SYSTEM COMPONENTS

VEA

The VEA is a key component in superheated water boiler plants. It absorbs the system water volume variations, controls the water level, and maintains proper pressurization through nitrogen, ensuring safety, reliability, and continuous operation.

Manufactured from carbon steel with a vertical cylindrical design and dished ends, it complies with the PED 2014/68/EU Directive and is supplied complete with support legs, inspection manhole, service connections, and external coating.

Optimized Integration with the ASX EN Boiler

The VEA has been specifically designed for use in superheated water plants and is ideally matched with the ASX EN boiler. The coordinated design of both components ensures proper management of heat-transfer fluid expansion and system pressure conditions, providing full compatibility between the plant operating requirements and the expansion vessel characteristics.



STANDARD EQUIPMENT

Pressure control instrumentation:
- 1 PED 2014/68/EU certified safety valve
- 1 pressure gauge with three-way test cock
- 1 filling pressure switch
- 1 venting pressure switch
- 1 PED 2014/68/EU approved manual-reset safety pressure switch

Nitrogen supply manifold:
- 1 nitrogen inlet solenoid valve
- 2 nitrogen vent solenoid valves
- 1 non-return valve

Level control instrumentation:
- 1 make-up pump start probe (pump not supplied)
- 1 make-up pump stop probe (pump not supplied)
- 1 low-level alarm probe
- 1 high-level alarm probe
- 1 level indicator

Electrical control panel, IP55 protection rating, 400 V / 3 Ph + N / 50 Hz.

AVAILABLE MODELS

VEO 5 bar	Capacity (lt)	Max. design temperature (°C)
VEA 500/5	500	191,7
VEA 1000/5	1000	191,7
VEA 1500/5	1500	191,7
VEA 2000/5	2000	191,7
VEA 2500/5	2500	191,7
VEA 3000/5	3000	191,7
VEA 4000/5	4000	191,7
VEA 5000/5	5000	191,7
VEA 6000/5	6000	191,7
VEA 8000/5	8000	191,7
VEA 9000/5	9000	191,7
VEA 10000/5	10000	191,7

VEO 12 bar	Capacity (lt)	Max. design temperature (°C)
VEA 500/12	500	191,7
VEA 1000/12	1000	191,7
VEA 1500/12	1500	191,7
VEA 2000/12	2000	191,7
VEA 2500/12	2500	191,7
VEA 3000/12	3000	191,7
VEA 4000/12	4000	191,7
VEA 5000/12	5000	191,7
VEA 6000/12	6000	191,7
VEA 8000/12	8000	191,7
VEA 9000/12	9000	191,7
VEA 10000/12	10000	191,7

ICI
POWERING EVOLUTION

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H2 Ready



ASX EN

Superheated water generation system

ICI
POWERING EVOLUTION

Range of superheated water generators with smoke tubes, monoblock reverse-flame design and fully wet-back furnace. Manufactured using certified high-quality steels in compliance with current regulations and welded by automatic submerged arc welding processes. Suitable for liquid or gaseous fuels. Complete with control and safety accessories for automatic operation.

Nominal power
470 ÷ 3500 kW

Design pressure
5 ÷ 12 bar

Efficiency
> 90 %

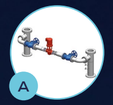


Superior Performance in Every Detail

- Robust construction for long service life and continuous operation
- Operational flexibility thanks to the high water volume
- Heat exchanger designed for high thermal efficiency
- Compatible with conventional fuels (natural gas, LPG, diesel oil, fuel oil)
- Compatible with sustainable fuels (biogas, biomethane, biodiesel, syngas)
- H2 Ready: operation with hydrogen blends up to 100%
- GSS electronic control system for intelligent monitoring and management
- Available for 72-hour unattended operation with the GSS 72 M H2O kit

Certifications

OPTIONAL ACCESSORIES



RETURN T° CONTROL SYSTEM
System for monitoring the minimum return temperature and the maximum ΔT permitted by the generator.



GSS 72 M H2O
Safety and control kit with PLC enabling up to 72 hours of unattended operation



QUADRO CON SCHEDA ETERM
Electrical control panel with advanced generator management system, supplied as a replacement for the standard control panel



ECONOMIZZATORE
Horizontal economizer for exhaust gas heat recovery





STANDARD ACCESSORIES

1. Pressure monitoring instrument set
2. Temperature monitoring instrument set
3. Bottom blowdown assembly
4. Boiler control panel, IP55 protection rating

DIMENSIONS

ASX EN	H	L	P	Total weight	
				5 bar	12 bar
	mm	mm	mm	kg	kg
470	1270	1410	2392	1900	2000
700	1450	1520	2590	2400	2600
1160	1580	1670	2960	3500	4000
1400	1700	1740	3165	3300	3800
2100	1870	1970	3605	5150	5150
3000	2100	2100	4175	8500	8500
3500	2190	2180	4477	9000	9000

TECHNICAL DATA

ASX	Heat output	Thermal capacity	Rated pressure	Total volume H2O		Efficiency at 100% (N.C.V.)
				5 bar	12 bar	
	kW	kW	bar	lt		%
470	470	522	5/12	850	850	90
700	700	778		1300	1320	
1160	1163	1292		1750	1820	
1400	1400	1556		2240	2240	
2100	2100	2330		3050	3050	
3000	3000	3333		4570	4570	
3500	3500	3889		5450	5450	

GSS or Eterm control panel: choose the remote monitoring solution that best suits your needs

Remote monitoring provides a complete and continuous overview of plant performance through real-time supervision of key parameters, including:
- energy consumption
- trends in critical operating variables
- system performance
- operational efficiency

Continuous data collection and analysis enable the early detection of anomalies, supporting prompt decision-making and targeted interventions to keep the plant operating at peak performance.

