

---

# GENERAL CATALOGUE

INTERNATIONAL  
SALES



# CONTENTS

|                                             |         |
|---------------------------------------------|---------|
| Runtal choosing and ordering a radiator     | 5       |
| Runtal Anteo Chrom                          | 6-11    |
| Runtal Archibald                            | 12-17   |
| Runtal Arteplano                            | 18-33   |
| Runtal Arteplano electrical                 | 34-41   |
| Runtal Arteplano Onda                       | 42-51   |
| Runtal Arteplano Satin                      | 52-61   |
| Runtal Cosmopolitan                         | 62-85   |
| Runtal Fain                                 | 86-95   |
| Runtal Fain Inox                            | 96-103  |
| Runtal Flow Form                            | 104-109 |
| Runtal Folio                                | 110-121 |
| Runtal Folio Corner                         | 122-131 |
| Runtal Quarus                               | 132-143 |
| Runtal Spirale                              | 144-151 |
| Runtal Splash                               | 152-157 |
| Accessories                                 | 159-183 |
| Correction factor of output                 | 184-185 |
| International sales and delivery conditions | 186-187 |



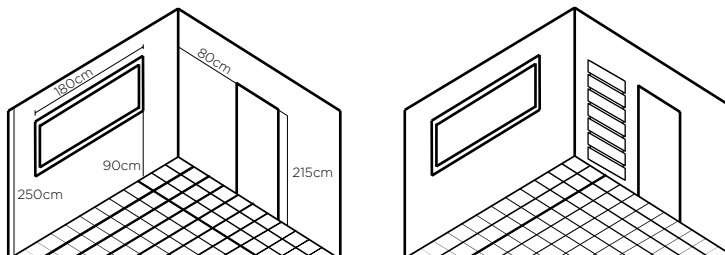
# RUNTAL CHOOSING AND ORDERING A RADIATOR

## COLLECTION OF DATA

The designer must advise the thermal power of the room and the client must indicate the layout, the space available and any preferences he may have.

- Watts  $\Delta T50$  K necessary for the thermal power (heating): 1000 watts
- Type of radiator: RUNTAL COSMOPOLITAN
- Position of the radiator: to the left of the door
- Space available: see diagram

## EXAMPLE



Determine the required measurements taking account of the measurements available less approx. 10 cm on each side for the connections and in order to guarantee normal air circulation outside of the radiator.

*Maximum width:*

Space available - 10 cm per wall =  $80 - 10$  (right) -  $10$  (left) = 60 cm

*Height:*

With vertical models, a reference height is determined in addition to the maximum height, also taking account of aesthetic factors; this height is normally 180-200 cm.

*Maximum height:*

Space available - 10 cm per wall =  $250 - 10$  (top) -  $10$  (bottom) = 230 cm

## CHOICE OF MODELS AND PRICE

Consult the table featuring the price list for RUNTAL COSMOPOLITAN. Starting with the height measurement (1.853mm), move down the height column and select the radiator with the number of watts equal to or higher than the desired power. See the example set out below:

| Height<br>1.853 mm | Width<br>mm | N<br>mm | N1<br>mm | V<br>dm <sup>3</sup> | M<br>kg | n     | P $\Delta T 50K$<br>Watt | Finish<br>(Code)     |
|--------------------|-------------|---------|----------|----------------------|---------|-------|--------------------------|----------------------|
| COH-180-040-L      | 408         | 312     | 50       | 7,50                 | 18,2    | 1,229 | 741                      | White RAL9016 (9016) |
| COH-180-050-L      | 493         | 397     | 50       | 8,28                 | 21,3    | 1,233 | 878                      | White RAL9016 (9016) |
| COH-180-060-L      | 578         | 482     | 50       | 9,07                 | 24,5    | 1,237 | 1.012                    | White RAL9016 (9016) |

## CHOICE OF CONNECTION TYPE

RUNTAL COSMOPOLITAN radiator is supplied with a standard connection. **The pipe centre N and N1 can be seen directly in the table of the list.**

## CHOICE OF COLOUR

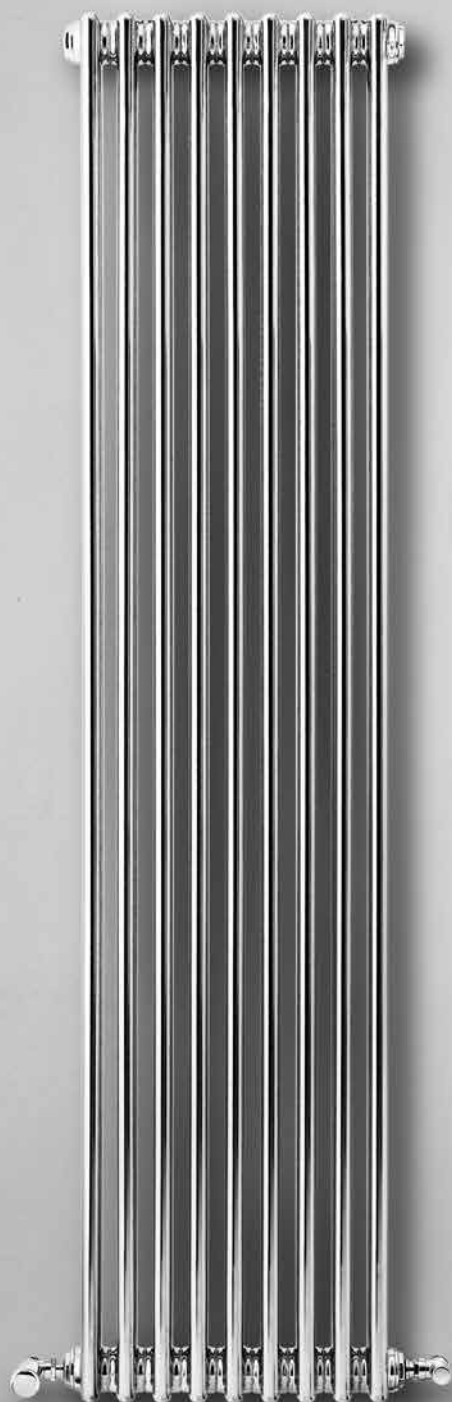
RUNTAL COSMOPOLITAN is supplied in the standard colour white RAL9016 (code 9016). Should you require a different colour, see colours available in the Runtal colour chart.

## CHOICE OF BRACKET TYPE

If the radiator is mounted on the wall, the brackets are included in the delivery package and do not have to be ordered. Should this not be the case, kindly consult the information on the product page.

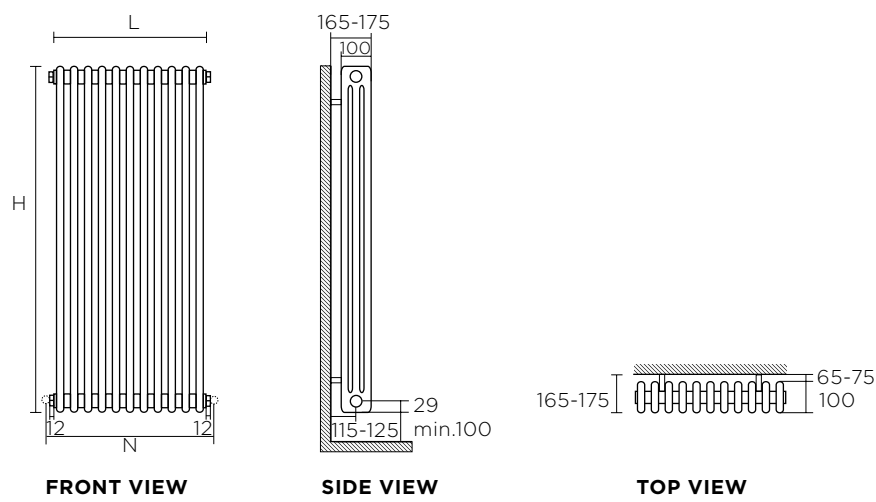
# RUNTAL ANTEO CHROM

The classic RUNTAL ANTEO radiator is exceptionally versatile: thanks to the wide range of designs available, it can be used anywhere. Like the original version, the multi-layer coating process used for RUNTAL ANTEO CHROM gives the radiator an extremely long service life. The spacing between the heating tubes makes the radiator hygienic and very easy to clean. RUNTAL ANTEO CHROM is available with a chrome-plated surface in a range of different dimensions and is designed for connecting to the central heating.



# RUNTAL ANTEO CHROM TECHNICAL SPECIFICATIONS

## CENTRAL HEATING VERSION



- H Height (mm)
- L Width (mm)
- Centre of valve for pipes into wall or to the floor
- N Connection centres (mm)



# RUNTAL ANTEO CHROM

## CENTRAL HEATING VERSION

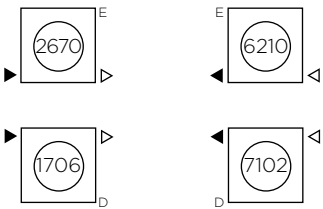
| Height<br>600 mm | Width<br>mm | N<br>mm | V<br>dm <sup>3</sup> | M<br>kg | n    | PΔT 50K<br>Watt | Surface<br>(Code) |
|------------------|-------------|---------|----------------------|---------|------|-----------------|-------------------|
| AC3060-11        | 541,5       | L+24+x  | 9,9                  | 18      | 1,26 | 504             | Chrome (0008)     |
| AC3060-17        | 820,5       | L+24+x  | 15,3                 | 28      | 1,26 | 780             | Chrome (0008)     |
| AC3060-22        | 1.053,0     | L+24+x  | 19,8                 | 36      | 1,26 | 1.009           | Chrome (0008)     |

| Height<br>1.800 mm | Width<br>mm | N<br>mm | V<br>dm <sup>3</sup> | M<br>kg | n    | PΔT 50K<br>Watt | Surface<br>(Code) |
|--------------------|-------------|---------|----------------------|---------|------|-----------------|-------------------|
| AC3180-4           | 216,0       | L+24+x  | 9,6                  | 17      | 1,33 | 500             | Chrome (0008)     |
| AC3180-7           | 355,5       | L+24+x  | 16,8                 | 30      | 1,33 | 875             | Chrome (0008)     |
| AC3180-9           | 448,5       | L+24+x  | 21,6                 | 38      | 1,33 | 1.125           | Chrome (0008)     |

N: connection centre, L: width, x: valve size V: volume, M: empty weight, n: exponent, PΔT 50K: EN442 output,

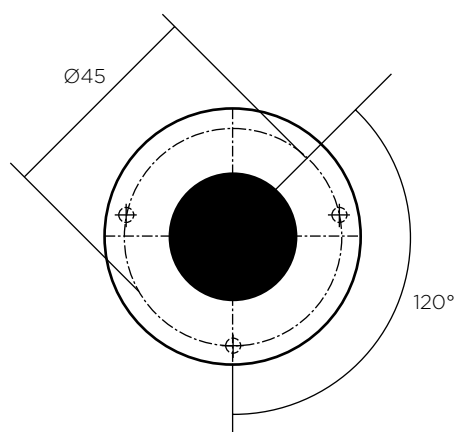
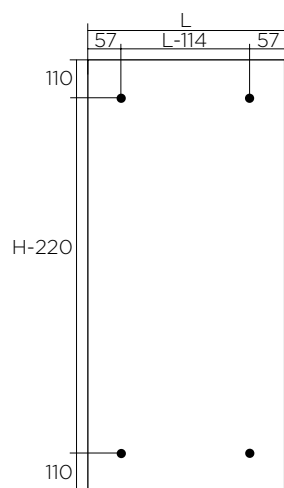
**TECHNICAL DATA**

|                       |                                                                                                                                                                    |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Materials             | Chrome plated, round tubes Ø 25 mm made of steel                                                                                                                   |
| Operating pressure    | Max. 10 bar                                                                                                                                                        |
| Test pressure         | 15 bar                                                                                                                                                             |
| Operating temperature | Max. 110° C                                                                                                                                                        |
| Standard kit          | Chrome finish wall brackets in same finish as radiator included in packaging and air vent pre-fitted in factory                                                    |
| Valves                | As per ACCESSORIES price list                                                                                                                                      |
| Connections           | With the standard connection 2x½" internal thread, the following connections are possible. ½" for flow (►) / return (◄), with ½" air vent (E) prefitted, (D) drain |



NB: The connection must be made in accordance with the required specifications

# RUNTAL ANTEO CHROM MOUNTING INSTRUCTIONS



**DETAIL OF BASE PLATE  
(Fixing Point)**

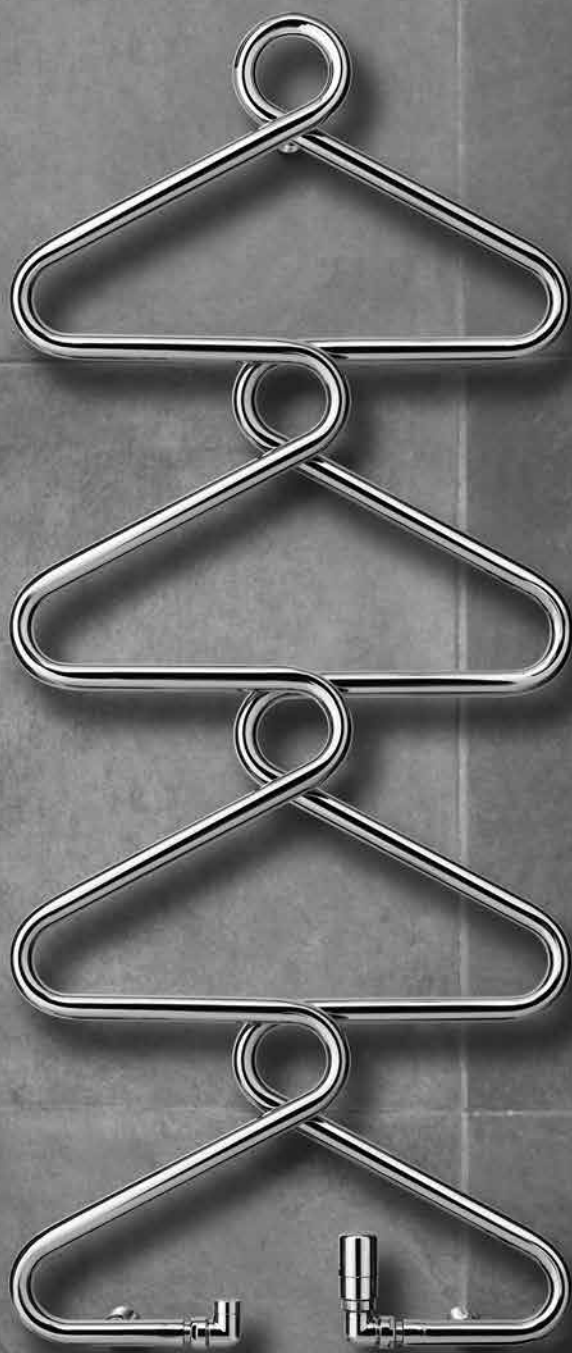
- H Height (mm)
- L Width (mm)
- ⊕ Borehole
- Fixing point

For correct radiator installation, please note the corresponding installation instructions

# RUNTAL ARCHIBALD

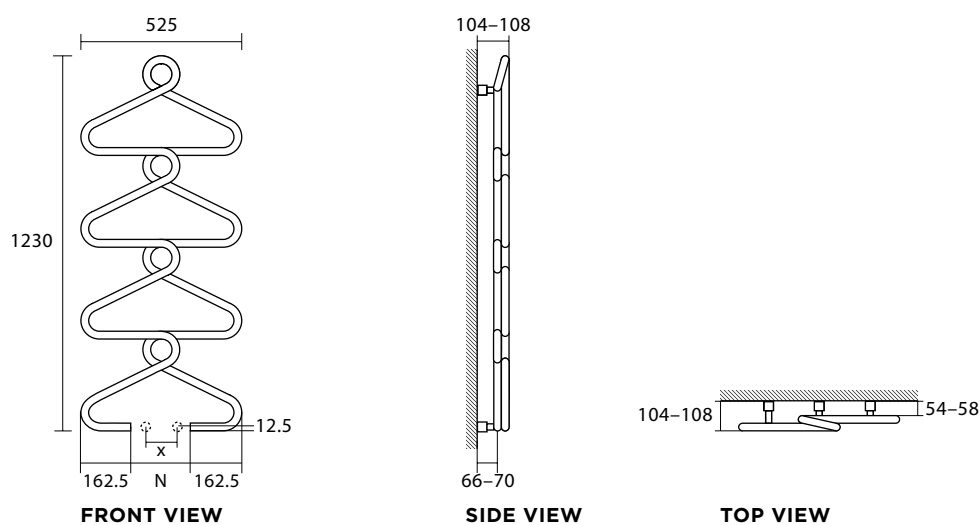
LEO SALZEDO

The innovative designer radiator RUNTAL ARCHIBALD was developed for bathrooms and kitchens. The heating elements are elegantly shaped into a column of coathangers, the entire piece being crafted from a single curved steel tube. Designed to take up the minimum of space, the decorative radiator holds up to four towels, which it dries or heats. RUNTAL ARCHIBALD is equipped with two ½" tapings to connect it to the central heating system and is available with chrome-plated or white powder-coated finish.



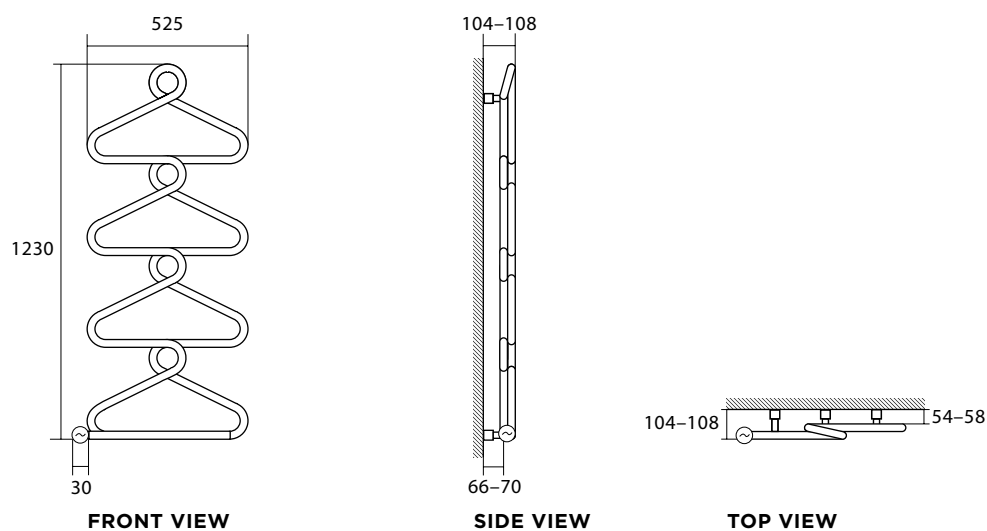
# RUNTAL ARCHIBALD TECHNICAL SPECIFICATIONS

## CENTRAL HEATING VERSION



- x pipe centres with valves:
- runtal radval corner (suggested) = 112 mm
  - runtal radval square = 112 mm
  - runtal radval xs square = 118 mm
- N connection centres on towel radiator (mm)

## ELECTRIC ONLY VERSION



⊖ Electric immersion heater

# RUNTAL ARCHIBALD

## CENTRAL HEATING VERSION

| Height<br>1.230 mm | Width<br>mm | N<br>mm | V<br>dm <sup>3</sup> | M<br>kg | n    | PΔT 50K<br>Watt | Surface<br>(Code)    |
|--------------------|-------------|---------|----------------------|---------|------|-----------------|----------------------|
| ARBR-120-050       | 525         | 200     | 2,3                  | 4,6     | 1,22 | 336             | White RAL9016 (9016) |
| ARBRC-120-050      | 525         | 200     | 2,3                  | 4,6     | 1,25 | 233             | Chrome (0008)        |

N: connection centres, V: volume, M: empty weight, n: exponent, PΔT 50K: EN442 output,

## ELECTRIC ONLY VERSION

| Height<br>1.230 mm | Width<br>mm | M<br>kg | EP<br>Watt | Surface<br>(Code)    |
|--------------------|-------------|---------|------------|----------------------|
| ARBRE-120-050/AD   | 525         | 7,2     | 200        | White RAL9016 (9016) |
| ARBREC-120-050/AD  | 525         | 7,2     | 200        | Chrome (0008)        |

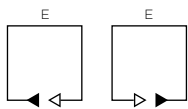
M: weight, EP: electric power,

## FINISHES

| Powder-coated finish         | Code                    | Extra charge on RAL 9016 |
|------------------------------|-------------------------|--------------------------|
| White (RAL 9016)             | 9016                    | —                        |
| Pure, Optimism and Elemental | See Runtal colour chart |                          |
| Le Corbusier                 | See Runtal colour chart |                          |

**TECHNICAL DATA**

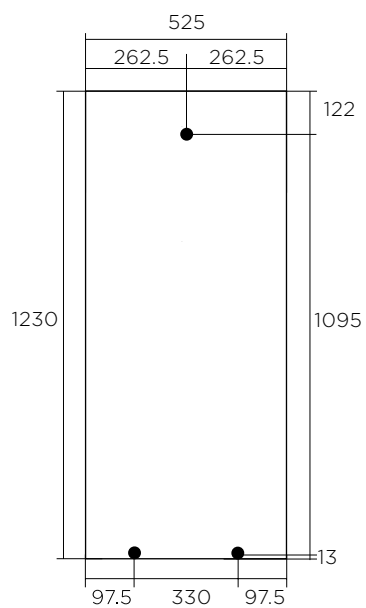
|                       |                                                                                                                                    |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------|
| Materials             | Tubes made of steel Ø 25 mm, powder-coated finish (white and as per Runtal colour chart) or chrome (0008)                          |
| Operating pressure    | Max. 12 bar                                                                                                                        |
| Test pressure         | Max. 18 bar                                                                                                                        |
| Operating temperature | Max. 95°C                                                                                                                          |
| Standard kit          | Wall brackets in same colour as radiator included in packaging                                                                     |
| Valves                | As per ACCESSORIES price list                                                                                                      |
| Connections           | Standard 2 x ½" with internal thread, flow ◀/return ▶ on left or right, bottom horizontal facing inwards, ¼" air vent (E) top rear |



|                                   |                                                                                                                                                                                |
|-----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Single-tube systems               | not possible                                                                                                                                                                   |
| Electric-only model               | Immersion heater 1x230 V, 50 Hz +/- 10%. Standard fitted in bottom left. 1,2m white power cable (3core), immersion heater rating: Class II IP44 (splash water) with CE-marking |
| Position of electrical connection | The electrical connection must be performed by an electrician in accordance with applicable regulations                                                                        |



# RUNTAL ARCHIBALD MOUNTING INSTRUCTIONS



- Fixing point

For correct radiator installation, please note the corresponding installation instructions

# RUNTAL ARTEPLANO

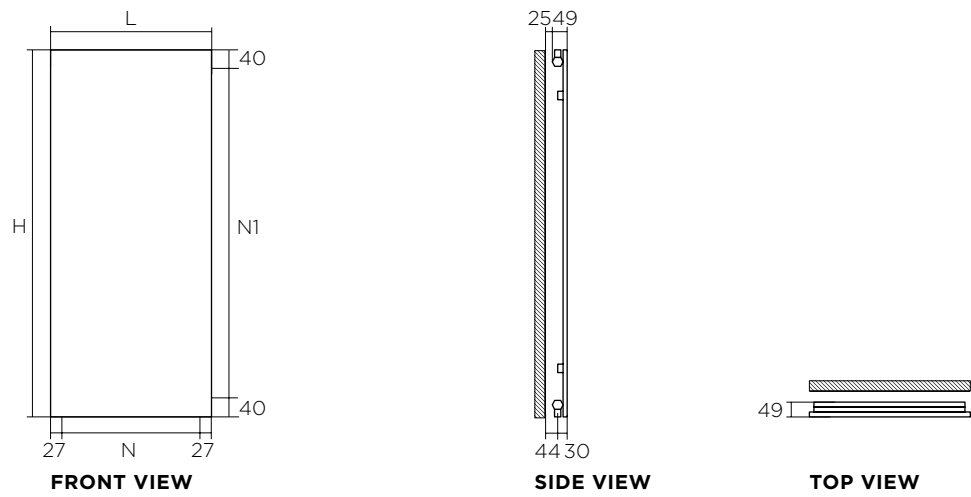
## RUNTAL DESIGN STUDIO

The heat panel RUNTAL ARTEPLANO is available in many variations, all offering efficient performance. Mounted on a base structure comprising a flat oval tube, profile header or sheet steel fins, the smooth front panel functions as a fast-acting heating surface. The radiator is designed to be connected to the hot water central heating system. With vertical and horizontal models, flexible connections on the sides and in the centre for wall or floor installation, and a whole range of special dimensions, the radiator can be tailored to your room. Available in the full range of colours in the Runtal colour chart. Optionally available with exclusive special materials and surface finishes. The radiator is complemented by a range of accessories, designer valves and thermostats.

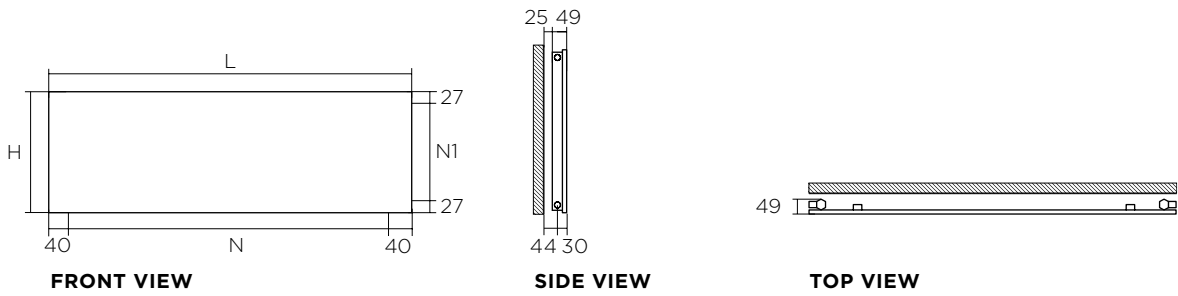


# RUNTAL ARTEPLANO TECHNICAL SPECIFICATIONS

## CENTRAL HEATING VERSION - MODEL HA VERTICAL SIMPLE



## CENTRAL HEATING VERSION - MODEL VA HORIZONTAL SIMPLE

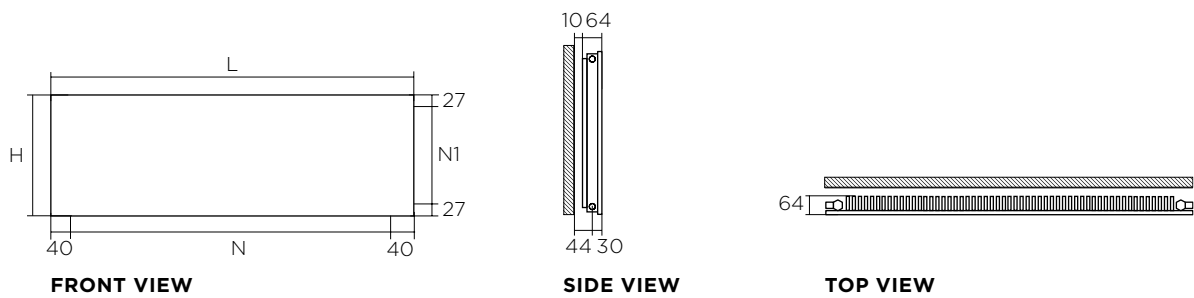


- H Height (mm)
- L Width (mm)
- N Pipe centres (mm)
- N1 Pipe centres (mm)

**CENTRAL HEATING VERSION - MODEL HLA VERTICAL SIMPLE WITH FINS**

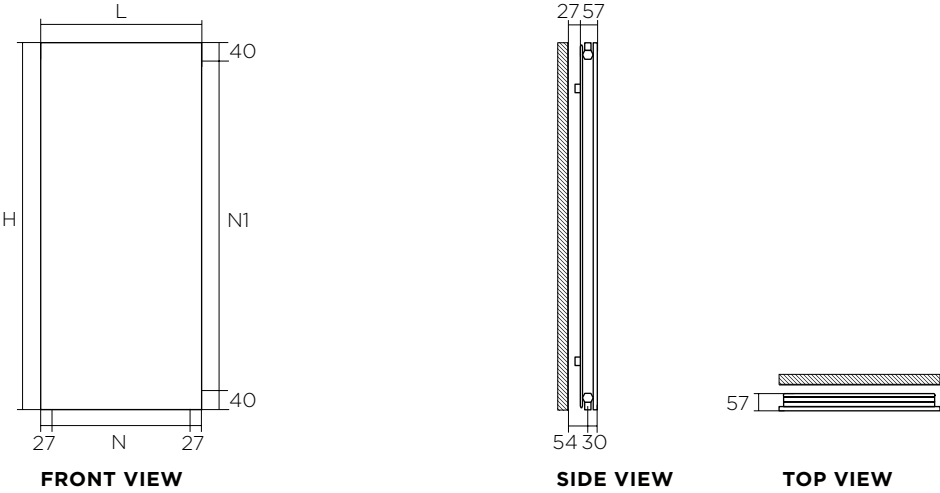


**CENTRAL HEATING VERSION - MODEL VLA HORIZONTAL SIMPLE WITH FINS**

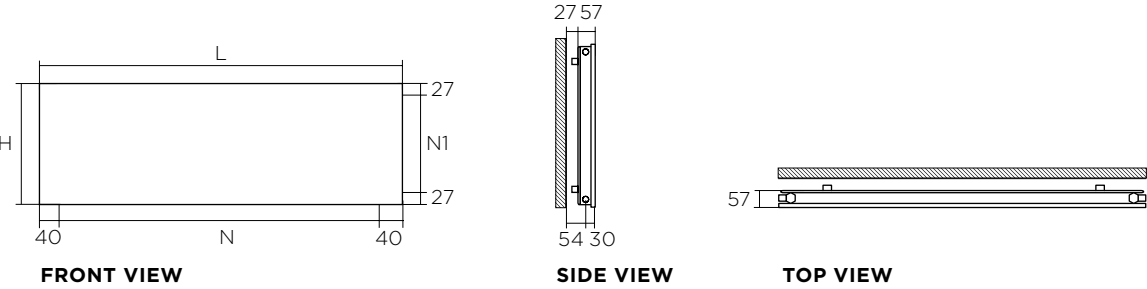


H Height (mm)  
L Width (mm)  
N Pipe centres (mm)  
N1 Pipe centres (mm)

CENTRAL HEATING VERSION - MODEL HAD VERTICAL DOUBLE



CENTRAL HEATING VERSION - MODEL VAD HORIZONTAL DOUBLE



- H    Height (mm)
- L    Width (mm)
- N    Pipe centres (mm)
- N1   Pipe centres (mm)

# RUNTAL ARTEPLANO

## CENTRAL HEATING VERSION - MODEL HA/HLA/HAD VERTICAL

| Height<br>1.813 mm | No. of<br>tubes | Width<br>mm | Depth<br>mm | V<br>dm <sup>3</sup> | M<br>kg | q <sub>ms</sub><br>kg/h | n    | PΔT 50K<br>Watt | PΔT 50K*<br>(Watt) | RAL 9016 | Artistic |
|--------------------|-----------------|-------------|-------------|----------------------|---------|-------------------------|------|-----------------|--------------------|----------|----------|
| HA180-4            | 4               | 305         | 49          | 2,88                 | 22,80   | 11                      | 1,30 | 520             | (473)              |          |          |
| HLA180-4           | 4               | 305         | 62          | 2,88                 | 29,60   | 15                      | 1,31 | 696             | (633)              |          |          |
| HAD180-4           | 4               | 305         | 57          | 5,28                 | 34,80   | 16                      | 1,34 | 756             | (688)              |          |          |
| HA180-5            | 5               | 379         | 49          | 3,60                 | 28,50   | 11                      | 1,30 | 650             | (592)              |          |          |
| HLA180-5           | 5               | 379         | 62          | 3,60                 | 37,00   | 15                      | 1,31 | 870             | (792)              |          |          |
| HAD180-5           | 5               | 379         | 57          | 6,60                 | 43,50   | 16                      | 1,34 | 945             | (860)              |          |          |
| HA180-6            | 6               | 453         | 49          | 4,32                 | 34,20   | 11                      | 1,30 | 780             | (710)              |          |          |
| HLA180-6           | 6               | 453         | 62          | 4,32                 | 44,40   | 15                      | 1,31 | 1.044           | (950)              |          |          |
| HAD180-6           | 6               | 453         | 57          | 7,92                 | 52,20   | 16                      | 1,34 | 1.134           | (1.032)            |          |          |
| HA180-7            | 7               | 527         | 49          | 5,04                 | 39,90   | 11                      | 1,30 | 910             | (828)              |          |          |
| HLA180-7           | 7               | 527         | 62          | 5,04                 | 51,80   | 15                      | 1,31 | 1.218           | (1.108)            |          |          |
| HAD180-7           | 7               | 527         | 57          | 9,24                 | 60,90   | 16                      | 1,34 | 1.323           | (1.204)            |          |          |
| HA180-8            | 8               | 601         | 49          | 5,76                 | 45,60   | 11                      | 1,30 | 1.040           | (946)              |          |          |
| HLA180-8           | 8               | 601         | 62          | 5,76                 | 59,20   | 15                      | 1,31 | 1.392           | (1.267)            |          |          |
| HAD180-8           | 8               | 601         | 57          | 10,56                | 69,60   | 16                      | 1,34 | 1.512           | (1.376)            |          |          |
| HA180-9            | 9               | 675         | 49          | 6,48                 | 51,30   | 11                      | 1,30 | 1.170           | (1.065)            |          |          |
| HLA180-9           | 9               | 675         | 62          | 6,48                 | 66,60   | 15                      | 1,31 | 1.566           | (1.425)            |          |          |
| HAD180-9           | 9               | 675         | 57          | 11,88                | 78,30   | 16                      | 1,34 | 1.701           | (1.548)            |          |          |
| HA180-10           | 10              | 749         | 49          | 7,20                 | 57,00   | 11                      | 1,30 | 1.300           | (1.183)            |          |          |
| HLA180-10          | 10              | 749         | 62          | 7,20                 | 74,00   | 15                      | 1,31 | 1.740           | (1.583)            |          |          |
| HAD180-10          | 10              | 749         | 57          | 13,20                | 87,00   | 16                      | 1,34 | 1.890           | (1.720)            |          |          |

| Height<br>2.013 mm | No. of<br>tubes | Width<br>mm | Depth<br>mm | V<br>dm <sup>3</sup> | M<br>kg | q <sub>ms</sub><br>kg/h | n    | PΔT 50K<br>Watt | PΔT 50K*<br>(Watt) | RAL 9016 | Artistic |
|--------------------|-----------------|-------------|-------------|----------------------|---------|-------------------------|------|-----------------|--------------------|----------|----------|
| HA200-4            | 4               | 305         | 49          | 3,12                 | 25,20   | 12                      | 1,30 | 556             | (506)              |          |          |
| HLA200-4           | 4               | 305         | 62          | 3,12                 | 32,00   | 16                      | 1,31 | 748             | (681)              |          |          |
| HAD200-4           | 4               | 305         | 57          | 5,84                 | 38,40   | 18                      | 1,33 | 832             | (757)              |          |          |
| HA200-5            | 5               | 379         | 49          | 3,90                 | 31,50   | 12                      | 1,30 | 695             | (632)              |          |          |
| HLA200-5           | 5               | 379         | 62          | 3,90                 | 40,00   | 16                      | 1,31 | 935             | (851)              |          |          |
| HAD200-5           | 5               | 379         | 57          | 7,30                 | 48,00   | 18                      | 1,33 | 1.040           | (946)              |          |          |
| HA200-6            | 6               | 453         | 49          | 4,68                 | 37,80   | 12                      | 1,30 | 834             | (759)              |          |          |
| HLA200-6           | 6               | 453         | 62          | 4,68                 | 48,00   | 16                      | 1,31 | 1.122           | (1.021)            |          |          |
| HAD200-6           | 6               | 453         | 57          | 8,76                 | 57,60   | 18                      | 1,33 | 1.248           | (1.136)            |          |          |
| HA200-7            | 7               | 527         | 49          | 5,46                 | 44,10   | 12                      | 1,30 | 973             | (885)              |          |          |
| HLA200-7           | 7               | 527         | 62          | 5,46                 | 56,00   | 16                      | 1,31 | 1.309           | (1.191)            |          |          |
| HAD200-7           | 7               | 527         | 57          | 10,22                | 67,20   | 18                      | 1,33 | 1.456           | (1.325)            |          |          |
| HA200-8            | 8               | 601         | 49          | 6,24                 | 50,40   | 12                      | 1,30 | 1.112           | (1.012)            |          |          |
| HLA200-8           | 8               | 601         | 62          | 6,24                 | 64,00   | 16                      | 1,31 | 1.496           | (1.361)            |          |          |
| HAD200-8           | 8               | 601         | 57          | 11,68                | 76,80   | 18                      | 1,33 | 1.664           | (1.514)            |          |          |

V: volume, M: weight, q<sub>ms</sub>: water flow, n: exponent, PΔT 50K: EN 442 output, PΔT 50K\*: EN 442 output stainless steel finish

**CENTRAL HEATING VERSION - MODEL HA/HLA/HAD VERTICAL**

| Height<br>2.013 mm | No. of<br>tubes | Width<br>mm | Depth<br>mm | V<br>dm <sup>3</sup> | M<br>kg | q <sub>ms</sub><br>kg/h | n    | PΔT 50K<br>Watt | PΔT 50K*<br>(Watt) | RAL 9016 | Artistic |
|--------------------|-----------------|-------------|-------------|----------------------|---------|-------------------------|------|-----------------|--------------------|----------|----------|
| HA200-9            | 9               | 675         | 49          | 7,02                 | 7,02    | 56,70                   | 1,30 | 1.251           | (1.138)            |          |          |
| HLA200-9           | 9               | 675         | 62          | 7,02                 | 7,02    | 72,00                   | 1,31 | 1.683           | (1.523)            |          |          |
| HAD200-9           | 9               | 675         | 57          | 13,14                | 13,14   | 86,40                   | 1,33 | 1.872           | (1.704)            |          |          |
| HA200-10           | 10              | 749         | 49          | 7,80                 | 7,80    | 63,00                   | 1,30 | 1.390           | (1.265)            |          |          |
| HLA200-10          | 10              | 749         | 62          | 7,80                 | 7,80    | 80,00                   | 1,31 | 1.870           | (1.702)            |          |          |
| HAD200-10          | 10              | 749         | 57          | 14,60                | 14,60   | 96,00                   | 1,33 | 2.080           | (1.893)            |          |          |

| Height<br>2.213 mm | No. of<br>tubes | Width<br>mm | Depth<br>mm | V<br>dm <sup>3</sup> | M<br>kg | q <sub>ms</sub><br>kg/h | n    | PΔT 50K<br>Watt | PΔT 50K*<br>(Watt) | RAL 9016 | Artistic |
|--------------------|-----------------|-------------|-------------|----------------------|---------|-------------------------|------|-----------------|--------------------|----------|----------|
| HA220-4            | 4               | 305         | 49          | 3,40                 | 27,60   | 13                      | 1,30 | 636             | (557)              |          |          |
| HLA220-4           | 4               | 305         | 62          | 3,40                 | 34,80   | 17                      | 1,31 | 792             | (721)              |          |          |
| HAD220-4           | 4               | 305         | 57          | 6,36                 | 42,40   | 20                      | 1,33 | 912             | (830)              |          |          |
| HA220-5            | 5               | 379         | 49          | 4,25                 | 34,50   | 13                      | 1,30 | 795             | (696)              |          |          |
| HLA220-5           | 5               | 379         | 62          | 4,25                 | 43,50   | 17                      | 1,31 | 990             | (901)              |          |          |
| HAD220-5           | 5               | 379         | 57          | 7,95                 | 53,00   | 20                      | 1,33 | 1.140           | (1.037)            |          |          |
| HA220-6            | 6               | 453         | 49          | 5,10                 | 41,40   | 13                      | 1,30 | 954             | (835)              |          |          |
| HLA220-6           | 6               | 453         | 62          | 5,10                 | 52,20   | 17                      | 1,31 | 1.188           | (1.081)            |          |          |
| HAD220-6           | 6               | 453         | 57          | 9,54                 | 63,60   | 20                      | 1,33 | 1.368           | (1.245)            |          |          |
| HA220-7            | 7               | 527         | 49          | 5,95                 | 48,30   | 13                      | 1,30 | 1.113           | (975)              |          |          |
| HLA220-7           | 7               | 527         | 62          | 5,95                 | 60,90   | 17                      | 1,31 | 1.386           | (1.261)            |          |          |
| HAD220-7           | 7               | 527         | 57          | 11,13                | 74,20   | 20                      | 1,33 | 1.596           | (1.452)            |          |          |
| HA220-8            | 8               | 601         | 49          | 6,80                 | 55,20   | 13                      | 1,30 | 1.272           | (1.114)            |          |          |
| HLA220-8           | 8               | 601         | 62          | 6,80                 | 69,60   | 17                      | 1,31 | 1.584           | (1.441)            |          |          |
| HAD220-8           | 8               | 601         | 57          | 12,72                | 84,80   | 20                      | 1,33 | 1.824           | (1.660)            |          |          |
| HA220-9            | 9               | 675         | 49          | 7,65                 | 62,10   | 13                      | 1,30 | 1.431           | (1.253)            |          |          |
| HLA220-9           | 9               | 675         | 62          | 7,65                 | 78,30   | 17                      | 1,31 | 1.782           | (1.622)            |          |          |
| HAD220-9           | 9               | 675         | 57          | 14,31                | 95,40   | 20                      | 1,33 | 2.052           | (1.867)            |          |          |
| HA220-10           | 10              | 749         | 49          | 8,50                 | 69,00   | 13                      | 1,30 | 1.590           | (1.392)            |          |          |
| HLA220-10          | 10              | 749         | 62          | 8,50                 | 87,00   | 17                      | 1,31 | 1.980           | (1.802)            |          |          |
| HAD220-10          | 10              | 749         | 57          | 15,90                | 106,00  | 20                      | 1,33 | 2.280           | (2.075)            |          |          |

V: volume, M: weight, q<sub>ms</sub>: water flow, n: exponent, PΔT 50K: EN 442 output, PΔT 50K\*: EN 442 output stainless steel finish



**CENTRAL HEATING VERSION - MODEL VA/VAD/VLA HORIZONTAL**

| <b>Height<br/>379 mm</b> | <b>Width<br/>mm</b> | <b>Depth<br/>mm</b> | <b>V<br/>dm<sup>3</sup></b> | <b>M<br/>kg</b> | <b>q<sub>ms</sub><br/>kg/h</b> | <b>n</b> | <b>P ΔT 50K<br/>Watt</b> | <b>P ΔT 50K*<br/>(Watt)</b> | <b>RAL 9016</b> | <b>Artistic</b> |
|--------------------------|---------------------|---------------------|-----------------------------|-----------------|--------------------------------|----------|--------------------------|-----------------------------|-----------------|-----------------|
| VA035-100                | 1.013               | 49                  | 2,23                        | 15,20           | 33                             | 1,24     | 378                      | (344)                       |                 |                 |
| VAD035-100               | 1.013               | 57                  | 3,91                        | 24,10           | 56                             | 1,26     | 653                      | (594)                       |                 |                 |
| VLA35/35-100             | 1.013               | 64                  | 2,23                        | 22,70           | 59                             | 1,28     | 681                      | (620)                       |                 |                 |
| VA035-120                | 1.213               | 49                  | 2,68                        | 18,24           | 33                             | 1,24     | 454                      | (413)                       |                 |                 |
| VAD035-120               | 1.213               | 57                  | 4,69                        | 28,92           | 56                             | 1,26     | 784                      | (713)                       |                 |                 |
| VLA35/35-120             | 1.213               | 64                  | 2,68                        | 27,24           | 59                             | 1,28     | 817                      | (744)                       |                 |                 |
| VA035-140                | 1.413               | 49                  | 3,12                        | 21,28           | 33                             | 1,24     | 529                      | (482)                       |                 |                 |
| VAD035-140               | 1.413               | 57                  | 5,47                        | 33,74           | 56                             | 1,26     | 914                      | (832)                       |                 |                 |
| VLA35/35-140             | 1.413               | 64                  | 3,12                        | 31,78           | 59                             | 1,28     | 953                      | (868)                       |                 |                 |
| VA035-180                | 1.813               | 49                  | 4,01                        | 27,36           | 33                             | 1,24     | 680                      | (619)                       |                 |                 |
| VAD035-180               | 1.813               | 57                  | 7,04                        | 43,38           | 56                             | 1,26     | 1.175                    | (1.069)                     |                 |                 |
| VLA35/35-180             | 1.813               | 64                  | 4,01                        | 40,86           | 59                             | 1,28     | 1.226                    | (1.116)                     |                 |                 |
| VA035-200                | 2.013               | 49                  | 4,46                        | 30,40           | 33                             | 1,24     | 756                      | (688)                       |                 |                 |
| VAD035-200               | 2.013               | 57                  | 7,82                        | 48,20           | 56                             | 1,26     | 1.306                    | (1.188)                     |                 |                 |
| VLA35/35-200             | 2.013               | 64                  | 4,46                        | 45,40           | 59                             | 1,28     | 1.362                    | (1.240)                     |                 |                 |

| <b>Height<br/>453 mm</b> | <b>Width<br/>mm</b> | <b>Depth<br/>mm</b> | <b>V<br/>dm<sup>3</sup></b> | <b>M<br/>kg</b> | <b>q<sub>ms</sub><br/>kg/h</b> | <b>n</b> | <b>P ΔT 50K<br/>Watt</b> | <b>P ΔT 50K*<br/>(Watt)</b> | <b>RAL 9016</b> | <b>Artistic</b> |
|--------------------------|---------------------|---------------------|-----------------------------|-----------------|--------------------------------|----------|--------------------------|-----------------------------|-----------------|-----------------|
| VA042-100                | 1.013               | 49                  | 2,68                        | 18,10           | 39                             | 1,24     | 448                      | (408)                       |                 |                 |
| VAD042-100               | 1.013               | 57                  | 4,70                        | 28,80           | 66                             | 1,26     | 767                      | (698)                       |                 |                 |
| VLA42/42-100             | 1.013               | 64                  | 2,68                        | 27,10           | 67                             | 1,29     | 779                      | (709)                       |                 |                 |
| VA042-120                | 1.213               | 49                  | 3,22                        | 21,72           | 39                             | 1,24     | 538                      | (490)                       |                 |                 |
| VAD042-120               | 1.213               | 57                  | 5,64                        | 34,56           | 66                             | 1,26     | 920                      | (838)                       |                 |                 |
| VLA42/42-120             | 1.213               | 64                  | 3,22                        | 32,52           | 67                             | 1,29     | 935                      | (851)                       |                 |                 |
| VA042-140                | 1.413               | 49                  | 3,75                        | 25,34           | 39                             | 1,24     | 627                      | (571)                       |                 |                 |
| VAD042-140               | 1.413               | 57                  | 6,58                        | 40,32           | 66                             | 1,26     | 1.074                    | (977)                       |                 |                 |
| VLA42/42-140             | 1.413               | 64                  | 3,75                        | 37,94           | 67                             | 1,29     | 1.091                    | (993)                       |                 |                 |
| VA042-180                | 1.813               | 49                  | 4,82                        | 32,58           | 39                             | 1,24     | 806                      | (734)                       |                 |                 |
| VAD042-180               | 1.813               | 57                  | 8,46                        | 51,84           | 66                             | 1,26     | 1.381                    | (1.256)                     |                 |                 |
| VLA42/42-180             | 1.813               | 64                  | 4,82                        | 48,78           | 67                             | 1,29     | 1.402                    | (1.276)                     |                 |                 |
| VA042-200                | 2.013               | 49                  | 5,36                        | 36,20           | 39                             | 1,24     | 896                      | (816)                       |                 |                 |
| VAD042-200               | 2.013               | 57                  | 9,40                        | 57,60           | 66                             | 1,26     | 1.534                    | (1.396)                     |                 |                 |
| VLA42/42-200             | 2.013               | 64                  | 5,36                        | 54,20           | 67                             | 1,29     | 1.558                    | (1.418)                     |                 |                 |

V: volume, M: weight, q<sub>ms</sub>: water flow, n: exponent, P ΔT 50K: EN 442 output, P ΔT 50K\*: EN 442 output stainless steel finish

**CENTRAL HEATING VERSION - MODEL VA/VAD/VLA HORIZONTAL**

| Height<br>527 mm | Width<br>mm | Depth<br>mm | V<br>dm <sup>3</sup> | M<br>kg | q <sub>ms</sub><br>kg/h | n    | P ΔT 50K<br>Watt | P ΔT 50K*<br>(Watt) | RAL 9016 | Artistic |
|------------------|-------------|-------------|----------------------|---------|-------------------------|------|------------------|---------------------|----------|----------|
| VA049-100        | 1.013       | 49          | 3,13                 | 21,00   | 45                      | 1,25 | 519              | (472)               |          |          |
| VAD049-100       | 1.013       | 57          | 2,48                 | 33,50   | 76                      | 1,27 | 881              | (802)               |          |          |
| VLA49/49-100     | 1.013       | 64          | 3,13                 | 31,60   | 75                      | 1,30 | 877              | (798)               |          |          |
| VA049-120        | 1.213       | 49          | 3,76                 | 25,20   | 45                      | 1,25 | 623              | (566)               |          |          |
| VAD049-120       | 1.213       | 57          | 2,98                 | 40,20   | 76                      | 1,27 | 1.057            | (962)               |          |          |
| VLA49/49-120     | 1.213       | 64          | 3,76                 | 37,92   | 75                      | 1,30 | 1.052            | (958)               |          |          |
| VA049-140        | 1.413       | 49          | 4,38                 | 29,40   | 45                      | 1,25 | 727              | (661)               |          |          |
| VAD049-140       | 1.413       | 57          | 3,47                 | 46,90   | 76                      | 1,27 | 1.233            | (1.123)             |          |          |
| VLA49/49-140     | 1.413       | 64          | 4,38                 | 44,24   | 75                      | 1,30 | 1.228            | (1.117)             |          |          |
| VA049-180        | 1.813       | 49          | 5,63                 | 37,80   | 45                      | 1,25 | 934              | (850)               |          |          |
| VAD049-180       | 1.813       | 57          | 4,46                 | 60,30   | 76                      | 1,27 | 1.586            | (1.444)             |          |          |
| VLA49/49-180     | 1.813       | 64          | 5,63                 | 56,88   | 75                      | 1,30 | 1.579            | (1.436)             |          |          |
| VA049-200        | 2.013       | 49          | 6,26                 | 42,00   | 45                      | 1,25 | 1.038            | (944)               |          |          |
| VAD049-200       | 2.013       | 57          | 4,96                 | 67,00   | 76                      | 1,27 | 1.762            | (1.604)             |          |          |
| VLA49/49-200     | 2.013       | 64          | 6,26                 | 63,20   | 75                      | 1,30 | 1.754            | (1.596)             |          |          |

| Height<br>601 mm | Width<br>mm | Depth<br>mm | V<br>dm <sup>3</sup> | M<br>kg | q <sub>ms</sub><br>kg/h | n    | P ΔT 50K<br>Watt | P ΔT 50K*<br>(Watt) | RAL 9016 | Artistic |
|------------------|-------------|-------------|----------------------|---------|-------------------------|------|------------------|---------------------|----------|----------|
| VA056-100        | 1.013       | 49          | 3,57                 | 23,90   | 51                      | 1,25 | 591              | (538)               |          |          |
| VAD056-100       | 1.013       | 57          | 6,27                 | 37,50   | 85                      | 1,27 | 994              | (905)               |          |          |
| VLA56/56-100     | 1.013       | 64          | 3,57                 | 36,00   | 84                      | 1,31 | 976              | (888)               |          |          |
| VA056-120        | 1.213       | 49          | 4,28                 | 28,68   | 51                      | 1,25 | 709              | (646)               |          |          |
| VAD056-120       | 1.213       | 57          | 7,52                 | 45,00   | 85                      | 1,27 | 1.193            | (1.086)             |          |          |
| VLA56/56-120     | 1.213       | 64          | 4,28                 | 43,20   | 84                      | 1,31 | 1.171            | (1.066)             |          |          |
| VA056-140        | 1.413       | 49          | 5,00                 | 33,46   | 51                      | 1,25 | 827              | (753)               |          |          |
| VAD056-140       | 1.413       | 57          | 8,78                 | 52,50   | 85                      | 1,27 | 1.392            | (1.267)             |          |          |
| VLA56/56-140     | 1.413       | 64          | 5,00                 | 50,40   | 84                      | 1,31 | 1.366            | (1.243)             |          |          |
| VA056-180        | 1.813       | 49          | 6,43                 | 43,02   | 51                      | 1,25 | 1.064            | (968)               |          |          |
| VAD056-180       | 1.813       | 57          | 11,29                | 67,50   | 85                      | 1,27 | 1.789            | (1.629)             |          |          |
| VLA56/56-180     | 1.813       | 64          | 6,43                 | 64,80   | 84                      | 1,31 | 1.757            | (1.598)             |          |          |
| VA056-200        | 2.013       | 49          | 7,14                 | 47,80   | 51                      | 1,25 | 1.182            | (1.076)             |          |          |
| VAD056-200       | 2.013       | 57          | 12,54                | 75,00   | 85                      | 1,27 | 1.988            | (1.810)             |          |          |
| VLA56/56-200     | 2.013       | 64          | 7,14                 | 72,00   | 84                      | 1,31 | 1.952            | (1.776)             |          |          |

V: volume, M: weight, q<sub>ms</sub>: water flow, n: exponent, P ΔT 50K: EN 442 output, P ΔT 50K\*: EN 442 output stainless steel finish

**CENTRAL HEATING VERSION - MODEL VA/VAD/VLA HORIZONTAL**

| <b>Height<br/>675 mm</b> | <b>Width<br/>mm</b> | <b>Depth<br/>mm</b> | <b>V<br/>dm<sup>3</sup></b> | <b>M<br/>kg</b> | <b>q<sub>ms</sub><br/>kg/h</b> | <b>n</b> | <b>P ΔT 50K<br/>Watt</b> | <b>P ΔT 50K*<br/>(Watt)</b> | <b>RAL 9016</b> | <b>Artistic</b> |
|--------------------------|---------------------|---------------------|-----------------------------|-----------------|--------------------------------|----------|--------------------------|-----------------------------|-----------------|-----------------|
| VA063-100                | 1.013               | 49                  | 4,02                        | 26,70           | 57                             | 1,24     | 664                      | (604)                       |                 |                 |
| VAD063-100               | 1.013               | 57                  | 7,05                        | 42,10           | 95                             | 1,26     | 1.107                    | (1.007)                     |                 |                 |
| VLA63/56-100             | 1.013               | 64                  | 4,02                        | 38,90           | 89                             | 1,28     | 1.033                    | (940)                       |                 |                 |
| VA063-120                | 1.213               | 49                  | 4,82                        | 32,04           | 57                             | 1,24     | 797                      | (725)                       |                 |                 |
| VAD063-120               | 1.213               | 57                  | 8,46                        | 51,36           | 95                             | 1,26     | 1.328                    | (1.208)                     |                 |                 |
| VLA63/56-120             | 1.213               | 64                  | 4,82                        | 46,68           | 89                             | 1,28     | 1.240                    | (1.128)                     |                 |                 |
| VA063-140                | 1.413               | 49                  | 5,63                        | 37,38           | 57                             | 1,24     | 797                      | (846)                       |                 |                 |
| VAD063-140               | 1.413               | 57                  | 9,87                        | 59,92           | 95                             | 1,26     | 1.328                    | (1.410)                     |                 |                 |
| VLA63/56-140             | 1.413               | 64                  | 5,63                        | 54,46           | 89                             | 1,28     | 1.240                    | (1.316)                     |                 |                 |
| VA063-180                | 1.813               | 49                  | 7,24                        | 48,06           | 57                             | 1,24     | 930                      | (1.087)                     |                 |                 |
| VAD063-180               | 1.813               | 57                  | 12,69                       | 77,04           | 95                             | 1,26     | 1.550                    | (1.813)                     |                 |                 |
| VLA63/56-180             | 1.813               | 64                  | 7,24                        | 70,02           | 89                             | 1,28     | 1.446                    | (1.692)                     |                 |                 |
| VA063-200                | 2.013               | 49                  | 8,04                        | 53,40           | 57                             | 1,24     | 1.195                    | (1.208)                     |                 |                 |
| VAD063-200               | 2.013               | 57                  | 14,10                       | 85,60           | 95                             | 1,26     | 1.993                    | (2.014)                     |                 |                 |
| VLA63/56-200             | 2.013               | 64                  | 8,04                        | 77,80           | 89                             | 1,28     | 1.859                    | (1.880)                     |                 |                 |

| <b>Height<br/>749 mm</b> | <b>Width<br/>mm</b> | <b>Depth<br/>mm</b> | <b>V<br/>dm<sup>3</sup></b> | <b>M<br/>kg</b> | <b>q<sub>ms</sub><br/>kg/h</b> | <b>n</b> | <b>P ΔT 50K<br/>Watt</b> | <b>P ΔT 50K*<br/>(Watt)</b> | <b>RAL 9016</b> | <b>Artistic</b> |
|--------------------------|---------------------|---------------------|-----------------------------|-----------------|--------------------------------|----------|--------------------------|-----------------------------|-----------------|-----------------|
| VA070-100                | 1.013               | 49                  | 4,47                        | 29,60           | 39                             | 1,24     | 740                      | (673)                       |                 |                 |
| VAD070-100               | 1.013               | 57                  | 7,84                        | 46,60           | 66                             | 1,26     | 1.221                    | (1.111)                     |                 |                 |
| VLA70/56-100             | 1.013               | 64                  | 4,47                        | 41,70           | 67                             | 1,29     | 1.089                    | (991)                       |                 |                 |
| VA070-120                | 1.213               | 49                  | 5,36                        | 35,52           | 39                             | 1,24     | 888                      | (808)                       |                 |                 |
| VAD070-120               | 1.213               | 57                  | 9,41                        | 55,92           | 66                             | 1,26     | 1.465                    | (1.333)                     |                 |                 |
| VLA70/56-120             | 1.213               | 64                  | 5,36                        | 50,04           | 67                             | 1,29     | 1.307                    | (1.189)                     |                 |                 |
| VA070-140                | 1.413               | 49                  | 6,26                        | 41,44           | 39                             | 1,24     | 1.036                    | (942)                       |                 |                 |
| VAD070-140               | 1.413               | 57                  | 10,98                       | 65,24           | 66                             | 1,26     | 1.709                    | (1.555)                     |                 |                 |
| VLA70/56-140             | 1.413               | 64                  | 6,26                        | 58,38           | 67                             | 1,29     | 1.525                    | (1.387)                     |                 |                 |
| VA070-180                | 1.813               | 49                  | 8,05                        | 53,28           | 39                             | 1,24     | 1.332                    | (1.211)                     |                 |                 |
| VAD070-180               | 1.813               | 57                  | 14,11                       | 83,88           | 66                             | 1,26     | 2.198                    | (2.000)                     |                 |                 |
| VLA70/56-180             | 1.813               | 64                  | 8,05                        | 75,06           | 67                             | 1,29     | 1.960                    | (1.784)                     |                 |                 |
| VA070-200                | 2.013               | 49                  | 8,94                        | 59,20           | 39                             | 1,24     | 1.480                    | (1.346)                     |                 |                 |
| VAD070-200               | 2.013               | 57                  | 15,68                       | 93,20           | 66                             | 1,26     | 2.442                    | (2.222)                     |                 |                 |
| VLA70/56-200             | 2.013               | 64                  | 8,94                        | 83,40           | 67                             | 1,29     | 2.178                    | (1.982)                     |                 |                 |

V: volume, M: weight, q<sub>ms</sub>: water flow, n: exponent, P ΔT 50K: EN 442 output, P ΔT 50K\*: EN 442 output stainless steel finish

## FINISH

| <b>Powder-coated finish,<br/>Artistic and processed finish<br/>(see brochure RUNTAL ARTEPLANO)</b> | <b>Code</b>             | <b>Extra<br/>charge</b> | <b>Artistic<br/>surface</b> | <b>Watt</b> | <b>Colour basic<br/>radiator</b> |
|----------------------------------------------------------------------------------------------------|-------------------------|-------------------------|-----------------------------|-------------|----------------------------------|
| White RAL 9016 (standard)                                                                          | 9016                    | —                       |                             |             |                                  |
| Pure, Optimism and Elemental                                                                       | See Runtal colour chart |                         |                             |             |                                  |
| Inox Look (not available)                                                                          | 0332                    |                         | not available               |             |                                  |
| Le Corbusier                                                                                       | See Runtal colour chart |                         |                             |             |                                  |
| Anodised aluminium                                                                                 | 9501                    | x                       | [Price]                     | (Watt)      | RAL 9006                         |
| Ground stainless steel                                                                             | 9511                    | x                       | [Price]                     | (Watt)      | RAL 9007                         |
| Etched copper                                                                                      | 9523                    | x                       | [Price]                     |             | RAL 8003                         |
| Etched brass                                                                                       | 9521                    | x                       | [Price]                     |             | 0337 Antique Gold                |
| Feather finish stainless steel                                                                     | 9514                    | x                       | [Price]                     | (Watt)      | RAL 9007                         |
| Mirror-polished stainless steel*                                                                   | 9516                    | x                       | [Price]                     | (Watt)      | RAL 9007                         |
| Satin bronze-coloured stainless steel                                                              | 9535                    | x                       | [Price]                     | (Watt)      | RAL 8002 mat                     |

\*: The finish mirror-polished stainless steel presents deformations of the images which increase at function of the radiator.  
These deformations are bigger on the larger models

(Watt) Output for models with stainless steel surface

### Example of coding for ordering of vertical models

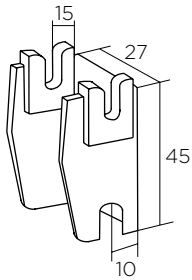
| <b>HA180-7</b>    | <b>7</b>        | <b>9016</b>              | <b>3570</b>              |
|-------------------|-----------------|--------------------------|--------------------------|
| Model of radiator | Number of tubes | colour code or<br>finish | connection<br>type /code |

### Example of coding for ordering of horizontal models

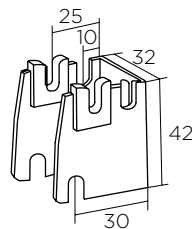
| <b>VA056-120</b>  | <b>1.200</b> | <b>9016</b>              | <b>3570</b>             |
|-------------------|--------------|--------------------------|-------------------------|
| Model of radiator | Width in mm  | colour code<br>or finish | connection<br>type/code |

TECHNICAL DATA

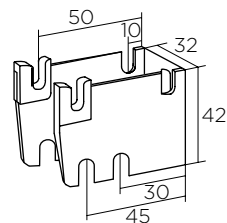
|                       |                                                                                                                                                         |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| Materials             | Radiator made of steel, flat oval tubes 70x8 mm, header (profile) 37x32 mm, fins sheet steel, front sheet steel powder-coated or as per finishes listed |
| Operating pressure    | Standard max. 4,6 bar (high pressure max. 10 bar, extra charge +15 %)                                                                                   |
| Test pressure         | Standard max. 6 bar (high pressure max. 13 bar, extra charge +15 %)                                                                                     |
| Operating temperature | Max. 80 °C                                                                                                                                              |
| Standard kit          | Wall brackets in same colour as radiator, assembly kit included in packaging                                                                            |



Art. CVD0 for models  
**HLA, HAD, VLA**  
**(> 5 tubes), VAD**



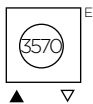
Art. CVD1 for models  
**VLA (≤ 5 tubes)**



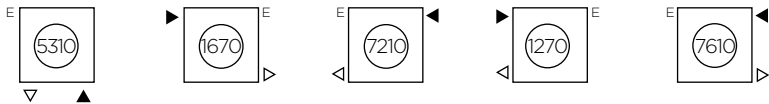
Art. CVD2 for models  
**HA and VA**

Valves As per ACCESSORIES price list

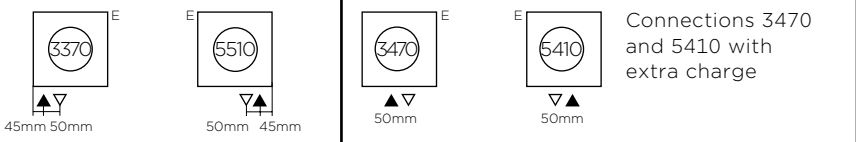
Connections Standard: Ø 1/2" flow ▲ / return ▼ / air vent (E)



On request: Ø 3/8", 1/2" or 3/4" At order please indicate the required connection code as below and the required dimension (Ø 3/8", 1/2" or 3/4")

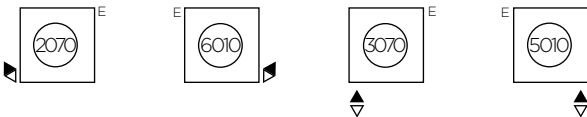


For HA, HLA and HAD only:



Single entry connections

with Ø 1/2" connections the dip tube has Ø 12 mm  
with Ø 3/4" connections the dip tube has Ø 14 mm



Connections 2070, 6010, 3070 and 5010 with extra charge  
NB: At order please indicate the required diameter of the dip tube.  
The connection must be made in accordance with the required specifications

## RUNTAL ARTEPLANO ACCESSORIES

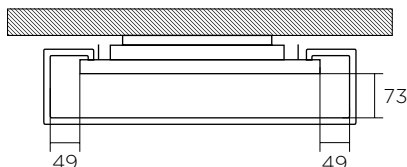


### STAINLESS STEEL TOWEL BAR

For retrofitting at any height. More than one towel bar can be fitted per radiator.  
Rectangular 4 x 30 mm

| Art.-no. | Width <sup>(1)</sup><br>mm | Width <sup>(2)</sup><br>mm |
|----------|----------------------------|----------------------------|
| 468002   | 305                        | 343                        |
| 468012   | 453                        | 491                        |
| 468022   | 601                        | 639                        |

(1) Width of radiator, (2) Width of towel bar



### LATERAL COVER SHEET

(for vertical models only)

#### MODEL HA (Code: SC)

- Lateral cover sheet welded on direct on the product
- Detached mounting of the lateral cover sheet is not possible.
- No output reduction

#### MODEL HLA

- Lateral cover sheet standard welded on direct on the product. Detached mounting of the lateral cover sheet is not possible.
- No output reduction

#### MODEL HAD (with two possibilities)

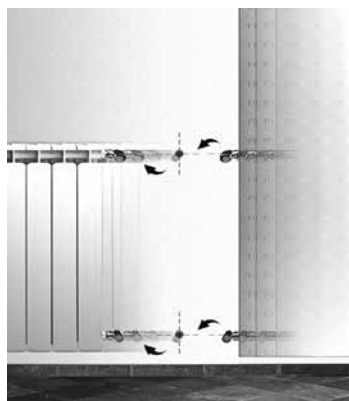
1. Lateral cover sheet welded direct on product
  - output reduction -6 %

2. Lateral cover sheet for detached mounting
  - output reduction -6 %

(Code 128161) Powder-coated in white RAL9016 (code 9016): per pair

(Code 128169) In other colours as per Runtal colour chart:

NB: The lateral cover sheets are painted in the same colour as the basic radiator

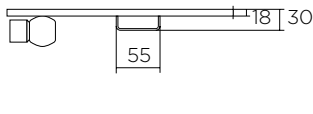


### SPECIAL VERSIONS

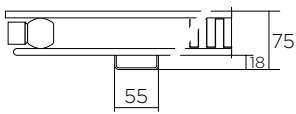
- Connection centres made to measure on request (for replacement of old radiator)
- Sizes and models different from indicated
- Additional connections

# RUNTAL ARTEPLANO MOUNTING INSTRUCTIONS

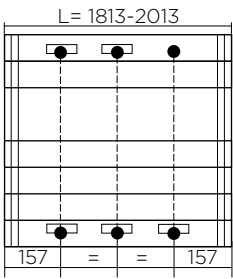
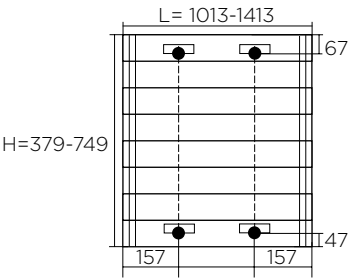
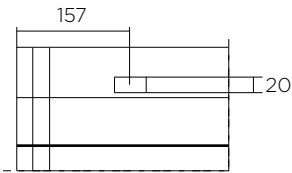
## HORIZONTAL MODELS VA, VAD



TOP VIEW  
MODEL VA



TOP VIEW  
MODEL VAD

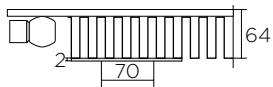


Drawings are taken from back view of products (dimensions in mm, tolerances of fixation points  $\pm 5$  mm)

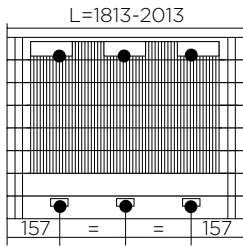
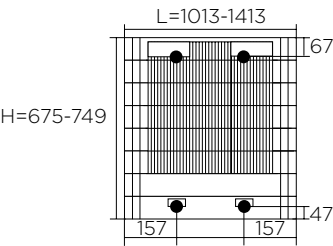
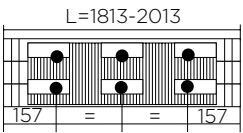
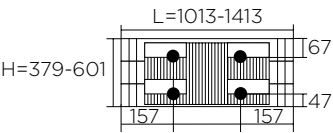
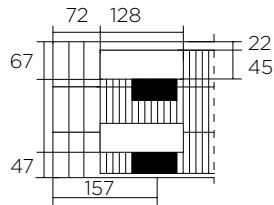
- H Height (mm)
- L Width (mm)
- Fixing point

For correct installation, please note the corresponding installation instructions.

**HORIZONTAL MODEL VLA**



**TOP VIEW  
MODEL VLA**



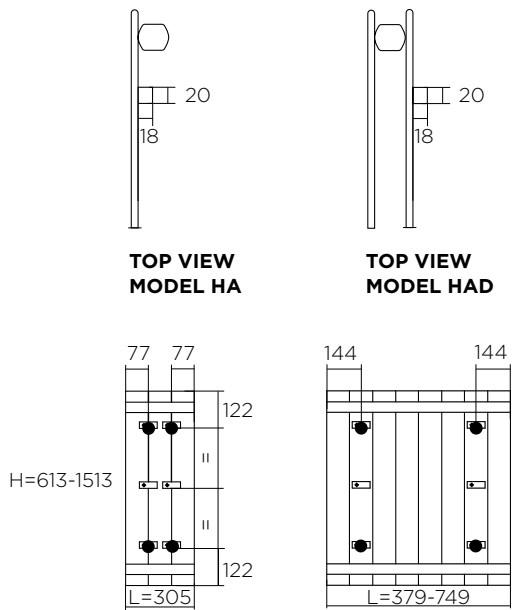
Drawings are taken from back view of products (dimensions in mm, tolerances of fixation points  $\pm 5$  mm)

- H Height (mm)
- L Width (mm)
- Fixing point

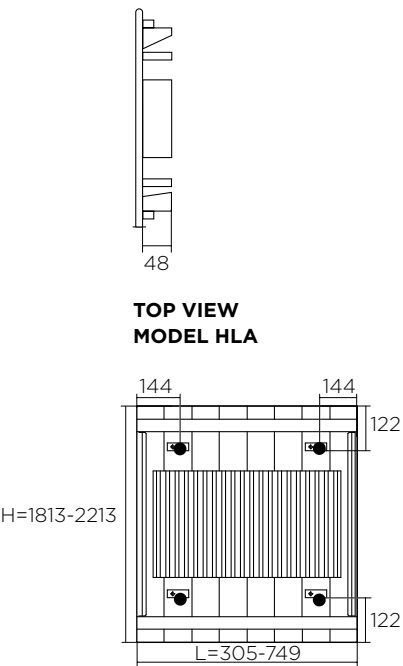
For correct installation, please note the corresponding installation instructions.



**VERTICAL MODELS HA/HAD**



**VERTICAL MODEL HLA**



Drawings are taken from back view of products (dimensions in mm, tolerances of fixation points  $\pm 5$  mm)

- H Height (mm)
- L Width (mm)
- Fixing point

For correct installation, please note the corresponding installation instructions.

# RUNTAL ARTEPLANO ELECTRIC

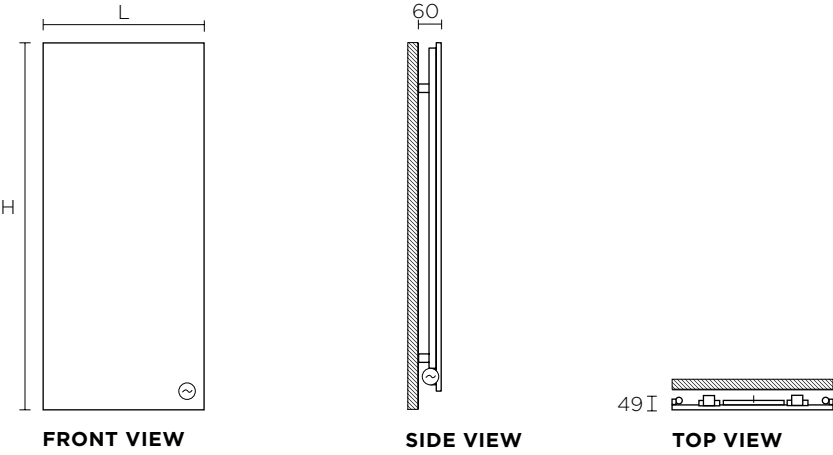
RUNTAL DESIGN STUDIO

The electric version of the heating panel RUNTAL ARTEPLANO distinguishes itself by its thermal efficiency and the perfect integration of the electronic parts. Mounted on a base structure comprising a flat oval tube, profile header or sheet steel fins. The smooth front panel functions as a fast-acting heating surface. This radiator is designed for electrical operation. RUNTAL ARTEPLANO in its electric version is available in the full range of colours according to the Runtal colour chart as well as in anodised aluminium and brushed stainless steel. It is equipped with a control unit for radio frequencies. The towel bar in brushed stainless steel complements the range.



**RUNTAL ARTEPLANO** TECHNICAL SPECIFICATIONS

**ELECTRIC ONLY VERSION**



- H Height (mm)
- L Width (mm)
- ⊗ Electric box

# RUNTAL ARTEPLANO

## ELECTRIC ONLY VERSION

| Height<br>1.945 mm | Width<br>mm | M<br>kg | EP<br>Watt | Surface<br>(Code)             |
|--------------------|-------------|---------|------------|-------------------------------|
| HAE-195-040/FF     | 413         | 34,0    | 1.000      | White RAL9016 (9016)          |
| HAE-195-040/FF     | 413         | 34,0    | 750        | Aluminium anodised (9501)     |
| HAE-195-040/FF     | 413         | 34,0    | 750        | Ground stainless steel (9511) |
| HAE-195-050/FF     | 513         | 45,5    | 1.250      | White RAL9016 (9016)          |
| HAE-195-050/FF     | 513         | 45,5    | 900        | Aluminium anodised (9501)     |
| HAE-195-050/FF     | 513         | 45,5    | 900        | Ground stainless steel (9511) |
| HAE-195-060/FF     | 613         | 59,0    | 1.500      | White RAL9016 (9016)          |
| HAE-195-060/FF     | 613         | 59,0    | 1.250      | Aluminium anodised (9501)     |
| HAE-195-060/FF     | 613         | 59,0    | 1.250      | Ground stainless steel (9511) |

M: weight, EP: electric power,  
Price: all prices excluding VAT, valid from 01.04.2014

## FINISHES

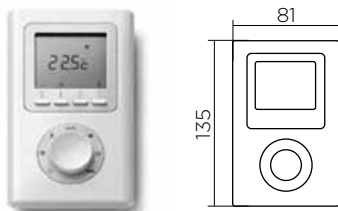
| Powder-coated finish         | Code                    | Extra charge on RAL 9016 |
|------------------------------|-------------------------|--------------------------|
| White RAL9016 (standard)     | 9016                    | —                        |
| Pure, Optimism and Elemental | See Runtal colour chart |                          |
| Inox look (not available)    | 0332                    | not available            |
| Le Corbusier                 | See Runtal colour chart |                          |

| Processed finish<br>(see brochure RUNTAL ARTEPLANO) | Code | Basic radiator |
|-----------------------------------------------------|------|----------------|
| Anodised aluminium                                  | 9501 | RAL9006        |
| Ground stainless steel                              | 9511 | RAL9007        |

## TECHNICAL DATA

|              |                                                                                                                                                                                                                                               |
|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Materials    | Header 37 x 32 mm and flat oval tube 70x8 mm made of steel. Flat front made of steel sheet powder-coated or with special surfaces treatment as anodised aluminium (9501) or ground stainless steel (9511)                                     |
| Standard kit | Wall brackets in same colour as radiator and assembly kit included in packaging                                                                                                                                                               |
| Function     | Filled with non-flammable, non-toxic heat transfer fluid, frostproof up to -20 °C, immersion heater 1×230 V, 50 Hz +/- 10%. Standard fitted in bottom right. Includes radio frequency control unit with integrated timer/programming function |
| Control unit |                                                                                                                                                                                                                                               |



- Room temperature control
- Daily and weekly program
- Operating modes: frost protection
- Economy program, comfort, automatic, manual, off
- Wall-mounted or free-standing

Mains connection: 2,0 m white power cable without plug

Degree of protection: Class II IP44 (splash water) with CE-marking

|                                   |                                                                                                         |
|-----------------------------------|---------------------------------------------------------------------------------------------------------|
| Position of electrical connection | The electrical connection must be performed by an electrician in accordance with applicable regulations |
|-----------------------------------|---------------------------------------------------------------------------------------------------------|

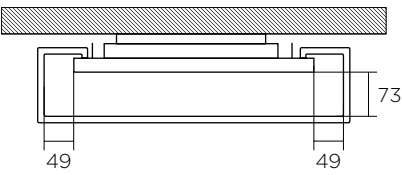
# RUNTAL ARTEPLANO ACCESSORIES



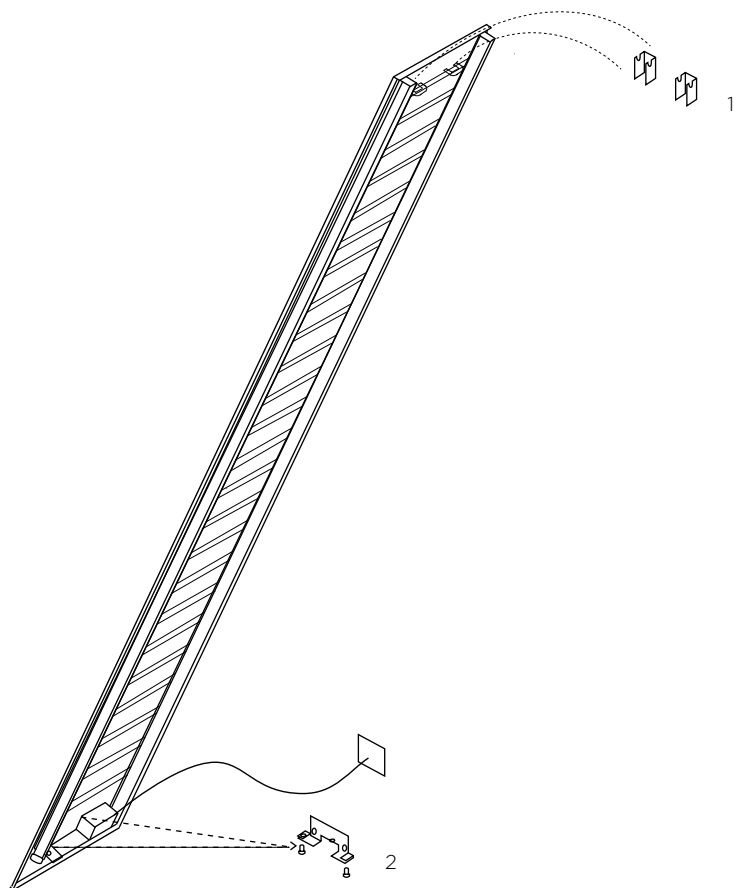
**Stainless steel towel bar**  
For retrofitting at any height. More than one towel bar can be fitted per radiator.  
Rectangular 4 x 30 mm

| Art.-no. | Width <sup>(1)</sup><br>mm | Width <sup>(2)</sup><br>mm |
|----------|----------------------------|----------------------------|
| 468002   | 305                        | 343                        |
| 468012   | 453                        | 491                        |
| 468022   | 601                        | 639                        |

(1) Width of radiator, (2) Width of towel bar



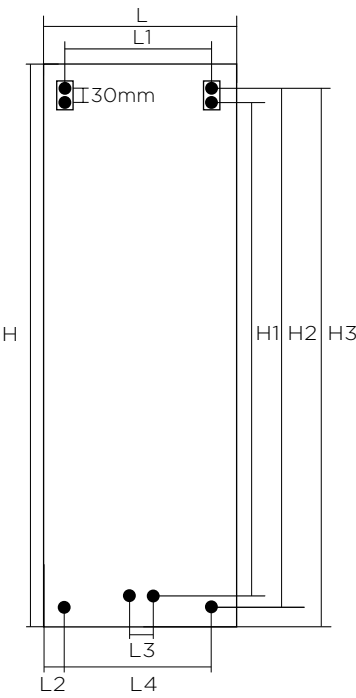
## RUNTAL ARTEPLANO MOUNTING INSTRUCTIONS



- 1 Movable fixing on top for easy mounting and service access
- 2 Fixation at bottom for interlock



# RUNTAL ARTEPLANO MOUNTING INSTRUCTIONS



| L (mm) |     |     |    |     | H (mm) |       |       |       |
|--------|-----|-----|----|-----|--------|-------|-------|-------|
| L      | L1  | L2  | L3 | L4  | H      | H1    | H2    | H3    |
| 410    | 88  | 116 | 70 | 140 | 1.945  | 1.675 | 1.762 | 1.863 |
| 510    | 188 | 216 | 70 | 140 | 1.945  | 1.675 | 1.762 | 1.863 |
| 610    | 288 | 316 | 70 | 140 | 1.945  | 1.675 | 1.762 | 1.863 |

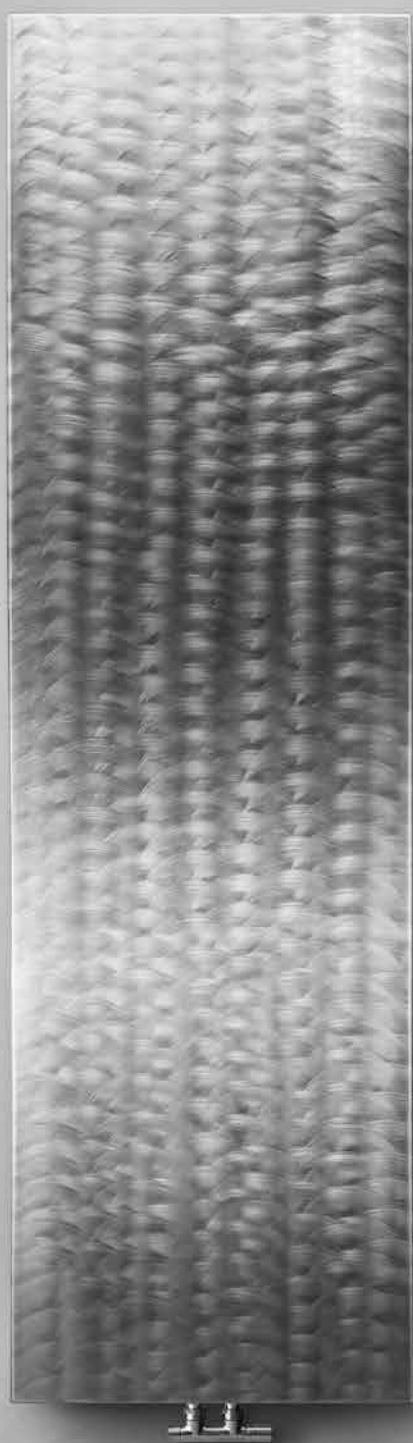
- H Height (mm)
- L Width (mm)
- Fixing point

For correct radiator installation, please note the corresponding installation instructions

# RUNTAL ARTEPLANO ONDA

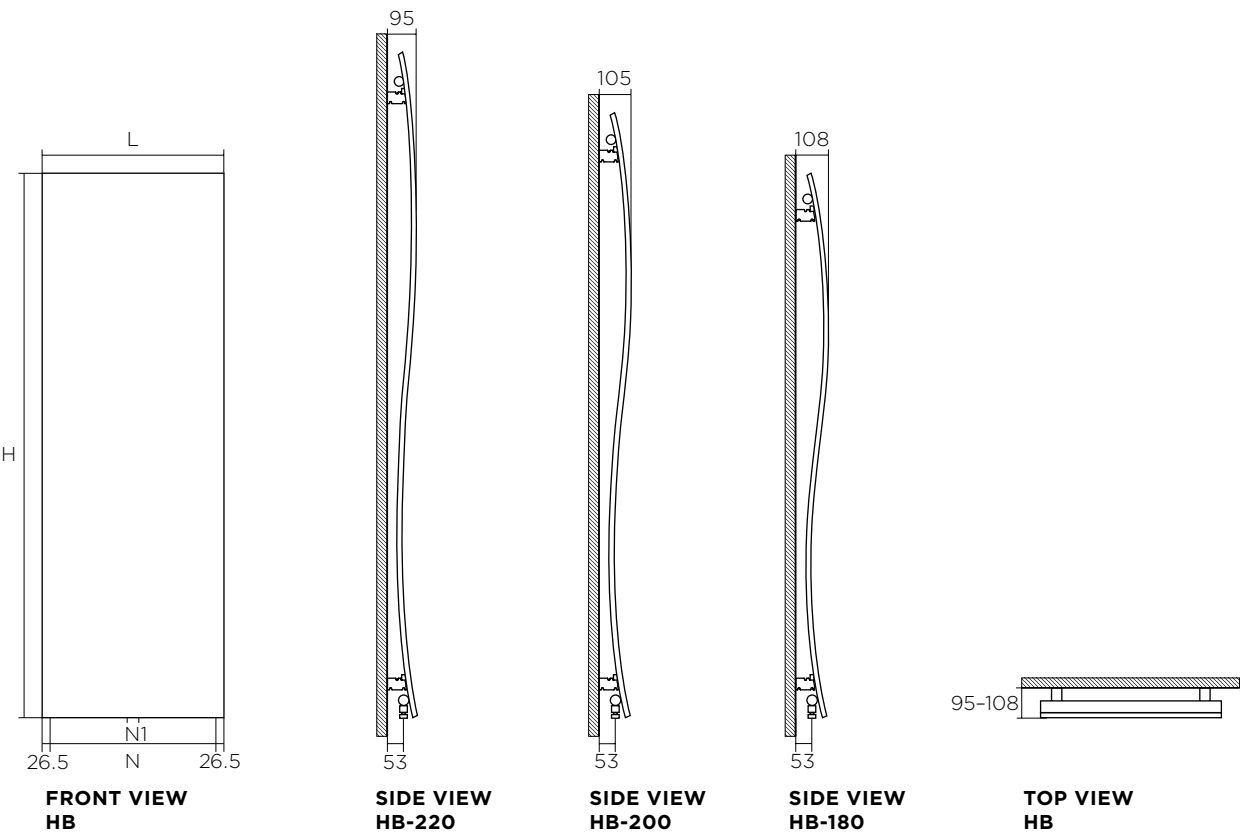
RUNTAL DESIGN STUDIO

RUNTAL ARTEPLANO ONDA is an elegant, subtly curved variation on the minimalist design of RUNTAL ARTEPLANO. From the front the radiator appears flat, but viewed from the side it reveals its wave-like form. The unusual design is available as a vertical model with various dimensions and connections to the central heating. Available in powder-coated steel, in any colour in the Runtal colour chart, or with panels of aluminium, stainless steel, brass or copper.



# RUNTAL ARTEPLANO ONDA TECHNICAL SPECIFICATIONS

## CENTRAL HEATING VERSION



- H Height
- L Width
- N Pipe centres (mm)
- N1 Pipe centres (mm)

# RUNTAL ARTEPLANO ONDA

## CENTRAL HEATING VERSION

| Height<br>1.805 mm | Width<br>mm | N<br>mm | N1<br>mm | V<br>dm <sup>3</sup> | M<br>kg | n    | P ΔT 50K<br>Watt | Surface<br>(Code)             |
|--------------------|-------------|---------|----------|----------------------|---------|------|------------------|-------------------------------|
| HB180-4            | 305         | 252     | 50       | 2,88                 | 22,76   | 1,30 | 520              | White RAL9016 (9016)          |
| HB180-4            | 305         | 252     | 50       | 2,88                 | 22,76   | 1,30 | 520              | Anodised aluminium (9501)     |
| HB180-4            | 305         | 252     | 50       | 2,88                 | 22,76   | 1,30 | 473              | Ground stainless steel (9511) |
| HB180-4            | 305         | 252     | 50       | 2,88                 | 22,76   | 1,30 | 520              | Etched copper (9523)          |
| HB180-4            | 305         | 252     | 50       | 2,88                 | 22,76   | 1,30 | 520              | Etched brass (9521)           |
| HB180-4            | 305         | 252     | 50       | 2,88                 | 22,76   | 1,30 | 473              | Feather-finish inox (9514)    |
| HB180-5            | 379         | 326     | 50       | 3,60                 | 28,45   | 1,30 | 650              | White RAL9016 (9016)          |
| HB180-5            | 379         | 326     | 50       | 3,60                 | 28,45   | 1,30 | 650              | Anodised aluminium (9501)     |
| HB180-5            | 379         | 326     | 50       | 3,60                 | 28,45   | 1,30 | 592              | Ground stainless steel (9511) |
| HB180-5            | 379         | 326     | 50       | 3,60                 | 28,45   | 1,30 | 650              | Etched copper (9523)          |
| HB180-5            | 379         | 326     | 50       | 3,60                 | 28,45   | 1,30 | 650              | Etched brass (9521)           |
| HB180-5            | 379         | 326     | 50       | 3,60                 | 28,45   | 1,30 | 592              | Feather-finish inox (9514)    |
| HB180-6            | 453         | 400     | 50       | 4,32                 | 34,14   | 1,30 | 780              | White RAL9016 (9016)          |
| HB180-6            | 453         | 400     | 50       | 4,32                 | 34,14   | 1,30 | 780              | Anodised aluminium (9501)     |
| HB180-6            | 453         | 400     | 50       | 4,32                 | 34,14   | 1,30 | 710              | Ground stainless steel (9511) |
| HB180-6            | 453         | 400     | 50       | 4,32                 | 34,14   | 1,30 | 780              | Etched copper (9523)          |
| HB180-6            | 453         | 400     | 50       | 4,32                 | 34,14   | 1,30 | 780              | Etched brass (9521)           |
| HB180-6            | 453         | 400     | 50       | 4,32                 | 34,14   | 1,30 | 710              | Feather-finish inox (9514)    |
| HB180-7            | 527         | 474     | 50       | 5,04                 | 39,83   | 1,30 | 910              | White RAL9016 (9016)          |
| HB180-7            | 527         | 474     | 50       | 5,04                 | 39,83   | 1,30 | 910              | Anodised aluminium (9501)     |
| HB180-7            | 527         | 474     | 50       | 5,04                 | 39,83   | 1,30 | 828              | Ground stainless steel (9511) |
| HB180-7            | 527         | 474     | 50       | 5,04                 | 39,83   | 1,30 | 910              | Etched copper (9523)          |
| HB180-7            | 527         | 474     | 50       | 5,04                 | 39,83   | 1,30 | 910              | Etched brass (9521)           |
| HB180-7            | 527         | 474     | 50       | 5,04                 | 39,83   | 1,30 | 828              | Feather-finish inox (9514)    |
| HB180-8            | 601         | 548     | 50       | 5,76                 | 45,52   | 1,30 | 1.040            | White RAL9016 (9016)          |
| HB180-8            | 601         | 548     | 50       | 5,76                 | 45,52   | 1,30 | 1.040            | Anodised aluminium (9501)     |
| HB180-8            | 601         | 548     | 50       | 5,76                 | 45,52   | 1,30 | 946              | Ground stainless steel (9511) |
| HB180-8            | 601         | 548     | 50       | 5,76                 | 45,52   | 1,30 | 1.040            | Etched copper (9523)          |
| HB180-8            | 601         | 548     | 50       | 5,76                 | 45,52   | 1,30 | 1.040            | Etched brass (9521)           |
| HB200-8            | 601         | 548     | 50       | 5,76                 | 45,52   | 1,30 | 946              | Feather-finish inox (9514)    |
| HB180-9            | 675         | 622     | 50       | 6,48                 | 51,21   | 1,30 | 1.170            | White RAL9016 (9016)          |
| HB180-9            | 675         | 622     | 50       | 6,48                 | 51,21   | 1,30 | 1.170            | Anodised aluminium (9501)     |
| HB180-9            | 675         | 622     | 50       | 6,48                 | 51,21   | 1,30 | 1.065            | Ground stainless steel (9511) |
| HB180-9            | 675         | 622     | 50       | 6,48                 | 51,21   | 1,30 | 1.170            | Etched copper (9523)          |
| HB180-9            | 675         | 622     | 50       | 6,48                 | 51,21   | 1,30 | 1.170            | Etched brass (9521)           |
| HB180-9            | 675         | 622     | 50       | 6,48                 | 51,21   | 1,30 | 1.065            | Feather-finish inox (9514)    |

N: pipe centres, N1: pipe centres, V: volume, M: weight, n: exponent, P ΔT 50K: EN 442 output,

| Height<br>1.805 mm | Width<br>mm | N<br>mm | N1<br>mm | V<br>dm <sup>3</sup> | M<br>kg | n P  | ΔT 50K<br>Watt | Surface<br>(Code)             |
|--------------------|-------------|---------|----------|----------------------|---------|------|----------------|-------------------------------|
| HB180-10           | 749         | 696     | 50       | 7,20                 | 56,90   | 1,30 | 1.300          | White RAL9016 (9016)          |
| HB180-10           | 749         | 696     | 50       | 7,20                 | 56,90   | 1,30 | 1.300          | Anodised aluminium (9501)     |
| HB180-10           | 749         | 696     | 50       | 7,20                 | 56,90   | 1,30 | 1.183          | Ground stainless steel (9511) |
| HB180-10           | 749         | 696     | 50       | 7,20                 | 56,90   | 1,30 | 1.300          | Etched copper (9523)          |
| HB180-10           | 749         | 696     | 50       | 7,20                 | 56,90   | 1,30 | 1.300          | Etched brass (9521)           |
| HB180-10           | 305         | 696     | 50       | 7,20                 | 56,90   | 1,30 | 1.183          | Feather-finish inox (9514)    |

| Height<br>2.005 mm | Width<br>mm | N<br>mm | N1<br>mm | V<br>dm <sup>3</sup> | M<br>kg | n P  | ΔT 50K<br>Watt | Surface<br>(Code)             |
|--------------------|-------------|---------|----------|----------------------|---------|------|----------------|-------------------------------|
| HB200-4            | 305         | 252     | 50       | 3,12                 | 25,12   | 1,30 | 556            | White RAL9016 (9016)          |
| HB200-4            | 305         | 252     | 50       | 3,12                 | 25,12   | 1,30 | 556            | Anodised aluminium (9501)     |
| HB200-4            | 305         | 252     | 50       | 3,12                 | 25,12   | 1,30 | 506            | Ground stainless steel (9511) |
| HB200-4            | 305         | 252     | 50       | 3,12                 | 25,12   | 1,30 | 556            | Etched copper (9523)          |
| HB200-4            | 305         | 252     | 50       | 3,12                 | 25,12   | 1,30 | 556            | Etched brass (9521)           |
| HB200-4            | 305         | 252     | 50       | 3,12                 | 25,12   | 1,30 | 506            | Feather-finish inox (9514)    |
| HB200-5            | 379         | 326     | 50       | 3,90                 | 31,40   | 1,30 | 695            | White RAL9016 (9016)          |
| HB200-5            | 379         | 326     | 50       | 3,90                 | 31,40   | 1,30 | 695            | Anodised aluminium (9501)     |
| HB200-5            | 379         | 326     | 50       | 3,90                 | 31,40   | 1,30 | 632            | Ground stainless steel (9511) |
| HB200-5            | 379         | 326     | 50       | 3,90                 | 31,40   | 1,30 | 695            | Etched copper (9523)          |
| HB200-5            | 379         | 326     | 50       | 3,90                 | 31,40   | 1,30 | 695            | Etched brass (9521)           |
| HB200-5            | 379         | 326     | 50       | 3,90                 | 31,40   | 1,30 | 632            | Feather-finish inox (9514)    |
| HB200-6            | 453         | 400     | 50       | 4,68                 | 37,68   | 1,30 | 834            | White RAL9016 (9016)          |
| HB200-6            | 453         | 400     | 50       | 4,68                 | 37,68   | 1,30 | 834            | Anodised aluminium (9501)     |
| HB200-6            | 453         | 400     | 50       | 4,68                 | 37,68   | 1,30 | 759            | Ground stainless steel (9511) |
| HB200-6            | 453         | 400     | 50       | 4,68                 | 37,68   | 1,30 | 834            | Etched copper (9523)          |
| HB200-6            | 453         | 400     | 50       | 4,68                 | 37,68   | 1,30 | 834            | Etched brass (9521)           |
| HB200-6            | 453         | 400     | 50       | 4,68                 | 37,68   | 1,30 | 759            | Feather-finish inox (9514)    |
| HB200-7            | 527         | 474     | 50       | 5,46                 | 43,96   | 1,30 | 973            | White RAL9016 (9016)          |
| HB200-7            | 527         | 474     | 50       | 5,46                 | 43,96   | 1,30 | 973            | Anodised aluminium (9501)     |
| HB200-7            | 527         | 474     | 50       | 5,46                 | 43,96   | 1,30 | 885            | Ground stainless steel (9511) |
| HB200-7            | 527         | 474     | 50       | 5,46                 | 43,96   | 1,30 | 973            | Etched copper (9523)          |
| HB200-7            | 527         | 474     | 50       | 5,46                 | 43,96   | 1,30 | 973            | Etched brass (9521)           |
| HB200-7            | 527         | 474     | 50       | 5,46                 | 43,96   | 1,30 | 885            | Feather-finish inox (9514)    |
| HB200-8            | 601         | 548     | 50       | 6,24                 | 50,24   | 1,30 | 1.112          | White RAL9016 (9016)          |
| HB200-8            | 601         | 548     | 50       | 6,24                 | 50,24   | 1,30 | 1.112          | Anodised aluminium (9501)     |
| HB200-8            | 601         | 548     | 50       | 6,24                 | 50,24   | 1,30 | 1.012          | Ground stainless steel (9511) |
| HB200-8            | 601         | 548     | 50       | 6,24                 | 50,24   | 1,30 | 1.112          | Etched copper (9523)          |
| HB200-8            | 601         | 548     | 50       | 6,24                 | 50,24   | 1,30 | 1.112          | Etched brass (9521)           |
| HB200-8            | 601         | 548     | 50       | 6,24                 | 50,24   | 1,30 | 1.012          | Feather-finish inox (9514)    |

| Height<br>2.005 mm | Width<br>mm | N<br>mm | N1<br>mm | V<br>dm <sup>3</sup> | M<br>kg | n P  | ΔT 50K<br>Watt | Surface<br>(Code)             |
|--------------------|-------------|---------|----------|----------------------|---------|------|----------------|-------------------------------|
| HB200-9            | 675         | 622     | 50       | 7,02                 | 56,52   | 1,30 | 1.251          | White RAL9016 (9016)          |
| HB200-9            | 675         | 622     | 50       | 7,02                 | 56,52   | 1,30 | 1.251          | Anodised aluminium (9501)     |
| HB200-9            | 675         | 622     | 50       | 7,02                 | 56,52   | 1,30 | 1.138          | Ground stainless steel (9511) |
| HB200-9            | 675         | 622     | 50       | 7,02                 | 56,52   | 1,30 | 1.251          | Etched copper (9523)          |
| HB200-9            | 675         | 622     | 50       | 7,02                 | 56,52   | 1,30 | 1.251          | Etched brass (9521)           |
| HB200-9            | 675         | 622     | 50       | 7,02                 | 56,52   | 1,30 | 1.138          | Feather-finish inox (9514)    |
| HB200-10           | 749         | 696     | 50       | 7,80                 | 62,80   | 1,30 | 1.390          | White RAL9016 (9016)          |
| HB200-10           | 749         | 696     | 50       | 7,80                 | 62,80   | 1,30 | 1.390          | Anodised aluminium (9501)     |
| HB200-10           | 749         | 696     | 50       | 7,80                 | 62,80   | 1,30 | 1.265          | Ground stainless steel (9511) |
| HB200-10           | 749         | 696     | 50       | 7,80                 | 62,80   | 1,30 | 1.390          | Etched copper (9523)          |
| HB200-10           | 749         | 696     | 50       | 7,80                 | 62,80   | 1,30 | 1.390          | Etched brass (9521)           |
| HB200-10           | 749         | 696     | 50       | 7,80                 | 62,80   | 1,30 | 1.265          | Feather-finish inox (9514)    |

| Height<br>2.205 mm | Width<br>mm | N<br>mm | N1<br>mm | V<br>dm <sup>3</sup> | M<br>kg | n P  | ΔT 50K<br>Watt | Surface<br>(Code)             |
|--------------------|-------------|---------|----------|----------------------|---------|------|----------------|-------------------------------|
| HB220-4            | 305         | 252     | 50       | 3,40                 | 27,60   | 1,30 | 612            | White RAL9016 (9016)          |
| HB220-4            | 305         | 252     | 50       | 3,40                 | 27,60   | 1,30 | 612            | Anodised aluminium (9501)     |
| HB220-4            | 305         | 252     | 50       | 3,40                 | 27,60   | 1,30 | 557            | Ground stainless steel (9511) |
| HB220-4            | 305         | 252     | 50       | 3,40                 | 27,60   | 1,30 | 612            | Etched copper (9523)          |
| HB220-4            | 305         | 252     | 50       | 3,40                 | 27,60   | 1,30 | 612            | Etched brass (9521)           |
| HB220-4            | 305         | 252     | 50       | 3,40                 | 27,60   | 1,30 | 557            | Feather-finish inox (9514)    |
| HB220-5            | 379         | 326     | 50       | 4,25                 | 34,50   | 1,30 | 765            | White RAL9016 (9016)          |
| HB220-5            | 379         | 326     | 50       | 4,25                 | 34,50   | 1,30 | 765            | Anodised aluminium (9501)     |
| HB220-5            | 379         | 326     | 50       | 4,25                 | 34,50   | 1,30 | 696            | Ground stainless steel (9511) |
| HB220-5            | 379         | 326     | 50       | 4,25                 | 34,50   | 1,30 | 765            | Etched copper (9523)          |
| HB220-5            | 379         | 326     | 50       | 4,25                 | 34,50   | 1,30 | 765            | Etched brass (9521)           |
| HB220-5            | 379         | 326     | 50       | 4,25                 | 34,50   | 1,30 | 696            | Feather-finish inox (9514)    |
| HB220-6            | 453         | 400     | 50       | 5,10                 | 41,40   | 1,30 | 918            | White RAL9016 (9016)          |
| HB220-6            | 453         | 400     | 50       | 5,10                 | 41,40   | 1,30 | 918            | Anodised aluminium (9501)     |
| HB220-6            | 453         | 400     | 50       | 5,10                 | 41,40   | 1,30 | 835            | Ground stainless steel (9511) |
| HB220-6            | 453         | 400     | 50       | 5,10                 | 41,40   | 1,30 | 918            | Etched copper (9523)          |
| HB220-6            | 453         | 400     | 50       | 5,10                 | 41,40   | 1,30 | 918            | Etched brass (9521)           |
| HB220-6            | 453         | 400     | 50       | 5,10                 | 41,40   | 1,30 | 835            | Feather-finish inox (9514)    |
| HB220-7            | 527         | 474     | 50       | 5,95                 | 48,30   | 1,30 | 1.071          | White RAL9016 (9016)          |
| HB220-7            | 527         | 474     | 50       | 5,95                 | 48,30   | 1,30 | 1.071          | Anodised aluminium (9501)     |
| HB220-7            | 527         | 474     | 50       | 5,95                 | 48,30   | 1,30 | 975            | Ground stainless steel (9511) |
| HB220-7            | 527         | 474     | 50       | 5,95                 | 48,30   | 1,30 | 1.071          | Etched copper (9523)          |
| HB220-7            | 527         | 474     | 50       | 5,95                 | 48,30   | 1,30 | 1.071          | Etched brass (9521)           |
| HB220-7            | 527         | 474     | 50       | 5,95                 | 48,30   | 1,30 | 975            | Feather-finish inox (9514)    |

| Height<br>2.205 mm | Width<br>mm | N<br>mm | N1<br>mm | V<br>dm <sup>3</sup> | M<br>kg | n    | P ΔT 50K<br>Watt | Surface<br>(Code)             |
|--------------------|-------------|---------|----------|----------------------|---------|------|------------------|-------------------------------|
| HB220-8            | 601         | 548     | 50       | 6,80                 | 55,20   | 1,30 | 1.224            | White RAL9016 (9016)          |
| HB220-8            | 601         | 548     | 50       | 6,80                 | 55,20   | 1,30 | 1.224            | Anodised aluminium (9501)     |
| HB220-8            | 601         | 548     | 50       | 6,80                 | 55,20   | 1,30 | 1.114            | Ground stainless steel (9511) |
| HB220-8            | 601         | 548     | 50       | 6,80                 | 55,20   | 1,30 | 1.224            | Etched copper (9523)          |
| HB220-8            | 601         | 548     | 50       | 6,80                 | 55,20   | 1,30 | 1.224            | Etched brass (9521)           |
| HB220-8            | 601         | 548     | 50       | 6,80                 | 55,20   | 1,30 | 1.114            | Feather-finish inox (9514)    |
| HB220-9            | 675         | 622     | 50       | 7,65                 | 62,10   | 1,30 | 1.377            | White RAL9016 (9016)          |
| HB220-9            | 675         | 622     | 50       | 7,65                 | 62,10   | 1,30 | 1.377            | Anodised aluminium (9501)     |
| HB220-9            | 675         | 622     | 50       | 7,65                 | 62,10   | 1,30 | 1.253            | Ground stainless steel (9511) |
| HB220-9            | 675         | 622     | 50       | 7,65                 | 62,10   | 1,30 | 1.377            | Etched copper (9523)          |
| HB220-9            | 675         | 622     | 50       | 7,65                 | 62,10   | 1,30 | 1.377            | Etched brass (9521)           |
| HB220-9            | 675         | 622     | 50       | 7,65                 | 62,10   | 1,30 | 1.253            | Feather-finish inox (9514)    |
| HB220-10           | 749         | 696     | 50       | 8,50                 | 69,00   | 1,30 | 1.530            | White RAL9016 (9016)          |
| HB220-10           | 749         | 696     | 50       | 8,50                 | 69,00   | 1,30 | 1.530            | Anodised aluminium (9501)     |
| HB220-10           | 749         | 696     | 50       | 8,50                 | 69,00   | 1,30 | 1.392            | Ground stainless steel (9511) |
| HB220-10           | 749         | 696     | 50       | 8,50                 | 69,00   | 1,30 | 1.530            | Etched copper (9523)          |
| HB220-10           | 749         | 696     | 50       | 8,50                 | 69,00   | 1,30 | 1.530            | Etched brass (9521)           |
| HB220-10           | 749         | 696     | 50       | 8,50                 | 69,00   | 1,30 | 1.392            | Feather-finish inox (9514)    |

N: pipe centres, N1: pipe centres, V: volume, M: weight, n: exponent, P ΔT 50K: EN 442 output,

## FINISH

| Powder-coated finish                  | Code                    | Extra charge on<br>RAL 9016 |
|---------------------------------------|-------------------------|-----------------------------|
| White RAL9016 (standard)              | 9016                    | —                           |
| Pure, Optimism and Elemental          | See Runtal colour chart |                             |
| Le Corbusier                          | See Runtal colour chart |                             |
| Artistic and<br>processed finish      | Code                    | Basic radiator              |
| Anodised aluminium                    | 9501                    | RAL9006                     |
| Ground stainless steel                | 9511                    | RAL9007                     |
| Etched copper                         | 9523                    | RAL8003                     |
| Etched brass                          | 9521                    | 0337 antique gold           |
| Feather-finish inox (stainless steel) | 9514                    | RAL9007                     |



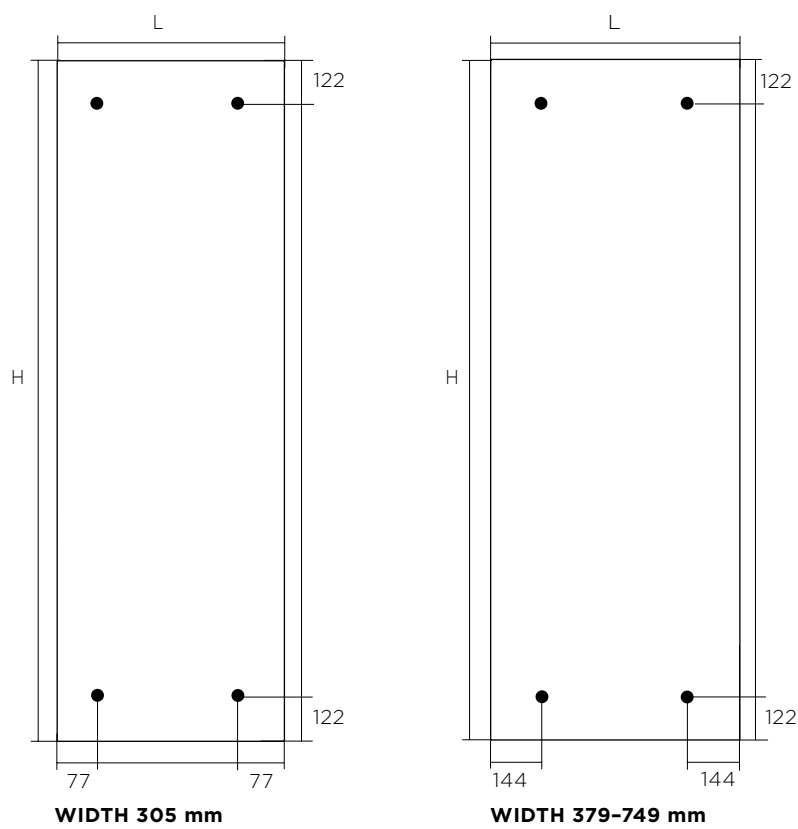
TECHNICAL DATA

|                       |                                                                                                                                                                                                                                                                                                                                                                                                 |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Materials             | Flat front powder-coated made from steel or with high-quality finish<br>Header 37 × 32 mm and flat oval tube 70 × 8 mm made from steel                                                                                                                                                                                                                                                          |
| Operating pressure    | 10 bar                                                                                                                                                                                                                                                                                                                                                                                          |
| Test pressure         | 13 bar                                                                                                                                                                                                                                                                                                                                                                                          |
| Operating temperature | Max. 80 °C                                                                                                                                                                                                                                                                                                                                                                                      |
| Standard kit          | Wall brackets in same colour as radiator included in packaging                                                                                                                                                                                                                                                                                                                                  |
| Connections           | RUNTAL ARTEPLANO ONDA heating panels work on the forced-flow principle and are fitted with the necessary baffles in the factory. They may only be connected as described in the order (state code in accordance with sketch).<br>With standard connections 2 × ½" internal thread for flow ▲ / return ▽, bottom vertical alternating side, ½" air vent (E)<br>Other connection types on request |



|        |                    |
|--------|--------------------|
| Valves | As per ACCESSORIES |
|--------|--------------------|

**RUNTAL ARTEPLANO ONDA** MOUNTING INSTRUCTIONS



- H Height (mm)
- L Width (mm)
- Fixing point

For correct radiator installation, please note the corresponding installation instructions



# RUNTAL ARTEPLANO SATIN

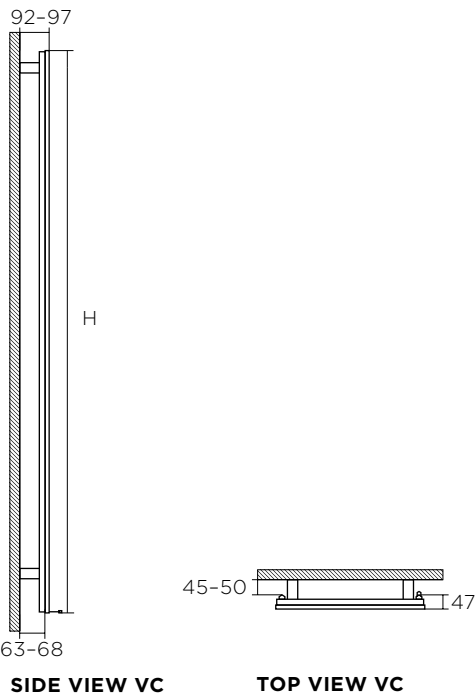
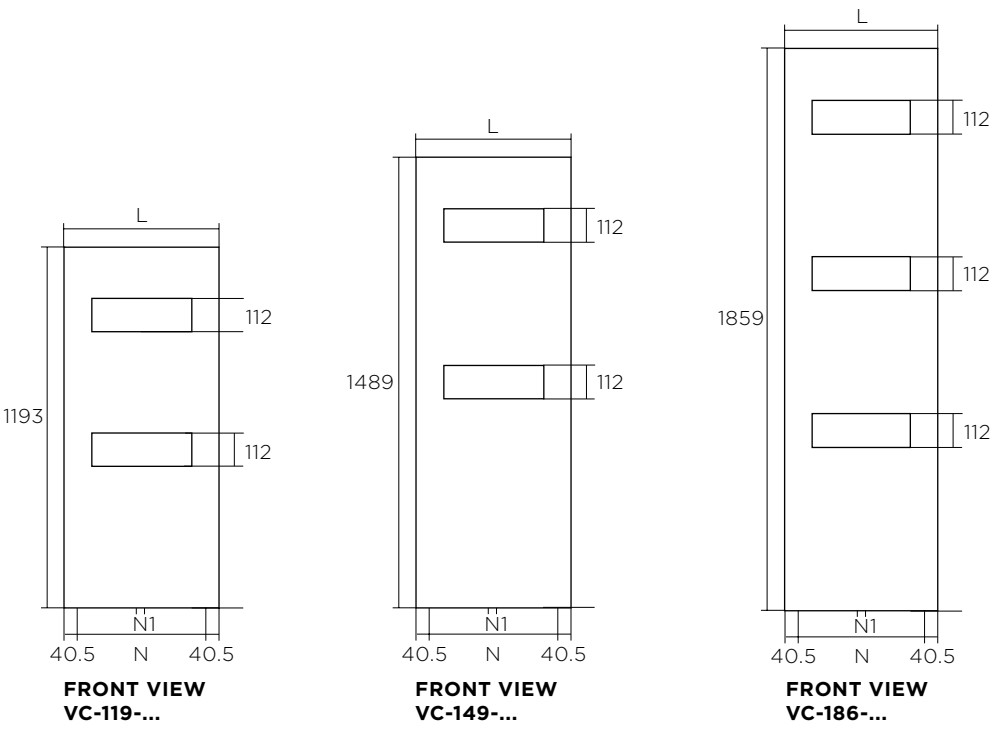
RUNTAL DESIGN STUDIO

RUNTAL ARTEPLANO SATIN was specially developed for bathrooms and kitchens. RUNTAL ARTEPLANO SATIN features handy apertures for towels or dishcloths that complement the overall clean line. Designed for vertical installation and with various dimensions depending on requirements, with two or three apertures. The powder-coated steel structure can be finished in any colour in the Runtal colour chart. Also available with aluminium and stainless steel finishes. RUNTAL ARTEPLANO SATIN is available in different models for central heating system or electric operation.



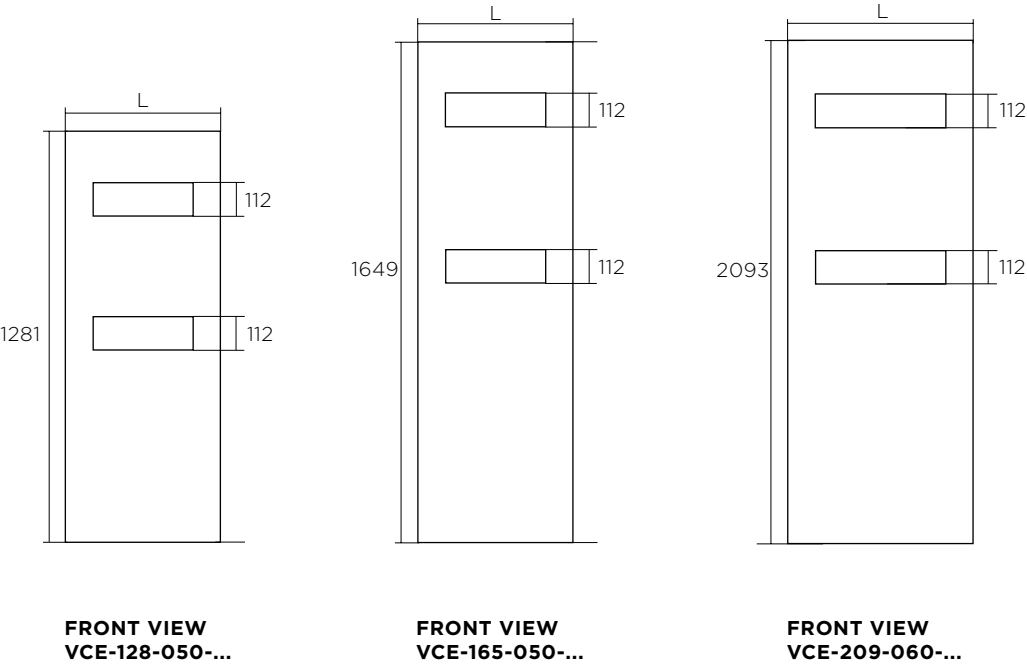
# RUNTAL ARTEPLANO SATIN TECHNICAL SPECIFICATIONS

## CENTRAL HEATING VERSION



H Height (mm)  
N Pipe centres (mm)  
N1 Pipe centres (mm)

**ELECTRIC ONLY VERSION**



**FRONT VIEW  
VCE-128-050-...**

**FRONT VIEW  
VCE-165-050-...**

**FRONT VIEW  
VCE-209-060-...**



**SIDE VIEW VCE**

**TOP VIEW VCE**

H Height (mm)  
⊙ Electric immersion heater

# RUNTAL ARTEPLANO SATIN

## CENTRAL HEATING VERSION

| Height<br>1.193 mm | Width<br>mm | N<br>mm | N1<br>mm | V<br>dm <sup>3</sup> | M<br>kg | n    | P ΔT 50K<br>Watt | Surface<br>(Code)             |
|--------------------|-------------|---------|----------|----------------------|---------|------|------------------|-------------------------------|
| VC-119-050         | 513         | 432     | 50       | 4,0                  | 20,4    | 1,22 | 533              | White RAL9016 (9016)          |
| VC-119-050         | 513         | 432     | 50       | 4,0                  | 20,4    | 1,22 | 533              | Anodised aluminium (9501)     |
| VC-119-050         | 513         | 432     | 50       | 4,0                  | 20,4    | 1,22 | 449              | Ground stainless steel (9511) |

| Height<br>1.489 mm | Width<br>mm | N<br>mm | N1<br>mm | V<br>dm <sup>3</sup> | M<br>kg | n    | P ΔT 50K<br>Watt | Surface<br>(Code)             |
|--------------------|-------------|---------|----------|----------------------|---------|------|------------------|-------------------------------|
| VC-149-050         | 513         | 432     | 50       | 5,1                  | 26,0    | 1,22 | 661              | White RAL9016 (9016)          |
| VC-149-050         | 513         | 432     | 50       | 5,1                  | 26,0    | 1,22 | 661              | Anodised aluminium (9501)     |
| VC-149-050         | 513         | 432     | 50       | 5,1                  | 26,0    | 1,22 | 547              | Ground stainless steel (9511) |
| VC-149-060         | 613         | 532     | 50       | 5,6                  | 30,4    | 1,22 | 764              | White RAL9016 (9016)          |
| VC-149-060         | 613         | 532     | 50       | 5,6                  | 30,4    | 1,22 | 764              | Anodised aluminium (9501)     |
| VC-149-060         | 613         | 532     | 50       | 5,6                  | 30,4    | 1,22 | 650              | Ground stainless steel (9511) |

| Height<br>1.859 mm | Width<br>mm | N<br>mm | N1<br>mm | V<br>dm <sup>3</sup> | M<br>kg | n    | P ΔT 50K<br>Watt | Surface<br>(Code)             |
|--------------------|-------------|---------|----------|----------------------|---------|------|------------------|-------------------------------|
| VC-186-050         | 513         | 432     | 50       | 6,2                  | 32,2    | 1,20 | 797              | White RAL9016 (9016)          |
| VC-186-050         | 513         | 432     | 50       | 6,2                  | 32,2    | 1,20 | 797              | Anodised aluminium (9501)     |
| VC-186-050         | 513         | 432     | 50       | 6,2                  | 32,2    | 1,20 | 669              | Ground stainless steel (9511) |
| VC-186-060         | 613         | 532     | 50       | 6,8                  | 36,9    | 1,25 | 941              | White RAL9016 (9016)          |
| VC-186-060         | 613         | 532     | 50       | 6,8                  | 36,9    | 1,25 | 941              | Anodised aluminium (9501)     |
| VC-186-060         | 613         | 532     | 50       | 6,8                  | 36,9    | 1,25 | 758              | Ground stainless steel (9511) |

N: pipe centres, N1: pipe centres, V: volume, M: weight, n: exponent, PΔT 50K: EN 442 output,



## ELECTRIC ONLY VERSION

| Height<br>1.279 mm | Width<br>mm | M<br>kg | EP<br>Watt | Surface<br>(Code)    |
|--------------------|-------------|---------|------------|----------------------|
| VCE-128-050/FF     | 513         | 24,7    | 500        | White RAL9016 (9016) |

| Height<br>1.649 mm | Width<br>mm | M<br>kg | EP<br>Watt | Surface<br>(Code)             |
|--------------------|-------------|---------|------------|-------------------------------|
| VCE-165-050/FF     | 513         | 29,4    | 750        | White RAL9016 (9016)          |
| VCE-165-050/FF     | 513         | 28,5    | 750        | Anodised aluminium (9501)     |
| VCE-165-050/FF     | 513         | 30,0    | 750        | Ground stainless steel (9511) |

| Height<br>2.093 mm | Width<br>mm | M<br>kg | EP<br>Watt | Surface<br>(Code)             |
|--------------------|-------------|---------|------------|-------------------------------|
| VCE-209-050/FF     | 513         | 34,4    | 1.000      | White RAL9016 (9016)          |
| VCE-209-050/FF     | 513         | 35,7    | 1.000      | Anodised aluminium (9501)     |
| VCE-209-050/FF     | 513         | 37,7    | 1.000      | Ground stainless steel (9511) |
| VCE-209-060/FF     | 613         | 39,9    | 1.250      | White RAL9016 (9016)          |
| VCE-209-060/FF     | 613         | 41,7    | 1.250      | Anodised aluminium (9501)     |
| VCE-209-060/FF     | 613         | 43,2    | 1.250      | Ground stainless steel (9511) |

M: weight, EP: electrical power,

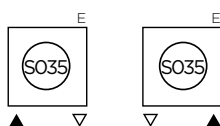
## FINISHES

| Powder-coated finish         | Code                    | Extra charge on RAL 9016 |
|------------------------------|-------------------------|--------------------------|
| White RAL9016 (standard)     | 9016                    | —                        |
| Pure, Optimism and Elemental | See Runtal colour chart |                          |
| Inox Look (not available)    | 0332                    | not available            |
| Le Corbusier                 | See Runtal colour chart |                          |

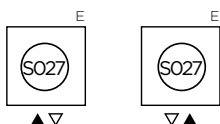
| Processed finish<br>(see brochure RUNTAL ARTEPLANO) | Code | Basic radiator |
|-----------------------------------------------------|------|----------------|
| Anodised aluminium                                  | 9501 | RAL9006        |
| Ground stainless steel                              | 9511 | RAL9007        |

## TECHNICAL DATA

|                       |                                                                                                                                                                                                               |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Materials             | Flat front made of steel, powder-coated as per Runtal colour chart or with high-quality finish. Header 37×32 mm and flat oval tube 70×8 mm made from steel                                                    |
| Operating pressure    | Standard max. 4,6 bar                                                                                                                                                                                         |
| Test pressure         | Standard 6 bar                                                                                                                                                                                                |
| Operating temperature | Max. 80 °C                                                                                                                                                                                                    |
| Standard kit          | Wall brackets in same colour as radiator and air vent included in packaging                                                                                                                                   |
| Valves                | As per ACCESSORIES price list                                                                                                                                                                                 |
| Connections           | With the standard connections (code S035) 2×½" internal thread, the following connections are possible. ½" flow (▲)/return (▼), on left or right, bottom vertical, on alternating sides, with ½" air vent (E) |

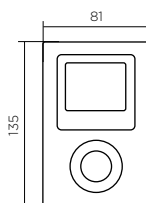


Optional 50 mm pipe centre connections:



Additional price:

|                          |                                                                                                                                                                                                                                                |
|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Pressure loss $\Delta p$ | Inlet and outlet resistance per radiator for water flow rates of up to 1 m/s $\zeta = 4.0$ .                                                                                                                                                   |
| Single-entry systems     | Only possible with valves for vertical installation. Installation in ½" connection, on left or right. Only single-entry systems with dip tube (at least 120 mm in length) may be used                                                          |
| Electric-only model      | Filled with non-flammable, non-toxic heat transfer fluid, frost-proof up to -20 °C, immersion heater 1×230 V, 50 Hz +/- 10%. Standard fitted in bottom right. Includes radio frequency control unit with integrated timer/programming function |



Radio frequency control unit with timer/programming function

### Control unit

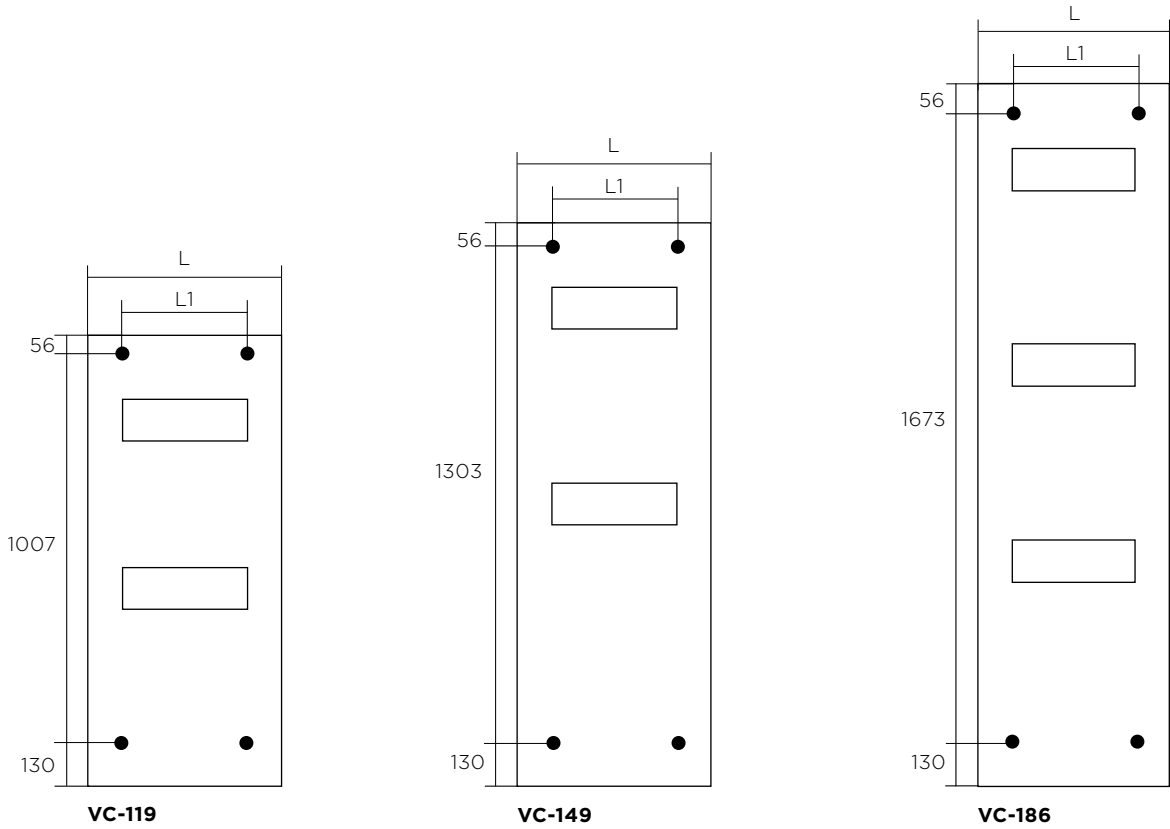
- Room temperature control
- Daily and weekly program
- Operating modes: frost protection
- Economy program, comfort, automatic, manual, off
- Wall-mounted or free-standing

Mains connection: 2,0 m power cable without plug

Degree of protection: Class II IP44 (splash water) with CE-marking

|                                   |                                                                                                          |
|-----------------------------------|----------------------------------------------------------------------------------------------------------|
| Position of electrical connection | The electrical connection must be performed by an electrician in accordance with applicable regulations. |
| Standards                         | CE , EN 442                                                                                              |

RUNTAL ARTEPLANO SATIN MOUNTING INSTRUCTIONS

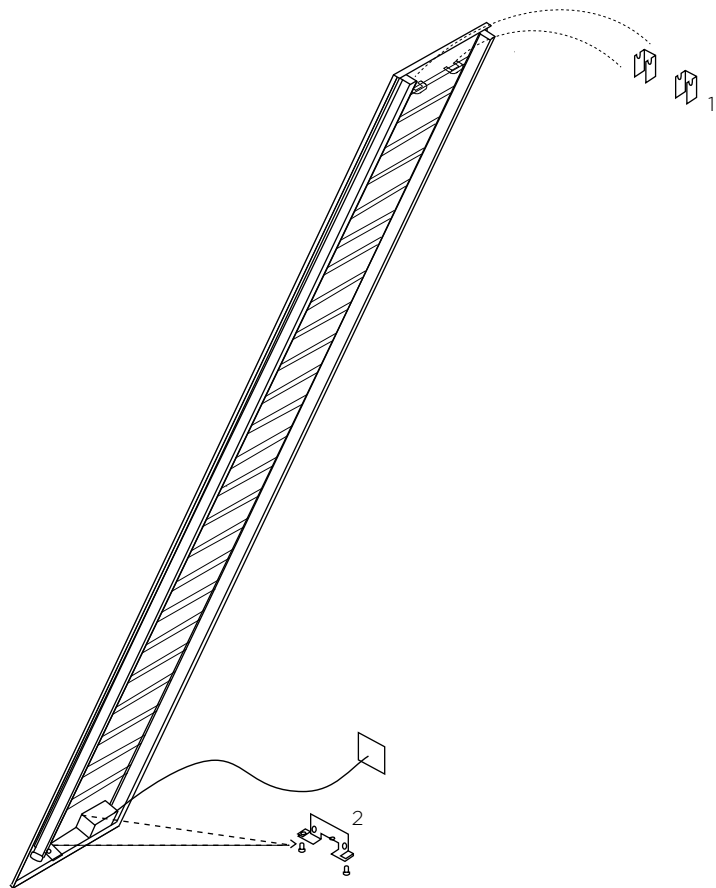


| L     | L1    |
|-------|-------|
| 513mm | 201mm |
| 613mm | 301mm |

L Width (mm)  
● Fixing point

For correct radiator installation, please note the corresponding installation instructions

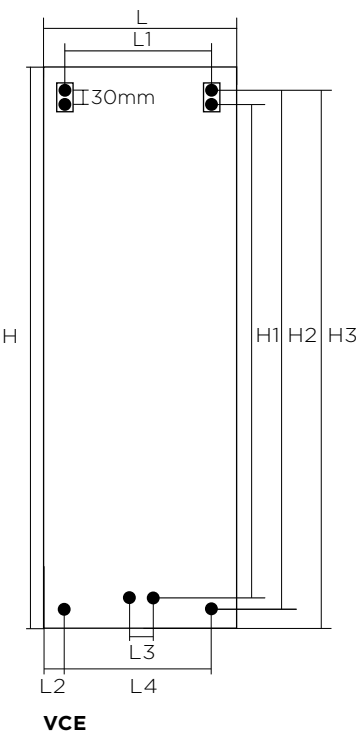
## RUNTAL ARTEPLANO SATIN MOUNTING INSTRUCTIONS



**VCE**

- 1 Movable fixing on top for easy mounting and service access
- 2 Fixation at bottom for interlock

RUNTAL ARTEPLANO SATIN MOUNTING INSTRUCTIONS



| L (mm) |     |     |    |     | H (mm) |       |       |       |
|--------|-----|-----|----|-----|--------|-------|-------|-------|
| L      | L1  | L2  | L3 | L4  | H      | H1    | H2    | H3    |
| 513    | 188 | 216 | 70 | 140 | 1.281  | 1.009 | 1.060 | 1.197 |
| 513    | 188 | 216 | 70 | 140 | 1.694  | 1.377 | 1.428 | 1.565 |
| 513    | 188 | 216 | 70 | 140 | 2.093  | 1.821 | 1.872 | 2.009 |
| 613    | 288 | 316 | 79 | 140 | 2.093  | 1.821 | 1.872 | 2.009 |

- H Height (mm)
- L Width (mm)
- Fixing point

For correct radiator installation, please note the corresponding installation instructions

# RUNTAL COSMOPOLITAN

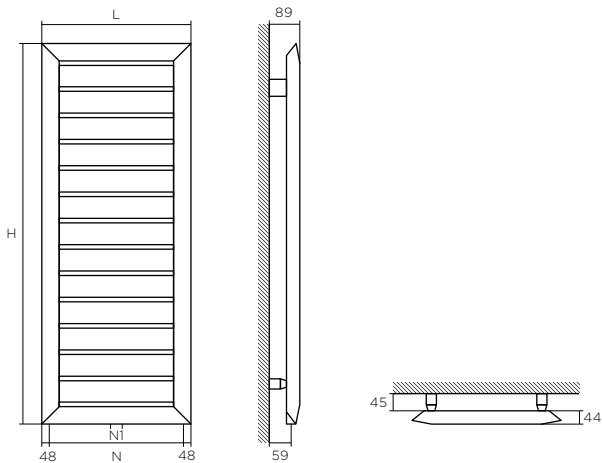
KING & MIRANDA

RUNTAL COSMOPOLITAN stands out due to its wide triangular profile frame, which lends the radiator its characteristic spatial effect. Practical accessories combined with vertical or horizontal model options make this radiator particularly flexible, enabling it to be optimally matched to different space requirements. RUNTAL COSMOPOLITAN is designed not only to be connected to the central heating system but also for electric-only or mixed operation, supported by a programmable control device. It is available fitted either with conventional connections or with our completely revised and newly developed integrated valve designs.



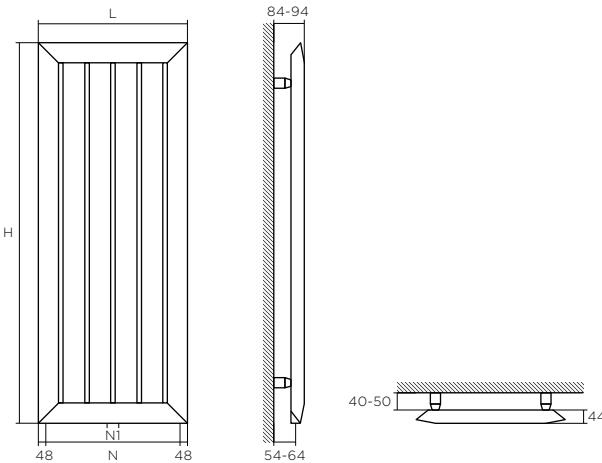
# RUNTAL COSMOPOLITAN TECHNICAL SPECIFICATIONS

FOR HOT WATER CENTRAL HEATING - COH-...-...-L AND COV MODELS



**FRONT VIEW**  
**HORIZONTAL**  
**COH-...-...-L**

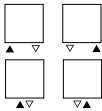
**SIDE VIEW**    **TOP VIEW**



**FRONT VIEW**  
**VERTICAL COV**

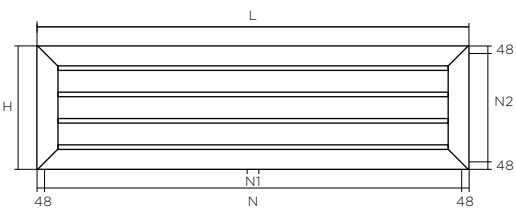
**SIDE VIEW**    **TOP VIEW**

- H    Height (mm)
- L    Width (mm)
- N    Connection dimension (mm)
- N1    Connection dimension (mm)

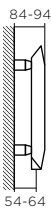




FOR HOT WATER CENTRAL HEATING - COH AND COV MODELS



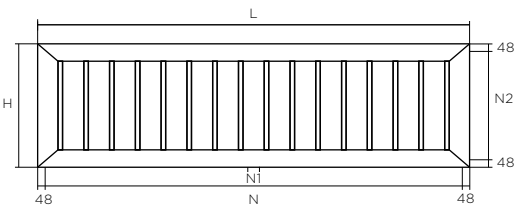
FRONT VIEW HORIZONTAL COH



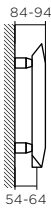
SIDE VIEW



TOP VIEW



FRONT VIEW VERTICAL COV

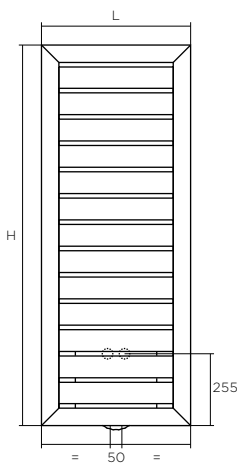


SIDE VIEW

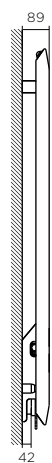


TOP VIEW

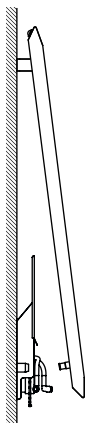
FOR HOT WATER CENTRAL HEATING - COHK MODEL - INTEGRATED VALVE TECHNOLOGY



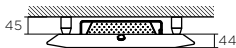
FRONT VIEW  
HORIZONTAL COHK



SIDE VIEW



SIDE VIEW



TOP VIEW

H Height (mm)

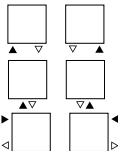
L Width (mm)

N Connection dimension (mm)

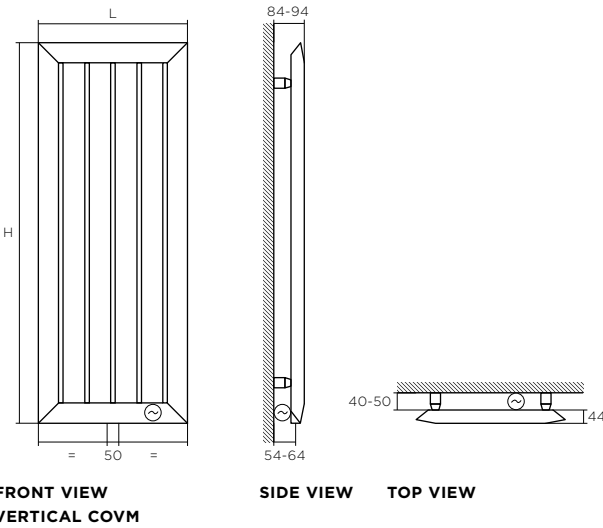
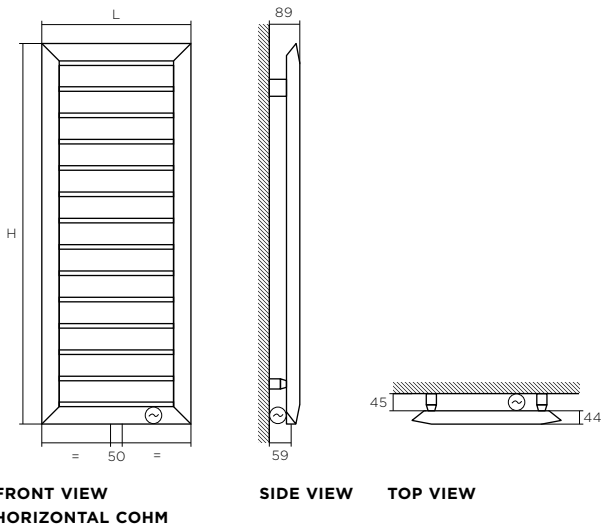
N1 Connection dimension (mm)

N2 Connection dimension (mm)

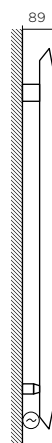
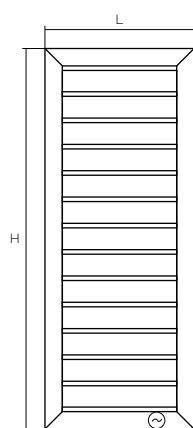
○ Position of connection lines



DUAL ENERGY - COHM AND COVM MODELS

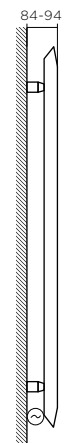
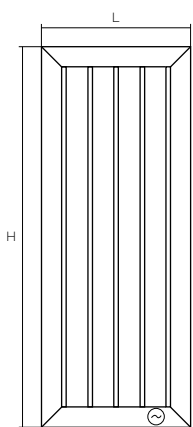


- H    Height (mm)
- L    Width (mm)
- ⊗    Mains connection



**FRONT VIEW  
HORIZONTAL COVE**

**SIDE VIEW    TOP VIEW**



**FRONT VIEW  
VERTICAL COVE**

**SIDE VIEW    TOP VIEW**

- H    Height (mm)
- L    Width (mm)
- ⊗    Mains connection

# RUNTAL COSMOPOLITAN

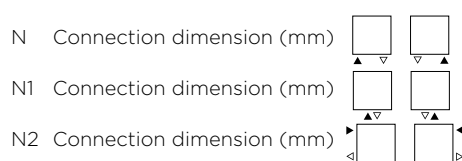
## FOR HOT WATER CENTRAL HEATING, VERTICAL

| Height<br>323 mm | Width<br>mm | N<br>mm | N1<br>mm | N2<br>mm | V<br>dm <sup>3</sup> | M<br>kg | n     | PΔT 50K<br>Watt          | Finish<br>(Code) |
|------------------|-------------|---------|----------|----------|----------------------|---------|-------|--------------------------|------------------|
| COV-030-140      | 1.428       | 1.332   | 50       | 227      | 5,26                 | 11,6    | 1,234 | 472 White RAL9016 (9016) |                  |
| COV-030-160      | 1.598       | 1.502   | 50       | 227      | 5,84                 | 13,0    | 1,234 | 528 White RAL9016 (9016) |                  |
| COV-030-180      | 1.853       | 1.757   | 50       | 227      | 6,71                 | 15,0    | 1,234 | 613 White RAL9016 (9016) |                  |
| COV-030-200      | 2.023       | 1.927   | 50       | 227      | 7,29                 | 16,2    | 1,234 | 669 White RAL9016 (9016) |                  |

| Height<br>408 mm | Width<br>mm | N<br>mm | N1<br>mm | N2<br>mm | V<br>dm <sup>3</sup> | M<br>kg | n     | PΔT 50K<br>Watt          | Finish<br>(Code) |
|------------------|-------------|---------|----------|----------|----------------------|---------|-------|--------------------------|------------------|
| COV-040-140      | 1.428       | 1.332   | 50       | 312      | 6,09                 | 14,1    | 1,236 | 592 White RAL9016 (9016) |                  |
| COV-040-160      | 1.598       | 1.502   | 50       | 312      | 6,55                 | 15,7    | 1,236 | 663 White RAL9016 (9016) |                  |
| COV-040-180      | 1.853       | 1.757   | 50       | 312      | 7,50                 | 18,2    | 1,236 | 768 White RAL9016 (9016) |                  |
| COV-040-200      | 2.023       | 1.927   | 50       | 312      | 8,13                 | 19,7    | 1,236 | 839 White RAL9016 (9016) |                  |

| Height<br>493 mm | Width<br>mm | N<br>mm | N1<br>mm | N2<br>mm | V<br>dm <sup>3</sup> | M<br>kg | n     | PΔT 50K<br>Watt            | Finish<br>(Code) |
|------------------|-------------|---------|----------|----------|----------------------|---------|-------|----------------------------|------------------|
| COV-050-140      | 1.428       | 1.332   | 50       | 397      | 6,56                 | 16,5    | 1,239 | 711 White RAL9016 (9016)   |                  |
| COV-050-160      | 1.598       | 1.502   | 50       | 397      | 7,25                 | 18,4    | 1,239 | 795 White RAL9016 (9016)   |                  |
| COV-050-180      | 1.853       | 1.757   | 50       | 397      | 8,28                 | 21,3    | 1,239 | 922 White RAL9016 (9016)   |                  |
| COV-050-200      | 2.023       | 1.927   | 50       | 397      | 8,98                 | 23,1    | 1,239 | 1.007 White RAL9016 (9016) |                  |

| Height<br>578 mm | Width<br>mm | N<br>mm | N1<br>mm | N2<br>mm | V<br>dm <sup>3</sup> | M<br>kg | n     | PΔT 50K<br>Watt            | Finish<br>(Code) |
|------------------|-------------|---------|----------|----------|----------------------|---------|-------|----------------------------|------------------|
| COV-060-140      | 1.428       | 1.332   | 50       | 482      | 7,20                 | 19,0    | 1,241 | 828 White RAL9016 (9016)   |                  |
| COV-060-160      | 1.598       | 1.502   | 50       | 482      | 7,95                 | 21,2    | 1,241 | 927 White RAL9016 (9016)   |                  |
| COV-060-180      | 1.853       | 1.757   | 50       | 482      | 9,07                 | 24,5    | 1,241 | 1.075 White RAL9016 (9016) |                  |
| COV-060-200      | 2.023       | 1.927   | 50       | 482      | 9,82                 | 26,5    | 1,241 | 1.174 White RAL9016 (9016) |                  |



V: volume, M: empty weight, n: exponent, PΔT 50 K: EN442 output,

# FOR HOT WATER CENTRAL HEATING, VERTICAL

| Height<br>1.513 mm | Width<br>mm | N<br>mm | N1<br>mm | V<br>dm <sup>3</sup> | M<br>kg | n     | PΔT 50K<br>Watt | Finish<br>(Code)     |
|--------------------|-------------|---------|----------|----------------------|---------|-------|-----------------|----------------------|
| COV-150-020        | 238         | 142     | 50       | 4,75                 | 9,1     | 1,268 | 343             | White RAL9016 (9016) |
| COV-150-030        | 323         | 227     | 50       | 5,44                 | 11,8    | 1,268 | 465             | White RAL9016 (9016) |
| COV-150-040        | 408         | 312     | 50       | 6,12                 | 14,5    | 1,268 | 588             | White RAL9016 (9016) |
| COV-150-050        | 493         | 397     | 50       | 6,80                 | 17,2    | 1,268 | 710             | White RAL9016 (9016) |
| COV-150-060        | 578         | 482     | 50       | 7,49                 | 19,8    | 1,268 | 835             | White RAL9016 (9016) |

| Height<br>1.853 mm | Width<br>mm | N<br>mm | N1<br>mm | V<br>dm <sup>3</sup> | M<br>kg | n     | PΔT 50K<br>Watt | Finish<br>(Code)     |
|--------------------|-------------|---------|----------|----------------------|---------|-------|-----------------|----------------------|
| COV-180-020        | 238         | 142     | 50       | 5,78                 | 11,1    | 1,305 | 413             | White RAL9016 (9016) |
| COV-180-030        | 323         | 227     | 50       | 6,57                 | 14,4    | 1,305 | 560             | White RAL9016 (9016) |
| COV-180-040        | 408         | 312     | 50       | 7,37                 | 17,7    | 1,305 | 708             | White RAL9016 (9016) |
| COV-180-050        | 493         | 397     | 50       | 8,16                 | 20,9    | 1,305 | 855             | White RAL9016 (9016) |
| COV-180-060        | 578         | 482     | 50       | 8,96                 | 24,2    | 1,305 | 1.007           | White RAL9016 (9016) |

| Height<br>2.023 mm | Width<br>mm | N<br>mm | N1<br>mm | V<br>dm <sup>3</sup> | M<br>kg | n     | PΔT 50K<br>Watt | Finish<br>(Code)     |
|--------------------|-------------|---------|----------|----------------------|---------|-------|-----------------|----------------------|
| COV-200-020        | 238         | 142     | 50       | 6,29                 | 12,0    | 1,324 | 447             | White RAL9016 (9016) |
| COV-200-030        | 323         | 227     | 50       | 7,14                 | 15,6    | 1,324 | 606             | White RAL9016 (9016) |
| COV-200-040        | 408         | 312     | 50       | 7,99                 | 19,1    | 1,324 | 766             | White RAL9016 (9016) |
| COV-200-050        | 493         | 397     | 50       | 8,84                 | 22,7    | 1,324 | 926             | White RAL9016 (9016) |
| COV-200-060        | 578         | 482     | 50       | 9,69                 | 26,2    | 1,324 | 1.094           | White RAL9016 (9016) |

N Connection dimension (mm)  

N1 Connection dimension (mm)  

V: volume, M: empty weight, n: exponent, PΔT 50 K: EN442 output,

# FOR HOT WATER CENTRAL HEATING, HORIZONTAL

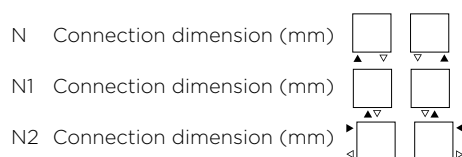
| Height<br>238 mm | Width<br>mm | N<br>mm | N1<br>mm | N2<br>mm | V<br>dm <sup>3</sup> | M<br>kg | n     | P ΔT 50K<br>Watt         | Finish<br>(Code) |
|------------------|-------------|---------|----------|----------|----------------------|---------|-------|--------------------------|------------------|
| COH-020-150      | 1.513       | 1.417   | 50       | 142      | 4,75                 | 9,1     | 1,240 | 412 White RAL9016 (9016) |                  |
| COH-020-180      | 1.853       | 1.757   | 50       | 142      | 5,78                 | 11,1    | 1,257 | 494 White RAL9016 (9016) |                  |
| COH-020-200      | 2.023       | 1.927   | 50       | 142      | 6,29                 | 12,0    | 1,266 | 534 White RAL9016 (9016) |                  |

| Height<br>323 mm | Width<br>mm | N<br>mm | N1<br>mm | N2<br>mm | V<br>dm <sup>3</sup> | M<br>kg | n     | P ΔT 50K<br>Watt         | Finish<br>(Code) |
|------------------|-------------|---------|----------|----------|----------------------|---------|-------|--------------------------|------------------|
| COH-030-150      | 1.513       | 1.417   | 50       | 227      | 5,44                 | 11,8    | 1,255 | 518 White RAL9016 (9016) |                  |
| COH-030-180      | 1.853       | 1.757   | 50       | 227      | 6,57                 | 14,4    | 1,273 | 621 White RAL9016 (9016) |                  |
| COH-030-200      | 2.023       | 1.927   | 50       | 227      | 7,14                 | 15,6    | 1,282 | 672 White RAL9016 (9016) |                  |

| Height<br>408 mm | Width<br>mm | N<br>mm | N1<br>mm | N2<br>mm | V<br>dm <sup>3</sup> | M<br>kg | n     | P ΔT 50K<br>Watt         | Finish<br>(Code) |
|------------------|-------------|---------|----------|----------|----------------------|---------|-------|--------------------------|------------------|
| COH-040-150      | 1.513       | 1.417   | 50       | 312      | 6,12                 | 14,5    | 1,270 | 619 White RAL9016 (9016) |                  |
| COH-040-180      | 1.853       | 1.757   | 50       | 312      | 7,37                 | 17,7    | 1,288 | 742 White RAL9016 (9016) |                  |
| COH-040-200      | 2.023       | 1.927   | 50       | 312      | 7,99                 | 19,1    | 1,293 | 802 White RAL9016 (9016) |                  |

| Height<br>493 mm | Width<br>mm | N<br>mm | N1<br>mm | N2<br>mm | V<br>dm <sup>3</sup> | M<br>kg | n     | P ΔT 50K<br>Watt         | Finish<br>(Code) |
|------------------|-------------|---------|----------|----------|----------------------|---------|-------|--------------------------|------------------|
| COH-050-150      | 1.513       | 1.417   | 50       | 397      | 6,80                 | 17,2    | 1,285 | 716 White RAL9016 (9016) |                  |
| COH-050-180      | 1.853       | 1.757   | 50       | 397      | 8,16                 | 20,9    | 1,303 | 858 White RAL9016 (9016) |                  |
| COH-050-200      | 2.023       | 1.927   | 50       | 397      | 8,84                 | 22,7    | 1,313 | 929 White RAL9016 (9016) |                  |

| Height<br>578 mm | Width<br>mm | N<br>mm | N1<br>mm | N2<br>mm | V<br>dm <sup>3</sup> | M<br>kg | n     | P ΔT 50K<br>Watt         | Finish<br>(Code) |
|------------------|-------------|---------|----------|----------|----------------------|---------|-------|--------------------------|------------------|
| COH-060-150      | 1.513       | 1.417   | 50       | 482      | 7,49                 | 19,8    | 1,299 | 770 White RAL9016 (9016) |                  |
| COH-060-180      | 1.853       | 1.757   | 50       | 482      | 8,96                 | 24,2    | 1,319 | 916 White RAL9016 (9016) |                  |
| COH-060-200      | 2.023       | 1.927   | 50       | 482      | 9,69                 | 26,2    | 1,329 | 987 White RAL9016 (9016) |                  |



V: volume, M: empty weight, n: exponent, PΔT 50 K: EN442 output,

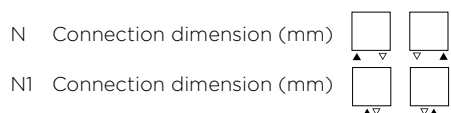
# FOR HOT WATER CENTRAL HEATING, HORIZONTAL

| Height<br>833 mm | Width<br>mm | N<br>mm | N1<br>mm | V<br>dm <sup>3</sup> | M<br>kg | n     | PΔT 50K<br>Watt | Finish<br>(Code)     |
|------------------|-------------|---------|----------|----------------------|---------|-------|-----------------|----------------------|
| COH-080-040-L    | 408         | 312     | 50       | 3,67                 | 8,3     | 1,236 | 356             | White RAL9016 (9016) |
| COH-080-050-L    | 493         | 397     | 50       | 4,12                 | 9,8     | 1,240 | 418             | White RAL9016 (9016) |
| COH-080-060-L    | 578         | 482     | 50       | 4,57                 | 11,3    | 1,245 | 479             | White RAL9016 (9016) |

| Height<br>1.258 mm | Width<br>mm | N<br>mm | N1<br>mm | V<br>dm <sup>3</sup> | M<br>kg | n     | PΔT 50K<br>Watt | Finish<br>(Code)     |
|--------------------|-------------|---------|----------|----------------------|---------|-------|-----------------|----------------------|
| COH-120-040-L      | 408         | 312     | 50       | 5,54                 | 12,4    | 1,233 | 514             | White RAL9016 (9016) |
| COH-120-050-L      | 493         | 397     | 50       | 5,85                 | 14,6    | 1,237 | 608             | White RAL9016 (9016) |
| COH-120-060-L      | 578         | 482     | 50       | 6,45                 | 16,8    | 1,242 | 701             | White RAL9016 (9016) |

| Height<br>1.513 mm | Width<br>mm | N<br>mm | N1<br>mm | V<br>dm <sup>3</sup> | M<br>kg | n     | PΔT 50K<br>Watt | Finish<br>(Code)     |
|--------------------|-------------|---------|----------|----------------------|---------|-------|-----------------|----------------------|
| COH-150-040-L      | 408         | 312     | 50       | 6,22                 | 14,5    | 1,308 | 612             | White RAL9016 (9016) |
| COH-150-050-L      | 493         | 397     | 50       | 6,90                 | 17,1    | 1,236 | 725             | White RAL9016 (9016) |
| COH-150-060-L      | 578         | 482     | 50       | 7,57                 | 19,7    | 1,240 | 836             | White RAL9016 (9016) |

| Height<br>1.853 mm | Width<br>mm | N<br>mm | N1<br>mm | V<br>dm <sup>3</sup> | M<br>kg | n     | PΔT 50K<br>Watt | Finish<br>(Code)     |
|--------------------|-------------|---------|----------|----------------------|---------|-------|-----------------|----------------------|
| COH-180-040-L      | 408         | 312     | 50       | 7,50                 | 18,2    | 1,229 | 741             | White RAL9016 (9016) |
| COH-180-050-L      | 493         | 397     | 50       | 8,28                 | 21,3    | 1,233 | 878             | White RAL9016 (9016) |
| COH-180-060-L      | 578         | 482     | 50       | 9,07                 | 24,5    | 1,237 | 1.012           | White RAL9016 (9016) |



V: volume, M: empty weight, n: exponent, PΔT 50 K: EN442 output,

**FOR HOT WATER CENTRAL HEATING, HORIZONTAL, INTEGRATED VALVE TECHNOLOGY**

| <b>Height<br/>833 mm</b> | <b>Width<br/>mm</b> | <b>V<br/>dm<sup>3</sup></b> | <b>M<br/>kg</b> | <b>n</b> | <b>P ΔT 50K<br/>Watt</b> | <b>Finish<br/>(Code)</b> |
|--------------------------|---------------------|-----------------------------|-----------------|----------|--------------------------|--------------------------|
| COHK-080-040             | 408                 | 3,67                        | 8,3             | 1,236    | 356                      | White RAL9016 (9016)     |
| COHK-080-050             | 493                 | 4,12                        | 9,8             | 1,240    | 418                      | White RAL9016 (9016)     |
| COHK-080-060             | 578                 | 4,57                        | 11,3            | 1,245    | 479                      | White RAL9016 (9016)     |

| <b>Height<br/>1.258 mm</b> | <b>Width<br/>mm</b> | <b>V<br/>dm<sup>3</sup></b> | <b>M<br/>kg</b> | <b>n</b> | <b>P ΔT 50K<br/>Watt</b> | <b>Finish<br/>(Code)</b> |
|----------------------------|---------------------|-----------------------------|-----------------|----------|--------------------------|--------------------------|
| COHK-120-040               | 408                 | 5,54                        | 12,4            | 1,233    | 514                      | White RAL9016 (9016)     |
| COHK-120-050               | 493                 | 5,85                        | 14,6            | 1,237    | 608                      | White RAL9016 (9016)     |
| COHK-120-060               | 578                 | 6,45                        | 16,8            | 1,242    | 701                      | White RAL9016 (9016)     |

| <b>Height<br/>1.513 mm</b> | <b>Width<br/>mm</b> | <b>V<br/>dm<sup>3</sup></b> | <b>M<br/>kg</b> | <b>n</b> | <b>P ΔT 50K<br/>Watt</b> | <b>Finish<br/>(Code)</b> |
|----------------------------|---------------------|-----------------------------|-----------------|----------|--------------------------|--------------------------|
| COHK-150-040               | 408                 | 6,22                        | 14,5            | 1,308    | 612                      | White RAL9016 (9016)     |
| COHK-150-050               | 493                 | 6,90                        | 17,1            | 1,236    | 725                      | White RAL9016 (9016)     |
| COHK-150-060               | 578                 | 7,57                        | 19,7            | 1,240    | 836                      | White RAL9016 (9016)     |

| <b>Height<br/>1.853 mm</b> | <b>Width<br/>mm</b> | <b>V<br/>dm<sup>3</sup></b> | <b>M<br/>kg</b> | <b>n</b> | <b>P ΔT 50K<br/>Watt</b> | <b>Finish<br/>(Code)</b> |
|----------------------------|---------------------|-----------------------------|-----------------|----------|--------------------------|--------------------------|
| COHK-180-040               | 408                 | 7,50                        | 18,2            | 1,229    | 741                      | White RAL9016 (9016)     |
| COHK-180-050               | 493                 | 8,28                        | 21,3            | 1,233    | 878                      | White RAL9016 (9016)     |
| COHK-180-060               | 578                 | 9,07                        | 24,5            | 1,237    | 1.012                    | White RAL9016 (9016)     |

V: volume, M: empty weight, n: exponent, PΔT 50 K: EN442 output,



**DUAL ENERGY, VERTICAL**

| Height<br>1.513 mm | Width<br>mm | V<br>dm <sup>3</sup> | M<br>kg | n     | P ΔT 50K<br>Watt | EP<br>Watt*              | Finish<br>(Code) |
|--------------------|-------------|----------------------|---------|-------|------------------|--------------------------|------------------|
| COVM-150-040/ID    | 408         | 6,12                 | 14,5    | 1,268 | 588              | 500 White RAL9016 (9016) |                  |
| COVM-150-050/ID    | 493         | 6,80                 | 17,2    | 1,268 | 710              | 600 White RAL9016 (9016) |                  |
| COVM-150-060/ID    | 578         | 7,49                 | 19,8    | 1,268 | 835              | 750 White RAL9016 (9016) |                  |

| Height<br>1.853 mm | Width<br>mm | V<br>dm <sup>3</sup> | M<br>kg | n     | P ΔT 50K<br>Watt | EP<br>Watt*              | Finish<br>(Code) |
|--------------------|-------------|----------------------|---------|-------|------------------|--------------------------|------------------|
| COVM-180-040/ID    | 408         | 7,37                 | 17,7    | 1,305 | 708              | 600 White RAL9016 (9016) |                  |
| COVM-180-050/ID    | 493         | 8,16                 | 20,9    | 1,305 | 855              | 750 White RAL9016 (9016) |                  |
| COVM-180-060/ID    | 578         | 8,96                 | 24,2    | 1,305 | 1.007            | 900 White RAL9016 (9016) |                  |

**DUAL ENERGY, HORIZONTAL**

| Height<br>833 mm | Width<br>mm | V<br>dm <sup>3</sup> | M<br>kg | n     | P ΔT 50K<br>Watt | EP<br>Watt*              | Finish<br>(Code) |
|------------------|-------------|----------------------|---------|-------|------------------|--------------------------|------------------|
| COHM-080-040/ID  | 408         | 3,67                 | 8,3     | 1,236 | 356              | 300 White RAL9016 (9016) |                  |
| COHM-080-050/ID  | 493         | 4,12                 | 9,8     | 1,240 | 418              | 300 White RAL9016 (9016) |                  |
| COHM-080-060/ID  | 578         | 4,57                 | 11,3    | 1,245 | 479              | 300 White RAL9016 (9016) |                  |

| Height<br>1.258 mm | Width<br>mm | V<br>dm <sup>3</sup> | M<br>kg | n     | P ΔT 50K<br>Watt | EP<br>Watt*              | Finish<br>(Code) |
|--------------------|-------------|----------------------|---------|-------|------------------|--------------------------|------------------|
| COHM-120-040/ID    | 408         | 5,54                 | 12,4    | 1,233 | 514              | 500 White RAL9016 (9016) |                  |
| COHM-120-050/ID    | 493         | 5,85                 | 14,6    | 1,237 | 608              | 500 White RAL9016 (9016) |                  |
| COHM-120-060/ID    | 578         | 6,45                 | 16,8    | 1,242 | 701              | 600 White RAL9016 (9016) |                  |

| Height<br>1.513 mm | Width<br>mm | V<br>dm <sup>3</sup> | M<br>kg | n     | P ΔT 50K<br>Watt | EP<br>Watt*              | Finish<br>(Code) |
|--------------------|-------------|----------------------|---------|-------|------------------|--------------------------|------------------|
| COHM-150-040/ID    | 408         | 6,22                 | 14,5    | 1,308 | 612              | 500 White RAL9016 (9016) |                  |
| COHM-150-050/ID    | 493         | 6,90                 | 17,1    | 1,236 | 725              | 600 White RAL9016 (9016) |                  |
| COHM-150-060/ID    | 578         | 7,57                 | 19,7    | 1,240 | 836              | 750 White RAL9016 (9016) |                  |

| Height<br>1.853 mm | Width<br>mm | V<br>dm <sup>3</sup> | M<br>kg | n     | P ΔT 50K<br>Watt | EP<br>Watt*              | Finish<br>(Code) |
|--------------------|-------------|----------------------|---------|-------|------------------|--------------------------|------------------|
| COHM-180-040/ID    | 408         | 7,50                 | 18,2    | 1,229 | 741              | 600 White RAL9016 (9016) |                  |
| COHM-180-050/ID    | 493         | 8,28                 | 21,3    | 1,233 | 878              | 750 White RAL9016 (9016) |                  |
| COHM-180-060/ID    | 578         | 9,07                 | 24,5    | 1,237 | 1.012            | 900 White RAL9016 (9016) |                  |

V: volume, M: empty weight, n: exponent, P ΔT 50 K: EN442 output,  
EP Watt\*: Power of electric heating cartridge for dual energy,

**ELECTRIC-ONLY OPERATION, VERTICAL**

| <b>Height<br/>1.513 mm</b> | <b>Width<br/>mm</b> | <b>M<br/>kg</b> | <b>EP<br/>Watt</b> | <b>Finish<br/>(Code)</b> |
|----------------------------|---------------------|-----------------|--------------------|--------------------------|
| COVE-150-040/ID            | 408                 | 14,5            | 600                | White RAL9016 (9016)     |
| COVE-150-050/ID            | 493                 | 17,2            | 750                | White RAL9016 (9016)     |
| COVE-150-060/ID            | 578                 | 19,8            | 900                | White RAL9016 (9016)     |

| <b>Height<br/>1.853 mm</b> | <b>Width<br/>mm</b> | <b>M<br/>kg</b> | <b>EP<br/>Watt</b> | <b>Finish<br/>(Code)</b> |
|----------------------------|---------------------|-----------------|--------------------|--------------------------|
| COVE-180-040/ID            | 408                 | 17,7            | 750                | White RAL9016 (9016)     |
| COVE-180-050/ID            | 493                 | 20,9            | 900                | White RAL9016 (9016)     |
| COVE-180-060/ID            | 578                 | 24,2            | 1.000              | White RAL9016 (9016)     |

**ELECTRIC-ONLY OPERATION, HORIZONTAL**

| <b>Height<br/>833 mm</b> | <b>Width<br/>mm</b> | <b>M<br/>kg</b> | <b>EP<br/>Watt</b> | <b>Finish<br/>(Code)</b> |
|--------------------------|---------------------|-----------------|--------------------|--------------------------|
| COHE-080-040/ID          | 408                 | 8,3             | 300                | White RAL9016 (9016)     |
| COHE-080-050/ID          | 493                 | 9,8             | 300                | White RAL9016 (9016)     |
| COHE-080-060/ID          | 578                 | 11,3            | 500                | White RAL9016 (9016)     |

| <b>Height<br/>1.258 mm</b> | <b>Width<br/>mm</b> | <b>M<br/>kg</b> | <b>EP<br/>Watt</b> | <b>Finish<br/>(Code)</b> |
|----------------------------|---------------------|-----------------|--------------------|--------------------------|
| COHE-120-040/ID            | 408                 | 12,4            | 500                | White RAL9016 (9016)     |
| COHE-120-050/ID            | 493                 | 14,6            | 600                | White RAL9016 (9016)     |
| COHE-120-060/ID            | 578                 | 16,8            | 750                | White RAL9016 (9016)     |

| <b>Height<br/>1.513 mm</b> | <b>Width<br/>mm</b> | <b>M<br/>kg</b> | <b>EP<br/>Watt</b> | <b>Finish<br/>(Code)</b> |
|----------------------------|---------------------|-----------------|--------------------|--------------------------|
| COHE-150-040/ID            | 408                 | 14,5            | 600                | White RAL9016 (9016)     |
| COHE-150-050/ID            | 493                 | 17,1            | 750                | White RAL9016 (9016)     |
| COHE-150-060/ID            | 578                 | 19,7            | 900                | White RAL9016 (9016)     |

| <b>Height<br/>1.853 mm</b> | <b>Width<br/>mm</b> | <b>M<br/>kg</b> | <b>EP<br/>Watt</b> | <b>Finish<br/>(Code)</b> |
|----------------------------|---------------------|-----------------|--------------------|--------------------------|
| COHE-180-040/ID            | 408                 | 18,2            | 750                | White RAL9016 (9016)     |
| COHE-180-050/ID            | 493                 | 21,3            | 900                | White RAL9016 (9016)     |
| COHE-180-060/ID            | 578                 | 24,5            | 1.000              | White RAL9016 (9016)     |

M: empty weight, EP: Electrical power,

**EXAMPLE ORDER**

| <b>COHK-150-040</b> | <b>—</b>        | <b>9016</b>        | <b>05</b>                                      | <b>468518</b>                          |
|---------------------|-----------------|--------------------|------------------------------------------------|----------------------------------------|
| Model               | Connection type | Colour<br>RAL 9016 | Connections<br>Multi-layer pipe<br>Ø 16 x 2 mm | Accessories<br>Large chrome towel rail |

| <b>COV-180-050</b> | <b>S034</b>     | <b>0325</b>                      | <b>470408</b>              |
|--------------------|-----------------|----------------------------------|----------------------------|
| Model              | Connection type | Colour<br>Transparent<br>coating | Accessories<br>Chrome hook |

**FINISHES**

| <b>Finish</b>                     | <b>Code</b>             | <b>Additional charge to RAL9016</b> |
|-----------------------------------|-------------------------|-------------------------------------|
| Traffic White RAL 9016 (standard) | 0916                    | —                                   |
| Pure, Optimism, Elemental         | See Runtal colour chart |                                     |
| Le Corbusier                      | See Runtal colour chart |                                     |
| Transparent coating               | 0325                    |                                     |

TECHNICAL DATA

FOR HOT WATER CENTRAL HEATING

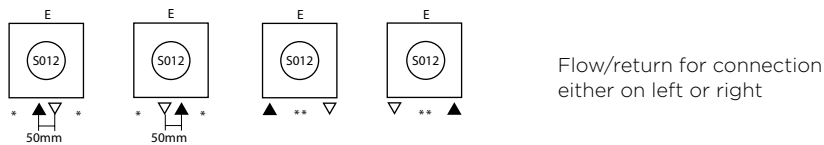
|                       |                                                                                                                                                                                                                            |
|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Materials             | Flat tubes 70 x 8 mm joined without visible welds and with a surrounding triangular profile frame, transparent or powder-coated in all colours of the Runtal colour chart                                                  |
| Operating pressure    | Max. 4 bar                                                                                                                                                                                                                 |
| Test pressure         | 5,2 bar                                                                                                                                                                                                                    |
| Operating temperature | Hot water central heating max. 120°C<br>Hot water central heating with integrated valve technology max. 80°C<br>Dual energy (COVM and COHM models) max. 95°C                                                               |
| Fastening             | Elegant wall brackets in same colour as radiator, assembly kit included<br>For all COH-...-...-L, COHK, COHE and COHM models up to 578 mm in width with top bracket to attach and incline the radiator during installation |
| Connections           | COH, COH-...-...-L and COV models: Standard 2 x ½" bottom centre connection fittings with 50 mm connection dimension, designer air vent ½" (E) to rear                                                                     |



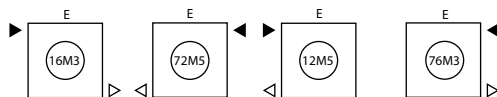
Optional (no additional charge) 2 x ½" bottom left and right connection fittings, designer air vent ½" (E) to rear



Optional (no additional charge) 4 x ½" bottom centre connection fittings with 50 mm connection dimension or outside left and right, flow ▲ / return ▼, designer air vent ½" (E) to rear, blind plug (\*)



Optional (no additional charge) 2 x ½" connection fittings on side or alternating sides, flow ▲ / return ▼, designer air vent ½" (E) to rear



Further connection options (e.g. made-to-order connection dimension for connection codes 12M5 and 76M3) or connection fittings (e.g. for draining) on request.

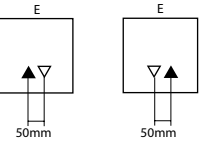
Connections for COHK

With concealed connection fittings and integrated valve in connection box behind the radiator comprising:

- Connection box and cover in same colour as radiator
- Corner valve with 50 mm connection dimension including lock for dual-pipe operation, thermostat valve with control element below the radiator
- Flexible connection hoses
- Pivoted fastening system for easy access
- Please specify a connection to be delivered (¾" EUROCONUS) when ordering:

|                                                          | Code |  |
|----------------------------------------------------------|------|--|
| 2 connection fittings for copper pipe Ø 12 mm            | CP12 |  |
| 2 connection fittings for copper pipe Ø 14 mm            | CP14 |  |
| 2 connection fittings for copper pipe Ø 15 mm            | CP15 |  |
| 2 connection fittings for copper pipe Ø 16 mm            | CP16 |  |
| 2 connection fittings for multi-layer pipe Ø 14 x 2 mm   | MP14 |  |
| 2 connection fittings for multi-layer pipe Ø 16 x 2 mm   | MP16 |  |
| 2 connection fittings for PER plastic pipe Ø 12 x 1.1 mm | PP12 |  |
| Set for all types of pipes                               | SATP |  |

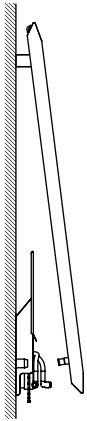
Flow ▲ / return ▼, designer air vent ½" (E) to rear



Flow/return behind radiator,  
for connection either on left or right



**FRONT VIEW**  
Connection box



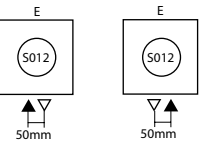
**SIDE VIEW**



**FRONT VIEW**  
Control element  
incl. cover for connection box

Connections  
for COHM / COVM

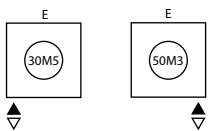
2 x ½" bottom centre connections with 50 mm connection dimension, flow ▲ / return ▼, designer air vent ½" (E) to rear



Flow/return behind radiator,  
for connection either on left or right

The connections must be made according to the order specifications

Single pipe connection  
for COH, COH-...-...-L , COV

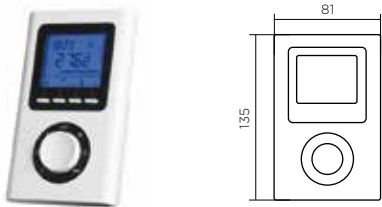


|                         | Code |  |
|-------------------------|------|--|
| For lance valve Ø 10 mm | L10  |  |
| For lance valve Ø 11 mm | L11  |  |
| For lance valve Ø 12 mm | L12  |  |
| For lance valve Ø 13 mm | L13  |  |
| For lance valve Ø 14 mm | L14  |  |

Valves See accessories

ELECTRIC-ONLY OR DUAL ENERGY

Control device



Technical data

- Functions:
- Room temperature control
  - Daily and weekly program
  - Operating modes: Anti-freeze, economy mode, comfort, automatic, manual, off
  - Wall-mounted or free-standing
- Characteristics:
- Electric heating cartridge pre-mounted on bottom right with infrared control device (battery-operated)
  - Mains voltage: 1 x 230 Volt ± 10%, 50 Hz
  - Protection category: IP 44 (protection against spray water)
  - Cable length: 1,2 m with CEE 7/17 plug
  - Control device 135 x 81 mm

Position of  
electrical connection

The electrical connection must be performed by an electrician in accordance with the applicable local regulations

Electric-only operation



Dual energy



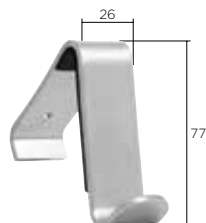
## RUNTAL COSMOPOLITAN ACCESSORIES

For retrofitting. More than one accessory can be fitted per radiator.  
Screws and covers included as part of delivery.



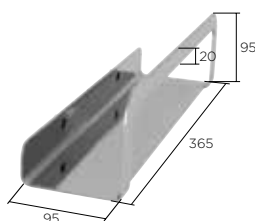
### Hook

| Art. no. | Designation | Width mm | Finish          |
|----------|-------------|----------|-----------------|
| 470402   | Hook        | 26       | Stainless steel |
| 470408   | Hook        | 26       | Chrome          |



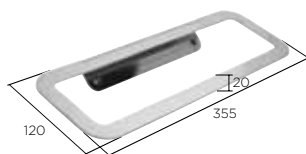
### Rack

| Art. no. | Designation | Width mm | Finish          |
|----------|-------------|----------|-----------------|
| 493202   | Rack        | 365      | Stainless steel |
| 493208   | Rack        | 365      | Chrome          |



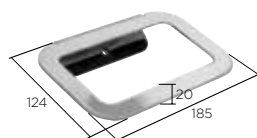
### Large towel rail

| Art. no. | Designation      | Width mm | Finish          |
|----------|------------------|----------|-----------------|
| 468512   | Large towel rail | 355      | Stainless steel |
| 468518   | Large towel rail | 355      | Chrome          |



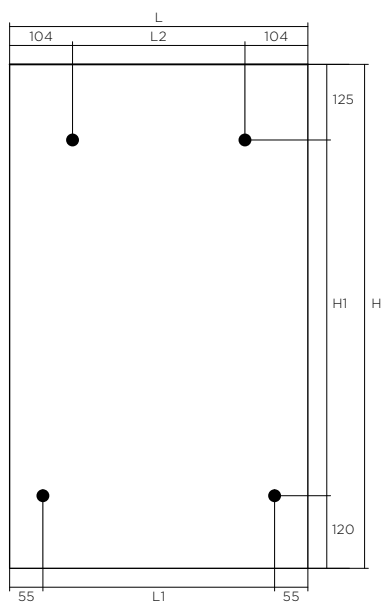
### Small towel rail

| Art. no. | Designation      | Width mm | Finish          |
|----------|------------------|----------|-----------------|
| 468502   | Small towel rail | 185      | Stainless steel |
| 468508   | Small towel rail | 185      | Chrome          |



# RUNTAL COSMOPOLITAN MOUNTING INSTRUCTIONS

FOR HOT WATER CENTRAL HEATING - ELECTRIC-ONLY OPERATION AND DUAL ENERGY  
COH-...-...-L, COHE AND COHM MODELS



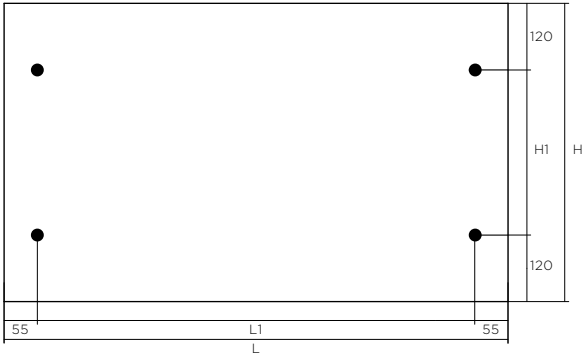
| Modell                       | H<br>mm | L<br>mm | L1<br>mm | L2<br>mm | H1<br>mm |
|------------------------------|---------|---------|----------|----------|----------|
| COH-...-L/COHM-/COHE-080-040 | 833     | 408     | 298      | 200      | 588      |
| COH-...-L/COHM-/COHE-080-050 | 833     | 493     | 383      | 285      | 588      |
| COH-...-L/COHM-/COHE-080-060 | 833     | 578     | 468      | 370      | 588      |
| COH-...-L/COHM-/COHE-120-040 | 1.258   | 408     | 298      | 200      | 1.013    |
| COH-...-L/COHM-/COHE-120-050 | 1.258   | 493     | 383      | 285      | 1.013    |
| COH-...-L/COHM-/COHE-120-060 | 1.258   | 578     | 468      | 370      | 1.013    |
| COH-...-L/COHM-/COHE-150-040 | 1.513   | 408     | 298      | 200      | 1.268    |
| COH-...-L/COHM-/COHE-150-050 | 1.513   | 493     | 383      | 285      | 1.268    |
| COH-...-L/COHM-/COHE-150-060 | 1.513   | 578     | 468      | 370      | 1.268    |
| COH-...-L/COHM-/COHE-180-040 | 1.853   | 408     | 298      | 200      | 1.608    |
| COH-...-L/COHM-/COHE-180-050 | 1.853   | 493     | 383      | 285      | 1.608    |
| COH-...-L/COHM-/COHE-180-060 | 1.853   | 578     | 468      | 370      | 1.608    |

- H Height (mm)
- L Length (mm)
- Fixing point

For correct radiator installation, please note the corresponding installation instructions



FOR HOT WATER CENTRAL HEATING - COH MODEL

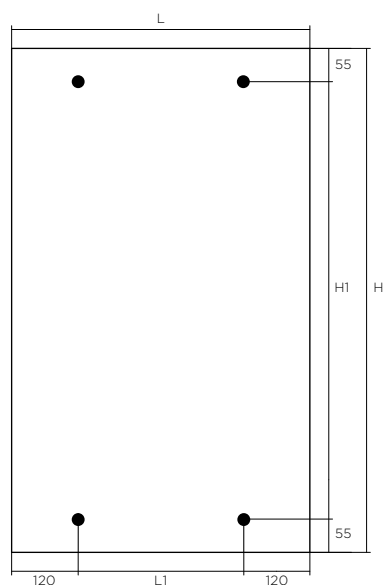


| Model       | H<br>mm | L<br>mm | L1<br>mm | H1<br>mm |
|-------------|---------|---------|----------|----------|
| COH-030-150 | 323     | 1.513   | 1.403    | 1.273    |
| COH-030-180 | 323     | 1.853   | 1.743    | 1.613    |
| COH-030-200 | 323     | 2.023   | 1.913    | 1.783    |
| COH-040-150 | 408     | 1.513   | 1.403    | 1.273    |
| COH-040-180 | 408     | 1.853   | 1.743    | 1.613    |
| COH-040-200 | 408     | 2.023   | 1.913    | 1.783    |
| COH-050-150 | 493     | 1.513   | 1.403    | 1.273    |
| COH-050-180 | 493     | 1.853   | 1.743    | 1.613    |
| COH-050-200 | 493     | 2.023   | 1.913    | 1.783    |
| COH-060-150 | 578     | 1.513   | 1.403    | 1.273    |
| COH-060-180 | 578     | 1.853   | 1.743    | 1.613    |
| COH-060-200 | 578     | 2.023   | 1.913    | 1.783    |

- H    Height (mm)  
L    Length (mm)  
●    Fixing point

For correct radiator installation, please observe the corresponding installation instructions

## FOR HOT WATER CENTRAL HEATING - COV MODEL

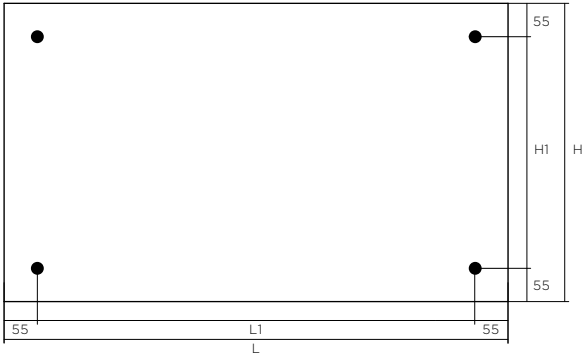


| Model       | H<br>mm | L<br>mm | L1<br>mm | H1<br>mm |
|-------------|---------|---------|----------|----------|
| COV-030-140 | 323     | 1.428   | 1.188    | 213      |
| COV-030-160 | 323     | 1.598   | 1.358    | 213      |
| COV-030-180 | 323     | 1.853   | 1.613    | 213      |
| COV-030-200 | 323     | 2.023   | 1.783    | 213      |
| COV-040-140 | 408     | 1.428   | 1.188    | 298      |
| COV-040-160 | 408     | 1.598   | 1.358    | 298      |
| COV-040-180 | 408     | 1.853   | 1.613    | 298      |
| COV-040-200 | 408     | 2.023   | 1.783    | 298      |
| COV-050-140 | 493     | 1.428   | 1.188    | 383      |
| COV-050-160 | 493     | 1.598   | 1.358    | 383      |
| COV-050-180 | 493     | 1.853   | 1.613    | 383      |
| COV-050-200 | 493     | 2.023   | 1.783    | 383      |
| COV-060-080 | 578     | 833     | 593      | 468      |
| COV-060-140 | 578     | 1.428   | 1.188    | 468      |
| COV-060-160 | 578     | 1.598   | 1.358    | 468      |
| COV-060-180 | 578     | 1.853   | 1.613    | 468      |
| COV-060-200 | 578     | 2.023   | 1.783    | 468      |
| COV-150-030 | 1.513   | 323     | 83       | 1.403    |
| COV-150-040 | 1.513   | 408     | 168      | 1.403    |
| COV-150-050 | 1.513   | 493     | 253      | 1.403    |
| COV-150-060 | 1.513   | 578     | 338      | 1.403    |
| COV-180-030 | 1.853   | 323     | 83       | 1.743    |
| COV-180-040 | 1.853   | 408     | 168      | 1.743    |
| COV-180-050 | 1.853   | 493     | 253      | 1.743    |
| COV-180-060 | 1.853   | 578     | 338      | 1.743    |
| COV-200-030 | 2.023   | 323     | 83       | 1.913    |
| COV-200-040 | 2.023   | 408     | 168      | 1.913    |
| COV-200-050 | 2.023   | 493     | 253      | 1.913    |
| COV-200-060 | 2.023   | 578     | 338      | 1.913    |

**H** Height (mm)  
**L** Length (mm)  
**●** Fixing point

For correct radiator installation, please observe the corresponding installation instructions

FOR HOT WATER CENTRAL HEATING - MODELS COH HEIGHT 238 MM AND COV WIDTH 238 MM

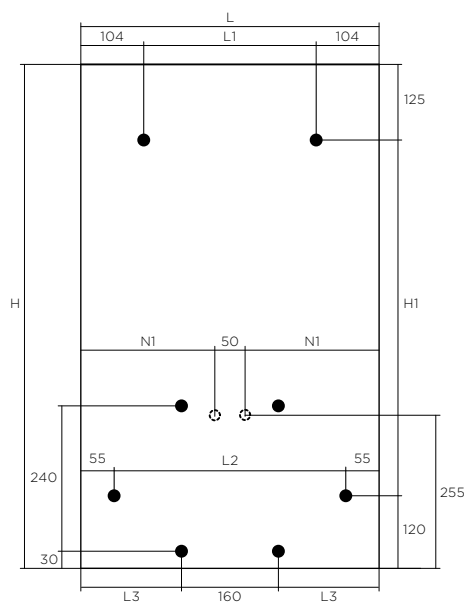


| Model       | H<br>mm | L<br>mm | L1<br>mm | H1<br>mm |
|-------------|---------|---------|----------|----------|
| COH-020-150 | 238     | 1.513   | 1.403    | 128      |
| COH-020-180 | 238     | 1.853   | 1.743    | 128      |
| COH-020-200 | 238     | 2.023   | 1.913    | 128      |
| COV-150-020 | 1.513   | 238     | 128      | 1.403    |
| COV-180-020 | 1.853   | 238     | 128      | 1.743    |
| COV-200-020 | 2.023   | 238     | 128      | 1.913    |

- H    Height (mm)  
L    Length (mm)  
●    Fixing point

For correct radiator installation, please observe the corresponding installation instructions

FOR HOT WATER CENTRAL HEATING - COHK MODEL - INTEGRATED VALVE TECHNOLOGY

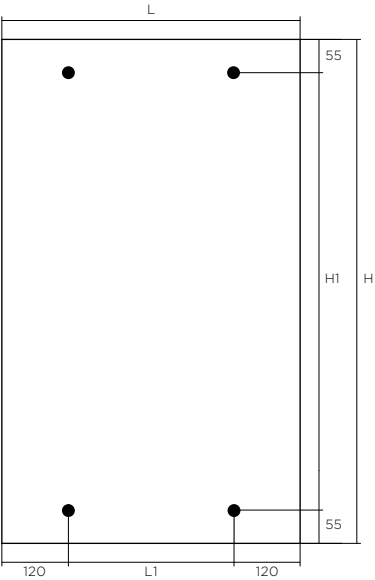


| Model        | H<br>mm | L<br>mm | L1<br>mm | L2<br>mm | L3<br>mm | H1<br>mm | N1<br>mm |
|--------------|---------|---------|----------|----------|----------|----------|----------|
| COHK-080-040 | 833     | 408     | 200      | 298      | 124      | 588      | 179      |
| COHK-120-040 | 1.258   | 408     | 200      | 298      | 124      | 1.013    | 179      |
| COHK-150-040 | 1.513   | 408     | 200      | 298      | 124      | 1.268    | 179      |
| COHK-180-040 | 1.853   | 408     | 200      | 298      | 124      | 1.608    | 179      |
| COHK-080-050 | 833     | 493     | 285      | 383      | 167      | 588      | 222      |
| COHK-120-050 | 1.258   | 493     | 285      | 383      | 167      | 1.013    | 222      |
| COHK-150-050 | 1.513   | 493     | 285      | 383      | 167      | 1.268    | 222      |
| COHK-180-050 | 1.853   | 493     | 285      | 383      | 167      | 1.608    | 222      |
| COHK-080-060 | 833     | 578     | 370      | 468      | 209      | 588      | 264      |
| COHK-120-060 | 1.258   | 578     | 370      | 468      | 209      | 1.013    | 264      |
| COHK-150-060 | 1.513   | 578     | 370      | 468      | 209      | 1.268    | 264      |
| COHK-180-060 | 1.853   | 578     | 370      | 468      | 209      | 1.608    | 264      |

- H Height (mm)
- L Length (mm)
- ⊗ Position of connection line
- Fixing point

For correct radiator installation, please observe the corresponding installation instructions

FOR HOT WATER CENTRAL HEATING AND DUAL ENERGY - COVE AND COVM MODELS



| Modell             | H<br>mm | L<br>mm | L1<br>mm | H1<br>mm |
|--------------------|---------|---------|----------|----------|
| COVE-/COVM-150-040 | 1.513   | 408     | 168      | 1.403    |
| COVE-/COVM-150-050 | 1.513   | 493     | 253      | 1.403    |
| COVE-/COVM-150-060 | 1.513   | 578     | 338      | 1.403    |
| COVE-/COVM-180-040 | 1.853   | 408     | 168      | 1.743    |
| COVE-/COVM-180-050 | 1.853   | 493     | 253      | 1.743    |
| COVE-/COVM-180-060 | 1.853   | 578     | 338      | 1.743    |

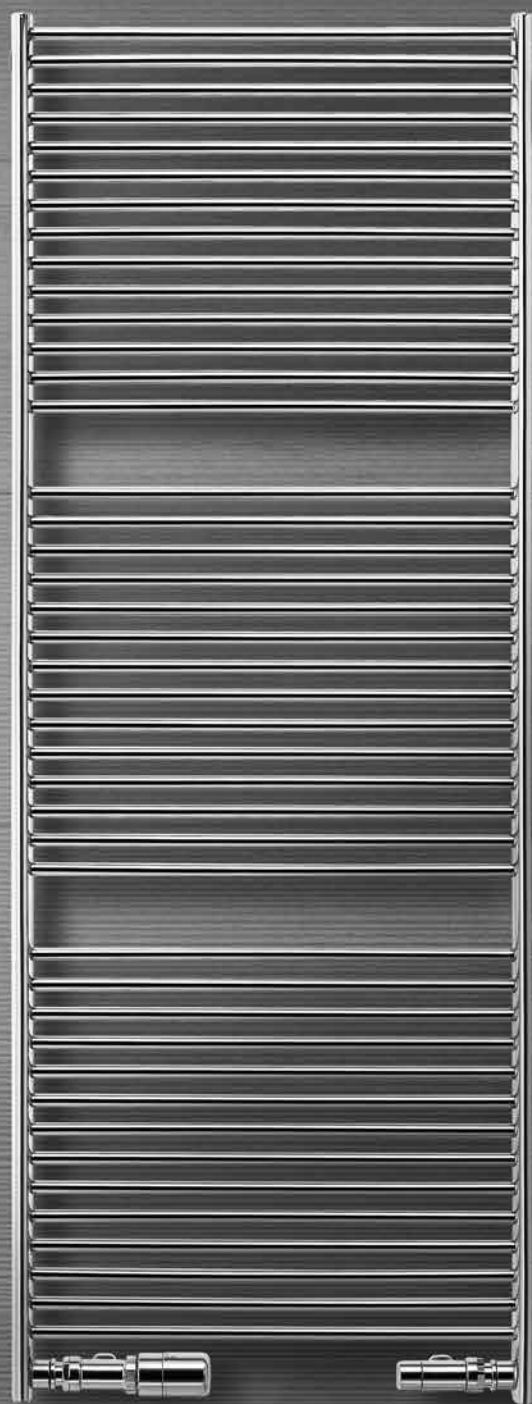
- H Height (mm)
- L Length (mm)
- Fixing point

For correct radiator installation, please observe the corresponding installation instructions

# RUNTAL FAIN

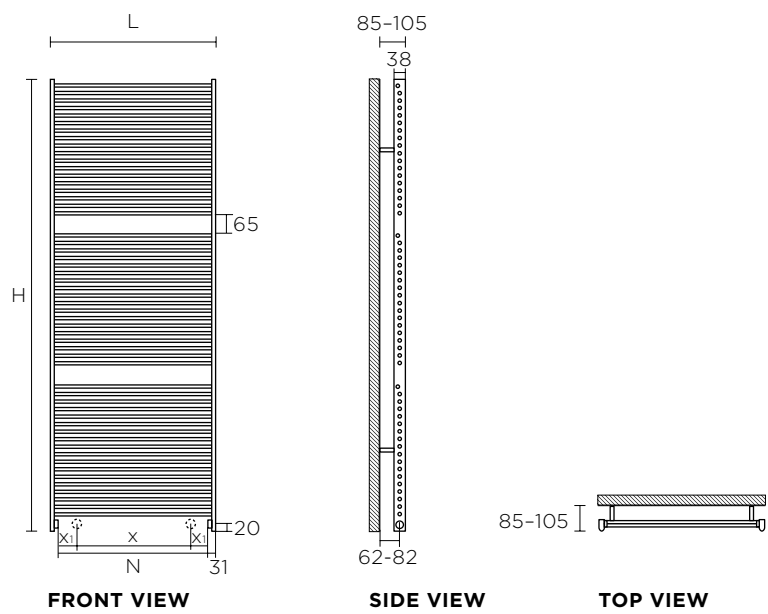
## RUNTAL DESIGN STUDIO

The RUNTAL FAIN gets its lightweight appearance from the narrow heating tubes of just 12 mm, which run into the equally delicate 18 mm manifolds at the sides. Since the valves face inwards, these form part of the continuous vertical outer edge. Two recesses for bath towels make the RUNTAL FAIN perfectly suited to use in the bathroom. RUNTAL FAIN can be connected to the central heating or is also suitable for electric only operation. It is available with chrome plating or a powder coating in the full range of colours in the Runtal colour chart.

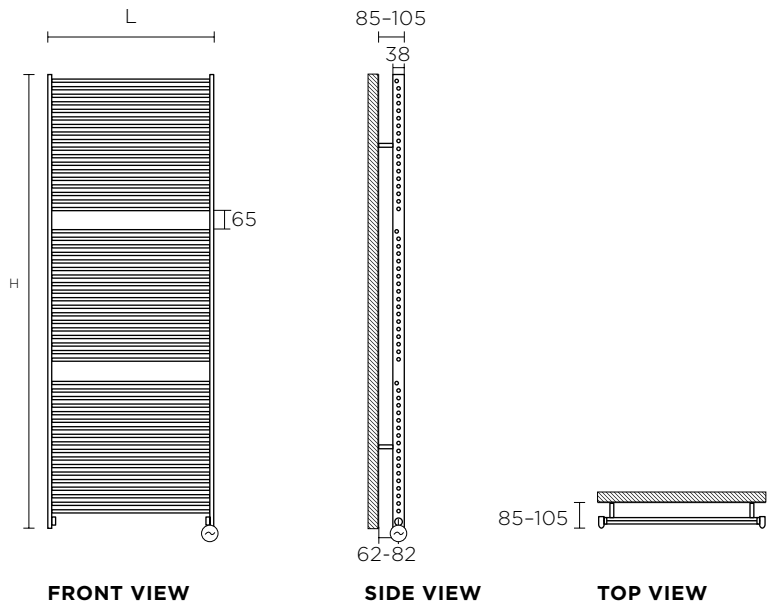


# RUNTAL FAIN TECHNICAL SPECIFICATIONS

## CENTRAL HEATING



## ELECTRIC ONLY VERSION



- x1 distance with valves:
- \* runtal radval angled= 44 mm,
  - \* runtal radval xs angled= 41mm
  - \* runtal radval revers (suggested)= 44 mm

- H Height (mm)  
L Width (mm)  
N Connection centres on towel radiator (mm)  
⊙ Electric immersion heater  
X Pipe centres with RUNTAL valves (mm)



# RUNTAL FAIN

## CENTRAL HEATING

| Height<br>750 mm (719mm)* | Width<br>mm | M<br>kg | n     | P ΔT 50K<br>Watt | Surface<br>(Code)    |
|---------------------------|-------------|---------|-------|------------------|----------------------|
| FA-075-045                | 450         | 5,5     | 1,233 | 260              | White RAL9016 (9016) |

| Height<br>900 mm (869mm)* | Width<br>mm | M<br>kg | n     | P ΔT 50K<br>Watt | Surface<br>(Code)    |
|---------------------------|-------------|---------|-------|------------------|----------------------|
| FA-090-045                | 450         | 6,8     | 1,228 | 312              | White RAL9016 (9016) |
| FAX-090-045               | 450         | 6,6     | 1,252 | 281              | Chrome (0008)        |
| FA-090-055                | 550         | 7,9     | 1,233 | 419              | White RAL9016 (9016) |
| FAX-090-055               | 550         | 7,7     | 1,245 | 377              | Chrome (0008)        |

| Height<br>1.200 mm (1.169mm)* | Width<br>mm | M<br>kg | n     | P ΔT 50K<br>Watt | Surface<br>(Code)    |
|-------------------------------|-------------|---------|-------|------------------|----------------------|
| FA-120-045                    | 450         | 9,3     | 1,237 | 490              | White RAL9016 (9016) |
| FAX-120-045                   | 450         | 9,1     | 1,260 | 441              | Chrome (0008)        |
| FA-120-055                    | 550         | 10,8    | 1,238 | 599              | White RAL9016 (9016) |
| FAX-120-055                   | 550         | 10,6    | 1,255 | 539              | Chrome (0008)        |
| FA-120-065                    | 650         | 12,4    | 1,240 | 707              | White RAL9016 (9016) |

| Height<br>1.500 mm (1.469mm)* | Width<br>mm | M<br>kg | n     | P ΔT 50K<br>Watt | Surface<br>(Code)    |
|-------------------------------|-------------|---------|-------|------------------|----------------------|
| FA-150-035                    | 350         | 9,8     | 1,244 | 495              | White RAL9016 (9016) |
| FAX-150-035                   | 350         | 9,6     | 1,267 | 446              | Chrome (0008)        |
| FA-150-040                    | 400         | 10,8    | 1,245 | 566              | White RAL9016 (9016) |
| FA-150-055                    | 550         | 13,8    | 1,245 | 779              | White RAL9016 (9016) |
| FAX-150-055                   | 550         | 13,4    | 1,272 | 701              | Chrome (0008)        |
| FA-150-065                    | 650         | 15,7    | 1,246 | 921              | White RAL9016 (9016) |

| Height<br>1.800 mm (1.769mm)* | Width<br>mm | M<br>kg | n     | P ΔT 50K<br>Watt | Surface<br>(Code)    |
|-------------------------------|-------------|---------|-------|------------------|----------------------|
| FA-180-035                    | 350         | 11,9    | 1,252 | 495              | White RAL9016 (9016) |
| FAX-180-035                   | 350         | 11,6    | 1,272 | 549              | Chrome (0008)        |
| FA-180-040                    | 400         | 13,1    | 1,252 | 566              | White RAL9016 (9016) |
| FA-180-055                    | 550         | 16,7    | 1,252 | 779              | White RAL9016 (9016) |
| FAX-180-055                   | 550         | 16,4    | 1,286 | 863              | Chrome (0008)        |
| FA-180-065                    | 650         | 19,1    | 1,252 | 921              | White RAL9016 (9016) |

\* height with connections code 1275 or 7613, N: pipe centres, M: weight, n: exponent, P ΔT 50K: EN442 output,

## ELECTRIC ONLY VERSION

| Height<br>1.200 mm | Width<br>mm | M<br>kg | EP<br>Watt | Surface<br>(Code)    |
|--------------------|-------------|---------|------------|----------------------|
| FE-120-055/AD      | 550         | 13,0    | 350        | White RAL9016 (9016) |
| FEX-120-055/AD     | 550         | 13,0    | 350        | Chrome (0008)        |

| Height<br>1.500 mm | Width<br>mm | M<br>kg | EP<br>Watt | Surface<br>(Code)    |
|--------------------|-------------|---------|------------|----------------------|
| FE-150-055/AD      | 550         | 16,0    | 650        | White RAL9016 (9016) |
| FEX-150-055/AD     | 550         | 16,0    | 650        | Chrome (0008)        |

| Height<br>1.800 mm | Width<br>mm | M<br>kg | EP<br>Watt | Surface<br>(Code)    |
|--------------------|-------------|---------|------------|----------------------|
| FE-180-055/AD      | 550         | 20,1    | 900        | White RAL9016 (9016) |

EP: electric power RE class I, M: weight,

## MIXED VERSION

| Height<br>900 mm | Width<br>mm | M<br>kg | P ΔT 50K<br>Watt | EP<br>Watt | Surface<br>(Code)    |
|------------------|-------------|---------|------------------|------------|----------------------|
| FM-090-055/AD    | 550         | 6,4     | 419              | 350        | White RAL9016 (9016) |
| FMX-090-055/AD   | 550         | 6,4     | 377              | 350        | Chrome (0008)        |

| Height<br>1.200 mm | Width<br>mm | M<br>kg | P ΔT 50K<br>Watt | EP<br>Watt | Surface<br>(Code)    |
|--------------------|-------------|---------|------------------|------------|----------------------|
| FM-120-055/AD      | 550         | 9,0     | 599              | 650        | White RAL9016 (9016) |
| FMX-120-055/AD     | 550         | 9,0     | 539              | 350        | Chrome (0008)        |

| Height<br>1.500 mm | Width<br>mm | M<br>kg | P ΔT 50K<br>Watt | EP<br>Watt | Surface<br>(Code)    |
|--------------------|-------------|---------|------------------|------------|----------------------|
| FM-150-055/AD      | 550         | 11,0    | 779              | 900        | White RAL9016 (9016) |
| FMX-150-055/AD     | 550         | 11,0    | 701              | 650        | Chrome (0008)        |

EP: electric power class I, max. suggested output of the immersion heater, RE for dual energy (electrical and central heating) version, M: weight,

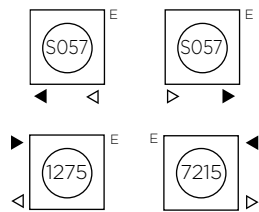
All models FA and FAX are applicable for the installation of the immersion heater (RE) in the right header

## FINISH

| Finish Powder-coated      | Code                    | Extra charge on RAL 9016 |
|---------------------------|-------------------------|--------------------------|
| White RAL 9016 (standard) | 9016                    | —                        |
| Pure, Optimism, Elemental | See Runtal colour chart |                          |
| Le Corbusier              | See Runtal colour chart |                          |

**TECHNICAL DATA**

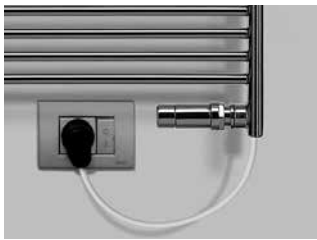
|                       |                                                                                                                         |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------|
| Materials             | Round tubes Ø 12 mm made of steel, chromed (0008), powder-coated in white RAL9016 (9016) or as per Runtal colour chart  |
| Operating pressure    | Max. 10 bar                                                                                                             |
| Test pressure         | 13 bar                                                                                                                  |
| Operating temperature | Max. 120 °C                                                                                                             |
| Standard kit          | Wall brackets in same colour as radiator and assembly kit included in packaging                                         |
| Connections           | Standard 2×½" with internal thread, flow ►/return ▷ on left or right, bottom horizontal facing inwards, ¼" air vent (E) |



Additional price

NB: The connection must be made in accordance with the required specifications

# RUNTAL FAIN ACCESSORIES



Mixed version FM-FMX



Electric only version FE-FEX

Electric only and mixed version

## IMMERSION HEATER RE

### CHARACTERISTICS:

Mains voltage: 230 V, 50 Hz +/- 10 %  
Nominal rating: 350, 600, 900 Watt  
Mains connection: 1,2 m power cable with plug  
Degree of protection: Class I (IP65)

### FUNCTIONS

- thermal limitation integrated
- once the immersion heater is in operation it switches on/off as per reached temperature of the towel radiator

| Code           | Watt |
|----------------|------|
| Art-no. 892100 | 350  |
| Art-no. 892200 | 650  |
| Art-no. 892300 | 900  |

The immersion heater RE is installed in the axis of the right header. On request delivered in the left header too. In the mixed version the pipe centres are unchanged

### ATTENTION! To switch heating operations:

All FA and FAX models are equipped with a Ø 1/4" connection on the bottom right side for an optional installation of the immersion heater RE.  
All FM, FMX, FE and FEX models are delivered with the immersion heater RE build in from works on the bottom right side header.

### FOR SUMMER USE:

- switch off central heating
- vent the radiator to ensure that there is no air present and make sure that the heating circuit is filled with water
- close the flow valve (only)
- activate the immersion heater as required

### FOR WINTER USE:

- de-activate the immersion heater
- open the flow valve

Position of electrical connection

The electrical connection must be performed by an electrician in accordance with applicable regulations

# RUNTAL FAIN ROOM DIVIDER VERSIONS

## DESCRIPTION OF COMPONENTS

All accessories are supplied in the same colour of the towel radiator. Other solutions are available on request. Chrome-plated models on request



| Code |  |
|------|--|
| RDL  |  |

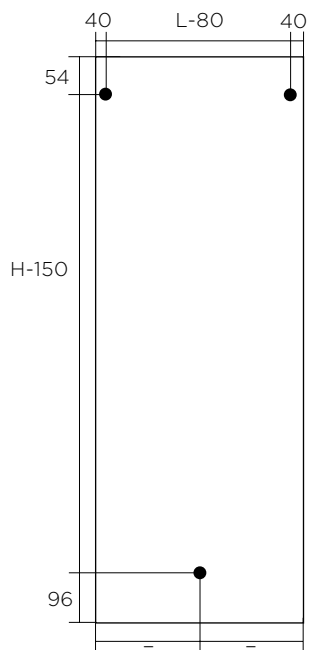
| Code |  |
|------|--|
| RDR  |  |

| Code |  |
|------|--|
| RDC  |  |

To make sure a better stability on models higher than 1.200 mm, we suggest two lateral brackets, with an additional price as following:

| Code |  |
|------|--|
| RDL2 |  |
| RDR2 |  |

## RUNTAL FAIN MOUNTING INSTRUCTIONS



- H Height (mm)
- L Width (mm)
- Fixing point

For correct installation, please note the corresponding installation instructions



# RUNTAL FAIN INOX

RUNTAL DESIGN STUDIO

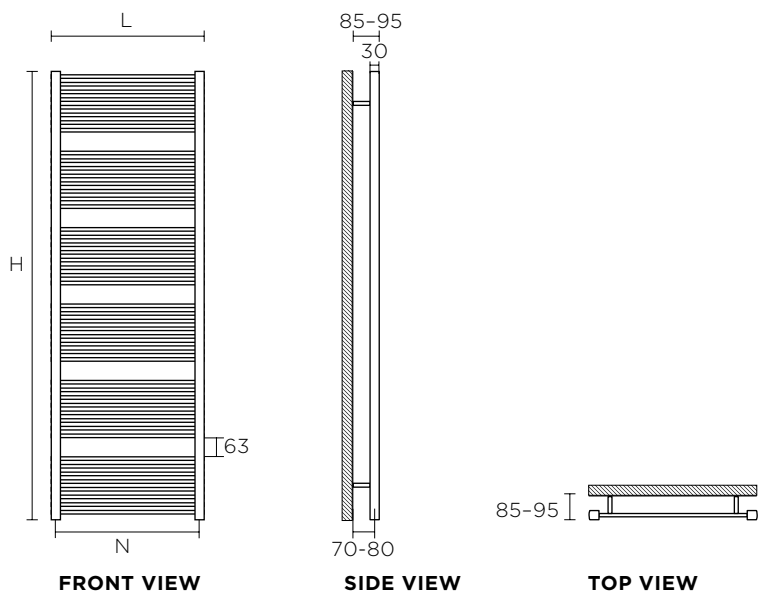
The well thought-out design means that the 30×30 mm manifolds form the vertical and slightly rounded outer edge of the designer radiator. Heating tubes, just 12 mm thick, feed into them. Produced solely from brushed matt V4A stainless steel, the RUNTAL FAIN INOX and its fantastic durability offer improved protection from internal and external corrosion. RUNTAL FAIN INOX can either be connected to the central heating or operated in electric only mode (on request).





# RUNTAL FAIN INOX TECHNICAL SPECIFICATIONS

## CENTRAL HEATING



- H Height (mm)
- L Width (mm)
- N Pipe centres (mm)

# RUNTAL FAIN INOX

## CENTRAL HEATING

| Height<br>842 mm   | Width<br>mm | M<br>kg | n    | P ΔT 50K<br>Watt | LAMDA*<br>Watt | Surface<br>(Code)      |
|--------------------|-------------|---------|------|------------------|----------------|------------------------|
| FAI-080-050        | 500         | 4,90    | 1,23 | 256              | —              | Stainless steel (9511) |
| Height<br>1.192 mm | Width<br>mm | M<br>kg | n    | P ΔT 50K<br>Watt | LAMDA*<br>Watt | Surface<br>(Code)      |
| FAI-120-050        | 500         | 6,78    | 1,34 | 355              | 300            | Stainless steel (9511) |
| Height<br>1.467 mm | Width<br>mm | M<br>kg | n    | P ΔT 50K<br>Watt | LAMDA*<br>Watt | Surface<br>(Code)      |
| FAI-150-050        | 500         | 8,89    | 1,28 | 471              | 300            | Stainless steel (9511) |
| Height<br>1.714 mm | Width<br>mm | M<br>kg | n    | P ΔT 50K<br>Watt | LAMDA*<br>Watt | Surface<br>(Code)      |
| FAI-170-035        | 350         | 8,27    | 1,33 | 409              | 300            | Stainless steel (9511) |
| FAI-170-060        | 600         | 11,90   | 1,29 | 661              | 600            | Stainless steel (9511) |

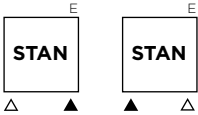
M: weight, n: exponent, P T 50K: EN442 output,  
\*LAMDA: max. recommended output of immersion heater for dual energy operation (electrical and central heating)

## FINISH

Product available in stainless steel (code 9511) only

**TECHNICAL DATA**

|                       |                                                                                                                                                                                                        |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Materials             | Round tubes Ø 12mm made of stainless steel V4A, header D-profile 30x30mm                                                                                                                               |
| Operating pressure    | Max. 6 bar                                                                                                                                                                                             |
| Test pressure         | 7,8 bar                                                                                                                                                                                                |
| Operating temperature | Max. 120 °C                                                                                                                                                                                            |
| Standard kit          | Wall brackets in same colour as radiator and assembly kit included in packaging                                                                                                                        |
| Connections           | With the standard Ø ½" connections with internal thread, the following types of connections are possible. Flow ▲ / ▽ return at choice on left-or right-hand at bottom opposite side, Ø ¼" air vent (E) |



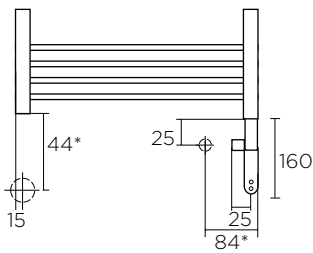
NB: The connection must be made in accordance with the required specifications

# RUNTAL FAIN INOX ACCESSORIES



**KIT LAMDA ACCESSORY FOR MIXED OPERATION:**  
The towel radiator in central heating version can be transformed in mixed operation class II with the corresponding immersion heater Kit LAMDA. It is advisable that the immersion heater is fitted on the return side of the radiator. The pipe centre will be reduced by 69\* mm. Chrome plated, T-piece included.

| Kit immersion heater LAMDA<br>chrome | Watt |
|--------------------------------------|------|
| Art. 857211                          | 300  |
| Art. 857221                          | 600  |



\* with runtal radval valve, this dimension varies according to the valve selected

**CHARACTERISTICS:**

Mains voltage: 230 V, 50 Hz +/- 10%  
Nominal rating: 300, 600 Watt  
Main connection: 1.0 m power cable with plug  
Degree of protection: Class II IP44 with CE-marketing

**FUNCTIONS:**

- manual and programmable operation
- manual adjustable medium temperature from 40 - 45°C
- max. surface temperature ca 70°C
- with 2 hour timer for adjustable medium temperature from 50 °C to 70°C and frost protection
- program variation with 24h interval

**ATTENTION:**

To switch heating operations:

**FOR SUMMER USE:**

- switch off central heating
- vent the radiator to ensure that there is no air present and make sure that the heating circuit is filled with water
- close the flow valve (only)
- activate the immersion heater as required

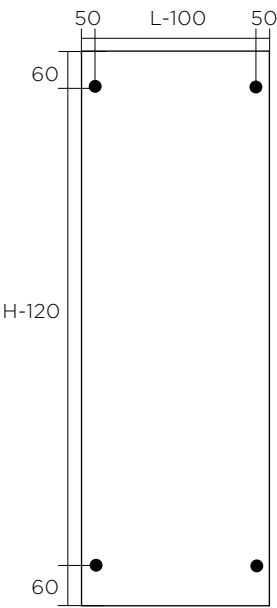
**FOR WINTER USE:**

- de-activate the immersion heater
- open the flow valve

Position of electrical connection

The electrical connection must be performed by an electrician in accordance with applicable regulations

**RUNTAL FAIN INOX** MOUNTING INSTRUCTIONS



- H    Height (mm)
- L    Width (mm)
- Fixing point

For correct installation, please note the corresponding installation instructions



# RUNTAL FLOW FORM

RUNTAL DESIGN STUDIO

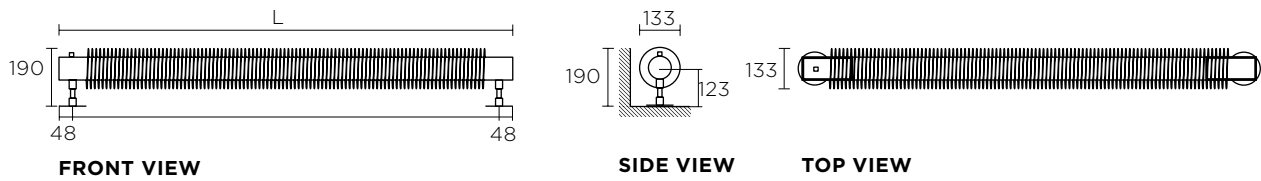
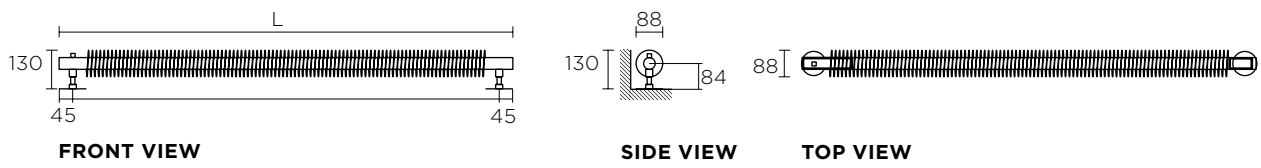
The extremely large heating surface created by the thin heating fins means that RUNTAL FLOW FORM offers an enormous thermal output. RUNTAL FLOW FORM is available in various sizes, up to 2.000 mm in length and 133 mm in diameter. The distance to the floor can be between 130 mm and 190 mm. RUNTAL FLOW FORM is suitable both for purely electrical operation or for connection to the central heating system, and is available in a powder-coated finish (white and as per Runtal colour chart). Chrome plated on request.



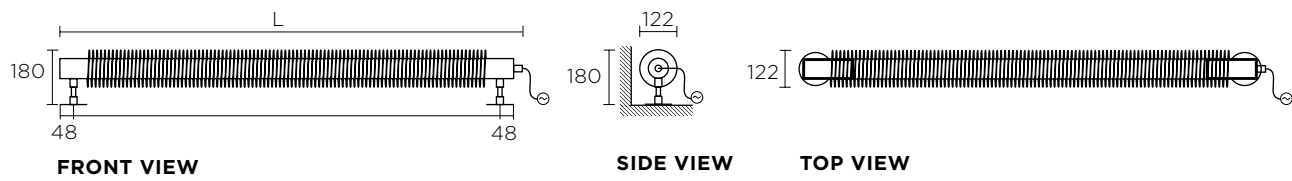


# RUNTAL FLOW FORM TECHNICAL SPECIFICATIONS

## CENTRAL HEATING VERSION - MODEL FFR/XFFR



## ELECTRIC ONLY VERSION - MODEL YFFRE



- L Width (mm)
- ⊗ Electric immersion heater

# RUNTAL FLOW FORM

## CENTRAL HEATING VERSION

| Height<br>130 mm | Width<br>mm | N<br>mm | V<br>dm <sup>3</sup> | M<br>kg | n    | P ΔT 50K<br>Watt | Surface<br>(Code) |
|------------------|-------------|---------|----------------------|---------|------|------------------|-------------------|
| FFR-100-008      | 1.000       | L + x   | 1,2                  | 6,2     | 1,22 | 246              | RAL 9016 (9016)   |
| FFR-150-008      | 1.500       | L + x   | 1,7                  | 9,2     | 1,23 | 361              | RAL 9016 (9016)   |
| FFR-200-008      | 2.000       | L + x   | 2,2                  | 12,6    | 1,25 | 498              | RAL 9016 (9016)   |

| Height<br>190 mm | Width<br>mm | N<br>mm | V<br>dm <sup>3</sup> | M<br>kg | n    | P ΔT 50K<br>Watt | Surface<br>(Code) |
|------------------|-------------|---------|----------------------|---------|------|------------------|-------------------|
| XFFR-100-013     | 1.000       | L + x   | 3,7                  | 12,7    | 1,22 | 370              | RAL 9016 (9016)   |
| XFFR-150-013     | 1.500       | L + x   | 5,6                  | 18,6    | 1,25 | 565              | RAL 9016 (9016)   |
| XFFR-200-013     | 2.000       | L + x   | 7,5                  | 24,8    | 1,24 | 797              | RAL 9016 (9016)   |

## ELECTRIC ONLY VERSION

| Height<br>180 mm | Width<br>mm |  | M<br>kg | n    | EP<br>Watt | Surface<br>(Code) |
|------------------|-------------|--|---------|------|------------|-------------------|
| YFFRE-100-012/AD | 1.000       |  | 11,9    | 1,22 | 500        | RAL 9016 (9016)   |
| YFFRE-150-012/AD | 1.500       |  | 18,1    | 1,25 | 600        | RAL 9016 (9016)   |
| YFFRE-200-012/AD | 2.000       |  | 24,2    | 1,24 | 1.000      | RAL 9016 (9016)   |

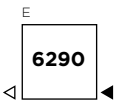
N: pipe centres, L: width, x: valves size, V: volume, M: weight, n: exponent, PΔT 50K: EN442 output,

## FINISHES

| Powder-coated finish         | Code                    | Extra charge on RAL 9016 |
|------------------------------|-------------------------|--------------------------|
| White (RAL 9016)             | 9016                    | —                        |
| Pure, Optimism and Elemental | See Runtal colour chart |                          |
| Le Corbusier                 | See Runtal colour chart |                          |
| Chrome                       | 0008                    | on request               |

**TECHNICAL DATA**

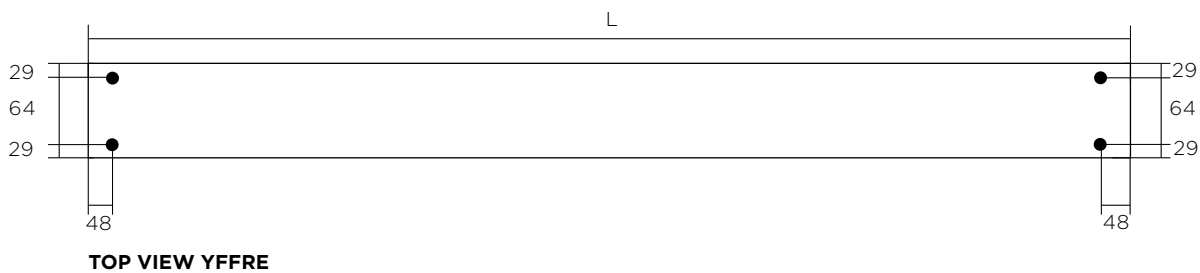
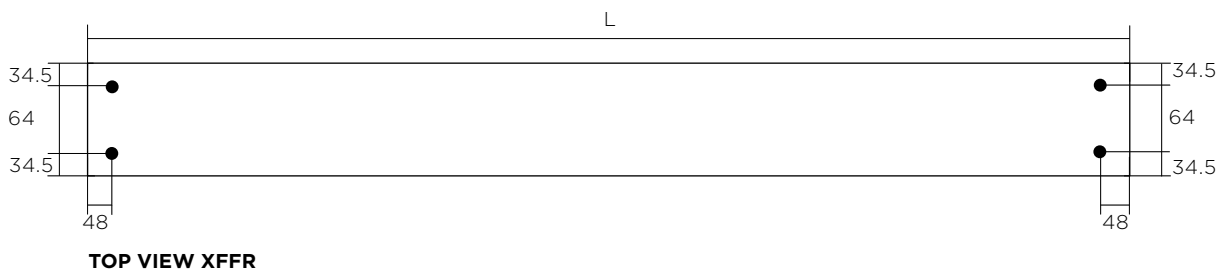
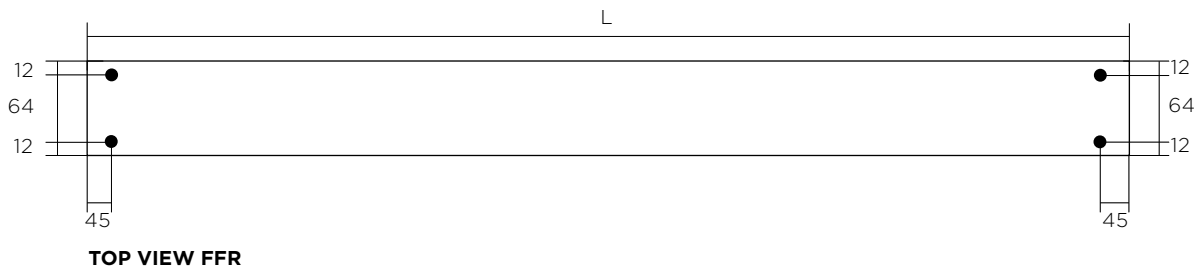
|                       |                                                                                                                                                                                                |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Materials             | Tube and shaped blades in steel, powder-coated finish (white and as per Runtal colour chart). Chrome-plated on request                                                                         |
| Operating pressure    | Max. 8 bar                                                                                                                                                                                     |
| Test pressure         | 12 bar                                                                                                                                                                                         |
| Operating temperature | Max. 95°C                                                                                                                                                                                      |
| Standard kit          | 2 feet in the same finish of radiator, screws and plugs and ½" vent included in the packaging                                                                                                  |
| Connections           | With standard Ø ½" connections with internal threading, the following types of connections are possible. Flow ► / return ◄ on the sides at choice on left - or right - hand, Ø ½" air vent (E) |



NB: The connection must be made in accordance with the required specifications

|                                   |                                                                                                                                                                                             |
|-----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Single pipe systems               | Not possible                                                                                                                                                                                |
| Accessories and Valves            | As per ACCESSORIES list                                                                                                                                                                     |
| Electric-only model               | Immersion heater 1x230 V, 50 Hz +/- 10%. Standard fitted in bottom left.<br>1,2 m white power cable (3core) with plug<br>Degree of protection: Class II IP44 (splash water) with CE-marking |
| Position of electrical connection | The electrical connection must be performed by an electrician in accordance with applicable regulations                                                                                     |

# RUNTAL FLOW FORM MOUNTING INSTRUCTIONS



- L Width (mm)
- Fixing point

For correct radiator installation, please note the corresponding installation instructions

# RUNTAL FOLIO

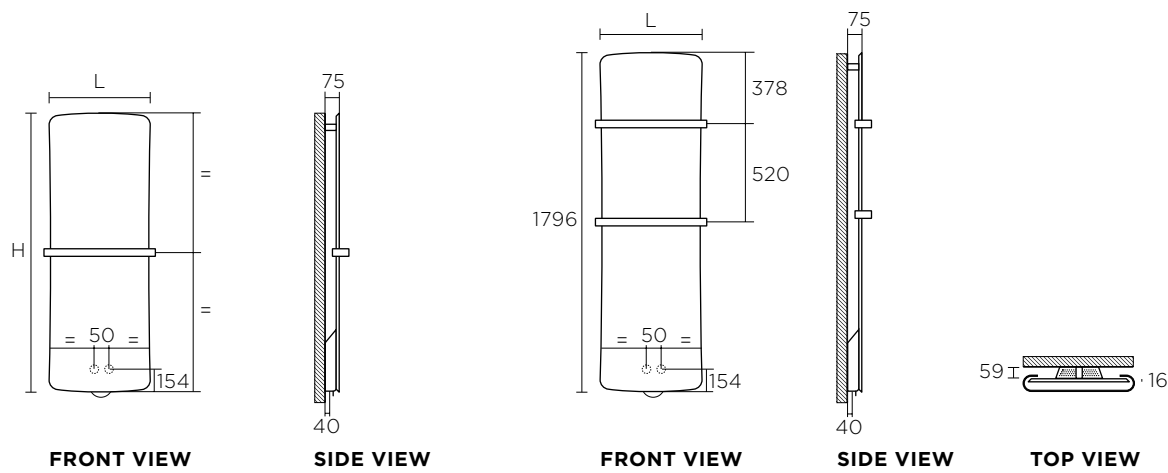
KING & MIRANDA

The RUNTAL FOLIO is characterised by its compact design, lightness of form as well as its closed edge all round. Compared to the vertical design for the living area, the RUNTAL FOLIO BELT room variant is equipped with one or two chrome-plated towel rails, depending on the design height. RUNTAL FOLIO is designed both for connection to the hot water central heating and for purely electric operation with a programmable control unit and, optionally, with conventional connections as well as a completely newly developed, integrated valve variant.

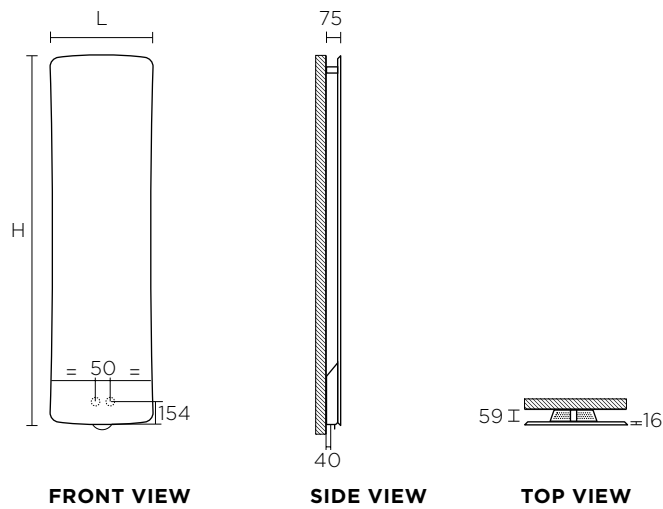


# RUNTAL FOLIO TECHNICAL SPECIFICATIONS

## CENTRAL HEATING VERSION - FOLIO BELT - MODEL FBK WITH TOWEL BAR



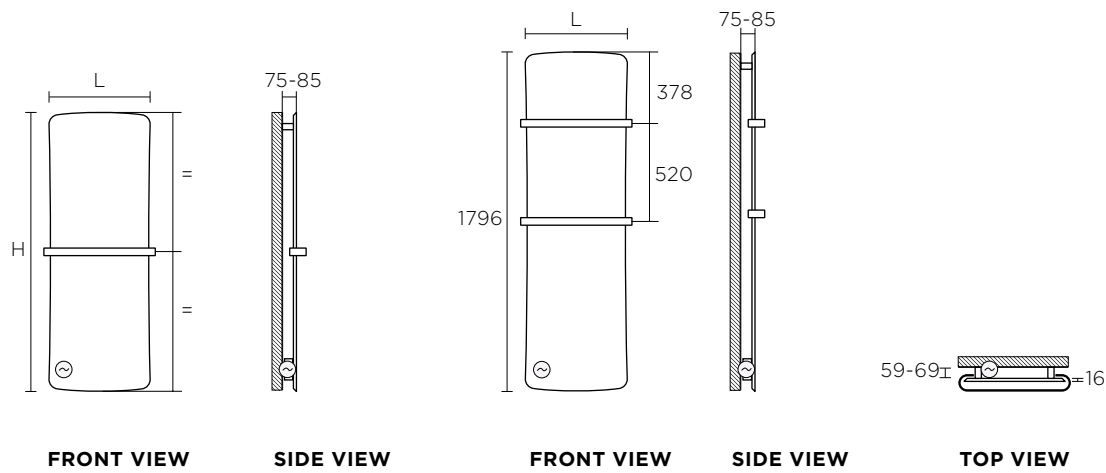
## CENTRAL HEATING VERSION - FOLIO - MODEL FVK WITHOUT TOWEL BAR



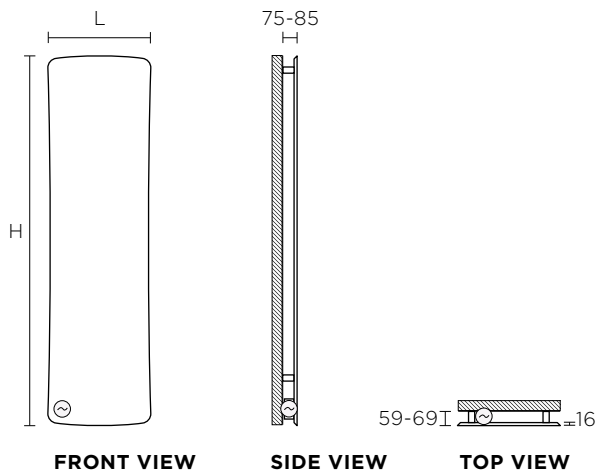
- H Height (mm)
- L Width (mm)
- ⊙ Exit of tubes from wall for valve connection with standard connections



**ELECTRIC ONLY VERSION - FOLIO BELT - MODEL FBE AND FBES WITH TOWEL BAR**



**ELECTRIC ONLY VERSION - FOLIO - MODEL FVE AND FVES WITHOUT TOWEL BAR**



H Height (mm)  
L Width (mm)  
⊙ Electric box

# RUNTAL FOLIO

## CENTRAL HEATING VERSION - FOLIO BELT - MODEL FBK WITH TOWEL BAR

| Height<br>1.156 mm | Width<br>mm | V<br>dm <sup>3</sup> | M<br>kg | n     | P ΔT 50K<br>Watt | Surface<br>(Code)    |
|--------------------|-------------|----------------------|---------|-------|------------------|----------------------|
| FBK-120-042        | 430         | 0,5                  | 8,7     | 1,197 | 399              | White RAL9016 (9016) |
| FBK-120-042        | 430         | 0,5                  | 8,7     | 1,197 | 399              | Anodised aluminium   |
| FBK-120-042        | 430         | 0,5                  | 8,7     | 1,197 | 399              | Wood veneer          |
| FBK-120-052        | 530         | 0,6                  | 10,5    | 1,199 | 485              | White RAL9016 (9016) |
| FBK-120-052        | 530         | 0,6                  | 10,5    | 1,199 | 485              | Anodised aluminium   |
| FBK-120-052        | 530         | 0,6                  | 10,5    | 1,199 | 485              | Wood veneer          |

| Height<br>1.476 mm | Width<br>mm | V<br>dm <sup>3</sup> | M<br>kg | n     | P ΔT 50K<br>Watt | Surface<br>(Code)    |
|--------------------|-------------|----------------------|---------|-------|------------------|----------------------|
| FBK-150-042        | 435         | 0,6                  | 11,0    | 1,198 | 504              | White RAL9016 (9016) |
| FBK-150-042        | 435         | 0,6                  | 11,0    | 1,198 | 504              | Anodised aluminium   |
| FBK-150-042        | 435         | 0,6                  | 11,0    | 1,198 | 504              | Wood veneer          |
| FBK-150-052        | 535         | 0,7                  | 12,7    | 1,198 | 611              | White RAL9016 (9016) |
| FBK-150-052        | 535         | 0,7                  | 12,7    | 1,198 | 611              | Anodised aluminium   |
| FBK-150-052        | 535         | 0,7                  | 12,7    | 1,198 | 611              | Wood veneer          |
| FBK-150-062        | 635         | 0,8                  | 14,5    | 1,199 | 718              | White RAL9016 (9016) |
| FBK-150-062        | 635         | 0,8                  | 14,5    | 1,199 | 718              | Anodised aluminium   |
| FBK-150-062        | 635         | 0,8                  | 14,5    | 1,199 | 718              | Wood veneer          |

| Height<br>1.796 mm | Width<br>mm | V<br>dm <sup>3</sup> | M<br>kg | n     | P ΔT 50K<br>Watt | Surface<br>(Code)    |
|--------------------|-------------|----------------------|---------|-------|------------------|----------------------|
| FBK-180-042        | 441         | 0,6                  | 13,5    | 1,195 | 614              | White RAL9016 (9016) |
| FBK-180-042        | 441         | 0,6                  | 13,5    | 1,195 | 614              | Anodised aluminium   |
| FBK-180-042        | 441         | 0,6                  | 13,5    | 1,195 | 614              | Wood veneer          |
| FBK-180-052        | 540         | 0,8                  | 15,0    | 1,203 | 762              | White RAL9016 (9016) |
| FBK-180-052        | 540         | 0,8                  | 15,0    | 1,203 | 762              | Anodised aluminium   |
| FBK-180-052        | 540         | 0,8                  | 15,0    | 1,203 | 762              | Wood veneer          |
| FBK-180-062        | 640         | 1,0                  | 16,5    | 1,212 | 912              | White RAL9016 (9016) |
| FBK-180-062        | 640         | 1,0                  | 16,5    | 1,212 | 912              | Anodised aluminium   |
| FBK-180-062        | 640         | 1,0                  | 16,5    | 1,212 | 912              | Wood veneer          |
| FBK-180-072        | 740         | 1,2                  | 18,0    | 1,220 | 1.064            | White RAL9016 (9016) |
| FBK-180-072        | 740         | 1,2                  | 18,0    | 1,220 | 1.064            | Anodised aluminium   |
| FBK-180-072        | 740         | 1,2                  | 18,0    | 1,220 | 1.064            | Wood veneer          |

V: volume, M: weight, n: exponent, PΔT 50K: EN 442 output,

**CENTRAL HEATING VERSION – FOLIO – MODEL FVK WITHOUT TOWEL BAR**

| <b>Height<br/>1.796 mm</b> | <b>Width<br/>mm</b> | <b>V<br/>dm<sup>3</sup></b> | <b>M<br/>kg</b> | <b>n</b> | <b>P ΔT 50K<br/>Watt</b> | <b>Surface<br/>(Code)</b> |
|----------------------------|---------------------|-----------------------------|-----------------|----------|--------------------------|---------------------------|
| FVK-180-042                | 441                 | 0,6                         | 11,7            | 1,195    | 614                      | White RAL9016 (9016)      |
| FVK-180-042                | 441                 | 0,6                         | 11,7            | 1,195    | 614                      | Anodised aluminium        |
| FVK-180-042                | 441                 | 0,6                         | 11,7            | 1,195    | 614                      | Wood veneer               |
| FVK-180-052                | 540                 | 0,8                         | 12,8            | 1,203    | 762                      | White RAL9016 (9016)      |
| FVK-180-052                | 540                 | 0,8                         | 12,8            | 1,203    | 762                      | Anodised aluminium        |
| FVK-180-052                | 540                 | 0,8                         | 12,8            | 1,203    | 762                      | Wood veneer               |
| FVK-180-062                | 640                 | 1,0                         | 14,1            | 1,212    | 912                      | White RAL9016 (9016)      |
| FVK-180-062                | 640                 | 1,0                         | 14,1            | 1,212    | 912                      | Anodised aluminium        |
| FVK-180-062                | 640                 | 1,0                         | 14,1            | 1,212    | 912                      | Wood veneer               |
| FVK-180-072                | 740                 | 1,2                         | 15,4            | 1,220    | 1.064                    | White RAL9016 (9016)      |
| FVK-180-072                | 740                 | 1,2                         | 15,4            | 1,220    | 1.064                    | Anodised aluminium        |
| FVK-180-072                | 740                 | 1,2                         | 15,4            | 1,220    | 1.064                    | Wood veneer               |

| <b>Height<br/>1.956 mm</b> | <b>Width<br/>mm</b> | <b>V<br/>dm<sup>3</sup></b> | <b>M<br/>kg</b> | <b>n</b> | <b>P ΔT 50K<br/>Watt</b> | <b>Surface<br/>(Code)</b> |
|----------------------------|---------------------|-----------------------------|-----------------|----------|--------------------------|---------------------------|
| FVK-200-042                | 445                 | 0,6                         | 12,1            | 1,184    | 651                      | White RAL9016 (9016)      |
| FVK-200-042                | 445                 | 0,6                         | 12,1            | 1,184    | 651                      | Anodised aluminium        |
| FVK-200-042                | 445                 | 0,6                         | 12,1            | 1,184    | 651                      | Wood veneer               |
| FVK-200-052                | 545                 | 0,8                         | 14,3            | 1,192    | 807                      | White RAL9016 (9016)      |
| FVK-200-052                | 545                 | 0,8                         | 14,3            | 1,192    | 807                      | Anodised aluminium        |
| FVK-200-052                | 545                 | 0,8                         | 14,3            | 1,192    | 807                      | Wood veneer               |
| FVK-200-062                | 644                 | 1,0                         | 16,7            | 1,201    | 964                      | White RAL9016 (9016)      |
| FVK-200-062                | 644                 | 1,0                         | 16,7            | 1,201    | 964                      | Anodised aluminium        |
| FVK-200-062                | 644                 | 1,0                         | 16,7            | 1,201    | 964                      | Wood veneer               |
| FVK-200-072                | 744                 | 1,3                         | 19,1            | 1,210    | 1.123                    | White RAL9016 (9016)      |
| FVK-200-072                | 744                 | 1,3                         | 19,1            | 1,210    | 1.123                    | Anodised aluminium        |
| FVK-200-072                | 744                 | 1,3                         | 19,1            | 1,210    | 1.123                    | Wood veneer               |

V: volume, M: weight, n: exponent, PΔT 50K: EN 442 output,

**Example of coding for order of product**

| <b>FBK</b>        | <b>180</b> | <b>052</b> | <b>9501</b>           | <b>copper pipe 14</b>                           |
|-------------------|------------|------------|-----------------------|-------------------------------------------------|
| model of radiator | height     | width      | colour code of finish | material and dimension for compression fittings |

**ELECTRIC ONLY VERSION - FOLIO BELT - MODEL FBE AND FBES WITH TOWEL BAR**

| <b>Height<br/>1.156 mm</b> | <b>Width<br/>mm</b> | <b>M<br/>kg</b> | <b>EP<br/>Watt</b> | <b>Surface<br/>(Code)</b> |
|----------------------------|---------------------|-----------------|--------------------|---------------------------|
| FBE-120-042/FD             | 430                 | 6,2             | 350                | White RAL9016 (9016)      |
| FBES-120-042/FD            | 430                 | 6,2             | 350                | Anodised aluminium        |
| FBES-120-042/FD            | 430                 | 6,2             | 350                | Wood veneer               |

| <b>Height<br/>1.476 mm</b> | <b>Width<br/>mm</b> | <b>M<br/>kg</b> | <b>EP<br/>Watt</b> | <b>Surface<br/>(Code)</b> |
|----------------------------|---------------------|-----------------|--------------------|---------------------------|
| FBE-150-042/FD             | 435                 | 8,5             | 500                | White RAL9016 (9016)      |
| FBES-150-042/FD            | 435                 | 8,5             | 350                | Anodised aluminium        |
| FBES-150-042/FD            | 435                 | 8,5             | 350                | Wood veneer               |

| <b>Height<br/>1.796 mm</b> | <b>Width<br/>mm</b> | <b>M<br/>kg</b> | <b>EP<br/>Watt</b> | <b>Surface<br/>(Code)</b> |
|----------------------------|---------------------|-----------------|--------------------|---------------------------|
| FBE-180-042/FD             | 441                 | 11,0            | 500                | White RAL9016 (9016)      |
| FBES-180-042/FD            | 441                 | 11,0            | 350                | Anodised aluminium        |
| FBES-180-042/FD            | 441                 | 11,0            | 350                | Wood veneer               |
| FBE-180-052/FD             | 540                 | 12,5            | 750                | White RAL9016 (9016)      |
| FBES-180-052/FD            | 540                 | 12,5            | 500                | Anodised aluminium        |
| FBES-180-052/FD            | 540                 | 12,5            | 500                | Wood veneer               |
| FBE-180-072/FD             | 740                 | 15,5            | 1.000              | White RAL9016 (9016)      |
| FBES-180-072/FD            | 740                 | 15,5            | 750                | Anodised aluminium        |
| FBES-180-072/FD            | 740                 | 15,5            | 750                | Wood veneer               |

| <b>Height<br/>1.796 mm</b> | <b>Width<br/>mm</b> | <b>M<br/>kg</b> | <b>EP<br/>Watt</b> | <b>Surface<br/>(Code)</b> |
|----------------------------|---------------------|-----------------|--------------------|---------------------------|
| FVE-180-042/FD             | 441                 | 11,0            | 500                | White RAL9016 (9016)      |
| FVES-180-042/FD            | 441                 | 11,0            | 350                | Anodised aluminium        |
| FVES-180-042/FD            | 441                 | 11,0            | 350                | Wood veneer               |
| FVE-180-052/FD             | 540                 | 12,5            | 750                | White RAL9016 (9016)      |
| FVES-180-052/FD            | 540                 | 12,5            | 500                | Anodised aluminium        |
| FVES-180-052/FD            | 540                 | 12,5            | 500                | Wood veneer               |
| FVE-180-072/FD             | 740                 | 15,5            | 1.000              | White RAL9016 (9016)      |
| FVES-180-072/FD            | 740                 | 15,5            | 750                | Anodised aluminium        |
| FVES-180-072/FD            | 740                 | 15,5            | 750                | Wood veneer               |

M: weight, EP: electric power

## FINISHES

| <b>Powder-coated finish</b>      | <b>Code</b>             | <b>Extra charge on RAL 9016</b> |
|----------------------------------|-------------------------|---------------------------------|
| White (RAL 9016)                 | 9016                    | —                               |
| Pure, Optimism and Elemental     | See Runtal colour chart |                                 |
| Le Corbusier                     | See Runtal colour chart |                                 |
| <b>Anodised aluminium finish</b> | <b>Code</b>             |                                 |
| Natural                          | 9501                    |                                 |
| Black                            | 9505                    |                                 |
| <b>Wood veneer finish</b>        | <b>Code</b>             |                                 |
| Wenge                            | 9601                    |                                 |
| Oak                              | 9603                    |                                 |
| Macassar                         | 9604                    |                                 |

## TECHNICAL DATA

### Materials

Cover in aluminium, powder-coated standard in white RAL9016 (9016), available in all colour as per Runtal colour chart and anodised aluminium/wood veneer as per finishes listed. Rear (in aluminium), connection box and wall brackets painted in colour of radiator, black matt for wood veneer finishes and anodised aluminium, laterals in composite black matt slant to 45°

### Central heating version

Core with copper Ø 12 mm heating register embedded in a honeycomb structure made from aluminium which is enclosed by expanded natural graphite

### Operating pressure

Max. 6 bar

### Test pressure

7,8 bar

### Operating temperature

Max. 80 °C

### Standard kit

Wall brackets and assembly kit included in packaging

### Connections

Standard with connection and valve integrated in the connection box at rear

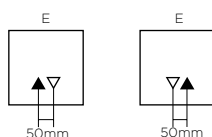
Kit including:

- connection box covering valves and connections
- angled valve with integrated lockshield, 50 mm pipe centres, thermostatic head with preinstalled control element for regulation underneath
- flexible tubes for connection on valve and on connections of radiator
- movable fixing for easy mounting and service access

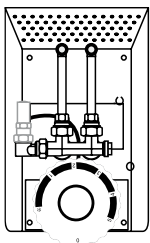
**- Please indicate at order one type of compression fittings 3/4" EUROCONUS to be included in packaging**

- copper pipe Ø 12 mm
- copper pipe Ø 14 mm
- copper pipe Ø 15 mm
- multilayer pipe Ø 14 x 2 mm
- multilayer pipe Ø 16 x 2 mm
- plastic pipe PER Ø 12 x 1.1 mm

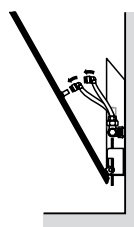
Flow ▲ / return ▼, air vent (E) Ø 1/2" at back side



Flow, return at choice  
left- or right-hand side.



FRONT VIEW  
connection box

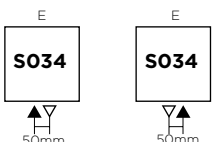


SIDE VIEW  
box and radiator



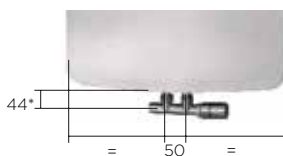
FRONT VIEW  
control element for regulation

Connections on request, 2 connections Ø 1/2", centric 50 mm pipe centres, vertical entry underneath, Flow ▲ / return ▼, air vent (E) Ø 1/2" at rear



Centric 50 mm pipe centre connection:  
flow, return at choice left- or right-hand side.

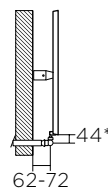
Model specification **FOLIO BELT : FB-...-...** (without the K letter)  
**FOLIO : FV-...-...** (without the K letter)



FRONT VIEW

\* Size with runtal radval and runtal radval xs valve. This dimension varies according to the valve selected

NB: The connection must be made in accordance with the required specifications



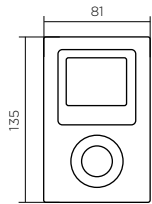
SIDE VIEW

Valves

As per ACCESSORIES price list

Electric version

Core with heating cord embedded in a honeycomb structure made from aluminium which is enclosed by expanded natural graphite



Control unit radio  
remote-controlled

Mains voltage: 230 V, 50 Hz  
Mains connection: 1,2 m cable (white) with CEE 7/17 plug  
Degree of protection: Class II (IP44)

- Functions:
- Daily and weekly program
  - Room temperature control
  - Operating modes: frost protection, economy program, comfort, automatic, manual, off
  - Wall-mounted or free-standing

Electric connection

The electrical connection must be performed by an electrician in accordance with applicable regulations

Towel bar

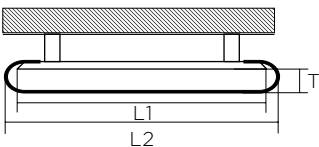
for FOLIO BELT models FBK, FB, FBE and FBES



One or two towel bars depending of model (as table below), chrome-plated, dimension 40 x 4 mm, to be mounted at predefined height/position, included in delivery/packageing

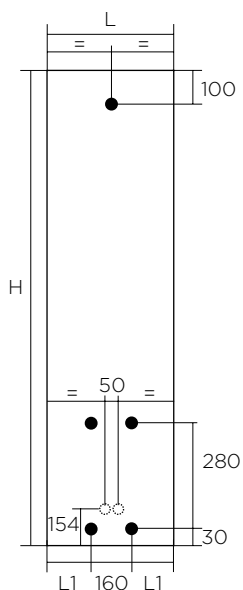
| Model                                        | nr. of bars | L1<br>mm | L2<br>mm | T<br>mm |
|----------------------------------------------|-------------|----------|----------|---------|
| FBK-120-042/<br>FBE-120-042/<br>FBES-120-042 | 1           | 430      | 490      | 46      |
| FBK-120-052                                  | 1           | 530      | 590      | 48      |
| FBK-150-042/<br>FBE-150-042/<br>FBES-150-042 | 1           | 435      | 490      | 46      |
| FBK-150-052                                  | 1           | 535      | 590      | 48      |
| FBK-150-062                                  | 1           | 635      | 690      | 50      |
| FBK-180-042                                  | 2           | 441      | 490      | 46      |
| FBK-180-052/<br>FBE-180-052/<br>FBES-180-052 | 2           | 540      | 590      | 48      |
| FBK-180-062                                  | 2           | 640      | 690      | 50      |
| FBK-180-072/<br>FBE-180-072/<br>FBES-180-072 | 2           | 740      | 790      | 52      |

L1: length of radiator, L2: length of towel bar, T: depth



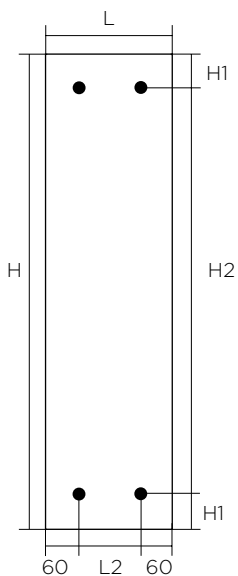
# RUNTAL FOLIO MOUNTING INSTRUCTIONS

## CENTRAL HEATING VERSION - FOLIO BELT MODEL FBK AND FOLIO MODEL FVK WITH STANDARD CONNECTION



| Model                       | H<br>mm | L<br>mm | L1<br>mm | H1<br>mm |
|-----------------------------|---------|---------|----------|----------|
| FBK-120-042                 | 1.156   | 430     | 135,0    | 746      |
| FBK-120-052                 | 1.156   | 530     | 185,0    | 746      |
| FBK-150-042                 | 1.476   | 435     | 137,5    | 1.066    |
| FBK-150-052                 | 1.476   | 535     | 187,5    | 1.066    |
| FBK-150-062                 | 1.476   | 635     | 237,5    | 1.066    |
| FBK-180-042/<br>FVK-180-042 | 1.796   | 441     | 140,5    | 1.386    |
| FBK-180-052/<br>FVK-180-052 | 1.796   | 540     | 190,0    | 1.386    |
| FBK-180-062/<br>FVK-180-062 | 1.796   | 640     | 240,0    | 1.386    |
| FBK-180-072/<br>FVK-180-072 | 1.796   | 740     | 290,0    | 1.386    |
| FVK-200-042                 | 1.956   | 445     | 142,5    | 1.546    |
| FVK-200-052                 | 1.956   | 545     | 192,5    | 1.546    |
| FVK-200-062                 | 1.956   | 644     | 242,0    | 1.546    |
| FVK-200-072                 | 1.956   | 744     | 292,0    | 1.546    |

## CENTRAL HEATING VERSION - FOLIO BELT MODEL FB AND FOLIO MODEL FV WITH CONNECTIONS S035 ON REQUEST



| Model                     | H<br>mm | L<br>mm | H1<br>mm | H2<br>mm | L2<br>mm |
|---------------------------|---------|---------|----------|----------|----------|
| FB-120-042                | 1.156   | 430     | 67,0     | 1.022    | 310      |
| FB-120-052                | 1.156   | 530     | 72,0     | 1.012    | 410      |
| FB-150-042                | 1.476   | 435     | 67,5     | 1.341    | 315      |
| FB-150-052                | 1.476   | 535     | 72,5     | 1.331    | 415      |
| FB-150-062                | 1.476   | 635     | 79,0     | 1.318    | 515      |
| FB-180-042/<br>FV-180-042 | 1.796   | 441     | 67,5     | 1.661    | 321      |
| FB-180-052/<br>FV-180-052 | 1.796   | 540     | 73,0     | 1.650    | 420      |
| FB-180-062/<br>FV-180-062 | 1.796   | 640     | 79,5     | 1.637    | 520      |
| FB-180-072/<br>FV-180-072 | 1.796   | 740     | 87,0     | 1.622    | 620      |
| FV-200-042                | 1.956   | 445     | 68,0     | 1.820    | 325      |
| FV-200-052                | 1.956   | 545     | 73,0     | 1.810    | 425      |
| FV-200-062                | 1.956   | 644     | 79,5     | 1.797    | 524      |
| FV-200-072                | 1.956   | 744     | 87,5     | 1.781    | 624      |

H Height (mm)

L Width (mm)

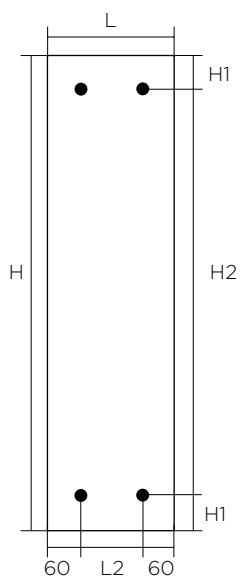
● Fixing point

○ Exit of tubes from wall for valve connection with standard connections

For correct radiator installation, please note the corresponding installation instructions

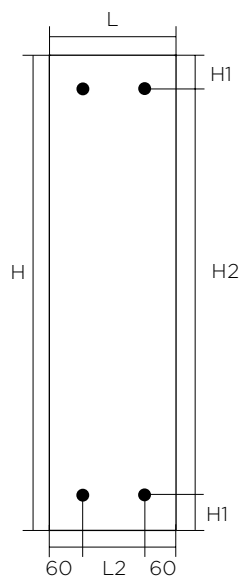


# **ELECTRIC ONLY VERSION - FOLIO BELT - MODELS FBE AND FBES**



| Model                        | H<br>mm | L<br>mm | H1<br>mm | H2<br>mm | L2<br>mm |
|------------------------------|---------|---------|----------|----------|----------|
| FBE-120-042/<br>FBES-120-042 | 1.156   | 430     | 67,0     | 1.022    | 310      |
| FBE-150-042/<br>FBES-150-042 | 1.476   | 435     | 67,5     | 1.341    | 315      |
| FBE-180-042/<br>FBES-180-042 | 1.796   | 441     | 67,5     | 1.661    | 321      |
| FBE-180-052/<br>FBES-180-052 | 1.796   | 540     | 73,0     | 1.650    | 420      |
| FBE-180-072/<br>FBES-180-072 | 1.796   | 740     | 87,0     | 1.622    | 620      |

# **ELECTRIC ONLY VERSION - FOLIO - MODEL FVE AND FVES**



| Model                        | H<br>mm | L<br>mm | H1<br>mm | H2<br>mm | L2<br>mm |
|------------------------------|---------|---------|----------|----------|----------|
| FVE-180-042/<br>FVES-180-042 | 1.796   | 441     | 67,5     | 1.661    | 321      |
| FVE-180-052/<br>FVES-180-052 | 1.796   | 540     | 73,0     | 1.650    | 420      |
| FVE-180-072/<br>FVES-180-072 | 1.796   | 740     | 87,0     | 1.622    | 620      |

- H Height (mm)
- L Width (mm)
- Fixing point

For correct radiator installation, please note the corresponding installation instructions

# RUNTAL FOLIO CORNER

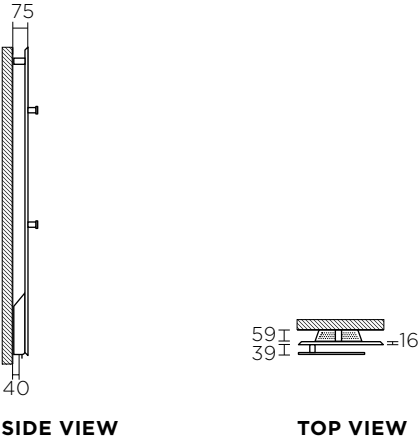
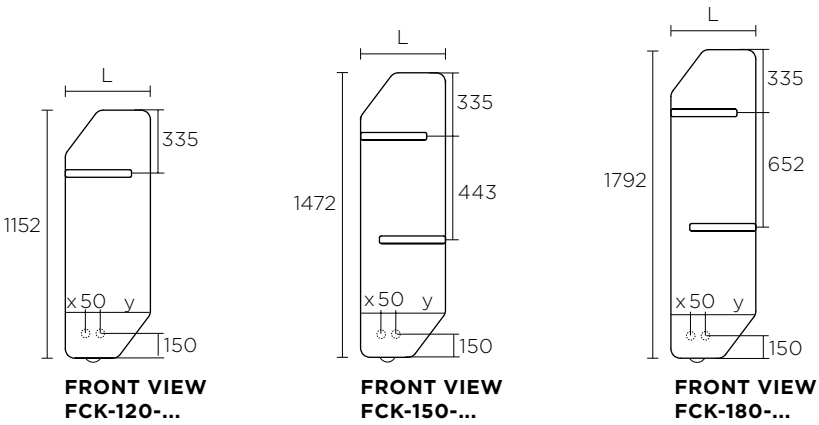
KING & MIRANDA

The RUNTAL FOLIO CORNER is characterised by its compact design, lightness of form as well as its closed edge all round. Depending on its height, it is equipped with one or two chrome-plated towel rails that are open to one side, in order to allow the towels to be hung up easily. RUNTAL FOLIO CORNER is designed both for connection to the hot water central heating and for purely electric operation with a programmable control unit and, optionally, with conventional connections as well as a completely newly developed, integrated valve variant.



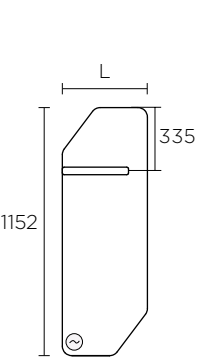
# RUNTAL FOLIO CORNER TECHNICAL SPECIFICATIONS

## CENTRAL HEATING VERSION - MODEL FCK

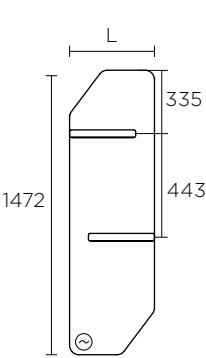


L Width (mm)  
⊙ Exit of tubes from wall for valve connection with standard connections  
Width 450 mm: x=125 mm, y= 275 mm  
Width 550 mm: x=175 mm, y= 325 mm

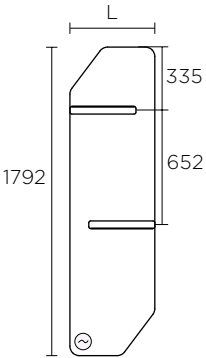
ELECTRIC ONLY VERSION - MODELS FCE AND FCES



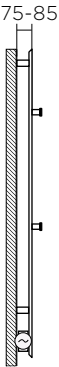
**FRONT VIEW**  
**FCE-120-... /**  
**FCES-120-...**



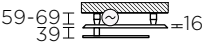
**FRONT VIEW**  
**FCE-150-... /**  
**FCES-150-...**



**FRONT VIEW**  
**FCE-180-... /**  
**FCES-180-...**



**SIDE VIEW**



**TOP VIEW**

L Width (mm)  
⊗ Electric box

# RUNTAL FOLIO CORNER

## CENTRAL HEATING VERSION - MODEL FCK

| Height<br>1.152 mm | Width<br>mm | V<br>dm <sup>3</sup> | M<br>kg | n     | P ΔT 50K<br>Watt | Surface<br>(Code)    |
|--------------------|-------------|----------------------|---------|-------|------------------|----------------------|
| FCK-120-045        | 450         | 0,5                  | 9,5     | 1,209 | 409              | White RAL9016 (9016) |
| FCK-120-045        | 450         | 0,5                  | 9,5     | 1,209 | 409              | Anodised aluminium   |
| FCK-120-045        | 450         | 0,5                  | 9,5     | 1,209 | 409              | Wood veneer          |
| FCK-120-055        | 550         | 0,6                  | 11,6    | 1,180 | 490              | White RAL9016 (9016) |
| FCK-120-055        | 550         | 0,6                  | 11,6    | 1,180 | 490              | Anodised aluminium   |
| FCK-120-055        | 550         | 0,6                  | 11,6    | 1,180 | 490              | Wood veneer          |

| Height<br>1.472 mm | Width<br>mm | V<br>dm <sup>3</sup> | M<br>kg | n     | P ΔT 50K<br>Watt | Surface<br>(Code)    |
|--------------------|-------------|----------------------|---------|-------|------------------|----------------------|
| FCK-150-045        | 450         | 0,6                  | 12,2    | 1,201 | 512              | White RAL9016 (9016) |
| FCK-150-045        | 450         | 0,6                  | 12,2    | 1,201 | 512              | Anodised aluminium   |
| FCK-150-045        | 450         | 0,6                  | 12,2    | 1,201 | 512              | Wood veneer          |
| FCK-150-055        | 550         | 0,7                  | 13,8    | 1,207 | 617              | White RAL9016 (9016) |
| FCK-150-055        | 550         | 0,7                  | 13,8    | 1,207 | 617              | Anodised aluminium   |
| FCK-150-055        | 550         | 0,7                  | 13,8    | 1,207 | 617              | Wood veneer          |

| Height<br>1.792 mm | Width<br>mm | V<br>dm <sup>3</sup> | M<br>kg | n     | P ΔT 50K<br>Watt | Surface<br>(Code)    |
|--------------------|-------------|----------------------|---------|-------|------------------|----------------------|
| FCK-180-045        | 450         | 0,7                  | 15,5    | 1,217 | 657              | White RAL9016 (9016) |
| FCK-180-045        | 450         | 0,7                  | 15,5    | 1,217 | 657              | Anodised aluminium   |
| FCK-180-045        | 450         | 0,7                  | 15,5    | 1,217 | 657              | Wood veneer          |
| FCK-180-055        | 550         | 0,9                  | 19,1    | 1,220 | 792              | White RAL9016 (9016) |
| FCK-180-055        | 550         | 0,9                  | 19,1    | 1,220 | 792              | Anodised aluminium   |
| FCK-180-055        | 550         | 0,9                  | 19,1    | 1,220 | 792              | Wood veneer          |

V: volume, M: weight, n: exponent, PΔT 50K: EN 442 output,

### Example of coding for order of product

| FCK               | 180    | 045   | 9501                  | copper pipe 14                                  |
|-------------------|--------|-------|-----------------------|-------------------------------------------------|
| model of radiator | height | width | colour code of finish | material and dimension for compression fittings |

**ELECTRIC ONLY VERSION – MODEL FCE AND FCES**

| <b>Height<br/>1.152 mm</b> | <b>Width<br/>mm</b> | <b>M<br/>kg</b> | <b>EP<br/>Watt</b> | <b>Surface<br/>(Code)</b> |
|----------------------------|---------------------|-----------------|--------------------|---------------------------|
| FCE-120-045/FD             | 450                 | 7,0             | 350                | White RAL9016 (9016)      |
| FCES-120-045/FD            | 450                 | 7,0             | 350                | Anodised aluminium        |
| FCES-120-045/FD            | 450                 | 7,0             | 350                | Wood veneer               |

| <b>Height<br/>1.472 mm</b> | <b>Width<br/>mm</b> | <b>M<br/>kg</b> | <b>EP<br/>Watt</b> | <b>Surface<br/>(Code)</b> |
|----------------------------|---------------------|-----------------|--------------------|---------------------------|
| FCE-150-045/FD             | 450                 | 9,7             | 500                | White RAL9016 (9016)      |
| FCES-150-045/FD            | 450                 | 9,7             | 350                | Anodised aluminium        |
| FCES-150-045/FD            | 450                 | 9,7             | 350                | Wood veneer               |

| <b>Height<br/>1.792 mm</b> | <b>Width<br/>mm</b> | <b>M<br/>kg</b> | <b>EP<br/>Watt</b> | <b>Surface<br/>(Code)</b> |
|----------------------------|---------------------|-----------------|--------------------|---------------------------|
| FCE-180-045/FD             | 450                 | 13,0            | 500                | White RAL9016 (9016)      |
| FCES-180-045/FD            | 450                 | 13,0            | 500                | Anodised aluminium        |
| FCES-180-045/FD            | 450                 | 13,0            | 500                | Wood veneer               |
| FCE-180-055/FD             | 550                 | 16,6            | 750                | White RAL9016 (9016)      |
| FCES-180-055/FD            | 550                 | 16,6            | 500                | Anodised aluminium        |
| FCES-180-055/FD            | 550                 | 16,6            | 500                | Wood veneer               |

M: weight, EP: electric power

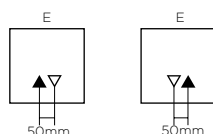
**FINISHES**

| <b>Powder-coated finish</b>      | <b>Code</b>             | <b>Extra charge on RAL 9016</b> |
|----------------------------------|-------------------------|---------------------------------|
| White (RAL 9016)                 | 9016                    | —                               |
| Pure, Optimism and Elemental     | See Runtal colour chart |                                 |
| Le Corbusier                     | See Runtal colour chart |                                 |
| <b>Anodised aluminium finish</b> | <b>Code</b>             |                                 |
| Natural                          | 9501                    |                                 |
| Black                            | 9505                    |                                 |
| <b>Wood veneer finish</b>        | <b>Code</b>             |                                 |
| Wenge                            | 9601                    |                                 |
| Oak                              | 9603                    |                                 |
| Macassar                         | 9604                    |                                 |

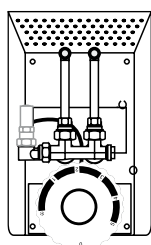
## TECHNICAL DATA

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Materials               | Cover in aluminium, powder-coated standard in white RAL9016 (9016), available in all colour as per Runtal colour chart and anodised aluminium/wood veneer as per finishes listed. Rear (in aluminium), connection box and wall brackets painted in colour of radiator, black matt for wood veneer finishes and anodised aluminium, laterals in composite black matt slant to 45°                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Central heating version | Core with copper Ø 12 mm heating register embedded in a honeycomb structure made from aluminium which is enclosed by expanded natural graphite                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Operating pressure      | Max. 6 bar                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Test pressure           | 7,8 bar                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Operating temperature   | Max. 80 °C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Standard kit            | Wall brackets and assembly kit included in packaging                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Connections             | <p>Standard with connection and valve integrated in the connection box at rear</p> <p>Kit including:</p> <ul style="list-style-type: none"> <li>- connection box covering valves and connections</li> <li>- angled valve with integrated lockshield, 50 mm pipe centres, thermostatic head with preinstalled control element for regulation underneath</li> <li>- flexible tubes for connection on valve and on connections of radiator</li> <li>- movable fixing for easy mounting and service access</li> <li>- <b>Please indicate at order one type of compression fittings <math>\frac{3}{4}</math>" EUROCONUS to be included in packaging:</b> <ul style="list-style-type: none"> <li>- copper pipe Ø 12 mm</li> <li>- copper pipe Ø 14 mm</li> <li>- copper pipe Ø 15 mm</li> <li>- multilayer pipe Ø 14 x 2 mm</li> <li>- multilayer pipe Ø 16 x 2 mm</li> <li>- plastic pipe PER Ø 12 x 1.1 mm</li> </ul> </li> </ul> |

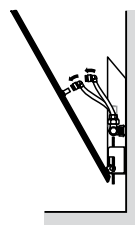
Flow ▲ / return ▼, air vent (E) Ø ½" at back side



Flow, return at choice  
left- or right-hand side



FRONT VIEW  
connection box

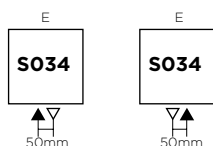


SIDE VIEW  
box and radiator

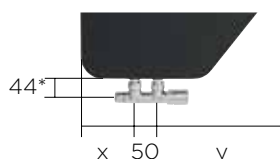


FRONT VIEW  
control element for regulation

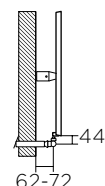
Connections on request, 2 connections Ø ½", centric 50 mm pipe centres, vertical entry underneath, Flow ▲/ return ▼, air vent (E) Ø ½" at rear



Centric 50 mm pipe centre connection: flow, return at choice  
left- or right-hand side.  
Model specifica **FC**tion: **-...-** (without the K letter)



FRONT VIEW



SIDE VIEW

\* Size with runtal radval and runtal radval xs valve. This dimension varies according to the valve selected

**Width 450 mm: x= 125 mm, y= 275 mm**

**Width 550 mm: x= 175 mm, y= 325 mm**

NB: The connection must be made in accordance with the required specifications

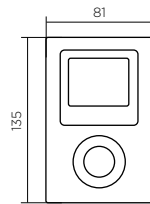


Valves

As per ACCESSORIES price list

Electric version

Core with heating cord embedded in a honeycomb structure made from aluminium which is enclosed by expanded natural graphite



Control unit radio  
remote-controlled

Mains voltage: 230 V, 50 Hz  
Mains connection: 1,2 m cable (white) with CEE 7/17 plug  
Degree of protection: Class II (IP44)

- Functions:
- Daily and weekly program
  - Room temperature control
  - Operating modes: frost protection, economy program, comfort, automatic, manual, off
  - Wall-mounted or free-standing

Electric connection

The electrical connection must be performed by an electrician in accordance with applicable regulations

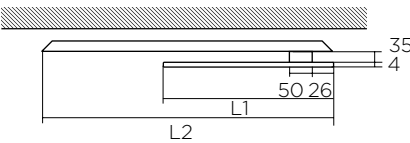
Towel bar



One or two towel bars depending of model (as per table below), chrome-plated, dimension 40 x 4 mm, to be mounted at predefined height/position, included in delivery/packaging, position symmetrical on models with 2 bars.

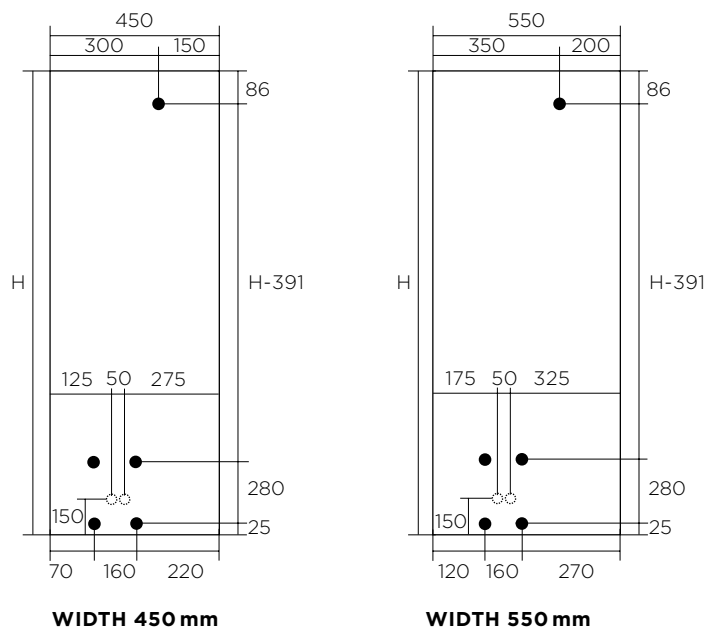
| Model                                        | nr. of bars | L1<br>mm | L2<br>mm |
|----------------------------------------------|-------------|----------|----------|
| FCK-120-045/<br>FCE-120-045/<br>FCES-120-045 | 1           | 350      | 450      |
| FCK-120-055                                  | 1           | 450      | 550      |
| FCK-150-045/<br>FCE-150-045/<br>FCES-150-045 | 2           | 350      | 450      |
| FCK-150-055                                  | 2           | 450      | 550      |
| FCK-180-045/<br>FCE-180-045/<br>FCES-180-045 | 2           | 350      | 450      |
| FCK-180-055/<br>FCE-180-055/<br>FCES-180-055 | 2           | 450      | 550      |

L1: length of radiator, L2: length of towel bar

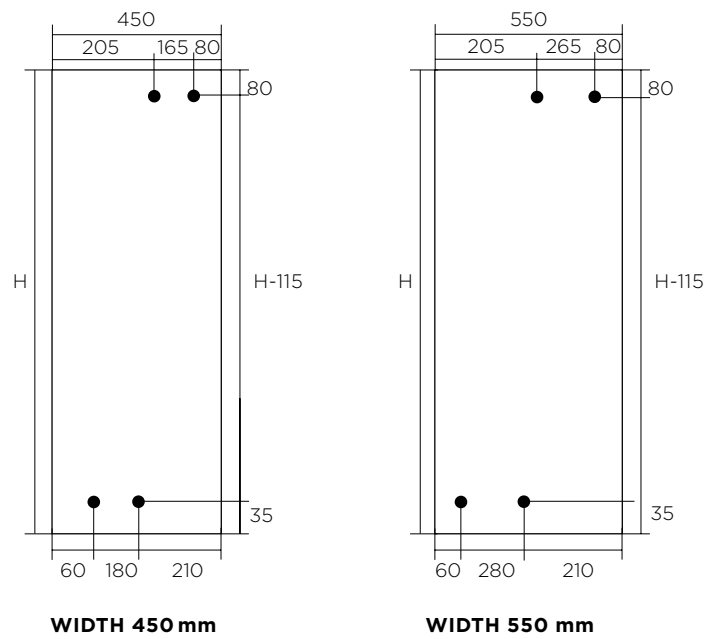


# RUNTAL FOLIO CORNER MOUNTING INSTRUCTIONS

## CENTRAL HEATING VERSION - MODEL FCK WITH STANDARD CONNECTION



## CENTRAL HEATING VERSION - MODEL FC WITH CONNECTIONS S034 ON REQUEST / ELECTRIC ONLY VERSION - MODEL FCE AND FCES



- H Height (mm)
- Fixing point
- Exit of tubes from wall for connection on valve with standard connections

For correct radiator installation, please note the corresponding installation instructions



# RUNTAL QUARUS

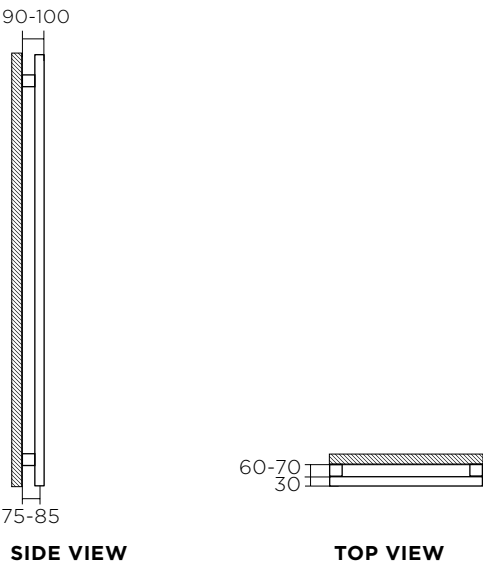
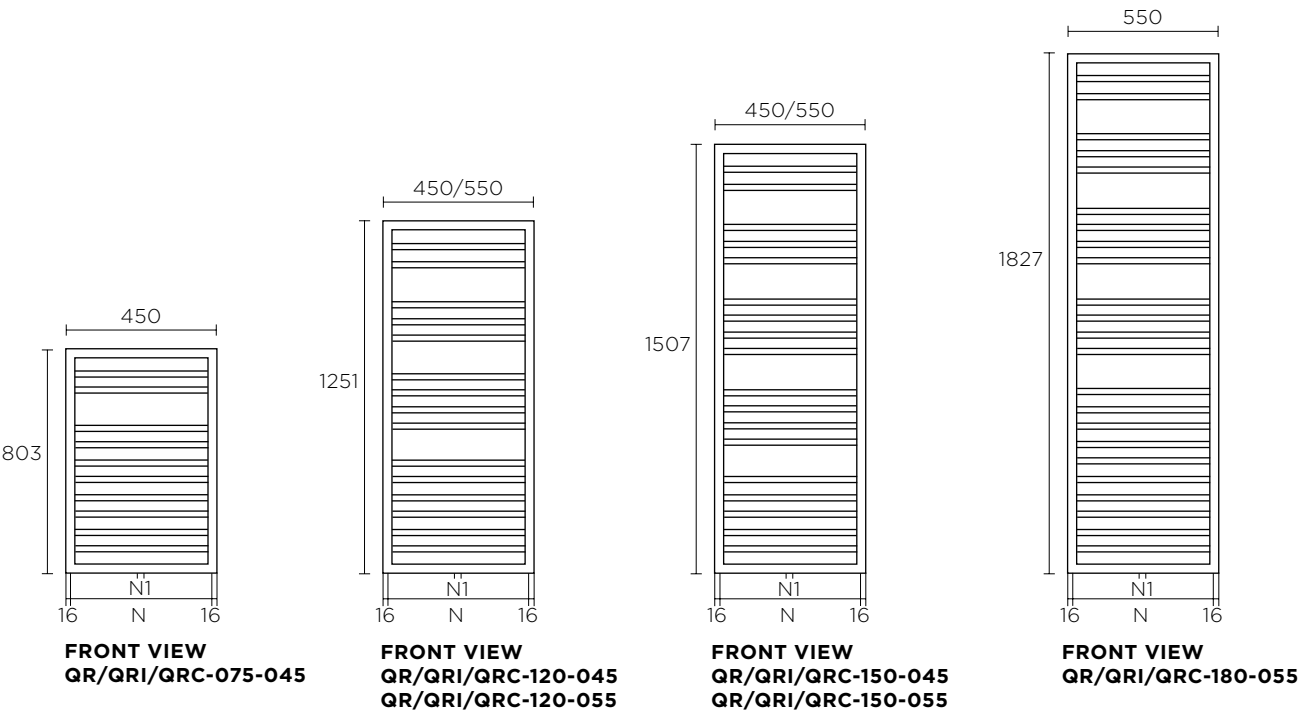
## RUNTAL DESIGN STUDIO

All RUNTAL QUARUS elements feature a square cross-section. The horizontal heating tubes are 25 mm thick and run into the 30 mm-thick manifolds at the sides. Depending on the design concerned, up to four recesses are provided for hanging up and drying bath towels. RUNTAL QUARUS is designed to be connected to the central heating and can also be equipped for dual energy or electric only operation by means of an optional immersion heater. It is available in six different sizes and with a chrome-plated, stainless steel brushed or powdercoated finish in all colours of the Runtal colour chart.

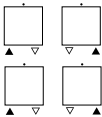


# RUNTAL QUARUS TECHNICAL SPECIFICATIONS

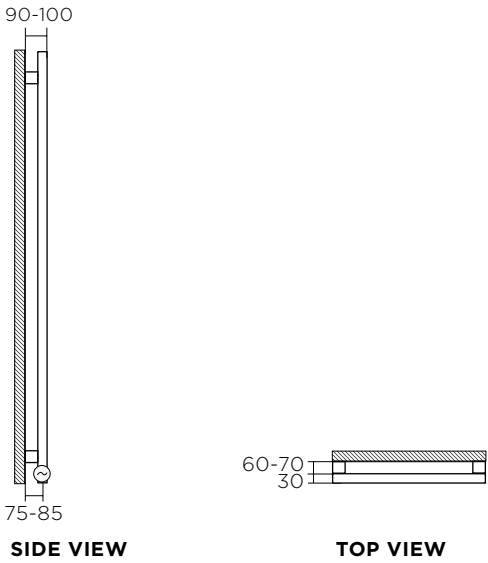
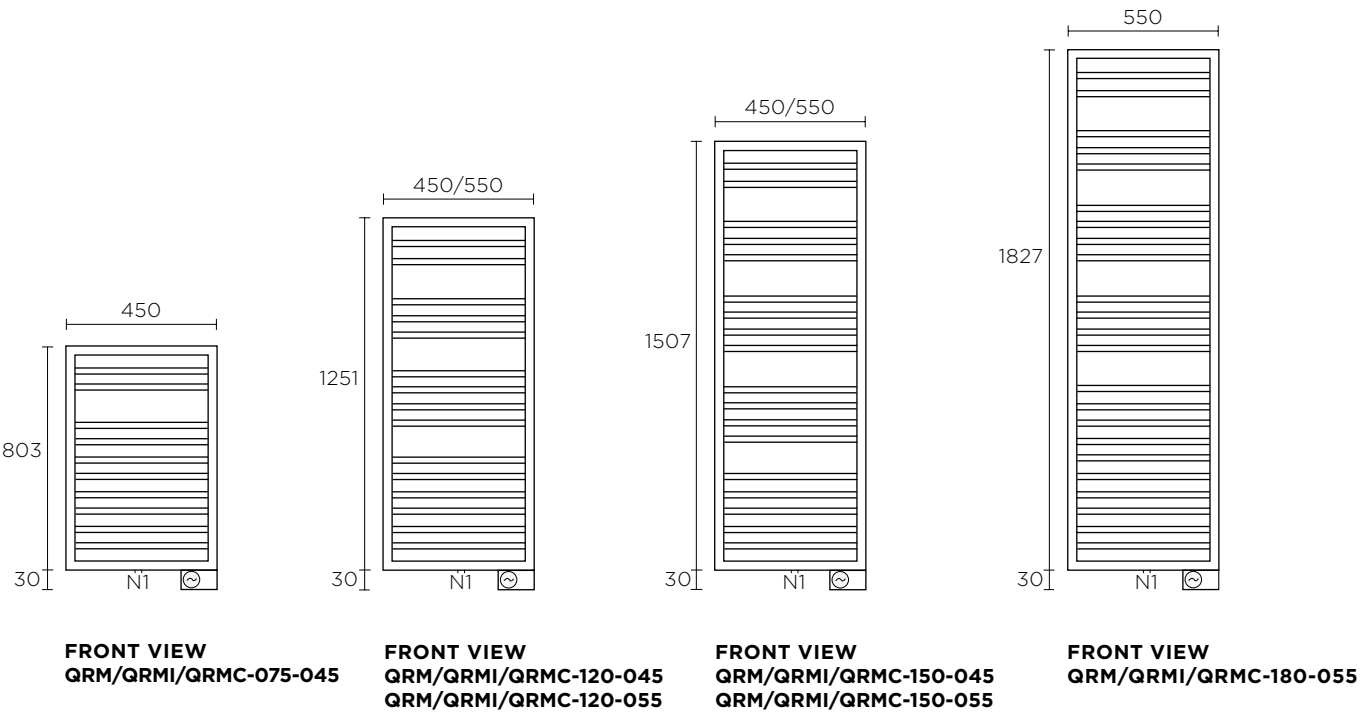
## CENTRAL HEATING VERSION



- N Pipe centres with bottom opposite ends connections
- N1 Pipe centres with 50 mm central connections

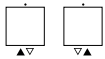


DUAL ENERGY VERSION

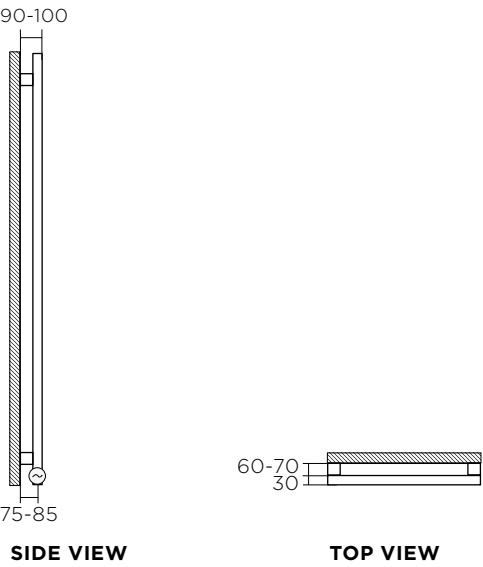
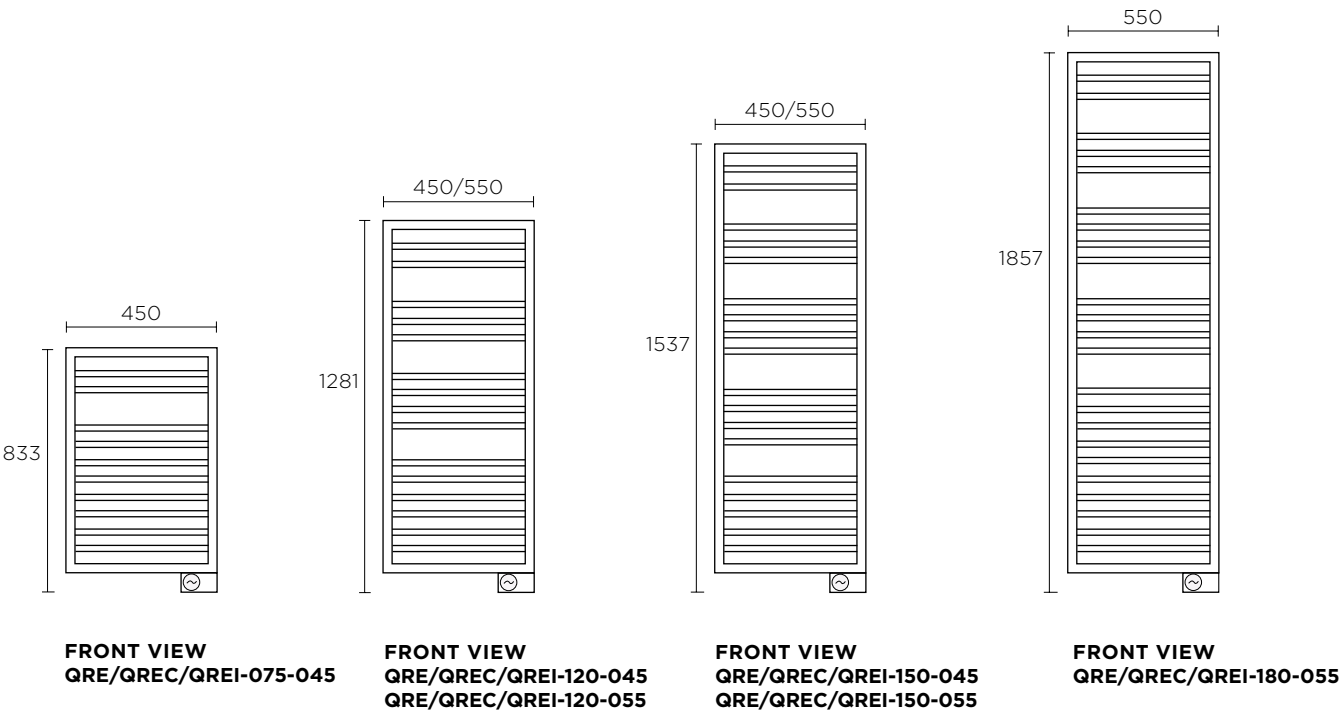


N1 Pipe centres with 50 mm central connections

⊙ Immersion heater



**ELECTRIC VERSION**



⊖ Immersion heater



# RUNTAL QUARUS

## CENTRAL HEATING VERSION

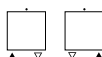
| Height<br>803 mm | Width<br>mm | N<br>mm | N1<br>mm | V<br>dm <sup>3</sup> | M<br>kg | n     | P <sub>ΔT 50K</sub><br>Watt | Surface<br>(Code)              |
|------------------|-------------|---------|----------|----------------------|---------|-------|-----------------------------|--------------------------------|
| QR-075-045       | 450         | 418     | 50       | 3,7                  | 7,5     | 1,229 | 332                         | White RAL9016 (9016)           |
| QRC-075-045      | 450         | 418     | 50       | 3,7                  | 7,1     | 1,269 | 206                         | Chrome (0008)                  |
| QRI-075-045      | 450         | 418     | 50       | 3,7                  | 7,1     | 1,268 | 222                         | Stainless steel brushed (9517) |

| Height<br>1.251 mm | Width<br>mm | N<br>mm | N1<br>mm | V<br>dm <sup>3</sup> | M<br>kg | n     | P <sub>ΔT 50K</sub><br>Watt | Surface<br>(Code)              |
|--------------------|-------------|---------|----------|----------------------|---------|-------|-----------------------------|--------------------------------|
| QR-120-045         | 450         | 418     | 50       | 5,4                  | 10,3    | 1,237 | 493                         | White RAL9016 (9016)           |
| QRC-120-045        | 450         | 418     | 50       | 5,4                  | 9,8     | 1,275 | 313                         | Chrome (0008)                  |
| QRI-120-045        | 450         | 418     | 50       | 5,4                  | 9,8     | 1,269 | 330                         | Stainless steel brushed (9517) |
| QR-120-055         | 550         | 518     | 50       | 6,3                  | 12,0    | 1,238 | 580                         | White RAL9016 (9016)           |
| QRC-120-055        | 550         | 518     | 50       | 6,3                  | 11,6    | 1,269 | 376                         | Chrome (0008)                  |
| QRI-120-055        | 550         | 518     | 50       | 6,2                  | 11,6    | 1,263 | 388                         | Stainless steel brushed (9517) |

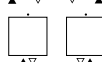
| Height<br>1.507 mm | Width<br>mm | N<br>mm | N1<br>mm | V<br>dm <sup>3</sup> | M<br>kg | n     | P <sub>ΔT 50K</sub><br>Watt | Surface<br>(Code)              |
|--------------------|-------------|---------|----------|----------------------|---------|-------|-----------------------------|--------------------------------|
| QR-150-045         | 450         | 418     | 50       | 6,5                  | 11,9    | 1,243 | 588                         | White RAL9016 (9016)           |
| QRC-150-045        | 450         | 418     | 50       | 6,5                  | 11,3    | 1,288 | 371                         | Chrome (0008)                  |
| QRI-150-045        | 450         | 418     | 50       | 6,4                  | 11,3    | 1,282 | 393                         | Stainless steel brushed (9517) |
| QR-150-055         | 550         | 518     | 50       | 7,4                  | 14,0    | 1,244 | 694                         | White RAL9016 (9016)           |
| QRC-150-055        | 550         | 518     | 50       | 7,4                  | 13,4    | 1,287 | 443                         | Chrome (0008)                  |
| QRI-150-055        | 550         | 518     | 50       | 7,3                  | 13,4    | 1,281 | 464                         | Stainless steel brushed (9517) |

| Height<br>1.827 mm | Width<br>mm | N<br>mm | N1<br>mm | V<br>dm <sup>3</sup> | M<br>kg | n     | P <sub>ΔT 50K</sub><br>Watt | Surface<br>(Code)              |
|--------------------|-------------|---------|----------|----------------------|---------|-------|-----------------------------|--------------------------------|
| QR-180-055         | 550         | 518     | 50       | 9,2                  | 16,9    | 1,237 | 851                         | White RAL9016 (9016)           |
| QRC-180-055        | 550         | 518     | 50       | 9,2                  | 16,1    | 1,281 | 544                         | Chrome (0008)                  |
| QRI-180-055        | 550         | 518     | 50       | 8,9                  | 16,1    | 1,273 | 569                         | Stainless steel brushed (9517) |

N Pipe centres with bottom opposite ends connections



N1 Pipe centres with 50 mm central connections



V: Volume, M: weight, n: exponent, P<sub>ΔT 50K</sub>: EN442 output,

## DUAL ENERGY VERSION

| Height*<br>833 mm | Width<br>mm | N1<br>mm | V<br>dm <sup>3</sup> | M<br>kg | n     | P ΔT 50K<br>Watt | EP<br>Watt* | Surface<br>(Code)    |
|-------------------|-------------|----------|----------------------|---------|-------|------------------|-------------|----------------------|
| QRM-075-045/ID    | 450         | 50       | 3,7                  | 8,2     | 1,229 | 332              | 300         | White RAL9016 (9016) |

| Height*<br>1.281 mm | Width<br>mm | N1<br>mm | V<br>dm <sup>3</sup> | M<br>kg | n     | P ΔT 50K<br>Watt | EP<br>Watt* | Surface<br>(Code)              |
|---------------------|-------------|----------|----------------------|---------|-------|------------------|-------------|--------------------------------|
| QRM-120-045/ID      | 450         | 50       | 5,4                  | 10,9    | 1,237 | 493              | 300         | White RAL9016 (9016)           |
| QRCM-120-045/ID     | 450         | 50       | 5,4                  | 10,4    | 1,275 | 313              | 300         | Chrome (0008)                  |
| QRMI-120-045/ID     | 450         | 50       | 5,4                  | 10,4    | 1,269 | 330              | 300         | Stainless steel brushed (9517) |
| QRM-120-055/ID      | 550         | 50       | 6,3                  | 12,6    | 1,238 | 580              | 500         | White RAL9016 (9016)           |
| QRCM-120-055/ID     | 550         | 50       | 6,3                  | 12,2    | 1,269 | 376              | 300         | Chrome (0008)                  |
| QRMI-120-055/ID     | 550         | 50       | 6,2                  | 12,2    | 1,263 | 388              | 300         | Stainless steel brushed (9517) |

| Height*<br>1.537 mm | Width<br>mm | N1<br>mm | V<br>dm <sup>3</sup> | M<br>kg | n     | P ΔT 50K<br>Watt | EP<br>Watt* | Surface<br>(Code)              |
|---------------------|-------------|----------|----------------------|---------|-------|------------------|-------------|--------------------------------|
| QRM-150-045/ID      | 450         | 50       | 6,5                  | 12,5    | 1,243 | 588              | 500         | White RAL9016 (9016)           |
| QRCM-150-045/ID     | 450         | 50       | 6,5                  | 11,9    | 1,288 | 371              | 300         | Chrome (0008)                  |
| QRMI-150-045/ID     | 450         | 50       | 6,4                  | 11,9    | 1,282 | 393              | 300         | Stainless steel brushed (9517) |
| QRM-150-055/ID      | 550         | 50       | 7,4                  | 14,6    | 1,244 | 694              | 600         | White RAL9016 (9016)           |
| QRCM-150-055/ID     | 550         | 50       | 7,4                  | 14,0    | 1,287 | 443              | 300         | Chrome (0008)                  |
| QRMI-150-055/ID     | 550         | 50       | 7,3                  | 14,0    | 1,281 | 464              | 300         | Stainless steel brushed (9517) |

| Height*<br>1.857 mm | Width<br>mm | N1<br>mm | V<br>dm <sup>3</sup> | M<br>kg | n     | P ΔT 50K<br>Watt | EP<br>Watt* | Surface<br>(Code)              |
|---------------------|-------------|----------|----------------------|---------|-------|------------------|-------------|--------------------------------|
| QRM-180-055/ID      | 550         | 50       | 9,2                  | 17,5    | 1,237 | 851              | 750         | White RAL9016 (9016)           |
| QRCM-180-055/ID     | 550         | 50       | 9,2                  | 16,7    | 1,281 | 544              | 500         | Chrome (0008)                  |
| QRMI-180-055/ID     | 550         | 50       | 8,9                  | 16,7    | 1,273 | 569              | 500         | Stainless steel brushed (9517) |

Height\*: immersion heater included

N Pipe centres with bottom opposite ends connections 

V: Volume, M: weight, n: exponent, P ΔT 50K: EN442 output, EP Watt\*: output of immersion heater for dual energy version,

## ELECTRIC VERSION

| Height<br>833 mm | Width<br>mm | M<br>kg | EP<br>Watt | Surface<br>(Code)    |
|------------------|-------------|---------|------------|----------------------|
| QRE-075-045/ID   | 450         | 11,3    | 300        | White RAL9016 (9016) |

| Height<br>1.281 mm | Width<br>mm | M<br>kg | EP<br>Watt | Surface<br>(Code)              |
|--------------------|-------------|---------|------------|--------------------------------|
| QRE-120-045/ID     | 450         | 15,4    | 300        | White RAL9016 (9016)           |
| QREC-120-045/ID    | 450         | 14,9    | 300        | Chrome (0008)                  |
| QREI-120-045/ID    | 450         | 14,9    | 300        | Stainless steel brushed (9517) |
| QRE-120-055/ID     | 550         | 17,9    | 500        | White RAL9016 (9016)           |
| QREC-120-055/ID    | 550         | 17,5    | 300        | Chrome (0008)                  |
| QREI-120-055/ID    | 550         | 17,4    | 300        | Stainless steel brushed (9517) |

| Height<br>1.537 mm | Width<br>mm | M<br>kg | EP<br>Watt | Surface<br>(Code)              |
|--------------------|-------------|---------|------------|--------------------------------|
| QRE-150-045/ID     | 450         | 17,9    | 500        | White RAL9016 (9016)           |
| QREC-150-045/ID    | 450         | 17,3    | 300        | Chrome (0008)                  |
| QREI-150-045/ID    | 450         | 17,3    | 300        | Stainless steel brushed (9517) |
| QRE-150-055/ID     | 550         | 20,8    | 600        | White RAL9016 (9016)           |
| QREC-150-055/ID    | 550         | 20,2    | 300        | Chrome (0008)                  |
| QREI-150-055/ID    | 550         | 20,1    | 300        | Stainless steel brushed (9517) |

| Height<br>1.857 mm | Width<br>mm | M<br>kg | EP<br>Watt | Surface<br>(Code)              |
|--------------------|-------------|---------|------------|--------------------------------|
| QRE-180-055/ID     | 550         | 25,1    | 750        | White RAL9016 (9016)           |
| QREC-180-055/ID    | 550         | 24,3    | 500        | Chrome (0008)                  |
| QREI-180-055/ID    | 550         | 24,1    | 500        | Stainless steel brushed (9517) |

M: weight, EP: output immersion heater,

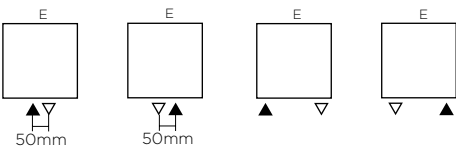
### Example of coding for order of product

|                       |                       |
|-----------------------|-----------------------|
| <b>QRE-150-055/ID</b> | <b>9016</b>           |
| model<br>of radiator  | colour code of finish |

| FINISH                    | Code                       | Additional charge to RAL9016 |
|---------------------------|----------------------------|------------------------------|
| White RAL9016 (standard)  | 9016                       | -                            |
| Pure, Optimism, Elemental | as per Runtal colour chart |                              |
| Le Corbusier              | as per Runtal colour chart |                              |

TECHNICAL DATA

|                       |                                                                                                                                                                                                                                      |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Materials             | Header all around made of squared steel tubes 30 x 30 mm, horizontal tubes 25 x 25 mm, powder-coated in white RAL9016 (9016), in all other colours of the Runtal colour chart, chrome plated (0008) or ground stainless steel (9517) |
| Operating pressure    | Max. 10 bar                                                                                                                                                                                                                          |
| Test pressure         | 13 bar                                                                                                                                                                                                                               |
| Operating temperature | Max. 110 °C                                                                                                                                                                                                                          |
| Standard kit          | Wall brackets in same colour as radiator and assembly kit included in packaging                                                                                                                                                      |
| Connections           | With the standard connections 4x½" internal thread, the following connections are possible. ½" flow ▲/ return ▼ on left or right, bottom vertical, 50 mm central or opposite sides, ½" air vent (E) at back side                     |



flow can be on left or right side for bottom opposite ends or 50 mm central connections

NB: The connection must be made in accordance with the required specifications

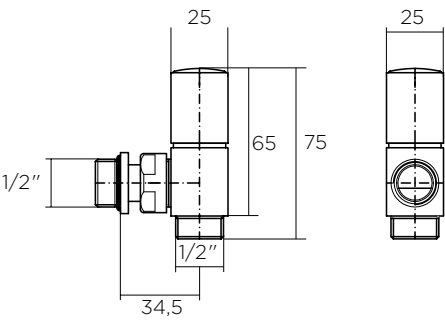
Valves



RUNTAL HOTCUBE kit

HOTCUBE-KIT-790 (Code 853688)

Kit includes: Valve and lockshield valve HOTCUBE (for RUNTAL QUARUS) chrome, one pair of compression fittings ½" for copper pipe Ø 12 mm, Ø 14 mm and Ø 15 mm, one pair of compression ½" for multilayer pipe Ø 14x2 mm, Ø 16x2 mm and Ø 16x2.25 mm.



Characteristics of immersion heater

Functions:

- Immersion heater with infrared control unit (function with batteries).
- Room temperature control
- Daily and weekly program
- Operating modes: frost protection
- Economy program, comfort, automatic, manual, off
- Wall-mounted or free-standing

Characteristics:

- Mains voltage: 230 V, 50 Hz
- Heat output: 300, 500, 600 or 900 W
- Mains connection: 1,2 m power cable with CEE 7/17 plug
- Degree of protection: Class II (IP 44)
- Control unit 135 x 81 mm
- Receiver 120 x 30 x 30 mm

Control unit



Electric version



The immersion heater is positioned on the bottom right side

Dual energy version



The immersion heater is pre-fitted and positioned on the bottom right side. Valves have to be installed on the 50 mm central connection. The thermostatic head has to be on the left side in case of a 50 mm central connection valve (square or straight). The valve is not included in the delivery. We recommend to use the valve kit RUNTAL HOTCUBE.

Dual energy towel drying radiators continue to offer warmth and comfort throughout the home during summer months when the central heating system is not in use

ATTENTION:

To switch heating operations:

FOR SUMMER USE:

- switch off central heating
- vent the radiator to ensure that there is no air present and make sure that the heating circuit is filled with water
- close the flow valve (only)
- activate the immersion heater as required

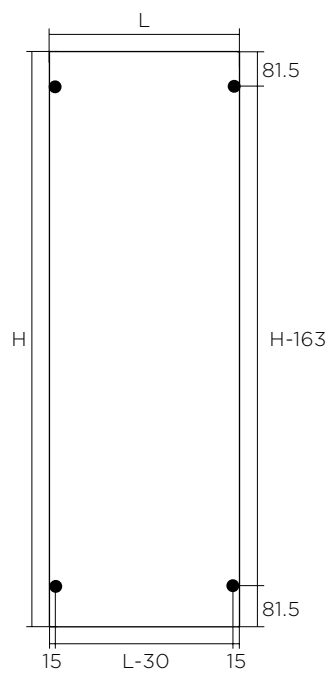
FOR WINTER USE:

- de-activate the immersion heater
- open the flow valve

Position of electrical connection

The electrical connection must be performed by an electrician in accordance with applicable regulations

## RUNTAL QUARUS MOUNTING INSTRUCTIONS



H Height (mm)

L Length (mm)

● Fixing point

For correct installation, please note the corresponding installation instructions



# RUNTAL SPIRALE

PAUL PRIESTMAN

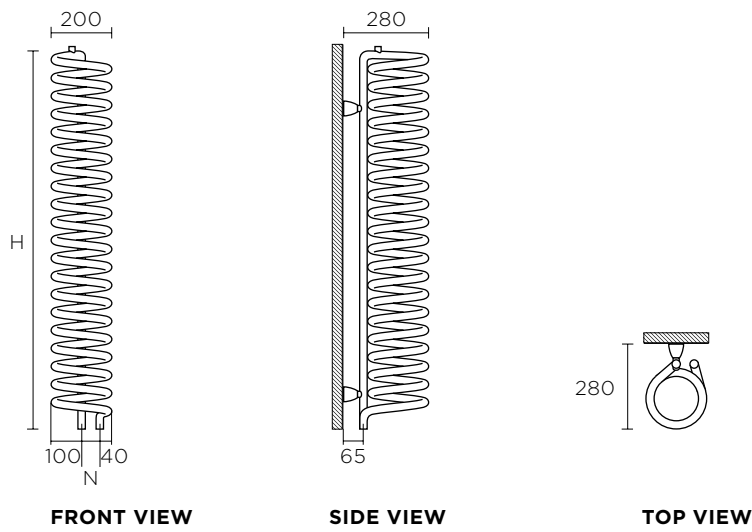
RUNTAL SPIRALE is attached vertically to the wall. The generous amount of space left between the individual arcs of the spiral means that towels can be put in easily and hung up to dry. The radiator is suitable for purely electrical operation or connection to a central heating system. RUNTAL SPIRALE is available in a chrome or powder-coated finish in white or as per Runtal colour chart.



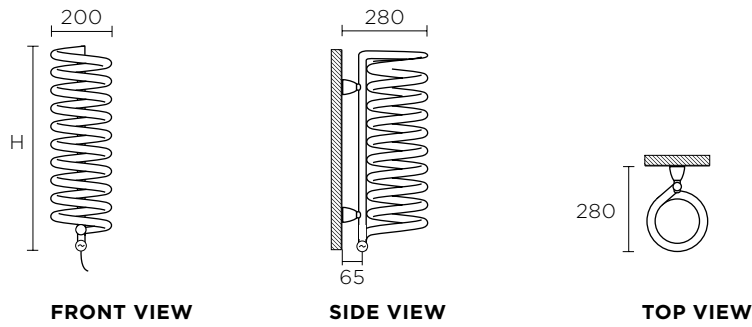


# RUNTAL SPIRALE TECHNICAL SPECIFICATIONS

## CENTRAL HEATING VERSION



## ELECTRIC ONLY VERSION



- $H$  Height (mm)
- $N$  Pipe centres (mm)
- ⊙ Electric immersion

# RUNTAL SPIRALE

## CENTRAL HEATING VERSION

| Height<br>662 mm | Diameter<br>mm | N<br>mm | V<br>dm <sup>3</sup> | M<br>kg | n    | P ΔT 50K<br>Watt | Surface<br>(Code)    |
|------------------|----------------|---------|----------------------|---------|------|------------------|----------------------|
| SPIR-060-020     | 200            | 60      | 2,3                  | 7,5     | 1,23 | 308              | White RAL9016 (9016) |
| SPIRC-060-020    | 200            | 60      | 2,3                  | 7,8     | 1,24 | 231              | Chrome (0008)        |

| Height<br>1.262 mm | Diameter<br>mm | N<br>mm | V<br>dm <sup>3</sup> | M<br>kg | n    | P ΔT 50K<br>Watt | Surface<br>(Code)    |
|--------------------|----------------|---------|----------------------|---------|------|------------------|----------------------|
| SPIR-120-020       | 200            | 60      | 4,5                  | 14,3    | 1,25 | 606              | White RAL9016 (9016) |
| SPIRC-120-020      | 200            | 60      | 4,5                  | 14,6    | 1,27 | 426              | Chrome (0008)        |

| Height<br>1.562 mm | Diameter<br>mm | N<br>mm | V<br>dm <sup>3</sup> | M<br>kg | n    | P ΔT 50K<br>Watt | Surface<br>(Code)    |
|--------------------|----------------|---------|----------------------|---------|------|------------------|----------------------|
| SPIR-150-020       | 200            | 60      | 5,6                  | 16,8    | 1,25 | 755              | White RAL9016 (9016) |
| SPIRC-150-020      | 200            | 60      | 5,6                  | 16,9    | 1,25 | 540              | Chrome (0008)        |

| Height<br>1.862 mm | Diameter<br>mm | N<br>mm | V<br>dm <sup>3</sup> | M<br>kg | n    | P ΔT 50K<br>Watt | Surface<br>(Code)    |
|--------------------|----------------|---------|----------------------|---------|------|------------------|----------------------|
| SPIR-180-020       | 200            | 60      | 6,5                  | 19,5    | 1,25 | 884              | White RAL9016 (9016) |
| SPIRC-180-020      | 200            | 60      | 6,5                  | 20,1    | 1,27 | 654              | Chrome (0008)        |

N: pipe centres, V: volume, M: weight, n: exponent, P ΔT 50K: EN442 output,

## ELECTRIC ONLY VERSION

| Height<br>649 mm  | Diameter<br>mm | M<br>kg | EP<br>Watt | Surface<br>(Code)    |
|-------------------|----------------|---------|------------|----------------------|
| SPIRE-060-020/AD  | 200            | 10,0    | 200        | White RAL9016 (9016) |
| SPIREC-060-020/AD | 200            | 10,3    | 200        | Chrome (0008)        |

| Height<br>1.250 mm | Diameter<br>mm | M<br>kg | EP<br>Watt | Surface<br>(Code)    |
|--------------------|----------------|---------|------------|----------------------|
| SPIRE-120-020/AD   | 200            | 19,0    | 400        | White RAL9016 (9016) |
| SPIREC-120-020/AD  | 200            | 19,2    | 400        | Chrome (0008)        |

| Height<br>1.610 mm | Diameter<br>mm | M<br>kg | EP<br>Watt | Surface<br>(Code)    |
|--------------------|----------------|---------|------------|----------------------|
| SPIRE-150-020/AD   | 200            | 22,6    | 500        | White RAL9016 (9016) |
| SPIREC-150-020/AD  | 200            | 22,7    | 500        | Chrome (0008)        |

| Height<br>1.790 mm | Diameter<br>mm | M<br>kg | EP<br>Watt | Surface<br>(Code)    |
|--------------------|----------------|---------|------------|----------------------|
| SPIRE-180-020/AD   | 200            | 26,2    | 600        | White RAL9016 (9016) |
| SPIREC-180-020/AD  | 200            | 26,8    | 600        | Chrome (0008)        |

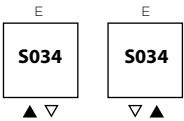
M: weight, EP: electric power

## FINISHES

| Powder-coated finish         | Code                    | Extra charge on RAL 9016 |
|------------------------------|-------------------------|--------------------------|
| White RAL9016 (standard)     | 9016                    |                          |
| Pure, Optimism and Elemental | See Runtal colour chart |                          |
| Le Corbusier                 | See Runtal colour chart |                          |

**TECHNICAL DATA**

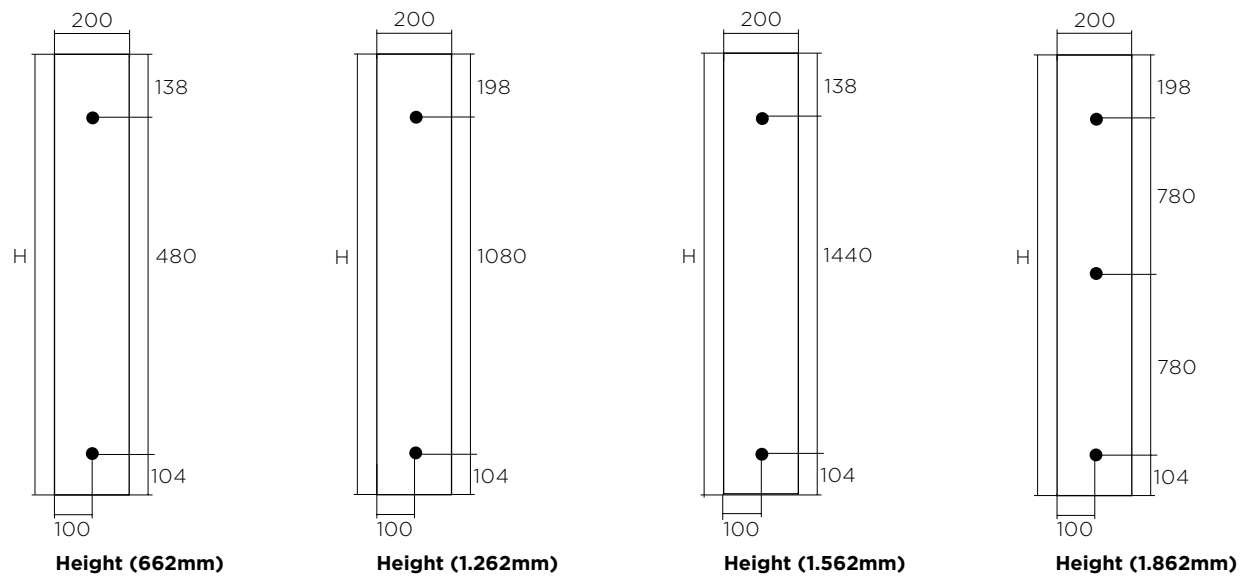
|                       |                                                                                                                                                                                                        |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Materials             | Steel Ø 25 mm tube, chrome (0008) or powder-coated in white RAL9016 (9016), or as per Runtal colour chart                                                                                              |
| Operating pressure    | Max. 12 bar                                                                                                                                                                                            |
| Test pressure         | 18 bar                                                                                                                                                                                                 |
| Operating temperature | Max. 95 °C                                                                                                                                                                                             |
| Standard kit          | Brackets in the finish of the radiator, screws and plugs, ½" air vent included in the packaging                                                                                                        |
| Connections           | With the standard Ø ½" connections with internal thread, the following types of connections are possible. Flow ▲ /return ▼ at choice on left- or right-hand at bottom opposite side, Ø ½" air vent (E) |



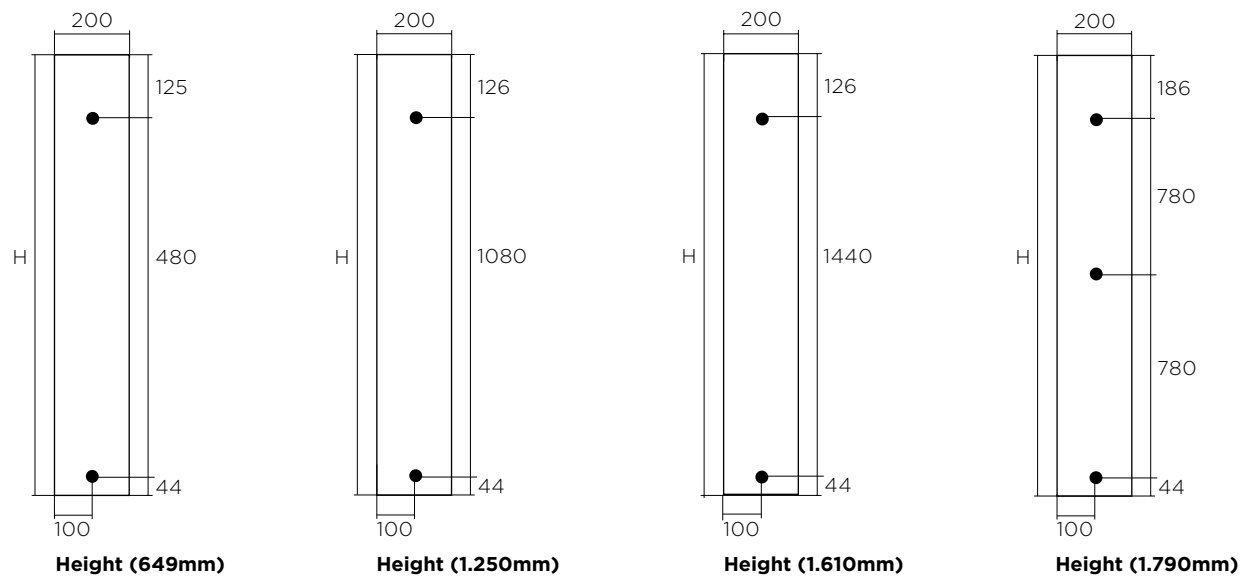
|                     |                                                                                                                                                            |
|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                     | NB: The connection must be made in accordance with the required specifications                                                                             |
| Electric-only model | Degree of protection: Class II IP44 (splash water) with CE-marking<br>Mains voltage: 230 V, 50 Hz +/- 10%<br>Mains connection: 1,2 m power cable with plug |
| Valves              | As per ACCESSORIES price list                                                                                                                              |

# RUNTAL SPIRALE MOUNTING INSTRUCTIONS

## CENTRAL HEATING VERSION



## ELECTRIC ONLY VERSION



H Height (mm)  
● Fixing point

For correct installation, please note the corresponding installation instructions



# RUNTAL SPLASH

CHRISTIAN GHION

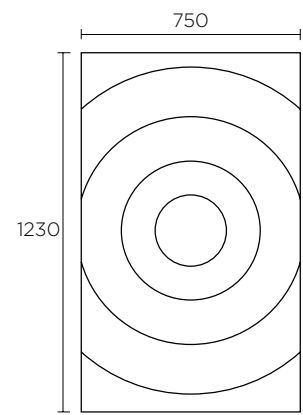
The innovative RUNTAL SPLASH designer radiator comprises a decorative Corian® front and a supporting structure in expanded natural graphite. The electrically operated heating elements embedded in the graphite layer ensure fast and uniform heat distribution — and the necessary 750 watt heating power. RUNTAL SPLASH is adjusted by a programmable control unit.



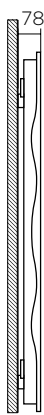


# RUNTAL SPLASH TECHNICAL SPECIFICATIONS

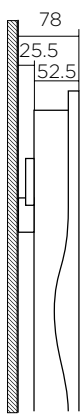
## ELECTRIC ONLY VERSION



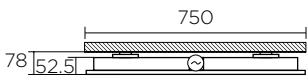
**FRONT VIEW VERTICAL**  
750 x 1230 mm



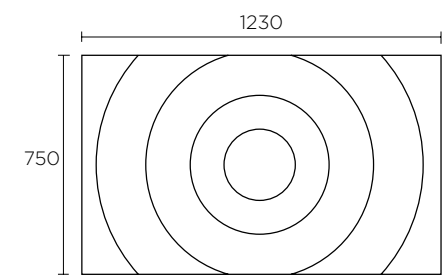
**SIDE VIEW**



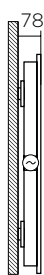
**DETAIL SIDE VIEW**



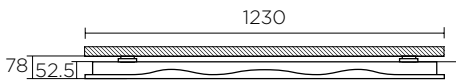
**TOP VIEW**



**FRONT VIEW HORIZONTAL**  
1230 x 750 mm



**SIDE VIEW**



**TOP VIEW**

⊖ Electric box

## RUNTAL SPLASH PRICE LIST

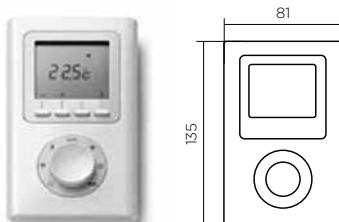
### ELECTRIC ONLY VERSION

| <b>Height</b><br><b>1.230 mm</b>  | <b>Width</b><br>mm | <b>M</b><br>kg | <b>EP</b><br>Watt | <b>Surface</b><br>(Code) |
|-----------------------------------|--------------------|----------------|-------------------|--------------------------|
| SPAE-120-075/BP<br>(with plug)    | 750                | 30             | 750               | Corian®, Glacier White   |
| SPAE-120-075/BF<br>(without plug) | 750                | 30             | 750               | Corian®, Glacier White   |

M: weight, EP: electric power,

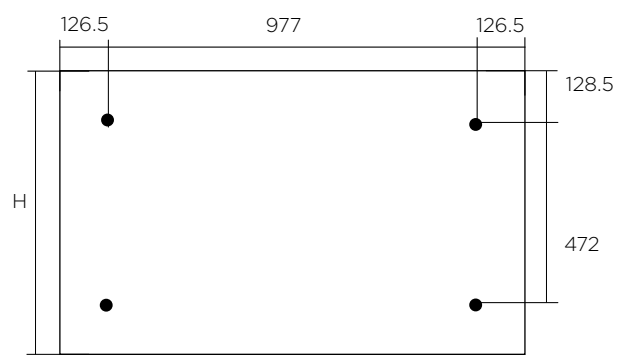
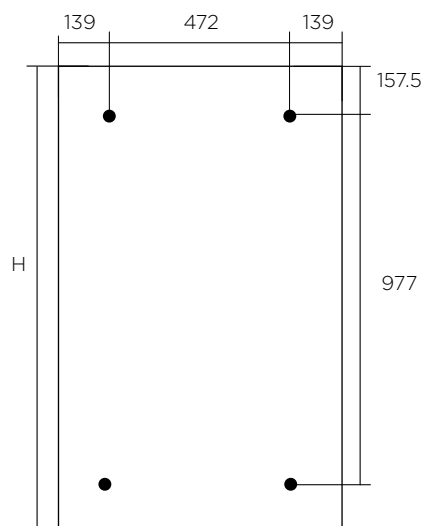
## TECHNICAL DATA

|                      |                               |
|----------------------|-------------------------------|
| Colour front         | Corian®, Glacier White        |
| Colour frame         | White RAL 9016                |
| Degree of protection | Class II IP44 with CE-marking |
| Thermostat           |                               |



|                                   |                                                                                                                                                                                                                                                                                                                           |
|-----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                   | <p>Control unit</p> <ul style="list-style-type: none"> <li>- Room temperature control</li> <li>- Daily and weekly program</li> <li>- Operating modes: frost protection</li> <li>- Economy program, comfort, automatic, manual, off</li> <li>- Wall-mounted or free-standing</li> <li>- Radio remote-controlled</li> </ul> |
| Mains voltage                     | 230 V, 50 Hz +/- 10 %                                                                                                                                                                                                                                                                                                     |
| Mains connection                  | <p>0.9 m white power cable (ideally concealed power supply)</p> <p>SPAE-120-075/BF (without plug)</p> <p>SPAE-120-075/BP (with 2 pole Euro plug T11)</p>                                                                                                                                                                  |
| Standard kit                      | Brackets in the same colour as the radiator, screws and plugs included in the packaging                                                                                                                                                                                                                                   |
| Position of electrical connection | The electrical connection must be performed by an electrician in accordance with applicable regulations                                                                                                                                                                                                                   |

## RUNTAL SPLASH MOUNTING INSTRUCTIONS



- H Height (mm)  
● Fixing point

For correct installation, please note the corresponding installation instructions



---

# RUNTAL ACCESSORIES

# RUNTAL RADVAL

Valve and lockshield  
valve angled

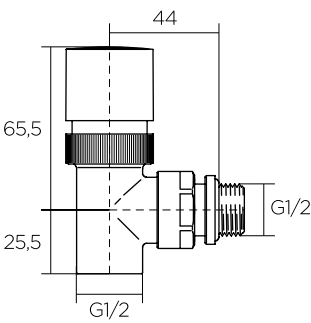


Valve

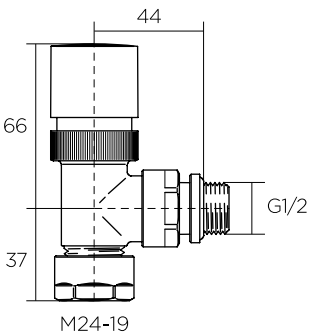


Lockshield valve

Valve angled



| Iron pipe connection | Code   |
|----------------------|--------|
| White                | 850041 |
| Chrome               | 850048 |

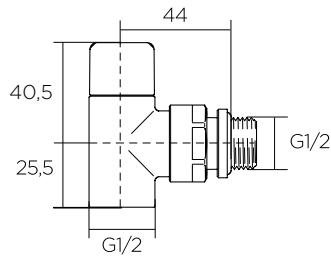


| Compression fitting connection | Code   |
|--------------------------------|--------|
| White                          | 850111 |
| Chrome                         | 850118 |

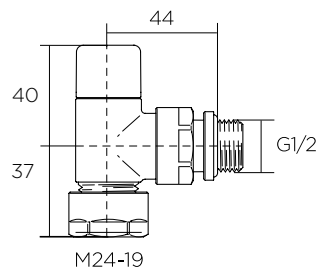
valves/lockshield valves don't include compression fittings



Lockshield valve angled



| Iron pipe connection | Code   |
|----------------------|--------|
| White                | 850021 |
| Chrome               | 850028 |



| Compression fitting connection | Code   |
|--------------------------------|--------|
| White                          | 850081 |
| Chrome                         | 850088 |

**Kit radval**

|        | Code   |               |
|--------|--------|---------------|
| Chrome | 850328 |               |
| White  | 850321 | <b>101,99</b> |

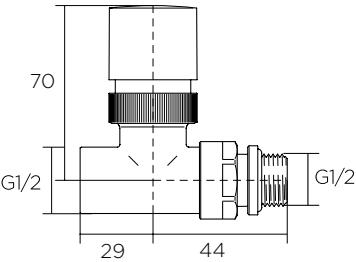
Kit composed by: Valve and lockshield valve angled white or chrome, one pair of compression fittings for copper pipe diameter 12/14 and one pair of compression fittings for multilayer pipe 16-12/14-10. For compression fittings different from provided see section runtal radval compression fittings.

# RUNTAL RADVAL

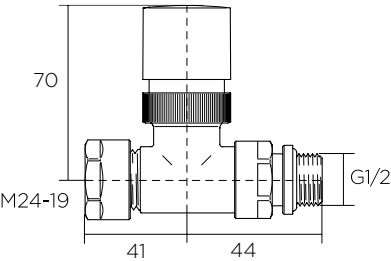
Valve and lockshield  
valve straight



Valve straight



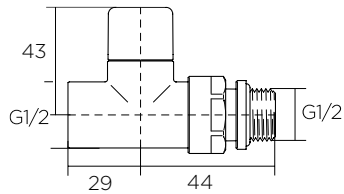
| Iron pipe connection | Code   |
|----------------------|--------|
| White                | 850051 |
| Chrome               | 850058 |



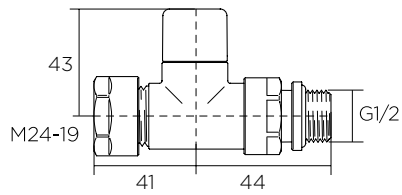
| Compression fitting connection | Code   |
|--------------------------------|--------|
| White                          | 850121 |
| Chrome                         | 850128 |

valves/lockshield valves don't include compression fittings

Lockshield valve straight



| Iron pipe connection | Code   |
|----------------------|--------|
| White                | 850031 |
| Chrome               | 850038 |



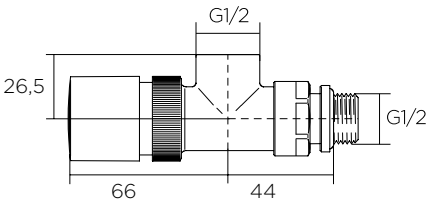
| Compression fitting connection | Code   |
|--------------------------------|--------|
| White                          | 850091 |
| Chrome                         | 850098 |

# RUNTAL RADVAL

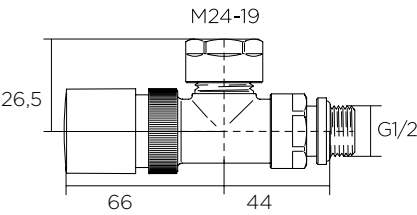
Valve and lockshield  
valve revers



Valve revers



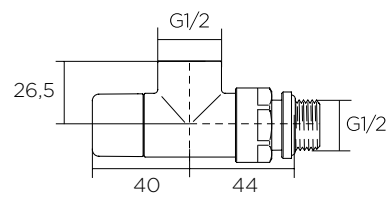
| Iron pipe connection | Code   |
|----------------------|--------|
| White                | 850011 |
| Chrome               | 850018 |



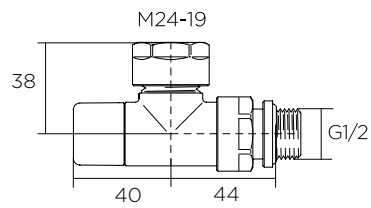
| Compression fitting connection | Code   |
|--------------------------------|--------|
| White                          | 850071 |
| Chrome                         | 850078 |

valves/lockshield valves don't include compression fittings

Lockshield valve revers



| Iron pipe connection | Code   |
|----------------------|--------|
| White                | 850061 |
| Chrome               | 850068 |



| Compression fitting connection | Code   |
|--------------------------------|--------|
| White                          | 850131 |
| Chrome                         | 850138 |

valves/lockshield valves don't include compression fittings

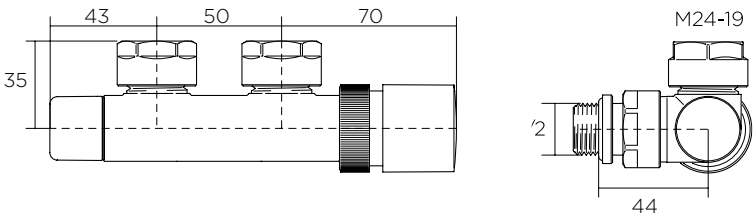
RUNTAL RADVAL

Valve 50 mm angled



Valve 50 mm angled  
(handwheel on the right)

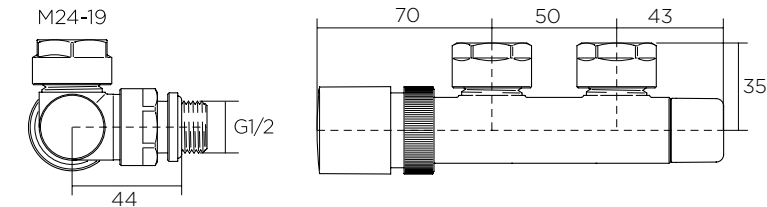
Flow and return are invertible



| Compression fitting connection | Code   |
|--------------------------------|--------|
| White                          | 841811 |
| Chrome                         | 841818 |

Valve 50 mm angled  
(handwheel on the left)

Flow and return are invertible



| Compression fitting connection | Code   |
|--------------------------------|--------|
| White                          | 841801 |
| Chrome                         | 841808 |

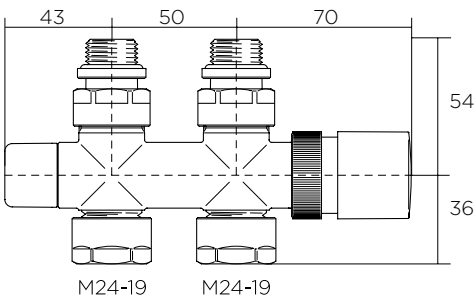
valves/lockshield valves don't include compression fittings

# RUNTAL RADVAL

## Valve 50 mm straight



Valve 50 mm straight  
with handwheel  
(reversible)



| Compression fitting connection | Code   |
|--------------------------------|--------|
| White                          | 841821 |
| Chrome                         | 841828 |

# RUNTAL RADVAL COMPRESSION FITTINGS

Compression fittings M24-19  
for copper pipe



Compression fittings M24-19  
for multilayer pipe

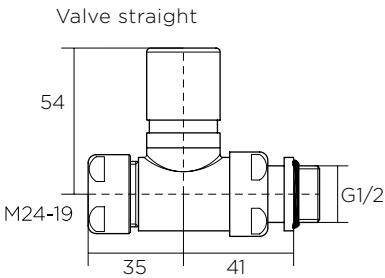


| Description                              | Code   | Finish |                                                                                                                             |
|------------------------------------------|--------|--------|-----------------------------------------------------------------------------------------------------------------------------|
| Compression fittings for copper pipe     | 853308 | Chrome | Indicate at order the external diameter of the pipe; available for pipe diameters: 10, 12, 14, 15, 16, 18.                  |
|                                          | 853318 | Chrome |                                                                                                                             |
|                                          | 853328 | Chrome |                                                                                                                             |
|                                          | 853338 | Chrome |                                                                                                                             |
|                                          | 853348 | Chrome |                                                                                                                             |
|                                          | 853358 | Chrome |                                                                                                                             |
| Compression fittings for multilayer pipe | 853408 | Chrome | Indicate at order the external and internal diameter of the pipe; available for pipe diameters: 14x10, 16x12, 18x14, 20x16. |
|                                          | 853418 | Chrome |                                                                                                                             |
|                                          | 853428 | Chrome |                                                                                                                             |
|                                          | 853438 | Chrome |                                                                                                                             |
| plug                                     | 853748 | Chrome | plug 3/8"                                                                                                                   |



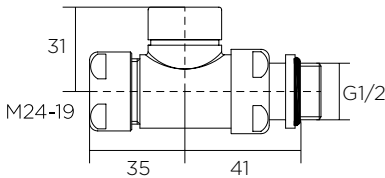
RUNTAL RADVAL XS

Valves and lockshield  
valves straight with handwheel



Valve straight

| Compression fitting connection | Code   |
|--------------------------------|--------|
| Chrome                         | 838208 |
| White                          | 838201 |



Lockshield valve straight

| Compression fitting connection | Code   |
|--------------------------------|--------|
| Chrome                         | 838218 |
| White                          | 838211 |

valves/lockshield valves don't include compression fittings

RUNTAL RADVAL XS

Valves and lockshield valves angled with handwheel



Etched copper finish



Etched brass finish



White finish



Chrome finish

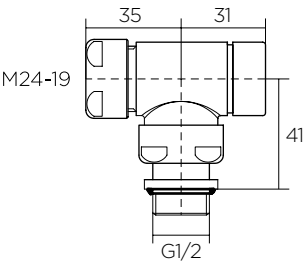


Aluminium finish



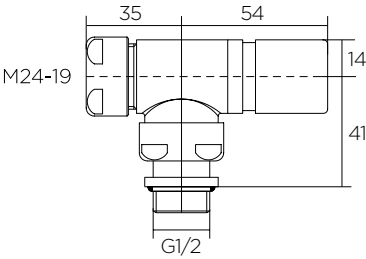
Stainless steel finish

Valve and lockshield valve angled with handwheel



| Compression fitting connection | Code   |
|--------------------------------|--------|
| Etched copper                  | 838100 |
| Etched brass                   | 838110 |
| Aluminium                      | 838120 |
| Stainless steel                | 838130 |
| Chrome                         | 838148 |
| White                          | 838141 |

Valve and lockshield valve  
angled with handwheel



| Compression fitting connection | Code   |
|--------------------------------|--------|
| Etched copper                  | 838150 |
| Etched brass                   | 838160 |
| Aluminium                      | 838170 |
| Stainless steel                | 838180 |
| Chrome                         | 838198 |
| White                          | 838191 |

Kit radval xs

| Finish | Code   |
|--------|--------|
| White  | 853711 |
| Chrome | 853718 |

Kit composed by : Valve and lockshield valve angled white or chrome, one pair of compression fittings for copper pipe diameter 12/14 and one pair of compression fittings for multilayer pipe 16-12/14-10. For compression fittings different from provided see section runtal radval compression fittings.

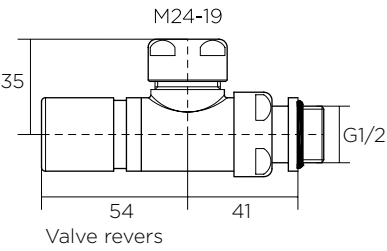
RUNTAL RADVAL XS

Valves and lockshield  
valves revers with handwheel

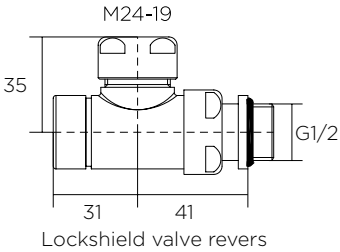


Valve revers  
(We recommend to install  
this valve on the return)

Lockshield valve revers



| Compression fitting connection | Code   |
|--------------------------------|--------|
| Chrome                         | 838228 |
| White                          | 838221 |



| Compression fitting connection | Code   |
|--------------------------------|--------|
| Chrome                         | 838238 |
| White                          | 838231 |

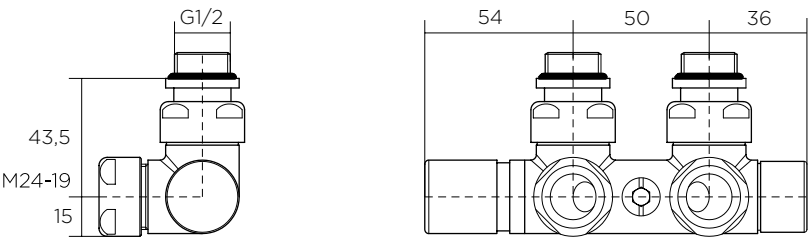
valves/lockshield valves don't include compression fittings

RUNTAL RADVAL XS

Valve 50 mm mono tube/  
2-tube systems angled with  
handwheel



Valve 50 mm mono tube/  
2-tube systems angled with  
handwheel



Handwheel on the left

| Compression fitting connection | Code   |
|--------------------------------|--------|
| Etched copper                  | 838240 |
| Etched brass                   | 838250 |
| Aluminium                      | 838320 |
| Stainless steel                | 838260 |
| Chrome                         | 838278 |
| White                          | 838271 |

Handwheel on the right

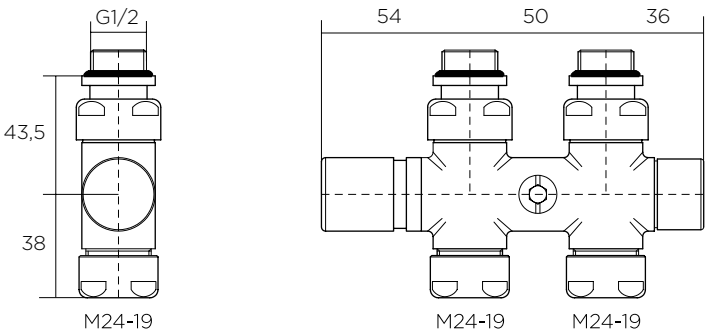
| Compression fitting connection | Code   |
|--------------------------------|--------|
| Etched copper                  | 838280 |
| Etched brass                   | 838290 |
| Aluminium                      | 838330 |
| Stainless steel                | 838300 |
| Chrome                         | 838318 |
| White                          | 838311 |

RUNTAL RADVAL XS

Valve 50 mm mono tube/  
2-tube systems straight with  
handwheel



Valve 50 mm mono tube/  
2-tube systems straight with  
handwheel



Handwheel on the left

| Compression fitting connection | Code   |
|--------------------------------|--------|
| Chrome                         | 838348 |
| White                          | 838341 |

Handwheel on the right

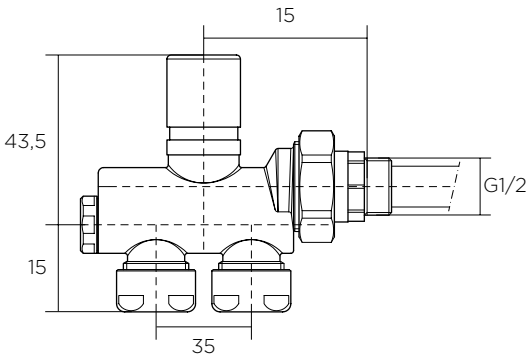
| Compression fitting connection | Code   |
|--------------------------------|--------|
| Chrome                         | 838358 |
| White                          | 838351 |

# RUNTAL RADVAL XS

Valves mono  
tube horizontal with handwheel



Valve mono tube classic with  
handwheel



| Compression fitting connection | Code   |
|--------------------------------|--------|
| Chrome                         | 838428 |
| White                          | 838421 |

RUNTAL RADVAL XS

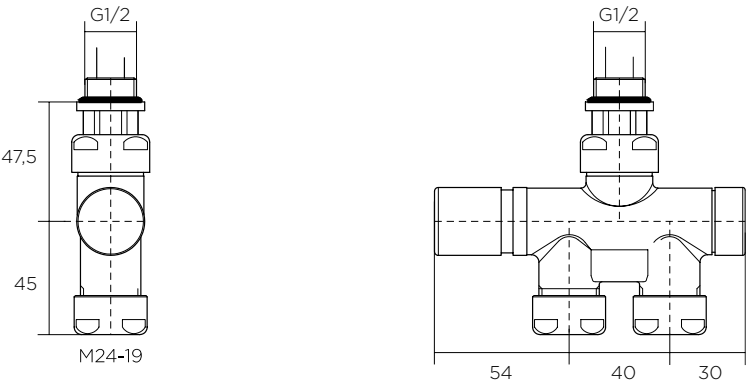
Valves monu tube/  
2-tube systems with handwheel



Valve mono tube/2-tube systems  
(reversible)

Valve mono tube/2-tube systems  
(handwheel to the right)

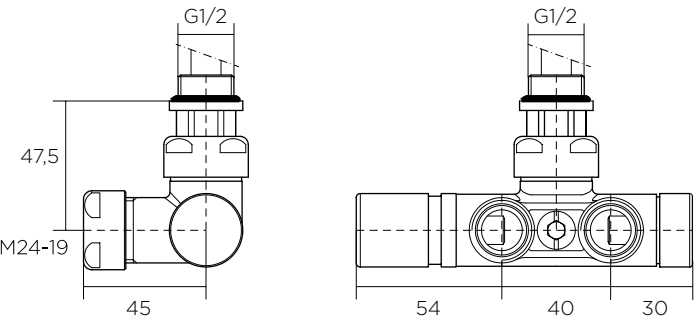
Valve mono tube/  
2-tube systems with handwheel  
(reversible)



dip tube included, L=300 mm, internal Ø 9 mm

| Compression fitting connection | Code   |
|--------------------------------|--------|
| Chrome                         | 838408 |
| White                          | 838401 |

Valve mono tube/2-tube  
systems with handwheel to  
the right



dip tube included, L=300 mm, internal Ø 9 mm

| Compression fitting connection | Code   |
|--------------------------------|--------|
| Chrome                         | 838418 |
| White                          | 838411 |

valves/lockshield valves don't include compression fittings



RUNTAL RADVAL XS

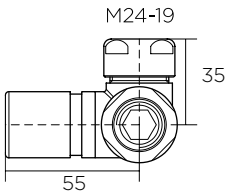
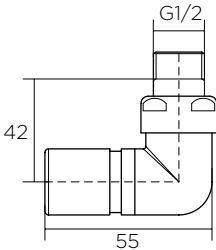
Valve coaxial with handwheel



Handwheel to the right

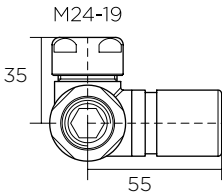
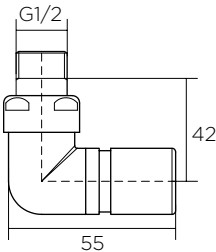
Handwheel to the left

Valve coaxial with handwheel



Handwheel to the left

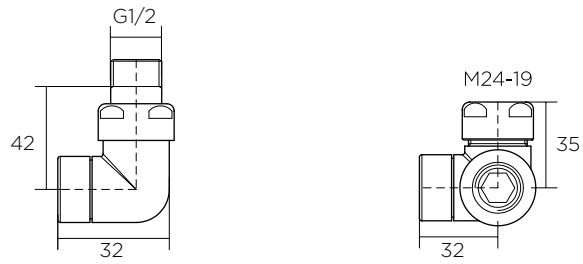
| Compression fitting connection | Code   |
|--------------------------------|--------|
| Chrome                         | 838368 |
| White                          | 838361 |



Handwheel to the right

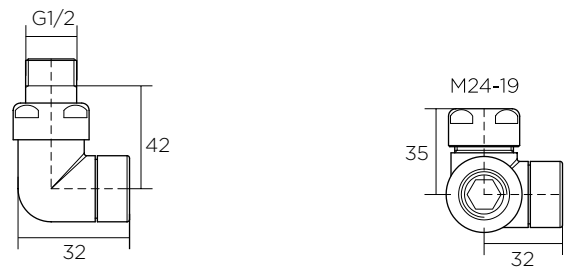
| Compression fitting connection | Code   |
|--------------------------------|--------|
| Chrome                         | 838378 |
| White                          | 838371 |

Lockshield valve coaxial



Handwheel to the left

| Compression fitting connection | Code   |
|--------------------------------|--------|
| Chrome                         | 838388 |
| White                          | 838381 |



Handwheel to the right

| Compression fitting connection | Code   |
|--------------------------------|--------|
| Chrome                         | 838398 |
| White                          | 838391 |

## RUNTAL RADVAL XS COMPRESSION FITTINGS

Compression fitting for multilayer pipe with nut M24-19 compatible for compression fitting



Compression fitting for multilayer pipe without nut



Compression fitting for copper pipe with nut M24-19 compatible with compression fitting



Compression fitting for copper pipe without nut.



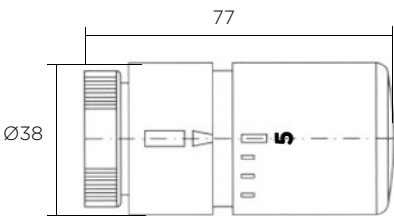
| Description                             | Code   | Diameter | Finish |
|-----------------------------------------|--------|----------|--------|
| Adapter for multilayer pipe             | 853588 | 14-2     | Chrome |
| Adapter for multilayer pipe without nut | 853560 | 16-2     | —      |
| Adapter for multilayer pipe without nut | 853570 | 16-2,25  | —      |
| Adapter for multilayer pipe             | 853608 | 20-2     | Chrome |
| Adapter for copper pipe                 | 853618 | 18       | Chrome |
| Adapter for copper pipe without nut     | 853510 | 10       | —      |
| Adapter for copper pipe without nut     | 853520 | 12       | —      |
| Adapter for copper pipe without nut     | 853530 | 14       | —      |
| Adapter for copper pipe without nut     | 853540 | 15       | —      |
| Adapter for copper pipe without nut     | 853550 | 16       | —      |

# RUNTAL RADVAL AND RADVAL XS THERMOSTATIC HEADS

## Thermostatic heads



Thermostatic head M30 x 1.5 mm with liquid sensor



| Finish | Code   |
|--------|--------|
| White  | 853721 |
| Chrome | 853728 |

## Adapter M30 x 1.5 mm for valves runtal radval xs

Note: to be able to install the thermostatic heads on the valves xs,it is necessary to use an adapter which has to be ordered separately.



| Finish | Code   |
|--------|--------|
| Brass  | 853670 |

# RUNTAL KIT

**HOTCUBE-KIT-790**  
**(Code 853688)**  
**Price: € 189,37**

Kit composed by : Valve and lockshield valve HOTCUBE (for RUNTAL QUARUS) chrome, one pair of compression fittings  $\frac{1}{2}$ " for copper pipe  $\varnothing$  12 mm,  $\varnothing$  14 mm and  $\varnothing$  15 mm, one pair of compression  $\frac{1}{2}$ " for multilayer pipe  $\varnothing$  14x2 mm,  $\varnothing$  16x2 mm and  $\varnothing$  16x2.25 mm.



## RUNTAL RADVAL AND XS ACCESSORIES

### Sleeve kit



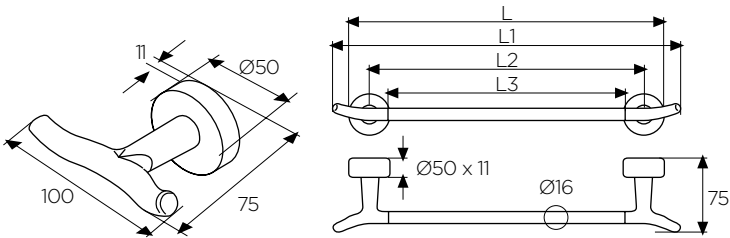
### Sleeves



| Description                 | Code   | Colour          |                                                                                       |
|-----------------------------|--------|-----------------|---------------------------------------------------------------------------------------|
| Ø 38 mm sleeve kit L=70 mm  | 853738 | Chrome          | Composed by one pair of tubes diameter 18 mm (L=70 mm) and two sleeves made of brass  |
| Ø 38 mm sleeve kit L=70 mm  | 853620 | Etched copper   | "                                                                                     |
| Ø 38 mm sleeve kit L=70 mm  | 853630 | Etched brass    | "                                                                                     |
| Ø 38 mm sleeve kit L=70 mm  | 853640 | Aluminium       | "                                                                                     |
| Ø 38 mm sleeve kit L=70 mm  | 853650 | Stainless steel | "                                                                                     |
| Ø 38 mm sleeve kit L=160 mm | 853668 | Chrome          | Composed by one pair of tubes diameter 18 mm (L=160 mm) and two sleeves made of brass |

| Description                                         | Code   | Colour | Pipe diameter |
|-----------------------------------------------------|--------|--------|---------------|
| Bipartite sleeves Ø 40 mm made of plastic, one pair | 853508 | Chrome | G1/2"         |
|                                                     | 853448 | Chrome | Ø 10 mm       |
|                                                     | 853458 | Chrome | Ø 12 mm       |
|                                                     | 853468 | Chrome | Ø 14 mm       |
|                                                     | 853478 | Chrome | Ø 15 mm       |
|                                                     | 853488 | Chrome | Ø 16 mm       |
|                                                     | 853498 | Chrome | Ø 18 mm       |
|                                                     | 853501 | White  | G1/2"         |
|                                                     | 853441 | White  | Ø 10 mm       |
|                                                     | 853451 | White  | Ø 12 mm       |
|                                                     | 853461 | White  | Ø 14 mm       |
|                                                     | 853471 | White  | Ø 15 mm       |
|                                                     | 853481 | White  | Ø 16 mm       |
|                                                     | 853491 | White  | Ø 18 mm       |

Accessories miura magnetic



| Description | Code   | Colour                               | Dimension                           |
|-------------|--------|--------------------------------------|-------------------------------------|
| Towel bar   | 471108 | Chrome<br>Chrome<br>Chrome<br>Chrome | L=347<br>L1=399<br>L2=297<br>L3=257 |
| Towel bar   | 471118 | Chrome<br>Chrome<br>Chrome<br>Chrome | L=380<br>L1=432<br>L2=330<br>L3=290 |
| Towel bar   | 471128 | Chrome<br>Chrome<br>Chrome<br>Chrome | L=479<br>L1=531<br>L2=429<br>L3=389 |
| Hook        | 470328 | Chrome                               |                                     |

Safety instructions



Max. weight capacity: 5 kg

Not possible on towel radiators with stainless steel finish and runtal velum.  
Not recommended on runtal arteplano model with stainless steel finish.  
Pacemakers can be disturbed by the magnets

Magnets are dangerous for instruments.  
Attention: the magnet is very powerful. Keep safety distance between the magnets and all instruments which can be damaged by magnetic

Product not suitable for childrens, as it's dangerous

# CORRECTION FACTOR OF OUTPUT

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | $\Delta t$ | Exponent "n" |       |       |       |       |       |       |       |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|--------------|-------|-------|-------|-------|-------|-------|-------|
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |            | 1,15         | 1,16  | 1,17  | 1,18  | 1,19  | 1,2   | 1,21  | 1,22  |
| <p>The outputs as indicated in the price list are nominal temperatures based on the values as following:</p> <p><b>tm</b> (flow temperature) = 75°C<br/> <b>tr</b> (return temperature) = 65°C<br/> <b>ta</b> (room temperature) = 20°C</p> <p>and of the calculation:</p> $\Delta T = \frac{(tm+tr)}{2} - ta$ <p>at <math>\Delta T = 50K</math></p> <p>In order to obtain the effective output with a „<math>\Delta T</math>“ different from 50K, it is necessary to multiply the output with a correction factor. The correction factor is obtained from the table as following by intersecting the lines with the real „<math>\Delta T</math>“ and the columns with the exponent „n“ (indicated in tables of the price list of every radiator).</p> <p>Example: runtal arteplano HA180-5 tubes<br/> nominal output = 650 Watts / <math>\Delta T 50K</math><br/> exponent "n" = 1,30</p> <p>with <math>\left\{ \begin{array}{l} tm = 70^{\circ}C \\ tr = 60^{\circ}C \\ ta = 20^{\circ}C \end{array} \right\} \Delta T = 45K</math></p> <p>The correction factor is 0,872 and the real output is 650 Watt x 0,872 = 566,8 Watt</p> | <b>20</b>  | 0,349        | 0,346 | 0,342 | 0,339 | 0,336 | 0,333 | 0,330 | 0,327 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>21</b>  | 0,369        | 0,366 | 0,362 | 0,359 | 0,356 | 0,353 | 0,350 | 0,347 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>22</b>  | 0,389        | 0,386 | 0,383 | 0,380 | 0,377 | 0,373 | 0,370 | 0,367 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>23</b>  | 0,409        | 0,403 | 0,403 | 0,400 | 0,397 | 0,394 | 0,391 | 0,388 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>24</b>  | 0,430        | 0,424 | 0,424 | 0,421 | 0,418 | 0,415 | 0,411 | 0,408 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>25</b>  | 0,451        | 0,444 | 0,444 | 0,441 | 0,438 | 0,435 | 0,432 | 0,429 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>26</b>  | 0,471        | 0,468 | 0,465 | 0,462 | 0,459 | 0,456 | 0,453 | 0,450 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>27</b>  | 0,492        | 0,489 | 0,486 | 0,483 | 0,480 | 0,477 | 0,475 | 0,472 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>28</b>  | 0,513        | 0,510 | 0,507 | 0,505 | 0,502 | 0,499 | 0,496 | 0,493 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>29</b>  | 0,535        | 0,532 | 0,529 | 0,526 | 0,523 | 0,520 | 0,517 | 0,515 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>30</b>  | 0,556        | 0,553 | 0,550 | 0,547 | 0,545 | 0,542 | 0,539 | 0,536 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>31</b>  | 0,577        | 0,574 | 0,572 | 0,569 | 0,566 | 0,564 | 0,561 | 0,558 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>32</b>  | 0,599        | 0,596 | 0,593 | 0,591 | 0,588 | 0,585 | 0,583 | 0,580 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>33</b>  | 0,620        | 0,618 | 0,615 | 0,612 | 0,610 | 0,607 | 0,605 | 0,602 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>34</b>  | 0,642        | 0,639 | 0,637 | 0,634 | 0,632 | 0,630 | 0,627 | 0,625 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>35</b>  | 0,664        | 0,661 | 0,659 | 0,657 | 0,654 | 0,652 | 0,650 | 0,647 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>36</b>  | 0,685        | 0,683 | 0,681 | 0,679 | 0,676 | 0,674 | 0,672 | 0,670 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>37</b>  | 0,707        | 0,705 | 0,703 | 0,701 | 0,699 | 0,697 | 0,695 | 0,693 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>38</b>  | 0,729        | 0,727 | 0,725 | 0,723 | 0,721 | 0,719 | 0,717 | 0,716 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>39</b>  | 0,752        | 0,750 | 0,748 | 0,746 | 0,744 | 0,742 | 0,740 | 0,739 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>40</b>  | 0,774        | 0,772 | 0,770 | 0,767 | 0,767 | 0,765 | 0,763 | 0,762 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>41</b>  | 0,796        | 0,794 | 0,793 | 0,791 | 0,790 | 0,788 | 0,787 | 0,785 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>42</b>  | 0,818        | 0,817 | 0,816 | 0,814 | 0,813 | 0,811 | 0,810 | 0,808 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>43</b>  | 0,841        | 0,840 | 0,838 | 0,837 | 0,836 | 0,834 | 0,833 | 0,832 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>44</b>  | 0,863        | 0,862 | 0,861 | 0,860 | 0,859 | 0,858 | 0,857 | 0,856 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>45</b>  | 0,886        | 0,885 | 0,884 | 0,883 | 0,882 | 0,881 | 0,880 | 0,879 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>46</b>  | 0,909        | 0,908 | 0,907 | 0,906 | 0,906 | 0,905 | 0,904 | 0,903 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>47</b>  | 0,931        | 0,931 | 0,930 | 0,930 | 0,929 | 0,928 | 0,928 | 0,927 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>48</b>  | 0,954        | 0,954 | 0,953 | 0,935 | 0,953 | 0,952 | 0,953 | 0,951 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>49</b>  | 0,977        | 0,977 | 0,977 | 0,976 | 0,976 | 0,976 | 0,976 | 0,976 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>50</b>  | 1,001        | 1,001 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>51</b>  | 1,023        | 1,023 | 1,023 | 1,024 | 1,024 | 1,024 | 1,025 | 1,025 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>52</b>  | 1,046        | 1,047 | 1,047 | 1,047 | 1,048 | 1,048 | 1,049 | 1,049 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>53</b>  | 1,069        | 1,070 | 1,071 | 1,071 | 1,072 | 1,072 | 1,074 | 1,074 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>54</b>  | 1,093        | 1,093 | 1,094 | 1,095 | 1,096 | 1,097 | 1,098 | 1,098 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>55</b>  | 1,116        | 1,117 | 1,118 | 1,119 | 1,120 | 1,121 | 1,123 | 1,123 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>56</b>  | 1,139        | 1,141 | 1,142 | 1,143 | 1,144 | 1,146 | 1,148 | 1,148 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>57</b>  | 1,163        | 1,164 | 1,166 | 1,167 | 1,169 | 1,170 | 1,173 | 1,173 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>58</b>  | 1,186        | 1,188 | 1,190 | 1,191 | 1,193 | 1,195 | 1,199 | 1,199 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>59</b>  | 1,210        | 1,212 | 1,214 | 1,216 | 1,218 | 1,220 | 1,224 | 1,224 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>60</b>  | 1,233        | 1,236 | 1,238 | 1,240 | 1,242 | 1,245 | 1,249 | 1,249 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>61</b>  | 1,257        | 1,259 | 1,262 | 1,265 | 1,267 | 1,270 | 1,275 | 1,275 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>62</b>  | 1,281        | 1,283 | 1,286 | 1,289 | 1,292 | 1,295 | 1,300 | 1,300 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>63</b>  | 1,304        | 1,308 | 1,311 | 1,314 | 1,317 | 1,320 | 1,326 | 1,326 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>64</b>  | 1,328        | 1,332 | 1,335 | 1,338 | 1,342 | 1,345 | 1,351 | 1,351 |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <b>65</b>  | 1,352        | 1,356 | 1,359 | 1,363 | 1,366 | 1,370 | 1,377 | 1,377 |



| Exponent “n”   |                |                |                |                |                |                |                |                |                |                |                |                |                |                |
|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 1,23           | 1,24           | 1,25           | 1,26           | 1,27           | 1,28           | 1,29           | 1,30           | 1,31           | 1,32           | 1,33           | 1,34           | 1,35           | 1,36           | 1,37           |
| 0,324<br>0,344 | 0,321<br>0,341 | 0,318<br>0,338 | 0,315<br>0,335 | 0,312<br>0,332 | 0,310<br>0,329 | 0,307<br>0,327 | 0,304<br>0,324 | 0,301<br>0,321 | 0,298<br>0,318 | 0,296<br>0,315 | 0,293<br>0,313 | 0,290<br>0,310 | 0,288<br>0,307 | 0,285<br>0,305 |
| 0,364<br>0,385 | 0,361<br>0,382 | 0,358<br>0,379 | 0,355<br>0,376 | 0,353<br>0,373 | 0,350<br>0,370 | 0,347<br>0,367 | 0,344<br>0,364 | 0,341<br>0,362 | 0,338<br>0,359 | 0,336<br>0,356 | 0,333<br>0,353 | 0,330<br>0,351 | 0,327<br>0,348 | 0,325<br>0,345 |
| 0,405<br>0,426 | 0,403<br>0,423 | 0,400<br>0,420 | 0,397<br>0,418 | 0,394<br>0,415 | 0,391<br>0,412 | 0,388<br>0,409 | 0,385<br>0,406 | 0,382<br>0,403 | 0,380<br>0,401 | 0,377<br>0,398 | 0,374<br>0,395 | 0,371<br>0,392 | 0,369<br>0,390 | 0,366<br>0,387 |
| 0,447<br>0,469 | 0,445<br>0,466 | 0,442<br>0,463 | 0,439<br>0,460 | 0,436<br>0,457 | 0,433<br>0,454 | 0,430<br>0,452 | 0,427<br>0,449 | 0,425<br>0,446 | 0,422<br>0,443 | 0,419<br>0,441 | 0,416<br>0,438 | 0,414<br>0,435 | 0,411<br>0,433 | 0,408<br>0,430 |
| 0,490<br>0,512 | 0,487<br>0,509 | 0,484<br>0,506 | 0,482<br>0,503 | 0,479<br>0,501 | 0,476<br>0,498 | 0,473<br>0,495 | 0,471<br>0,493 | 0,468<br>0,490 | 0,465<br>0,487 | 0,463<br>0,485 | 0,460<br>0,482 | 0,457<br>0,479 | 0,455<br>0,477 | 0,452<br>0,474 |
| 0,534<br>0,555 | 0,531<br>0,553 | 0,528<br>0,550 | 0,525<br>0,548 | 0,523<br>0,545 | 0,520<br>0,542 | 0,517<br>0,540 | 0,515<br>0,537 | 0,512<br>0,535 | 0,510<br>0,532 | 0,507<br>0,530 | 0,504<br>0,527 | 0,502<br>0,525 | 0,499<br>0,522 | 0,497<br>0,520 |
| 0,578<br>0,600 | 0,575<br>0,597 | 0,572<br>0,595 | 0,570<br>0,592 | 0,567<br>0,590 | 0,565<br>0,588 | 0,562<br>0,585 | 0,560<br>0,583 | 0,557<br>0,580 | 0,555<br>0,578 | 0,552<br>0,575 | 0,550<br>0,573 | 0,547<br>0,571 | 0,545<br>0,568 | 0,543<br>0,566 |
| 0,622<br>0,645 | 0,620<br>0,643 | 0,618<br>0,640 | 0,615<br>0,638 | 0,613<br>0,636 | 0,610<br>0,634 | 0,608<br>0,631 | 0,606<br>0,629 | 0,603<br>0,627 | 0,601<br>0,625 | 0,599<br>0,622 | 0,596<br>0,620 | 0,594<br>0,618 | 0,592<br>0,616 | 0,590<br>0,614 |
| 0,668<br>0,691 | 0,665<br>0,688 | 0,663<br>0,686 | 0,661<br>0,684 | 0,659<br>0,682 | 0,657<br>0,680 | 0,655<br>0,678 | 0,652<br>0,676 | 0,650<br>0,674 | 0,648<br>0,672 | 0,646<br>0,670 | 0,644<br>0,668 | 0,642<br>0,666 | 0,640<br>0,664 | 0,638<br>0,662 |
| 0,714<br>0,737 | 0,712<br>0,735 | 0,710<br>0,733 | 0,708<br>0,731 | 0,706<br>0,729 | 0,704<br>0,728 | 0,702<br>0,726 | 0,700<br>0,724 | 0,698<br>0,722 | 0,696<br>0,720 | 0,694<br>0,719 | 0,692<br>0,717 | 0,690<br>0,715 | 0,689<br>0,713 | 0,687<br>0,712 |
| 0,760<br>0,783 | 0,758<br>0,782 | 0,757<br>0,780 | 0,755<br>0,779 | 0,753<br>0,777 | 0,752<br>0,776 | 0,750<br>0,774 | 0,748<br>0,773 | 0,747<br>0,771 | 0,745<br>0,770 | 0,743<br>0,768 | 0,742<br>0,767 | 0,740<br>0,765 | 0,738<br>0,764 | 0,737<br>0,762 |
| 0,807<br>0,831 | 0,806<br>0,829 | 0,804<br>0,828 | 0,803<br>0,827 | 0,801<br>0,826 | 0,800<br>0,824 | 0,799<br>0,823 | 0,797<br>0,822 | 0,796<br>0,821 | 0,794<br>0,820 | 0,793<br>0,818 | 0,792<br>0,817 | 0,790<br>0,816 | 0,789<br>0,815 | 0,788<br>0,813 |
| 0,855<br>0,879 | 0,853<br>0,878 | 0,852<br>0,877 | 0,851<br>0,876 | 0,850<br>0,875 | 0,849<br>0,874 | 0,848<br>0,873 | 0,847<br>0,872 | 0,846<br>0,871 | 0,845<br>0,870 | 0,844<br>0,869 | 0,843<br>0,868 | 0,842<br>0,867 | 0,840<br>0,867 | 0,839<br>0,866 |
| 0,903<br>0,927 | 0,902<br>0,926 | 0,901<br>0,926 | 0,900<br>0,925 | 0,900<br>0,924 | 0,899<br>0,924 | 0,898<br>0,923 | 0,897<br>0,923 | 0,897<br>0,922 | 0,896<br>0,922 | 0,895<br>0,921 | 0,894<br>0,920 | 0,894<br>0,920 | 0,893<br>0,919 | 0,892<br>0,919 |
| 0,951<br>0,976 | 0,951<br>0,975 | 0,950<br>0,975 | 0,950<br>0,975 | 0,950<br>0,975 | 0,949<br>0,975 | 0,949<br>0,974 | 0,948<br>0,974 | 0,948<br>0,974 | 0,948<br>0,974 | 0,947<br>0,974 | 0,947<br>0,973 | 0,946<br>0,973 | 0,946<br>0,973 | 0,946<br>0,973 |
| 1,000<br>1,025 | 1,000<br>1,025 | 1,000<br>1,025 | 1,000<br>1,025 | 1,000<br>1,026 | 1,000<br>1,026 | 1,000<br>1,026 | 1,000<br>1,026 | 1,000<br>1,026 | 1,000<br>1,027 | 1,000<br>1,027 | 1,000<br>1,027 | 1,000<br>1,027 | 1,000<br>1,027 | 1,000<br>1,028 |
| 1,049<br>1,074 | 1,050<br>1,075 | 1,050<br>1,076 | 1,051<br>1,076 | 1,051<br>1,077 | 1,052<br>1,077 | 1,052<br>1,078 | 1,052<br>1,079 | 1,053<br>1,079 | 1,053<br>1,080 | 1,054<br>1,081 | 1,054<br>1,081 | 1,054<br>1,082 | 1,055<br>1,083 | 1,055<br>1,083 |
| 1,099<br>1,124 | 1,100<br>1,126 | 1,101<br>1,127 | 1,102<br>1,128 | 1,103<br>1,129 | 1,104<br>1,130 | 1,104<br>1,131 | 1,105<br>1,132 | 1,106<br>1,133 | 1,107<br>1,134 | 1,108<br>1,135 | 1,109<br>1,136 | 1,110<br>1,137 | 1,110<br>1,138 | 1,111<br>1,140 |
| 1,150<br>1,175 | 1,151<br>1,176 | 1,152<br>1,178 | 1,154<br>1,180 | 1,155<br>1,181 | 1,156<br>1,183 | 1,157<br>1,184 | 1,159<br>1,186 | 1,160<br>1,187 | 1,161<br>1,189 | 1,163<br>1,190 | 1,164<br>1,192 | 1,165<br>1,194 | 1,167<br>1,195 | 1,168<br>1,197 |
| 1,200<br>1,226 | 1,202<br>1,228 | 1,204<br>1,230 | 1,206<br>1,232 | 1,207<br>1,234 | 1,209<br>1,236 | 1,211<br>1,238 | 1,213<br>1,240 | 1,215<br>1,242 | 1,216<br>1,244 | 1,218<br>1,246 | 1,220<br>1,248 | 1,222<br>1,250 | 1,224<br>1,252 | 1,226<br>1,255 |
| 1,251<br>1,277 | 1,254<br>1,280 | 1,256<br>1,282 | 1,258<br>1,285 | 1,261<br>1,287 | 1,263<br>1,290 | 1,265<br>1,292 | 1,268<br>1,295 | 1,270<br>1,298 | 1,272<br>1,300 | 1,274<br>1,303 | 1,277<br>1,305 | 1,279<br>1,308 | 1,281<br>1,311 | 1,284<br>1,313 |
| 1,303<br>1,329 | 1,306<br>1,332 | 1,309<br>1,335 | 1,311<br>1,338 | 1,314<br>1,341 | 1,317<br>1,344 | 1,320<br>1,347 | 1,323<br>1,351 | 1,326<br>1,354 | 1,328<br>1,357 | 1,331<br>1,360 | 1,334<br>1,363 | 1,337<br>1,366 | 1,340<br>1,369 | 1,343<br>1,373 |
| 1,355<br>1,381 | 1,358<br>1,385 | 1,362<br>1,388 | 1,365<br>1,392 | 1,368<br>1,395 | 1,372<br>1,399 | 1,375<br>1,403 | 1,378<br>1,407 | 1,382<br>1,410 | 1,385<br>1,414 | 1,389<br>1,418 | 1,392<br>1,421 | 1,396<br>1,425 | 1,399<br>1,429 | 1,402<br>1,433 |

# INTERNATIONAL SALES AND DELIVERY CONDITIONS

## 1. General

The International Sales and Delivery Conditions shall be binding if declared applicable in any contract or in any offer or acceptance of Zehnder GmbH, Lahr or its subsidiary/ies acting as seller (hereinafter "Seller"). If the deliveries are made in performance of a distribution agreement between Buyer and Seller, these International Sales and Delivery Conditions apply to every order made under such contract. Any conditions stipulated by Buyer which are in contradiction to the conditions set out herein shall only be valid if expressly accepted by Seller in writing.

## 2. Orders

Every purchase order shall be subject to individual and explicit acceptance by Seller before any obligation of Seller is created.

## 3. Conditions of Delivery

The delivery of goods shall be made „ex works“ Seller's manufacturing plant (EXW - INCOTERMS 1990) unless otherwise stated on the order confirmation. Any duties, charges, taxes, etc. imposed in connection with the import of the goods shall be borne by Buyer.

In case delivery is made by postal service, special delivery or express service, Buyer has to meet additional expenses over and above normal „ex works“ delivery or as agreed upon. The delivery of the goods shall be at Buyer's risk.

## 4. Packaging

Unless otherwise agreed upon, the packaging of goods will be charged to Buyer separately and may not be returned to Seller. Merchandise return containers and pallets have to be emptied and returned immediately. Expenses hereby incurred are to be carried by Buyer.

## 5. Delivery Dates

Delivery dates are approximate dates. Delay in scheduled delivery shall not entitle Buyer to any claims against Seller and/or to cancel any purchase order.

The delivery date which has been agreed upon with Buyer must be reasonably extended when circumstances arise which Seller cannot prevent despite using the required care.

## 6. Prices/Long-Term Orders

Unless credit terms have been agreed between the parties, goods must be paid for at the time of the order. If any payment is overdue, interest on the outstanding sum is payable at commercial bank rates.

If the specified quantities of goods ordered by Buyer are not called down for delivery and/or paid within the agreed timeframe, Seller is entitled to withdraw from the purchase with immediate effect and Buyer is prohibited from claiming any damages. Alternatively, Seller has the option to demand from Buyer a guarantee for the full purchase price in exchange for delivery of the remaining goods.

## 7. Right to Withdraw

In case of Buyer's insolvency or Buyer's default on payment of an earlier purchase, Seller shall be entitled to withhold its performance until the payment of the outstanding purchase price is guaranteed. If such a guarantee cannot be established by Buyer within a reasonable period of time, Seller may withdraw from the purchase.

In case Buyer is in default of payment of the purchase price, Seller is entitled to charge interest at commercial bank rates.

## 8. Warranty

The warranty period shall be sixty (60) months from date of delivery to Buyer. Excluded are electrical radiators, electrical and electronic components. The warranty period for these products is twenty-four (24) months.

Buyer must inspect the goods immediately upon receipt. Any defects must be notified in writing within eight (8) days after receipt. Otherwise the goods purchased are deemed to have been accepted and any warranty claims against Seller are excluded.

Within the warranty period set forth above, defects which were not recognisable in the course of a customary examination, must be notified in written immediately upon their discovery. Otherwise the goods purchased are deemed to have been accepted and any warranty claims against Seller are excluded.

Provided the goods are proven defective and Buyer has notified the defects as set out herein above, Buyer has the option to have the defective goods repaired or replaced free of cost. Costs of shipment from and to Seller's plant, if necessary, will be split in half.

Warranty claims are conditioned upon Buyer's prior performance of all and any of its own obligations. Any other warranty claims against defects in the goods are expressly excluded.

**9. Retention of Title**

Seller shall retain ownership of the goods supplied until full payment has been received. Buyer shall take all necessary measures for the protection of the proprietary rights of Seller.

**10. Export Restriction**

Seller products are protected by patents, designs and trademarks in several foreign jurisdictions. Buyer has, therefore, to seek advice from Seller before delivery will take place into such a jurisdiction.

**11. Applicable Law and Arbitration**

In any event, the UN Convention for the International Sales of Goods („Vienna Sales Convention“) is applicable. To the extent the Vienna Sales Convention does not provide any guidance, the legal relationship between Seller and Buyer shall be governed by the substantive laws in effect at the domicile of Seller.

All disputes arising in connection with the present contract shall be finally settled under the Rules of Arbitration of the International Chamber of Commerce by a sole arbitrator appointed in accordance with said Rules. The place of arbitration shall be at the domicile of Seller. The Language shall be English.

