Radical

The Radical Energy Saving Radiator can save up to 10.5% on energy bills, delivering higher comfort levels at a lower thermostat setting. That's radical thinking, from Stelrad.

Energy Saving

ENERGY SHOW 2014

2013 WINNER

GreenbuildAWARDS Winner 2013

'Retro-fit Product of the Year'

CPD

BIM

10 TEN YEAR WARRANTY

	33 models
Heights:	300mm to 600mm
Lengths:	400mm to 2000mm
Outputs:	333 to 3234 watts, 1136 to 11034 Btu/hr
Types:	K1 & K2

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Energy Saving

Improves energy efficiency and comfort whilst reducing bills.

A radiator that produces more comfort at less cost

The power we use in buildings accounts for 40% of global consumption. And that has a massive impact on the environment. But with smarter energy management, our buildings can emit up to 60% less CO^2. That's something the European Union are moving towards, by making energy consumption standards stricter.

At Stelrad, we believe the heating industry has a major role to play, by developing systems that work so efficiently that they produce more heat at lower temperatures.

That's why we've developed Stelrad Radical, the energy saving radiator. It produces more radiant heat than traditional radiators - saving energy while raising comfort levels. At less cost to the user, and to the environment. That's a Radical step forward.

A radiator that reduces energy bills by up to 10.5%

Your choice of radiator determines how comfortable the heating in your home feels. And how much that comfort costs. You know how a draught free room at 20°C can still feel uncomfortable?

The energy saving radiant heat of the Stelrad Radical will soon fix that. And with the outstanding energy efficiency delivered by its preset valve, it reduces your bills by up to 10.5%, too.

- Thanks to the controlled flow of our unique direct intake technology, the water in the front panel reaches a temperature up to 50% higher than in a traditional radiator
- The Stelrad Radical energy saving radiator reaches its maximum temperature 23% faster than a traditional radiator
- It reaches its optimum performance level while a traditional heater is still heating up
- After only 2 minutes it offers up to 50% more radiant heat
- With higher radiant heat, the feeling of 20°C can be achieved at a lower temperature setting

The Stelrad Radical energy saving radiator's unique and innovative technology raises comfort levels. And by working more efficiently, it reduces energy bills - with a saving of up to 10.5%.

Raising comfort levels with more radiant heat

Domestic heating is usually based on convection and radiation. With convection heating, hot air rises from the heating elements, cools down, descends via the wall and is heated again. With radiant heating, infrared radiation is sent directly around the room regardless of airflows like wind or draughts.

Radiant heat heats up the room, furniture and people, and is reflected back to create a more comfortable feeling similar to the rays of the sun. And standing in the sun always feels much warmer, even if the surrounding temperature is no higher than in the shadow - because it is radiant heat.

A radiator that delivers more heat, more efficiently.

GreenbuildAWARDS Winner 2013

2013 WINNER

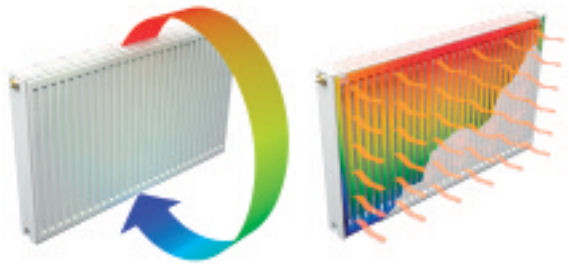
10 TEN YEAR WARRANTY ON EMITTER

EN EURONORM 442

CE

For further information and advice call 0844 543 6200

- In a traditional radiator the heat generated consists, on average, of 80% convection heat and 20% radiant heat - limiting the feeling of warmth
- The Stelrad Radical energy saving radiator increases radiant heat by up to 50%



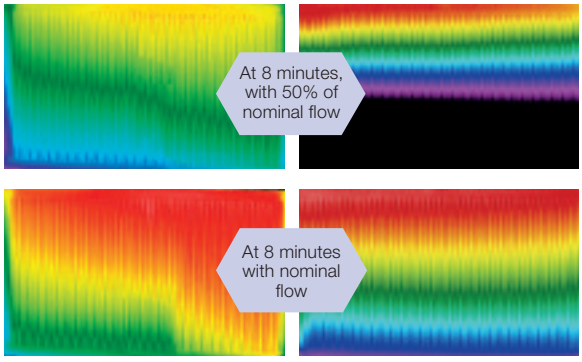
So the comfortable feeling of a room at 20ºC is achieved at a setting of 1 degree less (or even lower).

Up to 50% more radiant heat means more comfort - at a lower cost

These thermal images demonstrate the improved radiant heat of the Stelrad Radical radiator.

The measurements show that the Stelrad Radical energy saving radiator offers 1.5 times more radiant capacity at 50% of the nominal flow (which offers 90% of the nominal heat output) compared to a traditional radiator.

So depending on the radiator size and type it is compared to, the Stelrad Radical energy saving radiator offers up to 50% more radiant heat.



Test conditions: radiator K2, height 600mm, length 1000mm, temperatures 70/55/20°C.

Supported by a RIBA & CIBSE CPD programme

CPD

Stelrad are certified as a member of the RIBA and CIBSE CPD Providers Network. This means we can provide RIBA and CIBSE approved CPD material to architects and other specifiers. An hour-long programme delivered by a member of the Stelrad team delivers information on every aspect of the Stelrad Radical energy saving radiator and its application.

Energy savings tested, assessed and declared by KIWA

KIWA is a highly respected Pan European institute providing internationally recognized declaration services for systems and products. As an independent expert KIWA also carries out specialist testing, and the KIWA Gas Technology division has rigorously trialled the Stelrad Radical radiator to assess and declared its energy saving performance.

Compatibility

The Stelrad Radical radiator is compatible with the following:

- Gas boilers
- Electric boilers
- Solar PV
- Ground source heat pumps (GSHP)
- Air source heat pumps (ASHP)
- Biomass installations

A radiator that heats the room, not the wall

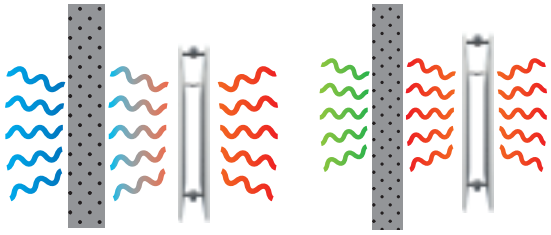
Traditional radiators are as warm at the back as they are at the front. So valuable energy is wasted, as the heat goes into and through the wall.

The unique and innovative technology of the Stelrad Radical radiator changes all that. The flow connection to the front panel and the return connection into the back ensures that you feel warmer, faster.

And thanks to the higher radiation from the front panel, the back panel is much cooler than with other radiators. So up to 9% less radiant heat is lost through the back of the radiator.

That's not just good for comfort levels. It also means the heating system is more efficient, which reduces bills - and CO^2 emissions.

Less heat lost into the wall



Radical radiator Standard radiator

Fully compatible with renewable energy resources

The Stelrad Radical energy saving radiator is perfectly suited for both solo and multiple heating installations. It can be connected to a modulating gas or fuel burner and is compatible with all kinds of low temperature systems, such as heat pumps, solar cells and biomass installations.

Faster heating means less CO^2 - and lower energy bills

Higher radiant heat levels and front panel temperatures combine with other benefits to reduce bills and CO^2 emissions.

Heating up fully in less time

Thanks to its unique flow pattern, heat up times are dramatically shorter for the Stelrad Radical compared to a traditional radiator.

1. Directed flow

Hot water is directed into and around the front panel. In a traditional radiator the water flow divides in parallel to front and back panel.

2. Distribution of hot water

Hot water rises in one water channel and is distributed equally over the front panel. A unique system then directs it to the back panel where it is spread equally over the back panel water channels.

3. Faster heat up

The front panel of the Stelrad Radical radiator reaches a temperature of 62.5°C after 8.5 minutes. At that time, the front panel of a traditional radiator is at 59.3°C. It only reaches its maximum temperature after 11 minutes, by which time the Stelrad Radical has already been operating at maximum for 2.5 minutes.

Fast, convenient and flexible fitting

Angle H Block

Straight H Block with couplings

Simple and quick to connect with Hydro Block (H Block)

Simple and quick to connect with Hydro Block (H Block)

With the ¾" male thread, the H Block's central connection means you can connect pipes directly to the Stelrad Radical radiator with additional couplers. This reduces the risk of leaks and improves the installation speed.

The H Block connects the radiator to the flow and return pipe and has a built-in drain off function, valve isolator and a lock shield for ease of installation and servicing.

- Two H Block configurations are available: with straight connections for pipes coming from the floor or angle connections for pipes coming from the wall.
- The H Block pack also includes a choice of coupling pieces to connect the H Block to the pipes - either 10mm or 15mm.

Installers should order a completed unit based on the appropriate H Block variation.

Left or right side valve position

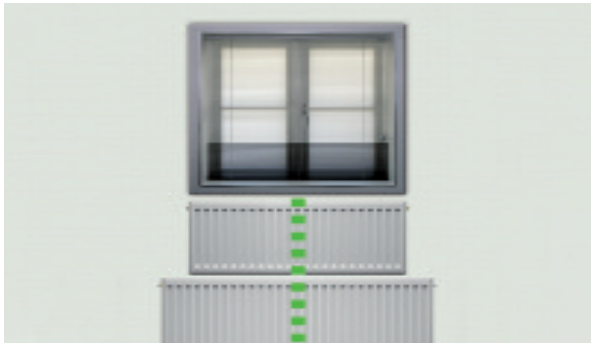
The Stelrad Radical radiator's valve can be mounted on either the left or right side without having to adjust the supply and return pipes. (K2 only).

Preset thermostatic valve

The thermostatic valve regulates the water supply in the radiator. This valve is preset in the factory according to the radiator's size, which guarantees optimum efficiency.

Central connection

The connection coupling of the Stelrad Radical is located in the middle of the radiator. This means that the location of the connection no longer depends on the length of the radiator, so pipes can be laid down early in the project with no need to know the size of the radiator.



Thermostatic head with build-in sensor

Technical data

- Setting range 6°C to 28°C (43°F to 82°F)
- Valve stroke limiter
- Setting numbers 1 to 5
- ? Frost protection 6°C (43°F)
- Max. sensor temperature 50°C (122°F)
- Hysteresis 0.3 K
- Water temperature influence 0.7 K
- Differential pressure influence 0.3 K
- Closing time 24 minutes

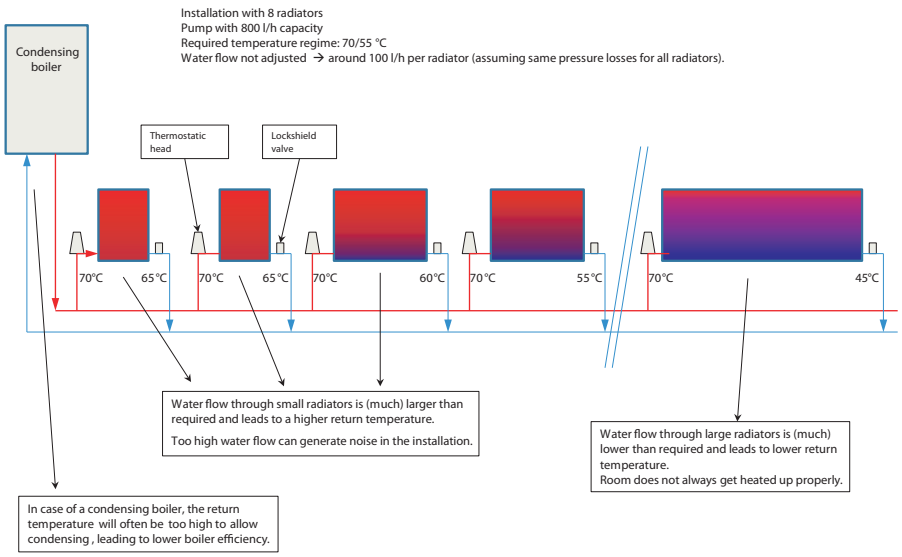
Thermostatic label

Impacting heating levels - and costs

Example 1 shows the effect of an unbalanced system.

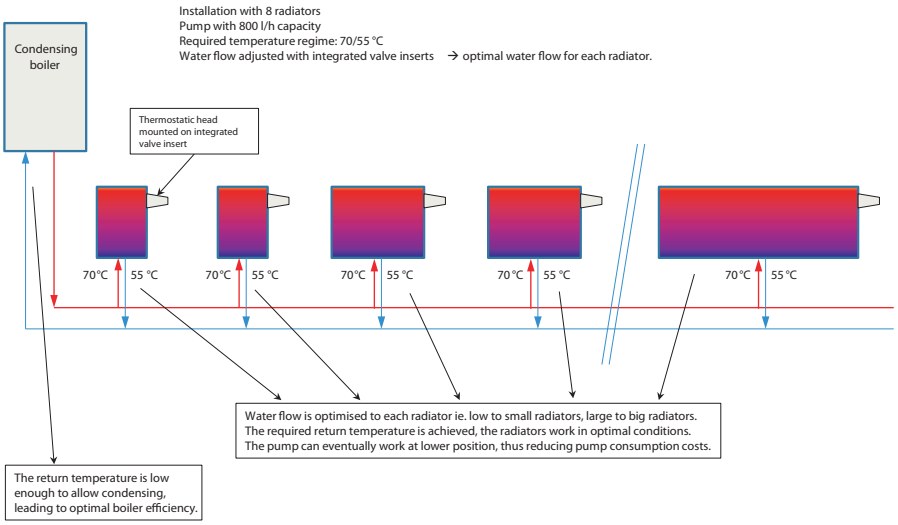
Example 2 shows how more efficient a balanced system is.

Example 1:
An unbalanced system



To avoid these problems, it is necessary to balance the heating system by adjusting the water flow rate to each radiator. The right flow rate leads to a correct return temperature out of each radiator and, therefore, the correct heat output for each radiator, as illustrated in example 2.

Example 2:
A balanced system



This is why the Stelrad Radical radiator is delivered with a thermostatic valve that is factory-adjusted according to the radiator size. By doing so, Stelrad help reduce energy costs.

Preset valves - environmentally friendly and energy efficient

Every Stelrad Radical radiator is equipped with a preset valve, which enhances the efficiency of the system and reduces energy consumption.

This valve is preset in order to control the water flow, producing maximum efficiency at optimum temperature - and is an essential element in the Stelrad Radical energy saving design.

You can recognise the setting by the coloured valve closure (yellow, white, red, black or blue). The default setting is matched to the heat output of the radiator at system temperatures of both 70/55/20°C and 55/45/20°C.

Height	300		500		600	
Type	K1	K2	K1	K2	K1	K2
400			5.5	5.5	5.5	5.5
500	5.5	5.5	5.5	5.5	5.5	2.5
600			5.5	2.5	5.5	2.5
700			5.5	2.5	5.5	2.5
800			5.5	2.5	2.5	2.5
900			2.5	2.5	2.5	2.5
1000	5.5	2.5	2.5	2.5	2.5	4.5
1100			2.5		2.5	4.5
1200			2.5	4.5	2.5	4.5
1400			2.5	4.5	2.5	6
1600	2.5	2.5	2.5	6	4.5	8
1800			2.5	6	4.5	8
2000	2.5	4.5	4.5	8	4.5	8

The benefits

- No extra adjustment time during installation
- Optimal water flow in the radiator
- Higher efficiency of the condensing boiler through lower return temperatures
- Environmentally friendly
- Lower energy costs
- Compliance with Rule EnEV for hydraulic balance

5.5

4361

2.5

4360

4.5

4360

6

4360

8

4360

Factory presetting conditions: - heat outputs at 70/55/20ºC (Δt = 15°C) - pressure drop Δp = 100mbar

For other system conditions, the valve can be readjusted (or replaced) according to preset tables 4360 and 4361 (using preset key - part of the hardware pack).

In one pipe systems the valve must be fully opened (position 8).

Valve re-adjustment

Fine tuning valve 4361

Max. 2 K presetting

4361

Q̇ [W]		200	250	300	400	500	600	700	800	900	1000	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600	3800	4000	4800	5300	6500	6800	7200
Δt [K]	Δp [mbar]																														
	50	3	5	6	7	8	8																								
10	100	1	3	4	5	6	7	8	8	8																					
	150	1	1	3	4	6	6	7	7	8	8																				
	50	1	3	3	5	6	7	7	8	8	8																				
15	100	1	1	1	3	5	5	6	6	7	8	8	8																		
	150	1	1	1	1	3	4	5	6	6	6	7	8	8																	
	50	1	1	1	3	5	6	6	7	7	8	8																			
20	100	1	1	1	1	3	4	5	5	6	6	7	8	8	8																
	150		1	1	1	1	3	3	4	5	6	6	7	7	8	8	8														
	50		1	1	1	1	1	3	3	4	5	6	6	7	7	8	8	8	8												
40	100				1	1	1	1	1	3	3	4	5	5	6	6	6	7	7	8	8	8	8	8	8						
	150					1	1	1	1	1	1	3	3	4	5	6	6	6	6	7	7	7	8	8	8	8	8				

100 mbar = 10kPA = 1mWS

Example:

- Target: presetting
- Given:
  - RADICAL radiator: K1, Height 600, Length 700
  - factory fitted valve: 4361 - preset: 5.5
  - at 75/65/20°C - 776 Watt
  - Δt = 10°C (=75-65)
  - pressure drop: - Δp = 100mbar
  - selected tuning range: - 2K (see table)
- Solution: presetting according to table 4361: 8

Valve needs to be re-adjusted to setting 8

5.5 >>> 8

4361 4361

Valve re-adjustment

Standard valve 4360

Max. 2 K presetting — 4360

Q̇ [W]		200	250	300	400	500	600	700	800	900	1000	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000	3200	3400	3600	3800	4000	4800	5300	6500	6800	7200
Δt [K]	Δp [mbar]																														
	50	1	1	1	2	2	3	3	3	4	5	5	6	7	8																
10	100	1	1	1	1	2	2	2	2	3	3	4	5	5	6	6	7	7	8												
	150		1	1	1	1	2	2	2	2	3	3	4	4	5	5	6	6	7	7	8	8									
	50		1	1	1	1	2	2	2	3	3	3	4	5	5	6	6	7	8	8											
15	100			1	1	1	1	1	2	2	2	2	3	3	4	4	5	5	6	6	6	7	7	7	8	8					
	150				1	1	1	1	1	2	2	2	2	3	3	3	4	4	5	5	5	6	6	6	6	7	8				
	50			1	1	1	1	2	2	2	2	3	3	3	4	5	5	5	6	6	7	7	7	8	8						
20	100				1	1	1	1	1	1	2	2	2	2	3	3	3	4	4	5	5	5	5	6	6	6	7	8			
	150					1	1	1	1	1	1	2	2	2	2	3	3	3	3	4	4	4	4	5	5	5	6	7	8		
	50						1	1	1	1	1	1	2	2	2	2	2	3	3	3	3	3	4	4	4	5	5	6	7	7	8
40	100								1	1	1	1	1	1	1	2	2	2	2	2	2	2	3	3	3	3	4	4	5	5	6
	150										1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	3	3	3	4	4	5

100 mbar = 10kPA = 1mWS

Example:

- Target: presetting
- Given:
  - RADICAL radiator: K2, Height 600, Length 1200
  - factory fitted valve: 4360 - preset: 4.5
  - 60/40/20°C - 997 Watt
  - pressure drop: - Δp = 100mbar
  - selected tuning range - 2K (see table)
- SOLUTION: PRESETTING ACCORDING TO TABLE 4360: “ 2 “

4.5 >>> “2”

4360 4360

Pressure drop diagram

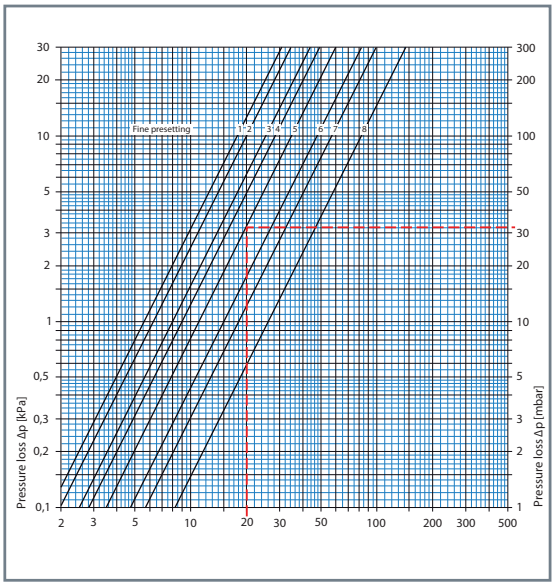
Fine tuning valve 4361

Radiators without connection accessories

5.5

Information supplied by Heimeier

p-band [xp] **2,0 K**



Radiator with integrated valves without connection fitting			Fine presetting Thermostatic insert 1	2	3	4	5	6	7	8	Permissible operating temperature TB *) [°C]	Permissible operating pressure PB [bar]	Permissible differential pressure at which the valve still closes Δp [bar] Therm. head	EMO T/NC EMOtec/NC EMO 1/3 EMO EIB/LON	EMO T/NO EMOtec/NO
Thermostatic insert and thermostatic head	p-band	K_V-Value [m³/h]	0,05	0,06	0,07	0,08	0,10	0,11	0,12	0,14	120	10	4,0	2,7	3,5
	p-band xp 2,0 K	K_V-Value [m³/h]	0,06	0,06	0,08	0,09	0,11	0,15	0,18	0,26					
		k_{VS}-Value [m³/h]	0,06	0,07	0,08	0,10	0,12	0,17	0,25	0,50					
		Flow tolerance ± [%]	42	42	37	36	35	32	30	10					

*) With protective cap or actuator 100°C

Calculation example

Target:	Setting range	
Given:	Heat flow	$\dot{Q} = 350$ W
	Temperature spread	$\Delta t = 15$ K (65/50 °C)
	Pressure loss, radiator, with integrated valves	$\Delta p_V = 32$ mbar
Solution:	Mass flow rate	$\dot{m} = \frac{\dot{Q}}{c \cdot \Delta t} = \frac{350}{1{,}163 \cdot 15} = 20$ kg/h

Pressure drop diagram

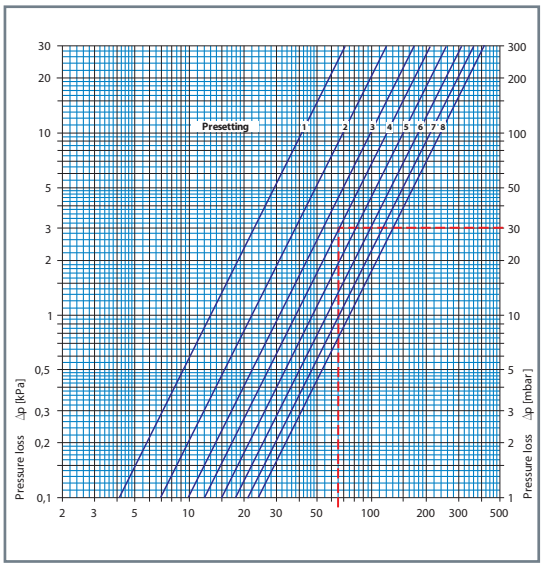
Standard valve 4360

Radiators without connection accessories

2.5

Information supplied by Heimeier

p-band[xp] **2,0 K**



4.5

6

8

Radiator with integrated valves without connection fitting			Presetting Thermostatic insert 1	2	3	4	5	6	7	8	Permissible operating temperature TB *) [°C]	Permissible operating pressure PB [bar]	Permissible differential pressure at which the valve still closes Δp [bar] Therm. head	EMO T/NC EMOtec/NC EMO 1/3 EMO EIB/LON	EMO T/NO EMOtec/NO
Thermostatic insert and thermostatic head	p-band	K_V value [m³/h]	0,12	0,19	0,24	0,28	0,33	0,37	0,39	0,40	120	10	4,0	2,7	3,5
	p-band xp 2,0 K	K_V value [m³/h]	0,13	0,22	0,31	0,38	0,47	0,57	0,66	0,75					
		k_{VS} value [m³/h]	0,16	0,27	0,38	0,43	0,65	0,98	1,23	1,43					
		Flow tolerance ± [%]	40	30	25	23	17	15	12	10					

*) With protective cap or actuator 100 °C.

Calculation example

Target: Setting range

Given: Heat flow $\dot{Q}$ = 1135 W
Temperature spread Δt = 15 K (65/50 °C)
Pressure loss, radiator with integrated valves Δp_V = 30 mbar

Solution: Mass flow rate

$$\dot{m} = \frac{\dot{Q}}{c \cdot \Delta t} = \frac{1135}{1{,}163 \cdot 15} = 65 \text{ kg/h}$$

Stelrad Radical

50Δt (75/65/20°C)

K1

K2

Height	Length mm	Straight 10mm UIN	Angle 10mm UIN	Straight 15mm UIN	Angle 15mm UIN	Heat output Watts	Heat output Btu/hr	Straight 10mm UIN	Angle 10mm UIN	Straight 15mm UIN	Angle 15mm UIN	Heat output Watts	Heat output Btu/hr
300	1000	33111010S	33111010A	33111015S	33111015A	509	1737	33221010S	33221010A	33221015S	33221015A	933	3183
500	400	35110410S	35110410A	35110415S	35110415A	333	1136	35220410S	35220410A	35220415S	35220415A	560	1911
	500	35110510S	35110510A	35110515S	35110515A	417	1423	35220510S	35220510A	35220515S	35220515A	701	2392
	600	35110610S	35110610A	35110615S	35110615A	500	1706	35220610S	35220610A	35220615S	35220615A	841	2869
	700	-	-	-	-	-	-	35220710S	35220710A	35220715S	35220715A	981	3347
	800	-	-	-	-	-	-	35220810S	35220810A	35220815S	35220815A	1121	3825
	900	-	-	-	-	-	-	35220910S	35220910A	35220915S	35220915A	1261	4303
	1000	-	-	-	-	-	-	35221010S	35221010A	35221015S	35221015A	1401	4780
	1200	-	-	-	-	-	-	35221210S	35221210A	35221215S	35221215A	1681	5736
	1400	-	-	-	-	-	-	35221410S	35221410A	35221415S	35221415A	1961	6691
	1600	-	-	-	-	-	-	35221610S	35221610A	35221615S	35221615A	2242	7650
	1800	-	-	-	-	-	-	35221810S	35221810A	35221815S	35221815A	2522	8605
	2000	-	-	-	-	-	-	35222010S	35222010A	35222015S	35222015A	2802	9560
600	400	36110410S	36110410A	36110415S	36110415A	392	1338	36220410S	36220410A	36220415S	36220415A	647	2208
	500	36110510S	36110510A	36110515S	36110515A	490	1672	36220510S	36220510A	36220515S	36220515A	809	2760
	600	36110610S	36110610A	36110615S	36110615A	588	2006	36220610S	36220610A	36220615S	36220615A	970	3310
	700	-	-	-	-	-	-	36220710S	36220710A	36220715S	36220715A	1132	3862
	800	-	-	-	-	-	-	36220810S	36220810A	36220815S	36220815A	1294	4415
	900	-	-	-	-	-	-	36220910S	36220910A	36220915S	36220915A	1455	4964
	1000	-	-	-	-	-	-	36221010S	36221010A	36221015S	36221015A	1617	5517
	1100	-	-	-	-	-	-	36221110S	36221110A	36221115S	36221115A	1779	6070
	1200	-	-	-	-	-	-	36221210S	36221210A	36221215S	36221215A	1940	6619
	1400	-	-	-	-	-	-	36221410S	36221410A	36221415S	36221415A	2264	7725
	1600	-	-	-	-	-	-	36221610S	36221610A	36221615S	36221615A	2587	8827
	1800	-	-	-	-	-	-	36221810S	36221810A	36221815S	36221815A	2911	9932
	2000	-	-	-	-	-	-	36222010S	36222010A	36222015S	36222015A	3234	11034

Δt50 is the UK's industry standard for heating outputs, which has an operating temperature of 75/65/20°C if you have a low temperature heat source you may wish to consider Δt40 or Δt30 output (see your installer or system designer).

40Δt (65/55/20°C)

K1

K2

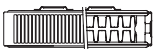
Height	Length mm	Straight 10mm UIN	Angle 10mm UIN	Straight 15mm UIN	Angle 15mm UIN	Heat output Watts	Heat output Btu/hr	Straight 10mm UIN	Angle 10mm UIN	Straight 15mm UIN	Angle 15mm UIN	Heat output Watts	Heat output Btu/hr
300	1000	33111010S	33111010A	33111015S	33111015A	381	1299	33221010S	33221010A	33221015S	33221015A	969	2381
500	400	35110410S	35110410A	35110415S	35110415A	249	850	35220410S	35220410A	35220415S	35220415A	419	1429
	500	35110510S	35110510A	35110515S	35110515A	312	1064	35220510S	35220510A	35220515S	35220515A	524	1789
	600	35110610S	35110610A	35110615S	35110615A	374	1276	35220610S	35220610A	35220615S	35220615A	629	2146
	700	-	-	-	-	-	-	35220710S	35220710A	35220715S	35220715A	734	2504
	800	-	-	-	-	-	-	35220810S	35220810A	35220815S	35220815A	839	2861
	900	-	-	-	-	-	-	35220910S	35220910A	35220915S	35220915A	943	3218
	1000	-	-	-	-	-	-	35221010S	35221010A	35221015S	35221015A	1048	3576
	1200	-	-	-	-	-	-	35221210S	35221210A	35221215S	35221215A	1257	4290
	1400	-	-	-	-	-	-	35221410S	35221410A	35221415S	35221415A	1467	5005
	1600	-	-	-	-	-	-	35221610S	35221610A	35221615S	35221615A	1677	5722
	1800	-	-	-	-	-	-	35221810S	35221810A	35221815S	35221815A	1886	6437
	2000	-	-	-	-	-	-	35222010S	35222010A	35222015S	35222015A	2096	7151
600	400	36110410S	36110410A	36110415S	36110415A	293	1000	36220410S	36220410A	36220415S	36220415A	484	1651
	500	36110510S	36110510A	36110515S	36110515A	367	1251	36220510S	36220510A	36220515S	36220515A	605	2065
	600	36110610S	36110610A	36110615S	36110615A	440	1501	36220610S	36220610A	36220615S	36220615A	726	2476
	700	-	-	-	-	-	-	36220710S	36220710A	36220715S	36220715A	847	2889
	800	-	-	-	-	-	-	36220810S	36220810A	36220815S	36220815A	968	3303
	900	-	-	-	-	-	-	36220910S	36220910A	36220915S	36220915A	1088	3713
	1000	-	-	-	-	-	-	36221010S	36221010A	36221015S	36221015A	1210	4127
	1100	-	-	-	-	-	-	36221110S	36221110A	36221115S	36221115A	1331	4540
	1200	-	-	-	-	-	-	36221210S	36221210A	36221215S	36221215A	1451	4951
	1400	-	-	-	-	-	-	36221410S	36221410A	36221415S	36221415A	1693	5778
	1600	-	-	-	-	-	-	36221610S	36221610A	36221615S	36221615A	1935	6602
	1800	-	-	-	-	-	-	36221810S	36221810A	36221815S	36221815A	2177	7429
	2000	-	-	-	-	-	-	36222010S	36222010A	36222015S	36222015A	2419	8254

Stelrad Radical

30Δt (55/45/20°C)

K1

K2



Height	Length mm	Straight 10mm UIN	Angle 10mm UIN	Straight 15mm UIN	Angle 15mm UIN	Heat output Watts	Heat output Btu/hr	Straight 10mm UIN	Angle 10mm UIN	Straight 15mm UIN	Angle 15mm UIN	Heat output Watts	Heat output Btu/hr
300	1000	33111010S	33111010A	33111015S	33111015A	262	894	33221010S	33221010A	33221015S	33221015A	480	1639
500	400	35110410S	35110410A	35110415S	35110415A	171	585	35220410S	35220410A	35220415S	35220415A	288	984
	500	35110510S	35110510A	35110515S	35110515A	215	733	35220510S	35220510A	35220515S	35220515A	361	1232
	600	35110610S	35110610A	35110615S	35110615A	258	879	35220610S	35220610A	35220615S	35220615A	433	1478
	700	-	-	-	-	-	-	35220710S	35220710A	35220715S	35220715A	505	1724
	800	-	-	-	-	-	-	35220810S	35220810A	35220815S	35220815A	577	1970
	900	-	-	-	-	-	-	35220910S	35220910A	35220915S	35220915A	649	2216
	1000	-	-	-	-	-	-	35221010S	35221010A	35221015S	35221015A	722	2462
	1200	-	-	-	-	-	-	35221210S	35221210A	35221215S	35221215A	866	2954
	1400	-	-	-	-	-	-	35221410S	35221410A	35221415S	35221415A	1010	3446
	1600	-	-	-	-	-	-	35221610S	35221610A	35221615S	35221615A	1155	3940
	1800	-	-	-	-	-	-	35221810S	35221810A	35221815S	35221815A	1299	4432
	2000	-	-	-	-	-	-	35222010S	35222010A	35222015S	35222015A	1443	4924
600	400	36110410S	36110410A	36110415S	36110415A	202	689	36220410S	36220410A	36220415S	36220415A	333	1137
	500	36110510S	36110510A	36110515S	36110515A	252	861	36220510S	36220510A	36220515S	36220515A	417	1432
	600	36110610S	36110610A	36110615S	36110615A	303	1033	36220610S	36220610A	36220615S	36220615A	500	1704
	700	-	-	-	-	-	-	36220710S	36220710A	36220715S	36220715A	583	1989
	800	-	-	-	-	-	-	36220810S	36220810A	36220815S	36220815A	666	2274
	900	-	-	-	-	-	-	36220910S	36220910A	36220915S	36220915A	749	2557
	1000	-	-	-	-	-	-	36221010S	36221010A	36221015S	36221015A	833	2841
	1100	-	-	-	-	-	-	36221110S	36221110A	36221115S	36221115A	916	3126
	1200	-	-	-	-	-	-	36221210S	36221210A	36221215S	36221215A	999	3409
	1400	-	-	-	-	-	-	36221410S	36221410A	36221415S	36221415A	1166	3978
	1600	-	-	-	-	-	-	36221610S	36221610A	36221615S	36221615A	1332	4546
	1800	-	-	-	-	-	-	36221810S	36221810A	36221815S	36221815A	1499	5115
	2000	-	-	-	-	-	-	36222010S	36222010A	36222015S	36222015A	1666	5683

Each code includes the radiator of choice, with a hydro block and coupling piece.

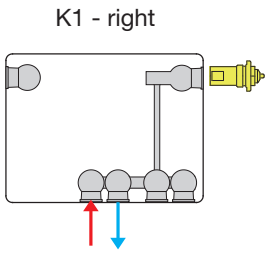
2 hydro blocks are available; either straight configuration for pipes coming from the floor or angle configuration for pipes coming from the wall. 2 coupling pieces are available, either 10mm or 15mm to connect the H Block to flow and return pipe.

EN 442 Certification Data - CETIAT tested in accordance with BS EN 442

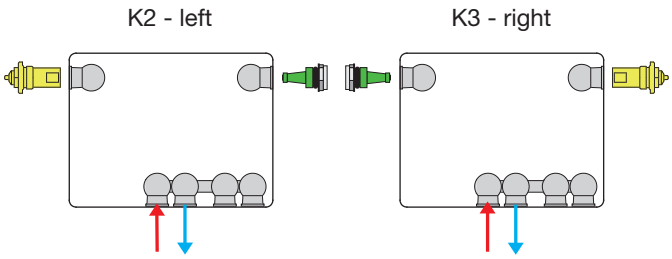
Type	K1			K2		
Height	300	500	600	300	500	600
W/m at 75/65/20	509	833	980	933	1401	1617
n-coefficients	1.32	1.30	1.29	1.30	1.30	1.30
Heated Surface Area (m²/m)	2.09	3.80	4.66	3.51	6.33	7.74
Weight (kg/m)	9.31	16.24	19.70	16.50	27.17	32.50
Water Contents (l/m)	1.89	2.80	3.25	3.70	5.83	6.90

Simple and efficient installation across the whole system.

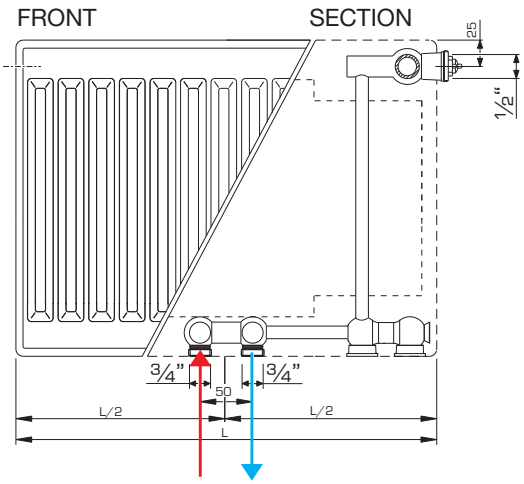
K1



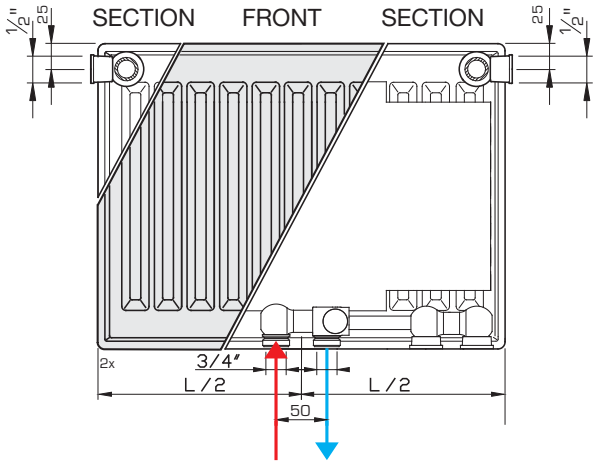
K2



K1 front elevation



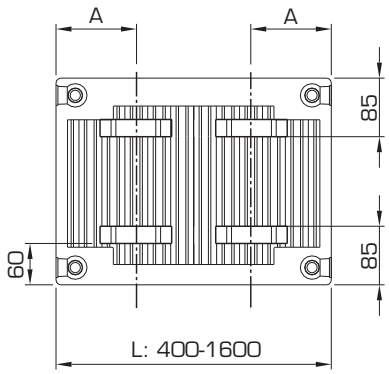
K2 front elevation



Radiator on short bracket side		Radiator on long bracket side	
K1 (T11)	K2 (T22)	K1 (T11)	K2 (T22)
83 / 61 / 51	124 / 100 / 73	94 / 61 / 62	135 / 100 / 84

K1

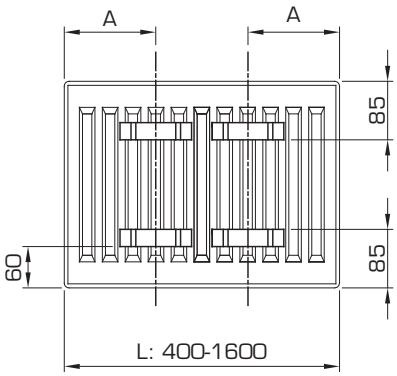
L	A
400	117
500-1100	150

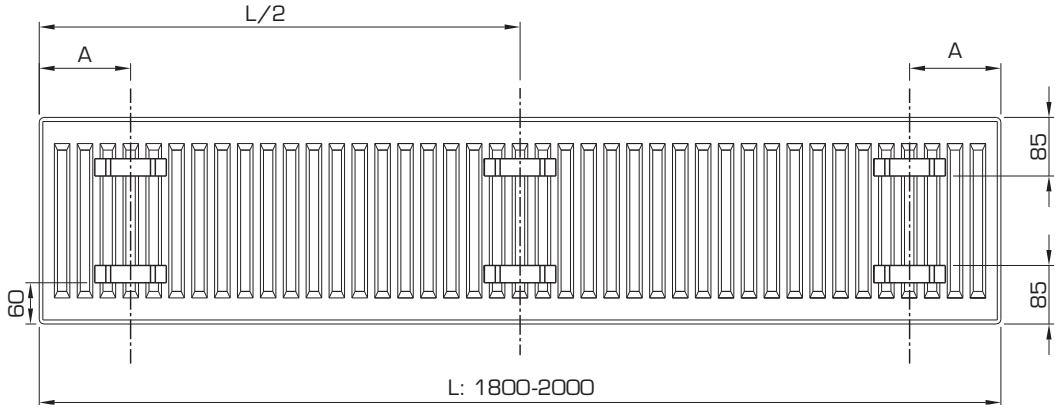


K2

L	A
400	133
500-1100	133
1200-1600	267
1800-2000 **	267 **

** 3rd. lug in radiator centre (half length)





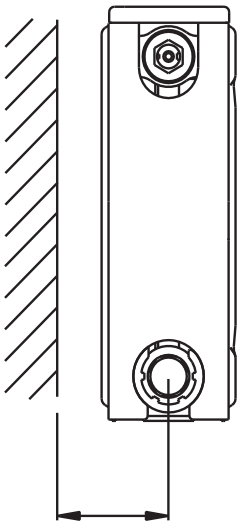
Radical mounting template

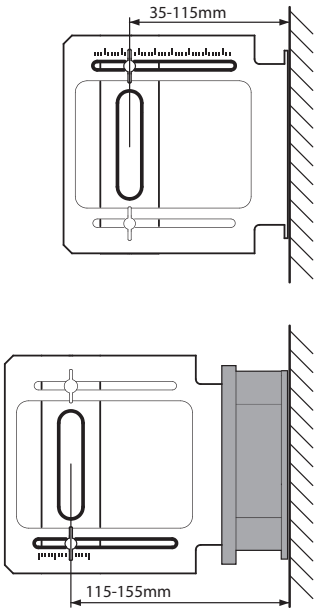
Using the mounting template for the bottom connection of Radical radiators offers important advantages during the installation, e.g. leak testing the system without a mounted radiator.

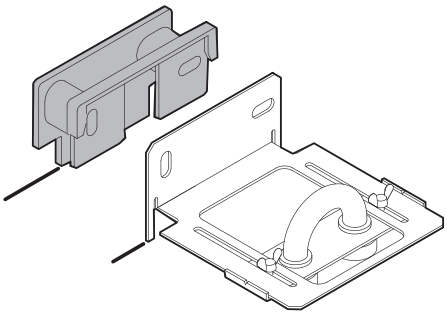
The mounting template replaces the radiator during the installation, which reduces the total installing cost. Finishing tasks such as painting, tiling and applying wallpaper no longer require the removal and remounting of the radiator.

The radiator is mounted after all the finishing work, which guarantees a pristine condition on commissioning.

The mounting template consists of a bridging piece with 2 connections of ¾" external thread on a centre distance of 50mm. As the wall distance depends on the radiator type, the mounting template offers multiple positions according to the available brackets.



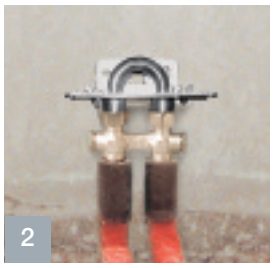




UIN: 9223

Radical mounting template

To mount of the template on the wall, the plumbing should have the correct wall distance.



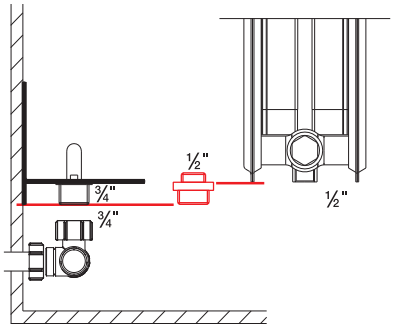
Connect the plumbing to the template and conduct the leak test.

Once the concrete floor is finished the L-shaped part (and the extension) can be removed in order to paint, tile, to apply wallpaper.
ATTENTION: the bridging part must remain on the plumbing to prevent pollution of the tubes.

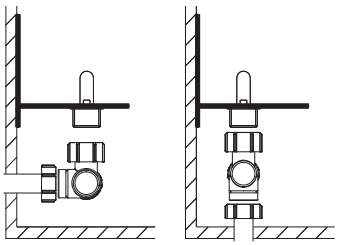
Mount the brackets against the wall and remove the bridging part before the radiator can be installed. Note: Brackets should be mounted before removal of the bridging part, to eliminate any possibility of pollution.

ATTENTION: the mounting template has a ¾" ext eurocone thread, for radiators with a ½" INT bottom connection, a ½" EXT x ¾" EXT piece is necessary.

For ½" INT - bottom connection (right, centre or left)



The mounting template can be used for tubes coming from the floor, as well as for tubes coming from the wall.

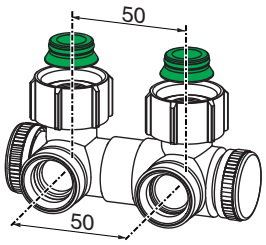


Radical Hydro Block connections

2-pipe connections for bottom connection (¾" EXT Eurocone or ½" INT):

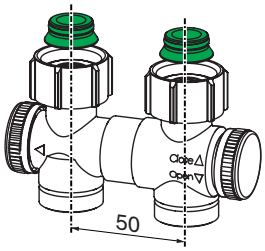
- Lock function
- Straight or angular version
- Maximum operating temperature: 90°C
- Casing in white high performance plastic (similar to RAL 9016)
- Maximum operating pressure: 6 bar

UIN: 10mm 363000210A
UIN: 15mm 363000215A
- angular version
- with drain



- not included
- parts unlock drain function

UIN: 10mm 363000210S
UIN: 15mm 363000215S
- straight version
- with drain



- not included
- parts unlock drain function

For ¾" EXT Eurocone bottom connection (centre):