

Commercial High-Output
Domestic Hot Water Heating Station

VITOTRANS 300, S3HA / D3HA

VIESMANN



The Vitotrans 300 is a compact, pre-assembled and self-contained domestic hot water (DHW) heating station, designed to provide large volumes of instantaneous hot water to commercial applications, such as hotels, resorts and recreation complexes, hospitals and industrial facilities.

How it works

Designed to work with any new or existing hydronic heating system, the Vitotrans 300 employs up to 3 brazed plate heat exchangers, delivering flow rates of up to 180 GPM to quickly and efficiently heat the required amount of water. Single Vitotrans units can be connected directly to systems with long, steady draws of water, such as car wash facilities.

When combined with a buffer tank, the unit provides consistent flow rates of up to 180 GPM all day long, even in applications with widely fluctuating DHW demand like hotels or multi-unit apartment buildings.

Advantages

Cost savings

The Vitotrans 300, in conjunction with a buffer tank effectively replaces the need for systems relying on a dedicated DHW heating boiler, batteries of direct or indirect-fired DHW tanks, or cascades of tankless water heaters for maximum cost savings. For example, one Vitotrans 300, S3HA-60 could replace the need for fourteen 119 USG DHW tanks.

Space-saving design

The unit's compact footprint (approx. 14 ft.²) makes the Vitotrans 300 an ideal choice for limited-space installations, preserving valuable real estate for other purposes.

Easy installation and service

The Vitotrans 300 is designed to accommodate a large ΔT , allowing quick and easy installation into any new or existing hot water heating system, requiring minimal piping or wall penetrations. All field connections are made at the rear of the unit for even easier

installation. All enclosure panels can be easily removed for service giving access to the entire unit for fast, efficient service. In multi-heat exchanger models, each heat exchanger can be individually isolated and serviced without interrupting system operation.

Maximum life expectancy

The burner-less design of the Vitotrans 300, combined with a descaling pump result in low thermal stress and sediment build-up within the heat exchanger(s), ensuring minimal maintenance and prolonged service life.

Maximum efficiency

The Vitotrans 300 is capable of producing DHW at over 96% efficiency. Furthermore, Vitotrans eliminates the need for a separate system dedicated to DHW production, thus lowering total energy requirements of the facility, resulting in a long-term increase in overall system efficiency.

Completely hygienic

The on-demand design of the Vitotrans 300 avoids lengthy DHW storage, thus maximizes water quality and mitigates the risk of legionella. The unit's heat exchangers are certified for lead free plumbing products.

Total control

The integrated system control, featuring a colour touchscreen, interfaces with the Building Management System (BMS) using BACnet (IP) protocol. It keeps and displays data on several points within the system. An integrated programmable logic controller, monitors settings and performs adjustments, checks and diagnoses.



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OR





Vitotrans 300

- 1** Colour touch screen user interface
- 2** Brazed plate heat exchanger(s) (single or double wall)
- 3** Variable speed system pump(s)
- 4** Ultrasonic flow sensor
- 5** Integrated drip pan with drain
- 6** Integrated de-scaling pump



Enclosure panels are easily removed for direct access to all componentry



Brazed plate heat exchanger (single or double wall)

Benefits at a glance

- High-performance DHW heating unit designed for applications requiring large volumes of hot water (hospitals, resorts, hotels, etc.)
- Up to 3 integrated brazed plate heat exchangers provide built-in redundancy, eliminating downtime during heat exchanger maintenance
- Double wall heat exchanger(s) with leak protection option available (D3HA Series)
- Easy installation into new or existing hot water heating systems
- Compact design and packaged solution for minimum footprint and hassle-free installation
- Pre-assembled unit with easy access to all componentry via concealed latched side panels
- On-demand design provides consistent flow rate all day long
- Sanitation function helps maintain maximum water quality
- BACnet (IP) communication for easy integration into BAS BMS systems
- Integrated de-scaling pump, ultrasonic flow sensor and drip pan

Technical Data



Models		Single Wall			Double Wall		
		S3HA 30	S3HA 60	S3HA 90	D3HA 30	D3HA 60	D3HA 90
Heating input	MBH (kW)	2100 (615)	4200 (1231)	6300 (1846)	2100 (615)	4200 (1231)	6300 (1846)
Power supply	Voltage (AC)	240	240	240	240	240	240
	Phase	1	1	1	1	1	1
	FLA	20	20	20	20	20	20
	Hz	60	60	60	60	60	60
Overall length	in.	73¾	73¾	73¾	73¾	73¾	73¾
	(mm)	(1896)	(1896)	(1896)	(1896)	(1896)	(1896)
Overall width	in.	26½	26½	26½	26½	26½	26½
	(mm)	(673)	(673)	(673)	(673)	(673)	(673)
Overall height *1	in.	62¼	62¼	62¼	62¼	62¼	62¼
	(mm)	(1584)	(1584)	(1584)	(1584)	(1584)	(1584)
Weight (without water)	lb.	1037	1123	1273	1082	1223	1408
	(Kg)	(470)	(509)	(577)	(491)	(550)	(639)
Heat exchanger surface area	ft. ²	69.6	139.2	208.0	81.2	162.4	243.6
	(m ²)	(6.47)	(12.93)	(19.40)	(7.54)	(15.09)	(22.63)
Max. boiler supply temperature	°F	230	230	230	230	230	230
	(°C)	(110)	(110)	(110)	(110)	(110)	(110)
Max. domestic hot water supply temperature (FHL)	°F	210	210	210	210	210	210
	(°C)	(99)	(99)	(99)	(99)	(99)	(99)
Max. operating pressure	psig	150	150	150	150	150	150
	(bar)	(10.3)	(10.3)	(10.3)	(10.3)	(10.3)	(10.3)
Boiler supply connection (NPT)	in.	2½	2½	2½	2½	2½	2½
	(mm)	(65)	(65)	(65)	(65)	(65)	(65)
Boiler return connection (NPT)	in.	2½	2½	2½	2½	2½	2½
	(mm)	(65)	(65)	(65)	(65)	(65)	(65)
DCW connection (NPT)	in.	2	2	2	2	2	2
	(mm)	(50)	(50)	(50)	(50)	(50)	(50)
DHW connection (NPT)	in.	2	2	2	2	2	2
	(mm)	(50)	(50)	(50)	(50)	(50)	(50)
Max. DHW flow	GPM	60	120	180	60	120	180
	(L/min)	(227)	(454)	(681)	(227)	(454)	(681)

*1 Overall height does not include leveling feet or seismic brackets.