

1. General data

Applications

The Grundfos GT pressure tanks are long-life tanks ideally suited for controlling the pressure in domestic as well as industrial applications in the following systems:

- cold-water (drinking-water) systems.
See *Cold-water tanks*, page 5.
- heating systems. See 3. *Heating*, page 16.

Grundfos GT tanks ensure long, maintenance-free, reliable and controlled operation.

GT tanks can be integrated in many different systems with a wide variety of pumps. The large number of tank sizes and types available makes it possible to select the pressure tank that best suits the application and system in question.

Type key

Example	GT	- U	- 25	PN 10	G 1/2	V
Type range						
Tank type:						
U = bladder						
H = diaphragm						
D = double diaphragm						
DF = double diaphragm with FlowThru						
C = composite tank						
CF = composite tank with FlowThru						
HR = non-replaceable diaphragm for heating applications						
Tank volume [litres]						
Pressure rating						
Pipe connection						
Position:						
V = vertical						
H = horizontal						

Tank range

Application	Positioning	Volume range [l]
Cold water	Vertical	8 to 5000
	Horizontal	24 to 80
Heating	Vertical	8 to 1000

Overview of tank types

The table below shows the available tank types in relation to application.

Symbol	Description
•	Recommended
-	Not recommended

Application	Tank type						
	GT-U	GT-H	GT-D	GT-DF	GT-C	GT-CF	GT-HR
Heating	-	-	-	-	-	-	•
Chilled water	-	-	-	-	-	-	•
Sea water	-	-	-	-	•	-	-
Grey water*	○	•	•	-	•	-	-
Drinking water	○	○	○	○	○	•	-

* Grey water, also known as sullage, is non-industrial wastewater generated from domestic processes, such as dish washing, laundry and bathing.

Approvals and markings

Tank type	Approvals			Markings	
	WRAS	NSF	ACS	CE	GOST
GT-U	•	-	•	•	-
GT-H	•	•	•	•	•
GT-D	•	•	•	•	•
GT-DF	-	•	•	•	•
GT-C	•	•	•	•	•
GT-CF	-	•	•	•	•
GT-HR	-	-	-	•	-

Tank colours

Application	Colour	Colour code
Cold water	Grey	NCS S7005-R80B, gloss 20-35
Heating	Red	RAL3011

Operating conditions

Maximum operating pressure	Maximum liquid temperature
25 bar	GT-U bladder tank
16 bar	GT-U bladder tank GT-H diaphragm tank
10 bar	GT-U bladder tank GT-D double-diaphragm tank GT-H diaphragm tank GT-DF double-diaphragm tank with FlowThru
8.6 bar	GT-CF composite tank with FlowThru GT-C composite tank
6 bar	GT-HR heating tank (5 to 1000 litres)
	10 °C 20 °C 30 °C 40 °C 50 °C 60 °C 70 °C 80 °C 90 °C 100 °C

Material specifications

Pos.	Component	Material	Tank type
1	Tank body	Low-carbon sheet steel	GT-U, GT-H, GT-D, GT-DF, GT-HR
		Fibreglass, epoxy resin, composite	GT-C, GT-CA, GT-CF
2	Bladder, diaphragm	Butyl	GT-U, GT-H, GT-D, GT-DF, GT-C, GT-CF
		EPDM rubber	GT-HR
		Stainless steel EN 1.4301/AISI 304	GT-H, GT-D, GT-DF
3	Flange/pipe connection	Stainless steel EN 1.4401/AISI 316 Ti	GT-U
		Polyvinyl chloride (PVC)	GT-C, GT-CF
		Low-carbon sheet steel	GT-HR
4	Air valve	Steel/brass	GT-U, GT-H, GT-D, GT-DF, GT-C, GT-CF, GT-HR
5	Clamping ring/feet	Low-carbon sheet steel	GT-U, GT-H, GT-D, GT-DF, GT-HR
		Polypropylene (PP)	GT-C, GT-CF
6	Lifting eye/skirt	Low-carbon sheet steel	GT-U, GT-H, GT-D, GT-DF, GT-HR
		Polypropylene (PP)	GT-C, GT-CF
7	Tapped hole	Low-carbon sheet steel	GT-U

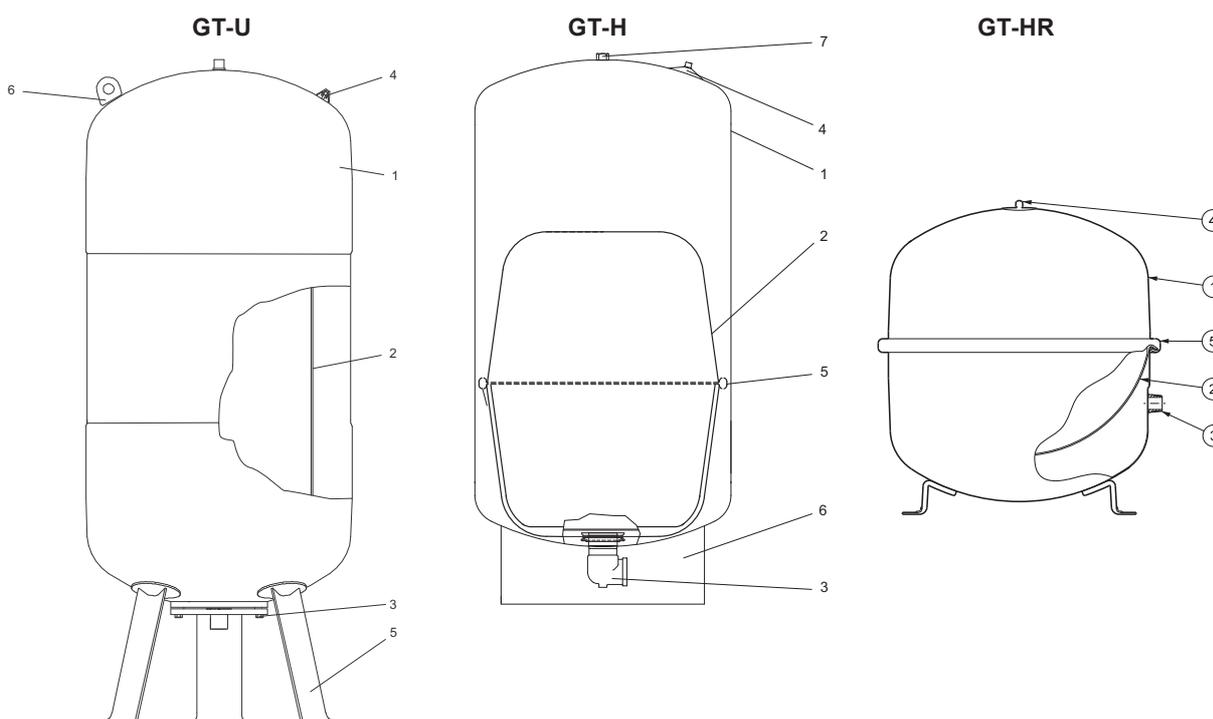


Fig. 1 Sectional drawings, examples of tanks

The actual GT tank may look different from the examples shown above.

TM03 8262 0907 - TM02 9095 0907 - TM03 1677 2705

2. Cold water

Cold-water tanks

The Grundfos GT pressure tanks for cold-water applications are long-life tanks ideally suited for controlling the pressure in domestic as well as industrial applications.

Typical applications:

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

GT tanks can be integrated in many different systems with a wide variety of pumps. The large number of tank sizes and types available makes it possible to select the pressure tank that best suits the application and system in question.

Tank range

GT-U (bladder tank)

The pressure tank body is made of steel and is factory-pre-charged with nitrogen. All parts in contact with water are either made of stainless steel or coated for protection against corrosion.

The replaceable bladder for tanks with a volume exceeding 60 litres is made of high-quality rubber material suitable for potable-water applications, such as booster systems, pressurisation and water hammer arresting.

GT-H (diaphragm tank)

The polypropylene liner combined with an FDA-approved high-grade butyl diaphragm makes up the water chamber. This is held against the tank wall with a steel clench ring.

The brass air valve, sealed by a threaded O-ring valve cap, prevents air leaks.

GT-D (double-diaphragm tank)

The diaphragm is a chlorine-resistant 100 % butyl diaphragm with a precision-moulded copolymer polypropylene liner for superior air and water separation.

The diaphragm assembly is clenched together with a positive lock internal clench ring which contains drawdown water in a pre-charged air atmosphere, thus providing separation between the diaphragm and tank wall. This "air buffer" means less problems with condensation.

The air chamber is sealed with a fixed O-ring and closed cell foam.

GT-DF (double-diaphragm tank with FlowThru)

The FlowThru connection diverts system water into and more importantly out of the tank while the pump is running. This constant flushing ensures that the water in the tank remains fresh and eliminates the risk of stagnant water during normal system operation.

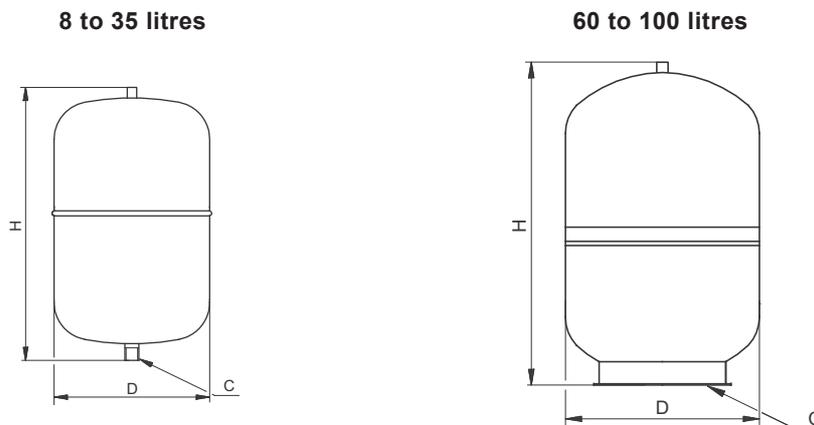
See figs 2 and 3.

GT-C (composite tank)

The GT-C pressure tank is a lightweight pressure tank. The diaphragm is a chlorine-resistant 100 % butyl diaphragm with a precision-moulded copolymer polypropylene liner for superior air and water separation. This design allows each tank size to have a properly sized water chamber matched to the drawdown performance of that tank.

GT-H, 10 bar

Vertical installation

Dimensions, weights and product numbers

TM02 9086 2809 - TM02 9087 2809

Fig. 9 Dimensional sketches

Tank type	Size [l]	Dimensions [mm]			Gross weight [kg]	Product number
		D	H	C		
GT-H-8 PN 10 G 3/4 V	8	203	311	G 3/4	2.6	96528335
GT-H-8 PN 10 G 1 V	8	203	311	G 1	2.6	96526321
GT-H-12 PN 10 G 3/4 V	12	229	364	G 3/4	3.1	96528336
GT-H-12 PN 10 G 1 V	12	229	364	G 1	3.1	97506558
GT-H-18 PN 10 G 3/4 V	18	279	366	G 3/4	5.0	96526322
GT-H-18 PN 10 G 1 V	18	279	366	G 1	5.0	96528337
GT-H-24 PN 10 G 3/4 V	24	290	445	G 3/4	5.1	97506559
GT-H-24 PN 10 G 1 V	24	290	445	G 1	5.1	96528339
GT-H-35 PN 10 G 3/4 V	35	318	481	G 3/4	7.5	96526002
GT-H-35 PN 10 G 1 V	35	318	481	G 1	7.5	96528340
GT-H-60 PN 10 G 1 V	60	388	528	G 1	10	96528341
GT-H-80 PN 10 G 1 V	80	388	626	G 1	16.7	96894291
GT-H-100 PN 10 G 1 V	100	430	804	G 1	18.9	97527968