



BULLET™ Vacuum Pump Anti-Suckback Retrofit

REQUIRED PARTS

| <u>Part #</u> | <u>Qty</u> | <u>Description</u> |
|---------------|------------|-------------------------|
| 144256 | 1 | ANTI SUCKBACK O RING |
| 144216 | 1 | 110 O RING B46 |
| 144220 | 1 | FORGED INTAKE FITTING |
| 144226 | 1 | ANTI SUCKBACK RING |
| 144253 | 1 | BULLET SUCKBACK FITTING |
| 144257 | 1 | LIGHT WEIGHT BALL |
| 510064 | 1 | SMALL MESH SCREEN |
| n/a | 1 | LOCTITE |

REQUIRED TOOLS

| <u>Tool Description</u> |
|---------------------------|
| Heat gun |
| 5/16" Allen wrench |
| Needle nose pliers |
| Scissors |
| 7/8" OR Adjustable Wrench |
| Vice (optional) |



Estimated Duration

10-20 minutes



Step 1) Remove Caps

Place pump in vice to hold for duration of work

Unscrew and remove plastic caps, set aside



2) Loosen Brass Intake Fitting

Use heat gun or torch to heat body. Heat gun for 2 minutes, torch for 30-60 seconds depending on flame temp. IF BODY IS NOT HOT ENOUGH FITTING WILL STRIP OUT. Focus on heating body more than fitting.





3) Remove Intake

Using either a 7/8" or adjustable wrench, unscrew the fitting

NOTE: If not using a vice, a second person will be helpful to hold the pump and prevent it from spinning. Removing fitting requires a large amount of torque. If heat source wasn't used for long enough brass fitting will likely strip before unscrewing



4) Remove Old Parts

Remove the old float ball with pliers, then CAREFULLY remove the intake screen and set aside. Do not damage as this part will be re-used in step 10. Bending is ok as long as it doesn't tear the screen. To remove screen may need to be bent up a little so an edge can be grabbed with pliers. If this is necessary, use something with rounded edges so as not to tear screen.





5) Clean Intake Off

Wipe off old pipe dope and blow out the intake fitting.

Be sure intake is very clean as O-rings need to seal on the inside and contamination could cause seals to fail and oil to leak



6) Place Screen

Place screen 510064 into intake. Press down to bottom of shaft with 1/2 inch or so round stick (7/16 Allen wrench works as well) Screen should be seated flat as shown in image below. If screen does not lay flat, remove, unbend, and re-press into intake.



7) Place Float Ball and Large O-Ring into Intake

Using pliers again, place the NEW float ball(144257), and large o ring (144256) into the intake



8) Place Anti-Suckback Ring and Small O-Ring Into Intake

Use pliers to position anti suckback ring (144226) and small o ring (144216) into fitting. The cutout faces up as shown in the below picture. The small o ring fits inside the cut out



9) Screw in Bullet Suckback Fitting

Use the 5/16 Allen wrench to firmly tighten down the fitting (144253). The fitting should bottom out on the brass pieces and compress the o rings in the process.



144253



10) Straighten and Replace Screen

If screen was bent up to remove in step 4, gently unbend the screen by hand until visually flat. Then clean off any contamination on the screen. Place the screen on top of the bullet suckback fitting.



11) Prep and Tighten Down New Intake Fitting



Cut corner off Loctite packet to make dispensing spout.

Cover NPT threads of intake fitting with Loctite.

Thread fitting (144220) into intake, use wrench to tighten until snug.

Intake should be oriented as shown in the picture below.



NOTE: NPT should never be unthreaded to meet orientation. Only tighten. Loosening could compromise thread seal

12) Replace caps

Screw caps back onto intake fitting

