



PLAY

Colourful, fun, safe



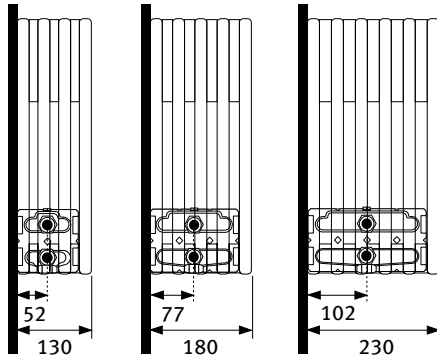
**jaga**

# Play

## Dimensions

Product code: PLAW

Type 10/11   Type 15/16   Type 20/21



|   |     |     |      |      |
|---|-----|-----|------|------|
| H | 350 | 500 | 650  | ---  |
| L | 600 | 800 | 1000 | 1200 |

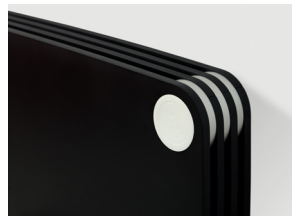
Dimensions in mm

## Colours

Play range



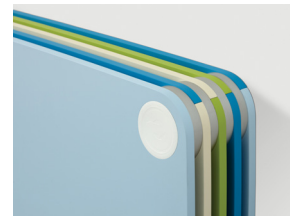
WHI Play White



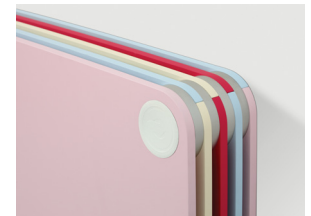
BLA Play Black



PIA Play Piano



BOY Play4Boy

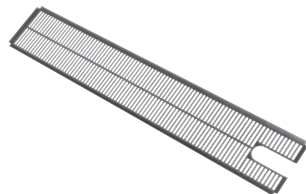


GIR Play4Girl

## Options

Base Grille

Closes the bottom of the casing  
Ordering code: 5641.000



DBE version

Dynamic Boost Effect technology offers even greater power and efficiency.

Oxygen version

For healthy heat and clean air.

## Outputs

Outputs in watts at 75/65/20°C & 55/45/20°C, in accordance with EN442

### Available in models

ORDER CODE: **PLAW**    **code**    **height**    **length**    **type**    **colour**    (Example order code shown is for a 350mm high radiator, 600mm long, type 15, colour Piano)

| Type 10 |          |     |     |      |      | Type 15 |          |      |      |      | Type 20 |     |          |      |      |      |      |
|---------|----------|-----|-----|------|------|---------|----------|------|------|------|---------|-----|----------|------|------|------|------|
| H       |          | 600 | 800 | 1000 | 1200 | H       |          | 600  | 800  | 1000 | 1200    | H   |          | 600  | 800  | 1000 | 1200 |
| 350     | 75/65/20 | 529 | 705 | 881  | 1057 | 350     | 75/65/20 | 805  | 1074 | 1342 | 1610    | 350 | 75/65/20 | 1104 | 1472 | 1840 | 2208 |
|         | 55/45/20 | 262 | 349 | 436  | 523  |         | 55/45/20 | 400  | 533  | 667  | 800     |     | 55/45/20 | 551  | 735  | 919  | 1102 |
| 500     | 75/65/20 | 591 | 788 | 985  | 1182 | 500     | 75/65/20 | 925  | 1234 | 1542 | 1850    | 500 | 75/65/20 | 1284 | 1712 | 2140 | 2568 |
|         | 55/45/20 | 290 | 386 | 483  | 579  |         | 55/45/20 | 456  | 609  | 760  | 912     |     | 55/45/20 | 637  | 849  | 1062 | 1274 |
| 650     | 75/65/20 | 653 | 870 | 1088 | 1306 | 650     | 75/65/20 | 1040 | 1386 | 1733 | 2080    | 650 | 75/65/20 | 1454 | 1938 | 2423 | 2908 |
|         | 55/45/20 | 317 | 423 | 529  | 635  |         | 55/45/20 | 509  | 679  | 849  | 1018    |     | 55/45/20 | 717  | 956  | 1195 | 1434 |

ORDER CODE: **PLAW**    **code**    **height**    **length**    **type**    **colour**    (Example order code shown is for a 350mm high radiator, 600mm long, type 11, colour black)

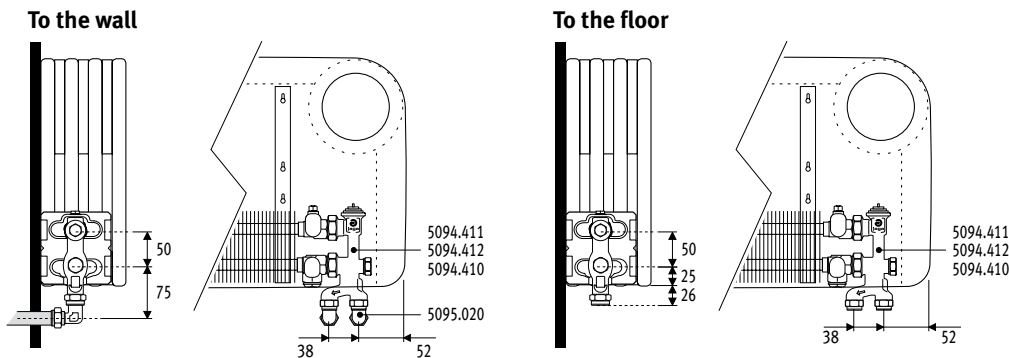
| Twin type 11 |          |     |      |      |      | Twin type 16 |          |      |      |      | Twin type 21 |     |          |      |      |      |      |
|--------------|----------|-----|------|------|------|--------------|----------|------|------|------|--------------|-----|----------|------|------|------|------|
| H            |          | 600 | 800  | 1000 | 1200 | H            |          | 600  | 800  | 1000 | 1200         | H   |          | 600  | 800  | 1000 | 1200 |
| 350          | 75/65/20 | 583 | 777  | 971  | 1165 | 350          | 75/65/20 | 870  | 1160 | 1450 | 1740         | 350 | 75/65/20 | 1217 | 1622 | 2028 | 2434 |
|              | 55/45/20 | 279 | 372  | 465  | 558  |              | 55/45/20 | 413  | 551  | 688  | 826          |     | 55/45/20 | 573  | 763  | 954  | 1145 |
| 500          | 75/65/20 | 685 | 913  | 1141 | 1369 | 500          | 75/65/20 | 1040 | 1386 | 1733 | 2080         | 500 | 75/65/20 | 1461 | 1948 | 2435 | 2922 |
|              | 55/45/20 | 327 | 436  | 544  | 653  |              | 55/45/20 | 493  | 657  | 822  | 987          |     | 55/45/20 | 689  | 919  | 1149 | 1378 |
| 650          | 75/65/20 | 778 | 1037 | 1296 | 1555 | 650          | 75/65/20 | 1187 | 1582 | 1978 | 2374         | 650 | 75/65/20 | 1663 | 2218 | 2772 | 3326 |
|              | 55/45/20 | 369 | 492  | 615  | 738  |              | 55/45/20 | 562  | 750  | 937  | 1125         |     | 55/45/20 | 786  | 1049 | 1311 | 1573 |

### Supplied as Standard

- Low-H<sub>2</sub>O heat exchanger with pre-mounted brackets
- One piece casing, completely mounted - consisting of lacquered MDF panels with anodised aluminium spacer rings
- Suitable for connection left or right below, either to the wall or to the floor
- Pencil-proof grille
- Extended air vent 1/8" and drain plug 1/2"

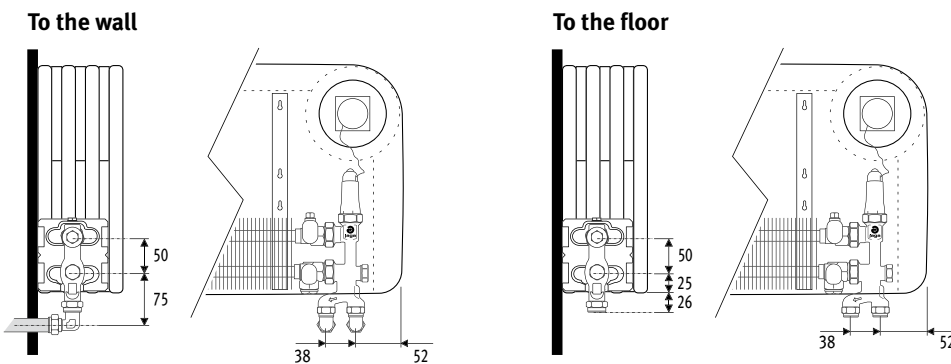
## Connections

### With vertical pro thermostatic valve



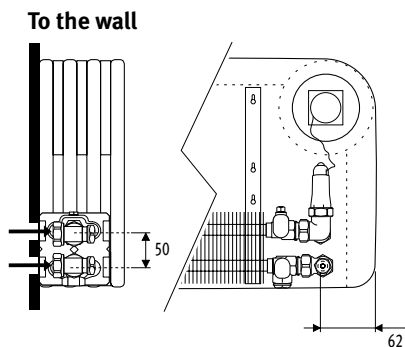
- For connection to wall or floor
- Thermostat valve without capillary included
- Instructions: use with an electrically controlled zone valve, a manual head or thermostatic head with an external sensor.
- Do not use with standard thermostatic head

### With vertical pro integrated thermostatic valve with control



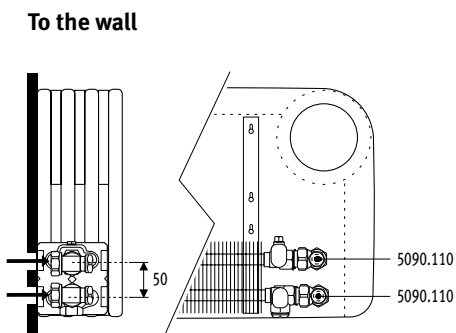
- For connection to wall or floor
- Thermostat valve with capillary included
- Controls integrated in the front panel

### With vertical double angled thermostatic valve with integrated control



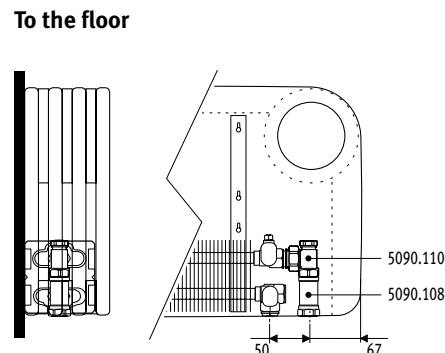
- The casing conceals the connection to the wall
- Thermostat valve with capillary included
- Controls integrated in the front panel

### With 2 lockshields 1/2"



- Connection to the floor
- Only for remote control
- No integral thermostatic control
- With lockshield on inlet and return

### With lockshield 1/2" and extension pipe

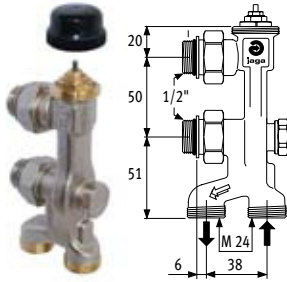


- Same end connection to wall concealed by casing
- Only for remote control
- No integral thermostatic control
- With lockshield on inlet and return

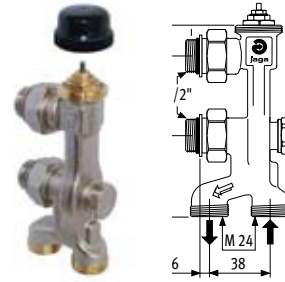
Example: PLAW/O20/140/10/BLA/FR/TPB

FL = floor left  
 FR = floor right  
 WL = wall left  
 WR = wall right

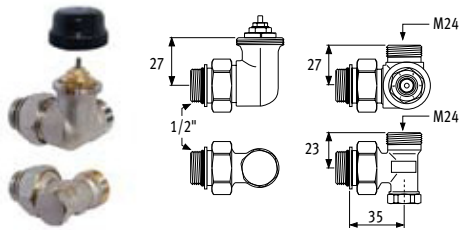
### Vertical pro thermostatic valve



| Description         | Code     |
|---------------------|----------|
| 2-pipe, standard Kv | 5094.411 |
| 2-pipe, reduced Kv  | 5094.412 |
| 1-pipe, standard Kv | 5094.410 |

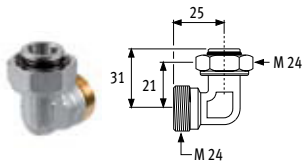


| Description         | Code |
|---------------------|------|
| 2-pipe, standard Kv | TPB  |
| 2-pipe, reduced Kv  | TPS  |
| 1-pipe, standard Kv | TPO  |



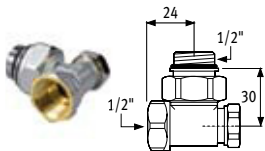
Ordering code: TIB

### Curve 90° M24 x M24



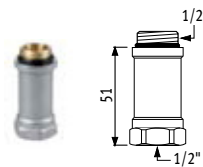
Ordering code: 5095.020

### Lockshield 1/2"



| Description   | Code     |
|---------------|----------|
| nickle-plated | 5090.110 |

### Extension pipe



| Description   | Code     |
|---------------|----------|
| nickle-plated | 5090.108 |

## Sleeve couplings

For Vertical Pro Jaga and Vertical Double Angled

### For flexible steel or copper tube

| Description Diameter | Code     |
|----------------------|----------|
| M24 x 10/1           | 5094.110 |
| M24 x 12/1           | 5094.112 |
| M24 x 14/1           | 5094.114 |
| M24 x 15/1           | 5094.115 |
| M24 x 16/1           | 5094.116 |
| M24 x 18/1           | 5094.118 |

### For synthetic tube

| Description Diameter | Code     |
|----------------------|----------|
| M24 x 12/2           | 5094.212 |
| M24 x 14/2           | 5094.214 |
| M24 x 16/1.5         | 5094.219 |
| M24 x 16/2           | 5094.216 |
| M24 x 17/2           | 5094.217 |
| M24 x 18/2           | 5094.218 |

## For Lockshield

### For flexible steel or copper tube

| Description Diameter | Code     |
|----------------------|----------|
| 1/2" x 10/1          | 5098.110 |
| 1/2" x 10/1          | 5098.112 |
| 1/2" x 10/1          | 5098.114 |
| 1/2" x 10/1          | 5098.115 |
| 1/2" x 10/1          | 5098.116 |
| 1/2" x 10/1          | 5098.118 |

### For synthetic tube

| Description Diameter | Code     |
|----------------------|----------|
| 1/2" x 12/2          | 5098.212 |
| 1/2" x 14/2          | 5098.214 |
| 1/2" x 16/1.5        | 5098.219 |
| 1/2" x 16/2          | 5098.216 |
| 1/2" x 17/2          | 5098.217 |
| 1/2" x 18/2          | 5098.218 |

### For RPE/ALU Tube

| Description Diameter | Code     |
|----------------------|----------|
| M24 x 14/2           | 5094.314 |
| M24 x 16/2           | 5094.316 |
| M24 x 16/2.2         | 5094.326 |
| M24 x 18/2           | 5094.318 |

### Steel tube for C.H.

| Description Diameter | Code     |
|----------------------|----------|
| M24 x 1/2"           | 5094.501 |
| M24 x 3/8"           | 5094.503 |

### For RPE/ALU Tube

| Description Diameter | Code     |
|----------------------|----------|
| 1/2" x 14/2          | 5098.314 |
| 1/2" x 16/2          | 5098.316 |
| 1/2" x 16/2.2        | 5098.326 |
| 1/2" x 18/2          | 5098.318 |

### Steel tube for C.H.

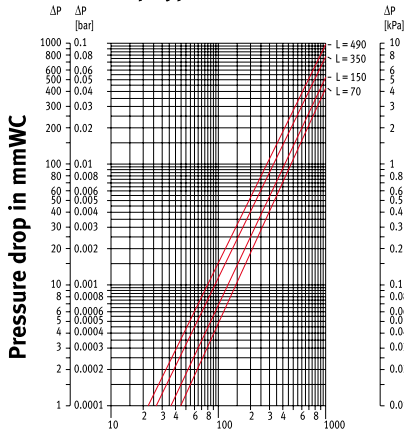
| Description Diameter | Code     |
|----------------------|----------|
| 1/2" x 1/2"          | 5094.502 |
| 1/2" x 3/8"          | 5094.504 |

### Short coupling for flexible steel tube or copper tube diameter 15 mm

| Description Diameter | Code     |
|----------------------|----------|
| 1/2" x 15/1          | 5098.015 |

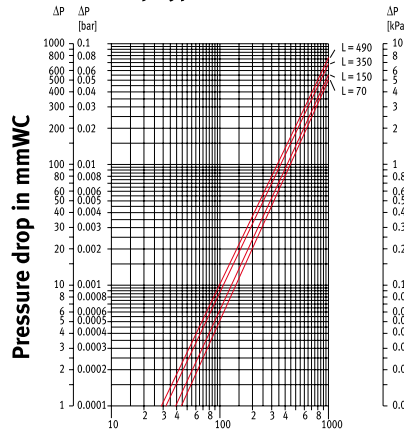
# Pressure drops

Pressure drop type 10



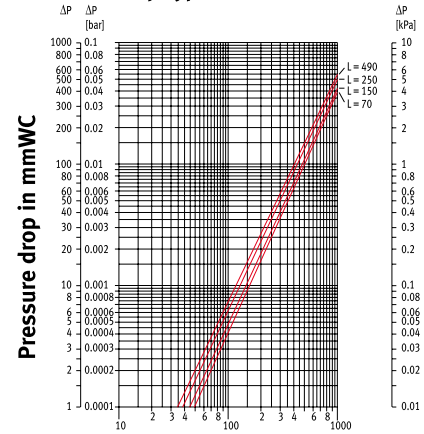
Water flow in kg/h

Pressure drop type 15



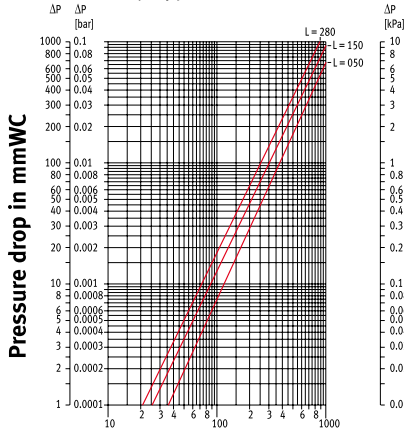
Water flow in kg/h

Pressure drop type 20



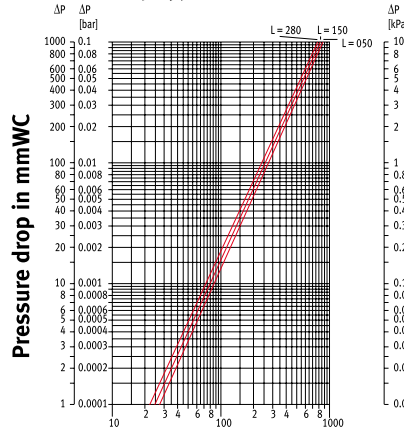
Water flow in kg/h

Pressure drop type 11



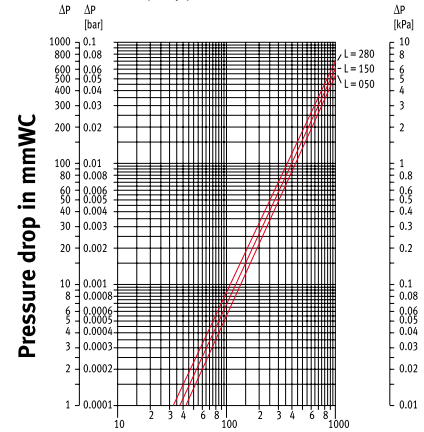
Water flow in kg/h

Pressure drop type 16



Water flow in kg/h

Pressure drop type 21



Water flow in kg/h

# Weight & water content

## Water content in litres

| Type | L/metre |
|------|---------|
| 07   | 0.51    |
| 08   | 0.63    |
| 10   | 0.65    |
| 11   | 1.33    |
| 15   | 0.98    |
| 16   | 1.98    |
| 20   | 1.32    |
| 21   | 2.66    |

## Correction factors

### Average correction factors according to EN442 - 75/65/20°C

| Tv | Tl | Tr > 20 | 25   | 30   | 35   | 40   | 45   | 50   | 55   | 60   | 65   | 70   | 75   | 80   | 85   |
|----|----|---------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 90 | 20 | 0.62    | 0.68 | 0.74 | 0.80 | 0.87 | 0.93 | 1.00 | 1.07 | 1.14 | 1.21 | 1.28 | 1.36 | 1.43 | 1.50 |
|    | 24 | 0.52    | 0.58 | 0.64 | 0.70 | 0.76 | 0.83 | 0.89 | 0.96 | 1.03 | 1.10 | 1.17 | 1.24 | 1.31 | 1.38 |
| 85 | 20 | 0.56    | 0.62 | 0.68 | 0.74 | 0.80 | 0.87 | 0.93 | 1.00 | 1.07 | 1.14 | 1.21 | 1.28 | 1.36 |      |
|    | 24 | 0.47    | 0.52 | 0.58 | 0.64 | 0.70 | 0.76 | 0.83 | 0.89 | 0.96 | 1.03 | 1.10 | 1.17 | 1.24 |      |
| 80 | 20 | 0.50    | 0.56 | 0.62 | 0.68 | 0.74 | 0.80 | 0.87 | 0.93 | 1.00 | 1.07 | 1.14 | 1.21 |      |      |
|    | 24 | 0.41    | 0.47 | 0.52 | 0.58 | 0.64 | 0.70 | 0.76 | 0.83 | 0.89 | 0.96 | 1.03 | 1.10 |      |      |
| 75 | 20 | 0.44    | 0.50 | 0.56 | 0.62 | 0.68 | 0.74 | 0.80 | 0.87 | 0.93 | 1.00 | 1.07 |      |      |      |
|    | 24 | 0.36    | 0.41 | 0.47 | 0.52 | 0.58 | 0.64 | 0.70 | 0.76 | 0.83 | 0.89 | 0.96 |      |      |      |
| 70 | 20 | 0.39    | 0.44 | 0.50 | 0.56 | 0.62 | 0.68 | 0.74 | 0.80 | 0.87 | 0.93 |      |      |      |      |
|    | 24 | 0.31    | 0.36 | 0.41 | 0.47 | 0.52 | 0.58 | 0.64 | 0.70 | 0.76 | 0.83 |      |      |      |      |
| 65 | 20 | 0.34    | 0.39 | 0.44 | 0.50 | 0.56 | 0.62 | 0.68 | 0.74 | 0.80 |      |      |      |      |      |
|    | 24 | 0.26    | 0.31 | 0.36 | 0.41 | 0.47 | 0.52 | 0.58 | 0.64 | 0.70 |      |      |      |      |      |
| 60 | 20 | 0.29    | 0.34 | 0.39 | 0.44 | 0.50 | 0.56 | 0.62 | 0.68 |      |      |      |      |      |      |
|    | 24 | 0.21    | 0.26 | 0.31 | 0.36 | 0.41 | 0.47 | 0.52 | 0.58 |      |      |      |      |      |      |
| 55 | 20 | 0.24    | 0.29 | 0.34 | 0.39 | 0.44 | 0.50 | 0.56 |      |      |      |      |      |      |      |
|    | 24 | 0.17    | 0.21 | 0.26 | 0.31 | 0.36 | 0.41 | 0.47 |      |      |      |      |      |      |      |
| 50 | 20 | 0.19    | 0.24 | 0.29 | 0.34 | 0.39 | 0.44 |      |      |      |      |      |      |      |      |
|    | 24 | 0.13    | 0.17 | 0.21 | 0.26 | 0.31 | 0.36 |      |      |      |      |      |      |      |      |
| 45 | 20 | 0.15    | 0.19 | 0.24 | 0.29 | 0.34 |      |      |      |      |      |      |      |      |      |
|    | 24 | 0.09    | 0.13 | 0.17 | 0.21 | 0.26 |      |      |      |      |      |      |      |      |      |
| 40 | 20 | 0.11    | 0.15 | 0.19 | 0.24 |      |      |      |      |      |      |      |      |      |      |
|    | 24 | 0.06    | 0.09 | 0.13 | 0.17 |      |      |      |      |      |      |      |      |      |      |
| 35 | 22 | 0.05    | 0.08 | 0.12 |      |      |      |      |      |      |      |      |      |      |      |

The indicated outputs with  $\Delta T$  50°C and  $\Delta T$  30°C are the exact outputs.  $\Delta T$  50°C outputs are measured in accordance with EN442 and  $\Delta T$  30°C outputs are calculated according to EN442.

An average correction factor is given in this table for outputs at other  $\Delta T$  and is applicable for all dimensions.

**KEY**  
 Tv = flow temperature  
 Tr = return temperature  
 Tl = desired air temperature

## How to choose the right radiator?

### Rapid estimation of heat losses

Calculate the volume of the room (L x W x H) and multiply this by the Watts/m<sup>3</sup> figure given in the table below. Choose according to the level of insulation and the desired room temperature.

| Insulation | 20° | 24° |
|------------|-----|-----|
| excellent  | 45  | 55  |
| good       | 65  | 75  |
| average    | 85  | 95  |
| poor       | 100 | 115 |

Required output in Watts/m<sup>3</sup>

### Example

Use the table to determine the relevant correction factor with a water temperature of 80/60°C with a room temperature of 24°C.

The correction factor = 0.89

Required output 1000 watts : 1000 divided by 0.89 = 1124 watts therefore search in this leaflet's standard output table for a product with an output of at least 1124 watts. Alternatively use the "Radiator Finder" search function on [www.jaga.co.uk](http://www.jaga.co.uk) to identify all Jaga heating products with this required output.



Output calculated in accordance with EN442, at a water temperature of 75/65°C and a room temperature of 20°C ( $\Delta T=50$ ).



# Jaga Guarantee Information

- 1** The guarantee is valid only if the equipment is properly and correctly used, by its first owner and if installed in accordance with the norms and instructions as detailed in the instruction leaflet and current industry standard practices.
- 2** The guarantee only applies to the equipment and the spare parts supplied by Jaga. Jaga has the choice between repair and replacement of the equipment or the spare parts. If any modifications have been made by Jaga to the standard product design, Jaga reserves the right to replace the guaranteed equipment with equivalent products or spare parts.
- 3** The period of guarantee is mentioned in this certificate. The guarantee decreases every year on a straight line basis by an equal percentage in order to reach a zero guarantee at the end of the guarantee period (e.g. for a period of 10 years the annual decrease of the guarantees 10% of the invoiced value). Repaired or replaced product is guaranteed through to the end of the original guarantee period.
- 4** The guarantee is valid only on products displaying the appropriate identification information concerning product type and series. No guarantee is granted on equipment or spare parts lacking this information, on equipment where this information has been removed or altered, or on equipment that has been repaired or modified by persons not authorised by Jaga to carry out this work.
- 5** The customer is responsible for any damage caused as a result of errors in installation or use of incorrect fittings, or for any damage caused by electrical connections, faulty or damaged electrical installations or appliances, erroneous voltage or hydraulic pressure and all other errors not directly related to the product delivered by Jaga. The guarantee is also revoked when unsuitable parts or components are used. The guarantee for our heat exchangers is not valid if they are regularly drained, or if they are heated by means of industrial water, steam or water saturated by excessive quantities of oxygen. The quality of the system after has to be in accordance with the VDI 2035-2 directives. The guarantee is also not applicable if the heat exchangers are placed in unsuitable atmospheric surroundings, such as but not exclusively ammonia, caustic substances etc.
- 6** This guarantee excludes damage due to incorrect handling and/or use of the equipment, or due to formation of lime deposits, incorrect use of the safety valve, or to all equipment that is incorporated into the building in a way that means it cannot be accessed normally.
- 7** Any work undertaken or product supplied as a result of a guarantee claim that proves not to be valid will be charged for. Product supplied will be invoiced at the customer's standard purchasing terms, and labour will be charged at £50 per hour with a minimum labour charge of £200.
- 8** The guarantee period starts from the date of the invoice for supply of the products covered by the guarantee. If the invoice is not available, the date of production will be used based on the product ID number/series.
- 9** Only the courts of judicial district Hasselt (Belgium) are authorised to deal with disputes arising from this guarantee. It will apply Belgian law even when sales involved are subjects of EU member states as well as non-EU member countries.

