

DESIGN RADIATORS & TOWEL WARMERS

KONTEC.

## General Specifications

### Approval and Certification

**VOGEL&NOOT** offers strong products that meet the highest quality standards during manufacture and operation. All information on the quality and performance of **VOGEL&NOOT** radiators is verified and confirmed by recognised European institutions on an ongoing basis, thereby guaranteeing the highest level of heating performance and optimum product quality.



When used in systems designed and installed in accordance with the good practice recommendations given in the 'Application' section, the **VOGEL&NOOT KONTEC** design radiators carry a ten year guarantee from date of purchase against defects caused by faulty materials or manufacture. However, failure to pay attention to these recommendations (in new or existing systems) may invalidate the manufacturer's warranty.

### Paint Finish

Every **KONTEC** design radiator is subjected to a thorough painting process involving degreasing, phosphating and primer coating (stoved) prior to the final finishing coat of white semi-gloss epoxy paint, which is cured at 210°C. Colour options are available, see pages 36 & 37, for a small extra charge and with a 6-8 week delivery lead time. This means that **KONTEC** design radiators can be installed without further painting, although if desired (e.g. colour change), overpainting can be carried out using a good quality, oil-based gloss paint. Additionally, white touch-up paint is available.

### Packaging

All our radiators are individually wrapped in heavy duty polythene shrink-wrapping and are clearly marked externally with type and size. The radiator panels are also wrapped in cardboard and all corners are further protected with preformed caps.

The packaging is designed to enable full fitting and assembly of radiators into the heating system, without removal of the protective packaging - a real plus point for new building installations. Radiators left protected in this way can be filled and run up to 40°C during initial cleaning and commissioning of the heating system.

### Fixings

All **KONTEC** design radiators are supplied with welded mounting brackets.

For the correct installation of radiators it is essential that the fixing of the radiator is carried out in such a way that it is suitable for intended use AND predictable misuse. A number of elements need to be taken into consideration including the fixing method used to secure the radiator to the wall, the type and condition of the wall itself, and any additional potential forces or weights that may happen to be applied to the radiator, prior to finalising installation.

**IN ALL CASES IT IS STRONGLY RECOMMENDED THAT A SUITABLY QUALIFIED PROFESSIONAL INSTALLER OR SIMILAR TRADESPERSON CARRIES OUT THE INSTALLATION.**

PLEASE NOTE: The fixing materials provided are only intended for installation on walls made of solid wood, bricks, concrete or on timber-frame stud walls where the fixing is into the timber. All walls being considered should have no more than a maximum of 3mm wall finishing. For walls made of other materials, for example hollow bricks, please consult your installer and/or specialist supplier. **ONCE AGAIN, IF YOU ARE UNSURE, IT IS STRONGLY RECOMMENDED THAT A SUITABLY QUALIFIED PROFESSIONAL INSTALLER OR SIMILAR TRADESPERSON CARRIES OUT THE INSTALLATION.**

Each radiator is supplied complete with factory sealed drain plugs and pivotable vent plugs. (Exception: bottom-opposite-end connection models come with a dummy plug instead of the drain plug).

### Connections

All **KONTEC** design radiators are fitted with 2 x internal thread 1/2" BSP connections.

### Operating Pressures

Every **KONTEC** design radiator is tested to a pressure of 6.5 bar (95 psi) and is suitable for a working pressure of up to 5 bar (73 psi). Radiators also available for working at high pressure - 8 bar, please call for details. They also have a maximum operating temperature of 110°C.

### Application

**KONTEC** design radiators are for use in indirect or closed circuit heating systems only, which have been properly designed and installed in accordance with the recommendations of BS EN 12828:2003 or BS EN 12831:2003. In open-vented systems, special attention should be paid to the correct location of the pump in relation to the cold feed and vent pipe connections, to avoid ingress of air or water discharge through the open vent.

All installation work should be carried out in accordance with recognised good practice to ensure long life. In particular, careful attention should be paid to the following:

- Soldered joints should be made with a minimum amount of solder and flux. Choose a flux which is readily soluble in water.
- Copper pipes should be cut and cleaned in such a way as to avoid small copper particles being left in the system (this can lead to electrolytic action and eventual corrosion in the radiator).
- Corrosion inhibitors should be used strictly in accordance with the manufacturer's instructions.

Individual installation instructions are supplied in each radiator package.

### Safety Precautions

Radiators are hot when in use, and as such, present a risk of burns to users on prolonged contact. The temperature of a radiator is dependent on the temperature of the system water, as set by the system installer or user. Installers and users should ensure that those who may come into close proximity to hot radiators are aware of the risk of burns. Installers and users should take all necessary steps to minimise the risks of burns. If the risk is significant, consideration should be given to installing low surface temperature radiators, or to placing guards in front of the radiators.

**General Specifications (continued...)**

**Heat Output**

The radiator outputs quoted in this brochure are based on a mean water temperature in the radiator of 70°C (158°F) and a room temperature of 20° (68°F) - Delta T50.

For other operating conditions - i.e. differences between mean water temperature and room temperature other than 50°C - the correction factors below should be applied (see example below).

Centigrade	Factor	Fahrenheit
15°C	0.21	27°F
20°C	0.30	36°F
25°C	0.41	45°F
30°C	0.51	54°F
35°C	0.63	63°F
40°C	0.75	72°F
45°C	0.87	81°F
50°C	1.00	90°F
55°C	1.13	99°F
60°C	1.27	108°F
65°C	1.41	117°F
70°C	1.55	126°F

An example of radiator selection at a non-standard temperature difference is given below:

**Example:**

Heat emission required: 2000 Watts  
 Room air temperature required: 20°C  
 Mean water temperature in radiator: 65°C

- Temperature difference = 65-20 = 45°C
- From Factor Table 45°C gives a factor of: 0.87
- Divide required heat emission by factor =  $\frac{2000}{0.87}$  = 2298 Watts
- From selection tables choose any radiator rated at 2298 Watts or more.

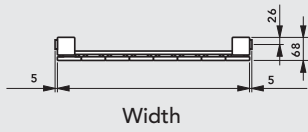
**Distinguished by the ECO seal of quality**



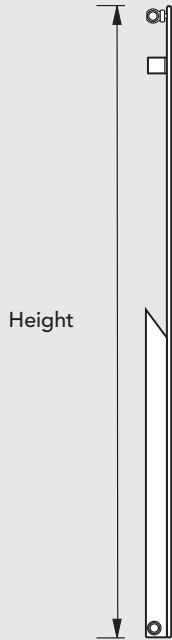
All design radiators from **VOGEL&NOOT** bear the ECO seal of quality, which stands for all-round compatibility with all (renewable) energy sources. It guarantees that the radiators can be operated in an economical and ecologically-sound manner, with significant savings on heating costs (an average of 15%\*) and an enormous reduction in CO<sub>2</sub> emissions.

\*On average, in comparison with old sectional radiators, test results based on data from Pinkafeld University of Applied Sciences.

Model Overview



Width



Height

KS10

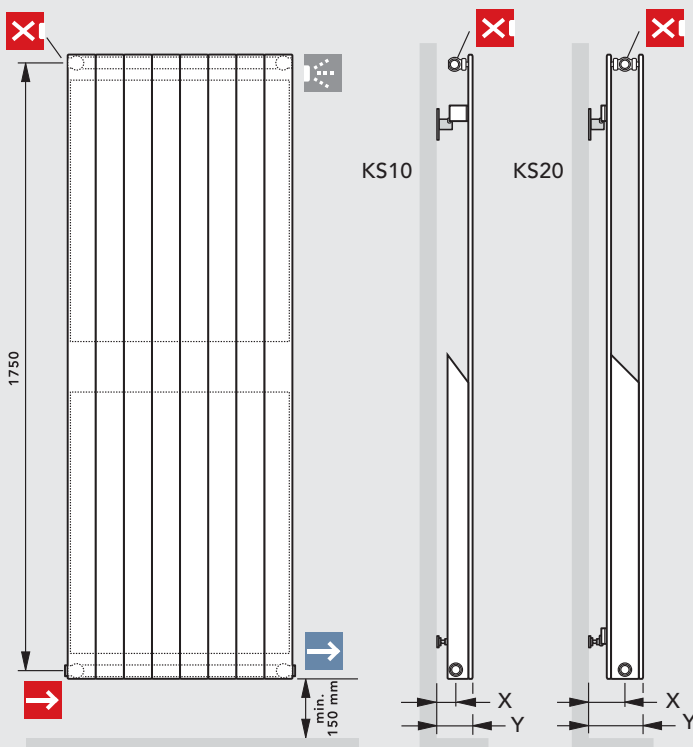
Height (mm)	1800						
Width (mm)	214	286	358	430	502	574	646
Wall Mount Type	WA 10	WA 11					



KS20

Height (mm)	1800		
Width (mm)	214	358	502
Wall Mount Type	WA 10	WA 11	

Mounting Positions and Dimensions

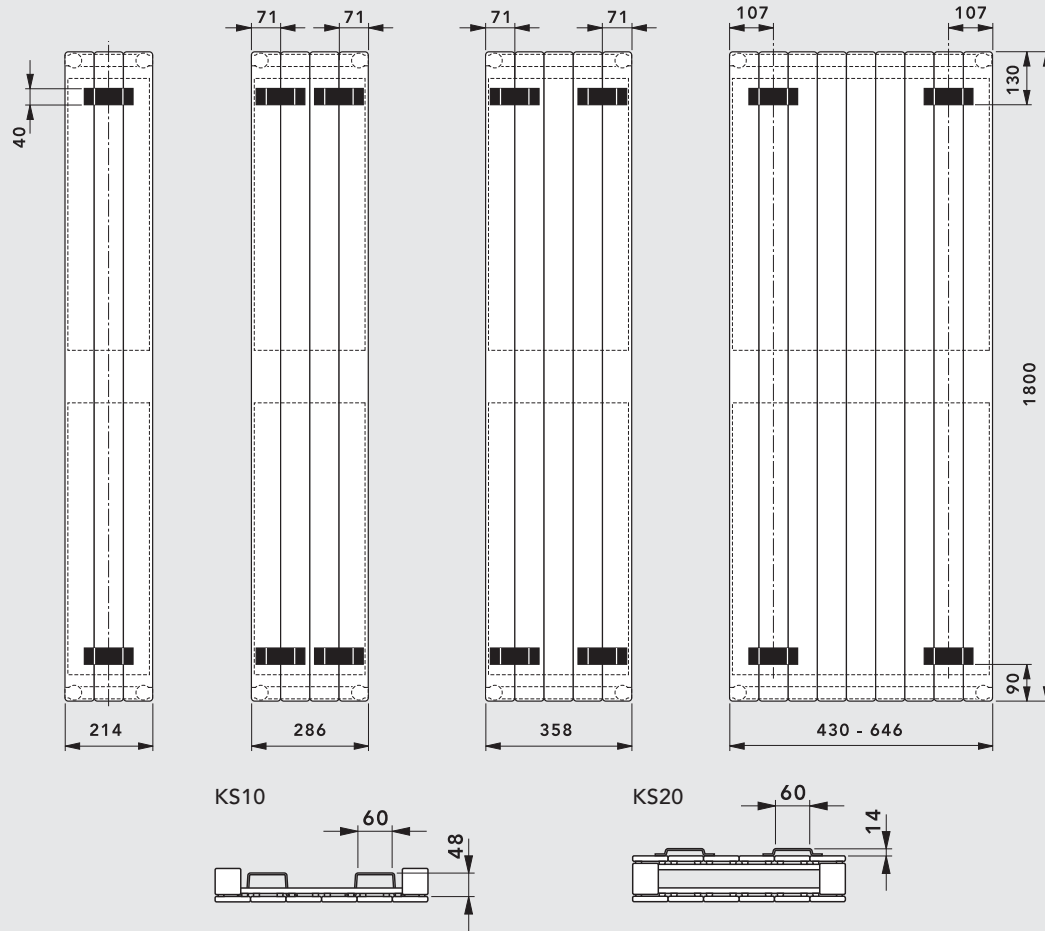


Type	Width (mm)	X (mm)	Y (mm)
KS10	214	35	78.5
	286 - 646	45	88.5
KS20	214	79.5	126
	358 - 502	89.5	136

The water flow to the radiator must be connected on the bottom left hand side and the return on the bottom right hand side.

Radiator valves are not supplied.

Connection Dimensions and Wall Distances



KONTEC - Weight and Water Content (per radiator)

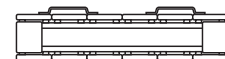
Width (mm)	KS10		KS20	
	Water Content (l)	Weight (kg)	Water Content (l)	Weight (kg)
214	2.67	10.61	5.21	20.43
286	3.57	14.19		
358	4.46	17.76	8.71	34.17
430	5.36	21.33		
502	6.26	24.90	12.22	47.92
574	7.16	28.47		
646	8.06	32.04		

Heat Outputs

KS10



KS20



Nominal Height  
1800 mm - 70.9 in

Width (mm - inches)	Output (watts)	Output (Btu/h)	Order Code	Output (watts)	Output (Btu/h)	Order Code
214 - 8.4	424	1447	KS10 1800 0214	706	2409	KS20 1800 0214
286 - 11.2	566	1931	KS10 1800 0286			
358 - 14.1	708	2416	KS10 1800 0358	1182	4033	KS20 1800 0358
430 - 16.9	851	2904	KS10 1800 0430			
502 - 19.8	993	3388	KS10 1800 0502	1657	5654	KS20 1800 0502
574 - 22.6	1136	3876	KS10 1800 0574			
646 - 25.4	1278	4361	KS10 1800 0646			

N.B. The tabulated heat outputs are quoted at a mean water to air temperature difference of 50°C.

PLEASE NOTE: Brackets need to be ordered separately - Order Code: NABRKT