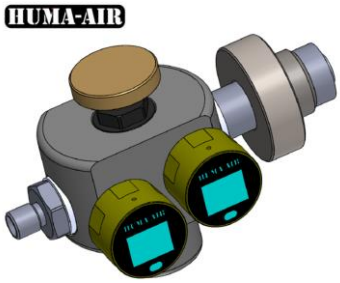
HUMA-AIR.COM

Market Leader In Accuracy

Welcome to Huma-Air. We design and manufacture brand- and model specific precision regulators for PCP air rifles.

By using only the highest quality materials such as aircraft grade aluminum, aluminum-bronze, chrome-moly steel and precision belleville springs, our ultra-compact regulators are high performing with less than 1% fluctuation.

External Din300 High Pressure Air Regulator By Huma-Air



https:/www.huma-air.com/Fitting-instructions

Or go there directly by scanning the QR code

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Before you start, realize this;

- Working on a high pressure rifle could potentially be harmful or lethal to you or bystanders if you do not know what you are doing.
- Installation and operation is done completely at your own risk.

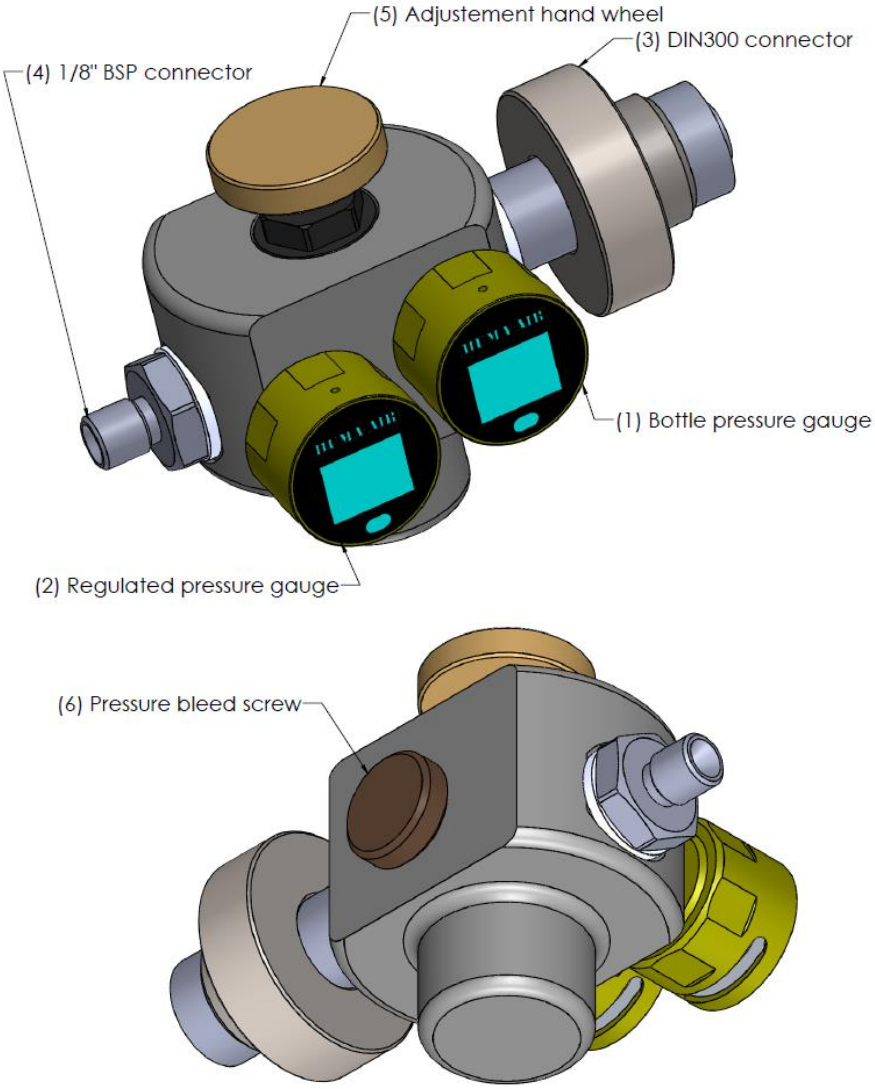
- Your rifle may never be filled higher in pressure as stated in your rifle's manual.
- These regulators are not suitable to use as a CO2 to HPA conversion nor is it suitable to be used with CO2, this could potentially be harmful or lethal to you or bystanders.
- We cannot be held liable for any accidents in relation to this regulator and its use.

Before you start, make sure that the rifle is unloaded, remove the magazine and make absolutely sure no projectile is in the breach.

In this Manual we will explain the function of our 2022 model External Din300 High Pressure Air Regulator. The 2022 model is meant to be used for tethered shooting and to be used as an alternative to the fillsets that are commenly used to fill your airrifle or pistol. It limits the risk of overfilling your airgun, but please note it is not a replacement for paying attention and using common sense while filling your airrifle. Never leave your rifle unattended and never exceed the maximum recommended working pressure of your airgun.

Features:

The External Din300 High Pressure Air Regulator comes with a set of desirable features that will be discussed below.



- Dual gauge that shows both bottle pressure (1) as well as regulated pressure(2) (Please note that this manual depicts digital gauges. The standard configuration is equipped with analogue gauges). The regulator uses standard 1/8”BSP (also known as G1/8”) thread so you can upgrade your gauge if you so please.
- DIN300 connector (3) to be compatible with the most common bottle connections in the airgun industry. Max input pressure is matched to 300bar cylinders (4350PSI)
- 1/8” BSP connector (4) to let you connect common Foster connectors or a hose to the inline regulator.
- Large handwheel (5) to setup your desired output pressure. Output pressure range is ±50 bar up to 250bar (725PSI up to 3625PSI) and can be adjusted steplessly. One turn of the handwheel counter clockwise will raise pressure approximately 40 bar (580PSI)
- Pressure bleed screw to depressurize the complete regulator.

Use:

- Connect whichever connector or hose you want to use to the 1/8”BSP connector (please note that in the photo’s below we have plugged the output side of the regulator).
- Make sure that the adjustment wheel is screwed in until you feel a slight resistance. Do not exert force!
- Screw in the regulator in the bottle’s DIN300 valve and connect the output side to your airgun
- Now slowly open the bottle valve. You will notice the bottle pressure gauge (1) immediately jumps to bottle pressure, but the output pressure gauge (2) only moves a very small amount.

- Carefully raise the regulator output pressure using the handwheel (5). Turning the handwheel (5) counter clockwise increases pressure, turning it clockwise will decrease pressure The exerted force on this handwheel is directly influenced by output pressure so it will get slightly harder to turn when pressure goes up, set it up to your desired pressure that best suits your airgun.

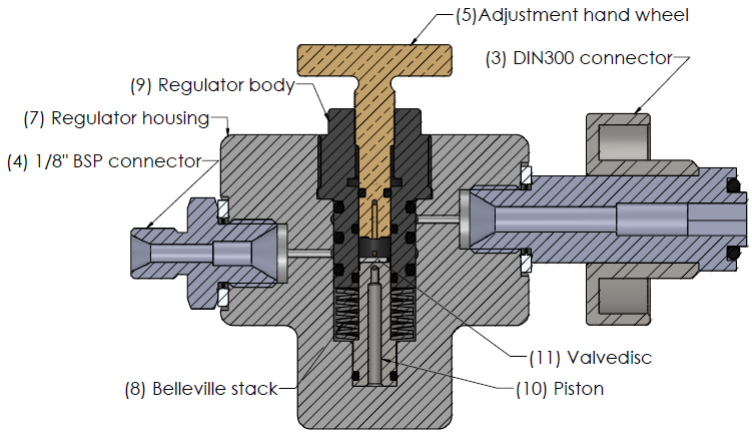
Decreasing the output pressure:

- While the system is pressurized we recommend to only increase regulator output pressure. If you wish to make small adjustments and decrease the regulator output pressure, small adjustments (up or down 5 bar; or about max ¼ turn of the handwheel) can be done pressurized, but please realize, that when lowering pressure, a few shots need to be taken to see the result on the output pressure gauge (2). So if you need to decrease the output pressure, you need to do this in small steps, or depressurize the regulator before decreasing the pressure for a large adjustments at once.

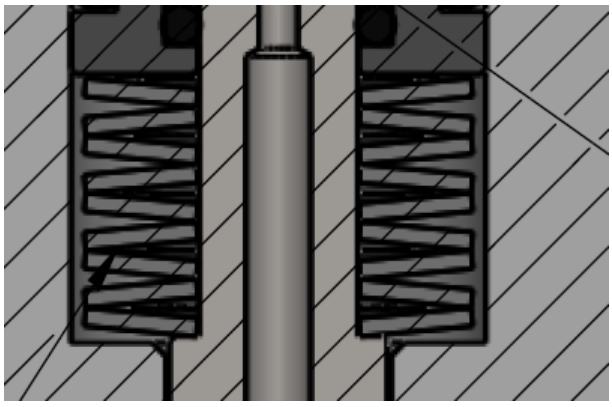
- When you are done filling your airgun or stop your tethered shooting you can simply close the bottle's valve and release pressure with the bleed screw(6) pictured below.

- After the system is completely empty you can disconnect your airgun.
- We recommend while reconnecting your airgun you turn down the regulator about ½ a turn using the handwheel (6) so you will not overfill because of some unwanted adjustment of the handwheel (6) while in storage. Once connected and pressurized you can work up to your desired pressure again by turning the handwheel (6) back up counter clockwise.
- Your inline regulator comes with a spare valve disk (11). If your regulator suffers from any creep during time. Please flip over the moon shaped, white delrin valve disk, or replace it with the spare one.
- Complete rebuild kits with all needed o-rings, lubrications and spare valve disk are available in our shop.

Construction/service and maintenance:



- This regulator is a low maintenance unit but for reference we will shortly discuss it's construction and basic maintenance.
- Both the 1/8" BSP connector (4) and the DIN300 connector (3) connect to the regulator housing (7) using ¼"BSP connection that seal using bonded seal washers. If you wish to connect your own connectors to this make sure they are rated for high pressure air! Be sure they are compatible for use with bonded seals.
- The Belleville stack (8) should be stacked as below. 9 Belleville springs stacked alternately with the large diameter facing the regulator body (9) and the small diameter facing the piston (10)



- The valve disc (11) seals the inlet- from outlet pressure. If you notice irregular behavior it might be time to exchange the valve disc.
- A complete rebuild kit to reseal the complete regulator containing all appropriate o-rings and the valve disc is available in our shop.
- The regulator body (9) can be unscrewed from the housing (7) using a 16mm wrench
- To exchange the internal o-rings unscrew the regulator body (9) from the housing (7) and remove the handwheel (5). Then using a semi sharp needle gently poke in the o-ring making sure not to completely puncture the o-rings as this could damage the sealing surfaces in the regulator body (9) and carefully pull the o-ring from it's groove. Reinserting the o-rings should be done using non marring "soft dowels/tools". The outer o-rings are pretty straightforward to exchange. Scratches to the sealing surfaces could result in creep or leaks.
- When unscrewing the regulator body (9); the piston with Belleville washers (8+10) will stay in the housing (7). We recommend using plastic forceps to remove it from it's seat as not to

scratch the piston (10). Any damage/scratches to the piston (10) can result in creeping or leaking of the regulator.

- Before reinstalling the components we recommend lubricating them with a quality silicone lubricant like the HuMa-Air Airgun Lube Silicone Grease.
- The handwheel (5) threads should be lubricated with a little ceramic grease. Apply it sparingly with a little brush making sure it will not get on the o-rings.