

# GT tanks

For cold-water and heating applications



# Contents

---

## General data

Applications	3
Type key	3
Tank range	3
Overview of tank types	3
Approvals and markings	3
Tank colours	3
Operating conditions	3
Material specifications	4

## Cold water

Cold-water tanks	5
Tank range	5
Sizing	7
GT-U, 10 bar	8
GT-U, 16 bar	9
GT-U, 25 bar	10
GT-H, 10 bar	11
GT-H, 16 bar	12
GT-H, 10 bar	13
GT-D, 10 bar, GT-DF, 8.6 bar	14
GT-C, GT-CA, GT-CF, 8.6 bar	15

## Heating

Applications	16
Tank range	16
Sizing	16
GT-HR, 6 bar	17

## Further product documentation

WebCAPS	18
WinCAPS	19

## Applications

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

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

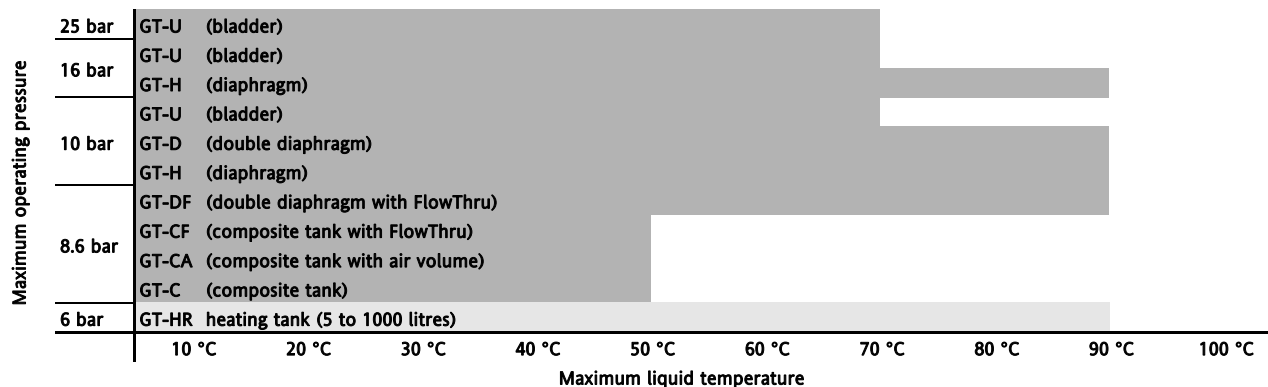
## Type key

<b>Example</b>	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						
CA = Composite tank with air volume						
CF = Composite tank with FlowThru						
HR = Non-replaceable diaphragm for heating applications						
Tank volume [l]						
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

## Operating conditions



## 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-CA	GT-CF	GT-HR
Heating	-	-	-	-	-	-	-	•
Chilled water	-	-	-	-	-	-	-	•
Degassing	-	-	-	-	-	•	-	-
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-CA	•	•	•	•	•
GT-CF	-	•	•	•	•
GT-HR	-	-	-	•	-

## Tank colours

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

## 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
3	Flange/pipe connection	Stainless steel EN 1.4301/AISI 304	GT-U, GT-H, GT-D, GT-DF
		Polyvinyl chloride (PVC)	GT-C, GT-CA, GT-CF
		Low-carbon sheet steel	GT-HR
4	Air valve	Steel/brass	GT-U, GT-H, GT-D, GT-DF, GT-C, GT-CA, 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-CA, 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-CA, GT-CF
7	Tapped hole	Low-carbon sheet steel	GT-U

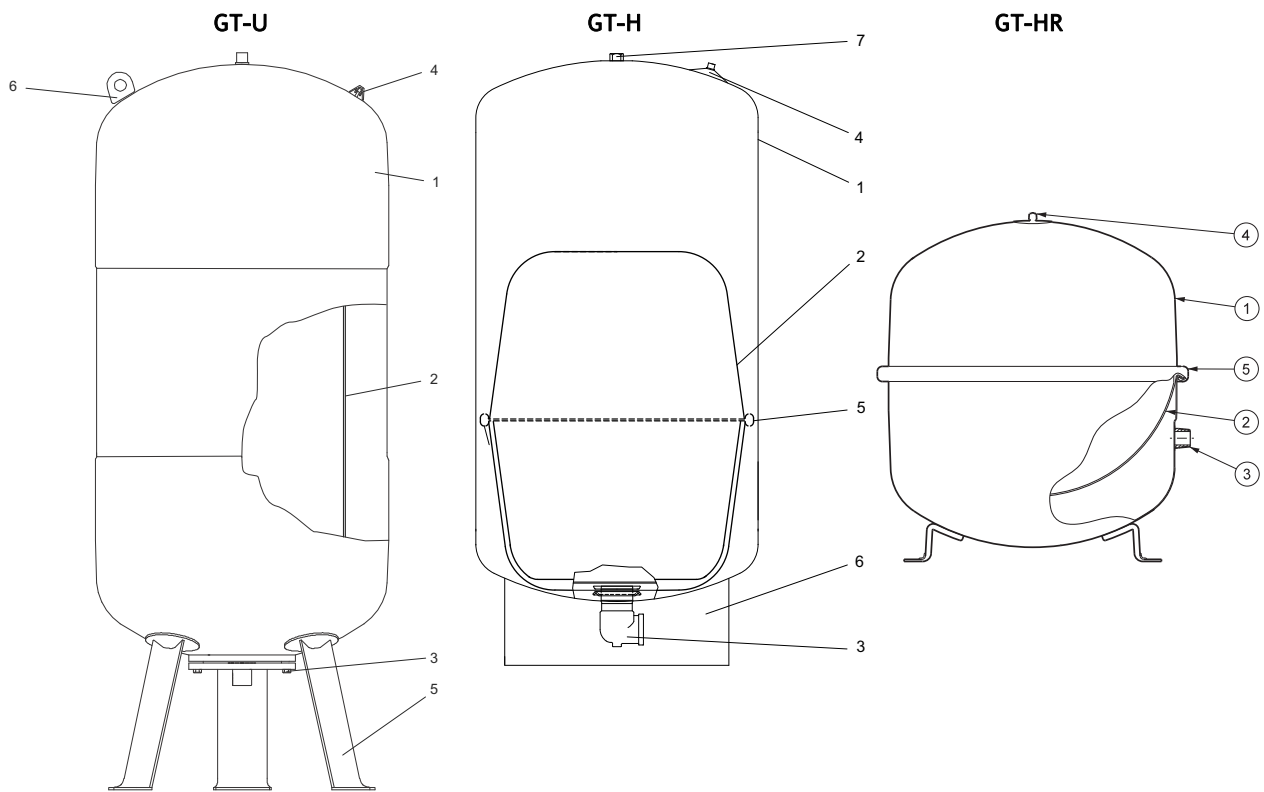


Fig. 1 Sectional drawings, examples of tanks. The actual GT tank may look different from the examples shown.

TM03 8262 0907 - TM02 9095 0907 - TM03 1677 2705

## 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)

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)

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)

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 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-CA (composite tank with air volume)

The water is forced through the air injector which saturates the water with air. The air-saturated water is then held in the composite tank for a period of time to allow the air to be liberated from the water. The period of time (days/weeks) depends on the level of contamination. This process also removes unwanted gases such as sulphur-containing gases from the water. When a certain level is reached, a vent opens and allows the unwanted gases to escape.

## GT-CF (composite 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.

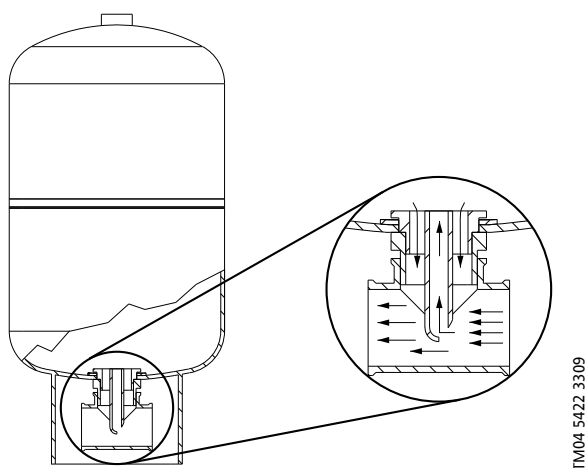


Fig. 2 Illustration of the FlowThru function

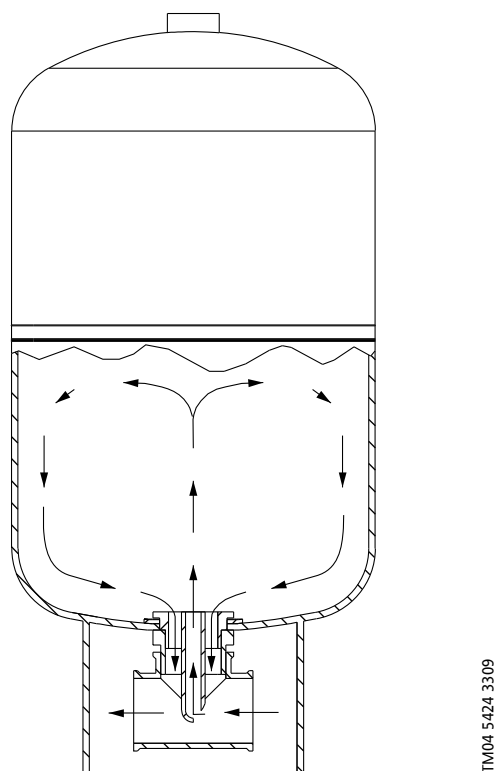


Fig. 3 Illustration of the FlowThru principle

## Sizing

### Tank sizes not exceeding 450 litres

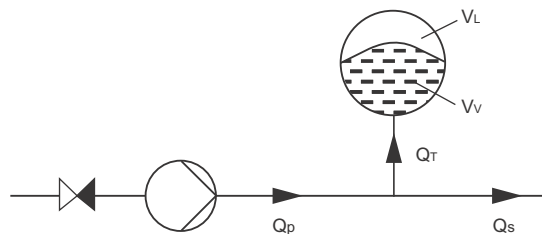
For tank sizes not exceeding 450 litres, use the diagram below in order to choose the optimum tank size. All you need to know is the cut-in pressure and the flow.

The diagram below is based on the following values:

- Differential pressure: 1 bar.
- Number of starts/stops per hour: 20.
- Constant for tank pre-charge pressure: 0.9.

### Tank sizes exceeding 450 litres

Tank sizes exceeding 450 litres should be calculated from the formula below.



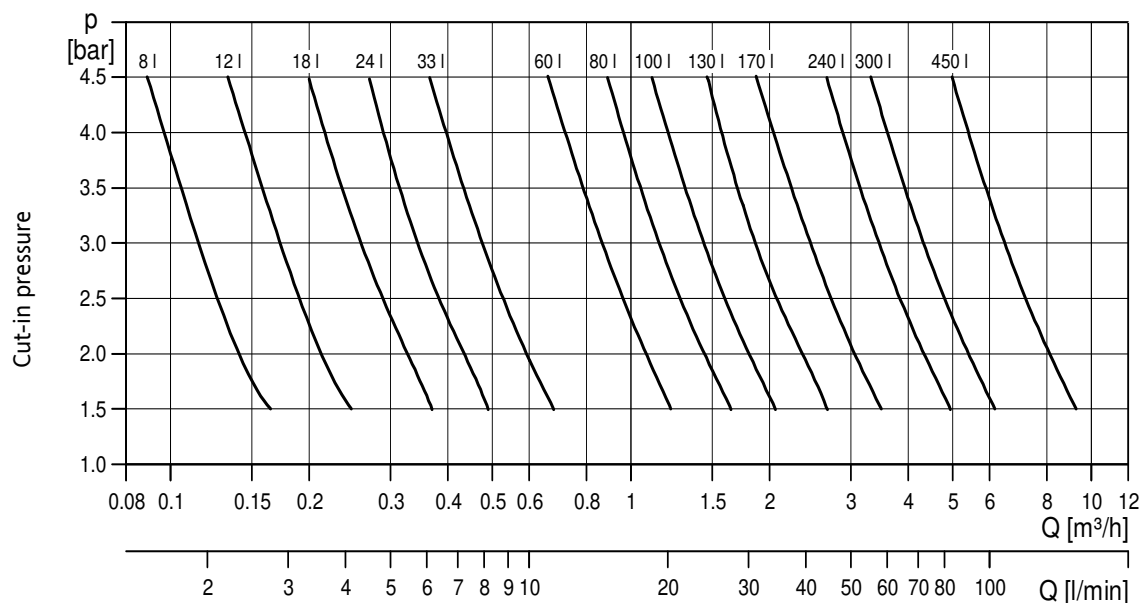
TM04 5567 3409

**Fig. 4** Calculation of volume

$$V_0 = \frac{1000 \times Q_s \times (p_1 + 1) \times (p_2 + 1)}{4 \times N \times (p_0 + 1) \times (p_2 - p_1)}$$

### Legend

- $V_0$  = Tank volume [litres]
- $V_L$  = Air volume in tank [litres]
- $V_v$  = Water volume in tank [litres]
- $Q_s$  = Mean flow rate [ $m^3/h$ ]
- $p_1$  = Cut-in pressure [bar]
- $p_2$  = Cut-out pressure [bar]
- $p_0$  = Pre-charge pressure, tank [bar]
- $Q_p$  = Flow, pump [ $m^3/h$ ]
- $Q_T$  = Flow, pressure tank [ $m^3/h$ ]
- $N$  = Maximum number of starts/stops per hour



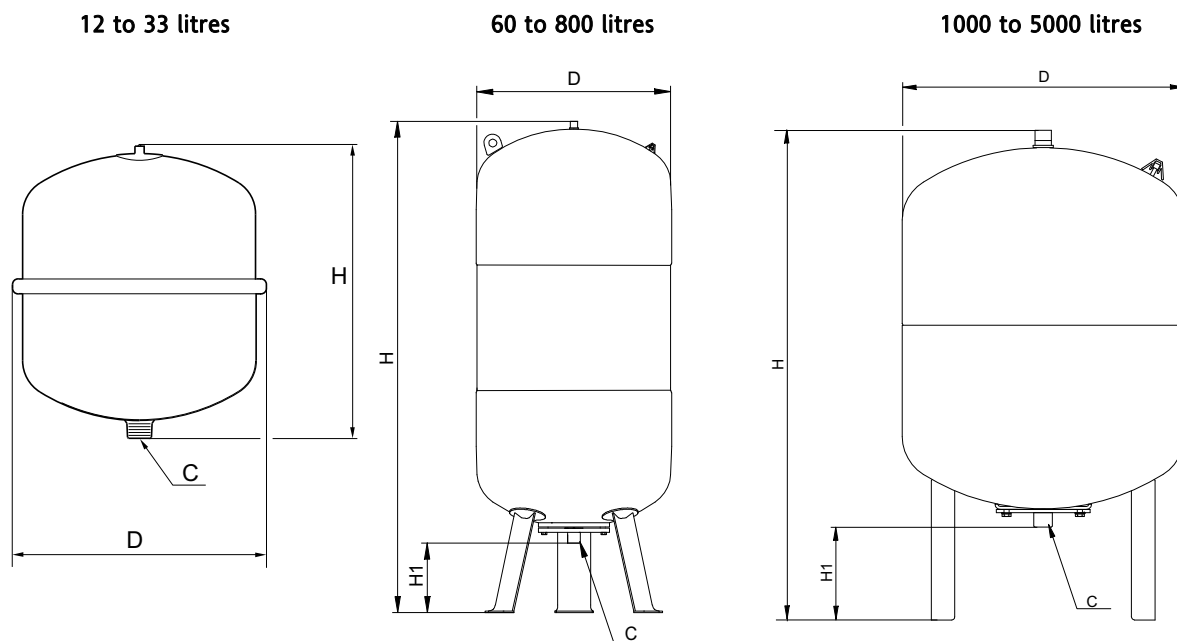
TM02 8938 2405

**Fig. 5** Tank size in relation to cut-in pressure and flow

## GT-U, 10 bar

Vertical installation, maximum pressure 10 bar, pre-charge pressure 4 bar

### Dimensions, weights and product numbers



TM03 1681 2809 - TM03 8257 2809 - TM03 8258 2809

**Fig. 6** Dimensional sketches

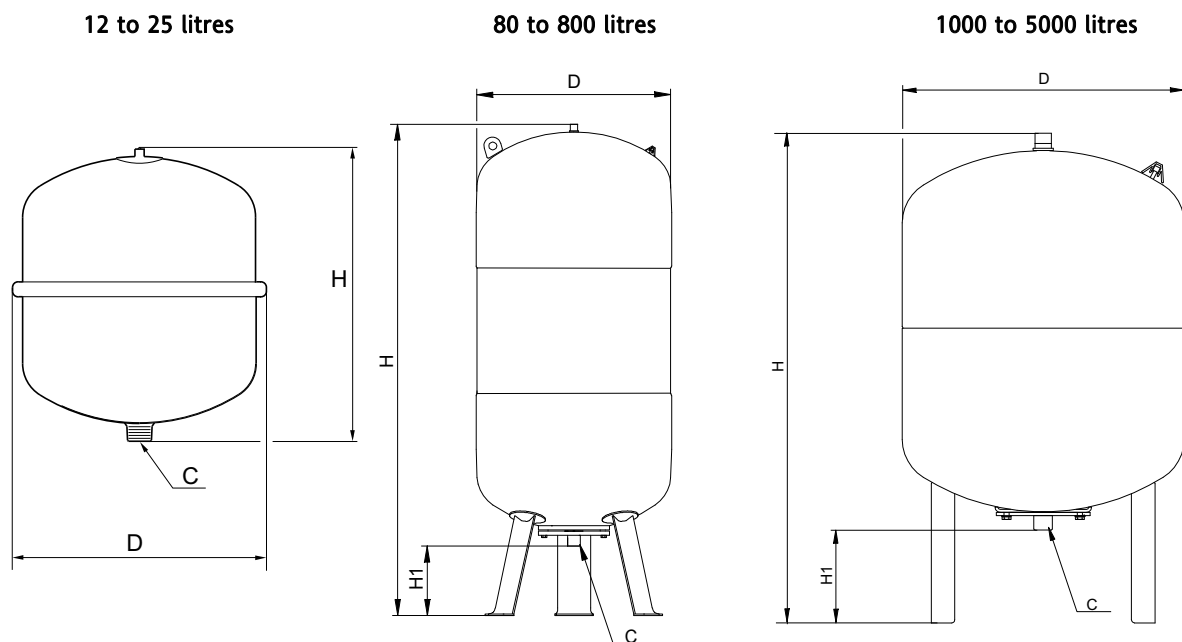
Tank type	Size [l]	Dimensions [mm]				Gross weight [kg]		Product number	
		D	H	H1	C	Stainless-steel flange	Coated flange	Stainless-steel flange	Coated flange
GT-U-12 PN 10 G 3/4 V	12	280	310	-	G 3/4	2.5	-	96989120	-
GT-U-25 PN 10 G 3/4 V	25	280	500	-	G 3/4	5.5	-	96573253	-
GT-U-33 PN 10 G 3/4 V	33	354	450	-	G 3/4	6.7	-	96573254	-
GT-U-60 PN 10 G 3/4 V	60	409	740	-	G 3/4	14.3	-	96989123	-
GT-U-80 PN 10 G 1 V	80	480	730	150	G 1	26	17	96573255	96573266
GT-U-100 PN 10 G 1 V	100	480	840	150	G 1	30	22	96573257	96573267
GT-U-200 PN 10 G 1 1/4 V	200	634	980	145	G 1 1/4	50	50	96573258	96573268
GT-U-300 PN 10 G 1 1/4 V	300	634	1267	145	G 1 1/4	50	55	96573259	96573269
GT-U-400 PN 10 G 1 1/4 V	400	740	1245	135	G 1 1/4	76	76	96603444	96603450
GT-U-500 PN 10 G 1 1/4 V	500	740	1485	135	G 1 1/4	85	78	96573260	96573280
GT-U-600 PN 10 G 1 1/2 V	600	740	1859	265	G 1 1/2	161	161	96603445	96603451
GT-U-800 PN 10 G 1 1/2 V	800	740	2324	265	G 1 1/2	187	200	96603446	96603452
GT-U-1000 PN 10 G 1 1/2 V	1000	740	2734	265	G 1 1/2	258	258	96603447	96603453
GT-U-1500 PN 10 DN 65 V	1500	1200	2538	290	DN 65	-	535	-	96573283
GT-U-2000 PN 10 DN 65 V	2000	1200	2440	290	DN 65	-	710	-	96573284
GT-U-3000 PN 10 DN 65 V	3000	1500	3340	320	DN 65	-	1050	-	96573285
GT-U-4000 PN 10 DN 150 V	4000	1500	3095	320	DN 150	-	1140	-	96603454
GT-U-5000 PN 10 DN 150 V	5000	1500	3650	320	DN 150	-	1350	-	96603456



## GT-U, 16 bar

Vertical installation, maximum pressure 16 bar, pre-charge pressure 4 bar

### Dimensions, weights and product numbers



TM03 1681 2809 - TM03 8257 2809 - TM03 8258 2809

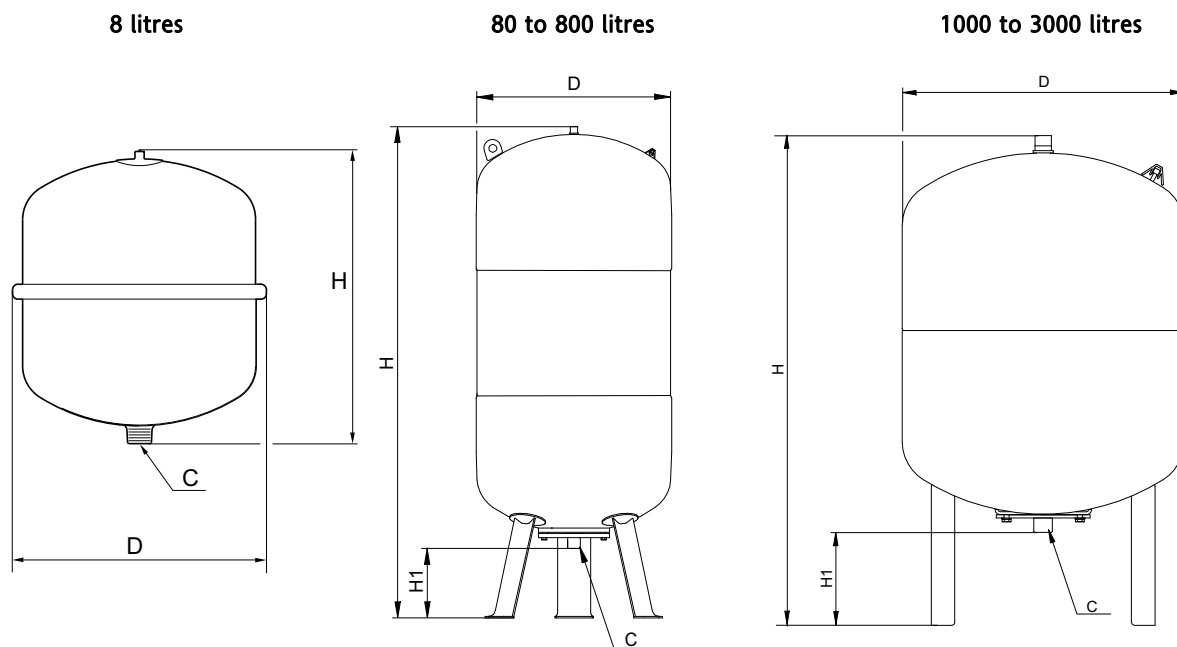
Fig. 7 Dimensional sketches

Tank type	Size [l]	Dimensions [mm]				Gross weight [kg]		Product number	
		D	H	H1	C	Stainless-steel flange	Coated flange	Stainless-steel flange	Coated flange
GT-U-12 PN 16 G 3/4 V	12	280	310	-	G 3/4	3.6	-	96573348	-
GT-U-25 PN 16 G 3/4 V	25	280	500	-	G 3/4	9.0	-	96573349	-
GT-U-80 PN 16 G 1 V	80	480	729	150	G 1	22	22	96603410	96603420
GT-U-100 PN 16 G 1 V	100	480	834	150	G 1	29	36	96603411	96603421
GT-U-200 PN 16 G 1 1/4 V	180	634	967	145	G 1 1/4	58	49	96603413	96603422
GT-U-300 PN 16 G 1 1/4 V	300	634	1267	145	G 1 1/4	66	77	96603414	96603423
GT-U-400 PN 16 G 1 1/2 V	400	740	1245	135	G 1 1/2	117	215	96603415	96603424
GT-U-500 PN 16 G 1 1/2 V	500	740	1475	135	G 1 1/2	129	124	96603416	96603425
GT-U-600 PN 16 G 1 1/2 V	600	740	1859	265	G 1 1/2	173	161	96603417	96603426
GT-U-800 PN 16 G 1 1/2 V	800	740	2324	265	G 1 1/2	223	223	96603418	96603427
GT-U-1000 PN 16 G 1 1/2 V	1000	740	2734	265	G 1 1/2	275	264	96603419	96603428
GT-U-1500 PN 16 DN 65 V	1500	1200	2030	290	DN 65	-	694	-	96603429
GT-U-2000 PN 16 DN 65 V	2000	1200	2500	290	DN 65	-	904	-	96603430
GT-U-3000 PN 16 DN 65 V	3000	1500	2570	320	DN 65	-	1249	-	96603431
GT-U-4000 PN 16 DN 150 V	4000	1500	3145	320	DN 150	-	1364	-	96603432
GT-U-5000 PN 16 DN 150 V	5000	1500	3688	320	DN 150	-	1616	-	96603433

## GT-U, 25 bar

Vertical installation, maximum pressure 25 bar, pre-charge pressure 4 bar

### Dimensions, weights and product numbers



TM03 1681 2809 - TM03 8257 2809 - TM03 8258 2809

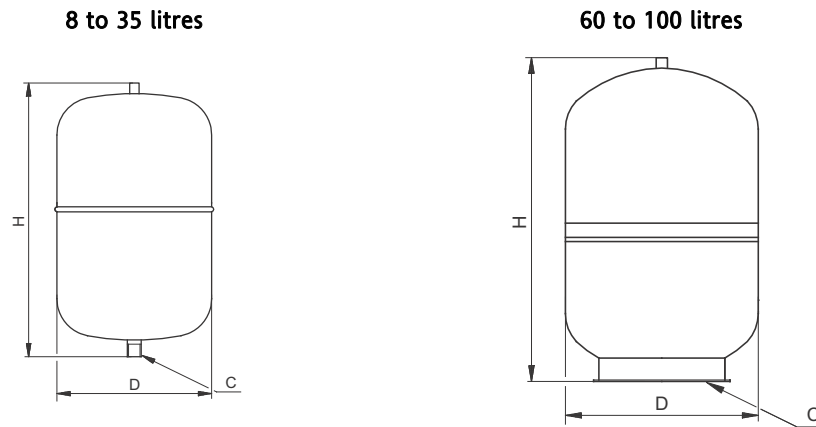
Fig. 8 Dimensional sketches

Tank type	Size [l]	Dimensions [mm]				Gross weight [kg]	Product number	
		D	H	H1	C		Stainless-steel flange	Coated flange
GT-U-8 PN 25 G 3/4 V	8	206	325	-	G 3/4	8	96573347	-
GT-U-80 PN 25 DN 50 V	80	450	947	185	DN 50	107	-	96603459
GT-U-120 PN 25 DN 50 V	120	450	1253	185	DN 50	142	-	96603460
GT-U-180 PN 25 DN 50 V	180	450	1228	185	DN 50	179	-	96603462
GT-U-300 PN 25 DN 50 V	300	750	1318	200	DN 50	201	-	96603463
GT-U-400 PN 25 DN 50 V	400	750	1423	200	DN 50	302	-	96603465
GT-U-600 PN 25 DN 50 V	600	750	1868	185	DN 50	404	-	96603466
GT-U-800 PN 25 DN 50 V	800	750	2268	185	DN 50	150	-	96603468
GT-U-1000 PN 25 DN 50 V	1000	750	2768	185	DN 50	559	-	96603469
GT-U-1500 PN 25 DN 65 V	1500	1200	2050	285	DN 65	911	-	96967953
GT-U-2000 PN 25 DN 65 V	2000	1200	2500	285	DN 65	1184	-	96967955
GT-U-3000 PN 25 DN 65 V	3000	1500	2520	315	DN 65	1632	-	96967957

## GT-H, 10 bar

Vertical installation

### Dimensions, weights and product numbers



TM02 9086 2809 - TM02 9087 2809

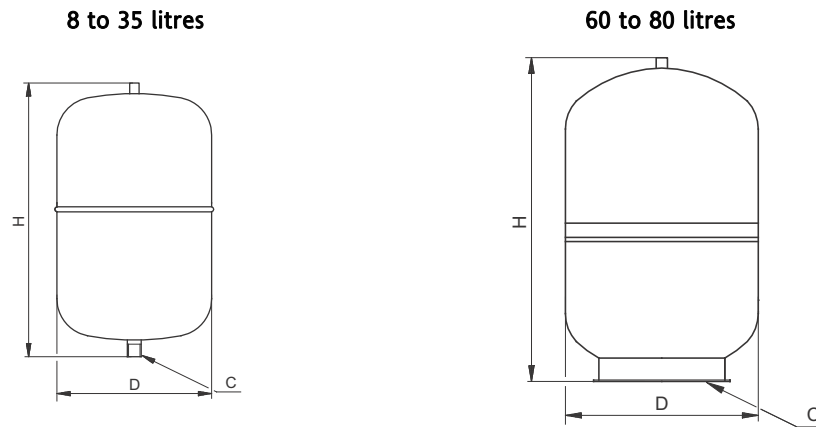
Fig. 9 Dimensional sketches

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	96528338
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

## GT-H, 16 bar

Vertical installation

### Dimensions, weights and product numbers



TM02 9086 2809 - TM02 9087 2809

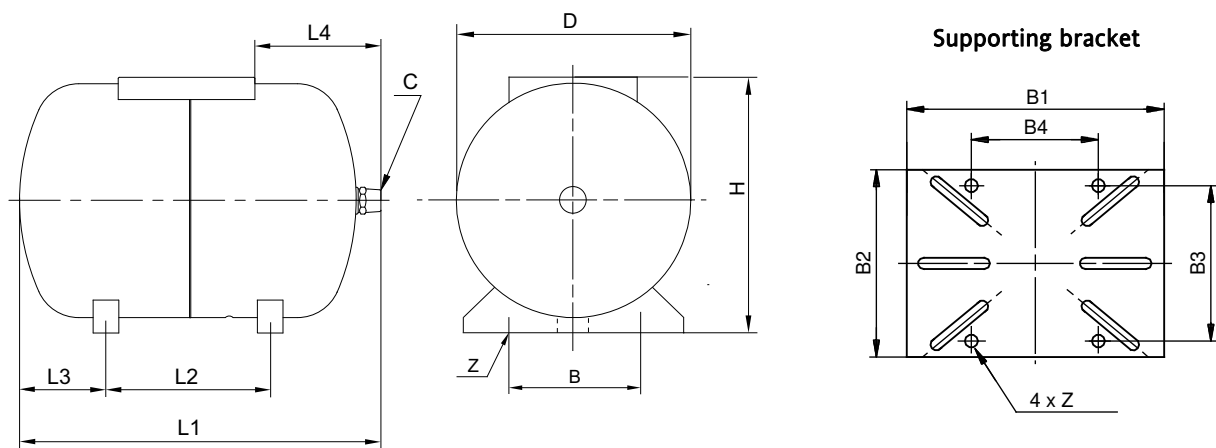
Fig. 10 Dimensional sketches

Tank type	Size [l]	Dimensions [mm]			Gross weight [kg]	Product number
		D	H	C		
GT-H-8 PN 16 G 3/4 V	8	203	311	G 3/4	2.6	96528356
GT-H-12 PN 16 G 3/4 V	12	229	364	G 3/4	3.1	96528357
GT-H-18 PN 16 G 1 V	18	279	366	G 1	5.0	96528358
GT-H-24 PN 16 G 1 V	24	290	445	G 1	5.1	96528360
GT-H-35 PN 16 G 1 V	35	318	481	G 1	7.5	96528361
GT-H-60 PN 16 G 1 V	60	388	528	G 1	10	96528362
GT-H-80 PN 16 G 1 V	80	388	626	G 1	16.7	96528363

## GT-H, 10 bar

Horizontal installation

### Dimensions, weights and product numbers



TM02 9085 2809 - TM01 1611 1501

Fig. 11 Dimensional sketches

Tank type	Size [l]	Dimensions [mm]								Gross weight [kg]	Product number	
		D	H	B	L1	L2	L3	L4	Z			C
GT-H-24 PN 10 G 1 H	24	289	444	235	447	250	84	156	4	G 1	6.5	96528388
GT-H-60 PN 10 G 1 H	60	414	528	342	532	299	102	199	4	G 1	12.8	96528389
GT-H-80 PN 10 G 1 H	80	414	724	342	730	229	201	306	4	G 1	18.0	96528390

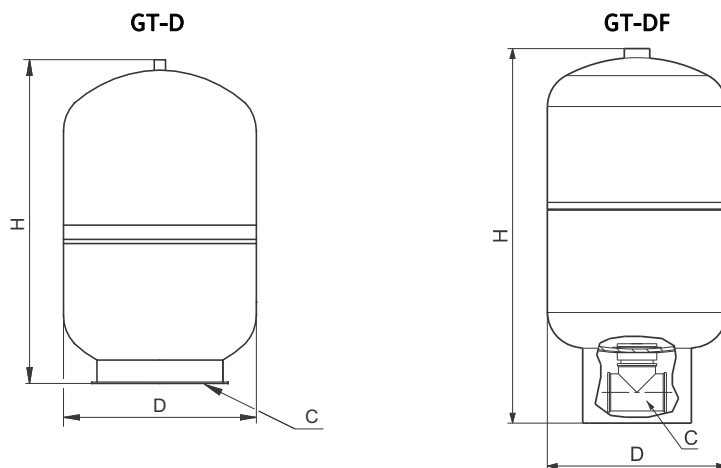
### Supporting bracket

Tank type	Size [l]	Dimensions [mm]				
		B1	B2	B3	B4	Z
GT-H-24 PN 10 G 1/4 H	24	220	165	139	107	10
GT-H-60 PN 10 G 1/4 H	60	220	165	139	107	9
GT-H-80 PN 10 G 1 H	80	220	165	139	107	9

## GT-D, 10 bar, GT-DF, 8.6 bar

Vertical installation

### Dimensions, weights and product numbers



TM02.9087.2809 - TM04.5936.4409

Fig. 12 Dimensional sketches

Tank type	Size [l]	Dimensions [mm]			Gross weight [kg]	Product number
		D	H	C		
<b>GT-D</b>						
GT-D-60 PN 10 G 1 V	60	406	571	G 1	13.5	96748301
GT-D-80 PN 10 G 1 V	80	388	787	G 1	18.0	96528342
GT-D-100 PN 10 G 1 V	100	406	880	G 1	16.0	96528343
GT-D-130 PN 10 G 1 V	130	406	1081	G 1	23.0	96528344
GT-D-170 PN 10 G 1 1/4 V	170	533	921	G 1 1/4	31.0	96528345
GT-D-240 PN 10 G 1 1/4 V	240	533	1219	G 1 1/4	38.0	96528346
GT-D-300 PN 10 G 1 1/4 V	300	533	1575	G 1 1/4	45.0	96528347
GT-D-450 PN 10 G 1 1/4 V	450	660	1505	G 1 1/4	70.0	96528348
<b>GT-DF</b>						
GT-DF-80 PN 8.6 G 1 1/4 V	80	406	744	G 1 1/4	16.4	96980804
GT-DF-170 PN 8.6 G 1 1/4 V	170	533	921	G 1 1/4	30.9	96980807
GT-DF-325 PN 8.6 G 1 1/4 V	325	660	1130	G 1 1/4	55.5	96980808

## GT-C, GT-CA, GT-CF, 8.6 bar

Vertical installation

### Dimensions, weights and product numbers

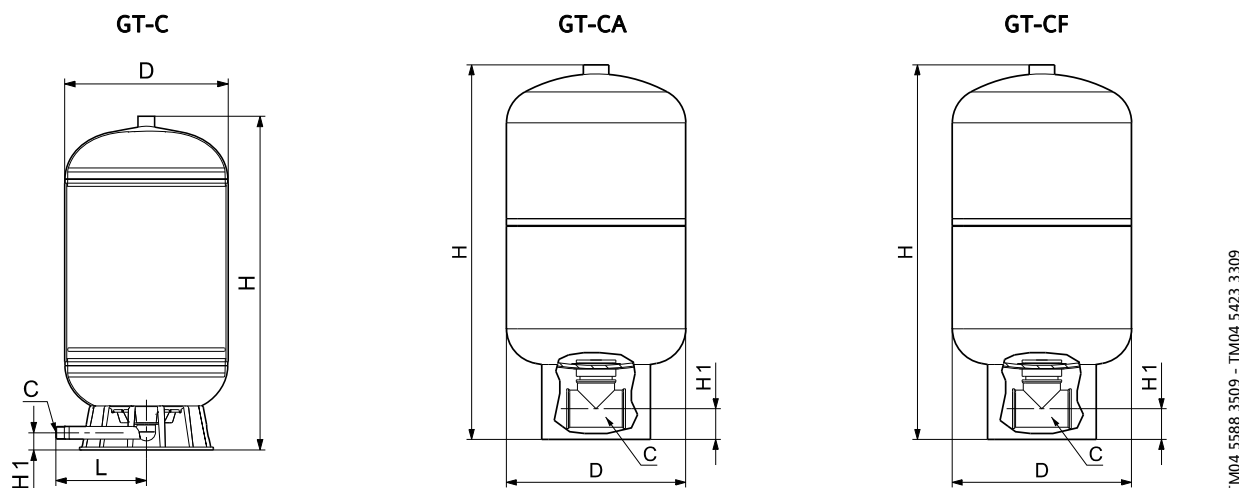


Fig. 13 Dimensional sketches

Tank type	Size [l]	Dimensions [mm]					Gross weight [kg]	Product number
		D	H	H1	L	C		
<b>GT-C</b>								
GT-C-60 PN 8.6 G 1 V	60	418	650	45	2388	G 1	5.0	96733303
GT-C-80 PN 8.6 G 1 V	80	418	852	45	2388	G 1	6.6	96733304
GT-C-100 PN 8.6 G 1 V	100	418	967	45	2388	G 1	8.0	96733305
GT-C-130 PN 8.6 G 1 V	130	418	1227	45	2388	G 1	9.9	96733306
GT-C-200 PN 8.6 G 1 1/4 V	200	542	1098	57	3023	G 1 1/4	16.5	96733307
GT-C-250 PN 8.6 G 1 1/4 V	250	542	1303	57	3023	G 1 1/4	21.7	96733308
GT-C-300 PN 8.6 G 1 1/4 V	300	542	1644	57	3023	G 1 1/4	28.4	96733309
GT-C-350 PN 8.6 G 1 1/4 V	350	614	1448	57	3401	G 1 1/4	31.2	96733310
GT-C-450 PN 8.6 G 1 1/4 V	450	614	1831	57	3401	G 1 1/4	42.1	96733311
<b>GT-CA</b>								
GT-CA-115 PN 8.6 G 1 1/4 V	115	418	1068	45	-	G 1 1/4	7.4	96942874
GT-CA-150 PN 8.6 G 1 1/4 V	150	418	1356	45	-	G 1 1/4	10.0	96942878
GT-CA-300 PN 8.6 G 1 1/4 V	300	542	1628	57	-	G 1 1/4	25.8	96942880
GT-CA-450 PN 8.6 G 1 1/4 V	450	614	1831	57	-	G 1 1/4	32.8	96942902
<b>GT-CF</b>								
GT-CF-60 PN 8.6 G 1 1/4 V	60	419	640	45	-	G 1 1/4	8.6	96980809
GT-CF-80 PN 8.6 G 1 1/4 V	80	419	841	45	-	G 1 1/4	10.9	96980810
GT-CF-150 PN 8.6 G 1 1/4 V	150	614	747	57	-	G 1 1/4	15.9	96980811
GT-CF-200 PN 8.6 G 1 1/4 V	200	544	1090	57	-	G 1 1/4	18.6	96980822

## Applications

The GT-HR tanks are conventional diaphragm-type expansion tanks ranging from 8 to 1000 litres for 6 bar working pressure for closed heating systems and chilled-water applications. These tanks can be incorporated in an expansion system in a tiny household or a large multi-storey building.

Typical applications:

- domestic-heating and chilled-water systems
- commercial-building heating and chilled-water systems
- industrial-heating and chilled-water systems.

GT-HR tanks can be used with any Grundfos pump.

## Tank range

The GT-HR tanks are available in sizes ranging from 8 to 1000 litres and are suitable for vertical installation.

The tanks have a non-replaceable diaphragm that is pre-charged with nitrogen (1.5 bar).

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

## Sizing

The required tank volume can be calculated from the formula below:

$$V_e = \frac{(0.07 \times t - 2.5) \times (p_s + 1)}{100 \times (p_s - p_e)} \times V \text{ [litre]}$$

$V_e$	Tank volume [litres]
$t$	Maximum temperature in system [°C]
$p_s$	Maximum system pressure [bar] (safety valve pressure)
$p_e$	Pre-charge pressure [bar]
$V$	Total volume of water in system [litres]

If the necessary information required to calculate the tank according to the formula is not available, the sizing of the tank can be based on heat input to the installation and maximum system pressure.

### Pre-conditions

Heating systems: flat radiators, specific water volume of 11.3 l/kW, flow-pipe temperature of 70 °C and return-pipe temperature of 50 °C.

Maximum system pressure [bar]	6	
Pre-charge pressure [bar]	3	
	Tank size [l]	
	4	8
	8	12
	16	18
	27	25
	44	35
	60	50
	100	80
	120	100
Heat input [kW]	170	140
	250	200
	310	250
	370	300
	490	400
	620	500
	740	600
	990	800
	1230	1000

### Grundfos recommendation:

- Set the tank pre-charge pressure to at least 0.2 bar above the static pressure of the heating system.
- The tank pre-charge pressure should not be lower than 1 bar.

### Sizing example:

A heating system has a heat input of 160 kW, the maximum system pressure is 6 bar, and the heating system will be pre-charged by 3 bar.

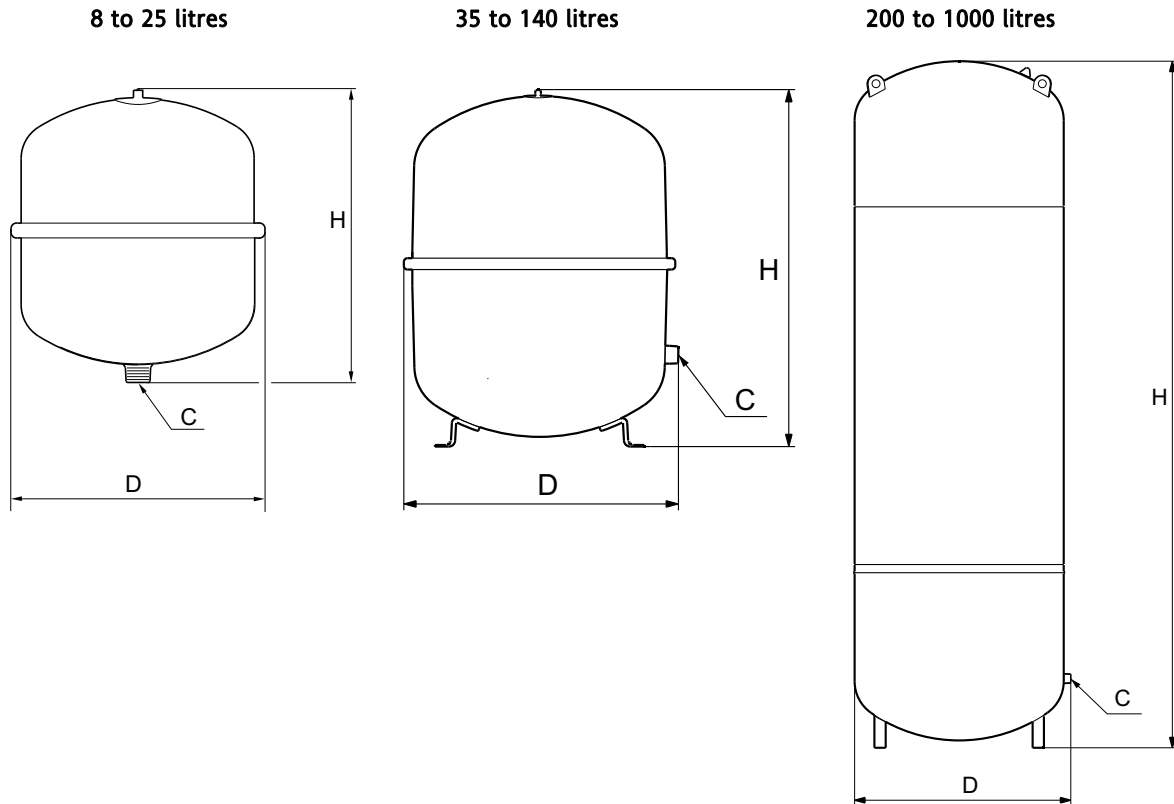
Use the column for 6 bar maximum system pressure. The nearest value above 160 kW is 170 kW. This corresponds to a tank size of 140 litres.



## GT-HR, 6 bar

Vertical installation

### Dimensions, weights and product numbers

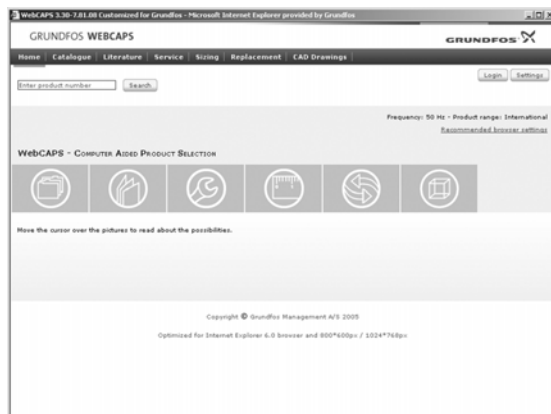


TM03 1681 2809 - TM03 1682 2809 - TM03 1694 2809

Fig. 14 Dimensional sketches

Tank type	Size [l]	Dimensions [mm]			Gross weight [kg]	Product numbers
		D	H	C		
GT-HR-8 PN 6 G 3/4 V	8	272	233	G 3/4	1.9	96573376
GT-HR-12 PN 6 G 3/4 V	12	272	315	G 3/4	2.6	96573377
GT-HR-18 PN 6 G 3/4 V	18	308	360	G 3/4	3.5	96573378
GT-HR-24 PN 6 G 3/4 V	24	308	480	G 3/4	4.6	96573390
GT-HR-35 PN 6 G 3/4 V	35	376	465	G 3/4	5.4	96573393
GT-HR-50 PN 6 R 3/4 V	50	441	495	R 3/4	12.5	96573395
GT-HR-80 PN 6 R 1 V	80	512	570	R 1	17.0	96573396
GT-HR-100 PN 6 R 1 V	100	512	680	R 1	20.5	96573397
GT-HR-140 PN 6 R 1 V	140	512	890	R 1	28.6	96573398
GT-HR-200 PN 6 R 1 V	200	634	785	R 1	36.7	96573399
GT-HR-250 PN 6 R 1 V	250	634	915	R 1	45.0	96573400
GT-HR-300 PN 6 R 1 V	300	634	1085	R 1	52.0	96573401
GT-HR-400 PN 6 R 1 V	400	740	1075	R 1	65.0	96573403
GT-HR-500 PN 6 R 1 V	500	740	1295	R 1	79.0	96573404
GT-HR-600 PN 6 R 1 V	600	740	1530	R 1	85.0	96573405
GT-HR-800 PN 6 R 1 V	800	740	1990	R 1	103	96573407
GT-HR-1000 PN 6 R 1 V	1000	740	2430	R 1	120	96573408

## WebCAPS

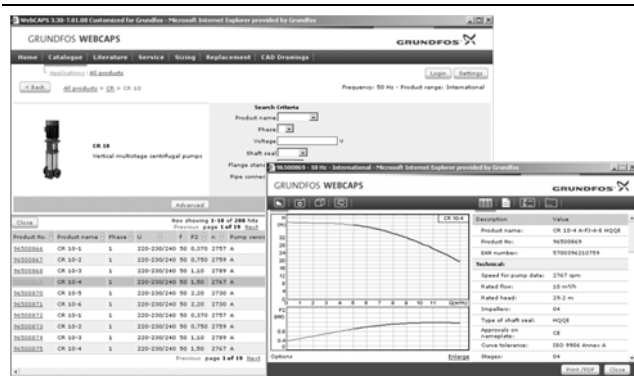


WebCAPS is a **Web-based Computer Aided Product Selection** program available on [www.grundfos.com](http://www.grundfos.com).

WebCAPS contains detailed information on more than 185,000 Grundfos products in more than 20 languages.

In WebCAPS, all information is divided into six sections:

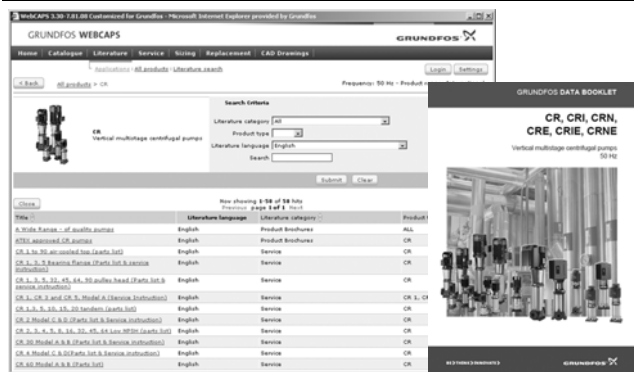
- Catalogue
- Literature
- Service
- Sizing
- Replacement
- CAD drawings.



### Catalogue

This section is based on fields of application and pump types, and contains

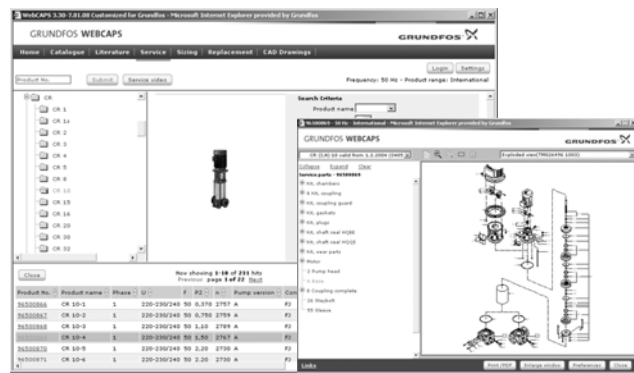
- technical data
- curves (QH, Eta, P1, P2, etc.) which can be adapted to the density and viscosity of the pumped liquid and show the number of pumps in operation
- product photos
- dimensional drawings
- wiring diagrams
- quotation texts, etc.



### Literature

In this section you can access all the latest documents of a given pump, such as

- data booklets
- installation and operating instructions
- service documentation, such as Service kit catalogue and Service kit instructions
- quick guides
- product brochures.



### Service

This section contains an easy-to-use interactive service catalogue. Here you can find and identify service parts of both existing and discontinued Grundfos pumps.

Furthermore, this section contains service videos showing you how to replace service parts.



## Sizing

This section is based on different fields of application and installation examples, and gives easy step-by-step instructions in how to

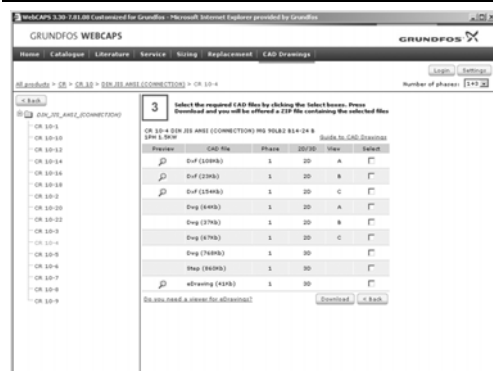
- select the most suitable and efficient pump for your installation
- carry out advanced calculations based on energy consumption, payback periods, load profiles, life cycle costs, etc.
- analyse your selected pump via the built-in life cycle cost tool
- determine the flow velocity in wastewater applications, etc.



## Replacement

In this section you find a guide to selecting and comparing replacement data of an installed pump in order to replace the pump with a more efficient Grundfos pump. The section contains replacement data of a wide range of pumps produced by other manufacturers than Grundfos.

Based on an easy step-by-step guide, you can compare Grundfos pumps with the one you have installed on your site. When you have specified the installed pump, the guide will suggest a number of Grundfos pumps which can improve both comfort and efficiency.



## CAD drawings

In this section it is possible to download 2-dimensional (2D) and 3-dimensional (3D) CAD drawings of most Grundfos pumps.

These formats are available in WebCAPS:

2-dimensional drawings:

- .dxf, wireframe drawings
- .dwg, wireframe drawings.

3-dimensional drawings:

- .dwg, wireframe drawings (without surfaces)
- .stp, solid drawings (with surfaces)
- .eprt, E-drawings.

## WinCAPS



Fig. 15 WinCAPS CD-ROM

WinCAPS is a **Windows-based Computer Aided Product Selection** program containing detailed information on more than 185,000 Grundfos products in more than 20 languages.

The program contains the same features and functions as WebCAPS, but is an ideal solution if no Internet connection is available.

WinCAPS is available on CD-ROM and updated once a year.

Subject to alterations.

96552805 1109	GB
Repl. 96552805 0106	

The name Grundfos, the Grundfos logo, and the payoff Be-Think-Innovate are registered trademarks owned by Grundfos Management A/S or Grundfos A/S, Denmark. All rights reserved worldwide.