

Products and Services

Ion Exchange Equipment, Filters & Degasifiers

- Commercial/Industrial Softening Systems
- Two-bed/Mixed-bed Demineralizing Systems
- Primary-Polishing Softening Systems
- Bulk Ion Exchange Resin Regeneration Plants and Equipment
- Mobile/Portable Softeners, Demineralizers and Filter Systems
- Multi Media, Activated Carbon, Sand and Anthracite Filtration Systems

Membrane Technology

- Brackish Reverse Osmosis Systems
- Seawater Reverse Osmosis Systems
- Hollow Fiber, Spiral Wound Ultrafiltration Systems
- Ultrapure Hyperfiltration Systems
- Reverse Osmosis, Ultrafiltration Replacement Membranes

Other Products & Services

- Welded Carbon and Stainless Steel ASME Code and Non-code Pressure Vessels
- Fiberglass Bulk Brine Storage Tanks and Systems
- Waste Treatment and Neutralization Systems
- Field Technical and Repair Services
- Ion Exchange and Filtration Replacement Media
- UL Labeled Solid State and Electromechanical Industrial Controls and Programming
- Custom Piping Systems - Welded Steel, Stainless Steel, Plastic

WATER TREATMENT EQUIPMENT INTERNAL DISTRIBUTION COLLECTORS AND COMPONENTS

CUSTOM DESIGNED UNDERDRAIN COLLECTORS AND LATERALS SYSTEMS

The most important factor influencing the operation of all types of water treatment equipment relies on the design and efficiency of the internal distribution and collection assemblies installed in your equipment

AATech, with over 50 years of experience, designs and manufactures standard and custom internal systems for any type of water treatment vessel. They can be fabricated from PVC, CPVC, PVDF, Stainless Steel, Hastelloy, Alloy 20 and Carbon Steel.

Each system is designed specifically for your application. The example shown is a custom Underdrain assembly which serves both as a collector of down-coming service flow and a distributor of incoming backwash water. It is important that the collector system is properly balanced to prevent channeling and premature breakthrough.

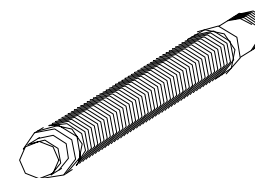


- If your vessel has an underdrain system failure, due to corrosion or hydraulic loading and you need a replacement pronto, AATech can provide the hardware from stock materials quickly and efficiently.
- If your system has always performed poorly, it may be time to review the design of the internal distribution and collector system, which can be done at no charge by AATech's qualified engineers.
- If you are fabricating your own vessel and need the internals, AATech can provide those internals with a design that will keep you in line with the specifications.

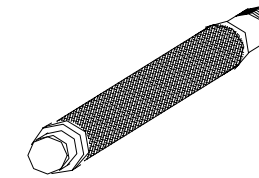
With over 50 years of experience and replacement of many varieties of underdrain systems, AATech can duplicate any manufactured system, regardless of which equipment supplier originally involved.

Send us your requirements and we will promptly review and submit our recommendations and a proposal for your review.

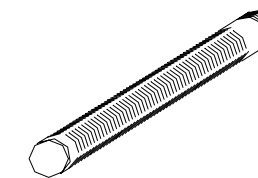
Many different types of laterals are used in the construction of underdrain / collection distributor designs. Some of the more common designs are shown below.



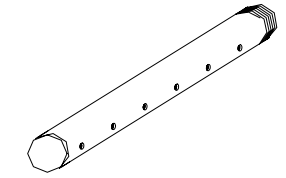
Fixed V-Slot Wedge



Orificed & Wire Mesh



Slotted Only



Unscreened, Orifice Only

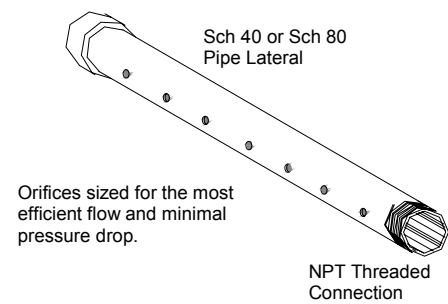
AATECH INCORPORATED

15342 VALENCIA AVE
FONTANA, CALIFORNIA 92335

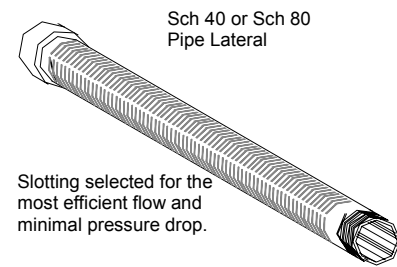
Telephone (909) 584-3200
Fax (909) 584-3300

EMAIL ADDRESS: Sales @ aatechwater.com
WEBSITE: www.aatechwater.com

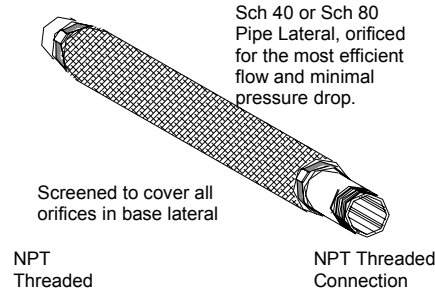
STYLE 1—ORIFICED TYPE



STYLE 2—SLOTTED TYPE



STYLE 3—WIRE SCREENED TYPE



BASIC LATERALS FOR WATER TREATMENT EQUIPMENT

AATech offers many different types and styles of laterals. The above types are commonly used in water softeners, demineralizers and filters.

Each type has a specific use.

STYLE 1- This type of lateral is generally used in vessels surrounded by a graded gravel bed which keeps the fine media from reaching the lateral orifices. The type is generally used where the incoming water is heavily contaminated with large particulate. The advantage of this type of lateral is in its high flow and ability not to plug when covered with multiple layers of graded gravel. The disadvantage is in that it relies on the graded gravel to keep the finer media from reaching it, the loss of this gravel or possibility of a gravel up-set will leave the large orifices exposed and loss of media can occur.

This type of lateral can be constructed of almost any material; Sch 80 PVC, PVDF, Stainless, Hastelloy, Alloy 20, Carbon Steel

STYLE 2 - This type of lateral provides the lowest cost and best protection against loss of media. The lateral is constructed on a special machine and slotted with 0.010" slots on a pre-selected pattern. Several rows of slots can provide the required open area to control the pressure drop across the lateral and underdrain system.

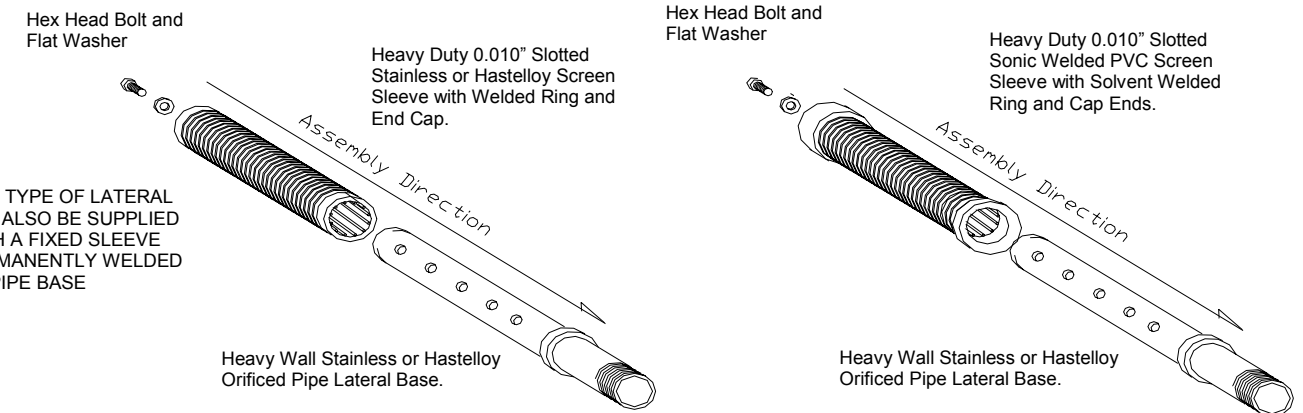
It is important to note that this type of lateral also generally requires installation in a gravel bed to provide support and assist in keeping the lateral slots open. The gravel surrounding this type of lateral is generally one grade of 1/4"x1/8" and should be buried for support.

This type of lateral is only available in PVC, CPVC and PVDF materials.

STYLE 3 - This type of lateral provides a low cost way of screening a lateral to prevent media loss and can be used with or without gravel for support. The lateral constructed of Sch 40 or Sch 80 pipe is orificed to provide uniform collection across the surface are of the vessel. It is then covered with a layer of Free-Flow polypropylene webbing, then covered with a 50-100 mesh wire screen depending on the application.

This type of lateral is generally used in high temperature (220°F max) water softeners, demineralizers and filters.

This type of lateral is available in 316SS, Carbon Steel/Stainless Steel or Hastelloy.



THIS TYPE OF LATERAL CAN ALSO BE SUPPLIED WITH A FIXED SLEEVE PERMANENTLY WELDED TO PIPE BASE

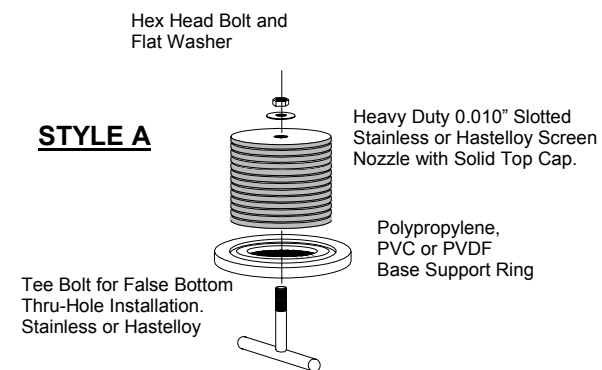
TYPE 1—All Metal Construction for Heavy Duty Structural Strength and-Hot and Cold Corrosive Service Applications.

TYPE 2—Combination of Metal Lateral for Structural Strength w/ PVC Sonic Welded Screen for most Corrosive Service Applications

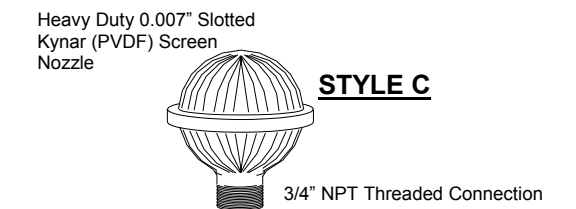
For special consideration, AATech offers laterals designed for applications requiring removable screen sleeves. This offers the customer flexibility where the application creates chemical or scale plugging of the screen slots. The lateral screen sleeve can be easily removed for cleaning or replacement without cutting the sleeve off the lateral which can damage both the sleeve and lateral. In addition, a spare sleeve can be inventoried for immediate replacement if necessary

SCREEN NOZZLES

STYLE A



Tee Bolt for False Bottom Thru-Hole Installation. Stainless or Hastelloy



STYLE C

STYLE B



3/4" & 1" NPT Threaded Connection

AATech offers screen nozzles designed for applications involving false bottom construction.

STYLE A - Offers a base support pad which will eliminate damage to a rubber lined vessel caused by downward hydraulic pressure forcing the raw end of the nozzle to punch thru the rubber lining. As an added advantage the base pad also serves to increase the seating area thus reducing the applied force immediately around the opening.

STYLE B - Offers a NPT threaded connection enabling the nozzle to be directly installed into a threaded coupling or threaded opening. Available in 316L stainless steel or special order Hastelloy.

STYLE C - Offers a NPT threaded connection enabling the nozzle to be directly installed into a threaded coupling or threaded opening. Available only in ABS and Kynar (PVDF).