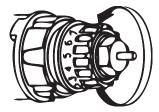
# Panel Radiators Technical Data

# **Revolutionary Flow-Setter Valve**



A unique design feature on all Buderus panel radiators is the Flow-Setter Valve. This feature enables the system installer to quickly and easily regulate the water flow through the radiator room by room. The result is a consistent, even heat throughout all panel units in the house — no more feeling warm in one room and chilly in another.

### **Bottom Piping Advantage**

Buderus panel radiators have piping connections located at the bottom of the panel which minimizes the exposed distribution piping creating a more attractive room appearance. The radiators can be piped as a standard 2-pipe (supply/return) system, on a monoflow-loop, or as a one-pipe series-loop by installing an optional diverting valve.

The adjustable diverter valve is field installed and is external to the radiator and attaches to the existing bottom tappings on the radiator. This results in a one-pipe series-loop installation that requires less material between radiators and less time is required to complete the installation.

### **Installation Tips**

Keep in mind, radiators at the end of the loop require slight over-sizing because of lower water temperature. Buderus panel radiators are field revesable for either right or left piping connections, and each has its own temperature control when equipped with a thermostatic head/valve.

Caution: Buderus radiators are designed for use with hot water systems only. Steam radiators will not work with panel radiators.

Whether you are installing a brand new heating system or replacing fin-tube or cast iron radiators, Buderus radiators offer you a highly efficient, quieter and more comfortable source of heat.





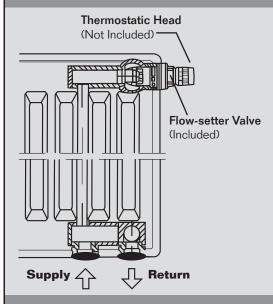


### **Panel Radiators Facts:**

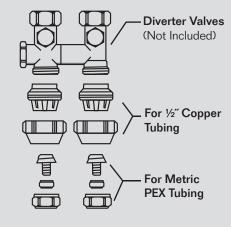
- Fluted front panel made from .049" steel
- Convection tunnels welded on the water channels
- Outputs determined according to German DIN 4704 standard
- Baked on white powder coating
- Air bleeder and flow-setting valve
- Piping connections (R20 Male Metric, approximately ¾") located on bottom right hand of radiator
- Radiators are packed in shrink wrap, corners reinforced

# **Buderus**

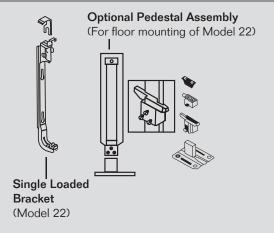
#### **Radiator Parts**



#### **Optional Equipment**



#### **Radiator Brackets**



Comfortable. Efficient. Intelligent Heating.

# **Radiator Dimensions**

## Model 21 (PK 2 1/2" Wide)

#### **BTU Chart\***

\*BTU Outputs at 108° F Temperature Difference

	LENGTH							
Н		24"	36"	48"	63"	71"		
E I	12"	1,970	2,960	3,950	4,940	5,920		
G H	20"	2,920	4,380	5,840	7,300	8,750		
Τ	24"	3,370	5,060	6,740	8,420	10,110		

#### **Water Capacity (Gallons)**

	LENGTH							
Н		24"	36"	48"	63"	71"		
E	12"	0.68	1.29	1.72	2.26	2.55		
G H T	20"	1.12	1.68	2.24	2.94	3.32		
	24"	1.28	1.95	2.60	3.41	3.85		

#### **Shipping Weight (Lbs.)**

	LENGIH								
Н		24"	36"	48"	63"	71"			
E	12"	20	29	40	51	62			
G H T	20"	33	50	66	85	101			
	24"	40	59	79	99	120			

## Model 22 (PKKP 4" Wide)

#### **BTU Chart\***

LENCTH

\*BTU Outputs at 108° F Temperature Difference

	LEN	IGIH					
Н		16"	24"	36"	48"	63"	71"
E	12"	1,900	2,850	4,275	5,700	7,125	8,550
G	20"	2,650	4,000	6,000	8,000	10,000	12,000
H	24"	3,080	4,600	6,900	9,200	11,500	13,800
	†36"	4,300					

#### **Water Capacity (Gallons)**

	LEN	GTH					
Н		16"	24"	36"	48"	63"	71"
E	12"	0.56	0.68	1.29	1.72	2.26	2.55
G	20"	0.73	1.12	1.68	2.24	2.94	3.32
H T	24"	0.85	1.30	1.95	2.60	3.41	3.85
	†36"	1.12					

#### **Shipping Weight (Lbs.)**

	LEN	IGTH					
Н		16"	24"	36"	48"	63"	71"
E	12"	16	24	36	48	63	71
G	20"	29	43	61	85	106	127
H	24"	34	51	77	102	128	158
	†36"	51					

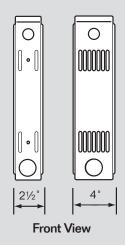
Model 21 Model 22

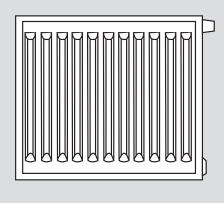
# **Conversion Factors**

Factors for differences between average water temperature and room temperature in °F other that 108°F. Example: Water temperature 180°F, minus room temperature 72°F equals  $\Delta T$  108°.

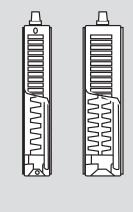
ΔT	Conversion
°F	Factor
10	0.045
20	0.112
30	0.198
40	0.275
50	0.367
60	0.466
70	0.569
80	0.677
90	0.789
100	0.905
108	1.000
110	1.024
120	1.147
130	1.272
140	1.401
150	1.535

#### Model 21 Model 22





Side View



Top View

$ A_{\mathbf{k}} $	<b>-</b> -A <sub>k</sub>	
$\left  - \tau_{\vec{k}} - \right $	$\left  - \tau_{k} \right $	

Radiator	$\mathbf{A}_{\mathbf{k}}$	$T_{\mathbf{k}}$
Model 21	2 5/8"	3 %"
Model 22	3 1/4"	5 1/4"

# **Buderus**

Bosch Thermotechnology Corp. 50 Wentworth Avenue Londonderry, NH 03053 Tel: (603) 552-1100 Fax: (603) 584-1681

<sup>&</sup>lt;sup>†</sup>Special Bathroom Model available: 36" H x 16" L