



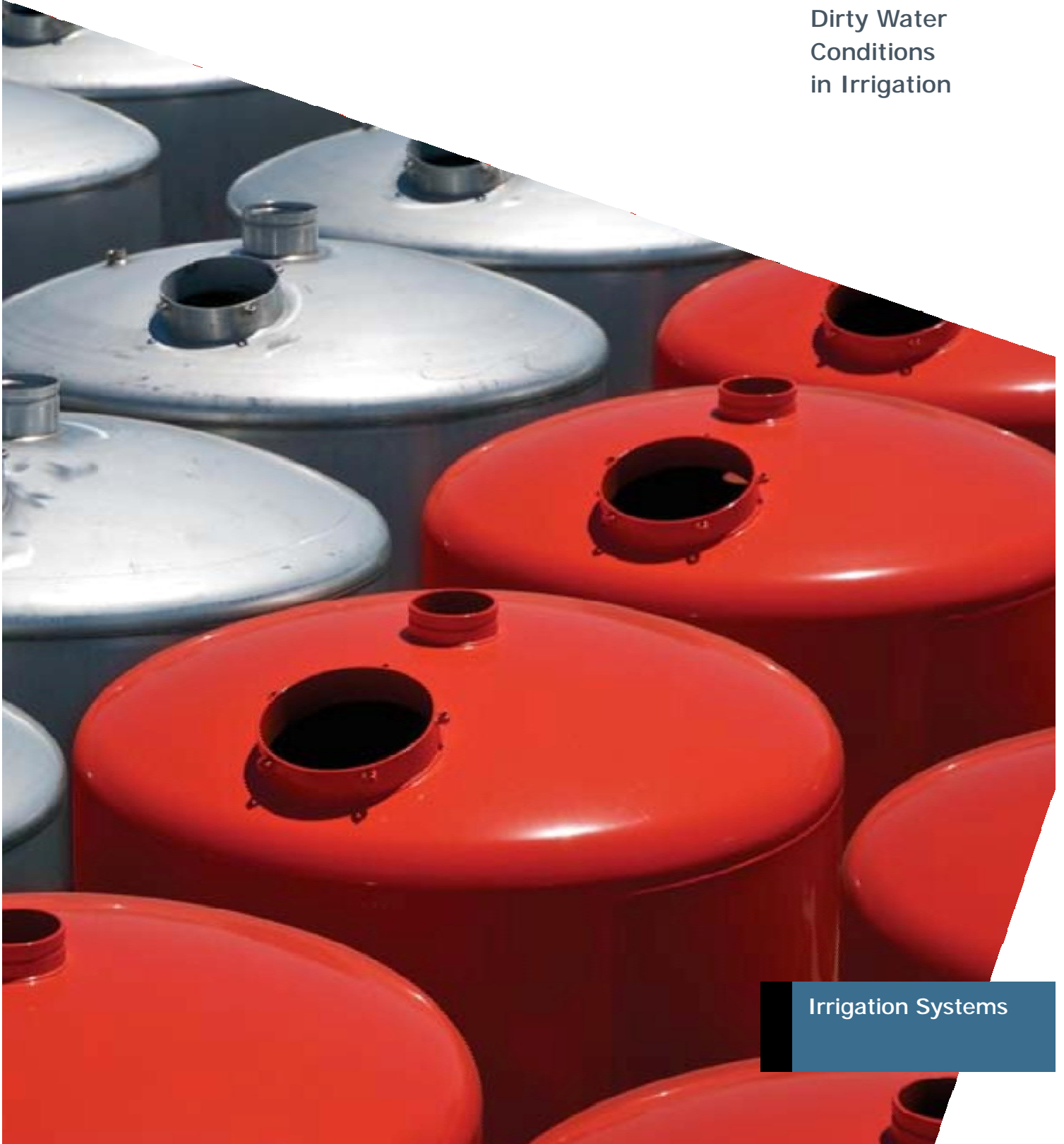
**Irrigaciones Ltda.**  
SISTEMAS DE RIEGO

Camera 28 No. 164 - 66 Bogotá, D.C. - COLOMBIA  
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## Sand Media Filtration

For the Most  
Challenging  
Dirty Water  
Conditions  
in Irrigation

ESTACIONES DE FILTRADO DE ARENA.




Irrigation Systems

## Media Filters

Time.  
Quality.  
Experience.  
Knowledge.

Yardney pioneered the use of sand media filtration in 1965 and through advancing technology, continues to provide high performance and long-term value in the field. Yardney Sand Media filters are manufactured in the USA to the most exacting standards.



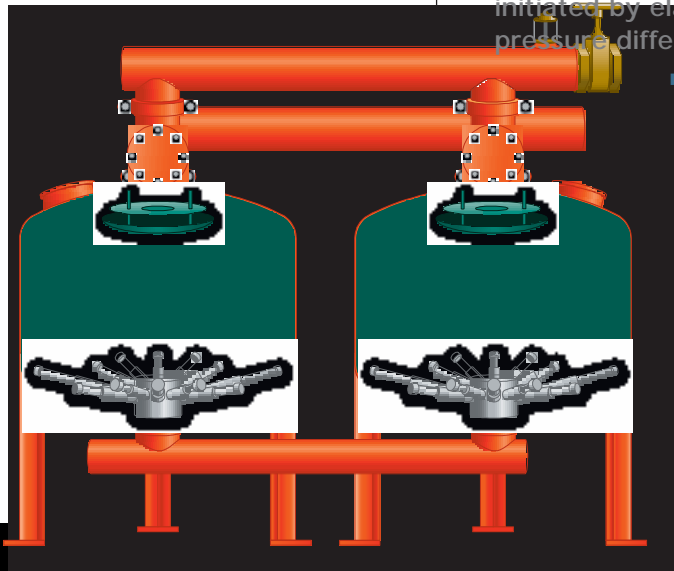
Weld tabs are standard on all media tanks and screen filter housings.

### Applications

- Removal of algae, slime or other organic contaminant as well as sand, rock, grit and other inorganic contaminants
- Protects drip and micro-irrigation systems from plugging with fine filtration removal down to 200 mesh or 75 microns

### Advantages

- ASME code shaped head construction for durability and safety
- Standard carbon steel products, 3/16" thick material
- Standard stainless steel products, 10 gauge thick material
- Standard operating pressure of 80 psi (high pressure systems available)
- Backwash automatically initiated by elapsed time or pressure differential
- Easy-entry lid closure with weld tabs for operator safety
- Stainless steel wedgewire underdrain
  - Ensures structural integrity in the harshest conditions
  - Hydraulically balanced to increase effectiveness of backwash while reducing flush frequency and waste of water
  - High strength stainless steel wedgewire will withstand a collapse pressure in excess of 600 psi
- Exterior of tank on carbon steel product is powder coated with UV stabilized polyester powder coat for longer product life and greater protection from the environment
- Standard 6" drain port included on all 36" and 48" tanks ensuring less labor for dumping of media and access to the stainless steel underdrain
- Standard 3" drain port included on 14", 18", 24" and 30" tanks
- Made in USA





Weld couplings accompanied with a galvanized plug are standard on the endcaps of inlet and outlet manifolds.

## Stainless Steel Underdrain

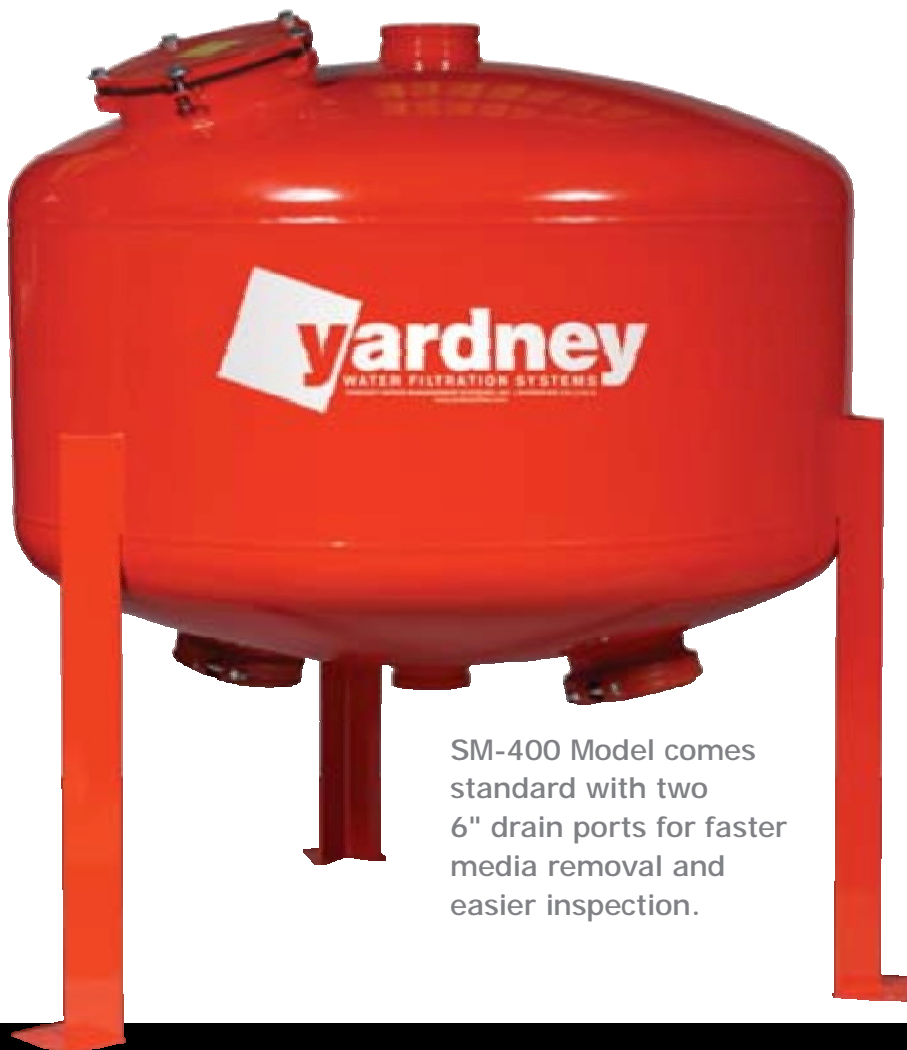


The underdrain system features a lateral design of high strength stainless steel wedgewire, producing a pressure drop of only 4 psi, and will withstand collapse pressure in excess of 600 psi.

## Automatic and Manual Valves



The Yardney patented cast-iron backwash valve is the only valve in the industry designed as standard equipment to be 100% field serviceable with basic hand tools and includes a grease fitting for valve shaft lubrication. Valves feature fusion epoxy lining and the valve shaft and seal retainers are noncorrosive stainless steel with durable, molded polyurethane seals.

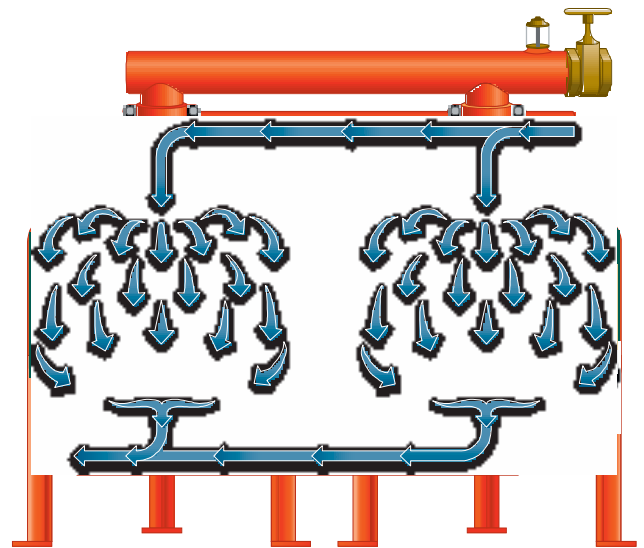


SM-400 Model comes standard with two 6" drain ports for faster media removal and easier inspection.

## Filtration System Operation

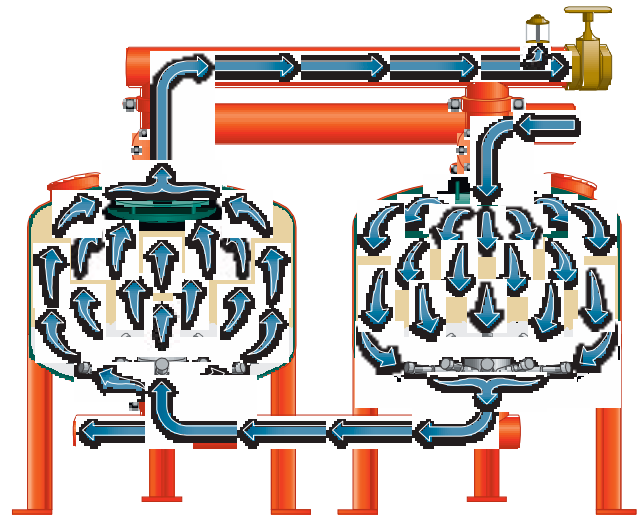
### Filtration Process

- The contaminated water enters the tank through the inlet manifold, transitioning to the Yardney 3-way valve and into the top inlet of each tank
- The Yardney two-stage deflector creates a uniform distribution for laminar flow across the media bed while avoiding channeling of the media bed
- Particulate is trapped and retained within the media bed resulting in clean process water flowing out through the stainless steel wedgewire underdrain, to the outlet of each filter tank and to the outlet manifold for end use



### Backwash Process

- Backwash sequence is initiated by either elapsed time of the Yardney controller or pressure differential between the inlet and outlet manifolds
- Water or air pressure opens the Yardney 3-way valve causing the reverse flow of a portion of filtered water up through the stainless steel underdrain to hydraulically and uniformly lift the media bed
- The use of a hydraulically balanced underdrain in conjunction with a gravel pack creates a proper and uniform lift of the media bed while avoiding a turbulent backwash
- Entrapped particulates are released during the backwash event, exhausted through the backwash manifold and routed to a convenient location
- One tank at a time is backwashed while continuing to process water for use until the entire system is clean
- Once completed with the backwash, filtration continues until the next backwash event is called for





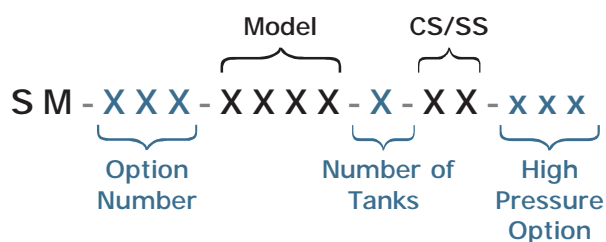
**SPECIFICATIONS | SAND MEDIA FILTERS**

1416-2	2	36	8	53	12	2.1	16	4	1	2	150 psi	1 1/2"	1 1/2"
1816-2	2	60	14	88	20	3.5	27	6	2	3	150 psi	2"	1 1/2"
1816-3	3	90	20	133	30	5.3	27	6	3	5	150 psi	3"	1 1/2"
2416-2	2	107	24	158	36	6.3	47	11	3	7	150 psi	3"	2"
2416-3	3	160	36	235	53	9.4	47	11	5	11	150 psi	3"	2"
3016-2	2	167	38	245	56	9.8	74	17	5	10	125 psi	4"	2"
3616-2	2	240	55	353	80	14.1	106	24	8	14	105 psi	4"	4"
3016-3	3	250	57	368	84	14.7	74	17	8	15	125 psi	4"	2"
3616-3	3	360	82	530	120	21.2	106	24	12	21	105 psi	6"	4"
4816-2	2	425	97	625	142	25.0	188	43	14	26	80 psi	6"	4"
4816-3	3	638	145	938	213	37.5	188	43	21	39	80 psi	6"	4"
4816-4	4	850	193	1250	284	50.0	188	43	28	52	80 psi	8"	4"
4816-5	5	1063	242	1563	355	62.5	188	43	35	65	80 psi	10"	4"
4816-6	6	1275	290	1875	426	75.0	188	43	42	78	80 psi	10"	4"
4816-7	7	1488	338	2188	497	87.5	188	43	49	91	80 psi	10"	4"
4816-8	8	1700	386	2500	568	100.0	188	43	56	104	80 psi	10"	4"

Yardney offers four option packages within the sand media filter product line.

Option	SM-100 (available only on 48" tanks)	SM-200		SM-300		SM-400 (available only on 48" tanks)
Material Type	Carbon Steel	Carbon Steel	Stainless Steel	Carbon Steel	Stainless Steel	Carbon Steel
Material Thickness	3/16"	3/16"	10 Gauge	3/16"	10 Gauge	3/16"
Drain port	No drain port provided	14" 18" 24" 30" tanks: One 3" drain port 36" and 48" tanks: One 6" drain port				Two 6" drain ports
Underdrain	Epoxy Composite	Welded stainless steel wedgewire (optional crossflow underdrain)		Threaded & replaceable stainless steel wedgewire with sch. 80 PVC hub (optional crossflow underdrain)		
Top Manway	10"	10"	8"	10"	8"	10"
Side Manway	11"x14" Elliptical	-	-	14" 18" 24" 30" tanks: 6"x8" Elliptical 36" and 48" tanks: 11"x14" Elliptical		-
Interior Tank Coating	Fusion Bonded Epoxy 3M Scotchkote® 134	-	-	Fusion Bonded Epoxy 3M Scotchkote® 134	-	Fusion Bonded Epoxy 3M Scotchkote® 134
Interior Manifold Coating	Fusion Bonded Epoxy 3M Scotchkote® 134	-	-	Fusion Bonded Epoxy 3M Scotchkote® 134	-	Fusion Bonded Epoxy 3M Scotchkote® 134
Exterior Coating	UV Stabilized Powder Coat	UV Stabilized Powder Coat	-	UV Stabilized Powder Coat	-	UV Stabilized Powder Coat

**Part number and ordering information**



Example: **SM-400-4816-4-CS-xxx\***

\*For high pressure systems, append 100, 125 or 150 to part number. For pressure ratings above 150 PSI, please consult a Yardney representative.

**Sand Media  
Filters  
Tank Dimensions**

DIMENSIONS											
1416-2	1 1/2"	18"	5 1/4"	1 1/2"	1 3/8"	5 3/4"	35 1/4"	7 3/16"	5"	16 9/16"	36"
1816-2	2"	22"	5 1/4"	1 1/2"	1 3/8"	6"	36 7/8"	9"	4 13/16"	20 3/16"	43 3/16"
2416-2	3"	28"	5 1/4"	2"	3"	7 1/4"	39 7/8"	12 3/16"	4 1/4"	26 9/16"	54 11/16"
3016-2	4"	34"	5 1/4"	2"	3"	7 3/4"	43 7/8"	15 3/16"	6"	32 9/16"	66"
3616-2	4"	40"	5 1/4"	4"	3 1/8"	8 1/2"	48"	18 3/16"	8"	40 1/4"	80 9/16"
4816-2	6"	52"	5 1/4"	4"	3 1/8"	9 5/8"	57 3/4"	24 3/16"	10 11/16"	52 1/4"	103"

