

TRIGON[®] XL



- Stainless steel heat exchanger
- 3 different models to choose from: Standard, Industrial and Swimming pool
- Lightweight construction
- Compact dimensions
- Intelligent control
- Extremely low emissions and high efficiency
- Gross thermal efficiency up to 98.2%
- Output from 142 to 540 kW
- Continuous DHW delivery up to 10,563 litres/hour (Standard and Industrial models) and up to 27,354 litres/hour (Swimming pool model)
- Lifetime high efficiency up to 99% GCV

TRIGON[®] XL WH – Flexible for every application

A new standard

The TRIGON[®] XL WH represents a significant step forward in heating technology, with continuous delivery of up to 10,563 litres/hour for the Standard and Industrial models and up to 27,354 litres/hour for the Swimming pool model. With extremely flexible configurations, clever design and a range of models available, this water heater is perfect for a variety of commercial applications, such as health clubs, manufacturing plants and commercial laundrettes.



Comprehensive control features

A clear text display with integrated master-slave cascade functionality (up to 8 water heaters) makes commissioning simple. Plus, upgradable module capacity provides straightforward connections to a solar system or external heat source.



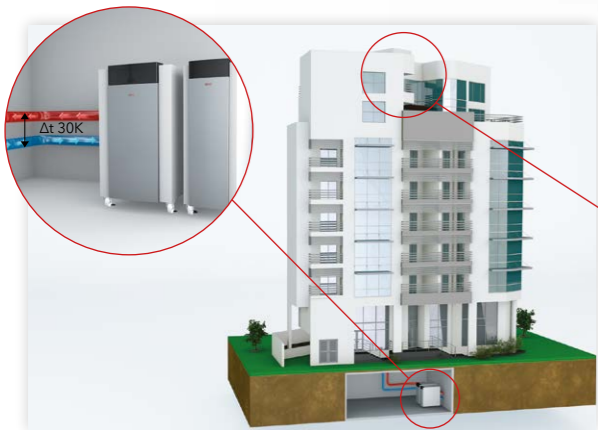
Compact dimensions

All models are designed to pass through standard 760mm wide doors. The range comprises 21 models with 2 widths.



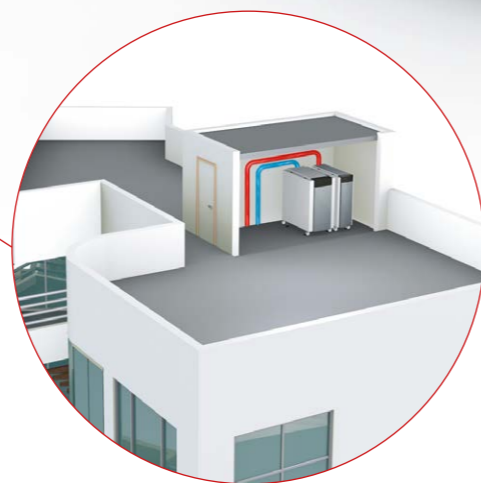
Flexible configurations

The inspection glass and ignition electrode can be fitted on either side of the water heater, allowing a more flexible boiler positioning on site.



Wider applications

With an 8 bar max. working pressure, the water heater is compatible with higher buildings without the need for hydraulic system separation.



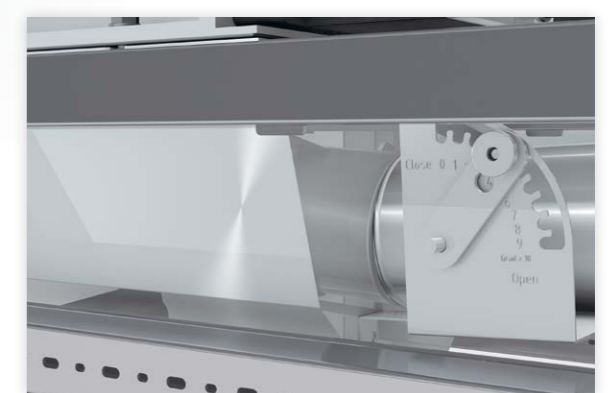
Lightweight construction

By utilising low water content technology, the water heater can be easily installed on a rooftop - while also delivering superb response times and reduced running costs.



Easy transportation

The water heater is supplied with cargo wheels, allowing it to be easily manoeuvred on site. After positioning, the unit can be levelled and lifted from its cargo wheels by adjusting the feet.



Simple commissioning

An integrated flue gas damper and rear flue connection provide an installer-friendly arrangement.

TRIGON® XL WH – Designed for challenging environments

The burner

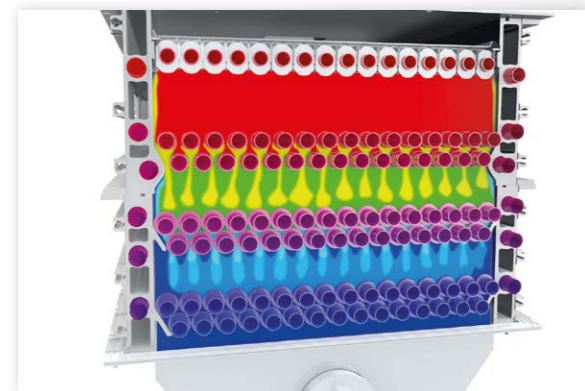
TRIGON® XL WH has an advanced burner design, which ensures this water heater is the most technologically advanced and best performing unit on the market.

The appliance can operate with a room sealed combustion system, with the provision to duct the combustion air from outside the building, directly to the appliance casing.



Unique premix-burner system

A fully modulating, water-cooled cold flame burner utilises a proven and innovative combustion system to provide reliable and robust performance.



Low emissions

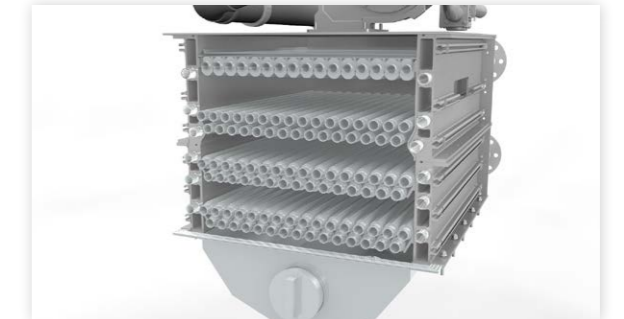
The water-cooled cold flame burner and the optimised combustion zone achieve extremely low NOx and CO emissions.

* Standard TRIGON XL IP models only



The heat exchanger

TRIGON® XL WH has a stainless steel heat exchanger built for challenging working conditions. It is specifically designed for optimised efficiency and performance during its entire lifetime.



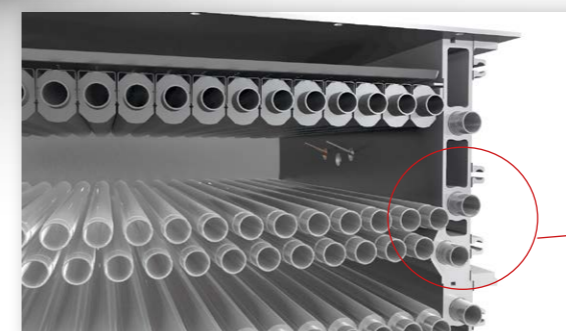
Lifetime high efficiency

By combining the unique premix-burner/heat exchanger system with the optimised controls, TRIGON® XL WH provides impressive lifetime high efficiencies of up to 99% GCV.



Stainless steel laser welded fin tube

Advanced robot laser welding technology ensures superb heat transfer between the fins and the tube.



Water cooled combustion chamber

A carefully engineered hydroforming process fixes the cooling tubes inside the sidewalls, providing the highest possible thermal conductivity.



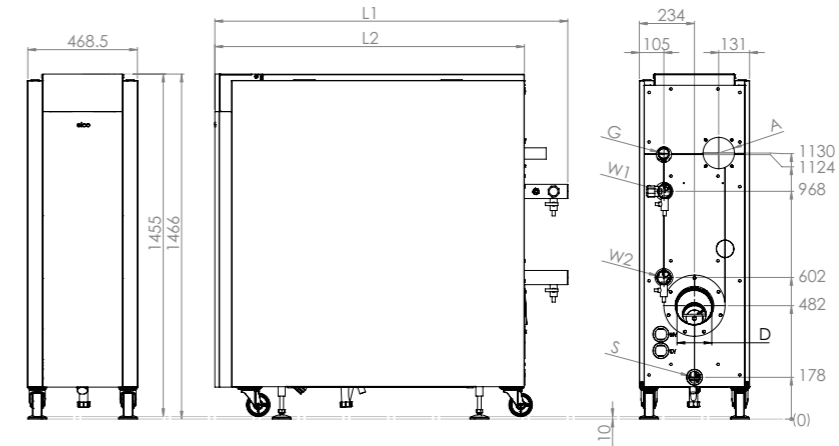
Technical data - TRIGON® XL WH

TRIGON® XL WH STANDARD (IP)		150	200	250	300	400	500	570		
Water	Continuous delivery @ 44°C ΔT	litres/hour	2782	3723	4646	5586	7456	9321	10563	
	First hour delivery @ 44°C ΔT	litres	Continuous delivery litres/hour @ 44°C ΔT plus stored volume							
	Continuous delivery @ 50°C ΔT	litres/hour	2448	3276	4088	4916	6561	8203	9295	
	First hour delivery @ 50°C ΔT	litres	Continuous delivery litres/hour @ 50°C ΔT plus stored volume							
	Continuous delivery @ 56°C ΔT	litres/hour	2186	2925	3650	4389	5858	7324	8299	
	First hour delivery @ 56°C ΔT	litres	Continuous delivery litres/hour @ 56°C ΔT plus stored volume							
	Set-point temperature (maximum)	°C	65	65	65	65	65	65	65	
	TRIGON® XL WH INDUSTRIAL (IND)		150	200	250	300	400	500	570	
	Water	Continuous delivery @ 44°C ΔT	litres/hour	2782	3723	4646	5586	7456	9321	10563
		First hour delivery @ 44°C ΔT	litres	Continuous delivery litres/hour @ 44°C ΔT plus stored volume						
Continuous delivery @ 50°C ΔT		litres/hour	2448	3276	4088	4916	6561	8203	9295	
First hour delivery @ 50°C ΔT		litres	Continuous delivery litres/hour @ 50°C ΔT plus stored volume							
Continuous delivery @ 80°C ΔT		litres/hour	1531	2048	2556	3074	4102	5129	5812	
First hour delivery @ 80°C ΔT		litres	Continuous delivery litres/hour @ 56°C ΔT plus stored volume							
Set-point temperature (maximum)		°C	90	90	90	90	90	90	90	
TRIGON® XL WH SWIMMING POOL (ZW)		150	200	250	300	400	500	570		
Water		Continuous delivery @ 17°C ΔT	litres/hour	7203	9641	12031	14467	19307	24138	27354
		Continuous delivery @ 19°C ΔT	litres/hour	6447	8626	10764	12944	17275	21597	24474
	Continuous delivery @ 35°C ΔT	litres/hour	3499	4682	5843	7026	9378	11724	13286	
	Set-point temperature (maximum)	°C	45	45	45	45	45	45	45	
	TRIGON XL WH IP, IND & ZW		150	200	250	300	400	500	570	
Energy	This data is valid for all models.									
	Water heater operating pressure (min/max)	bar	1/8	1/8	1/8	1/8	1/8	1/8	1/8	
	Standby losses (constant temp 50°C)	%	98.1	98.1	98.1	98.1	98.2	97.8	98.2	
	Standby losses (constant temp 50°C)	kW/24hr	0.2	0.2	0.2	0.3	0.3	0.3	0.3	
Natural Gas	Gross input Nominal	kW	161	215	269	323	431	538	611	
	Net input - maximum	kW	145	194	242	291	388	485	550	
	Output to water (min/max)	kW	31.3/142.3	42.0/190.4	47.0/237.6	56.5/285.7	75.2/381.3	94.6/476.7	120.0/540.2	
	Gas inlet pressure (min/max)	mbar	20/50	20/50	20/50	20/50	20/50	20/50	20/50	
LPG	Gas flow rate @ 1013mbar & 15°C (min/max)	m³/h	3.0/13.0	4.0/17.8	4.4/22.2	5.3/26.7	7.1/35.6	8.9/44.5	11.2/50.5	
	LPG inlet pressure (min/max)	mbar	30/50	30/50	30/50	30/50	30/50	30/50	30/50	
Flue	LPG flow rate @ 1013mbar & 15°C	kg/h	2.5/11.3	3.4/15.2	3.8/18.9	4.5/22.7	6.1/30.3	7.6/37.9	9.5/43.0	
	Approximate flue gas volume (min/max)	m³/h	43/188	57/251	64/313	77/377	102/502	128/628	161/712	
	Flue gas temperature (min/max)	°C	31/75	31/75	31/75	31/75	31/75	31/75	31/75	
Electrical	NOx emissions (BS EN 15502)	mg/kWh	25.2	25	24.3	24.3	23.7	26.1	27.8	
	Recommended electrical protection	Amps	16	16	16	16	16	16	16	
	Run current boiler only (min/max)	Amps	0.21/0.77	0.21/1.16	0.23/1.24	0.21/1.0	0.23/2.19	0.28/2.7	0.27/2.9	
Misc.	Electrical supply boiler only	V/Hz	230/50	230/50	230/50	230/50	230/50	230/50	230/50	
	Voltage tolerance Volts/Hz	%	+10-6/+-1							
	Sound power	dB(A)	70.3	70.3	70.3	70.3	77.3	77.3	77.3	
Misc.	Weight empty/full	kg	290/316	332/363	366/399	434/494	496/564	540/615	595/677	
	Approximate shipping weight	kg	315	347	381	449	511	555	610	

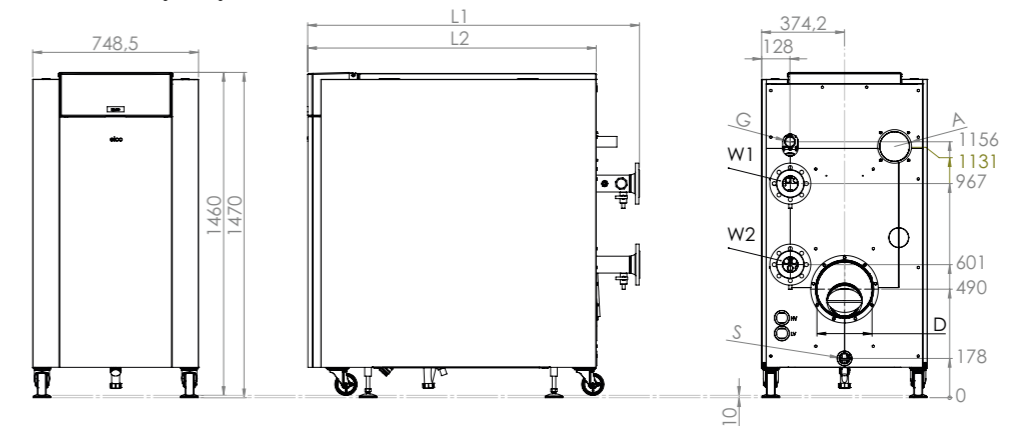
Note: The TRIGON® XL Water Heater is not an instantaneous DHW generator and is designed to operate in conjunction with storage only.

Technical data - TRIGON® XL WH

TRIGON® XL WH 150, 200 & 250



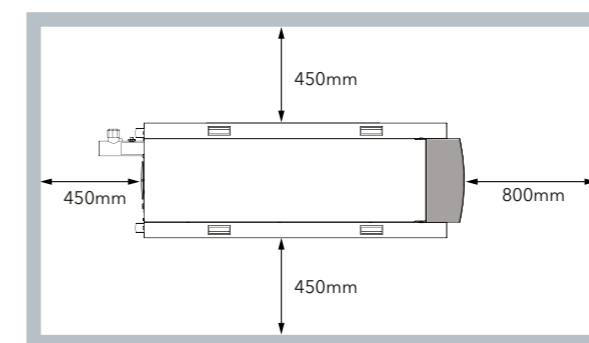
TRIGON® XL WH 300, 400, 500 & 570



DIMENSIONS

Connection	150	200	250	300	400	500	570	
Water connections (W1/W2)	-	R2"	R2"	R2"	DN65 PN16	DN65 PN16	DN65 PN16	DN65 PN16
Gas connection (G)	-	R1½"	R1½"	R1½"	R1½"	R1½"	R2"	R2"
Flue gas connection (D)	mm	150	150	200	200	250	250	250
Air intake connection (A) (for room sealed use)	mm	130	130	130	130	130	150	150
Condensate connection (S)	mm	32	32	32	32	32	32	32
Boiler length with water connection (L1)	mm	1349	1499	1649	1348	1496	1646	1769
Boiler length without water connection (L2)	mm	1165	1315	1465	1152	1302	1452	1602

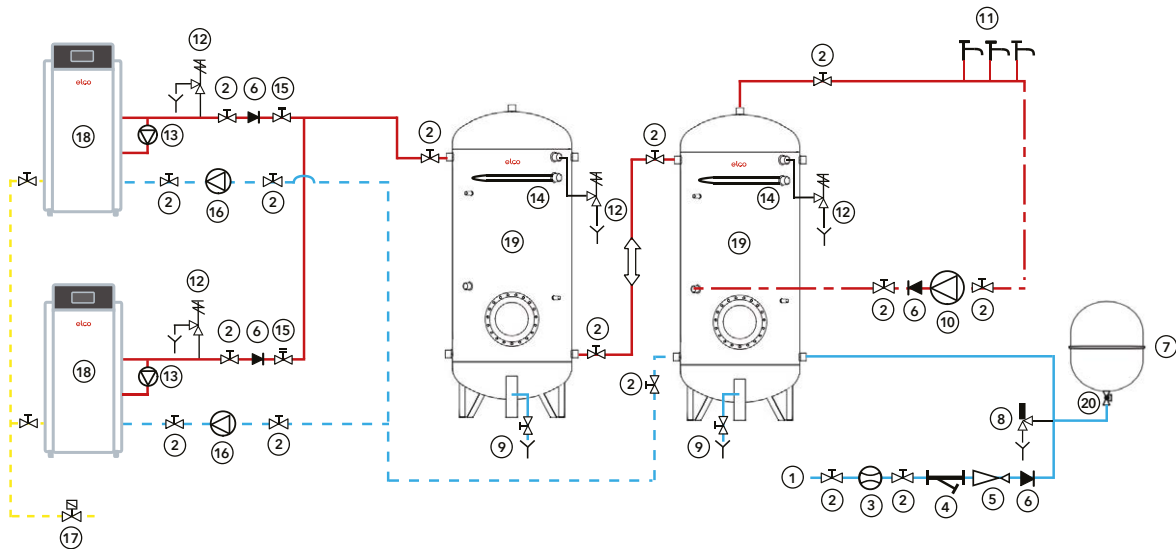
Clearances



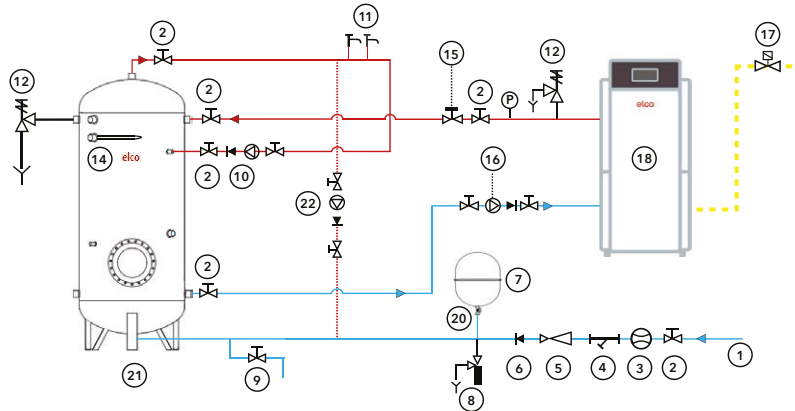
Examples of hydraulic schemes - TRIGON® XL WH

TRIGON® XL IND Water Heater cascade with 2 buffer vessels example schematic

This system is mainly used in industrial processes, where there is a requirement for direct increase of the water temperature with more than 17k, without having a constant demand.

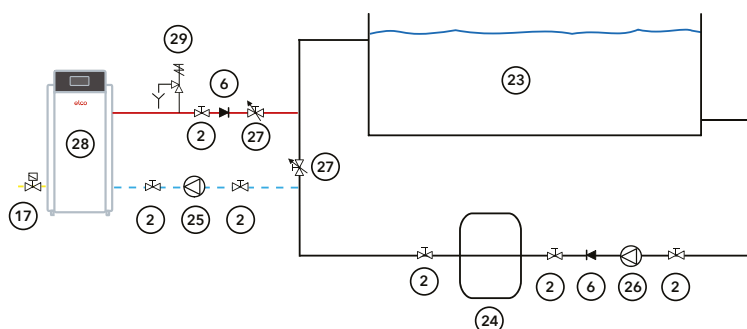


TRIGON® XL IP Water Heater with DHW storage cylinder schematic example



1. Cold water supply
2. Isolation valve
3. Water meter
4. Strainer
5. Pressure limiting valve
6. Non-return valve
7. Expansion vessel
8. Expansion relief valve
9. Drain
10. DHW secondary re-circulation pump
11. Hot water outlets
12. Temperature and pressure relief valve
13. Bypass pump
14. Immersion heater
15. Double regulating valve
16. DHW primary circulation pump
17. Gas shut-off valve
18. TRIGON® XL Water Heater
19. SSB buffer vessel
20. Lockshield valve
21. Inox-Maxi SSB or Polywarm PWB DHW storage cylinder
22. De-stratification pump
23. Swimming pool
24. Filtering kit
25. Water heater circulating pump
26. Swimming pool re-circulation pump
27. Regulating valve
28. Trigon XL ZW Water Heater
29. Pressure relief valve

TRIGON® XL ZW Swimming Pool Water Heater schematic example



These illustrations are designed to provide general guidance on the hydraulic scheme and should not be considered as an installation drawing.