

# BWP 200 - 2000



# Heat pump storage tank

## BWP 200 - 2000

### 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

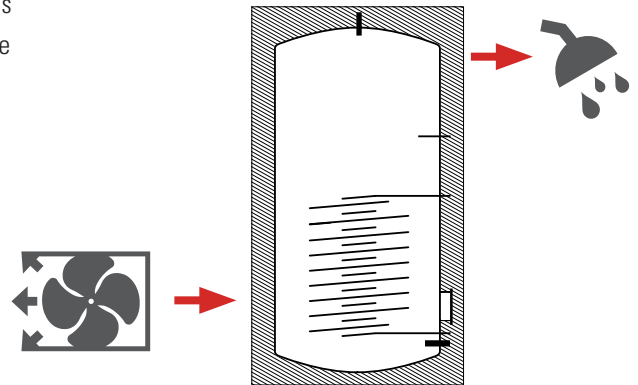
Up to 600 l protective enamelled layers and foam encased 800 to 2,000 l powder-coated

### 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

Type 1500-2000: 110 mm PU rigid foam half-shell with soft sleeve



Model overview BWP 200 - 2000

| 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]           | [m²]              | [-]           | [-]              |
| 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                |
| BWP 1500 | STD1500BWP  | 1450   | 2240                   | 2240        | 1000                  | 520            | 8,6               | -             | C                |
| BWP 2000 | STD2000BWP  | 1915   | 2420                   | 2430        | 1100                  | 550            | 9,8               | -             | C                |

## Heat pump storage tank

### Technical specifications BWP 200 - 2000

| Type                                            | Unit    | BWP 200                                    | BWP 300                   | BWP 400                   | BWP 500                   | BWP 600                   | BWP 800             | BWP 1000       | BWP 1500          | BWP 2000          |
|-------------------------------------------------|---------|--------------------------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------|----------------|-------------------|-------------------|
| Article no.                                     | [-]     | STD0200BWP<br>STD0200BWPH                  | STD0300BWP<br>STD0300BWPH | STD0400BWP<br>STD0400BWPH | STD0500BWP<br>STD0500BWPH | STD0600BWP<br>STD0600BWPH | STD<br>0800BWP      | STD<br>1000BWP | STD<br>1500BWP.02 | STD<br>2000BWP.02 |
| Volume                                          | [l]     | 201                                        | 326                       | 415                       | 496                       | 559                       | 805                 | 910            | 1450              | 1915              |
| Content drinking water                          | [l]     | 187                                        | 305                       | 388                       | 464                       | 527                       | 771                 | 876            | 1377              | 1832              |
| Content heat exchanger bottom                   | [l]     | 14,4                                       | 21,4                      | 27,2                      | 32,5                      | 32,5                      | 34,5                | 34,5           | 73                | 83                |
| Height with insulation                          | [mm]    | 1215                                       | 1570                      | 1500                      | 1800                      | 2000                      | 1990                | 2190           | 2240              | 2420              |
| Diameter with insulation                        | [mm]    | 610                                        | 660                       | 760                       | 760                       | 760                       | 990                 | 990            | 1250              | 1350              |
| Diameter without insulation                     | [mm]    | -                                          | -                         | -                         | -                         | -                         | 790                 | 790            | 1000              | 1100              |
| Tilt height                                     | [mm]    | 1370                                       | 1710                      | 1690                      | 1960                      | 2150                      | 2020                | 2220           | 2240              | 2430              |
| Installation diameter                           | [mm]    | 610                                        | 660                       | 760                       | 760                       | 760                       | 790                 | 790            | 1000              | 1100              |
| Weight (empty)                                  | [kg]    | 127                                        | 149                       | 182                       | 209                       | 224                       | 284                 | 301            | 520               | 550               |
| Max. operating pressure heating side            | [bar]   | 10                                         | 10                        | 10                        | 10                        | 10                        | 10                  | 10             | 6                 | 6                 |
| Test pressure heating side                      | [bar]   | 15                                         | 15                        | 15                        | 15                        | 15                        | 15                  | 15             | 12                | 12                |
| Max. operating pressure hot drinking water side | [bar]   | 10                                         | 10                        | 10                        | 10                        | 10                        | 10                  | 10             | 10                | 10                |
| Test pressure hot drinking water side           | [bar]   | 15                                         | 15                        | 15                        | 15                        | 15                        | 15                  | 15             | 15                | 15                |
| Surface heat exchanger bottom                   | [m²]    | 2,5                                        | 3,5                       | 4,4                       | 6                         | 6                         | 6                   | 6              | 8,6               | 9,8               |
| Insulation thickness                            | [mm]    | 50                                         | 50                        | 50                        | 50                        | 50                        | 95                  | 95             | 110               | 110               |
| Max. installation length EHP                    | [mm]    | 400                                        | 450                       | 500                       | 500                       | 500                       | 630                 | 630            | 830               | 930               |
| Max. output EHP                                 | [kW]    | 3,5                                        | 5,5                       | 7,5                       | 9,5                       | 10                        | 15                  | 15             | 24                | 24                |
| Output figure                                   | [-]     | 2,2                                        | 4,2                       | 6,0                       | 9,1                       | 10,2                      | 12,0                | 18,7           | -                 | -                 |
| On-demand heat overhead                         | [kWh/d] | 1,60                                       | 1,80                      | 2,40                      | 2,60                      | 2,60                      | 3,10                | 3,40           | 3,90              | 4,40              |
| Holding losses                                  | [W]     | 68                                         | 75                        | 101                       | 107                       | 110                       | 129                 | 142            | 163               | 183               |
| Efficiency class                                | [-]     | C                                          | C                         | C                         | C                         | C                         | C                   | C              | C                 | C                 |
| Pressure loss heating side                      | [mbar]  | 27                                         | 35                        | 53                        | 84                        | 84                        | 67                  | 67             | -                 | -                 |
| Flow rate heating side                          | [m³/h]  | 0,9                                        | 1,6                       | 1,3                       | 1,6                       | 1,6                       | 1,5                 | 1,5            | -                 | -                 |
| Insulation material                             | [-]     | PU rigid foam (λ=0.024 W/mK)               |                           |                           |                           |                           | PU rigid foam shell |                |                   |                   |
| 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                                        |
|           | 300  | 14.7                                                 | 361   | 42.0  | 1032  | 4.2                                                                 | 273                                 | 27.3    | 155                               | 23.3                                        |
|           | 400  | 18.5                                                 | 454   | 52.8  | 1297  | 6.0                                                                 | 326                                 | 32.6    | 221                               | 27.0                                        |
|           | 500  | 25.2                                                 | 619   | 72.0  | 1769  | 9.1                                                                 | 393                                 | 39.3    | 335                               | 31.7                                        |
|           | 600  | 25.2                                                 | 619   | 72.0  | 1769  | 10.2                                                                | 413                                 | 41.3    | 367                               | 33.0                                        |
|           | 800  | 25.2                                                 | 619   | 72.0  | 1769  | 12.0                                                                | 455                                 | 45.5    | 439                               | 35.9                                        |
|           | 1000 | 25.2                                                 | 619   | 72.0  | 1769  | 18.7                                                                | 586                                 | 58.6    | 676                               | 45.0                                        |

1 - Heating from CW 10 °C to WW 45 °C

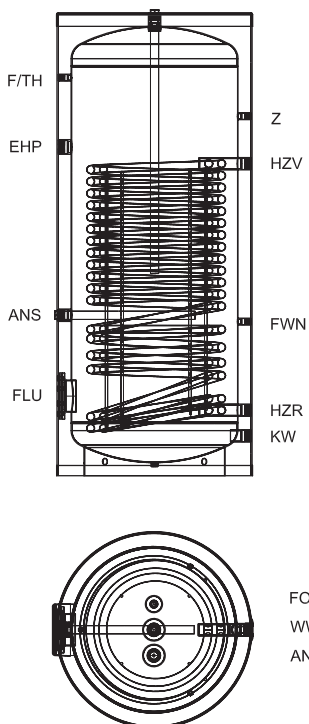
2 - Heating from CW 10 °C to WW 45 °C; supply 70 °C; storage tank temperature CW + 50 K

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

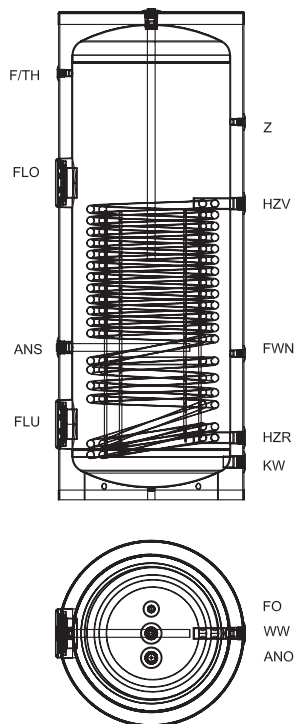
## Connections and dimensions BWP 200 - 2000

| Connections |                               | BWP 200                | BWP 300        | BWP 400        | BWP 500        | BWP 600        | BWP 800        | BWP 1000       | BWP 1500       | BWP 2000       |
|-------------|-------------------------------|------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| FO          | Top sensor                    | [mm]<br>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]<br>-              | -              | -              | -              | -              | 1940<br>1¼" IT | 2140<br>1¼" IT | 2170<br>1¼" IT | 2350<br>1¼" IT |
| WW          | Hot water                     | [mm]<br>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  | 1890<br>2" IT  | 2060<br>2" IT  |
| ANO         | Anode top                     | [mm]<br>-              | -              | -              | -              | -              | -              | -              | -              | -              |
| ANO         | Anode top                     | [mm]<br>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 | 2170<br>1¼" IT | 2350<br>1¼" IT |
| ANS         | Anode side                    | [mm]<br>-              | -              | -              | 625<br>1¼" IT  | 625<br>1¼" IT  | 690<br>1¼" IT  | 690<br>1¼" IT  | 825<br>1¼" IT  | 835<br>1¼" IT  |
| F/TH        | Sensor/Thermometer            | [mm]<br>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  | 1790<br>½" IT  | 1960<br>½" IT  |
| EHP         | Flange top                    | [mm]<br>840<br>1½" IT  | 990<br>1½" IT  | 1075<br>1½" IT | 1280<br>1½" IT | -              | -              | -              | -              | -              |
| FLO         | Electric heating cartridge    | [mm]<br>-              | -              | -              | -              | 1300<br>Ø 180  | 1400<br>Ø 180  | 1400<br>Ø 180  | 1445<br>Ø 180  | 1450<br>Ø 180  |
| FLU         | Flange bottom                 | [mm]<br>285<br>Ø 180   | 295<br>Ø 180   | 310<br>Ø 180   | 310<br>Ø 180   | 310<br>Ø 180   | 350<br>Ø 290   | 350<br>Ø 290   | 500<br>Ø 290   | 520<br>Ø 290   |
| Z           | Circulation                   | [mm]<br>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  | 1600<br>1" IT  | 1750<br>1" IT  |
| HZV         | Heating supply                | [mm]<br>795<br>1¼" IT  | 920<br>1¼" IT  | 1005<br>1¼" IT | 1215<br>1¼" IT | 1215<br>1¼" IT | 1195<br>1¼" IT | 1195<br>1¼" IT | 1340<br>1¼" IT | 1350<br>1¼" IT |
| FWN         | Hot water post-heating sensor | [mm]<br>-              | -              | -              | 600<br>½" IT   | 600<br>½" IT   | 660<br>½" IT   | 660<br>½" IT   | 825<br>½" IT   | 835<br>½" IT   |
| HZR         | Heating return                | [mm]<br>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  | 390<br>1¼" IT  | 400<br>1¼" IT  |
| KW          | Cold water                    | [mm]<br>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   | 280<br>2" IT   | 290<br>2" IT   |

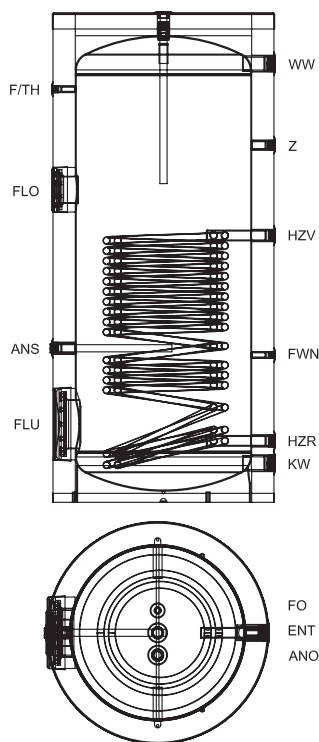
BWP 200 / 300 / 400 / 500



BWP 600



BWP 800 / 1000



BWP 1500 / 2000

