

Solar Heating Technology

VITOSOL® 200-T

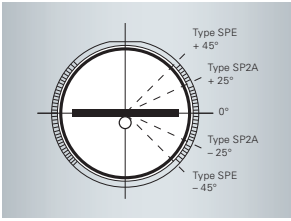
VIESSMANN®

climate of innovation®

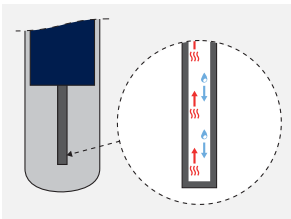


New

Vitosol 200-T, SP2A – 10, 12 and 24 tubes
Vitosol 200-T, SPE – 9 and 18 tubes
High-performance vacuum tube solar collectors



Tubes can be rotated for optimum alignment with the sun.



In a heat pipe vacuum tube, heat captured by the absorber evaporates the water in the heat pipe, which rises to the condenser. Heat is transferred to the solar fluid circulating through the header, where it condenses.



The Vitosol 200-T, SPE is ideal for flat roof installations or large arrays.

Clean and dependable solar heating

As the cleanest, most abundant and easily accessible form of energy on earth, solar energy is the perfect addition to any heating system – whether for domestic hot water, pool heating or to supplement your space heating or cooling loads. Putting the sun to work saves you as much as 60% on your hot water bill or up to 25% when using solar energy for hot water and space heating.

High performance design

Vacuum tube collectors achieve excellent results, not just year-round, but particularly in cold and windy conditions. The collectors' absorbers are located inside vacuum tubes, which, much like a thermos, have excellent insulating qualities and prevent heat loss. Solar energy is captured by a selective surface coated copper absorber sheet inside the evacuated glass tubes. With highly efficient heat pipe vacuum tubes such as those on the Vitosol 200-T, the captured heat evaporates water inside a heat pipe, which then rises to a condenser. Fully encapsulated condensers inside a cast aluminum block (SPE) or integrated within a Duotec double pipe stainless steel heat exchanger (SP2A) transfer the heat to the circulating solar fluid. Combined with highly-effective thermal insulation in the header casing, these designs ensure extremely efficient heat transfer and minimize additional heat loss.

Flexible mounting options

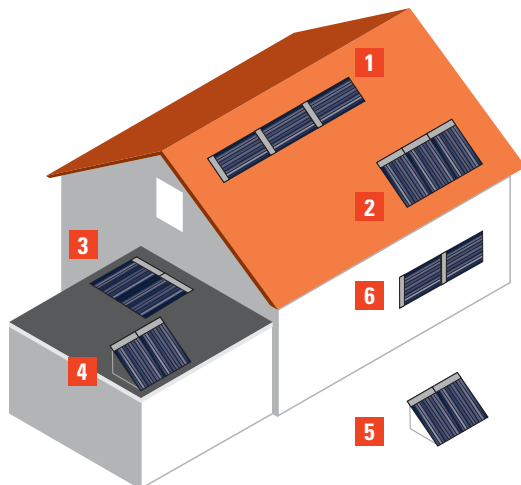
From residential homes to large commercial and industrial systems, the Vitosol 200-T provides numerous installation possibilities.

The Vitosol 200-T can be installed on sloped or flat roofs, horizontally (laying flat) or freestanding. On sloped roofs, collectors may be positioned vertically (tubes at right angles to roof ridge) or horizontally (tubes parallel to roof ridge). The Vitosol 200-T, SP2A adds a horizontal wall mounting option and is available in a 10-tube model designed for installation on balcony railings or walls.

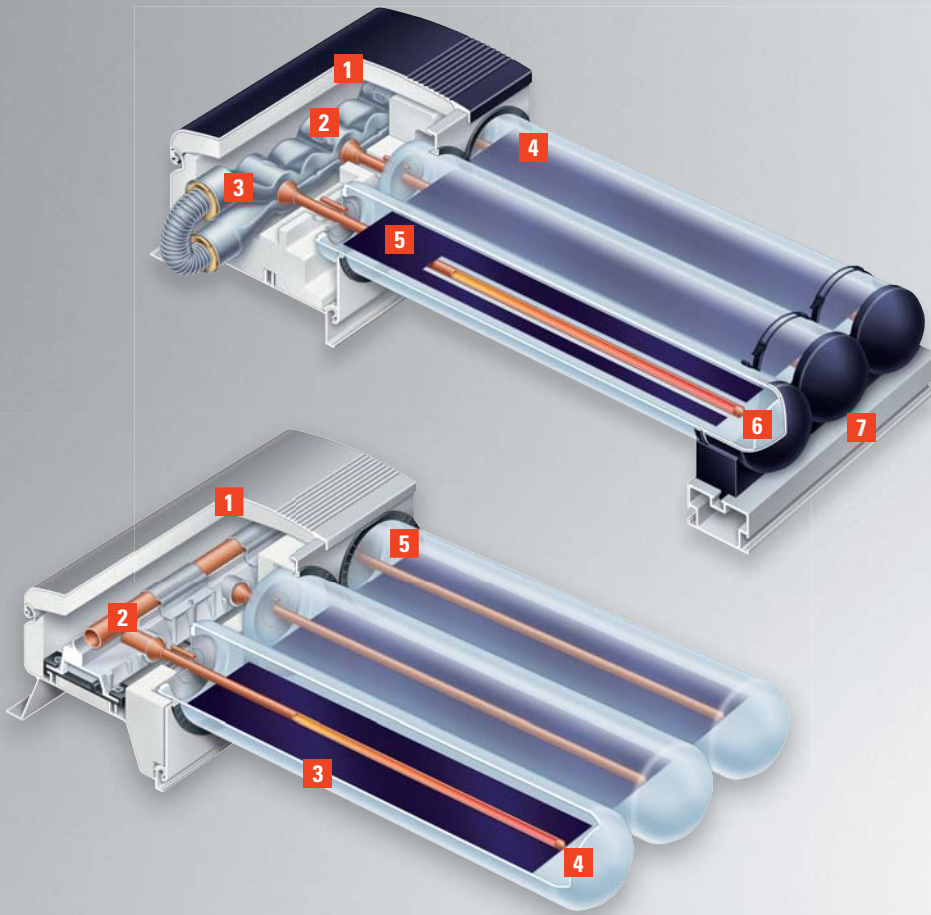
The Vitosol 200-T, SP2A is available in 10, 12 and 24-tube models, while the Vitosol 200-T, SPE is offered in 9 and 18-tube versions. In commercial applications, up to 96 tubes of the Vitosol 200-T, SP2A or 108 tubes of the Vitosol 200-T, SPE can be easily connected in a single array with quick-connect fittings and easy-to-use, pre-engineered mounting systems.

Easy installation

Roof-mounted systems with rafter brackets, angled frames or wall-mounting brackets simplify installation, saving both time and money. Flexible pipes with O-rings enable quick connections, and a connection set with compression fittings enables the collector array to be readily connected to the pipes of the solar circuit. A temperature sensor is fitted into a sensor well built into the collector header. New retaining caps prevent the tubes from slipping off during installation and maintenance; if service is required, "dry connections" allow individual tubes to be replaced quickly and easily without draining the system.



- 1 Sloped roof, horizontal
- 2 Sloped roof, vertical
- 3 Flat roof, flush
- 4 Flat roof, on frames
- 5 Free-standing
- 6 Wall, horizontal (SP2A only)



Vitosol 200-T, SP2A

Tube diameter: 2.75 in. / 70 mm

- 1 Highly effective thermal insulation
- 2 Fully encapsulated condenser
- 3 Duotec stainless steel heat exchanger
- 4 Impact-resistant solar glass
- 5 Highly selective coated copper absorber
- 6 Heat pipe
- 7 Tube retainer rail

Vitosol 200-T, SPE

Tube diameter: 4 in. / 102 mm

- 1 Highly effective thermal insulation
- 2 Copper header pipe
- 3 Highly selective coated copper absorber
- 4 Heat pipe
- 5 Impact-resistant solar glass

Benefits at a glance – Vitosol 200-T

- Outstanding performance and quality construction at an attractive price
- Highly efficient heat pipe vacuum tube collector offering excellent operational reliability
- Optimized tube spacing prevents shading; tubes can be rotated for optimum alignment with the sun to maximize energy utilization
- Highly selective coating on absorber surfaces; with vacuum tubes, absorbers are not susceptible to contamination over time
- Efficient heat transfer through fully encapsulated condensers
- Dry connection allows tube fitting and replacement while system is fully charged and operational
- Highly effective thermal insulation minimizes heat loss through header casing
- Easy installation using Viessmann quick assembly and connection systems

Specifications – Vitosol 200-T, SP2A

- Available in three sizes: 10 tubes (13.6 ft.² / 1.26 m²), 12 tubes (16.3 ft.² / 1.51 m²) and 24 tubes (32.6 ft.² / 3.03 m²)*
- Up to 161 ft.² / 15 m² (96 tubes) can be connected in single array*
- Can be installed either vertically or horizontally, on roofs, walls or as freestanding installation; 10-tube model ideal for installation on balcony railings or walls
- 2.75 in. / 70 mm diameter tubes with tube rotation up to 25°
- Duotec double pipe stainless steel heat exchanger
- Painted manifold cover, low profile design and small tube gaps for maximum aesthetic appeal

Specifications – Vitosol 200-T, SPE

- Available in two sizes: 9 tubes (17.6 ft.² / 1.63 m²) and 18 tubes (35.1 ft.² / 3.26 m²)*
- Up to 215 ft.² / 20 m² (108 tubes) can be connected in single array*
- Can be installed either vertically or horizontally, on roofs, as freestanding installation or laid flat
- 4 in. / 102 mm tubes with tube rotation up to 45°

* Collector absorber area

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Technical Data



Vitosol 200-T, SP2A	Model	1.26 m²	1.51 m²	3.03 m²
No. of tubes		10	12	24
Gross area	ft. ² / m ²	21.3 / 1.98	25.4 / 2.36	49.7 / 4.62
Absorber area	ft. ² / m ²	13.6 / 1.26	16.3 / 1.51	32.6 / 3.03
Aperture area	ft. ² / m ²	14.3 / 1.33	17.2 / 1.60	34.3 / 3.19
Dimensions				
Width	in. / mm	34.8 / 885	41.5 / 1053	81.1 / 2061
Height	in. / mm	88.2 / 2241	88.2 / 2241	88.2 / 2241
Depth	in. / mm	5.9 / 150	5.9 / 150	5.9 / 150
Weight	lbs / kg	73 / 33	86 / 39	174 / 79



Vitosol 200-T, SPE	Model	1.63 m²	3.26 m²
No. of tubes		9	18
Gross area	ft. ² / m ²	28.63 / 2.66	57.26 / 5.32
Absorber area	ft. ² / m ²	17.6 / 1.63	35.1 / 3.26
Aperture area	ft. ² / m ²	18.84 / 1.75	37.57 / 3.49
Dimensions			
Width	in. / mm	48 / 1220	94 / 2390
Height	in. / mm	89 / 2260	89 / 2260
Depth	in. / mm	6.85 / 174	6.85 / 174
Weight	lbs / kg	126 / 57	249 / 113