

GT tanks

Diaphragm and bladder tanks



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Product numbers

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Applications

The Grundfos GT diaphragm and bladder pressure tanks are suitable for domestic and industrial applications where a controlled pressure is required.

Operating pressure: Max. 10 bar.
 Liquid temperature: GT-H and GT-D: Max. 90°C.
 GT-U: Max. 70°C.

Typical applications:

- domestic water supply systems
- booster systems
- irrigation systems
- industrial systems.

The Grundfos GT tanks are approved for use with potable water.

The GT tanks can be used with any Grundfos pump.

Type key

| | |
|-------------------|----------------------|
| Example | GT - H - 80 V |
| Type range | GT - H - 80 |
| Tank type: | H = Diaphragm |
| | D = Double diaphragm |
| | U = Bladder |
| Tank capacity [l] | 80 |
| Position: | V = Vertical |
| | H = Horizontal |

Tank range

The GT tanks are available in sizes from 8 to 3000 litres suitable for vertical installation. GT tanks in sizes 24 to 80 litres are also suitable for horizontal installation.

The **GT-H tanks** have a non-toxic butyl rubber diaphragm, dividing the tank chamber in two compartments. The upper compartment contains compressed atmospheric air. The lower compartment has a liner in polypropylene (PP) and is filled with water from the pump.

The **GT-D tanks** have a double diaphragm.

The **GT-U tanks** have a replaceable, non-toxic butyl rubber bladder surrounded by compressed nitrogen. The bladder is the only component in contact with the liquid.

Sizing

The required tank capacity can be calculated as follows:

Capacity

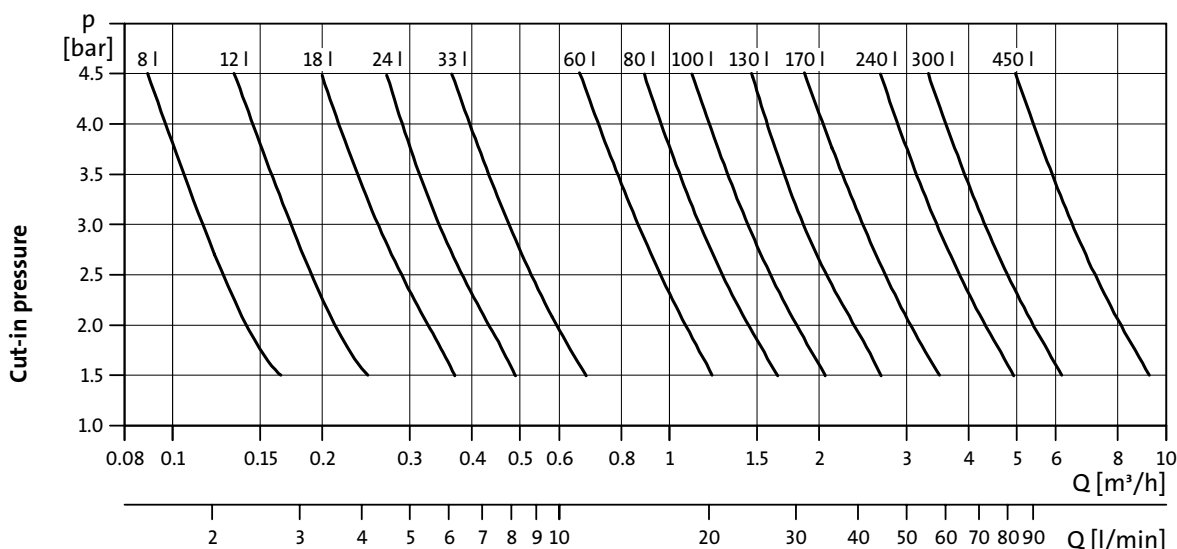
$$V = \frac{Q \times 1000 \times (1 + (\text{Cut-in}) + \Delta p)}{4 \times n_{\max} \times \Delta p} \times \frac{1}{k}$$

- V = Tank volume [litres]
- Q = Mean flow rate [m³/h]
- Δp = Difference between cut-in and cut-out pressure [bar]
- Cut-in = Cut-in pressure (lowest) [bar]
- n_{max} = Max. number of starts/stops per hour
- k = Constant for tank pre-charge pressure: k = 0.9.

Pumps fitted with a Grundfos MGE motor: Please refer to the Hydro 2000 data booklet.

The diagram below is based on the following values:

- differential pressure Δp: 1 bar
- number of starts/stops per hour: 20
- k = 0.9.



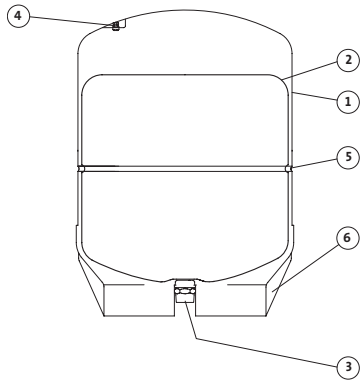
Tank sizes larger than 450 litres should be calculated by means of the formula above.

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Material specifications

GT-H, vertical and horizontal installation

Sectional drawing, example: GT-H-60 V



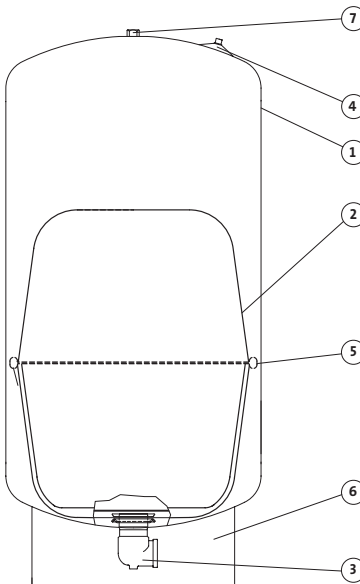
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| Pos. | Component | Material |
|-------------|----------------------|-------------------------------------|
| GT-H | | |
| 1 | Tank body with liner | Carbon steel and polypropylene (PP) |
| 2 | Diaphragm | Butyl rubber |
| 3 | Pipe connection | Stainless steel DIN/EN 1.4301 |
| 4 | Air valve | Brass |
| 5 | Clamping ring | Carbon steel |
| 6 | Skirt ¹ | Carbon steel |

¹Fitted on GT-H-60-V and GT-H-80 V

GT-D, vertical installation

Sectional drawing, example: GT-D-130 V

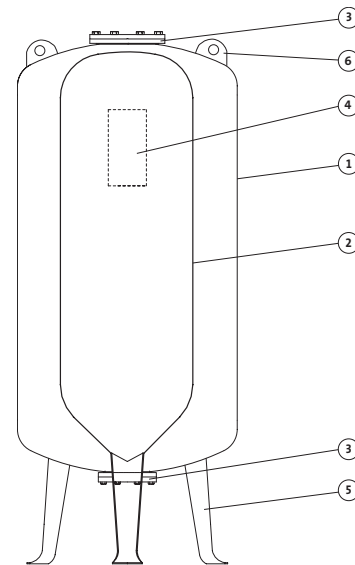


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| Pos. | Component | Material |
|-------------|------------------|-------------------------------|
| GT-D | | |
| 1 | Tank body | Carbon steel |
| 2 | Double diaphragm | Butyl rubber |
| 3 | Pipe connection | Stainless steel DIN/EN 1.4301 |
| 4 | Air valve | Brass |
| 5 | Clamping ring | Carbon steel |
| 6 | Skirt | Carbon steel |
| 7 | Tapped hole | Steel |

GT-U, vertical installation

Sectional drawing, example: GT-U-1000 V



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| Pos. | Component | Material |
|-------------|-------------|--------------|
| GT-U | | |
| 1 | Tank body | Carbon steel |
| 2 | Bladder | Butyl rubber |
| 3 | Flange | Carbon steel |
| 4 | Air valve | Brass |
| 5 | Feet | Carbon steel |
| 6 | Lifting eye | Carbon steel |

Operating conditions

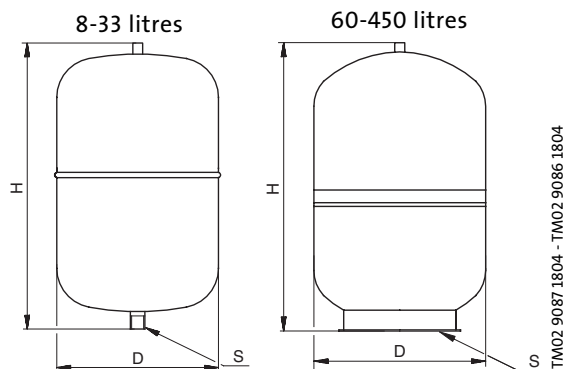
Liquid temperature: GT-H and GT-D: Max. 90°C
GT-U: Max. 70°C

Max. operating pressure: 10 bar

Pre-charge pressure: 1.5 bar.

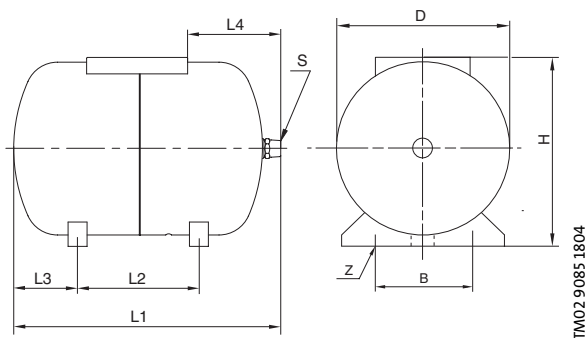
Note: The pre-charge pressure must be checked at least twice a year.

GT-H and GT-D, vertical installation



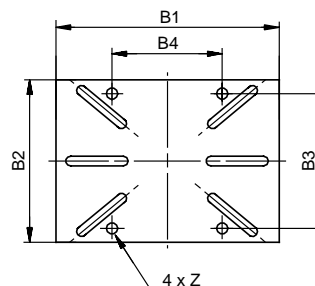
| Type | Size [l] | Dimensions [mm] | | | Gross weight [kg] |
|------------|----------|-----------------|------|------|-------------------|
| | | D | H | S | |
| GT-H-8 V | 8 | 202 | 303 | G1 | 2.3 |
| GT-H-8 V | 8 | 202 | 303 | G3/4 | 2.3 |
| GT-H-12 V | 12 | 244 | 365 | G3/4 | 3.1 |
| GT-H-18 V | 18 | 279 | 367 | G1 | 4.6 |
| GT-H-18 V | 18 | 279 | 367 | G3/4 | 4.6 |
| GT-H-24 V | 24 | 289 | 447 | G1 | 5.1 |
| GT-H-33 V | 33 | 289 | 584 | G1 | 6.7 |
| GT-H-60 V | 60 | 397 | 557 | G1 | 11.0 |
| GT-H-80 V | 80 | 397 | 755 | G1 | 16.0 |
| GT-D-100 V | 100 | 406 | 874 | G1 | 18.6 |
| GT-D-130 V | 130 | 406 | 1086 | G1 | 24.5 |
| GT-D-170 V | 170 | 533 | 929 | G1 | 30.4 |
| GT-D-240 V | 240 | 533 | 1201 | G1 | 37.2 |
| GT-D-300 V | 300 | 533 | 1488 | G1 | 44.9 |
| GT-D-450 V | 450 | 660 | 1520 | G1 | 69.5 |

GT-H, horizontal installation



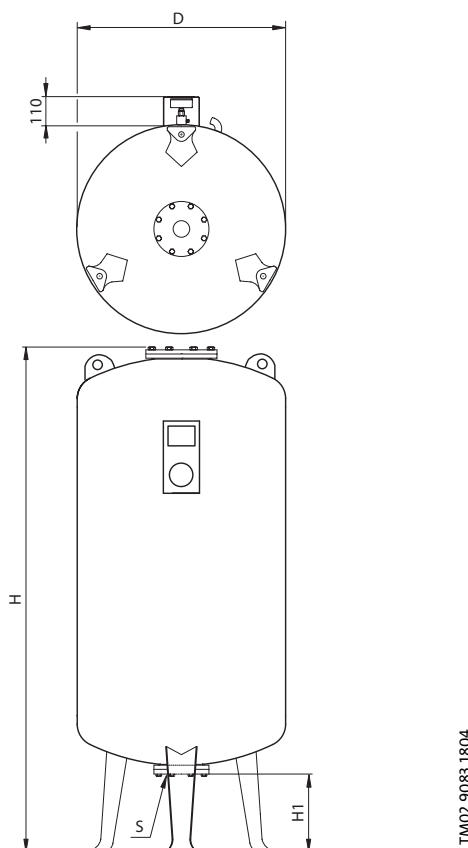
| Type | Size [l] | Dimensions [mm] | | | | | | | Z | S | Gross weight [kg] |
|-----------|----------|-----------------|-----|-----|-----|-----|-----|-----|---|----|-------------------|
| | | D | H | B | L1 | L2 | L3 | L4 | | | |
| GT-H-24 H | 24 | 289 | 297 | 235 | 447 | 250 | 84 | 156 | 4 | G1 | 6.0 |
| GT-H-60 H | 60 | 389 | 396 | 342 | 532 | 299 | 102 | 199 | 4 | G1 | 12.8 |
| GT-H-80 H | 80 | 389 | 396 | 342 | 730 | 229 | 201 | 306 | 4 | G1 | 17.2 |

Supporting bracket



| Type | Size [l] | Dimensions [mm] | | | | |
|-----------|----------|-----------------|-----|-----|-----|----|
| | | B1 | B2 | B3 | B4 | Z |
| GT-H-24 H | 24 | 220 | 165 | 139 | 107 | 10 |
| GT-H-50 H | 50 | 220 | 165 | 139 | 107 | 9 |
| GT-H-80 H | 80 | 220 | 165 | 139 | 107 | 9 |

GT-U, vertical installation



| Type | Size [l] | Dimensions [mm] | | | | Gross weight [kg] |
|-------------|----------|-----------------|------|-----|-----|-------------------|
| | | D | H | H1 | S | |
| GT-U-750 V | 750 | 750 | 2230 | 281 | G2 | 260 |
| GT-U-1000 V | 1000 | 750 | 2730 | 281 | G2 | 320 |
| GT-U-1500 V | 1500 | 1000 | 2538 | 374 | G2½ | 530 |
| GT-U-2000 V | 2000 | 1200 | 2440 | 393 | G2½ | 620 |
| GT-U-2500 V | 2500 | 1200 | 2940 | 393 | G2½ | 700 |
| GT-U-3000 V | 3000 | 1200 | 3340 | 393 | G2½ | 805 |

GT-H, horizontal installation

| Type | Size [l] | Product number |
|-----------|----------|----------------|
| GT-H-24 H | 24 | 96528388 |
| GT-H-60 H | 60 | 96528389 |
| GT-H-80 H | 80 | 96528390 |

GT-H, vertical installation

| Type | Size [l] | Product number |
|-----------|----------|----------------|
| GT-H-8 V | 8 | 96526321 |
| GT-H-8 V | 8 | 96528335 |
| GT-H-12 V | 12 | 96528336 |
| GT-H-18 V | 18 | 96528337 |
| GT-H-18 V | 18 | 96526322 |
| GT-H-24 V | 24 | 96528339 |
| GT-H-33 V | 33 | 96528340 |
| GT-H-60 V | 60 | 96528341 |
| GT-H-80 V | 80 | 96528342 |

GT-D, vertical installation

| Type | Size [l] | Product number |
|------------|----------|----------------|
| GT-D-100 V | 100 | 96528343 |
| GT-D-130 V | 130 | 96528344 |
| GT-D-170 V | 170 | 96528345 |
| GT-D-240 V | 240 | 96528346 |
| GT-D-300 V | 300 | 96528347 |
| GT-D-450 V | 450 | 96528348 |

GT-U, vertical installation

| Type | Size [l] | Product number |
|-------------|----------|----------------|
| GT-U-750 V | 750 | 96528349 |
| GT-U-1000 V | 1000 | 96528350 |
| GT-U-1500 V | 1500 | 96528351 |
| GT-U-2000 V | 2000 | 96528352 |
| GT-U-2500 V | 2500 | 96528353 |
| GT-U-3000 V | 3000 | 96528354 |

| | |
|---------------|-----------|
| 96552805 0604 | GB |
| | |

Subject to alterations.