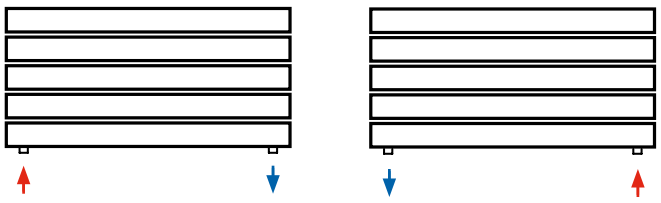
KORATHERM HORIZONTAL

Technical Data

Height H	144, 218, 366, 514, 588, 662, 884, 958 mm
Length L	500, 600, 700, 800, 900, 1000, 1100, 1200, 1400, 1600, 1800, 2000, 2300, 2600, 3000 mm
Depth B Type K10H Type K11H Type K20H Type K21H Type K22H	 61 mm 61 mm 72 mm 72 mm 115 mm
Connecting pitch h	L – 50 mm
Connecting thread	G ½ inside
Highest allowed working pressure	4 bar
Maximum water temperature	110 °C

Type of Connection

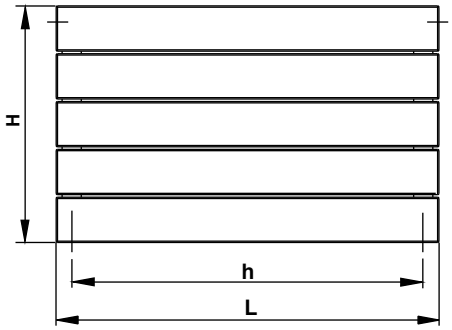


bottom connection
φ=1

Description

KORATHERM HORIZONTAL is a model of a design series of radiators with horizontally aligned profiles, which allows a **side connection from the bottom down** to the heating system with forced circulation of the heat transfer agent. Type 10 is supplied with a full top cover, Types 11, 20, 21 and 22 then with a top cover grille. Four clips are welded on the back of the radiator for installation on the wall, radiators of 1800 mm in length and longer have six welded clips. Types 20, 21 and 22 at a maximum height of 588 mm can be supplied without the back clips. These radiators are designed for mounting on the floor using stand brackets. Mounting of the radiators is not included.

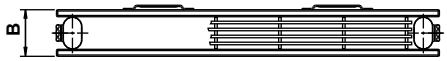
Overview of Types



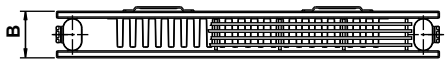
Type K10H

Type K11H

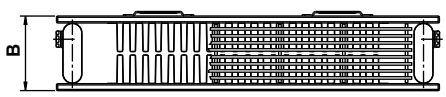
Type K20H



Type K21H



Type K22H



KORATHERM HORIZONTAL - K

Technical Data

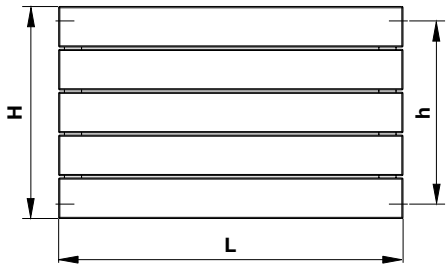
Height H	218, 366, 514, 588, 662, 884 mm
Length L	500, 600, 700, 800, 900, 1000, 1100, 1200, 1400, 1600, 1800, 2000 mm
Depth B Type K11HK Type K20HK Type K21HK Type K22HK	 61 mm 72 mm 72 mm 115 mm
Connecting pitch h	H - 50 mm
Connecting thread	G 1/2" inside
Highest allowed working pressure	4 bar
Maximum water temperature	110 °C
Flow coefficient A_T Type K11HK Type K20HK Type K21HK Type K22HK	 3.0×10^{-5} m² 3.3×10^{-5} m² 3.3×10^{-5} m² 3.3×10^{-5} m²
Coefficient of resistance ξ_T Type K11HK Type K20HK Type K21HK Type K22HK	 89.8 74.2 74.2 74.2

* In case of the **upwards** a nipple must be **ordered** (Order number Z-ND-067).

Description

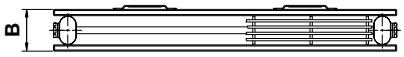
KORATHERM HORIZONTAL - K is a model of the design series of heating bodies with horizontally oriented profiles, allowing for the universal lateral connection to the heating system with the forced circulation of the heat carrier. All types are delivered with the upper covering grid. For the wall assembly there are four clips welded to the back side of the wall, whereas the bodies with the length of at least 1,800 mm have six welded clips. Types 20, 21 and 22 to the maximum height of 588 mm can be fixed to the floor using rack consoles. These bodies can consequently be ordered even without welded clips intended for fixing to the wall. Bodies fixing is not part of the delivery.

Overview of Types

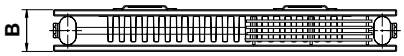


Type K11HK

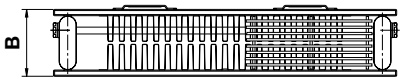
Type K20HK



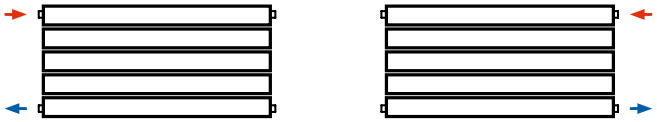
Type K21HK



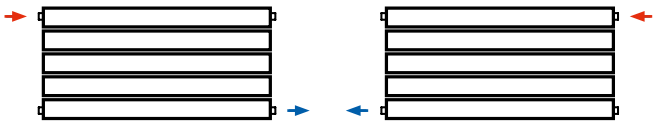
Type K22HK



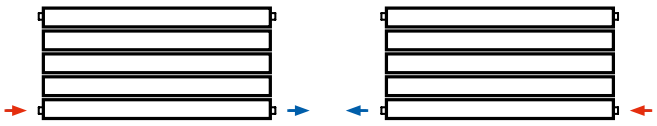
Type of Connection



Side - one side
φ=1



Side - two sides diagonal
φ=1



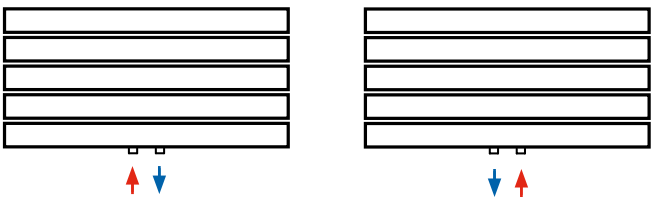
Side - two sides direct*
φ=1

KORATHERM HORIZONTAL - M

Technical Data

Height H	218, 366, 514, 588, 662, 884 mm
Length L	500, 600, 700, 800, 900, 1000, 1100, 1200, 1400, 1600, 1800, 2000 mm
Depth B Type K11HM Type K20HM Type K21HM Type K22HM	 61 mm 72 mm 72 mm 115 mm
Connecting pitch h	50 mm
Connecting thread	G ½ inside
Highest allowed working pressure	4 bar
Maximum water temperature	110 °C

Type of Connection

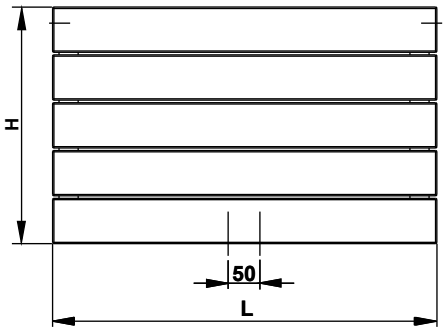


bottom middle
φ=1

Description

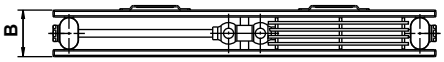
KORATHERM HORIZONTAL - M is a model of a design series of radiators with horizontally aligned profiles, which allows a **bottom middle connection** to the heating system with forced circulation of the heat agent. Type 10 is supplied with a full top cover, Types 11, 20, 21 and 22 then with a top cover grille. Four clips are welded on the back of the radiator for installation on the wall, radiators of 1800 mm in length and longer have six welded clips. Types 20, 21 and 22 at a maximum height of 588 mm can be supplied without the back clips. These radiators are designed for mounting on the floor using stand brackets. Mounting of the radiators is not included. HM Connection fittings (see page 19) can be used connection to the heating system.

Overview of Types



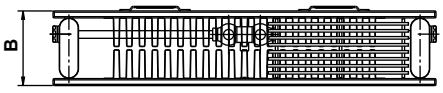
Type K11HM

Type K20HM



Type K21HM

Type K22HM

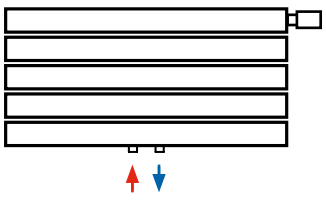


KORATHERM HORIZONTAL VKM

Technical Data

Height H	218, 366, 514, 588, 662, 884 mm
Length L	500, 600, 700, 800, 900, 1000, 1100, 1200, 1400, 1600, 1800, 2000 mm
Depth B Type 11HVKM Type 20HVKM Type 21HVKM Type 22HVKM	 61 mm 72 mm 72 mm 115 mm
Connecting pitch h	50 mm
Connecting thread	G ½ inside
Highest allowed working pressure	4 bar
Maximum water temperature	110 °C

Type of Connection

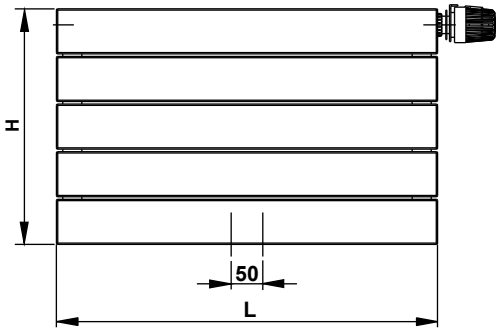


bottom middle
φ=1

Description

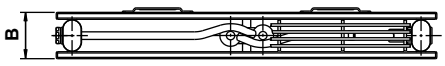
KORATHERM HORIZONTAL VKM is a model of a design series of radiators with horizontally aligned profiles, which allows a **bottom middle** connection to the heating system with forced circulation of the heat transfer agent. It is a radiator with **VENTIL KOMPAKT** version, which is equipped with an integrated control valve. Type 10 is supplied with a full top cover, Types 11, 20, 21 and 22 with a top cover grille Four clips are welded on the back of the radiator for installation on the wall, radiators of 1800 mm in length and longer have six welded clips. Types 20, 21 and 22 at a maximum height of 588 mm can be supplied without the back clips. These radiators are designed for mounting on the floor using stand brackets. Mounting of the radiators is not included.

Overview of Types



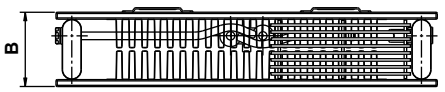
Type 11HVKM

Type 20HVKM



Type 21HVKM

Type 22HVKM



GENERAL INFORMATION –
HORIZONTAL VKM

When using design radiators in **KORATHERM HORIZONTAL VKM** version, it is necessary that the valve setting level is determined by the calculation and specified in the design documentation for their correct operation. It must be respected by an installing company when installing a heating system.

The valve is pre-set from the factory to level 8 and after flushing before starting the heating test it has to be set with a special key to the required setting level.

Example of calculation

Solution to: level of presetting

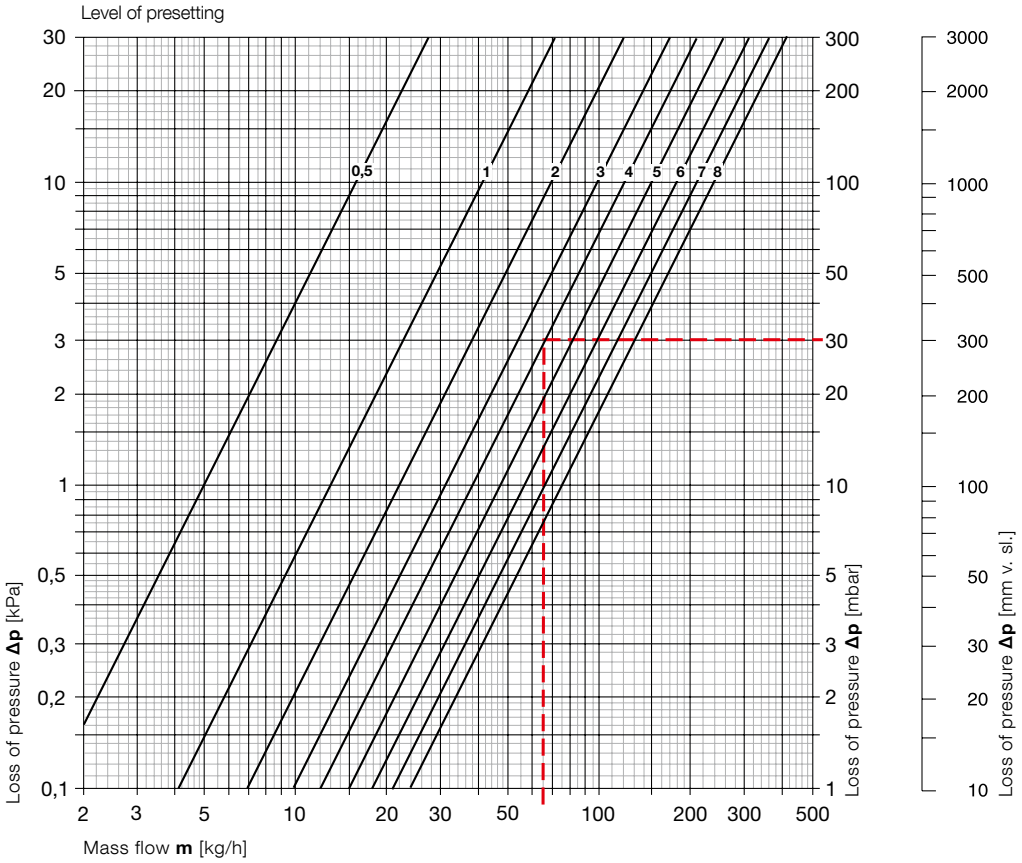
Given:	heat output	Q	=	1135 W
	cooling of water	$t_1 - t_2$	=	15 K (65/50 °C)
	pressure loss of radiator with valve	Δp	=	30 mbar
	heat capacity of water	c	=	1,163 Wh/kg.K

Solution: weight flow

$$m = \frac{Q}{c \cdot (t_1 - t_2)} = \frac{1135}{1{,}163 \cdot 15} = 65 \text{ kg/h}$$

level of presetting (see diagram): 4

Twin-pipe heating system



Valve with thermostatic head

Level of valve setting	0,5	1	1,5	2	2,5	3	3,5	4	4,5	5	5,5	6	6,5	7	7,5	8
k_v [m³/h]	0,05	**0,13**	0,18	**0,22**	0,27	**0,31**	0,35	**0,38**	0,42	**0,47**	0,52	**0,57**	0,62	**0,66**	0,71	**0,75**

Valve without thermostatic head

Level of valve setting	0,5	1	1,5	2	2,5	3	3,5	4	4,5	5	5,5	6	6,5	7	7,5	8
k_{vs} [m³/h]	0,05	**0,16**	0,22	**0,27**	0,33	**0,38**	0,41	**0,43**	0,54	**0,65**	0,82	**0,98**	1,11	**1,23**	1,33	**1,43**

Highest allowed working temperature: 110 °C

Highest allowed working pressure: 4 bar

The indicated values of k_v comply with proportionality interval of 2K.