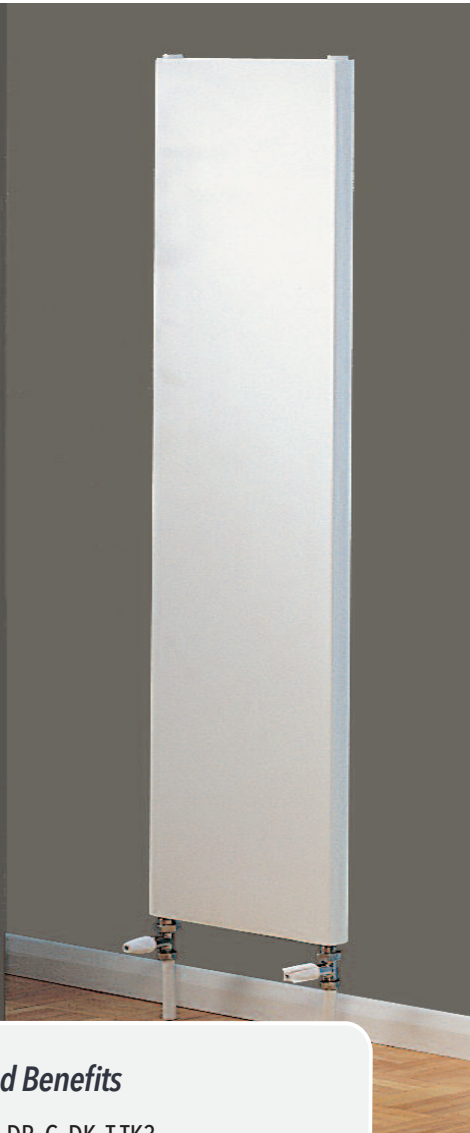




Monoplan

High specification flat fronted radiators



Features and Benefits

Types: ER, EK, DR, C, DK, T,TK3

Material: Steel (2mm front panel)

Finish: Standard RAL 9016 Traffic White with other colours available on request

Heights: Horizontal 220-950mm
Vertical 1200-3800mm

Widths: Horizontal 400-4000mm
Vertical 320 -950

Sizes: 2461

Outputs: 111-14756 watts

Standard working pressure: 6 bar (7.8 bar test)
10 bar working pressure (13 bar test on request)

Warranty: 5 years



Monoplan

The flat-fronted style and simple beauty of the Monoplan designer radiators provide a completely tailor-made service to suit the requirements of the system designer.

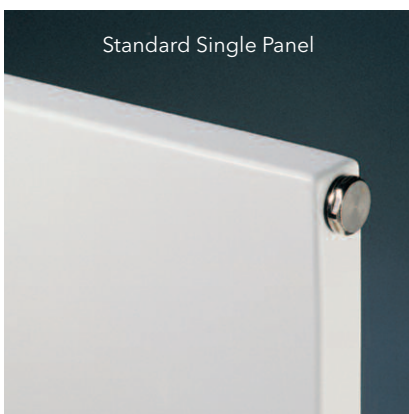
Two specifications are available on the Monoplan, Standard or Comfort range, these vary from open profile to fully welded top and side panels. Manufactured with a durable 2.0mm front panel and 1.25mm internal panel, the Monoplan is available in single, double or triple panel configurations with ½" bsp-f connections.

Suitable for most applications these superb flat-fronted radiators come in heights from 220 to 950mm for horizontally configured models and from 1200 to 3800mm for vertical models. A range of horizontal lengths from 400 to 4000mm are available in 100mm increments.



These high quality Monoplan steel designer radiators are supplied finished in a powder coated RAL 9016 Traffic White, with other MHS RAL colours available to order, and a choice of floor or wall brackets.

The ranges operate up to a working pressure of 6 bar (7.8 bar test) or on request 10 bar operating (13 bar test). All models carry a five year guarantee against manufacturing defect.



Standard Single Panel



Standard Double Panel



Comfort Double Panel Horizontal

Specification

The Monoplan radiator is a high quality smooth flat fronted radiator with a traditional profiled rear face for the single panel models with double and treble panel models having smooth flat faces to all external surfaces.

Standard Range

Single panel radiators with 32mm return edge.
Double/triple panel radiators constructed to give open aspect to sides and top with flat surfaces to front and rear.

Comfort Range

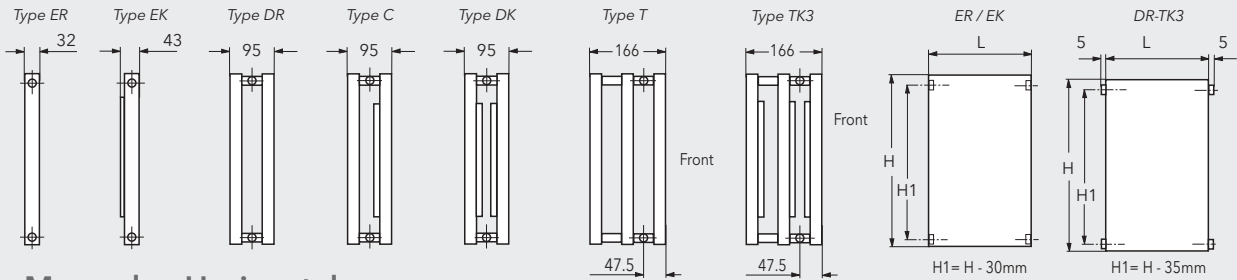
For models DR to TK3. Each radiator is provided with a top grille and fully finished side panels making the radiator flat to all surfaces.

Radiator Heights/Lengths

The Monoplan is available in seven heights: 220, 320, 420, 520, 620, 720, 950mm with lengths ranging from 400 to 4000mm in 100mm increments. Vertical models are available for types ER, EK, DR and DK (DR and DK Vertical models have welded on in-fill panels on the sides) in heights ranging from 1200 to 3800mm in 100mm increments and widths from 320 to 950mm in the standard specification range.

Models

- ER Single panel
- EK Single panel with rear fin convector
- DR Double panel
- C Double panel with one internal fin convector
- DK Double panel with two fin convectors
- T Triple panel
- TK3 Triple panel with three fin convectors



Monoplan Horizontal

Available Lengths 400 - 4000mm in 100mm increments

Height	Type ER (Single Panel) Depth 32mm			Type EK (Single Panel Single Convector) Depth 43mm			Type DR (Double Panel) Depth 95mm			Type C (Double Panel Single Convector) Depth 95mm		
	Watts (Per Metre)	Weight Kg (Per Metre)	Water Content Litre (Per Metre)	Watts (Per Metre)	Weight Kg (Per Metre)	Water Content Litre (Per Metre)	Watts (Per Metre)	Weight Kg (Per Metre)	Water Content Litre (Per Metre)	Watts (Per Metre)	Weight Kg (Per Metre)	Water Content Litre (Per Metre)
220	278	7.5	1.7	371	8.6	1.7	468	14.3	2.4	561	15.4	2.4
320	375	10.0	1.8	508	11.9	1.8	624	19.6	2.8	785	21.7	2.8
420	466	14.0	2.1	665	15.6	2.1	784	24.9	3.5	1016	28.1	3.5
520	560	17.4	2.3	824	19.2	2.3	941	30.3	4.0	1245	34.4	4.0
620	651	20.4	2.5	971	23.0	2.5	1095	35.6	4.5	1459	40.8	4.5
720	749	22.9	2.8	1108	26.7	2.8	1248	40.9	4.9	1657	47.2	4.9
950	974	26.8	3.2	1387	35.6	3.2	1592	53.2	5.7	2055	61.9	5.7

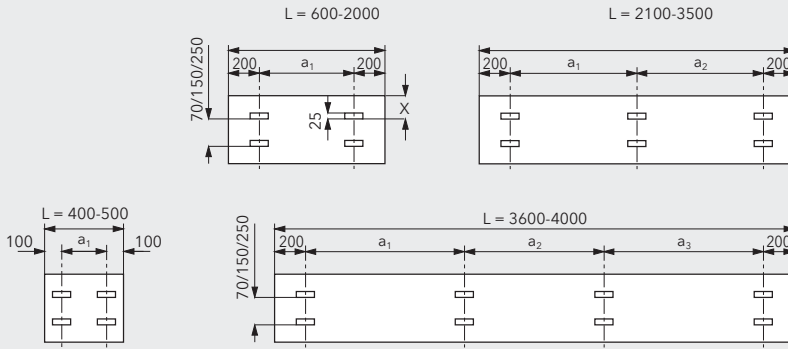
Height	Type DK (Double Panel Double Convector) Depth 95mm			Type T (Triple Panel) Depth 166mm			Type TK3 (Triple Panel Triple Convector) Depth 166mm		
220	674	16.5	2.4	668	21.7	3.8	987	25.5	3.8
320	985	23.8	2.8	899	30.1	4.5	1439	36.3	4.5
420	1269	31.4	3.5	1124	38.1	5.2	1849	46.6	5.2
520	1546	38.8	4.0	1346	46.0	5.9	2252	57.1	5.9
620	1806	46.1	4.5	1564	54.0	6.6	2629	67.8	6.6
720	2047	53.3	4.9	1778	61.9	7.3	2980	78.8	7.3
950	2533	69.2	5.7	2251	80.0	8.9	3689	104.7	8.9

Monoplan Vertical

Available Heights 1200 - 3800mm in 100mm increments

Width	Type ER (Single Panel) Depth 32mm			Type EK (Single Panel Single Convector) Depth 43mm			Type DR (Double Panel) Depth 95mm			Type DK (Double Panel Double Convector) Depth 95mm		
	Watts (Per Metre)	Weight Kg (Per Metre)	Water Content Litre (Per Metre)	Watts (Per Metre)	Weight Kg (Per Metre)	Water Content Litre (Per Metre)	Watts (Per Metre)	Weight Kg (Per Metre)	Water Content Litre (Per Metre)	Watts (Per Metre)	Weight Kg (Per Metre)	Water Content Litre (Per Metre)
320	338	10.0	1.8	457	11.9	1.8	562	19.6	2.8	887	23.8	2.8
420	419	14.0	2.1	599	15.6	2.1	706	24.9	3.5	1142	31.4	3.5
520	504	17.4	2.3	742	19.2	2.3	847	30.3	4.0	1391	38.8	4.0
620	586	20.4	2.5	874	23.0	2.5	986	35.6	4.5	1625	46.1	4.5
720	674	22.9	2.8	997	26.7	2.8	1123	40.9	4.9	1842	53.3	4.9
950	877	26.8	3.2	1248	35.6	3.2	1433	53.2	5.7	2280	69.2	5.7

Horizontal fixing positions



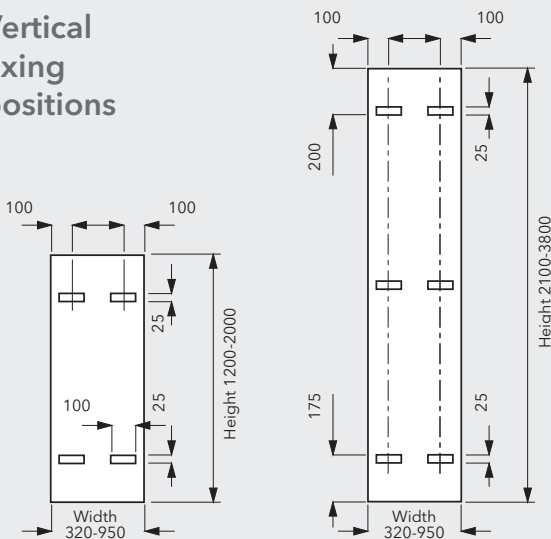
Height	Lug Distance	X in mm
220	70	75
320	150	110
420	150	135
520	150	185
620	250	185
720	250	235
950	250	330

L 400 - 2000mm		
	Length	a ₁
400	400	200
	500	300
800	600	200
	700	300
	800	400
	900	500
1200	1000	600
	1100	700
	1200	800
	1300	900
1600	1400	1000
	1500	1100
	1600	1200
1600	1700	1300
	1800	1400
	1900	1500
	2000	1600

L 2100 - 3500mm			
	Length	a ₁	a ₂
2500	2100	850	850
	2200	900	900
	2300	950	950
	2400	1000	1000
	2500	1050	1050
3000	2600	1100	1100
	2700	1150	1150
	2800	1200	1200
	2900	1250	1250
	3000	1300	1300
3500	3100	1350	1350
	3200	1400	1400
	3300	1450	1450
	3400	1500	1500
	3500	1550	1550

L 3600 - 4000mm				
	Length	a ₁	a ₂	a ₃
4000	3600	1300	600	1300
	3700	1300	700	1300
	3800	1300	800	1300
	3900	1300	900	1300
	4000	1300	1000	1300

Vertical fixing positions



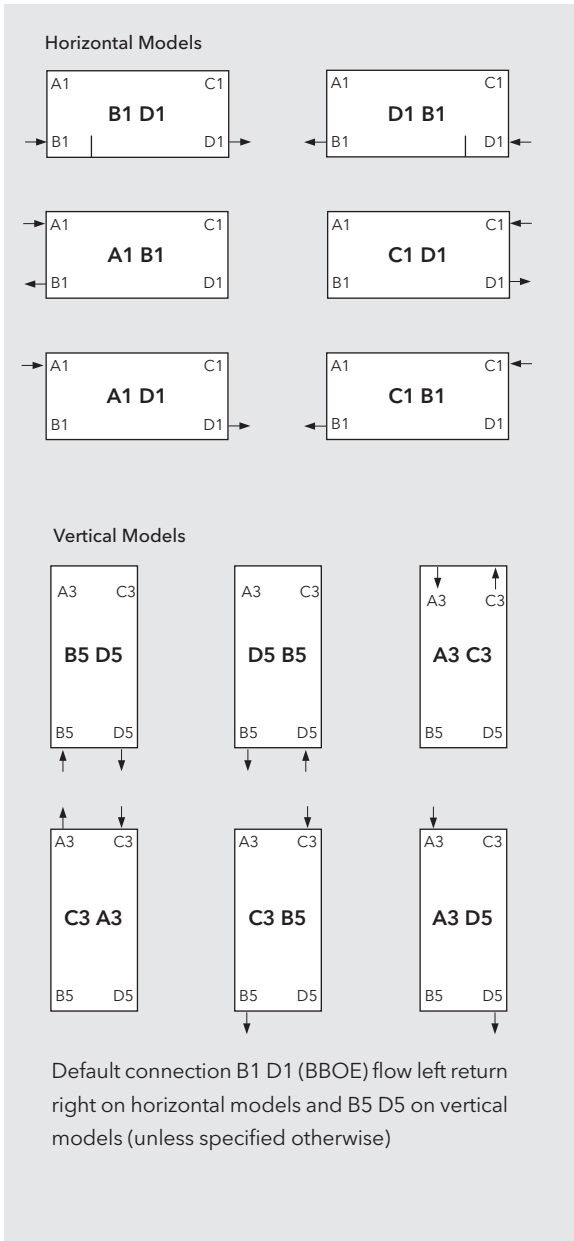
Correction factor table

Δt	CF
60	1.267
59	1.240
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 Δt of 50°C, for Δt's other than this, a correction factor must be applied.

Example: Output required @ 82-71-21°C Δt 55.5 the CF = 1.145, therefore multiply the listed output by the correction factor to give actual radiator output under these operating conditions. (This assumes an averaged exponent of 1.3)

Connection details

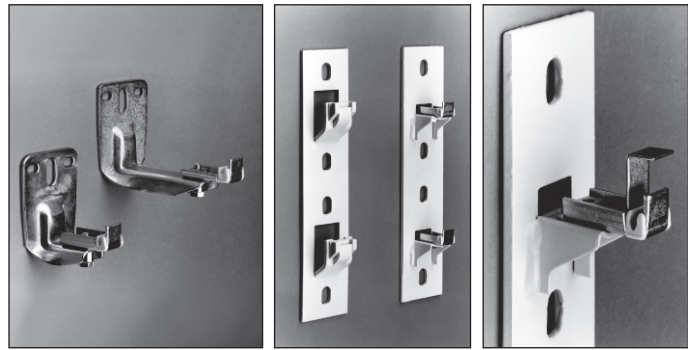


Water treatment: These products are for use on closed heating systems only; they are not suitable for installation on secondary HWS circuits. On completion of the installation the entire system MUST be thoroughly cleaned and flushed to remove debris/flux residues etc. If a chemical cleanser is used, it must be thoroughly flushed from the system. Following this, the system MUST be dosed with a good emulsion 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.

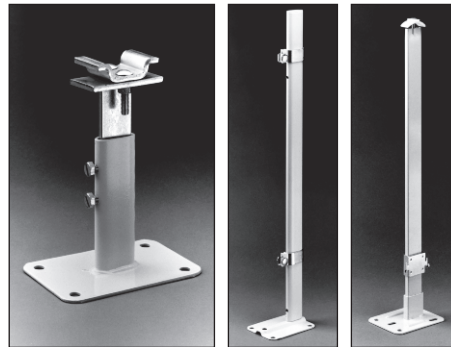
Mounting brackets



NR11 & NR21L

Type A & Type B

Security Clip



NR255

NR226

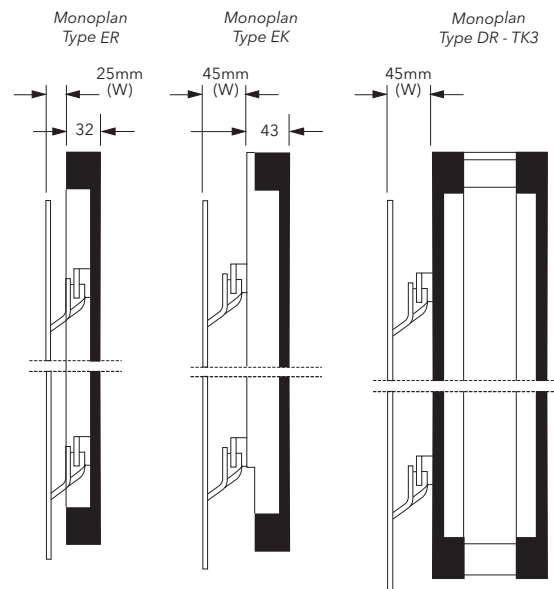
NR280

NR11L 45-65mm.
NR21L 85-115mm.
Type A Fixed Wall for Horizontal 320 - 950 high.
Type B Adjustable Wall Bracket.
Security Clip for NR11, NR21L & Type B Brackets.

NR255 Floor Bracket for Double/Treble Panel Radiators 140 + 40mm adjustment.

NR226 Free Standing Bracket for Single Panel Radiators.

NR280 Free Standing Bracket for Double/Treble Panel Radiators.



The above dimensions (W) = Typical setting on Type A fixed wall bracket, the NR11 & Type B = (W) +20mm adjustment



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