

## Standard & High Velocity Air Dirt Separator Installation, Operation and Maintenance

The American Wheatley HVAD and STAD air and dirt separators, available with or without removable covers, can reduce the amount of air and dirt trapped in your system. Extraneous air and dirt in the system can cause reduced efficiency, lead to pipe corrosion, cause unwanted system noise, and premature pump failure. The Wheatley Air & Dirt separator removes miniscule amounts of air and dirt saving money with improved efficiency, and protects equipment from the problems associated with air and debris in the system. The HVAD and STAD are constructed in accordance with ASME Section VIII, Division 1, Latest edition. The separator vessels are constructed of A516 Grade 70 carbon steel, with stainless steel internals to ensure a long and corrosion free life of the coalescing media.

The coalescing action is accomplished with the proven separation capabilities of 304SS High Performance saddle rings contained in a reinforced stainless steel basket, easily removable for scheduled maintenance. The application of saddle rings for separation has been widely accepted in the HVAC community for many years, and has proven to be an effective coalescing media in the HVAD and STAD.

Air separation is a common term when discussing HVAC equipment, and can be accomplished in a variety of ways. In this instance it is removed as it passes through the coalescing media, the micro-bubbles are separated and rise through the vessel where they are vented. As the dirt flows into the separator, it is ensnared by the coalescing saddle rings, where it eventually works through the coalescing media to the bottom of the separator where it can be blown down either through a manual or automated ball valve.

Also included is a skim port located in the upper section of the vessels which allows for a periodic skimming to remove impurities from the top of the solution, once again through a manual or automated ball valve.

American Wheatley HVAD and STAD air & dirt separators can be ordered with an optional removable cover. The cover is standard as top mounted, as we have determined it to be the safest orientation for removal of the coalescing basket, however it can be specified to be bottom mounted when requested.

The HVAD and STAD are capable of 99.6% of free air and 99% of measurable entrained and dissolved air with continuous circulation. Solids to 20 microns can be eliminated with continuous circulation.

| JOB NAME .<br>LOCATION       |  |
|------------------------------|--|
| CONTRACTORCONTRACTOR P.O. NO |  |

| ITEMS | QUANTITY |
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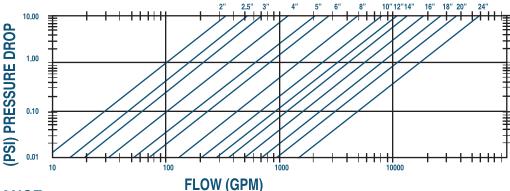


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## STAD PRESSURE DROP



## **MAINTENANCE:**

Regular visual inspection should be performed by competent personnel to guard against any leaks, over pressurization, or proper operation of the air vent valve. The unit should be blown down at a predetermined interval to ensure that the coalescing media is clear and able to perform the intended function. This interval is predicated by system conditions. The blow down maintenance should be carried out only by properly trained personnel. If necessary, make up water for additional blow down can be introduced through the skimmer valve opening located on the side of the unit. The unit should be completely isolated from the system during the blow down procedure. A ball valve should be piped to the skim port located on the body of the separator to remove contaminants during the blow down cycle. Isolate the separator, open the skim valve first to expel any contaminants, pen the drain valve to blow down the separator Close both valves after blow down is complete. Upon completion, the isolations valves should be opened slowly to prevent any shock to the unit or the system piping.

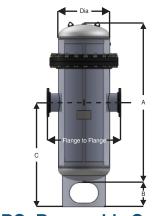
Units supplied with a removable cover may be opened by removing the bolts securing the cover in place; the coalescing media may then be viewed to determined necessity of cleaning or replacement.

CAUTION: EXTREME CARE SHOULD BE TAKEN DURING THE BLOW DOWN PROCEDURE, INTERNAL PRESSURES AND TEMPERATURES COULD BE SUFFICIENT TO CAUSE GREAT BODILY HARM. THE BLOW DOWN PROCEDURE SHOULD ONLY BE PERFORMED BY PROPERLY TRAINED. **PERSONNEL** 

## **WARRANTY:**

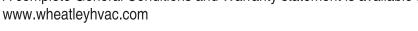
American Wheatley warrants the product for a period of one year from date of installation, or 18 months from date of shipment due to any manufacturers defect.

A complete General Conditions and Warranty statement is available for view at NR- Non Removable Cover



**RC- Removable Cover** 





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