



## **Irrigation Water Sand Media Filtration Systems**

**Carbon Steel Systems**

**Stainless Steel Systems**

**Fusion Epoxy Lined Systems**

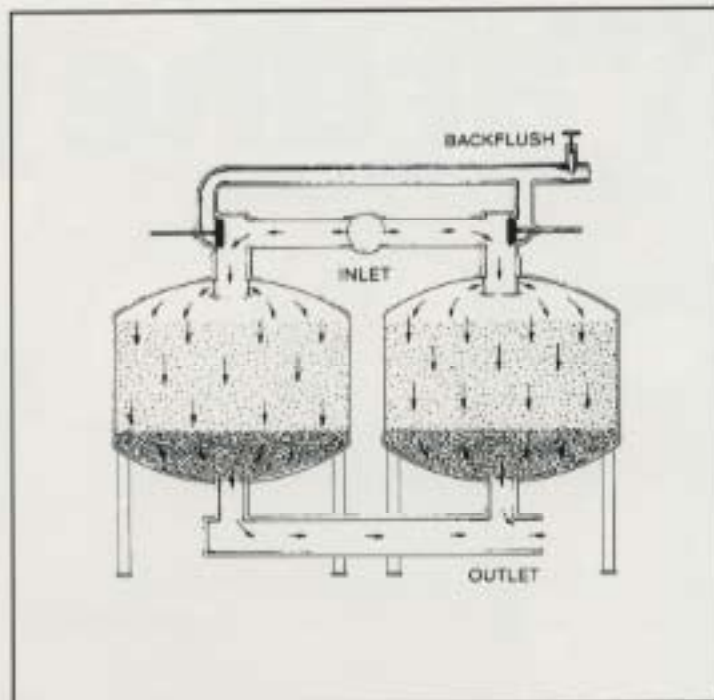
## Yardney Media Filters - Reliable, Durable, Efficient and Cost Effective. User and Designer Specified Since 1965

Yardney pioneered the use of sand media filtration for irrigation back in 1965. With over 40,000 systems in operation, Yardney has defined the technology and art of irrigation filtration. The Yardney Sand Media Filter being produced today utilizes the same basic filtration principles as were used in 1965. Through advanced technology, all Yardney Filters today are state-of-the-art in efficiency, performance, reliability and long-term economy. All Yardney Sand Media Filters are made in the USA.

Proper filtration and clean water are essential to the efficient operation of today's irrigation systems.

Trash, algae, sand, silt, and other solid contaminants present in irrigation source waters will lead to plugged drip emitters, sprinklers, inoperative valves and an overall significant reduction in system efficiency. Yardney filtration technology can resolve these troublesome problems in your system.

Yardney Filters are designed and manufactured to the most exacting standards. State-of-the-art welding and fabrication techniques assure that Yardney product designs are manufactured to provide a long useful system life.

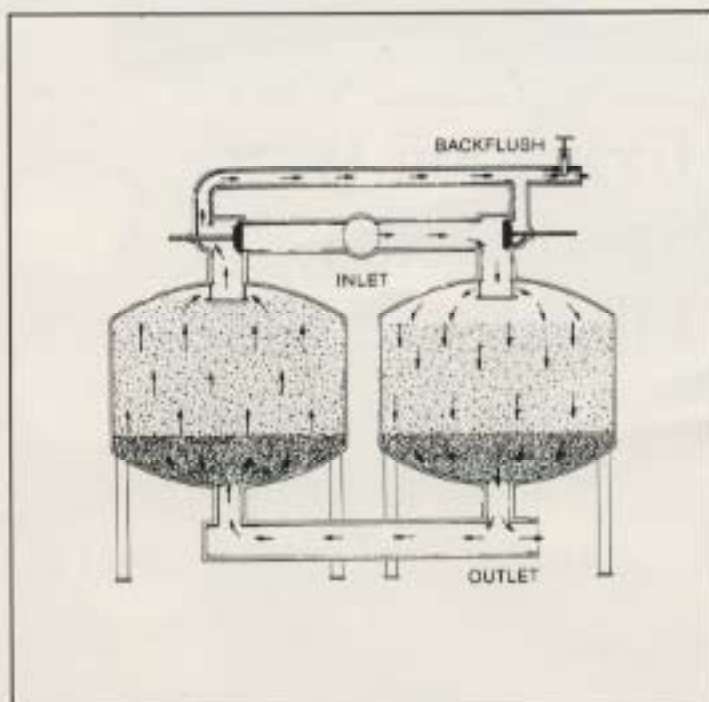


### Filtration Process

- Uniform 14" media bed depth for optimum particle entrapment.
- Filtration achieved through flow from inlet (top) manifold to outlet (bottom) manifold.
- 2-stage inlet diffuser.
- High strength, hydraulically balanced Type 304 stainless steel underdrains for thorough backwashing.
- Low pressure drop and even flow dispersion.

### Backwashing Process

- Yardney underdrains require less water for backwashing and require backwashing less frequently.
- Backwashing of one tank at a time, while continuing to irrigate during the backwash cycle.
- The system backwashes with clean-filtered water.
- Single valve operation, either manually, semi-automatically or automatically, assures proper backwashing efficiency and sequence.
- Evenness of media bed fluidization assures total cleaning of the system, while assuring a flat, uniform media bed after flushing.





# Yardney

Carbon Steel  
and  
Stainless  
Steel Sand  
Media  
Filtration  
Systems for  
the Most  
Challenging  
Dirty Water  
Conditions  
in Irrigation

## Filter Vessels

Yardney filter tanks are designed to provide for safety factors not found in other products. All closures feature safety lids that will not pop off if over pressurized. Yardney tank construction is heavier than other products to provide for burst protection from accidental over pressurization.

## Valves-Automatic and Manual

Yardney Filters utilize valves that are patented and manufactured by Yardney. These cast valves feature a fusion epoxy lining and are designed for years of trouble free service. The valve shaft and seal retainers are noncorrosive, stainless steel with the valve seal being made of durable, molded polyurethane. The Yardney valve also features a replaceable brass shaft guide and external grease fitting for easy on-site maintenance, without valve disassembly—features not found in other filters.

## Stainless Steel Underdrain

The Yardney underdrain system features a lateral design of high strength stainless steel wedgewire. This wedgewire product produces a pressure drop of 4 psi and will withstand collapse pressure in excess of 600 psi. Yardney does not use plastic underdrain parts and does not use threaded fastener



Typical Yardney Type 304 Stainless Steel Underdrain Lateral



Yardney Automatic Sand Media Filter Backwash Valve

underdrain assembly due to questionable durability.

## Automatic Control

Optional automatic control systems make Yardney Filters your most cost-effective filtration package. Yardney automation packages provide for full unattended operation of your Yardney Filters. Units are available for A/C power, D/C power and solar power for remote application. All Yardney controllers monitor system operation on both pressure differential and elapsed time.

## Fusion Bonded Epoxy Interiors

All Yardney Media Filter Systems are available with optional fusion-epoxy lining. This premium environmental coating system provides excellent protection from aggressive or saline water sources and electrolysis. The Yardney fusion powder coat system is applied to all interior

surfaces of the filters and manifolds after sandblasting to white metal. Yardney does not use any brush applied or sprayed wet epoxy coatings due to their questionable durability.

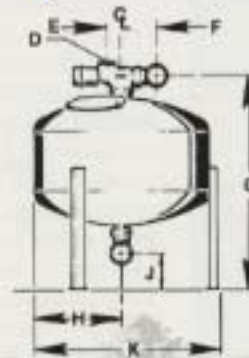
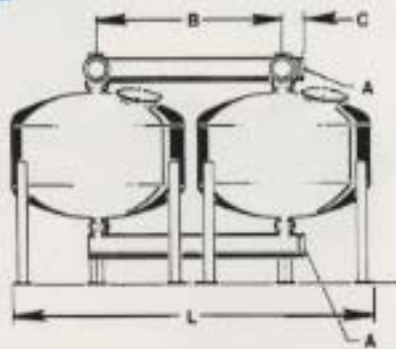
## Selection of Stainless Steel Sand Media Filters

Stainless Steel Filters should only be applied where chloride (salt) levels in the water are below 750 ppm. Although Type 304 stainless steel is corrosion resistant it is not corrosion proof. Salt, chlorides, chlorine and alkaline water conditions can produce electrolysis pitting in the metal which can develop into pin hole leaks. Yardney provides a sacrificial anode port in each filter which can be fitted with an optional anode for electrolysis control. Consideration of the use of Yardney fusion epoxy lined tanks on carbon steel or stainless steel basemetal should be made where aggressive water conditions exist.

## Free Water Sample Evaluation

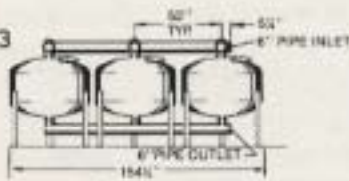
Yardney provides free water sample evaluation to assist the user in proper product selection. Please contact Yardney for more information regarding water sample evaluation.

# Yardney Sand Media Filter Specifications

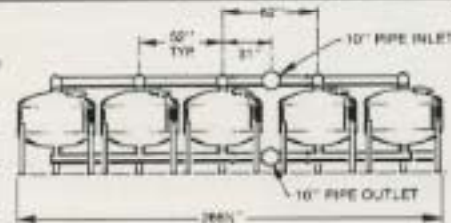


| TWO-TANK SYSTEM DATA<br>DIMENSIONS IN INCHES | 1416-2<br>(14") | 1816-2<br>(18") | 2416-2<br>(24") | 3016-2<br>(30") | 3616-2<br>(36") | 4816-2<br>(48") |
|--|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| A. Inlet/Outlet Diameter                     | 1.5             | 2.0             | 3.0             | 4.0             | 4.0             | 6.0             |
| B. Tank Distance                             | 18.0            | 22.0            | 28.0            | 34.0            | 40.0            | 52.0            |
| C. Inlet/Outlet Reference                    | 4.25            | 4.25            | 4.75            | 4.75            | 5.25            | 5.25            |
| D. Backwash Diameter                         | 1.5             | 1.5             | 2.0             | 2.0             | 4.0             | 4.0             |
| E. Backwash Location                         | 1.5             | 1.5             | 2.75            | 2.75            | 3.25            | 3.25            |
| F. Inlet Location                            | 6.25            | 6.25            | 7.75            | 8.25            | 8.75            | 8.75            |
| G. Inlet Height                              | 35.0            | 36.5            | 40.25           | 42.5            | 48.25           | 58.5            |
| H. Outlet Location                           | 7.0             | 9.0             | 12.0            | 15.0            | 18.0            | 24.0            |
| J. Outlet Height                             | 5.0             | 4.81            | 4.35            | 4.0             | 3.0             | 10.69           |
| K. Width                                     | 17.3            | 22.5            | 26.5            | 31.5            | 40.0            | 52.0            |
| L. Length                                    | 34.0            | 42.0            | 54.0            | 66.0            | 78.0            | 102.5           |

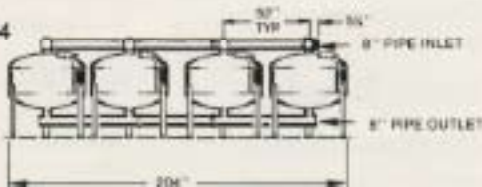
4816-3



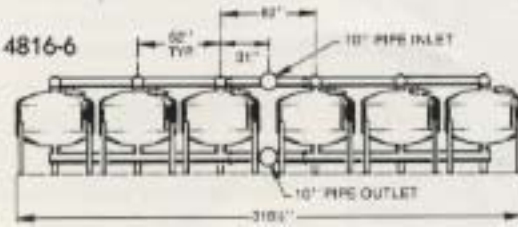
4816-5



4816-4



4816-6



| MODEL NO. | NO. OF TANKS | IRRIGATION FLOW RANGES |                     |              |                     | FILTRATION AREA FT <sup>2</sup> | MEDIA REQUIREMENT (100# BAGS) | BACKWASH FLOW RATE U.S. GPM |
|-----------|--------------|------------------------|---------------------|--------------|---------------------|---------------------------------|-------------------------------|-----------------------------|
|           |              | MINIMUM FLOW           |                     | MAXIMUM FLOW |                     |                                 |                               |                             |
|           |              | U.S. GPM               | m <sup>3</sup> /HR. | U.S. GPM     | m <sup>3</sup> /HR. |                                 |                               |                             |
| 1416-2    | 2            | 37                     | 8.5                 | 55           | 12.5                | 2                               | 15                            |                             |
| 1816-2    | 2            | 60                     | 13.5                | 88           | 20.0                | 3.5                             | 25                            |                             |
| 1816-3    | 3            | 90                     | 20.5                | 132          | 30.0                | 5.3                             | 25                            |                             |
| 2416-2    | 2            | 107                    | 24.0                | 158          | 36.0                | 6.3                             | 50                            |                             |
| 2416-3    | 3            | 161                    | 36.5                | 237          | 54.0                | 9.5                             | 50                            |                             |
| 3016-2    | 2            | 170                    | 38.5                | 250          | 57.0                | 10.0                            | 80                            |                             |
| 3016-3    | 3            | 255                    | 58.0                | 375          | 85.0                | 15.0                            | 80                            |                             |
| 3616-2    | 2            | 238                    | 54.0                | 350          | 79.5                | 14.0                            | 110                           |                             |
| 3616-3    | 3            | 357                    | 81.0                | 525          | 119.0               | 21.0                            | 110                           |                             |
| 4816-2    | 2            | 425                    | 96.5                | 625          | 142.0               | 25.0                            | 190                           |                             |
| 4816-3    | 3            | 638                    | 145.0               | 928          | 213.0               | 39                              | 190                           |                             |
| 4816-4    | 4            | 850                    | 193.0               | 1250         | 284.0               | 52                              | 190                           |                             |
| 4816-5    | 5            | 1063                   | 241.0               | 1563         | 355.0               | 65                              | 190                           |                             |
| 4816-6    | 6            | 1275                   | 290.0               | 1875         | 426.0               | 78                              | 190                           |                             |

Flow rates are based upon minimum flows of 17 GPM/Ft. and maximum flows of 25 GPM/Ft. Heavily contaminated water sources should be sized at the minimum flow rate but not lower than 17 GPM/Ft. — Larger Systems Available.