

# wYE Strainers

## Installation, Operation and Maintenance

This manual contains information concerning the installation, operation, and maintenance of American Wheatley Flow Control American Wheatley wYE Type Strainers. To ensure efficient and safe operation of American Wheatley wYE Strainers, the instructions in this manual should be thoroughly read and understood. This manual is general in nature and is not meant to take the place of an on-site, process engineer or pipe fitter. As such, American Wheatley recommends that only experienced, skilled personnel be allowed to install and maintain American Wheatley wYE Strainers. Please retain this manual in a location where it is readily available for reference.

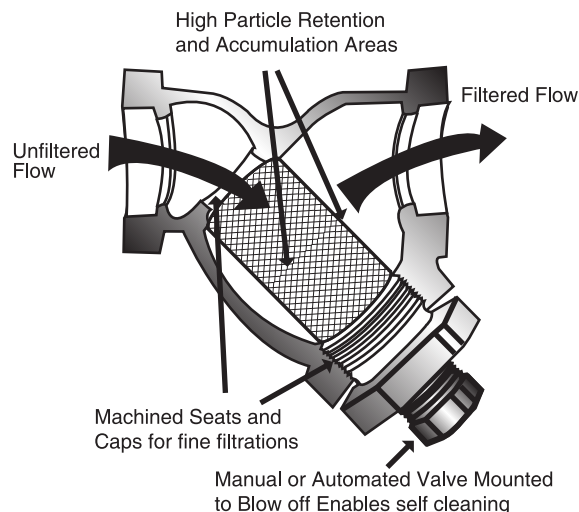
### General Information:

A wYE Strainer is installed into a pipeline system to remove unwanted debris from the pipeline flow by utilizing a perforated or mesh lined straining element. This is illustrated in Figure 1. wYE Strainers remove only insoluble floating impurities with the most common range of particle retention ranging from 1 inch to 40 micron (.0015 inch). Straining of the pipeline flow is accomplished via a perforated or mesh lined screen, internal to the strainer. In general, the size of the screen perforation should be slightly smaller than the smallest debris particle to be removed. If the screen perforation is undersized, the screen may require excessive cleaning. Consequently, if the screen perforation is oversized, unwanted debris may be permitted to flow through the pipeline; possibly damaging downstream equipment.

Prior to selection of a American Wheatley wYE Strainer, the following factors must be determined:

- Material construction requirements of wYE Strainer
- Design and working pressure/temperature requirements
- Operating conditions (throttling, pressure drop, condensation, flow reversal, operation frequency, etc.)
- Pipeline service media type (liquid, gas, abrasive, corrosive, dirty, etc)
- The debris size to be removed
- The debris loading of the pipeline
- Pipeline media flow-rate and viscosity
- Clean start-up pressure of the pipeline
- Space availability for installation

Please contact a American Wheatley Design Engineer to assist in the determination of these requirements prior to selection



**Figure 1**



**Figure 2**  
**Threaded Ends**

JOB NAME _____
LOCATION _____
_____
CONTRACTOR _____
CONTRACTOR P.O. NO. _____

ITEMS	QUANTITY

**American WHEATLEY**  
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A GFP COMPANY

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e-mail: sales@globalflowproducts.com

## **Unpacking and Inspection:**

Upon receipt of product, it is important to follow these unpacking and inspection procedures.

All American Wheatley wYE Strainers are shipped in specialized shipping containers designed to prevent damage during transportation. If external damage to the shipping container is evident upon receipt of product, please request that a representative of the shipping carrier be present before unpacking the product.

Carefully open the shipping container, following any instructions that may be marked on the container. Remove all packing material surrounding the Strainer and carefully lift it from the container. It is recommended to keep the shipping container and all packing material for reuse in storage or reshipment.

### **CAUTION:**

For large or heavy Strainers, the appropriate material handling equipment must be used to prevent injury and possibly damage to the wYE Strainer.



**Figure 3**  
**Flanged Ends**

Visually inspect the wYE Strainer for any signs of damage including scratches, loose parts, broken parts or any other physical damage that may have occurred during shipment. If damage is observed, immediately file a claim with the shipping carrier. wYE Strainers that are damaged during transportation are the responsibility of the customer. For information regarding American Wheatley warranty policy, please refer to the last page of this document.

Before installation, the wYE Strainer's cover should be removed and inspected internally for any loose or foreign materials that may have become trapped in the screen during transportation. After inspection, ensure sealing surfaces are clean and replace the gasket and cover. Make sure the gasket is seated correctly before tightening the cover bolts.

If the wYE Strainer is not required to be installed immediately, it should be stored indoors in a clean, dry, consistent temperature environment. It is also recommended to utilize the original shipping container and packing materials to properly store the wYE Strainer. If long term storage is required, a desiccant may be necessary. This would be based upon the local, environmental storage conditions. Please consult a American Wheatley Design Engineer to assist in this determination.

## **Pre-Installation Checklist**

Ensure Working conditions (pressure/temperature) are within the specified capacity of the product being installed. Please refer to the certified drawings to assist in determining these values.

Make sure that the construction material of the Strainer is chemically compatible with the media flowing in the pipeline.

Inspect all sealing surfaces to ensure gasket surfaces are free of defects (no nicks or cuts). The pipeline should also be checked for proper alignment. American Wheatley wYE Strainers should never be utilized to realign an existing piping system.

Ensure that the pipeline's mating flanges are the same type as the wYE Strainer being installed. Raised face flange ends cannot be mated to flat face flange ends.