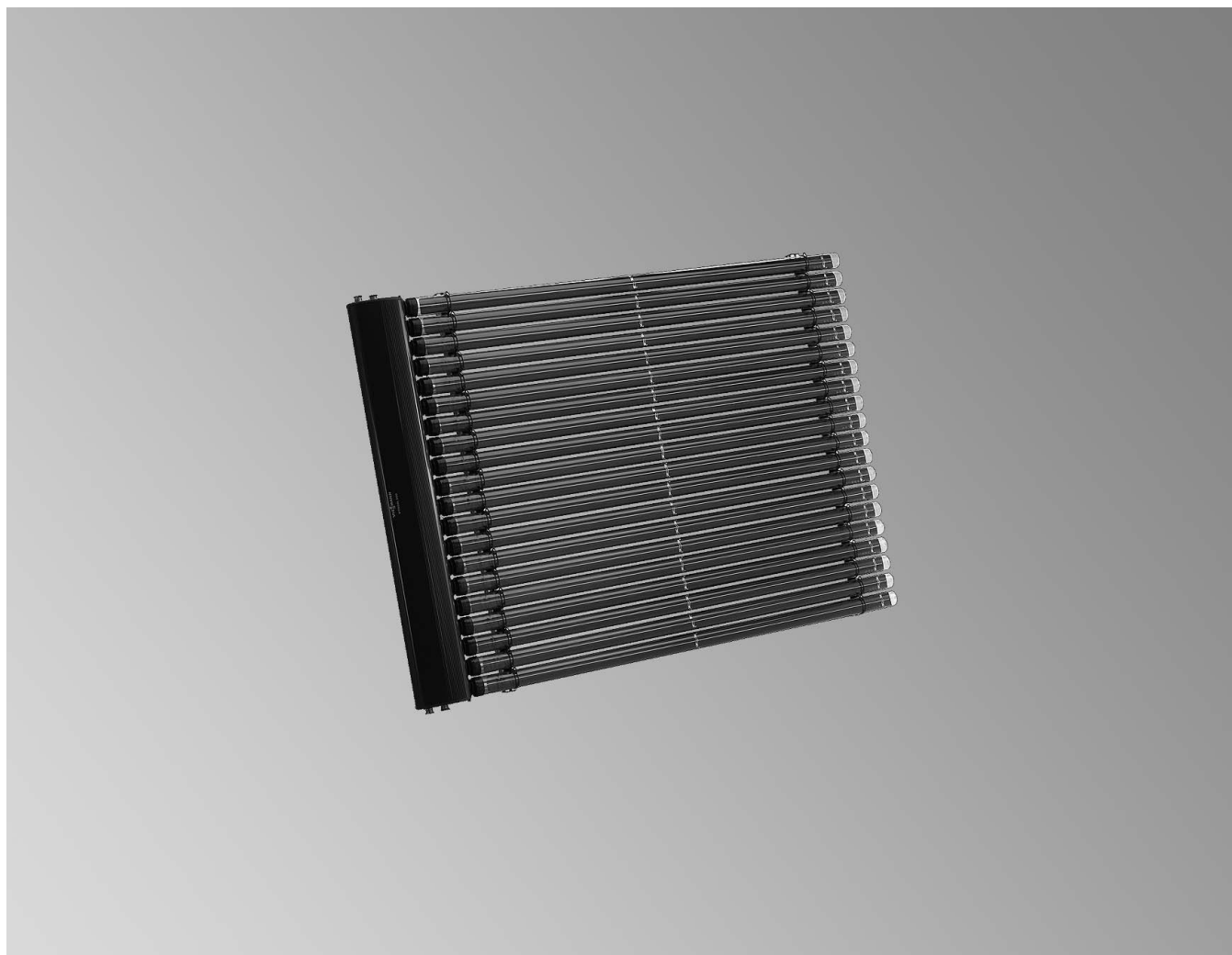


Datasheet

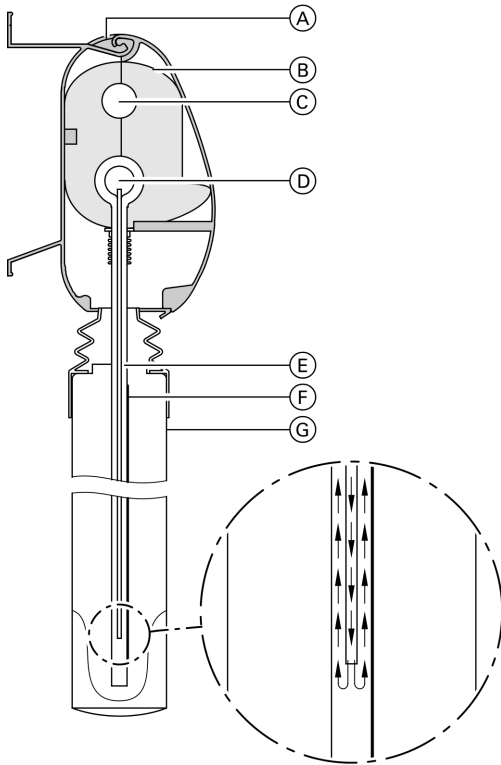
Part numbers and prices: see pricelist

**VITOSOL 200-T** Type SD2A**Vacuum tube collector**

For the heating of DHW, central heating and swimming pool water via heat exchangers as well as for the generation of process heat.

Suitable for installation on pitched and flat roofs, as well as on walls and freestanding installation.

Product description



- Ⓐ Connecting casing
- Ⓑ Melamine epoxy foam insulation
- Ⓒ Return pipe
- Ⓓ Coaxial manifold and distributor pipe
- Ⓔ Coaxial heat exchanger pipe
- Ⓕ Absorber
- Ⓖ Evacuated glass tube

The Vitosol 200-T vacuum tube collector is available in the following versions:

- 2 m² with 20 tubes
- 3 m² with 30 tubes.

The Vitosol 200-T can be installed on pitched roofs, flat roofs, on walls and as a freestanding collector.

On pitched roofs the collectors may be positioned in line (tubes at right angles to the roof ridge) or across (tubes parallel to the roof ridge).

■ DHW heating systems:

The collectors may be positioned vertically (tubes vertical, relative to the roof ridge) or horizontally (tubes parallel to the roof ridge).

■ Systems to back up central heating:

The collectors should be installed horizontally (tubes parallel to the roof ridge). This will positively influence the stagnation characteristics.

The vacuum in the glass tubes ensures optimum thermal insulation. Convection losses between the glass tube and the absorber are almost completely eliminated. This enables even low radiation levels to be utilised.

Each vacuum tube contains a Sol-titanium coated copper absorber. It ensures high absorption of insolation and low emissions of thermal radiation.

A coaxial heat exchanger pipe, through which the heat transfer medium flows, is arranged on the absorber. The heat transfer medium absorbs heat from the absorber via the heat exchanger pipe.

The heat exchanger pipe feeds into a distributor pipe.

To fully utilise the available solar energy, every vacuum tube is able to pivot so that the absorber can be turned towards the sun.

Up to 15 m² collector surface can be joined in series to create a single collector array (collectors arranged in series should be of the same size).

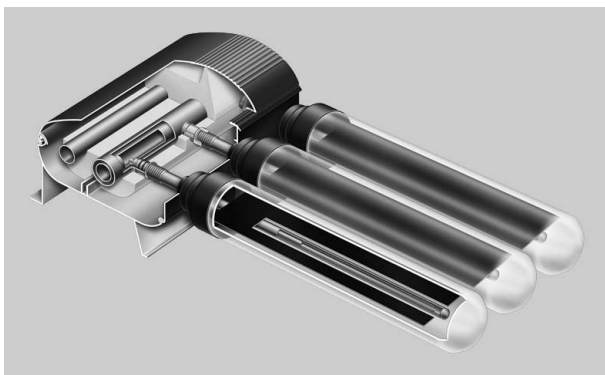
For this purpose, the standard delivery includes flexible connecting pipes with O-rings.

The flow and return pipes integrated into the connecting casing enable the connection of the solar flow and solar return pipes of several collectors on one side.

A connection set with locking ring fittings enables the collector array to be readily connected to the pipes of the solar circuit.

Install the collector temperature sensor in a sensor well in the flow pipe of the solar heating circuit.

Benefits



- Highly efficient, direct flow vacuum tube collector for high solar energy utilisation.
- Universal application through vertical or horizontal installation in any location, either on rooftops or on walls.
- Easy and safe connection of the individual tubes through an innovative plug-in system.
- The absorber areas integrated into the vacuum tubes are not susceptible to contamination.
- Tubes can be rotated for optimum orientation towards the sun, thereby maximising the energy yield.
- Highly effective thermal insulation of the header casing for minimum thermal losses.
- Easy assembly through the Viessmann fixing system and corrugated stainless steel plug-in connectors.
- The flow and return connection on one side through the integral header inside the header casing minimises the effort required to connect the pipework.
- Attractive collector design, header casing in RAL 8019 (brown).

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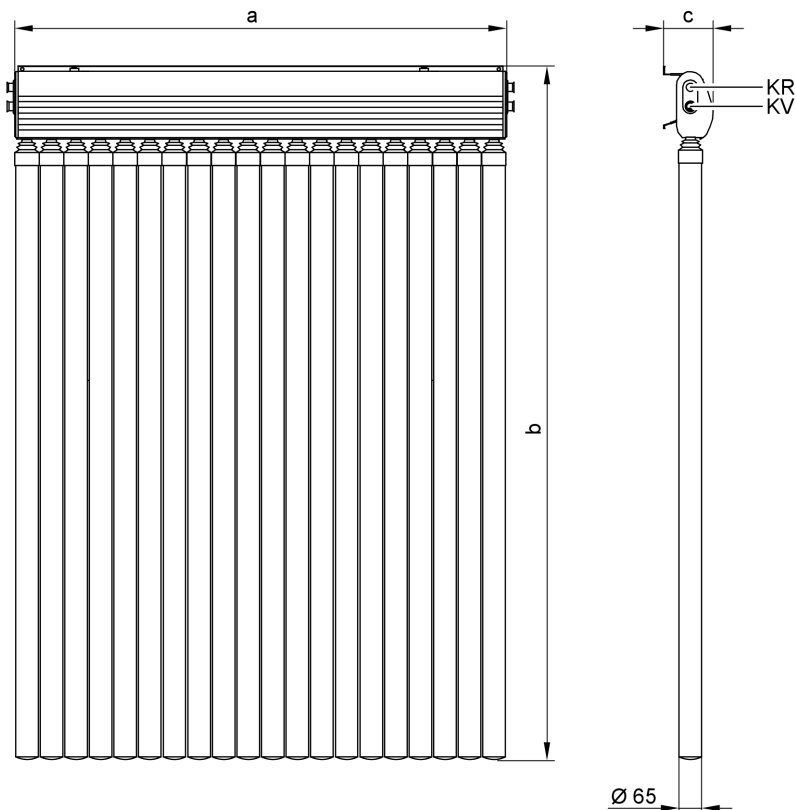
Specification

Specification

Type SD2A		2 m ²	3 m ²
Number of tubes		20	30
Gross area (required when applying for subsidies)	m ²	2.88	4.32
Absorber area	m ²	2.05	3.07
Aperture area (significant when sizing the system)	m ²	2.11	3.17
Dimensions			
Width a	mm	1418	2127
Height b	mm	2031	2031
Depth c	mm	143	143
The following values apply to the absorber area:			
– Optical efficiency	%	78.9	79.1
– Thermal loss correction value k₁	W/(m ² · K)	1.36	1.14
– Thermal loss correction value k₂	W/(m ² · K ²)	0.0075	0.0070
Thermal capacity	kJ/(m ² · K)	9.4	9.4
Weight	kg	51	76
Liquid content (heat transfer medium)	Litres	4.2	6.2
Permissible operating pressure (in a cold, sealed unvented system, the collectors must be pressurised to at least 1 bar)	bar	6	6
Max. idle temperature	°C	295	295
Connection	Ø mm	22	22
Requirements of base structure and fixings	with sufficient ballast to counteract prevailing wind forces		

Idle temperature

Temperature at the hottest part of the collector when no heat is drawn off, at 1000 W global radiation.



Delivered condition

Packed in separate cartons:

- Vacuum tubes, 10 pce. per packing unit
- Connecting casing with mounting rails

Accessories

Packed separately, subject to order:

- The fixing kits contain the components required for the relevant method of installation:
 - Timber
 - Roof hooks
 - Mounting plates
 - Mounting rails
 - Clamping brackets, screws, nuts
- Connecting pipes
- Connection set
- Sensor well set
- Spare parts set (assortment of small parts which may be lost during the collector installation)
- Solar-Divicon (pump station for the collector circuit)
- Solar pump line (for a second pump circuit)
- Connection cable, 24 m long
- Installation set for connection pipe to the DHW cylinder
- Air separator
- Quick-acting air vent valve with tee and locking ring fitting
- Locking ring fitting (with or without air vent valve)
- Connection cables, 1.0 m long, 2 pce.
- Solar flow and return line (6 and 12 m long)

- Fill valve
- Manual solar fill pump
- Solar expansion vessel with shut-off valve
- Pre-cooling vessel
- Frost protection gauge
- Heat transfer medium
Non-toxic liquid for solar heating systems with active anti-corrosion and anti-ageing protection
- Filling station
- Filling trolley
- Solar service case


Heat transfer medium specification

Frost protection:	Down to -28 °C
Density at 20 °C:	1032 to 1035 g/cm ³ to ASTM D 1122
Viscosity at 20 °C:	4.5 up to 5.5 mm ² /s to DIN 51562
pH value:	9.0 to 10.5 to ASTM D 1287
Colour:	transparent, red fluorescent
Container:	25 or 200 litres in a non-returnable container

Tested quality

This collector meets the requirements of the "Blue Angel" certificate of environmental excellence to RAL UZ 73.

Tested in accordance with Solar KEYMARK.

 CE designation according to current EC Directives

Printed on environmentally friendly,
chlorine-free bleached paper



Subject to technical modifications.

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