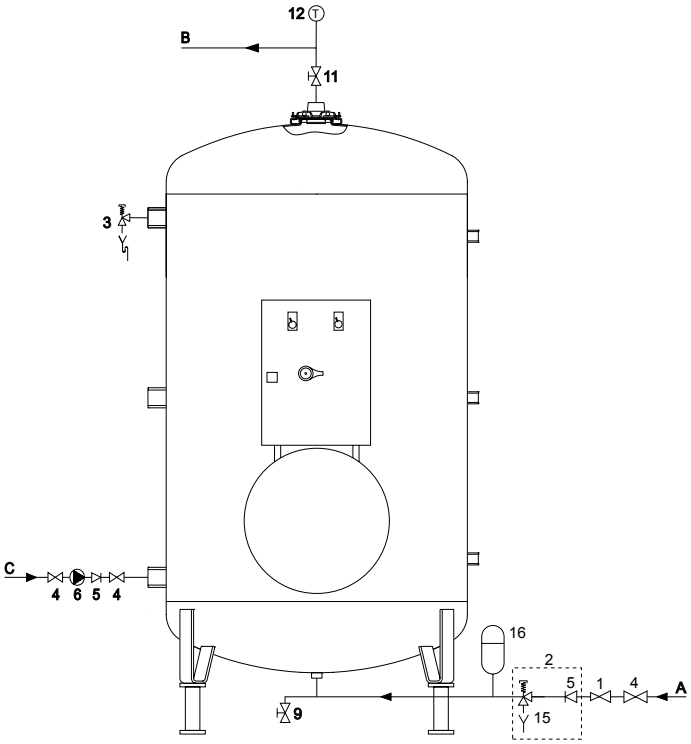
INSTALLATION
STE

1 Pressure reducing valve (mandatory if the mains water pressure is too high)
2 Inlet security group combining 8 bar pressure relief valve (mandatory) (15) and check valve (5)
3 T&P valve (mandatory - factory delivered)
4 Stop valve (recommended)
5 Non-return valve
6 Circulation pump (optional)
9 Drain valve
11 Stop valve (recommended)
12 Temperature gauge (recommended)
15 Pressure relief valve (mandatory)
16 Expansion vessel (recommended)

A Cold water supply
B Hot water outlet
C Circulation pipe

In the instruction manual you will find all the necessary information regarding connection, installation and maintenance of the product; including information on the electrical connections.

Information regarding the recycling or disposal of the product can also be found in the manual. This manual is delivered with the appliance and can also be found on our website; www.aosmithme.com



Data subject to change
ME/STE/01