

SURGE TANK P25 V1,5

INTRODUCTION AND WARRANTY

These operating instructions contain all the necessary information for problem-free assembly, start up and trouble-free operation.

We accept liability under the terms and conditions of our warranty if the operating instructions have been followed.

Please obtain our permission in advance if the equipment is to be used under operating conditions that deviate from the application for which it was intended.

During the term of the warranty, repair work and modifications may only be carried out by our engineers or with our agreement.

The user is responsible for proper installation, operation and maintenance.

INSTALLATION

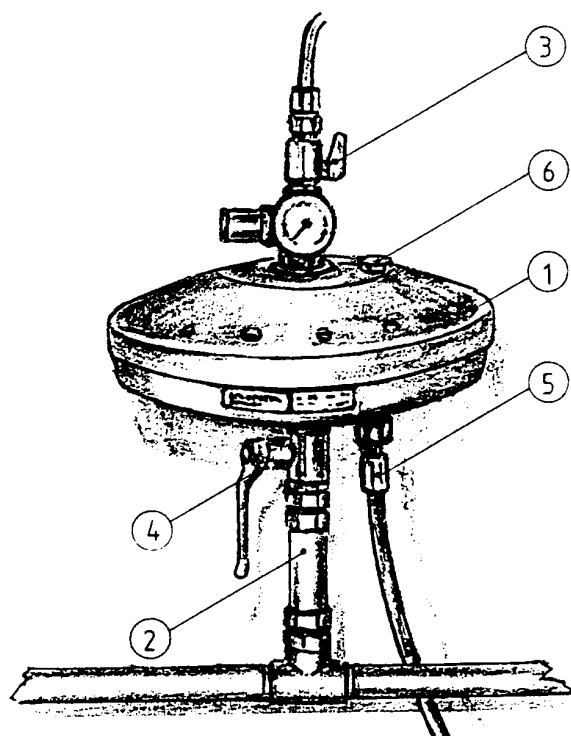
The surge tank ① should be installed horizontally (with connection R ¼ at the top) in the vicinity of the pump on a rising pipe ② as short as possible.

The connection R ¼ should be fitted to the compressed air line via a stop valve or a 2-way ball valve ③ in order to prevent any compressed air from flowing back in the pressure line when

$$p_{\text{fluid}} > p_{\text{compressed air}}$$

The surge tank should be installed so that the fluid side is connected to the safety unit of the fluid pressure line.

The shut-off valve ④ is used for maintenance purposes.



Subject to change

Page 1 of 4

Prepared by 19.12 Krügel
Checked by 12.12. Schröder

USER INFORMATION - OPERATING INSTRUCTIONS -

Issued 10.01
B 19.60.01-B

F22.060.01, issued on 01.98

START UP

All surge tanks are tested for operation with an anti-corrosion liquid after factory assembly.

On start up, the residues of the anti-corrosion liquid as well as contaminants that are unavoidable during the assembly of the system, must be thoroughly flushed with a suitable solvent (detergent).

OPERATION

1. Safety information

- No connection may be loosened in a system ready for operation with a surge tank without first relieving the pressure in the surge tank.

2. Technical information for operation

The fluid pressure must be slightly higher than the air pressure to archive the best possible inertia-free operation.

The best results are obtained if the air pressure is 1 bar below the fluid pressure.

For fluid pressures > 16 bar the max. permissible inlet pressure should always be set to 15 bar.

The air chamber is pressurized when the rising pipe is shut off (shut-off valve ④) and air is fed to the fluid chamber (open seal screw ⑤)

Fill the fluid chamber by opening the shut-off valve, increase the fluid pressure slowly.

The seal screw is closed after some fluid has been discharged.

If the pressure in the air chamber is higher than the fluid pressure, it can be reduced by opening the air bleed screw ⑥.

CLEANING AND MAINTENANCE

Before prolonged shutdown (holidays) and before changing the fluid, the surge tank should be flushed and the detergent left in the system until the next time it is used.

Back out the air bleed screw ⑥ a few millimeters to relieve pressure from the air chamber.

The paint/solvent mixture is flushed out by opening the seal screw ⑥.

The molded diaphragm can be changed after the pressure is relieved from the surge tank.

Place the molded diaphragm in the lower housing with the NBR side (black) and the smaller washer at the top.

The housing top part is connected to the lower housing with M 10 screws.

The tightening torque of 20 Nm should be respected.

Because the molded diaphragm may settle, it is recommended to check the tightening torque after one week and to tighten again if necessary.

TROUBLESHOOTING

Location \ Problem	Problem	
	Pulsation is not damped	Fluid is coming out of the air bleed screw.
Air side	Check air pressure $p_{\text{air pressure}} < p_{\text{fluid}}$	Fatigue rupture of the diaphragm (replacement)

We recommend entering the data here of the surge tank supplied from the original nameplate.

GRACO VERFAHRENSTECHNIK GMBH		DUISBURGER STRASSE 7	
TYP P25 V1.5	TS 80 °C	V 1.5 l	D-33647 BIELEFELD
HERSTELL-NR. <input type="text"/>	PS 25 bar	BAUJAHR <input type="text"/>	

Regulations and guidelines to be followed

ZH 1/406	Richtlinien für Flüssigkeitsstrahler (Spritsgeräte) Oktober 1987 Hauptverband der gewerblichen Berufsgenossenschaften Carl Heymans Verlag KG, Köln
VBG 23	Verarbeiten von Anstrichstoffen 1979 Hauptverband der gewerblichen Berufsgenossenschaften Carl Heymans Verlag KG, Köln
VbF	Verordnung über brennbare Flüssigkeiten 1982 Vereinigung der Techn.-Überwachungs-Vereine e.V., Essen Carl Heymans Verlag KG, Köln
Ex-RL	Explosionsschutz-Richtlinien der Berufsgenossenschaften der chemischen Industrie 1986 Druckerei Winter, Postfach 106/150, 6900 Heidelberg 1
Information sheet	Gefährliche Arbeitsstoffe (Broschüre) 1982 Bayerisches Landesinstitut für Arbeitsschutz
Relevant publications	Gefährliche Arbeitsstoffe (Band 1 bis 5) 1986 Kühn, Birett Druckerei Laub, 6957 Elztal-Dallau
DruckbehV	Druckbehälterverordnung vom Mai 1989

Relevant documentation

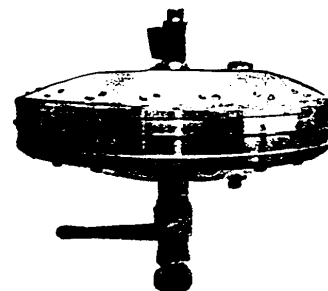
- Techn. Product Description B.19.60.01-P

GRACO N.V.
Industrieterrein "Oude Bunders"
Loc. 2206 - Slakweidestraat 31
3630 Maasmechelen - Belgium
Tel.: 32 89 770 700 Fax: 32 89 770 777

SURGE TANK P25 V1,5

Air-operated diaphragm surge tank for fluid materials.
In particular paint at operating temperature within a viscosity range of 30 to 1500 mm²/s (cST).

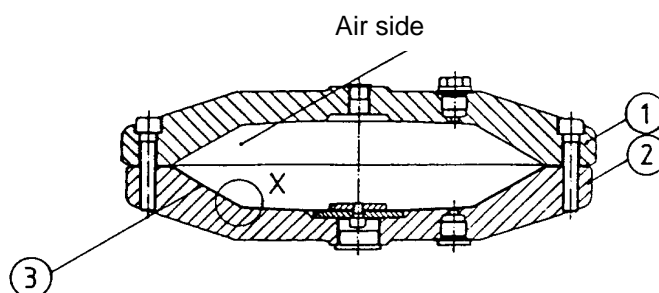
- In special cases the range can be extended but only after our permission.



Description

The surge tank essentially consists of a housing top part ①, a molded diaphragm ③ and a housing bottom part ②.

The elastic molded diaphragm separates the fluid side from the air side.



The surge tank is especially suitable for the use in fluid lines, compensating the pump pressure fluctuations.

The air pressure acting as a damping element ensures a rapid response of the surge tank.

The materials of the wetted parts are suitable for operation with water-based paints.

Replaces issue of 09.99

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Prepared by 19.12 Krügel

Checked by 12.12. Schröder

USER INFORMATION - TECHN. PRODUCT DESCRIPTION -

Issued

10.01

B.19.60.01-P

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Technical data

Model	Product number
SST 1.4541/Al	79670 001002

The molded diaphragm 76197 038001 is a replacement part.

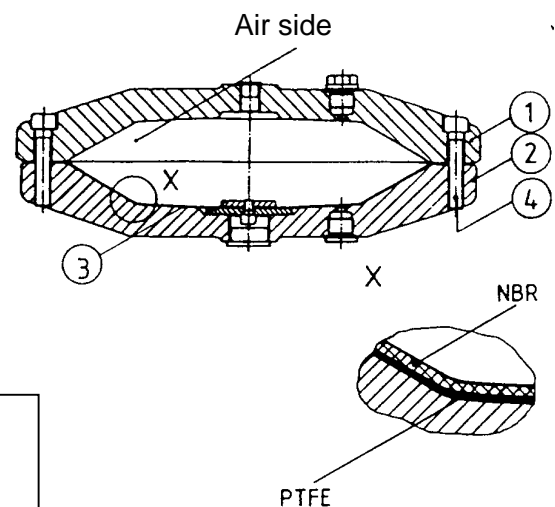
Permissible operating overpressure	25 Bar
Air inlet pressure max. perm.	15 bar
Permissible fluid temperature	80 °C
Tank volume	1,5 L
Compressed gas	Air (Nitrogen for oil hydraulics)
Tightening torque of the M 10 screws	20 Nm

The surge tank is a pressure container in accordance with EC Directive 93/C246/01

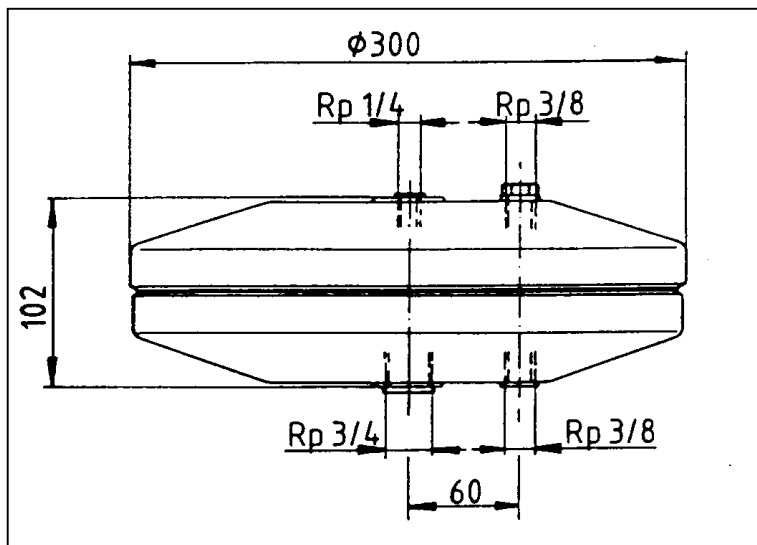
Materials

- | | |
|--|-----------------|
| ① Housing top part | AlSi10Mg |
| ② Housing bottom part as well as small parts in contact with the fluid | SST 1.4541 |
| ③ Diaphragm | NBR/PTFE |
| ④ Cheese head screw M 10 | 8.8 zinc plated |

- other materials on request



Dimensions



Build-up position: standing

Footnote

This techn. product description also serves as a list of replacement parts.

Relevant documentation

Operating instructions B.19.60.01-B

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GRACO STANDARD WARRANTY

Graco warrants all equipment referenced in this document which is manufactured by Graco and bearing its name to be free from defects in material and workmanship on the date of sale by an authorized Graco distributor to the original purchaser for use. With the exception of any special, extended, or limited warranty published by Graco, Graco will, for a period of twelve months from the date of sale, repair or replace any part of the equipment determined by Graco to be defective. This warranty applies only when the equipment is installed, operated and maintained in accordance with Graco's written recommendations.

This warranty does not cover, and Graco shall not be liable for general wear and tear, or any malfunction, damage or wear caused by faulty installation, misapplication, abrasion, corrosion, inadequate or improper maintenance, negligence, accident, tampering, or substitution of non-Graco component parts. Nor shall Graco be liable for malfunction, damage or wear caused by the incompatibility of Graco equipment with structures, accessories, equipment or materials not supplied by Graco, or improper design, manufacture, installation, operation or maintenance of structures, accessories, equipment or materials not supplied by Graco.

This warranty is conditioned upon the repaid return of equipment claimed to be defective to an authorized Graco distributor for verification of claimed defect. If the claimed defect is verified, Graco will repair or replace free of charge any defective parts. The equipment will be returned to the original purchaser transportation prepaid. If inspection of the equipment does not disclose any defect in material or workmanship, repairs will be made at a reasonable charge, which charges may include the costs of parts, labor, and transportation.

THIS WARRANTY IS EXCLUSIVE, AND IS IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO WARRANTY OF MERCHANTABILITY OR WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE.

Graco's sole obligation and buyer's sole remedy for any breach of warranty shall be as set forth above. The buyer agrees that no other remedy (including, but not limited to, incidental or consequential damages for lost profits, lost sales, injury to person or property, or any other incidental or consequential loss) shall be available. Any action for breach of warranty must be brought within two (2) years of the date of sale.

Graco does not extend its warranty to accessories, appliances, materials or components which are sold by Graco but are not manufactured by Graco and makes no guarantee, however implied, with regard to the brand capability and suitability for a certain purpose. These parts sold by Graco but not manufactured by Graco (such as electric motors, switches, hoses, etc.) are covered by the warranties of the respective manufacturers. Graco will support the buyer in enforcing any warranty claim with the proviso that in no event can Graco be made liable for indirect, incidental, special or consequential damages which arise from the supply of appliances by Graco under the conditions governed by these provisions, or the supply, performance or use of any products or other goods which are sold under the conditions governed by these provisions, whether as the result of breach of contract, breach of warranty, negligence on the part of Graco or for any other reason.

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