

# **PRODUCT SUPPORT AND SALES ASSISTANCE**

# Agriculture, Irrigation, Industrial, Commercial & Municipal

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# **APPLICATION WORKSHEET**

Each water quality problem and application is unique. Yardney will review the operating conditions and desired results for each product application. Please provide us with the necessary information in the space below and fax or email it to us for a prompt response.

Contact information:			Job reference:			
NAME			NAME			
COMPANY	COMPANY		LOCATION			
MAILING ADDRESS			CONSULTANT			
CITY	STATE	ZIP				
TELEPHONE	FAX	EMAIL	_			
OPERATING			ENTS:			
Measurement			<ul> <li>BPD (barrels per day)</li> <li>Liters per second</li> </ul>			
Water source:	(canal, ditch, river	r, well, reservoir, ba	sin, etc.)			
Description of	contaminants in	the water:				
mg/l What is the de	spended solids: _ PPM esired level of filtı _ TSS N	ration? ITU	Corrosion tolerance ( <i>if applicable</i> ): Materials of construction: Pipework inlet/outlet sizes: Interior lining specifications:			
Operating con	ditions: (ie., 24 hr	rs., 7 days, etc.)	Exterior paint specifications:			
Flow rate: Mir	n. GPM:M	lax. GPM:	Manway details:			
SYSTEM AND	is: 🖵 Continuou D VESSEL DETA: em 🖵 Vessels C		Nozzle details: NSF certified:			
Pressure ratin	g: (PSI)		□ 3" round □ 6" round □ 3" x 12" elliptical			
Vessel diamet	er:		Automation and valve specs:			
	ell height: quired: 🖵 Yes 🕻	⊒ No	Additional information:			
Phone: 951.65 Toll-Free: 800.3 Fax: 951.656.3		yfilters.com	www. <b>yardneyfilters</b> .com			



# **PRODUCT APPLICATIONS**

# Industries

- Agriculture: Dirt, algae, contaminant and sand removal, etc.
- Aquaculture: Animals and plants, trash and debris, dirt, rocks, etc.
- Aviation: Incoming plant water, pre-filtration, process water, etc.
- Automotive: Incoming plant water, prefiltration, process water, etc.
- Chemical: Cooling tower sumps, make up water pre-treatment, heat exchanger protection, etc.
- Electronics: Incoming plant water, wash water, de-chlorinating water baths, pre-filtration, process water, etc.
- Food and Beverage: Incoming plant water, wash water, de-chlorinating water baths, prefiltration, odor and taste removal, etc.
- Fracking: Cooling water, process water, solids removal, incoming plant water, toxics removal, water flood injection, etc.
- Fruits and Vegetables: Wash water, process water, solids removal, etc.
- Golf, Turf & Landscape: Irrigation water for turf and landscape, re-use, etc.
- Greenhouse and Nursery: Dirt, algae and sand removal to prevent plugged emitters, etc.

- HVAC and Cooling Towers: Environmental control water, cooling tower sumps, make up water pre-treatment, heat exchanger protection, etc.
- Industrial Laundries: Rinse water re-use, incoming water quality improvement, and discharge water compliance, etc.
- Metals: Scale pit water re-use continuous casters, spray nozzles, heat treating, machine tool chip removal, etc.
- Mining: Wash water, slurry water, re-use, solids removal or reclaim, dewatering, etc.
- Oil, Gas and Petrochemicals: Cooling water, process water, solids removal, incoming plant water, toxics removal, water flood injection, etc.
- Paper and Pulp: Wash water, process water, re-use, incoming plant water, cooling towers, solids removal, etc.
- Plastics: Coolant water, extrusion, cooling baths, product testing stations, wash water, recycle plastic pre-wash, etc.
- Potable Water: EPA compliant drinking water systems (SWTR)
- Power Generation: Cooling water, process water, solids removal, incoming plant water, toxics removal, etc.

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# **POLYPROPYLENE SCREEN FILTER MESH SAMPLES**

40 Mesh - 420 Micron

80 Mesh - 177 Micron

100 Mesh - 149 Micron

150 Mesh - 105 Micron

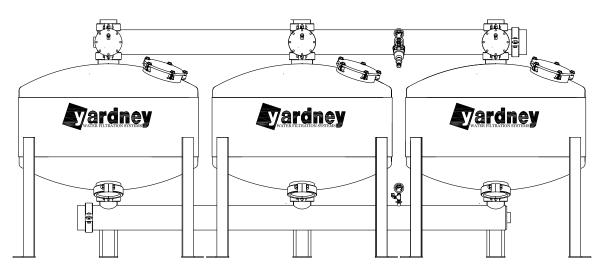
200 Mesh - 74 Micron

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# **Product Torque Specifications**

All standard media vessel manway lid bolts - 25 ft. lbs (Irrigation, Industrial, Commercial and Municipal)



Maxi-Flush Screen manway lid bolts - 50 ft. lbs.



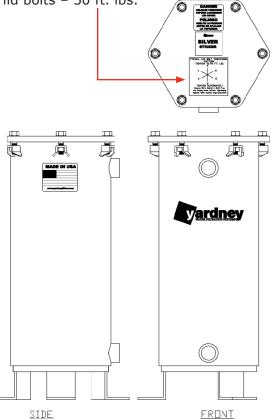
**NOTE:** Due to bolt closure styles some products do not necessarily have a specific torque specification. Yardney recommends to snug all bolts that do not have a specific torque specification being careful not to over tighten and possibly cut a gasket.

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# **Product Torque Specifications**

Mini-Media manway lid bolts - 50 ft. lbs.



**NOTE:** Due to bolt closure styles some products do not necessarily have a specific torque specification. Yardney recommends to snug all bolts that do not have a specific torque specification being careful not to over tighten and possibly cut a gasket.

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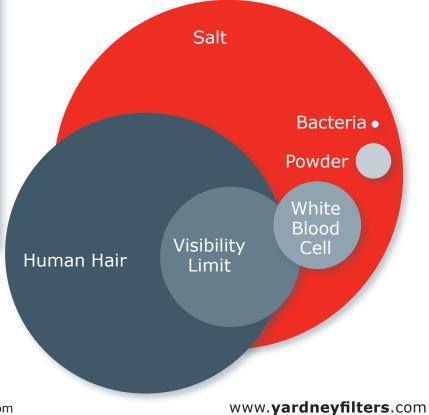
# WHAT IS A MICRON?

Filtration Unit Conversion Chart						
Mesh	Micron (µm)	Inches				
4	5205	0.2030				
8	2487	0.0970				
10	1923	0.0750				
14	1307	0.0510				
18	1000	0.0394				
20	840	0.0331				
25	710	0.0280				
30	590	0.0232				
35	500	0.0197				
40	420	0.0165				
45	350	0.0165				
50	297	0.0117				
60	250	0.0098				
70	210	0.0083				
80	177	0.0070				
100	149	0.0059				
120	125	0.0049				
140	105	0.0041				
170	88	0.0035				
200	74	0.0029				
230	62	0.0024				
270	53	0.0021				
325	44	0.0017				
400	37	0.0015				
550	25	0.0009				
800	15	0.0006				
1250	10	0.0004				
-	5	0.0002				
-	1	0.000039				
Threshold	of visibility is 40 37 microns.	0 mesh or				

Micron size of f	family particles
Grain of table salt	100µm
Human hair	80µm
Lower limit of visibility	40µm
White blood cell	25µm
Talcum powder	10µm
Bacteria	2µm

Some filtration companies advertise filtration levels down to 5 micron. No unaided sand media filter system is capable of achieving consistent filtration levels of 5 micron. Be sure that your filtration media is providing the level of filtration required.

Sand designation	Туре	Micron	Mean filtration capability (mesh)	
#8	Crushed granite	1840	100-140	
#11	Crushed granite	952	140-200	
#16	Silica sand	806	140-200	
#20 Silica sand		524	200-230	



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# **MURIATIC ACID SHOCK TREATMENT**

# Acid shock treatment for treatment of inorganics in Sand Media Filters

**Safety Note:** Always wear eye protection, gloves and protective clothing whenever handling any chemicals. A safety water rinse station should also be available to rinse off any chemicals which may come in contact with service personnel.

**Do not mix chemicals** in this procedure and always induce chemicals into a water filled tank.

- 1. Remove manway lids and fill each tank with water up to the top of the weld seam. It is not necessary to remove the sand. Make sure the field valve is closed so water will be held in the filter tank.
- 2. Add 31.4% pool acid in the amount indicated in the table at right. Replace manway lid covers during acidification process, but do not bolt down tight. Place a sign on the tanks indicating a warning of chemical treatment in process.
- 3. Allow to stand for 5 hours. **BEWARE OF ACID FUMES!**
- After the acidification period, secure manway lids, open field valve and initiate a backflush cycle. Flush each vessel for approximately 3 minutes and repeat flush sequence several times to remove loosened contaminant. Run system to flush out and dissipate any residual chemical.

**Note:** One or two treatments will usually be enough to unplug an underdrain that is contaminated with inorganics. Consult manufacturer if a high pressure differential persists.

Tank	Liquid Pool Muriatic Acid Required					
Diameter	Gallons	Cups	Fluid Oz.			
14"		1	8			
18"		1.5	13			
24"		2.5	21			
30"		4.5	37			
36"		7	55			
44"		11.5	92			
48"	1	16	128			

#### Caution:

- 1. Never mix acid and chlorine! Severe, dangerous chemical reaction occurs.
- 2. Acid shock recommended for carbonate fouling as an alternative for organic fouling.
- 3. Acid shock for 5 hours or less.
- 4. Quantities based on 31.4% muriatic acid (pool acid) as acid.
- 5. Never pour water into acid. Always pour acid into water.



# **CHLORINE SHOCK TREATMENT**

# Chlorine shock treatment for treatment of organics in Sand Media Filters

**Safety Note:** Always wear eye protection, gloves and protective clothing whenever handling any chemicals. A safety water rinse station should also be available to rinse off any chemicals which may come in contact with service personnel.

**Do not mix chemicals** in this procedure and always induce chemicals into a water filled tank.

- 1. Remove manway lids and fill each tank with water up to the top of the weld seam. It is not necessary to remove the sand. Make sure the field valve is closed so water will be held in the filter tank.
- 2. Add 12% pool chlorine in the amount indicated in the table at right. Replace manway lid covers during acidification process, but do not bolt down tight. Place a sign on the tanks indicating a warning of chemical treatment in process.
- 3. Allow to stand for 24 hours. **BEWARE OF CHLORINE FUMES!**
- After the chlorination period, secure manway lids, open field valve and initiate a backflush cycle. Flush each vessel for approximately 3 minutes and repeat flush sequence several times to remove loosened contaminant. Run system to flush out and dissipate any residual chemical.

**Note:** One or two treatments will usually be enough to unplug an underdrain that is contaminated with organics. Consult manufacturer if a high pressure differential persists.

Tank	Liquid Pool Chlorine Required					
Diameter	Gallons	Cups	Fluid Oz.			
14"		2	16			
18"		3	26			
24"		5	42			
30"		9	74			
36"	0.85	14	110			
44"	1.5	23	184			
48"	2	32	256			

#### Caution:

- 1. Never mix chlorine and acid! Severe, dangerous chemical reaction occurs.
- 2. Chlorine shock recommended for organic fouling only.
- 3. Chlorine shock for 24 hours.
- 4. Quantities based on 12% sodium hypochlorite (pool chlorine). Double treatment volumes if using 6% household bleach.

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# SUSPENDED SOLIDS ACCUMULATION MODEL

System Flow Rate	Suspended Solids in Flow	Suspended Solids (dirt) accumulated over a given run time:			
System now Rate	System (PPM=MG/L)	8 Hours Run Time	16 Hours Run Time	24 Hours Run Time	
	5 PPM	5.0 lbs.	5.0 lbs. 10.0 lbs.		
250 GPM	25 PPM	25.0 lbs. 50.1 lbs.		75.1 lbs.	
	50 PPM	50.1 lbs. 100.1 lbs.		150.2 lbs.	
	5 PPM	20.0 lbs.	40.1 lbs.	60.1 lbs.	
1000 GPM	25 PPM	100.1 lbs.	200.3 lbs.	300.4 lbs.	
	50 PPM	200.3 lbs.	400.6 lbs.	600.8 lbs.	
	5 PPM	50.1 lbs. 100.1 lbs.		150.2 lbs.	
2500 GPM	25 PPM	250.4 lbs. 500.7 lbs.		751.1 lbs.	
	50 РРМ	500.7 lbs.	1000.4 lbs.	1502.1 lbs.	

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# 3M<sup>™</sup> Scotchkote<sup>™</sup> Fusion-Bonded Epoxy Coating 134

#### **Product Description**

3M<sup>™</sup> Scotchkote<sup>™</sup> Fusion-Bonded Epoxy Coating 134 is a one-part, heat curable, thermosetting epoxy coating designed for corrosion protection of metal. The epoxy is applied to preheated steel as a dry powder which melts and cures to a uniform coating thickness. This bonding process provides excellent adhesion and coverage on applications such as valves, pumps, pipe drains, hydrants and porous castings. Scotchkote 134 coating is resistant to wastewater, corrosive soils, hydrocarbons, harsh chemicals, and sea water. Powder properties allow easy manual or automatic application by electrostatic or air-spray equipment.

#### **Product Features**

- No primer required for most applications.
- Particularly suitable for electrostatic or air-spray application on preheated metal articles.
- Can be electrostatically applied to unheated metal parts and subsequently cured by baking.
- Long gel time allows application on large or complex articles, minimizing fear of runs, sags, laminations, or unsightly overspray.
- Especially useful for coating the inside of pipe or other fabrications where a smooth, corrosion resistant coating is required.
- Can be machined by grinding or cutting to meet close tolerance requirements.
- Allows easy visual inspection of coated articles.
- Can be painted with alkyd paint, acrylic lacquer, polyurethane, or acrylic enamel for color coding.
- Will not sag, cold flow, or become soft in storage. Long term storage under most climatic conditions.
- Lightweight for lower shipping costs.
- Protects over wide temperature range.
- Resists direct burial soil stress.
- High adhesion and toughness.
- Resists cavitation and cathodic disbondment.
- Excellent chemical resistance.

- Suitable for elevated temperature service in presence of H<sub>2</sub>S, CO<sub>2</sub>, CH<sub>4</sub>, crude oil and brine when applied over phenolic primer such as Scotchkote 345.
- Long-term performance history in water, sewage, and other service environments.
- Scotchkote 134 coating has been tested and certified to NSF /ANSI Standard 61, Drinking Water System Components. For NSF certified applications,max approved thickness is 60 mil (1.5 mm).
- Scotchkote 134 FBEC meets the requirements of AWWA Standard C213 and C550.
- Operating temperature dry is 235°F/ 113°C and wet is 175°F/79°C.

#### **General Application Information**

- 1. Remove oil, grease and loosely adhering deposits.
- Abrasive blast clean the surface to NACE No. 2/SSPC-SP10 ISO 8501:1, Grade SA 2 1/2 near-white metal.
- Apply mechanical masks or mask with materials such as Scotch Glass Cloth Tape 361 or Scotch Aluminum Foil Tape 425 as required.
- Preheat article to the desired application temperature per cure specifications.
- Deposit Scotchkote 134 coating by powder spray to the specified thickness.
- 6. Cure according to cure specifications.
- 7. Visually and electrically inspect for coating flaws after the coating has cooled.
- 8. Repair all defects.

#### **Cure Specifications**

Scotchkote 134 coating may be applied to metal articles which have been preheated to a temperature of 300°F/149°C to 475°F/246°C. After application, Scotchkote 134 coating must be cured according to the cure guide to achieve maximum performance properties.

If Scotchkote 134 coating is electrostatically applied to unheated parts, the cure time should be measured from the time the coated part reaches the cure temperature. After cure, the coating may be force cooled using air or water to facilitate inspection and handling.



#### 3M<sup>™</sup> Scotchkote<sup>™</sup> Fusion-Bonded Epoxy Coating 134 Cure Guide

Temperature of Article at Time of Powder Application	Typical Gel Time	Cure Time
475°F/246°C	40 seconds	7 minutes
450°F/232°C	60 seconds	10 minutes
400°F/204°C	120 seconds	15 minutes
350°F/177°C	330 seconds	25 minutes
425°F/218°C	90 seconds	25 minutes for NSF/ANSI 61 approved applications

#### **Typical Properties**

Property	Value
Color	Forest Green
Specific Gravity - Powder (Air Pycnometer)	1.51
Coverage	127 ft²/lb/mil (0,66 m²/kg/mm)
Fluid Bed Density	33 lbs/ft³ (530 kg/m³)
Shelf Life at 80°F/27°C	18 months
Average Gel Time 400°F/204°C	120 seconds
Edge Coverage	12% to 18%
Minimum Explosive Concentration	0.03 oz/ft³ (30,6 g/m³)
Ignition Temperature	986°F/530°C
V.O.C. (As Supplied)	0 g/L, as calculated

#### **Chemical/Pressure/Temperature Resistance**

- All tests performed on Scotchkote<sup>™</sup> Fusion Bonded Epoxy Coating 134 applied over a 1 mil/25,4 μm phenolic primer. Liquid phase for all test conditions: 33% kerosene, 33% toluene, 34% brine solution of 5% NaCl.

Test Conditions	Gas Phase	Results
Autoclave, 120°F/49°C 48 hours, 1500 psi/10.3 MPa	99.5% CO <sub>2</sub> 0.5% H <sub>2</sub> S	Excellent adhesion, no coating loss or blisters in aqueous, hydrocarbon, or gas phase
Autoclave, 150°F/66°C 48 hours, 2200 psi/15.2 MPa	80% CH <sub>4</sub> 12% CO <sub>2</sub> 8% H <sub>2</sub> S	Excellent adhesion, no coating loss or blisters in aqueous, hydrocarbon, or gas phase
Autoclave, 200°F/93°C 24 hours, 3300 psi/22.8 MPa	86% CH <sub>4</sub> 8% CO <sub>2</sub> 6% H <sub>2</sub> S	Excellent adhesion, no coating loss or blisters in aqueous, hydrocarbon, or gas phase
Autoclave, 300°F/149°C 24 hours, 3000 psi/20.7 MPa	90% CH 10% CO <sub>2</sub> Trace H <sub>2</sub> S	Excellent adhesion, no coating loss or blisters in aqueous, hydrocarbon, or gas phase

#### 3M<sup>™</sup> Scotchkote Fusion-Bonded Epoxy Coating 134 Test Data

AdhesionElcometer> 3000 psi (glue failure)/ 210 kg/cm2Adhesion to Steel (Shear)ASTM D 1002 10 mil/254 µm glue line3000 psi/302 kg/cm2ImpachGardner 5/8 in/1,6 cm diameter tup 1/8" x 3" x 3" (0,32 cm x 7,6 cm x 7,6 cm)16 0 in-15 kg emHardnessGardner 5/8 in/1,6 cm diameter tup 1/8" x 3" x 3" (0,32 cm x 7,6 cm x 7,6 cm)1,8 kg emHardnessBardo ASTM D 258323Abrasion ResistanceASTM D 4060 CS-17 10000 weight / 5000 cycles0,07 g lossThermal Shock300°F/164°C to -320°F/195°C0Coated pipe300°F/164°C to 240°F/116°C0FenetrationASTM D 2370300 psi/512 kg/cm2Fensile StrengthASTM D 23703200 psi/900 kg/cm2Coefficient of FrictionAPI P52-1968 App 823°Coefficient of FrictionASTM D 149000 volts/mil (39,4 kw/mm)Hot Water Resistance160°F/T1°C immersion / 120 days060 dathesion poliseringHot Water ResistanceML-16923E7x 10 d cal/sec/cm2/°C/cmFuerula ConductivityML-16924 µm free film 30 days6,5 g/m2Mater AbsorptionASTM 0 2570124 cal/sec/cm2/°C/cmFuerula ResistanceML-1510-B Method 508FunginertSait FogML-1623CNa ffect calkasSait GragMI-10-B32500 hoursSaif cac kalkSait FogML 625000 hoursNa ffect calkasSait GragMin mil/254 µm free film 30 days6,5 g/m2Sait RossBureau of Recidamation 25 cyclesNo effectSait RossSait G cas fild radi	Property	Test Description	Results
Induction of the function10 mil/254 µm glue linecohesive failureImpactGardner 5/8 in/1, 6 cm diameter tup 1/8" x 3" x 3" (0,32 cm x 7,6 cm x 7,6 cm)160 in-lbs 1,8 kg •mHardnessBarcol ASTM D 258323Abrasion ResistanceASTM D 4060 CS-17 1000g weight / 5000 cycles0,07 g lossThermal ShockSiTM D 4060 CS-17 1000g weight / 5000 cycles0,07 g lossPenetrationASTM D 71000g weight / 5000 cycles10 cycles, no effectPenetrationASTM G 17 -40°F/-40°C to 240°F/116°C0Tensile StrengthASTM D 23707300 psi/512 kg/cm²ElongationASTM D 23704.2%Compressive StrengthASTM D 69512800 psi/900 kg/cm²Coefficient of FrictionAPI RP5L2-1968, App 823°Electric StrengthASTM D 1491000 volts/mil (39,4 kv/mm)Hot Water Resistance160°F/11°C immersion / 120 daysGood adhesion, no blisteringHermal ConductivityMIL-1-16923E7 x 10.4 cal/sec/cm?*C/cmWater AbseistanceMIL-STD 810-B Method 508FunginertSalt FogMIL-STD 810-B Method 508FunginertSalt FogMIL-STD 810-B Method 508FunginertSalt ForckSolt Gas 5000 hoursSurface chalkSalt Crock20 day, 5 volt, 5%, NaCl sand crock 200 fr/110°CSolt pei diametersSalt Crock30 day, 5 volt, 5%, NaCl sand crock 200 fr/110°CSol pip diameters	Adhesion	Elcometer	> 3000 psi (glue failure)/ 210 kg/cm <sup>2</sup>
Instruction1/8" x 3" x 3" (0,32 cm x 7,6 cm x 7,6 cm) steel panel1,8 kg·mHardnessBarcol ASTM D 258323Abrasion ResistanceASTM D 4060 CS-17 10000 weight / 5000 cycles0,07 g lossThermal Shock310°F/154°C to -320°F/-195°C coated pipe10 cycles, no effectPenetrationASTM G 17 -40°F/-40°C to 240°F/116°C0Tensile StrengthASTM D 23707300 psi/512 kg/cm²ElongationASTM D 237022%Compressive StrengthASTM D 1491000 volts/mil (39,4 kv/mm)Hot Water Resistance160°F/71°C immersion / 120 daysGood adhesion, no blisteringElectric StrengthASTM D 2571.2 x 101°s ohm•cmHormal ConductivityMIL-16923E7 x 10-4 cal/sec/cm²/°C/cmWater Absorption3M 10 mil/254 µm free film 30 days6,5 g/m²Fungus ResistanceMIL-51D 810-B Method 508FunginertSalt FogMIL-5272CNo effectWater AbsorptionSatin G 23 5000 hoursSurface chalkSoil Stress - BurialBureau of Reclamation 25 cyclesNo effectSalt Crock30° day, 5 volt, 5% NaCl sand crockDisbondment diameter 24 mm averageBendability3/8"/9,5 mm coupon30 pipe diameters	Adhesion to Steel (Shear)		
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CS-17 1000g weight / 5000 cyclesCS-17 1000g weight / 5000 cyclesThermal Shock310°F/154°C to -320°F/-195°C coated pipe10 cycles, no effectPenetrationASTM G 17 -40°F/-40°C to 240°F/116°C0Tensile StrengthASTM D 23707300 psi/512 kg/cm²ElongationASTM D 23704.2%Compressive StrengthASTM D 69512800 psi/900 kg/cm²Coefficient of FrictionAPI RP5L2-1968, App 823°Electric StrengthASTM D 149000 volts/mil (39,4 kv/mm)Hot Water Resistance160°F/71°C immersion / 120 daysGood adhesion, no blisteringElectrical ResistivityASTM D 2571.2 x 101° ohm•cmThermal ConductivityMIL-I-16923E7 x 10.4 cal/sec/cm²/°C/cmWater Absorption3M 10 mil/254 µm free film 30 days6,5 g/m²Salt FogMIL-STD 810-B Method 508FunginertSalt FogMIL-STD 810-B Method 508FunginertSoil Stress - BurialBureau of Reclamation 25 cyclesNo effectSalt Crock30 day, 5 volt, 5% NaCl sand crock 200°F/110°CDisbondment diameter 24 mm averageBendability3/8″/9,5 mm coupon30 pipe diameters	Hardness	Barcol ASTM D 2583	23
Indext and the pipePenetrationASTM G 17 -40°F/-40°C to 240°F/116°C0Tensile StrengthASTM D 23707300 psi/512 kg/cm²ElongationASTM D 23704.2%Compressive StrengthASTM D 69512800 psi/900 kg/cm²Coefficient of FrictionAPI RP5L2-1968, App 823°Electric StrengthASTM D 1491000 volts/mil (39,4 kv/mm)Hot Water Resistance160°F/71°C immersion / 120 daysGood adhesion, no blisteringElectrical ResistivityASTM D 2571.2 x 101°5 ohm•cmThermal ConductivityMIL-1-16923E7 x 10-4 cal/sec/cm²/°C/cmWater Absorption3M 10 mil/254 µm free film 30 days6,5 g/m²Salt FogMIL-E-5272CNo effectWeatherometerASTM G 23 5000 hoursSurface chalkSoil Stress - BurialBureau of Reclamation 25 cyclesNo effectSalt Crock30 day, 5 volt, 5% NaCl sand crockDisbondment diameter 24 mm averageBendability3/8°/9,5 mm coupon30 pipe diameters	Abrasion Resistance		0,07 g loss
-40°F/-40°C to 240°F/116°CTensile StrengthASTM D 23707300 psi/512 kg/cm²ElongationASTM D 23704.2%Compressive StrengthASTM D 69512800 psi/900 kg/cm²Coefficient of FrictionAPI RP5L2-1968, App 823°Electric StrengthASTM D 1491000 volts/mil (39,4 kv/mm)Hot Water Resistance160°F/71°C immersion / 120 daysGood adhesion, no blisteringElectrical ResistivityASTM D 2571.2 x 10 <sup>16</sup> ohn•cmThermal ConductivityMIL-1-6923E7 x 10.4 cal/sec/cm²/°C/cmVater Absorption3M 10 mil/254 µm free film 30 days6,5 g/m²Fungus ResistanceMIL-5720CNo effectSalt FogMIL-6235000 hoursSurface chalkSoil Stress - BurialBureau of Reclamation 25 cyclesNo effectSalt Crock30 day, 5 volt, 5% NaCl sand crockDisbondment diameter 24 mm averageBendability3/8″/9,5 mm coupon30 pipe diameters	Thermal Shock		10 cycles, no effect
ElongationASTM D 23704.2%Compressive StrengthASTM D 69512800 psi/900 kg/cm²Coefficient of FrictionAPI RP5L2-1968, App 823°Electric StrengthASTM D 1491000 volts/mil (39,4 kv/mm)Hot Water Resistance160°F/71°C immersion / 120 daysGood adhesion, no blisteringElectrical ResistivityASTM D 2571.2 x 1015 ohm•cmThermal ConductivityMIL-1-16923E7 x 10-4 cal/sec/cm²/°C/cmWater Absorption3M 10 mil/254 µm free film 30 days6,5 g/m²Fungus ResistanceMIL-STD 810-B Method 508FunginertSalt FogMIL-E-5272CNo effectWeatherometerASTM G 23 5000 hoursSurface chalkSoil Stress - BurialBureau of Reclamation 25 cyclesNo effectSalt Crock30 day, 5 volt, 5% NaCl sand crock 230°F/110°CDisbondment diameter 24 mm averageBendability3/8"/9,5 mm coupon30 pipe diameters	Penetration		0
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Coefficient of FrictionAPI RP5L2-1968, App 823°Electric StrengthASTM D 1491000 volts/mil (39,4 kv/mm)Hot Water Resistance160°F/71°C immersion / 120 daysGood adhesion, no blisteringElectrical ResistivityASTM D 2571.2 x 10 <sup>15</sup> ohm•cmThermal ConductivityMIL-1-16923E7 x 10.4 cal/sec/cm²/°C/cmWater Absorption3M 10 mil/254 µm free film 30 days6,5 g/m²Fungus ResistanceMIL-STD 810-B Method 508FunginertSalt FogMIL-E-5272CNo effectWeatherometerASTM G 23 5000 hoursSurface chalkSoil Stress - BurialBureau of Reclamation 25 cyclesNo effectSalt Crock30 day, 5 volt, 5% NaCl sand crock 230°F/110°CDisbondment diameter 24 mm averageBendability3/8"/9,5 mm coupon30 pipe diameters	Elongation	ASTM D 2370	4.2%
Electric StrengthASTM D 1491000 volts/mil (39,4 kv/mm)Hot Water Resistance160°F/71°C immersion / 120 daysGood adhesion, no blisteringElectrical ResistivityASTM D 2571.2 x 1015 ohm•cmThermal ConductivityMIL-1-16923E7 x 10-4 cal/sec/cm²/°C/cmWater Absorption3M 10 mil/254 µm free film 30 days6,5 g/m²Fungus ResistanceMIL-STD 810-B Method 508FunginertSalt FogMIL-E-5272CNo effectWeatherometerASTM G 23 5000 hoursSurface chalkSoil Stress - BurialBureau of Reclamation 25 cyclesNo effectSalt Crock30 day, 5 volt, 5% NaCl sand crock 230°F/110°CDisbondment diameter 24 mm averageBendability3/8"/9,5 mm coupon30 pipe diameters	Compressive Strength	ASTM D 695	12800 psi/900 kg/cm <sup>2</sup>
Hot Water Resistance160°F/71°C immersion / 120 daysGood adhesion, no blisteringElectrical ResistivityASTM D 2571.2 x 1015 ohm•cmThermal ConductivityMlL-1-16923E7 x 10-4 cal/sec/cm²/°C/cmWater Absorption3M 10 mil/254 µm free film 30 days6,5 g/m²Fungus ResistanceMlL-STD 810-B Method 508FunginertSalt FogMlL-E-5272CNo effectWeatherometerASTM G 23 5000 hoursSurface chalkSoil Stress - BurialBureau of Reclamation 25 cyclesNo effectSalt Crock30 day, 5 volt, 5% NaCl sand crock 230°F/110°CDisbondment diameter 24 mm averageBendability3/8"/9,5 mm coupon30 pipe diameters	<b>Coefficient of Friction</b>	API RP5L2-1968, App 8	23°
Electrical ResistivityASTM D 2571.2 x 1015 ohm•cmThermal ConductivityMIL-16923E7 x 10-4 cal/sec/cm²/°C/cmWater Absorption3M 10 mil/254 µm free film 30 days6,5 g/m²Fungus ResistanceMIL-STD 810-B Method 508FunginertSalt FogMIL-E-5272CNo effectWeatherometerASTM G 23 5000 hoursSurface chalkSoil Stress - BurialBureau of Reclamation 25 cyclesNo effectSalt Crock30 day, 5 volt, 5% NaCl sand crock 230°F/110°CDisbondment diameter 24 mm averageBendability3/8"/9,5 mm coupon30 pipe diameters	Electric Strength	ASTM D 149	1000 volts/mil (39,4 kv/mm)
Thermal ConductivityMIL-1-16923E7 x 10-4 cal/sec/cm²/°C/cmWater Absorption3M 10 mil/254 µm free film 30 days6,5 g/m²Fungus ResistanceMIL-STD 810-B Method 508FunginertSalt FogMIL-E-5272CNo effectWeatherometerASTM G 23 5000 hoursSurface chalkSoil Stress - BurialBureau of Reclamation 25 cyclesNo effectSalt Crock30 day, 5 volt, 5% NaCl sand crock 230°F/110°CDisbondment diameter 24 mm averageBendability3/8"/9,5 mm coupon30 pipe diameters	Hot Water Resistance	160°F/71°C immersion / 120 days	Good adhesion, no blistering
Water Absorption3M 10 mil/254 µm free film 30 days6,5 g/m²Fungus ResistanceMIL-STD 810-B Method 508FunginertSalt FogMIL-E-5272CNo effectWeatherometerASTM G 23 5000 hoursSurface chalkSoil Stress - BurialBureau of Reclamation 25 cyclesNo effectSalt Crock30 day, 5 volt, 5% NaCl sand crock 230°F/110°CDisbondment diameter 24 mm averageBendability3/8"/9,5 mm coupon30 pipe diameters	Electrical Resistivity	ASTM D 257	1.2 x 10 <sup>15</sup> ohm∙cm
Fungus ResistanceMIL-STD 810-B Method 508FunginertSalt FogMIL-E-5272CNo effectWeatherometerASTM G 23 5000 hoursSurface chalkSoil Stress - BurialBureau of Reclamation 25 cyclesNo effectSalt Crock30 day, 5 volt, 5% NaCl sand crock 230°F/110°CDisbondment diameter 24 mm averageBendability3/8"/9,5 mm coupon30 pipe diameters	Thermal Conductivity	MIL-I-16923E	7 x 10 <sup>-4</sup> cal/sec/cm <sup>2</sup> /°C/cm
Sait Fog       MIL-E-5272C       No effect         Weatherometer       ASTM G 23 5000 hours       Surface chalk         Soil Stress - Burial       Bureau of Reclamation 25 cycles       No effect         Sait Crock       30 day, 5 volt, 5% NaCl sand crock       Disbondment diameter 24 mm average         Bendability       3/8"/9,5 mm coupon       30 pipe diameters	Water Absorption	3M 10 mil/254 µm free film 30 days	6,5 g/m <sup>2</sup>
Weatherometer       ASTM G 23 5000 hours       Surface chalk         Soil Stress - Burial       Bureau of Reclamation 25 cycles       No effect         Salt Crock       30 day, 5 volt, 5% NaCl sand crock 230°F/110°C       Disbondment diameter 24 mm average         Bendability       3/8"/9,5 mm coupon       30 pipe diameters	Fungus Resistance	MIL-STD 810-B Method 508	Funginert
Soil Stress - Burial       Bureau of Reclamation 25 cycles       No effect         Salt Crock       30 day, 5 volt, 5% NaCl sand crock       Disbondment diameter 24 mm average         Bendability       3/8"/9,5 mm coupon       30 pipe diameters	Salt Fog	MIL-E-5272C	No effect
Salt Crock30 day, 5 volt, 5% NaCl sand crock 230°F/110°CDisbondment diameter 24 mm averageBendability3/8"/9,5 mm coupon30 pipe diameters	Weatherometer	ASTM G 23 5000 hours	Surface chalk
230°F/110°C Bendability 3/8"/9,5 mm coupon 30 pipe diameters	Soil Stress - Burial	Bureau of Reclamation 25 cycles	No effect
	Salt Crock		Disbondment diameter 24 mm average
	Bendability		

#### **Handling and Safety Precautions**

Read all Health Hazard, Precautionary and First Aid, Material Safety Data Sheet, and/or product label prior to handling or use.

#### **Important Notice**

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#### **Ordering Information/Customer Service**

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#### Infrastructure Protection Division



# Pump Suction Screens Self-Cleaning

Intake

Whether pumping water from a cooling tower basin, pit or sump, you need the water to be free of trash and debris that could block water flow and damage the pump or clog waterdistribution equipment. The Yardney Pump Suction Screen is designed to filter these larger contaminants on the intake piping to allow other equipment such as pumps or primary filtration units to run smoothly without clogging. Our selfcleaning screen is designed to continuously remove trash and debris from water sources saving you time, fuel and maintenance costs. Pump suction screens can be used for industrial centrifugal or turbine pump applications, cooling tower basins and more.



## Applications

- Prevention of large foreign bodies of debris from entering pump intake piping
- Intake pipe filter for storm water runoff, industrial process water, incoming plant water, waste water clean-up, industrial water for plant reuse
- Can be used with virtually any water source to target the removal of larger debris—organic or inorganic
- 40 65 psi standard operating pressure
- Flow ranges from 200 gpm

- Precision internal spray bars continually rotate and blast debris away from the screen
- No exterior moving parts that can foul and cause water blockage issues
- Housing utilizes a removable and replaceable stainless steel screen drum saving on repair costs
- Galvanized pump suction screen body
- Heavy gauge stainless steel mesh screen for increased pump efficiency

- Can be installed at any angle without the operation being affected
- Meets many state and federal standards requiring prescreening of pump intakes
- Standard with a flanged connection
- Improves primary filter downstream of pump by reducing the contaminant and loading concentration
- Made in USA

#### **Pump Suction Screens**

Specifications

# Standard assembly includes:

- Galvanized carbon steel housing
- Stainless steel filter mesh
- Internally rotating spray bars for contaminant removal
- Y strainer—essential on the water jet supply line

#### Available options:

Sealed bearing

OUTLET Q.

■ Stainless steel housing

	SPECIFICATIONS   SELF CLEANING PUMP SUCTION SCREEN   12 Mesh									
	Flow Rate		Standard Bearing	Sealed Bearing	Return					
Model	gpm		Operating Pressure (psi)	Operating Pressure (psi)	Spray Bar (gpm)				D	
CW 100	200	45	40 - 60	N/A	12	9"	19 1/2"	12"	3"	1/2"
CW 200	325	74	40 - 65	40 - 100	20	11"	25"	16"	4"	1 1/2"
CW 400	550	125	40 - 65	40 - 100	20	15"	28 3/4"	16"	6"	1 1/2"
CW 600	750	170	40 - 65	40 - 100	20	16"	32 1/2"	24"	8"	1 1/2"
CW 800	950	216	40 - 65	40 - 100	20	18"	34 1/2"	24"	10"	1 1/2"
CW 1000	1350	307	40 - 65	40 - 100	28	23"	39 1/2"	24"	10"	1 1/2"
CW 1400	1550	352	40 - 65	40 - 100	28	26"	42 1/2"	24"	12"	1 1/2"
CW 1700	1800	409	40 - 65	40 - 100	28	28"	44 1/2"	26"	12"	1 1/2"
CW 2000	2100	477	40 - 65	40 - 100	36	32"	48 1/2"	26"	14"	1 1/2"
CW 2400	2600	591	40 - 65	40 - 100	36	35"	52 1/2"	30"	16"	1 1/2"
CW 3000	3000	682	40 - 65	40 - 100	44	40"	57 1/2"	30"	16"	1 1/2"
CW 3500	3500	795	40 - 65	40 - 100	44	40"	59 1/2"	36"	18"	1 1/2"
CW 4000	4000	909	40 - 65	40 - 100	44	40"	63 1/2"	42"	18"	1 1/2"

# B B



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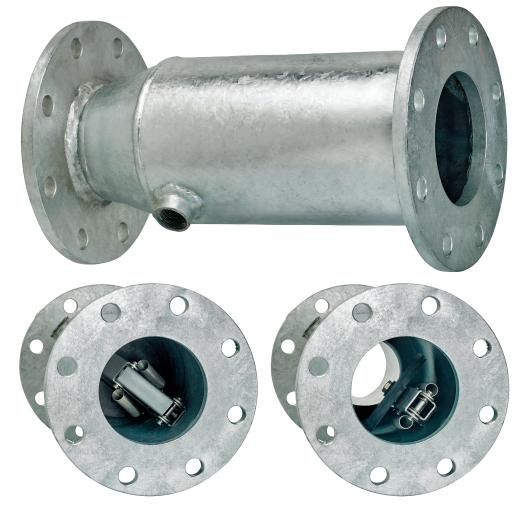
# Galvanized Check Valves

#### Yardney Galvanized Check Valves feature:

- Galvanized steel body
- Stainless springs and swing arm
- Rubber-to-rubber gasket
- 3/4" NPT fitting with galvanized plug for winterization and/or draining the system during shut down
- Eliminates priming of pump when pump is shut down by retaining water in intake pipe
- ANSI flange on inlet and outlet

S	SPECIFICATIONS   GALVANIZED CHECK VALVES										
Model	Part Number	Description									
GCV-6-8	146129007	6" ANSI Flange x Flange with 8" Seat									
GCV-8-10	146129008	8" ANSI Flange x Flange with 10" Seat									
GCV-10-12	146129010	10" ANSI Flange x Flange with 12" Seat									
GCV-12-10	146129013	12" ANSI Flange x Flange with 10" Seat									
GCV-12-12	146129014	12" ANSI Flange x Flange with 12" Seat									

Recommended installation at least 10 pipe diameters away from pump.





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#### Industrial, Commercial & Municipal



# Spin Flow<sup>™</sup> Filters Vortex Action

Manual Clean

Yardney Spin Flow screen

filters offer the benefits of a vortex action spin flow with the advantages of a woven mesh screen filter. Water enters the screen housing tangentially, vortexing the flow—a technique that separates heavy particulate away from the fine mesh cartridge. This method of separation simplifies and reduces cartridge cleaning. Heavy sediment is flushed from the filter through a conveniently located flush port, while the finer contaminant is trapped on the fine screen cartridge.

Spin Flow Screen Filters feature a replaceable cartridge and screen mesh that ensures consistent and reliable filtration and allows for easy manual cleaning.



## Applications

- Removal of sand, rock, grit and other inorganic contaminants to protect drip and micro-irrigation systems with fine filtration down to 200 mesh or 75 microns
- 120 psi standard operating pressure (high pressure systems available)
- Flow ranges from 125 gpm
- Can be used as a primary filter in specific applications
- Can be used as a secondary filter to a sand media filter, centrifugal separator or other primary filtration system with the added benefit of an automatically controlled system

- Rugged, field changeable, washable and replaceable polypropylene filter mesh sock available in 40, 80, 100, 150 and 200 mesh
- Yardney easy-entry lid closure
- Available in welded carbon steel
- 3M Scotchkote<sup>®</sup> 134 fusion bonded epoxy lining on interior surfaces
- Exterior of housing is coated with UV stabilized polyester powder coat for longer product life and protection from the environment
- Made in USA



## **Spin Flow Filters**

Specifications

# Standard assembly includes:

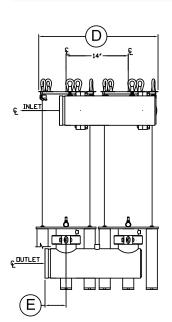
- Carbon steel housing
- Yardney easy-entry lid closure
- 3M Scotchkote<sup>®</sup> 134 fusion bonded epoxy lining on interior surfaces
- Polyester powder coating on exterior surfaces
- Internal cartridge element with field replaceable filter mesh
- 3-way valve
- Pressure gauge
- Tubing with fittings
- Purge valve for manual flushing
- Multiple housings include inlet and outlet manifolds and grooved couplings to connect all components together

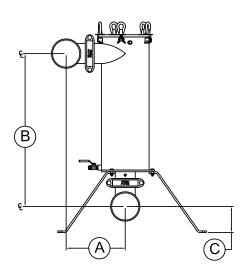
#### Available options:

- ASME code
- High pressure

	SPECIFICATIONS   SPIN FLOW												
	Number of	Maximum Flow		Filtration	Maximum		Purge						
Model	Housings	gpm		Surface Area (total sq ft)	Pressure	Inlet/Outlet	Port						
SF 6	1	125	28	1.60	120 psi	2" Grooved	1/2"						
SF 8	1	200	45	2.35	120 psi	3" Grooved	1/2"						
SF 10	1	350	80	5.17	120 psi	4" Grooved	1/2"						
SF 10-2	2	700	159	10.35	120 psi	6" Grooved	1/2"						
SF 10-3	3	1050	239	15.52	120 psi	6" Grooved	1/2"						

	DIMENSIONS										
Model				D							
SF 6	6"	17 9/16"	6 1/4"	9 7/16"	N/A						
SF 8	7 3/8"	17 1/4"	9"	11 3/8"	N/A						
SF 10	8"	29 1/8"	11 3/8"	12 7/8"	N/A						
SF 10-2	13 5/16"	34 7/16"	5 7/8"	26 7/8"	4 3/4"						
SF 10-3	14 5/16"	35 7/16"	4 7/8"	40 7/8"	4 3/4"						









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#### **Yardney Basket Strainers**

are a low-cost filter solution designed to be used for the removal of inorganic contaminants. Basket Strainers trap gross contaminants and are able to withstand a substantial amount of loading without failure. When used as a secondary filter the basket strainer is intended to capture contaminants that may enter the system as a result of a pipeline break or system malfunction.

Basket strainers feature a replaceable cartridge and screen mesh that ensures consistent and reliable filtration and allows for easy manual cleaning.







Basket

**Strainers** 

Manual Clean

## Applications

- Removal of sand, rock, grit and other inorganic contaminants with fine filtration down to 200 mesh or 75 microns
- Industrial process water, incoming plant water, waste water clean up, industrial water for plant reuse
- 80-150 psi standard operating pressure (high pressure systems available)

- Heavy duty, durable and low-cost screen filter
- Rugged, washable and replaceable polypropylene filter mesh sock available in 40, 80, 100, 150, and 200 mesh
- Yardney easy-entry lid closure
- Available in welded carbon steel

- Flow ranges from 110 gpm
- Can be used as a primary filter in specific applications
- Can be used as a secondary filter to a sand media filter, centrifugal separator or other primary filtration system
- For plant or equipment process water use primarily designed for the removal of inorganic material
- 3M Scotchkote<sup>®</sup> 134 fusion bonded epoxy lining on interior surfaces
- Exterior of housing is coated with UV stabilized polyester powder coat for longer product life and greater protection from the environment
- Made in USA

#### **Basket Strainers**

Specifications

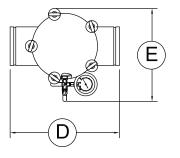
# Standard assembly includes:

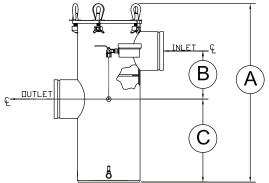
- Carbon steel housing
- Yardney easy-entry lid closure
- 3M Scotchkote<sup>®</sup> 134 fusion bonded epoxy lining on interior surfaces
- Polyester powder coating on exterior surfaces
- Internal stainless steel basket with field replaceable filter mesh
- 3-way valve
- Pressure gauge
- Tubing with fittings
- Drain valve

#### Available options:

- ASME code
- High pressure
- Grooved or flanged mainline connections
- Available in purple for reclaim water applications

	SPECIFICATIONS   BASKET STRAINERS												
	Maximum Flow		Filtration	Maximum	Inlet/		D	IMENSIO	١S				
Model	gpm		Surface Area (total sq ft)	Pressure	Pressure	Outlet				D			
SB 2	110	25	0.44	150 psi	2"	13 5/8"	3 1/8"	4 3/4"	11 5/8"	11"			
SB 3	250	57	1.01	150 psi	3"	18 1/8"	5 1/4"	6 1/4"	12 1/2"	13"			
SB 4	355	81	1.01	150 psi	4"	18 1/8"	5 1/4"	6 1/4"	12 1/2"	13"			
SB 6	950	216	2.96	80 psi	6"	30 5/8"	8 1/4"	14 1/4"	18 3/4"	15 7/8"			
SB 8	1250	284	3.56	80 psi	8"	31 5/8"	10 3/4"	12 1/4"	20 3/4"	18 1/8"			
SB 10	1875	426	5.59	80 psi	10"	41 7/8"	15"	16 1/2"	24"	19 3/4"			









Made in USA

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# Maxi-Clean<sup>™</sup> Screen Filters

Manual Clean Screen Filters

#### Yardney Maxi-Clean Screen Filters are

designed for high performance contamination removal in applications where durability and economy are essential. Constructed of heavy gauge carbon steel, Maxi-Clean filters are fusion epoxy lined with 3M Scotchkote® 134 for excellent protection from the environment and long product life. The Maxi-Clean screen filter is easy to operate and comes standard with grooved couplings, manifolds and all accessories for ease of installation.

Maxi-Clean Screen Filters feature a replaceable cartridge and screen mesh that ensures consistent and reliable filtration and allows for easy manual cleaning.





## Applications

- Removal of sand, rock, grit and other inorganic contaminants to protect drip and micro-irrigation systems with fine filtration down to 200 mesh or 75 microns
- 100 psi standard operating pressure (high pressure systems available)
- Flow ranges from 110 gpm
- Can be used as a primary filter in specific applications
- Can be used as a secondary filter to a sand media filter, centrifugal separator or other primary filtration system

- Heavy duty, durable and low-cost screen filter
- Rugged, field changeable, washable and replaceable polypropylene filter mesh sock available in 40, 80, 100, 150 and 200 mesh sizes
- Large screen area produces less than 2 psi pressure drop accompanied by long run times between cleanings
- Flush port provides for manual removal of heavy contaminants

- Yardney easy-entry lid closure
- Available in welded carbon steel
- 3M Scotchkote<sup>®</sup> 134 fusion bonded epoxy lining on interior surfaces
- Exterior of housing on carbon steel product is coated with UV stabilized polyester powder coat for longer product life and greater protection from the environment
- Made in USA

# Maxi-Clean Screen Filters

Specifications

# Standard assembly includes:

- Carbon steel housing
- Yardney easy-entry lid closure
- 3M Scotchkote<sup>®</sup> 134 fusion bonded epoxy lining on interior surfaces of carbon steel
- Polyester powder coating on exterior surfaces
- Internal cartridge element with field replaceable filter mesh
- 3-way valve
- Pressure gauge
- Tubing with fittings
- Purge valve for manual flushing of filter
- Multiple housings include inlet and outlet manifolds and grooved couplings to connect all components

#### Available options:

- ASME code
- High pressure
- Grooved or flanged mainline connections
- Available in purple for reclaim water applications



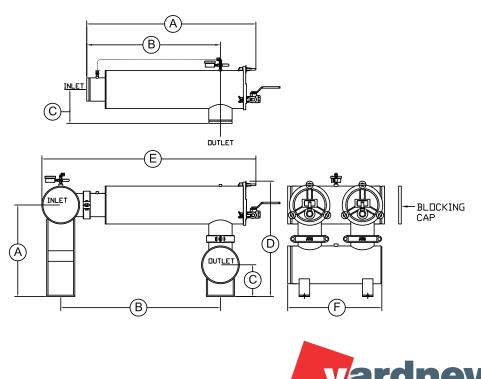
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		SPECIFIC	ATIONS	5   MAX	I-CLEAN   Sing	le Housing			
90 Degree Model		Number of Housings		ım Flow m³/hr	Filtration Surface Area (total sq ft)	Max. Pressure (PSI)	Max. Pressure (BAR)	Inlet/ Outlet	Flush Port
MCS 2-1	IL-MCS 2-1	1	110	25	0.76	100 psi	6.9	2"	1"
MCS 3-1	IL-MCS 3-1	1	225	51	1.40	100 psi	6.9	3"	1"
MCS 4-1	IL-MCS 4-1	1	400	91	3.02	100 psi	6.9	4"	1 1/2"
MCS 6-1	IL-MCS 6-1	1	900	205	6.38	100 psi	6.9	6"	2"
MCS 8-1	IL-MCS 8-1	1	1250	284	9.25	100 psi	6.9	8"	2"
		SPECIFIC	ATIONS	MAXI	-CLEAN   Multi	ple Housing			
MCS 6-2	IL-MCS 6-2	2	1800	409	12.76	100 psi	6.9	10"	2"
MCS 8-2	IL-MCS 8-2	2	2500	568	18.50	100 psi	6.9	12"	2"
MCS 6-3	IL-MCS 6-3	3	2700	614	19.14	100 psi	6.9	12"	2"
MCS 6-4	IL-MCS 6-4	4	3600	818	25.52	100 psi	6.9	12"	2"
MCS 6-5	IL-MCS 6-5	5	4500	1023	31.90	100 psi	6.9	14"	2"
MCS 6-6	IL-MCS 6-6	6	5400	1227	38.28	100 psi	6.9	16"	2"

DIMENS	DIMENSIONS*   Single Housing				DIMENSIONS*   Multiple Housing								
Model				Model				D		F			
MCS 2-1	16 3/8"	9 1/16"	6 9/16"	MCS 6-2	26"	45 3/8"	9"	32 3/4"	60 13/16"	27 1/8"			
MCS 3-1	27"	18 5/8"	5 5/16"	MCS 8-2	29 1/2"	62 7/8"	10 1/2"	36 1/4"	79 3/8"	28 1/4"			
MCS 4-1	31"	21 1/8"	6 5/16"	MCS 6-3	28"	46 3/8"	10"	34 3/4"	62 3/4"	41 3/4"			
MCS 6-1	48 1/16"	38"	9 5/8"	MCS 6-4	28"	46 3/8"	10"	34 3/4"	62 3/4"	56 3/4"			
MCS 8-1	64 9/16"	54 1/2"	10 5/8"	MCS 6-5	30 5/8"	47 3/8"	12"	37 3/8"	64"	71 3/4"			
				MCS 6-6	31 5/8"	48"	12"	38 3/8"	66"	86 3/4"			

\* Dimensions shown are the 90 Degree Model, the Inline Model will vary from what is shown.







# Maxi-Flush<sup>™</sup> Screen Filters

Automatic Backwash System





Industrial, Commercial & Municipal

# Maxi-Flush<sup>™</sup> Screen Filters

Time. Quality. Experience. Knowledge.

Yardney Maxi-Flush automatic backwash screen filters provide

the ultimate in high rate screen filter performance. Built for durable troublefree service, the filter and cartridge have no internal moving parts to wear out, break down or replace. The field changeable stainless steel filter cartridge requires no maintenance and is constructed with a burst strength in excess of 600 psi.

Maxi-Flush Screen Filters feature a replaceable cartridge and screen mesh that ensures consistent and reliable filtration and allows for easy manual cleaning.





#### Applications

- For surface water with high concentration of algae and other organic materials
- Industrial process water, incoming plant water, waste water clean-up, industrial water for plant reuse
- Removal of algae, slime or other organic contaminant as well

as sand, rock, grit and other inorganic contaminants with fine filtration down to 200 mesh or 75 microns

- 100 psi standard operating pressure (high pressure systems available)
- Flow ranges from 250 gpm

- Heavy duty, durable backwashable welded stainless steel wedgewire screen filter
- Rugged, field-changeable, washable and replaceable welded stainless steel wedgewire filter mesh available in 40, 80, 100, 150, 200 mesh
- Wedgewire screen cartridge produces long run times between backwash cycles
- Backwash automatically initiated by elapsed time or pressure differential
- No moving parts to wear out

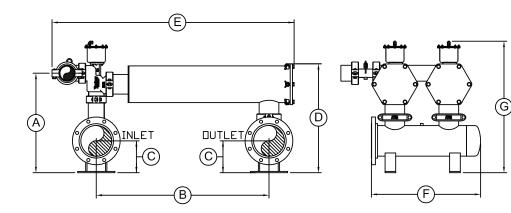
- Yardney easy-entry lid closure
- Available in welded carbon steel
- 3M Scotchkote<sup>®</sup> 134 fusion bonded epoxy lining on interior surfaces
- Exterior of housing is coated with UV stabilized polyester powder coat for longer product life and greater protection from the environment
- Made in USA

		SPE	CIFICATI	ONS   MAXI-FL	USH   Ho	orizontal					
Model	Number of Housings			Filtration Surface Area (total sq ft)	Backwash Flow Rate (per housing)		Flow Rate (per Maximum			Inlet/ Outlet	Flush Port
		gpm			gpm						
MFS 6-2	2	250	57	4.6	60	14	100 psi	4"	2"		
MFS 8-2	2	500	114	6.7	80	18	100 psi	6"	2"		
MFS 8-3	3	750	170	10.1	80	18	100 psi	6"	2"		
MFS 10-2	2	1000	227	16.0	190	43	100 psi	8"	4"		
MFS 10-3	3	1500	341	24.0	190	43	100 psi	8"	4"		
MFS 10-4	4	2000	455	32.0	190	43	100 psi	10"	4"		
MFS 10-5	5	2500	568	40.0	190	43	100 psi	10"	4"		
MFS 10-6	6	3000	682	48.0	190	43	100 psi	12"	4"		
MFS 10-7	7	3500	795	56.0	190	43	100 psi	12"	4"		
MFS 10-8	8	4000	909	64.0	190	43	100 psi	14"	4"		
MFS 10-9	9	4500	1023	72.0	190	43	100 psi	14"	4"		
MFS 10-10	10	5000	1136	80.0	190	43	100 psi	14"	4"		

			DIMENSION	S   Horizonta	I		
Model				D			
MFS 6-2	18 9/16"	26 7/8"	6"	19 3/4"	42 5/8"	27 1/4"	29 7/16"
MFS 8-2	22 5/8"	24 1/8"	8"	25"	40 1/16"	27 1/4"	33 5/8"
MFS 8-3	22 5/8"	24 1/8"	8"	25"	40 1/16"	40 3/8"	33 5/8"
MFS 10-2	28 1/8"	48 13/16"	9"	30 3/4"	68 3/4"	30 7/8"	37 3/16"
MFS 10-3	28 1/8"	48 13/16"	9"	30 3/4"	68 3/4"	46 1/8"	37 3/16"
MFS 10-4	30 3/16"	48 13/16"	10"	32 13/16"	68 3/4"	62 3/8"	39 1/4"
MFS 10-5	30 3/16"	48 13/16"	10"	32 13/16"	68 3/4"	77 5/8"	39 1/4"
MFS 10-6	30 1/8"	48 13/16"	11"	32 3/4"	70 3/16"	111 11/16"	39 1/4"
MFS 10-7	30 1/8"	48 13/16"	11"	32 3/4"	70 3/16"	130 7/16"	39 1/4"
MFS 10-8	33 3/16"	48 13/16"	13"	35 13/16"	72 13/16"	149 1/2"	42 1/4"
MFS 10-9	33 3/16"	48 13/16"	13"	35 13/16"	72 13/16"	164 3/4"	42 1/4"
MFS 10-10	33 3/16"	48 13/16"	13"	35 13/16"	72 13/16"	180"	42 1/4"

\*Vertical configurations also available for limited space

applications. Please see our website for additional information.



# Automatic Backwash Operation

The patented Yardney 3-way backwash valve controls the highly effective reverse flow backwashing of the Maxi-Flush system. During the brief backwashing cycle a portion of the clean water produced by the system is diverted to the filter housing undergoing backwashing. This flow of clean water frees contaminants from the cartridge while discharging these contaminants from the system and restoring the filter back to a clean filter condition. Each filter housing is sequentially backwashed until the entire system is clean.

# Maxi-Flush Screen Filters

Specifications

# Standard assembly includes:

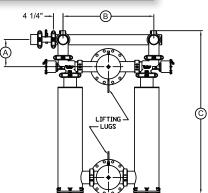
- Yardney easy-entry lid closure
- Filter element
- Valves
- Inlet and outlet manifolds
- Multiple housings include inlet and outlet manifolds and grooved couplings to connect all components

#### Available options:

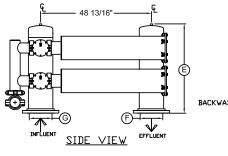
- ASME code
- High pressure
- Solar package
- Custom filter station layout piping
- Available in purple for reclaim water applications

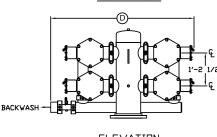
	SPECIFICATIONS   MAXI-FLUSH   Vertical												
Model	Number Maximum Flo of Housings		um Flow	Filtration Surface Area	Backwash Flow Rate (per housing)		Maximum Pressure	Inlet/ Outlet	Flush Port				
	Housings	gpm			total sq ft) gpm m³/hr								
MFSV 10-4	4	2000	455	32.0	190	43	100 psi	10"	4"				
MFSV 10-5	5	2500	568	40.0	190	43	100 psi	10"	4"				
MFSV 10-6	6	3000	682	48.0	190	43	100 psi	12"	4"				
MFSV 10-7	7	3500	795	56.0	190	43	100 psi	12"	4"				
MFSV 10-8	8	4000	909	64.0	190	43	100 psi	14"	4"				
MFSV 10-9	9	4500	1023	72.0	190	43	100 psi	14"	4"				
MFSV 10-10	10	5000	1136	80.0	190	43	100 psi	14"	4"				

DIMENSIONS   Vertical										
Model				D						
MFSV 10-4	11 7/8"	40"	71 13/16"	63 1/8"	39"					
MFSV 10-5	11 7/8"	40"	71 13/16"	63 1/8"	53 1/2"					
MFSV 10-6	12 9/16"	42"	72 9/16"	64 3/4"	54 5/8"					
MFSV 10-7	12 9/16"	42"	72 9/16"	64 3/4"	69 1/8"					
MFSV 10-8	13 3/4"	43"	73 11/16"	65 3/4"	69 3/8"					
MFSV 10-9	13 3/4"	43"	73 11/16"	65 3/4"	83 7/8"					
MFSV 10-10	13 3/4"	43"	73 11/16"	65 3/4"	83 7/8"					



PLAN VIEW





ELEVATION





Phone: 951.656.6716 Toll-Free: 800.854.4788 Fax: 951.656.3867 info@yardneyfilters.com



# Thru-Flush<sup>™</sup> Filters Stainless Steel

Automatic

#### Yardney Thru-Flush screen

filters provide excellent filtration for water sources where inorganic particulate is the major contaminant. The Thru-Flush cleaning action quickly purges the trapped contaminant from the filter using your source water line and pressure. This technology utilizes turbulent water action to shake loose the contaminant from the screen and discharge the contaminant out of the housing.

Thru-Flush Screen Filters feature a replaceable cartridge and screen mesh that ensures consistent and reliable filtration and allows for easy manual cleaning.





## Applications

- Removal of algae, slime or other organic contaminant as well as sand, rock, grit and other inorganic contaminants to protect downstream equipment from plugging with fine filtration removal down to 200 mesh or 75 micron
- 150 psi standard operating pressure (high pressure systems available)

- Flow ranges from 200 gpm
- Can be used as a primary filter in specific applications
- Can be used as a secondary filter to a sand media filter, centrifugal separator or other primary filtration system with the added benefit of an automatically controlled system

- Manual or automatic Thru-Flush stainless steel screen filter
- Type 316 stainless steel housing and cartridge
- Standard operating pressure of 150 psi
- Rugged, field changeable, washable and replaceable polypropylene filter mesh sock available in 40, 80, 100, 150 and 200 mesh
- Flush port provides for manual or automatic removal of heavy contaminants

- Yardney easy-entry lid closure
- 3M Scotchkote<sup>®</sup> 134 fusion bonded epoxy lining on interior surfaces of manifolds
- Labor saving automation includes the automatic Thru-Flush valve and advanced solid state control unit which monitors the filter on elapsed time and pressure differential basis
- Available with flanged or grooved connections
- Made in USA

#### Thru-Flush Screen Filters Specifications

Standard assembly includes:

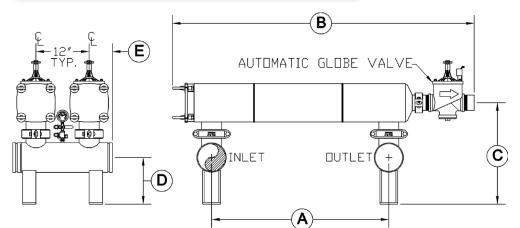
- Type 316 stainless steel housing and cartridge with field replaceable filter mesh
- Yardney easy-entry lid closure
- Manual or automatic valve with accessories
- Multiple housings include inlet and outlet manifolds and grooved couplings to connect all components together

#### Available options:

- High pressure
- Solar package
- 3M Scotchkote<sup>®</sup> 134 fusion bonded epoxy lining on interior surfaces

	SPECIFICATIONS   THRU-FLUSH FILTERS												
	Number	Maxim	um Flow	Filtration	Maximum	Inlet/	Thru-Flush						
Model	anno mol/hu		Surface Area (total sq ft)	Pressure	Outlet	Port Size							
SS6-1	1	200	45	1.44	150 psi	3"	2"						
SS6-2	2	400	91	2.88	150 psi	4"	2"						
SS8-1	1	400	91	3.82	150 psi	4"	3"						
SS8-2	2	800	182	7.64	150 psi	6"	3"						
SS8-3	3	1200	273	11.46	150 psi	8"	3"						
SS8-4	4	1600	364	15.28	150 psi	8"	3"						
SS8-5	5	2000	455	19.10	150 psi	10"	3"						

	DIMENSIONS											
Model	А		В	С	D							
Model			Automatic		U							
SS6-1	22"	44"	46"	-	—	—						
SS6-2	22"	44"	46"	16 1/4"	5"	5 1/4"						
SS8-1	40"	66 1/2"	68 1/16"	-	—	_						
SS8-2	40"	66 1/2"	68 1/16"	22 13/16"	10 1/2"	5 1/4"						
SS8-3	40"	66 1/2"	68 1/16"	23 13/16"	10 1/2"	5 1/4"						
SS8-4	40"	66 1/2"	68 1/16"	23 13/16"	10 1/2"	5 1/4"						
SS8-5	40"	66 1/2"	68 1/16"	24 7/8"	10 1/2"	5 1/4"						





Made in USA

Phone: 951.656.6716 Toll-Free: 800.854.4788 Fax: 951.656.3867 info@yardneyfilters.com





# Centrifugal Sand Separators

For Centrifugal Removal of Sand, Silt and Gravel from Water

Industrial, Commercial & Municipal

Vardnee with atton states

# Centrifugal Sand Separators

Time. Quality. Experience. Knowledge.

#### Yardney Centrifugal Sand Separators are

ideal for removal of suspended solids and inorganic materials with a specific gravity of 2 or greater. This highly effective system will provide consistent, simple removal of inorganic material down to 75 microns. Easily installed, these carbon steel units are rated to 150 psi with threaded or flanged inlet/outlet connections. Smaller models are designed for vertical installation while larger models are angled and floor or ground mounted.

#### Sizing must be within the specified flow range for proper centrifugal action.

Larger flow separators and custom designed systems are available.



# Applications

- Removal of sand, rock, grit and other inorganic contaminants with fine filtration down to 200 mesh or 75 microns
- Storm water runoff, industrial process water, incoming plant water, waste water clean-up, industrial water for plant reuse
- 150 psi standard operating pressure (high pressure systems available)

- Flow ranges from 4 gpm
- Removal of solids with a specific gravity of 2 or greater
- Serves as an excellent prefilter to allow for improved sand media or screen filter performance by removing the gross solids from the water source

- Sand removal efficiency of 98% of solids down to 200 mesh or 75 microns
- Multiple units in series provide higher efficiencies of filtration
- Units are available in ASME code or non-code construction
- Available with a manual or automatic solids purge valve system

- Special alloys and linings are available for prolonged life in required applications
- Made in USA

SPECIFICATIONS   CENTRIFUGAL SAND SEPARATOR   Vertical											
Model	Minimu	m Flow	Maximu	ım Flow	Inlet/Outlet	Purge	Particle Size				
	gpm		gpm		NPT Threaded	Port					
PCS-5V	4	1	10	2	1/2"	1"	3/8"				
PCS-7V	10	2	20	5	3/4"	1"	3/8"				
PCS-10V	18	4	38	9	1"	1"	1/2"				
PCS-12V	26	6	52	12	1 1/4"	1"	1/2"				
PCS-15V	38	9	79	18	1 1/2"	1"	1/2"				
PCS-20V	63	14	120	27	2"	2"	1/2"				
PCS-25V	100	23	180	41	2 1/2"	2"	1/2"				
PCS-30V	125	28	260	59	3"	2"	1/2"				
PCS-40V	190	43	345	78	4"	2"	1/2"				

SPECIFICATIONS   CENTRIFUGAL SAND SEPARATOR   Angled										
Model		ım Flow		um Flow	Inlet/Outlet ANSI 150# Raised	Purge	Particle Size			
	gpm		gpm		Face Flange	Port	Maximum			
PCS-40LA	200	45	400	91	4"	2"	1 1/2"			
PCS-60LA	365	83	960	218	6"	2"	1 1/2"			
PCS-80LA	800	182	1600	364	8"	2"	1 1/2"			
PCS-100LA	1300	295	2300	523	10"	2"	1 1/2"			
PCS-120LA	2025	460	3400	773	12"	2"	1 1/2"			
PCS-140LA	2975	676	5000	1136	14"	2"	2"			
PCS-160LA	4000	909	6200	1409	16"	2"	2"			
PCS-180LA	5000	1136	7800	1773	18"	2"	2"			



*Centrifugal action moves heavier particles to sides of the separator* 

Solids drop into the collection chamber and are then purged as required

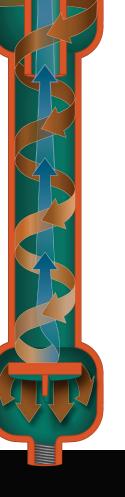
*Clean water is drawn out through the separator's vortex action* 

# Standard assembly includes:

- Welded carbon steel
  - Vertical models include female threaded inlet and outlet connections and a threaded purge port for purging of contaminants or hookup of automatic flush valve
  - Angled models include flanged inlet and outlet connections and a threaded purge port for purging of contaminants or hookup of automatic flush valve

#### Available options:

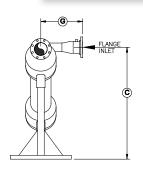
- ASME code
- High pressure
- Special metal alloys and coatings for extended product life
- Ability to disassemble unit for inspection through flanged manways
- Automatic purge valve for flushing
- Wall mount kit on smaller units



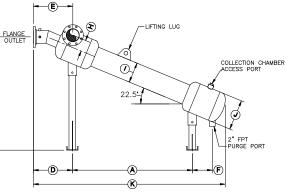
# Centrifugal Sand Separators

Specifications

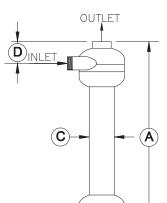
	DIMENSIONS   Angled											
Model				D							K	
PCS-40LA	48 1/2"	46 1/2"	46 1/2"	16 11/16"	16"	7 1/2"	19"	4"	6 5/8"	12"	80"	
PCS-60LA	63"	59 1/2"	60 3/8"	20 1/2"	20 3/4"	10 1/2"	22"	5 1/4"	10 3/4"	16"	106 1/4"	
PCS-80LA	71"	65"	66"	21 3/4"	22 5/8"	12"	24 1/2"	5 5/8"	12 3/4"	18"	114"	
PCS-100LA	78"	71"	72 3/4"	21"	24 1/2"	13"	29"	7"	16"	22"	123 1/2"	
PCS-120LA	102"	75 1/4"	76 1/2"	23 3/4"	26 5/8"	14 1/4"	32"	8 1/8"	18"	26"	139"	
PCS-140LA	102 1/2"	85 3/8"	86 5/8"	24 1/2"	27 3/4"	12"	33 1/2"	9"	20"	28"	152 1/2"	
PCS-160LA	108"	89 1/4"	90"	24 3/8"	29"	12"	33 1/2"	9"	24"	30"	160"	
PCS-180LA	118 1/2"	98 1/4"	100 1/4"	27"	33 5/8"	15"	34 1/2"	11"	28"	36"	177"	



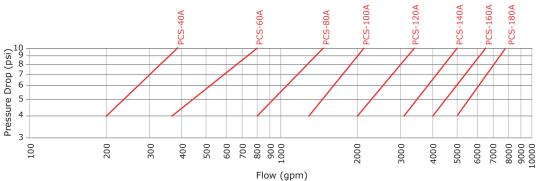
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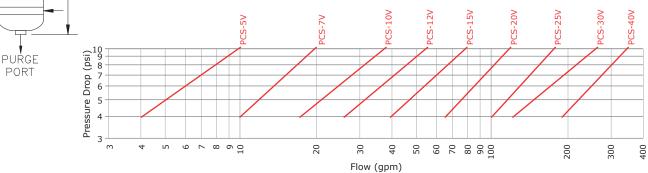


DIMENSIONS   Vertical										
Model				D						
PCS-5V	21 1/2"	6"	2 3/8"	2 1/2"						
PCS-7V	21 1/2"	6"	2 3/8"	2 1/2"						
PCS-10V	30 1/2"	6"	3 1/2"	2 3/4"						
PCS-12V	30 1/2"	6"	3 1/2"	3"						
PCS-15V	30 1/2"	6"	3 1/2"	3 1/8"						
PCS-20V	38"	8"	4 1/2"	3 5/8"						
PCS-25V	43 3/4"	10"	4 1/2"	4 1/2"						
PCS-30V	47 1/2"	10"	5 9/16"	5"						
PCS-40V	49"	12"	6 5/8"	6"						



 $(\mathbf{B})$ 





Made in USA

Phone: 951.656.6716 Toll-Free: 800.854.4788 Fax: 951.656.3867 info@yardneyfilters.com





CATER FLURATION STATE IN

# **Filtaworx**®

Automatic Self-Cleaning Screen Filter

Industrial, Commercial & Municipal

# Filtaworx<sup>®</sup> Automatic Self-Cleaning Screen Filter

Time. Quality. Experience. Knowledge.

### Yardney Filtaworx automatic selfcleaning screen

**filters** provide excellent protection for industrial and commercial applications. Filtaworx screen filters are one of the most technically innovative self-cleaning filters available combining proven high performance, reliability and economy in a compact robust design.



Heavy duty stainless steel filter body provides corrosion resistance in most environments.

## Applications

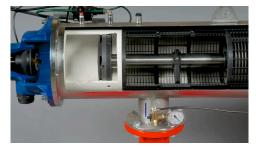
- Removal of algae, slime or other organic contaminant as well as sand, grit and other inorganic contaminants with fine filtration down to 250 mesh or 50 microns
- Flow ranges from 110 gpm

- Heavy duty stainless steel filter body
- Durable low maintenance self-cleaning mechanism
- Wide range of screen mesh sizes available in 20, 40, 80, 100, 120, 150, 200 and 250 mesh
- Hydraulically or electrically controlled internal cleaning mechanism
- Automatic self-cleaning piston action moves in both directions
- Sacrificial anode

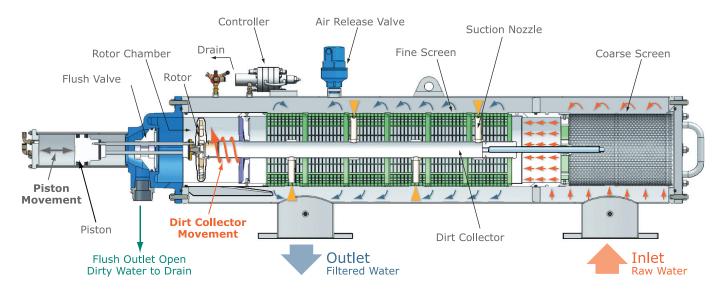


Twist-lock sectional screens provide easy cartridge replacement.

- 150 psi standard operating pressure (high pressure systems available)
- Cooling towers, industrial process water, incoming plant water, waste water clean-up, industrial water for plant reuse
- Automatic operation of the self-cleaning backflush cycle is achieved when a pre-set pressure drop (5–7 psi) across the filter is reached
- Sectional screens allow easy replacement of a section of screen versus entire cartridge if damage occurs to the screen
- Compact and simple installation can be mounted in any position or orientation, with minimal space requirements

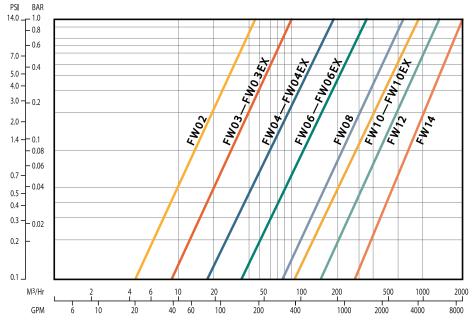


Minimal moving parts means high reliability in the field.



# Filtration System Operation

- During normal filtering mode the raw water enters the inlet of the filter and passes through the coarse screen (the 1/4" perforations remove large debris that may obstruct the lower mechanism).
- Water then travels to the inner section of the filter and through the fine screen to the outlet. The solids in the water are trapped on the fine screen, eventually causing a pressure drop (dp) across the filter.
- At a pressure drop of 5–7 psi the controller activates the cleaning cycle by opening the flush valve to drain (atmosphere).
- The interconnection of the suction nozzles, via the dirt collector to the drain, causes a back flushing or "vacuum clean" effect on the fine screen with a high velocity suction jet of water from the clean side of the screen, removing the dirt on the screen as it passes through.
- The water escaping via the rotor causes the dirt collector and suction nozzle assembly to rotate. The piston moves this assembly down and back along the entire length of the fine screen in a spiraling motion, cleaning the screen in approximately 15 seconds.
- At completion of flushing, the valve closes and the filter is ready for the next cycle.



Maximum working pressure	150 psi
Minimum line pressure required during flush cycle	30 psi
Approximate flush time	15-17 sec
Flush volume	40 gal
Maximum working temperature	150 °F

#### **Pressure Losses For Various Flow Capacities**

# Filtaworx<sup>®</sup> Automatic Self-Cleaning Screen Filter

Specifications

	SPECIFICATIONS   HORIZONTAL															
Madal	Nominal I	Flow Rate	Filtration Surface		Inlet/	Flush	А	В				н				Z
Model		Area (inches)		Outlet	Port		D									
FW04EX	440	100	870	150 psi	4"	2"	9 1/4"	35 7/16"	18 3/8"	10 3/4"	9"	20 5/8"	76 7/8"	28 3/4"	14 1/4"	143 3/4"
FW06	790	180	870	150 psi	6"	2"	10 5/8"	35 7/16"	19"	12 3/4"	11"	23"	79 3/8"	30 3/4"	14 1/4"	146 1/2"
FW06EX	790	180	1258	150 psi	6"	2"	10 5/8"	35 7/16"	33 1/4"	12 3/4"	11"	23"	93 3/4"	30 3/4"	14 1/4"	174 1/2"
FW08	1400	318	1258	150 psi	8"	2"	10 5/8"	35 7/16"	38"	12 3/4"	15 1/4"	23"	102 7/8"	30 3/4"	15"	183 1/2"
FW10	1760	400	1258	150 psi	10"	2"	12 1/4"	35 7/16"	38"	14"	15 1/4"	23 1/2"	102 7/8"	31 1/2"	15 3/4"	183 1/2"
FW10EX*	1760	400	1614	150 psi	10"	2"	12 1/4"	43 5/16"	38"	16"	26 7/8"	26 1/4"	122 1/4"	34 1/4"	16 1/2"	209"
FW12*	2640	600	1614	150 psi	12"	2"	12 1/4"	43 5/16"	38"	16"	26 7/8"	26 1/4"	122 1/4"	34 1/4"	16 1/2"	209"
FW14*	3960	900	1886	150 psi	14"	2"	12 1/4"	50"	38"	16"	20 1/8"	26 1/4"	122 1/4"	34 1/4"	17 3/4"	209"

\*Products with an asterisk do not include sacrificial anodes

# Standard assembly includes:

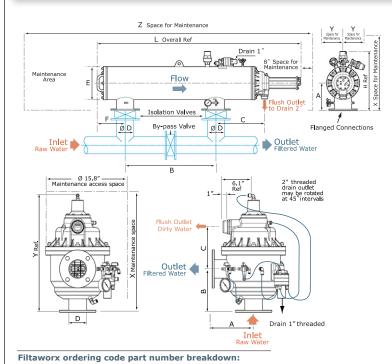
- 304 stainless steel body with flanged inlet and outlet
- Glass reinforced nylon support structure with 316 stainless steel mesh fine screen
- Hydraulic controller
- Sacrificial Anode (FW04EX-FW10 only)
- Models FW10EX, FW12 and FW14 include fourlayer sintered 316 stainless steel screens

## Available options:

- Four-layer sintered 316 stainless steel screens
- 316 stainless steel housing available on request
- Alternative materials of housing, seals, screen cartridge, etc., dependent on application
- High pressure
- Electric controller
- Sustaining valve (highly recommended)

Phone: 951.656.6716 Toll-Free: 800.854.4788 Fax: 951.656.3867 info@yardneyfilters.com

SPECIFICATIONS   VERTICAL											
Model	Nominal I gpm	Flow Rate m <sup>3</sup> /hr	Filtration Surface Area (inches)	Maximum Pressure	Inlet/ Outlet	Flush Port					
FW02*	110	25	189	150 psi	2"	2"	7 1/4"	7 3/4"	8"	28 3/8"	22"
FW02-F*	110	25	189	150 psi	2" Flg	2"	8 1/4"	8 1/4"	8"	28 3/8"	22 5/8"
FW03*	220	50	189	150 psi	3"	2"	7 5/8"	8 3/8"	8"	28 3/8"	22 5/8"
FW03-F*	220	50	189	150 psi	3" Flg	2"	8 1/4"	8 1/4"	8"	28 3/8"	22 5/8"
FW03EX*	220	50	307	150 psi	3"	2"	8 1/4"	12 3/8"	8 1/2"	35 1/2"	27 1/8"
FW04*	350	80	307	150 psi	4"	2"	9 1/4"	12 3/8"	8 1/2"	35 1/2"	27 1/8"
*Product	s with an	asterisk do	o not include s	acrificial a	nodes						









## Yardney Mini-Media

filters are designed as a sand media solution for lower flow applications. These rugged, simple filters are built with the same high performance, high efficiency standards as our other product lines. Constructed of high strength carbon steel, the Mini-Media is fusion epoxy lined on wetted surfaces. Underdrains are made of Type 304 stainless steel for extra-long life.

## Applications

- Removal of algae, slime or other organic contaminant as well as sand, rock, grit and other inorganic contaminants to protect downstream equipment from plugging with fine filtration removal down to 200 mesh or 75 micron
- 125 psi standard operating pressure
- Flow ranges from 15-45 gpm

## Advantages

- Lower flow applications down to 15 gpm
- Standard operating pressure of 125 psi
- Yardney easy-entry lid closure
- Available in welded carbon steel
- 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

## Mini-Media<sup>™</sup> Filters

Low Flow Automatic Backwash System



- 3M Scotchkote<sup>®</sup> 134 fusion bonded epoxy lining on interior surfaces
- Exterior of housing is coated with UV stabilized polyester powder coat for longer product life and protection from the environment
- Made in USA

## **Mini-Media Filters**

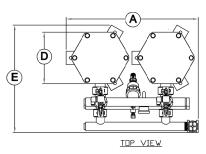
Specifications

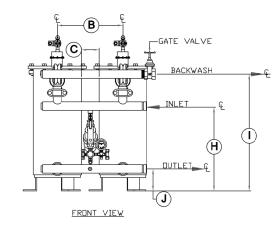
					SPEC:	IFICATIONS	MINI-N	MEDIA F	ILTERS				
	Number		Filtration Surface	Surface Flow		Media Requirements (cubic feet)		Maximum	Inlet/ Outlet	Backwash			
Model	of Tanks		m Flow		m Flow	Area	(per	tank)			Pressure	Pipe	Line Pipe Size
		gpm	m³/hr	gpm	m³/hr	(total sq ft)	gpm	m³/hr	Gravel 1/2-3/4"	Media		Size	
SP 1016-2	2	15	3	30	7	1.1	8 2		1	2	125 psi	1 1/2"	1 1/2"
SP 1016-3	3	23	5	45	10	1.6	8	2	1	3	125 psi	1 1/2"	1 1/2"

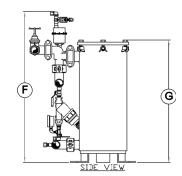
					DIMENSIO	NS				
Model				D						
SP 1016-2	29 11/16"	14 3/4"	4"	11 1/2"	24 1/8"	34 7/8"	28 1/2"	18 13/16"	26 3/16"	4 15/16"
SP 1016-3	44 7/16"	14 3/4"	4"	11 1/2"	24 1/8"	34 7/8"	28 1/2"	18 13/16"	26 3/16"	4 15/16"

## Standard product includes:

- Yardney easy-entry lid closure
- Inlet/outlet manifolds
- Grooved couplings to connect hardware
- Coated steel inlet and outlet manifold
- Steel backwash manifold
- Semi-automatic valves
- 1.5" brass gate valve









Made in USA





## Sand Media Filters

Removal of Solids Down to 20 Microns

## **Yardney Sand Media**

filters are designed for the most challenging dirty water conditions with a high performance solution for water filtration down to 20 microns. These durable carbon steel filters utilize a 24" vertical side shell depth for removal of organic and inorganic suspended solids for filtering large volumes of water with very little pressure drop and a long-term value. All Yardney industrial media filters utilize our simple backwash system for ease of operation and consistent water quality. The Yardney automatically controlled filter systems operate for extended periods of time prior to a short backwash cycle.



## Applications

- Removal of organic and/or inorganic suspended solids down to 20 microns
- Storm water runoff, industrial process water, incoming plant water, waste water clean-up, industrial water for plant reuse
- Pre-filtration in applications such as granular activated carbon, reverse osmosis, cartridge or bag filtration and deionized water
- 100 psi standard operating pressure (high pressure systems available)
- Flow ranges from 11 gpm

- State of the art fabrication provides added strength under pressure and long system life
- ASME code shaped head construction for durability and 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

- Standard carbon steel products, 3/16" thick material
- Backwash automatically initiated by elapsed time or pressure differential
- Yardney easy-entry lid closure with weld tabs for operator safety
- Available in welded carbon steel or stainless steel
- 3M Scotchkote<sup>®</sup> 134 fusion bonded epoxy lining on interior surfaces
- Made in USA

## Sand Media Filters

Specifications

				SPECI		IS   INDUSTRIA	L   SAN	D MEDIA	FILTERS				
Model	Number of		tandard mum		ge imum	Filtration Surface Area	Flow	(wash / Rate tank)	Media Requirem (cubic fo	nents	Maximum	Inlet/ Outlet	Backwash Line Pipe
		gpm	m³/hr	gpm		(total sq ft)	gpm	m³/hr	Gravel 1/2" - 3/4"	Media	Pressure	Pipe Size	
IL-1424-1A	1	11	3	16	4	1.07	16	4	1	2	100 psi	2"	2"
IL-1824-1A	1	18	4	26	6	1.75	26	6	1	3	100 psi	2"	2"
IL-1424-2A	2	21	5	32	7	2.14	16	4	1	3	100 psi	2"	2"
IL-2424-1A	1	32	7	47	11	3.15	47	11	2	5	100 psi	2"	2"
IL-1424-3A	3	32	7	48	11	3.21	16	4	1	5	100 psi	3"	2"
IL-1824-2A	2	35	8	53	12	3.50	26	6	2	5	100 psi	3"	2"
IL-3024-1A	1	49	11	74	17	4.91	74	17	3	7	100 psi	3"	3"
IL-1824-3A	3	53	12	79	18	5.25	26	6	3	8	100 psi	3"	2"
IL-2424-2A	2	63	14	95	22	6.30	47	11	3	9	100 psi	3"	2"
IL-3624-1A	1	71	16	107	24	7.10	107	24	4	10	100 psi	3"	3"
IL-2424-3A	3	95	22	142	32	9.45	47	11	5	14	100 psi	3"	2"
IL-3024-2A	2	98	22	147	33	9.82	74	17	5	14	100 psi	4"	2"
IL-4824-1A	1	126	29	189	43	12.60	189	43	7	21	100 psi	4"	4"
IL-3624-2A	2	142	32	213	48	14.20	107	24	8	20	100 psi	4"	4"
IL-3024-3A	3	147	33	221	50	14.73	74	17	8	21	100 psi	4"	2"
IL-5424-1A	1	159	36	238	54	15.90	239	54	10	23	100 psi	4"	4"
IL-3624-3A	3	213	48	320	73	21.30	107	24	12	30	100 psi	4"	4"
IL-4824-2A	2	252	57	378	86	25.20	189	43	14	42	100 psi	6"	4"
IL-5424-2A	2	318	72	476	108	31.80	239	54	19	46	100 psi	6"	4"
IL-4824-3A	3	378	86	567	129	37.80	189	43	21	63	100 psi	6"	4"
IL-5424-3A	3	477	108	714	162	47.70	239	54	29	69	100 psi	6"	4"
IL-4824-4A	4	504	115	756	172	50.40	189	43	28	84	100 psi	8"	4"
IL-4824-5A	5	630	143	945	215	63.00	189	43	35	105	100 psi	10"	4"
IL-4824-6A	6	756	172	1134	258	75.60	189	43	42	126	100 psi	10"	4"
IL-5424-4A	4	636	145	952	216	63.60	239	54	38	92	100 psi	8"	4"
IL-5424-5A	5	795	181	1190	270	79.50	239	54	48	115	100 psi	10"	4"
IL-5424-6A	6	954	217	1428	325	95.40	239	54	57	138	100 psi	10"	4"

#### Other models and sizes are available.

#### Standard product includes:

- Completely assembled for easy installation
- Skid mounted tanks
- Yardney easy-entry lid closure with side manway
- Valves
- Inlet/outlet and backwash manifolds
- Controller, solenoids, electrical wire, tubing
- Removable underdrain
- 3M Scotchkote<sup>®</sup> 134 fusion bonded epoxy lining on interior surfaces

#### Available options:

- ASME code
- High pressure
- Solar package
- PLC controller
- Custom filter station layout piping
- Air scour







## Deep Bed Sand Media Filters

Removal of Solids Down to 15 Microns

## Yardney Deep Bed Sand

Media filters are designed for the most challenging dirty water conditions with a high performance solution for water filtration down to 15 microns. These durable carbon steel filters utilize a 36" vertical side shell depth for removal of organic and inorganic suspended solids for filtering large volumes of water with very little pressure drop and a long-term value. All Yardney industrial media filters utilize our simple backwash system for ease of operation and consistent water quality. The Yardney automatically controlled filter systems operate for extended periods of time prior to a short backwash cycle.



## Applications

- Removal of organic and/or inorganic suspended solids down to 15 microns
- 100 psi standard operating pressure (high pressure systems available)
- water, waste water clean-up,industrial water for plant reuseFlow ranges from 11 gpm

## Advantages

- State of the art fabrication provides added strength under pressure and long system life
- ASME code shaped head construction for durability and 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

 Standard carbon steel products, 3/16" thick material

Storm water runoff, industrial

process water, incoming plant

- Backwash automatically initiated by elapsed time or pressure differential
- Yardney easy-entry lid closure with weld tabs for operator safety
- Available in welded carbon steel or stainless steel
- 3M Scotchkote<sup>®</sup> 134 fusion bonded epoxy lining on interior surfaces
- Made in USA

## **Deep Bed Sand Media Filters**

Specifications

			SP	ECIFICA	FIONS   I	NDUSTRIAL   DE	EEP BED	SAND M	1EDIA FILTER	S			
Model	Number of Tanks in		Standard mum		ge mum	- Filtration Surface Area	Flow	<wash v Rate tank)</wash 	Media Requirem (cubic fe	ients	Maximum Pressure	Inlet/ Outlet Pipe	Backwash Line Pipe
	System	gpm		gpm		(total sq ft)	gpm		Gravel 1/2" - 3/4"		FIESSULE	Size	
IL-1436-1A	1	11	3	16	4	1.07	16	4	1	3	100 psi	2"	2"
IL-1836-1A	1	18	4	26	6	1.75	26	6	1	5	100 psi	2"	2"
IL-1436-2A	2	21	5	32	7	2.14	16	4	1	5	100 psi	2"	2"
IL-2436-1A	1	32	7	47	11	3.15	47	11	2	8	100 psi	2"	2"
IL-1436-3A	3	32	7	48	11	3.21	16	4	1	8	100 psi	2"	2"
IL-1836-2A	2	35	8	53	12	3.50	26	6	2	9	100 psi	3"	2"
IL-3036-1A	1	49	11	74	17	4.91	74	17	3	12	100 psi	3"	3"
IL-1836-3A	3	53	12	79	18	5.25	26	6	3	14	100 psi	3"	2"
IL-2436-2A	2	63	14	95	22	6.30	47	11	3	15	100 psi	3"	2"
IL-3636-1A	1	71	16	107	24	7.10	107	24	4	17	100 psi	3"	3"
IL-2436-3A	3	95	22	142	32	9.45	47	11	5	23	100 psi	3"	2"
IL-3036-2A	2	98	22	147	33	9.82	74	17	5	24	100 psi	4"	2"
IL-4836-1A	1	126	29	189	43	12.60	189	43	7	34	100 psi	4"	4"
IL-3636-2A	2	142	32	213	48	14.20	107	24	8	34	100 psi	4"	4"
IL-3036-3A	3	147	33	221	50	14.73	74	17	8	36	100 psi	4"	2"
IL-5436-1A	1	159	36	238	54	15.90	239	54	10	38	100 psi	4"	4"
IL-3636-3A	3	213	48	320	73	21.30	107	24	12	51	100 psi	4"	4"
IL-4836-2A	2	252	57	378	86	25.20	189	43	14	67	100 psi	6"	4"
IL-5436-2A	2	318	72	476	108	31.80	239	54	19	77	100 psi	6"	4"
IL-4836-3A	3	378	86	567	129	37.80	189	43	21	101	100 psi	6"	4"
IL-5436-3A	3	477	108	714	162	47.70	239	54	29	115	100 psi	6"	4"
IL-4836-4A	4	504	115	756	172	50.40	189	43	28	134	100 psi	8"	4"
IL-4836-5A	5	630	143	945	215	63.00	189	43	35	168	100 psi	10"	4"
IL-5436-4A	4	636	145	952	216	63.60	239	54	38	154	100 psi	8"	4"
IL-4836-6A	6	756	172	1134	258	75.60	189	43	42	201	100 psi	10"	4"
IL-5436-5A	5	795	181	1190	270	79.50	239	54	48	192	100 psi	10"	4"
IL-5436-6A	6	954	217	1428	325	95.40	239	54	57	231	100 psi	10"	4"

#### Other models and sizes are available.

#### Standard product includes:

- Completely assembled for easy installation
- Skid mounted tanks
- Yardney easy-entry lid closure with side manway
- Valves
- Inlet/outlet and backwash manifolds
- Controller, solenoids, electrical wire, tubing
- Removable underdrain
- 3M Scotchkote<sup>®</sup> 134 fusion bonded epoxy lining on interior surfaces

#### Available options:

- ASME code
- High pressure
- Solar package
- PLC controller
- Custom filter station layout piping
- Air scour







## Multi-Media Filters

Removal of Solids Down to 5 Microns

## Yardney Multi-Media

filters are designed for enhanced water quality filtration for the removal of organic and inorganic suspended solids down to 5 microns. Multi-Media filters may be used as a stand-alone system or in conjunction with or as a pretreatment for other filtration technologies. The Multi-Media Filtration Systems utilize a vertical side shell depth of 60" with accompanied reverse stacked medias for progressive filtration through the filtration system. All Yardney industrial media filters utilize our simple backwash system for ease of operation and consistent water quality.

## Applications

- Removal of organic and/or inorganic suspended solids down to 5 microns with enhanced solids capacity vs. single media sand filtration
- Storm water runoff, industrial process water, incoming plant water, waste water clean-up, industrial water for plant reuse
- Pre-filtration in applications such as granular activated carbon, reverse osmosis, cartridge or bag filtration and deionized water
- 100 psi standard operating pressure (high pressure systems available)
- Flow ranges from 5 gpm

- State of the art fabrication provides added strength under pressure and long system life
- ASME code shaped head construction for durability and 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
- Standard carbon steel products, 3/16" thick material



- Backwash automatically initiated by elapsed time or pressure differential
- Yardney easy-entry lid closure with weld tabs for operator safety
- Available in welded carbon steel or stainless steel
- 3M Scotchkote<sup>®</sup> 134 fusion bonded epoxy lining on interior surfaces
- Made in USA

## **Multi-Media Filters**

Specifications

					SPE	ECIFICATIO	NS   IN	IDUSTRI	IAL   MULTI-I	MEDIA FILT	ERS				
Model	Number of		andard imum		inge mum	Filtration Surface Area	Flov	kwash v Rate tank)		Media Req (cubic feet			Maximum	Inlet/ Outlet	Backwash Line Pipe
	Tanks in System	gpm	m³/hr	gpm		(total sq ft)	gpm	m³/hr	Gravel 1/2" - 3/4"	Garnet 1.45 mm	Garnet 0.35 mm	Anthracite 0.75 mm	Pressure	Pipe Size	
MM-1460-1A	1	5	1	16	4	1.07	16	4	1	1	2	2	100 psi	2"	2"
MM-1860-1A	1	9	2	26	6	1.77	27	6	1	1	2.5	2.5	100 psi	2"	2"
MM-1460-2A	2	11	3	32	7	2.14	16	4	1	1	2	2	100 psi	2"	2"
MM-2460-1A	1	16	4	47	11	3.15	47	11	2	2	5	5	100 psi	2"	2"
MM-1460-3A	3	16	4	48	11	3.21	16	4	1	1	2	2	100 psi	2"	2"
MM-1860-2A	2	18	4	53	12	3.54	27	6	1	1	2.5	2.5	100 psi	2"	2"
MM-3060-1A	1	25	6	74	17	4.91	74	17	3	3	8	8	100 psi	3"	3"
MM-1860-3A	3	27	6	79	18	5.31	27	6	1	1	2.5	2.5	100 psi	3"	2"
MM-2460-2A	2	32	7	95	22	6.30	47	11	2	2	5	5	100 psi	3"	2"
MM-3660-1A	1	35	8	107	24	7.10	107	24	4	4	11	11	100 psi	3"	3"
MM-2460-3A	3	48	11	142	32	9.45	47	11	2	2	5	5	100 psi	3"	2"
MM-3060-2A	2	50	11	147	33	9.82	74	17	3	3	8	8	100 psi	4"	2"
MM-4860-1A	1	63	14	189	43	12.60	189	43	7	7	19	19	100 psi	4"	4"
MM-3660-2A	2	70	16	213	48	14.20	107	24	4	4	11	11	100 psi	4"	4"
MM-3060-3A	3	75	17	221	50	14.73	74	17	3	3	8	8	100 psi	4"	2"
MM-5460-1A	1	80	18	239	54	15.91	239	54	10	8	24	24	100 psi	4"	4"
MM-3660-3A	3	105	24	320	73	21.30	107	24	4	4	11	11	100 psi	4"	4"
MM-4860-2A	2	126	29	378	86	25.20	189	43	7	7	19	19	100 psi	6"	4"
MM-5460-2A	2	160	36	477	108	31.82	239	54	10	8	24	24	100 psi	6"	4"
MM-4860-3A	3	189	43	567	129	37.80	189	43	7	7	19	19	100 psi	6"	4"
MM-5460-3A	3	240	55	716	163	47.73	239	54	10	8	24	24	100 psi	6"	4"
MM-4860-4A	4	252	57	756	172	50.40	189	43	7	7	19	19	100 psi	8"	4"
MM-4860-5A	5	315	72	945	215	63.00	189	43	7	7	19	19	100 psi	10"	4"
MM-5460-4A	4	320	73	955	217	63.64	239	54	10	8	24	24	100 psi	8"	4"
MM-4860-6A	6	378	86	1134	258	75.60	189	43	7	7	19	19	100 psi	10"	4"
MM-5460-5A	5	400	91	1193	271	79.55	239	54	10	8	24	24	100 psi	10"	4"
MM-5460-6A	6	480	109	1432	325	95.46	239	54	10	8	24	24	100 psi	10"	4"

#### Other models and sizes are available.

## Standard product includes:

- Completely assembled for easy installation
- Skid mounted tanks
- Yardney easy-entry lid closure with side manway
- Valves
- Inlet/outlet and backwash manifolds
- Controller, solenoids, electrical wire, tubing
- Removable underdrain
- 3M Scotchkote<sup>®</sup> 134 fusion bonded epoxy lining on interior surfaces

## Available options:

- ASME code
- High pressure
- Solar package
- PLC controller
- Custom filter station layout piping
- Air scour
- Continuous flow
- Rinse to waste







## Granular Activated Carbon Filters

Removal of Dissolved Compounds by Adsorption

## Yardney Granular Activated Carbon (GAC)

filtration systems utilize the adsorptive qualities of the media to remove highly dispersed compounds from water sources which are too small for removal with standard multi-media filtration technology. These automatic filtration systems are extremely effective in removing chlorine and chlorine related compounds, organic chemicals, tastes and odors, halogenated organic compounds, hydrocarbons and other highly dispersed contaminants. Yardney GAC filtration systems utilize a vertical side shell depth of 72 inches. All Yardney industrial media filters utilize our simple backwash system for ease of operation and consistent water quality. The Yardney automatically controlled filter systems operate for extended periods of time prior to a short backwash cycle.



## Applications

- Removal of chlorines, organic chemicals, taste and odor, halogenated organic compounds, hydrocarbons or other highly dispersed contaminants
- Polishing filter for contaminants not removed by other filtration systems

- State of the art fabrication provides added strength under pressure and long system life
- ASME code shaped head construction for durability and 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

- 100 psi standard operating pressure (high pressure systems available)
- Flow ranges from 5 gpm

- Standard carbon steel products, 3/16" thick material
- Backwash automatically initiated by elapsed time or pressure differential
- Yardney easy-entry lid closure with weld tabs for operator safety
- Available in welded carbon steel or stainless steel
- 3M Scotchkote<sup>®</sup> 134 fusion bonded epoxy lining on interior surfaces
- Made in USA

## **Granular Activated Carbon Filters**

Specifications

			SPEC	CIFICAT	TIONS   IND	USTRIAL	GRAN	JLAR A	CTIVATED C	ARBON FILT	ERS		
Model	Number of Tanks in	(taste	tandard e, odor, imum	chlorin	Ranges ie removal) aximum	Filtration Surface Area		wash Rate tank)	Media Req (cubic		Maximum Pressure	Inlet/Outlet Pipe Size	Backwash Line Pipe
	System	gpm	m³/hr	gpm		(total sq ft)	gpm	m³/hr	Gravel 1/2" - 3/4"	Activated Carbon	Flessule	Fipe Size	
GAC-1472-1A	1	5	1	11	3	1.07	11	2	1	4	100 psi	2"	2"
GAC-1872-1A	1	9	2	18	4	1.77	18	4	1	7	100 psi	2"	2"
GAC-1472-2A	2	11	3	21	5	2.14	11	2	1	9	100 psi	2"	2"
GAC-2472-1A	1	16	4	32	7	3.15	32	7	2	13	100 psi	2"	2"
GAC-1472-3A	3	16	4	32	7	3.21	11	2	1	13	100 psi	2"	2"
GAC-1872-2A	2	18	4	35	8	3.54	18	4	2	14	100 psi	2"	2"
GAC-3072-1A	1	25	6	50	11	4.91	49	11	3	20	100 psi	3"	3"
GAC-1872-3A	3	27	6	53	12	5.31	18	4	3	21	100 psi	3"	2"
GAC-2472-2A	2	32	7	64	15	6.30	32	7	3	25	100 psi	3"	2"
GAC-3672-1A	1	35	8	70	16	7.10	71	16	4	28	100 psi	3"	3"
GAC-2472-3A	3	48	11	94	21	9.45	32	7	5	38	100 psi	3"	2"
GAC-3072-2A	2	50	11	100	23	9.82	49	11	5	39	100 psi	4"	2"
GAC-4872-1A	1	63	14	126	29	12.60	126	29	7	50	100 psi	4"	4"
GAC-3672-2A	2	70	16	140	32	14.20	71	16	8	56	100 psi	4"	4"
GAC-3072-3A	3	75	17	150	34	14.73	49	11	8	59	100 psi	4"	2"
GAC-5472-1A	1	80	18	160	36	15.91	159	36	10	64	100 psi	4"	4"
GAC-3672-3A	3	105	24	210	48	21.30	71	16	12	84	100 psi	4"	4"
GAC-4872-2A	2	126	29	252	57	25.20	126	29	14	100	100 psi	6"	4"
GAC-5472-2A	2	160	36	320	73	31.82	159	36	19	127	100 psi	6"	4"
GAC-4872-3A	3	189	43	378	86	37.80	126	29	21	150	100 psi	6"	4"
GAC-5472-3A	3	240	55	480	109	47.73	159	36	29	191	100 psi	6"	4"
GAC-4872-4A	4	252	57	504	115	50.40	126	29	28	200	100 psi	8"	4"
GAC-4872-5A	5	315	72	630	143	63.00	126	29	35	250	100 psi	10"	4"
GAC-5472-4A	4	320	73	640	145	63.64	159	36	38	254	100 psi	8"	4"
GAC-4872-6A	6	378	86	756	172	75.60	126	29	42	300	100 psi	10"	4"
GAC-5472-5A	5	400	91	800	182	79.55	159	36	48	318	100 psi	10"	4"
GAC-5472-6A	6	480	109	960	218	95.46	159	36	57	381	100 psi	10"	4"

#### Other models and sizes are available.

#### Standard product includes:

- Completely assembled for easy installation
- Skid mounted tanks
- Yardney easy-entry lid closure with side manway
- Valves
- Inlet/outlet and backwash manifolds
- Controller, solenoids, electrical wire, tubing
- Removable underdrain
- 3M Scotchkote<sup>®</sup> 134 fusion bonded epoxy lining on interior surfaces

#### Available options:

- ASME code
- High pressure
- Solar package
- PLC controller
- Custom filter station layout piping
- Air scour
- Continuous flow
- Rinse to waste







## RCW Sand Media Filters

Cooling Tower Filters

## Yardney RCW (Recirculating Water) Sand Media Filtration

**Systems** are designed specifically for the filtration and removal of suspended solids from recycled cooling tower or plant process water. Suspended solid contaminants in the cooling tower system significantly reduce heat transfer capability and increase plant operating costs. The Yardney RCW system offers a high performance solution for filtration down to 15 microns and utilizes our simple backwash system for ease of operation and consistent water quality.



## Applications

- Removal of algae, slime or other organic contaminant as well as sand, rock, grit and other inorganic contaminants
- Recycled cooling tower water and industrial process water

- State of the art fabrication provides added strength under pressure and long system life
- Standard carbon steel products, 3/16" thick material
- 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

- 100 psi standard operating pressure
   Flow ranges from 10 gpm
  - and up
- ASME code shaped head construction for durability and safety
- Backwash automatically initiated by elapsed time or pressure differential
- Yardney easy-entry lid closure with weld tabs for operator safety
- Available in welded carbon steel or stainless steel
- 3M Scotchkote<sup>®</sup> 134 fusion bonded epoxy lining on interior surfaces of carbon steel product
- Made in USA

## **RCW Sand Media Filters**

Specifications

## Standard assembly includes:

- Completely assembled for easy installation including pump, motor and motor starter
- Skid mounted tanks
- Yardney easy-entry lid closure with side manway
- Valves
- Inlet/outlet and backwash manifolds
- Grooved couplings on manifolds
- Controller, solenoids, electrical wire, tubing
- Removable underdrain
- 3M Scotchkote® 134 fusion bonded epoxy lining on interior surfaces of carbon steel product

#### Available options:

- ASME code
- High pressure (up to 225 psi)
- Solar package
- PLC controller
- Custom filter station layout piping



Made in USA

Phone: 951.656.6716 Toll-Free: 800.854.4788 Fax: 951.656.3867 info@yardneyfilters.com

			SPE	CIFICATI	ONS	RCW Sand	d Media Filt	ers			
Model	Rated Flow (gpm)	Filtration Area (sq ft)	Back- wash (gpm)	Rated Pressure	Pump HP	Inlet/ Outlet *pipe size (inches)	Length (inches)	Width (inches)	Height (inches)	Approx. Ship Weight (lbs)	Approx. Oper. Wt. (lbs)
RCW 1424-1A	22	1.1	16	100 psi	0.5	1 1/4 / 2	59 1/16	27	67 5/8	600	710
RCW 1824-1A	36	1.8	27	100 psi	1.0	1 1/4 / 2	59 3/4	25 5/16	67 9/16	790	970
RCW 2424-1A	62	3.1	47	100 psi	1.5	1 1/2 / 2	61 9/16	29 13/16	67 9/16	1140	1470
RCW 3024-1A	100	4.9	74	100 psi	3.0	2/3	71 1/8	33 3/8	67 7/16	1690	2220
RCW 2424-2A	126	6.3	47	100 psi	5.0	2/3	67 11/16	28 3/16	66 1/4	2080	2760
RCW 3624-1A	142	7.1	106	100 psi	3.0	3/3	70 11/16	39 1/2	70 5/8	2280	3070
RCW 3024-2A	200	9.8	74	100 psi	7.5	2 1/2 / 3	79 3/4	30 7/8	67 13/16	2970	4040
RCW 4824-1A	250	12.5	188	100 psi	5.0	3/4	93 5/8	51 1/2	79 15/16	4260	6000
RCW 3624-2A	282	14.1	106	100 psi	10.0	3/4	92 9/16	39 1/2	76 7/8	4370	6000
RCW 5424-1A	318	15.9	239	100 psi	7.5	3/4	98 3/8	56 11/16	82 5/16	5470	7850
RCW 4824-2A	500	25.0	188	100 psi	20.0	4/6	120	51 1/2	85 3/16	8050	11660
RCW 5424-2A	636	31.80	239	100 psi	20	4/6	129 5/8	57 9/16	90 1/16	10380	15250
RCW 4824-3A	750	37.5	188	100 psi	25.0	4/6	179 1/2	51 1/2	84 11/16	12130	17560
RCW 5424-3A	954	47.70	239	100 psi	40	6/6	196 1/16	57 9/16	90 1/16	15660	23020
RCW 4824-4A	1000	50.0	188	100 psi	30.0	6/8	222	51 1/2	84 9/16	16000	23550
RCW 5424-4A	1272	63.60	239	100 psi	50	6/8	257 3/4	61 9/16	90 1/16	20870	31080

\*Inlet pipe size denotes pump connection. Supply pipe size should be one pipe size larger. FIPT inlet/outlet.

## Other models and sizes are available.

## Filtration backwash process

Yardney cooling tower filtration systems are designed to remove inorganic and organic suspended solids while utilizing an automatically controlled backwashing system based on pressure differential or elapsed time. The backwashing function utilizes a portion of the clean filtered water produced by multiple tank systems to backwash the media bed in each tank until the entire system has been fully backwashed. Single tank systems utilize the cooling tower water for backwash water or external backwash water sourcing systems, available for both single and multiple tank systems.





## IMA-65 Specialty Media

Iron, Manganese and Arsenic Removal

#### **IMA-65 Specialty Media**

is a revolutionary silica sand based filtration media designed for the removal of iron and manganese without the use of potassium permanganate. The unique micro porous structure of IMA-65 efficiently removes dissolved iron to as low as 0.005 ppm and manganese to 0.001 ppm. After initial activation, the IMA-65 acts as an oxidation catalyst with immediate oxidation and filtration of the insoluble precipitates. The media has been used extensively in a wide variety of applications in Japan for over 30 years. IMA-65 has been tested and certified by the Water Quality Association in accordance with NSF/ANSI 61.



- Eliminates Potassium Permanganate - Operates with continuous injection of sodium hypochlorite at low residual levels (0.1 to 0.3 ppm).
- Wide pH range Stable and satisfactory performance at pH 5.8 to 8.6.
- High Flow Rates IMA-65 can operate at linear filtration velocities up to twice that of conventional media with a corresponding reduction in capital equipment costs.
- Higher Operating Temperatures -Maximum operating temperature of 113 °F (45 °C).
- Long Life IMA-65 is not consumed in the process, providing considerable advantages over other processes or media.

- Regeneration Not Required -After initial activation, only sodium hypochlorite feed is required.
- System Compatibility Physical properties are similar to that of competitive media, allowing conversion to IMA-65 without major hardware modifications.
- Arsenic Removal IMA-65 has been shown to be effective in the removal of arsenic associated with iron-containing influent. If necessary, ferric chloride can be introduced to treat waters with low influent iron levels or to enhance removal when treating waters with high levels of arsenic.

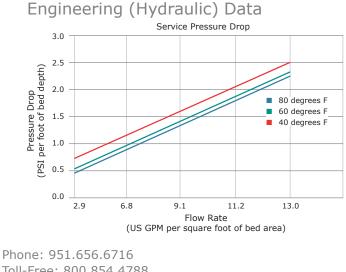
IMA-65 Specialty Media

Specifications

	SPECIFICATIONS	IMA-65 SPECIALTY MEDIA	
Physica	l Properties	Operatin	g Conditions
Color	Brown to black	pH range	5.8 - 8.6
Bulk density	92.0 lbs./cu. ft.	Maximum water temp	113 °F (45 °C)
Specific gravity	2.7	Minimum bed depth	24 inches (600 mm)
Effective size	0.48	Freeboard	40% minimum
Uniformity coefficient	<1.8	Service flow rate	2 – 12 gpm per sq. ft.
Mesh size	20 - 45	Backwash flow rate	10 – 20 gpm per sq. ft.
Annual attrition	1-5%	Backwash expansion	15 - 50%

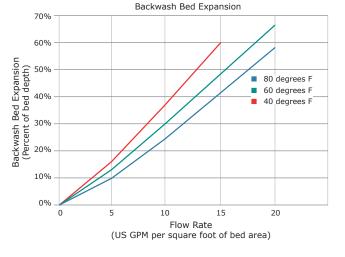
				SPEC	IFICATIO	NS   INDUS	TRIAL	IMA-65	SPECIALTY N	MEDIA				
Model	Number of Tanks		tandard f mum		ige imum	Filtration Surface Area	Flow	wash Rate tank)		a Requirem c feet per t		Maximum	Inlet/ Outlet	Backwash Line Pipe
		gpm	m³/hr	gpm	m³/hr	(total sq ft)	gpm	m³/hr	Gravel 1/2" - 3/4"	Garnet 1.45 mm	IMA-65	- Pressure	Pipe Size	
IMA-1460-1A	1	5	1	7	2	1.07	16	4	1	1	4	100 psi	2"	2"
IMA-1860-1A	1	9	2	12	3	1.77	27	6	1	1	6	100 psi	2"	2"
IMA-1460-2A	2	11	3	15	3	2.14	16	4	1	1	4	100 psi	2"	2"
IMA-2460-1A	1	16	4	22	5	3.15	47	11	2	2	10	100 psi	2"	2"
IMA-1460-3A	3	16	4	22	5	3.21	16	4	1	1	4	100 psi	2"	2"
IMA-1860-2A	2	18	4	24	5	3.54	27	6	1	1	6	100 psi	2"	2"
IMA-3060-1A	1	25	6	34	8	4.91	74	17	3	3	15	100 psi	3"	3"
IMA-1860-3A	3	27	6	37	8	5.31	27	6	1	1	6	100 psi	3"	2"
IMA-2460-2A	2	32	7	44	10	6.30	47	11	2	2	10	100 psi	3"	2"
IMA-3660-1A	1	35	8	49	11	7.10	107	24	4	4	21	100 psi	3"	3"
IMA-2460-3A	3	48	11	66	15	9.45	47	11	2	2	10	100 psi	3"	2"
IMA-3060-2A	2	50	11	68	15	9.82	74	17	3	3	15	100 psi	4"	2"
IMA-4860-1A	1	63	14	88	20	12.60	189	43	7	7	38	100 psi	4"	4"
IMA-3660-2A	2	70	16	99	23	14.20	107	24	4	4	21	100 psi	4"	4"
IMA-3060-3A	3	75	17	103	23	14.73	74	17	3	3	15	100 psi	4"	2"
IMA-5460-1A	1	80	18	111	25	15.91	239	54	10	8	48	100 psi	4"	4"
IMA-3660-3A	3	105	24	148	34	21.30	107	24	4	4	21	100 psi	4"	4"
IMA-4860-2A	2	126	29	176	40	25.20	189	43	7	7	38	100 psi	6"	4"
IMA-5460-2A	2	160	36	222	50	31.82	239	54	10	8	48	100 psi	6"	4"
IMA-4860-3A	3	189	43	263	60	37.80	189	43	7	7	38	100 psi	6"	4"
IMA-5460-3A	3	240	55	334	76	47.73	239	54	10	8	48	100 psi	6"	4"
IMA-4860-4A	4	252	57	351	80	50.40	189	43	7	7	38	100 psi	8"	4"
IMA-4860-5A	5	315	72	439	100	63.00	189	43	7	7	38	100 psi	10"	4"
IMA-5460-4A	4	320	73	445	101	63.64	239	54	10	8	48	100 psi	8"	4"
IMA-4860-6A	6	378	86	527	120	75.60	189	43	7	7	38	100 psi	10"	4"
IMA-5460-5A	5	400	91	556	126	79.55	239	54	10	8	48	100 psi	10"	4"
IMA-5460-6A	6	480	109	668	152	95.46	239	54	10	8	48	100 psi	10"	4"

#### Other models and sizes are available.



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## Large Vessel Filters

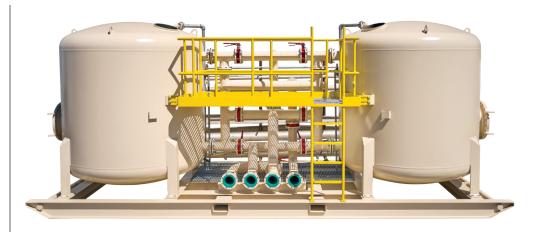
Pressure Vessels 72" and larger in diameter

Yardney Large Filtration

**Vessels** are designed for enhanced water quality filtration applications specific for larger flow rate applications.

These filters may be used as a stand-alone system or in conjunction with or as a pretreatment for other filtration technologies.





## Applications

- Removal of organic and/or inorganic suspended solids
- Storm water runoff, industrial process water, incoming plant water, waste water clean-up, industrial water for plant reuse
- Iron, Manganese, Arsenic & PFAS
- Prefiltration in applications such as granular activated carbon, reverse osmosis, cartridge or bag filtration and deionized water
- 100 psi standard operating pressure (high pressure systems available)

- ASME Code or non code construction
- Head and Lateral Underdrain or Vertical Septas
- Designed and engineered to your specifications including optional materials of constructions, manways, process nozzles, paint and coatings, etc.
- Standard alone vessels or a full tailored system is available
- Made in USA

## **Large Vessel Filters**

Specifications

				SPECI	FICAT	IONS   II	NDUS	TRIAL	LARGE	VESS	EL FILTE	RS				
Model	Number of Tanks		andard F mum		nge mum	Filtration Surface		wash Rate <sub>tank)</sub>	Media Requirem (cubic fe		Maximum Pressure	Maximum Pressure	Inlet/ Outlet	Inlet/ Outlet Pipe	Backwash Line Pipe	Backwash Line Pipe
nouei	in System	gpm	m³/hr	gpm	m³/hr	Area (total sq ft)	gpm	m³/hr	Gravel 1/2" - 3/4"	Media	(PSI)	(BAR)	Pipe Size	Size (Metric)	Size	Size (Metric)
7248-1	1	283	64	424	96	28.27	424	96	31	113	125 psi	8.6	6"	DN150	6"	DN150
7260-1	1	283	64	424	96	28.27	424	96	31	141	125 psi	8.6	6"	DN150	6"	DN150
9648-1	1	503	114	754	171	50.27	754	171	72	201	125 psi	8.6	6"	DN150	6"	DN150
9660-1	1	503	114	754	171	50.27	754	171	72	251	125 psi	8.6	6"	DN150	6"	DN150
12048-1	1	785	178	1178	268	78.54	1178	268	137	314	125 psi	8.6	8"	DN200	8"	DN200
12060-1	1	785	178	1178	268	78.54	1178	268	137	393	125 psi	8.6	8"	DN200	8"	DN200
14448-1	1	1131	257	1696	385	113.10	1696	386	235	452	125 psi	8.6	10"	DN250	10"	DN250
14460-1	1	1131	257	1696	385	113.10	1696	386	235	565	125 psi	8.6	10"	DN250	10"	DN250

#### **Available Options:**

- ASME code
- High pressure
- Customer filter station layout piping
- Air scour
- Continuous flow
- Rinse to waste
- Vessels only or complete assembled filtration systems
- Skid, process pipe work, valves and automation
- Alternative under-drain options of Hub and Lateral, Head and Lateral or Septa
- Alternative linings utilizing NSF and non NSF approved materials



Made in USA



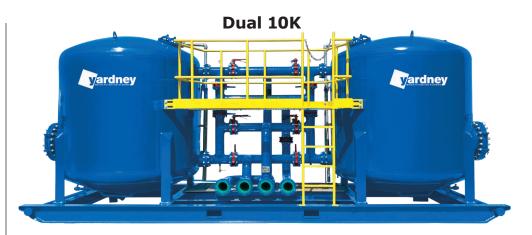


# 1K, 2K, 3K, 6K,10K & Dual 10KPortable GACFiltration Systems

## Yardney Granular Activated Carbon (GAC) filtration systems utilize

the adsorptive qualities of the media to remove highly dispersed compounds from water sources which are too small for removal with standard multi-media filtration technology. These filtration systems are extremely effective in removing chlorine and chlorine related compounds, organic chemicals, tastes and odors, halogenated organic compounds, hydrocarbons and other highly dispersed contaminants. Yardney GAC filtration systems utilize a vertical side shell depth of 72 inches.





## Less Hassle, Higher Flow Rate and Faster Setup

- Fully assembled, skidmounted filtration system for rapid setup and deployment
- No permit required to transport
- Job-ready upon delivery
- Designed with safety in mind permanently attached catwalks, guard rails and ladders on Dual 10K systems
- Support pad not needed
- Ideal for environmental & industrial contaminant removal

## Advantages

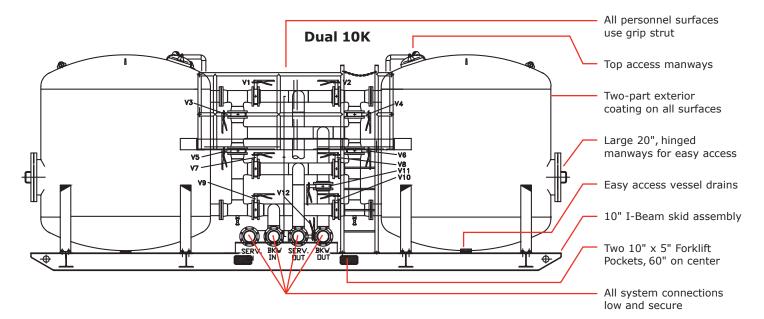
- Job-ready Skid mounted and fully assembled for rapid delivery and setup saving valuable time and labor.
- Single and dual vessel design -Use different media within the same unit, or clean and replace spent media out of one unit while the other unit takes over—with no down time.
- Handles a variety of media from organoclay to ion exchange, arsenic removal media, activated carbon, specialty resins and smaller particulate media to ensure the most efficient solution for your job.

Compact size - The forkliftable systems do not require special permits for transport and delivery.



## Portable GAC Filtration System - 1K, 2K, 3K, 6K, 10K & Dual 10K

Specifications



#### **BENEFITS:**

- Skid mounted for portability
- Several flow options
- Influent/ effluent gauges and sample ports
- Optional ASME code
- Stainless steel internals
- Built-in service platform

#### **IDEAL USAGE:**

 Environmental and industrial contaminant removal of liquid phase

		GAC Vess	el Sizes			
SIZE	Diameter	Side Shell	PSI Rating	Inlet / Outlet		
1K	48"	48"	125	2" NPT		
2К	48"	60"	125	3" NPT		
ЗК	60"	60"	125	3" NPT		
6К	84"	72"	125	6" Flange		
10K	96"	72"	125	6" Flange		
Dual 10K	96"	72"	125	6" Flange		

FEATURES	
Type of Media Used*	Granular activated carbon, ion exchange resin, zeolite, organoclay
Material of Construction	Internally lined Carbon Steel vessels with Stainless Steel internals

\*Contact your representative for a media solution matched to your application requirements



Made in USA



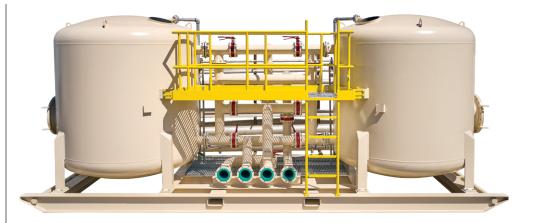


## **Dual 10K Portable Filtration System** Specialty Media

System

#### LESS HASSLE, HIGHER FLOW RATE AND FASTER SETUP

- Fully assembled, skidmounted filtration system for rapid setup and deployment
- Job-ready upon delivery
- No permit required to transport
- Achieve flow rates up to 1200 GPM with this cost-effective, labor-saving alternative
- Run dual vessels in series or parallel—numerous flow options
- Support pad not needed
- Designed with safety in mind—permanently attached catwalks, guard rails and ladders
- Ideal for environmental & industrial contaminant removal



The Yardney Dual 10K Portable Filtration System is the most flexible, quick set-up solution now available for filtration industry professionals.

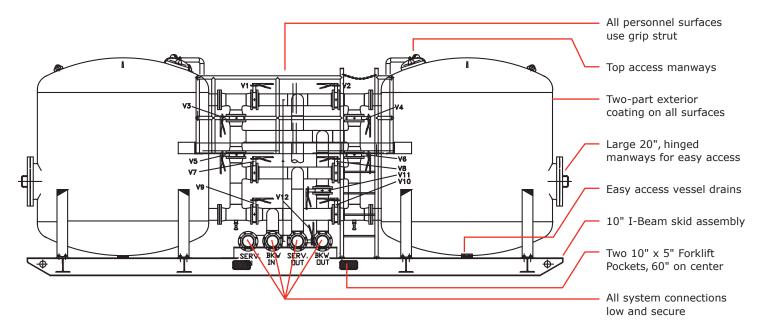
- Job-ready Skid mounted and fully assembled for rapid delivery and setup saving valuable time and labor.
- Compact size The forkliftable Dual 10K Filtration System does not require special permits for transport and delivery.
- Dual-vessel design Use different media within the same unit, or clean and replace spent media out of one unit while the other unit takes over—with no down time.
- Handles a variety of media - From organoclay to ion exchange, arsenic removal media, activated carbon, specialty resins and smaller particulate media, the 10K handles the specialty media to ensure the most efficient solution for your job.





## **Dual 10K Portable Filtration System**

Specifications



#### **BENEFITS:**

- Skid mounted for portability
- Several flow and backwash options
- Influent/ effluent gauges and sample ports
- ASME code vessels
- Stainless steel internals
- Built-in service platform

#### **IDEAL USAGE:**

Environmental and industrial contaminant removal of liquid phase.

PERFORMANCE	
Capacity	Up to 600 gpm in series or 1200 gpm in parallel (application dependent)
Pressure	100 psi ASME Code Stamped
Temperature	150° F Max
Media Weight Range	10,000 to 20,000 pounds (per vessel depending on media type)
Height	10' 6" (overall)
Width/Diameter Range	8'-0" (skid), 96" (each vessel)
Length	25'
Weight (empty)	20,000 pounds

FEATURES	
Type of Media Used*	Granular activated carbon, ion exchange resin, zeolite, organoclay
Material of Construction	Lined carbon steel vessels with stainless steel internals



Made in USA

Phone: 951.656.6716 Toll-Free: 800.854.4788 Fax: 951.656.3867 info@yardneyfilters.com \* Contact your representative for a media solution matched to your application requirements





## Water Filtration Media

Customized media solutions for diverse applications

#### **Yardney Filtration**

**Systems** provides an extensive portfolio of engineered filtration media designed to target a broad spectrum of contaminants, including suspended solids, taste and odor, Iron, Manganese, Arsenic, and Per- and polyfluoroalkyl substances (PFAS).

Utilizing comprehensive water quality analysis, Yardney develops optimized, cost-effective treatment solutions tailored to the specific contaminant profile of the source water.





YWFS-H-A



YWFS-IMA 65

## Applications

- PFAS
- Odor and taste
- Removal of organic and/or inorganic suspended solids
- Heavy Metals (Iron, Manganese, Arsenic, Copper & more)
- Anionic compounds, Sulfates, Nitrates and Phosphates



YWFS-H-TOC



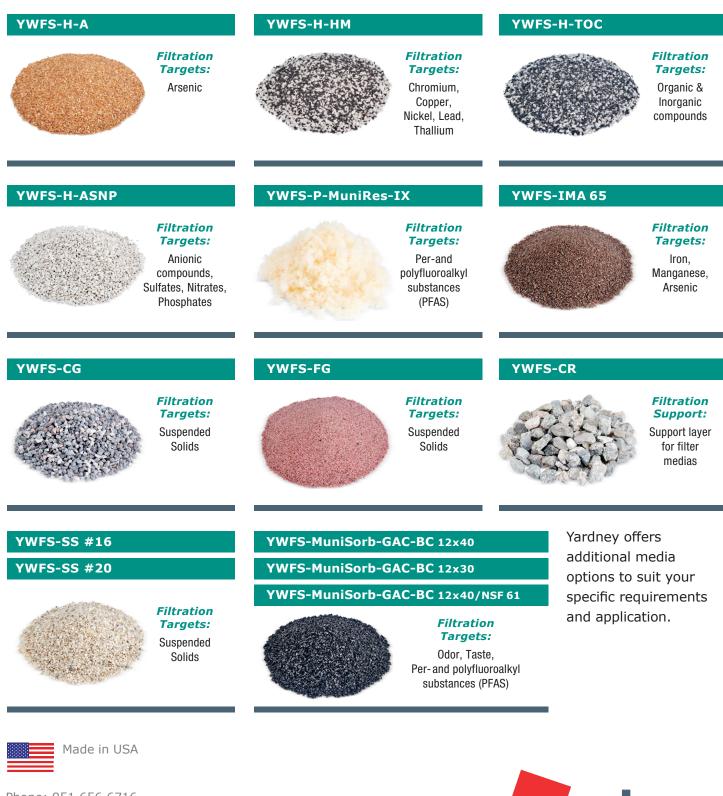
YWFS-P-MuniRes-IX



YWFS-MuniSorb-GAC-BC

## Water Filtration Media

Specialty Media Specifications







## Ultra-I Automatic Controller

Expandable Stations

## The Yardney Ultra-I automatic controller is

a simple and easy-to-use backwash filter controller. The filter control system design features user selection flexibility of power source input, number of station outputs, AC/DC or latching solenoids. The controller incorporates elapsed time monitoring as well as pressure differential activation with filter system backwashing activity reported through the backwash cycle counter program. The Ultra is available with up to sixteen stations.





## Application

Initiates backwashing on all applicable Yardney Water Filtration Systems including Sand Media, Multi-Media, Granular Activated Carbon and Maxi-Flush systems

- Four-station base unit is expandable to sixteen stations using 4-station plug-in expansion modules
- Operates up to 2 valves per station plus a master valve
- Selectable input power: 110V AC, or 12V DC (Optional 220V AC)
- Flush activation based on elapsed time and/or pressure differential

- Programmable filter backwash frequency, duration and delay
- Backwash cycle counter
- Manual start with station advance and stop
- Lockable rain-tight outdoor enclosure
- Three year limited warranty

## **Ultra-I Controllers**

Specifications

## LED display provides the following status information:

- Elapsed time differential
- Pressure differential activation
- Backwash cycle counter
- Filter operating status between backwashes
- Active station number during backwash cycle
- Dwell status (active/ inactive)

The backwash cycle may be manually initiated, station advanced or stopped as needed.

ELECTRICAL SPECIFICATIONS							
Station Capacity							
Base Unit	1-4 Outputs						
Plug-in Modules	4 Outputs each / 16 maximum						
Power Source							
Standard	Selectable 120V AC 60 Hz or 12V DC						
Optional	220V AC 50 Hz						
Display Power Consumption	46 milliamps when the display function switch is depressed						
Outputs							
AC Power	Selectable 24V AC						
DC Power	Selectable 12V DC continuous or pulsed. Maximum 3 amps continuous output, 20 milliamps pulsed output						





Made in USA





Backwash Valves Field Serviceable

**Yardney Water Filtration** Systems utilize backwash valves patented and manufactured in-house by Yardney. All three models (1.5", 342, 454) of Yardney backwash valves are manufactured from cast iron and CNC machined to achieve the lowest pressure drop in the industry. The Yardney 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.



(cutaway view)



## Applications

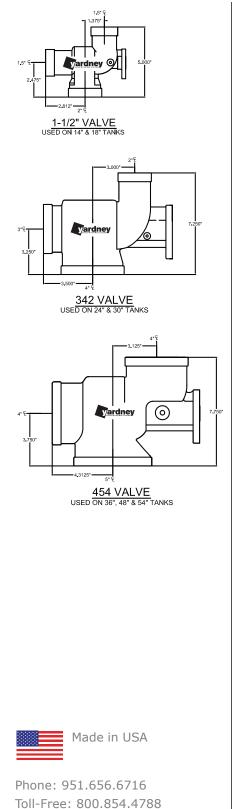
For backwashing Yardney Media Filters and Maxi-Flush Screen Filters

- Heavy duty and durable
- Rugged and 100% field rebuildable with basic hand tools
- CNC machined cast iron valve body
- Stainless steel seal retainers
- Polyurethane valve seal for durability and long life
- Exterior of valve is coated with UV stabilized polyester powder coat for longer product life and greater protection from the environment
- 3M Scotchkote<sup>®</sup> 134 fusion bonded epoxy lining on 100% of the internal valve body and components

- Replaceable brass bushing with internal grease cavity and double O-ring seal protected for easy on-site maintenance without removal of the valve from the system—a feature not found in competitive valves
- Grease fitting for periodic maintenance and lubrication of the valve shaft—a feature not found in competitive valves
- Type 416 pump shaft quality stainless steel valve shaft with wrench flats for easy removal and service
- Available in 1.5", 3" and 4" sizes
- Air or water actuation
- Made in USA

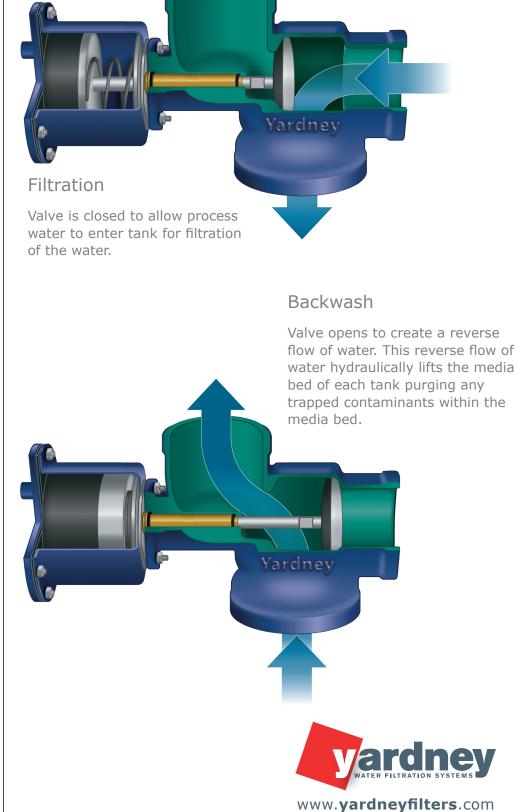
## **Backwash Valves**

Specifications



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## INDUSTRIAL SYSTEM SELECTION GUIDELINES:

## **Inorganic Matter**

Inorganic Matter											
Concentration		Screen Filters									
	Dirt Load mg/L	Pump Suction Screen	Basket Strainer	Spin-Flow	Maxi-Clean	Gravity Screen	Thru-Flush	Filtaworx	Maxi-Flush		
Light	Under 10	YES	YES	YES	YES	YES	YES	YES	YES		
Moderate	10-25	YES	YES	YES	YES	YES	YES	YES	YES		
Medium	26-50	YES	ОК	YES*	YES*	YES	YES	YES	YES		
Medium-Heavy	51-75	YES	ОК	YES*	YES*	YES	YES	YES	YES		
Heavy	76-100	YES	Secondary filter use only	Secondary filter use only	Secondary filter use only	YES	YES*	YES*	YES*		
Very Heavy	Over 100	YES	Secondary filter use only	Secondary filter use only	Secondary filter use only	YES	Secondary filter use only	Secondary filter use only	Secondary filter use only		

Inorganic Matter										
			Media Tanks							
Concentration	Concentration Dirt Load mg/L		Sand Media	Deep Bed Sand Media	Multi Media	Recirculating Water (RCW)	Granular Activated Carbon			
Light	Under 10	YES	YES	YES	YES	YES	Not utilized for removal of suspended solids			
Moderate	10-25	YES	YES	YES	YES	YES	Not utilized for removal of suspended solids			
Medium	26-50	YES	YES	YES	YES	YES	Not utilized for removal of suspended solids			
Medium-Heavy	51-75	YES	YES	YES	YES	YES	Not utilized for removal of suspended solids			
Heavy	76-100	YES	YES	YES	YES	YES	Not utilized for removal of suspended solids			
Very Heavy	Over 100	YES	YES*	YES*	YES	YES*	Not utilized for removal of suspended solids			

\*Accompanied with a Yardney Sand Separator



## **INDUSTRIAL SYSTEM SELECTION GUIDELINES:** Organic Matter or Mixed Organic and Inorganic Matter

Organic Matter or Mixed Organic and Inorganic Matter											
	Dirt Load mg/L	Screen Filters									
Concentration		Pump Suction Screen	Basket Strainer	Spin-Flow	Maxi-Clean	Gravity Screen	Thru-Flush	Filtaworx	Maxi-Flush		
Light	Under 10	YES	YES	YES	YES	YES	YES	YES	YES		
Moderate	10-25	YES	YES	YES	YES	YES	YES	YES	YES		
Medium	26-50	YES	ОК	YES*	ОК	YES	YES	YES	YES		
Medium-Heavy	51-75	YES	Secondary filter use only	Secondary filter use only	Secondary filter use only	YES	OK*	YES	OK*		
Heavy	76-100	YES	Secondary filter use only	Secondary filter use only	Secondary filter use only	YES	OK*	OK*	OK*		
Very Heavy	Over 100	YES	Secondary filter use only	Secondary filter use only	Secondary filter use only	YES	Secondary filter use only	Secondary filter use only	Secondary filter use only		

Organic Matter or Mixed Organic and Inorganic Matter										
Concentration Dirt Load mg/L	Centrifugal Sand Separator	Media Tanks								
		Sand Media	Deep Bed Sand Media	Multi Media	Recirculating Water (RCW)	Granular Activated Carbon				
Light	Under 10	Inorganic separation only	YES	YES	YES	YES	Not utilized for removal of suspended solids			
Moderate	10-25	Inorganic separation only	YES	YES	YES	YES	Not utilized for removal of suspended solids			
Medium	26-50	Inorganic separation only	YES	YES	YES	YES	Not utilized for removal of suspended solids			
Medium-Heavy	51-75	Inorganic separation only	YES	YES	YES	YES	Not utilized for removal of suspended solids			
Heavy	76-100	Inorganic separation only	YES	YES	YES	YES	Not utilized for removal of suspended solids			
Very Heavy	Over 100	Inorganic separation only	YES*	YES*	YES	YES*	Not utilized for removal of suspended solids			

\*Accompanied with a Yardney Sand Separator

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## **COOLING TOWER WATER FILTRATION SIZING**

If the total water volume in a cooling tower system is not known, an alternative sizing procedure can be utilized for defining the filtration size model to be recommended.

Empirical Procedure:

- 1. If the water circulation rating of the cooling tower is unknown but the tonnage is known, then multiply the tonnage rating by 3. This will give the typical circulation rate of the cooling tower in gallons per minute.
- 2. To remove the suspended solids from the tower basin circulation water, commonly the filtration system should be sized in the range of 5 to 10% of the circulation rate depending on the concentration of suspended solid accumulation in the cooling water.

Example:

**Cooling Tower Tonnage:** 1,500 tons

**Typical circulation rate:**  $1,500 \text{ tons } x \ 3 = 4,500 \text{ gpm}$ 

## **Recommended filter size:**

at 5% = 4,500 x 0.05 = 225 gpm at 10% = 4,500 x 0.10 = 450 gpm

The filter should be within the range 225 gpm to 450 gpm depending on how quickly suspended solids build in the circulation water. The expected solids build up would depend on the location of the cooling tower in relation to suspended solids contributing factors around the cooling tower such as wind direction, topography of the area surrounding it, and wind-borne particles from ground, factories, etc.

Please consult the Yardney filter and centrifugal separator selection charts for selecting the best equipment for your requirements.

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## **MULTIPLE TANK FILTRATION PROCESS | SAND MEDIA**

Media filtration is the most effective method for removal of suspended organic and inorganic solids from water down to 20 microns. Yardney media filters operate on the same basic principle as nature's own ground water filtering process. Contaminated, unfiltered water enters the system through the inlet in the top of the filter and flows, with gravity and under pressure, through the media bed where solid particulates are entrapped. This occurs until the filtration system initiates an automatic backwash to expel all contaminates entrapped within the media bed. Yardney media filters are known for their capacity to extract and hold large amounts of water-borne particulate while continuing to deliver the rated flow of clean water.

#### 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

Phone: 951.656.6716 Toll-Free: 800.854.4788 Fax: 951.656.3867 info@yardneyfilters.com In addition to the Yardney filter's ability to filter large volumes of water with very little pressure drop, one of the outstanding features is the simple backwash operation. This backwashing process is possible due to the highly efficient and hydraulically balanced underdrain systems utilized in Yardney media filters.

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



## **MULTIPLE TANK FILTRATION PROCESS | MULTI-MEDIA**

Multi-media filtration is a more effective method for removal of suspended organic and inorganic solids from water down to 5 microns. Yardney Multi-Media filters operate on a similar principle to the sand media but utilize multiple levels of coarse to fine media to achieve progressive filtration through the entire filter media bed. The coarse media within the top section of the tank filters the largest particulates while the finer media beds filter the fine particulates. This occurs until the filtration system initiates an automatic backwash to expel all contaminants entrapped within the media bed. Yardney Multi-Media filters are known for their capacity to extract and hold large amounts of water-borne particulate while continuing to deliver the rated flow of clean water.

#### 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

In addition to the Yardney filter's ability to filter large volumes of water with very little pressure drop, one of the outstanding features is the simple backwash operation. This backwashing process is possible due to the highly efficient and hydraulically balanced underdrain systems utilized in Yardney Multi-Media filters. Yardney Multi-Media filters are hydraulically designed not to commingle the multiple levels of media during a backwash cycle due to the specific gravity of each media.

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