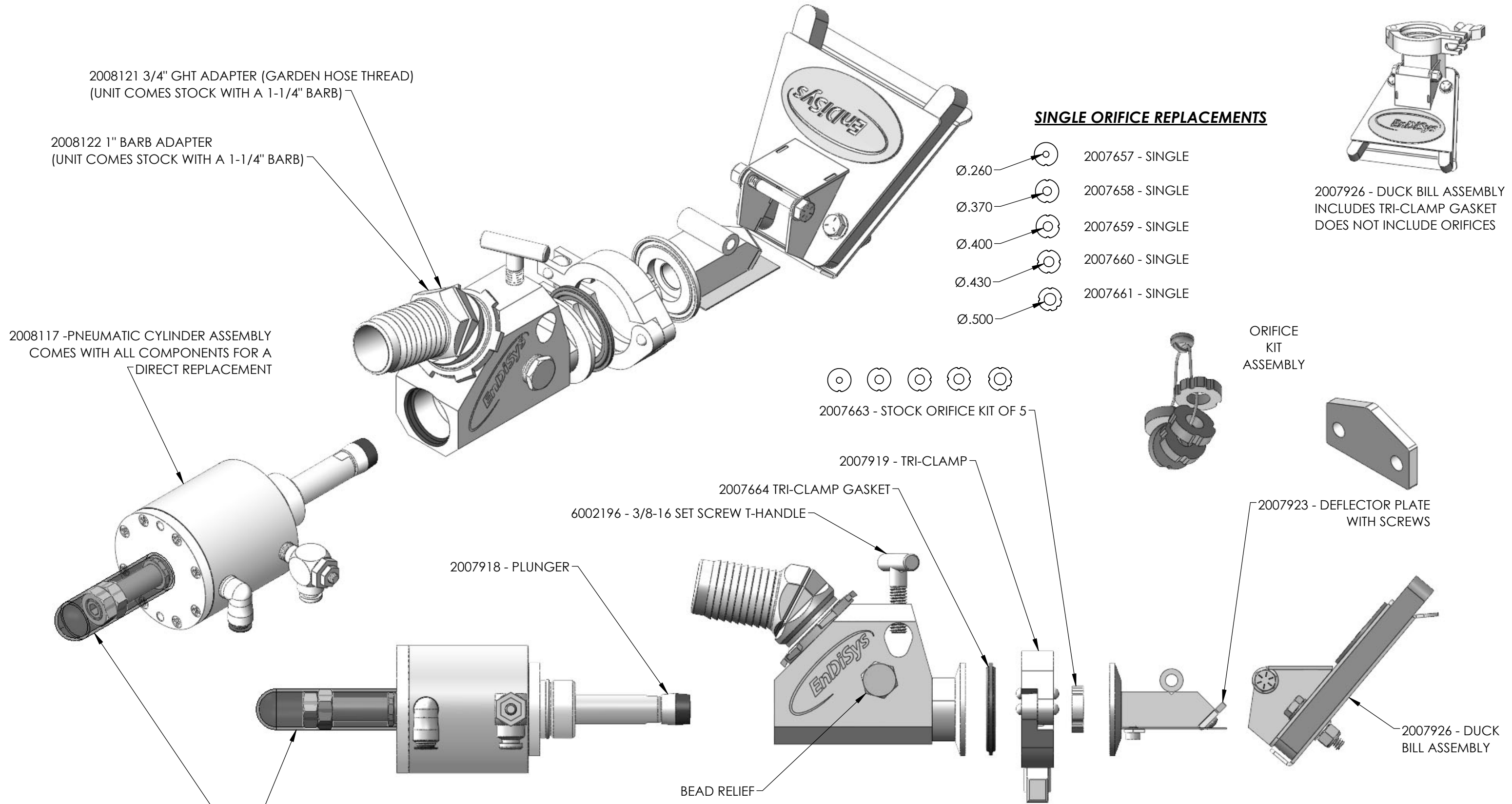


**REPLACEMENT PART DRAWING - SEE OTHER PARTS OF MANUAL FOR ASSEMBLY AND INSTALLATION DRAWINGS**



**SINGLE ORIFICE REPLACEMENTS**

- Ø.260 2007657 - SINGLE
- Ø.370 2007658 - SINGLE
- Ø.400 2007659 - SINGLE
- Ø.430 2007660 - SINGLE
- Ø.500 2007661 - SINGLE



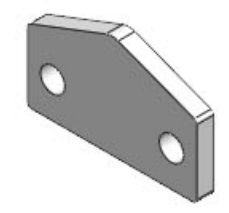
2007926 - DUCK BILL ASSEMBLY  
INCLUDES TRI-CLAMP GASKET  
DOES NOT INCLUDE ORIFICES



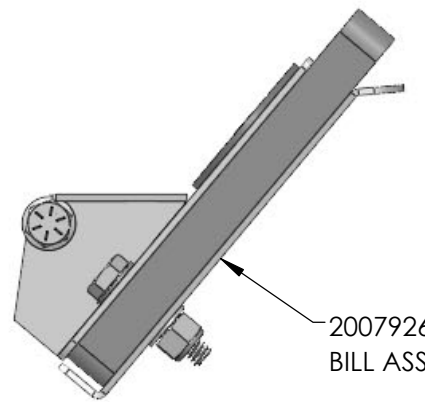
2007663 - STOCK ORIFICE KIT OF 5



ORIFICE  
KIT  
ASSEMBLY




2007923 - DEFLECTOR PLATE  
WITH SCREWS



2007926 - DUCK  
BILL ASSEMBLY

REV.	DESCRIPTION	BY	DATE
B	REVISED SUBCOMPONENTS TO EASE ASSEMBLY AND PART TRACKING	AWN	2/2/2024
A	GUN BODY MADE LARGER TO ACCEPT A LARGER CYLINDER AND LARGER INLET ELBOW	AWN	5/18/2023
REVISIONS			

<p><b>CHECK ALL DIMENSIONS AT FINAL INSPECTION</b></p> 	<p><b>PROPRIETARY &amp; CONFIDENTIAL</b></p> <p>TOLERANCES +/- (UNLESS OTHERWISE SPECIFIED) .X = .06 .XX = .01 .XXX = .005 ANGLE +/- 1°</p>		<p>PART# <b>2008116</b></p>		<p>SHEET 6 OF 7</p>
	<p>SHEET SIZE B SCALE: 1:4</p> <p>MATERIAL:</p> <p>SPEC:</p>		<p>TITLE: <b>GUN, BEAD, AXIS, DUAL, BILLET</b></p>		<p>FINISH:</p> <p>DATE: 05-12-23</p>
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# 2008116 INSTALLATION MANUAL

Start by determining the amount of beads you will need, light, medium or heavy and insert the best guess orifice, 1 notch being the lightest and NO orifice will be the heaviest. Verify that tank pressures are set to a medium pressure and you have a consistent flow to gun. Run your desired bead ratio test trying to get the desired flow rate with minimal tank pressure. Once flow rates are close, verify that the bead guns are vertical and the duck bill is angled down. Start beads and adjust both angles to get desired spread of beads keeping in mind the width of spread needed to cover the paint line. Adjust height of gun in respect to road to get complete paint line coverage. Cover entire gun with Slime or other agent to aid in removal of paint after spraying. Adjust flow rate with tank pressure and speed of truck.

For Plunger Gap Adjustment method remove the orifice from the gun and replace the duckbill. With the gun plunger closed, remove the red cap, loosen the locking knurl nut and screw the top knurl bolt into the cylinder until it bottoms out. At this time the plunger will not open or allow beads thru, the plunger must be backed off to allow beads thru and that distance should be documented. The threaded rod attached to the plunger is 7/16-24 meaning it has 24 threads per inch so if you turn the screw 6 full turns counter clockwise, it will allow the plunger to move 6/24" or 1/4" up from closed. These different distances will change bead flow and can be adjusted on the move. Replace red cap and put away orifice onto keyring.

## TROUBLESHOOTING

**Beads are coming out inconsistently:**

- + Check beads for water infiltration by looking at small pile of them, if they are not laying perfectly smooth there is water in them. Pressurize system and check everywhere for air leaks using soap and water in a spray bottle, fix all leaks. Due to the bead tanks being under constant air pressure, any leaking or movement of air will more than likely result in moist beads that will have a difficult time moving thru any plumbing. The Endisys bead guns are more "air tight" than others and should help alleviate water issues as long as leaks are fixed. It is also a good idea to depressurize all bead tanks at the end of the day, do not let them leak out thru the system on their own, especially if it is leaking near the guns.
- + look for elbows and inconsistent pipe sizing along the systems plumbing, we recommend no 90 degree elbows, all 45 degree if any and do not "neck down" until absolutely necessary or at a manifold or splitter. At Endisys we have had the best luck with UHMW lined flexible tubing that is 2" id from the tank to the manifolds and 1-1/4" id from the rear manifolds to the bead guns.
- + remove duckbill and place hand over exit of gun, if there any air leakage? If so, the plunger may not be seating well, increase air pressure to gun cylinder, cycle a few times and try again, if problem persists and gun is well used, the plunger may need replacing. Disassemble and check for obstructions and or wear.

**When bead gun closes beads shoot out too fast.**

- + Adjust flow control on bead gun cylinder so that plunger closes slower, the delay factor in the Skip-Line® system will have to be adjusted afterwards.

**Heavy outside edge of beads:**

- + Adjust sitting angle and duckbill angle until resolved
- + Fold duckbill all the way up and check deflector for wear, flip or replace as needed.

**Beads are pulsing out of gun:**

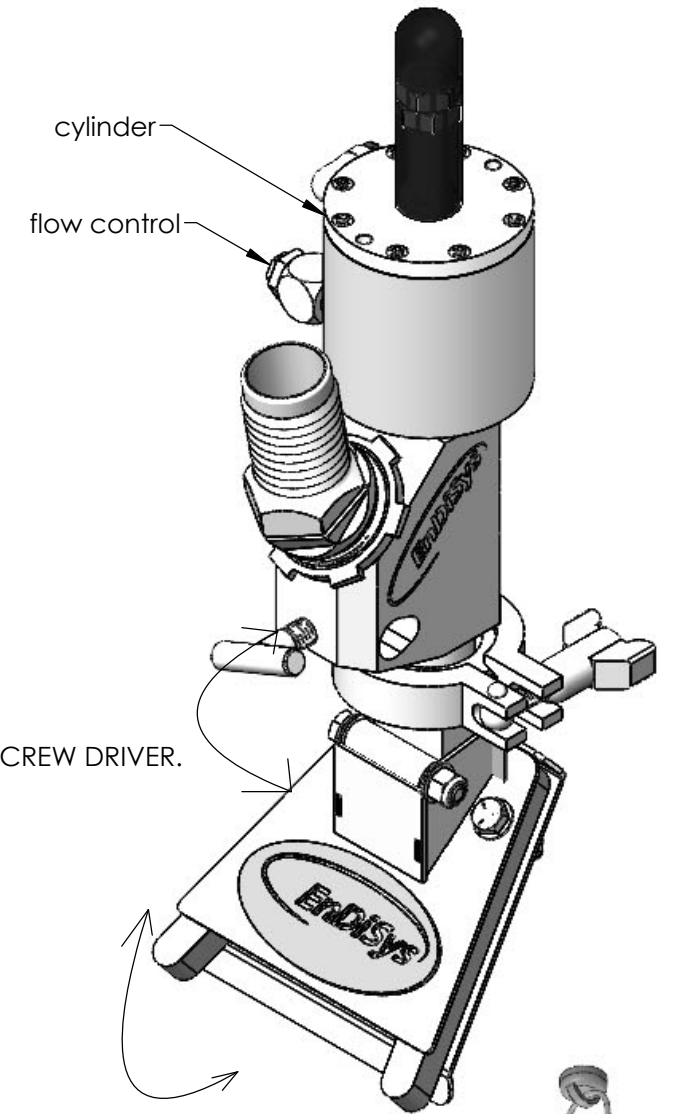
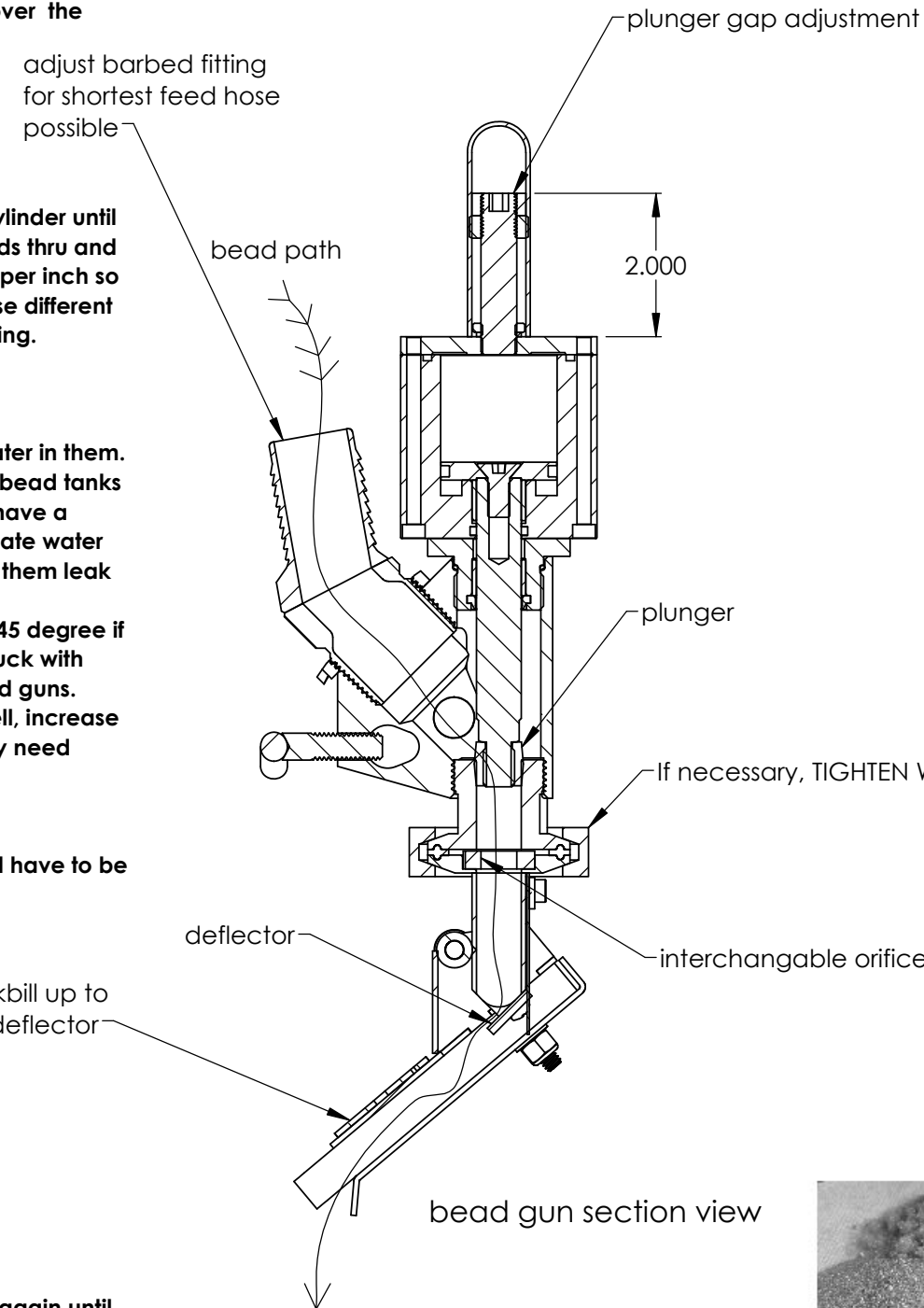
- + See water issues above.
- + Check for excessive elevation changes in the delivery line and route with gravity in mind.
- + Eliminate "neck down" areas and 90° elbows.

**Need more beads to come out of gun:**

- + Verify that plunger stop is fully open and not limiting stroke.
- + Remove all orifice from duckbill
- + Take bead measurement at 6 second shot and tank pressure at 20psi, turn up tank pressure by 10 psi and measure again until measurement no longer rises then back down tank pressure 5 psi, verify that tank is holding pressure after striping.

**Plunger will not retract:**

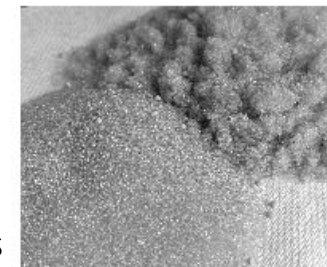
- + Verify 100+ psi is going to the gun at proper end of cylinder
- + Beads may be locking the plunger, pull side plug and release pressure in body.
- + If the above solved problem, note the water content of beads if any, what type of beads they are etc.
- + Contact Endisys if problem persists



pull duckbill up to access deflector

bead gun section view

DRY BEADS



WET BEADS

ORIFICE KIT ASSEMBLY



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