## AIR SEPARATOR ASME Commercial Tangential Air Separators



## AIR SEPARATOR

Amtrol tangential air separators are designed to create a low velocity vortex that separates and removes entrained air from circulating water or anti-freeze in a closed, non-potable water system. Available in 1 " to 24 " connection sizes with an optional stainless steel strainer to collect unwanted system debris. All Amtrol tangential air separators are made at our ISO 9001:2015 certified facilities and meet all ASME Section VIII, Division 1 Standards and have an industry leading 3-year warranty.


## TANGENTIAL AIR SEPARATORS AS Series

- Tangential design with low velocity vortex action.
- Prevents blocked terminal units, inefficient pump operation and costly equipment corrosion.
- Available in 1 " to 24 " connection sizes.
- Ring base standard on 5-AS(L) through 24-AS(L) models. Seismic Restraints(R) optional.
- Removable, 304 stainless steel strainer available.
- Maximum operating temperature: $350^{\circ} \mathrm{F}$.


## Typical Installation



| Maximum Flow Rate <br> Based on Design Velocity |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: |
| Model <br> Number | Velocity <br> 4 ft./sec. <br> (gpm) | Velocity <br> 6 ft /sec. <br> (gpm) | Velocity <br> $8 \mathrm{ft./sec}$. <br> (gpm) | Velocity <br> $10 \mathrm{ft./sec}$. <br> (gpm) |
| 1-ASL | 10 | 15 | 20 | 25 |
| 2-AS(L) | 42 | 63 | 84 | 105 |
| 21/2-AS(L) | 60 | 90 | 120 | 150 |
| 3-AS(L) | 93 | 140 | 185 | 230 |
| 4-AS(L) | 160 | 240 | 320 | 400 |
| 5-AS(L) | 250 | 375 | 500 | 630 |
| 6-AS(L) | 360 | 540 | 720 | 900 |
| 8-AS(L) | 630 | 940 | 1,250 | 1,580 |
| 10-AS(L) | 990 | 1,500 | 1,980 | 2,470 |
| 12-AS(L) | 1,400 | 2,100 | 2,800 | 3,500 |
| 14-AS(L) | 1,680 | 2,500 | 3,350 | 4,200 |
| 16-AS(L) | 2,200 | 2,800 | 3,500 | 5,000 |
| 18-AS(L) | 3,300 | 4,200 | 5,200 | 7,500 |
| 20-AS(L) | 4,500 | 5,600 | 7,000 | 10,000 |
| 22-AS(L) | 5,000 | 6,300 | 7,900 | 11,300 |
| 24-AS(L) | 5,500 | 7,000 | 8,800 | 12,500 |

For optimum air elimination, maximum flow rate should be as close to 6 ft ./sec. as possible.

## ASME Tangential Air Separators

## How to Order: Specify Model \& Options

Base Item Number
Pressure $\qquad$


6-AS 125 PSI Rating

Pressure Drop Flow Chart


Data confirmed by independent third party testing

How to Order: Specify Model \& Options


20-ASL 150 PSI Rating

Pressure Drop Flow Chart



2-AS through 4-AS


5-AS through 24-AS

| ASME Air Separators with Strainer Specifications |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Model Number |  |  |  |  | System Conn. (Inches) | Shipping Weight (lbs.) Max. Working Pressure |  |
|  |  |  |  |  |  | 125 PSI | 150 PSI |
| 2-AS | 18 | 24 | 8 | 8 | 2 | 45 | 47 |
| 2112-AS | 18 | 24 | 8 | 8 | 21/2 | 54 | 58 |
| 3-AS | 18 | 24 | 8 | 8 | 3 | 60 | 64 |
| 4-AS | 23 | 24 | 8 | 8 | 4 | 70 | 83 |
| 5-AS | 26 | 40 | 11 | 17 | 5 | 200 | 220 |
| 6-AS | 28 | 45 | 14 | 17 | 6 | 249 | 261 |
| 8-AS | 34 | 57 | 17 | 22 | 8 | 375 | 445 |
| 10-AS | 42 | 63 | 19 | 22 | 10 | 750 | 800 |
| 12-AS | 48 | 82 | 22 | 34 | 12 | 950 | 1,060 |
| 14-AS | 58 | 102 | 28 | 44 | 14 | 2,200 | 2,500 |
| 16-AS | 66 | 104 | 29 | 43 | 16 | 3,000 | 3,900 |
| 18-AS | 66 | 114 | 33 | 45 | 18 | 3,500 | 4,700 |
| 20-AS | 72 | 110 | 36 | 44 | 20 | 5,000 | 6,100 |
| 22-AS | 72 | 126 | 35 | 43 | 22 | 5,500 | 6,600 |
| 24-AS | 84 | 147 | 46 | 58 | 24 | 7,000 | 8,400 |

Models 2-AS through 4-AS available with threaded pipe connections.
Models 2-AS through 14-AS available with grooved pipe connections.
175, 250 and 300 PSI models available. Consult Amtrol for detailed information.


1-ASL through 4-ASL


5-ASL through 24-ASL

ASME Air Separators Less Strainer Specifications

| Model Number | A <br> Width (Inches) | B <br> Height (Inches) | C Length (Inches) | D Length (Inches) | System Conn. (Inches) | Shipping Weight (lbs.) Max. Working Pressure |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | 125 PSI | 150 PSI |
| 1-ASL | 7 | 12 | 4 | 4 | 1 | 14 | 15 |
| 2-ASL | 18 | 24 | 8 | 8 | 2 | 41 | 43 |
| 2½-ASL | 18 | 24 | 8 | 8 | 21/2 | 50 | 54 |
| 3-ASL | 18 | 24 | 8 | 8 | 3 | 56 | 60 |
| 4-ASL | 23 | 24 | 8 | 8 | 4 | 66 | 79 |
| 5-ASL | 26 | 40 | 11 | 17 | 5 | 175 | 195 |
| 6-ASL | 28 | 45 | 14 | 17 | 6 | 190 | 210 |
| 8-ASL | 34 | 57 | 17 | 22 | 8 | 350 | 400 |
| 10-ASL | 42 | 63 | 19 | 22 | 10 | 700 | 750 |
| 12-ASL | 48 | 82 | 22 | 34 | 12 | 912 | 990 |
| 14-ASL | 58 | 102 | 28 | 44 | 14 | 1,853 | 2,150 |
| 16-ASL | 66 | 104 | 29 | 43 | 16 | 2,610 | 3,600 |
| 18-ASL | 66 | 114 | 33 | 45 | 18 | 2,900 | 4,000 |
| 20-ASL | 72 | 110 | 36 | 44 | 20 | 4,560 | 5,800 |
| 22-ASL | 72 | 126 | 35 | 43 | 22 | 5,320 | 6,000 |
| 24-ASL | 84 | 138 | 44 | 51 | 24 | 6,175 | 7,000 |

Models 1-ASL through 4-ASL available with threaded pipe connections.
Models 1-ASL through 14-ASL available with grooved pipe connections.
175, 250 and 300 PSI models available. Consult Amtrol for detailed information.

## In-Line Air Purgers

Amtrol in-line purgers are designed to separate air in low velocity, closed hydronic and chilled water systems where space is limited. It features a unique baffle design that moves air into a domed cavity above which an air vent can be mounted. Available in 4" to 18" connection sizes, all Amtrol air purgers are made at our ISO 9001:2015 certified facilities.


## IN-LINE AIR PURGERS

- Baffle design eliminates air in closed hydronic and chilled water systems.
- Available in 4" to 18" sizes.
- Model 449 is made of cast iron; all other models are steel.



## Typical Installation



| Non-ASME In-Line Air Purger Specifications |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Model Number | $\begin{gathered} \text { A } \\ \text { Conn. to Top } \\ \text { (Inches) } \end{gathered}$ | $\begin{gathered} \text { B } \\ \begin{array}{c} \text { Length } \\ \text { (Inches) } \end{array} \end{gathered}$ | Connection (Inches) | Shipping Weight (lbs.) Max. Working Pressure |  |
|  |  |  |  | 125 PSI | 150 PSI |
| 449* | 5 | 12 | 4 | 56 | - |
| 461* | 8 | 20 | 5 | - | 60 |
| 462* | 9 | 24 | 6 | - | 65 |
| 463* | 11 | 32 | 8 | - | 113 |
| 464* | 14 | 40 | 10 | - | 174 |
| 465* | 17 | 48 | 12 | - | 330 |
| 466* | 19 | 48 | 14 | - | 500 |
| 467 | 20 | 48 | 16 | - | 331 |
| 468 | 24 | 72 | 18 | - | 573 |

Vent Tapping Connection: 449: 3/4" NPT; 461 through 468: 11/4" NPTF
Drain Tapping Connection: 449: $1 / 2$ " NPT; 461 through 468: $11 / 22^{\prime \prime}$ NPTF.
*Provided with 150 lb. ANSI Flanges.

