



Technical Document

Sidewinder Specifications:

- Model:** Sidewinder
- Version:** A
- Gas Source:** Compressed air, Nitrogen or CO₂
- Length:** 4.875 inches (total length)*
- Width:** 1" dia main body/1.125" dia swivel sleeve.
- Weight:** 0.308 lbs (with QD)
- Adjustable Range:** 0-700 PSI
- Max Input:** 800 PSI

**There are different length endcaps available for the Sidewinder so the total length can be shortened or lengthened for a more custom fit to the end user.

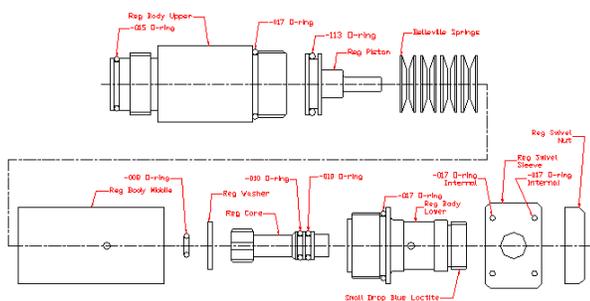
Adjusting the Sidewinder Regulator:

To decrease output when looking at the regulator from the bottom, turn the allen wrench clockwise to decrease the pressure. To increase output when looking at the regulator from the bottom, turn the allen wrench counter clockwise to increase the pressure.

Trouble Shooting:

Remember to shoot the gun several times after any adjustment to the Sidewinder regulator so you can see what the velocity settles in at. If the regulator creeps in pressure range, check to make sure there is not a piece of debris in between the regulator seat and the regulator piston. Make sure the vent hole on the side of regulator body middle is open and clean. If it is plugged the regulator will not function properly.

Schematic and Parts Chart:



- | | |
|-------------------------------|---------------------------|
| (1) Regulator body upper | (1) Regulator Sleeve |
| (1) -017 o-ring 1 -015 o-ring | (2) -017 o-ring |
| (1) Regulator body middle | (1) Male Quick Disconnect |
| (1) -008 o-ring | (1) Regulator body lower |
| (1) Regulator piston | (1) -017 o-ring |
| (1) -113 o-ring | (1) Regulator core |
| (8) Belleville springs | (2) -010 o-ring |
| (1) Regulator washer | (1) 10-32 set screw |

Disassembly of Sidewinder Regulator:

To properly disassemble the Sidewinder regulator and not scratch the outside, you will need a few items: Two pieces of 2x4s about 4 inches long, a cloth strap wrench, a bench vise, a good adjustable wrench, and a set of allen wrenches.

1. Remove all air sources.
2. Clamp the reg. body upper and reg. middle between the two pieces of wood. The wood will keep the regulators outside surface from getting scratched up.
3. Using the adjustable wrench on the swivel nut unscrew the swivel assembly from the bottom of the regulator. Once loose unscrew the two pieces. Be careful not to lose the reg. washer and the o-ring that are on the inside this portion of the regulator.
4. Reclamp the regulator between the two pieces of wood, clamp on the reg. body upper. Using the strap wrench loosen the reg. body middle from the reg. body upper. Inspect the o-rings for damage or wear. Replace if needed.
5. Once the two halves are separated you can remove the piston and springs from the regulator body middle. Be careful not to damage the piston or the o-rings. Remember in what order the parts came out of the regulator. Replace o-rings or springs if needed.
6. To disassemble the swivel joint, clamp the threaded end of the swivel between the two pieces of wood. Use the adjustable wrench to loosen the swivel nut. The swivel nut is BLUE LOCTITED in place.

7. Using a gentle twisting action gently pull the swivel sleeve from the regulator body lower. Inspect the o-rings for damage or wear. Replace if needed.

8. Use an allen wrench and unscrew the regulator core from the regulator body lower. The core comes out through the front of the regulator body lower. Do not try backing it out. Be careful not to damage any o-rings. If needed replace the o-rings or if the reg. seat is damaged replace the whole core assembly.

9. You can now replace the major components to the regulator if needed. The regulator goes back together easily. Use the strap wrench to tighten. Do not over-tighten, just snug down and use a drop of blue loc-tite on the threads to keep the regulator bodies tight together.