

## OTHER PRODUCTS FROM THE TURNBULL & SCOTT RANGE...

**THERMOLIER UNIT HEATERS**

**TRENCH HEATING**

**DADO HEATING RAIL**

**HEAT EXCHANGERS**

**GILLED TUBING**

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**BLAST COOLERS**

**RADIANT PANELS**

**SKIRTING HEATING**

**BOILER HOUSES**



Certificate No. 698/95

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**Turnbull & Scott™**  
Specialist Heating Solutions

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**Turnbull & Scott™**  
Thermolier Fan Heaters



**WHEN ALL YOUR HEAT  
RISES INTO A BIG  
EMPTY SPACE...**

**...DON'T LET IT STAY THERE.**



**INTRODUCING THERMOLIER FAN HEATERS  
FROM TURNBULL & SCOTT**

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## MAKING HOT AIR EFFICIENT

**THERMOLIER UNIT HEATERS** are part of a fan driven hot air heating system which utilises heat exchange technology to keep cost at bay. Units are available in horizontal and downflow (vertical) models for use with steam or hot water. Front louvers and careful situation of the units gives exceptionally fast warm up and practical heat control in large spaces. Requiring little or no maintenance, this system is tough and efficient.

High ceiling locations almost inevitably need Thermolier as part of an effective heating solution. Easy to install and control, features include improved air circulation, moisture resistance and no need for wall space.

**Ducting can also be connected** to the rear of the unit to draw fresh air from outside the building or to the front for distribution through a ceiling void or partition to the working area.

### BENEFITS

- Three year guarantee
- Installation and design service ensures correct selection
- Thick wall copper tubes which provide longer life
- Superior tube to fin bond ensures high performance
- Ferruled tube to header joint uses thermal expansion to ensure a tight joint
- Boiler plate header channels eliminate warping or damage when piping up
- Variety of gill spacing allows greater selection of leaving air temperatures
- Deep blade propeller type fan dynamically balanced quiet and efficient operation
- Totally enclosed B.S motors used with 'sealed for life' ball bearings require no maintenance
- Two coat stove enamelled zintec casing resists corrosion
- The fan guard is 'fingerproof' and does not need to be removed to make electrical connections to the motor

### FEATURES

- Provides high output and quick pre-heating
- Low installation costs
- Simple zone control
- Neat unobtrusive appearance
- Compact design
- Over 500 variants available
- Motors are available in a range of speeds
- Flameproof motors are available ex-stock
- Diffusers are available on downflow models with one, two or four way louvres

## WHY QUALITY COSTS LESS

### FAN GUARD & ACCESS

Fan guard need not be removed to wire up motor as with more common units.

Quick and inexpensive wiring of motor

### CASING

Maximum corrosion resistance & minimum maintenance by use of zintec steel - stove enamelled.

Last longer. Maintains neat appearance

### MOTOR

Enclosed fractional horse-power motor with sealed for life ball-bearings. No lubrication required.

Generously rated. Maintenance free long-life

### TUBE JOINT

Unique joint that strengthens with temperature and pressure.

Greater strength joint creates more robust radiator

### TUBE

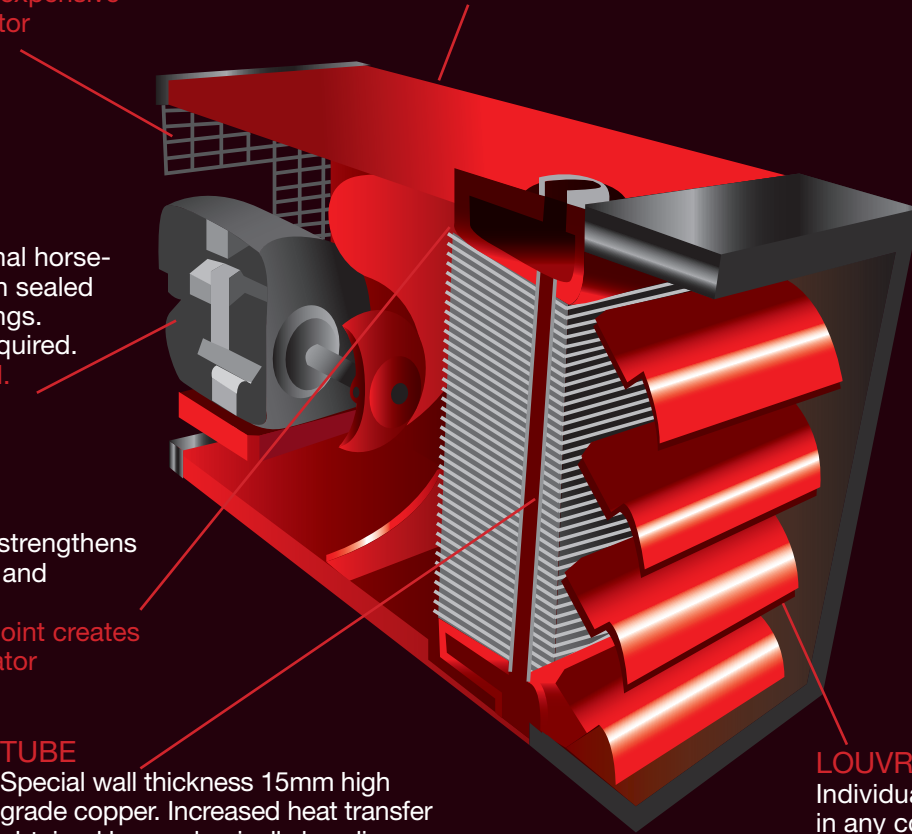
Special wall thickness 15mm high grade copper. Increased heat transfer obtained by mechanically bonding tubes to fins with 'expansion bullet' thus eliminating air gap between tube and fin.

Longer life. More efficient heat transfer

### LOUVRES

Individually adjustable louvres in any combination of one, two, three or four way discharge.

Any air distribution pattern can be obtained

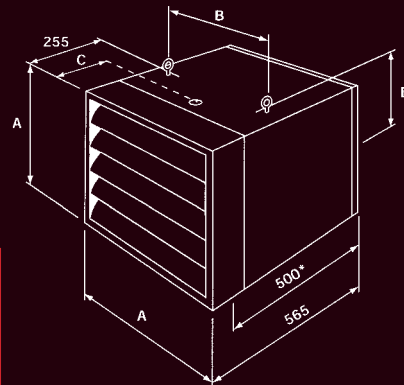


# GENERAL PERFORMANCE AND DIMENSIONS

## DIMENSIONS

DIM. Size	A		B		C		D		Connection		Weight	
	mm	in	mm	in	mm	in	mm	in	mm	in	kg	lb
1	345	13 1/2	275	10 3/4	120	4 3/4	190	7 1/2	25	1	35	77
2	425	16 1/2	350	13 3/4	120	4 3/4	230	9	25	1	40	88
3	500	19 1/2	425	16 3/4	120	4 3/4	265	10 1/2	25	1	50	110
4	575	22 1/2	505	19 3/4	130	5	305	12	40	1 1/2	70	154
5	650	25 1/2	580	22 3/4	130	5	345	13 1/2	40	1 1/2	75	165

## HORIZONTAL UNIT



\*Overall length of unit when fitted with front angle flange.

## HYDRAULIC RESISTANCE - Kpa

SIZE	FLOW LITRES/SEC	0.1		0.2		0.3		0.4		0.5		0.6		0.7		0.8		0.9		1.0		1.2		1.4		
		MEAN WATER TEMP °C	75	140	75	140	75	140	75	140	75	140	75	140	75	140	75	140	75	140	75	140	75	140	75	140
1	2 Row	0.2	0.2	0.9	0.7																					
	3 Row	0.2		0.4																						
2	2 Row	0.2	0.2	0.9	0.7	2.0	1.6	3.5	3.0																	
	3 Row	0.2		0.4		0.8		1.2																		
3	2 Row	0.6	0.6	1.3	1.0	3.0	2.6	5.5	7.5	8.7	7.2	12	10													
	3 Row	0.1		0.3		0.5		1		1.7		2	3													
4	2 Row	0.6	0.6	1.4	1.3	3.6	3.2	6.6	5.8	10	9.0	15	13	21	18											
	3 Row	0.2		0.4		0.5		0.9		1.4		2	3	4	5											
5	2 Row	0.6	0.6	1.4	1.3	3.8	3.3	6.9	6.1	11.0	9.2	16	14	21	18											
	3 Row	0.2		0.4		0.5		0.9		1.4		2	3	3	4	5	8	10.0								

## SPECIFICATION

Casing is constructed from 1mm thick zinc coated steel to BS.1449. The body and louvers are stove enamel finished in post office red with the louvre box and fan guard black. Overall Thermolier dimensions/weight and inlet connections vary, dependent upon customer requirements. However, please feel free to contact us for product selection assistance on +44 (0)1450 372 053.

Heater battery is constructed using 15mm outside diameter specifically made thick walled copper tubes to BS.2870 grade C106. The gills are 0.35mm thick aluminium to B.S.1470. The boiler plate header channels are 8mm thick steel to BS.1501-161-430B. Eyebolts are secured to lugs welded directly to the headers. The battery is hydraulically tested to 25 bar for not less than five minutes. Motor and fan assembly is a continuously rated, totally enclosed air over motor type with 1P44 protection against the penetration of dust and moisture into the windings. The motor fully complies with BS.2048 pt. 1, BS 5000 pt. 2 and BS.2757.

## DESIGN & INSTALLATION

The Thermolier Design Team will design a Thermolier Installation to suit customers individual requirements. Turnbull & Scott also offer a full installation package including boiler house design if required.

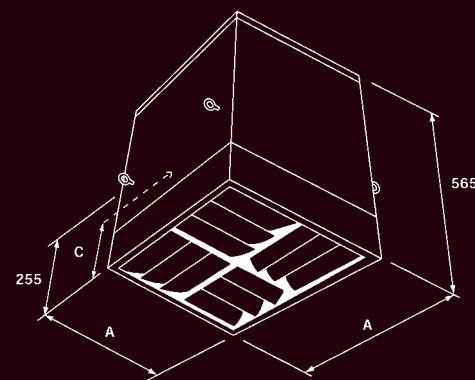
## THREE YEAR GUARANTEE

A Thermolier Unit Heater found to be defective due to workmanship or materials within three years of it's despatch from our works will be repaired or replaced, at our discretion, if returned to our works.

## QUALITY ASSURANCE

Over 50 years experience ensures that all components are manufactured to appropriate British Standards and quality procedures BS.EN.ISO 9001/:2000.

## DOWNFLOW UNIT



Certificate No. 698/95

# GENERAL PERFORMANCE AND DIMENSIONS

The information contained in this data sheet has been formulated to assist the customer in the selection of the heating units most suited to their requirements.

## SUMMARY OF MODEL REFERENCE

Model reference is shown with an explanation of each digit.

Example: 326N-S-H-3

- 3** 1-5 Physical Size (Five standard sizes)
- 2** 2-3 Number of tube rows (2 or 3 depending on heating type)
- 6** 3-6 Number of mm between gills (3 or 6mm to suit Leaving Air Temperature)
- L** Low speed motor
- N** Normal speed motor
- S** Steam type
- W** Water type
- TH.F** Thermal fluid type
- D** Downflow
- H** Horizontal
- D2** Two way downflow

MODEL REFERENCE	RPM	MOUNTING HEIGHTS		COVERAGE	VOLUME	VELOCITY
		DOWNFLOW	HORIZONTAL			
		M	M	M	M3/SEC	M/S
126L	930	2.4-3.0	2.4-3.7	6.0	0.205	2.0
126N	1425	3.0-3.7	2.4-4.3	7.5	0.315	3.5
123L	930	2.4-3.0	2.4-3.7	6.0	0.19	2.0
123N	1425	3.0-3.7	2.4-4.3	7.5	0.295	3.0
133L	930	2.0-2.7	2.0-3.0	4.5	0.13	1.5
133N	1425	2.4-3.0	2.4-3.3	6.0	0.21	2.5
226L	930	3.0-3.7	2.7-4.3	10.5	0.42	3.0
226N	1425	3.7-4.3	3.0-5.2	13.5	0.61	4.5
223L	930	3.0-3.7	2.7-4.3	9.0	0.320	2.5
223N	1425	3.3-4.0	3.0-5.2	12.0	0.515	4.0
233L	930	2.4-3.0	2.4-3.4	7.5	0.24	2.0
233N	1425	3.0-3.7	3.0-4.0	9.0	0.35	2.5
326L	930	3.3-4.0	3.4-4.6	13.5	0.675	3.5
326N	1425	4.3-5.0	3.7-6.0	17.0	0.970	5.0
323L	930	3.3-4.0	3.4-4.6	12.0	0.580	3.0
323N	1425	4.0-4.6	3.7-6.0	15.0	0.880	4.5
333L	930	2.7-3.3	2.7-4.0	9.0	0.370	2.0
333N	1425	3.3-4.0	3.0-4.3	12.0	0.560	3.0
426L	720	3.7-5.0	4.0-5.5	12.0	0.830	3.0
426N	930	4.3-5.5	4.3-6.4	17.0	1.165	4.0
423L	720	307-5.0	4.0-5.5	10.5	0.705	2.5
423N	930	4.3-5.5	4.3-6.4	15.0	1.04	4.0
433L	720	30-4.3	3.4-4.6	9.0	0.610	2.0
433N	930	3.7-5.0	4.0-5.2	12.0	0.865	3.0
526L	720	3.7-5.0	4.6-5.7	13.5	1.19	3.5
526N	930	5.0-6.0	5.0-7.0	20.0	1.52	4.5
523L	720	3.7-5.0	4.6-5.7	12.0	1.09	3.0
523N	930	5.0-6.0	5.0-7.0	18.5	1.495	4.5
533L	720	3.5-5.0	4.0-5.2	11.0	0.885	2.5
533N	930	3.5-5.0	4.0-5.5	14.0	1.245	3.5

## RPM

Is the motor revolutions per minute.

## MOUNTING HEIGHT

The mounting height should be selected with due regard to leaving air temperature.

## COVERAGE

In the case of horizontal units this indicates the effective throw. In the case of a downflow unit it represents the diameter of area covered.

## VOLUME

The volume of air entering the unit.

## VELOCITY

The speed of air leaving the unit at 50°C when entering air temperature is 16°C.



# STEAM THERMAL OUTPUTS

ENTERING AIR TEMPERATURE 20°C (NORMAL ROOM TEMPERATURE)

STEAM PRESSURE	1 BAR		2 BAR		3 BAR		4 BAR		6 BAR		8 BAR	
	MODEL	KW	LAT °C	KW	LAT °C	KW	LAT °C	KW	LAT °C	KW	LAT °C	KW
126L-S	9.2	57	10.1	62	11.2	65	11.5	68	12.5	73	13.5	76
126N-S	11.5	51	13.2	55	14.3	58	15.1	61	16.5	64	17.5	68
123L-S	10.0	65	11.7	71	12.7	75	13.2	80	14.5	85	15.5	89
123N-S	13.1	59	15.3	62	16.3	67	18.0	72	19.5	76	20.5	81
226L-S	16.5	53	18.5	57	20.5	60	22.6	64	23.5	68	25.5	71
226N-S	20.5	48	23.5	52	25.5	54	27.5	57	30.1	60	32.5	63
223L-S	18.6	66	20.5	72	22.2	76	23.5	81	26.0	86	27.5	91
223N-S	24.5	59	28.0	65	30.9	68	32.5	72	35.5	76	37.5	80
326L-S	24.5	50	28.1	54	30.1	57	32.4	60	36.0	64	37.5	67
326N-S	30.3	45	36.6	50	37.5	52	39.5	54	43.5	57	46.0	60
323L-S	29.5	62	35.8	68	37.3	71	39.3	75	42.5	81	45.5	84
323N-S	38.5	57	46.7	62	48.5	65	51.2	68	56.0	73	57.5	76
426N-S	41.5	49	47.3	54	51.6	57	55.1	59	59.5	63	64.2	65
423N-S	51.5	59	56.5	65	63.9	68	66.3	72	74.5	76	79.5	80
526N-S	54.5	48	62.9	53	66.5	56	72.1	59	78.5	63	83.5	67
523N-S	71.2	59	81.5	64	88.2	68	94.2	71	102.5	76	110.3	82

ENTERING AIR TEMPERATURE 10°C (FROST PROTECTION)

126L-S	10.2	48	11.7	53	12.7	56	12.5	60	13.5	64	14.1	67
126N-S	12.5	42	14.5	46	15.0	48	16.3	51	17.5	54	18.5	57
123L-S	11.3	57	12.5	63	13.1	67	14.2	71	15.5	76	16.5	86
123N-S	14.5	51	16.5	56	18.3	59	19.0	63	20.5	67	22.5	71
226L-S	18.5	44	20.5	48	21.5	51	23.5	54	25.5	58	27.5	61
226N-S	22.0	39	26.2	43	27.5	44	29.5	47	32.5	51	34.0	53
223L-S	20.1	58	22.5	64	24.2	68	25.5	73	28.0	79	29.5	82
223N-S	27.9	51	30.5	56	32.5	59	35.1	63	38.1	67	40.5	71
326L-S	27.5	42	30.5	46	32.5	48	35.6	50	38.6	54	40.5	57
326N-S	33.5	35	37.5	40	41.6	42	44.5	45	47.2	48	49.5	51
323L-S	32.5	54	36.5	60	38.5	63	43.5	67	45.5	73	48.5	76
323N-S	43.2	48	48.3	53	52.8	56	57.6	60	59.5	64	64.1	67
426N-S	46.5	39	52.7	44	56.4	47	59.5	50	64.5	53	69.2	56
423N-S	57.7	51	62.5	56	68.5	60	71.5	63	80.5	67	85.0	71
526N-S	60.5	40	68.1	44	72.5	50	78.2	55	84.5	59	90.3	61
523N-S	79.3	52	89.2	57	95.6	64	101.5	68	110.5	73	117.5	76

ENTERING AIR TEMPERATURE -1°C (FRESH AIR INTAKE START-UP)

126L-S	11.0	39	12.9	44	13.8	47	13.5	50	14.5	54	15.5	57
126N-S	13.5	32	15.6	36	16.9	39	17.4	41	18.5	44	19.5	47
123L-S	12.7	48	13.5	54	14.5	58	15.5	62	16.5	67	17.5	71
123N-S	16.3	42	18.8	47	19.5	49	20.5	54	22.5	58	23.5	61
226L-S	20.5	35	23.9	39	24.7	42	25.5	45	27.5	49	29.4	52
226N-S	25.5	30	28.5	33	30.2	35	32.3	40	35.4	41	37.5	43
223L-S	22.1	49	24.5	56	26.3	59	27.5	63	30.8	69	31.5	72
223N-S	30.3	42	33.5	47	35.5	49	37.5	53	41.2	58	43.2	61
326L-S	30.2	32	33.5	36	35.5	39	38.2	41	41.1	45	43.1	48
326N-S	36.5	25	39.0	30	43.5	32	46.5	35	50.5	38	53.5	39
323L-S	36.6	45	40.3	51	42.5	54	45.5	58	49.0	64	52.0	67
323N-S	47.8	33	52.5	38	55.5	44	59.5	50	64.5	54	68.1	57
426N-S	50.5	29	56.5	34	60.7	34	64.1	35	69.5	38	73.3	41
423N-S	62.5	42	68.6	47	74.5	51	77.8	55	86.5	81	90.5	85
526N-S	66.5	29	74.0	35	89.6	38	84.6	41	90.5	45	96.3	49
523N-S	86.5	41	96.5	46	103.5	50	110.5	53	118.5	58	125.5	62

FORMULA TO OBTAIN STEAM CONSUMPTION  $\frac{\text{WATTS}}{580} = \text{Kg/Hr}$

# L.P.H.W THERMAL OUTPUTS

ENTERING AIR TEMPERATURE 20°C (NORMAL ROOM TEMPERATURE)

WATER TEMP. TEMPERATURE DROP	65°C		70°C		75°C		80°C		85°C		90°C	
	MODEL	KW	LAT °C	KW	LAT °C	KW	LAT °C	KW	LAT °C	KW	LAT °C	KW
123L-W	2.2	31	2.6	32	3.0	35	3.7	37	4.0	39	4.6	41
123N-W	3.2	30	4.0	32	4.6	34	5.3	36	6.1	38	6.7	40
133L-W	2.8	38	3.3	42	3.8	45	4.4	50	4.9	53	5.6	56
133N-W	3.7	36	4.6	38	5.5	43	6.4	46	7.3	51	8.2	53
223L-W	5.3	35	6.3	37	7.3	40	8.5	43	9.7	46	10.7	48
223N-W	7.5	32	8.8	34	10.2	37	11.6	39	13.2	41	14.7	43
233L-W	6.8	43	8.0	48	9.4	53	10.5	56	11.7	60	13.2	66
233N-W	10.0	44	11.7	49	13.2	52	15.0	55	16.5	60	18.2	63
323L-W	11.0	36	12.8	38	14.4	41	16.0	43	17.6	45	19.2	48
323N-W	14.4	34	16.7	36	18.8	38	21.4	41	23.4	42	25.5	45
333L-W	12.0	48	13.7	52	15.5	55	17.3	60	19.2	65	21.0	69
333N-W	17.2	44	19.5	50	22.0	53	24.6	56	26.9	60	29.3	64
423N-W	18.0	35	20.8	37	23.0	39	25.6	41	28.0	43	30.5	45
433N-W	23.7	42	27.4	46	30.8	50	34.1	53	37.3	55	40.6	58
523N-W	26.5	36	30.2	38	33.8	40	37.5	42	41.0	43	44.4	45
533N-W	32.0	42	36.6	44	41.0	48	45.4	51	49.5	53	54.0	56

ENTERING AIR TEMPERATURE 10°C (FROST PROTECTION)

123L-W	3.0	23	3.7	25	4.0	27	4.6	29	5.0	31	5.6	34
123N-W	4.6	22	5.3	24	6.2	26	6.7	28	7.5	30	8.2	32
133L-W	3.8	34	4.4	37	4.9	41	5.6	44	6.2	49	6.9	53
133N-W	4.6	31	5.5	34	6.4	38	7.3	41	8.2	44	10.0	49
223L-W	7.3	28	8.5	31	9.7	33	10.7	36	12.0	38	13.0	41
223N-W	10.2	25	11.6	27	13.2	29	14.7	32	16.1	34	17.6	36
233L-W	9.4	41	10.5	43	11.7	48	13.2	53	14.4	57	15.7	60
233N-W	13.2	40	15.0	43	16.5	46	18.2	51	19.8	54	21.3	59
323L-W	14.4	29	16.0	31	17.6	33	19.2	36	20.2	38	22.4	41
323N-W	18.8	26	21.4	29	23.4	31	25.5	32	27.4	34	29.6	36
333L-W	15.5	43	17.3	46	19.2	50	21.0	54	22.7	57	24.6	62
333N-W	22.0	41	24.6	43	26.9	47	29.3	51	31.6	54	34.2	57
423N-W	23.0	27	25.6	29	28.0	31	30.5	33	33.0	34	35.3	36
433N-W	30.8	37	34.1	40	37.3	43	40.6	46	43.7	49	47.0	52
523N-W	33.8	28	37.5	29	41.0	32	44.4	33	47.8	40	51.3	42
533N-W	41.0	36	45.4	38	49.5	41	54.0	43	58.3	46	62.5	49

ENTERING AIR TEMPERATURE -1°C (FRESH AIR INTAKE START-UP)

123L-W	4.0	15	4.6	17	5.0	19	5.6	22	6.2	24	6.9	27
123N-W	6.1	14	6.7	16	7.5	18	8.2	20	9.0	22	9.4	24
133L-W	4.9	28	5.6	32	6.2	36	6.9	39	7.3	42	8.0	46
133N-W	7.3	26	8.2	28	9.0	31	10.0	36	11.0	39	12.0	43
223L-W	9.7	22	10.7	24	12.0	27	13.0	29	14.0	32	15.1	34
223N-W	13.2	18	14.7	19	16.1	22	17.6	24	19.0	26	20.4	28
233L-W	11.7	35	13.2	40	14.4	43	15.7	48	17.0	51	18.1	55
233N-W	16.4	34	18.2	38	19.8	41	21.3	44	22.9	48	24.4	51
323L-W	17.6	21	19.2	23	20.2	24	22.4	27	24.3	30	25.7	32
323N-W	22.5	18	25.5	21	27.4	22	29.6	24	31.8	26	33.8	27
333L-W	19.2	37	21.0	41	22.7	44	24.6	49	26.5	52	28.4	57
333N-W	26.9	34	29.3	38	31.6	41	34.2	44	36.5	48	39.0	52
423N-W	28.0	19	30.5	21	33.0	22	35.3	24	37.8	26	40.5	28
433N-W	37.3	31	40.6	33	43.7	36	47.0	39	50.1	41	53.3	44
523N-W	41.0	19	44.4	21	47.8	23	51.3	24	55.0	27	58.0	28
533N-W	49.5	28	54.0	31	58.3	33	62.5	36	66.8	39	71.2	41

FORMULA TO OBTAIN WATER FLOW RATE  $\frac{\text{KW}}{\text{TEMPERATURE DROP} \times 4.18} = \text{Litres/Sec}$

# H.P.H.W THERMAL OUTPUTS

## ENTERING AIR TEMPERATURE 20°C (NORMAL ROOM TEMPERATURE)

MEAN WATER TEMP.	130°C				140°C				150°C			
	20°C		30°C		30°C		40°C		30°C		40°C	
	KW	LAT °C	KW	LAT °C	KW	LAT °C	KW	LAT °C	KW	LAT °C	KW	LAT °C
126L-W	5.1	41	4.1	37	4.8	39	3.9	36	5.6	43	4.5	38
126N-W	7.8	41	6.8	38	7.5	40	6.6	37	8.4	42	7.5	40
123L-W	6.3	48	5.1	33	5.9	36	4.8	33	6.6	38	5.7	35
123N-W	9.2	46	6.9	40	8.5	43	6.3	38	9.8	48	7.8	42
226L-W	12.4	44	10.6	41	11.9	43	10.4	41	13.3	46	11.8	43
226N-W	16.3	42	13.9	38	15.7	41	14.2	38	17.7	43	15.5	41
223L-W	14.8	57	12.1	51	14.2	55	11.9	50	16.9	63	13.4	54
223N-W	20.8	53	17.2	47	19.6	51	16.6	46	22.2	55	18.7	49
326L-W	23.3	48	22.2	47	24.6	49	23.6	48	27.6	52	26.1	51
326N-W	31.1	46	29.5	44	32.9	47	31.4	46	35.7	50	34.5	49
323L-W	28.3	59	25.9	56	29.2	60	26.4	57	32.6	65	29.7	61
323N-W	36.7	54	34.2	51	38.2	55	35.1	52	41.9	59	39.1	56
426N-W	39.8	47	37.4	46	41.7	49	39.2	47	46.5	52	43.8	50
423N-W	44.7	55	43.4	53	47.7	57	46.5	50	52.5	61	51.3	60
526N-W	57.7	51	56.1	50	61.3	52	59.2	51	67.3	56	64.9	54
523N-W	66.4	56	64.7	54	71.8	59	68.2	57	77.9	62	74.9	60

## ENTERING AIR TEMPERATURE 10°C (FROST PROTECTION)

126L-W	6.2	35	4.8	29	5.6	32	4.5	28	6.3	35	5.1	30
126N-W	8.8	33	7.5	29	8.4	32	7.5	29	9.5	34	8.5	32
123L-W	7.1	41	5.9	35	6.6	38	5.7	35	7.4	42	6.3	36
123N-W	10.5	39	8.3	32	9.8	37	7.8	32	11.3	41	9.4	36
226L-W	13.9	36	11.9	33	13.3	35	11.8	32	14.8	38	13.2	35
226N-W	18.4	34	15.7	30	17.7	33	15.5	30	19.6	35	17.5	32
223L-W	16.9	51	14.6	44	12.9	42	13.4	43	17.8	53	15.5	47
223N-W	23.5	35	19.6	39	22.2	43	18.7	38	24.6	47	21.1	37
326L-W	26.1	40	24.6	38	27.4	41	26.1	40	29.2	43	28.7	42
326N-W	34.2	37	32.9	36	35.7	39	34.5	38	38.8	41	37.4	40
323L-W	31.1	52	29.5	49	33.9	55	29.8	50	35.1	57	32.6	54
323N-W	40.4	46	38.2	44	41.9	47	39.1	45	45.7	50	42.6	48
426N-W	45.6	41	41.7	38	46.5	41	43.8	39	49.8	43	47.1	41
423N-W	49.2	47	47.7	46	52.5	49	51.3	48	56.5	52	55.2	51
526N-W	6.4	42	61.3	41	67.3	44	64.9	43	72.7	47	70.6	46
523N-W	73.2	48	71.8	47	77.9	50	74.9	49	83.9	53	81.5	52

## ENTERING AIR TEMPERATURE -1°C (FRESH AIR INTAKE START-UP)

126L-W	7.1	26	5.6	20	6.3	23	5.1	18	7.1	26	5.7	21
126N-W	10.2	24	8.4	20	9.7	23	7.5	18	10.6	25	9.5	21
123L-W	8.3	33	6.8	27	7.5	30	6.3	25	8.5	34	7.2	29
123N-W	12.4	32	9.7	25	11.3	29	9.4	24	12.7	33	10.3	26
226L-W	15.4	27	13.3	23	14.8	26	13.3	23	16.3	29	14.5	26
226N-W	20.7	24	17.8	21	19.9	23	17.8	21	21.7	26	19.6	23
223L-W	19.6	45	16.1	37	16.7	37	15.1	34	19.9	46	16.9	39
223N-W	26.3	37	22.3	32	24.6	35	21.4	30	27.5	39	23.8	34
326L-W	28.4	31	27.2	29	29.5	32	28.3	30	32.3	35	30.8	33
326N-W	37.6	28	36.8	27	39.1	29	37.7	28	41.9	31	40.7	30
323L-W	34.5	37	32.6	41	35.7	44	33.4	42	38.5	48	37.8	46
323N-W	45.7	37	38.1	32	46.9	39	42.9	36	50.3	42	47.2	39
426N-W	48.6	30	46.2	29	50.4	31	47.7	30	54.3	34	51.6	32
423N-W	54.3	39	53.1	37	57.3	40	55.8	39	61.3	43	59.8	42
526N-W	69.7	33	67.6	32	73.4	35	71.2	34	79.1	38	78.6	37
523N-W	80.3	39	78.5	38	85.1	42	82.1	40	91.1	45	88.8	43

# TECHNICAL SUPPORT THAT NEVER FALTERS.

Our technical support service has been specifically developed to meet the demands and expectations of specifier partners, architects, engineers, consultants and contractors.

We understand that time is always at a premium and sound technical information is as essential as quality manufacture and attentive aftersales service.

One of our core strengths is the knowledge base held within our technical design office. So important is this aspect of our business that General Manager, **Jim Davidson**, has direct responsibility for this facility. He heads up the contact team for your technical information, design, estimating, project management and production enquiries.

Jim is supported in the field by **Rodger Atkins**, our technical support representative. Should you require any information or wish to view samples during the early stages of your project, please do not hesitate to call our technical team.



# SUPPORT SERVICES COMPLETE THE SOLUTION

In addition to the manufacture and distribution of commercial space heating systems, we offer a range of installation and maintenance services to assure you of continued reliable performance for years to come.

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Since the 50s, Turnbull & Scott expert installation teams have undertaken projects throughout the UK and Europe. As you might expect, intimate knowledge of our product range inevitably leads to efficient, cost effective, quality installation of your heating solution. This service is available for all Turnbull & Scott systems.

## MAINTENANCE, REPAIR AND REPLACEMENT

While our products are renowned for their reliability, from time to time repair or replacement is necessary. In some instances, we repair and replace units that have given reliable service for over 40 years. Rather than a full replacement programme, a lower cost refurbishment exercise may be undertaken for further decades of efficient heating. Our installation teams also provide service cover throughout the UK.

For any questions regarding our technical support services call us on +44 (0)1450 372 053.

**FORMULA TO OBTAIN WATER FLOW RATE**  $\frac{\text{KW}}{\text{TEMPERATURE DROP X 4.18}} = \text{Litres/Sec}$