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Description

OLD 1160

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

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

It is screwed onto the gas valve of the damper and connected with the charging hose to a standard nitrogen cylinder with pressure-reducing valve. 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 damper:
 - ◆ $\frac{7}{8}$ " - 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. 400 bar!** Tighten Allen screw on membrane accumulator with 20 Nm torque.

Type-code

| | | | | |
|------------------------|---|--|---|--|
| VG U | - | 250 | - | TS 2 |
| Type | | Manometer | | Charging hose |
| Tester and Pressurizer | | 6, 10, 25, 60, 100, 250, 400, 600 bar Digitalmanometer 200 bar | | TS 2: 2 x $\frac{1}{4}$ " BSP fem. TS 3: for CH, D, N, S, A, FL, NL, DK, GUS Connector W 24,32 x 1,814 400 bar |
| | | | | (for other countries see part no. 40 on the rear page) |

For pre-charge pressures > 400 bar up to max. 600 bar the charging hose TS 7 (700 bar) with the special adapter for the damper connection of $\frac{7}{8}$ " - 14 UNF (600 bar) must be used.

Handling and precharging procedure

PREPARATION

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

Damper 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).

Damper 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 cylinder.
- Open the stop valve on the nitrogen cylinder with pressure-recharging valve carefully. Let the nitrogen flow **slowly** in the damper, 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.

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:

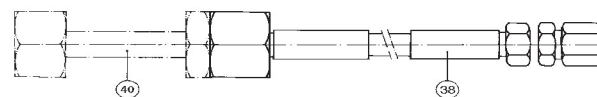
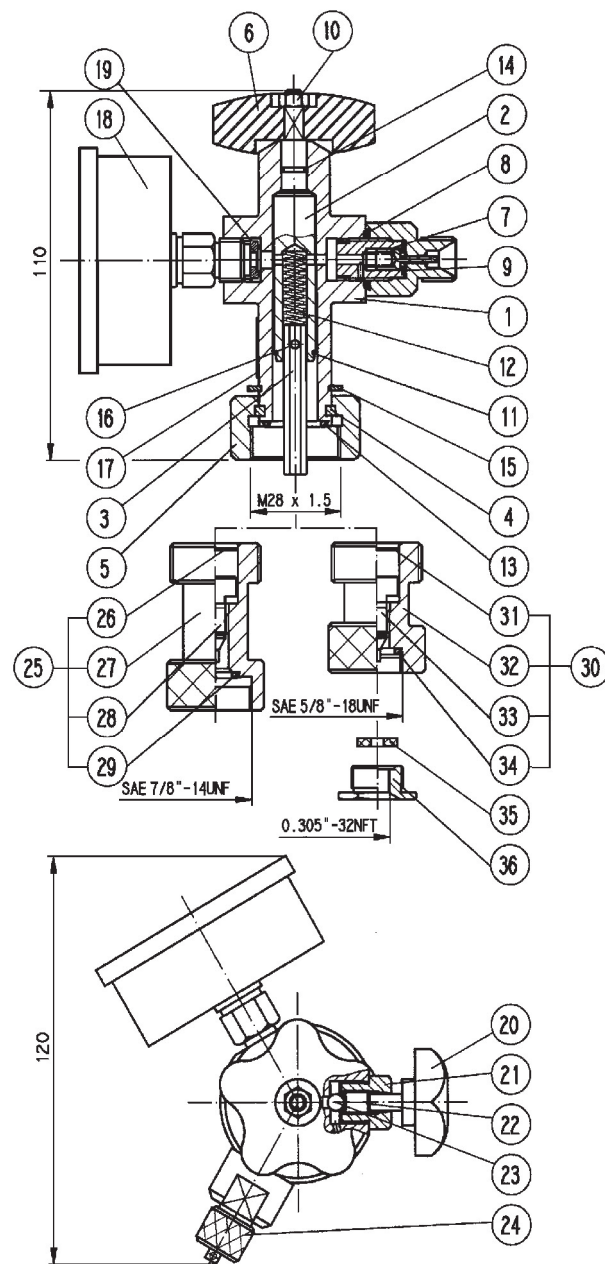
- **Never use oxygen to prefill - Risk of explosion!**
- Do not attach charging hose directly to nitrogen cylinder, always use a pressure-reducing valve in between!

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