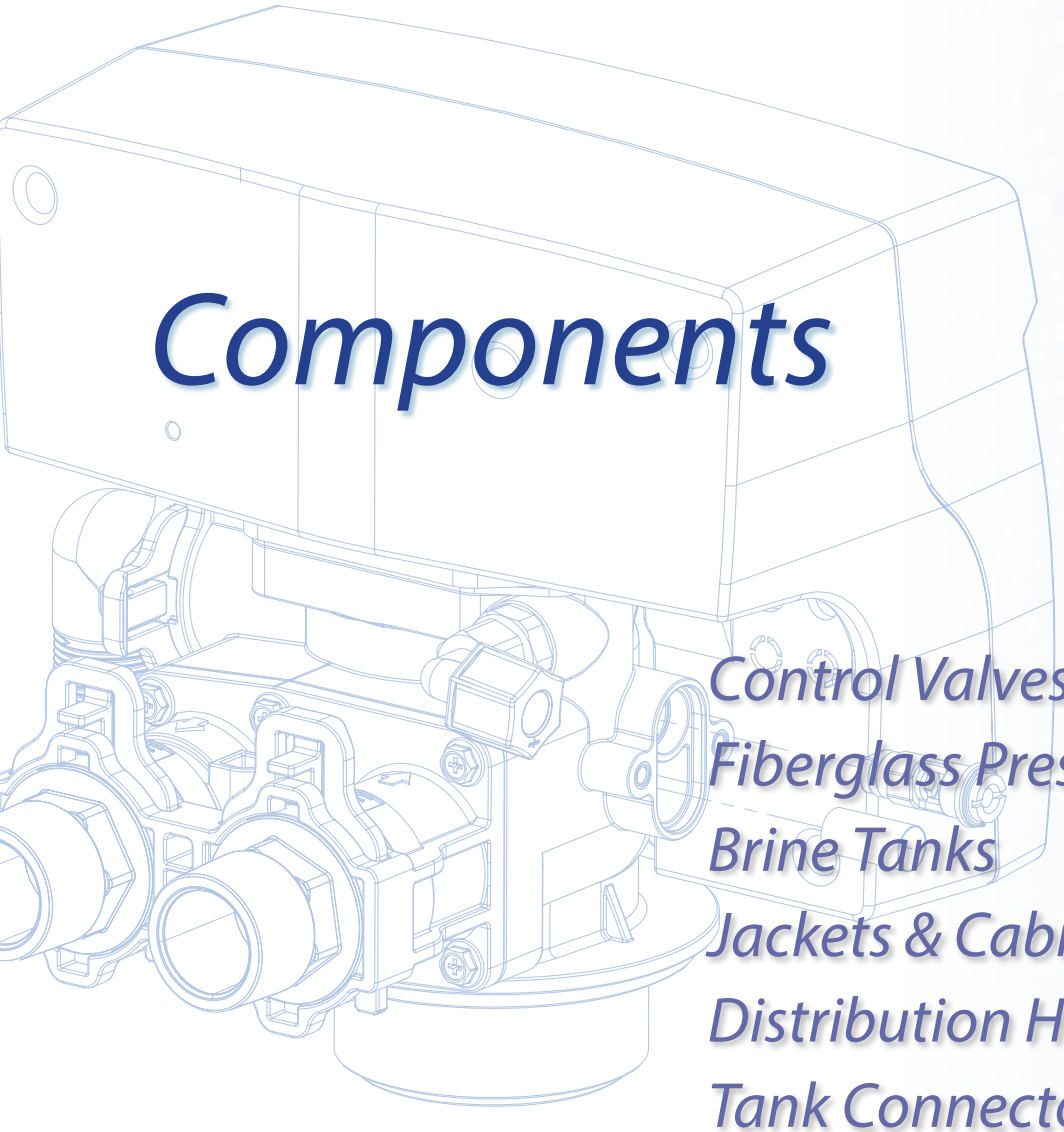
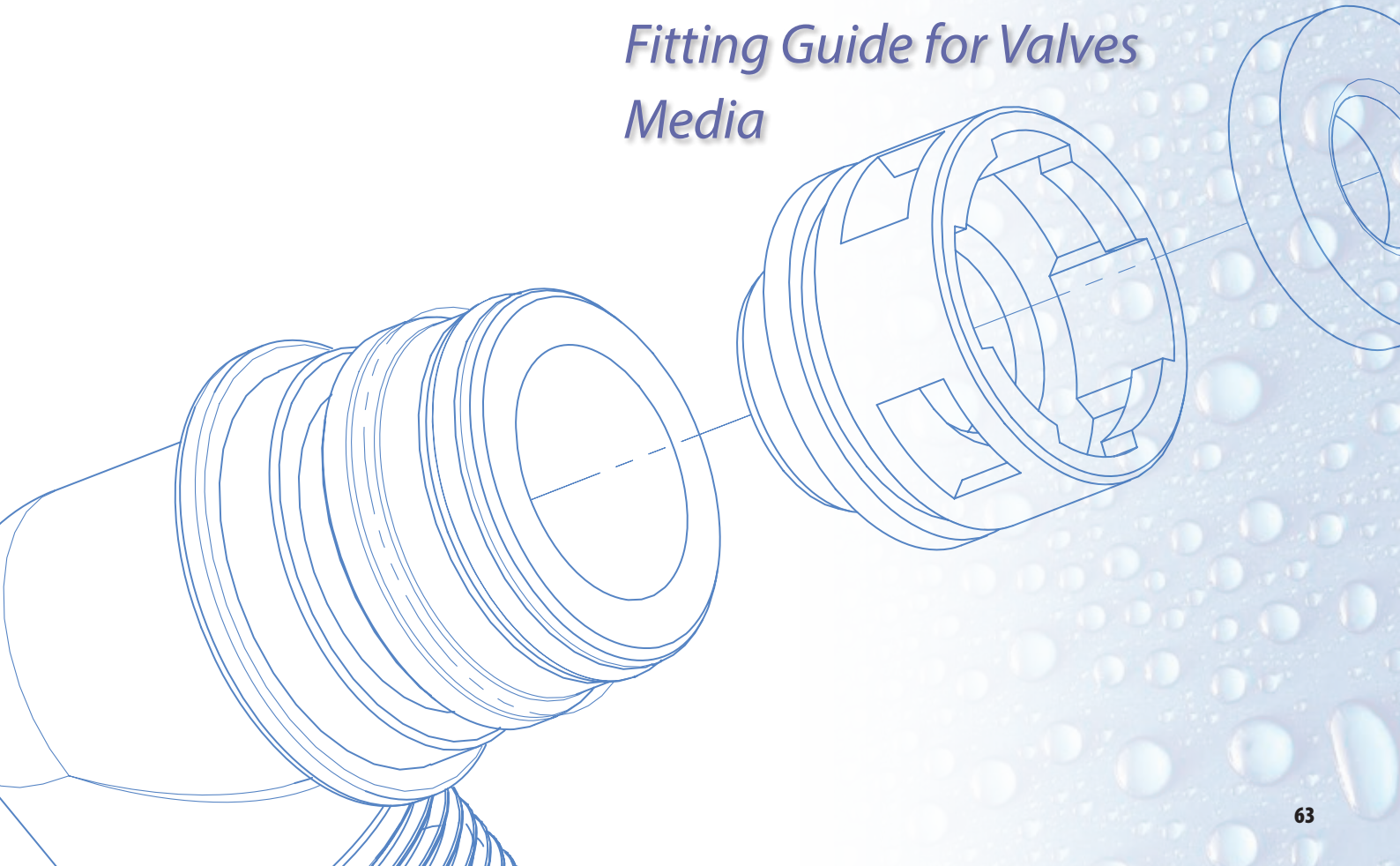
Components





Components

89 Control Valve

NSF COMPONENT

Features:

- True 1" porting for high flow rates. Up to 18" softeners and 18" filters
- High-efficiency Performance. Upflow Regeneration with Optimal Precision Brining or Downflow Regeneration.
- Adjustable backwash frequency saves up to 2,000 gallons of water per year
- Large 4 line Touch Pad LCD display – customizable for dealership
- Automatic Reserve – adjusts based on actual usage
- Automatic System Flush refreshes system during periods of non use preventing bacteria growth
- Soft Water Recharge performs quick regeneration ensuring you never run out of soft water
- Soft Water Brine Tank Refill conserves capacity and keeps brine tank clean
- Time saving quick connect features on bypass, drain line and powercord
- Upflow - meter delayed; Downflow Softener - meter delayed, days of week, calendar clock, meter immediate, meter override
- Self charging capacitor keeps date / time of day for 48 hours while programming remains in permanent memory
- integrated turbine meter
- Comes with 1" straight NPT
- Five Year Control Valve Warranty

Specifications	
Valve Body Material	Noryl (PPO)
Plumbing Connections (NPT	Straight 1"
Tank Thread	2-1/2" NPSM
Adjustable Cycles	0 - 99 minutes
Regeneration	Up Flow /Down Flow
Meter Accuracy	+/-5%
Maximum Meter Capacity	99,999 GAL
Distributor Pilot	1.05"
Drain Line	3/4"
Brine Line	3/8"
Flow Rates (Valve Only 50 psi inlet)	
Continuous (15 psi drop)	27 GPM
Peak (25 psi drop)	35 GPM
Max. Backwash (25 psi drop)	27 GPM
Cv	7
Typical Applications	
Softeners	up to 18" Diameter
Filters	up to 18" Diameter
Electrical	
Input	110V AC 50/60Hz
Output	12V AC 50/60Hz 650mA
Certification	cUL
Operation Ratings	
Max. Working Pressure	20 - 125 psi
Max. Temperature	34F - 100F
Approvals	
NSF/ANSI 44	Certified
Additional Information	
Shipping Weight	7 pounds

89 Control Valve

Part #	Description
10010044	89UF ELECTRONIC METER-BLACK COVER
10010043	89DF ELECTRONIC METER-BLACK COVER

CONTROL VALVE INCLUDES BYPASS AND BOTH 3/4" 90° ELBOW & 1" STRAIGHT NPT CONNECTORS (2 OF EACH)
VALVES CAN EASILY BE CONVERTED FROM SOFTENER TO FILTER

Components

785 Control Valve

NSF COMPONENT

Specifications	
Valve Body Material	Noryl (PPO)
Plumbing Connections (NPT)	Straight – ½", ¾", 1" 90 Deg – ¾"
Tank Thread	2-1/2" NPSM
Adjustable Cycles	0 - 99 minutes
Regeneration	Up Flow /Down Flow
Meter Accuracy	+/-5%
Maximum Meter Capacity	99,999 GAL
Distributor Pilot	1.05"
Drain Line	1/2" Quick Connect
Brine Line	3/8" Quick Connect
Flow Rates (Valve Only 50 psi inlet)	
Continuous (15 psi drop)	20 GPM
Peak (25 psi drop)	26 GPM
Max. Backwash (25 psi drop)	17 GPM
Cv	5.2
Typical Applications	
Softeners	up to 16" Diameter
Filters	up to 16" Diameter
Electrical	
Input	110V AC 50/60Hz
Output	12V AC 50/60Hz 410mA
Certification	cUL
Operation Ratings	
Max. Working Pressure	20 - 125 psi
Max. Temperature	34F - 100F
Approvals	
NSF/ANSI 44	Certified
Additional Information	
Shipping Weight	7 pounds

Features:

- Exclusive NSF Certified electronic control valves with proven piston, seal & spacer technology
- Choose upflow or downflow regeneration
- Higher flow rates. Backwash up to 16" filters
- Simple user-friendly, 2 line / 16 character LCD backlit display
- Rotating 'no touch' diagnostics shows key data like date last regenerated, volume remaining, current flow rate, peak flow rate, total gallons treated, total regenerations, time & date and capacity
- Upflow - meter delayed; Downflow Softener - meter delayed; Downflow Filter - meter delayed, days of week, calendar clock, meter override
- Self charging capacitor keeps date / time of day for 48 hours while programming remains in permanent memory
- Adjustable cycle times
- Precise electronic sensors to determine piston positions
- Soft water brine tank refill
- Space saving bypass with integrated turbine meter
- Time saving quick connect fittings on bypass, drain line, brine line and power cord
- Five Year Control Valve Warranty

Simple Electronics: Set Date/Time, #People and Water Hardness – the 785 does the rest!

785 Control Valve

Part #	Description
10010031	785UF ELECTRONIC METER-BLACK COVER
10010030	785DF ELECTRONIC METER-BLACK COVER

CONTROL VALVE INCLUDES BYPASS AND BOTH 3/4" 90° ELBOW & 1" STRAIGHT NPT CONNECTORS (2 OF EACH)
VALVES CAN EASILY BE CONVERTED FROM SOFTENER TO FILTER

QC Power Cable

QC Brine Line

QC Drain Line

Integrated Meter

Components

565 Control Valve

NSF COMPONENT

Specifications	
Valve Body Material	Noryl (PPO)
Plumbing Connections (NPT)	Straight – ¾", 1" 90 Deg – ¾"
Tank Thread	2-1/2" NPSM
Adjustable Cycles	0 - 99 minutes
Regeneration	Down Flow
Meter Accuracy	+/-5%
Maximum Meter Capacity	99,999 GAL
Distributor Pilot	1.05"
Drain Line	1/2" Quick Connect
Brine Line	3/8" Quick Connect
Flow Rates (Valve Only 50 psi inlet)	
Continuous (15 psi drop)	20 GPM
Peak (25 psi drop)	26 GPM
Max. Backwash (25 psi drop)	7 GPM
Cv	5.2
Typical Applications	
Softeners	up to 16" Diameter
Filters	up to 10" Diameter
Electrical	
Input	110V AC 50/60Hz
Output	12V AC 50/60Hz 410mA
Certification	cUL
Operation Ratings	
Max. Working Pressure	20 - 125 psi
Max. Temperature	34F - 100F
Approvals	
NSF/ANSI 44	Certified
Additional Information	
Shipping Weight	7 pounds

Features:

- Exclusive NSF Certified electronic control valves with proven piston, seal & spacer technology
- Downflow regeneration
- Simple user-friendly, 2 line / 16 character LCD backlit display
- Rotating 'no touch' diagnostics shows key data like date last regenerated, volume remaining, current flow rate, peak flow rate, total gallons treated, total regenerations, time & date and capacity
- Meter immediate, meter delayed, meter override, vacation and calendar clock modes
- Self charging capacitor keeps date / time of day for 48 hours while programming remains in permanent memory
- Adjustable cycle times
- Precise electronic sensors to determine piston positions
- Space saving bypass with integrated turbine meter
- Time saving quick connect fittings on bypass, drain line, brine line and power cord
- Five Year Control Valve warranty

565 Control Valve

Part #	Description
10010009	565 ELECTRONIC METER-BLACK COVER

CONTROL VALVE INCLUDES BYPASS AND BOTH 3/4" 90° ELBOW & 1" STRAIGHT NPT CONNECTORS (2 OF EACH)
VALVES CAN EASILY BE CONVERTED FROM SOFTENER TO FILTER

QC Power Cable

QC Brine Line

QC Drain Line

Integrated Meter

Components

765 Control Valve

NSF COMPONENT

Features:

- Exclusive NSF Certified electronic control valve with reliable piston, seal and spacer design
- Simple user friendly LCD display. Just enter time of day, hardness and number of people.
- Manually index to cycle position for easier and faster installation and service
- Reliable and precise electronic sensors to determine piston positions
- "Totalizer" function tracks total amount of water treated
- Audible Cycle Advance Alarm sounds if the valve is stuck in any position for more than 2 minutes.
- Self charging capacitor keeps date / time of day for 48 hours while programming remains in permanent memory
- No confusing codes or symbols to remember
- Meter Immediate, Meter Delayed, Meter with Day Override and Calendar Clock modes
- Fully adjustable cycle times
- Unique bypass with integrated space saving turbine meter. One piece design avoids meter jamming.
- Time saving quick connections for easy installation and maintenance
- Five Year Control Valve Warranty

Specifications	
Valve Body Material	Noryl (PPO)
Plumbing Connections (NPT)	Straight – ¾", 1" 90 Deg – ¾"
Tank Thread	2-1/2" NPSM
Adjustable Cycles	0 - 99 minutes
Regeneration	Down Flow
Meter Accuracy	+/-5%
Maximum Meter Capacity	9,999 GAL
Distributor Pilot	1.05"
Drain Line	1/2" Quick Connect
Brine Line	3/8" Quick Connect
Flow Rates (Valve Only 50 psi inlet)	
Continuous (15 psi drop)	20 GPM
Peak (25 psi drop)	26 GPM
Max. Backwash (25 psi drop)	7 GPM
Cv	5.2
Typical Applications	
Softeners	up to 16" Diameter
Filters	up to 10" Diameter
Electrical	
Input	110V AC 50/60Hz
Output	12V AC 50/60Hz 410mA
Certification	cUL
Operation Ratings	
Max. Working Pressure	20 - 125 psi
Max. Temperature	34F - 100F
Approvals	
NSF/ANSI 44	Certified
Additional Information	
Shipping Weight	7 pounds

765 Control Valve

Part #	Description
10010093	765 ELECTRONIC METER-GREY COVER

CONTROL VALVE INCLUDES BYPASS AND BOTH 3/4" 90° ELBOW & 1" STRAIGHT NPT CONNECTORS (2 OF EACH)
VALVES CAN EASILY BE CONVERTED FROM SOFTENER TO FILTER


QC Power Cable


QC Brine Line


QC Drain Line


Integrated Meter

Components

Tank Connectors / Adaptors

Manual Filter Valve

- No electricity required
- Safe easy operation
- Child-lock protection
- Inlet / Outlet ¾" or 1" quick connect fittings
- ½" drain

Tank Quick Connect

- Remove and reconnect control valve to tank without moving distributor tube
- Align valve to face where you want it

Distribution Head

Distribution heads with quick connects are made from food-grade NORYL.

Distribution Head III

- Perfect for single in/out filter applications or D.I.

Distribution Head IV

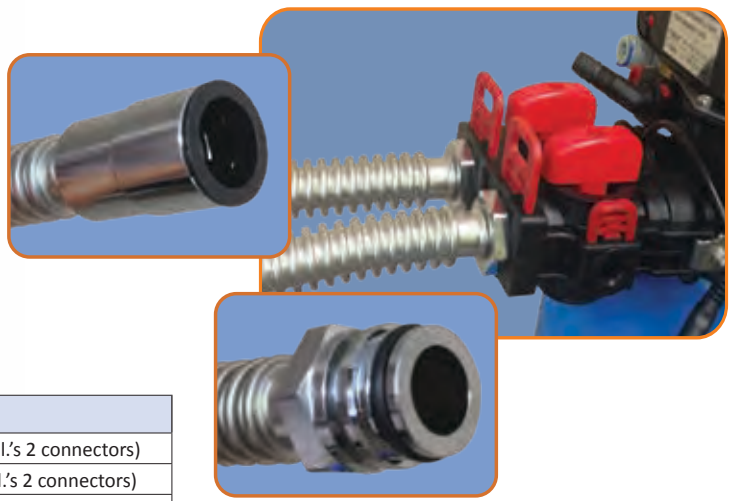
- Unique parallel inlet/outlet design
- Optional bypass

Distribution Head V

- Upper 360° swivel outlet with elbow adaptor

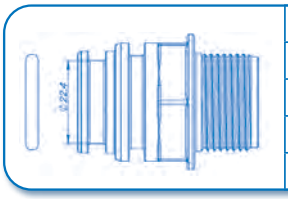
New Quick Connect Stainless Steel Flexi-Connector Kits

Two 18" flexible water connectors with 3/4" or 1" John Guest© Quick Connect fittings and proprietary bypass valve connection for all Canature WaterGroup manufactured water softeners and whole-house filters. For Canature WaterGroup Control Valve Series 765, 565, 785 use ¾" Canature WaterGroup bypass. For Canature WaterGroup 89 Control Valve Series use 1" Canature WaterGroup Bypass. Instructions included.

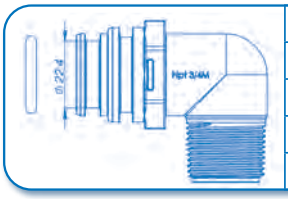


Part #	Description
60010618	3/4" Canature WG Bypass x ¾" JG Flex Connector 18 SS" KIT (incl.'s 2 connectors)
60010619	3/4" Canature WG Bypass x 1" JG Flex Connector 18 SS" KIT (incl.'s 2 connectors)
60010670	1" CWG Bypass (89 Valve) x 1" JG Flex Connector 18 SS" KIT (incl.'s 2 connectors)
60010736	1" CWG Bypass (89 Valve) x ¾" JG Flex Connector 18 SS" KIT (incl.'s 2 connectors)

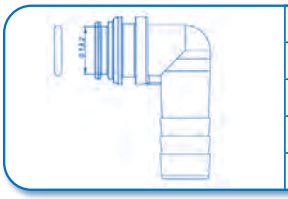
Components Installation Fitting Guide for Valves



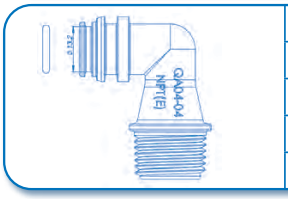
Description: Straight, Inlet/Outlet, 3/4" NPT
Used on: 65/75/85/85HE
Item no.: 60010020
O-ring to match: 60010026
Assy: 60090006



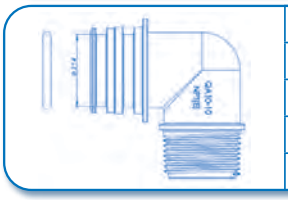
Description: Elbow, Inlet/Outlet, 3/4" NPT
Used on: 65/75/85/85HE
Item no.: 60010023
O-ring to match: 60010026
Assy: 60090010



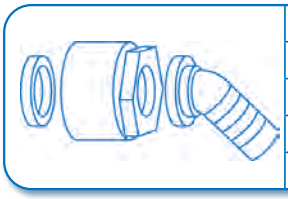
Description: Elbow, drain line barb
Used on: 65/75/85/85HE
Item no.: 60010229
O-ring to match: 60010044
Assy: 60090001



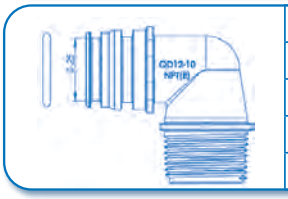
Description: Elbow, drain line, 1/2" NPT
Used on: 65/75/85/85HE
Item no.: 60010251
O-ring to match: 60010044
Assy: 60090025



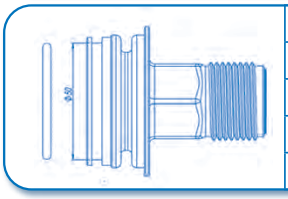
Description: Elbow, Inlet/Outlet, 1" NPT
Used on: 89
Item no.: 60010252
O-ring to match: 60010590
Assy: 60090026



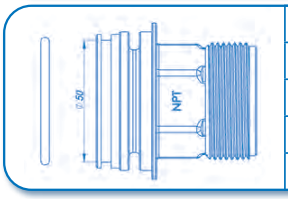
Description: Drain line hose barb
Used on: 89
Item no.: 60010255
Gasket to match: 60010256
Assy: 60090028



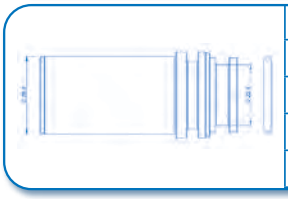
Description: Elbow, drain line, 1" NPT
Used on: 89/95/95MTS/95HF
Item no.: 60010254
O-ring to match: 60010211
Assy: 60090030



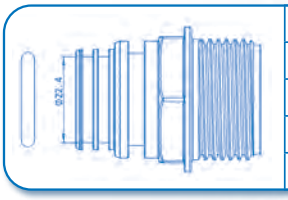
Description: Straight, Inlet/Outlet, 1" NPT
Used on: 95
Item no.: 60010213
O-ring to match: 60010216
Assy: 60090013



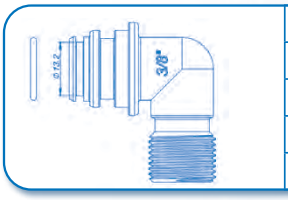
Description: Straight, Inlet/Outlet, 1.5" NPT
Used on: 95/95MTS
Item no.: 60010215
O-ring to match: 60010216
Assy: 60090011



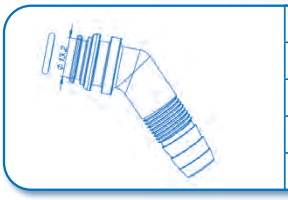
Description: Straight, Inlet/Outlet, 1" US standard
Used on: 65/75/85/85HE
Item no.: 60010325
O-ring to match: 60010026
Assy: 60090032



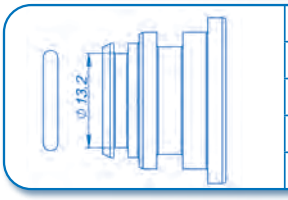
Description: Straight, Inlet/Outlet, 1" NPT
Used on: 65/75/85/85HE
Item no.: 60010019
O-ring to match: 60010026
Assy: 60090003



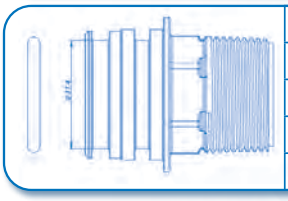
Description: Elbow, brine line, 3/8" NPT
Used on: 85HE/89
Item no.: 60010172
O-ring to match: 60010185
Assy: 60090004



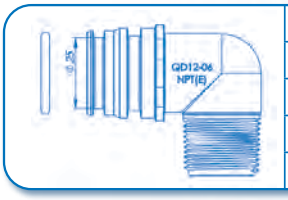
Description: 45 ° Elbow, drain line barb
Used on: 65/75/85/85HE
Item no.: 60010250
O-ring to match: 60010044
Assy: 60090024



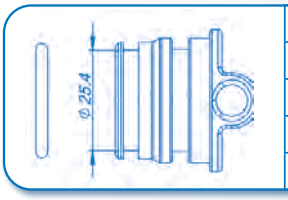
Description: Brine line plug, Bypass plug
Used on: 65/75/85/85HE/89, 063 bypass, 89 bypass
Item no.: 60010209
O-ring to match: 60010044
Assy: 60090005



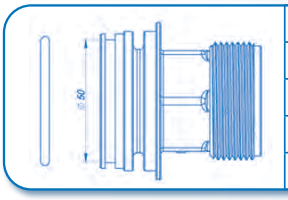
Description: Straight, Inlet/Outlet, 1" NPT
Used on: 89
Item no.: 60010592
O-ring to match: 60010590
Assy: 60090027



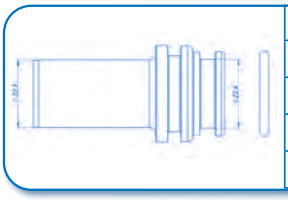
Description:: Elbow, drain line, 3/4" NPT
Used on: 89/95
Item no.: 60010253
O-ring to match: 60010211
Assy: 60090029



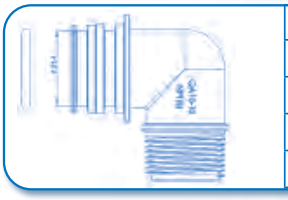
Description: Port plug
Used on: 95/95MTS/95HF
Item no.: 60010212
O-ring to match: 60010211
Assy: 60090031



Description: Straight, Inlet/Outlet, 1.25" NPT
Used on: 95/95MTS
Item no.: 60010214
O-ring to match: 60010216
Assy: 60090012



Description: Straight, Inlet/Outlet, 3/4" US standard
Used on: 65/75/85/85HE
Item no.: 60010013
O-ring to match: 60010026
Assy: 60090033



Description: Elbow, Inlet/Outlet, 1.25" NPT
Used on: 89
Item no.: 60010272
O-ring to match: 60010590
Assy: 60090036

Components

Fiberglass Tanks

Features:

- Blow-molded polyethylene liner wound with high performance fibreglass/epoxy
- Complete seamless molding technology
- Threaded inlet made from 30% glass filled PP for superior strength
- 1/3 the weight of steel tanks
- Attractive high-gloss finish
- Corrosion resistant
- Strict dimension tolerances
- Tanks 5" to 24" are NSF/ANSI 44 Certified for Materials & Structural Integrity
- Tanks 24" to 63" (>83.5 Gal) are NSF/ANSI 61 Certified for Drinking Water System Components - Health Effects
- 10 Year Warranty Tanks up to 24"
- 5 Year Warranty Tanks 30" and larger
- Available in Natural, Black and Blue

Fiberglass Tank Packages

Spill Proof Shipping Cap

Tank Packages include Tank, Gravel Underbed, Resin and Riser Tube

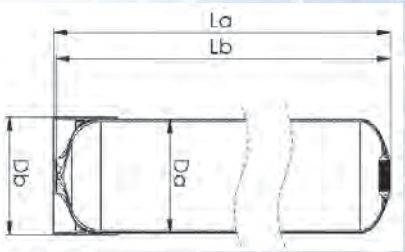
Why ship air? Pre-Engineered tank packages are ready made for softener applications.

MODEL	SIZE	RESIN LOAD		UNDER BEDDING LOAD		WEIGHT (lbs)		TOP OPEN-ING	DIMENSION (in)			
		Cubic ft	Litres	lbs	kg	lbs	kg		La	Lb	Da	Db
TP835	08x35	0.66	18.5	8.0	3.6	48.9	22.1	2.5"	35.3	35.1	8.1	8.5
TP844	08x44	0.75	31.3	8.0	3.6	71.5	32.4	2.5"	44.2	44.0	8.1	8.5
TP948	09x48	1.00	44.6	9.0	4.1	96.0	43.5	2.5"	48.4	48.1	9.1	9.5
TP1044	10x44	1.25	48.8	10.0	4.5	104.5	47.3	2.5"	44.1	44.0	10.0	10.6
TP1054	10x54	1.50	61.0	10.0	4.5	126.0	57.0	2.5"	54.4	54.3	10.0	10.6
TPS844	08x44	0.75	31.3	8.0	3.6	71.5	32.4	2.5"	44.2	44.0	8.1	8.5
TPS948	09x48	1.00	44.6	9.0	4.1	96.0	43.5	2.5"	48.4	48.1	9.1	9.5
TPS1054	10x54	1.50	61.0	10.0	4.5	126.0	57.0	2.5"	54.4	54.3	10.0	10.6

*TPS comes with square black tank jacket

Components

Fiberglass Tanks (Empty)



SIZE	VOLUME			WEIGHT (lbs)	TOP OPENING	BOTTOM OPENING	DIMENSION (in)			
	Litres	Cubic ft	Gallons				LA	LB	DA	DB
05x17*	3.8	0.13	1.01	2.6	2.5”	NA	16.69	16.69	4.80	5.06
05X20*	4.5	0.16	1.19	3.0	2.5”	NA	20.30	20.30	4.80	5.06
07X13*	6.3	0.22	1.67	2.7	2.5”	NA	13.19	13.03	7.17	7.48
07X17*	8.5	0.30	2.25	3.2	2.5”	NA	17.20	17.01	7.17	7.48
07x19*	9.7	0.34	2.57	4.7	2.5”	NA	19.21	19.06	7.17	7.48
07x30*	15.8	0.55	4.18	5.9	2.5”	NA	30.24	30.04	7.17	7.48
07X35*	19.1	0.67	5.05	5.9	2.5”	NA	35.28	35.08	7.17	7.48
07X44*	24.3	0.86	6.43	7.5	2.5”	NA	44.21	44.01	7.17	7.48
08X15*	9.3	0.33	2.46	3.3	2.5”	NA	15.16	15.00	8.07	8.46
08x17*	10.5	0.37	2.78	4.3	2.5”	NA	17.20	17.01	8.07	8.46
08X18*	11.5	0.41	3.04	5.6	2.5”	NA	18.19	18.03	8.07	8.46
08X24*	16.6	0.59	4.39	6.5	2.5”	NA	24.21	24.02	8.07	8.46
08X26*	18.1	0.64	4.79	7.0	2.5”	NA	26.18	26.02	8.07	8.46
08X30*	21.0	0.74	5.56	8.1	2.5”	NA	30.31	30.12	8.07	8.46
08x35	23.6	0.83	6.24	8.2	2.5”	NA	35.31	35.08	8.07	8.46
08x44	31.3	1.11	8.28	9.1	2.5”	NA	44.17	44.02	8.07	8.46
09x35	31.6	1.12	8.36	9.1	2.5”	NA	35.35	35.08	9.13	9.53
09x42*	38.5	1.36	10.19	10.2	2.5”	NA	42.28	42.00	9.13	9.53
09x48	44.6	1.58	11.80	11.7	2.5”	NA	48.35	48.07	9.13	9.53
10x15*	14.0	0.49	3.70	4.4	2.5”	NA	15.12	15.00	10.04	10.55
10x17*	16.5	0.58	4.37	5.4	2.5”	NA	17.09	16.97	10.04	10.55
10X24*	24.8	0.87	6.56	8.6	2.5”	NA	23.98	23.86	10.04	10.55
10X26*	27.3	0.96	7.23	9.0	2.5”	NA	26.14	26.02	10.04	10.55
10X30*	32.3	1.14	8.54	10.4	2.5”	NA	30.12	30.04	10.04	10.55
10x35	38.3	1.35	10.13	9.6	2.5”	NA	35.16	35.08	10.04	10.55
10x44	48.8	1.72	12.91	12.4	2.5”	NA	44.13	44.02	10.04	10.55
10X47	53.2	1.87	14.07	14.5	2.5”	NA	47.17	47.05	10.04	10.55
10x54	61.0	2.16	16.14	15.7	2.5”	NA	54.37	54.25	10.04	10.55
11X35*	46.7	1.65	12.35	12.8	2.5”	NA	35.55	35.08	11.14	11.61
11X44*	59.8	2.11	15.82	15.2	2.5”	NA	44.49	44.02	11.14	11.61
12X48*	78.5	2.77	20.78	17.8	2.5”	NA	48.50	47.95	12.09	12.40
12x52	84.7	2.99	22.41	16.8	2.5”	NA	52.68	52.13	12.09	12.40
11X35*	46.7	1.65	12.35	12.8	2.5”	NA	35.55	35.08	11.14	11.61
11X44*	59.8	2.11	15.82	15.2	2.5”	NA	44.49	44.02	11.14	11.61
13x44*	84.8	3.00	22.43	15.9	2.5”	NA	45.08	44.53	13.19	13.74
13x54	105.7	3.73	27.96	21.0	2.5”	NA	55.04	54.49	13.19	13.74
14X52	115.0	4.06	30.42	24.1	2.5”	NA	52.91	50.94	14.29	14.37
14X52	115.0	4.06	30.42	24.1	4.0”	NA	52.91	50.94	14.29	14.37
14x65	148.0	5.23	39.15	32.7	2.5”	NA	65.90	65.78	14.29	14.37
14x65	148.0	5.23	39.15	32.7	4.0”	NA	65.90	65.78	14.29	14.37
16X24*	57.0	2.01	15.07	25.0	2.5”	NA	24.57	22.52	16.25	16.37
16X24*	57.0	2.01	15.07	25.0	4.0”	NA	24.61	22.56	16.25	16.37
16X36*	98.1	3.46	25.95	29.8	2.5”	NA	38.11	36.14	16.25	16.37
16X36*	98.1	3.46	25.95	29.8	4.0”	NA	38.19	36.22	16.25	16.37
16X44*	131.6	4.65	34.81	36.3	2.5”	NA	48.82	46.93	16.25	16.37
16X44*	131.6	4.65	34.81	36.3	4.0”	NA	48.82	46.85	16.25	16.37
16X52*	148.3	5.24	39.23	43.0	2.5”	NA	54.21	52.24	16.25	16.37
16X52*	148.3	5.24	39.23	43.0	4.0”	NA	54.13	52.17	16.25	16.37
16x65	194.0	6.86	51.32	67.4	4.0”	NA	65.80	65.60	16.25	16.37
18X36*	138.0	4.87	36.51	54.8	4.0”	NA	39.37	36.97	18.03	18.15
18X53*	211.0	7.45	55.82	12.7	4.0”	NA	56.38	53.94	18.03	18.15
18x65	261.0	9.51	69.05	67.4	4.0”	NA	67.80	67.60	18.03	18.15
21x36*	164.0	5.79	43.39	66.5	4.0”	NA	39.45	37.64	20.31	21.85
21x53*	2553.0	8.93	675.40	72.5	4.0”	NA	67.76	65.94	20.31	21.85
21x62	344.0	12.16	91.01	78.5	4.0”	NA	67.80	67.60	20.31	21.85
24x72	473.0	16.71	125.13	119.8	4.0”	NA	75.50	75.30	23.38	24.64
30x72	715.0	25.27	189.15	125.5	4.0”	4.0”	70.47	71.25	30.74	31.00
30x72	717.0	25.34	189.68	150.0	6” FLANGE	6” FLANGE	87.00	75.50	30.74	31.00
36x72	1023.0	36.15	270.63	173.8	4.0”	4.0”	79.90	71.06	36.70	36.95
36x72	1023.0	36.15	270.63	184.8	6” FLANGE	6” FLANGE	87.00	76.00	36.70	36.95
42x72	1530.0	54.06	404.76	210.0	6” FLANGE	6” FLANGE	94.30	82.90	42.91	43.17
48x72	1950.0	68.90	515.87	242.0	6” FLANGE	6” FLANGE	94.50	83.07	48.60	48.90
63x83	2580.0	91.25	682.54	480.0	6” FLANGE	6” FLANGE	94.50	83.07	63.80	64.00

* Non-Stocking Items

Solvent free central tube with spun weld collector eliminates use of glue and solvents

Components

Tank Jackets

Mineral Tank Jackets - Chrome Jacket with Black Caps, Color Jacket with Black Caps. *Jackets available on .075 to 1.5 cu ft units only. EZ Zip Cloth Jackets (Black) also available up to 14 x 65 as an accessory.

Colors - Black, Blue or Vanilla

TANK JACKETS

PART #	DESCRIPTION
Polyester (Cloth) Tank Jackets	
200570-1	JACKET, TANK, POLYESTER, 1035 BLACK
200571-1	JACKET, TANK, POLYESTER, 1047 BLACK
200572-1	JACKET, TANK, POLYESTER, 1054 BLACK
200573-1	JACKET, TANK, POLYESTER, 948 BLACK
200574-1	JACKET, TANK, POLYESTER, 1252 BLACK
200575-1	JACKET, TANK, POLYESTER, 847 BLACK
200576-1	JACKET, TANK, POLYESTER, 935 BLACK
200577-1	JACKET, TANK, POLYESTER, 835 BLACK
200578-1	JACKET, TANK, POLYESTER, 840 BLACK
200579-1	JACKET, TANK, POLYESTER, 844 BLACK
200580-1	JACKET, TANK, POLYESTER, 940 BLACK
200581-1	JACKET, TANK, POLYESTER, 1040 BLACK
200585-1	JACKET, TANK, POLYESTER, 1465 BLACK
200586-1	JACKET, TANK, POLYESTER, 735 BLACK
200587-1	JACKET, TANK, POLYESTER, 942 BLACK
200588-1	JACKET, TANK, POLYESTER, 1044 BLACK
200589-1	JACKET, TANK, POLYESTER, 1665 BLACK
200590-1	JACKET, TANK, POLYESTER, 1865 BLACK
200591-1	JACKET, TANK, POLYESTER, 2162 BLACK
200592-1	JACKET, TANK, POLYESTER, 2472 BLACK
200593-1	JACKET, TANK, POLYESTER, 1454 BLACK
Plastic Tank Jackets - Seamless	
50030008	JACKET, TANK, SEAMLESS, GREY 44"
50030025	JACKET, TANK, SEAMLESS, GREY 48"
50030006	JACKET, TANK, SEAMLESS, GREY 54"
Plastic Tank Jackets - Seamed	
200543	CAP, JACKET, SEAMED, 8" BLACK
5300844	SHEET, JACKET, 8x44, SEAMED, CHROME
200546	SHEET, JACKET, 8x44, SEAMED, VANILLA
200561	SHEET, JACKET, 8x44, SEAMED, BLUE
200551	CAP, JACKET, SEAMED, 9" BLACK
5300948	SHEET, JACKET,9x48, SEAMED, CHROME
200568	SHEET, JACKET, 9x48, SEAMED, VANILLA
200554	SHEET, JACKET, 9x48, SEAMED, BLUE
200541	CAP, JACKET, SEAMED, 10" BLACK
5301054	SHEET, JACKET,10x54, SEAMED, CHROME
200545	SHEET, JACKET, 10x54, SEAMED, VANILLA
200569	SHEET, JACKET, 10x54, SEAMED, BLUE

Tank Covers

Outdoor Valve & Tank Covers - We are pleased to introduce new Outdoor Tanks and Valve Covers. The covers are made of environmental polyester cloth fiber and provide UV protection for outdoor installations most common in the Southern United States and Mexico. The covers are water resistant (not water proof), durable, mildew resistant, quick drying and can be easily washed.

TANK COVERS

PART #	DESCRIPTION
50030045	OUTDOOR TANK COVER, 8X44, BLUE, POLYESTER CLOTH FIBER
50030046	OUTDOOR TANK COVER, 9x48, BLUE, POLYESTER CLOTH FIBER
50030048	OUTDOOR TANK COVER, 10x54, BLUE, POLYESTER CLOTH FIBER
50030049	OUTDOOR TANK COVER, 12x52, BLUE, POLYESTER CLOTH FIBER
50030051	OUTDOOR VALVE COVER (65/85/89 SERIES), BLUE, POLY CLOTH FIBER

Components

Brine Tanks & Cabinets

Features:

- Blow-molded from high quality NSF approved high density polyethylene providing exceptional crack resistance
- Seamless one-piece construction with molded handles for easy handling and tight fit lid for security
- Stackable, lightweight design
- Brine valve with Safety (standard) or optional air-check
- Salt grid with removable legs for compact shipment
- 5 Year Warranty
- 5 pieces/package
- Brine tanks available in Black, Vanilla or Blue
- Cabinet available with grey body / Black lid only
- 18.6 gal (70L) and 26.5 gal (100L) available in square and round
- 38.4 gal (145L) and 53 gal (200L) available in round only. 53 gal available in grey only.

Components

High Quality Tank Components

Salt Grids

Durable, injection-molded salt grids available for both square and round brine tanks. Snap-on legs for compact shipping. Brine tanks assemble in seconds.

BTR-70 BTR-100 BTR-145 BTS-70 BTS-100

1 2 3

High Quality Brine Components

- **Closed bottom brine well reduces intrusion of unwanted impurities**
- **Injection molded brine grids reduce bridging**
- **Injection molded reliable brine valve**

Components

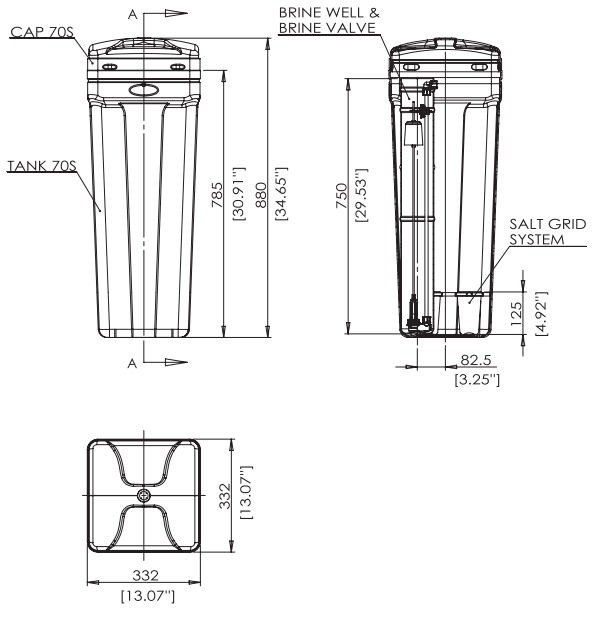
Brine Tank Specifications

Part #	Model	Color	Liquid Volume		Tank Dimensions (inches)	5 Pack Carton Dimensions (inches)	Salt Capacity		5 Pack Carton Shipping Weight	
			US Gal	Liters	L x W x H	L x W x H	Lbs	Kg	Lbs	Kg
Brine Tanks										
30020003	BTR-70*	Black	20.3	76.5	15.8 x 32.1	16.7 x 16.7 x 61.0	185.0	92.8	41.6	18.9
30020004	BTR-70*	Blue	20.3	76.7	15.8 x 32.1	16.7 x 16.7 x 61.0	185.0	92.8	41.6	18.9
30020005	BTR-100*	Vanilla	29.5	111.5	18.1 x 34.7	18.9 x 18.9 x 65.6	270.0	122.2	52.8	23.9
30020007	BTR-100*	Black	29.5	111.5	18.1 x 34.7	18.9 x 18.9 x 65.6	270.0	122.2	52.8	23.9
30020008	BTR-100*	Blue	29.5	111.5	18.1 x 34.7	18.9 x 18.9 x 65.6	270.0	122.2	52.8	23.9
30020011	BTR-145*	Black	42.3	159.7	20.3 x 37.4	21.9 x 21.9 x 72.2	385.0	174.2	65.6	29.8
30020032	BTR-200*	Grey	53.0	200.3	23.0 x 40.5	24.6 x 24.6 x 84	700.0	316.7	125.0	56.6
30020015	BTS-70*	Black	19.0	71.8	13.1 x 13.1 x 34.7	14.4 x 14.4 x 62	175.0	92.8	48.8	22.1
30020016	BTS-70*	Blue	19.0	71.8	13.1 x 13.1 x 34.7	14.4 x 14.4 x 62	175.0	92.8	48.8	22.1
30020021	BTS-100*	Vanilla	25.0	94.5	15.0 x 15.0 x 34.7	16.6 x 16.7 x 61	230.0	104.1	54.4	24.7
30020023	BTS-100*	Black	25.0	94.5	15.0 x 15.0 x 34.7	16.6 x 16.7 x 61	230.0	104.1	54.4	24.7
30020024	BTS-100*	Blue	25.0	94.5	15.0 x 15.0 x 34.7	16.6 x 16.7 x 61	230.0	104.1	54.4	24.7
* All brine tanks come with salt grid, safety float and brine well										
Cabinet Tank Packages**										
25020021	CS1-935	Natural/Gray	36.2	136.7	13.8 x 23.6 x 34.5	15.6 x 25.2 x 46.5	225.0	101.8	88.0	39.9
25020022	CS1-1035	Natural/Gray	36.2	136.7	13.8 x 23.6 x 34.5	15.6 x 25.2 x 46.5	225.0	101.8	108.0	49.0

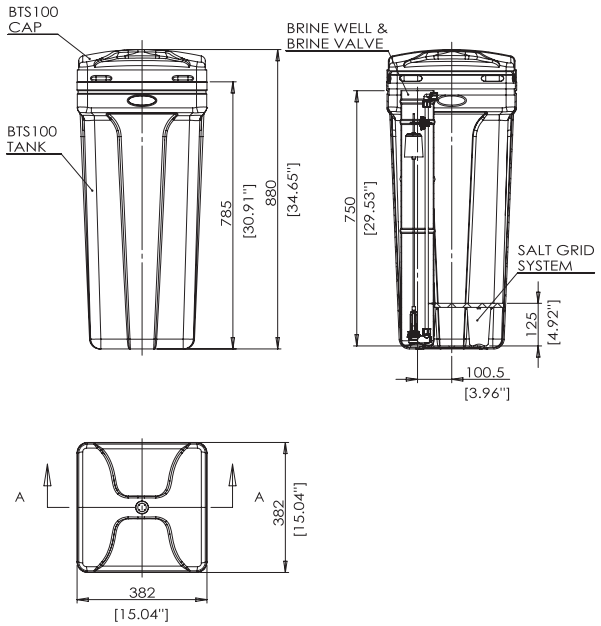
** Cabinet Tank Packages shipped in single quantities with NSF Approved fiberglass tank & IAPMO certified Approved 8% cross-linked Aquafine cation resin, fine gravel underbedding and distributor. Cabinets comes with brine well and safety float.

Dimensions

BTS70

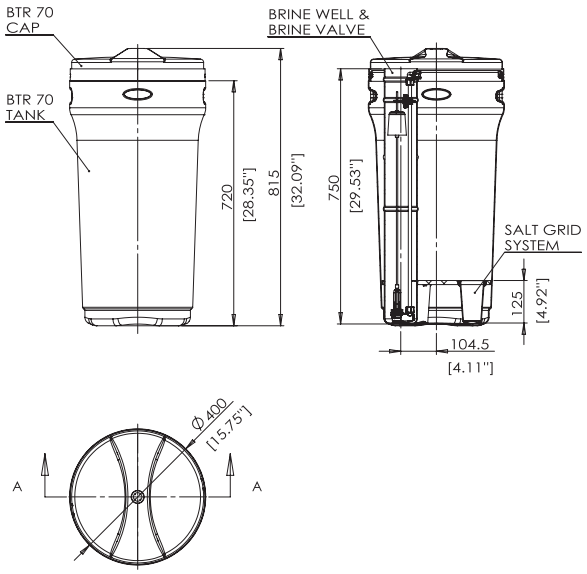


BTS100



Components

BTR70



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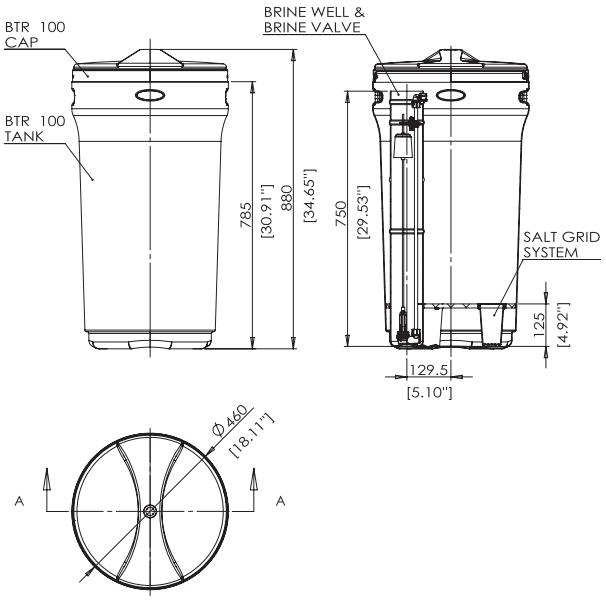
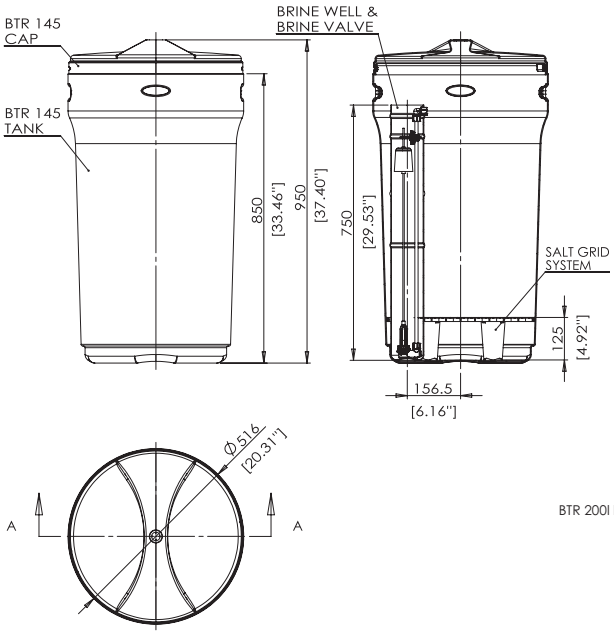
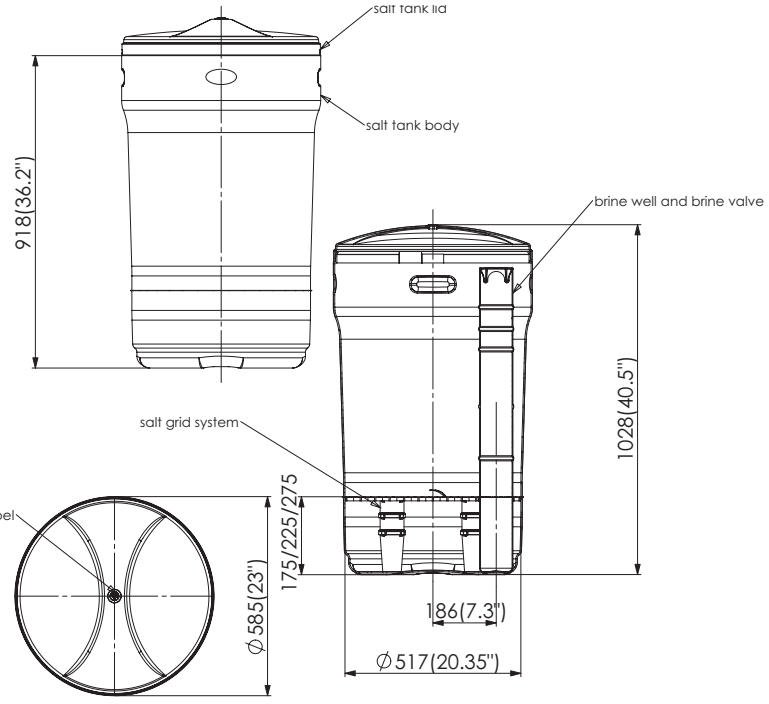


BTR145



BTR200



Components: Media

Media properties

Activated Carbon

A porous solid in powder, extrudate or granular form, produced from any base material which has a high percentage of carboneaous content, ie: wood, nut pits or shell, animal bone, hydrocarbon sludge, peat, lignite, bituminous coal and anthracite coal.

Advantages: The porosity of activated carbon offers an extremely high surface area to volume mass ratio. 2.2 pounds at 1,000 square meters per gram, a good typical carbon, has about the same surface as 100 miles of two lane highway. Carbon absorbs organic compounds which produce taste, odor, color or toxicity. Reduces free chlorine.

Anthracite

Anthracite is low in ash and friability. The coal is cleaned (reduction in ash content), screened and classified to the proper sizes for water filtration purposes.

Advantages: Versus silica and quartz sands and gravels are: longer runs between backwashes, higher flow rates without headloss, lower backwash water pressures and/or quantities, a greater utilization of the bed mass for filtration, and a volumetric higher surface area.

Garnet

A naturally hard, durable, high specific gravity mineral. Resistance to attrition means less loss of media and shutdown time. High specific gravity means more control during backwash and lower losses to drain. The angular shape provides more ability to filter and longer production runs.

Manganese Greensand

Black nodular granules of manganese-coated natural greensands - used for removing soluble iron and/or manganese as well as hydrogen sulfide. It must be either continuously or periodically regenerated with potassium permanganate.

Magnesium Oxide

Has a high degree of activity and speed of pH correction, allowing high flow.

Gravel

Gravel is used as a support to keep smaller media out of the distribution system and to stop channeling of water. Minimum layers of 3" per size is suggested. A high proportion are rounded and tend toward a spherical shape.

Sand

99% of the water purified in the world today is accomplished by passing the water through "Rapid Sand Filters". Theoretically the upper layer of the bed performs the filtration, while the lower layers provide the necessary support and assist in the hydraulics involved during the backwash cycle. The chemical and physical properties are important. The media must be hard, not smooth, and free of soluble particles.

Birm®

Under the proper conditions, no chemicals to purchase for maintenance. Regeneration not required. Iron removal efficiency is extremely high. Only periodic backwashing is required. Durable material with a long life and wide temperature range. Weighs only 45-60 lbs/cubic foot. Manganese removal pH is 8-9.

Calcium Carbonate (also known as Calcite)

(Slow dissolve, crushed marble)

Acidic waters on contact slowly dissolve the calcium carbonate media to raise the pH which reduces the potential leaching of copper, lead and other metals found in typical plumbing systems. Periodic backwashing will prevent packing and maintain high service rates. Depending on pH and service flow, the bed will have to be periodically added to as the dissolved calcium carbonate depletes. As the calcium carbonate neutralizes the water, it will increase hardness and a softener may become necessary after the neutralizing filter.

Filter Ag®

Advantages: Less pressure loss than through most other media. Light weight requires lower backwash rates. High service rates. High dirt removal capacity. Reduced shipping cost due to light weight/cu.ft.

Note: Birm, Corosex and Filter Ag are registered trademarks of the Clack Corporation.

Specifications for our most popular resins and filter media are included on the following pages. Please call if specifications for any other media are required.

Components: Media

MEDIA

PART #	DESCRIPTION	PALLET QTY	WEIGHT (LBS)
ION EXCHANGE RESIN (CUBIC FOOT BAGS			
21502	AQUAFINE® CATION RESIN AQ100-NA	42	53
21515A	ALDEX CATION 10% CROSS-LINKED RESIN (C800)	42	53
21495	C-100x-NA, 10% CROSS-LINKED	42	53
21510	C-150E PUROLITE-(HIGH CHLORINE)	42	53
21501	C-100E PUROLITE CATION RESIN	42	53
21499	C-100E FM PUROLITE FINE MESH	42	53
21512	SSTC-60 PUROLITE	42	50
21516	SST6000E PUROLITE	42	50
21494	A-850 ANION PUROLITE	42	43
21491	A-860 ANION PUROLITE	42	43
21480	TANEX RESIN	42	45
21497	A-520E ANION PUROLITE	42	43
21493	A-500P ANION PUROLITE	42	43
21486	A-300 ANION PUROLITE	42	43
21481	A-400 ANION PUROLITE	42	43
21492	RESIN UCW3700	42	45
ACTIVATED CARBON			
22022	CALGON - F-200, LOW FINES, BITUMINOUS	40	31
22022C	JACOBI AQUASORB CS LF, 12 X 40, 1 cu ft	40	27.5
22022AQ	AQUAFINE® COCONUT CARBON	40	27.5
22023C	JACOBI AQUASORB HS LF, 12 X 40, 1 cu ft	40	27.5
25001	HYDRODARCO CARBON-4000 1.66CF BAG	40	40
CATALYTIC CARBON			
22018	CENTAUR CARBON 12X40 - 1CF BAG	40	33
22018C	JACOBI AQUASORB CX MCA, 12 X 40, 1 cu ft	40	27.5
22018AQ	AQUAFINE® CATALYTIC CARBON	40	27.5
SAND & GRAVEL			
22001-50	1/8" X 1/16" FINE GRAVEL, 50LB BAGS	56	50
22002-50	1/4" X 1/8" MEDIUM GRAVEL, 50LB BAGS	56	50
22003-50	1/2" X 1/4" COARSE GRAVEL 50 LB BAGS	40	50
22004-50	.45 X .55 FILTER SAND 50LB BAGS	60	50
GARNET			
22502	GARNET-30X40 (130 LBS/CU FT) - SOLD IN 50 LB BAGS	NA	50
22503	GARNET-8X12 (140 LBS/CU FT) - SOLD IN 50LB BAGS	NA	50
OTHER MEDIA			
33016	BIRM (36 LBS/CU FT)	40	36
52000	GREENSAND PLUS- 0.5 CU FT/43 LBS	55	43
32376	CALCITE-90 LBS/CU FT-SOLD IN 45 LB BAGS	50	45
32377	MAG OX -75 LBS/CU FT-SOLD IN 50 LB BAGS	25	75
33013	FILTER AG (1 CF BAG)	25	25
22510	NEXTSAND (1 CF BAG)	25	53
22014	PYROLOX - SOLD IN 1/2 CF BAG	20	60
31501	ANTHRAFILT (ANTHRACITE) SOLD IN 1 CF BAG	50	52
33007	KDF 55, DRUM	NA	57
33008	KDF 85, DRUM	NA	57
21498	FerrIX™A33E*	42	57
35080006	KATALOX LIGHT (66 LB / CU FT) - SOLD IN 1 CU FT BAGS	42	66

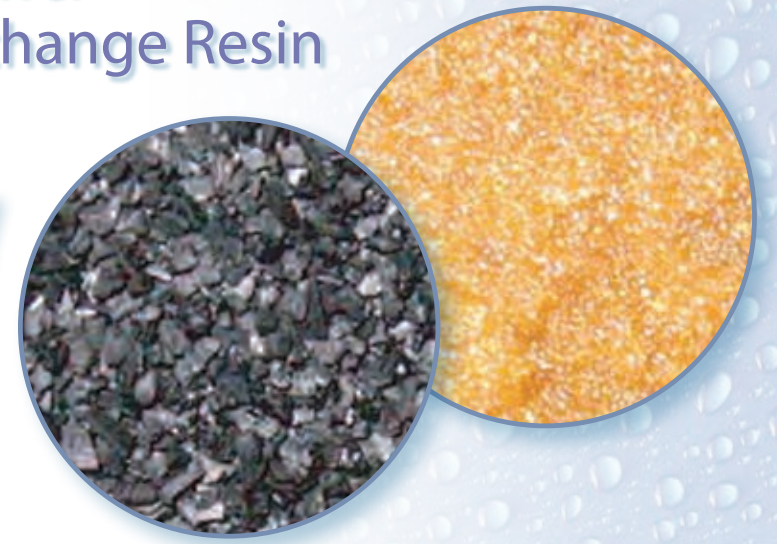
* All suggestions and recommendations provided concerning the use of Purolite FerrIX™ A33E are based on tests and data believed to be reliable. However, as Canature WaterGroup cannot control the use of its products by others, no performance guarantee is made, either expressed or implied, by any such suggestion or recommendation provided by Canature WaterGroup.

REPLACEMENT MEDIA BED - SHIPPED IN PAILS

PART #	DESCRIPTION	WEIGHT (LBS)
95600	0.75 CF REPLACEMENT SOFTENER BED - PREPACKED	52
95601	1.0 CF REPLACEMENT SOFTENER BED - PREPACKED	70
95606	1.5 CF REPLACEMENT SOFTENER BED - PREPACKED	103
95609	2.0 CF REPLACEMENT SOFTENER BED - PREPACKED	127
95402	1.0 CF REPLACEMENT CARBON BED - PREPACKED	44
95403	1.5 CF REPLACEMENT CARBON BED - PREPACKED	65
95404	2.0 CF REPLACEMENT CARBON BED - PREPACKED	76
95418	0.75 CF REPLACEMENT MULTI MEDIA - PREPACKED	71
95415	1.0 CF REPLACEMENT MULTI MEDIA - PREPACKED	94
95416	1.5 CF REPLACEMENT MULTI MEDIA - PREPACKED	138
95632	0.75 CF REPLACEMENT NEXSAND- PREPACKED	60
95633	1.0 CF REPLACEMENT NEXSAND - PREPACKED	90
95644	1.5 CF REPLACEMENT NEXSAND - PREPACKED	120
95411	0.75 CF REPLACEMENT GREENSAND - PREPACKED	75
95412	1.0 CF REPLACEMENT GREENSAND - PREPACKED	107
95413	1.5 CF REPLACEMENT GREENSAND - PREPACKED	160
95414	2.0 CF REPLACEMENT GREENSAND - PREPACKED	200
95431	0.75 CF REPLACEMENT CHEMFREE BED A - PREPACKED	76
95432	0.75 CF REPLACEMENT CHEMFREE BED AM - PREPACKED	76
95425	1.0 CF REPLACEMENT CHEMFREE BED A - PREPACKED	107
95426	1.0 CF REPLACEMENT CHEMFREE BED AM - PREPACKED	107
95551	1.5 CF REPLACEMENT CHEMFREE BED A - PREPACKED	150
95554	1.5 CF REPLACEMENT CHEMFREE BED AM - PREPACKED	150
95428	2.0 CF REPLACEMENT CHEMFREE BED AM - PREPACKED	200
95435	0.75 CF REPLACEMENT BIRM- PREPACKED	33
95436	1.0 CF REPLACEMENT BIRM - PREPACKED	44
95437	1.5 CF REPLACEMENT BIRM - PREPACKED	65
95438	2.0 CF REPLACEMENT BIRM - PREPACKED	76
93500	0.75 CF REPLACEMENT NEUTRALIZING- PREPACKED	75
93501	1.0 CF REPLACEMENT NEUTRALIZING - PREPACKED	107
93502	1.5 CF REPLACEMENT NEUTRALIZING - PREPACKED	150
93503	2.0 CF REPLACEMENT NEUTRALIZING - PREPACKED	200
35100017	0.75 CF REPLACEMENT BIF - PREPACKED	73
35100018	1.0 CF REPLACEMENT BIF - PREPACKED	112
35100019	1.5 CF REPLACEMENT BIF - PREPACKED	139
35100028	2.0 CF REPLACEMENT BIF - PREPACKED	192
35100020	0.75 CF REPLACEMENT BIFMN - PREPACKED	72
35100021	1.0 CF REPLACEMENT BIFMN - PREPACKED	96
35100029	1.5 CF REPLACEMENT BIFMN - PREPACKED	136
35100030	2.0 CF REPLACEMENT BIFMN - PREPACKED	190
95569	1.0 CF REPLACEMENT CATALYTIC CARBON BED - PREPACKED	40
95577	1.5 CF REPLACEMENT CATALYTIC CARBON BED - PREPACKED	55
95629	2.0 CF REPLACEMENT CATALYTIC CARBON BED - PREPACKED	74
95630	3.0 CF REPLACEMENT CATALYTIC CARBON BED - PREPACKED	86
35100035	1.0 CF REPLACEMENT HIMTLC PLUS BED - PREPACKED	63
35100031	1.5 CF REPLACEMENT HIMTLC PLUS BED - PREPACKED	89
35100032	2.0 CF REPLACEMENT HIMTLC PLUS BED - PREPACKED	120
35100033	2.5 CF REPLACEMENT HIMTLC PLUS BED - PREPACKED	146
35100034	3.0 CF REPLACEMENT HIMTLC PLUS BED - PREPACKED	177

Components: Media

Aquafine® Ion Exchange Resin



AQ100-Na

AQUAFINE AQ100-Na is a premium high capacity gel polystyrene strong acid cation exchange resin supplied regenerated in the sodium form. It is suitable for use as either residential or commercial water softening equipment.

Physical & Chemical Characteristics	
Polymer Matrix Structure	Polystyrene 8% cross-linked with Divinylbenzene
Physical Appearance	Amber spherical beads
Whole Bead Count	90% minimum
US Standard Mesh Size	16 - 50
Ionic Form as shipped	Sodium (Na+)
Approximate Shipping Weight	53 lb / cubic foot (850 grams / litre)
Total Capacity in the Sodium Form	1.9 meq / ml
pH Range, Stability in the Sodium Form	0 - 14

IAPMO R & T Certified against NSF 61 for Material Safety Only

Conditioning for Operation

Hydrotech recommends AQUAFINE AQ100-Na resin be initially regenerated upon the startup of any water softener system. It is also recommended that the resin be sanitized during the initial regeneration with a small amount of 5.25% sodium hypochlorite solution diluted in the saturated brine mixture.

AQUAFINE is a registered trademark of WaterGroup Inc.

Regulatory Compliance

AQUAFINE AQ100-Na is tested and certified by IAPMO to NSF / ANSI Standard 44 for material requirements only.

AQUAFINE AQ100-Na is compliant with US FDA Code of Federal Regulations, Section 21, Paragraph 173.25.

Components: Media

C-100E Strong Acid Cation Exchange Resin

Product Description

Purolite C-100E is a high purity premium grade bead from conventional gel polystyrene sulphonate cation exchange resin designed expressly for the treatment of foodstuffs, beverages, potable waters, and water used in the processing of food. Its specification is such that it will exceed the relevant EEC requirements, and the resin is in compliance with the US Food & Drug Administration Code of Federal Regulations - Section 21, Paragraph 173.25 - for use in the treatment of foods for human consumption. Its high bead integrity, excellent chemical and physical stability and very low extractibles content play a large part in its successful employment in these areas.

Typical Physical & Chemical Characteristics

Polymer Matrix Structure	Crosslinked Polystyrene Divinylbenzene
Physical Form and Appearance	Clear Spherical Beads
Whole Bead Count	90% minimum
Functional Groups	$R\text{-}SO_3$
Ionic Form, as shipped	Na^+
Shipping Weight (approx)	850 g/l (53 lb/ft³)
Screen Size Range:	
US Standard Screen	16 - 50 mesh, wet
Particle Size Range	+1.2 mm <5%, -0.3 mm <1%
Moisture Retention, Na+ Form	46 - 50%
Swelling Na+ Ù H+	5% maximum
Ca++ Ù Na+	8% maximum
Specific Gravity, moist Na+ Form	1.27
Total Exchange Capacity, Na+ Form:	
Wet, volumetric	1.9 eq/ml minimum
Dry, weight	4.5 eq/g minimum
Operating Temperature, Na+ Form	150°C (300°F) maximum
pH Range, Stability, Na+ Form	0 - 14
pH Range, Operating, Na+ Form	6 - 10

For complete specifications, please contact our Customer Service Department

PUROLITE®
ION EXCHANGE RESINS

Components: Media

C-100 E-FM Fine Mesh Softener Resin

Purolite offers fine mesh strong acid cation resin for many added advantages in water softening applications:

- Higher operating capacities
- Minimal salt requirements
- Faster kinetics
- More effective iron removal
- Shallower bed requirements
- Less rinse water needed
- Best for counter-current regeneration
- Bead size - 40 - 70 US mesh

Below are estimated capacities for a typical Fine Mesh Resin product, based on U.S. gallon measurements.

Lbs. of Salt (NaCl) Per Cu. Ft. of Resin	30 to 70 Mesh Kilograin Capacity	Standard Purolite C-100 Kilograin Capacity
2.0	9.6	9.0
3.0	15.0	14.0
5.0	24.0	21.5
7.5	29.8	25.0
10.0	31.5	28.5
15.0	34.0	32.6
25.0	39.2	35.0

Note: Operating Conditions for the above Fine Mesh Resin

Bed depth - 24 inches, minimum
Service Downflow - 3 gpm/cu. ft.
Brining - Upflow or Downflow - 0.5 gpm/cu. ft.

PUROLITE®
ION EXCHANGE RESINS

Components: Media

A-500P, A-850 & A-860 Tannin Removal Resins

Ion Exchange Resins for the reversible removal of naturally occurring tannin organics (color bodies) in potable waters.

- Purolite A-500 P, A-850, and A-860 are strong base anion resins for tannin removal from potable waters. All resins are functionally the same. A-850 is a gel resin. A-500 P and A-860 are macroporous resins. Physically, the A-860 is a porous version of the A-850 gel. At times, one resin may be more effective than the others depending on the area of the country.
- The resins are rated for tannin removal at 2000 ppm - gallons per cubic foot. To determine the gallon volume that can be had per cubic foot, divide the figure of 2000 by ppm of tannins in the water. If only a fraction of a cubic foot is used, then the water produced will be this fraction of the volume.
- Service flow rate is 2 - 5 gpm per cubic foot. Pressure drop in psi per foot of resin depth is 0.18 x gpm per sq. ft.
- The resin regenerates with salt. The regenerant level is 8 pounds of salt per cubic foot. The salt regenerant solution to the resin bed should be 8% plus and the contact time 30 minutes.
- Backwash flow rate is 2 - 3 gpm per sq. ft for a minimum backwash time of 20 minutes. An upper basket is recommended. Resin bead size is 16 to 50 US mesh.
- In field installations, the tannin removal resin can be put in as the top portion of the softener resin bed. In this type of installation, all backwash and regeneration conditions would be those specified for the tannin resin. This means modifying softener system by cutting backwash flow in half and doubling backwash time. Use smallest brine injector.
- Avoid overrunning the resin as it is sometimes difficult to clean up. Regenerate as needed and on the conservative side. Never exceed three days without a regeneration. All standard available resin cleaners will help and not harm the tannin removal resins. Iron should first be removed from water when it is present and over 0.3 mg/l.

PUROLITE®
ION EXCHANGE RESINS

Components: Media

A-520E Macroporous Strong Base Anion Exchange Resin

Product Description

Purolite A-520E is a macroporous strong base anion resin which is specially designed for the removal of nitrates from water for potable processes. The macroporous matrix and special ion exchange group functionality imparts ideal nitrate selectivity to Purolite A-520E, making this resin particularly suitable for nitrate removal even when moderate to high concentrations of sulfate are present. Hence this resin gives superior performance in nitrate removal applications when compared with standard exchange resins.

A requirement of the nitrate removal process is to produce potable water meeting the quality standard defined by the European Economic Community in the Directive No. 80/778 of July 1980. This directive limits the nitrates to a maximum admissible concentration (M.A.C.) of 50 mg NO_3/l. The USA drinking water regulations limit nitrates to 45 mg NO_3/l.

Regeneration

Sodium chloride is generally preferred for regeneration for reasons of cost and efficiency. When available, sea water can be used quite effectively. The use of softened water for make up of regenerant and rinse is often recommended to avoid the precipitation of calcium carbonate in and around the Purolite A-520E (or any other resin used in this application). Although the precipitation is not particularly detrimental in the short term, the long term effects may include increased resin attrition and leakage of nitrates.

Preconditioning Procedure

Purolite A-520E is processed to ensure that it meets the requirements for use in the treatment of potable water. On installation, it is recommended that the resin be regenerated with two bed volumes of 6% NaCl followed by a rinse of four bed volumes of potable water, prior to use.

Typical Physical & Chemical Characteristics

Polymer Matrix Structure	Macroporous Styrene-Divinylbenzene
Physical Form and Appearance	Opaque Cream Spherical Beads
Whole Bead Count	95% minimum
Functional Groups	Quaternary Ammonium
Ionic Form, as shipped	Cl^-
Shipping Weight (approx)	680 g/l (42.5 lb/ft^3)
Screen Size Range:	
US Standard Screen	16 - 50 mesh, wet
Particle Size Range	+1200 mm <5%, -300 mm <1%
Moisture Retention, Cl^- Form	50 - 56%
Reversible Swelling Cl^-ÙSO$_4$/NO_3	negligible
Total Exchange Capacity, Cl^- Form:	
Wet, volumetric	0.9 meq/ml minimum
Dry, weight	2.8 meq/g minimum
Operating Temperature, Cl^- Form	100°C (212°F) maximum
pH Range, Stability	0 - 14
pH Range, Operating	4.5 - 8.5

A-520E is manufactured by: Purolite Company (The) - Bala Cynwyd, PA

For complete specifications, please contact our Customer Service Department

PUROLITE® ION EXCHANGE RESINS

Components: Media

Tanex

Purolite Ion Exchange Resin for the removal of a wide range of organics, metal hydrides, metal oxides and colloidal matter from water; while operating on a chloride cycle.

Typical Characteristics

- Capacity: 2100 ppm - GALLONS per cu. ft.
  Divide the 2110 figure by ppm of organics for gallons treated per cu. ft.
- Service Flow Rate: 1 to 4 gpm/cu. ft.
- Influent water filtered to 5 microns
- Regenerant level 8 lbs. NaCl/cu. ft.
- Backwash Flow Rates
  @ 55°F 1.2 GPM/sq. ft.
  @ 70°F 1.5 GPM/sq. ft.
- Regenerant concentration 8% minimum
  30 minute contact time minimum
- Bead Size: 16 to 50 U.S. Mesh
- Pressure Drop: 0.08 x GPM/sq. ft. = _____ PSI/ft. depth

NOTE: If the TANEX resin is used in a softener system either as the top portion of the resin bed or making up the whole bed; then reduce the backwash flow rate by at least half, double the backwash time and, use a small brine injector and put in top screen.

PUROLITE®
ION EXCHANGE RESINS

Components Media

RED FLINT - Filter Sand & Gravel Industrial and Municipal

For over 60 years, Red Flint sand and gravel has been satisfying the requirements of industrial and municipal users. Red Flint products have been specified and used nationally and internationally because of their high quality, desirable chemical properties and wide range of precision sizing. These factors, combined with prompt, reliable service by people who care, are key reasons why so many of our customers state "If you want the very best, use Red Flint."

There are important reasons for specifying and using Red Flint industrial sand and gravel:

- Meets AWWA specifications
- Red Flint is a "natural state" glacial deposit product
- Precision sizing and uniform grading with close limits
- Red Flint filter sand and gravel meets strictest effective size and uniformity coefficients
- All product is processed to exacting specifications

Average Screen Analysis of Red Flint Sand
Standard Grades - Effective Sizes - MM Uniformity Coefficient - 1.35 - 1.70 Range

Opening	Sieve	0.35-0.45		0.45-0.55		0.50-0.60		0.60-0.65		0.70-0.80		0.80-1.20		1.65-2.00	
mm	No.	% Ref	% Pass	% Red	% Pass	% Ref	% Pass	% Ref	% Pass	% Ref	% Pass	% Ref	% Pass	% Ref	% Pass
3.327	6													0.5	99.5
2.794	7													1.0	98.5
2.362	8													58.0	40.5
1.981	9									0.0	100.0	0.0	100.00		
1.651	10									14.0	86.0	28.0	72.0	38.0	2.5
1.397	12					0.0	100.0	0.0	100.0	11.0	75.0	30.0	42.0		
1.168	14			0.0	100.0	8.0	92.0	8.5	91.5	20.0	55.0	32.0	10.0	2.5	0.0
.991	16		100.0	1.0	99.0	24.0	68.0	16.0	75.5	22.0	33.0	9.5	0.5		
.883	20	1.0	99.0	10.0	89.0	32.0	36.0	25.0	50.5	18.0	15.0	0.5	0.0		
.701	24	8.0	91.0	27.0	62.0	24.0	12.0	26.0	24.5	11.0	4.0				
.589	28	24.0	67.0	29.0	33.0	8.0	4.0	20.5	4.0	4.0	0.0				
.495	32	29.0	38.0	25.0	8.0	4.0	0.0	4.0	0.0						
.417	35	23.0	15.0	6.0	2.0										
.351	42	12.0	3.0	2.0	0.0										
.295	48	3.0	0.0												
.208	65														
.147	100														

Uniformity coefficient can be controlled at points between limits shown above.

Average Screen Analysis for Standard Grades of Red Flint Filter Gravel Percent Retained

Filter Gravel Sizes	3	2 1/2	2	1 1/2	1 1/4	1	7/8	3/4	5/8	1/2	3/8	1/4	No. 4	No. 6	1/8"	No. 8
2 1/2x1 1/2	0	0-5	40-60	30-40	0-5											
1 1/2x1				0-5	40-65	45-60	0-5									
1 1/2x3/4				0-5	38-52	30-55		45-60	0-5							
1x3/4						0-5	50-70	30-50	0-5							
1x5/8						0-5	25-40	30-45	25-40	0-5						
1x1/2							0-5	35-50		15-65	0-5					
3/4x1/2								0-5	50-70	30-50	0-5					
5/8x5/8									0-5	35-48	45-65	0-5				
1/2x1/4										0-5	45-60	40-60	0-5			
3/8x3/4											0-5	45-65	35-60	0-5		
1/4x1/8												0-5	15-35	50-70	10-20	0-8

Red Flint and Red Flint Filter Sand is tested and certified by UL under ANSI/NSF 61 for materials only.
Red Flint and Red Flint Filter Sand is manufactured by: American Materials Corp. - Eau Claire, WI

Components Media
GreensandPlus™

GreensandPlus™ is a black filter media used for removing soluble iron, manganese, hydrogen sulfide, arsenic and radium from water supplies.

The manganese dioxide coated surface of GreensandPlus acts as a catalyst in the oxidation reduction reaction of iron and manganese.

The silica sand core of GreensandPlus allows it to withstand operating conditions in waters that are low in silica, TDS and hardness. When using GreensandPlus, you can eliminate the aluminate feed.

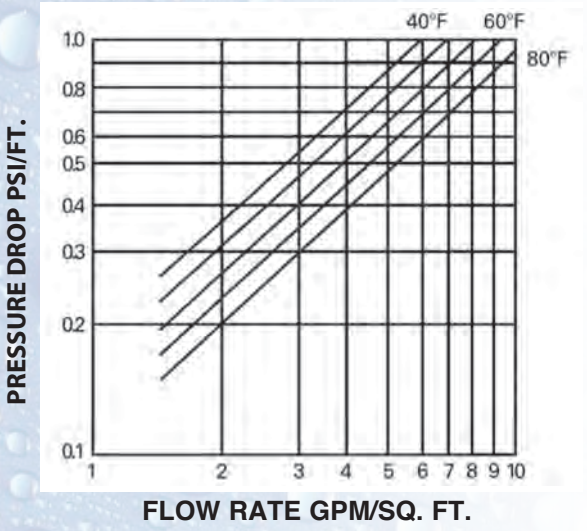
GreensandPlus is effective at higher operating temperatures and higher differential pressures than ordinary manganese greensand. Tolerance to higher differential pressure can provide for longer run times between backwashes and a greater margin of safety. Systems may be designed using either vertical or horizontal pressure filters, as well as open gravity filters.

GreensandPlus is a proven technology for iron, manganese, arsenic, radium and hydrogen sulfide removal. Unlike in-situ treated media, there is no need for extensive preconditioning of filter media or lengthy startup periods, during which required water quality may not be met.

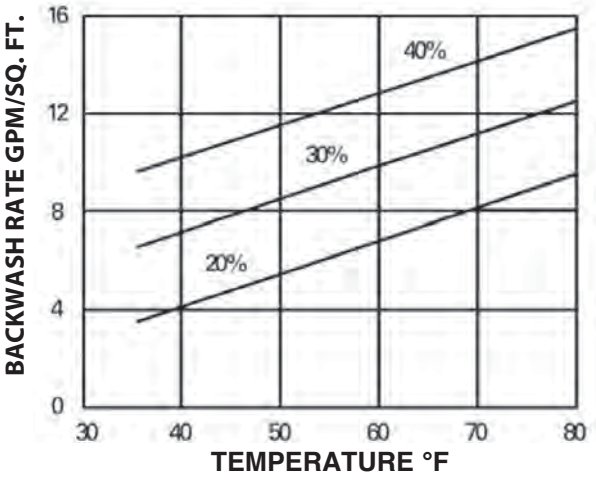
GreensandPlus is an exact replacement for manganese greensand. It can be used in CR or IR applications and requires no changes in backwash rate or times or chemical feeds.

GreensandPlus has the IAPMO certified Certification for compliance with NSF/ANSI 61. Packaging is available in 1/2 cubic foot bags or 1 metric ton (2,205 lbs) bulk sacks.

PRESSURE DROP (CLEAN BED)



BED EXPANSION DURING BACKWASHING



Components: Media

GreensandPlus™

Physical Characteristics

Physical Form
Black, nodular granules, shipped in a dry form

Apparent Density
85 pounds per cubic foot net

Shipping Weight
89 pounds per cubic foot gross

Specific Gravity
Approximately 2.4

Porosity
Approximately 0.45

Screen grading (dry)
18 X 60 mesh

Effective size
0.30 to 0.35 mm

Uniformity coefficient
Less than 1.60

pH range
6.2 to 8.5 (see General Notes)

Maximum temperature
No limit

Backwash rate
Minimum 12 gpm/sq.ft. at 55°F

Service flow rate
2 - 5 gpm/sg.ft.

Minimum bed depth
24 inches (15-18" of each media or dual media beds)

Suggested Operating Conditions:

Bed Type
Dual media: anthracite (15-36 in.) and GreensandPlus (15-24 in.)

Capacity
700-1200 grains of oxidized iron and manganese/sq.ft. of bed area based on potassium permanganate demand and operation to iron break through.

Backwash
Sufficient rate using treated water to produce 40% bed expansion.

Air/Water Scour
Optional using 0.8-2.0 cfm/sq. ft. with a simultaneous treated water backwash at 4.0-4.5 gpm/sq. ft.

Raw Water Rinse
At normal service flow rate for 3-5 minutes or until effluent is acceptable.

Flow Rate
Recommended flow rates with CR operation are 2-5 gpm/sq. ft. Extremely high concentrations of iron and manganese usually require lower flow rates for equivalent run lengths. Higher flow rates can be considered with very low concentrations of iron and manganese. For optimum design parameters, pilot plant testing in recommended. The run length between backwashes can be estimated as follows:

What is the run length for a water containing 1.7 mg/L iron and 0.3 mg/L manganese at a 4 gpm/sq. ft. operating rate?

$KMn0_4$ demand= (1 x mg/L Fe) + (2 x mg/L Mn)

= (1 x 1.7) + (2 x 0.3)

= (2.3 mg/L or 2.3/17.1 = 0.13 grains/gal. gpg)

At 1,000 grains/sq. ft. loading ÷ 0.13 gpg = 7,692 gal./sq.ft.

At 4 gpm/sq. ft. service rate 7,692/4 = 1,923 min.

The backwash frequency is approximately every 30-36 hours of actual operation.

The Intermittent regeneration (IR) operation is available for certain applications.
Contact your Inversand representative for additional information.

Components: Media

GreensandPlus™

General Notes

pH

Raw waters having natural pH of 6.2 or above can be filtered through GreensandPlus without pH correction. Raw waters with a pH lower than 6.2 should be pH-corrected to 6.5-6.8 before filtration. Additional alkali should be added following the filters if a pH higher than 6.5-6.8 is desired in the treated water. This prevents the possible adverse reaction and formation of a colloidal precipitate that sometimes occurs with iron and alkali at a pH above 6.8.

Removing Fines and Initial Conditioning

Prior to placing the anthracite in the filter or placing the filter into service, GreensandPlus should be thoroughly backwashed and the top layer of fine material removed by undercutting in accordance with AWWA B 100, paragraph 4.5.2. This is especially important if anthracite is placed on top of the GreensandPlus bed. Each cubic foot of GreensandPlus shipped contains sufficient material to compensate for the removal of this final material.

GreensandPlus is NOT shipped in a regenerated form; therefore it is necessary, prior to use, to regenerate it with a solution of potassium permanganate contacting the bed for a minimum of 4 hours. A regeneration level of 4 ounces of $KMn0_4$ or chlorine per cubic foot of GreensandPlus is recommended. Before placing into service, the filter must be rinsed of all remaining traces of potassium permanganate.

Radium and Arsenic Removal Using GreensandPlus

The GreensandPlus CR process has been found to be successful in removing radium and arsenic from well water. This occurs via adsorption onto the manganese and/or iron precipitates that are formed. For radium removal, soluble manganese must be present in or added to the raw water for removal to occur. Arsenic removal requires iron to be present in or added to the raw water to accomplish removal. Pilot plant testing is recommended in either case.

Methods of Operation Continuous Regeneration (CR)

Continuous regeneration (CR) operation is recommended in applications where iron removal is the main objective in well waters with or without the presence of manganese. This method involves the feeding of a predetermined amount of chlorine (Cl_2) and /or potassium permanganate ($KMn0_4$), directly to the raw water before the GreensandPlus Filter.

Chlorine should be fed at least 10-20 seconds upstream of the $KMn0_4$, or as far upstream as possible to insure adequate contact time. KMn04, if required, should be fed to produce a “just pink” color in the filter inlet. This slight excess of $KMn0_4$ or a Cl_2 residual carried through the filter will maintain GreensandPlus in a continuously regenerated condition.

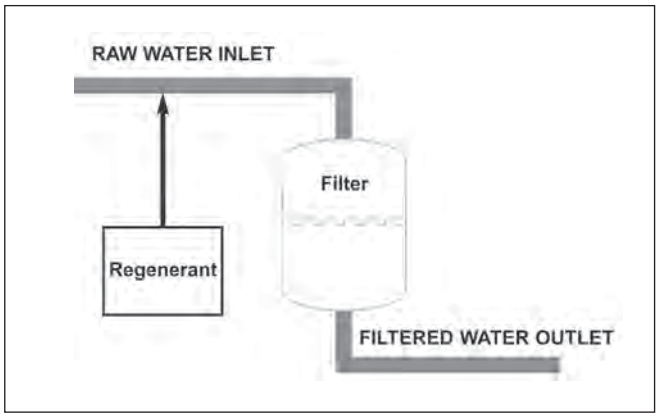
The dosage of Cl_2 and $KMn0_4$ may be estimated as follows:

mg/L Cl_2 = mg/L Fe
mg/L $KMn0_4$= (0.2 x mg/L Fe) + (2 x mg/LMn)

Without Cl_2 the $KMn0_4$ demand may be estimated by:

mg/L $KMn0_4$= (1 x mg/L Fe) + (2 x mg/L Mn)

GreensandPlus: Continuous Regeneration (CR)



Components: Media

Magnesium Oxide & Calcium Carbonate

Magnesium Oxide

Magnesium oxide is a specially processed hard, bead-like magnesia, adapted for use in filters to neutralize acidity by increasing the pH value. By neutralizing the free carbon-dioxide in water, magnesium oxide can correct red water conditions and render them to a non-corrosive condition. Magnesium oxide is used most effectively where pH correction is substantial or high flow conditions are in use. Magnesium oxide, being soluble to acidity, will have to be replenished periodically. Please note - under certain low flow conditions, magnesium oxide may over-correct and create a basic condition.

Magnesium oxide can be effectively combined with calcium carbonate to combine the high flow neutralization properties of magnesium oxide along with the slow reacting low flow properties of calcium carbonate without getting potentially high basic properties due to over correction.

Advantages

- High degree of activity
- Speed of correction, allowing high flow

Physical Properties

Color	greyish white
Density	90 lbs./cu. ft.
Effective Size	1.27 mm
Uniformity Coefficient	1.48
Active Material	84% - 90%
Composition	MgO 97+%

Conditioning for Operation

1. Downflow service is satisfactory on waters with a hardness of less than 5 gpg or where it is combined with calcium carbonate at least 50/50. Upflow service is generally recommended with hardness exceeding 5 gpg to prevent “cementing of the mineral bed.”
2. A gravel support bed is recommended.
3. pH - 4 to 6.
4. Bed depth - 24” to 30”.
5. Backwash frequently to prevent cementing.
6. Backwash bed expansion - 35%.
7. Service rate - 5 to 6 gpm but may be modified to adapt to local conditions.

Calcium Carbonate (pH Neutralizer)

Calcium carbonate is a crushed and screened white marble material which can neutralize acidic or low pH waters to a neutral non-corrosive affluent, inexpensively. Acidic waters, on contact, slowly dissolve the calcium carbonate media to raise the pH, which effectively neutralizes the potential leaching of copper and other metals found in typical plumbing systems. Periodic backwashing will prevent packing and maintain high service rates. Depending on pH and service flow, the media bed will have to be periodically added to as the dissolved media depletes. As the calcium carbonate neutralizes the water, it will increase hardness and a softener may become necessary after the neutralizing filter.

Advantages

- High uniformity coefficient for maximum contact for controlled pH correction
- Slower reacting
- Inexpensive

Physical Properties

Color	near white
Composition	$CaCO_3$ - 95% minimum
	$MgCO_3$ - 3% maximum
Weight	100 lbs.
Screen	#16, #20, #30, #50
Percent retained	1%, 15%, 25%, 84%
Percent passed	--, --, --, 15%

Conditions of Operation

1. pH - 5 to 6
2. Bed depth - 24” to 30”
3. Backwash rate - 8 to 12 gpm/sq. ft.
4. Backwash bed expansion - 35% of bed depth
5. Service flow rates - 5 to 6 gpm/sq. ft. invariably gives satisfactory results, but may be modified in view of local conditions.

Components: Media

AQUAFINE® Granular Coconut Shell Based Carbon

AQUAFINE® is a high activity granular Activated Carbon manufactured by steam activation from select coconut shell charcoal. Its enhanced microporosity makes it particularly well suited for the removal of low molecular weight organic compounds and their chlorinated by-products such as chloroform and other trihalomethanes (THM's). It is also ideally suited for the removal of oxidizing agents such as chlorine and ozone from process water. An important feature of this material is its superior mechanical hardness and the extensive dedusting during its manufacture that ensures an exceptionally clean activated carbon product.

Soft drink manufacturers and breweries rely upon AQUAFINE® activated carbon for dechlorination and dissolved organic removal.

Typical Applications:

- Municipal drinking water treatment
- Residential water treatment systems Point of Entry (POE)/ Point of Use (POU)
- Beverage production
- Protection of ion exchange resins from chlorine and organic fouling

Available Particle Sizes:

- 12x40 mesh (0.425 - 1.70 mm)
- Other granulations available upon request

Certifications and Approvals:

- NSF / ANSI Standard 61

Features and Benefits:

- Extensive internal structure
- Optimized density
- Highly microporous structure
- Maximum hardness
- Low dust and turbility
- Optimized density
- Excellent adsorption capacity
- High volume activity
- Rapid dechlorination
- Effective removal of ozone
- Low filtered water turbidity

Standard Packaging:

- 27.5 Lb Bag

Specification*

Model #	AQFC1240
Item #	22022AQ
Iodine #	1000
Apparant Density	0.52 g/cc Min
Moisture	5% by Wt
Total Ash	3 % by Wt
Extractable pH	9-11
Particle Size	12 (Max 5) X 40 (Max 5)
Hardness	Min 98

*Specifications are produced using AQUAFINE® Carbons' test methods. They are listed for informational purposes only and not to be used as purchase specifications. Sales specifications can be obtained from your AQUAFINE® Carbons Technical Sales Representative and should be reviewed before placing an order.

AQUAFINE®

Components: Media

AQUAFINE® Catalytic Granular Coconut Shell Based Activated Carbon

AQUAFINE® is a catalytic, high activity granular activated carbon manufactured by steam activation of select coconut shell charcoal. The catalytic activity of this activated carbon makes it highly effective for the removal of chloramines and hydrogen sulfide from potable water. Its large micropore volume makes it particularly well suited for the removal of low molecular weight organic compounds and their chlorinated by-products such as chloroform and other trihalomethanes (THMs). An important feature of this material is its superior mechanical hardness and the extensive dedusting during its manufacture ensures an exceptionally clean activated carbon product.

AQUAFINE® is an activated carbon with a catalytic activity that is required for liquid phase application involving oxidation, reduction, and decomposition.

Typical Applications:

- Residential water treatment systems Point of Entry (POE)/ Point of Use (POU)
- Beverage production
- Protection of ion exchange resins from chloramines

Available Particle Sizes:

- 12x40 mesh (0.425 - 1.70 mm)
- Other granulations available upon request

Certifications and Approvals:

- NSF Std. 61
- NSF Std. 42

Features and Benefits:

- Catalytic activity
- Large and extensive internal pore structure
- Highly microporous structure
- Optimized density
- Maximum hardness
- Low dust and turbidity
- Excellent adsorption capacity
- High volume activity
- Rapid dechlorination
- Low filtered water turbidity

Standard Packaging:

- 27.5 Lb Bag

Specification*

Model #	AQFCAT1240
Item #	22018AQ
Iodine #	1050
Apparant Density	0.52 g/cc Min
Moisture	5% by Wt
Total Ash	3 % by Wt
Extractable pH	7-11
Catalytic Activity (Temp Increase)	20 Deg C
MCA Removal Capacity	150mg/g
Particle Size	12 (Max 5) X 40 (Max 5)
Hardness	Min 98

*Specifications are produced using AQUAFINE® Carbons' test methods. They are listed for informational purposes only and not to be used as purchase specifications. Sales specifications can be obtained from your AQUAFINE® Carbons Technical Sales Representative and should be reviewed before placing an order.

AQUAFINE®

Components: Media

AquaSorb® HS acid washed coconut based activated carbon

AquaSorb® HS is an acid washed high purity high activity granular activated carbon manufactured by steam activation from carefully select coconut shells. This activated carbon is produced for use in ultra-pure water treatment systems requiring low conductivity and exceptionally high purity. This activated carbon is also specifically designed for the removal of heavy hydrocarbons from recovered condensate. The acid washing process removes soluble silica from the matrix of the activated carbon to prevent leaching into the condensate.

Manufacturers rely upon AquaSorb® HS activated carbons for applications that require exceptional pure water without compromising performance.

Features and Benefits:

- Extensive internal structure
- Optimized density
- Neutral surface
- Maximum hardness
- Extended operational life
- High volume activity
- Rapid pH-stabilization, quick start-up
- Minimized operational losses

Standard Packaging:

- 25 kg bag (55 lb)
- 500 kg bulk bag (1100 lb)

The polyethylene valve bag from Jacobi sets the standard in the industry for clean, durable and safe handing.

Typical Applications:

- Condensate de-oiling
- Semiconductor process water
- Dialysis treatment
- POE treatment units
- Protection of RO membranes

Available Particle Sizes:

- 12x40 mesh (0.425 - 1.70 mm)
- 8x30 mesh (0.60 - 2.36 mm)
- Other mesh sizes available

Certifications and Approvals:

- NSF / ANSI Standard 61

Specification*

Iodine number	min. 1000 mg/g
Moisture content (as packed)	max. 5%
Total ash content	max. 1%
pH	5 - 7
Hardness	min. 98%

Typical Properties*

Surface area	1050 m^2/g
CTC activity	55%

*Specifications and typical properties are produced using Jacobi Carbons' test methods. They are listed for informational purposes only and not to be used as purchase specifications. Sales specifications can be obtained from your Jacobi Carbons Technical Sales Representative and should be reviewed before placing an order.

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