

# RADIK



steel panel radiators





The RADIK 03/2019 catalogue  
replaces all previous issues.

The new plant KORADO, a.s. is with its technological equipment and organizational structure the most modern factory for the production of radiators in Europe.

Its modern and sophisticated set-up in the area of 30 000 m<sup>2</sup> enables further increases of production capacity whenever needed. The choice of all technology was driven by the maximum effort to ensure environment protection inside the factory as well as in its surroundings.

KORADO, a.s. is the holder of the ISO 9001 : 2015 quality certificate.



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Czech Republic



## RADIK KLASIK

---

- with right or left side connection  
(see page 19)



## RADIK KLASIK - R

---

- for a quick replacement of an old sectional radiator  
(see page 20)



## RADIK KLASIK - Z

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- zinc-coated radiator
- with side connection  
(see page 23)



## RADIK VK

---

- with bottom right connection  
(see page 24)



## RADIK VK - Z

---

- zinc-coated radiator
- with bottom right connection  
(see page 25)



## RADIK VKU

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- enables both right and left bottom connection  
(see page 26)



## RADIK VKL

---

- with bottom left connection  
(see page 27)



## RADIK MATERNELLE VK

---

- for nursery schools
- with bottom right connection  
(see page 28)





## RADIK MATERNELLE VKL

---

- for nursery schools
- with bottom left connection  
(see page 29)



## RADIK VKM

---

- with bottom middle connection  
(see page 30)



## RADIK VKM - U

---

- with bottom middle connection
- with regulation valve on the right or left side  
(see page 31)



## RADIK VKM - L

---

- enables bottom middle connection
- with regulation valve on the left side  
(see page 32)



## RADIK PLAN KLASIK

---

- with a flat front panel and side connection  
(see page 33)



## RADIK LINE KLASIK

---

- with a flat front panel with fine horizontal grooves  
(see page 33)



## RADIK PLAN KLASIK – R

---

- with flat front panel
- for replacement of a sectional radiator  
(see page 34)



## RADIK LINE KLASIK – R

---

- with flat front panel with fine horizontal grooves
- for replacement of a sectional radiator  
(see page 34)





## RADIK PLAN VK

- with a flat front panel and bottom right connection
  - with bottom right connection
- (see page 35)



## RADIK LINE VK

- with a flat front panel with fine horizontal grooves
  - with bottom right connection
- (see page 35)



## RADIK PLAN VKL

- with a flat front panel and bottom right connection
  - with bottom left connection
- (see page 36)



## RADIK LINE VKL

- with a flat front panel with fine horizontal grooves
- (see page 36)



## RADIK PLAN VKM

- with a flat front panel and bottom middle connection
  - with bottom middle connection
- (see page 37)



## RADIK LINE VKM

- with a flat front panel with fine horizontal grooves
  - with bottom middle connection
- (see page 37)



## RADIK PLAN VERTIKAL - M

- with bottom middle connection and flat front panel
  - with bottom middle connection
- (see page 38)



## RADIK LINE VERTIKAL - M

- with bottom middle connection and grooved front panel
  - with bottom middle connection
- (see page 39)





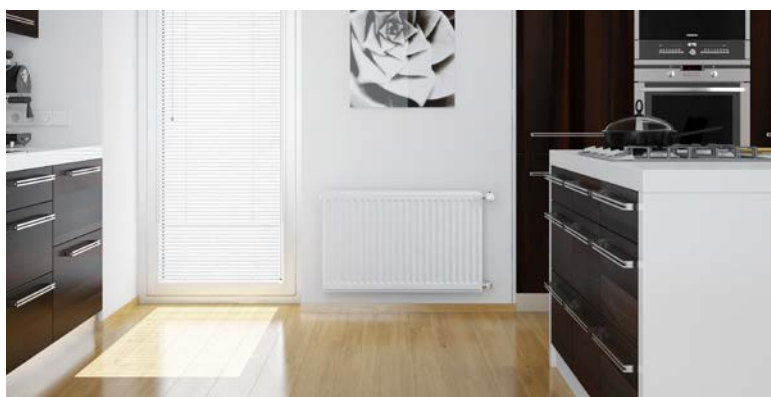
## RADIK HYGIENE

- enables right or left side connection  
(see page 41)



## RADIK HYGIENE VK

- with bottom right connection  
(see page 42)



## RADIK CLEAN

- enables right or left bottom connection  
(see page 43)



## RADIK CLEAN VK

- with bottom right connection  
(see page 44)



## RADIK RADIK STEEL PANEL RADIATORS IN HEIGHT 200 mm

- for rooms with low window sills  
(see page 45)

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## ADVANTAGES OF RADIATORS

- made to last
- [extended warranty](#)
- suitable for all energy sources
- [suitable for low temperature heating systems](#)
- high resistance to excess pressure
- [excellent finish](#)
- multifunction packaging
- [low water volume](#)
- low weight
- [ISO 9001:2015 guarantee of quality of products and services](#)
- recyclable



## Description

RADIK are steel panel radiators with a natural air convection around their heat-transfer surface. They are produced in single, double or triple panel version. The basic heat-transfer surface is created by a profiled panel with horizontally and vertically aligned channels. For an increase of heat output there is an additional convector fin welded on the inside of the panel of some of the radiator types.

The panel is made from two moulded steel shells which are spot-welded in vertical profiles and seam-welded on all four sides of the panel. A cold-rolled low-carbon content steel is used.

## Use

RADIK steel panel radiators are designed for central heating systems in buildings with the highest allowed working pressure of 10 bar where water or water solutions are used as the heating medium. The highest allowed working temperature is 110 °C. RADIK radiators are designed for single-pipe or twin-pipe systems with pressurized or gravity-fed circulation. Radiators must be installed in a professional way in hot water systems which are carried out professionally according to VDI 2035 with regard to the protection against damage caused by corrosion and scale.

The following main water quality attributes must be adhered to:

- pH range 8.5 - 9.5 (this applies for systems which do not contain aluminium)
- overall water hardness (content of Ca + Mg ions) up to 1mmol/l
- salinity within the range 300 - 500 µS/cm
- oxygen content max. 0.1 mg/l.

Low water content in the radiator enables a flexible reaction of the heating system to the required room temperature and an effective thermoregulation.

RADIK steel panel radiators in the PLAN and VERTIKAL version have a special design which will fit in with every room interior and will satisfy even the most demanding customer and home designer.

RADIK steel panel radiators in the version HYGIENE are designed for rooms with high demands on hygiene and cleanness. These radiators have been tested in an accredited laboratory and obtained the hygiene certificate for usage in health service and similar services.

## Identification

Our products are identified by:

- a printed label on the radiator packaging
- a label with bar code on the radiator packaging
- a company logo stamped on the end panels
- an inkjet print with the manufacturing date and time on the rear side of the plate of the radiator

Type number	Number of panels	Number of convector plates
<b>Type 10</b>	1	0
<b>Type 11</b>	1	1
<b>Type 20</b>	2	0
<b>Type 21</b>	2	1
<b>Type 22</b>	2	2
<b>Type 30</b>	3	0
<b>Type 32</b>	3	2
<b>Type 33</b>	3	3

## Versions

RADIK steel panel radiators are manufactured in 6 basic versions which come in individual models.

Basic versions of RADIK steel panel radiators:

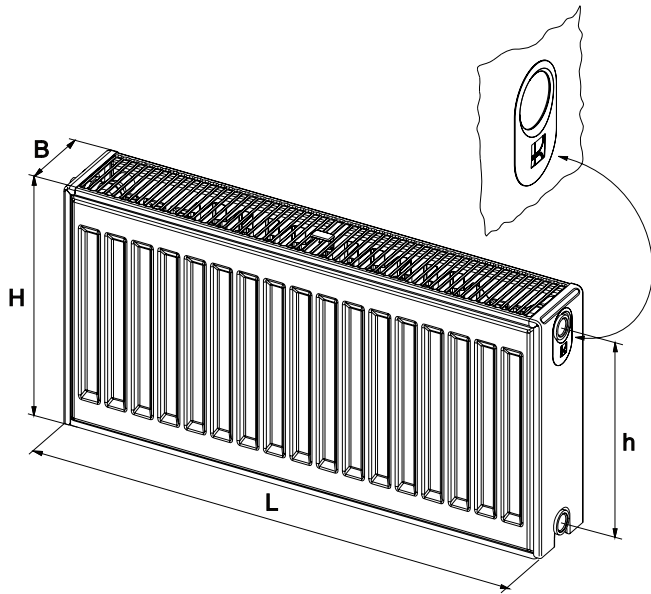
- **KLASIK**
  - radiators with side connections and a profiled front panel.
- **VENTIL KOMPAKT**
  - radiators with built-in inside distribution tappings and valve, with bottom connections and profiled front panel.
- **PLAN**
  - radiators with side connections (KLASIK version) or bottom connections (VENTIL KOMPAKT version) with a flat front panel.
- **LINE**
  - radiators with side connections (KLASIK version) or with bottom connection (VENTIL KOMPAKT version) and a flat front panel with fine horizontal grooves
- **VERTIKAL**
  - vertically aligned radiators without valve with bottom middle connection and a flat or grooved front panel
- **HYGIENE**
  - radiators without convector fins, side panels and top grill, with side or bottom connections and with a flat front panel

## Overview of RADIK models

- **KLASIK version**
  - model RADIK KLASIK
  - model RADIK KLASIK - R
  - model RADIK KLASIK - Z
- **VENTIL KOMPAKT version**
  - model RADIK VK
  - model RADIK VKU
  - model RADIK VKL
  - model RADIK VKM
  - model RADIK VKM - L
  - model RADIK VKM-U
  - model RADIK MATERNELLE VK
  - model RADIK MATERNELLE VKL
  - model RADIK VK - Z
- **PLAN version**
  - model RADIK PLAN KLASIK
  - model RADIK PLAN KLASIK-R
  - model RADIK PLAN VK
  - model RADIK PLAN VKL
  - model RADIK PLAN VKM
- **LINE version**
  - model RADIK LINE KLASIK
  - model RADIK LINE KLASIK-R
  - model RADIK LINE VK
  - model RADIK LINE VKL
  - model RADIK LINE VKM
- **VERTIKAL version**
  - model RADIK PLAN VERTIKAL - M
  - model RADIK LINE VERTIKAL - M
- **HYGIENE version**
  - model RADIK HYGIENE
  - model RADIK HYGIENE VK
  - model RADIK CLEAN
  - model RADIK CLEAN VK

# GENERAL INFORMATION

## Technical data



Height	$H = 200 \div 900$ mm
Length	$L = 400 \div 3000$ mm
Depth	$B = 47 \div 155$ mm (differs according to the type)
Connecting pitch	$h = H - 54$ mm
Connecting thread	G 1/2 inside
Highest allowed working pressure	10 bar
Test pressure	13 bar
Highest allowed working temperature	110 °C
Axial distance of the vertical stampings	33,33 mm
Basic paint	cataphoretic paint (KTL)
Surface finish	white RAL 9016
LGA	for types 11, 20, 21, 22, 33
Guarantee period	10 years

## Finish

The technology used guarantees the achievement of three basic goals:

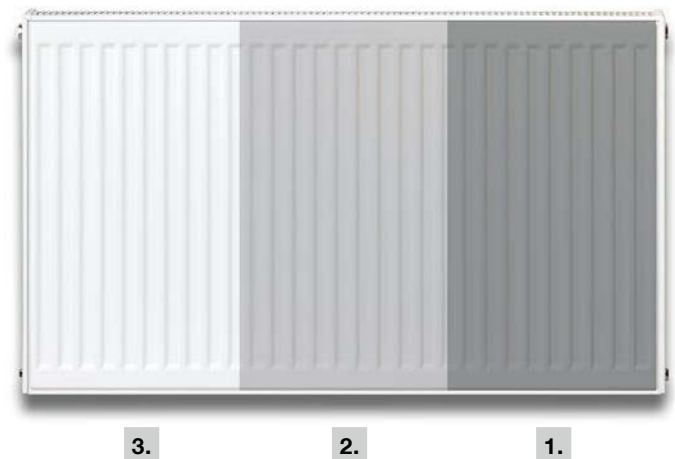
- long-term corrosion resistance and mechanical durability
- fine-quality finish
- hygienic surface

The surface finish is done in three basic phases:

- 1) Preparation of the steel surface – includes degreasing, phosphating, and rinsing in three stages.
- 2) Putting on the first layer of paint using the cataphoretic method (KTL). The layer of paint is evenly spread over the whole radiator. The KTL paint gains its final anticorrosion, adhesive, and mechanical and chemical characteristics in a drying oven. This phase of surface finishing is of decisive importance for the long life span of the radiator.
- 3) Putting on the final layer of paint – epoxy-polyester powder is applied using automatic dusting pistols in an electrostatic field of a dusting compartment. After it is oven dried and cooled, the finish of the radiator is completed.

The surface finishing of the radiators is done with a maximum effort to protect the environment, during production and use.

Radiators are delivered in white powder coat (RAL 9016) as standard, on request we also offer in other colours. For more information on the colours available please see the colour card RADIK.



1. Degreasing and phosphating
2. Cataphoretic paint
3. Epoxy-polyester powder





## Basic Equipment

All RADIK steel panel radiators except the model RADIK VKU and all radiators in height 200 mm have two upper and lower hangers welded on the back. Radiators with length 1800 mm and longer have six welded hangers.

All radiators are equipped with an air vent and a respective number of blanking plugs. All connections of RADIK steel panel radiators have the same diameter with a G 1/2 internal thread.

Except the types 10 and the models RADIK HYGIENE, RADIK HYGIENE VK, RADIK CLEAN, RADIK CLEAN VK all other models are delivered with end panels and top grills fitted.

The radiators in height 200 mm are delivered with the necessary number of "Split Brackets Plus" designed for mounting on the wall. Stand brackets Z-U400 can be delivered on special order.

## Transport and storage

The radiators are stored on pallets according to the manufacturer's internal guidelines. Pallets with radiators should only be transported in covered transport. Radiators which are transported unprofessionally and incorrectly can be deformed or otherwise damaged. It is especially dangerous to transport long radiators on smaller pallets or on top of radiators of a different size.

Radiators must be stored where they are protected from the effects of the weather. They are not to be stored in open, uncovered areas. If they are stored on a flat floor, a maximum of two pallets of the same size may be put on top of each other. Pallets with radiators of type 10 and 11 and all types of the PLAN version may be stored only in one layer.

## Heat output and registration

Heat outputs of the steel panel radiators RADIK were measured according to EN 442 in an accredited laboratory.

Conformity with valid European regulations and standards was certified by Strojírenský zkušební ústav (Engineering Testing Institute) in Brno, notified body No. 1015.

Certified registration for using national quality marks RAL (Germany) - see p. 73.

## Related norms

ČSN EN 442  
DIN EN 442  
ČSN 06 1101  
ČSN 06 1122  
ČSN 06 0310  
ČSN 07 7401  
DIN 55 900

## Packaging

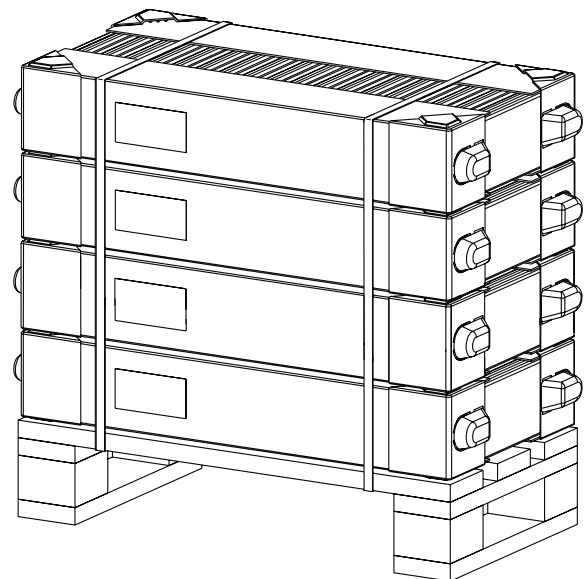
All steel panel radiators are delivered in uniform packaging, which consists of:

- corrugated cardboard
- plastic reinforcing corner covers
- polyethylene shrinking foil
- strip band
- inserted information sheet

The packaging protects the radiator during transportation, handling, assembly and after assembly. It should not be removed before the installation and other work is completed.



## Packaging - pallet



# GENERAL INFORMATION

## Guidelines for mounting

Basic guidelines for the installation of steel panel radiators:

- centre below a window
- centre of radiator and of window at the same place
- air movement around the radiator should not be restricted

We offer an assortment of brackets for RADIK steel panel radiators. That assortment is shown in the KORAMONT catalogue and covers most installers needs and all main construction materials. Its construction allows mounting of the radiator with minimum damage of its packaging (at the place of mounting and connection of necessary parts) and the packaging can be removed after the completion of all construction and other work.

We recommend using such fittings for the connection of steel panel radiators as will secure:

- regulation of water flow through the radiator
- closing off radiator at the inlet and outlet of water flow
- emptying and filling of the radiator
- disconnecting of radiator without interruption of the heating system operation

For mounting of RADIK steel panel radiators of VENTIL KOMPAKT version, we recommend to use KORADO pre-fixing template, which will supply, in every respect, radiators presence at a construction site (see KORAMONT catalogue).

## Guarantees and Quality

The manufacturer guarantees that the product is leak proof and guarantees stated heat output of RADIK steel panel radiators connected to the hot-water systems for 10 years from the date of sale. The manufacturer accepts no responsibility for deformation or damage of the radiators caused during their transport, handling, or storage. The guarantee does not apply to mechanical or other damages caused by unqualified installation of the radiators.

RADIK products guarantee the quality, as is documented by certificates issued by LGA Nürnberg (certificate on suitability of radiators for installation in schools and kindergartens) and Engineering Testing Laboratory, SZ no. 202 Brno and registration of national quality marks RAL (Germany), BSI (England) and NF (France) - see p. 71.

The company KORADO, a.s. has held a quality certificate under the norm ISO 9001 since 1997. That quality control system describes in advance all conditions, requirements, and parameters with respect to technical, manufacturing, commercial, transport, and service issues. The customer is the main goal of the entire system and his satisfaction influences the goals and plans of the company KORADO. The ISO 9001:2008 quality control system guarantees the customer excellent, long-lasting quality of products and services.

## Multifunctional package





## Description

Models in VENTIL KOMPAKT version are equipped with a built-in distribution pipeline and valve. This construction allows **connection of the radiator from the bottom** to the heating system. The axial distance of the bottom outlet is always 50 mm and has a G 1/2 internal thread. Its construction is intended for modern heating systems with pressurized circulation of the heating medium and horizontal piping below the radiator in the floor, in the wall, or on the wall covered with a strip.

## Installation to the heating system

Modern heating systems require the use of fittings, which will enable the installer to close off the radiator so that it can be changed without interrupting the operating system. The choice of fittings depend on the requirements and the material of the pipes:

1. copper, thin-wall steel, plastic or a plastic-metal-plastic combination
  - use a compact connecting fitting with a pitch of 50 mm and with reduction of G 1/2 to G 3/4 by setting appropriate clamping screws according to the material and size of connecting pipes
2. black steel pipes with tubular threading
  - use 2 closing screws



## Models

VENTIL KOMPAKT version of steel panel radiators is manufactured in several models. The construction of the models varies particularly with respect to the location of the connections and position of the connection pipes.

Model	Position of connection	Description
RADIK VK	only right	on page 24
RADIK VK - Z	only right	on page 25
RADIK VKU	right or left	on page 26
RADIK VKL	only left	on page 27
RADIK VKM	only middle connection	on page 30
RADIK VKM-U	only middle connection	on page 31
RADIK VKM - L	only middle connection	on page 32
RADIK MATERNELLE VK	only right	on page 28
RADIK MATERNELLE VKL	jen vlevo	on page 29
RADIK PLAN VK	only right	on page 35
RADIK PLAN VKL	only left	on page 36
RADIK PLAN VKM	only middle connection	on page 37
RADIK LINE VK	only right	on page 35
RADIK LINE VKL	only left	on page 36
RADIK LINE VKM	only middle connection	on page 37
RADIK HYGIENE VK	only right	on page 42
RADIK CLEAN VK	only right	on page 44

## Valve

At the time of assembly of the radiator a valve Heimeier n. 4360 is fitted into the built-in distribution pipeline. It is characterized by the following data:

- value of coefficient kv - see page 16
- allows presetting of water flow at 8 levels -factory preset for position eight
- to preset to another position a special key is required
- if any other preset position is needed, the installer should do it after flushing the installation but before the system is turned on
- the valve is tightened at the factory to their norm
- outside connecting thread M 30 x 1.5
- the connecting thread of the valve has a white plastic cover, which gives it protection during transportation and assembly of the radiator and at the same time can be used for setting the valve in the off or on position during assembly



# GENERAL INFORMATION - VENTIL KOMPAKT

## Thermostatic heads

To set and regulate the temperature in a room it is necessary to fit a thermostatic head on the VENTIL KOMPAKT radiators. For direct fitting only thermostatic heads can be used with connecting thread M 30 x 1.5. Below is an overview with connecting thread M 30 x 1.5.

with connecting thread M 30 x 1.5. Below is an overview of the basic types made by different manufactures for the Czech market. For information about other makes, please, contact the manufacturer or their representative on the market concerned.

1. Danfoss - Type RAE-K 5034, 013G5034
2. Danfoss - Type RAX-K 013G6080
3. Danfoss - *living eco*® 014G0052
4. Eberle - Type TRV 4
5. Eberle - Type RT 414
6. Giacomini - Type R460H
7. Heimeier - Type K
8. Heimeier - Type DX
9. Heimeier - Type WK
10. Herz - Type 1 7260 98

11. Herz - Type 1 9200 38
12. Herz - Type 1 9260 98
13. Honeywell - Type Thera 4
14. Honeywell - Type Thera 4 Design
15. Honeywell - Type Thera 200 Design
16. Ivar - Type T 5000
17. Ivar - Type T 3000
18. Oventrop - Type Uni LH
19. Oventrop - Type Uni SH
20. Siemens - Type RTN 51



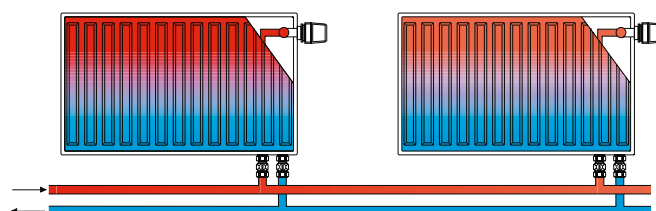




## Two-pipe heating system

When installing VENTIL KOMPAKT steel panel radiators, it is necessary to preset the valve to such a position that the radiator will perform as calculated. It is the responsibility of the installer to make sure this has been done.

At the factory the valve is preset at level 8 and after rinsing and before the start of the heating test it must be set by a special key to the desired position.



## Example of calculation

**Target value:** level of valve setting

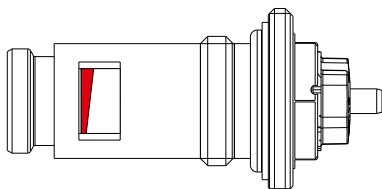
**Values known:** heat output  
cooling of water  
pressure loss of radiator with valve  
heat capacity of water

$Q = 1135 \text{ W}$   
 $t_1 - t_2 = 15 \text{ K (65/50 °C)}$   
 $\Delta p = 30 \text{ mbar}$   
 $c = 1,163 \text{ Wh/kg.K}$

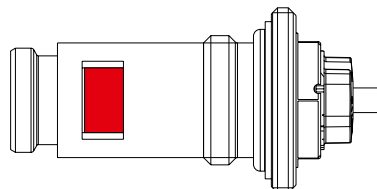
**Solution:** mass flow

level of presetting (see diagram):

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



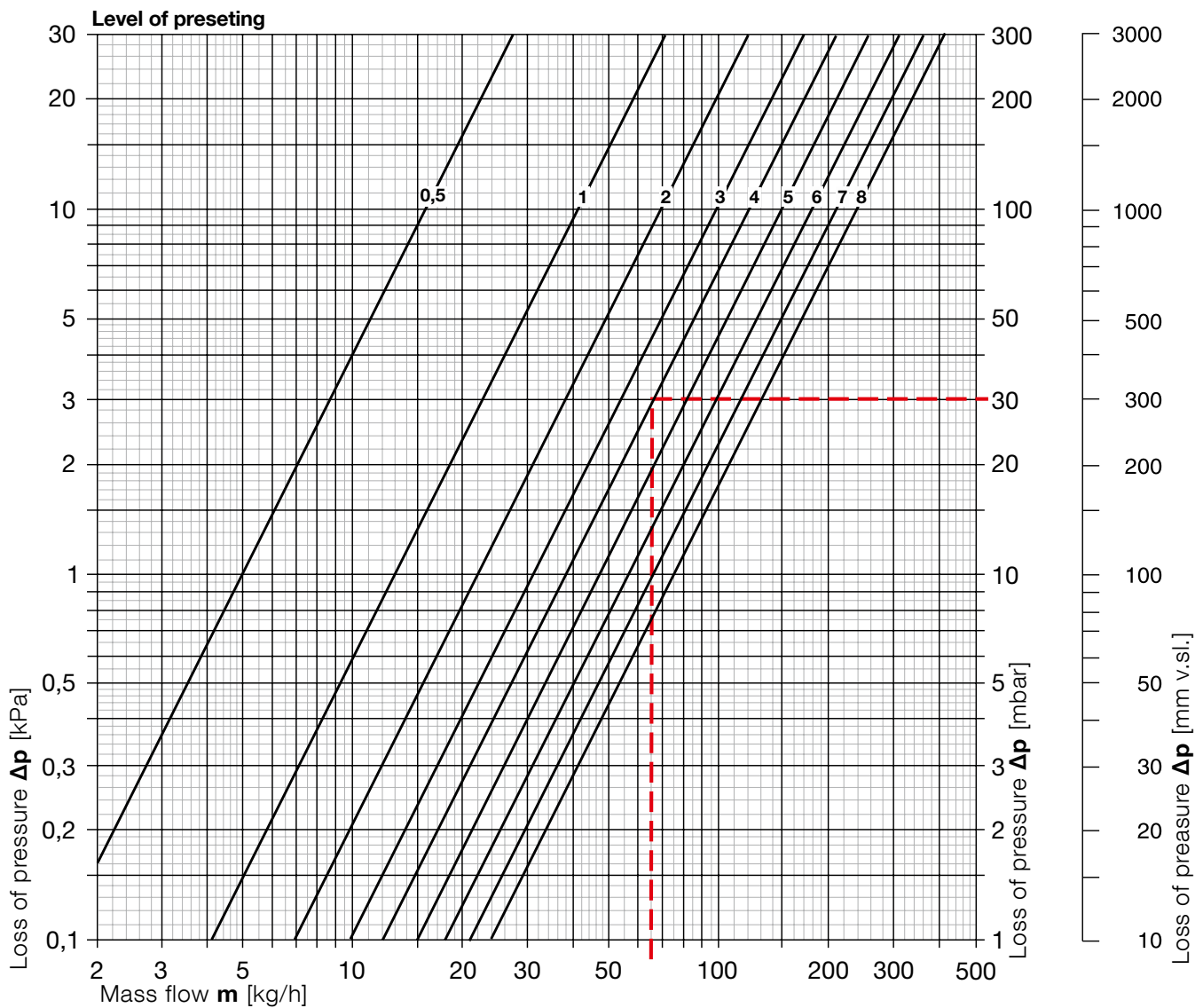
Level 4 presetting



Level 8 presetting

# GENERAL INFORMATION - VENTIL KOMPAKT

## Two-pipe heating system



## Table

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
$k_v$ [m <sup>3</sup> /h]	0,05	<b>0,13</b>	0,18	<b>0,22</b>	0,27	<b>0,31</b>	0,35	<b>0,38</b>	0,42	<b>0,47</b>	0,52	<b>0,57</b>	0,62	<b>0,66</b>	0,71	<b>0,75</b>

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
$k_{vs}$ [m <sup>3</sup> /h]	0,05	<b>0,16</b>	0,22	<b>0,27</b>	0,33	<b>0,38</b>	0,41	<b>0,43</b>	0,54	<b>0,65</b>	0,82	<b>0,98</b>	1,11	<b>1,23</b>	1,33	<b>1,43</b>

Highest allowed working temperature: 110 °C

Highest allowed working pressure: 4 bar

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

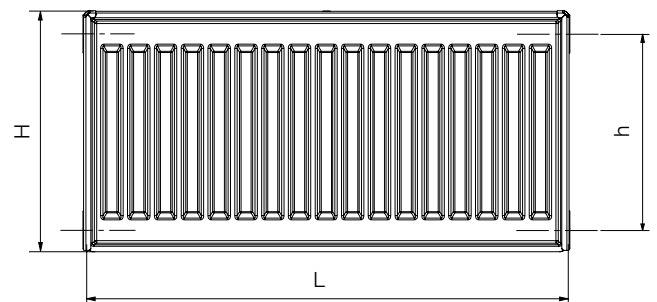


## Description

**RADIK KLASIK** model is a steel panel radiator in KLASIK version which allows **left or right side connection** to the heating system circuit. It is intended for heating systems which are gravity or pressure fed.

Two upper and lower hangers are welded at the back of the radiator. Radiators 1800 mm long and longer have six welded hangers.

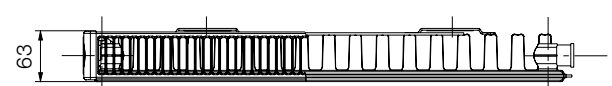
## Overview of types



**Type 10**



**Type 11**



**Type 20**



**Type 21**



**Type 22**



**Type 33**



## Technical data

Height H	300, 400, 500, 600, 700, 900 mm
Length L	400, 500, 600, 700, 800, 900, 1000, 1100, 1200, 1400, 1600, 1800, 2000, 2300, 2600, 3000 mm
Connecting pitch	$h = H - 54$ mm
Connecting thread	4 x G1/2 inside
Highest allowed working pressure	10 bar
Highest allowed working temperature	110 °C
Radiator connection	left or right side

## Examples of connection to the heating system



side - one side  
 $\phi = 1$



side - two sides diagonal  
 $\phi = 1$   
recommended for:  $L \geq 3 \times H$



side - two sides direct  
 $\phi = 0,9$

Guidelines for ordering are described on page 75.

# RADIK KLASIK - R



## Description

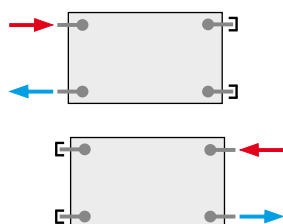
The **RADIK KLASIK - R** model is a steel panel radiator in KLASIK design, modified for swift **replacement of cast-iron or steel sectional radiators with a connecting pitch of 500 mm**.

The height  $H = 554$  mm guarantees its problem-free fitting in place of the old radiator. It allows for **left or right side connection** to the heating system distribution mains and is designed for heating systems with forced or gravity circulation. Two upper and lower fixing hangers are welded onto the back, radiators 1800 mm in length or longer have six welded fixing hangers.

## Technical data

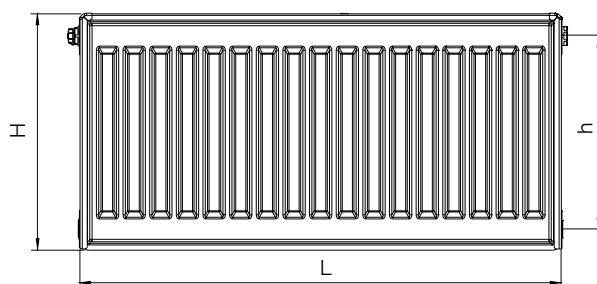
<b>Height H</b>	554 mm
<b>Length L</b>	400, 500, 600, 700, 800, 900, 1000, 1100, 1200, 1400, 1600, 1800, 2000 mm
<b>Depth B</b>	
Type 20 R	66 mm
Type 21 R	66 mm
Type 22 R	100 mm
Type 33 R	155 mm
<b>Connecting pitch</b>	500 mm
<b>Connecting thread</b>	4 x G1/2 inside
<b>Highest allowed working pressure</b>	10 bar
<b>Highest allowed working temperature</b>	110 °C
<b>Radiator connection</b>	left or right side

## Examples of connection to the heating system



side - one side  
 $\varphi = 1$

## Overview of types



**Type 20 R**



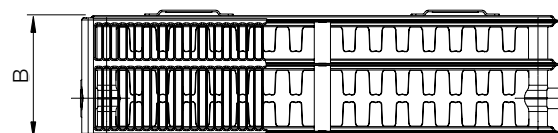
**Type 21 R**



**Type 22 R**



**Type 33 R**



Guidelines for ordering are described on page 75.

The company reserves the right to make technical changes.





You can find a replacement for your cast-iron and steel sectional radiators yourself in the RADIK KLASIK - R steel panel radiator range

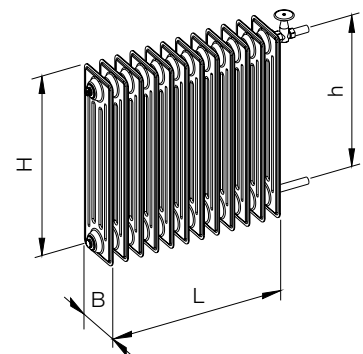
Sectional radiators						Steel panel radiator				[mm]
cast-iron				steel		RADIK KLASIK - R				
575 ÷ 610						575 ÷ 610				H
500						500				h
110	160	220	200	150	200	66	66	100	155	B
500/110	500/160	500/220	500/200	500/150	500/200	20 R	21 R	22 R	33 R	Type
number of sections n [pcs]				number of sections n [pcs]		appropriate length of the radiator L [mm]				
5	3	3	3	5	4	400				→
6	4	3	4	6	5	500	400			→
7	5	4	4	7	5	600	400	400		→
8	6	5	5	8	7	700	500	400		→
10	7	6	7	10	8	800	600	500		→
11	8	6	7	11	9	900	700	500	400	→
12	9	7	8	12	10	1000	800	600	400	→
13	10	8	9	13	11	1100	800	700	500	→
15	11	9	10	15	12	1200	900	700	500	→
16	12	10	11	16	14	1400	1000	800	600	→
17	13	10	12	17	14	1400	1100	800	600	→
18	14	11	12	18	15	1600	1100	900	600	→
20	15	12	13	20	16	1600	1200	900	700	→
22	16	13	15	22	18	1800	1400	1000	700	→
24	18	14	16	24	19	2000	1400	1100	800	→
25	19	15	17	25	21	2000	1600	1200	800	→
26	20	15	17	26	22	1600	1200	900		→
29	22	17	20	29	24	1800	1400	1000		→
30	23	18	20	30	25	1800	1400	1000		→
33	25	20	22	33	27	2000	1600	1100		→
35	26	21	23	35	28	1600	1100		→	
38	28	23	26	38	31	1800	1200		→	
38	29	23	26	38	31	1800	1400		→	
40	30	23	26	40	32	1800	1400		→	
44	33	26	29	44	36	2000	1400		→	
50	38	30	34	50	41	1600				→
57	43	34	38	57	46	1800				→
64	48	38	43	64	51	2000				→

### Identification of the old radiator:

- Determine material (cast-iron/steel)\*  
\* if the surface of your sectional radiator is rough, you have a cast-iron radiator
- Measure the height of the radiator **H**
- Check whether the connecting pitch **h** is 500 mm
- Measure the depth of the radiator **B**
- Count the number of sections ("ribs")

### Looking for a replacement in the table:

- According to identification (see above), look in the left part of the table for the appropriate column, corresponding to the type of the old radiator
- Find the row with the appropriate number of sections **n** (if the precise number is not shown in the table, choose the next highest)
- Select the most suitable length for the new steel panel radiator **L** in the row with the appropriate number of sections in the right (blue) part of the table (this depends on the type of steel panel radiator).
- After selecting the type of steel panel radiator, once again check its depth **B**, to see whether it meets your requirements



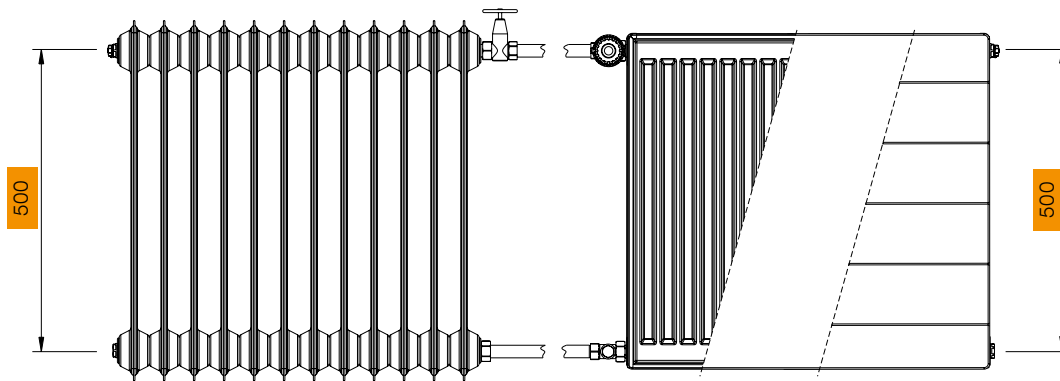
**H** [mm] - height of the radiator  
**h** [mm] - connecting pitch  
**L** [mm] - length of the radiator  
**B** [mm] - depth of the radiator

### Heat output of sectional radiators

material of radiator	connecting pitch h [mm]	depth B [mm]	heat output [W/section] (90/70/20 °C)
steel	500	150	90
		160	93
		200	110
		220	121
cast-iron/cast-iron	500	110	92
		150	107
		160	120
		200	134
		220	151
		250	169

Source of information: Czechoslovak catalogue for construction 14/5 Radiators, basic advice for 1991

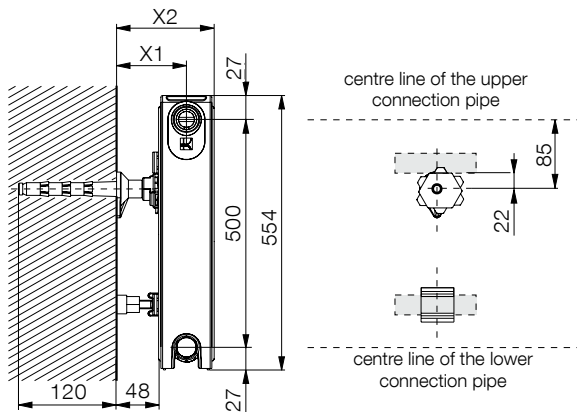
# RADIK KLASIK - R



## Mounting data

The Z-U140 bracket can be used for fixing the radiator at a fixed distance of the radiator from the wall of 48 mm, or the Z-U290 bracket with variable distance of up to 100 mm from the wall.

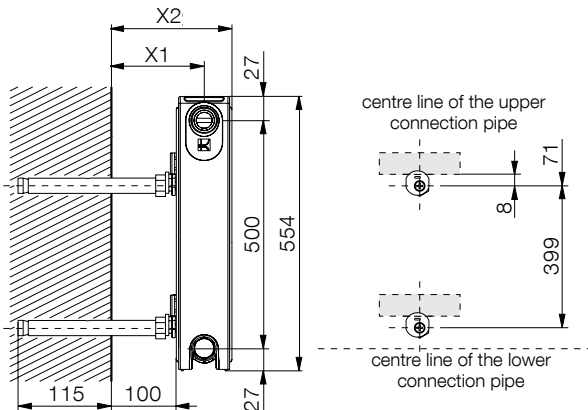
### Z-U140 bracket



Type	20 R	21 R	22 R	33 R
<b>X1</b>	81	81	98	153
<b>X2</b>	114	114	148	203

The X2 figures are increased by 2 mm for PLAN/LINE radiators.

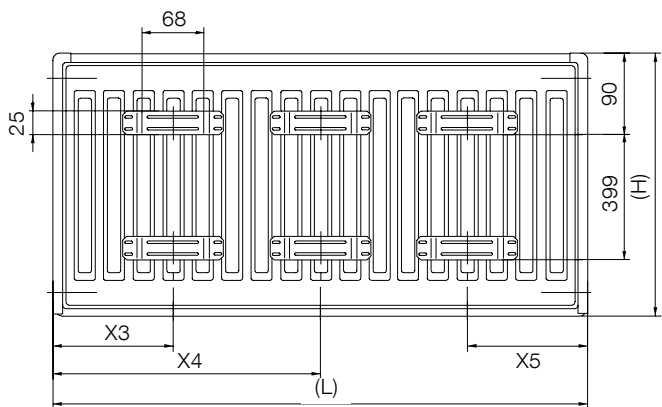
### Z-U290 bracket



Type	20 R	21 R	22 R	33 R
<b>X1</b>	133	133	150	205
<b>X2</b>	166	166	200	255

The X2 figures are increased by 2 mm for PLAN/LINE radiators.

## Mounting data



Length L [mm]	400	500 ÷ 1600	1800	2000
<b>X3</b>	133	133	133	133
<b>X4</b>	-	-	900	1000
<b>X5</b>	133	133	133	133

## Basic technical data

Typ	20 R	21 R	22 R	33 R
	20 PLAN R 20 LINE R	21 PLAN R 21 LINE R	22 PLAN R 22 LINE R	33 PLAN R 33 LINE R
<b>Height H [mm]</b>	554	554	554	554
<b>Radiator weight [kg/m]</b>	21,4	25,9	31,9	47,5
	25,8 *	30,3 *	36,3 *	51,9 *
<b>Water volume [l/m]</b>	5,5	5,5	5,5	8,2
<b>Flow coefficient A<sub>v</sub> [m<sup>2</sup>]</b>	1,0 x 10 <sup>-4</sup> (DN 15)	1,0 x 10 <sup>-4</sup> (DN 15)	1,0 x 10 <sup>-4</sup> (DN 15)	1,18 x 10 <sup>-4</sup> (DN 15)
<b>Resistance coefficient ξ<sub>r</sub> [-]</b>	8,5 (DN 15)	8,5 (DN 15)	8,5 (DN 15)	5,8 (DN 15)
<b>Nominal heat output [W/m]</b>	914	1210	1576	2257
	846 *	1148 *	1532 *	2196 *
<b>Temperature exponent n [-]</b>	1,3010	1,3300	1,3344	1,3364
	1,2801 *	1,3217 *	1,3226 *	1,3202 *

\*These values are valid for PLAN-R and LINE-R radiators



## Description

RADIK zinc-coated panel radiators are intended for rooms with a high risk of corrosion because of high humidity or chemically aggressive atmospheres. Resistance to corrosion is increased by a layer of zinc coat, which slows down the corrosion process and results in an extended life of the radiator.

**RADIK KLASIK - Z** model is a steel panel radiator in KLASIK version which allows **left or right side connection** to the heating system circuit. It is intended for heating systems which are gravity or pressure fed. Two upper and lower hangers are welded at the back of the radiator. Radiators 1800 mm long and longer have six welded hangers.

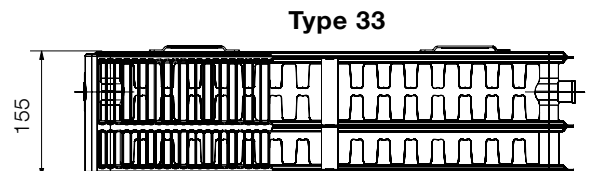
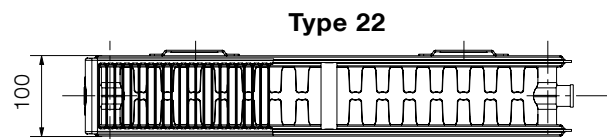
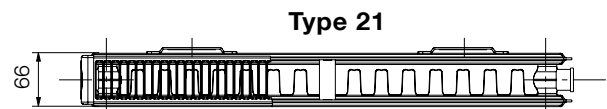
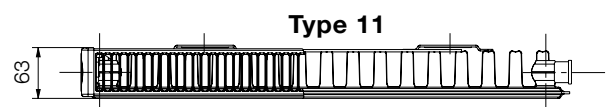
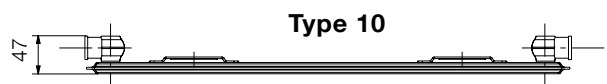
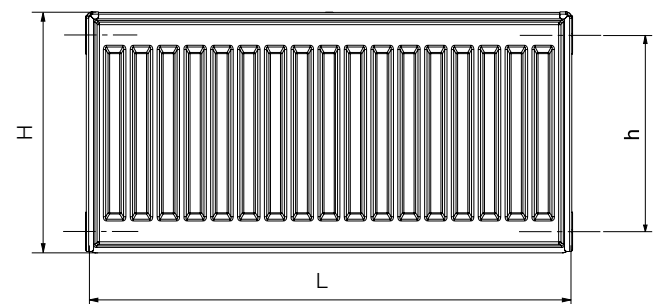
### Notice:

Because of the particular qualities of the zinc-coating and the use of special polyester paint, the zinc-coated radiators are not exactly identical in appearance to the standard RADIK radiators.

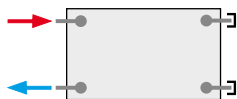
## Technical data

Height H	300, 400, 500, 600, 700, 900 mm
Length L	400, 500, 600, 700, 800, 900, 1000, 1100, 1200, 1400, 1600, 1800, 2000 mm
Connecting pitch	$h = H - 54$ mm
Connecting thread	4 x G1/2 inside
Highest allowed working pressure	10 bar
Highest allowed working temperature	110 °C
Radiator connection	left or right side

## Overview of types



## Examples of connection to the heating system



side - one side  
 $\phi = 1$



side - two sides diagonal  
 $\phi = 1$   
recommended for:  $L \geq 3 \times H$



side - two sides direct  
 $\phi = 0,9$

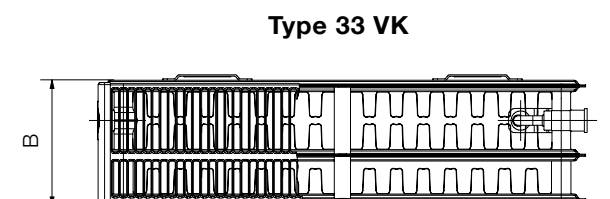
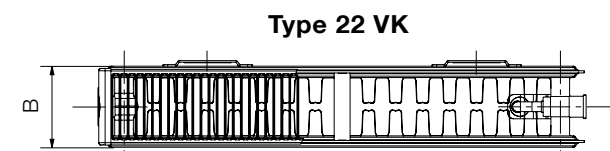
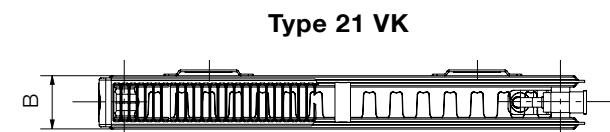
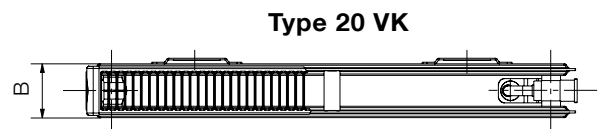
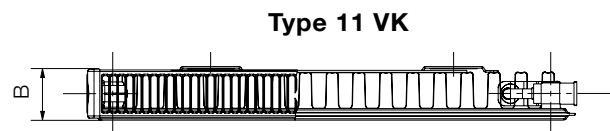
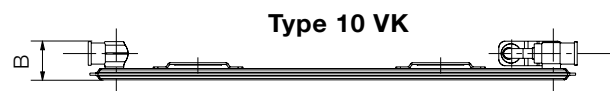
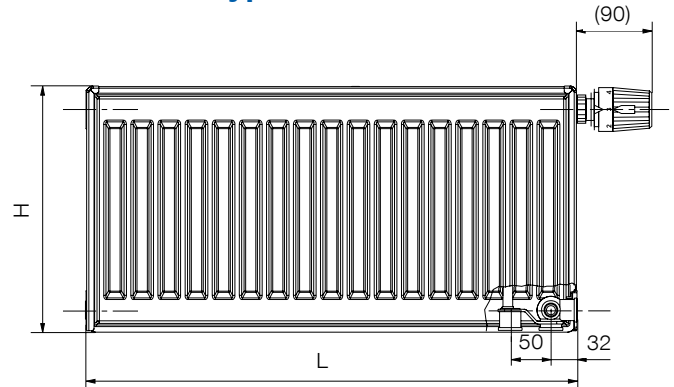
# RADIK VK



## Description

**RADIK VK** model is a steel panel radiator in VENTIL KOMPAKT version which allows **right bottom connection** to a pressure fed heating system. Two upper and lower hangers are welded onto the back. Radiators 1800 mm and longer have six hangers.

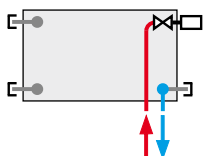
## Overview of types



## Technical data

<b>Height H</b>	300, 400, 500, 600, 700, 900 mm
<b>Length L</b>	400, 500, 600, 700, 800, 900, 1000, 1100, 1200, 1400, 1600, 1800, 2000, 2300, 2600, 3000 mm
<b>Depth B</b>	
Type 10 VK	47 mm
Type 11 VK	63 mm
Type 20 VK	66 mm
Type 21 VK	66 mm
Type 22 VK	100 mm
Type 33 VK	155 mm
<b>Connecting pitch</b>	50 mm
<b>Connecting thread</b>	6 x G1/2 inside
<b>Highest allowed working pressure</b>	10 bar
<b>Highest allowed working temperature</b>	110 °C
<b>Radiator connection</b>	right bottom

## Examples of connection to the heating system



right bottom  
 $\varphi = 1$

Guidelines for ordering are described on page 75.

The company reserves the right to make technical changes.





## Description

RADIK zinc-coated panel radiators are intended for rooms with a high risk of corrosion because of high humidity or chemically aggressive atmospheres. Resistance to corrosion is increased by a layer of zinc coat, which slows down the corrosion process and results in an extended life of the radiator.

**RADIK VK - Z** model is a steel panel radiator in VENTIL KOMPAKT version which allows **right bottom connection** to a pressure fed heating system. Two upper and lower hangers are welded onto the back. Radiators 1800 mm and longer have six hangers.

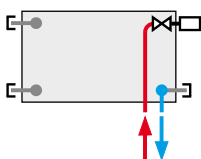
### Notice:

Because of the particular qualities of the zinc-coating and the use of special polyester paint, the zinc-coated radiators are not exactly identical in appearance to the standard RADIK radiators.

## Technical data

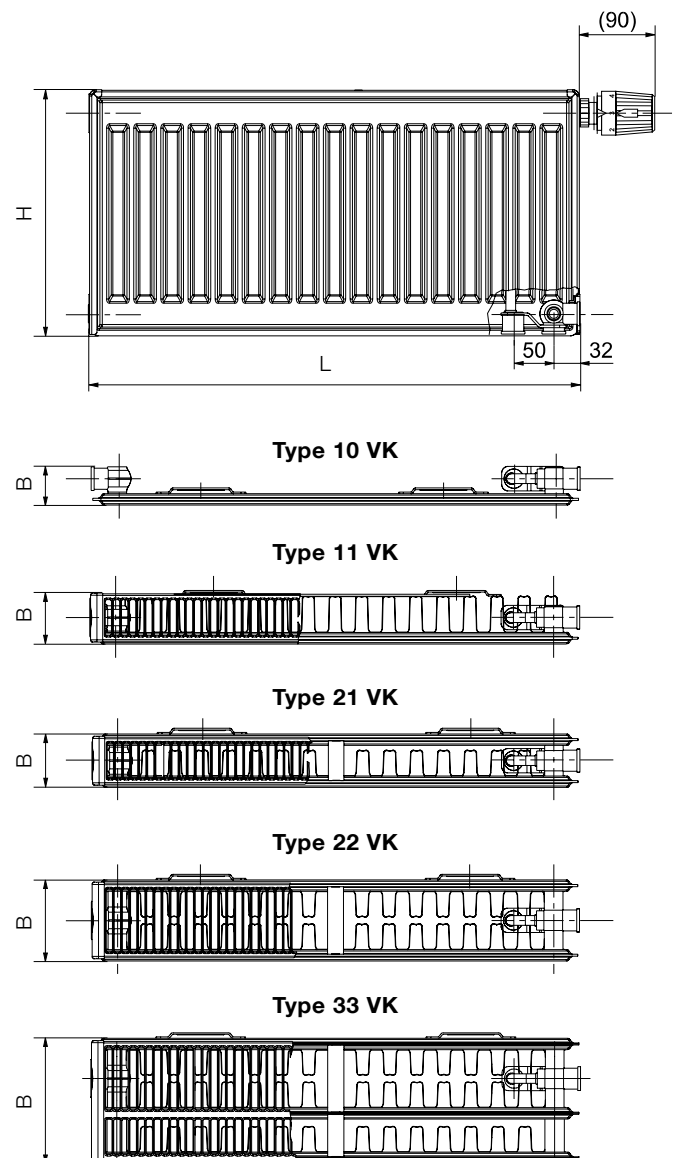
<b>Height H</b>	300, 400, 500, 600, 700, 900 mm
<b>Length L</b>	400, 500, 600, 700, 800, 900, 1000, 1100, 1200, 1400, 1600, 1800, 2000 mm
<b>Depth B</b>	
Type 10 VK	47 mm
Type 11 VK	63 mm
Type 21 VK	66 mm
Type 22 VK	100 mm
Type 33 VK	155 mm
<b>Connecting pitch</b>	50 mm
<b>Connecting thread</b>	6 x G1/2 inside
<b>Highest allowed working pressure</b>	10 bar
<b>Highest allowed working temperature</b>	110 °C
<b>Radiator connection</b>	right bottom

## Examples of connection to the heating system



right bottom  
φ = 1

## Overview of types



Guidelines for ordering are described on page 75.

# RADIK VKU



## Description

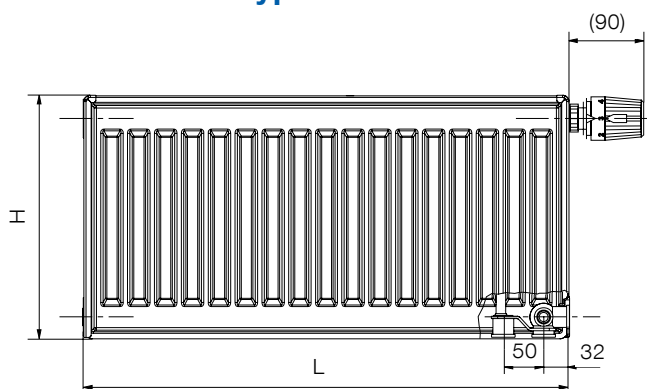
**RADIK VKU** model is a steel panel radiator in VENTIL KOMPAKT version which allows **left or right bottom connection** to the pressurized heating system. No hangers are welded on the back, so radiator types 21, 22, and 33 can be turned round.

Note:

Type 33 VKU does not have symmetrically placed connections with respect to the depth of the radiator.

When placing the radiator on the wall, it is necessary to use Compact Bracket Plus (see the KORAMONT catalogue).

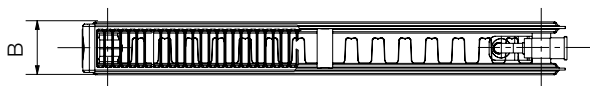
## Overview of types



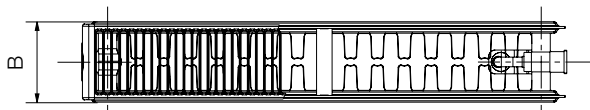
## Technical data

<b>Height H</b>	300, 400, 500, 600, 700, 900 mm
<b>Length L</b>	400, 500, 600, 700, 800, 900, 1000, 1100, 1200, 1400, 1600, 1800, 2000, 2300, 2600, 3000 mm
<b>Depth B</b>	
Type 21 VKU	66 mm
Type 22 VKU	100 mm
Type 33 VKU	155 mm
<b>Connecting pitch</b>	50 mm
<b>Connecting thread</b>	6 x G1/2 inside
<b>Highest allowed working pressure</b>	10 bar
<b>Highest allowed working temperature</b>	110 °C
<b>Radiator connection</b>	right or left bottom

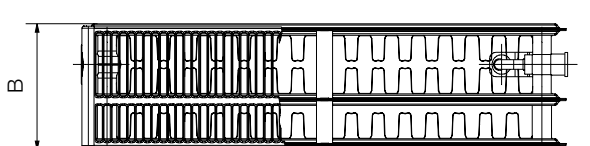
**Type 21 VKU**



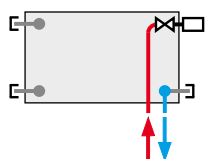
**Type 22 VKU**



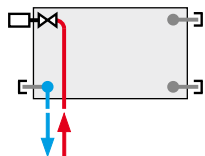
**Type 33 VKU**



## Examples of connection to the heating system



right bottom  
 $\varphi = 1$



left bottom  
 $\varphi = 1$

Guidelines for ordering are described on page 75.

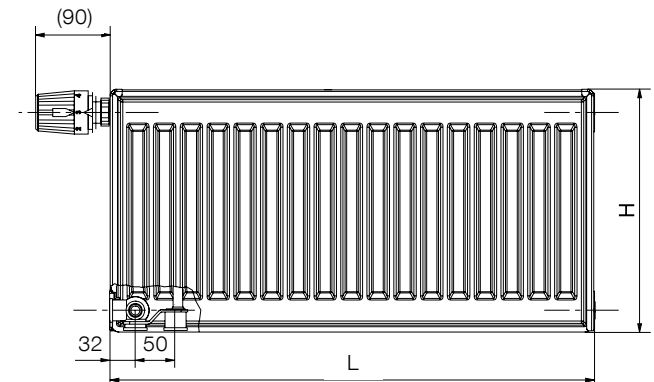
The company reserves the right to make technical changes.



## Description

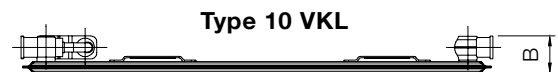
**RADIK VKL** model is a steel panel radiator in VENTIL KOMPAKT version which allows **left bottom connection** to a heating system which is pressure fed. Two upper and lower hangers are welded onto the back. Radiators 1800 mm and longer have six hangers.

## Overview of types

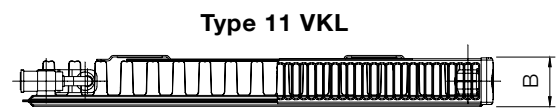


## Technical data

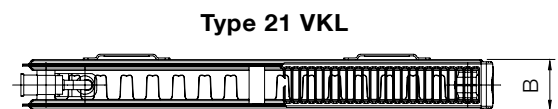
<b>Height H</b>	300, 400, 500, 600, 700, 900 mm
<b>Length L</b>	400, 500, 600, 700, 800, 900, 1000, 1100, 1200, 1400, 1600, 1800, 2000, 2300, 2600, 3000 mm
<b>Depth B</b>	
Type 10 VKL	47 mm
Type 11 VKL	63 mm
Type 21 VKL	66 mm
Type 22 VKL	100 mm
Type 33 VKL	155 mm
<b>Connecting pitch</b>	50 mm
<b>Connecting thread</b>	6 x G1/2 inside
<b>Highest allowed working pressure</b>	10 bar
<b>Highest allowed working temperature</b>	110 °C
<b>Radiator connection</b>	left bottom



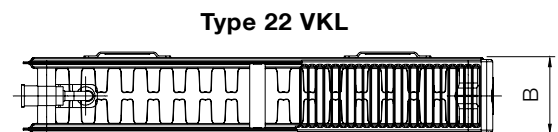
Type 10 VKL



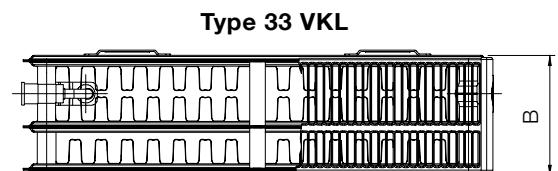
Type 11 VKL



Type 21 VKL

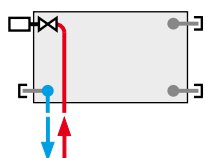


Type 22 VKL



Type 33 VKL

## Examples of connection to the heating system



left bottom  
 $\varphi = 1$

# RADIK MATERNELLE VK



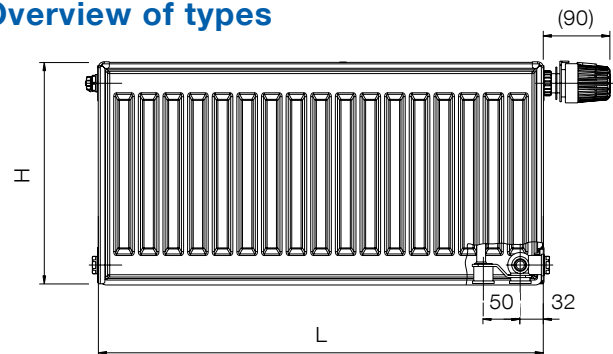
## Description

The model **RADIK MATERNELLE VK** is a steel panel radiator in the VENTIL KOMPAKT version allowing a **right bottom connection** to the heating system with forced circulation of hot water. The special design of the concept MATERNELLE radiators prevents entry of hot water in the front panel. This ensures a safe surface temperature. Two upper and two lower hangers are welded on the rear side of the radiator. Radiators 1800 mm and longer have six welded hangers.

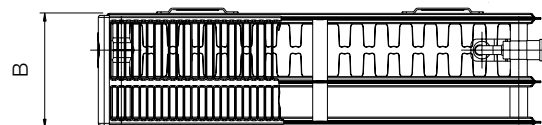
## Technical data

<b>Height H</b>	300, 400, 500, 600, 700, 900 mm
<b>Length L</b>	400, 500, 600, 700, 800, 900, 1000, 1100, 1200, 1400, 1600, 1800, 2000, 2300, 2600, 3000 mm
<b>Depth B</b> Type 32 VK	155 mm
<b>Connecting pitch</b>	50 mm
<b>Connecting thread</b>	6 x G1/2 inside
<b>Highest allowed working pressure</b>	10 bar
<b>Highest allowed working temperature</b>	110 °C
<b>Radiator connection</b>	right bottom

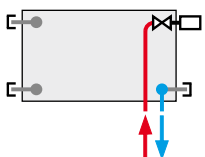
## Overview of types



**Type 32 VK**



## Examples of connection to the heating system



right bottom  
 $\varphi = 1$

Guidelines for ordering are described on page 75.





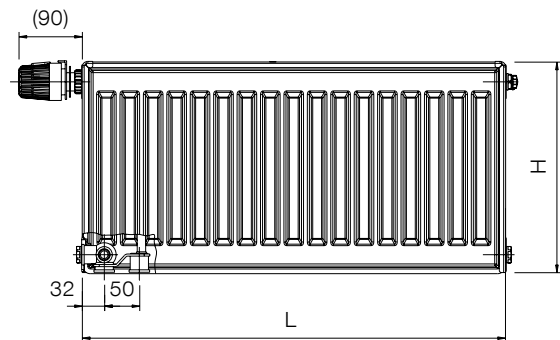
## Description

The model **RADIK MATERNELLE VKL** is a steel panel radiator in the VENTIL KOMPAKT version allowing a **left bottom connection** to the heating system with forced circulation of hot water. The special design of the concept MATERNELLE radiators prevents entry of hot water in the front panel. This ensures a safe surface temperature. Two upper and two lower hangers are welded on the rear side of the radiator. Radiators 1800 mm and longer have six welded hangers.

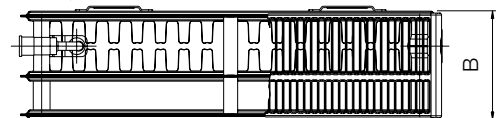
## Technical data

Height H	300, 400, 500, 600, 700, 900 mm
Length L	400, 500, 600, 700, 800, 900, 1000, 1100, 1200, 1400, 1600, 1800, 2000, 2300, 2600, 3000 mm
Depth B Type 32 VKL	155 mm
Connecting pitch	50 mm
Connecting thread	6 x G1/2 inside
Highest allowed working pressure	10 bar
Highest allowed working temperature	110 °C
Radiator connection	left bottom

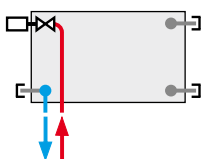
## Overview of types



Type 32 VKL



## Examples of connection to the heating system



left bottom  
 $\varphi = 1$

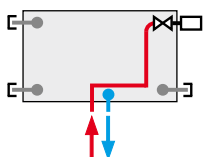
# RADIK VKM



## Technical data

<b>Height H</b>	300, 400, 500, 600, 700, 900 mm
<b>Length L</b>	400, 500, 600, 700, 800, 900, 1000, 1100, 1200, 1400, 1600, 1800, 2000, 2300, 2600, 3000 mm
<b>Depth B</b>	
Type 10 VKM	47 mm
Type 11 VKM	63 mm
Type 21 VKM	66 mm
Type 22 VKM	100 mm
Type 33 VKM	155 mm
<b>Connecting pitch</b>	50 mm
<b>Connecting thread</b>	6 x G1/2 inside
<b>Highest allowed working pressure</b>	10 bar
<b>Highest allowed working temperature</b>	110 °C
<b>Radiator connection</b>	middle connection

## Examples of connection to the heating system



middle connection  
 $\varphi = 1$

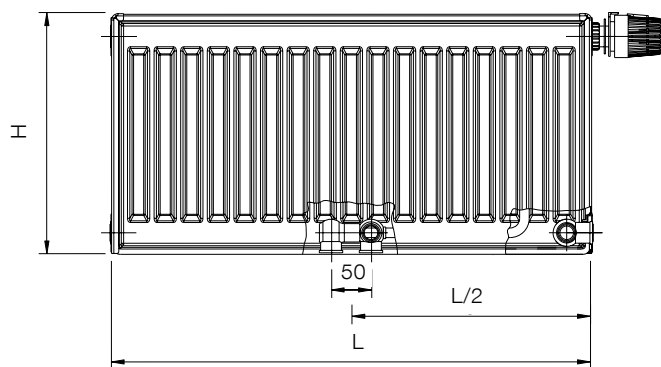
## Description

The conception of **RADIK VKM** radiators is based on the VENTIL KOMPAKT design. The original design of the inner distribution allows the **bottom middle connection** of the radiator to the heating system. Two upper and two bottom hangers are welded on the rear side, radiators with length of 1800 mm and longer have six hangers.

RADIK VKM panel radiators are designed for the use in modern pressurized heating systems with horizontally led distribution pipelines either under the radiator in the floor or in the wall.

The design of the RADIK VKM radiator is protected under patent.

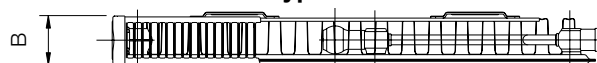
## Overview of types



**Type 10 VKM**



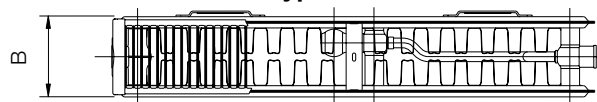
**Type 11 VKM**



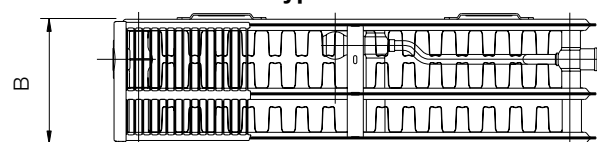
**Type 21 VKM**



**Type 22 VKM**



**Type 33 VKM**



Guidelines for ordering are described on page 75.



## Description

The conception of RADIK VKM-U is based on the VENTIL KOMPAKT design. They are fitted with built-in inside distribution tappings and a regulation valve. These radiators are primarily designed for **bottom middle connection with the regulation valve on the right**. There are no hangers welded to the back side and thus it is possible to turn the radiator, in that case the **regulation valve will be on the left**.

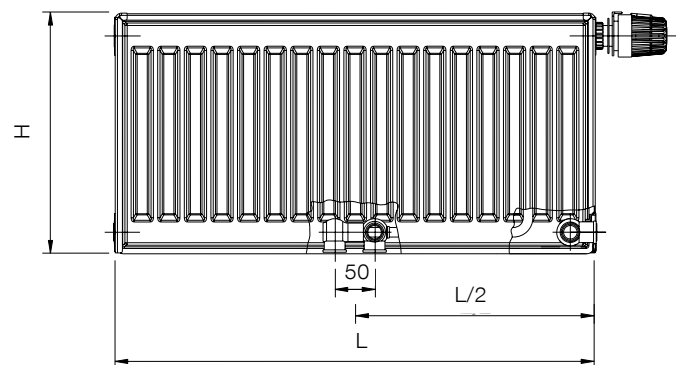
RADIK VKM-U panel radiators are designed for the use in modern pressurized heating systems with horizontally led distribution pipelines either under the radiator in the floor or in the wall covered by a skirting.

The design of the RADIK VKM-U radiator is protected under patent.

## Technical data

<b>Height H</b>	300, 400, 500, 600, 700, 900 mm
<b>Length L</b>	400, 500, 600, 700, 800, 900, 1000, 1100, 1200, 1400, 1600, 1800, 2000, 2300, 2600, 3000 mm
<b>Depth B</b>	
Type 21 VKM-U	66 mm
Type 22 VKM-U	100 mm
Type 33 VKM-U	155 mm
<b>Connecting pitch</b>	50 mm
<b>Connecting thread</b>	6 x G1/2 inside
<b>Highest allowed working pressure</b>	10 bar
<b>Highest allowed working temperature</b>	110 °C
<b>Radiator connection</b>	bottom middle

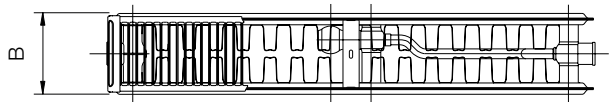
## Overview of types



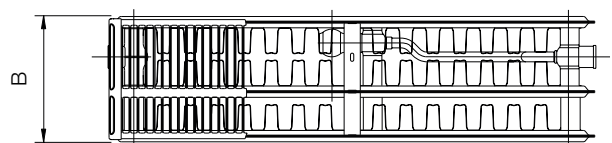
**Type 21 VKM-U**



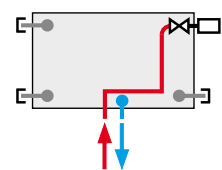
**Type 22 VKM-U**



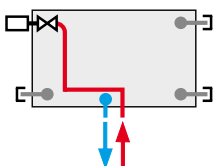
**Type 33 VKM-U**



## Examples of connection to the heating system



bottom middle connection with regulation valve on the right  
 $\varphi = 1$



bottom middle connection with regulation valve on the left  
 $\varphi = 1$

# RADIK VKM - L



## Description

The conception of **RADIK VKM - L** radiators is based on the VENTIL KOMPAKT design. The original design of the inner distribution allows the **bottom middle connection** of the radiator to the heating system. Two upper and two bottom hangers are welded on the rear side, radiators with length of 1800 mm and longer have six hangers.

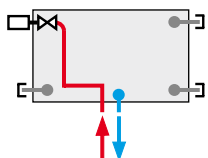
RADIK VKM - L panel radiators are designed for the use in modern pressurized heating systems with horizontally led distribution pipelines either under the radiator in the floor or in the wall.

The design of the RADIK VKM - L radiator is protected under patent.

## Technical data

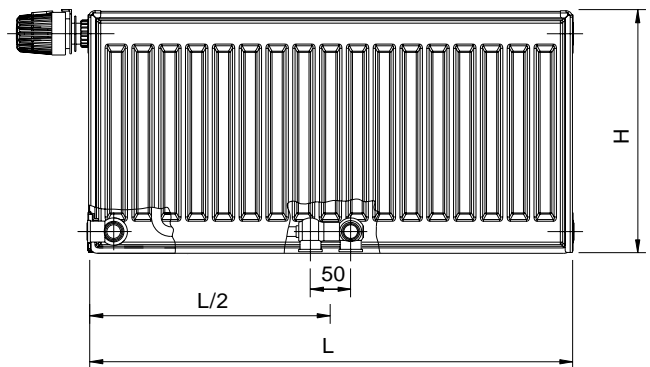
<b>Height H</b>	300, 400, 500, 600, 700, 900 mm
<b>Length L</b>	400, 500, 600, 700, 800, 900, 1000, 1100, 1200, 1400, 1600, 1800, 2000, 2300, 2600, 3000 mm
<b>Depth B</b>	
Type 10 VKM - L	47 mm
Type 11 VKM - L	63 mm
Type 21 VKM - L	66 mm
Type 22 VKM - L	100 mm
Type 33 VKM - L	155 mm
<b>Connecting pitch</b>	50 mm
<b>Connecting thread</b>	6 x G1/2 inside
<b>Highest allowed working pressure</b>	10 bar
<b>Highest allowed working temperature</b>	110 °C
<b>Radiator connection</b>	middle connection

## Examples of connection to the heating system

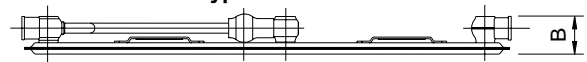


middle connection  
 $\phi = 1$

## Overview of types



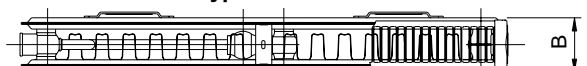
Type 10 VKM - L



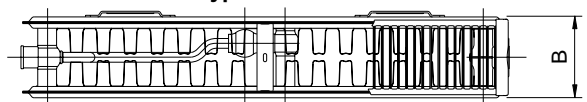
Type 11 VKM - L



Type 21 VKM - L



Type 22 VKM - L



Type 33 VKM - L



Guidelines for ordering are described on page 75.

The company reserves the right to make technical changes.



# RADIK PLAN KLASIK, LINE KLASIK

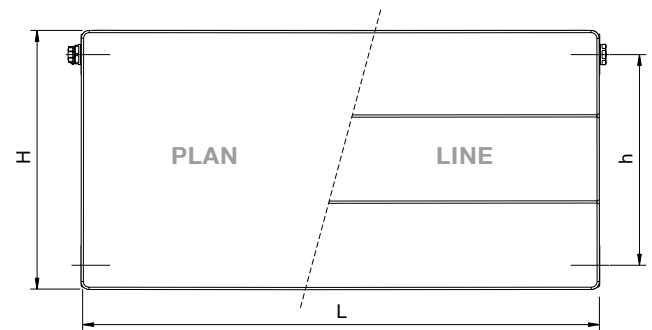


## Description

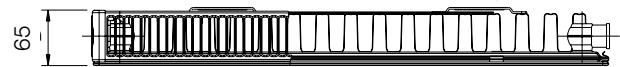
**RADIK PLAN KLASIK (RADIK LINE KLASIK)** is a steel panel radiator in KLASIK version and in PLAN (LINE) version which allows **left or right side connection** to the heating system circuit. It is intended for heating systems which are gravity or pressure fed.

Two upper and lower hangers are welded at the back of the radiator. Radiators 1800 mm long and longer have six welded hangers.

## Overview of types



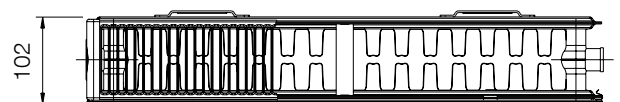
**Type 11 PLAN/LINE**



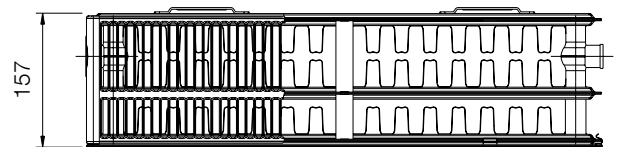
**Type 21 PLAN/LINE**



**Type 22 PLAN/LINE**



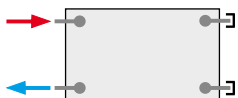
**Type 33 PLAN/LINE**



## Technical data

Height H	300, 400, 500, 600, 700, 900 mm
Length L	400, 500, 600, 700, 800, 900, 1000, 1100, 1200, 1400, 1600, 1800, 2000 mm
Connecting pitch	$h = H - 54$ mm
Connecting thread	4 x G1/2 inside
Highest allowed working pressure	10 bar
Highest allowed working temperature	110 °C
Radiator connection	left or right side

## Examples of connection to the heating system



side - one side  
 $\phi = 1$



side - two sides diagonal  
 $\phi = 1$   
recommended for:  $L \geq 3 \times H$



side - two sides direct  
 $\phi = 0,9$

Guidelines for ordering are described on page 76.

# RADIK PLAN KLASIK - R, LINE KLASIK - R



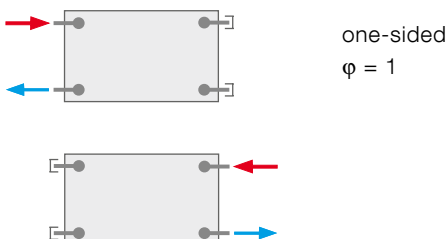
## Description

**RADIK PLAN KLASIK - R (RADIK LINE KLASIK-R)** model is a PLAN (LINE) panel radiator with flat front panel modified for swift replacement of cast-iron or steel sectional radiators with a connection pitch of 500 mm. Height H = 554 mm guarantees its problem-free fitting in place of the old radiator. It allows for left or right side connection to the heating system distribution mains and is designed for heating systems with forced or gravity circulation. Two upper and lower fixing hangers are welded onto the back, radiators 1800 mm in length or longer have six welded hangers.

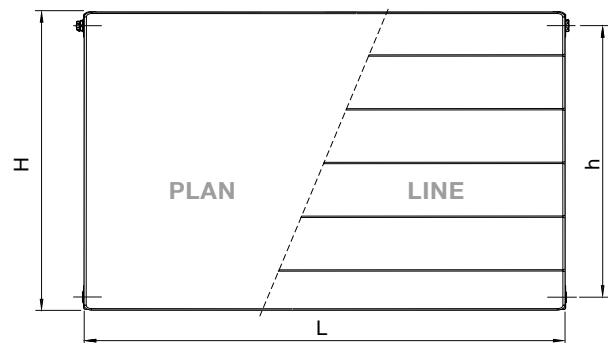
## Technical data

<b>Height H</b>	554 mm
<b>Length L</b>	400, 500, 600, 700, 800, 900, 1000, 1100, 1200, 1400, 1600, 1800, 2000 mm
<b>Depth B</b>	
Type 20 PLAN - R /LINE KLASIK-R	68 mm
Type 21 PLAN - R /LINE KLASIK-R	68 mm
Type 22 PLAN - R /LINE KLASIK-R	102 mm
Type 33 PLAN - R /LINE KLASIK-R	157 mm
<b>Connecting pitch</b>	500 mm
<b>Connecting thread</b>	4 x G1/2 inside
<b>Highest allowed working pressure</b>	10 bar
<b>Highest allowed working temperature</b>	110 °C
<b>Radiator connection</b>	left or right side

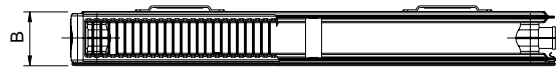
## Examples of connection to the heating system



## Overview of types



**Type 20 PLAN - R/LINE - R**



**Type 21 PLAN - R/LINE - R**



**Type 22 PLAN - R/LINE - R**



**Type 33 PLAN - R/LINE - R**



Guidelines for ordering are described on page 76.

The company reserves the right to make technical changes.

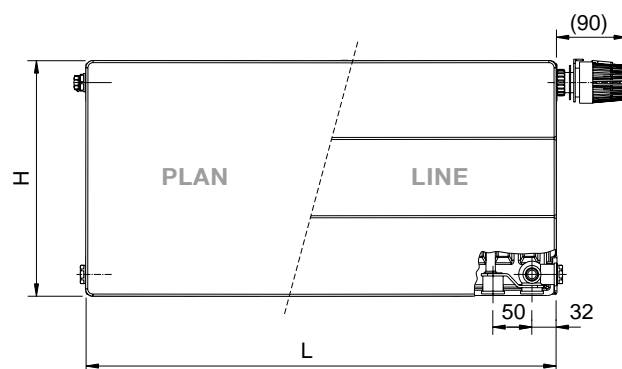
# RADIK PLAN VK, LINE VK



## Description

**RADIK PLAN VK (RADIK LINE VK)** model is a steel panel radiator in VENTIL KOMPAKT version and in PLAN (LINE) version which allows **right bottom connection** to a pressure fed heating system. Two upper and lower hangers are welded onto the back. Radiators 1800 mm and longer have six hangers.

## Overview of types



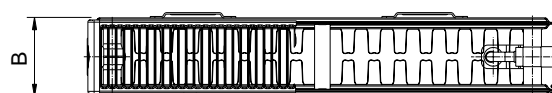
**Type 11 PLAN VK/LINE VK**



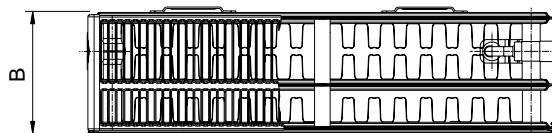
**Type 21 PLAN VK/LINE VK**



**Type 22 PLAN VK/LINE VK**



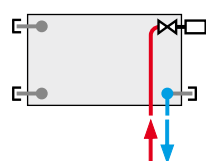
**Type 33 PLAN VK/LINE VK**



## Technical data

<b>Height H</b>	300, 400, 500, 600, 700, 900 mm
<b>Length L</b>	400, 500, 600, 700, 800, 900, 1000, 1100, 1200, 1400, 1600, 1800, 2000 mm
<b>Depth B</b>	
Type 11 PLAN VK/LINE VK	65 mm
Type 21 PLAN VK/LINE VK	68 mm
Type 22 PLAN VK/LINE VK	102 mm
Type 33 PLAN VK/LINE VK	157 mm
<b>Connecting pitch</b>	50 mm
<b>Connecting thread</b>	6 x G1/2 inside
<b>Highest allowed working pressure</b>	10 bar
<b>Highest allowed working temperature</b>	110 °C
<b>Radiator connection</b>	right bottom

## Examples of connection to the heating system



right bottom  
 $\varphi = 1$

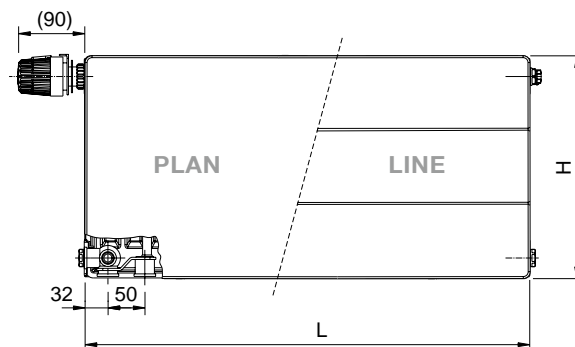
# RADIK PLAN VKL, LINE VKL



## Description

**RADIK PLAN VKL (RADIK LINE VKL)** model is a steel panel radiator in VENTIL KOMPAKT version and in PLAN (LINE) version which allows **left bottom connection** to a pressure fed heating system. Two upper and lower hangers are welded onto the back. Radiators 1800 mm and longer have six hangers.

## Overview of types



**Type 11 PLAN VKL/LINE VKL**



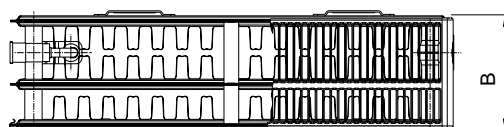
**Type 21 PLAN VKL/LINE VKL**



**Type 22 PLAN VKL/LINE VKL**



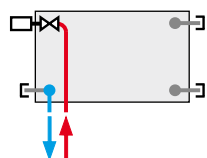
**Type 33 PLAN VKL/LINE VKL**



## Technical data

<b>Height H</b>	300, 400, 500, 600, 700, 900 mm
<b>Length L</b>	400, 500, 600, 700, 800, 900, 1000, 1100, 1200, 1400, 1600, 1800, 2000 mm
<b>Depth B</b>	
Type 11 PLAN VKL/LINE VKL	65 mm
Type 21 PLAN VKL/LINE VKL	68 mm
Type 22 PLAN VKL/LINE VKL	102 mm
Type 33 PLAN VKL/LINE VKL	157 mm
<b>Connecting pitch</b>	50 mm
<b>Connecting thread</b>	6 x G1/2 inside
<b>Highest allowed working pressure</b>	10 bar
<b>Highest allowed working temperature</b>	110 °C
<b>Radiator connection</b>	left bottom

## Examples of connection to the heating system



left bottom  
 $\varphi = 1$

Guidelines for ordering are described on page 76.



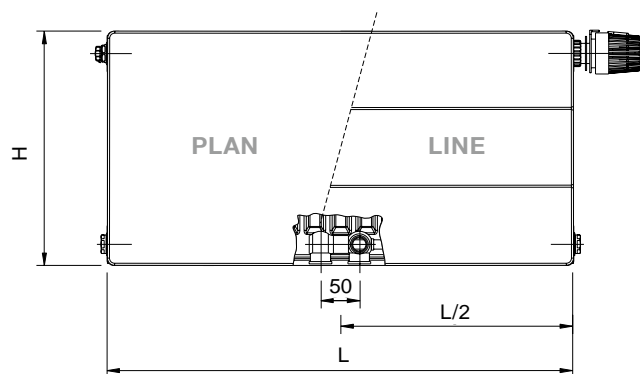
# RADIK PLAN VKM, LINE VKM



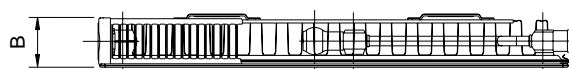
## Description

The type **RADIK PLAN VKM (RADIK LINE VKM)** is a steel panel radiator in VENTIL KOMPAKT version and in PLAN (LINE) version which enables the **bottom middle connection** to the pressurized heating system. There are 2 upper and 2 bottom hangers welded on the back side of the radiator, radiators with length of 1800 mm and more have six hangers.

## Overview of types



**Type 11 PLAN VKM/LINE VKM**



**Type 21 PLAN VKM/LINE VKM**



**Type 22 PLAN VKM/LINE VKM**



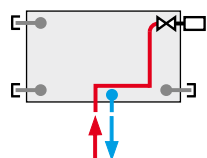
**Type 33 PLAN VKM/LINE VKM**



## Technical data

<b>Height H</b>	300, 400, 500, 600, 700, 900 mm
<b>Length L</b>	400, 500, 600, 700, 800, 900, 1000, 1100, 1200, 1400, 1600, 1800, 2000 mm
<b>Depth B</b>	
Type 11 PLAN VKM/LINE VKM	65 mm
Type 21 PLAN VKM/LINE VKM	68 mm
Type 22 PLAN VKM/LINE VKM	102 mm
Type 33 PLAN VKM/LINE VKM	157 mm
<b>Connecting pitch</b>	50 mm
<b>Connecting thread</b>	6 x G1/2 inside
<b>Highest allowed working pressure</b>	10 bar
<b>Highest allowed working temperature</b>	110 °C
<b>Radiator connection</b>	middle connection

## Examples of connection to the heating system



middle connection  
 $\varphi = 1$

# RADIK PLAN VERTIKAL - M



## Description

The **RADIK PLAN VERTIKAL - M** model is a vertically aligned panel radiator with a flat front panel. Its design allows for **bottom middle connection** to a pressurised heating system. It is equipped with a total of 6 outlets with a G1/2 internal thread. Two upper and two lower fixing hangers are welded to the back. Type 20 radiators in lengths of 600 and 900 mm have one extra fixing hanger at the top.

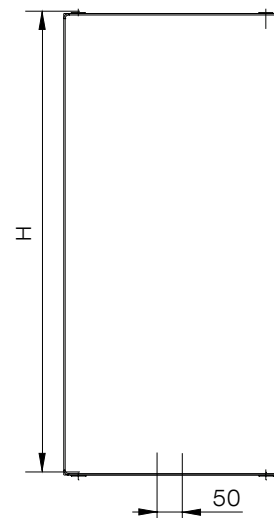


For connecting to the heating system we recommend using the Integrated Fitting HM supplied with a thermostatic head (see page 78)

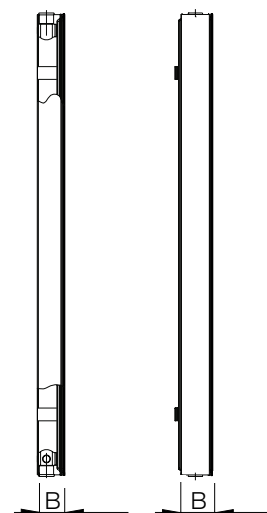
## Technical data

<b>Height H</b>	1600, 1800, 2000 mm
<b>Length L</b>	400, 600, 900 mm
<b>Depth B</b>	Type 10 52 mm Type 20 68 mm
<b>Connecting pitch</b>	50 mm
<b>Connecting thread</b>	6 x G1/2 inside
<b>Highest allowed working pressure</b>	10 bar
<b>Highest allowed working temperature</b>	110 °C
<b>Radiator connection</b>	middle connection

## Overview of types

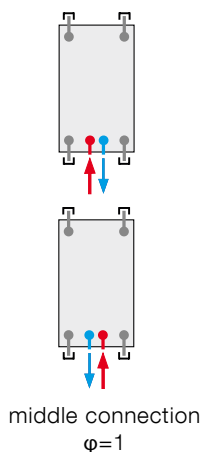


**Type 10**      **Type 20**



Guidelines for ordering are described on page 76.

## Examples of connection to the heating system



# RADIK LINE VERTIKAL - M



## Description

The **RADIK LINE VERTIKAL - M** model is a vertically aligned panel radiator with moulded front panel. Its design allows for **bottom middle connection** to a pressurised heating system. It is equipped with a total of 6 outlets with a G1/2 internal thread. Two upper and two lower fixing hangers are welded to the back. Type 20 radiators in lengths of 600 and 900 mm have one extra fixing hanger at the top.

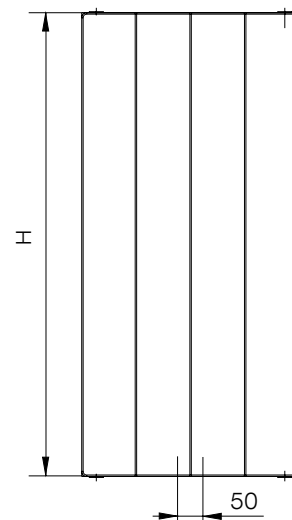


For connecting to the heating system we recommend using the Integrated Fitting HM supplied with a thermostatic head (see page 78)

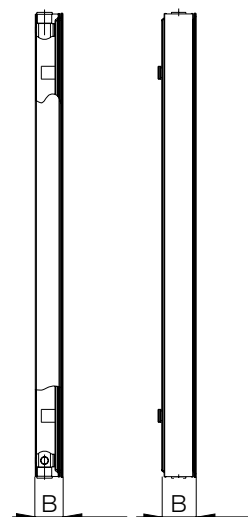
## Technical data

Height H	1600, 1800, 2000 mm
Length L	400, 600, 900 mm
Depth B	
Type 10	52 mm
Type 20	68 mm
Connecting pitch	50 mm
Connecting thread	6 x G1/2 inside
Highest allowed working pressure	10 bar
Highest allowed working temperature	110 °C
Radiator connection	middle connection

## Overview of types

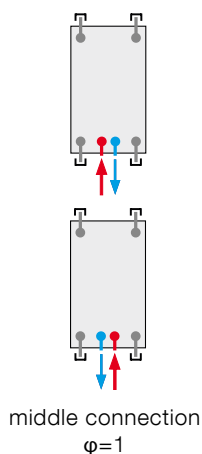


Type 10    Type 20



Guidelines for ordering are described on page 76.

## Examples of connection to the heating system



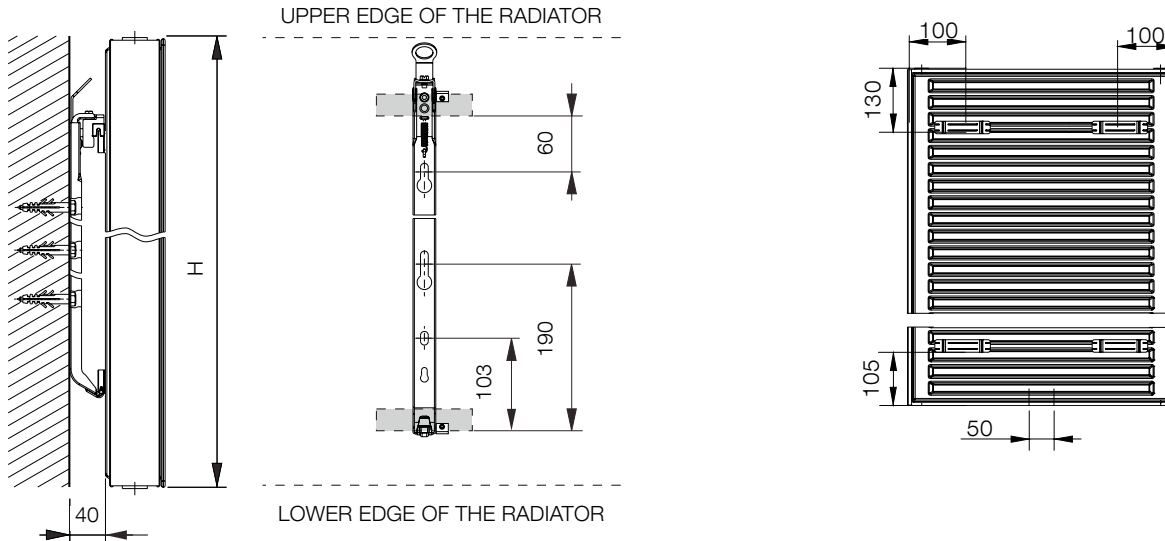
# RADIK PLAN VERTIKAL - M, LINE VERTIKAL - M

## Fixation

For fixing to the wall use the Split Bracket VERTIKAL (Z-U558) which is included in the radiator packaging.

## Fixation

Type of bracket	Code for ordering	Type 10	Type 20
Split Bracket VERTIKAL	Z-U558	X	X



## Heat output and basic technical parameters

20°C		Typ 10			Typ 20		
Length L [mm]		Height H [mm]					
		1600	1800	2000	1600	1800	2000
400	Q [W] 75/65 [°C]	602	661	717	847	927	1004
	Q [W] 70/55 [°C]	491	540	587	684	749	812
	Q [W] 55/45 [°C]	318	351	382	432	474	515
	Q [W] 45/40 [°C]	222	246	268	296	325	354
	Water volume [l]	3,7	4,1	4,6	7,0	7,9	8,8
	Radiator weight [kg]	19,0	21,3	23,6	31,7	35,7	39,6
	Temp. exponent n [-]	1,2512	1,2400	1,2334	1,3160	1,3115	1,3056
$K_M$	4,5066	5,1699	5,7545	4,9208	5,4813	6,0752	
600	Q [W] 75/65 [°C]	829	909	986	1185	1297	1404
	Q [W] 70/55 [°C]	676	742	806	959	1050	1138
	Q [W] 55/45 [°C]	436	480	523	609	668	725
	Q [W] 45/40 [°C]	303	336	366	418	460	500
	Water volume [l]	5,0	5,6	6,2	9,3	10,4	11,6
	Radiator weight [kg]	27,6	31,2	34,4	46,2	51,7	57,7
	Temp. exponent n [-]	1,2595	1,2482	1,2415	1,3036	1,2991	1,2932
$K_M$	6,0076	6,8851	7,6667	7,2267	8,0502	8,9178	
900	Q [W] 75/65 [°C]	1141	1252	1358	1659	1815	1965
	Q [W] 70/55 [°C]	929	1021	1109	1341	1468	1591
	Q [W] 55/45 [°C]	598	660	719	850	932	1012
	Q [W] 45/40 [°C]	416	461	502	583	640	696
	Water volume [l]	6,9	7,7	8,6	13,3	15,0	16,6
	Radiator weight [kg]	41,4	46,5	51,6	70,3	79,0	87,8
	Temp. exponent n [-]	1,2637	1,2524	1,2457	1,3097	1,3052	1,2993
$K_M$	8,1339	9,3286	10,3871	9,8788	10,9997	12,1868	
Resistance coefficient $\xi_r$ [-]		140,0			82,0		
Flow coefficient $A_r$ [m²]		$2,4 \times 10^{-5}$			$3,14 \times 10^{-5}$		

$$\text{Characteristic equation: } \phi = K_M \cdot \Delta T^n \left[ \frac{W}{m} \right], \quad \Delta T = \frac{t_1 + t_2}{2} - t_r [K]$$

$t_1$  – temperature water-in,  $t_2$  – temperature water-out,  $t_r$  – relative air temperature

Guidelines for ordering are described on page 76.



## Description

**RADIK HYGIENE** is a panel radiator, in design KLASIK, which can be connected to the heating system either from the **left or from the right side**. It is designed to be used in the pressurized or gravity fed heating systems.

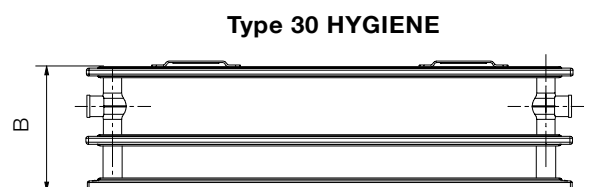
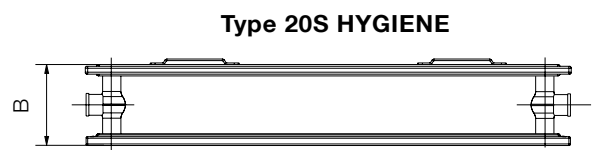
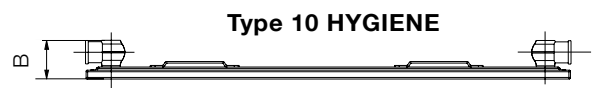
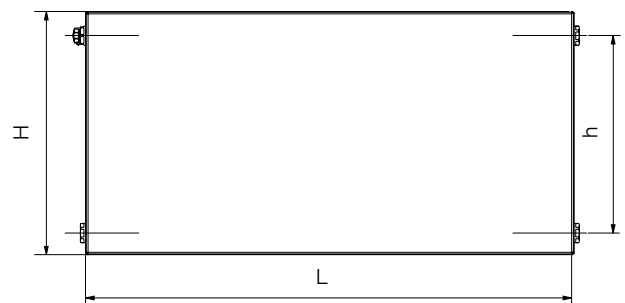
It is suitable for installation and operation in rooms with high demands on hygiene and cleanness. All types are without convector fins; they have a smooth front panel and the weld seams are covered with a special flat strip. The type 20S is typical for a greater spacing between the panels (radiator depth B = 102 mm) compared with the traditional design of type 20 (B = 66 mm).

On the rear side, two upper and two lower hangers are welded. Radiators with the length of 1800 mm and longer have six welded hangers. The standard product equipment includes an air-vent and a blanking plug.

## Technical data

<b>Height H</b>	503, 603, 703 mm
<b>Length L</b>	404, 504, 604, 704, 804, 904, 1004, 1104, 1204, 1404, 1604, 1804, 2004 mm
<b>Depth B</b>	
Type 10 HYGIENE	49 mm
Type 20S HYGIENE	102 mm
Type 30 HYGIENE	157 mm
<b>Connecting pitch</b>	$h = H - 57$ mm
<b>Connecting thread</b>	4 x G1/2 inside
<b>Highest allowed working pressure</b>	10 bar
<b>Highest allowed working temperature</b>	110 °C
<b>Radiator connection</b>	left or right side

## Overview of types



## Examples of connection to the heating system



side - one side  
 $\phi = 1$



side - two sides diagonal  
 $\phi = 1$   
recommended for:  $L \geq 3 \times H$



side - two sides direct  
 $\phi = 0,9$



# RADIK HYGIENE VK



## Description

**RADIK HYGIENE VK** is a panel radiator, in design VENTIL KOMPAKT, which enables the **right bottom connection** to the heating system. It is designed for pressurized heating systems.

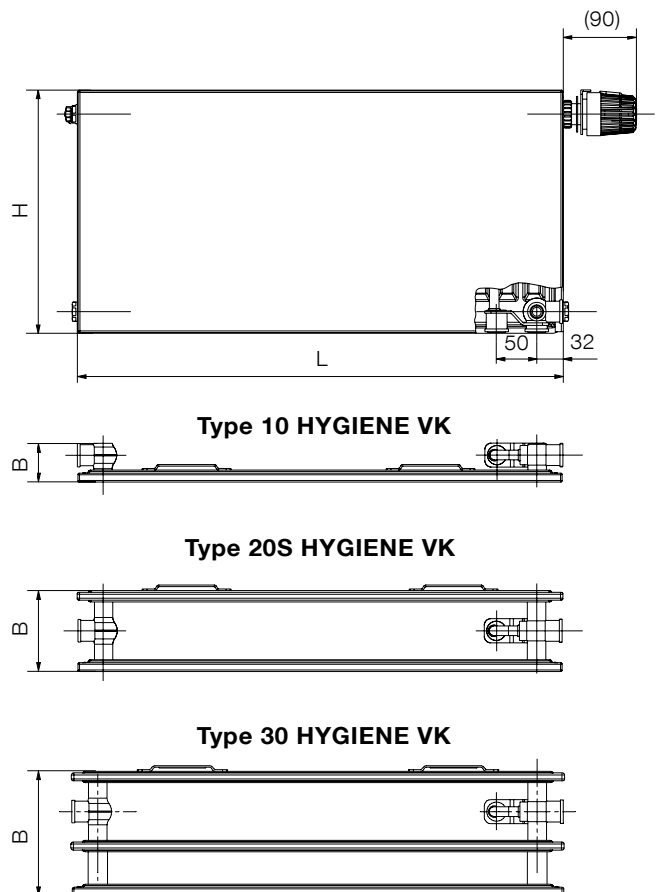
It is suitable for installation and operation in rooms with high demands on hygiene and cleanliness. All types are without convector fins; they have a smooth front panel and the weld seams are covered with a special flat strip. The type 20S is typical for a greater spacing between the panels (radiator depth B = 102 mm) compared with the traditional design of type 20 (B = 66 mm).

On the rear side, two upper and two lower hangers are welded. Radiators with the length of 1800 mm and longer have six welded hangers. The standard product equipment includes an air-vent and a blanking plug.

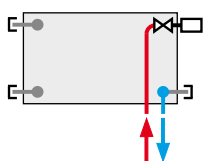
## Technical data

<b>Height H</b>	503, 603, 703 mm
<b>Length L</b>	404, 504, 604, 704, 804, 904, 1004, 1104, 1204, 1404, 1604, 1804, 2004 mm
<b>Depth B</b>	
Type 10 HYGIENE VK	49 mm
Type 20S HYGIENE VK	102 mm
Type 30 HYGIENE VK	157 mm
<b>Connecting pitch</b>	50 mm
<b>Connecting thread</b>	6 x G1/2 inside
<b>Highest allowed working pressure</b>	10 bar
<b>Highest allowed working temperature</b>	110 °C
<b>Radiator connection</b>	right bottom

## Overview of types



## Examples of connection to the heating system



right bottom  
φ = 1

Guidelines for ordering are described on page 76.

The company reserves the right to make technical changes.



## Description

The **RADIK CLEAN** model is a steel panel radiator in the **KLASIK** version, which allows for **left or right side connection** to the heating system. It is designed for pressurised heating systems or those with gravity circulation. It is intended for installation and operation in rooms with high demands on hygiene and cleanliness. All types are supplied without convector fins, grilles and side covers.

Two upper and two lower fixing hangers are welded to the back, radiators 1800 mm in length or longer have six fixing hangers welded to the back. Basic equipment includes an air vent and blanking plug.

### Notice:

If a distance from the wall  $65 \div 80$  mm is required, the same type of bracket can be used, but the bracket must also be used on the lower pair of fixing hangers (not just the plastic support). In this case it is necessary to order the additional brackets separately, they are not part of delivery.

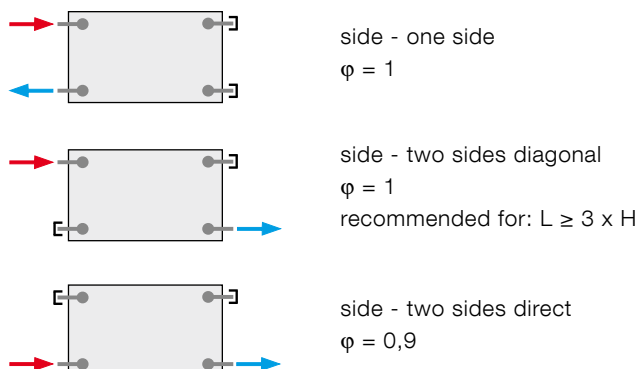
### Note:

The RADIK CLEAN type 10 and RADIK KLASIK type 10 radiators are identical.

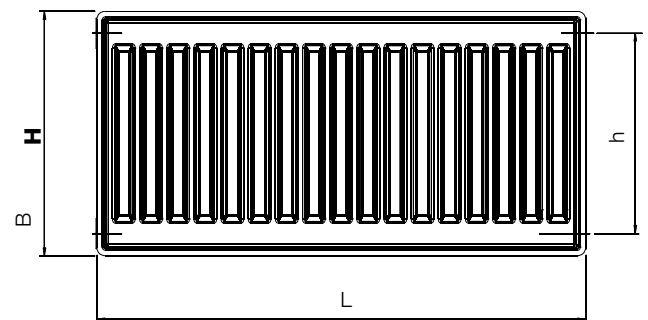
## Technical data

<b>Height H</b>	300, 400, 500, 600, 700, 900 mm
<b>Length L</b>	400, 500, 600, 700, 800, 900, 1000, 1100, 1200, 1400, 1600, 1800, 2000 mm
<b>Depth B</b>	
Type 10 CLEAN	47 mm
Type 20S CLEAN	100 mm
Type 30 CLEAN	155 mm
<b>Connecting pitch</b>	$h = H - 54$ mm
<b>Connecting thread</b>	4 x G1/2 inside
<b>Highest allowed working pressure</b>	10 bar
<b>Highest allowed working temperature</b>	110 °C
<b>Radiator connection</b>	left or right side

## Examples of connection to the heating system



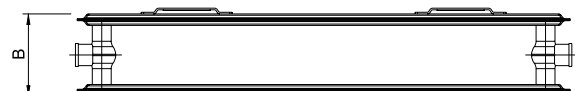
## Overview of types



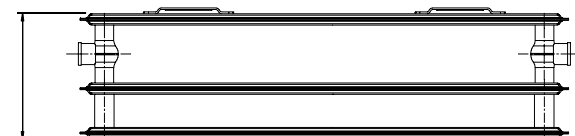
Type 10 CLEAN



Type 20S CLEAN



Type 30 CLEAN



# RADIK CLEAN VK



## Description

The **RADIK CLEAN VK** model is a steel panel radiator in the VENTIL KOMPAKT version, which allows for **bottom right connection** to the heating system. It is designed for pressurised heating systems.

It is intended for installation and operation in rooms with high demands on hygiene and cleanliness. All types are supplied without convector fins, grilles and side covers.

Two upper and two lower fixing hangers are welded to the back, radiators 1800 mm in length or longer have six fixing hangers welded to the back. Basic equipment includes air vent and blanking plug.

### Notice:

If a distance from the wall  $65 \div 80$  mm is required, the same type of bracket can be used, but the bracket must also be used on the lower pair of fixing hangers (not just the plastic support). In this case it is necessary to order the additional brackets separately, they are not part of delivery.

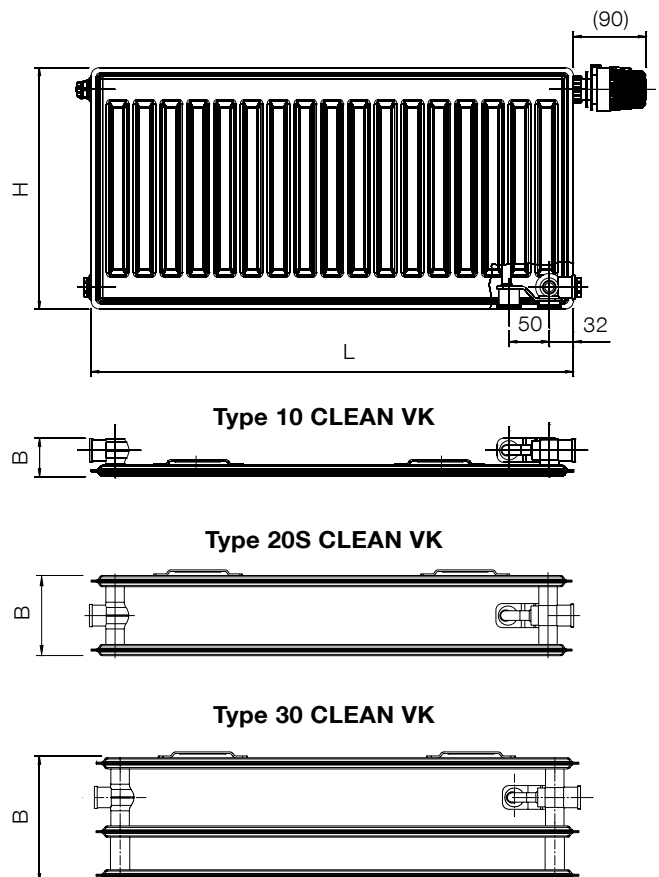
### Note:

The RADIK CLEAN VK type 10 and RADIK VK type 10 radiators are identical.

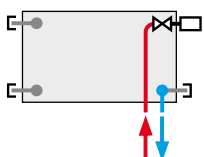
## Technical data

<b>Height H</b>	300, 400, 500, 600, 700, 900 mm
<b>Length L</b>	400, 500, 600, 700, 800, 900, 1000, 1100, 1200, 1400, 1600, 1800, 2000 mm
<b>Depth B</b>	
Type 10 CLEAN VK	47 mm
Type 20S CLEAN VK	100 mm
Type 30 CLEAN VK	155 mm
<b>Connecting pitch</b>	50 mm
<b>Connecting thread</b>	6 x G1/2 inside
<b>Highest allowed working pressure</b>	10 bar
<b>Highest allowed working temperature</b>	110 °C
<b>Radiator connection</b>	right bottom

## Overview of types



## Examples of connection to the heating system



right bottom  
 $\varphi = 1$

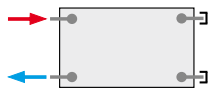


## RADIK KLASIK

### Technical data

<b>Height H</b>	200 mm
<b>Length L</b>	800, 900, 1000, 1100, 1200, 1400, 1600, 1800, 2000, 2300, 2600, 3000 mm
<b>Depth B</b>	
Type 22	100 mm
Type 33	155 mm
<b>Connecting pitch</b>	$h = H - 54$ mm
<b>Connecting thread</b>	4 x G1/2 inside
<b>Highest allowed working pressure</b>	10 bar
<b>Highest allowed working temperature</b>	110 °C
<b>Radiator connection</b>	left or right side

### Examples of connection to the heating system

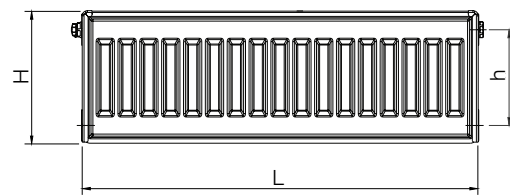


side - one side  
 $\varphi = 1$

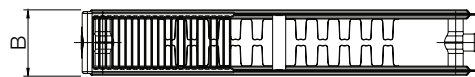
### Description

**RADIK KLASIK** model is a steel panel radiator in KLASIK version which allows **left or right side connection** to the heating system. It is intended for heating systems which are gravity or pressure fed. No hangers are welded on the back of the radiator.

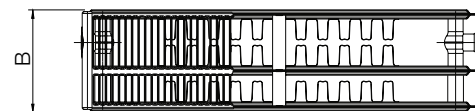
### Overview of types



Type 22



Type 33

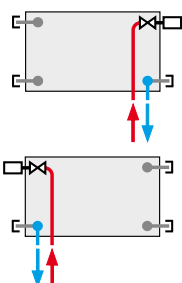


## RADIK VKU

### Technical data

<b>Height H</b>	200 mm
<b>Length L</b>	800, 900, 1000, 1100, 1200, 1400, 1600, 1800, 2000, 2300, 2600, 3000 mm
<b>Depth B</b>	
Type 22 VKU	100 mm
Type 33 VKU	155 mm
<b>Connecting pitch</b>	50 mm
<b>Connecting thread</b>	6 x G1/2 inside
<b>Highest allowed working pressure</b>	10 bar
<b>Highest allowed working temperature</b>	110 °C
<b>Radiator connection</b>	left or right bottom

### Examples of connection to the heating system



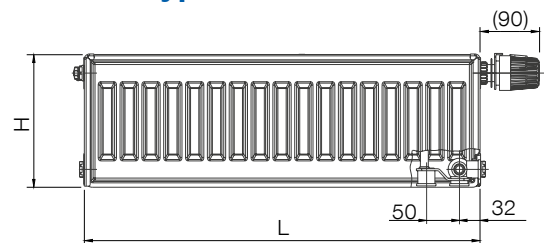
right bottom  
 $\varphi = 1$

left bottom  
 $\varphi = 1$

### Description

**RADIK VKU** model is a steel panel radiator in VENTIL KOMPAKT version which allows **left or right bottom connection** to a pressurized heating system. No hangers are welded on the back of the radiator.

### Overview of types



Type 22 VKU



Type 33 VKU



Guidelines for ordering are described on page 76.

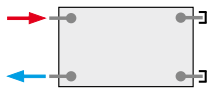
# STEEL PANEL RADIATORS IN HEIGHT 200 mm

## RADIK PLAN KLASIK, LINE KLASIK

### Technical data

Height H	200 mm
Length L	800, 900, 1000, 1100, 1200, 1400, 1600, 1800, 2000 mm
Depth B	Type 22 PLAN 102 mm Type 33 PLAN 157 mm
Connecting pitch	$h = H - 54$ mm
Connecting thread	4 x G1/2 inside
Highest allowed working pressure	10 bar
Highest allowed working temperature	110 °C
Radiator connection	left or right side

### Examples of connection to the heating system



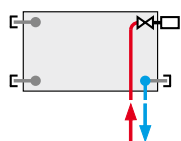
side - one side  
 $\varphi = 1$

## RADIK PLAN VK, LINE VK

### Technical data

Height H	200 mm
Length L	800, 900, 1000, 1100, 1200, 1400, 1600, 1800, 2000 mm
Depth B	Type 22 PLAN VK 102 mm Type 33 PLAN VK 157 mm
Connecting pitch	50 mm
Connecting thread	6 x G1/2 inside
Highest allowed working pressure	10 bar
Highest allowed working temperature	110 °C
Radiator connection	right bottom

### Examples of connection to the heating system

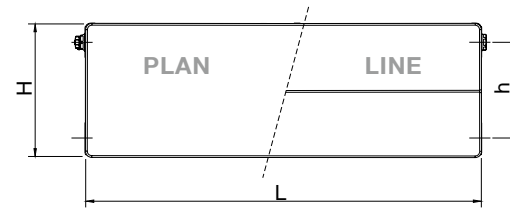


right bottom  
 $\varphi = 1$

### Description

**RADIK PLAN KLASIK (RADIK LINE KLASIK)** model is a steel panel radiator in KLASIK version and PLAN (LINE) version which allows **left or right side connection** to the heating system. It is intended for heating systems which are gravity or pressure fed. No hangers are welded on the back of the radiator.

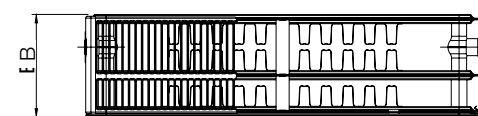
### Overview of types



Type 22 PLAN/LINE



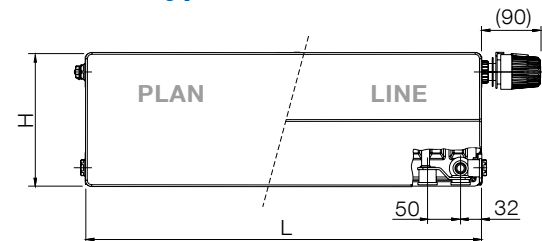
Type 33 PLAN/LINE



### Description

**RADIK PLAN VK (RADIK LINE VK)** model is a steel panel radiator in VENTIL KOMPAKT version and PLAN (LINE) version which allows **right bottom connection** to a pressurized heating system. No hangers are welded on the back of the radiator.

### Overview of types



Type 22 PLAN VK/LINE VK



Type 33 PLAN VK/LINE VK



Guidelines for ordering are described on page 76.

The company reserves the right to make technical changes.



# MOUNTING OF STEEL PANEL RADIATORS IN HEIGHT 200 mm



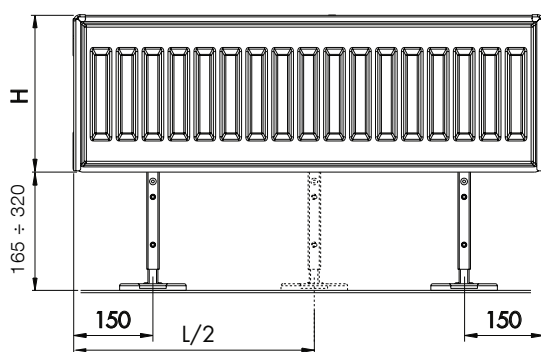
## Mounting

Steel panel radiators RADIK in height 200mm can be mounted on the wall as well as on the floor. Radiators are delivered with the necessary number of „Split brackets Plus“ designed for wall mounting as standard.

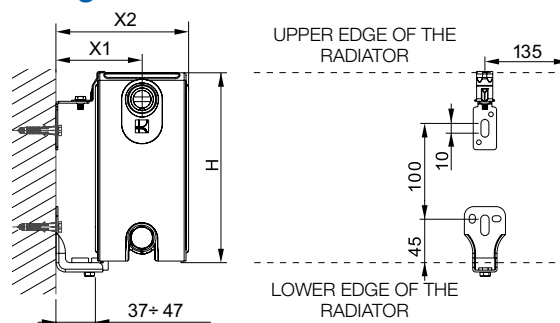
Mounting on the floor can be carried out with special stand brackets Z-U400 which are not delivered as standard, and must be ordered separately.

Radiators in lengths up to 1800 mm are mounted with two brackets, radiators in length 1800 mm and longer are mounted with three brackets.

## Mounting on the floor



## Mounting on the wall



Type	22	33
<b>X1</b>	87÷97	87÷97
<b>X2</b>	137÷147	192÷202

The **X2** figure is increased by 2 mm for PLAN (LINE) radiators.

## Ordering brackets

Type	Code for ordering
<b>Split bracket Plus – set 2 pcs</b>	Z-U556
<b>Split bracket Plus – set 3 pcs</b>	Z-U557
<b>Stand bracket for types 22, 33</b>	Z-U400

# RADIK KLASIK, VK

## HEAT OUTPUT IN WATTS CERTIFIED TO EN 442

20 °C		Type 10 Type 10 VK						Type 11 Type 11 VK						Type 20 Type 20 VK		
Length L [mm]	t <sub>1</sub> /t <sub>2</sub> [°C]	Height H [mm]														
		300	400	500	600	700	900	300	400	500	600	700	900	500	600	700
400	75/65			206	242	278	350	220	283	343	401	456	558	335	391	447
	70/55			166	196	225	283	177	229	277	324	368	450	271	317	361
	55/45			105	125	143	179	112	145	176	205	233	284	173	201	228
	45/40			72	86	98	123	77	99	120	141	160	194	119	138	156
500	75/65	165	212	257	302	347	438	275	354	429	501	570	697	419	489	559
	70/55	133	171	208	245	281	354	222	286	347	405	460	562	339	396	451
	55/45	84	108	132	156	179	224	140	181	219	256	291	355	216	252	285
	45/40	57	74	91	107	123	154	96	124	150	176	199	243	148	173	195
600	75/65	198	254	308	362	416	525	329	425	515	601	683	836	503	587	670
	70/55	159	205	249	294	337	424	266	343	416	486	552	675	407	475	541
	55/45	100	129	158	187	214	269	168	217	263	308	349	426	259	302	342
	45/40	68	89	109	129	148	185	115	149	181	211	239	291	178	208	234
700	75/65			360	423	486	613	384	496	601	701	797	976	587	685	782
	70/55			291	343	393	495	310	400	485	567	644	787	475	554	631
	55/45			185	218	250	314	196	253	307	359	407	497	302	352	399
	45/40			127	150	172	215	134	174	211	246	279	340	208	242	273
800	75/65			411	483	555	700	439	566	686	802	911	1115	670	782	894
	70/55			333	392	450	566	355	457	555	648	736	900	543	633	721
	55/45			211	249	286	359	224	289	351	410	466	568	345	402	455
	45/40			145	172	197	246	154	198	241	281	319	388	237	277	312
900	75/65			463	544	625	788	494	637	772	902	1025	1255	754	880	1005
	70/55			374	440	506	637	399	515	624	729	828	1012	611	712	811
	55/45			237	281	322	404	252	326	395	462	524	639	388	453	512
	45/40			163	193	221	277	173	223	271	317	359	437	267	311	351
1000	75/65			514	604	694	875	549	708	858	1002	1139	1394	838	978	1117
	70/55			416	489	562	707	443	572	693	810	920	1125	678	792	901
	55/45			264	312	357	449	280	362	439	513	582	710	431	503	569
	45/40			181	215	246	308	192	248	301	352	399	486	297	346	390
1100	75/65			565	664	763	963	604	779	944	1102	1253	1533	922	1076	1229
	70/55			457	538	618	778	488	629	763	891	1012	1237	746	871	992
	55/45			290	343	393	493	308	398	483	564	640	781	474	553	626
	45/40			199	236	271	339	211	273	331	387	439	534	326	381	429
1200	75/65			617	725	833	1050	659	850	1030	1202	1367	1673	1006	1174	1340
	70/55			499	587	674	849	532	686	832	972	1104	1350	814	950	1082
	55/45			316	374	429	538	336	434	527	616	699	852	518	604	683
	45/40			217	258	295	369	230	298	361	422	479	583	356	415	467
1400	75/65			720	846	972	1225	769	991	1201	1403	1595	1952	1173	1369	1564
	70/55			582	685	787	990	621	801	970	1134	1288	1575	950	1108	1262
	55/45			369	437	500	628	392	507	614	718	815	994	604	704	797
	45/40			253	301	344	431	269	347	421	493	558	680	415	484	545
1600	75/65			822	966	1110	1400	878	1133	1373	1603	1822	2230	1341	1565	1787
	70/55			665	783	899	1132	709	915	1109	1296	1472	1800	1085	1266	1442
	55/45			422	499	572	718	449	579	702	821	931	1136	690	805	911
	45/40			290	344	394	493	307	397	481	563	638	777	475	554	623
1800	75/65			925	1087	1249		988	1274	1544	1804	2050		1508	1760	2011
	70/55			748	881	1011		798	1029	1248	1458	1656		1221	1425	1623
	55/45			475	561	643		505	651	790	923	1048		776	906	1025
	45/40			326	387	443		346	446	542	633	718		534	623	701
2000	75/65			1028	1208	1388		1098	1416	1716	2004	2278		1676	1956	2234
	70/55			831	979	1124		887	1144	1386	1620	1840		1357	1583	1803
	55/45			527	624	715		561	724	878	1026	1164		863	1006	1139
	45/40			362	430	492		384	496	602	704	798		593	692	779
2300	75/65									1973	2305	2620		1927	2249	2569
	70/55									1594	1862	2116		1560	1821	2073
	55/45									1009	1180	1339		992	1157	1310
	45/40									692	809	917		682	796	896
2600	75/65									2231	2605	2961		2179	2543	2904
	70/55									1802	2105	2392		1764	2058	2344
	55/45									1141	1334	1514		1121	1308	1480
	45/40									782	915	1037		771	900	1013
3000	75/65									2574	3006	3417		2514	2934	3351
	70/55									2080	2429	2760		2035	2375	2704
	55/45									1317	1539	1746		1294	1509	1708
	45/40									903	1055	1197		890	1038	1169



## HEAT OUTPUT IN WATTS CERTIFIED TO EN 442

20 °C		Type 21 Type 21 VK						Type 22 Type 22 VK						Type 33 Type 33 VK							
Length L [mm]	t <sub>1</sub> /t <sub>2</sub> [°C]	Height H [mm]																			
		300	400	500	600	700	900	200	300	400	500	600	700	900	200	300	400	500	600	700	900
400	75/65	298	375	447	515	580	702	386	486	581	672	759	925	552	695	832	962	1089	1331		
	70/55	240	302	360	415	466	563	311	392	468	541	610	742	447	562	670	774	875	1067		
	55/45	152	191	227	261	292	351	196	246	294	340	382	462	284	356	422	485	547	664		
	45/40	104	130	155	178	199	237	134	168	200	231	260	313	196	244	288	329	371	448		
500	75/65	373	469	559	644	725	877	483	608	726	840	949	1157	690	869	1040	1203	1362	1664		
	70/55	301	378	450	519	583	703	389	490	585	676	763	928	558	702	838	967	1093	1333		
	55/45	190	238	283	326	366	438	245	308	367	424	478	578	355	444	527	606	683	830		
	45/40	130	163	193	222	249	297	167	210	250	289	325	391	245	305	360	412	463	561		
600	75/65	447	562	670	773	870	1052	580	730	871	1007	1138	1388	827	1043	1247	1444	1634	1997		
	70/55	361	453	540	622	700	844	467	588	701	811	915	1113	670	842	1005	1160	1312	1600		
	55/45	228	286	340	391	439	526	294	370	441	509	573	694	426	533	633	727	820	996		
	45/40	156	195	232	267	298	356	200	252	300	347	390	469	294	366	432	494	556	673		
700	75/65	522	656	782	902	1015	1228	676	851	1016	1175	1328	1619	965	1217	1455	1684	1906	2330		
	70/55	421	529	630	726	816	985	545	686	818	946	1068	1299	782	983	1173	1354	1531	1867		
	55/45	266	334	397	457	512	614	343	431	514	594	669	809	497	622	738	848	957	1161		
	45/40	182	228	271	311	348	415	234	294	350	405	454	548	342	426	504	576	649	785		
800	75/65	596	750	894	1030	1160	1403	519	773	973	1162	1343	1518	1850	747	1103	1390	1663	1925	2178	2662
	70/55	481	604	720	830	933	1125	423	623	783	935	1081	1220	1484	608	893	1123	1340	1547	1749	2134
	55/45	304	381	453	522	585	701	273	392	493	588	679	764	925	391	569	711	844	969	1093	1327
	45/40	208	260	310	356	398	475	190	267	336	401	462	519	626	272	391	487	576	658	741	897
900	75/65	671	843	1005	1159	1305	1579	584	869	1094	1307	1511	1707	2082	841	1241	1564	1871	2165	2451	2995
	70/55	541	680	810	934	1050	1266	476	700	881	1052	1216	1373	1670	684	1005	1264	1508	1741	1968	2400
	55/45	342	429	510	587	658	789	308	441	554	661	764	860	1041	440	640	800	949	1090	1230	1493
	45/40	234	293	348	400	447	534	214	301	378	451	520	584	704	306	440	548	648	741	834	1009
1000	75/65	745	937	1117	1288	1450	1754	649	966	1216	1452	1679	1897	2313	934	1379	1738	2079	2406	2723	3328
	70/55	601	756	900	1037	1166	1407	529	778	979	1169	1351	1525	1855	760	1117	1404	1675	1934	2187	2667
	55/45	380	476	567	652	731	877	342	490	616	735	849	955	1156	489	711	889	1055	1211	1366	1659
	45/40	260	326	387	445	497	593	238	334	420	501	578	649	782	340	489	609	720	823	927	1121
1100	75/65	820	1031	1229	1417	1595	1929	714	1063	1338	1597	1847	2087	2544	1027	1517	1912	2287	2647	2995	3661
	70/55	661	831	990	1141	1283	1547	582	856	1077	1286	1487	1678	2041	836	1228	1544	1843	2128	2405	2934
	55/45	418	524	624	718	804	964	376	539	678	808	934	1051	1272	538	782	978	1160	1332	1503	1825
	45/40	286	358	426	489	547	652	262	367	462	551	636	714	861	374	538	670	792	905	1019	1233
1200	75/65	894	1124	1340	1546	1740	2105	779	1159	1459	1742	2015	2276	2776	1121	1655	2086	2495	2887	3268	3994
	70/55	721	907	1080	1245	1399	1688	635	934	1175	1403	1622	1830	2226	912	1340	1685	2010	2321	2624	3200
	55/45	456	572	680	783	877	1052	410	588	739	882	1019	1146	1387	587	853	1067	1266	1454	1640	1991
	45/40	312	391	464	534	597	712	286	401	504	601	694	779	939	408	587	731	864	988	1112	1345
1400	75/65	1043	1312	1564	1803	2030	2456	909	1352	1702	2033	2351	2656	3238	1308	1931	2433	2911	3368	3812	4659
	70/55	842	1058	1260	1452	1633	1969	741	1090	1371	1637	1892	2135	2597	1064	1564	1966	2346	2708	3061	3734
	55/45	532	667	794	913	1024	1227	478	686	862	1029	1188	1338	1619	685	995	1244	1477	1696	1913	2323
	45/40	364	456	542	623	696	830	333	468	588	701	809	909	1095	476	685	853	1008	1152	1297	1570
1600	75/65	1192	1499	1787	2061	2320	2806	1038	1546	1946	2323	2686	3035	3701	1494	2206	2781	3326	3850	4357	5325
	70/55	962	1209	1440	1660	1866	2251	847	1245	1567	1871	2162	2440	2968	1216	1787	2246	2681	3095	3499	4267
	55/45	607	762	907	1044	1170	1403	547	784	985	1176	1358	1529	1850	782	1137	1422	1688	1938	2186	2655
	45/40	416	521	619	711	795	949	381	535	672	801	925	1039	1252	543	783	975	1152	1317	1483	1794
1800	75/65	1341	1687	2011	2318	2610	3157	1168	1739	2189	2614	3022	3415	4163	1681	2482	3128	3742	4331	4901	5990
	70/55	1082	1360	1620	1867	2099	2532	953	1401	1763	2104	2433	2745	3339	1368	2010	2527	3016	3481	3936	4800
	55/45	683	858	1020	1174	1316	1578	615	882	1109	1323	1528	1720	2081	880	1279	1600	1899	2180	2460	2987
	45/40	467	586	696	800	895	1068	429	601	756	901	1041	1169	1408	611	881	1097	1296	1481	1668	2018
2000	75/65	1490	1874	2234	2576	2900	3508	1298	1932	2432	2904	3358	3794	4626	1868	2758	3476	4158	4812	5446	6656
	70/55	1202	1511	1800	2075	2332	2813	1058	1557	1959	2338	2703	3050	3710	1520	2234	2808	3351	3868	4373	5334
	55/45	759	953	1134	1305	1462	1753	683	980	1232	1470	1698	1911	2312	978	1421	1778	2110	2423	2733	3318
	45/40	519	651	774	889	994	1186	476	668	840	1001	1156	1299	1565	679	979	1218	1440	1646	1853	2242
2300	75/65			2569	2962	3335		1493	2222	2797	3340	3862	4363	2148	3172	3997	4782	5534	6263		
	70/55			2070	2386	2682		1217	1790	2253	2689	3108	3508	1748	2569	3229	3853	4448	5029		
	55/45			1304	1500	1682		786	1126	1417	1690	1952	2197	1125	1635	2044	2426	2786	3143		
	45/40			890	1023	1143		548	768	966	1152	1330	1493	781	1125	1401	1656	1893	2131		
2600	75/65			2904	3349	3770		1687	2512	3162	3775	4365	4932	2428	3585	4519	5405	6256	7080		
	70/55			2341	2697	3032		1376	2023	2546	3040	3514	3965	1977	2904	3651	4356	5029	5685		
	55/45			1474	1696	1901		888	1273	1601	1910	2207	2484	1271	1848	2311	2743	3149	3553		
	45/40			1006	1156	1293		619	869	1092	1302	1503	1688	883	1272	1584	1872	2140	2410		
3000	75/65			3351	3864	4350		1947	2898	3648	4356	5037	5691	2802	4137	5214	6237	7218	8169		
	70/55			2701	3112	3498		1588	2335	2938	3507	4054	4575	2281	3350	4212	5026	5802	6560		
	55/45			1701	1957	2193		1025	1469	1848	2204	2546	2866	1467	2132	2666	3165	3634	4099		
	45/40			1161	1334	1491		714	1002	1260	1502	1734	1948	1019	1468	1828	2160	2469	2780		

Steel panel radiators in the height 200 mm are supplied only in the version KLASIK.

# RADIK KLASIK - Z, VK - Z

HEAT OUTPUT IN WATTS CERTIFIED TO EN 442

20 °C		Type 10 Type 10 VK						Type 11 Type 11 VK					
Length L [mm]	t <sub>1</sub> /t <sub>2</sub> [°C]	Height H [mm]											
		300	400	500	600	700	900	300	400	500	600	700	900
400	75/65			206	242	278	350	220	283	343	401	456	558
	70/55			166	196	225	283	177	229	277	324	368	450
	55/45			105	125	143	179	112	145	176	205	233	284
	45/40			72	86	98	123	77	99	120	141	160	194
500	75/65	165	212	257	302	347	438	275	354	429	501	570	697
	70/55	133	171	208	245	281	354	222	286	347	405	460	562
	55/45	84	108	132	156	179	224	140	181	219	256	291	355
	45/40	57	74	91	107	123	154	96	124	150	176	199	243
600	75/65	198	254	308	362	416	525	329	425	515	601	683	836
	70/55	159	205	249	294	337	424	266	343	416	486	552	675
	55/45	100	129	158	187	214	269	168	217	263	308	349	426
	45/40	68	89	109	129	148	185	115	149	181	211	239	291
700	75/65			360	423	486	613	384	496	601	701	797	976
	70/55			291	343	393	495	310	400	485	567	644	787
	55/45			185	218	250	314	196	253	307	359	407	497
	45/40			127	150	172	215	134	174	211	246	279	340
800	75/65			411	483	555	700	439	566	686	802	911	1115
	70/55			333	392	450	566	355	457	555	648	736	900
	55/45			211	249	286	359	224	289	351	410	466	568
	45/40			145	172	197	246	154	198	241	281	319	388
900	75/65			463	544	625	788	494	637	772	902	1025	1255
	70/55			374	440	506	637	399	515	624	729	828	1012
	55/45			237	281	322	404	252	326	395	462	524	639
	45/40			163	193	221	277	173	223	271	317	359	437
1000	75/65			514	604	694	875	549	708	858	1002	1139	1394
	70/55			416	489	562	707	443	572	693	810	920	1125
	55/45			264	312	357	449	280	362	439	513	582	710
	45/40			181	215	246	308	192	248	301	352	399	486
1100	75/65			565	664	763	963	604	779	944	1102	1253	1533
	70/55			457	538	618	778	488	629	763	891	1012	1237
	55/45			290	343	393	493	308	398	483	564	640	781
	45/40			199	236	271	339	211	273	331	387	439	534
1200	75/65			617	725	833	1050	659	850	1030	1202	1367	1673
	70/55			499	587	674	849	532	686	832	972	1104	1350
	55/45			316	374	429	538	336	434	527	616	699	852
	45/40			217	258	295	369	230	298	361	422	479	583
1400	75/65			720	846	972	1225	769	991	1201	1403	1595	1952
	70/55			582	685	787	990	621	801	970	1134	1288	1575
	55/45			369	437	500	628	392	507	614	718	815	994
	45/40			253	301	344	431	269	347	421	493	558	680
1600	75/65			822	966	1110	1400	878	1133	1373	1603	1822	2230
	70/55			665	783	899	1132	709	915	1109	1296	1472	1800
	55/45			422	499	572	718	449	579	702	821	931	1136
	45/40			290	344	394	493	307	397	481	563	638	777
1800	75/65			925	1087	1249		988	1274	1544	1804	2050	
	70/55			748	881	1011		798	1029	1248	1458	1656	
	55/45			475	561	643		505	651	790	923	1048	
	45/40			326	387	443		346	446	542	633	718	
2000	75/65			1028	1208	1388		1098	1416	1716	2004	2278	
	70/55			831	979	1124		887	1144	1386	1620	1840	
	55/45			527	624	715		561	724	878	1026	1164	
	45/40			362	430	492		384	496	602	704	798	



## HEAT OUTPUT IN WATTS CERTIFIED TO EN 442

20 °C		Type 21 Type 21 VK						Type 22 Type 22 VK						Type 33 Type 33 VK							
Length L [mm]	t <sub>1</sub> /t <sub>2</sub> [°C]	Height H [mm]																			
		300	400	500	600	700	900	200	300	400	500	600	700	900	200	300	400	500	600	700	900
400	75/65	298	375	447	515	580	702		386	486	581	672	759	925		552	695	832	962	1089	1331
	70/55	240	302	360	415	466	563		311	392	468	541	610	742		447	562	670	774	875	1067
	55/45	152	191	227	261	292	351		196	246	294	340	382	462		284	356	422	485	547	664
	45/40	104	130	155	178	199	237		134	168	200	231	260	313		196	244	288	329	371	448
500	75/65	373	469	559	644	725	877		483	608	726	840	949	1157		690	869	1040	1203	1362	1664
	70/55	301	378	450	519	583	703		389	490	585	676	763	928		558	702	838	967	1093	1333
	55/45	190	238	283	326	366	438		245	308	367	424	478	578		355	444	527	606	683	830
	45/40	130	163	193	222	249	297		167	210	250	289	325	391		245	305	360	412	463	561
600	75/65	447	562	670	773	870	1052		580	730	871	1007	1138	1388		827	1043	1247	1444	1634	1997
	70/55	361	453	540	622	700	844		467	588	701	811	915	1113		670	842	1005	1160	1312	1600
	55/45	228	286	340	391	439	526		294	370	441	509	573	694		426	533	633	727	820	996
	45/40	156	195	232	267	298	356		200	252	300	347	390	469		294	366	432	494	556	673
700	75/65	522	656	782	902	1015	1228		676	851	1016	1175	1328	1619		965	1217	1455	1684	1906	2330
	70/55	421	529	630	726	816	985		545	686	818	946	1068	1299		782	983	1173	1354	1531	1867
	55/45	266	334	397	457	512	614		343	431	514	594	669	809		497	622	738	848	957	1161
	45/40	182	228	271	311	348	415		234	294	350	405	454	548		342	426	504	576	649	785
800	75/65	596	750	894	1030	1160	1403	519	773	973	1162	1343	1518	1850	747	1103	1390	1663	1925	2178	2662
	70/55	481	604	720	830	933	1125	423	623	783	935	1081	1220	1484	608	893	1123	1340	1547	1749	2134
	55/45	304	381	453	522	585	701	273	392	493	588	679	764	925	391	569	711	844	969	1093	1327
	45/40	208	260	310	356	398	475	190	267	336	401	462	519	626	272	391	487	576	658	741	897
900	75/65	671	843	1005	1159	1305	1579	584	869	1094	1307	1511	1707	2082	841	1241	1564	1871	2165	2451	2995
	70/55	541	680	810	934	1050	1266	476	700	881	1052	1216	1373	1670	684	1005	1264	1508	1741	1968	2400
	55/45	342	429	510	587	658	789	308	441	554	661	764	860	1041	440	640	800	949	1090	1230	1493
	45/40	234	293	348	400	447	534	214	301	378	451	520	584	704	306	440	548	648	741	834	1009
1000	75/65	745	937	1117	1288	1450	1754	649	966	1216	1452	1679	1897	2313	934	1379	1738	2079	2406	2723	3328
	70/55	601	756	900	1037	1166	1407	529	778	979	1169	1351	1525	1855	760	1117	1404	1675	1934	2187	2667
	55/45	380	476	567	652	731	877	342	490	616	735	849	955	1156	489	711	889	1055	1211	1366	1659
	45/40	260	326	387	445	497	593	238	334	420	501	578	649	782	340	489	609	720	823	927	1121
1100	75/65	820	1031	1229	1417	1595	1929	714	1063	1338	1597	1847	2087	2544	1027	1517	1912	2287	2647	2995	3661
	70/55	661	831	990	1141	1283	1547	582	856	1077	1286	1487	1678	2041	836	1228	1544	1843	2128	2405	2934
	55/45	418	524	624	718	804	964	376	539	678	808	934	1051	1272	538	782	978	1160	1332	1503	1825
	45/40	286	358	426	489	547	652	262	367	462	551	636	714	861	374	538	670	792	905	1019	1233
1200	75/65	894	1124	1340	1546	1740	2105	779	1159	1459	1742	2015	2276	2776	1121	1655	2086	2495	2887	3268	3994
	70/55	721	907	1080	1245	1399	1688	635	934	1175	1403	1622	1830	2226	912	1340	1685	2010	2321	2624	3200
	55/45	456	572	680	783	877	1052	410	588	739	882	1019	1146	1387	587	853	1067	1266	1454	1640	1991
	45/40	312	391	464	534	597	712	286	401	504	601	694	779	939	408	587	731	864	988	1112	1345
1400	75/65	1043	1312	1564	1803	2030	2456	909	1352	1702	2033	2351	2656	3238	1308	1931	2433	2911	3368	3812	4659
	70/55	842	1058	1260	1452	1633	1969	741	1090	1371	1637	1892	2135	2597	1064	1564	1966	2346	2708	3061	3734
	55/45	532	667	794	913	1024	1227	478	686	862	1029	1188	1338	1619	685	995	1244	1477	1696	1913	2323
	45/40	364	456	542	623	696	830	333	468	588	701	809	909	1095	476	685	853	1008	1152	1297	1570
1600	75/65	1192	1499	1787	2061	2320	2806	1038	1546	1946	2323	2686	3035	3701	1494	2206	2781	3326	3850	4357	5325
	70/55	962	1209	1440	1660	1866	2251	847	1245	1567	1871	2162	2440	2968	1216	1787	2246	2681	3095	3499	4267
	55/45	607	762	907	1044	1170	1403	547	784	985	1176	1358	1529	1850	782	1137	1422	1688	1938	2186	2655
	45/40	416	521	619	711	795	949	381	535	672	801	925	1039	1252	543	783	975	1152	1317	1483	1794
1800	75/65	1341	1687	2011	2318	2610	3157	1168	1739	2189	2614	3022	3415	4163	1681	2482	3128	3742	4331	4901	5990
	70/55	1082	1360	1620	1867	2099	2532	953	1401	1763	2104	2433	2745	3339	1368	2010	2527	3016	3481	3936	4800
	55/45	683	858	1020	1174	1316	1578	615	882	1109	1323	1528	1720	2081	880	1279	1600	1899	2180	2460	2987
	45/40	467	586	696	800	895	1068	429	601	756	901	1041	1169	1408	611	881	1097	1296	1481	1668	2018
2000	75/65	1490	1874	2234	2576	2900	3508	1298	1932	2432	2904	3358	3794	4626	1868	2758	3476	4158	4812	5446	6656
	70/55	1202	1511	1800	2075	2332	2813	1058	1557	1959	2338	2703	3050	3710	1520	2234	2808	3351	3868	4373	5334
	55/45	759	953	1134	1305	1462	1753	683	980	1232	1470	1698	1911	2312	978	1421	1778	2110	2423	2733	3318
	45/40	519	651	774	889	994	1186	476	668	840	1001	1156	1299	1565	679	979	1218	1440	1646	1853	2242

Steel panel radiators in the height 200 mm are supplied only in the version KLASIK.



# RADIK KLASIK - R, PLAN KLASIK - R, LINE KLASIK - R

HEAT OUTPUT IN WATTS CERTIFIED TO EN 442

## RADIK KLASIK - R

20 °C		Type 20	Type 21	Type 22	Type 33
Length L [mm]	t <sub>1</sub> /t <sub>2</sub> [°C]	Height H [mm]			
		554	554	554	554
400	75/65	366	484	630	903
	70/55	296	390	507	727
	55/45	188	245	319	456
	45/40	129	167	217	311
500	75/65	457	605	788	1129
	70/55	370	487	634	908
	55/45	235	307	399	570
	45/40	162	209	272	388
600	75/65	548	726	946	1354
	70/55	444	585	761	1090
	55/45	282	368	478	684
	45/40	194	251	326	466
700	75/65	640	847	1103	1580
	70/55	518	682	888	1271
	55/45	329	429	558	798
	45/40	226	293	380	543
800	75/65	731	968	1261	1806
	70/55	592	780	1015	1453
	55/45	376	491	638	912
	45/40	259	335	434	621
900	75/65	823	1089	1418	2031
	70/55	666	877	1142	1635
	55/45	423	552	717	1026
	45/40	291	377	489	699
1000	75/65	914	1210	1576	2257
	70/55	740	975	1269	1816
	55/45	470	613	797	1140
	45/40	323	418	543	776
1100	75/65	1005	1331	1734	2483
	70/55	814	1072	1396	1998
	55/45	517	675	877	1254
	45/40	356	460	597	854
1200	75/65	1097	1452	1891	2708
	70/55	888	1170	1522	2180
	55/45	564	736	957	1368
	45/40	388	502	652	932
1400	75/65	1280	1694	2206	3160
	70/55	1036	1365	1776	2543
	55/45	658	859	1116	1597
	45/40	453	586	760	1087
1600	75/65	1462	1936	2522	3611
	70/55	1184	1560	2030	2906
	55/45	752	981	1275	1825
	45/40	517	669	869	1242
1800	75/65	1645	2178	2837	4063
	70/55	1332	1755	2284	3269
	55/45	846	1104	1435	2053
	45/40	582	753	977	1398
2000	75/65	1828	2420	3152	4514
	70/55	1480	1950	2537	3633
	55/45	940	1227	1594	2281
	45/40	647	837	1086	1553

## RADIK PLAN/LINE KLASIK - R

20 °C		Type 20	Type 21	Type 22	Type 33
Length L [mm]	t <sub>1</sub> /t <sub>2</sub> [°C]	Height H [mm]			
		554	554	554	554
400	75/65	338	459	613	878
	70/55	275	370	494	709
	55/45	176	234	312	448
	45/40	122	160	213	306
500	75/65	423	574	766	1098
	70/55	344	463	618	886
	55/45	220	292	390	559
	45/40	152	200	266	383
600	75/65	508	689	919	1318
	70/55	412	556	741	1063
	55/45	264	351	468	671
	45/40	183	240	320	459
700	75/65	592	804	1072	1537
	70/55	481	648	865	1240
	55/45	308	409	546	783
	45/40	213	280	373	536
800	75/65	677	918	1226	1757
	70/55	550	741	989	1418
	55/45	352	468	624	895
	45/40	244	320	426	612
900	75/65	761	1033	1379	1976
	70/55	618	833	1112	1595
	55/45	396	526	702	1007
	45/40	274	360	480	689
1000	75/65	846	1148	1532	2196
	70/55	687	926	1236	1772
	55/45	440	584	780	1119
	45/40	304	400	533	765
1100	75/65	931	1263	1685	2416
	70/55	756	1019	1359	1949
	55/45	484	643	858	1231
	45/40	335	440	586	842
1200	75/65	1015	1378	1838	2635
	70/55	825	1111	1483	2126
	55/45	528	701	935	1343
	45/40	365	479	639	918
1400	75/65	1184	1607	2145	3074
	70/55	962	1297	1730	2481
	55/45	616	818	1091	1566
	45/40	426	559	746	1071
1600	75/65	1354	1837	2451	3514
	70/55	1099	1482	1977	2835
	55/45	704	935	1247	1790
	45/40	487	639	853	1224
1800	75/65	1523	2066	2758	3953
	70/55	1237	1667	2224	3190
	55/45	792	1052	1403	2014
	45/40	548	719	959	1377
2000	75/65	1692	2296	3064	4392
	70/55	1374	1852	2471	3544
	55/45	880	1169	1559	2238
	45/40	609	799	1066	1531



## HEAT OUTPUT IN WATTS CERTIFIED TO EN 442

20 °C		32 VK 32 VKL					
Length L [mm]	t <sub>1</sub> /t <sub>2</sub> [°C]	Height H [mm]					
		300	400	500	600	700	900
400	75/65	397	492	582	670	756	926
	70/55	321	398	471	541	610	743
	55/45	204	252	298	343	384	463
	45/40	140	173	205	235	262	313
500	75/65	496	615	728	838	946	1158
	70/55	401	497	588	677	762	928
	55/45	255	315	373	429	480	579
	45/40	175	217	256	294	328	392
600	75/65	595	737	873	1005	1135	1389
	70/55	482	596	706	812	915	1114
	55/45	306	379	448	515	576	694
	45/40	210	260	307	353	393	470
700	75/65	694	860	1019	1173	1324	1621
	70/55	562	696	823	948	1067	1300
	55/45	357	442	522	600	672	810
	45/40	245	303	358	412	459	548
800	75/65	794	983	1164	1340	1513	1852
	70/55	642	795	941	1083	1219	1485
	55/45	408	505	597	686	768	926
	45/40	281	347	410	471	525	626
900	75/65	893	1106	1310	1508	1702	2084
	70/55	722	895	1059	1218	1372	1671
	55/45	459	568	671	772	864	1041
	45/40	316	390	461	529	590	705
1000	75/65	992	1229	1455	1675	1891	2315
	70/55	803	994	1176	1354	1524	1857
	55/45	510	631	746	858	960	1157
	45/40	351	433	512	588	656	783
1100	75/65	1091	1352	1601	1843	2080	2547
	70/55	883	1094	1294	1489	1677	2042
	55/45	561	694	821	943	1056	1273
	45/40	386	477	563	647	721	861
1200	75/65	1190	1475	1746	2010	2269	2778
	70/55	963	1193	1412	1624	1829	2228
	55/45	612	757	895	1029	1152	1389
	45/40	421	520	614	706	787	940
1400	75/65	1389	1721	2037	2345	2647	3241
	70/55	1124	1392	1647	1895	2134	2599
	55/45	714	883	1044	1201	1345	1620
	45/40	491	607	717	823	918	1096
1600	75/65	1587	1966	2328	2680	3026	3704
	70/55	1284	1591	1882	2166	2439	2971
	55/45	816	1010	1194	1372	1537	1852
	45/40	561	694	819	941	1049	1253
1800	75/65	1786	2212	2619	3015	3404	4167
	70/55	1445	1789	2117	2437	2744	3342
	55/45	918	1136	1343	1544	1729	2083
	45/40	631	780	922	1059	1180	1410
2000	75/65	1984	2458	2910	3350	3782	4630
	70/55	1606	1988	2353	2707	3049	3713
	55/45	1020	1262	1492	1715	1921	2314
	45/40	701	867	1024	1176	1312	1566
2300	75/65	2282	2827	3347	3853	4349	5306
	70/55	1846	2286	2706	3113	3506	4289
	55/45	1173	1451	1716	1972	2209	2709
	45/40	807	997	1178	1353	1508	1808
2600	75/65	2579	3195	3783	4355	4917	5963
	70/55	2087	2585	3059	3519	3963	4813
	55/45	1326	1641	1939	2230	2497	3013
	45/40	912	1127	1331	1529	1705	2053
3000	75/65	2976	3687	4365	5025	5673	6831
	70/55	2408	2982	3529	4061	4573	5513
	55/45	1530	1893	2238	2573	2881	3481
	45/40	1052	1300	1536	1764	1967	2367

## HEAT OUTPUT IN WATTS CERTIFIED TO EN 442

20 °C		Type 10 VKL						Type 11 VKL					
Length L [mm]	t <sub>1</sub> /t <sub>2</sub> [°C]	Height H [mm]											
		300	400	500	600	700	900	300	400	500	600	700	900
400	75/65			206	242	278	350	220	283	343	401	456	558
	70/55			166	196	225	283	177	229	277	324	368	450
	55/45			105	125	143	179	112	145	176	205	233	284
	45/40			72	86	98	123	77	99	120	141	160	194
500	75/65	165	212	257	302	347	438	275	354	429	501	570	697
	70/55	133	171	208	245	281	354	222	286	347	405	460	562
	55/45	84	108	132	156	179	224	140	181	219	256	291	355
	45/40	57	74	91	107	123	154	96	124	150	176	199	243
600	75/65	198	254	308	362	416	525	329	425	515	601	683	836
	70/55	159	205	249	294	337	424	266	343	416	486	552	675
	55/45	100	129	158	187	214	269	168	217	263	308	349	426
	45/40	68	89	109	129	148	185	115	149	181	211	239	291
700	75/65			360	423	486	613	384	496	601	701	797	976
	70/55			291	343	393	495	310	400	485	567	644	787
	55/45			185	218	250	314	196	253	307	359	407	497
	45/40			127	150	172	215	134	174	211	246	279	340
800	75/65			411	483	555	700	439	566	686	802	911	1115
	70/55			333	392	450	566	355	457	555	648	736	900
	55/45			211	249	286	359	224	289	351	410	466	568
	45/40			145	172	197	246	154	198	241	281	319	388
900	75/65			463	544	625	788	494	637	772	902	1025	1255
	70/55			374	440	506	637	399	515	624	729	828	1012
	55/45			237	281	322	404	252	326	395	462	524	639
	45/40			163	193	221	277	173	223	271	317	359	437
1000	75/65			514	604	694	875	549	708	858	1002	1139	1394
	70/55			416	489	562	707	443	572	693	810	920	1125
	55/45			264	312	357	449	280	362	439	513	582	710
	45/40			181	215	246	308	192	248	301	352	399	486
1100	75/65			565	664	763	963	604	779	944	1102	1253	1533
	70/55			457	538	618	778	488	629	763	891	1012	1237
	55/45			290	343	393	493	308	398	483	564	640	781
	45/40			199	236	271	339	211	273	331	387	439	534
1200	75/65			617	725	833	1050	659	850	1030	1202	1367	1673
	70/55			499	587	674	849	532	686	832	972	1104	1350
	55/45			316	374	429	538	336	434	527	616	699	852
	45/40			217	258	295	369	230	298	361	422	479	583
1400	75/65			720	846	972	1225	769	991	1201	1403	1595	1952
	70/55			582	685	787	990	621	801	970	1134	1288	1575
	55/45			369	437	500	628	392	507	614	718	815	994
	45/40			253	301	344	431	269	347	421	493	558	680
1600	75/65			822	966	1110	1400	878	1133	1373	1603	1822	2230
	70/55			665	783	899	1132	709	915	1109	1296	1472	1800
	55/45			422	499	572	718	449	579	702	821	931	1136
	45/40			290	344	394	493	307	397	481	563	638	777
1800	75/65			925	1087	1249	988	1274	1544	1804	2050		
	70/55			748	881	1011	798	1029	1248	1458	1656		
	55/45			475	561	643	505	651	790	923	1048		
	45/40			326	387	443	346	446	542	633	718		
2000	75/65			1028	1208	1388	1098	1416	1716	2004	2278		
	70/55			831	979	1124	887	1144	1386	1620	1840		
	55/45			527	624	715	561	724	878	1026	1164		
	45/40			362	430	492	384	496	602	704	798		
2300	75/65								1973	2305	2620		
	70/55								1594	1862	2116		
	55/45								1009	1180	1339		
	45/40								692	809	917		
2600	75/65								2231	2605	2961		
	70/55								1802	2105	2392		
	55/45								1141	1334	1514		
	45/40								782	915	1037		
3000	75/65								2574	3006	3417		
	70/55								2080	2429	2760		
	55/45								1317	1539	1746		
	45/40								903	1055	1197		



## HEAT OUTPUT IN WATTS CERTIFIED TO EN 442

20 °C		Type 21 VKL						Type 22 VKL						Type 33 VKL								
Length L [mm]	t <sub>1</sub> /t <sub>2</sub> [°C]	Height H [mm]																				
		300	400	500	600	700	900	300	400	500	600	700	900	300	400	500	600	700	900			
400	75/65	298	375	447	515	580	702	386	486	581	672	759	925	552	695	832	962	1089	1331			
	70/55	240	302	360	415	466	563	311	392	468	541	610	742	447	562	670	774	875	1067			
	55/45	152	191	227	261	292	351	196	246	294	340	382	462	284	356	422	485	547	664			
	45/40	104	130	155	178	199	237	134	168	200	231	260	313	196	244	288	329	371	448			
500	75/65	373	469	559	644	725	877	483	608	726	840	949	1157	690	869	1040	1203	1362	1664			
	70/55	301	378	450	519	583	703	389	490	585	676	763	928	558	702	838	967	1093	1333			
	55/45	190	238	283	326	366	438	245	308	367	424	478	578	355	444	527	606	683	830			
	45/40	130	163	193	222	249	297	167	210	250	289	325	391	245	305	360	412	463	561			
600	75/65	447	562	670	773	870	1052	580	730	871	1007	1138	1388	827	1043	1247	1444	1634	1997			
	70/55	361	453	540	622	700	844	467	588	701	811	915	1113	670	842	1005	1160	1312	1600			
	55/45	228	286	340	391	439	526	294	370	441	509	573	694	426	533	633	727	820	996			
	45/40	156	195	232	267	298	356	200	252	300	347	390	469	294	366	432	494	556	673			
700	75/65	522	656	782	902	1015	1228	676	851	1016	1175	1328	1619	965	1217	1455	1684	1906	2330			
	70/55	421	529	630	726	816	985	545	686	818	946	1068	1299	782	983	1173	1354	1531	1867			
	55/45	266	334	397	457	512	614	343	431	514	594	669	809	497	622	738	848	957	1161			
	45/40	182	228	271	311	348	415	234	294	350	405	454	548	342	426	504	576	649	785			
800	75/65	596	750	894	1030	1160	1403	773	973	1162	1343	1518	1850	1103	1390	1663	1925	2178	2662			
	70/55	481	604	720	830	933	1125	623	783	935	1081	1220	1484	893	1123	1340	1547	1749	2134			
	55/45	304	381	453	522	585	701	392	493	588	679	764	925	569	711	844	969	1093	1327			
	45/40	208	260	310	356	398	475	267	336	401	462	519	626	391	487	576	658	741	897			
900	75/65	671	843	1005	1159	1305	1579	869	1094	1307	1511	1707	2082	1241	1564	1871	2165	2451	2995			
	70/55	541	680	810	934	1050	1266	700	881	1052	1216	1373	1670	1005	1264	1508	1741	1968	2400			
	55/45	342	429	510	587	658	789	441	554	661	764	860	1041	640	800	949	1090	1230	1493			
	45/40	234	293	348	400	447	534	301	378	451	520	584	704	440	548	648	741	834	1009			
1000	75/65	745	937	1117	1288	1450	1754	966	1216	1452	1679	1897	2313	1379	1738	2079	2406	2723	3328			
	70/55	601	756	900	1037	1166	1407	778	979	1169	1351	1525	1855	1117	1404	1675	1934	2187	2667			
	55/45	380	476	567	652	731	877	490	616	735	849	955	1156	711	889	1055	1211	1366	1659			
	45/40	260	326	387	445	497	593	334	420	501	578	649	782	489	609	720	823	927	1121			
1100	75/65	820	1031	1229	1417	1595	1929	1063	1338	1597	1847	2087	2544	1517	1912	2287	2647	2995	3661			
	70/55	661	831	990	1141	1283	1547	856	1077	1286	1487	1678	2041	1228	1544	1843	2128	2405	2934			
	55/45	418	524	624	718	804	964	539	678	808	934	1051	1272	782	978	1160	1332	1503	1825			
	45/40	286	358	426	489	547	652	367	462	551	636	714	861	538	670	792	905	1019	1233			
1200	75/65	894	1124	1340	1546	1740	2105	1159	1459	1742	2015	2276	2776	1655	2086	2495	2887	3268	3994			
	70/55	721	907	1080	1245	1399	1688	934	1175	1403	1622	1830	2226	1340	1685	2010	2321	2624	3200			
	55/45	456	572	680	783	877	1052	588	739	882	1019	1146	1387	853	1067	1266	1454	1640	1991			
	45/40	312	391	464	534	597	712	401	504	601	694	779	939	587	731	864	988	1112	1345			
1400	75/65	1043	1312	1564	1803	2030	2456	1352	1702	2033	2351	2656	3238	1931	2433	2911	3368	3812	4659			
	70/55	842	1058	1260	1452	1633	1969	1090	1371	1637	1892	2135	2597	1564	1966	2346	2708	3061	3734			
	55/45	532	667	794	913	1024	1227	686	862	1029	1188	1338	1619	995	1244	1477	1696	1913	2323			
	45/40	364	456	542	623	696	830	468	588	701	809	909	1095	685	853	1008	1152	1297	1570			
1600	75/65	1192	1499	1787	2061	2320	2806	1546	1946	2323	2686	3035	3701	2206	2781	3326	3850	4357	5325			
	70/55	962	1209	1440	1660	1866	2251	1245	1567	1871	2162	2440	2968	1787	2246	2681	3095	3499	4267			
	55/45	607	762	907	1044	1170	1403	784	985	1176	1358	1529	1850	1137	1422	1688	1938	2186	2655			
	45/40	416	521	619	711	795	949	535	672	801	925	1039	1252	783	975	1152	1317	1483	1794			
1800	75/65	1341	1687	2011	2318	2610	3157	1739	2189	2614	3022	3415	4163	2482	3128	3742	4331	4901	5990			
	70/55	1082	1360	1620	1867	2099	2532	1401	1763	2104	2433	2745	3339	2010	2527	3016	3481	3936	4800			
	55/45	683	858	1020	1174	1316	1578	882	1109	1323	1528	1720	2081	1279	1600	1899	2180	2460	2987			
	45/40	467	586	696	800	895	1068	601	756	901	1041	1169	1408	881	1097	1296	1481	1668	2018			
2000	75/65	1490	1874	2234	2576	2900	3508	1932	2432	2904	3358	3794	4626	2758	3476	4158	4812	5446	6656			
	70/55	1202	1511	1800	2075	2332	2813	1557	1959	2338	2703	3050	3710	2234	2808	3351	3868	4373	5334			
	55/45	759	953	1134	1305	1462	1753	980	1232	1470	1698	1911	2312	1421	1778	2110	2423	2733	3318			
	45/40	519	651	774	889	994	1186	668	840	1001	1156	1299	1565	979	1218	1440	1646	1853	2242			
2300	75/65			2569	2962	3335	2222	2797	3340	3862	4363	3172	3997	4782	5534	6263						
	70/55			2070	2386	2682	1790	2253	2689	3108	3508	2569	3229	3853	4448	5029						
	55/45			1304	1500	1682	1126	1417	1690	1952	2197	1635	2044	2426	2786	3143						
	45/40			890	1023	1143	768	966	1152	1330	1493	1125	1401	1656	1893	2131						
2600	75/65			2904	3349	3770	2512	3162	3775	4365	4932	3585	4519	5405	6256	7080						
	70/55			2341	2697	3032	2023	2546	3040	3514	3965	2904	3651	4356	5029	5685						
	55/45			1474	1696	1901	1273	1601	1910	2207	2484	1848	2311	2743	3149	3553						
	45/40			1006	1156	1293	869	1092	1302	1503	1688	1272	1584	1872	2140	2410						
3000	75/65			3351	3864	4350	2898	3648	4356	5037	5691	4137	5214	6237	7218	8169						
	70/55			2701	3112	3498	2335	2938	3507	4054	4575	3350	4212	5026	5802	6560						
	55/45			1701	1957	2193	1469	1848	2204	2546	2866	2132	2666	3165	3634	4099						
	45/40			1161	1334	1491	1002	1260	1502	1734	1948	1468	1828	2160	2469	2780						

## HEAT OUTPUT IN WATTS CERTIFIED TO EN 442

20 °C		Type 21 VKU				Type 22 VKU							Type 33 VKU						
Length L [mm]	t <sub>1</sub> /t <sub>2</sub> [°C]	Height H [mm]																	
		500	600	700	900	200	300	400	500	600	700	900	200	300	400	500	600	700	900
400	75/65	447	515	580	702		386	486	581	672	759	925				832	962	1089	1331
	70/55	360	415	466	563		311	392	468	541	610	742				670	774	875	1067
	55/45	227	261	292	351		196	246	294	340	382	462				422	485	547	664
	45/40	155	178	199	237		134	168	200	231	260	313				288	329	371	448
500	75/65	559	644	725	877		483	608	726	840	949	1157				1040	1203	1362	1664
	70/55	450	519	583	703		389	490	585	676	763	928				838	967	1093	1333
	55/45	283	326	366	438		245	308	367	424	478	578				527	606	683	830
	45/40	193	222	249	297		167	210	250	289	325	391				360	412	463	561
600	75/65	670	773	870	1052		580	730	871	1007	1138	1388				1247	1444	1634	1997
	70/55	540	622	700	844		467	588	701	811	915	1113				1005	1160	1312	1600
	55/45	340	391	439	526		294	370	441	509	573	694				633	727	820	996
	45/40	232	267	298	356		200	252	300	347	390	469				432	494	556	673
700	75/65	782	902	1015	1228		676	851	1016	1175	1328	1619				1455	1684	1906	2330
	70/55	630	726	816	985		545	686	818	946	1068	1299				1173	1354	1531	1867
	55/45	397	457	512	614		343	431	514	594	669	809				738	848	957	1161
	45/40	271	311	348	415		234	294	350	405	454	548				504	576	649	785
800	75/65	894	1030	1160	1403	519	773	973	1162	1343	1518	1850	747	1103	1390	1663	1925	2178	2662
	70/55	720	830	933	1125	423	623	783	935	1081	1220	1484	608	893	1123	1340	1547	1749	2134
	55/45	453	522	585	701	273	392	493	588	679	764	925	391	569	711	844	969	1093	1327
	45/40	310	356	398	475	190	267	336	401	462	519	626	272	391	487	576	658	741	897
900	75/65	1005	1159	1305	1579	584	869	1094	1307	1511	1707	2082	841	1241	1564	1871	2165	2451	2995
	70/55	810	934	1050	1266	476	700	881	1052	1216	1373	1670	684	1005	1264	1508	1741	1968	2400
	55/45	510	587	658	789	308	441	554	661	764	860	1041	440	640	800	949	1090	1230	1493
	45/40	348	400	447	534	214	301	378	451	520	584	704	306	440	548	648	741	834	1009
1000	75/65	1117	1288	1450	1754	649	966	1216	1452	1679	1897	2313	934	1379	1738	2079	2406	2723	3328
	70/55	900	1037	1166	1407	529	778	979	1169	1351	1525	1855	760	1117	1404	1675	1934	2187	2667
	55/45	567	652	731	877	342	490	616	735	849	955	1156	489	711	889	1055	1211	1366	1659
	45/40	387	445	497	593	238	334	420	501	578	649	782	340	489	609	720	823	927	1121
1100	75/65	1229	1417	1595	1929	714	1063	1338	1597	1847	2087	2544	1027	1517	1912	2287	2647	2995	3661
	70/55	990	1141	1283	1547	582	856	1077	1286	1487	1678	2041	836	1228	1544	1843	2128	2405	2934
	55/45	624	718	804	964	376	539	678	808	934	1051	1272	538	782	978	1160	1332	1503	1825
	45/40	426	489	547	652	262	367	462	551	636	714	861	374	538	670	792	905	1019	1233
1200	75/65	1340	1546	1740	2105	779	1159	1459	1742	2015	2276	2776	1121	1655	2086	2495	2887	3268	3994
	70/55	1080	1245	1399	1688	635	934	1175	1403	1622	1830	2226	912	1340	1685	2010	2321	2624	3200
	55/45	680	783	877	1052	410	588	739	882	1019	1146	1387	587	853	1067	1266	1454	1640	1991
	45/40	464	534	597	712	286	401	504	601	694	779	939	408	587	731	864	988	1112	1345
1400	75/65	1564	1803	2030	2456	909	1352	1702	2033	2351	2656	3238	1308	1931	2433	2911	3368	3812	4659
	70/55	1260	1452	1633	1969	741	1090	1371	1637	1892	2135	2597	1064	1564	1966	2346	2708	3061	3734
	55/45	794	913	1024	1227	478	686	862	1029	1188	1338	1619	685	995	1244	1477	1696	1913	2323
	45/40	542	623	696	830	333	468	588	701	809	909	1095	476	685	853	1008	1152	1297	1570
1600	75/65	1787	2061	2320	2806	1038	1546	1946	2323	2686	3035	3701	1494	2206	2781	3326	3850	4357	5325
	70/55	1440	1660	1866	2251	847	1245	1567	1871	2162	2440	2968	1216	1787	2246	2681	3095	3499	4267
	55/45	907	1044	1170	1403	547	784	985	1176	1358	1529	1850	782	1137	1422	1688	1938	2186	2655
	45/40	619	711	795	949	381	535	672	801	925	1039	1252	543	783	975	1152	1317	1483	1794
1800	75/65	2011	2318	2610	3157	1168	1739	2189	2614	3022	3415	4163	1681	2482	3128	3742	4331	4901	5990
	70/55	1620	1867	2099	2532	953	1401	1763	2104	2433	2745	3339	1368	2010	2527	3016	3481	3936	4800
	55/45	1020	1174	1316	1578	615	882	1109	1323	1528	1720	2081	880	1279	1600	1899	2180	2460	2987
	45/40	696	800	895	1068	429	601	756	901	1041	1169	1408	611	881	1097	1296	1481	1668	2018
2000	75/65	2234	2576	2900	3508	1298	1932	2432	2904	3358	3794	4626	1868	2758	3476	4158	4812	5446	6656
	70/55	1800	2075	2332	2813	1058	1557	1959	2338	2703	3050	3710	1520	2234	2808	3351	3868	4373	5334
	55/45	1134	1305	1462	1753	683	980	1232	1470	1698	1911	2312	978	1421	1778	2110	2423	2733	3318
	45/40	774	889	994	1186	476	668	840	1001	1156	1299	1565	679	979	1218	1440	1646	1853	2242
2300	75/65					1493	2222	2797	3340	3862	4363	2148	3172	3997	4782	5534	6263		
	70/55					1217	1790	2253	2689	3108	3508	1748	2569	3229	3853	4448	5029		
	55/45					786	1126	1417	1690	1952	2197	1125	1635	2044	2426	2786	3143		
	45/40					548	768	966	1152	1330	1493	781	1125	1401	1656	1893	2131		
2600	75/65					1687	2512	3162	3775	4365	4932	2428	3585	4519	5405	6256	7080		
	70/55					1376	2023	2546	3040	3514	3965	1977	2904	3651	4356	5029	5685		
	55/45					888	1273	1601	1910	2207	2484	1271	1848	2311	2743	3149	3553		
	45/40					619	869	1092	1302	1503	1688	883	1272	1584	1872	2140	2410		
3000	75/65					1947	2898	3648	4356	5037	5691	2802	4137	5214	6237	7218	8169		
	70/55					1588	2335	2938	3507	4054	4575	2281	3350	4212	5026	5802	6560		
	55/45					1025	1469	1848	2204	2546	2866	1467	2132	2666	3165	3634	4099		
	45/40					714	1002	1260	1502	1734	1948	1019	1468	1828	2160	2469	2780		





## HEAT OUTPUT IN WATTS CERTIFIED TO EN 442

20 °C		Type 10 VKM Type 10 VKM - L						Type 11 VKM Type 11 VKM - L					
Length L [mm]	t <sub>1</sub> /t <sub>2</sub> [°C]	Height H [mm]											
		300	400	500	600	700	900	300	400	500	600	700	900
400	75/65			229	266	301	369	213	273	332	392	452	573
	70/55			185	215	243	297	174	222	269	316	364	462
	55/45			117	136	153	187	112	142	171	200	230	290
	45/40			81	93	105	127	78	99	118	137	157	198
500	75/65	188	238	286	333	377	461	267	342	416	490	565	716
	70/55	152	193	231	269	304	371	217	277	337	395	456	577
	55/45	97	122	147	170	192	233	140	178	214	250	288	363
	45/40	67	84	101	116	131	159	98	123	148	171	197	248
600	75/65	225	286	343	399	452	553	320	410	499	587	677	859
	70/55	182	231	277	322	365	445	261	333	404	474	547	692
	55/45	116	147	176	204	230	280	168	213	257	300	345	436
	45/40	80	101	121	140	157	191	117	148	177	206	236	297
700	75/65			400	466	527	645	373	478	582	685	790	1002
	70/55			324	376	425	520	304	388	471	553	638	808
	55/45			205	238	268	327	196	249	300	350	403	508
	45/40			141	163	184	223	137	172	207	240	275	347
800	75/65			458	532	602	738	426	546	665	783	903	1146
	70/55			370	430	486	594	348	444	539	632	729	923
	55/45			235	272	307	373	224	285	343	400	460	581
	45/40			161	186	210	254	156	197	236	274	315	396
900	75/65			515	599	678	830	480	615	748	881	1016	1289
	70/55			416	483	547	668	391	499	606	712	820	1038
	55/45			264	306	345	420	252	320	386	450	518	654
	45/40			181	209	236	286	176	222	266	308	354	446
1000	75/65			572	665	753	922	533	683	831	979	1129	1432
	70/55			462	537	608	742	434	555	673	791	911	1154
	55/45			293	340	383	467	280	356	429	500	575	726
	45/40			201	233	262	318	195	246	295	343	394	495
1100	75/65			629	732	828		586	751	914	1077	1242	1575
	70/55			509	591	668		478	610	740	870	1002	1269
	55/45			323	374	422		308	391	471	550	633	799
	45/40			221	256	288		215	271	325	377	433	545
1200	75/65			686	798	904		640	820	997	1175	1355	1718
	70/55			555	644	729		521	666	808	949	1093	1385
	55/45			352	408	460		336	427	514	600	690	871
	45/40			242	279	315		234	296	354	411	472	595
1400	75/65			801	931	1054		746	956	1163	1371	1581	2005
	70/55			647	752	851		608	777	942	1107	1275	1615
	55/45			411	476	537		392	498	600	700	805	1017
	45/40			282	326	367		273	345	413	480	551	694
1600	75/65			915	1064	1205		853	1093	1330	1566	1806	2291
	70/55			740	859	972		695	888	1077	1265	1458	1846
	55/45			469	544	614		448	569	686	800	920	1162
	45/40			322	372	420		312	394	472	548	630	793
1800	75/65			1030	1197	1355		959	1229	1496	1762	2032	
	70/55			832	967	1094		782	999	1212	1423	1640	
	55/45			528	611	690		504	640	771	900	1036	
	45/40			362	419	472		351	443	531	617	708	
2000	75/65			1144	1330	1506		1066	1366	1662	1958	2258	
	70/55			925	1074	1215		869	1110	1346	1581	1822	
	55/45			586	679	767		561	711	857	1000	1151	
	45/40			403	465	524		390	493	590	685	787	
2300	75/65									1911	2252	2597	
	70/55									1548	1818	2095	
	55/45									986	1150	1323	
	45/40									679	788	905	

# RADIK VKM, VKM - L, VKM-U

HEAT OUTPUT IN WATTS CERTIFIED TO EN 442

20 °C		Type 21 VKM Type 21 VKM - L Type 21 VKM - U						Type 22 VKM Type 22 VKM - L Type 22 VKM - U						Type 33 VKM Type 33 VKM - L Type 33 VKM - U					
Length L [mm]	t <sub>1</sub> /t <sub>2</sub> [°C]	Height H [mm]																	
		300	400	500	600	700	900	300	400	500	600	700	900	300	400	500	600	700	900
400	75/65	299	375	447	518	586	721	380	482	579	672	762	934						
	70/55	242	302	360	416	470	576	308	389	467	541	612	749						
	55/45	153	190	226	260	293	356	196	246	294	339	383	466						
	45/40	105	130	154	176	198	240	135	169	201	231	260	315						
500	75/65	374	469	559	647	733	901	475	602	724	840	953	1168		1038	1206	1362	1643	
	70/55	302	378	450	519	588	720	385	486	583	676	765	936		835	969	1093	1315	
	55/45	191	238	282	325	366	445	245	308	368	424	479	583		524	607	682	816	
	45/40	131	163	192	220	247	300	168	211	251	288	325	394		357	412	462	550	
600	75/65	449	562	671	776	880	1081	570	722	868	1008	1143	1401		1245	1447	1634	1972	
	70/55	363	453	540	623	705	864	462	584	700	811	918	1123		1002	1163	1312	1578	
	55/45	229	286	339	389	439	535	294	370	441	508	574	699		629	728	819	979	
	45/40	157	195	230	264	297	359	202	253	301	346	390	473		429	495	555	660	
700	75/65	524	656	783	906	1026	1261	665	843	1013	1176	1334	1635		1453	1688	1907	2300	
	70/55	423	529	630	727	823	1008	538	681	817	946	1071	1310		1169	1357	1530	1841	
	55/45	268	333	395	454	512	624	343	431	515	593	670	816		734	849	955	1142	
	45/40	183	228	269	308	346	419	236	296	351	403	455	551		500	577	647	770	
800	75/65	598	750	894	1035	1173	1442	760	963	1158	1344	1524	1868	1065	1373	1660	1929	2179	2629
	70/55	483	604	720	831	940	1152	615	778	933	1081	1224	1497	859	1106	1336	1550	1749	2104
	55/45	306	381	451	519	585	713	392	493	588	678	766	932	543	697	839	971	1092	1305
	45/40	210	260	307	352	396	479	269	338	402	461	520	630	371	476	571	659	740	880
900	75/65	673	843	1006	1165	1319	1622	855	1084	1302	1512	1715	2102	1198	1544	1868	2170	2452	2957
	70/55	544	680	810	935	1058	1296	692	875	1050	1216	1377	1685	967	1245	1503	1744	1968	2367
	55/45	344	428	508	584	659	802	440	554	662	763	862	1049	611	784	944	1092	1228	1468
	45/40	236	293	346	396	445	539	303	380	452	519	585	709	418	535	643	742	832	990
1000	75/65	748	937	1118	1294	1466	1802	950	1204	1447	1680	1905	2335	1331	1716	2075	2411	2724	3286
	70/55	604	755	899	1039	1175	1440	769	973	1166	1351	1531	1872	1074	1383	1670	1938	2186	2630
	55/45	382	476	564	649	732	891	489	616	735	847	957	1165	679	871	1049	1213	1365	1631
	45/40	262	325	384	440	495	599	337	422	502	576	650	788	464	595	714	824	925	1100
1100	75/65	823	1031	1230	1423	1613	1982	1045	1324	1592	1848	2096	2569	1464	1888	2283	2652	2996	3615
	70/55	665	831	989	1143	1293	1584	846	1070	1283	1486	1684	2059	1182	1521	1837	2132	2405	2893
	55/45	421	524	621	714	805	980	538	677	809	932	1053	1282	746	958	1154	1335	1501	1795
	45/40	288	358	422	484	544	659	371	464	552	634	715	866	511	654	786	907	1017	1210
1200	75/65	898	1124	1342	1553	1759	2162	1140	1445	1736	2016	2286	2802	1597	2059	2490	2893	3269	3943
	70/55	725	906	1079	1247	1410	1728	923	1167	1400	1622	1837	2246	1289	1660	2004	2326	2624	3156
	55/45	459	571	677	779	878	1069	587	739	882	1017	1149	1398	814	1045	1259	1456	1638	1958
	45/40	314	390	461	528	594	719	404	507	602	692	780	945	557	714	857	989	1110	1320
1400	75/65	1047	1312	1565	1812	2052	2523	1330	1686	2026	2352	2667	3269	1863	2402	2905	3375	3814	4600
	70/55	846	1058	1259	1455	1645	2016	1077	1362	1633	1892	2143	2620	1504	1936	2338	2713	3061	3682
	55/45	535	666	790	909	1024	1247	685	862	1029	1186	1340	1631	950	1220	1468	1699	1911	2284
	45/40	367	455	538	616	693	839	472	591	703	807	910	1103	650	832	1000	1154	1295	1540
1600	75/65	1197	1499	1789	2070	2346	2883	1520	1926	2315	2688	3048	3736	2130	2746	3320	3858	4358	5258
	70/55	967	1209	1439	1662	1880	2304	1231	1556	1866	2162	2449	2995	1719	2213	2672	3101	3498	4208
	55/45	612	762	903	1038	1171	1425	783	985	1176	1356	1532	1864	1086	1394	1678	1942	2184	2610
	45/40	419	520	614	704	792	959	539	676	803	922	1040	1260	743	951	1143	1319	1480	1760
1800	75/65	1346	1687	2012	2329	2639		1710	2167	2605	3024	3429		2396	3089	3735	4340	4903	
	70/55	1088	1360	1619	1870	2115		1385	1751	2100	2432	2755		1934	2489	3006	3488	3935	
	55/45	688	857	1016	1168	1317		881	1109	1323	1525	1723		1221	1568	1888	2184	2457	
	45/40	472	585	691	792	891		606	760	903	1038	1170		836	1070	1286	1484	1665	
2000	75/65	1496	1874	2236	2588	2932		1900	2408	2894	3360	3810		2662	3432	4150	4822	5448	
	70/55	1208	1511	1799	2078	2350		1539	1946	2333	2703	3061		2148	2766	3340	3876	4373	
	55/45	765	952	1129	1298	1464		979	1232	1470	1695	1915		1357	1742	2098	2427	2730	
	45/40	524	650	768	880	990		674	845	1004	1153	1300		929	1189	1428	1649	1850	
2300	75/65			2571	2976	3372		2185	2769	3328	3864	4382		3061	3947				
	70/55			2069	2390	2703		1769	2237	2683	3108	3520		2471	3181				
	55/45			1298	1493	1683		1126	1417	1691	1949	2202		1561	2003				
	45/40			883	1012	1138		775	971	1154	1326	1495		1068	1368				
2600	75/65							2470	3130	3762	4368			3461	4462				
	70/55							2000	2529	3033	3513			2793	3596				
	55/45							1272	1601	1911	2203			1764	2265				
	45/40							876	1098	1305	1499			1207	1546				
3000	75/65							2850	3612	4341	5040			3993	5148				
	70/55							2308	2918	3499	4054			3223	4149				
	55/45							1468	1848	2205	2542			2036	2613				
	45/40							1011	1267	1506	1729			1393	1784				



## HEAT OUTPUT IN WATTS CERTIFIED TO EN 442

20 °C		Type 11 PLAN Type 11 PLAN VK Type 11 LINE Type 11 LINE VK						Type 21 PLAN Type 21 PLAN VK Type 21 LINE Type 21 LINE VK					
Length L [mm]	t <sub>1</sub> /t <sub>2</sub> [°C]	Height H [mm]											
		300	400	500	600	700	900	300	400	500	600	700	900
400	75/65	213	271	327	381	434	535	291	358	424	489	554	684
	70/55	173	221	266	310	352	433	235	289	342	394	446	550
	55/45	112	142	171	199	226	275	149	183	216	249	280	344
	45/40	77	99	119	138	156	189	102	125	148	170	191	234
500	75/65	267	339	409	477	542	669	364	448	530	611	692	856
	70/55	217	276	333	388	440	541	294	362	428	493	557	687
	55/45	139	177	214	249	282	344	186	229	270	311	351	430
	45/40	97	123	149	173	195	236	128	157	185	212	239	292
600	75/65	320	407	491	572	650	802	436	538	636	733	830	1027
	70/55	260	331	399	465	528	649	353	434	513	591	669	825
	55/45	167	213	257	299	338	413	223	275	324	373	421	516
	45/40	116	148	178	208	234	284	153	188	222	255	287	351
700	75/65	373	475	573	667	759	936	509	627	742	855	969	1198
	70/55	304	386	466	543	616	757	411	507	599	690	780	962
	55/45	195	248	300	349	395	481	261	320	378	435	491	602
	45/40	136	172	208	242	273	331	179	220	259	297	335	409
800	75/65	426	542	654	762	867	1070	582	717	848	978	1107	1369
	70/55	347	441	533	620	704	866	470	579	684	788	892	1100
	55/45	223	284	342	399	451	550	298	366	432	497	561	688
	45/40	155	197	238	277	312	378	204	251	296	340	382	467
900	75/65	480	610	736	858	976	1203	654	806	954	1100	1246	1540
	70/55	390	497	599	698	792	974	529	651	770	887	1003	1237
	55/45	251	319	385	449	508	619	335	412	486	559	631	774
	45/40	174	222	267	312	351	426	230	282	333	382	430	526
1000	75/65	533	678	818	953	1084	1337	727	896	1060	1222	1384	1711
	70/55	434	552	666	776	881	1082	588	724	855	985	1115	1375
	55/45	279	355	428	499	564	688	372	458	540	621	701	861
	45/40	194	246	297	346	390	473	255	314	370	425	478	584
1100	75/65	586	746	900	1048	1192	1471	800	986	1166	1344	1522	1882
	70/55	477	607	732	853	969	1190	646	796	941	1084	1226	1512
	55/45	307	390	471	548	620	756	410	504	594	684	771	947
	45/40	213	271	327	381	429	520	281	345	407	467	526	643
1200	75/65	640	814	982	1144	1301	1604	872	1075	1272	1466	1661	2053
	70/55	520	662	799	931	1057	1299	705	868	1027	1183	1338	1650
	55/45	335	426	514	598	677	825	447	549	648	746	841	1033
	45/40	232	296	357	415	468	568	307	376	444	509	574	701
1400	75/65	746	949	1145	1334	1518	1872	1018	1254	1484	1711	1938	2395
	70/55	607	772	932	1086	1233	1515	823	1013	1198	1380	1561	1925
	55/45	390	497	599	698	789	963	521	641	756	870	982	1205
	45/40	271	345	416	485	546	662	358	439	518	594	669	818
1600	75/65	853	1085	1309	1525	1734	2139	1163	1434	1696	1955	2214	2738
	70/55	694	883	1065	1241	1409	1731	940	1158	1369	1577	1784	2200
	55/45	446	568	685	798	902	1100	596	733	864	994	1122	1377
	45/40	310	394	475	554	624	757	409	502	591	679	765	935
1800	75/65	959	1220	1472	1715	1951	2399	1309	1613	1908	2200	2491	3099
	70/55	781	993	1198	1396	1585	1958	1058	1303	1540	1774	2007	2480
	55/45	502	638	770	897	1015	1233	670	824	973	1119	1262	1562
	45/40	348	443	535	623	703	857	460	565	665	764	861	1059
2000	75/65	1066	1356	1636	1906	2168	2639	1454	1792	2120	2444	2768	3420
	70/55	867	1103	1331	1551	1761	2161	1175	1447	1711	1971	2230	2780
	55/45	558	709	856	997	1128	1333	745	916	1081	1243	1402	1722
	45/40	387	493	594	692	781	941	511	627	739	849	956	1176

# RADIK PLAN KLASIK, PLAN VK, LINE KLASIK, LINE VK

HEAT OUTPUT IN WATTS CERTIFIED TO EN 442

20 °C		Type 22 PLAN Type 22 PLAN VK Type 22 LINE Type 22 LINE VK							Type 33 PLAN Type 33 PLAN VK Type 33 LINE Type 33 LINE VK								
Length L [mm]	t <sub>1</sub> /t <sub>2</sub> [°C]	Height H [mm]															
		200	300	400	500	600	700	900	200	300	400	500	600	700	900		
400	75/65		379	475	566	652	736	897		535	676	809	936	1059	1292		
	70/55		306	383	456	526	594	723		431	545	652	756	853	1037		
	55/45		194	242	288	332	374	454		271	343	412	477	537	646		
	45/40		133	166	197	227	255	310		185	234	281	327	366	438		
500	75/65		474	594	707	816	921	1122		669	845	1011	1171	1324	1616		
	70/55		383	479	570	658	742	903		539	681	816	945	1066	1296		
	55/45		242	303	360	415	467	568		339	429	515	597	671	808		
	45/40		166	207	246	283	319	387		231	293	352	408	457	547		
600	75/65		569	712	848	979	1105	1346		802	1013	1213	1405	1589	1939		
	70/55		459	575	685	789	890	1084		646	817	979	1134	1280	1555		
	55/45		291	363	432	498	561	682		407	515	618	716	805	970		
	45/40		199	249	296	340	383	465		278	352	422	490	549	656		
700	75/65		664	831	990	1142	1289	1570		936	1182	1415	1639	1854	2262		
	70/55		536	671	799	921	1039	1265		754	953	1142	1323	1493	1814		
	55/45		339	424	504	580	654	795		475	601	720	836	939	1131		
	45/40		232	290	345	397	447	542		324	410	493	572	640	766		
800	75/65		501	758	950	1131	1305	1473	1794		734	1070	1351	1618	1873	2118	2585
	70/55		409	613	767	913	1052	1187	1445		599	862	1089	1305	1512	1706	2073
	55/45		266	388	484	576	663	748	909		386	543	687	823	955	1073	1293
	45/40		186	266	332	394	453	511	620		269	370	469	563	653	732	875
900	75/65		563	853	1068	1273	1468	1657	2019		826	1203	1520	1820	2107	2383	2908
	70/55		461	689	862	1027	1184	1336	1626		673	970	1226	1468	1700	1920	2333
	55/45		299	436	545	648	746	841	1023		434	610	772	926	1074	1207	1454
	45/40		209	299	373	443	510	574	697		302	417	528	633	735	823	984
1000	75/65		626	948	1187	1414	1631	1841	2243		918	1337	1689	2022	2341	2648	3231
	70/55		512	766	958	1141	1315	1484	1807		748	1077	1362	1631	1889	2133	2592
	55/45		332	484	606	720	829	935	1136		483	678	858	1029	1194	1341	1616
	45/40		233	332	415	493	567	638	775		336	463	586	704	817	915	1094
1100	75/65		689	1043	1306	1555	1794	2025	2467		1010	1471	1858	2224	2575	2913	3554
	70/55		563	842	1054	1255	1447	1632	1987		823	1185	1498	1794	2078	2346	2851
	55/45		365	533	666	792	912	1028	1250		531	746	944	1132	1313	1476	1777
	45/40		256	365	456	542	623	702	852		370	509	645	774	898	1006	1203
1200	75/65		751	1138	1424	1697	1957	2209	2692		1102	1604	2027	2426	2809	3178	3877
	70/55		614	919	1150	1369	1578	1781	2168		898	1293	1634	1957	2267	2559	3110
	55/45		399	581	727	864	995	1122	1363		579	814	1030	1235	1432	1610	1939
	45/40		279	398	497	591	680	766	930		403	555	703	844	980	1098	1313
1400	75/65		876	1327	1662	1980	2283	2577	3140		1285	1872	2365	2831	3277	3707	4523
	70/55		716	1072	1342	1597	1841	2078	2529		1047	1508	1906	2284	2645	2986	3628
	55/45		465	678	848	1008	1161	1309	1591		676	950	1202	1441	1671	1878	2262
	45/40		326	465	580	690	793	894	1085		470	648	821	985	1143	1280	1531
1600	75/65		1002	1517	1899	2262	2610	2946	3589		1469	2139	2702	3235	3746	4237	5170
	70/55		819	1225	1533	1825	2104	2374	2891		1197	1724	2179	2610	3023	3413	4147
	55/45		532	775	969	1152	1327	1496	1818		772	1085	1373	1647	1910	2146	2585
	45/40		372	531	663	788	907	1021	1239		537	741	938	1126	1307	1463	1750
1800	75/65		1127	1706	2137	2545	2936	3314		1652	2407	3040	3640	4214	4766		
	70/55		921	1378	1725	2054	2367	2671		1347	1939	2451	2936	3401	3839		
	55/45		598	872	1090	1296	1493	1683		869	1221	1545	1853	2148	2415		
	45/40		419	598	746	887	1020	1149		605	833	1055	1267	1470	1646		
2000	75/65		1252	1896	2374	2828	3262	3682		1836	2674	3378	4044	4682	5296		
	70/55		1023	1531	1916	2282	2630	2968		1496	2155	2723	3262	3779	4266		
	55/45		664	969	1211	1440	1659	1870		965	1357	1717	2058	2387	2683		
	45/40		465	664	829	985	1133	1277		672	926	1172	1407	1634	1829		

# RADIK PLAN VKL, LINE VKL



HEAT OUTPUT IN WATTS CERTIFIED TO EN 442

20 °C		Type 11 PLAN VKL Type 11 LINE VKL						Type 21 PLAN VKL Type 21 LINE VKL					
Length L [mm]	t <sub>1</sub> /t <sub>2</sub> [°C]	Height H [mm]											
		300	400	500	600	700	900	300	400	500	600	700	900
400	75/65	213	271	327	381	434	535	291	358	424	489	554	684
	70/55	173	221	266	310	352	433	235	289	342	394	446	550
	55/45	112	142	171	199	226	275	149	183	216	249	280	344
	45/40	77	99	119	138	156	189	102	125	148	170	191	234
500	75/65	267	339	409	477	542	669	364	448	530	611	692	856
	70/55	217	276	333	388	440	541	294	362	428	493	557	687
	55/45	139	177	214	249	282	344	186	229	270	311	351	430
	45/40	97	123	149	173	195	236	128	157	185	212	239	292
600	75/65	320	407	491	572	650	802	436	538	636	733	830	1027
	70/55	260	331	399	465	528	649	353	434	513	591	669	825
	55/45	167	213	257	299	338	413	223	275	324	373	421	516
	45/40	116	148	178	208	234	284	153	188	222	255	287	351
700	75/65	373	475	573	667	759	936	509	627	742	855	969	1198
	70/55	304	386	466	543	616	757	411	507	599	690	780	962
	55/45	195	248	300	349	395	481	261	320	378	435	491	602
	45/40	136	172	208	242	273	331	179	220	259	297	335	409
800	75/65	426	542	654	762	867	1070	582	717	848	978	1107	1369
	70/55	347	441	533	620	704	866	470	579	684	788	892	1100
	55/45	223	284	342	399	451	550	298	366	432	497	561	688
	45/40	155	197	238	277	312	378	204	251	296	340	382	467
900	75/65	480	610	736	858	976	1203	654	806	954	1100	1246	1540
	70/55	390	497	599	698	792	974	529	651	770	887	1003	1237
	55/45	251	319	385	449	508	619	335	412	486	559	631	774
	45/40	174	222	267	312	351	426	230	282	333	382	430	526
1000	75/65	533	678	818	953	1084	1337	727	896	1060	1222	1384	1711
	70/55	434	552	666	776	881	1082	588	724	855	985	1115	1375
	55/45	279	355	428	499	564	688	372	458	540	621	701	861
	45/40	194	246	297	346	390	473	255	314	370	425	478	584
1100	75/65	586	746	900	1048	1192	1471	800	986	1166	1344	1522	1882
	70/55	477	607	732	853	969	1190	646	796	941	1084	1226	1512
	55/45	307	390	471	548	620	756	410	504	594	684	771	947
	45/40	213	271	327	381	429	520	281	345	407	467	526	643
1200	75/65	640	814	982	1144	1301	1604	872	1075	1272	1466	1661	2053
	70/55	520	662	799	931	1057	1299	705	868	1027	1183	1338	1650
	55/45	335	426	514	598	677	825	447	549	648	746	841	1033
	45/40	232	296	357	415	468	568	307	376	444	509	574	701
1400	75/65	746	949	1145	1334	1518	1872	1018	1254	1484	1711	1938	2395
	70/55	607	772	932	1086	1233	1515	823	1013	1198	1380	1561	1925
	55/45	390	497	599	698	789	963	521	641	756	870	982	1205
	45/40	271	345	416	485	546	662	358	439	518	594	669	818
1600	75/65	853	1085	1309	1525	1734	2139	1163	1434	1696	1955	2214	2738
	70/55	694	883	1065	1241	1409	1731	940	1158	1369	1577	1784	2200
	55/45	446	568	685	798	902	1100	596	733	864	994	1122	1377
	45/40	310	394	475	554	624	757	409	502	591	679	765	935
1800	75/65	959	1220	1472	1715	1951	2399	1309	1613	1908	2200	2491	3091
	70/55	781	993	1198	1396	1585	1958	1058	1303	1540	1774	2007	2491
	55/45	502	638	770	897	1015	1238	670	824	973	1119	1262	1591
	45/40	348	443	535	623	703	857	460	565	665	764	861	1071
2000	75/65	1066	1356	1636	1906	2168	2639	1454	1792	2120	2444	2768	3431
	70/55	867	1103	1331	1551	1761	2161	1175	1447	1711	1971	2230	2791
	55/45	558	709	856	997	1128	1338	745	916	1081	1243	1402	1751
	45/40	387	493	594	692	781	941	511	627	739	849	956	1181

# RADIK PLAN VKL, LINE VKL

HEAT OUTPUT IN WATTS CERTIFIED TO EN 442

20 °C		Type 22 PLAN VKL Type 22 LINE VKL						Type 33 PLAN VKL Type 33 LINE VKL					
Length L [mm]	t <sub>1</sub> /t <sub>2</sub> [°C]	Height H [mm]											
		300	400	500	600	700	900	300	400	500	600	700	900
400	75/65	379	475	566	652	736	897	535	676	809	936	1059	1292
	70/55	306	383	456	526	594	723	431	545	652	756	853	1037
	55/45	194	242	288	332	374	454	271	343	412	477	537	646
	45/40	133	166	197	227	255	310	185	234	281	327	366	438
500	75/65	474	594	707	816	921	1122	669	845	1011	1171	1324	1616
	70/55	383	479	570	658	742	903	539	681	816	945	1066	1296
	55/45	242	303	360	415	467	568	339	429	515	597	671	808
	45/40	166	207	246	283	319	387	231	293	352	408	457	547
600	75/65	569	712	848	979	1105	1346	802	1013	1213	1405	1589	1939
	70/55	459	575	685	789	890	1084	646	817	979	1134	1280	1555
	55/45	291	363	432	498	561	682	407	515	618	716	805	970
	45/40	199	249	296	340	383	465	278	352	422	490	549	656
700	75/65	664	831	990	1142	1289	1570	936	1182	1415	1639	1854	2262
	70/55	536	671	799	921	1039	1265	754	953	1142	1323	1493	1814
	55/45	339	424	504	580	654	795	475	601	720	836	939	1131
	45/40	232	290	345	397	447	542	324	410	493	572	640	766
800	75/65	758	950	1131	1305	1473	1794	1070	1351	1618	1873	2118	2585
	70/55	613	767	913	1052	1187	1445	862	1089	1305	1512	1706	2073
	55/45	388	484	576	663	748	909	543	687	823	955	1073	1293
	45/40	266	332	394	453	511	620	370	469	563	653	732	875
900	75/65	853	1068	1273	1468	1657	2019	1203	1520	1820	2107	2383	2908
	70/55	689	862	1027	1184	1336	1626	970	1226	1468	1700	1920	2333
	55/45	436	545	648	746	841	1023	610	772	926	1074	1207	1454
	45/40	299	373	443	510	574	697	417	528	633	735	823	984
1000	75/65	948	1187	1414	1631	1841	2243	1337	1689	2022	2341	2648	3231
	70/55	766	958	1141	1315	1484	1807	1077	1362	1631	1889	2133	2592
	55/45	484	606	720	829	935	1136	678	858	1029	1194	1341	1616
	45/40	332	415	493	567	638	775	463	586	704	817	915	1094
1100	75/65	1043	1306	1555	1794	2025	2467	1471	1858	2224	2575	2913	3554
	70/55	842	1054	1255	1447	1632	1987	1185	1498	1794	2078	2346	2851
	55/45	533	666	792	912	1028	1250	746	944	1132	1313	1476	1777
	45/40	365	456	542	623	702	852	509	645	774	898	1006	1203
1200	75/65	1138	1424	1697	1957	2209	2692	1604	2027	2426	2809	3178	3877
	70/55	919	1150	1369	1578	1781	2168	1293	1634	1957	2267	2559	3110
	55/45	581	727	864	995	1122	1363	814	1030	1235	1432	1610	1939
	45/40	398	497	591	680	766	930	555	703	844	980	1098	1313
1400	75/65	1327	1662	1980	2283	2577	3140	1872	2365	2831	3277	3707	4523
	70/55	1072	1342	1597	1841	2078	2529	1508	1906	2284	2645	2986	3628
	55/45	678	848	1008	1161	1309	1591	950	1202	1441	1671	1878	2262
	45/40	465	580	690	793	894	1085	648	821	985	1143	1280	1531
1600	75/65	1517	1899	2262	2610	2946	3589	2139	2702	3235	3746	4237	5170
	70/55	1225	1533	1825	2104	2374	2891	1724	2179	2610	3023	3413	4147
	55/45	775	969	1152	1327	1496	1818	1085	1373	1647	1910	2146	2585
	45/40	531	663	788	907	1021	1239	741	938	1126	1307	1463	1750
1800	75/65	1706	2137	2545	2936	3314	4071	2407	3040	3640	4214	4766	5811
	70/55	1378	1725	2054	2367	2671	3314	1939	2451	2936	3401	3839	4666
	55/45	872	1090	1296	1493	1683	2046	1221	1545	1853	2148	2415	2946
	45/40	598	746	887	1020	1149	1394	833	1055	1267	1470	1646	2001
2000	75/65	1896	2374	2828	3262	3682	4539	2674	3378	4044	4682	5296	6466
	70/55	1531	1916	2282	2630	2968	3661	2155	2723	3262	3779	4266	5146
	55/45	969	1211	1440	1659	1870	2264	1357	1717	2058	2387	2683	3266
	45/40	664	829	985	1133	1277	1554	926	1172	1407	1634	1829	2221





# RADIK PLAN VKM, LINE VKM

HEAT OUTPUT IN WATTS CERTIFIED TO EN 442

20 °C		Type 11 PLAN VKM Type 11 LINE VKM						Type 21 PLAN VKM Type 21 LINE VKM					
Length L [mm]	t <sub>1</sub> /t <sub>2</sub> [°C]	Height H [mm]											
		300	400	500	600	700	900	300	400	500	600	700	900
400	75/65	212	263	312	359	404	492	288	362	429	490	547	647
	70/55	173	214	253	291	327	397	233	292	346	394	439	519
	55/45	111	138	162	186	208	250	148	185	218	247	275	324
	45/40	77	95	112	129	143	171	102	127	149	168	187	219
500	75/65	265	329	390	449	506	616	360	452	536	613	684	809
	70/55	216	268	317	364	409	496	291	365	432	493	549	649
	55/45	139	172	203	233	260	313	185	231	272	309	344	405
	45/40	97	119	141	161	179	214	127	158	186	210	234	274
600	75/65	318	395	468	538	607	739	432	542	643	736	820	970
	70/55	259	321	380	437	491	596	350	438	518	592	659	778
	55/45	167	206	244	279	312	375	222	277	327	371	413	486
	45/40	116	143	169	193	215	256	153	190	223	252	280	329
700	75/65	371	461	546	628	708	862	504	633	750	858	957	1132
	70/55	302	375	444	509	573	695	408	511	605	690	769	908
	55/45	195	241	284	326	364	438	259	323	381	433	481	566
	45/40	135	167	197	225	251	299	178	222	260	295	327	384
800	75/65	424	526	624	718	809	985	576	723	858	981	1094	1294
	70/55	345	428	507	582	655	794	466	584	691	789	879	1038
	55/45	223	275	325	372	417	501	296	370	435	495	550	647
	45/40	155	191	225	257	287	342	204	253	297	337	374	438
900	75/65	477	592	702	807	910	1108	648	814	965	1103	1230	1455
	70/55	389	482	570	655	737	893	524	657	778	888	989	1168
	55/45	250	310	365	419	469	563	333	416	490	557	619	728
	45/40	174	215	253	289	323	385	229	285	334	379	420	493
1000	75/65	530	658	780	897	1011	1231	720	904	1072	1226	1367	1617
	70/55	432	535	634	728	819	993	583	730	864	986	1099	1297
	55/45	278	344	406	465	521	626	370	462	544	619	688	809
	45/40	194	239	281	321	358	427	255	316	372	421	467	548
1100	75/65	583	724	858	987	1112	1352	792	994	1179	1349	1504	1779
	70/55	475	589	697	801	900	1087	641	803	950	1085	1209	1427
	55/45	306	378	447	512	573	687	407	508	599	680	757	890
	45/40	213	263	309	353	394	473	280	348	409	463	514	603
1200	75/65	636	790	936	1076	1213	1463	864	1085	1286	1471	1640	1940
	70/55	518	642	760	873	982	1179	699	876	1037	1183	1318	1557
	55/45	334	413	487	558	625	750	444	554	653	742	825	971
	45/40	232	286	337	386	430	519	306	380	446	505	561	657
1400	75/65	742	921	1092	1256	1415	1685	1008	1266	1501	1716	1914	2264
	70/55	604	749	887	1019	1146	1343	816	1022	1210	1381	1538	1816
	55/45	389	482	569	651	729	864	518	647	762	866	963	1133
	45/40	271	334	394	450	502	591	356	443	520	589	654	767
1600	75/65	848	1053	1248	1435	1618	1913	1152	1446	1715	1962	2187	2587
	70/55	691	856	1014	1165	1310	1527	932	1168	1383	1578	1758	2076
	55/45	445	550	650	744	833	987	592	739	871	990	1101	1295
	45/40	310	382	450	514	573	672	407	506	595	673	747	877
1800	75/65	954	1184	1404	1615	1820	2143	1296	1627	1930	2207	2461	2877
	70/55	777	964	1141	1310	1473	1719	1049	1314	1555	1775	1978	2319
	55/45	501	619	731	837	937	1091	666	831	980	1113	1238	1457
	45/40	348	430	506	578	645	754	458	570	669	757	841	984
2000	75/65	1060	1316	1560	1794	2022	2377	1440	1808	2144	2452	2734	3195
	70/55	863	1071	1267	1456	1637	1893	1165	1460	1728	1972	2197	2548
	55/45	556	688	812	930	1041	1205	741	924	1089	1237	1376	1617
	45/40	387	477	562	643	717	836	509	633	743	842	934	1097

# RADIK PLAN VKM, LINE VKM

HEAT OUTPUT IN WATTS CERTIFIED TO EN 442

20 °C		Type 22 PLAN VKM Type 22 LINE VKM						Type 33 PLAN VKM Type 33 LINE VKM					
Length L [mm]	t <sub>1</sub> /t <sub>2</sub> [°C]	Height H [mm]											
		300	400	500	600	700	900	300	400	500	600	700	900
400	75/65	366	466	560	648	732	886						
	70/55	297	377	452	523	589	712						
	55/45	190	240	287	330	371	445						
	45/40	131	165	196	225	253	302						
500	75/65	457	583	700	811	915	1108			1011	1171	1324	1616
	70/55	371	472	566	654	737	889			816	945	1066	1296
	55/45	237	300	358	412	463	556			515	597	671	808
	45/40	164	206	246	281	316	377			352	408	457	547
600	75/65	548	699	840	973	1098	1329			1213	1405	1589	1939
	70/55	445	566	679	784	884	1067			979	1134	1280	1555
	55/45	284	360	430	494	556	667			618	716	805	970
	45/40	196	248	295	338	379	452			422	490	549	656
700	75/65	640	816	980	1135	1281	1551			1415	1639	1854	2262
	70/55	519	660	792	915	1032	1245			1142	1323	1493	1814
	55/45	332	420	501	577	648	778			720	836	939	1131
	45/40	229	289	344	394	442	528			493	572	640	766
800	75/65	731	932	1120	1297	1464	1772	1070	1351	1618	1873	2118	2585
	70/55	593	755	905	1046	1179	1423	862	1089	1305	1512	1706	2073
	55/45	379	480	573	659	741	889	543	687	823	955	1073	1293
	45/40	262	330	393	450	505	603	370	469	563	653	732	875
900	75/65	823	1049	1260	1459	1647	1994	1203	1520	1820	2107	2383	2908
	70/55	667	849	1018	1176	1326	1601	970	1226	1468	1700	1920	2333
	55/45	426	540	645	742	834	1001	610	772	926	1074	1207	1454
	45/40	295	372	442	507	568	679	417	528	633	735	823	984
1000	75/65	914	1165	1400	1621	1830	2215	1337	1689	2022	2341	2648	3231
	70/55	742	943	1131	1307	1474	1779	1077	1362	1631	1889	2133	2592
	55/45	474	600	716	824	926	1112	678	858	1029	1194	1341	1616
	45/40	327	413	491	563	631	754	463	586	704	817	915	1094
1100	75/65	1005	1282	1540	1783	2013	2437	1471	1858	2224	2575	2913	3554
	70/55	816	1038	1244	1438	1621	1957	1185	1498	1794	2078	2346	2851
	55/45	521	660	788	906	1019	1223	746	944	1132	1313	1476	1777
	45/40	360	454	540	619	695	830	509	645	774	898	1006	1203
1200	75/65	1097	1398	1680	1945	2196	2658	1604	2027	2426	2809	3178	3877
	70/55	890	1132	1357	1569	1768	2135	1293	1634	1957	2267	2559	3110
	55/45	569	720	860	989	1112	1334	814	1030	1235	1432	1610	1939
	45/40	393	495	589	676	758	905	555	703	844	980	1098	1313
1400	75/65	1280	1631	1960	2269	2562	3101	1872	2365	2831	3277	3707	4523
	70/55	1038	1321	1584	1830	2063	2490	1508	1906	2284	2645	2986	3628
	55/45	663	840	1003	1154	1297	1557	950	1202	1441	1671	1878	2262
	45/40	458	578	688	788	884	1056	648	821	985	1143	1280	1531
1600	75/65	1462	1864	2240	2594	2928	3544	2139	2702	3235	3746	4237	5170
	70/55	1187	1509	1810	2091	2358	2846	1724	2179	2610	3023	3413	4147
	55/45	758	960	1146	1319	1482	1779	1085	1373	1647	1910	2146	2585
	45/40	524	661	786	901	1010	1207	741	938	1126	1307	1463	1750
1800	75/65	1645	2097	2520	2918	3294	3984	2407	3040	3640	4214	4766	5839
	70/55	1335	1698	2036	2353	2653	3246	1939	2451	2936	3401	3839	4682
	55/45	853	1080	1289	1483	1667	2034	1221	1545	1853	2148	2415	2954
	45/40	589	743	884	1013	1136	1366	833	1055	1267	1470	1646	2000
2000	75/65	1828	2330	2800	3242	3660	4440	2674	3378	4044	4682	5296	6482
	70/55	1483	1887	2262	2614	2947	3636	2155	2723	3262	3779	4266	5147
	55/45	948	1200	1433	1648	1853	2244	1357	1717	2058	2387	2683	3274
	45/40	654	826	982	1126	1263	1536	926	1172	1407	1634	1829	2234



## HEAT OUTPUT IN WATTS CERTIFIED TO EN 442

20 °C		Type 10 HYGIENE Type 10 HYGIENE VK			Type 20S HYGIENE Type 20S HYGIENE VK			Type 30 HYGIENE Type 30 HYGIENE VK		
Length L [mm]	t <sub>1</sub> /t <sub>2</sub> [°C]	Height H [mm]								
		503	603	703	503	603	703	503	603	703
404	75/65	174	200	225	326	380	433	466	539	607
	70/55	142	163	183	266	310	353	379	438	493
	55/45	91	105	118	172	201	228	244	282	316
	45/40	63	73	82	120	140	158	169	196	219
504	75/65	217	250	280	407	474	540	581	672	758
	70/55	177	203	228	332	387	440	473	547	615
	55/45	114	131	147	214	250	284	304	352	394
	45/40	79	91	102	149	175	198	211	244	273
604	75/65	260	300	336	488	568	647	696	805	908
	70/55	212	244	274	398	464	528	567	655	737
	55/45	136	157	176	257	300	340	364	421	472
	45/40	95	109	123	179	209	237	253	293	327
704	75/65	303	349	391	569	662	755	812	938	1058
	70/55	247	284	319	464	541	615	660	764	860
	55/45	159	183	205	300	350	396	424	491	551
	45/40	110	127	143	209	244	276	295	341	381
804	75/65	347	399	447	650	757	862	927	1072	1208
	70/55	282	324	364	530	617	702	754	872	982
	55/45	182	208	235	342	399	453	485	561	629
	45/40	126	145	163	238	279	315	336	389	435
904	75/65	390	448	503	730	851	969	1042	1205	1359
	70/55	317	365	409	596	694	790	848	981	1104
	55/45	204	234	264	385	449	509	545	631	707
	45/40	142	163	184	268	313	354	378	438	490
1004	75/65	433	498	558	811	945	1076	1158	1338	1509
	70/55	352	405	455	661	771	877	942	1089	1226
	55/45	227	260	293	427	499	565	605	700	785
	45/40	158	181	204	298	348	394	420	486	544
1104	75/65	476	548	614	892	1039	1183	1273	1472	1659
	70/55	387	446	500	727	848	964	1036	1198	1348
	55/45	249	286	322	470	548	622	665	770	864
	45/40	173	199	224	327	383	433	462	535	598
1204	75/65	519	597	669	973	1133	1291	1388	1605	1810
	70/55	422	486	545	793	924	1052	1129	1306	1470
	55/45	272	312	351	512	598	678	726	840	942
	45/40	189	217	244	357	417	472	504	583	652
1404	75/65	605	696	781	1134	1321	1505	1619	1872	2110
	70/55	493	567	636	925	1078	1226	1317	1523	1714
	55/45	317	364	410	597	697	791	846	979	1098
	45/40	220	253	285	416	486	550	587	680	760
1604	75/65	691	796	892	1296	1509	1719	1849	2138	2411
	70/55	563	647	726	1057	1232	1401	1505	1740	1959
	55/45	362	416	468	682	797	903	967	1119	1255
	45/40	252	289	326	476	556	629	671	777	869
1804	75/65	778	895	1003	1458	1698	1934	2080	2405	2711
	70/55	633	728	817	1189	1385	1576	1692	1957	2203
	55/45	407	468	527	767	896	1016	1087	1258	1411
	45/40	283	325	366	535	625	707	755	874	977
2004	75/65	864	994	1114	1619	1886	2148	2311	2671	3012
	70/55	703	809	908	1320	1539	1750	1880	2174	2447
	55/45	452	520	585	853	995	1129	1208	1398	1568
	45/40	314	361	407	594	694	785	838	971	1085

# RADIK CLEAN, CLEAN VK

HEAT OUTPUT IN WATTS CERTIFIED TO EN 442

20 °C		Type 10 CLEAN Type 10 CLEAN VK						Type 20S CLEAN Type 20S CLEAN VK				Type 30 CLEAN Type 30 CLEAN VK			
Length L [mm]	t <sub>1</sub> /t <sub>2</sub> [°C]	Height H [mm]													
		300	400	500	600	700	900	500	600	700	900	500	600	700	900
400	75/65			206	242	278	350	359	417	474	585	512	593	673	834
	70/55			166	196	225	283	290	337	383	473	413	478	542	671
	55/45			105	125	143	179	183	213	242	300	261	301	341	421
	45/40			72	86	98	123	126	146	166	206	178	205	232	287
500	75/65	165	212	257	302	347	438	449	522	593	732	640	741	841	1042
	70/55	133	171	208	245	281	354	362	421	479	592	516	597	677	839
	55/45	84	108	132	156	179	224	229	266	303	375	326	376	426	527
	45/40	57	74	91	107	123	154	157	182	208	258	223	256	290	359
600	75/65	198	254	308	362	416	525	538	626	712	878	767	889	1009	1250
	70/55	159	205	249	294	337	424	435	505	575	710	619	716	813	1006
	55/45	100	129	158	187	214	269	275	319	364	451	391	451	511	632
	45/40	68	89	109	129	148	185	189	218	249	309	267	307	348	430
700	75/65			360	423	486	613	628	730	830	1024	895	1037	1177	1459
	70/55			291	343	393	495	507	589	671	828	722	836	948	1174
	55/45			185	218	250	314	321	372	424	526	456	526	596	737
	45/40			127	150	172	215	220	255	291	361	312	359	407	502
800	75/65			411	483	555	700	718	834	949	1170	1023	1186	1346	1667
	70/55			333	392	450	566	580	674	766	947	825	955	1084	1342
	55/45			211	249	286	359	367	426	485	601	521	601	681	843
	45/40			145	172	197	246	252	291	332	413	356	410	465	574
900	75/65			463	544	625	788	807	939	1067	1317	1151	1334	1514	1876
	70/55			374	440	506	637	652	758	862	1065	929	1075	1219	1510
	55/45			237	281	322	404	413	479	546	676	586	676	767	948
	45/40			163	193	221	277	283	328	374	464	401	461	523	646
1000	75/65			514	604	694	875	897	1043	1186	1463	1279	1482	1682	2084
	70/55			416	489	562	707	725	842	958	1183	1032	1194	1355	1677
	55/45			264	312	357	449	459	532	606	751	651	751	852	1053
	45/40			181	215	246	308	314	364	415	516	445	512	581	717
1100	75/65			565	664	763	963	987	1147	1305	1609	1407	1630	1850	2292
	70/55			457	538	618	778	797	926	1054	1302	1135	1313	1490	1845
	55/45			290	343	393	493	505	585	667	826	716	826	937	1159
	45/40			199	236	271	339	346	400	457	567	490	564	639	789
1200	75/65			617	725	833	1050	1076	1252	1423	1756	1535	1778	2018	2501
	70/55			499	587	674	849	870	1010	1150	1420	1238	1433	1626	2013
	55/45			316	374	429	538	550	638	727	901	782	902	1022	1264
	45/40			217	258	295	369	377	437	498	619	534	615	697	861
1400	75/65			720	846	972	1225	1256	1460	1660	2048	1791	2075	2355	2918
	70/55			582	685	787	990	1015	1179	1341	1657	1445	1672	1897	2348
	55/45			369	437	500	628	642	745	849	1051	912	1052	1193	1475
	45/40			253	301	344	431	440	510	581	722	623	717	813	1004
1600	75/65			822	966	1110	1400	1435	1669	1898	2341	2046	2371	2691	3334
	70/55			665	783	899	1132	1159	1347	1533	1893	1651	1910	2167	2684
	55/45			422	499	572	718	734	851	970	1201	1042	1202	1363	1686
	45/40			290	344	394	493	503	583	665	825	713	820	929	1148
1800	75/65			925	1087	1249		1615	1877	2135		2302	2668	3028	
	70/55			748	881	1011		1304	1515	1724		1857	2149	2438	
	55/45			475	561	643		826	957	1091		1172	1352	1533	
	45/40			326	387	443		566	655	748		802	922	1045	
2000	75/65			1028	1208	1388		1794	2086	2372		2558	2964	3364	
	70/55			831	979	1124		1449	1684	1916		2064	2388	2709	
	55/45			527	624	715		917	1064	1212		1303	1503	1704	
	45/40			362	430	492		629	728	831		891	1025	1161	

# BASIC TECHNICAL PARAMETERS



## RADIK KLASIK, RADIK KLASIK - Z, RADIK VK, RADIK VK - Z, RADIK VKU, RADIK VKL

	Type 10 Type 10 VK Type 10 VKL						Type 11 Type 11 VK Type 11 VKL						Type 20 Type 20 VK		
	300	400	500	600	700	900	300	400	500	600	700	900	500	600	700
Height H [mm]	300	400	500	600	700	900	300	400	500	600	700	900	500	600	700
Nominal heat output [W/m]	330	423	514	604	694	875	549	708	858	1002	1139	1394	838	978	1117
Temp. exponent n [-]	1,3319	1,3193	1,3068	1,2942	1,2989	1,3083	1,3156	1,3140	1,3123	1,3107	1,3140	1,3206	1,3005	1,3014	1,3192
$K_M$	1,8016	2,4260	3,0956	3,8215	4,3109	5,2390	3,1945	4,1456	5,0574	5,9433	6,6693	7,9543	5,1729	6,0159	6,4087
Radiator weight [kg/m]	5,8	7,6	9,5	11,5	14,3	16,7	10,1	12,5	15,7	18,8	22,7	28,3	20,4	24,4	29,3
Water volume [l/m]	1,9	2,3	2,7	3,1	3,5	4,3	1,9	2,3	2,7	3,1	3,5	4,3	5,1	5,8	6,6
Flow coefficient $A_f$ [m <sup>2</sup> ]	6,5 x 10 <sup>-5</sup> (DN 15)						6,5 x 10 <sup>-5</sup> (DN 15)						1,0 x 10 <sup>-4</sup> (DN 15)		
Resistance coefficient $\xi_r$ [-]	19,0 (DN 15)						19,0 (DN 15)						8,5 (DN 15)		

Stated values for the flow coefficient  $A_f$  and the coefficient of resistance  $\xi_r$  apply only to the model RADIK KLASIK.

## RADIK KLASIK, RADIK KLASIK - Z, RADIK VK, RADIK VK - Z, RADIK VKU, RADIK VKL

	Type 21 Type 21 VK Type 21 VKL Type 21 VKU						Type 22 Type 22 VK Type 22 VKL Type 22 VKU						Type 33 Type 33 VK Type 33 VKL Type 33 VKU							
	300	400	500	600	700	900	200	300	400	500	600	700	900	200	300	400	500	600	700	900
Height H [mm]	300	400	500	600	700	900	200	300	400	500	600	700	900	200	300	400	500	600	700	900
Nominal heat output [W/m]	745	937	1117	1288	1450	1754	649	966	1216	1452	1679	1897	2313	934	1379	1738	2079	2406	2723	3328
Temp. exponent n [-]	1,3197	1,3238	1,3278	1,3319	1,3405	1,3578	1,2560	1,3297	1,3316	1,3334	1,3353	1,3427	1,3574	1,2668	1,2977	1,3129	1,3282	1,3434	1,3498	1,3626
$K_M$	4,2660	5,2801	6,1967	7,0317	7,6542	8,6530	4,7680	5,3193	6,6464	7,8806	9,0452	9,9280	11,4286	6,5780	8,6062	10,2205	11,5155	12,5574	13,8605	16,1126
Radiator weight [kg/m]	14,3	18,8	22,1	26,4	30,6	40,2	10,2	17,0	22,7	25,7	31,1	36,2	47,1	15,1	25,5	34,0	38,9	46,8	54,4	70,9
Water volume [l/m]	3,7	4,4	5,1	5,8	6,6	8,3	3,1	3,7	4,4	5,1	5,8	6,6	8,4	4,6	5,3	6,4	7,6	8,7	10,0	12,6
Flow coefficient $A_f$ [m <sup>2</sup> ]	1,0 x 10 <sup>-4</sup> (DN 15)						1,0 x 10 <sup>-4</sup> (DN 15)						1,18 x 10 <sup>-4</sup> (DN 15)							
Resistance coefficient $\xi_r$ [-]	8,5 (DN 15)						8,5 (DN 15)						5,8 (DN 15)							

Stated values for the flow coefficient  $A_f$  and the coefficient of resistance  $\xi_r$  apply only to the model RADIK KLASIK.

## RADIK VKM, RADIK VKM - L

	Type 10 VKM Type 10 VKM - L						Type 11 VKM Type 11 VKM - L					
	300	400	500	600	700	900	300	400	500	600	700	900
Height H [mm]	300	400	500	600	700	900	300	400	500	600	700	900
Nominal heat output [W/m]	375	476	572	665	753	922	533	683	831	979	1129	1432
Temp. exponent n [-]	1,2945	1,3013	1,3081	1,3149	1,3210	1,3331	1,2583	1,2772	1,2962	1,3151	1,3198	1,3291
$K_M$	2,3698	2,9291	3,4275	3,8801	4,2900	5,01	3,8807	4,6184	5,2167	5,7078	6,4624	7,9039
Radiator weight [kg/m]	6,4	8,2	10,2	12,2	15,0	17,5	10,7	13,1	16,4	19,5	23,4	29,1
Water volume [l/m]	1,9	2,3	2,7	3,1	3,5	4,5	1,9	2,3	2,7	3,1	3,5	4,5

## RADIK VKM, RADIK VKM - L, RADIK VKM-U

	Type 21 VKM Type 21 VKM - L Type 21 VKM-U						Type 22 VKM Type 22 VKM - L Type 22 VKM-U						Type 33 VKM Type 33 VKM - L Type 33 VKM-U					
	300	400	500	600	700	900	300	400	500	600	700	900	300	400	500	600	700	900
Height H [mm]	300	400	500	600	700	900	300	400	500	600	700	900	300	400	500	600	700	900
Nominal heat output [W/m]	748	937	1118	1294	1466	1802	950	1204	1447	1680	1905	2335	1331	1716	2075	2411	2724	3286
Temp. exponent n [-]	1,3135	1,3259	1,3384	1,3508	1,3602	1,3791	1,2985	1,3122	1,3260	1,3397	1,3468	1,3609	1,3190	1,3273	1,3357	1,3440	1,3529	1,3708
$K_M$	4,3884	5,2369	5,9503	6,5609	7,1646	8,1791	5,9103	7,0997	8,0841	8,8961	9,8112	11,3804	7,6425	9,5384	11,1610	12,5540	13,6984	15,4007
Radiator weight [kg/m]	14,9	19,4	22,8	27,1	31,3	41,0	17,6	23,3	26,4	31,8	36,9	47,9	26,1	34,6	39,6	47,5	55,1	71,7
Water volume [l/m]	3,7	4,5	5,3	6,2	7,0	8,7	3,7	4,5	5,3	6,2	7,0	8,9	5,4	6,7	8,0	9,3	10,5	13,0

$$\text{Characteristic equation: } \phi = K_M \cdot \Delta T^n \left[ \frac{W}{m} \right], \quad \Delta T = \frac{t_1 + t_2}{2} - t_r \text{ [K]}$$

$t_1$  – temperature water-in,  $t_2$  – temperature water-out,  $t_r$  – relative air temperature

# BASIC TECHNICAL PARAMETERS

## RADIK MATERNELLE VK, RADIK MATERNELLE VKL

	Type 32 VK Type 32 VKL					
Height H [mm]	300	400	500	600	700	900
Nominal heat output [W/m]	992	1229	1455	1675	1891	2315
Temp. exponent n [-]	1,3023	1,3051	1,3079	1,3107	1,3263	1,3574
$K_M$	6,0806	7,4512	8,7253	9,9352	10,5523	11,4385
Radiator weight [kg/m]	23,4	31,0	34,4	41,4	48,4	62,3
Water volume [l/m]	3,7	4,4	5,1	5,8	6,6	8,3

## RADIK PLAN KLASIK, RADIK PLAN VK, RADIK PLAN VKL, RADIK LINE KLASIK, RADIK LINE VK, RADIK LINE VKL

	Type 32 VK Type 32 VKL						Type 32 VK Type 32 VKL					
Height H [mm]	300	400	500	600	700	900	300	400	500	600	700	900
Nominal heat output [W/m]	533	678	818	953	1084	1337	727	896	1060	1222	1384	1711
Temp. exponent n [-]	1,2683	1,2683	1,2682	1,2682	1,2793	1,3015	1,3098	1,3145	1,3192	1,3239	1,3311	1,3455
$K_M$	3,7318	4,7471	5,7295	6,6751	7,2700	8,2209	4,3274	5,2361	6,0817	6,8834	7,5794	8,8570
Radiator weight [kg/m]	12,6	15,8	19,7	23,5	28,2	36,0	16,8	22,1	26,1	31,1	36,1	47,8
Water volume [l/m]	1,9	2,3	2,7	3,1	3,5	4,3	3,7	4,4	5,1	5,8	6,6	8,3
Flow coefficient $A_f$ [m <sup>2</sup> ]	6,5 x 10 <sup>-5</sup> (DN 15)						1,0 x 10 <sup>-4</sup> (DN 15)					
Resistance coefficient $\xi_r$ [-]	19,0 (DN 15)						8,5 (DN 15)					

Stated values for the flow coefficient  $A_f$  and the coefficient of resistance  $\xi_r$  apply only to the model RADIK PLAN KLASIK.

## RADIK PLAN VKM, RADIK LINE VKM

	Type 11 PLAN VKM Type 11 LINE VKM						Type 21 PLAN VKM Type 21 LINE VKM					
Height H [mm]	300	400	500	600	700	900	300	400	500	600	700	900
Nominal heat output [W/m]	530	658	780	897	1011	1231	720	904	1072	1226	1367	1617
Temp. exponent n [-]	1,2617	1,2698	1,2778	1,2859	1,2989	1,3249	1,3019	1,3144	1,3268	1,3393	1,3446	1,3553
$K_M$	3,8079	4,5801	5,2620	5,8626	6,2800	6,9071	4,4202	5,2850	5,9704	6,5022	7,1012	8,0556
Radiator weight [kg/m]	13,2	16,4	20,4	24,2	28,9	36,8	17,4	22,7	26,8	31,8	36,8	48,6
Water volume [l/m]	1,9	2,3	2,7	3,1	3,5	4,5	3,7	4,5	5,3	6,2	7,0	8,7

## RADIK CLEAN, RADIK CLEAN VK

	Type 10 CLEAN Type 10 CLEAN VK						Type 20S CLEAN Type 20S CLEAN VK				Type 30 CLEAN Type 30 CLEAN VK			
Height H [mm]	300	400	500	600	700	900	500	600	700	900	500	600	700	900
Nominal heat output [W/m]	330	423	514	604	694	875	897	1043	1186	1463	1279	1482	1682	2084
Temp. exponent n [-]	1,3319	1,3193	1,3068	1,2942	1,2989	1,3083	1,3127	1,3181	1,3140	1,3058	1,3212	1,3299	1,3318	1,3355
$K_M$	1,8016	2,4260	3,0956	3,8215	4,3109	5,2390	5,2790	6,0100	6,9445	8,8456	7,2810	8,1543	9,1862	11,2182
Radiator weight [kg/m]	5,8	7,6	9,5	11,5	14,3	16,7	20,1	23,9	27,6	35,5	28,8	34,4	40,0	51,2
Water volume [l/m]	1,9	2,3	2,7	3,1	3,5	4,3	5,1	5,8	6,6	8,3	7,6	8,7	10,0	12,6
Flow coefficient $A_f$ [m <sup>2</sup> ]	6,5 x 10 <sup>-5</sup> (DN 15)						1,0 x 10 <sup>-4</sup> (DN 15)				1,18 x 10 <sup>-4</sup> (DN 15)			
Resistance coefficient $\xi_r$ [-]	19,0 (DN 15)						8,5 (DN 15)				5,8 (DN 15)			

Stated values for the flow coefficient  $A_f$  and the coefficient of resistance  $\xi_r$  apply only to the model RADIK CLEAN.

$$\text{Characteristic equation: } \phi = K_M \cdot \Delta T^n \left[ \frac{W}{m} \right], \quad \Delta T = \frac{t_1 + t_2}{2} - t_r [K]$$

$t_1$  – temperature water-in,  $t_2$  – temperature water-out,  $t_r$  – relative air temperature



# BASIC TECHNICAL PARAMETERS



## RADIK PLAN KLASIK, RADIK PLAN VK, RADIK PLAN VKL, RADIK LINE KLASIK, RADIK LINE VK, RADIK LINE VKL

Height H [mm]	200	300	400	500	600	700	900	200	300	400	500	600	700	900
Nominal heat output [W/m]	626	948	1187	1414	1631	1841	2243	918	1337	1689	2022	2341	2648	3231
Temp. exponent n [-]	1,2401	1,3141	1,3174	1,3208	1,3241	1,3265	1,3314	1,2590	1,3284	1,3252	1,3219	1,3187	1,3313	1,3565
$K_M$	4,8942	5,5487	6,8585	8,0621	9,1801	10,2653	12,2693	6,6656	7,3998	9,4657	11,4792	13,4577	14,4904	16,0208
Radiator weight [kg/m]	12,1	19,6	25,9	29,7	35,7	41,7	54,8	17,1	28,2	37,4	42,9	51,5	59,9	78,7
Water volume [l/m]	3,1	3,7	4,4	5,1	5,8	6,6	8,4	4,6	5,3	6,4	7,6	8,7	10,0	12,6
Flow coefficient $A_T$ [m <sup>2</sup> ]	1,0 x 10 <sup>-4</sup> (DN 15)							1,18 x 10 <sup>-4</sup> (DN 15)						
Resistance coefficient $\xi_T$ [-]	8,5 (DN 15)							5,8 (DN 15)						

Stated values for the flow coefficient  $A_T$  and the coefficient of resistance  $\xi_T$  apply only to the model RADIK PLAN KLASIK.

## RADIK PLAN VKM, RADIK LINE VKM

	Type 22 PLAN VKM Type 22 LINE VKM						Type 33 PLAN VKM Type 33 LINE VKM					
Height H [mm]	300	400	500	600	700	900	300	400	500	600	700	900
Nominal heat output [W/m]	914	1165	1400	1621	1830	2215	1337	1689	2022	2341	2648	3231
Temp. exponent n [-]	1,2863	1,2990	1,3117	1,3244	1,3327	1,3493	1,3284	1,3252	1,3219	1,3187	1,3313	1,3565
$K_M$	5,9643	7,2338	8,2716	9,1131	9,9594	11,2967	7,3998	9,4657	11,4792	13,4577	14,4904	16,0208
Radiator weight [kg/m]	20,2	26,5	30,4	36,4	42,4	55,6	28,8	38,0	43,6	52,2	60,6	79,5
Water volume [l/m]	3,7	4,5	5,3	6,2	7,0	8,9	5,4	6,7	8,0	9,3	10,5	13,0

## RADIK HYGIENE, RADIK HYGIENE VK

	Type 10 HYGIENE Type 10 HYGIENE VK			Type 20S HYGIENE Type 20S HYGIENE VK			Type 30 HYGIENE Type 30 HYGIENE VK		
Height H [mm]	503	603	703	503	603	703	503	603	703
Nominal heat output [W/m]	431	496	556	808	941	1072	1153	1333	1503
Temp. exponent n [-]	1,2656	1,2695	1,2617	1,2557	1,2512	1,2600	1,2697	1,2677	1,2785
$K_M$	3,0497	3,4565	3,9947	5,9431	7,0443	7,7534	8,0287	9,3550	10,1117
Radiator weight [kg/m]	13,4	16,0	20,4	23,3	27,8	33,1	34,6	40,6	45,5
Water volume [l/m]	2,7	3,1	3,5	5,1	5,8	6,6	7,6	8,7	10
Flow coefficient $A_T$ [m <sup>2</sup> ]	6,5 x 10 <sup>-5</sup> (DN 15)			1,0 x 10 <sup>-4</sup> (DN 15)			1,18 x 10 <sup>-4</sup> (DN 15)		
Resistance coefficient $\xi_T$ [-]	19,0 (DN 15)			8,5 (DN 15)			5,8 (DN 15)		

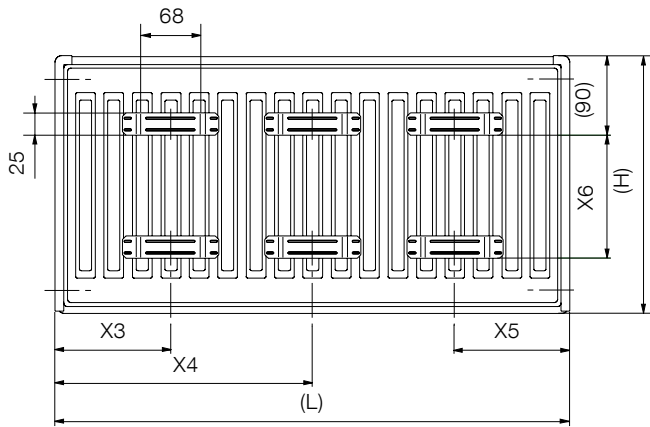
Stated values for the flow coefficient  $A_T$  and the coefficient of resistance  $\xi_T$  apply only to the model RADIK HYGIENE.

$$\text{Characteristic equation: } \phi = K_M \cdot \Delta T^n \left[ \frac{W}{m} \right], \quad \Delta T = \frac{t_1 + t_2}{2} - t_i [K]$$

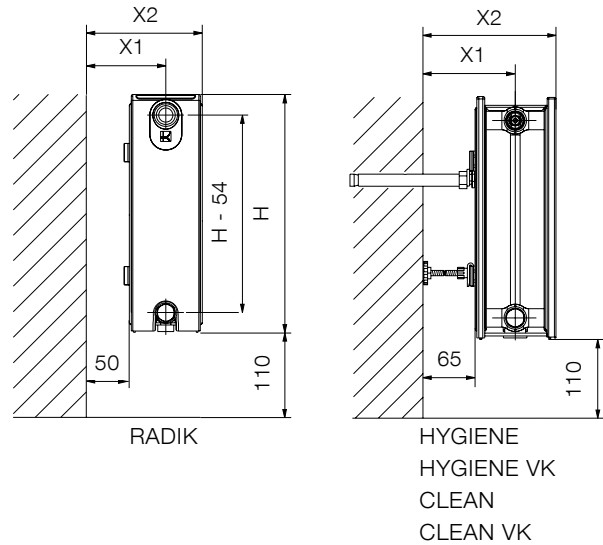
$t_1$  – temperature water-in,  $t_2$  – temperature water-out,  $t_i$  – relative air temperature

# DATA FOR MOUNTING

## Location of hangers



## Position of radiator



## Table of sizes

Length L [mm]	400	500 - 1600	1800	2000	2300	2600	3000
<b>X3</b>	<b>A</b>	133	133	133	133	133	133
	<b>B</b>	167	167	167	167	167	167
	<b>C</b>	117	150	150	150	150	150
	<b>D</b>	100	133	133	133	133	133
<b>X4</b>	<b>A</b>	-	-	900	1000	1133	1300
	<b>B</b>	-	-	900	1000	1133	1300
	<b>C</b>	-	-	883	983	1150	1283
	<b>D</b>	-	-	900	1000	1133	1300
<b>X5</b>	<b>A</b>	133	133	133	133	133	133
	<b>B</b>	100	133	133	133	133	133
	<b>C</b>	117	150	150	150	150	150
	<b>D</b>	167	167	167	167	167	167

**A** - for Types 10, 20, 20S, 21, 22, 30, 33, 20 VK, 20S VK, 21 VK, 21 VKL, 22 VK, 22 VKL, 30 VK, 32 VK, 32 VKL, 33 VK, 33 VKL

**B** - for Types 10 VK

**C** - for Types 11, 11 VK, 11 VKL, 11 VKM - L

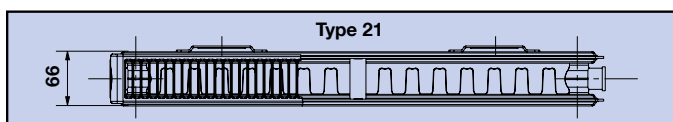
**D** - for Types 10 VKL, 10 VKM - L

PLAN KLASIK = LINE KLASIK = HYGIENE = CLEAN = KLASIK

PLAN VK = PLAN VKM = LINE VKM = LINE VK = HYGIENE VK = CLEAN VK = VKM = VK

PLAN VKL = LINE VKL = VKM - L = VKL

Height H [mm]	300	400	500	554	600	700	900
<b>X6</b>	145	245	345	399	445	545	745



## Table of sizes

Type	10 10 VK 10 VKL 10 VKM 10 VKM - L	11 11 VK 11 VKL 11 VKM 11 VKM - L	20 20 R 20 VK	21 21 R 21 VK 21 VKL 21 VKM 21 VKM - L	22 22 R 22 VK 22 VKL 22 VKM <sup>2)</sup> 22 VKM - L <sup>2)</sup>	32 VK 32 VKL	33 33 R <sup>1)</sup> 33 VK 33 VKL 33 VKM <sup>2)</sup> 33 VKM - L <sup>2)</sup>
<b>X1</b>	32	75	83	83	100	100	100
<b>X2</b>	64	107	116	116	150	205	205

The values of parameters **X1** and **X2** depend on Type of brackets applied.

The **X2** figure is increased by 2 mm for PLAN and LINE radiators.

<sup>1)</sup> Value **X1** for the model RADIK KLASIK - R Type 33 = 155 mm.

<sup>2)</sup> Value **X1** for the model RADIK VKM and RADIK VKM - L Type 22, 33 = 83 mm.

## Table of sizes HYGIENE, HYGIENE VK, CLEAN, CLEAN VK

Type	10 10 VK	20 S 20 S VK	30 30 VK
<b>X1</b>	47	115	115
<b>X2</b>	79	165	220

The **X2** figure is increased by 2 mm for models HYGIENE, HYGIENE VK.

## Overview of Types

Type	Number of panels	Number of convector plates
<b>Type 10</b>	1	0
<b>Type 11</b>	1	1
<b>Type 20</b>	2	0
<b>Type 21</b>	2	1
<b>Type 22</b>	2	2
<b>Type 30</b>	3	0
<b>Type 32</b>	3	2
<b>Type 33</b>	3	3



## (I.E. STATE RESEARCH INSTITUTE FOR PROTECTION OF MATERIALS)

The below given information defines conditions for appropriate using steel radiators which are protected with final surface finish in accordance with DIN 55 900 standard. It also specifies critical locations, spaces and environment limiting their applications. KORADO, a.s. (joint-stock co.) recommends the below given advice to be strictly respected at all practical applications because this will be taken into consideration in case of judgement and evaluation of any future claims and/or complaints.

### POSSIBILITIES AND LIMITATIONS FOR USING STEEL RADIATORS WITH SURFACE FINISH ACCORDING TO DIN 55 900 STANDARD:

(Explicit comment from the Prague State Research Institute for Protection of Materials)

## 1. REQUIREMENTS FOR SURFACE FINISH OF RADIATORS

### 1.1 General

The requirements concerning the surface finish of radiators are defined in German standard DIN 55 900 which bears the following title: "Surface finish of radiators. Terminology, requirements, tests. Surface finish made industrially." The said standard relates to materials which are used for surface finish of radiators and it is binding for industrially made surface finish of radiators for hot water heating and low pressure steam heating (temperature of the heat-carrying medium up to 120 °C). The object of the said standard is not surface finish of radiators operating with temperatures exceeding 120 °C or which are to be used in spaces with aggressive and/or humid environment air. Kitchens, bathrooms etc. and places outside the reach of water shower spraying and toilets are not considered to be spaces with aggressive and/or humid environment air.

The DIN 55 900 standard is divided into 2 parts: DIN 55 900-1 defines the base paint layer for radiators, DIN 55 900-2 defines the final surface finish of radiators. The said standard specifies requirements on paint coating materials applicable for surface finish, i.e. both their physical-mechanical properties (adhesion, impact resistance) and corrosion resistance (resistance against condensating water).

In general terms, the said standard also requires that radiators with final paint coating must be protected appropriately for and during: transportation, storage, and mounting, and it must be possible to clean the radiators surface with common detergents (non abrasive).

The said standard is the basis for definition and assessment of the surface finish quality and for compliance with all principles therein stipulated, all of which is binding both for manufacturers and users of radiators. Beyond the scope of the standard DIN 55 900 by the user may be the cause of extinction of the producer's guarantees.

## 2. QUALITATIVE DESCRIPTION OF TYPICAL ENVIRONMENTS

The qualitative description of typical environments with relevant grades of corrosivity is given in the table under the following title: Qualitative description of typical environments for judgement of corrosivity grades:

Corrosivity grade	Corrosivity	Examples of typical interior environments
C-1	Very low	Heated spaces with relative low humidity (30 – 65 %) and with negligible uncleanliness, e.g. office premises, schools, museums, flats, hotels, shops, etc.
C-2	Low	Unsufficiently heated spaces with changeable temperature and with relative humidity exceeding 70 %. Rare occurrence of condensation and minor uncleanliness, e.g. warehouses, corridors, gym halls, etc.
C-3	Average	Spaces with average occurrence of condensation and with average uncleanliness caused by technological or other processes, e.g. food production premises, laundry plants, breweries, dairy houses, meat packing factories, etc.
C-4	High	Spaces with high occurrence of condensation and with average uncleanliness caused by technological or other processes, e.g. industrial manufacturing premises, swimming pools, bath houses, car-washing facilities, public WCs, stables, etc..
C-5	Very High	Spaces with nearly constant occurrence of condensation and/or with high uncleanliness caused by technological processes, e.g. mining premises, underground technological spaces/rooms/halls, unaired shelters in tropical humid areas.

The radiators with surface finish complying with the DIN 55 900 standard are applicable in spaces/premises with C 1 interior air environment without limitation for a long period of service.

However, pursuant to the DIN 55 900-2 standard, the radiators must not be placed in spaces with aggressive or humid environment air (C2 – C5). Any placement of such radiators in the lower defined spaces must be considered as critical.

## 3. POSSIBILITIES AND LIMITATIONS FOR USING STEEL RADIATORS WITH SURFACE FINISH COMPLYING WITH DIN 55 900 STANDARD:

### 3.1 Spaces with possible water spray or water solutions spray

In spaces/premises with the C1 interior environment air, e.g. in flats, offices, schools and other public buildings, there are also some rooms (kitchens, bathrooms, toilets) wherein some places with corrosion activity of C2 – C5 can be found.

These are places within a direct reach of water spray or water solutions spray (e.g. places under kitchen sinks, under wash-basins, under showers, and some other places which are regularly sprayed with water). Such places are considered as spaces with humid or aggressive environment air and they are not suitable for placing radiators there even though the whole rooms in question (i.e. kitchens, bathrooms, toilets) are not considered to have aggressive or humid environment air.

## (I.E. STATE RESEARCH INSTITUTE FOR PROTECTION OF MATERIALS)

That is why the guaranty claims resulting from the title of corrosion or from a change of the surface appearance cannot be applied on those radiators which are placed within reach of water spray or within reach of aggressive solutions (C2 – C5 spaces). In case it is necessary to place radiators within such a reach or in the middle of such an area, special protective measures must be applied (e.g. using zinc-coated or corrosion more resistant sheets, appropriate encasing etc.) which prevent corrosion damage of the surface finish of the radiators in question.

Radiators with surface finish complying with the DIN 55 900 standard can thus be installed in kitchens, bathrooms and toilets, provided they are located in the suitable place of the room.

### 3.2 Spaces which are insufficiently air-ventilated

These are rooms (spaces with C2 interior environment air and higher) with windows which are never opened or rooms without windows where no sufficient air exchange can be achieved and maintained. In such spaces, humidity from air can often condensate on turned-off and therefore cold radiators. This condensated humidity can damage the protective coating due to corrosion or blistering.

Regular air-ventilation of the heated rooms/premises is the necessary protection of the surface finish of radiators against humidity and condensated water. It is not recommended, as a kind of protection against condensated humidity, to turn off radiators which are placed in insufficiently air-ventilated rooms.

Using radiators complying with the surface finish according to DIN 55 900 inside bathrooms, toilets and laundrettes (without windows) is possible only if air-ventilation is maintained in accordance with DIN 18 017 standard, Part 1 and Part 3, wherein hour exchanges of air volumes are defined. Analogically, requirements re. temperature-humidity microclimate are given in ČSN EN ISO 7730 standard.

If no regular air-ventilation is possible, or if no permanent air exchange can be achieved, radiators must be in continuous operation so that cooling down of such surfaces is prevented where air humidity would condensate.

Users of such unaired and humid rooms (e.g. bathrooms, laundrettes) must respect this fact. Closed rooms with installed radiators must be heated or air-ventilated regularly. Requirements defining air-ventilation of flats or houses are given in the following table:

Room	Air exchange rate
Kitchen	50 l/s – during operation 12 l/s – with permanent air-ventilation or with opened windows
Bathroom, toilet	25 l/s – when being used 10 l/s – with permanent air-ventilation or with opened windows
Garage a) separate b) shared	50 l/s – separate 7,5 l/s car – shared

### 3.3 Spaces with permanent increased humidity or aggressivity of environment air

This relates to critical rooms and premises (C2 – C5), i.e. swimming pools, saunas, public toilets, car-washing facilities, laundry plants, battery recharging workshops, various premises in chemical and food processing industries, and rooms and spaces where wet cleaning is carried out by means of low or high pressure equipment etc. The radiators complying with DIN 55 900 are not suitable for application in such premises.

If the said radiators are still to be installed into such difficult conditions, it is necessary to consult the manufacturer for the best possible placement of the radiators and to set limitations for usage of these radiators with standard surface finish. Inside the above mentioned critical premises there are usually also places with the corrosion impact of grade C1, such as offices, changing rooms, workshops, dining halls etc. wherein the radiators complying with DIN 55 900 can be applied without limitations.

## 4. STORING OF RADIATORS AND MOUNTING OF RADIATORS

The DIN 55 900 standard requires that radiators provided with the final surface coating must be appropriately protected for and during transportation and for storage and mounting and that it must be possible to clean the radiators surface with common detergents.

The following advice is to be respected.

### 4.1 Transportation

During transportation but also during storage and final mounting of radiators, it is necessary to prevent any damage of the radiator coating and/or of all covering elements. No damage caused by rain or by any aggressive impurities may occur.

### 4.2 Storage

Radiators provided with final surface finish must be stored at the user's in dry and well air-ventilated spaces so that no corrosion damage of the radiators surface finish occurs.

### 4.3 Protection of the surface finish during mounting

Mounting of the radiators is to be carried out in such a manner that the protective wrapping is removed only after all building construction jobs (e.g. floor tiling, concrete works, wall painting/ decorating and cleaning) has been finished in order to prevent any damage of radiators, especially any damage of their surface finish. The radiators can be mounted and put into operation without removing the protective wrapping.

### 4.4 Cleaning

Radiators with final surface finish can be cleaned with such suitable water-borne detergents which are commonly used in households without any adverse impact on the painted surface. Such detergents must neither be abrasive (they would abrade the surface) nor strongly alkaline or acidic (i.e. chemically aggressive).



## Quality of steel panel radiators RADIK

The high quality of radiators has been confirmed by acquiring the right to use the national quality marks for the European markets. This marks declares that the stipulated requirements on quality of material, technology, production process and tests of radiators RADIK are strictly followed.

The well-established quality management system according to ISO 9001:2015 in combination with the national quality marks guarantees the highest degree in achieving a permanent quality of products and all activities of KORADO company on European as well as world-wide markets.

### • Quality management system according to ISO 9001:2015



### • Quality mark NF for the French market

- it is valid for the following range of the steel panel radiators RADIK



No. CERTITA	Model
5240	RADIK KLASIK, RADIK VK Type 10
5241	RADIK KLASIK, RADIK VK Type 11
5242	RADIK KLASIK, RADIK VK Type 20
5243	RADIK KLASIK, RADIK VK Type 21
5244	RADIK KLASIK, RADIK VK, RADIK VKU Type 22
5245	RADIK KLASIK, RADIK VK, RADIK VKU Type 33

No. CERTITA	Model
5538	RADIK CLEAN, RADIK CLEAN VK Type 10
5539	RADIK CLEAN, RADIK CLEAN VK Type 20
5540	RADIK CLEAN, RADIK CLEAN VK Type 30
5541	RADIK VKM, RADIK VKM - L Type 10
5542	RADIK VKM, RADIK VKM - L Type 11
5544	RADIK VKM, RADIK VKM - L Type 21
5545	RADIK VKM, RADIK VKM - L Type 22
5546	RADIK VKM, RADIK VKM - L Type 33

# QUALITY AND SAFETY

## • Quality mark for the German market

it has been granted for the following product range of the steel panel radiators RADIK.



Reg. No. GZ	Model	Type
0320	RADIK HYGIENE	Type 10
	RADIK HYGIENE VK	Type 10
0321	RADIK HYGIENE	Type 20S
	RADIK HYGIENE VK	Type 20S
0322	RADIK HYGIENE	Type 30
	RADIK HYGIENE VK	Type 30
0565	RADIK VKM	Type 10
	RADIK VKM - L	Type 10
0566	RADIK VKM	Type 11
	RADIK VKM - L	Type 11
0568	RADIK VKM	Type 21
	RADIK VKM - L	Type 21
0569	RADIK VKM	Type 22
	RADIK VKM - L	Type 22
0570	RADIK VKM	Type 33
	RADIK VKM - L	Type 33
0571	RADIK KLASIK	Type 10
	RADIK VK	Type 10
	RADIK VKL	Type 10
	RADIK CLEAN	Type 10
0572	RADIK CLEAN VK	Type 10
	RADIK KLASIK	Type 20
0573	RADIK VK	Type 20
	RADIK CLEAN	Type 20S
0574	RADIK CLEAN VK	Type 20S
	RADIK CLEAN	Type 30
0578	RADIK CLEAN VK	Type 30
	RADIK PLAN KLASIK	Type 11
	RADIK LINE KLASIK	Type 11
	RADIK PLAN VK	Type 11
	RADIK LINE VK	Type 11
	RADIK PLAN VKL	Type 11
	RADIK LINE VKL	Type 11
	RADIK PLAN KLASIK	Type 21
0580	RADIK LINE KLASIK	Type 21
	RADIK PLAN VK	Type 21
	RADIK LINE VK	Type 21
	RADIK PLAN VKL	Type 21
	RADIK LINE VKL	Type 21

Reg. No. GZ	Model	Type
0581	RADIK PLAN KLASIK	Type 22
	RADIK LINE KLASIK	Type 22
	RADIK PLAN VK	Type 22
	RADIK LINE VK	Type 22
	RADIK PLAN VKL	Type 22
	RADIK LINE VKL	Type 22
	RADIK PLAN KLASIK	Type 33
	RADIK LINE KLASIK	Type 33
0582	RADIK PLAN VK	Type 33
	RADIK LINE VK	Type 33
	RADIK PLAN VKL	Type 33
	RADIK LINE VKL	Type 33
	RADIK PLAN VKM	Type 33
	RADIK LINE VKM	Type 33
0583	RADIK PLAN VKM	Type 11
	RADIK LINE VKM	Type 11
0585	RADIK PLAN VKM	Type 21
	RADIK LINE VKM	Type 21
0586	RADIK PLAN VKM	Type 22
	RADIK LINE VKM	Type 22
1120	RADIK KLASIK	Type 11
	RADIK VK	Type 11
	RADIK VKL	Type 11
	RADIK KLASIK	Type 21
1121	RADIK VK	Type 21
	RADIK VKU	Type 21
	RADIK VKL	Type 21
	RADIK KLASIK	Type 22
1122	RADIK VK	Type 22
	RADIK VKU	Type 22
	RADIK VKL	Type 22
	RADIK KLASIK	Type 33
1123	RADIK VK	Type 33
	RADIK VKU	Type 33
	RADIK VKL	Type 33
1182	RADIK MATERNELLE VK	Type 32
	RADIK MATERNELLE VKL	Type 32

## Steel panel radiators RADIK - safety and conformity with the European directives and standards

### • European standard EN 442 for radiators



• by using **CE mark** the producer confirms that the steel panel radiators **RADIK** are in conformity with the characteristics stated in the Declaration of Performance issued in conformity with the directive of EP and the Council (EU) No. 305/2011. This conformity was approved by the notified body No.1015, Strojírenský zkušební ústav, s.p. Brno.





# DATA FOR PLACING ORDER



Steel panel radiators	Version	Model	Type	Code for orderingod from
<b>RADIK</b>	<b>KLASIK</b>	<b>RADIK KLASIK</b>	10	10HHHLLL-50-0010
			11	11HHHLLL-50-0010
			20	20HHHLLL-50-0010
			21	21HHHLLL-50-0010
			22	22HHHLLL-50-0010
			33	33HHHLLL-50-0010
		<b>RADIK KLASIK - R</b>	20 R	20HHHLLL-R0-0010
			21 R	21HHHLLL-R0-0010
			22 R	22HHHLLL-R0-0010
			33 R	33HHHLLL-R0-0010
		<b>RADIK KLASIK - Z</b>	10	10HHHLLL-50Z0010
			11	11HHHLLL-50Z0010
			21	21HHHLLL-50Z0010
			22	22HHHLLL-50Z0010
		<b>VENTIL KOMPAKT</b>	<b>RADIK VK</b>	10 VK
	11 VK			11HHHLLL-60-0010
	20 VK			20HHHLLL-60-0010
	21 VK			21HHHLLL-60-0010
	22 VK			22HHHLLL-60-0010
	33 VK			33HHHLLL-60-0010
	<b>RADIK VK - Z</b>		10 VK	10HHHLLL-60Z0010
			11 VK	11HHHLLL-60Z0010
			21 VK	21HHHLLL-60Z0010
			22 VK	22HHHLLL-60Z0010
	<b>RADIK VKU</b>		21 VKU	21HHHLLL-6U-0010
			22 VKU	22HHHLLL-6U-0010
			33 VKU	33HHHLLL-6U-0010
	<b>RADIK VKL</b>		10 VKL	10HHHLLL-E0-0010
			11 VKL	11HHHLLL-E0-0010
			21 VKL	21HHHLLL-E0-0010
			22 VKL	22HHHLLL-E0-0010
	<b>RADIK MATERNELLE VK</b>		32 VK	32HHHLLL-6S-0010
	<b>RADIK MATERNELLE VKL</b>		32 VKL	32HHHLLL-ES-0010
	<b>RADIK VKM</b>		10 VKM	10HHHLLL-G0-0010
			11 VKM	11HHHLLL-G0-0010
			21 VKM	21HHHLLL-G0-0010
			22 VKM	22HHHLLL-G0-0010
	<b>RADIK VKM-U</b>		33 VKM	33HHHLLL-G0-0010
			21 VKM-U	21HHHLLL-GU-0010
			22 VKM-U	22HHHLLL-GU-0010
	<b>RADIK VKM - L</b>		33 VKM-U	33HHHLLL-GU-0010
		10 VKM - L	10HHHLLL-L0-0010	
11 VKM - L		11HHHLLL-L0-0010		
<b>RADIK VKM - L</b>	21 VKM - L	21HHHLLL-L0-0010		
	22 VKM - L	22HHHLLL-L0-0010		
	33 VKM - L	33HHHLLL-L0-0010		

Note: For information how to create the order code see p. 77

# DATA FOR PLACING ORDER

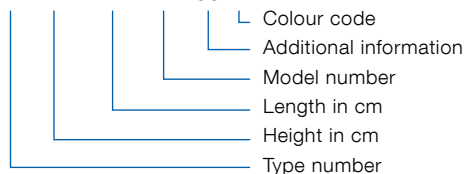
Steel panel radiators	Version	Model	Type	Code for ordering from
<b>RADIK</b>	<b>PLAN</b>	<b>RADIK PLAN KLASIK</b>	11 PLAN	11HHHLLL-50P0010
			21 PLAN	21HHHLLL-50P0010
			22 PLAN	22HHHLLL-50P0010
			33 PLAN	33HHHLLL-50P0010
		<b>RADIK PLAN KLASIK-R</b>	20 PLAN R	20HHHLLL-R0P0010
			21 PLAN R	21HHHLLL-R0P0010
			22 PLAN R	22HHHLLL-R0P0010
			33 PLAN R	33HHHLLL-R0P0010
		<b>RADIK PLAN VK</b>	11 PLAN VK	11HHHLLL-60P0010
			21 PLAN VK	21HHHLLL-60P0010
			22 PLAN VK	22HHHLLL-60P0010
			33 PLAN VK	33HHHLLL-60P0010
	<b>RADIK PLAN VKL</b>	11 PLAN VKL	11HHHLLL-E0P0010	
		21 PLAN VKL	21HHHLLL-E0P0010	
		22 PLAN VKL	22HHHLLL-E0P0010	
		33 PLAN VKL	33HHHLLL-E0P0010	
	<b>RADIK PLAN VKM</b>	11 PLAN VKM	11HHHLLL-G0P0010	
		21 PLAN VKM	21HHHLLL-G0P0010	
		22 PLAN VKM	22HHHLLL-G0P0010	
		33 PLAN VKM	33HHHLLL-G0P0010	
	<b>LINE</b>	<b>RADIK LINE KLASIK</b>	11 LINE KLASIK	11HHHLLL-50L0010
			21 LINE KLASIK	21HHHLLL-50L0010
			22 LINE KLASIK	22HHHLLL-50L0010
			33 LINE KLASIK	33HHHLLL-50L0010
		<b>RADIK LINE KLASIK-R</b>	20 LINE R	20HHHLLL-R0L0010
			21 LINE R	21HHHLLL-R0L0010
			22 LINE R	22HHHLLL-R0L0010
			33 LINE R	33HHHLLL-R0L0010
		<b>RADIK LINE VK</b>	11 LINE VK	11HHHLLL-60L0010
			21 LINE VK	21HHHLLL-60L0010
			22 LINE VK	22HHHLLL-60L0010
			33 LINE VK	33HHHLLL-60L0010
	<b>RADIK LINE VKL</b>	11 LINE VKL	11HHHLLL-E0L0010	
		21 LINE VKL	21HHHLLL-E0L0010	
		22 LINE VKL	22HHHLLL-E0L0010	
		33 LINE VKL	33HHHLLL-E0L0010	
	<b>RADIK LINE VKM</b>	11 LINE VKM	11HHHLLL-G0L0010	
		21 LINE VKM	21HHHLLL-G0L0010	
		22 LINE VKM	22HHHLLL-G0L0010	
		33 LINE VKM	33HHHLLL-G0L0010	
	<b>VERTIKAL</b>	<b>RADIK PLAN VERTIKAL - M</b>	10	10HHHLLL-V0P0010
			20	20HHHLLL-V0P0010
<b>HYGIENE</b>	<b>RADIK LINE VERTIKAL - M</b>	10	10HHHLLL-V0L0010	
		20	20HHHLLL-V0L0010	
	<b>RADIK HYGIENE</b>	10	10HHHLLL-5CH0010	
		20S	20HHHLLL-5CH0010	
		30	30HHHLLL-5CH0010	
	<b>RADIK HYGIENE VK</b>	10 VK	10HHHLLL-6CH0010	
		20S VK	20HHHLLL-6CH0010	
		30 VK	30HHHLLL-6CH0010	
	<b>RADIK CLEAN</b>	10 CLEAN	10HHHLLL-50-0010	
		20S CLEAN	20HHHLLL-5C-0010	
		30 CLEAN	30HHHLLL-5C-0010	
	<b>RADIK CLEAN VK</b>	10 CLEAN VK	10HHHLLL-60-0010	
20S CLEAN VK		20HHHLLL-6C-0010		
30 CLEAN VK		30HHHLLL-6C-0010		

# ORDER CODE



## Table for creation of a code

**TTHHLLLL-MMM00XX**



## Example for creation of a code

**RADIK VK** steel panel radiator.

type 22, height H = 500 mm, length L = 1800 mm, Colour White RAL 9016

**General structure**  
**Correct code until**

**TTHHLLLL-MMM00XX**  
**22050180-60-0010**

# SERVICE

## Service for business partners and customers

An expert for every situation – that is one of the basic ideas of the philosophy of the company KORADO with regard to service. The company KORADO pays great attention to communication with its partners on the market. It offers designers, merchants, and installers of heating systems broad support and complete technical documentation and information for daily work. The goal is clear and comprehensible – to create conditions allowing individual professional groups to design, sell, and fit RADIK, KORALUX and KORATHERM radiators so that the final customer can take advantage of their features to a full extent. To fulfill this philosophy, the company KORADO offers:

- technical catalogues for RADIK steel panel radiators, KORALUX towel rail radiators, KORATHERM flat panel radiators, KORAMONT mounting technology catalogue
- range of brochures and information leaflets for individual models of radiators, supplements and accessories
- Internet web page <http://www.korado.com>
- e-mail [info@korado.cz](mailto:info@korado.cz)
- professional lectures at the company training center
- professional consulting at specialized exhibitions in the Czech Republic and abroad
- The up-to-date offer is available and regularly updated on [www.korado.com](http://www.korado.com)

# HM FITTINGS

## Description

Connection fittings HM have been specially developed for steel panel radiators RADIK MM and RADIK PLAN (LINE) VERTIKAL - M, i.e. radiators without valve and with bottom connection with a connecting pitch of 50 mm. They can also be used for all other KORALUX and KORATHERM radiators with the same type of connection to the heating system.

It is the integrated fittings, i.e. the body of the fittings has an integrated valve and an adjustable screw connection so it is possible to disconnect the radiator from the heating system without interrupting operation. **Due to its special fittings design, the outlets for connection of inlet and return piping may be chosen freely.**

The fittings enable to preset the flow rate of the radiator, its closure at the inlet and outlet and thanks to the thermostatic head also regulation of the heat output of the radiator in relation to the temperature in the heated room. The presetting level is given by the number of turns on the plug of the adjustment screw connection from the "closed" position. Presetting of the regulation level is reproducible, i.e. when the flow is closed and then opened again, there is no change in the set regulation level.

## Delivery equipment

The following parts of HM fittings are delivered as standard:

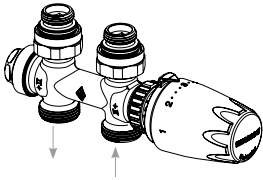
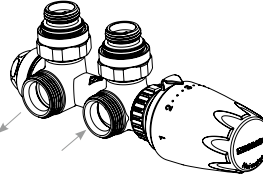
- integrated fittings in straight or angular design
- thermostatic head in white or chrome
- 2x reduction G 1/2 to G 3/4 with sealing "O" ring
- 2x flat sealing pieces from EPDM rubber
- assembly and operating instructions

Subject to special request, the following can be supplied:

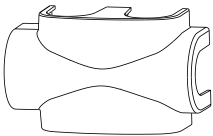
- universal cover for the fittings in white
- universal cover for the fittings in chrome

## How to order

### HM Fitting

	Design	Colour of the thermostatic head	Order number
	straight	white	Z-D023
		chrome	Z-D024
	angular	white	Z-D025
		chrome	Z-D026

### HM Fitting Cover

	universal	white	Z-D027
		chrome	Z-D028

## Use

The fittings are designed for two-pipe pressurized heating systems. They can be used for the following range of KORADO radiators:

Product range	Radiator model
RADIK	RADIK PLAN VERTIKAL - M
	RADIK LINE VERTIKAL - M
	RADIK PREMIUM (for bottom connection only)
	RADIK PLAN PREMIUM (for bottom connection only)
	RADIK LINE PREMIUM (for bottom connection only)
KORALUX	KORALUX LINEAR MAX - M
	KORALUX LINEAR COMFORT - M
	KORALUX LINEAR CLASSIC - M
	KORALUX LINEAR EXCLUSIVE - M
KORATHERM	KORALUX RONDO MAX - M
	KORALUX RONDO COMFORT - M
	KORALUX RONDO CLASSIC - M
	KORALUX RONDO EXCLUSIVE - M
KORATHERM	KORATHERM HORIZONTAL - M
	KORATHERM VERTIKAL - M

Note:

When using the stand brackets Z-U580, Z-U581 with radiator model KORATHERM HORIZONTAL - M it is possible to use the HM Connection Fittings from the length L = 700 mm.

## Way of connection

Connection to the heating system is accomplished using a G 3/4 external thread and a clamp connection can be used for copper, plastic, precision steel or multilayer pipes.

Connection of the fittings to the radiator is accomplished with the aid of a self-sealing double nipple (reduction) G 1/2 to G 3/4, which is delivered as standard.

The valve on the fittings is equipped with M 30 x 1.5 external connection threading for mounting of the thermostatic head, which is delivered as standard with the HM Connection fitting.



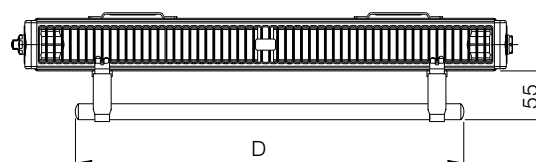
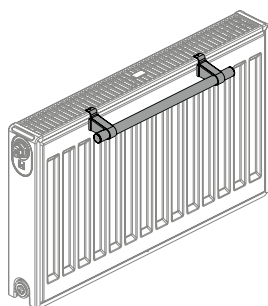
## Towel dryer for RADIK



- designed to be used for all types of the following models of panel radiators RADIK:
 

RADIK KLASIK	RADIK VKM - L
RADIK KLASIK - R	RADIK CLEAN
RADIK VK	RADIK CLEAN VK
RADIK VKL	
RADIK VKU	
RADIK VKM	
RADIK VKM-U	

- easy mounting and demounting
- no need to remove the top grill
- metal parts painted in white
- the towel dryer length **D** is not dependent on the radiator length **L**
- max. vertical load of the towel dryer is **50 N** up to 5 kg



Type	Towel dryer length D [mm]	Order number
Towel dryer for RADIK 600	600	Z-D030
Towel dryer for RADIK 900	900	Z-D031
Towel dryer for RADIK 1200	1200	Z-D032

## Radiator brush



- intended for cleaning all radiators KORADO
- easy and quick cleaning
- no need to remove the top grill
- bristle material – goat hair



Type	Order number
Radiator brush	Z-D029

# COLOUR CARD

## SATIN GLOSS

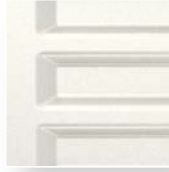
**code 10**

White RAL 9016\*



**code 14**

Jasmine



**code 35**

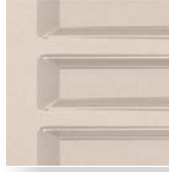
Silber RAL 9006



## HIGH GLOSS

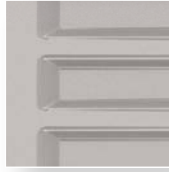
**code 16**

Bahama



**code 22**

Manhattan



**code 26**

Pergamon



**code 32**

Anthrazit Metallic



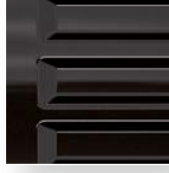
**code 37**

Red RAL 3001



**code 39**

Black RAL 9005



**code 45**

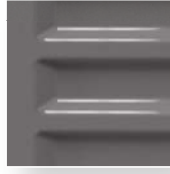
Pearl Brown



## MATTE

**code 47**

RAL 9007



**code 48**

RAL 9006



**code 49**

RAL 7024



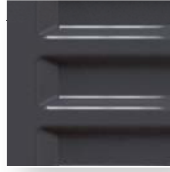
**code 51**

RAL 7016



**code 54**

RAL 7015



**code 57**

RAL 7040



**code 40**

Alloy Black



**code 42**

Gold



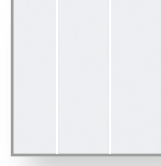
## DEEP MATTE

### PLAN SET / LINE SET - available versions of detachable front panels

The models RADIK can be complemented with a new front panel in the version PLAN or LINE in basic white RAL 9016. Front panels are available also in other colours from RAL colour range with an extra charge. For more information see please [www.korado.com](http://www.korado.com) or our technical brochure.



PLAN SET



LINE SET



PLAN SET with print

### Notice:

The colour of the radiator may vary in comparison with the colour shown in the colour card.

The standard paint finish is RAL 9016; other colours from KORADO colour range with an extra charge 30 %. Radiators can be ordered also in other colours from RAL colour range with an extra charge 40 %.

The company reserves the right to make technical changes.





# NOTES

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GUARANTEE



The quality marks are valid for the range listed on pages 73 and 74.

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