

# BWP 200 - 1000



# Heat pump storage tank

## BWP 200 - 1000

### Application

This hot water storage tank features a double helix heating surface and is thus suitable for high heat pump outputs. It can also be used as a high performance storage tank for oil, gas, solid fuel and similar.

### Corrosion protection for parts with drinking water contact

Enamelled as per DIN 4753. A magnesium anode offers additional corrosion protection.

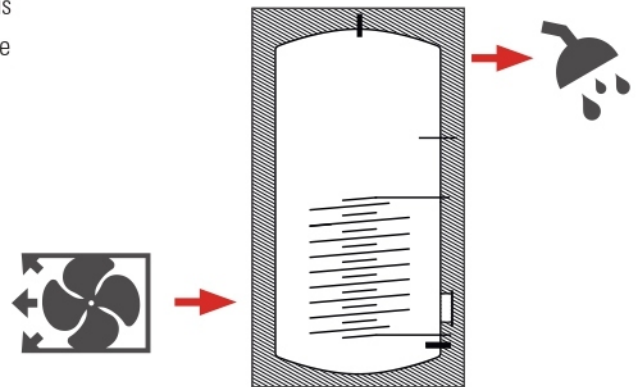
### External corrosion protection

Up to 600 l protective enamelled layers and foam encased 800 to 1,000 l powder coated

### Heat insulation

Type 200-600: 50 mm PU rigid foam insulation with soft sleeve

Type 800-1000: 95 mm PU rigid foam half-shell with soft sleeve



Model overview BWP 200 - 1000

| Type     | Article no. | Volume | Height with insulation | Tilt height | Installation diameter | Weight (empty) | Surface HE bottom | Output figure | Efficiency class |
|----------|-------------|--------|------------------------|-------------|-----------------------|----------------|-------------------|---------------|------------------|
| Unit     | [-]         | [l]    | [mm]                   | [mm]        | [mm]                  | [kg]           | [m <sup>2</sup> ] | [-]           | [-]              |
| BWP 200  | STD0200BWP  | 201    | 1215                   | 1370        | 610                   | 127            | 2,5               | 2,2           | C                |
| BWP 300  | STD0300BWP  | 326    | 1570                   | 1710        | 660                   | 149            | 3,5               | 4,2           | C                |
| BWP 400  | STD0400BWP  | 415    | 1500                   | 1690        | 760                   | 182            | 4,4               | 6,0           | C                |
| BWP 500  | STD0500BWP  | 496    | 1800                   | 1960        | 760                   | 209            | 6                 | 9,1           | C                |
| BWP 600  | STD0600BWP  | 559    | 2000                   | 2150        | 760                   | 224            | 6                 | 10,2          | C                |
| BWP 800  | STD0800BWP  | 805    | 1990                   | 2020        | 790                   | 284            | 6                 | 12,0          | C                |
| BWP 1000 | STD1000BWP  | 910    | 2190                   | 2220        | 790                   | 301            | 6                 | 18,7          | C                |

# Heat pump storage tank

## Technical specifications BWP 200 - 1000

| Type  | Unit                | BWP 200                                    | BWP 300                    | BWP 400                    | BWP 500                    | BWP 600                    | BWP 800                                     | BWP 1000   |  |
|---|---------------------|--|----------------------------|----------------------------|----------------------------|----------------------------|---|------------|--|
| Article no.                                     | [-]                 | STD0200BWP<br>STD0200BWP.H                 | STD0300BWP<br>STD0300BWP.H | STD0400BWP<br>STD0400BWP.H | STD0500BWP<br>STD0500BWP.H | STD0600BWP<br>STD0600BWP.H | STD0800BWP                                  | STD1000BWP |  |
| Volume  | [l]                 | 201  | 326                        | 415                        | 496                        | 559                        | 805   | 910        |  |
| Drinking water content                          | [l]                 | 187  | 305                        | 388                        | 464                        | 527                        | 771   | 876        |  |
| Content HE bottom                               | [l]                 | 14,4                                       | 21,4                       | 27,2                       | 32,5                       | 32,5                       | 34,5  | 34,5       |  |
| Height with insulation                          | [mm]                | 1215                                       | 1570                       | 1500                       | 1800                       | 2000                       | 1990  | 2190       |  |
| Diameter with insulation                        | [mm]                | 610  | 660                        | 760                        | 760                        | 760                        | 990   | 990        |  |
| Diameter without insulation                     | [mm]                | -  | -                          | -                          | -                          | -                          | 790   | 790        |  |
| Tilt height                                     | [mm]                | 1370                                       | 1710                       | 1690                       | 1960                       | 2150                       | 2020  | 2220       |  |
| Installation diameter                           | [mm]                | 610  | 660                        | 760                        | 760                        | 760                        | 790   | 790        |  |
| Weight (empty)                                  | [kg]                | 127  | 149                        | 182                        | 209                        | 224                        | 284   | 301        |  |
| Max. operating pressure heating side            | [bar]               | 10   | 10                         | 10                         | 10                         | 10                         | 10  | 10         |  |
| Test pressure heating side                      | [bar]               | 15   | 15                         | 15                         | 15                         | 15                         | 15  | 15         |  |
| Max. operating pressure hot drinking water side | [bar]               | 10   | 10                         | 10                         | 10                         | 10                         | 10  | 10         |  |
| Test pressure hot drinking water side           | [bar]               | 15   | 15                         | 15                         | 15                         | 15                         | 15  | 15         |  |
| Surface HE bottom                               | [m <sup>2</sup> ]   | 2,5  | 3,5                        | 4,4                        | 6                          | 6                          | 6   | 6          |  |
| Insulation thickness                            | [mm]                | 50   | 50                         | 50                         | 50                         | 50                         | 95  | 95         |  |
| Max. installation length EHP                    | [mm]                | 400  | 450                        | 500                        | 500                        | 500                        | 630   | 630        |  |
| Max. output EHP                                 | [kW]                | 3,5  | 5,5                        | 7,5                        | 9,5                        | 10                         | 15  | 17         |  |
| On-demand heat overhead                         | [kWh/d]             | 1,60                                       | 1,80                       | 2,40                       | 2,60                       | 2,60                       | 3,10  | 3,40       |  |
| Holding losses                                  | [W]                 | 68   | 75                         | 101                        | 107                        | 110                        | 129   | 142        |  |
| Efficiency class                                | [-]                 | C  | C                          | C                          | C                          | C                          | C   | C          |  |
| Pressure loss heating side                      | [mbar]              | 27   | 35                         | 53                         | 84                         | 84                         | 67  | 67         |  |
| Flow rate heating side                          | [m <sup>3</sup> /h] | 0,9  | 1,6                        | 1,3                        | 1,6                        | 1,6                        | 1,5   | 1,5        |  |
| Insulation material                             | [-]                 | PU rigid foam ( $\lambda=0.024$ W/mK)      |                            |                            |                            |                            | PU rigid foam shell ( $\lambda=0.024$ W/mK) |            |  |
| Corrosion protection                            | [-]                 | Enamelled as per DIN 4753, magnesium anode |                            |                            |                            |                            |   |            |  |

## Output data BWP 200 - 1000

|           | Continuous output at supply temperature <sup>1</sup> |       |       |       | Values as per DIN4708 (data relative to output figure) <sup>2</sup> |                                     |         |                                   | Draw-off performance in 60 min <sup>3</sup> |                    |      |
|-----------|--|-------|-------|-------|---|-------------------------------------|---------|-----------------------------------|---|--------------------|------|
|           | 50 °C  |       | 60 °C |       | Output  | Max. draw-off performance in 10 min |         | Draw-off performance after 30 min |   | Supply temp. 55 °C |      |
|           | [kW]   | [l/h] | [kW]  | [l/h] |   | [l]                                 | [l/min] | [l]                               | [l/min]                                     |                    |      |
| HE bottom | 200  | 12.6  | 310   | 36.0  | 884   | 2.2                                 | 204     | 20.4                              | 81  | 18.5               | 561  |
|           | 300  | 14.7  | 361   | 42.0  | 1032  | 4.2                                 | 273     | 27.3                              | 155   | 23.3               | 724  |
|           | 400  | 18.5  | 454   | 52.8  | 1297  | 6.0                                 | 326     | 32.6                              | 221   | 27.0               | 935  |
|           | 500  | 25.2  | 619   | 72.0  | 1769  | 9.1                                 | 393     | 39.3                              | 335   | 31.7               | 1183 |
|           | 600  | 25.2  | 619   | 72.0  | 1769  | 10.0                                | 413     | 41.3                              | 367   | 33.0               | 1259 |
|           | 800  | 25.2  | 619   | 72.0  | 1769  | 12.0                                | 455     | 45.5                              | 439   | 35.9               | 1563 |
|           | 1000   | 25.2  | 619   | 72.0  | 1769  | 18.7                                | 586     | 58.6                              | 676   | 45.0               | 1674 |

1 - Heating from CW 10 °C to WW 45 °C

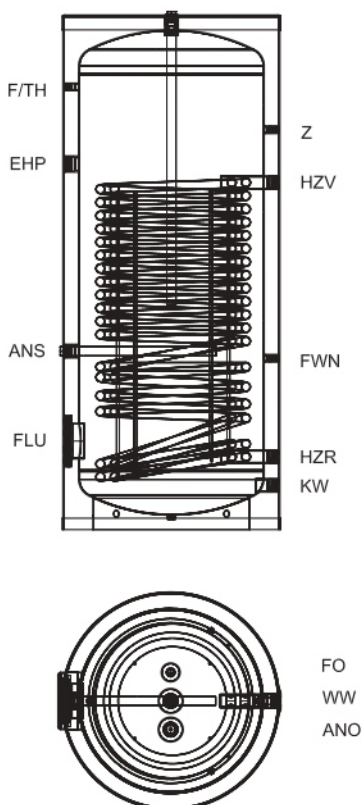
2 - Heating from CW 10 °C to WW 45 °C; supply 70 °C; storage tank temperature CW + 50 K

3 - Computed data at maximum output; CW 10 °C to WW 45 °C; storage tank temperature 60 °C

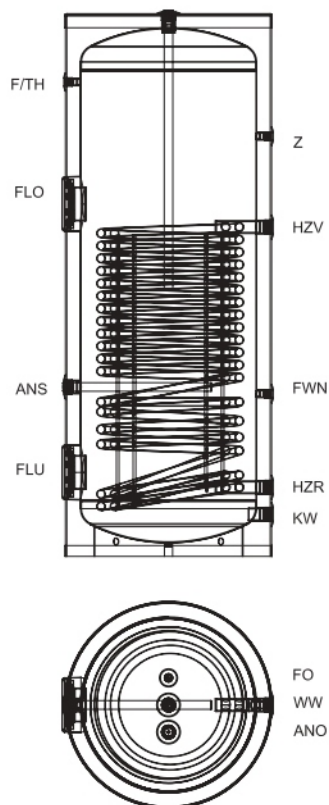
## Connections and dimensions BWP 200 - 1000

| Connections |                               |      | BWP 200         | BWP 300         | BWP 400         | BWP 500         | BWP 600          | BWP 800          | BWP 1000         |
|-------------|-------------------------------|------|-----------------|-----------------|-----------------|-----------------|------------------|------------------|------------------|
| FO          | Top sensor                    | [mm] | 1215<br>½" IT   | 1570<br>½" IT   | 1500<br>½" IT   | 1800<br>½" IT   | 2000<br>½" IT    | 1940<br>½" IT    | 2140<br>½" IT    |
| ENT         | Ventilation                   | [mm] | -               | -               | -               | -               | -                | 1940<br>1¼" IT   | 2140<br>1¼" IT   |
| WW          | Hot water                     | [mm] | 1215<br>1¼" IT  | 1570<br>1¼" IT  | 1500<br>1¼" IT  | 1800<br>1¼" IT  | 2000<br>1¼" IT   | 1765<br>2" IT    | 1965<br>2" IT    |
| ANO         | Anode top                     | [mm] | 1215<br>1¼" IT  | 1570<br>1¼" IT  | 1500<br>1¼" IT  | 1800<br>1¼" IT  | 2000<br>1¼" IT   | 1940<br>1¼" IT   | 2140<br>1¼" IT   |
| ANS         | Anode side                    | [mm] | -               | -               | -               | 625<br>1¼" IT   | 625<br>1¼" IT    | 690<br>1¼" IT    | 690<br>1¼" IT    |
| F/TH        | Sensor/Thermometer            | [mm] | 990<br>½" IT    | 1350<br>½" IT   | 1250<br>½" IT   | 1550<br>½" IT   | 1750<br>½" IT    | 1650<br>½" IT    | 1850<br>½" IT    |
| EHP         | Flange top                    | [mm] | 840<br>1½" IT   | 990<br>1½" IT   | 1075<br>1½" IT  | 1280<br>1½" IT  | -                | -                | -                |
| FLO         | Electric heating cartridge    | [mm] | -               | -               | -               | -               | 1300<br>Ø 180 mm | 1400<br>Ø 180 mm | 1400<br>Ø 180 mm |
| FLU         | Flange bottom                 | [mm] | 285<br>Ø 180 mm | 295<br>Ø 180 mm | 310<br>Ø 180 mm | 310<br>Ø 180 mm | 310<br>Ø 180 mm  | 350<br>Ø 290 mm  | 350<br>Ø 290 mm  |
| Z           | Circulation                   | [mm] | 910<br>½" IT    | 1200<br>½" IT   | 1150<br>½" IT   | 1400<br>½" IT   | 1550<br>½" IT    | 1400<br>1" IT    | 1600<br>1" IT    |
| HZV         | Heating supply                | [mm] | 795<br>1¼" IT   | 920<br>1¼" IT   | 1500<br>1¼" IT  | 1215<br>1¼" IT  | 1215<br>1¼" IT   | 1195<br>1¼" IT   | 1195<br>1¼" IT   |
| FWN         | Hot water post-heating sensor | [mm] | -               | -               | -               | 600<br>½" IT    | 600<br>½" IT     | 660<br>½" IT     | 660<br>½" IT     |
| HZR         | Heating return                | [mm] | 240<br>1¼" IT   | 240<br>1¼" IT   | 255<br>1¼" IT   | 255<br>1¼" IT   | 255<br>1¼" IT    | 275<br>1¼" IT    | 275<br>1¼" IT    |
| KW          | Cold water                    | [mm] | 130<br>1¼" IT   | 140<br>1¼" IT   | 155<br>1¼" IT   | 155<br>1¼" IT   | 155<br>1¼" IT    | 175<br>2" IT     | 175<br>2" IT     |

BWP 200 / 300 / 400 / 500



BWP 600



BWP 800 / 1000

