Technical information



Application:

The OKP tube collectors with dry heat-pipe connection can be used for heating of potable water and swimming pools, solar support of the heating system and process heat generation.

Oventrop offers two models with 10 or 20 vacuum tubes.

Installation:

The mounting rails are completely pre-assembled and just have to be fixed to the roof hooks or be mounted onto the flat roof mounting kit (roof hook sets and flat roof mounting kits to be ordered separately). This way, a time-consuming installation on site is avoided.

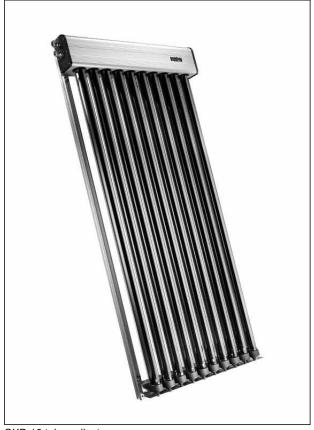
Due to their modular construction, the OKP tube collectors can be installed by one person without using a crane. The individual vacuum tubes are inserted into the collector housing and fixed at the end of the installation (see installation and operating instructions).

The collector is connected to the supply and return of the solar circuit with 22 mm compression fittings supplied with the collector.

The collector is tested according to DIN EN 12975-1 and certified according to "Solarkeymark".

Advantages:

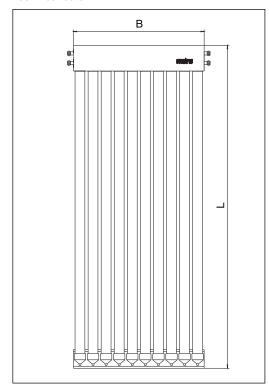
- high functional efficiency due to metal sealing (compression connection 4 x 22 mm)
- high quality corrosion-resistant materials
- high efficiency due to high quality thermal insulation ("vacuum flask" principle)
- modular construction, no crane required for installation
- replacement of individual vacuum tubes

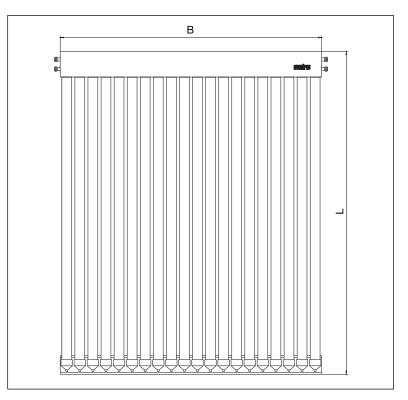


OKP-10 tube collector

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Technical data:

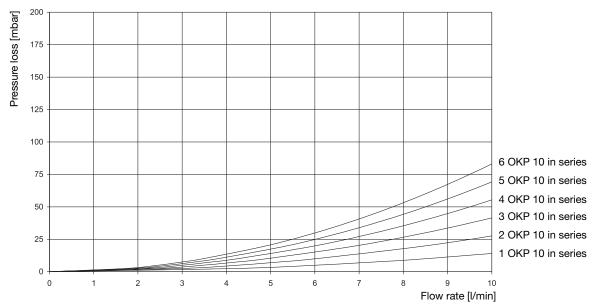




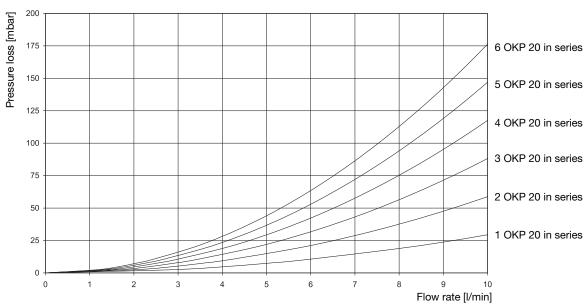
Vacuum tube collector	Unit	OKP 10	OKP 20
Number of tubes	Pieces	10	20
Gross surface area	m²	1.7	3.25
Outer dimensions (L x W)	m	1.995 x 0.852	1.995 x 1.632
Aperture surface area	m²	0.94	1.88
Absorber surface area	m²	0.81	1.62
Weight	kg	46	84
Absorption coefficient	α	≥ 0.94	≥ 0.94
Emission coefficient	ε	≤ 0.07	≤ 0.07
Collector tilt angle	Degree	15 up to 75	15 up to 75
Stagnation temperature at 1000 W/m² and 30 °C	°C	207	207
Max. permissible working pressure	bar	10	10
Collector heat return	kWh/m²	> 525	> 525
Heat exchanger content	I	1.2	2.1

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Pressure loss chart OKP 10 and OKP 20



Pressure loss indications without connection hoses



Pressure loss indications without connection hoses

k_v values

Tubes	OKP 10	OKP 20	k _v total
10	1	0	5.10
20	0	1	3.50
30	1	1	2.89
40	0	2	2.47
50	1	2	2.23
60	0	3	2.02
70	1	3	1.88
80	0	4	1.75
90	1	4	1.66
100	0	5	1.57
110	1	5	1.50
120	0	6	1.43

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F. W. OVENTROP GmbH & Co. KG

Paul-Oventrop-Straße 1

D-59939 Olsberg

Telefon +49 (0)2962 82-0
Telefax +49 (0)2962 82-400
E-Mail mail@oventrop.de
Internet www.oventrop.de

For an overview of our global presence

visit www.oventrop.de.

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