



# Decoral Range

High output, low water content die cast aluminium radiators



## Features and Benefits

- *Lightweight, low water content construction*
- *Modular – Assembled to specified lengths/outputs*
- *Electric Models*
- *Horizontal & Vertical Models*
- *Energy savings of 10-30% compared to standard panel radiators.*
- *Quicker reaction times of heating/cooling offering greater comfort*
- *Made from 100% recycled/recyclable material*
- *Maximum working pressure 6 bar (test 8 bar)*

**Models:** Horizontal & Vertical

**Outputs Per Section:** 92.0 – 324 watts

**Heights:** 407, 557, 657, 757, 966, 1066, 1266, 1466, 1666, 1866 and 2066mm

**Widths:** 260 – 2020mm

**Depth:** 97mm Horizontal Models, 90mm Vertical Models

**Finish:** RAL 9010 Warm White

Other colours available for Decoral 97 and Vertical Models



# Why aluminium?

First impressions and finishing touches really do make a difference - especially when selling a property. With this in mind, MHS Radiators has introduced a range of outstanding aluminium models especially for new build properties, suitable for all styles of homes and interiors.

Boasting significantly lower water content than standard steel panel radiators, aluminium radiators are already established as the heat emitters of choice by house builders and developers all over Southern Europe - and now they are readily available in the UK.

Indeed, the Decoral range from MHS offers energy savings of up to 30% when compared to standard panel radiators, while a low thermal inertia ensures aluminium models heat up and cool down faster than their steel counterparts, thereby offering greater levels of comfort.

The attractive Decoral is a lightweight, high output radiator ideal for use with heat pumps and other renewable heating technologies. Plus, with condensing boilers now being installed in the latest housing developments, using aluminium radiators alongside them allows the heating system to run at optimum efficiency.



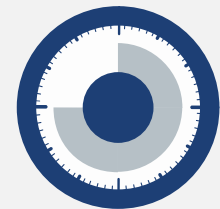
## Heat up time to 80°C

Due to low thermal inertia, an aluminium radiator heats up approximately three times faster than an ordinary steel panel radiator.

Aluminium



Steel



## Water content comparison\*

Aluminium



2.16 litres

Steel



4.1 litres

\*(Using a 600mm x 800mm single panel, single fin steel radiator with the same output as an example.)

## Key benefits



Lightweight



Low water content



100% Recyclable



Fast heat-up



Save on heating costs



Electric options

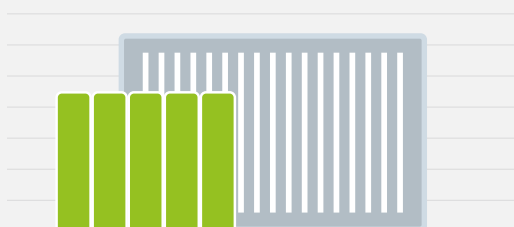


## Flexibility in sizing

Aluminium radiator (428mm x 640mm) is 30% smaller than a standard 600mm x 800mm single panel, single fin steel radiator with the same output.

Aluminium

Steel



## Weight comparison\*

Aluminium

Steel



**8.9kg**



**19.7kg**

\*(Using a 600mm x 800mm single panel, single fin steel radiator with the same output as an example.)



**One man lift**



**Compatible with renewables**



**Environmentally friendly**



**Operates at low water temperatures**



**Efficient conductivity**



**Space saving**

## Cost saving benefits to the developer

	Alu	Steel
Light & easy to handle, save £000's on installation costs	✓	✗
Higher outputs means smaller/fewer radiators required	✓	✗

## Marketing benefits for the developer

You will be able to market your property with the following advantages:

	Alu	Steel
10-year guarantee	✓	✗
10-30% lower heating costs	✓	✗
Highly durable long lasting finish	✓	✗
Faster heat up time	✓	✗
Efficient & maintenance free	✓	✗
Visually appealing	✓	✗
Optimising latest condensing boiler technology	✓	✗
Space saving - frees up valuable wall space	✓	✗
Space saving - similar outputs from a far smaller radiator	✓	✗
Environmentally friendly - 100% recyclable	✓	✗



# Decoral 97

Aluminium radiators are the products of choice for heating engineers all over Southern Europe - and now they are readily available in the UK. The Decoral 97 from MHS brings together the superb benefits of aluminium with designer style to create a highly practical and beautiful heat emitter.

The Decoral 97 range with its low water content and a high output to size ratio make it absolutely ideal for lower temperature systems, its lightweight also makes it a perfect choice for installation on dry lined walls.

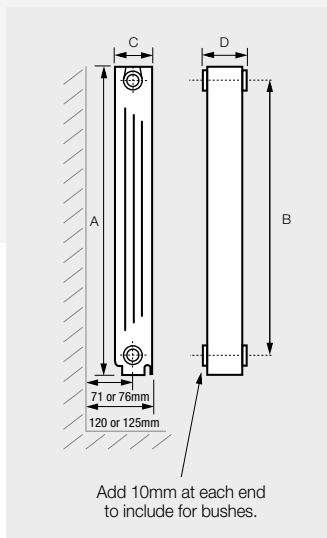
The sectional design of the Decoral 97 range ensures exact matching to the required outputs. Supplied in RAL 9010 Warm White as standard, with other colours available on request. Each Decoral 97 radiator carries a 10-year guarantee.



Optional end panels	
Code	For model height mm
DEC97-EPR-350	407
DEC97-EPR-500	557
DEC97-EPR-600	657
DEC97-EPR-700	757

End panels are available at an additional cost

# Decoral 97 (Per section data)



	Heights mm			
	407	557	657	757
Height A	407	557	657	757
Centres B	350	500	600	700
Depth C	97	97	97	97
Width D	80	80	80	80
Weight (kg)	1.12	1.34	1.51	1.92
Water Content (Litres)	0.24	0.26	0.30	0.36
Max Factory Length	25	25	25	25
Max Working Pressure	6	6	6	6
Max Test Pressure	8	8	8	8

# Decoral 97 (Built radiator information - outputs - EN442 $\Delta t$ 50°C)

Width mm (including bushes)	Sections	Heights mm				
		407	557	657	757	
260	3	DEC97-B-350-03 277	DEC97-B-500-03 359	DEC97-B-600-03 431	DEC97-B-700-03 488	Code Output (w)
340	4	DEC97-B-350-04 370	DEC97-B-500-04 478	DEC97-B-600-04 574	DEC97-B-700-04 650	Code Output (w)
420	5	DEC97-B-350-05 462	DEC97-B-500-05 598	DEC97-B-600-05 718	DEC97-B-700-05 813	Code Output (w)
500	6	DEC97-B-350-06 554	DEC97-B-500-06 717	DEC97-B-600-06 861	DEC97-B-700-06 975	Code Output (w)
580	7	DEC97-B-350-07 647	DEC97-B-500-07 837	DEC97-B-600-07 1005	DEC97-B-700-07 1138	Code Output (w)
660	8	DEC97-B-350-08 739	DEC97-B-500-08 956	DEC97-B-600-08 1148	DEC97-B-700-08 1300	Code Output (w)
740	9	DEC97-B-350-09 832	DEC97-B-500-09 1076	DEC97-B-600-09 1292	DEC97-B-700-09 1463	Code Output (w)
820	10	DEC97-B-350-10 924	DEC97-B-500-10 1195	DEC97-B-600-10 1435	DEC97-B-700-10 1625	Code Output (w)
900	11	DEC97-B-350-11 1016	DEC97-B-500-11 1315	DEC97-B-600-11 1579	DEC97-B-700-11 1788	Code Output (w)
980	12	DEC97-B-350-12 1109	DEC97-B-500-12 1434	DEC97-B-600-12 1722	DEC97-B-700-12 1950	Code Output (w)
1060	13	DEC97-B-350-13 1201	DEC97-B-500-13 1554	DEC97-B-600-13 1866	DEC97-B-700-13 2113	Code Output (w)
1140	14	DEC97-B-350-14 1294	DEC97-B-500-14 1673	DEC97-B-600-14 2009	DEC97-B-700-14 2275	Code Output (w)
1220	15	DEC97-B-350-15 1386	DEC97-B-500-15 1793	DEC97-B-600-15 2153	DEC97-B-700-15 2438	Code Output (w)
1300	16	DEC97-B-350-16 1478	DEC97-B-500-16 1912	DEC97-B-600-16 2296	DEC97-B-700-16 2600	Code Output (w)
1380	17	DEC97-B-350-17 1571	DEC97-B-500-17 2032	DEC97-B-600-17 2440	DEC97-B-700-17 2763	Code Output (w)
1460	18	DEC97-B-350-18 1663	DEC97-B-500-18 2151	DEC97-B-600-18 2583	DEC97-B-700-18 2925	Code Output (w)
1540	19	DEC97-B-350-19 1756	DEC97-B-500-19 2271	DEC97-B-600-19 2727	DEC97-B-700-19 3088	Code Output (w)
1620	20	DEC97-B-350-20 1848	DEC97-B-500-20 2390	DEC97-B-600-20 2870	DEC97-B-700-20 3250	Code Output (w)
1700	21	DEC97-B-350-21 1940	DEC97-B-500-21 2510	DEC97-B-600-21 3014	DEC97-B-700-21 3413	Code Output (w)
1780	22	DEC97-B-350-22 2033	DEC97-B-500-22 2629	DEC97-B-600-22 3157	DEC97-B-700-22 3575	Code Output (w)
1860	23	DEC97-B-350-23 2125	DEC97-B-500-23 2749	DEC97-B-600-23 3301	DEC97-B-700-23 3738	Code Output (w)
1940	24	DEC97-B-350-24 2218	DEC97-B-500-24 2868	DEC97-B-600-24 3444	DEC97-B-700-24 3900	Code Output (w)
2020	25	DEC97-B-350-25 2310	DEC97-B-500-25 2988	DEC97-B-600-25 3588	DEC97-B-700-25 4063	Code Output (w)

Note: Manufacturing tolerance of +/- 0.6mm per section.

Codes in red are available with 10 bar working pressure 13 bar test (to be specified with order) at 20% additional cost.

# Decoral Vertical

**The Decoral Vertical from MHS Radiators is perfect for areas where wall space is at a premium, thanks to its slender and practical design.**

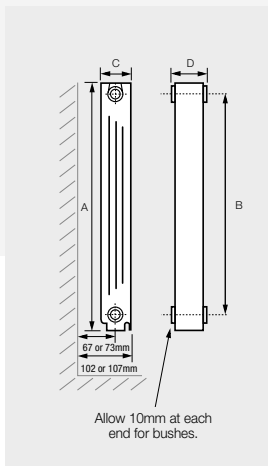
Made from versatile and energy efficient aluminium, this futuristic, die-cast sectional radiator is available in seven heights from 966mm to 2066mm and widths ranging from 260mm to 660mm, utilising an 80mm sectional design.

Decoral Vertical is easy to handle during transportation and installation, while benefitting from higher outputs for its size when compared to many conventional panel radiators - allowing for smaller models to be fitted while still achieving a comfortable temperature. Its modular design ensures exact sizing according to the required output, and makes for easy installation.

A modern, high performance radiator, the Decoral Vertical is supplied in RAL 9010 Warm White as standard, with other colours available on request. All models benefit from a 10-year guarantee.



## Decoral Vertical (Per section data)



	Heights mm						
	966	1066	1266	1466	1666	1866	2066
<b>Height A</b>	966	1066	1266	1466	1666	1866	2066
<b>Centres B</b>	900	1000	1200	1400	1600	1800	2000
<b>Depth C</b>	90	90	90	90	90	90	90
<b>Width D</b>	80	80	80	80	80	80	80
<b>Weight (kg)</b>	1.96	2.20	2.50	2.80	3.00	3.40	3.80
<b>Water Content (Litres)</b>	0.43	0.47	0.55	0.62	0.70	0.78	0.86
<b>Max Factory Length</b>	8	8	8	8	8	8	8
<b>Max Working Pressure</b>	10	10	10	10	10	10	10
<b>Max Test Pressure</b>	13	13	13	13	13	13	13

## Decoral Vertical (Built radiator information - outputs - EN442 $\Delta t$ 50°C)

Width mm including bushes	Sections	Heights mm				
		966	1066	1266	1466	
260	3	FDEC900-B-03	FDEC1000-B-03	FDEC1200-B-03	FDEC1400-B-03	Code
		546	585	669	750	Output (w)
340	4	FDEC900-B-04	FDEC1000-B-04	FDEC1200-B-04	FDEC1400-B-04	Code
		728	780	892	1000	Output (w)
420	5	FDEC900-B-05	FDEC1000-B-05	FDEC1200-B-05	FDEC1400-B-05	Code
		910	975	1115	1250	Output (w)
500	6	FDEC900-B-06	FDEC1000-B-06	FDEC1200-B-06	FDEC1400-B-06	Code
		1092	1170	1338	1500	Output (w)
580	7	FDEC900-B-07	FDEC1000-B-07	FDEC1200-B-07	FDEC1400-B-07	Code
		1274	1365	1561	1750	Output (w)
660	8	FDEC900-B-08	FDEC1000-B-08	FDEC1200-B-08	FDEC1400-B-08	Code
		1456	1560	1784	2000	Output (w)

Width mm including bushes	Sections	Heights mm			
		1666	1866	2066	
260	3	FDEC1600-B-03	FDEC1800-B-03	FDEC2000-B-03	Code
		825	900	972	Output (w)
340	4	FDEC1600-B-04	FDEC1800-B-04	FDEC2000-B-04	Code
		1100	1200	1296	Output (w)
420	5	FDEC1600-B-05	FDEC1800-B-05	FDEC2000-B-05	Code
		1375	1500	1620	Output (w)
500	6	FDEC1600-B-06	FDEC1800-B-06	FDEC2000-B-06	Code
		1650	1800	1944	Output (w)
580	7	FDEC1600-B-07	FDEC1800-B-07	FDEC2000-B-07	Code
		1925	2100	2268	Output (w)
660	8	FDEC1600-B-08	FDEC1800-B-08	FDEC2000-B-08	Code
		2200	2400	2592	Output (w)

# Decoral Electric



## Key features include:

- Aluminium alloy body with low thermal inertia with integrated aluminium side panels
- LCD backlit control system with easy-to-reach buttons and digital display
- Detachable humidifier fitted in the left side of the radiator
- IP24 protection rated with class II insulation and NTC temperature probe
- Electronic temperature regulation via PI controller
- Daily and weekly programming options
- Multiple operating modes, including: Programming/Comfort/Night/Freeze protection/Holiday/Boost/Eco/Stand-by
- Supplied with 3 Pin UK Plug
- Open window detection function



## Decoral Electric

Code	Sections	Height mm	Width mm	Depth mm	Output Watts	Weight kg
<b>FDEC500-05E</b>	5	578	560	80	600	13.0
<b>FDEC500-06E</b>	6	578	640	80	1000	14.5
<b>FDEC500-09E</b>	9	578	880	80	1200	20.0
<b>FDEC500-10E</b>	10	578	960	80	1500	22.0
<b>FDEC500-11E</b>	12	578	1120	80	1800	26.0

Electrical components carry a 2-year warranty.





# Decoral Electric Eco



## Key features include:

- Aluminium alloy body with low thermal inertia
- IP24 protection rated with class II insulation and NTC temperature probe
- Electronic temperature regulation
- Open window detection function
- Operating modes:  
Comfort/Reduced temperature/Antifreeze/  
Stand-by/Pilot wire mode
- Hourly and weekly programmable time frame
- Displayed consumption
- Child safety lock



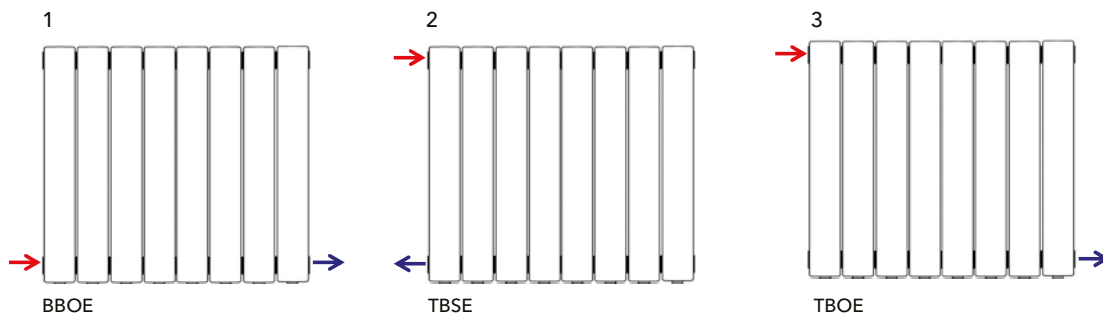
## Decoral Electric Eco

Code	Sections	Height mm	Width mm	Depth mm	Output Watts	Weight kg
FDEC350-07EM	7	427	605	97	1000	10.50
FDEC350-12EM	12	427	1005	97	1500	17.20
FDEC350-13EM	13	427	1085	97	1800	18.50
FDEC500-04EM	4	578	365	80	700	7.20
FDEC500-06EM	6	578	525	80	1000	10.70
FDEC500-09EM	9	578	765	80	1200	16.00
FDEC500-10EM	10	578	845	80	1500	17.60
FDEC500-12EM	12	578	1120	80	1800	21.00
FDEC500-14EM	14	578	1280	80	2000	24.20

Electrical components carry a 2-year warranty.

# Decoral

## Connection options



## MHS colours



**RAL 9010**

Warm White (semi-gloss)



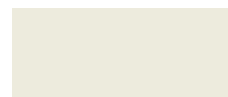
**RAL 9016**

Traffic White (semi-gloss)



**RAL 9001**

Cream White (semi-gloss)



**RAL 1013**

Pearl White (semi-gloss)



**RAL 7035**

Light Grey (semi-gloss)



**RAL 7015**

Slate Grey (semi-gloss)



**RAL 7016**

Anthracite Grey (semi-gloss)



Black (matt)



**RAL 3003**

Flame Red (semi-gloss)



**RAL 9007**

Grey Aluminium (semi-gloss)



**RAL 9023**

Pearl Dark Grey (semi-gloss)



Anthracite (matt)



Light Old Penny (matt)



Dark Old Penny (matt)



Natural Cast Iron (matt)



Pewter (matt)



Antique Gold (matt)



Bronze (gloss)



Gun Metal (matt)

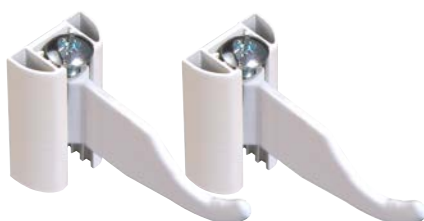
Due to the limitations of the printing process, finished product colour may vary from this publication. If you would like a colour swatch, please contact head office.

### Other colours

We can also offer any RAL colour. Please call head office to confirm price and availability.

## Standard Wall Bracket

(Horizontal & Vertical Models)



# Valves

## Optional Studio Valves

The dynamic Studio Valve represents unrivalled aesthetics and value, combining gleaming futuristic sophistication and engineered precision.



**Studio TRV (15mm)**  
Code: VLVST-ACTRV

**Studio TRV (1/2" BSP)**  
Code: VLVST-ACTRV-BSP

## Optional Sterling Valves

The simple and elegant Sterling Valve is a cost effective alternative, which still delivers reliable performance.



**Sterling TRV Angled (15mm)**  
Code: VLVSTE-ACTRV

**Sterling TRV Angled (1/2" BSP)**  
Code: VLVSTE-ACTRV-BSP

## Correction factor table

$\Delta t$	CF
60	1.267
59	1.24
58	1.213
57	1.186
56	1.159
55.5	1.145
55	1.132
54	1.105
53	1.079
52	1.052
51	1.026
50	1.000
45	0.872
40	0.748
35	0.629

The outputs shown within this brochure are based on BS EN442, 75-65-20°C operating conditions, giving a  $\Delta t$  of 50°C, for  $\Delta t$ s other than this, a correction factor must be applied. This correction factor table assumes an averaged exponent of 1.30.

If a more accurate exponent / correction factor is required, please contact MHS Radiators.

**Example:** Output required @ 82-71-21°C  $\Delta t$  55.5 the CF = 1.145, therefore multiply the listed output by the correction factor to give actual radiator output under these operating conditions.

**Water treatment:** These products are for use on closed heating systems only; they are not suitable for installation on secondary HWS circuits. On completion of the installation the entire system **MUST** be thoroughly cleaned and flushed to remove debris/flux residues etc. If a chemical cleanser is used, it must be thoroughly flushed from the system. Following this, the system **MUST** be dosed with a good eminence water treatment to prevent corrosion. System design, flushing and dosing must be in accordance with BS 5449: 1990, BS EN 12828 & 12831: 2003 and BS 7593: 2006

**IMPORTANT:** Failure to observe these requirements will render the guarantee on the product void.

Corrosion inhibitor must be used in accordance with the manufacturer's instructions and recommendations and should take into account the particular metals within the system.

This publication is issued subject to alteration or withdrawal without notice. The illustrations and specifications are not binding in detail.



URS CERTIFICATE NO.75710



URS CERTIFICATE NO.07571



URS CERTIFICATE NO.07571



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