

## Use of the HAHN testing device Regulator

### General

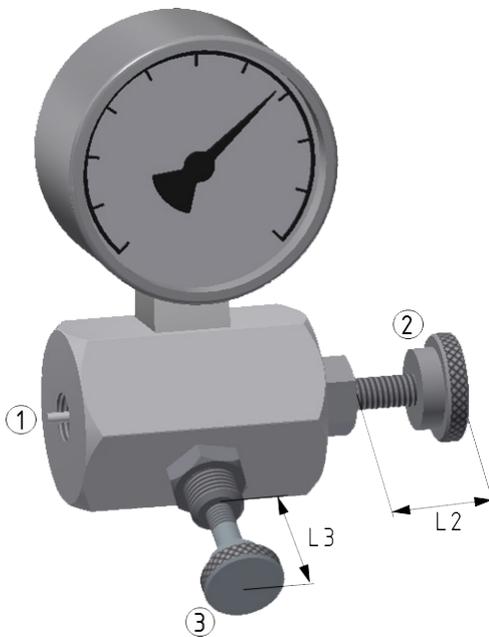
Gas springs and tension springs can be equipped with a valve if desired. This valve allows the user to reduce or increase the force (with a filling station) at will. The maximum inside pressure is 160 bar, and no laymen should carry out the recharging.

The adjusted gas/tension spring can be used on the object or returned to us to find out its force. Later deliveries can be carried out with this sample's pressure. The regulator can help on small batches to reduce the force more accurately. Also the force of the perfect spring can be measured with the regulator. Then this pressure can be adjusted easily on the remaining springs.

### Adjustment of the force and the gas pressure (maximum of 160 bar)

Gas springs with valves are always supplied with a screwon connection at the cylinder end (save for some exceptions on the type 20-40). On tension springs the valve is located in the threaded stud on the piston rod.

Any connection part must be screwed off to get in touch with the threaded stud. In the stud's center is a drilling of diameter 2,5 mm.



- |   |                                     |                          |
|---|-------------------------------------|--------------------------|
| ① | thread for gasspring                |                          |
| ② | thumb screw for pressure management | L2 initial position of ② |
| ③ | adjusting screw to release pressure | L3 initial position of ③ |

1. **Before** you screw the regulator onto the threaded stud ① (screw only gently until the stud meets the inside sealing) **make sure that both the thumb screws ②, ③ are screwed out** until L2 is greater or equal to 22 mm and L3 is greater or equal to 19 mm.
2. Screw the thumb screw ② in until the valve opens and the hand in the manometer deflects (do not screw it in any further to avoid damaging the valve!). The shown pressure equals approx. F1 minus 15% (based on the Hahn filling tables). Therefore you have to choose a pressure 15% higher than the desired force.

### Should you want to bleed down the springs carry on reading:

3. To release pressure well-controlled screw the adjusting screw ③ in carefully. As soon as the screw opens the valve, gas floats along the thread (take care to close the valve again rapidly by turning in the opposite direction to make sure not to release too much pressure at once). Repeat until the manometer shows the requested pressure.
4. After the desired pressure has been reached the thumb screw ② has to be screwed out into the initial position, to close the gasspring valve. Release the remaining gas in the regulator with the adjusting screw ③.
5. When the manometer shows 0 bar you can unscrew the regulator from the gasspring. Do not unscrew the regulator if the manometer still shows some pressure!
6. Afterwards please check that the spring is not leaking. Just put a drop of oil into the threaded stud and watch it for a minute. In case of a leakage the valve needs to be touched briefly (to settle again snugly) in the regulator or by a release pin. If everything is in order the spring may be built into the equipment for the first test. Should the force prove to be too low, the spring can always be recharged at our works.

**Please note our Technical Instructions referring to Assembly, Construction and Storage of HAHN products.**