

 <b>HAHN Gasfedern GmbH</b>	<b>Technical Instruction</b>	Seite 1/1
	<b>Use of the HAHN testing device Regulator</b>	TechnischeVorschrift t Füllanlage englisch 0100.doc

### 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 re-charging.

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 screw-on 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 there is a drilling of diameter 2,5mm.

1. The thumb screw on the regulator is unscrewed until it only holds onto 3 to 4 turns
2. Screw the regulator onto the threaded stud (screw only gently until the stud meets the inside sealing)
3. Screw the thumb screw back in until the valve opens and the hand in the manometer deflects. 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:**
4. On the regulator's front there is a drilling of 2.5mm. Put in a flat pin (or drill) of less than 2,5mm. Use a 200 gramme-hammer and release the force with gentle flexible hits on the pin. Please avoid pressing the pin for a longer period as there is gas escaping through the valve. If you hit the valve too strongly this may result in damages or a decreasing of the pressure by too much.
5. Once the bleeding down has been accomplished the remaining pressure can be viewed on the manometer.
6. Attention: After the desired force has been reached the thumb screw is screwed out by five turns. Unscrew the regulator now slowly. After some three turns the remaining pressure must get released on its own, the manometer shows 0 bar! Do not unscrew the regulator any further if the manometer shows some force still.
7. Should this be the case, please reinsert the pin into the valve section and release the remaining pressure.
8. Fully unscrew the regulator when the remaining pressure on the manometer shows 0.
9. 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) by the 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 re-charged at our works.

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