

# PEG/2S®

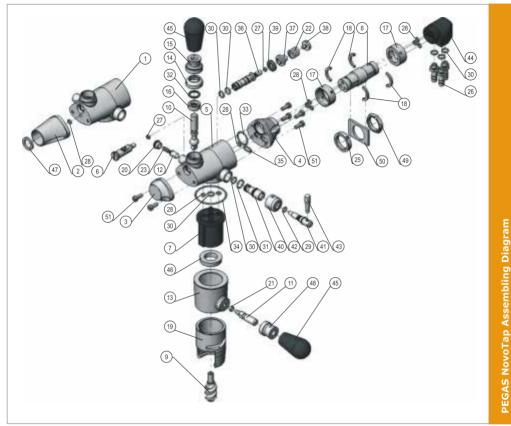
novotap

Operation Manual

PEGAS NovoTap, PEGAS NovoTap+



### 1. Assembling Diagram



- 1. Body\* 2. Front part
- of the body\* 3. Front part
- of the body\* 4. Back part
- of the body\*
- 5. Body\* 6. Rod
- 7. Bushing
- 8. Shank
- 9. Screw

- 10. Bolt of the changeover valve
- 11. Bolt of the bottle fixing mechanism
- **12.** Pin
- **13.** Ring
- 14. Coupling nut 15. Bushing
- of the beer tap
- 16. Bushing 17. Coupling nut

- 18. Semi-ring 19. Bottle fixing
- mechanism
- 21. Roller 22. Spring
- 1.8x14x18 23. Spring
- 0.8x5.5x22 25. Nut
- 26. Nipple **27.** Ring 004-007-19

- 28. Ring
- 005-008-19 **29.** Ring
- **20.** Bolt of the pin 006-009-19
  - **30.** Rina 008-011-19
  - **31.** Rina 011-014-19
  - 32. Ring of the changeover
    - valve **33.** Ring 019-022-19

- **34.** Rina 045-048-19
- 35. O-rina
- **36.** Rod 37. Bushina
- 38. Screw 39. O-rina
- 40. Bushing
- 41. Valve
- 42. Coupling nut 43. Handle
- 44. Tee adapter

- 46. PET bottle O-ring
- 47. O-ring 48. Bushing of the beer tap
- 49. Nut 5/8 **50.** Flat washer
- 51. Screw M5x12 DIN84
- 45. Beer tap handle



### 2. Device Purpose

The PEGAS NovoTap device is intended for fast foamfree manual dispensing of foamy and/or carbonated beverages (e.g. beer) from pressurized vessels (kegs) into plastic bottles with PCO or BPF necks. Dispensing is based on backpressure method. Backpressure method consists of filling an empty bottle with gas under the pressure equal to the pressure in a keg with beverage. This method provides foam-free dispensing and keeps beverage quality in case of a long-term storage in sealed bottles. It is recommended to use clean bottles for beverage dispensing. The PEGAS NovoTap+ package includes a G 5/8" shank which gives an option to mount a beer tap to its body for filling glasses/mugs, etc.

### 3. Technical Data

		Unit	Value
Filling capacity		liter/hour	45-120
CO2 pressure supplied to a keg		MPa	0.15-0.25
Co2 flow rate (to create backpressure)		gm/liter	0.2-0.8
Weight	Net	kg	2.1
	Gross	kg	2.6

### 4. Package Contents

The device is supplied in a separate package including:

- PEGAS NovoTap device	-1 pc
- Operation manual	-1 pc
- Wrench	-1 pc
- Tee fitting	-1 pc

Spare parts:	
- Valve O-ring (39)	-1 pc
- Drainage O-ring (35)	-1 pc
- PET bottle O-ring (46)	-1 pc
- Ring 004-007-19 (27)	-2 pc
- Ring 005-008-19 (28)	-2 pc
- Ring 006-009-19 (29)	-2 pc
- Ring 008-011-19 (30)	-1 pc
- Ring 011-014-19 (31)	-1 pc
- Ring 019-022-19 (33)	-1 pc
- Ring 045-048-19 (34)	-1 pc
- Ring of a changeover valve (32)	-2 pc

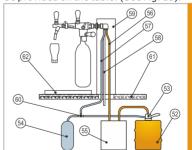
### 5. Device Assembly, Installation and Connection

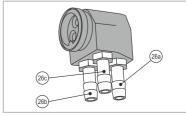
The device shall be installed vertically over a table or a bar counter on a hollow-core beer tower (D = 90 mm at least) with a through hole (d = 23 mm) so that the bottle fixing mechanism shall look downward. The distance between the axe of the shank and the table surface shall be not less. than 450 mm. If two devices are installed. the recommended distance between their shanks shall be at least 150 mm.



Two Devices

Before mounting the device to a beer tower it is necessary to check whether hoses can be freely connected to nipples (26) of tee adapter (44) provided that the tee adapter is located strictly vertically and looks downwards (hoses shall be connected from below). If the hoses can not be freely connected, it is necessary to replace the tee adapter with a different one (meant for side / rear connection of hoses). A drip tray (62) shall be provided on the table. (See Fig. 1a).





ig.1b Tee adapte



The following equipment is required for the device connection (See Fig. 1a):

- A keg with beer and a keg coupler (52,53)
- A gas cylinder with a pressure regulator (0.15-0.25 MPa) (54)
- A beer cooler (55)
- PVC hoses (56, 57, 58) with 7-9 mm inner diameter are used for beer supply, CO<sub>2</sub> supply and drainage. Hoses shall be secured on nipples and tee fitting by means of screw clamps.
- Hollow-core beer tower (d = 90 mm at least)(59)
- Tee fitting (60)
- Table (61)

The device shall be assembled, installed and connected as follows (numbers are given as per Assembling diagram Fig. 1a, Fig. 1b):

Before installation beer tap handles (45) shall be screwed to bolts (10, 11).

- 1) Put hoses for beer supply (56), CO<sub>2</sub> supply (57) and drainage (58) inside a beer tower as shown in Fig. 1a; (photo 01)
- 2) Connect one end of beer supply hose (56) to beer supply nipple (26a) of tee adapter (44) and the other end to beer cooler (55); (photo 02)





3) Connect one end of CO2 supply hose (57) to CO2 supply nipple (26b) of tee adapter (44) and the other end to tee fitting (60);

### (photos 03, 04)





- **5)** Supply CO<sub>2</sub> under 0.15–0.25 MPa pressure from gas cylinder (54) through tee fitting (60) to keg coupler (53) and CO<sub>2</sub> supply nipple (64) of tee adapter (44): (photo 05)
- **6)** Connect drainage hose (58) to drainage nipple (26c) of tee adapter (44) and put the free end of the drainage hose into an empty drain container; **(photo 05)**
- 7) Make sure that all 3 rings (28) are located in the point of shank (8) connection to tee adapter (44). Rings shall be placed in grooves of tee adapter (44). Further assembly and installation procedures without these rings will result in the device malfunctions; (photo 06)





8) Connect shank (8) to tee adapter (44) by means of 2 semi-rings (18) and coupling nut (17). Use the wrench included in the kit to ensure tight connection of the thread joint; (photos 07, 08)





**9)** Screw nut (49) on shank (8), then put flat washer (50) on shank (8); **(photo 09)** 



**4)** Supply beer from keg coupler (53) to beer cooler (55);



10) Inside of the beer tower put shank (8) with nut (49) and flat washer (50) through a hole of the beer tower. Outside the beer tower screw nut (25) onto shank (8) by means of the wrench included in the kit so that the tight connection of shank (8) to the beer tower is provided and the groove of the end surface of the shank looks strictly downwards. Adjust the position of shank (8) by tightening/loosening nut (49) if required; (photos 10, 11)





11) Make sure that all 3 rings (28) are located in the point of shank (8) connection to the back part of the body (4). Rings shall be placed in grooves of the back part of the body (4). Further assembly and installation procedures without these rings will result in the device malfunctions; (photo 12)



**12)** Connect shank (8) to the back part of the body (4) by means of 2 semi-rings (18) and coupling nut (17). Use the wrench included in the kit to ensure tight connection of the thread joint; **(photos 13-16)** 









13) The device is ready for operation;





**14)** In the PEGAS NovoTap+ package the hole in the front part of the device body (2) is intended for mounting a beer tap with G 5/8" shank.

(photos 19, 20)

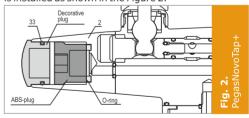




**15)** In case you don't intend to connect NovoTap + to a beer tap and to use the device for beer dispensing into a beer glass, don't forget to install a plug (is not included in the package and should be purchased separately); (fig.2)

For the purpose:

**16)** Check if the o-ring (item №47 according to Fig.2) is installed as shown in the Figure 2.



- 17) Screw in the ABS-plug into the front part of the body (item 2) by means of a hex wrench d=10 mm;(fig.2)
- **18)** Check if the ring 019-022-19 (33) is installed into the groove of the decorative plug. If it's not set, mount the ring. (fig.2)
- **19)** Put the decorative brass plug into the front part of the body (2) as illustrated in the Figure 2.
- **20)** The PEGAS Novotap+ device is ready for operation.



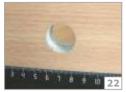
## 6. Wall-mounting of PEGAS NovoTap device

The device shall be mounted to a wall 23-35 mm thick: (photo 21)

Before device mounting, the wall shall be prepared:

1) Drill a through hole 23 mm in diameter; (photo 22)





2) Drill a hole 32 mm in diameter and 12 mm deep on the back side of the wall; (photo 23)

Then proceed to wall-mounting

The device shall be mounted as follows:

1) Connect the shank (8) to a tee adapter (44) by means of 2 semi-rings (18) and the coupling nut (17). Use the wrench included in the kit to ensure a tight connection of the thread joint; (photo 07, 24)





2) Put the shank (8) with the tee adaptor connected (44) from the back side of the wall (from the hole side 35 mm in diameter) against the stop; (photo 25-27).





**3)** Screw the decorative nut (25) on the shank from the front side of the wall to ensure a tight connection of the shank to the wall; **(photo 28, 29)** 

**4)** Connect the shank (8) to the back side of the device body by means of 2 semi-rings (18) and the coupling nut (17); **(photo 29)** 









The PEGAS NovoTap device is installed.

### 7. Filling Procedure

Before filling make sure that the device is installed and connected properly (see Section 5) and all joints are connected tightly. Bottle filling procedure consists of the following steps (all numbers correspond to Fig. 3):







Changeover valve with handle (1) is in the medium (vertical) position (all supplies are cut off). Handle of the bottle fixing mechanism (2) is turned to the right until it stops (the bottle fixing mechanism is opened). Pressure release valve (3) is closed (handle is turned clockwise until it stops).

Figure 3.1 Initial position



Figure 3.4 Bottle filling with beer

valve (1) until it clicks showing that the changeover valve is set in the beer supply position. If beer is not coming into the

Pull the handle of the changeover

bottle at the moment, it means that there is enough gas in the bottle. (If beer is coming into the bottle, there is not enough gas in the bottle. Proceed filling the bottle this time and supply more gas during the next filling). Slightly turn handle of the pressure release valve (3) counterclockwise to open the valve. Adjust the bottle filling rate (increase / decrease) by opening / closing pressure release valve (3). If there is much foam in the bottle, it means that the selected bottle filling rate is wrong.



Figure 3.2 **Bottle fixing**  Install a bottle into bottle fixing mechanism (4). The support ring of the bottleneck shall be inside the fixing mechanism. If you release the bottle, it shall hang strictly in a vertical position. Turn handle of the bottle fixing mechanism (2) to the left. Bottle fixing mechanism (4) with the bottle inside it will slightly raise. The bottleneck shall be tightly pressed to the O-ring (the pressing force is sufficient if the bottle cannot be turned around its axis by hand).



Figure 3.5 Completion of filling

Fill the bottle a bit lower the desired level. Turn handle of the pressure release valve (3) clockwise until it stops to close the valve. Push handle of the changeover valve (1) in the medium (vertical) position to cut off the beer supply.



Figure 3.3 Bottle filling with CO<sub>2</sub> Make sure that pressure release valve (3) is closed. Push handle of the changeover valve (1) to start CO<sub>2</sub> supply into the bottle and keep it in this position. When gas supply noise subsides, there is enough gas in the bottle. The bottle shall become firm if squeezed by hand. Release handle (1) to cut off the CO2 supply.



Figure 3.6 **Bottle unfixing** 

Slightly open pressure release valve (3). Wait a few seconds. If there is no active foaming in the bottle, wait for the bottle to become soft. If there is active foaming in the bottle, control the opening of the pressure release valve until the foaming stops. Wait for the bottle to become soft. Turn handle of the bottle fixing mechanism (2) to the right in the initial position until it stops. Take the filled bottle out of the device. Close pressure release valve (3).

To keep beer quality it is required to seal the filled bottle with a closure as soon as possible after taking the bottle out of the device.



### 8. Device Maintenance

Only the personnel who have studied this manual and have been trained on the safe operation of the device are allowed to maintain the device. The device shall be maintained as shown in Table 1.

Type of washing	Frequency	Cleaning agent	Time, min.	t℃	Concentration, %	Source of working solution	_
Washing	Daily after using	Water	10	20	-	Water pipeline	nic rogram NovoTap
Rinsing	the device	Water	15	70-85	-	Water pipeline	rogi Nov
Washing - desinfection			10-15	60	2.0 1.0 1.0	Vessel with proper fitting (washing keg)	1. Hygienic enance Prog e PEGAS No
Rinsing	After washing -	Water	10	40-60	-	Water pipeline	Table Mainte for the
Rinsing	desinfection	Water	15	20	-	Water pipeline	Ta Ωg

Washing procedures shall be performed as follows: Please, PAY ATTENTION: Numbers in points

### 1–12 correspond to Fig. 3!

- 1) Disconnect a beer keg from the beer supply system;
- 2) Prepare a container for collecting spent working solution (water);
- 3) Make sure that handle of the changeover valve (1) is set in the medium (vertical) position;
- **4)** Connect the beer supply system to the source of working solution (water);
- **5)** Install an empty plastic bottle (preferably a small one) into the bottle fixing mechanism (4) and press it by turning handle (2) to the left;
- **6)** Open the pressure release valve by turning handle (III) counterclockwise;
- 7) Pull handle of the changeover valve (1) until it clicks showing that changeover valve (1) is set in the beer supply position;
- 8) Watch the bottle filling. Soon the excessive working solution (water) appears in the drainage hose due to the opened pressure release valve. Be prepared to collect the spent working solution (water) from the drainage hose;
- **9)**The device shall be washed as long as it is shown in Table 1;
- **10)** Push handle of the changeover valve (1) in the initial vertical position to cut off the working solution (water) supply:
- 11) Take the bottle out of the fixing mechanism;
- **12)** Repeat steps 2–11 if rinsing is required;

# Please, PAY ATTENTION: Numbers in points 13–34 correspond to the Device Assembling Diagram!

**13)** Unscrew back part of the body (4) from shank (8) containing beer supply, CO<sub>2</sub> supply and drainage hoses by means of the wrench included in the kit;

- **14)** Unscrew a screw (9) provided for fastening bushing (7) to body (5) by means of 6 mm hex-nut wrench. Remove the bottle fixing mechanism. Be careful not to lose O-rings (28. 34):
- 15) Unscrew beer tap handle (45) and bushing (48) from bolt of the bottling fixing mechanism (11):
- **16)** Unscrew bolt of the bottle fixing mechanism (11) from ring (13);
- **17)** Remove bushing (7) with bottle fixing mechanism (19) and screw (9) inside it from ring (13). Be careful not to lose roller (21);
- **18)** Unscrew screws M5 (51) and disconnect front part of the body (3) from body (5 or 1). If a beer tap is installed, disconnect the front part of the body (2) together with the beer tap from the body. Be careful not to lose O-ring (28);
- **19)** Wash thoroughly the beer tap as per the manufacturer's manual if required;
- **20)** Wash thoroughly with a brush the channel located in the end of the body part (1):
- **21)** Wash thoroughly and remove dirt from surfaces of the following parts: ring (13), bottle fixing mechanism (19), bushing (7), roller (21), bolt of the bottle fixing mechanism (11), and screw (9);
- **22)** Insert O-ring (28) into the groove of body part (5 or 1), and connect this body part to front part of the body (3). If a beer tap is installed, connect this body part to front part of the body (2) together with the beer tap by means of screws M5 (51);
- **23)** Place bushing (7) inside bottle fixing mechanism (19) so that the groove of bottle fixing mechanism and the dowel of bushing match;
- **24)** Place roller (21) in the extreme position of the groove of bottle fixing mechanism (19);
- **25)** Carefully insert the bottle fixing mechanism with bushing and roller into ring (13) so that the ring hole provided for bolt of the bottle fixing mechanism (11) matches with the roller (21) hole;



- **26)** Screw bolt of the bottle fixing mechanism (11) into the ring (13) hole, make sure that there
- is no backlash if rotating parts relative to each other; **27)** Screw bushing (48) and handle (45) onto bolt
- of the bottle fixing mechanism (11); **28)** Place screw (9) inside bushing (7);
- **29)** Put ring (30) onto screw (9) thread;
- **30)** Insert rings (28), (34) into grooves of the body part (5):
- **31)** Install the assembled bottle fixing mechanism onto body (5 or 1) so that the parts holes match;
- **32)** Tighten the parts by screw (9) using 6 mm hexnut wrench;
- **33)** Connect back part of the body (5) to shank (8) containing beer supply, CO<sub>2</sub> supply and drainage hoses by means of the wrench included in the kit;
- **34)** Remove the remaining working solution (water) from the device surface using a clean cloth.

Precautions, re-use, methods for collecting and disposal of working solution are specified in the manuals issued by its manufacturer.

The PEGAS NovoTap device is manufactured with high accuracy and surface condition. During the operation its parts get highly adjusted to each other. It is recommended not to replace the similar parts taken from the different PEGAS NovoTap units.

O-rings and movable parts of the device shall be periodically greased with BERULUBER FR 6, BERULUBER FR 7 GSN or similar grease which is allowed to be used in food industry.

### 9. Precautions

The following rules shall be observed to ensure the device failure-free operation:

- 1) It is prohibited to use bottles which are not allowed to contact with food according to sanitary norms. Bottles must be clean and bear no visible signs of damage or cracking.
- 2) It is prohibited to set pressure above 0.4 MPa in the device.
- **3)** Only regular control of the device sanitary condition guarantees its safe and failure free operation. Regular washing of the device is strictly required (see Section 7).

### 10. Additional Information

No part of the present manual shall be copied, transferred, re-written, saved as a reserve copy or

translated into any language in any form and by any means without prior written notice issued by Novosibirskprodmash company.

Novosibirskprodmash company preserves the right to change characteristics and properties of the device described in the present manual at any time and without prior notification.

Novosibirskprodmash company bears no responsibility for any damage connected to use of the present device.

Novosibirskprodmash company will appreciate information related to errors and flaws found in the present manual.

### 11. Warranty

The manufacturer provides 24-month warranty from the date of sale and undertakes to eliminate defects arisen through the manufacturer's fault. The manufacturer bears no responsibility for the defects resulting from the device misuse, in particular, from the absence of regular washing.

The manufacturer reserves the right to modify the device design in order to improve its consumer properties.

### 12. Acceptance and sale information

The PEGAS NovoTap is manufactured in accordance with Technical Specifications TV 5131-002-64352340-2010. The device has passed the presale testing and inspection for conformance to all applicable standards and is approved good for operation.

# 13. Comments and claims on quality shall be sent to:

Novosibirskprodmash Co. Ltd.

Russia, 630108, Novosibirsk, P.O. Box 239

Tel./fax: +7 (383) 211-90-49, E-mail: sales@beerinnovations.com

Date of sale:

	Date of manufacture:
ı	



### 12. Troubleshooting

Problem	Possible cause	Remedy		
	No beer in the keg	Replace the keg		
	Coupler is not connected to the keg	Connect the coupler to the keg		
	No gas in the gas cylinder	Replace the gas cylinder		
Beer is not	Pressure regulator is closed	Open the pressure regulator		
coming into the bottle	Misconnection of hoses to the device	Check if hoses are connected in the right order, correct what is wrong		
	Hoses or their joints are damaged	Check the hoses, eliminate the damages		
	Beer/gas supply hoses are clogged	Replace the defective hoses		
	Pressure release valve is closed/sticky	Open/wash the pressure release valve		
	No gas in the gas cylinder	Replace the gas cylinder		
Gas is not	Pressure regulator is closed	Open the pressure regulator		
supplied into the bottle	Misconnection of gas supply hoses to the device	Check if hoses are connected in the right order, correct what is wrong		
	Hoses, their joints are damaged	Replace the defective hoses, check if the joints are tightly connected		
Bottle fails	Bottleneck does not meet PCO or BPF standard	Use the bottles with PCO or BPF necks		
to be fixed	Bottle fixing mechanism is defective	Check and replace the bottle fixing mechanism if required		
	Incorrect pressure is set in the pressure regulator	Set pressure according to the beer type		
	Gas in the gas cylinder is running out	Replace the gas cylinder		
A lot of foam during bottle	Beer in the keg is running out	Replace the keg		
filling	There is not enough gas in the bottle	Supply more gas into the bottle		
	Pressure release rate is too high	Adjust the pressure release rate		
	Beer supply hose is contaminated	Wash the device (see Section 7)		
Beer, CO <sub>2</sub> or foam leaks	Improper tightening of parts	Tighten all thread connections by means of proper instrument		
from parts joints	Rubber O-rings are worn out	Check and replace 0-rings if required		
Beer, CO <sub>2</sub> or foam leaks	O-rings of the changeover valve are worn out	Replace the worn-out parts		
from the bottle filling channel	Changeover valve springs are loosened	Replace the worn-out parts		

### Для заметок / Notes

