Merriott

DESIGN RADIATORS

VERTICAL LST RADIATORS TECHNICAL INFORMATION

July 2012

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Vertical LST Products

Introduction

The Merriott Radiators range of low surface temperature (LST) radiators operates within NHS / HSE guidelines, (the near ambient temperature of the front panel surface complies with department of DHSS Engineering data DN4 and conforms to NHS / HSE guidelines covering the surface temperature of radiators in areas where special care is provided). The use of heavy gauge flat steel tubing in the construction of the front panel provides a double insulation and enables the front panel to operate at a cool 25ºC making it the best and most effective LST front panel available. The performance of the Merriott LST range is constantly being expanded to meet the demands of the NHS / HSE.

When coupled to a properly balanced LPHW system operating with normal flow and return temperatures, the front panel will not exceed 43ºC. Obviously the lower the flow and return temperatures, the cooler the casing will be, and taller casings will provide more effective convection with lower issuing air temperatures. Merriott LST's enable you to comply with the requirements of DHSS Engineering Data DN4 and subsequent School Building Bulletins and disabled access regulations.

The Merriott Radiators LST offers architects and specifiers total flexibility in system design for hospitals, schools, nursing homes and sheltered accommodation. Special requirements for high security in prisons and for low level protection in pediatric wards are easily met from our standard range.

The smooth unobtrusive lines of the panel and the uniquely wide range of the sizes available enable it to adapt to any architectural or design scheme. All styles have rounded edges for safety and feature grills for additional security. These products are especially suited to applications where wall space is at a premium (bathrooms, stairwell, etc).

Paint Finish

Our standard paint finish is semi – gloss RAL 9016 (White) in epoxy polyester powder. An extensive range of other RAL and BS colours are available on request, at a surcharge..

Emitter Size & Heat Emissions

Merriott Radiators column emitters offer emissions ranging from 678 watts to 4412 watts at ΔT50°C. And sizes ranging from (1600mm X 320mm) to (2400mm X 720mm). See specification pages for Vertical LST size. If you require a size or an output outside of this range please contact Merriott Radiators.

Materials

Merriott Radiators column emitters are manufactured from flat steel tube, (35mm x 11mm x 1.3mm for ES35 & ED35) & (70mm x 11mm x 1.5 for ES70 & ED70.)

Operating Pressures

The standard test pressure is 7 bar giving a maximum operating pressure of 5.38 Bar.
Other operating pressures are available on request.

Features

- Extensive range with 6 standard options
- High output performance
- Low surface temperature
- Rounded grilles for optimum safety
- No sharp edges (note: solid tops have rounded edges for added safety)
- Robust construction – front cover is a single unit
- Elevated units (Kitchens, Toilets, etc.)

Quality

All Merriott Radiators emitters used behind vertical LST's are manufactured and tested in accordance with BS EN 442 and NF quality mark requirements, in its state of the art BS EN ISO 9001 : 2008 accredited manufacturing facility.

Warranty

Merriott Radiators Vertical LST radiators are guaranteed for a period of ten years in respect of defective materials and workmanship. In order for the warranty to be valid, designers and installers must observe and adhere to **BS EN 12828:2003**. Heating systems in buildings – design for water based heating systems and installers must adhere to **BS EN 14336:2004**. Heating system in buildings – installation and commissioning of water based heating systems. In addition Merriott Radiators recommends that designers and installers observe and adhere to the British Standard code of practice for the treatment of water in domestic hot water central heating systems and **BS 7593:2006**, the use of corrosion inhibitor is recommended for all applications, failure to observe this may result in the invalidation of warranty.

Design & Performance

As products are subject to continued research to improve design and performance, Merriott Radiators reserves the right to alter specifications without notice.

Vertical LST - Technical Specifications
LC22, 23, 24 LST Vertical Range

Technical Specification

- Heights are available as outlined below.
- Depths available 153mm & 236 mm.
- Widths available 280mm-980mm (increments of 70mm).
- Top Horizontal Grilles on all styles LC22, LC23 & LC24.
- Heat outputs may be based on standard catalogue values for column radiators less a 7.5% allowance for casing losses.
- Full compliance with NHS Estates guidelines 43°C, when the top outlet grilles are a minimum of 2000mm above floor level.
- Can be used with all standard Thermostatic Radiator Valves.
- Can include special request such as, end box pipework cutouts, special TRV knockout positions, etc.

Style LC22

Heights available 1900mm – 2600mm.
Horizontal bottom grille.
Minimum recommended height off floor level is 100mm.

Style LC23

Heights available 2018mm – 2618mm.
Forward facing bottom grille @ 118mm from ground level.

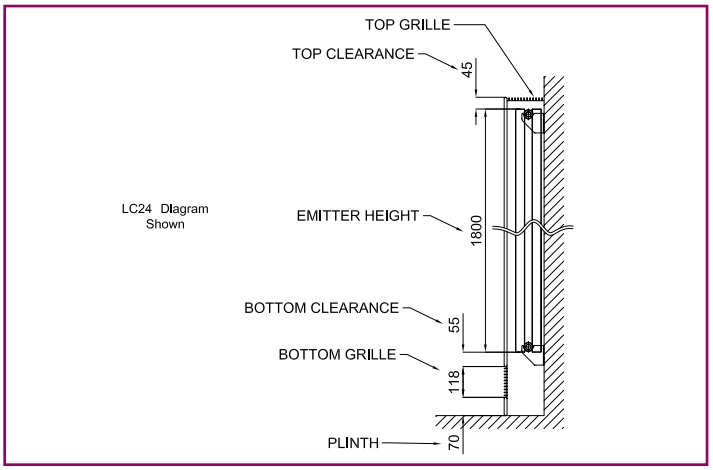
Style LC24

Heights available 1988mm – 2688mm.
Forward facing bottom grille @ 188mm from ground level.
70mm plinth under bottom grille.

Recommended Emitters

153mm deep LST case – ES35 Column.
153mm deep LST case – ED35 & ES70 Columns.
236mm deep LST case – ED70 Column.
Connection Details –AC, BD, EF & GH.
Other emitters available on request.

How to Calculate the Cover Height of the LST



Examples

Style LC22

Top Clearance + Emitter Height + Bottom Clearance = Overall Height
45 + 1800 + 155 = 2000mm

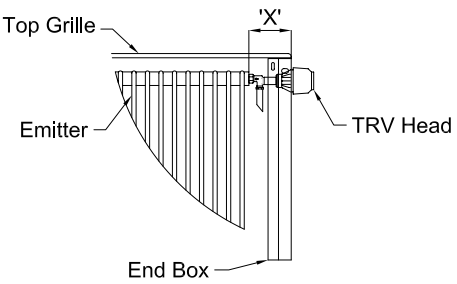
Style LC23

Top Clearance + Emitter Height + Bottom Clearance + Bottom Grille = Overall Height
45 + 1800 + 55 + 118 = 2018mm

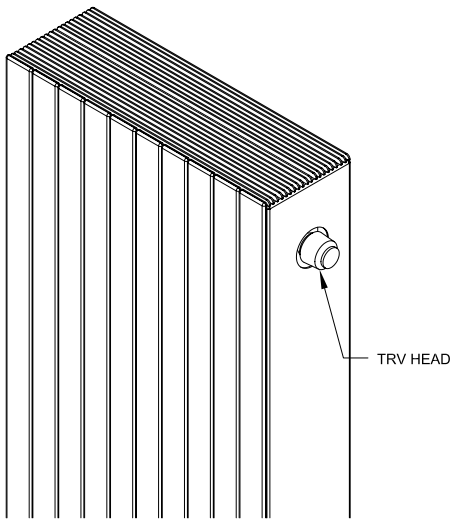
Style LC24

Top Clearance + Emitter Height + Bottom Clearance + Bottom Grille + Plinth = Overall Height
45 + 1800 + 55 + 118 + 70 = 2088mm

Thermostatic Radiator Valve Details



If required the LST endbox can be supplied with TRV holes or TRV knockout, to facilitate the use of standard Thermostatic radiator valves (TRV).
See valve option section for details.
Please note the "X" value will vary depending on option selected.
Please contact our sales department for assistance.



TRV Valves

- Any make or model of TRV can be accommodated.
- When ordering, please note the make & model that is required.

Vertical LST - Technical Specifications
LC26, 27, 28 LST Vertical Range

Technical Specification

- Heights are available as outlined below.
- Depths available 153mm & 236mm.
- Widths available 280mm-980mm (increments of 70mm).
- Solid top on all styles LC26, LC27 & LC28.
- Heat outputs may be based on standard catalogue values for column radiators less a 7.5% allowance for casing losses.
- Full compliance with NHS Estates guidelines, when the top outlet grilles are a minimum of 2000mm above floor level.
- Can be used with all standard Thermostatic Radiator Valves.
- Can include special requests such as, end box pipework cutouts.
- Special TRV knockout positions.
- Pipework cutouts in the solid top.

Style LC26

Heights available 1943mm – 2543mm.
Horizontal bottom grille.
Forward facing top grille @ overall height minus 25mm.
Minimum recommended height off the floor level is 100mm.

Style LC27

Heights available 2161mm – 2761mm.
Forward facing top grille @ overall height minus 25mm.
Forward facing bottom grille @ 118mm from ground level.

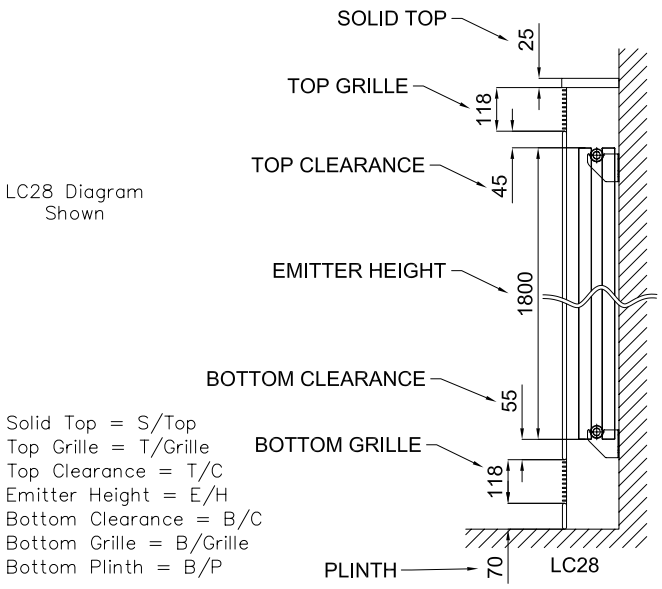
Style LC28

Heights available 2031mm – 2631mm.
Forward facing top grille @ overall height minus 25mm.
Forward facing bottom grille @ 188mm from ground level.
70mm plinth under bottom grille.

Recommended Emitters

153mm deep LST case – ES35 Column.
153mm deep LST case – ED35 & ES70 Columns.
236mm deep LST case – ED70 Column.
Connection Details – AC, BD, EF & GH.
Other emitters available on request.

How to Calculate the Cover Height of the LST



Examples

Style LC26

S/Top + T/Grille + T/C + E/H + B/C = Overall Height
25 + 118 + 45 + 1800+ 155 = 2143mm

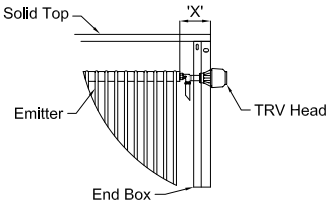
Style LC27

S/Top + T/Grille + T/C + E/H + B/C + B/Grille = Overall Height
25 + 118 + 45 + 1800+ 55 + 118 = 2161 mm

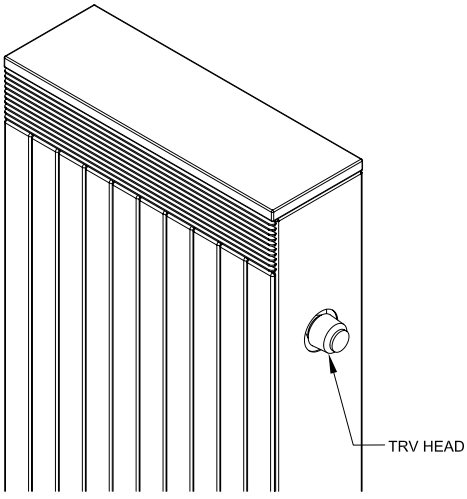
Style LC28

S/Top + T/Grille + T/C + E/H + B/C + B/Grille + B/P
= Overall Height
25 + 118 + 45 + 1800+ 55 + 118 +70 = 2231 mm

Thermostatic Radiator Valve Details



If required the LST endbox can be supplied with TRV holes or TRV knockout, to facilitate the use of standard Thermostatic radiator valves (TRV).
See valve option section for details.
Please note the "X" value will vary depending on option selected.
Please contact our sales department for assistance.

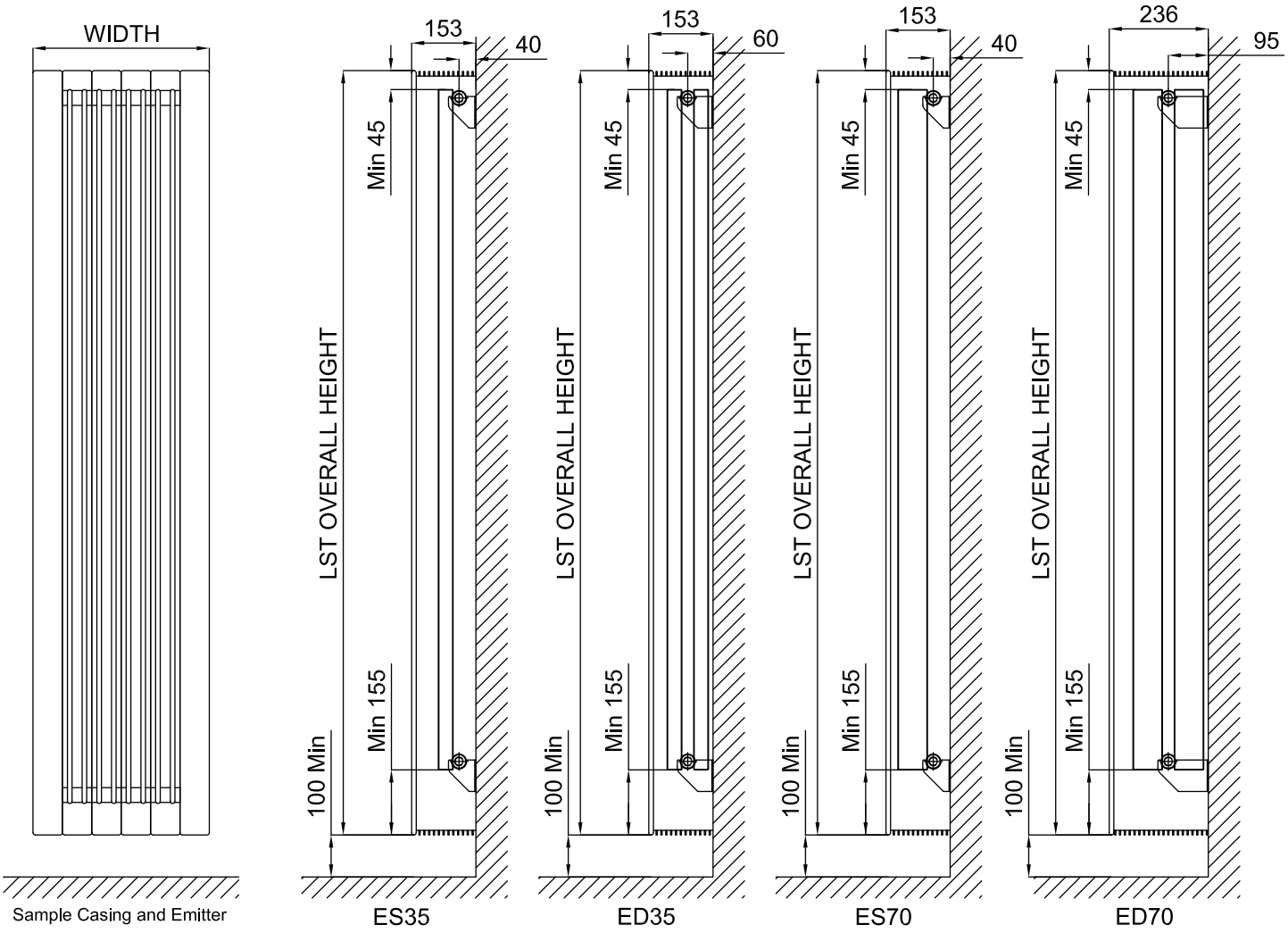


TRV Valves

- Any make or model of TRV can be accommodated
- When ordering, please note the make & model that is required

Vertical LST Style LC22

LST Vertical Range



Typical LST Case Width

For a Column Emitter with Connection Detail EF/GH = Column Width + 140mm (see output sheet page 7).
For a Column Emitter with Connection Detail BD/AD = Column Width + 280mm (increments of 70mm).

Typical LST Height

Column Emitter Height + 200mm

Example of Output

Emitter Type	Emitter Size	Column Output (ΔT50)	Column Output (ΔT56)	Suggested LST Case Size
ES35	2000 X 420	1007	1167	2200 X 560 X 153
ED35	2000 X 420	1474	1697	2200 X 560 X 153
ES70	2000 X 400	1203	1393	2200 X 560 X 153
ED70	2000 X 400	2054	2379	2200 X 560 X 236

Style LC22 Output Charts
LST Vertical Range

Note
The emitters used in the output table below are an EF/GH connection.
Please use a wider panel-min addition 140mm, if you require side connections (AB etc..).

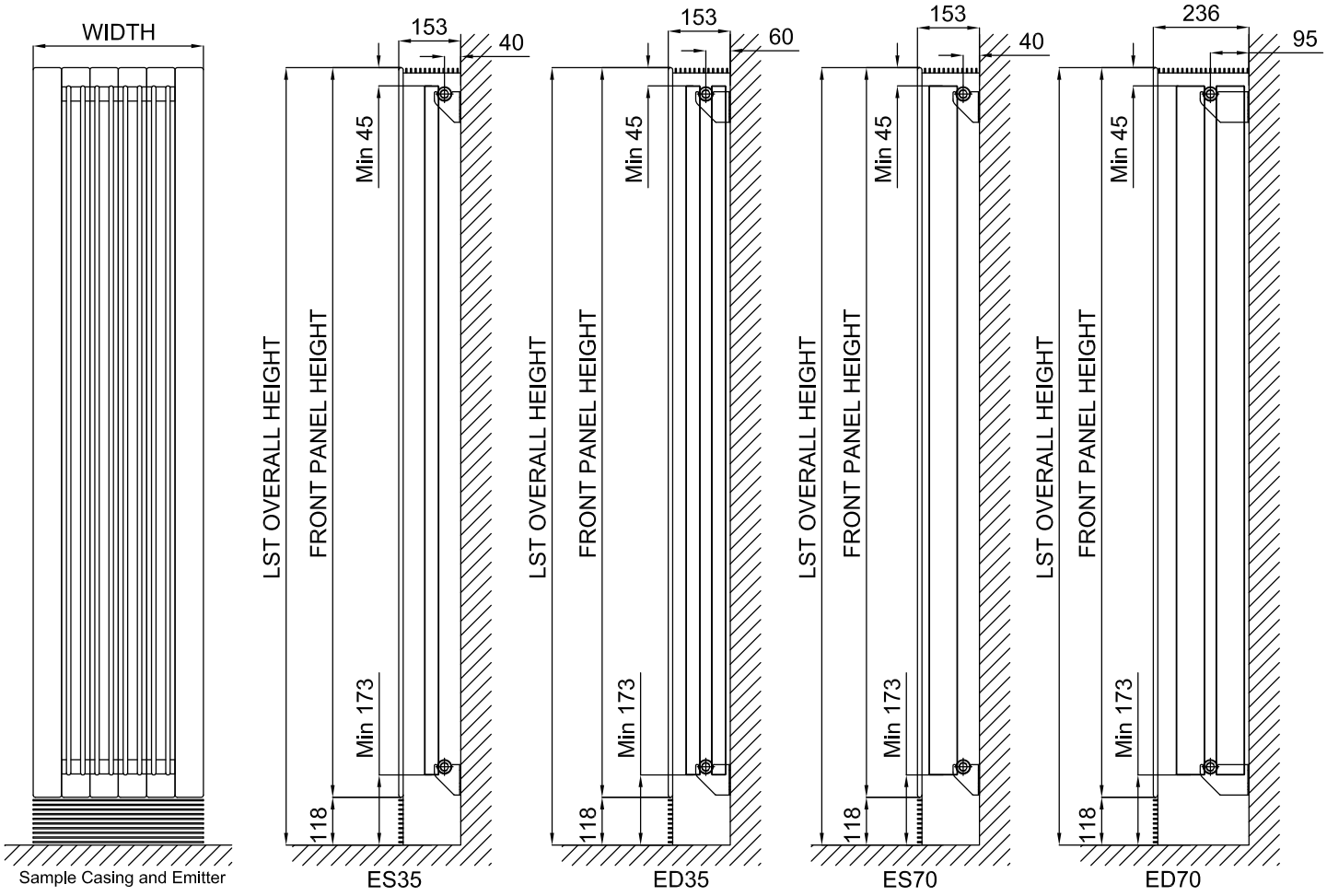
Vertical LST - Style LC22 Outputs

Case Size		Emitter Type:		ES35		ED35	
Case Height	Case Width	Emitter Height	Emitter Width	ΔT50	ΔT56	ΔT50	ΔT56
1900	490	1700	350	718	832	1087	1259
1900	560	1700	420	861	998	1304	1511
1900	630	1700	490	1005	1164	1522	1763
1900	700	1700	560	1148	1331	1739	2015
1900	770	1700	630	1292	1497	1956	2267
1900	840	1700	700	1436	1663	2174	2519
2000	490	1800	350	758	878	1138	1318
2000	560	1800	420	909	1053	1365	1582
2000	630	1800	490	1061	1229	1593	1846
2000	700	1800	560	1212	1404	1820	2109
2000	770	1800	630	1364	1580	2048	2373
2000	840	1800	700	1515	1756	2276	2637
2100	490	1900	350	798	925	1184	1372
2100	560	1900	420	958	1110	1421	1646
2100	630	1900	490	1118	1295	1658	1921
2100	700	1900	560	1277	1480	1894	2195
2100	770	1900	630	1437	1665	2131	2469
2100	840	1900	700	1597	1850	2368	2744
2200	490	2000	350	839	972	1228	1415
2200	560	2000	420	1007	1167	1474	1697
2200	630	2000	490	1175	1361	1720	1981
2200	700	2000	560	1342	1555	1965	2263
2200	770	2000	630	1510	1750	2211	2547
2200	840	2000	700	1678	1944	2456	2830
2300	490	2100	350	880	1019	1272	1474
2300	560	2100	420	1056	1223	1526	1768
2300	630	2100	490	1232	1427	1781	2063
2300	700	2100	560	1407	1631	2035	2358
2300	770	2100	630	1583	1835	2289	2653
2300	840	2100	700	1759	2039	2544	2947
2400	490	2200	350	920	1066	1314	1522
2400	560	2200	420	1104	1280	1576	1826
2400	630	2200	490	1289	1493	1839	2131
2400	700	2200	560	1473	1706	2102	2435
2400	770	2200	630	1657	1920	2364	2740
2400	840	2200	700	1841	2133	2627	3044
2500	490	2300	350	964	1117	1355	1570
2500	560	2300	420	1157	1341	1626	1884
2500	630	2300	490	1350	1564	1897	2198
2500	700	2300	560	1543	1788	2168	2512
2500	770	2300	630	1736	2011	2439	2826
2500	840	2300	700	1929	2235	2710	3140
2600	490	2400	350	1008	1168	1397	1618
2600	560	2400	420	1210	1402	1676	1942
2600	630	2400	490	1412	1636	1955	2266
2600	700	2400	560	1613	1869	2235	2589
2600	770	2400	630	1815	2103	2514	2913
2600	840	2400	700	2017	2337	2794	3237

Emitter Type:		ES70		ED70	
Emitter Height	Emitter Width	ΔT50	ΔT56	ΔT50	ΔT56
1700	320	825	956	1410	1633
1700	400	1031	1195	1762	2042
1700	480	1238	1434	2115	2450
1700	560	1444	1673	2467	2858
1700	640	1650	1912	2819	3267
1700	720	1856	2151	3172	3675
1800	320	873	1012	1487	1723
1800	400	1092	1265	1859	2154
1800	480	1310	1518	2231	2585
1800	560	1528	1771	2603	3016
1800	640	1746	2024	2975	3447
1800	720	1965	2276	3347	3878
1900	320	918	1063	1565	1813
1900	400	1147	1329	1956	2267
1900	480	1376	1595	2348	2720
1900	560	1606	1861	2739	3174
1900	640	1835	2126	3130	3627
1900	720	2065	2392	3521	4080
2000	320	962	1115	1643	1904
2000	400	1203	1393	2054	2379
2000	480	1443	1672	2464	2855
2000	560	1684	1951	2875	3331
2000	640	1924	2229	3286	3807
2000	720	2165	2508	3696	4283
2100	320	1010	1170	1724	1998
2100	400	1263	1463	2155	2497
2100	480	1515	1756	2586	2997
2100	560	1768	2048	3017	3496
2100	640	2020	2341	3448	3996
2100	720	2273	2633	3879	4495
2200	320	1058	1226	1806	2092
2200	400	1323	1533	2257	2615
2200	480	1587	1839	2708	3138
2200	560	1852	2146	3160	3661
2200	640	2116	2452	3611	4184
2200	720	2381	2759	4063	4707
2300	320	1103	1278	1883	2182
2300	400	1378	1597	2354	2728
2300	480	1654	1916	2825	3273
2300	560	1930	2236	3296	3819
2300	640	2205	2555	3767	4364
2300	720	2481	2875	4237	4910
2400	320	1147	1329	1961	2272
2400	400	1434	1661	2451	2840
2400	480	1721	1994	2942	3408
2400	560	2007	2326	3432	3976
2400	640	2294	2658	3922	4544
2400	720	2581	2990	4412	5112

Vertical LST Style LC23

LST Vertical Range



Typical LST Case Width

For a Column Emitter with Connection Detail EF/GH = Column Width + 140mm (see output sheet page 9).
For a Column Emitter with Connection Detail BD/AD = Column Width + 280mm (increments of 70mm).

Typical LST Height

Column Emitter Height + 218mm

Example of Output

Emitter Type	Emitter Size	Column Output (ΔT50)	Column Output (ΔT56)	Suggested LST Case Size
ES35	2000 X 420	1007	1167	2218 X 560 X 153
ED35	2000 X 420	1474	1697	2218 X 560 X 153
ES70	2000 X 400	1203	1393	2218 X 560 X 153
ED70	2000 X 400	2054	2379	2218 X 560 X 236

Style LC23 Output Charts
LST Vertical Range

Note
The emitters used in the output table below are an EF/GH connection.
Please use a wider panel-min addition 140mm, if you require side connections (AB etc..).

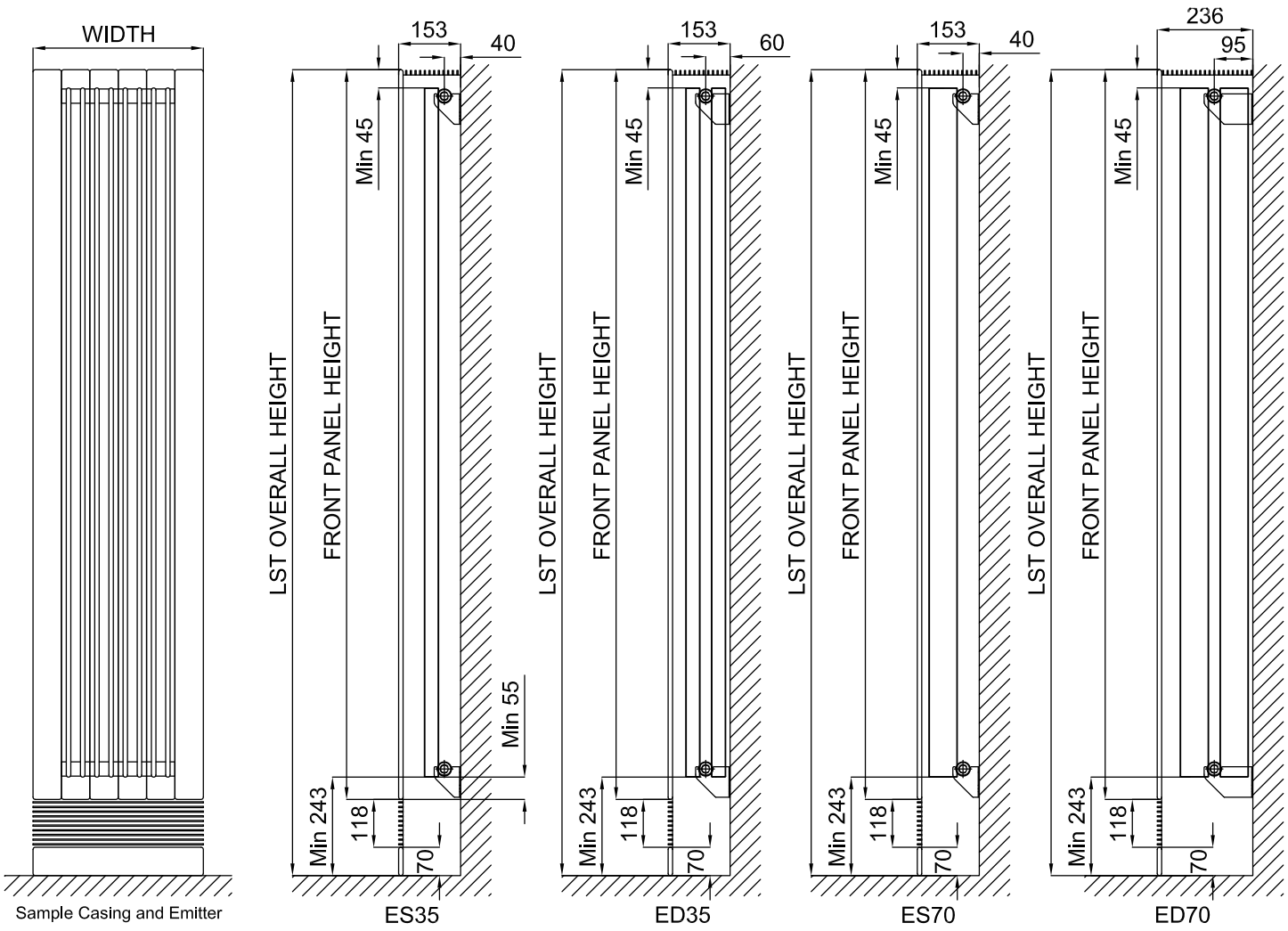
Vertical LST - Style LC23 Outputs

Case Size		Emitter Type:		ES35		ED35	
Case Height	Case Width	Emitter Height	Emitter Width	ΔT50	ΔT56	ΔT50	ΔT56
2018	490	1800	350	758	878	1138	1318
2018	560	1800	420	909	1053	1365	1582
2018	630	1800	490	1061	1229	1593	1846
2018	700	1800	560	1212	1404	1820	2109
2018	770	1800	630	1364	1580	2048	2373
2018	840	1800	700	1515	1756	2276	2637
2118	490	1900	350	798	925	1184	1372
2118	560	1900	420	958	1110	1421	1646
2118	630	1900	490	1118	1295	1658	1921
2118	700	1900	560	1277	1480	1894	2195
2118	770	1900	630	1437	1665	2131	2469
2118	840	1900	700	1597	1850	2368	2744
2218	490	2000	350	839	972	1228	1415
2218	560	2000	420	1007	1167	1474	1697
2218	630	2000	490	1175	1361	1720	1981
2218	700	2000	560	1342	1555	1965	2263
2218	770	2000	630	1510	1750	2211	2547
2218	840	2000	700	1678	1944	2456	2830
2318	490	2100	350	880	1019	1272	1474
2318	560	2100	420	1056	1223	1526	1768
2318	630	2100	490	1232	1427	1781	2063
2318	700	2100	560	1407	1631	2035	2358
2318	770	2100	630	1583	1835	2289	2653
2318	840	2100	700	1759	2039	2544	2947
2418	490	2200	350	920	1066	1314	1522
2418	560	2200	420	1104	1280	1576	1826
2418	630	2200	490	1289	1493	1839	2131
2418	700	2200	560	1473	1706	2102	2435
2418	770	2200	630	1657	1920	2364	2740
2418	840	2200	700	1841	2133	2627	3044
2518	490	2300	350	964	1117	1355	1570
2518	560	2300	420	1157	1341	1626	1884
2518	630	2300	490	1350	1564	1897	2198
2518	700	2300	560	1543	1788	2168	2512
2518	770	2300	630	1736	2011	2439	2826
2518	840	2300	700	1929	2235	2710	3140
2618	490	2400	350	1008	1168	1397	1618
2618	560	2400	420	1210	1402	1676	1942
2618	630	2400	490	1412	1636	1955	2266
2618	700	2400	560	1613	1869	2235	2589
2618	770	2400	630	1815	2103	2514	2913
2618	840	2400	700	2017	2337	2794	3237

Emitter Type:		ES70		ED70	
Emitter Height	Emitter Width	ΔT50	ΔT56	ΔT50	ΔT56
1800	320	873	1012	1487	1723
1800	400	1092	1265	1859	2154
1800	480	1310	1518	2231	2585
1800	560	1528	1771	2603	3016
1800	640	1746	2024	2975	3447
1800	720	1965	2276	3347	3878
1900	320	918	1063	1565	1813
1900	400	1147	1329	1956	2267
1900	480	1376	1595	2348	2720
1900	560	1606	1861	2739	3174
1900	640	1835	2126	3130	3627
1900	720	2065	2392	3521	4080
2000	320	962	1115	1643	1904
2000	400	1203	1393	2054	2379
2000	480	1443	1672	2464	2855
2000	560	1684	1951	2875	3331
2000	640	1924	2229	3286	3807
2000	720	2165	2508	3696	4283
2100	320	1010	1170	1724	1998
2100	400	1263	1463	2155	2497
2100	480	1515	1756	2586	2997
2100	560	1768	2048	3017	3496
2100	640	2020	2341	3448	3996
2100	720	2273	2633	3879	4495
2200	320	1058	1226	1806	2092
2200	400	1323	1533	2257	2615
2200	480	1587	1839	2708	3138
2200	560	1852	2146	3160	3661
2200	640	2116	2452	3611	4184
2200	720	2381	2759	4063	4707
2300	320	1103	1278	1883	2182
2300	400	1378	1597	2354	2728
2300	480	1654	1916	2825	3273
2300	560	1930	2236	3296	3819
2300	640	2205	2555	3767	4364
2300	720	2481	2875	4237	4910
2400	320	1147	1329	1961	2272
2400	400	1434	1661	2451	2840
2400	480	1721	1994	2942	3408
2400	560	2007	2326	3432	3976
2400	640	2294	2658	3922	4544
2400	720	2581	2990	4412	5112

Vertical LST Style LC24

LST Vertical Range



Typical LST Case Width

For a Column Emitter with Connection Detail EF/GH = Column Width + 140mm (see output sheet page 11).
For a Column Emitter with Connection Detail BD/AD = Column Width + 280mm (increments of 70mm).

Typical LST Height

Column Emitter Height + 288mm

Example of Output

Emitter Type	Emitter Size	Column Output (ΔT50)	Column Output (ΔT56)	Suggested LST Case Size
ES35	2000 X 420	1007	1167	2288 X 560 X 153
ED35	2000 X 420	1474	1697	2288 X 560 X 153
DS70	2000 X 400	1203	1393	2288 X 560 X 153
ED70	2000 X 400	2054	2379	2288 X 560 X 236

Style LC24 Output Charts
LST Vertical Range

Note
The emitters used in the output table below are an EF/GH connection.
Please use a wider panel-min addition 140mm, if you require side connections (AB etc..).

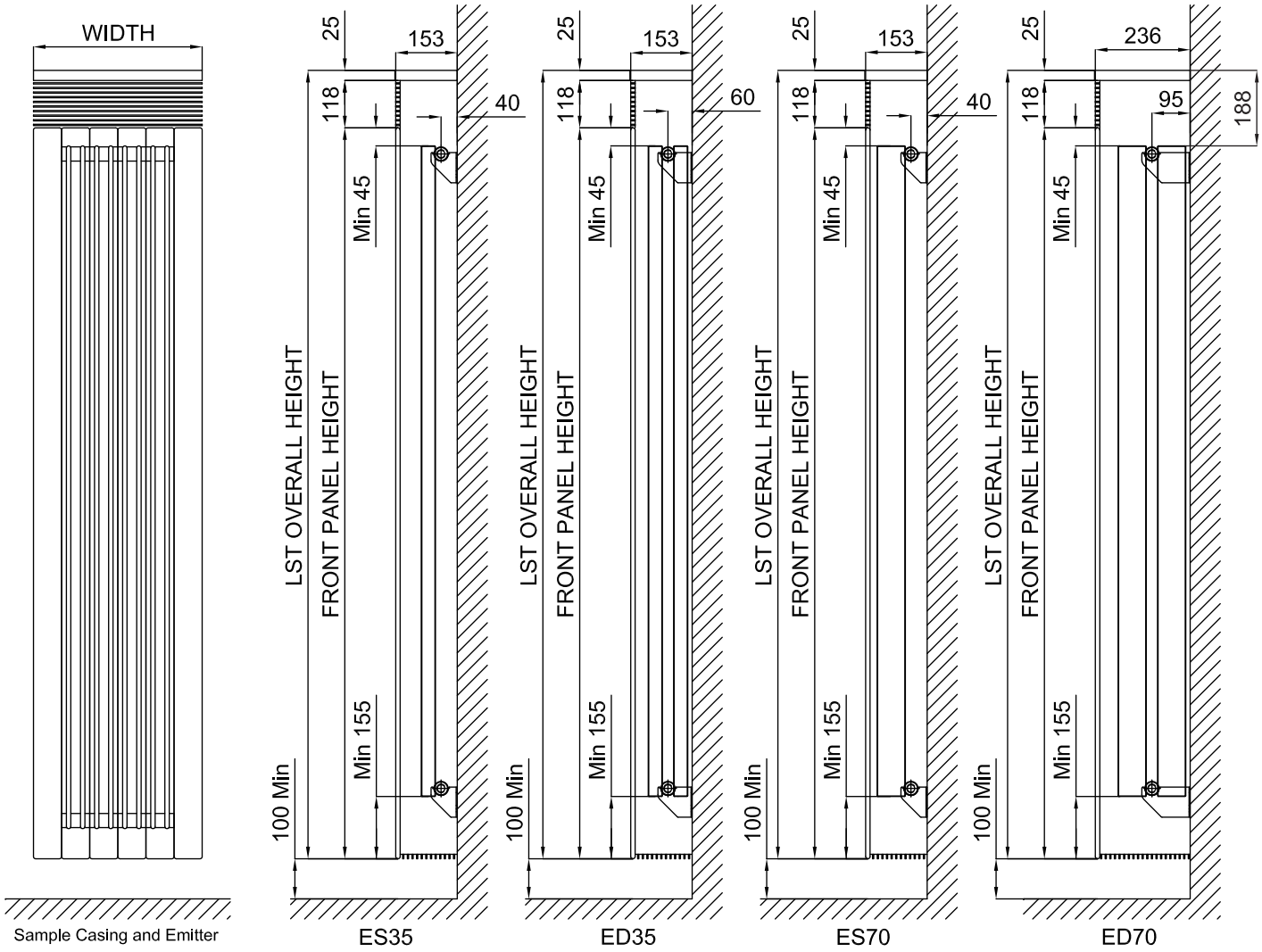
Vertical LST - Style LC24 Outputs

Case Size		Emitter Type:		ES35		ED35	
Case Height	Case Width	Emitter Height	Emitter Width	ΔT50	ΔT56	ΔT50	ΔT56
1988	490	1700	350	718	832	1087	1259
1988	560	1700	420	861	998	1304	1511
1988	630	1700	490	1005	1164	1522	1763
1988	700	1700	560	1148	1331	1739	2015
1988	770	1700	630	1292	1497	1956	2267
1988	840	1700	700	1436	1663	2174	2519
2088	490	1800	350	758	878	1138	1318
2088	560	1800	420	909	1053	1365	1582
2088	630	1800	490	1061	1229	1593	1846
2088	700	1800	560	1212	1404	1820	2109
2088	770	1800	630	1364	1580	2048	2373
2088	840	1800	700	1515	1756	2276	2637
2188	490	1900	350	798	925	1184	1372
2188	560	1900	420	958	1110	1421	1646
2188	630	1900	490	1118	1295	1658	1921
2188	700	1900	560	1277	1480	1894	2195
2188	770	1900	630	1437	1665	2131	2469
2188	840	1900	700	1597	1850	2368	2744
2288	490	2000	350	839	972	1228	1415
2288	560	2000	420	1007	1167	1474	1697
2288	630	2000	490	1175	1361	1720	1981
2288	700	2000	560	1342	1555	1965	2263
2288	770	2000	630	1510	1750	2211	2547
2288	840	2000	700	1678	1944	2456	2830
2388	490	2100	350	880	1019	1272	1474
2388	560	2100	420	1056	1223	1526	1768
2388	630	2100	490	1232	1427	1781	2063
2388	700	2100	560	1407	1631	2035	2358
2388	770	2100	630	1583	1835	2289	2653
2388	840	2100	700	1759	2039	2544	2947
2488	490	2200	350	920	1066	1314	1522
2488	560	2200	420	1104	1280	1576	1826
2488	630	2200	490	1289	1493	1839	2131
2488	700	2200	560	1473	1706	2102	2435
2488	770	2200	630	1657	1920	2364	2740
2488	840	2200	700	1841	2133	2627	3044
2588	490	2300	350	964	1117	1355	1570
2588	560	2300	420	1157	1341	1626	1884
2588	630	2300	490	1350	1564	1897	2198
2588	700	2300	560	1543	1788	2168	2512
2588	770	2300	630	1736	2011	2439	2826
2588	840	2300	700	1929	2235	2710	3140
2688	490	2400	350	1008	1168	1397	1618
2688	560	2400	420	1210	1402	1676	1942
2688	630	2400	490	1412	1636	1955	2266
2688	700	2400	560	1613	1869	2235	2589
2688	770	2400	630	1815	2103	2514	2913
2688	840	2400	700	2017	2337	2794	3237

Emitter Type:		ES70		ED70	
Emitter Height	Emitter Width	ΔT50	ΔT56	ΔT50	ΔT56
1700	320	825	956	1410	1633
1700	400	1031	1195	1762	2042
1700	480	1238	1434	2115	2450
1700	560	1444	1673	2467	2858
1700	640	1650	1912	2819	3267
1700	720	1856	2151	3172	3675
1800	320	873	1012	1487	1723
1800	400	1092	1265	1859	2154
1800	480	1310	1518	2231	2585
1800	560	1528	1771	2603	3016
1800	640	1746	2024	2975	3447
1800	720	1965	2276	3347	3878
1900	320	918	1063	1565	1813
1900	400	1147	1329	1956	2267
1900	480	1376	1595	2348	2720
1900	560	1606	1861	2739	3174
1900	640	1835	2126	3130	3627
1900	720	2065	2392	3521	4080
2000	320	962	1115	1643	1904
2000	400	1203	1393	2054	2379
2000	480	1443	1672	2464	2855
2000	560	1684	1951	2875	3331
2000	640	1924	2229	3286	3807
2000	720	2165	2508	3696	4283
2100	320	1010	1170	1724	1998
2100	400	1263	1463	2155	2497
2100	480	1515	1756	2586	2997
2100	560	1768	2048	3017	3496
2100	640	2020	2341	3448	3996
2100	720	2273	2633	3879	4495
2200	320	1058	1226	1806	2092
2200	400	1323	1533	2257	2615
2200	480	1587	1839	2708	3138
2200	560	1852	2146	3160	3661
2200	640	2116	2452	3611	4184
2200	720	2381	2759	4063	4707
2300	320	1103	1278	1883	2182
2300	400	1378	1597	2354	2728
2300	480	1654	1916	2825	3273
2300	560	1930	2236	3296	3819
2300	640	2205	2555	3767	4364
2300	720	2481	2875	4237	4910
2400	320	1147	1329	1961	2272
2400	400	1434	1661	2451	2840
2400	480	1721	1994	2942	3408
2400	560	2007	2326	3432	3976
2400	640	2294	2658	3922	4544
2400	720	2581	2990	4412	5112

Vertical LST Style LC26

LST Vertical Range



Typical LST Case Width

For a Column Emitter with Connection Detail EF/GH = Column Width + 140mm (see output sheet page 13).
For a Column Emitter with Connection Detail BD/AD = Column Width + 280mm (increments of 70mm).

Typical LST Height

Column Emitter Height + 343mm

Example of Output

Emitter Type	Emitter Size	Column Output (ΔT50)	Column Output (ΔT56)	Suggested LST Case Size
ES35	2000 X 420	1007	1167	2343 X 560 X 153
ED35	2000 X 420	1474	1697	2343 X 560 X 153
ES70	2000 X 400	1203	1393	2343 X 560 X 153
ED70	2000 X 400	2053	2379	2343 X 560 X 236

Style LC26 Output Charts
LST Vertical Range

Note
The emitters used in the output table below are an EF/GH connection.
Please use a wider panel-min addition 140mm, if you require side connections (AB etc..).

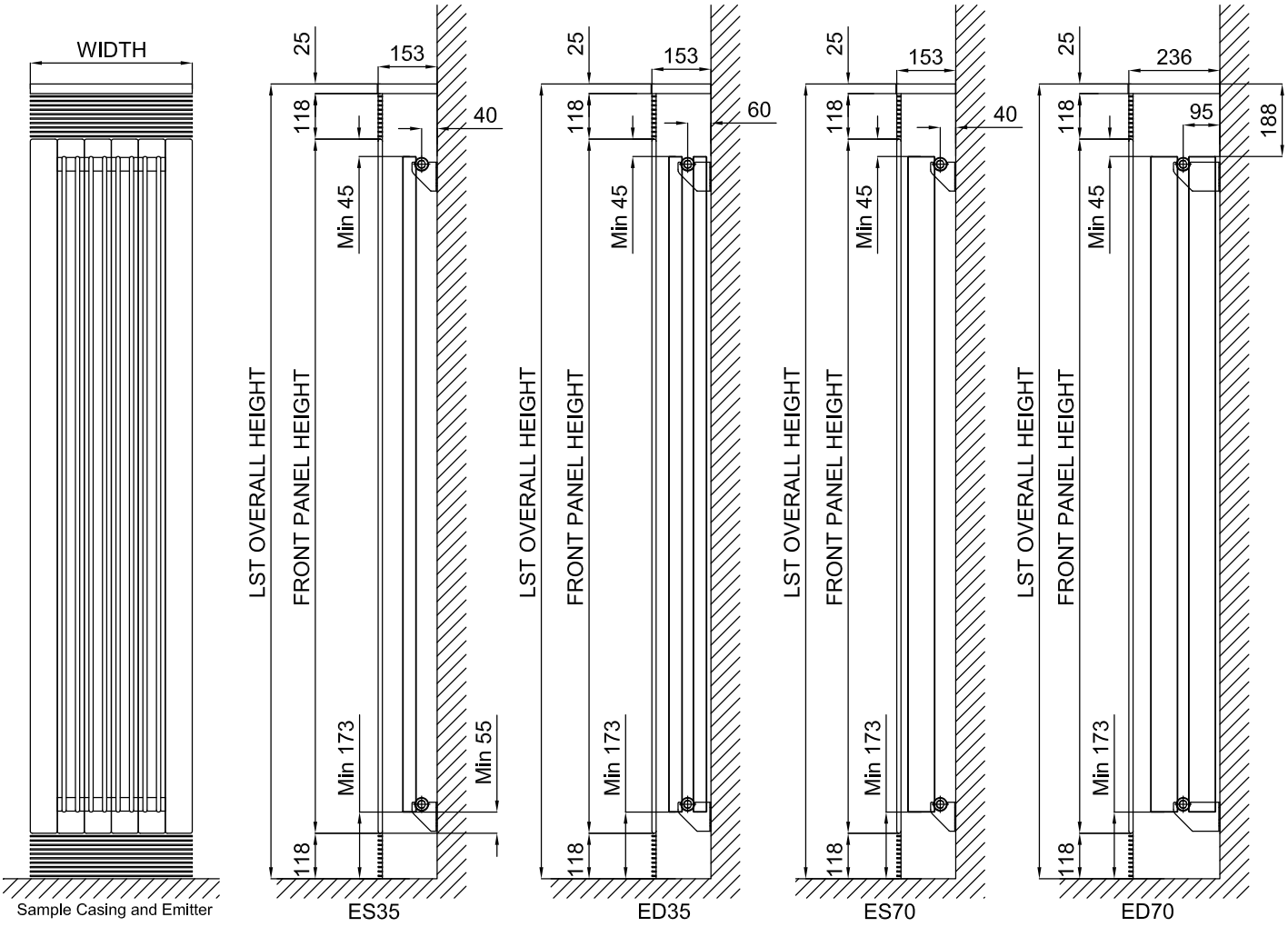
Vertical LST - Style LC26 Outputs

Case Size		Emitter Type:		ES35		ED35	
Case Height	Case Width	Emitter Height	Emitter Width	ΔT50	ΔT56	ΔT50	ΔT56
1943	490	1600	350	678	783	1036	1201
1943	560	1600	420	814	943	1243	1440
1943	630	1600	490	949	1100	1450	1681
1943	700	1600	560	1085	1257	1658	1920
1943	770	1600	630	1220	1414	1865	2161
1943	840	1600	700	1356	1572	2072	2400
2043	490	1700	350	718	832	1087	1259
2043	560	1700	420	861	998	1304	1511
2043	630	1700	490	1005	1164	1522	1763
2043	700	1700	560	1148	1331	1739	2015
2043	770	1700	630	1292	1497	1956	2267
2043	840	1700	700	1436	1663	2174	2519
2143	490	1800	350	758	878	1138	1318
2143	560	1800	420	909	1053	1365	1582
2143	630	1800	490	1061	1229	1593	1846
2143	700	1800	560	1212	1404	1820	2109
2143	770	1800	630	1364	1580	2048	2373
2143	840	1800	700	1515	1756	2276	2637
2243	490	1900	350	798	925	1184	1372
2243	560	1900	420	958	1110	1421	1646
2243	630	1900	490	1118	1295	1658	1921
2243	700	1900	560	1277	1480	1894	2195
2243	770	1900	630	1437	1665	2131	2469
2243	840	1900	700	1597	1850	2368	2744
2343	490	2000	350	839	972	1228	1415
2343	560	2000	420	1007	1167	1474	1697
2343	630	2000	490	1175	1361	1720	1981
2343	700	2000	560	1342	1555	1965	2263
2343	770	2000	630	1510	1750	2211	2547
2343	840	2000	700	1678	1944	2456	2830
2443	490	2100	350	880	1019	1272	1474
2443	560	2100	420	1056	1223	1526	1768
2443	630	2100	490	1232	1427	1781	2063
2443	700	2100	560	1407	1631	2035	2358
2443	770	2100	630	1583	1835	2289	2653
2443	840	2100	700	1759	2039	2544	2947
2543	490	2200	350	920	1066	1314	1522
2543	560	2200	420	1104	1280	1576	1826
2543	630	2200	490	1289	1493	1839	2131
2543	700	2200	560	1473	1706	2102	2435
2543	770	2200	630	1657	1920	2364	2740
2543	840	2200	700	1841	2133	2627	3044

Emitter Type:		ES70		ED70	
Emitter Height	Emitter Width	ΔT50	ΔT56	ΔT50	ΔT56
1600	320	777	900	1332	1544
1600	400	971	1126	1665	1930
1600	480	1166	1351	1998	2315
1600	560	1360	1575	2331	2701
1600	640	1554	1801	2664	3087
1600	720	1748	2026	2997	3472
1700	320	825	956	1410	1633
1700	400	1031	1195	1762	2042
1700	480	1238	1434	2115	2450
1700	560	1444	1673	2467	2858
1700	640	1650	1912	2819	3267
1700	720	1856	2151	3172	3675
1800	320	873	1012	1487	1723
1800	400	1092	1265	1859	2154
1800	480	1310	1518	2231	2585
1800	560	1528	1771	2603	3016
1800	640	1746	2024	2975	3447
1800	720	1965	2276	3347	3878
1900	320	918	1063	1565	1813
1900	400	1147	1329	1956	2267
1900	480	1376	1595	2348	2720
1900	560	1606	1861	2739	3174
1900	640	1835	2126	3130	3627
1900	720	2065	2392	3521	4080
2000	320	962	1115	1643	1904
2000	400	1203	1393	2054	2379
2000	480	1443	1672	2464	2855
2000	560	1684	1951	2875	3331
2000	640	1924	2229	3286	3807
2000	720	2165	2508	3696	4283
2100	320	1010	1170	1724	1998
2100	400	1263	1463	2155	2497
2100	480	1515	1756	2586	2997
2100	560	1768	2048	3017	3496
2100	640	2020	2341	3448	3996
2100	720	2273	2633	3879	4495
2200	320	1058	1226	1806	2092
2200	400	1323	1533	2257	2615
2200	480	1587	1839	2708	3138
2200	560	1852	2146	3160	3661
2200	640	2116	2452	3611	4184
2200	720	2381	2759	4063	4707

Vertical LST Style LC27

LST Vertical Range



Typical LST Case Width

For a Column Emitter with Connection Detail EF/GH = Column Width + 140mm (see output sheet page 15).
For a Column Emitter with Connection Detail BD/AD = Column Width + 280mm (increments of 70mm).

Typical LST Height

Column Emitter Height + 361mm

Example of Output

Emitter Type	Emitter Size	Column Output (ΔT50)	Column Output (ΔT56)	Suggested LST Case Size
ES35	2000 X 420	1007	1167	2361 X 560 X 153
ED35	2000 X 420	1474	1697	2361 X 560 X 153
ES70	2000 X 400	1203	1393	2361 X 560 X 153
ED70	2000 X 400	2053	2379	2361 X 560 X 236

Style LC27 Output Charts
LST Vertical Range

Note
The emitters used in the output table below are an EF/GH connection.
Please use a wider panel-min addition 140mm, if you require side connections (AB etc..).

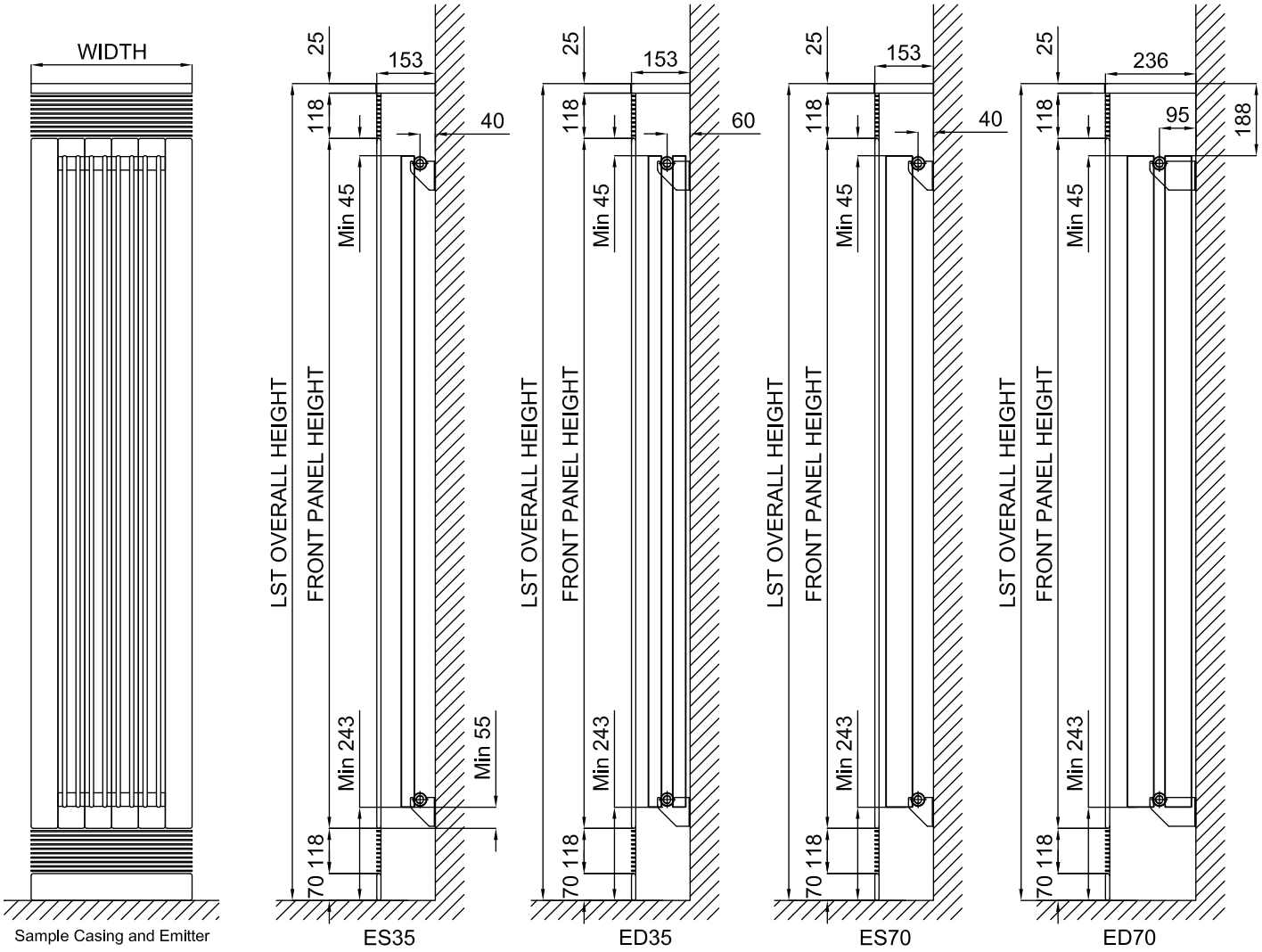
Vertical LST - Style LC27 Outputs

Case Size		Emitter Type:		ES35		ED35	
Case Height	Case Width	Emitter Height	Emitter Width	ΔT50	ΔT56	ΔT50	ΔT56
2161	490	1800	350	758	878	1138	1318
2161	560	1800	420	909	1053	1365	1582
2161	630	1800	490	1061	1229	1593	1846
2161	700	1800	560	1212	1404	1820	2109
2161	770	1800	630	1364	1580	2048	2373
2161	840	1800	700	1515	1756	2276	2637
2261	490	1900	350	798	925	1184	1372
2261	560	1900	420	958	1110	1421	1646
2261	630	1900	490	1118	1295	1658	1921
2261	700	1900	560	1277	1480	1894	2195
2261	770	1900	630	1437	1665	2131	2469
2261	840	1900	700	1597	1850	2368	2744
2361	490	2000	350	839	972	1228	1415
2361	560	2000	420	1007	1167	1474	1697
2361	630	2000	490	1175	1361	1720	1981
2361	700	2000	560	1342	1555	1965	2263
2361	770	2000	630	1510	1750	2211	2547
2361	840	2000	700	1678	1944	2456	2830
2461	490	2100	350	880	1019	1272	1474
2461	560	2100	420	1056	1223	1526	1768
2461	630	2100	490	1232	1427	1781	2063
2461	700	2100	560	1407	1631	2035	2358
2461	770	2100	630	1583	1835	2289	2653
2461	840	2100	700	1759	2039	2544	2947
2561	490	2200	350	920	1066	1314	1522
2561	560	2200	420	1104	1280	1576	1826
2561	630	2200	490	1289	1493	1839	2131
2561	700	2200	560	1473	1706	2102	2435
2561	770	2200	630	1657	1920	2364	2740
2561	840	2200	700	1841	2133	2627	3044
2661	490	2300	350	964	1117	1355	1570
2661	560	2300	420	1157	1341	1626	1884
2661	630	2300	490	1350	1564	1897	2198
2661	700	2300	560	1543	1788	2168	2512
2661	770	2300	630	1736	2011	2439	2826
2661	840	2300	700	1929	2235	2710	3140
2761	490	2400	350	1008	1168	1397	1618
2761	560	2400	420	1210	1402	1676	1942
2761	630	2400	490	1412	1636	1955	2266
2761	700	2400	560	1613	1869	2235	2589
2761	770	2400	630	1815	2103	2514	2913
2761	840	2400	700	2017	2337	2794	3237

Emitter Type:		ES70		ED70	
Emitter Height	Emitter Width	ΔT50	ΔT56	ΔT50	ΔT56
1800	320	873	1012	1487	1723
1800	400	1092	1265	1859	2154
1800	480	1310	1518	2231	2585
1800	560	1528	1771	2603	3016
1800	640	1746	2024	2975	3447
1800	720	1965	2276	3347	3878
1900	320	918	1063	1565	1813
1900	400	1147	1329	1956	2267
1900	480	1376	1595	2348	2720
1900	560	1606	1861	2739	3174
1900	640	1835	2126	3130	3627
1900	720	2065	2392	3521	4080
2000	320	962	1115	1643	1904
2000	400	1203	1393	2054	2379
2000	480	1443	1672	2464	2855
2000	560	1684	1951	2875	3331
2000	640	1924	2229	3286	3807
2000	720	2165	2508	3696	4283
2100	320	1010	1170	1724	1998
2100	400	1263	1463	2155	2497
2100	480	1515	1756	2586	2997
2100	560	1768	2048	3017	3496
2100	640	2020	2341	3448	3996
2100	720	2273	2633	3879	4495
2200	320	1058	1226	1806	2092
2200	400	1323	1533	2257	2615
2200	480	1587	1839	2708	3138
2200	560	1852	2146	3160	3661
2200	640	2116	2452	3611	4184
2200	720	2381	2759	4063	4707
2300	320	1103	1278	1883	2182
2300	400	1378	1597	2354	2728
2300	480	1654	1916	2825	3273
2300	560	1930	2236	3296	3819
2300	640	2205	2555	3767	4364
2300	720	2481	2875	4237	4910
2400	320	1147	1329	1961	2272
2400	400	1434	1661	2451	2840
2400	480	1721	1994	2942	3408
2400	560	2007	2326	3432	3976
2400	640	2294	2658	3922	4544
2400	720	2581	2990	4412	5112

Vertical LST Style LC28

LST Vertical Range



Typical LST Case Width

For a Column Emitter with Connection Detail EF/GH = Column Width + 140mm (see output sheet page 17).
For a Column Emitter with Connection Detail BD/AD = Column Width + 280mm (increments of 70mm).

Typical LST Height

Column Emitter Height + 431mm

Example of Output

Emitter Type	Emitter Size	Column Output (ΔT50)	Column Output (ΔT56)	Suggested LST Case Size
ES35	2000 X 420	1007	1167	2431 X 560 X 153
ED35	2000 X 420	1474	1697	2431 X 560 X 153
ES70	2000 X 400	1203	1393	2431 X 560 X 153
ED70	2000 X 400	2053	2379	2431 X 560 X 236

Style LC28 Output Charts
LST Vertical Range

Note
The emitters used in the output table below are an EF/GH connection.
Please use a wider panel-min addition 140mm, if you require side connections (AB etc..).

Vertical LST - Style LC28 Outputs

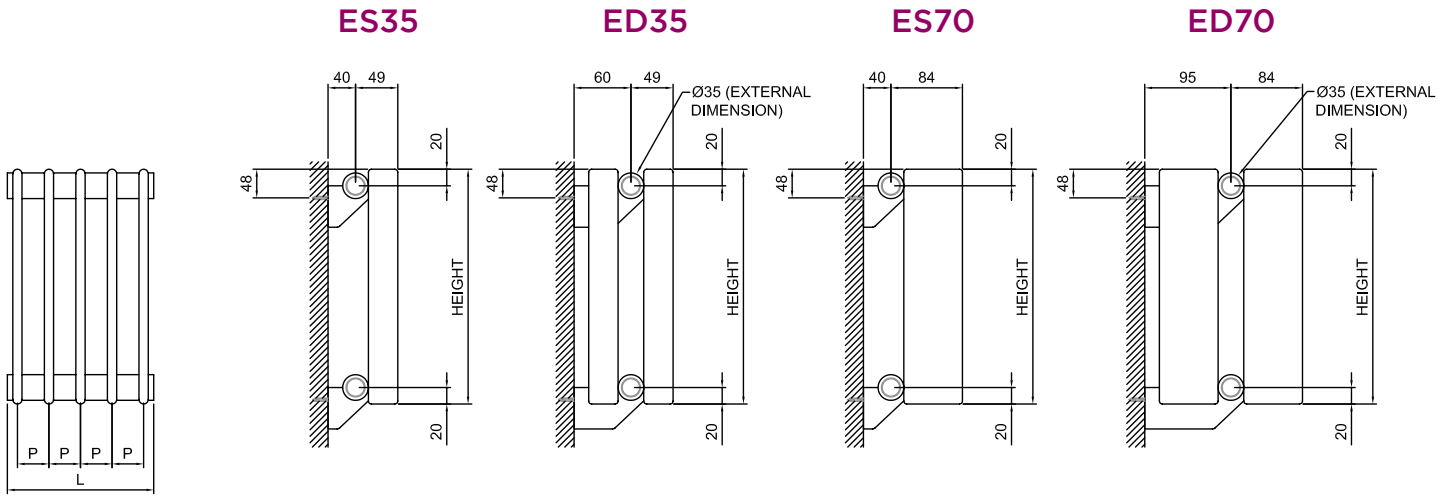
Case Size		Emitter Type:		ES35		ED35	
Case Height	Case Width	Emitter Height	Emitter Width	ΔT50	ΔT56	ΔT50	ΔT56
2031	490	1600	350	678	783	1036	1201
2031	560	1600	420	814	943	1243	1440
2031	630	1600	490	949	1100	1450	1681
2031	700	1600	560	1085	1257	1658	1920
2031	770	1600	630	1220	1414	1865	2161
2031	840	1600	700	1356	1572	2072	2400
2131	490	1700	350	718	832	1087	1259
2131	560	1700	420	861	998	1304	1511
2131	630	1700	490	1005	1164	1522	1763
2131	700	1700	560	1148	1331	1739	2015
2131	770	1700	630	1292	1497	1956	2267
2131	840	1700	700	1436	1663	2174	2519
2231	490	1800	350	758	878	1138	1318
2231	560	1800	420	909	1053	1365	1582
2231	630	1800	490	1061	1229	1593	1846
2231	700	1800	560	1212	1404	1820	2109
2231	770	1800	630	1364	1580	2048	2373
2231	840	1800	700	1515	1756	2276	2637
2331	490	1900	350	798	925	1184	1372
2331	560	1900	420	958	1110	1421	1646
2331	630	1900	490	1118	1295	1658	1921
2331	700	1900	560	1277	1480	1894	2195
2331	770	1900	630	1437	1665	2131	2469
2331	840	1900	700	1597	1850	2368	2744
2431	490	2000	350	839	972	1228	1415
2431	560	2000	420	1007	1167	1474	1697
2431	630	2000	490	1175	1361	1720	1981
2431	700	2000	560	1342	1555	1965	2263
2431	770	2000	630	1510	1750	2211	2547
2431	840	2000	700	1678	1944	2456	2830
2531	490	2100	350	880	1019	1272	1474
2531	560	2100	420	1056	1223	1526	1768
2531	630	2100	490	1232	1427	1781	2063
2531	700	2100	560	1407	1631	2035	2358
2531	770	2100	630	1583	1835	2289	2653
2531	840	2100	700	1759	2039	2544	2947
2631	490	2200	350	920	1066	1314	1522
2631	560	2200	420	1104	1280	1576	1826
2631	630	2200	490	1289	1493	1839	2131
2631	700	2200	560	1473	1706	2102	2435
2631	770	2200	630	1657	1920	2364	2740
2631	840	2200	700	1841	2133	2627	3044

Emitter Type:		ES70		ED70	
Emitter Height	Emitter Width	ΔT50	ΔT56	ΔT50	ΔT56
1600	320	777	900	1332	1544
1600	400	971	1126	1665	1930
1600	480	1166	1351	1998	2315
1600	560	1360	1575	2331	2701
1600	640	1554	1801	2664	3087
1600	720	1748	2026	2997	3472
1700	320	825	956	1410	1633
1700	400	1031	1195	1762	2042
1700	480	1238	1434	2115	2450
1700	560	1444	1673	2467	2858
1700	640	1650	1912	2819	3267
1700	720	1856	2151	3172	3675
1800	320	873	1012	1487	1723
1800	400	1092	1265	1859	2154
1800	480	1310	1518	2231	2585
1800	560	1528	1771	2603	3016
1800	640	1746	2024	2975	3447
1800	720	1965	2276	3347	3878
1900	320	918	1063	1565	1813
1900	400	1147	1329	1956	2267
1900	480	1376	1595	2348	2720
1900	560	1606	1861	2739	3174
1900	640	1835	2126	3130	3627
1900	720	2065	2392	3521	4080
2000	320	962	1115	1643	1904
2000	400	1203	1393	2054	2379
2000	480	1443	1672	2464	2855
2000	560	1684	1951	2875	3331
2000	640	1924	2229	3286	3807
2000	720	2165	2508	3696	4283
2100	320	1010	1170	1724	1998
2100	400	1263	1463	2155	2497
2100	480	1515	1756	2586	2997
2100	560	1768	2048	3017	3496
2100	640	2020	2341	3448	3996
2100	720	2273	2633	3879	4495
2200	320	1058	1226	1806	2092
2200	400	1323	1533	2257	2615
2200	480	1587	1839	2708	3138
2200	560	1852	2146	3160	3661
2200	640	2116	2452	3611	4184
2200	720	2381	2759	4063	4707

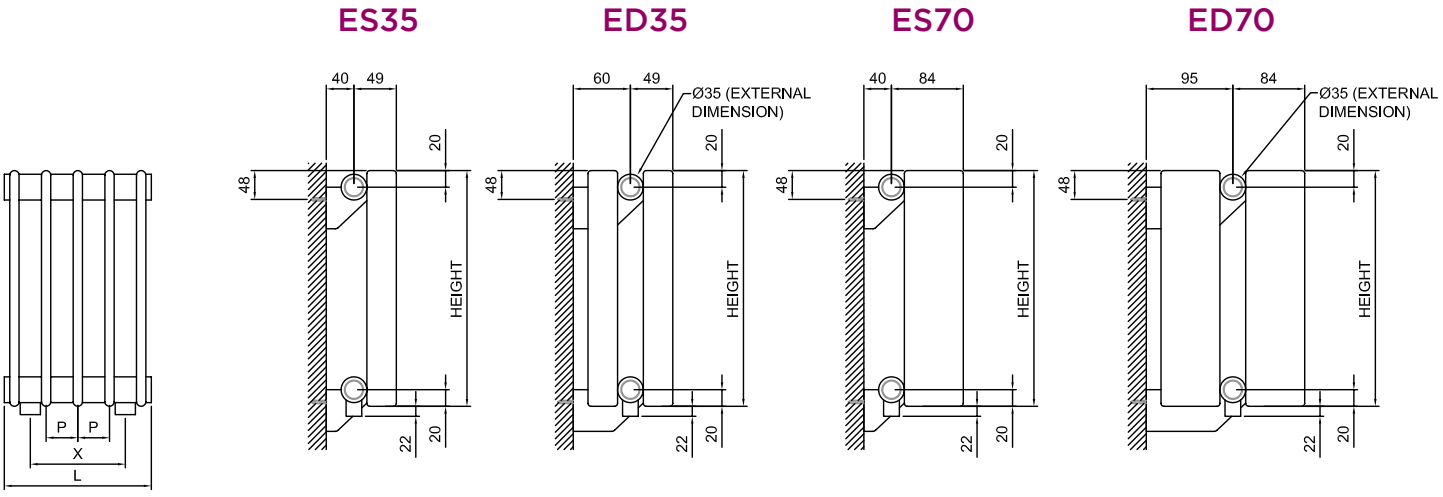
Applications

Piping & connection details

ABCD connections



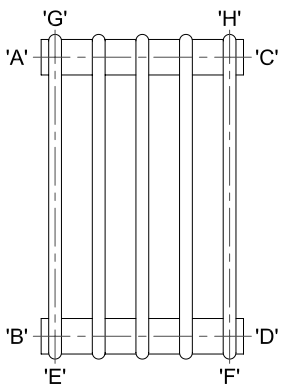
EFGH connections



How to calculate centre to centre dimension

Element Spacing(s)			
ES35	ES70	ED35	ED70
35mm	40/50mm	35mm	40/50mm

L = N x S
X = (N - 2) x S
L = width of the radiator
N = number of elements
S = element spacing
X = centre to centre dimension for EFGH connections



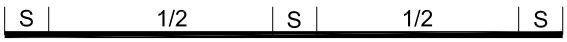
Applications & Bracket Details

Support positions over length range

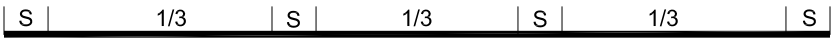
For All Column Radiators

For Lengths 300mm-1000mm

For Lengths 1001mm-2000mm



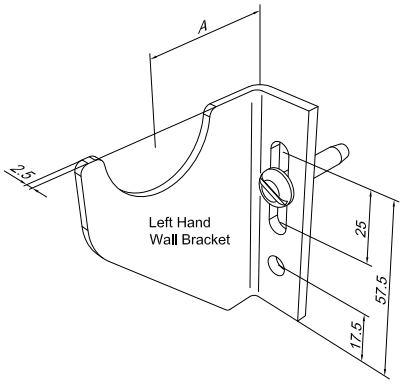
For Lengths 2001mm-3000mm

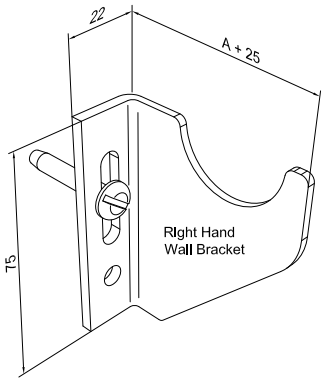


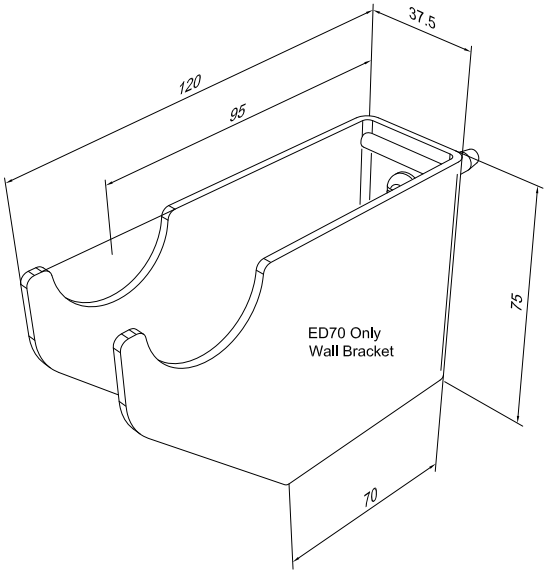
S = Support Positions

Brackets

All Merriott Radiators column radiators are supplied as standard with wall-mounting brackets.
Left Hand and Right Hand brackets (see illustration) are used for mounting the ES35, ES70 and ED35 types.
The ED70 requires a wider bracket (see illustration).







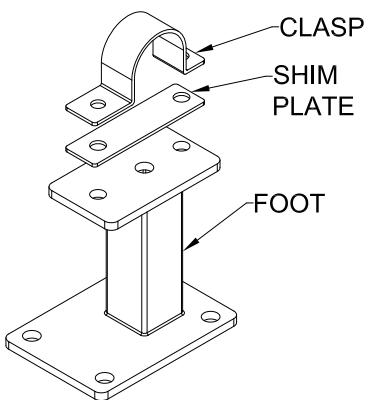
Type	Dimension A
ED35	60mm
ES35	40mm
ES70	40mm

Other dimensions for A available on request
All dimensions are in millimetres

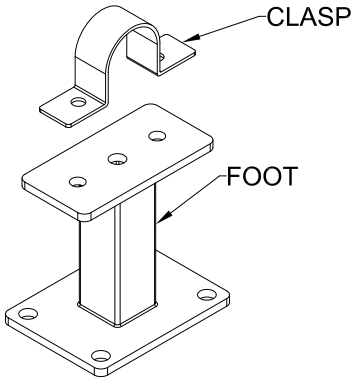
Applications

Loose feet details

In certain conditions fully wall mounted emitter installations are not possible due to insufficient wall strength and additional floor supports may be required.
In such installations loose feet can be bolted to the bottom of the emitter thus making the emitter floor mounted.



ES35 (Base Plate 105 x 75)
ES70 (Base plate 125 x 75)



ED35 (Base Plate 100 x 75)
ED70 (Base plate 140 x 75)

LST Style	Loose Foot Height (mm)
23	173
24	243
27	173
28	243

Please Note:
Loose feet can not be used on an emitter behind a LC22 or LC26 LST casing.
Loose feet will be required at different heights depending on the LST style.
The heights shown are a standard guide, custom height can be supplied if requested.

Technical data per element

Type:		ES35		ED35	
Heights mtr	Heights mm	Water Content litres	Dry Weight kg	Water Content litres	Dry Weight kg
1.6	1600	0.45	1.38	0.9	2.88
1.7	1700	0.48	1.46	0.95	3.11
1.8	1800	0.5	1.54	1	3.35
1.9	1900	0.52	1.62	1.06	3.57
2	2000	0.55	1.7	1.11	3.8
2.1	2100	0.57	1.78	1.16	3.97
2.2	2200	0.6	1.86	1.21	4.15
2.3	2300	0.62	1.94	1.27	4.32
2.4	2400	0.65	2.02	1.32	4.5
2.5	2500	0.67	2.1	1.37	4.7
2.6	2600	0.69	2.18	1.42	4.9
2.7	2700	0.72	2.26	1.47	5.1
2.8	2800	0.74	2.34	1.53	5.24
2.9	2900	0.77	2.42	1.58	5.43
3	3000	0.79	2.5	1.63	5.62

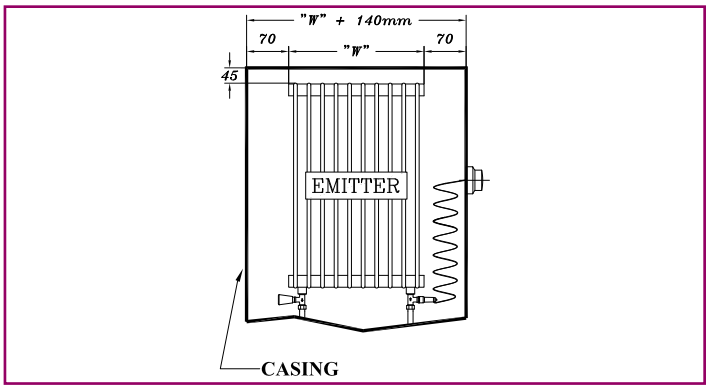
Technical data per element

ES70		ED70	
Water Content litres	Dry Weight kg	Water Content litres	Dry Weight kg
0.84	2.66	1.74	5.91
0.89	2.82	1.84	6.27
0.94	2.98	1.94	6.64
0.98	3.14	2.05	7.01
1.03	3.3	2.15	7.38
1.08	3.46	2.26	7.74
1.13	3.62	2.36	8.11
1.18	3.78	2.47	8.48
1.23	3.94	2.57	8.85
1.28	4.1	2.68	9.21
1.32	4.26	2.78	9.56
1.37	4.42	2.89	9.93
1.42	4.58	2.99	10.29
1.47	4.74	3.09	10.66
1.52	4.9	3.2	11.02

Valve Option Features

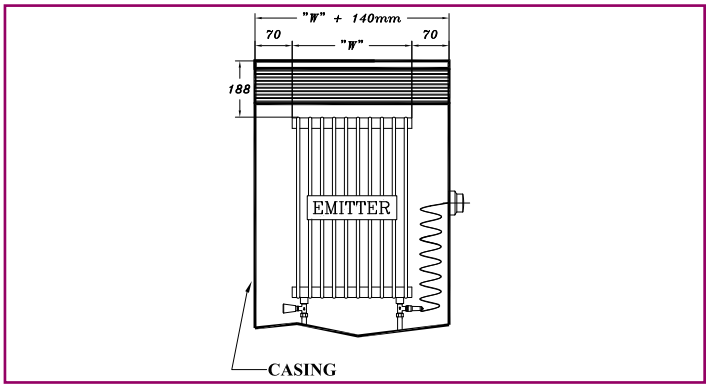
Merriott Radiators has a number of Thermostatic Radiator Valve (TRV) options and features available. For each valve option the valve make and model is required, the handings for the TRVs (left or right side of the LST casing) may also be required depending on the valve option selected. There are additional features such as access-doors (AKA Cat-Flaps) and Hinged Top Grille available, these may help accomplish your job requirements. If however, you are unsure as to which additional feature might suit your required LST application please contact Merriott Radiators.

Option: T11



Option: T11
Is available on styles 22, 23 & 24
Remote capillary TRV sensor/adjuster is fixed to left or right of LST casing.
Radiator connected BBOE.
(All TRVs by others)

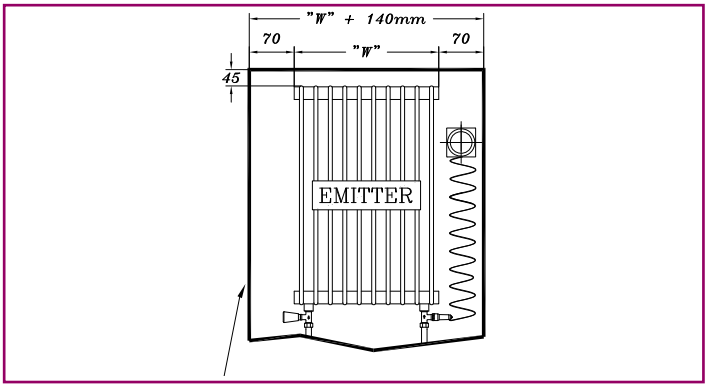
Option: T12



Option: T12
Is available on styles 26, 27 & 28
Remote capillary TRV sensor/adjuster is fixed to left or right of LST casing.
Radiator connected BBOE.
(All TRVs by others)

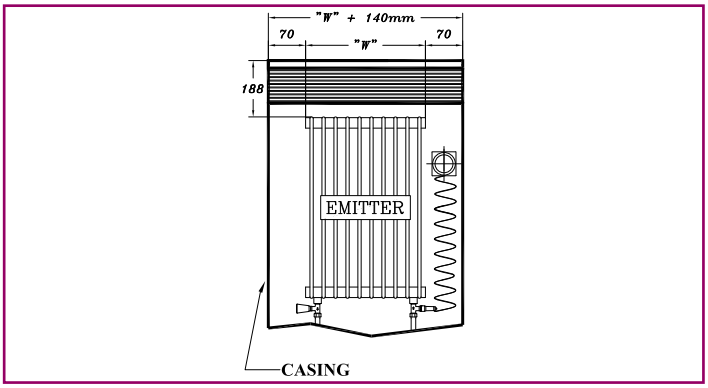
Valve Option Features

Option: T13



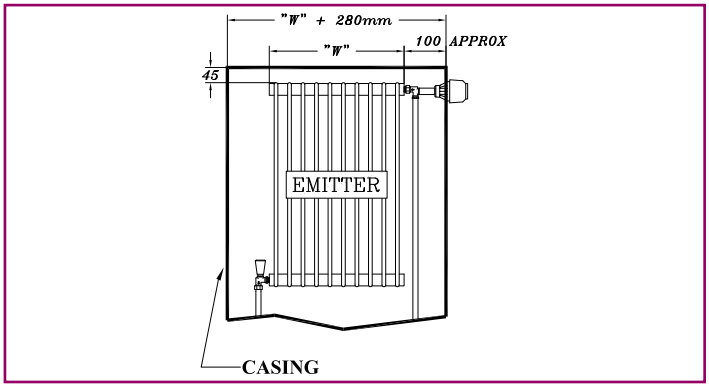
Option: T13
Is available on styles 22, 23 & 24
Remote capillary TRV sensor/adjuster is fixed to the front of the LST casing
left or right handings
Radiator connected BBOE
(All TRVs by others)

Option: T14



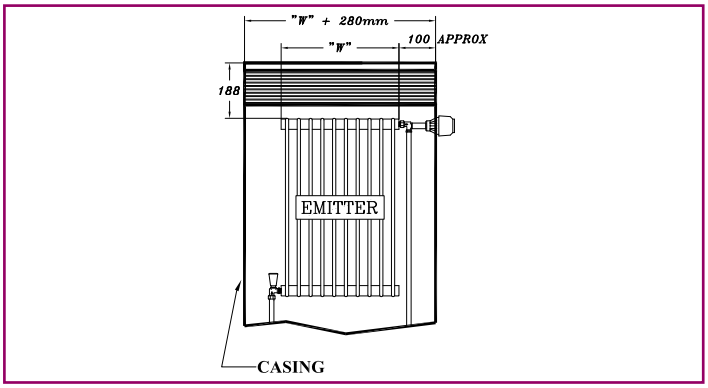
Option: T14
Is available on styles 26, 27 & 28
Remote/adjuster capillary TRV, fixed to the front of the LST casing left or right handings.
Radiator connected BBOE
(All TRVs by others)

Option: T15



Option: T15
Is available on styles 22, 23 & 24
The TRV head protrudes through a knock-out or punched hole (Cutout) in the endbox.
Radiator connected TBOE, left or right handings.
(All TRVs by others)

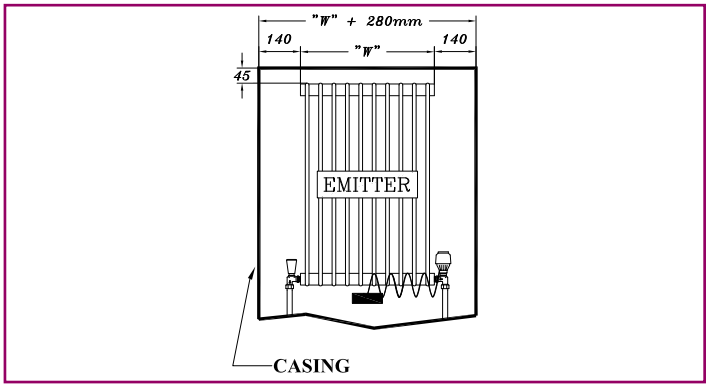
Option: T16



Option: T16
Is available on styles 26, 27 & 28
The TRV head protrudes through a knock-out or punched hole (cutout) in the endbox.
Radiator connected TBOE, left or right handings.
(All TRVs by others)

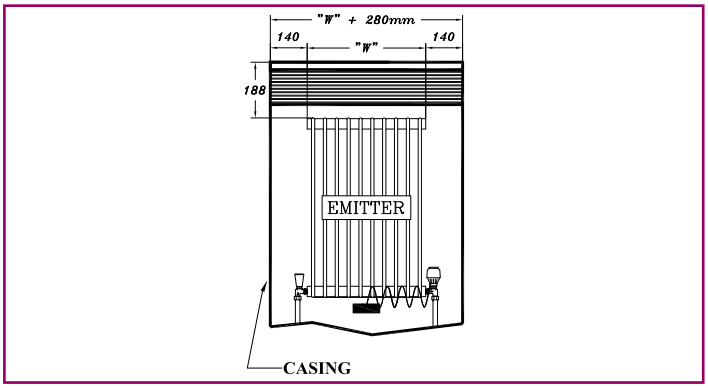
Valve Option Features

Option: T17



Option: T17
Is available on styles 22, 23 & 24
Remote capillary sensor TRV.
Access via cat-flap in side plate left or right handings.
Radiator connected BOE
(All TRVs by others)

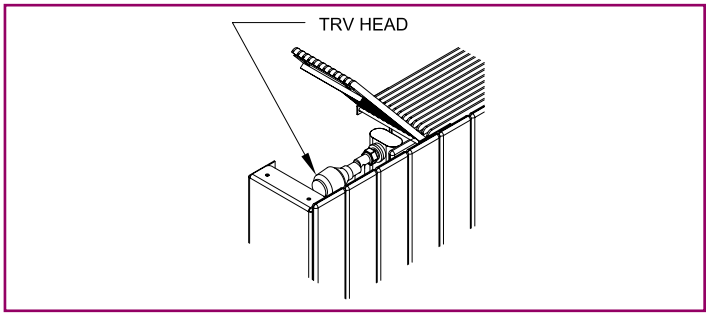
Option: T18



Option: T18
Is available on styles 26, 27 & 28
Remote capillary sensor TRV.
Access via cat-flap in side plate left or right handings.
Radiator connected BOE
(All TRVs by others)

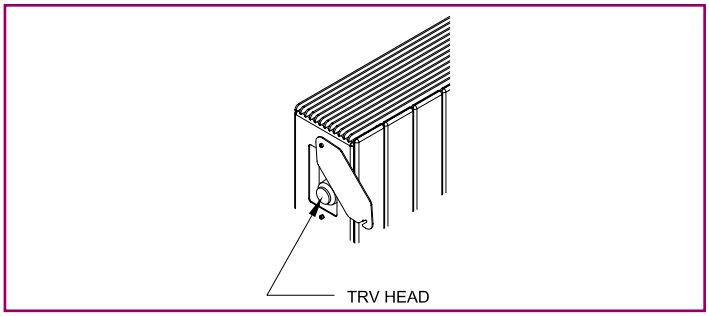
Valve Option Features
Additional features

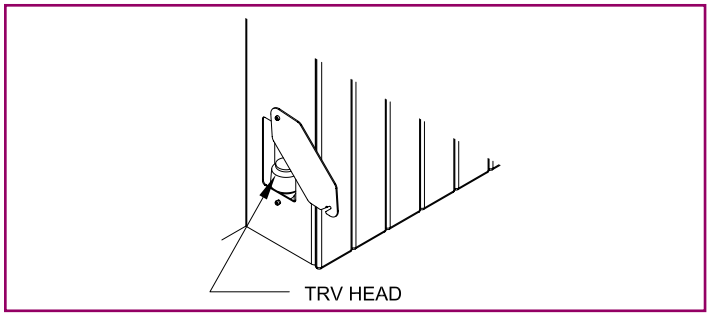
Hinged Top Grille:



The hinged top grille is available on styles 22, 23 & 24
This is a useful option where the TRV head is enclosed in the LST casing. This provides ideal access to the TRV head.

Access-Door (Cat-Flap)



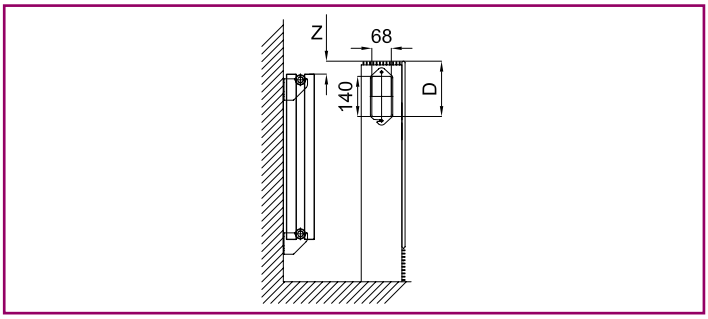


The access door is available on all styles. This is a useful option when valve options T17 or T18 have been selected.
The Access-Door (Cat-Flap) is not lockable.

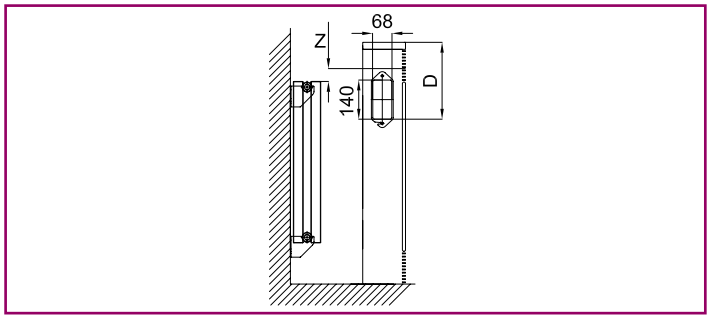
Access-Door Locations

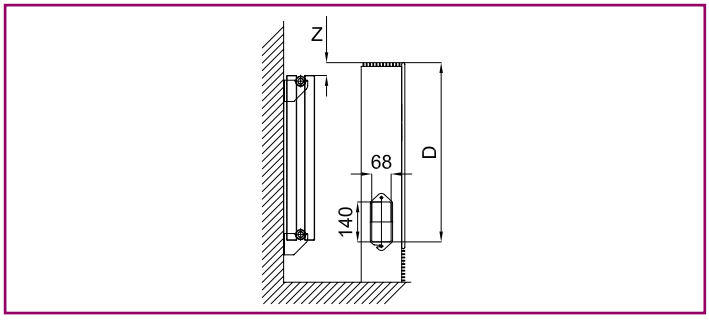
Dimension	Styles: 22, 23 & 24	Styles: 26, 27 & 28
Clearance: Z =	45mm	188mm
Access-Door @ Top: D =	190mm	275mm
Access-Door @ Bottom: D =	Emitter height+95mm	Emitter height+238mm

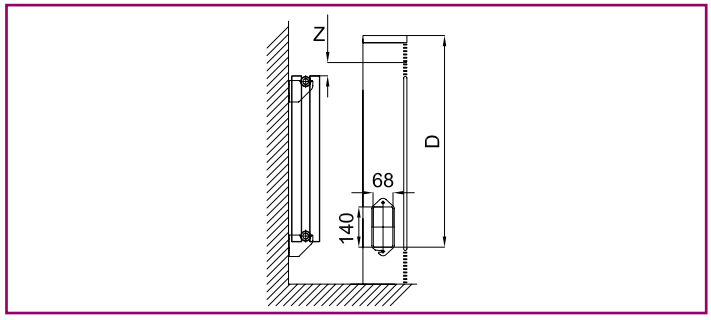
Access-Door @ Top Styles: 22, 23 & 24



Access-Door @ Top Styles: 26, 27 & 28

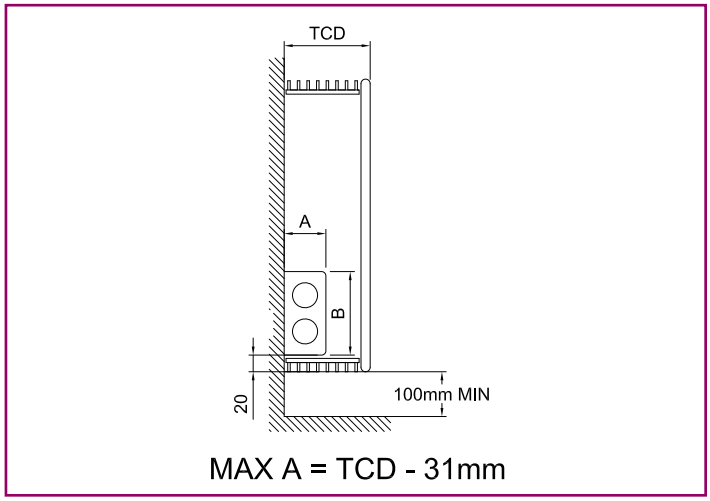




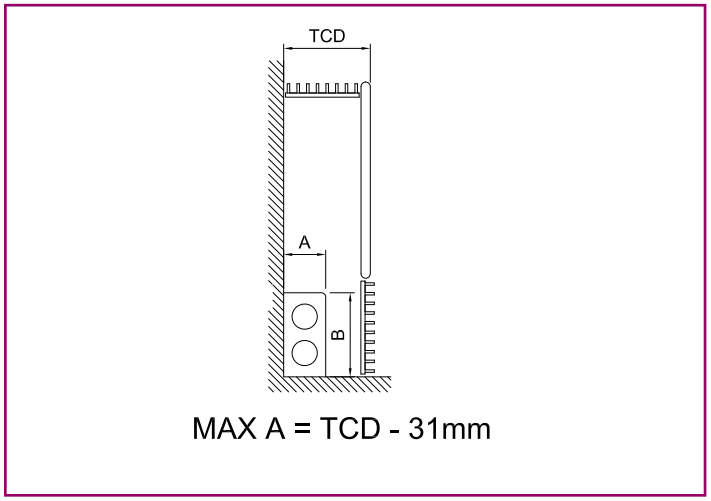


Pipework Cutout Options

There is “BOX” pipework cutouts available. See below for details



Box Pipework Cutout
For Styles 22 & 26
“TCD” = Total Case Depth (mm)



Box Pipework Cutout
For Styles 23, 24, 27 & 28
“TCD” = Total Case Depth (mm)

Specification Sheet

LST ENDBOX VALVE OPTION / PIPEWORK / CAT-FLAP CUTOUT SPECIFICATION SHEET															
Rad Ref.	Width	Height	Depth	Style	Valve Option	Valve Handings (√)		Cutout Type (√)			Cutout Handings (√)		A Value	B Value	D Value
-	-	-	-	-	-	LH	RH	BOX	ROUND	CAT-FLAP	LH	RH	-	-	-

Correction Factors

Emissions at two separate Delta T°Cs (ΔT°Cs) are provided in the Heat Emission Charts in this catalogue. Listed below are the correction factors needed to calculate the emission at other Delta Ts (ΔTs) between 10°C and 80°C. This is done by correcting your heat emission with the appropriate correction factor selected from the table below. Please note more detailed correction factors for column products are available from the sales office.

Example:
Say, required room temperature = 21°C
Flow temperature = 86°C
Return temperature = 72°C
How is the emission found?

Solution:
Mean Water Temperature = (T flow + T return)/2 = (86 + 72)/2 = 79°C
DeltaT = Mean Water Temp - Required Room Temp = 79 - 21 = 58°C

From the tables below, the emission for a ES35 or ES70 type is
1.204 times the emission stated at ΔT50°C
or 1.045 times the emission stated at ΔT56°C, etc.

ΔT(°C)	Based on ΔT50	Based on ΔT56
10	0.134	0.116
11	0.151	0.131
12	0.168	0.146
13	0.186	0.161
14	0.204	0.177
15	0.222	0.193
16	0.241	0.209
17	0.260	0.225
18	0.279	0.242
19	0.298	0.259
20	0.318	0.276
21	0.338	0.293
22	0.358	0.311
23	0.379	0.329
24	0.400	0.347
25	0.420	0.365
26	0.442	0.383
27	0.463	0.402
28	0.484	0.420
29	0.506	0.439
30	0.528	0.458
31	0.550	0.477
32	0.572	0.497
33	0.595	0.516
34	0.617	0.536
35	0.640	0.556
36	0.663	0.576
37	0.686	0.596
38	0.710	0.616
39	0.733	0.636
40	0.757	0.657
41	0.780	0.677
42	0.804	0.698
43	0.828	0.719
44	0.852	0.740
45	0.877	0.761

ΔT(°C)	Based on ΔT50	Based on ΔT56
46	0.901	0.782
47	0.926	0.803
48	0.950	0.825
49	0.975	0.846
50	1	0.868
51	1.025	0.890
52	1.050	0.912
53	1.076	0.933
54	1.101	0.956
55	1.127	0.978
56	1.152	1
57	1.178	1.022
58	1.204	1.045
59	1.230	1.067
60	1.256	1.090
61	1.282	1.113
62	1.309	1.136
63	1.335	1.159
64	1.361	1.182
65	1.388	1.205
66	1.415	1.228
67	1.442	1.251
68	1.469	1.275
69	1.496	1.298
70	1.523	1.322
71	1.550	1.345
72	1.577	1.369
73	1.605	1.393
74	1.632	1.417
75	1.660	1.441
76	1.688	1.465
77	1.716	1.489
78	1.743	1.513
79	1.771	1.537
80	1.799	1.562

Resistance

How to calculate the Resistance of a Column Radiator behind a Vertical LST

The following is how to find the resistance of a Column radiator type ES70 480mm long X 2000mm high:

First, establish what the output of the emitter is.
This is found in the catalogue. (For this particular example please see page 36 in the column section.)
Output from the catalogue is 1808 Watts

In this example the system is operating at ΔT56°C (Flow @ 82°C, Return 71°C).

(If the output is for a ΔT°C other than what is indicated in the emission tables (ΔT50°C, ΔT56°C) please use the correction factor tables indicated to get the corrected output.)

C is the Specific Heat Constant (always 4187 J/Kg°C)

Calculate the flow rate as follows

Q = (m) x (C) x (ΔT)

Output = (Flow Rate) (Constant) (Difference between flow and return temperature)

Watts = (l/s) (J/Kg°C) (°C)

1808 = (m) (4187) (11)

Therefore

m = 1808/((4187) x (11))

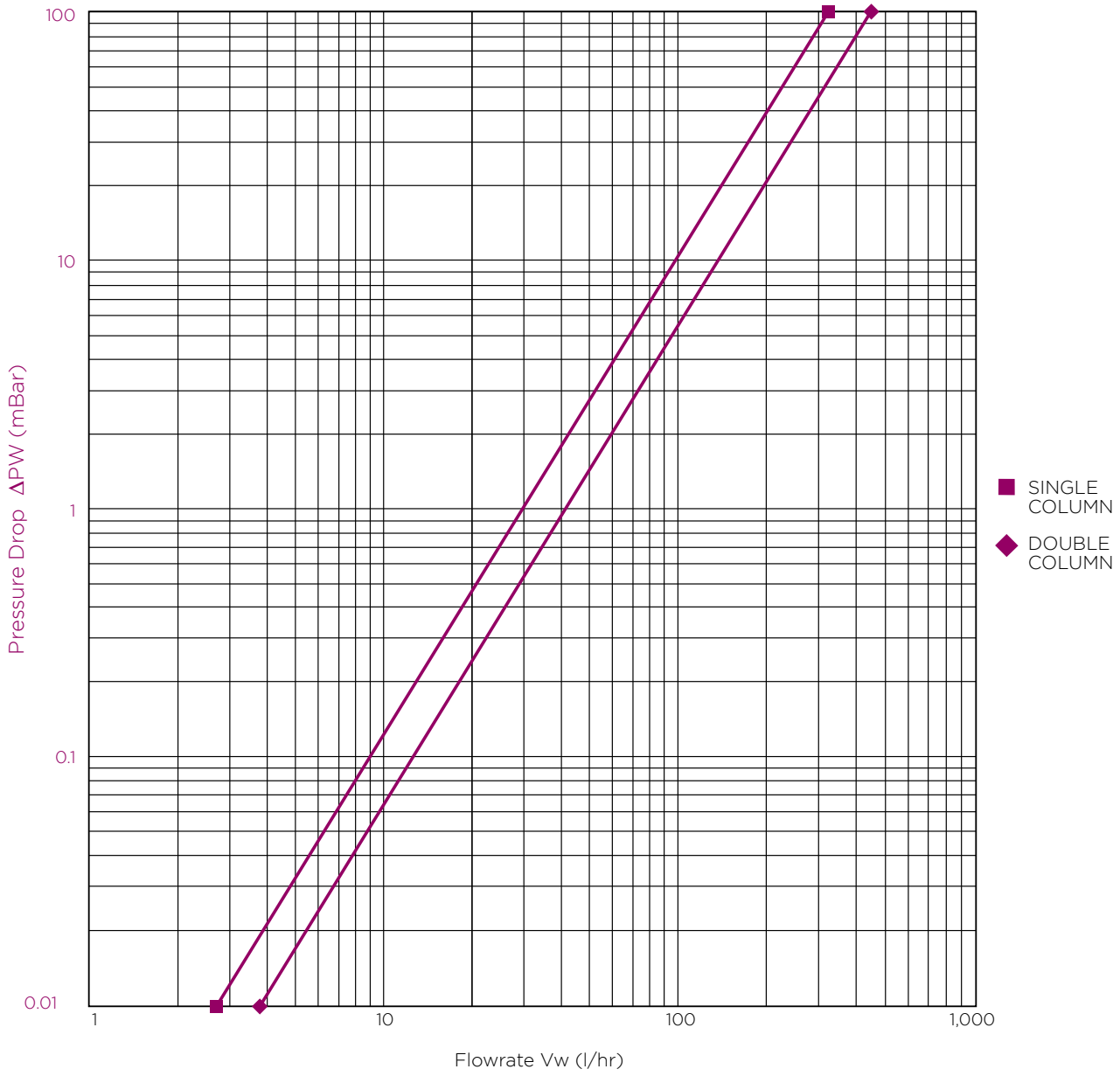
m = 0.039255704 Litres per Second (l/s) multiply by 3600 to convert to litres per hour

m = 141.32 litres per hour (l/hr)

Now, lookup the resistance diagram

Reading from the chart this gives a value of 20mBar or 2Kpa ES70 is a Single Column radiator so the reading is taken from the Single Column line.

Resistance Diagram



How to Order

Merriott Radiators Ireland

Derrylin, Co. Fermanagh, Northern Ireland, BT92 9AU

For contact numbers please see below.

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Web : www.merriott-radiators.com

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Merriott Radiators, Imperial Park, Newport, Gwent NP10 8ZY

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Fax : +44 (0) 1633 657 084

Irish Enquires

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Tel : +44 (0) 28 6774 2606
Fax: +353 (0) 49 9525231

Orders:

Tel : +44 (0) 28 6774 2535
Fax: +353 (0) 49 9525231

UK Enquires

Quotes:

Tel : +44 (0) 28 6774 2549
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Orders:

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Merriott Radiators Ireland

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Orders:

Tel : +44 (0) 28 6774 2535
Fax: +353 (0) 49 9525231

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Quotes:

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Orders:

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Fax: +44 (0) 28 6774 8107