

Accumulator Accessories VGU Tester and Pressuriser

OLAER
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OSP 746

Description

The universal tester and pressuriser unit is used for checking, charging and emptying the most commonly used hydraulic accumulators. It is screwed onto the accumulator gas valve and connected to a nitrogen source and its pressure reduced by means of a high pressure charging hose. If only the pre-charge pressure needs to be checked, the connection of the charging hose is not necessary.

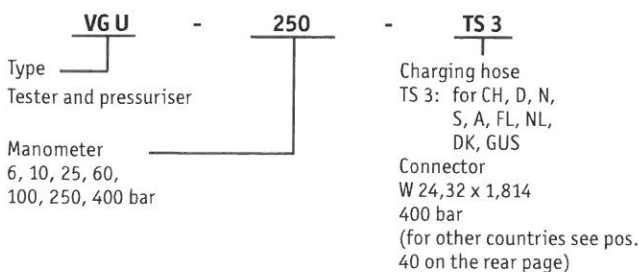
The VGU unit is delivered in a case comprising:

- the universal tester and pressuriser unit with a threaded connector M 28 x 1,5
- a manometer
- an adaptor to connect the unit to the gas intake valve (7/8", 3/8", 8V1, M 28 x 1,5)
- a high pressure charging hose of 2,5 m to connect the unit to a nitrogen source
- an Allen key 6
- spare seals
- manuals in English, French and German

The following items can be ordered optionally:

- manometers with different scale graduations: ø 63 with glycerin filling, 1/4" connection and direct connection for Minimes. Graduations: 0 to 6, 0 to 10, 0 to 25, 0 to 60, 0 to 100, 0 to 160, 0 to 250 (accuracy = 1,6%)
- high pressure charging hoses of various lengths with adaptors for connection to gas cylinders of various countries (please indicate the country) fitted with a G3/4" connection for charging

Maximum permitted operating pressure: limited to the maximum operating pressure of the connected components. **Maximum 400 bar.**
For higher charging pressures up to 550 bar use type TS6 charging hoses.



Handling

PREPARATION

- Before any pre-charge check and/or nitrogen pressurising, the hydraulic fluid of the hydropneumatic accumulator must be discharged.

Accumulator with gas valve:

- Turn the star knob (pos. 6) anti-clockwise until the stop.
- Remove the protective and/or seating cap of the gas valve.
- Screw the tester and pressuriser unit onto the gas valve using the adapters pos. 25, 30 or 48 (+ connector pos. 36 when using Schreder valves).
- Move the manometer into a convenient position for reading and tighten spigot nut (pos. 5) by hand.
- Check that the relief valve is closed (turn centre-grooved dowel pin pos. 20 clockwise).

Accumulator with screw valve:

- Turn the star knob (pos. 6) anti-clockwise until the stop.
- Remove plastic cover of screw valve.
- Loosen the screw valve with Allen screw width A/F 6.
- Screw the tester and pressuriser unit without adapter on the screw valve.
- Move the manometer into a convenient position for reading and tighten the spigot nut (pos. 5) by hand.
- Check that the relief valve is closed (turn centre-grooved dowel pin pos. 20 clockwise).

CHECKING THE PRE-CHARGE PRESSURE

- Turn the star knob (pos. 6) anti-clockwise to open the gas valve or the Allen screw to read the pressure on the manometer.

REDUCING THE PRE-CHARGE PRESSURE

- Turn centre-grooved dowel pin (pos. 20) of the relief valve slowly anti-clockwise to exhaust nitrogen.

PRESSURIZING / RAISING THE PRE-CHARGE PRESSURE

- Attach the charging hose to the non-return valve (pos. 7) and to the nitrogen cylinder.
- Open the stop valve on the nitrogen cylinder carefully. Let the nitrogen flow slowly into the accumulator, until the desired pre-charge pressure is reached.
- Close the stop valve on the nitrogen cylinder. After 5 to 10 minutes (temperature compensation), check the pre-charge pressure again and correct, if necessary as indicated in the following paragraph.

For pre-charge pressures higher than the existing nitrogen cylinder pressure the nitrogen charging unit SLG 1 (up to 400 bar) can be used - see data sheet OSP 762.

REMOVING

- Turn the star knob (pos. 6) clockwise.
- Turn centre-grooved dowel pin (pos. 20) anti-clockwise.
- Remove the unit.
- Tighten the screw valve with Allen screw width A/F 6.
- Check the gas valve or the screw valve for leaks using a leak detection foam.
- Replace the protective and/or seating cap of the gas valve by hand.

Caution:

- Never use oxygen to prefill the accumulator.
- Where the nitrogen cylinder pressure is higher than the permitted accumulator working pressure, a pressure reducing valve must be used in between!

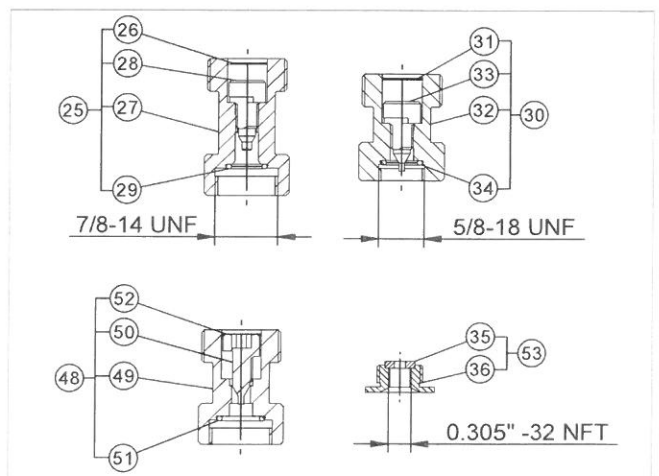
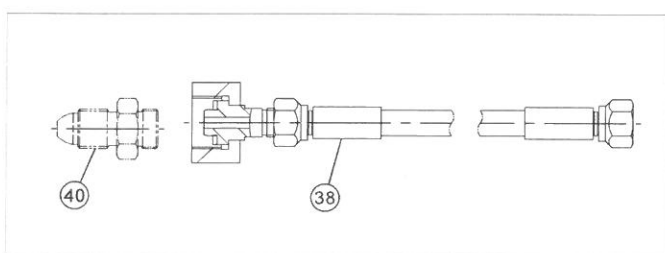
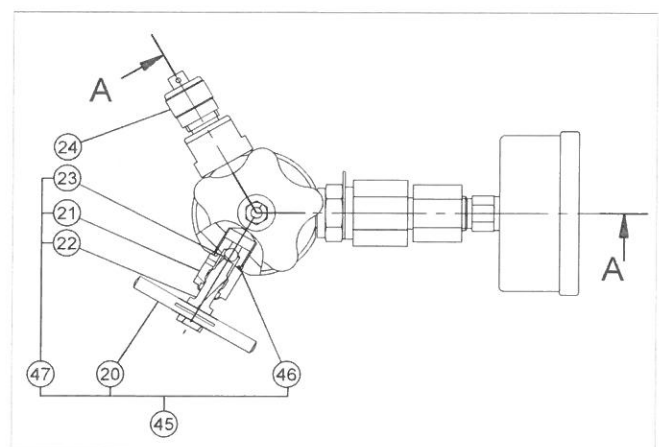
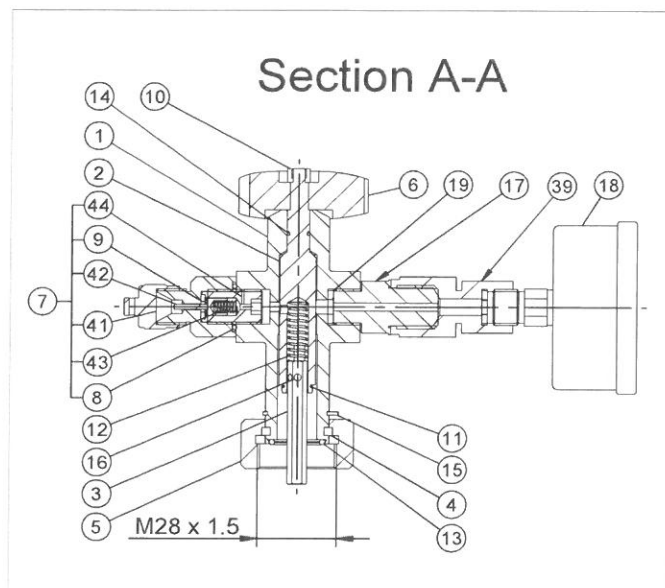
Spare parts list

for VGU Tester and pressuriser

Pos.	Designation
1	Valve body
2	Valve spindle
3	Bolt
4	Split ring
5	Spigot nut
6	Star knob
7	Non-return valve
8	O-ring
9	Flat seal
10	Hexagon nut
11	Retaining ring
12	Compression spring
13	O-ring
14	O-ring
15	Securing ring
16	Centre-grooved dowel pin
17	Adaptor
18	Manometer

Pos.	Designation
19	Copper seal
20	Centre-grooved dowel pin
21	Sealing gland
22	Valve spindle
23	Valve ball
24	Protective cap
25	Adaptor SAE 7/8" - 14 UNF compl.
26	Securing ring
27	Adaptor SAE 7/8" - 14 UNF
28	Valve spindle
29	O-ring
30	Adaptor SAE 5/8" - 18 UNF compl.
31	Securing ring
32	Adaptor SAE 5/8" - 18 UNF
33	Valve spindle
34	O-ring
35	Flat seal
36	Connector 0.305" - 32 NFT

Pos.	Designation
37	Gasket set
38	Charging hose TS3
39	Adaptor
40	Connectors for foreign nitrogen cylinders
41	Valve holder
42	Valve pin
43	Spring
44	Valve body
45	Relief valve
46	O-ring
47	Relief valve
48	Adaptor SAE 7/8" - 14 UNF compl.
49	Adaptor SAE 7/8" - 14 UNF
50	Valve spindle
51	O-ring
52	Securing ring
53	Connector 0.305" - 32 NFT compl.



Connection	Pos. / Reference	for accumulator
M28 x 1,5	included in VGU	Diaphragm accumulator with gas screw valve
7/8"-14 UNF	Pos. 25 / Ref. 202127-00233	Bladder accumulator including connection 7/8"-14 UNF and integrated Schrader valve
5/8"-18 UNF	Pos. 30 / Ref. 202130-00223	Bladder accumulator 0,2; 0,5; 1,6 litre / 10K at 50 litre / 100 to 530 litre
7/8"-14 UNF	Pos. 48 / Ref. 202135-00223	Bladder accumulator 1; 2,5; 4; 5; 6; 10 litre / 1 to 50 litre, 690 bar
0,305"-32 NFT	Pos. 53 / Ref. 202140-00200	Half-bladder accumulator ELG type membrane (with Schrader valve)

• used to determine the tester and pressuriser unit adaptor

OSP 746 - Version 3