THE PERIMETER HEATING COMPANY

SILL LINE® PERIMETER HEATING
PRODUCT BROCHURE

Sill Line® perimeter heating, as its name suggests, supplies warmth just where it's needed, along exterior walls where the greatest heat loss occurs. Its ability to silently provide heat evenly creates a comfortable working environment. Additionally, the sleek continuous casing can be used to conceal pipework, power and data trunking and other services. The Sill Line brand of perimeter heating has been used in office blocks, schools, colleges, universities, libraries and hospitals for over 90 years.

The casing houses high efficiency Finrad® heating elements. As hot water is passed through the pipe, air enters the casing at the bottom, as the air is drawn through the fins, heat is transferred from the water to the air. The warm air rises, drawing cooler air in behind it and discharges into the room from the top of the unit, this is called the stack effect.

The effect of the casing stack height can be seen within the output tables where operating conditions remain unchanged.

As standard the casing and brackets are manufactured from zintec steel, bespoke materials and finishes can be accommodated on request.

The outlet grille which is positioned at the top of the casing in various orientations is made from extruded aluminium and can be supplied in its standard satin silver finish or powder coated to match or contrast the casing.

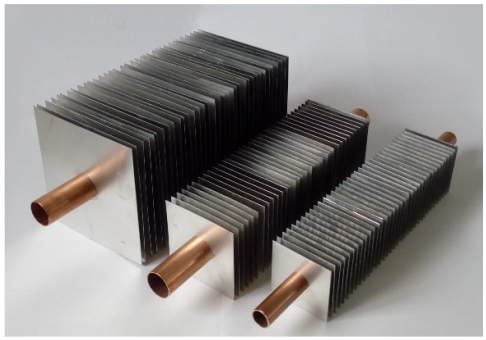
The Perimeter Heating Company Ltd recognises that perimeter heating is a product which, more than most, must be tailored to meet the parameters of each specific project. We will work tirelessly to perform as well as our products, combining technical requirements with design aesthetics to produce results that are exquisite to look at and perform as expected.

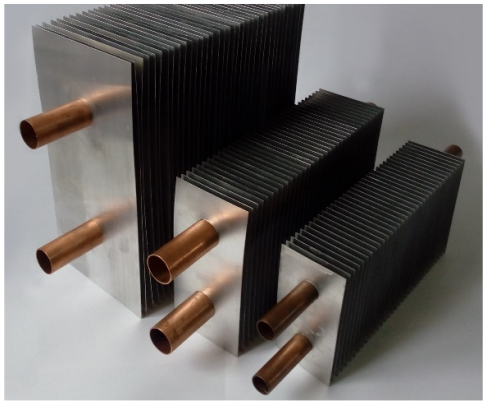
Within this brochure you will find cross sections for all standard models for your information.
Please call 07803 307 373 to discuss your specific project requirements or forward an enquiry to sales@perimeterheating.com along with as much information as possible for a specification document and/or quotation.

Contents

Finrad® Heating Elements

Finrad Heating elements are supplied with plain copper ends in standard 15 or 22mm tubes for joining on site, allowing for continuous runs of indefinite length. It is recommended that continuous runs over 10 metres in length should incorporate expansion bellows within the casing. Valves, joints and expansion bellows are supplied and fitted by others.





Elements can be produced in three, single tube sizes and three, twin tube sizes. The tables below provide outputs for all based on material width, 50, 65 and 110mm respectively.

Outputs are based on our standard conditions with a fin pitch of 6mm as standard.
Fin pitch can be adjusted based on 3mm centres and multiples thereof. This is particularly useful on longer single pipe systems as it allows us to spread the delivery of heat evenly along the entire run length.

Product Selection

TABLE 0

TOP OUTLET | SLOPING TOP | FRONT OUTLET

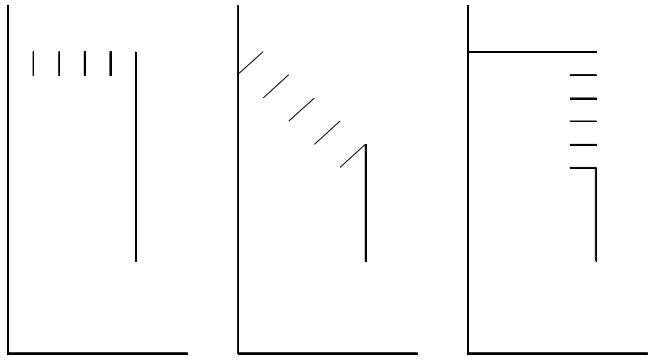
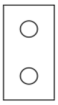
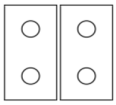


TABLE 1-050

REFERENCE		SFE	SLE	SLE	SLE x 2
FIN DIMENSIONS (mm)		50 x 50	50 x 100	100 x 50	50 x 100
TUBE DIAMETER (mm)		15	15	15	15
ORIENTATION			VERTICAL	HORIZONTAL	VERTICAL SIDE BY SIDE
SECTION VIEW					
NOMINAL CASING DEPTH (mm) >		60	60	110	110
CASING HEIGHT (mm)	AIR OUTLET POSITION	WATTS/METRE	WATTS/METRE	WATTS/METRE	WATTS/METRE
165	TOP / SLOPING	275	390	385	545
	FRONT	245	350	345	490
200	TOP / SLOPING	290	415	405	580
	FRONT	265	375	370	525
300	TOP / SLOPING	335	475	470	665
	FRONT	310	445	435	625
400	TOP / SLOPING	370	530	520	740
	FRONT	350	500	490	700
500	TOP / SLOPING	400	570	560	800
	FRONT	380	540	530	755
600	TOP / SLOPING	425	605	595	845
	FRONT	405	575	565	805
700	TOP / SLOPING	450	640	630	895
	FRONT	445	635	625	890

Stated outputs at 82/71/18°C and flow rate of 0.92m/s, Watts/metre based on finned length. For MWT and Flow Rate correction factors refer to Tables 2 and 3.

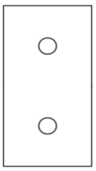
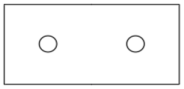
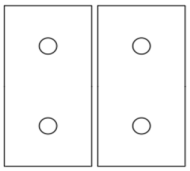
TABLE 1-065

REFERENCE		SLS	WSCU	WSCU	WSCU x 2
FIN DIMENSIONS (mm)		65 x 65	65 x 130	130 x 65	65 x 130
TUBE DIAMETER (mm)		22	22	22	22
ORIENTATION			VERTICAL	HORIZONTAL	VERTICAL SIDE BY SIDE
SECTION VIEW					
NOMINAL CASING DEPTH (mm) >		75	75	140	140
CASING HEIGHT (mm)	AIR OUTLET POSITION	WATTS/METRE	WATTS/METRE	WATTS/METRE	WATTS/METRE
165	TOP / SLOPING	455	650	635	910
	FRONT	410		575	
200	TOP / SLOPING	485	690	680	965
	FRONT	435		610	
300	TOP / SLOPING	555	790	775	1105
	FRONT	520	740	730	1035
400	TOP / SLOPING	615	880	860	1230
	FRONT	580	830	810	1160
500	TOP / SLOPING	665	950	930	1330
	FRONT	630	900	880	1260
600	TOP / SLOPING	705	1010	985	1415
	FRONT	670	960	940	1345
700	TOP / SLOPING	750	1070	1050	1500
	FRONT	740	1060	1035	1485

Stated outputs at 82/71/18°C and flow rate of 0.92m/s, Watts/metre based on finned length. For MWT and Flow Rate correction factors refer to Tables 2 and 3.

Ø22mm Elements available with 15mm pipe option on special order, apply 0.85 correction factor.

TABLE 1-110

REFERENCE		XCU	XCT	XCT	XCT
FIN DIMENSIONS (mm)		110 x 110	110 x 220	110 x 110	110 x 110
TUBE DIAMETER (mm)		22	22	22	22
ORIENTATION			VERTICAL	HORIZONTAL	VERTICAL SIDE BY SIDE
SECTION VIEW					
NOMINAL CASING DEPTH (mm) >		120	120	230	230
CASING HEIGHT (mm)	AIR OUTLET POSITION	WATTS/METRE	WATTS/METRE	WATTS/METRE	WATTS/METRE
165	TOP / SLOPING	860		1205	
	FRONT				
200	TOP / SLOPING	920		1290	
	FRONT				
300	TOP / SLOPING	1080	1380	1510	1930
	FRONT	1010		1415	
400	TOP / SLOPING	1200	1560	1680	2185
	FRONT	1130	1470	1580	2060
500	TOP / SLOPING	1290	1680	1805	2350
	FRONT	1230	1600	1720	2240
600	TOP / SLOPING	1370	1770	1920	2480
	FRONT	1300	1700	1820	2380
700	TOP / SLOPING	1430	1840	2000	2575
	FRONT	1370	1770	1920	2480

Stated outputs at 82/71/18°C and flow rate of 0.92m/s, Watts/metre based on finned length. For MWT and Flow Rate correction factors refer to Tables 2 and 3.

Ø22mm Elements available with 15mm pipe option on special order, apply 0.85 correction factor.

Correction Factors applied to outputs in TABLES 1-050, 1-065 & 1-110

TABLE 2

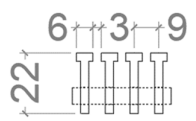
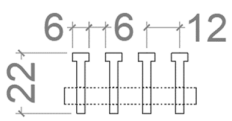
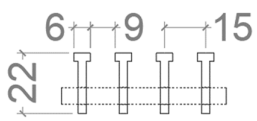
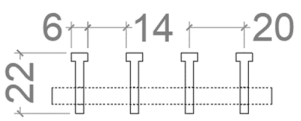
Room	Mean Water Temperature (°C)										
Temp. °C	35	40	45	50	55	60	65	70	75	76.5	80
16	0.21	0.29	0.37	0.47	0.59	0.68	0.79	0.90	1.10	1.06	1.20
18	0.18	0.26	0.34	0.43	0.52	0.64	0.75	0.85	0.96	1.00	1.07
20	0.16	0.23	0.31	0.39	0.50	0.60	0.70	0.80	0.92	0.95	1.03
22	0.13	0.20	0.28	0.36	0.46	0.57	0.66	0.77	0.88	0.91	0.99

TABLE 3

Flow Rate l/s		Correction	Water
15mm Pipe	22mm Pipe	Factor	Velocity m/s
0.007	0.017	0.84	0.05
0.014	0.034	0.90	0.10
0.036	0.085	0.94	0.25
0.072	0.170	0.97	0.50
0.130	0.310	1.00	0.92
0.290	0.680	1.03	2.00

Grille Options

TABLE 4

FREE AREA	30%	50%	60%	70%
CROSS SECTION				
Outlet Grille	0.65	0.84	0.95	1.00
+ Inlet Grille	0.85			

Correction factors for grille free area.

TABLE 5

FINISH	SILVER	BLACK	BRONZE	IVORY	CHAMPAINE	BRUSHED STAINLESS STEEL

Anodised satin silver as standard or special finish as above.
Powder coating also available on request.

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