

Tangential Air Separators for Closed Hydronic Heating and Chilled Water Systems



For Models:

- 1 AS (L)
- 2 AS (L)
- 2 1/2 AS (L)
- 3 AS (L)
- 4 AS (L)
- 5 AS (L)
- 6 AS (L)
- 8 AS (L)
- 10 AS (L)
- 12 AS (L)
- 14 AS (L)
- 16 AS (L)
- 18 AS (L)
- 20 AS (L)
- 24 AS (L)

WARNING State of California Residents. This product contains a chemical known by the State of California to cause cancer. This product contains a chemical known by the State of California to cause birth defects or other reproductive harm.

WARNING READ CAREFULLY THE TANGENTIAL AIR SEPARATOR INSTALLATION, OPERATING AND MAINTENANCE INSTRUCTIONS MANUAL TO AVOID SERIOUS PERSONAL INJURY AND PROPERTY HAZARDS AND TO ENSURE SAFE USE AND PROPER CARE OF THIS PRODUCT.

WARNING EXPLOSION OR RUPTURE HAZARD. THE AIR SEPARATOR TANK MUST BE OPERATED SO THAT THE PRESSURE DOES NOT EXCEED THE MAXIMUM WORKING PRESSURE.

! THIS IS A SAFETY ALERT SYMBOL. IT IS USED TO ALERT YOU TO POTENTIAL PERSONAL INJURY AND OTHER HAZARDS. OBEY ALL SAFETY MESSAGES THAT FOLLOW THIS SYMBOL TO REDUCE THE RISK OF POSSIBLE INJURY AS WELL AS PROPERTY DAMAGE.

THIS PRODUCT COMES WITH A LIMITED ONE (1) YEAR WARRANTY, SEE AMTROL'S LIMITED PRODUCT WARRANTY FOR DETAILS.

PLEASE READ THE FOLLOWING INSTRUCTIONS CAREFULLY



This product must be installed by a qualified plumber.



This tank, like all pressure tanks, can over time corrode, fail, leak and flood. **DO NOT LOCATE** in an area where water from the tank can cause property damage.

Installation Instructions

1. Refer to figures 1 and 2 for the proper installation of the AMTROL “AS” or “AS-L” series separator.



Wet weight of the separator can exceed strength of supports. Make sure provisions are made to support the wet weight and not just the dry weight (see weight chart below). Failure to follow these instructions could result in serious personal injury or death and property damage.

2. “AS” or “AS-L” sizes through the “AS-8” or “AS-L-8” can be supported in the piping system as long as pipe hangers are attached to the tangential nozzles as close to the units shell as possible. Sizes larger than the “AS-8” or the “AS-L-8” will need to have additional support, such as the stand provided on all units sizes “AS-5” or “AS-L-5” or larger. Factory installed seismic restraints are optional.



Welding to the pressure vessel boundary will void the ASME rating.

3. Model “AS” air separators have strainers, which must be removed and cleaned after 24 hours of operation, 30 hours of operation and as required to maintain proper air separation. Before installing the model “AS” refer to figure 2 for minimum distances to be maintained between the blind flange and any wall or other obstruction for strainer removal.
4. A manual blowdown valve (MBV) can be added to the blowdown connection at the bottom of the tank. The function of the MBV is to facilitate the purging of sediment from the vessel.

Weight Chart:		
Models	Weight	Wet Weight
1-AS-L	15	20
2-AS	70	100
2 1/2-AS	70	110
3-AS	75	140
4-AS	80	195
5-AS	180	400
6-AS	250	575
8-AS	455	1175
10-AS	770	2075
12-AS	1150	3200
14-AS	2200	4800
16-AS	4300	7275
18-AS	4900	10,300
20-AS	5600	12,375
22-AS	6500	13,950
24-AS	8000	23,250

Service Instructions



Leakage, corrosion or indications of damage are signs of an impending serious failure of the air separator. Periodically inspect for damage and if noted the separator must be serviced or replaced. Failure to follow these instructions could result in serious personal injury or death and property damage.

1. The strainer in the “AS” series separator may need to be cleaned periodically. This is particularly true during the initial start-up period. The need to clean the strainer will be evidenced by a high pressure drop across the separator or by pump cavitation problems. To clean the strainer:

A) Allow the system water temperature to cool below 100° F.



Water temperature above 100° F can be very hazardous. Allow system water temperature to cool down below 100° F before blowing down the separator. Failure to follow these instructions could result in serious personal injury or death and property damage.

B) Open the blowdown drain valve for a few seconds. This should dislodge accumulated dirt from the strainer. If it does not, then the strainer must be removed from the separator for cleaning. This can be accomplished by closing the isolation valve to isolate the separator from the system. Make sure the water temperature in the separator is below 100° F. Open the blowdown valve on the bottom of the separator to drain the unit. Make sure that all of the flow from the blowdown valve has stopped. If water continues to flow, the isolation valve must be repaired or replaced before proceeding.



System fluid under pressure and/or high temperature can be very hazardous. Before proceeding to service the strainer, reduce system pressure to zero and isolate the separator from the system. Allow system temperature to cool below 100° F. Failure to follow these instructions could result in serious personal injury or death and property damage.

C) Remove the flange bolts that hold the blind flange in place on the side of the tank. Remove the blind flange and slide the strainer out of the tank. Clean the strainer and reinstall in the separator. Replace the flange gasket with a new one and reinstall blind flange making sure that the flange bolts are tightened in a criss-cross pattern to 40-50 foot pounds. Close the blowdown valve and open the isolation valves to return to normal operation. Check the gasket for signs of leakage. If found, additional slight tightening of bolts may be required.

SUGGESTED PIPING DIAGRAMS

Figure 1. AS-L Series

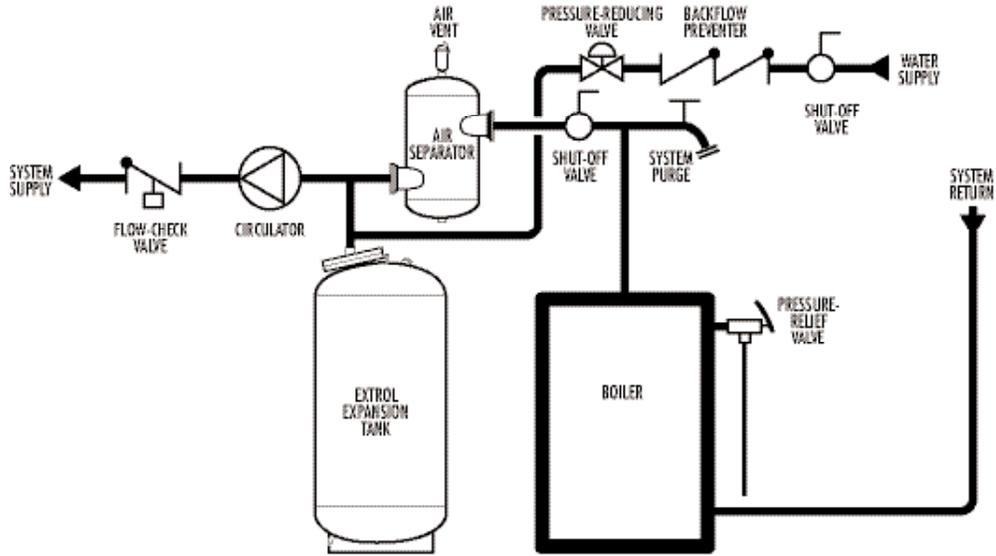
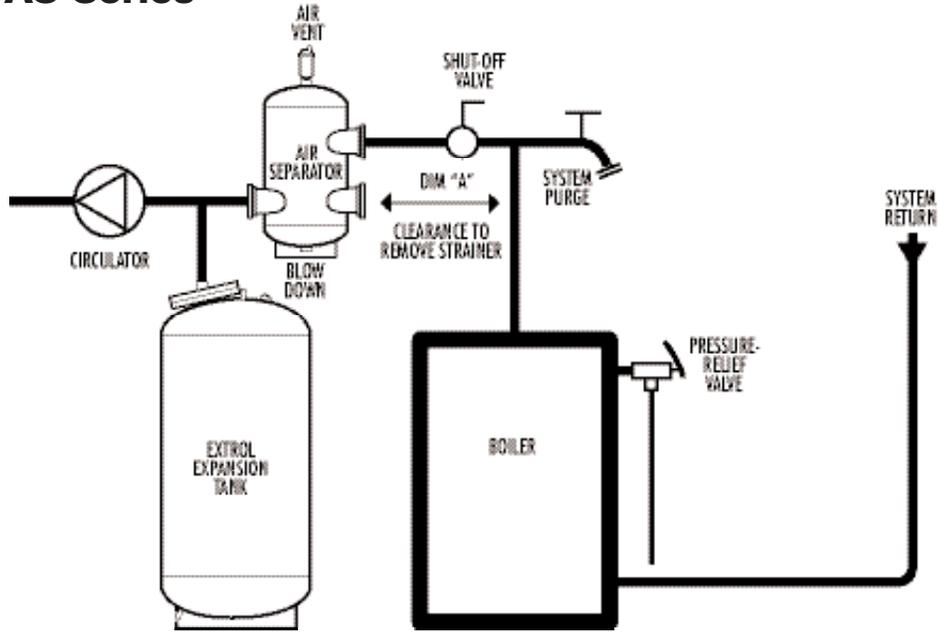


Figure 2. AS Series



Models	Dimension "A" Inches
2-AS	14"
2 1/2-AS	14"
3-AS	14"
4-AS	16 1/2"
5-AS	21 1/2"
6-AS	23"
8-AS	29"
10-AS	35"
12-AS	40"
14-AS	48"
16-AS	56"
18-AS	62"
20-AS	68"
22-AS	68"
24-AS	80"

AMTROL® INC. LIMITED PRODUCT WARRANTY

Products covered: all Products manufactured by AMTROL Inc. ("AMTROL").

This warranty cannot be transferred – it is extended only to the original Purchaser or First User of the Product. By accepting and keeping this Product you agree to all of the warranty terms and limitations of liability described below.

IMPORTANT WARNING – READ CAREFULLY THE INSTALLATION, OPERATING AND MAINTENANCE INSTRUCTIONS MANUAL ("MANUAL") to avoid serious personal injury and/or property damage and to ensure safe use and proper care of this product.

Who Receives AMTROL's Product Warranty

All purchasers or first users of the new Product. The Warranty is non-transferable.

What is covered by this Warranty

AMTROL warrants to the purchaser or first user of the new Product that at the time of manufacture, the Product is free from defects in material and workmanship. Any warranty claim must be made within one (1) year unless another time period is set forth in the Manual, measured from the time the Product was purchased.

What AMTROL Will Do If You Have a Covered Warranty Claim

In the event of a breach of the foregoing warranty, AMTROL will at its option either make repairs to correct any defect in material or workmanship or supply and ship either new or used replacement parts or products. AMTROL will not accept any claims for labor or other costs.

What This Warranty Does Not Cover – Exclusions and Limitations

This Warranty does not cover any failure or problem unless it was caused by a defect in material or workmanship. In addition, this Warranty shall not apply:

- if the Product is not correctly installed, operated, repaired or maintained as described in the Manual provided with the Product;
- to any failure or malfunction resulting from abuse (including freezing); improper or negligent: handling, shipping (by anyone other than AMTROL), storage, use, operation, accident; or alteration, lightning, flood or any other environmental condition;
- to any failure or problem resulting from the use of the Product for any purpose other than those specified in the accompanying Manual or alteration of any part of the product;
- if the Product is used anywhere except the United States, its territories or possessions, or Canada;
- this Warranty does not cover labor costs, shipping charges, service charges, delivery expenses, administrative fees or any costs incurred in removing or reinstalling the Product;
- this Warranty does not cover any claims submitted to AMTROL or an AMTROL-authorized distributor or retailer more than 30 days after expiration of the applicable warranty time period described in this Warranty;
- this Warranty also does not cover repair or replacement costs not authorized in advance by AMTROL.

Additional Warranty Limitations

ALL IMPLIED WARRANTIES, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE SPECIFICALLY DISCLAIMED. Some states do not allow limitations on how long an implied Warranty lasts, so the above limitation may not apply to you.

Limitations of Remedies

THE REMEDIES CONTAINED IN THIS WARRANTY ARE THE PURCHASER'S OR FIRST USER'S EXCLUSIVE REMEDIES. IN NO CIRCUMSTANCES WILL AMTROL BE LIABLE FOR MORE THAN, AND PURCHASER-FIRST USER'S REMEDIES SHALL NOT EXCEED, THE PRICE PAID FOR THE PRODUCT. IN NO CASE SHALL AMTROL BE LIABLE FOR ANY SPECIAL, INDIRECT, INCIDENTAL OR CONSEQUENTIAL DAMAGES, WHETHER RESULTING FROM NONDELIVERY OR FROM THE USE, MISUSE, OR INABILITY TO USE THE PRODUCT OR FROM DEFECTS IN THE PRODUCT OR FROM AMTROL'S OWN NEGLIGENCE OR OTHER TORT. This exclusion applies regardless of whether such damages are sought for breach of warranty, breach of contract, negligence, strict liability, in tort or under any other legal theory. Such damages include, but are not limited to, inconvenience, loss or damage to property, mold, loss of profits, loss of savings or revenue, loss of use of the Products or any associated equipment, facilities, buildings or services, downtime, and the claims of third parties including customers. Some states do not allow the exclusion or the limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

What To Do If You Have a Problem Covered By This Warranty

Any covered Warranty service must be authorized by AMTROL. Contact the person from whom you purchased the Product, who must receive authorization from an AMTROL distributor or AMTROL. If you do not receive a prompt response, call AMTROL directly at 877-517-9673. Notice of a Warranty claim should be submitted by the authorized distributor to AMTROL at the following address:

AMTROL Inc.
Warranty Claim Dept.
1400 Division Rd.
West Warwick, RI 02893

Before AMTROL determines to provide any replacement part or Product, it may as a pre-condition to making such a determination require that the warranty claimant ship the Product, postage prepaid to an authorized AMTROL distributor, or to AMTROL and provide proof of purchase evidenced by the original sales receipt or Product registration.

Replacement Product Warranty

In case of replacement of a Product or any component part, AMTROL reserves the right to make changes in the design, construction, or material of the substitute components or products, which shall be subject to all of the terms and limitations of this Warranty, except that the applicable warranty periods shall be reduced by the amount of time the warranty claimant owned the product prior to submitting notification of the warranty claim.