



## OLAER (Schweiz) AG

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### Description

**OSP 746**

The VGU tester and pressurizer is used for the charging of bladder, piston and membrane accumulators with nitrogen, and for testing or changing the pre-charge pressure.

The instrument is suitable for all OLAER accumulators with  $\frac{5}{8}$ " and  $\frac{7}{8}$ " **flap valves, Schrader valves or screw plugs.**

It is screwed onto the gas valve of the hydropneumatic accumulator and connected with the charging hose to a standard nitrogen cylinder. If only the pre-charge pressure needs to be checked, the connection of the charging hose is not necessary.

Each unit comprises of:

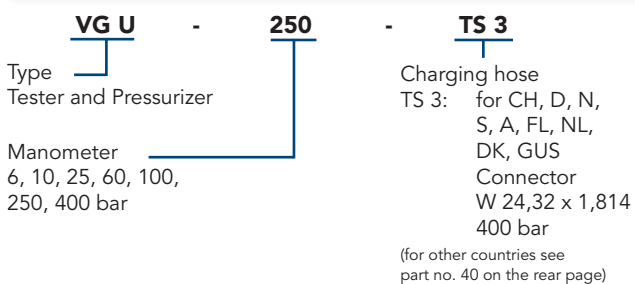
- Tester and pressurizer with manometer, return valve on the charging hose connection, built-in release valve, valve spindle for opening the gas valve or screw plug
- Charging hose, length 2,5 m
- Connections for the accumulator:
  - ◆  $\frac{7}{8}$ " - 14 UNF
  - ◆  $\frac{5}{8}$ " - 18 UNF
  - ◆ 0,305" - 32 NPT
  - ◆ M28 x 1,5
- Plastic protective case



**Maximum permitted operating pressure: depending on manometer, max. 340 bar! Tighten Allen screw on membrane accumulator with 20 Nm torque.**

**For higher pressures to max. 550 bar must be used the tester and pressurizer type VG3 with the charging hose TS6!**

### Type-code



### Handling and precharging procedure

#### PREPARATION

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

#### Accumulator with gas valve:

- Turn star knob (no. 6) anti-clockwise till stop.
- Remove the protective and/or seating cap of the gas valve.
- Attach pressurizer with adapter no. 25 or 30 (+ connector no. 36 for Schrader valves) to the gas valve.

Move the manometer into a convenient position for reading and tighten spigot nut (no. 5) with hand.

- Check that the bleed valve is closed (turn star knob no. 20 clockwise).

#### Accumulator with screw valve:

- Turn star knob (no. 6) anti-clockwise till stop.
- Remove plastic cover of screw valve.
- Loosen screw valve with Allen screw width A/F 6.
- Attach pressurizer without adapter to the screw valve. Move the manometer into a convenient position for reading and tighten the spigot nut (no. 5) by hand.
- Check that the bleed valve is closed (turn star knob no. 20 clockwise).

#### CHECKING THE PRE-CHARGE PRESSURE

- Turn star knob (no.6) clockwise respectively anti-clockwise. The gas valve or Allen screw opens and pre-charge pressure will register on the manometer.

#### REDUCING THE PRE-CHARGE PRESSURE

- Turn star knob (no.20) of the bleed valve slowly anti-clockwise to exhaust the pre-charge pressure.

#### PRESSURIZING / RAISING THE PRE-CHARGE PRESSURE

- Attach charging hose to return valve (no.7) and to nitrogen flask.
- Open the stop valve on the nitrogen cylinder carefully. Let the nitrogen flow **slowly** in the accumulator, till the desired pre-charge pressure is reached.
- Close the stop valve on the nitrogen cylinder. After 5-10 minutes (temperature compensation), check the pre-charge pressure again and correct, if necessary.

**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 star knob (no.6) back.
- Turn star knob (no.20) anti-clockwise to exhaust the pressurizer and charging hose.
- Remove the pressurizer.
- Tighten screw valve with Allen screw width A/F 6.
- Test the gas valve for leaks using a leak detection spray.
- Replace the protective and/or seating cap with hand.

#### Caution:

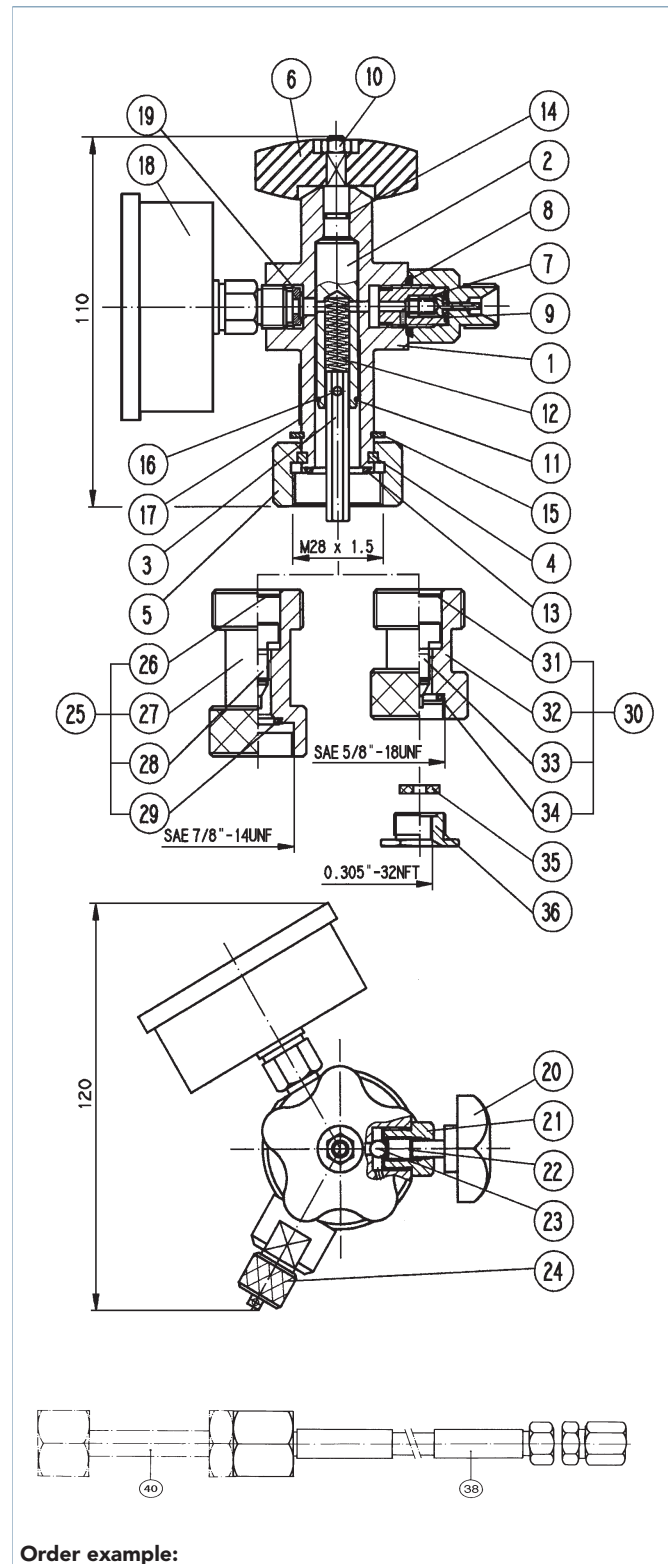
- **Never use oxygen to prefill the accumulator.**
- Where the nitrogen cylinder pressure is higher than the permitted accumulator working pressure, a pressure-reducing valve must be used in between!

# Spare parts list

for VGU Tester and Pressurizer

Part No.	Qty	Part	Rec. Spare
1	1	Valve body	
2	1	Valve spindle	
3	1	Bolts	
4	1	Split ring	
5	1	Spigot nut	
6	1	Star knob	
7	1	Return valve	
8	1	O-Ring	x
9	1	Flat seal	x
10		Hexagon nut	
11	1	Retaining ring	
12	1	Compression spring	
13	1	O-Ring	x
14	1	O-Ring	x
15	1	Retaining ring	
16	1	Centre-grooved dowel pin	
17	1	Name plate	
18	1	Connect. for manom. G 1/4"	
19	1	Copper seal	x
20	1	Star knob	
21	1	Sealing gland	
22	1	Valve spindle	
23	1	Valve ball	
24	1	Knurled cap	
25	1	Adapter SAE 7/8" - 14 UNF compl.	
26	1	Retaining ring	
27	1	Adapter SAE 7/8" - 14 UNF	
28	1	Valve spindle	
29	1	O-Ring	x
30	1	Adapter 5/8" - 18 UNF compl.	
31	1	Retaining ring	
32	1	Adapter 5/8" - 18 UNF	
33	1	Valve spindle	
34	1	O-Ring	x
35	1	Flat seal	x
36	1	Connect 0,305" - 32 NFT	
37	1	Gasket assembly (complet set)	x
38	1	Charging hose	
40	1	Connectors for foreign nitrogen flasks	

40b	GB / AUS	R 5/8" male
40c	USA	24,51 x 1/14" male
40d	Italy	21,7 x 1/14" male
40e	Japan	22 x 1/14" female
40f	Japan	W 23 x 1/14" male
40g	Brazil	R 1/2" female
40h	F, B, E	21,7 x 1/14" female
40i	China	M 22 x 1,5 female
40k	China	5/8" female
40l	Malaysia	G 7/8" male
40m	Trinidad	7/8" - 14 UNF male
40n	Bulgaria	3/4" female
40o	Philippines	W 23 x 1/14" male



Order example:

Gasket assembly Part No. 37 for VGU