

## AIR GAP DRAINS

for installation with:  
**APOLLO RP4A 1/2" THROUGH 2" AND  
 APOLLO RP4AN 3/4" AND 1"  
 REDUCED PRESSURE PRINCIPLE (RP)  
 BACKFLOW PREVENTERS**

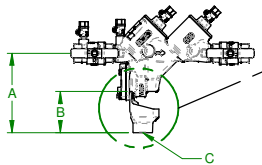
### DESCRIPTION

The Apollo Air Gap Drain (AGD) is designed to funnel minor relief valve discharges due to line pressure fluctuations and/or minor check valve fouling, into the drainage system.

Drainage piping is easily attached to the threaded portion of the AGD. The Female NPT size is listed in the table under "EXIT PIPING THREADS C". The AGD is ABS plastic and drainage piping may also be glued on with a coupling and the appropriate cement or using a flexible pipe coupling. The OD is listed in the table under "OD OF C".

**NOTE:** The AGD is designed to hold its own weight and two feet of straight pipe. Additional pipe or the use of bends or elbows which induce any side load or bending requires pipe hangers for support.

**NOTE:** To increase the number of model numbers covered by kit AGD4A-1 there may be extra parts which are not used in your particular application.



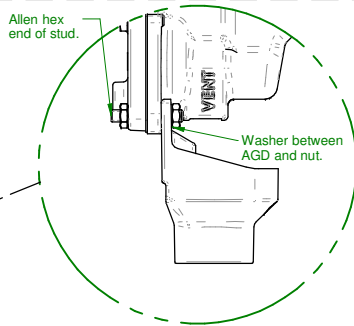
Typical RP4A

### DIMENSIONS (in)

RP4A SIZE	AGD MODEL NO.	A	B	EXIT PIPING THREADS C	OD OF C
1/2"	AGD4A-1	6.5"	3.4"	1" FNPT	1 1/4" PIPE
3/4"	AGD4A-1	6.5"	3.4"	1" FNPT	1 1/4" PIPE
1"	AGD4A-1	6.6"	3.4"	1" FNPT	1 1/4" PIPE
1 1/4" 1 1/2"	AGD4A-112	8.5"	4.1"	1 1/2" FNPT	2" PIPE
2"	AGD4A-2	10.0"	5.3"	2" FNPT	2 1/2" PIPE

RP4AN SIZE	AGD MODEL NO.	A	B	EXIT PIPING THREADS C	OD OF C
3/4"	AGD4A-1	N/A	3.4"	1" FNPT	1 1/4" PIPE
1"	AGD4A-1	N/A	3.4"	1" FNPT	1 1/4" PIPE

**NOTE: The AGD is not designed to collect the full discharge capacity of the relief valve.**



**⚠ CALIFORNIA PROP 65: WARNING:**  
 Cancer and Reproductive Harm -  
[www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

## INSTALLATION

**NOTE:** Isolate the RP device from line pressure and relieve internal pressure before installing the Air Gap Drain.

**NOTE:** The AGD is designed to support its own weight and two feet of straight pipe. Additional pipe or the use of bends or elbows which induce any side load or bending requires pipe hangers for support.

**RP4A sizes 1/2", 3/4" and 1": AGD4A-1  
 RP4A sizes 1 1/4" and 1 1/2": AGD4A-112  
 RP4A size 2": AGD4A-2**

**For RP4AN, proceed to directions on next column.**

### Tools for AGD4A-1 installation on RP4A:

Required: 7/16" open end wrench, 1/8" Allen wrench.  
 Helpful to have: 7/16" socket.

### Tools for AGD4A-112 and AGD4A-2 installation on RP4A:

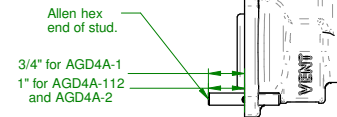
Required: 1/2" open end wrench, 5/32 Allen wrench.  
 Helpful to have: 1/2" socket.

1. Remove the relief valve cover bolts, relief valve cover, and diaphragm.

2. Determine which two threaded holes line up with the AGD mounting holes. Hand thread the provided studs from the machined face side into those two holes about 1/2" deep for AGD4A-1 or 3/4" deep for AGD4A-112 and AGD4A-2. If necessary use an Allen wrench.

3. Apply several drops of the provided thread-locking compound to the studs' threads near the relief valve body.

4. Thread the studs the rest of the way into the body until the studs protrude from the machined face by 3/4" for the AGD4A-1 and 1" for the AGD4A-112 and AGD4A-2. (the stakes on the studs should limit their travel.) Wipe off the excess thread-locking compound. Check that the AGD and nuts will slip between the end of the studs and the vent, back the studs out a turn or two if necessary.



5. Slip the AGD over the studs from the vent side. Place a provided washer and a provided nut on each stud to hold the AGD in place.

6. Allow time for the thread-locking compound to set. Then, tighten the nuts with an open end wrench (7/16" for the AGD4A-1 and 1/2" for the AGD4A-112 and AGD4A-2) until snug. **DO NOT OVERTIGHTEN.**

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<http://www.apollovalves.com>

### RP4A 1/2" through 2" (continued)

7. Re-install the diaphragm and relief valve cover. Install the previously removed bolts into the remaining holes and thread provided nuts onto the studs. Tighten all firmly.

8. Re-establish line pressure within the RP and check for leaks.

9. Hand thread the drainage piping into the AGD. The AGD is ABS plastic and discharge piping has the option of being glued to the outer diameter (OD) of the air gap outlet with a coupling and the appropriate cement or using a flexible pipe coupling if the threaded drainage pipe is not desired. See the table for the appropriate OD.

### RP4AN sizes 3/4" and 1": AGD4A-1

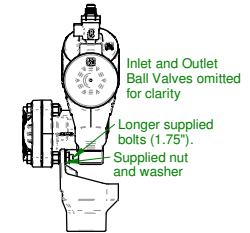
Tools required, Two 7/16" open end wrenches or one 7/16" open end wrench and a 7/16" socket.

1. Verify the RP is depressurized. Remove the bottom two nuts and bolts, loosen the top two.

2. Install the two provided 1.75" long bolts and re-install the two removed nyloc nuts. Evenly torque down the cover bolts and nuts in a criss-cross fashion until snug, **DO NOT OVERTIGHTEN ANY NUT/BOLT.**

3. Re-establish line pressure within the RP and check for leaks.

4. Slip the AGD over the long bolts from the vent side. Place a provided washer and a provided nut on each stud to hold the AGD in place. Make the nuts snug with a wrench.



5. Hand thread the drainage piping into the AGD or optionally piping may be glued to the outside diameter (OD) of the air gap (see table for the appropriate OD). Provision should be made to easily detach the AGD from the drainage piping since its method of attachment to the RP4AN is different from the RP4A and its presence will interfere with removing the relief valve cover.