



COMMERCIAL HEATING SOLUTIONS



ALUMINIUM RANGE

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A brand of IRSAP, Italy's leading manufacturer of design led radiators.

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Contents

Clyde is a brand of the IRSAP; Italy's leading manufacturer of design led radiators. With over 50 years experience, we have the expertise to produce the best in quality & customer service.

Clyde provides bespoke solutions for LSTs, Cast Iron, Multi Column and Aluminium radiators. With a wide range of traditional and contemporary radiators, Clyde's solution based approach is designed to ensure we supply the ideal solution for all commercial and industrial requirements.

Our dedicated team of technical advisors and estimators will discuss your installation including the calculation of your heat output requirements (from drawings if necessary), arrange a full quotation based on your exact project specifications and provide lead times. They can also arrange a site visit from our National Sales Network if required.

For more information about Clyde or any of our products, please contact our customer service department: 01342 305522 / 305566

Magnum	4-5
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Max	6-7
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Packaging, Connections, Brackets	8
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Boxing & Enclosures, Carrying Radiators	9
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Assembling Radiators & Accessories	10-11
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Colour Options	12
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MAGNUM



TECHNICAL DATA

PRODUCT FEATURES

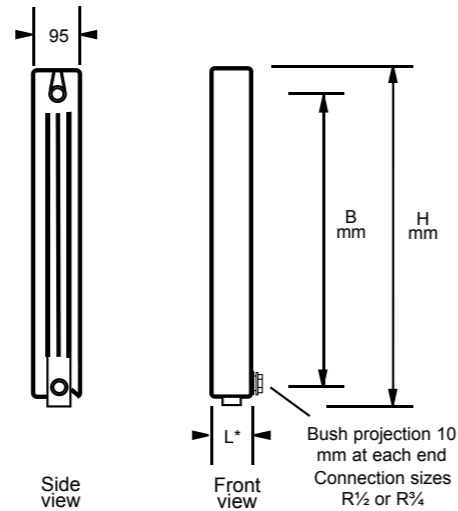
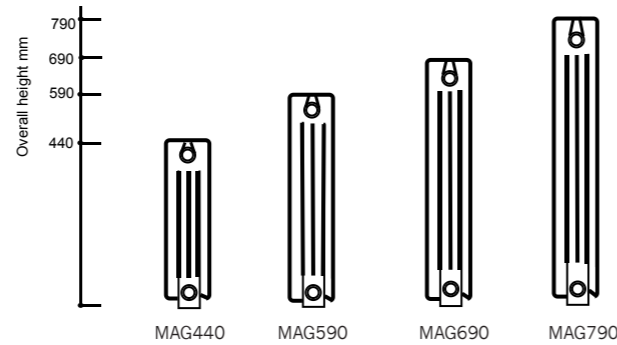
- Light weight Aluminium
- Low water content
- High thermal efficiency
- 4 heights
- Sold by section
- 10 Year guarantee
- White RAL 9010 standard, 25 RAL colours & 28 special finishes
- Max. Working Temperature: 110°C



HEAT EMISSION RATES

- ΔT50 (75°C / 65°C / 20°C)
- ΔT55.5 (82°C / 71°C / 21°C)
- ΔT60 (90°C / 70°C / 20°C)
- BS EN 442-1 conditions of ΔT50

TECHNICAL DRAWINGS



RANGE SELECTION

- 4 heights from 440mm to 790mm
- Supplied pre-assembled in up to 20 sections (1600mm wide). Wider radiators to be joined on site
- BOE (Bottom Opposite End) Connections

TECHNICAL SPECIFICATIONS

- Tested to EN442 by a UNI EN ISO 9001:2000 certified company
- Made from aluminium alloy EN AB 46100
- Overall width of each section = 80.8mm (section + join ring)
- Connection / blank bushes, flow diverter, airvent are supplied with each radiator
- Maximum operating pressure 6 bar

MAGNUM MODELS AND CODES

Model	BS EN 442 Emission Rates				Recommended max number of sections **	Section details					
	75/65/20°C Δt50		82/71/21°C Δt55.5	90/70/20°C Δt60		Overall Length * L (mm)	Overall height H (mm)	Bore centres B (mm)	Depth D (mm)	Dry weight (kg)	Water content (litres)
	watts	exponent	watts	watts							
MAG440	94	1.32	108	120	40	80.8	440	350	95	1.13	0.35
MAG590	123	1.32	141	156	38	80.8	590	500	95	1.62	0.39
MAG690	142	1.32	163	181	33	80.8	690	600	95	1.66	0.49
MAG790	161	1.32	185	205	29	80.8	790	700	95	2.05	0.53

QUICK SIZING CHARTS FOR MAGNUM

ΔT50 - Inlet 75°C, Outlet 65°C, Room 20°C, BS EN 442-1:1995

Model	Watts per section	Radiator emission in kilowatts											
		0.6	0.8	1.0	1.25	1.5	1.75	2.0	2.5	3.0	4.0	5.0	6.0
		Nearest number of sections required											
MAG440	94	6	9	11	13	16	19	21	27	32	—	—	—
MAG590	123	5	7	8	10	12	14	16	20	24	33	—	—
MAG690	142	4	6	7	9	11	12	14	18	21	28	—	—
MAG790	161	4	5	6	8	9	11	12	16	19	25	—	—

ΔT55.5 - Inlet 82°C, Outlet 71°C, Room 21°C

Model	Watts per section	Radiator emission in kilowatts											
		0.6	0.8	1.0	1.25	1.5	1.75	2.0	2.5	3.0	4.0	5.0	6.0
		Nearest number of sections required											
MAG440	108	6	7	9	12	14	16	19	23	28	37	—	—
MAG590	141	4	6	7	9	11	12	14	18	21	28	35	—
MAG690	163	4	5	6	8	9	11	12	15	18	25	31	—
MAG790	185	—	4	5	7	8	9	11	14	16	22	27	—

ΔT60 - Inlet 90°C, Outlet 70°C, Room 20°C

Model	Watts per section	Radiator emission in kilowatts											
		0.6	0.8	1.0	1.25	1.5	1.75	2.0	2.5	3.0	4.0	5.0	6.0
		Nearest number of sections required											
MAG440	120	5	7	8	10	13	15	17	21	25	33	—	—
MAG590	156	4	5	6	8	10	11	13	16	19	26	32	38
MAG690	181	—	4	6	7	8	10	11	14	17	22	28	33
MAG790	205	—	4	5	6	7	9	10	12	15	20	24	29



TECHNICAL DATA

PRODUCT FEATURES

- Light weight Aluminium
- Low water content
- High thermal efficiency
- 6 heights
- Sold by section
- 10 Year guarantee
- White RAL 9010 standard, 25 RAL colours & 28 special finishes
- Max. Working Temperature: 110°C

HEAT EMISSION RATES

- ΔT50 (75°C / 65°C / 20°C)
- ΔT60 (90°C / 70°C / 20°C)
- ΔT55.5 (82°C / 71°C / 21°C)
- BS EN 442-1 conditions of ΔT50

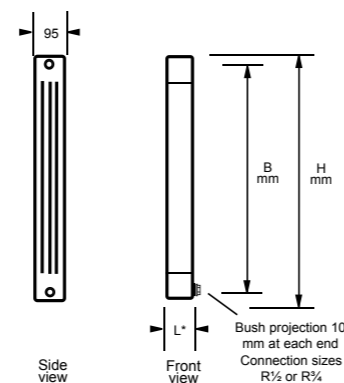
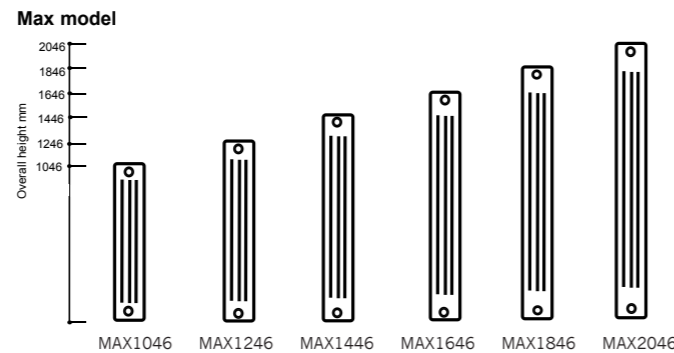
RANGE SELECTION

- 6 heights from 1046mm to 2046mm
- Supplied pre-assembled in up to 10 sections (800mm wide). Wider radiators to be joined on site
- BOE (Bottom Opposite End) Connections

TECHNICAL SPECIFICATIONS

- Tested to EN442 by a UNI EN ISO 9001:2000 certified company
- Made from aluminium alloy EN AB 46100
- Overall width of each section = 80.8mm (section + join ring)
- Connection / blank bushes, flow diverter, airvent are supplied with each radiator
- Maximum operating pressure 6 bar

TECHNICAL DRAWINGS



MAX MODELS AND CODES

Model	BS EN 442 Emission Rates				Recommended max number of sections **	Section details					
	75/65/20°C ΔT50		82/71/21°C ΔT55.5	90/70/20°C ΔT60		Overall Length * L (mm)	Overall height H (mm)	Bore centres B (mm)	Depth D (mm)	Dry weight (kg)	Water content (litres)
	watts	exponent	watts	watts							
MAX1046	190	1.35	219	244	25	80.8	1046	1000	95	2.05	0.42
MAX1246	218	1.35	251	279	22	80.8	1246	1200	95	2.43	0.49
MAX1446	245	1.35	282	314	19	80.8	1446	1400	95	2.8	0.56
MAX1646	271	1.35	312	347	17	80.8	1646	1600	95	3.18	0.62
MAX1846	297	1.35	342	379	16	80.8	1846	1800	95	3.53	0.69
MAX2046	321	1.35	370	411	15	80.8	2046	2000	95	3.86	0.76

QUICK SIZING CHARTS FOR MAX

ΔT50 - Inlet 75°C, Outlet 65°C, Room 20°C, BS EN 442-1:1995

Model	Watts per section	Radiator emission in kilowatts											
		0.6	0.8	1.0	1.25	1.5	1.75	2.0	2.5	3.0	4.0	5.0	6.0
		Nearest number of sections required											
MAX1046	190	—	4	5	7	8	9	11	13	16	21	—	—
MAX1246	218	—	4	5	6	7	8	9	11	14	18	—	—
MAX1446	245	—	—	4	6	6	7	8	10	12	16	—	—
MAX1646	271	—	—	4	6	6	6	7	9	11	15	—	—
MAX1846	297	—	—	—	4	5	6	7	8	10	13	—	—
MAX2046	321	—	—	—	4	5	5	6	8	9	12	—	—

ΔT55.5 - Inlet 82°C, Outlet 71°C, Room 21°C

Model	Watts per section	Radiator emission in kilowatts											
		0.6	0.8	1.0	1.25	1.5	1.75	2.0	2.5	3.0	4.0	5.0	6.0
		Nearest number of sections required											
MAX1046	219	—	4	5	6	7	8	9	11	14	18	23	—
MAX1246	251	—	—	4	5	6	7	8	10	12	16	20	—
MAX1446	282	—	—	4	4	5	6	7	9	11	14	18	—
MAX1646	312	—	—	—	4	5	6	6	8	10	13	16	—
MAX1846	342	—	—	—	4	4	5	6	7	9	12	15	—
MAX2046	370	—	—	—	—	4	5	5	7	8	11	14	—

ΔT60 - Inlet 90°C, Outlet 70°C, Room 20°C

Model	Watts per section	Radiator emission in kilowatts											
		0.6	0.8	1.0	1.25	1.5	1.75	2.0	2.5	3.0	4.0	5.0	6.0
		Nearest number of sections required											
MAX1046	244	—	—	4	5	6	7	8	10	12	16	20	25
MAX1246	279	—	—	4	4	5	6	7	9	11	14	18	22
MAX1446	314	—	—	—	4	5	6	6	8	10	13	16	19
MAX1646	347	—	—	—	4	4	5	6	7	9	12	14	17
MAX1846	379	—	—	—	—	4	5	5	7	8	11	13	16
MAX2046	411	—	—	—	—	4	4	5	6	7	10	12	15

PACKAGING, CONNECTIONS, BRACKETS

PACKING, HANDLING & SITE WORK

Radiator blocks are supplied with protective cardboard packaging to facilitate handling.

Accessories are delivered packed separately for fitting by the installer. It is important that radiators are protected from the elements during offloading and are stored in dry and adequately heated premises. Radiators must be kept vertical whilst being carried to their installation locations to avoid damage to the section joints - refer page 9.

Magnum radiators are factory assembled up to 20 sections long and Max radiators up to 10 sections long. For longer radiators additional blocks are supplied complete with nipples and joints for site assembling- refer page 10. Assembling tools are optionally available to purchase or hire where additional blocks are supplied, see page 10.

CONNECTIONS, BRACKETS AND FLOW DIVERTER

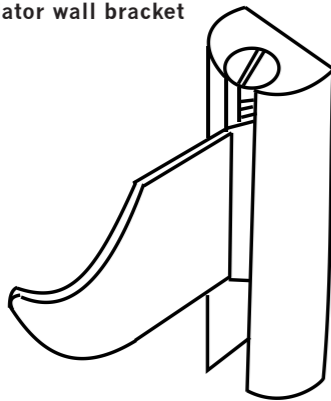
The maximum number of sections for each model for the R½ pipe connection bushes is shown in the table below.

The number of wall brackets required for each radiator length is also shown in this table. The end brackets should be located one section in from the end, and additional brackets evenly spaced.

Flow diverters are supplied for the Max range.

Allow 10mm at the end of each radiator for the connection bushes.

Adjustable Radiator wall bracket



Clyde Model	Max no. sections for R1/2 connections	Diverter required	Number of brackets		
			up to 20 sections	up to 30 sections	up to 40 sections
MAG440	28	no	4	6	8
MAG590	21	no	4	6	NA
MAG690	18	no	4	6	NA
MAG790	16	no	4	NA	NA
MAX1046	14	yes	4	NA	NA
MAX1246	12	yes	4	NA	NA
MAX1446	11	yes	4	NA	NA
MAX1646	10	yes	4	NA	NA
MAX1846	9	yes	4	NA	NA
MAX2046	8	yes	4	NA	NA

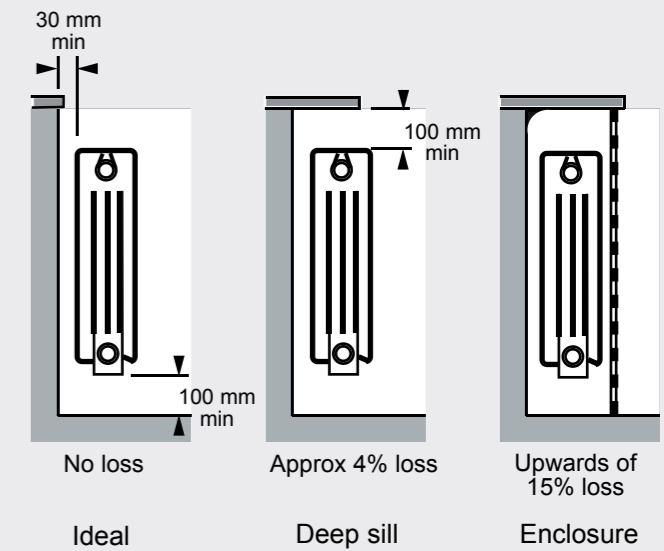
BOXING & ENCLOSURES, CARRYING RADIATORS

BOXING & ENCLOSURES

It is recommended that radiators are installed with a minimum gap of 100mm above floor level.

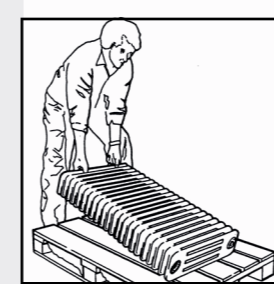
A full width window sill above the radiator extending the depth of the radiator will reduce emission rates by approximately 4%.

Boxing of radiators or the use of decorative enclosures will reduce emission rates by upwards of 15%, according to the design of the boxing. Any restriction of the free flow of air over the radiator surface is detrimental to convected heat emission. Obscuring the front surface of the radiator eliminates the beneficial effect of radiated heat.

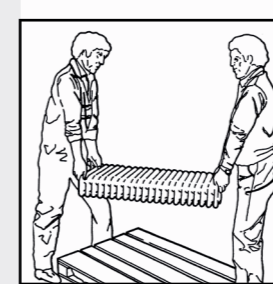


CARRYING RADIATORS

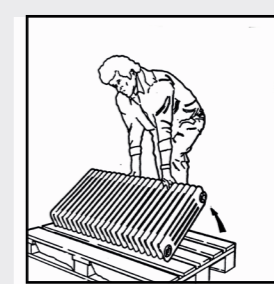
Always provide for sufficient manpower to make carrying safe. Incorrect handling of radiator blocks can cause water leaks from section joints. Lift the radiator blocks in the centre to bring them to the vertical position before lifting and carrying. Never carry radiators stretcher fashion. Although lighter than cast iron or steel column radiators they must still be handled correctly and with care.



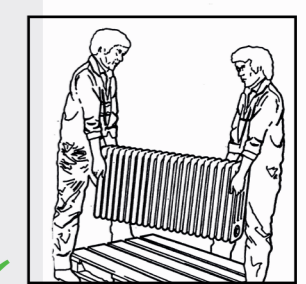
DO NOT
Lift from one end



DO NOT
Carry radiators flat



ALWAYS
Lift in centre



ALWAYS
Keep sections vertical

COMMISSIONING

In accordance with Part L1 2006 of the Building Regulations and BS7593:1992 code of practice for the treatment of hot water and central heating systems, we strongly recommend flushing the heating system post installation of new radiators and then adding the correct quantity and type of inhibitor for use with your radiator and system to prevent corrosion. Damage caused to systems not protected by a suitable inhibitor will not be covered by manufacturer's guarantee

ASSEMBLING RADIATORS

ASSEMBLING RADIATORS

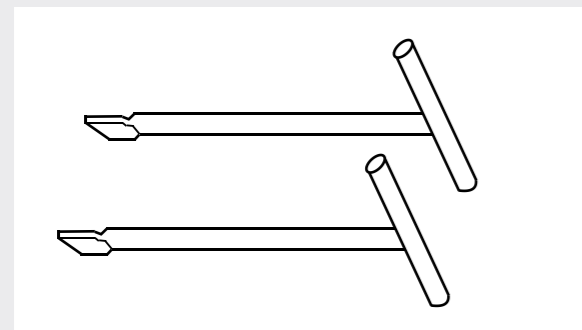
Sections are joined with fitted joint rings between the machined faces of each section (a small amount of joining compound may be used - not hemp tape). Bushes and plugs are dry sealed in the connections at each end of the radiator with a joint ring supplied as part of the bush or plug. Hemp, tape or sealing compounds must not be used on the bush join.

1. Before commencing assembly, ensure that the radiator blocks are adequately protected against scratching, abrasion or damage since the paint finish has already been applied. No responsibility can be accepted by Clyde Radiators for any damage to the paint finish that arises from handling, assembling or installing the radiators. It is essential to check that there is no damage to the paint finish before assembly is undertaken.
2. Position the section block horizontally on two lengths of timber.
3. Ensure that the machined faces and threads of the section are perfectly clean.
4. Screw two nipples one full turn into each of the section tappings. Note that the nipples have left and right handed threads.
5. Place a joint ring (as supplied) on each nipple.
6. Clean the machined surfaces and threads of the adjoining block or section. Lay this block or section beside the first block, ensuring that the threads mating to the nipples have the correct thread rotation.
7. Measure and mark off the length of the adjoining block or section on the nipple turning bars.
8. Insert the turning bars through the nippleways of the adjoining block or section to engage with the nipples.
9. Rotate both nipple turning bars equally to draw the blocks together keeping them parallel. If the blocks are not pulled together evenly, threads can be damaged and may give rise to leakage.
10. Repeat operations 2 to 9 until the radiator is fully assembled.
11. If a flow diverter is required, this should be fitted at the inlet to the radiator block.
12. Fit bushes, blank plug and vent valve according to the connection plan required.

Please visit our youtube channel where you can watch a demonstration on how to join & assemble a sectional aluminium radiator.
<https://www.youtube.com/playlist?list=PLMGnL07Af-x4vZ-c-dW05xwgfzLdhbseM>

Assembling tool set

2 x Nipple turning bars



OPTIONAL END PANELS

Optional End Panels are designed to fit the Magnum and Max models to create a clean end profile. Please specify at time of order.



Model	Height (mm)
MAGEP44	440
MAGEP59	590
MAGEP69	690
MAGEP79	790
MAXEP10	1020
MAXEP12	1220
MAXEP14	1420
MAXEP16	1620
MAXEP18	1820
MAXEP20	2020

VALVES

Choose from our AYR or CORNER AYR TRV valve to complement your Magnum or Max radiators

AYR TRV

- For angled valves allow an extra 80mm in total
- Ayr valves are not Bi-directional
- Available in White, Chrome, Nickel, Black, Antique Copper & Antique Brass
- Valve height 125mm
- R $\frac{1}{2}$ x 15mm compression in angled or straight
- Supplied in pairs of one thermostatic valve & one lockshield



CORNER AYR TRV

- For angled valves allow an extra 90mm in total
- Ayr valves are not Bi-directional
- Available in White, Chrome, Nickel, Black, Antique Copper & Antique Brass
- Valve height 116mm
- R $\frac{1}{2}$ x 15mm compression in angled or straight
- Supplied in pairs of one thermostatic valve & one lockshield



MAGNUM & MAX COLOUR OPTIONS

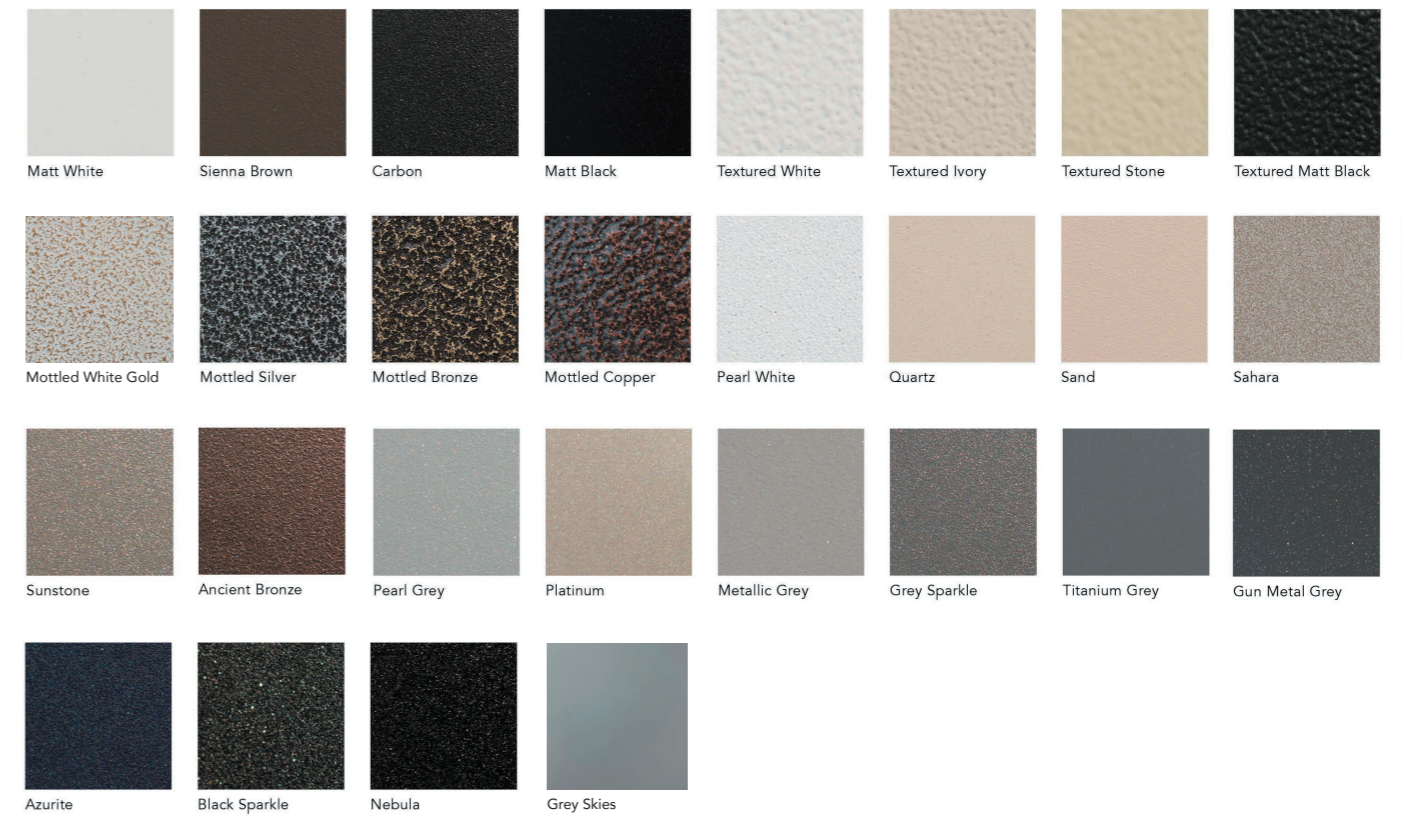
If you are looking to have your Magnum & Max radiator in an alternative colour we offer the following RAL colour options, please specify chosen colour at time of order.



To discuss a quotation for other colours outside of the above range please call 01342 305550

MAGNUM & MAX COLOUR OPTIONS

Choose from 28 Special finishes; Textured, Mottled, Bronze, Metallics and Golds, please specify chosen colour at time of order.



OTHER CLYDE PRODUCTS

Clyde Radiators

COMMERCIAL HEATING SOLUTIONS

- 4 Flat Panel radiators
- Sectional Cast Iron in 4 styles
- 2 Bespoke LST options, made to specification
- Sectional Steel Multi Column in over 3200 sizes
- Trench: Practical aluminium convector for underfloor heating
- Mini: Aluminium and copper convector, in steel casing with aluminium grille



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