

WEATHERMATIC CONTROLLERS

SMARTLINE CONTROLLERS

Features

- 2 run modes: Standard mode runs user input zone run times; Auto Adjust mode requires SLW Series On-Site Weather Station to calculate weather based run times. It will override user input zone runtimes
- Rain/Freeze sensor bypass/active button located on face panel displays sensor status with tri-color LEDs (red indicates sensor is prohibiting irrigation; orange indicates a 48-hour extended rain delay after weather station rain sensor permits irrigation; green indicates normal operation)
- 4 programs: A, B, C; program D can operate concurrently
- 8 start times per program
- Zone run times can be set from 1 min. to 9 hrs. 55 min. with operation countdown displayed in hours, minutes, and seconds (zone run times are overridden by weather based calculated values in Auto Adjust mode)
- Watering day selections of custom days of the week, odd/even, or interval days (1–30 days)
- Diagnostic test function using on-board multi-meter displays 9V battery and transformer voltage; milliamp measurement for each zone
- Built-in valve locator function for locating hidden valves by simply listening for the audible chatter of the solenoid created by a unique electrical frequency (patent pending)
- Review menu displays accumulated ET deficits by zone (in inches) and corresponding zone run times for the next available watering day
- Master valve timing sequence with zone valve programmable by “On Delay” (1 sec.–1 min.; 2 sec. default) and “Off Delay” (1 sec.–3 min.; 5 sec. default) to allow for line fill and slow-closing valves
- Master valve/pump start operation assignable On/Off by zone
- Zip Code input (5 digit) or Latitude input ($\pm 60^\circ$ from EQUATOR) establish location of site for solar radiation
- Sprinkler type input allows selection for zone sprinkler type (SPRAY, ROTOR, DRIP, BUBBLER) with preset precipitation rate or specific input of the zone precipitation rate (.2–3.0” per hour)
- Plant type input allows selection for zone plant type (COOL TURF, WARM TURF, SHRUBS, ANNUALS, TREES, NATIVE) with preset crop factors or specific input of the zone crop factor (10–300%)
- Soil type input allows selection for the soil type (CLAY, SAND, LOAM) and slope (0–25°) for the purpose of automatically calculating a run/soak period to virtually eliminate run off
- More/Less is settable by zone (-50% to +25%) for the purpose of fine tuning Auto Adjust run times to accommodate factors like shade, wind, and sprinkler inefficiencies



WCSL800 CONTROLLER



WCSLM2 MODULE



WCSLM12 MODULE

WCSL4800 CONTROLLER



WCSLM4 MODULE

WCSL1600 CONTROLLER



WCSLW20

WCSLW10

Weathermatic Smartline Controller

Model	Description
WCSL800	4-zone based model, expandable to 8 zones
WCSLM2	2-zone module for use in the WCSL800
WCSL1600	4-zone based model, expandable to 16 zones
WCSL1620	20-zone model, permanently-mounted modules
WCSL1624	24-zone model, permanently-mounted modules
WCSLM4	4-zone module for use in the WCSL1600
WCSL4800	12-zone based model, expandable to 48 zones
WCSLM12	12-zone module for WCSL4800
WCSLW10	On-Site Weather Station
WCSLW15	Wireless On-Site Weather Station, operates on bi-directional, spread spectrum 2.4 GHz frequency
WCSLW20	Commercial On-Site Weather Station

SMARTLINE WEATHER STATIONS

Features

- Microprocessor records and processes weather data for use in establishing Auto Adjust run time on any SmartLine® controller
- Rain shut-off settable from 1/8–1” (3–25mm)
- Freeze shut-off activated at 37°F (3.0°C)
- Maximum run distance for shielded cable wired units is 3000’ (914m)
- Maximum wireless distance from controller to weather station is 600’ (182m). SLHUB-RF wireless hub included with WCSLW15.
- On-board diagnostics indicate battery and communication status
- Remote battery strength measurement from the SmartLine® controller

WEATHERMATIC VALVES



N-100F



12024EF-10



21000CR



8200CR

Nitro Series (Plastic - Economy Valves)

Model	Description
WVN100	1" FIPT x FIPT
WVN100F	1" FIPT x FIPT w/flow
WVN100S	1" Slip x Slip
WVN100SF	1" Slip x Slip w/ flow
WVN100MB	1" Male x barb
WVN100 MBF	1" Male x barb w/ flow

12000 Series "Silver Bullet" (Plastic - Economy Valves)

Model	Description
WV12024E10	1" 24VAC (standard)
WV12024EF10	1" 24VAC (flow control)

21000CR Series "Black Bullet" (Plastic - Contamination Resistant Valves)

Model	Description
WV21024E10	1" 24VAC
WV21024E15	1-1/2" 24VAC
WV21024E20	2" 24VAC

11000CR Series "Black Max" (Plastic - Contamination Resistant Valves)

Model	Description
WV11024FCR10	1" 24VAC
WV11024FCR15	1-1/2" 24VAC
WV11024FCR20	2" 24VAC

8200CR Series "Brass Bullet" (Brass - Contamination Resistant Valves)

Model	Description
WV8200CR10	1" 24VAC
WV8200CR12	1-1/4" 24VAC
WV8200CR15	1-1/2" 24VAC
WV8200CR20	2" 24VAC
WV8200CR25	2-1/2" 24VAC
WV8200CR30D	3" 24VAC

Valve Accessories

Model	Description
WAPRK24	Pressure regulating kit (not for 12000 Series)
WAPRG24	Pressure regulating gauge assembly

Pressure Loss in PSI Table for Toro Valves

MODEL	GLOBE			GPM																			
	SIZE	ANGLE		5	10	15	20	30	40	50	60	70	80	90	100	120	140	160	180	250	300		
N-100	1"	G		1.70	3.00	4.00	4.600	6.30															
12000	1"	G		1.70	3.00	4.00	4.60	6.30															
21000CR	1"	G		1.40	1.70	2.00	2.30	4.30	7.70	11.50													
	1 1/2"	G				1.30	1.90	3.00	4.60	6.70	9.50	13.00											
	2"	G						2.30	2.60	2.90	3.30	3.40	4.20	5.20	7.70								
11000CR	1"	G		1.40	1.70	2.00	2.30	4.30	7.70	11.50													
	1 1/2"	G				1.30	1.90	3.00	4.60	6.70	9.50	13.00											
	2"	G						2.30	.60	2.90	3.30	3.40	4.20	5.20	7.70								
8200CR	1"	G		1.50	1.50	2.20	3.10	4.90	7.20														
	1 1/4"	G				1.80	2.30	3.50	4.70	6.30													
	1 1/2"	G				1.40	2.10	2.90	3.70	4.80	6.20	7.90	10.10										
	2"	G						1.10	1.50	2.00	2.60	3.40	4.30	5.30	8.00	12.00	18.20						
	2 1/2"	G								1.00	1.40	1.80	2.10	2.60	3.60	4.80	6.10	7.50	9.10	14.00	19.60		
	3"	G									0.50	0.70	0.90	1.10	1.30	1.80	2.40	3.10	3.80	4.60	7.10	10.10	

WEATHERMATIC ROTORS, SPRAYS & NOZZLES

T3, T3-36, T3S Series Performance Data

Nozzle	Pressure PSI	Radius ft.	Flow GPM
1	20	23'	0.5
	30	28'	0.7
	40	32'	0.8
	50	33'	0.9
	60	33'	1.0
1.5	20	24'	0.8
	30	31'	1.0
	40	35'	1.2
	50	36'	1.6
	60	36'	1.8
2	20	21'	0.9
	30	28'	1.2
	40	35'	1.4
	50	35'	1.9
	60	35'	2.3
3	20	21'	0.9
	30	30'	1.7
	40	38'	2.0
	50	39'	2.4
	60	41'	2.8
3.5	40	41'	3.5
	50	42'	3.7
	60	43'	4.3
4	40	44'	4.0
	50	45'	4.3
	60	46'	5.0
6	40	45'	5.5
	50	46'	6.3
	60	47'	6.9
8	40	45'	6.3
	50	47'	7.5
	60	51'	8.1

Flow + Nozzle 26° Performance Data

Nozzle	Pressure PSI	Radius ft.	Flow GPM
9	50	50'	9.5
	60	54'	10.8
	70	55'	11.7
13	50	57'	12.4
	60	59'	13.8
	70	61'	14.9

Low Angle 13° Performance Data

Nozzle	Pressure PSI	Radius ft.	Flow GPM
2.0LA	30	29'	1.6
	40	33'	1.9
	50	34'	2.1
2.5LA	30	31'	2.1
	40	35'	2.6
	50	36'	2.9
3.5LA	30	31'	2.7
	40	35'	3.2
	50	37'	3.5
4.5LA	30	33'	3.0
	40	37'	3.4
	50	37'	4.1

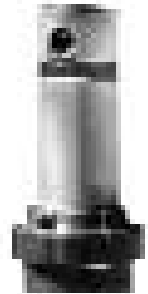
CT70 / CT70-36 Performance Data

Nozzle	Pressure PSI	Radius ft.	Flow GPM
71	40	49'	8.1
	50	51'	9.1
	60	53'	10.0
	70	55'	11.0
	80	56'	11.8
72	50	54'	10.7
	60	55'	11.8
	70	57'	12.6
	80	58'	13.8
	50	57'	14.0
73	60	58'	15.3
	70	60'	16.8
	80	61'	17.8
	60	59'	16.6
	70	62'	18.1
74	80	63'	19.2
	90	65'	20.4
	60	66'	22.5
75	70	67'	24.7
	80	72'	26.5
	90	74'	28.0



T3

CT70SS



T3 Turbo Rotary Sprinkler

Model	Description
WST3PC	Part circle (adjustable)
WST3FC	Full circle
WST3SS	Part circle (adjustable stainless steel)
WST3SS36	Full circle (stainless steel)
WST3S	Adjustable arc shrub rotor

CT70 – Commercial Turbo Rotary

WSCT70PC	Part circle (adjustable)
WSCT70FC	Full circle
WSCT70SS	Part circle (adjustable stainless steel)

Pop-Up Spray Heads - LX Series (Nozzles NOT Included)

WSLX3	3" Plastic
WSLX4	4" Plastic
WSLX6	6" Plastic
WSLX12	12" Plastic

Pop-Up Spray Heads - LX Series w/ Check valve

WSLX4CV	LX 4 w/ check valve
WSLX6CV	LX 6 w/ check valve
WSLX12CV	LX 12 w/ check valve

Nozzles For LX Series

WNBXX	Brass standard arc nozzles
WNBXX	Brass specialty nozzles





NELS8501



**HENRY STUDIO
FOUNTAINS**



NELS8402

**RainTrain® 2
Features**

- Part and full-circle sprinkler
- Automatic shut-off once sprinkler reaches the spike
- Robust turbine spike
- Speed control allows you to easily adjust water application rates
- On/off valve allows you to shut the unit off while keeping hose pressurized
- Economical irrigation solution for athletic fields, parks, cemeteries and other large area projects



**WaterTrain Jr. with K1 Sprinkler
Features**

- Part and full-circle sprinkler
- Automatic shutdown for motor and optional shutdown for sprinkler
- Self winding hose with guide to ensure proper alignment of hose
- Speed control allows you to easily adjust water application rates
- Irrigates on a straight line or radius
- Versatile for all sports complexes
- Stabilizer feet anchor machine during operation
- Supply hose included 1" x 10 ft. with male 1" NPT (BSP adapter supplied)
- Compact design makes it easy to transport from one area to another



NELS8403

SUNTERRA PONDS



Pond Kits available for various sized ponds.

Rotors

Model	Description
NELS5501	Shrub part/reverse full circle
NELS5500	4" Pop-up part/reverse full circle
NELS5505	4" Pop-up Commerical Rotor
NELS5512	12" Pop-up Sprinklers PC/FC
NELS6001	Shrub part/reverse full circle
NELS6100	4" Pop-up part/reverse full circle
NELS6005	4" Pop-up Commercial Rotor
NELS6012	12" Pop-up Sprinkler PC/FC

Commercial/Sport Field Rotors

NELS6500	40-60 FT Gear Drive PC/FC
NELS6505	40-60 FT Gear Drive SS Sleeve
NELS7000	46-64 FT Gear Drive PC/FC
NELS7005	46-64 FT Gear Drive SS Sleeve
NELS7500	53-74 FT Gear Drive SS Sleeve

Spray Heads 6300 Series

NELS6300	Shrub Adapter
NELS6302	2 1/2" Pop-up Spray Head
NELS6304	4" Pop-up Spray Head
NELS6306	6" Pop-up Spray Head
NELS6312	12" Pop-up Spray Head
NELNXXA	Variable Arc Nozzles
NELNXXX	Fixed Arc Nozzles 10, 12, 15 Ft.

Valves

NELP6318	Piston Extension
NELV7901	1" Electric globe valve
NELV7911	1" Electric globe valve w /fc
NELV9001	1" Electric globe valve Economy Model
NELV9515NC	1 -1/2" Elect. globe/angle valve w /fc
NELV9520NC	2" Elect. globe/angle valve w /fc
NELP7961	24V Solenoid

Controllers

NELP7963	115V Solenoid
NELC8204	EZ PRO jr 4 zone indoor
NELC8206	EZ PRO jr 6 zone indoor
NELC8209	EZ PRO jr 9 zone indoor
NELC8304	EZ PRO jr 4 zone outdoor
NELC8306	EZ PRO jr 6 zone outdoor
NELC8309	EZ PRO jr 6 zone outdoor
NELC8604	EZ PRO 4 zone indoor/outdoor
NELC8606	EZ PRO 6 zone indoor/outdoor
NELC8608	EZ PRO 8 zone indoor/outdoor
NELC8612	EZ PRO 12 zone indoor/outdoor
NELC8616	EZ PRO 16 zone indoor/outdoor
NELC8620	EZ PRO 20 zone indoor/outdoor

Controllers

NELC8624	EZ PRO 24 zone indoor/outdoor
NELC8014	Duralife Valve Actuator
NELC8030	Remote Actuator
NELC8090	DC Latching Solenoid
NELC8071	Programmer Plus Console
NELC8021	1 Zone PG multi-station Actuator
NELC8022	2 Zone PG multi-station Actuator
NELC8024	4 Zone PG multi-station Actuator
NELC8026	6 Zone PG multi-station Actuator



5500



6000



7500



6304/06/12



EZ PRO



7900 Series



8400 Series

- Long life factory installed lithium battery. The 8014 is designed to operate on the factory installed battery for up to 10 years of normal use on a Nelson valve. Actual battery life will depend on the number of cycles run per year, valve size, operating pressure, and temperature. The battery is replaceable and is available as a service part.
- Nelson exclusive Select&Adjust™ programming makes programming fast and easy
- LCD displays clock and programming
- Timed manual on and off
- Length of watering time: 1 minute to 12 hours
- 6 watering programs available per day
- Mist Cycle available on Program 6
- Days of the week, Odd/Even, and Interval scheduling
- Rain Delay is programmable from 1 to 99 days
- Fits Nelson valve models 7900 1" series.

WALLA WALLA SPRINKLERS

MP ROTATOR

The Ideal 12-30' Solution
 The MP Rotator™ is a revolutionary sprinkler setting a new standard for water efficiency in the turf and landscape industry



Arc Setting	MP1000*					MP2000*					MP3000**				
	PSI	Rad. Ft.	GPM	in/hr	in/hr	PSI	Rad. Ft.	GPM	in/hr	in/hr	PSI	Rad. Ft.	GPM	in/hr	in/hr
90°	25	-	-	-	-	25	17	0.31	0.41	0.48	25	25	0.69	0.43	0.49
	30	13.0	0.16	0.43	0.50	30	18	0.33	0.39	0.45	30	27	0.74	0.39	0.45
	35	13.0	0.18	0.40	0.46	35	19	0.37	0.39	0.46	35	28	0.80	0.39	0.45
	40	13.5	0.19	0.39	0.45	40	20	0.40	0.39	0.44	40	30	0.86	0.37	0.43
	45	14.0	0.20	0.39	0.45	45	21	0.42	0.37	0.42	45	30	0.91	0.39	0.45
	50	14.5	0.21	0.38	0.43	50	22	0.44	0.35	0.40	50	30	0.96	0.41	0.47
180°	25	-	-	-	-	25	10	0.58	0.44	0.50	25	25	1.44	0.44	0.51
	30	13.0	0.32	0.43	0.50	30	17	0.65	0.42	0.49	30	27	1.58	0.42	0.48
	35	13.0	0.35	0.40	0.46	35	18	0.69	0.41	0.47	35	28	1.70	0.42	0.48
	40	13.5	0.37	0.39	0.45	40	19	0.74	0.39	0.45	40	30	1.82	0.39	0.45
	45	14.0	0.40	0.39	0.45	45	20	0.78	0.38	0.43	45	30	1.93	0.41	0.48
	50	14.5	0.41	0.38	0.43	50	21	0.83	0.36	0.41	50	30	2.04	0.44	0.50
210°	25	-	-	-	-	25	10	0.68	0.44	0.50	25	25	1.98	0.44	0.51
	30	13.0	0.37	0.43	0.50	30	17	0.74	0.42	0.49	30	27	1.94	0.42	0.48
	35	13.0	0.41	0.40	0.46	35	18	0.80	0.41	0.47	35	28	1.99	0.42	0.48
	40	13.5	0.43	0.39	0.45	40	19	0.86	0.39	0.45	40	30	2.12	0.39	0.45
	45	14.0	0.46	0.39	0.45	45	20	0.92	0.38	0.43	45	30	2.25	0.41	0.48
	50	14.5	0.48	0.38	0.43	50	21	0.97	0.36	0.41	50	30	2.37	0.45	0.50
270°	25	-	-	-	-	25	10	0.87	0.44	0.50	25	25	2.19	0.45	0.52
	30	13.0	0.43	0.43	0.50	30	17	0.95	0.42	0.49	30	27	2.37	0.42	0.48
	35	13.0	0.47	0.40	0.46	35	18	1.03	0.41	0.47	35	28	2.55	0.42	0.48
	40	13.5	0.49	0.39	0.45	40	19	1.10	0.39	0.45	40	30	2.73	0.39	0.45
	45	14.0	0.51	0.39	0.45	45	20	1.17	0.38	0.43	45	30	2.89	0.41	0.48
	50	14.5	0.53	0.38	0.43	50	21	1.23	0.36	0.41	50	30	3.06	0.44	0.50
360°	25	-	-	-	-	25	10	1.16	0.44	0.50	25	25	2.88	0.44	0.51
	30	12.0	0.45	0.43	0.50	30	17	1.27	0.42	0.49	30	27	3.15	0.42	0.48
	35	13.0	0.73	0.40	0.47	35	18	1.37	0.41	0.47	35	28	3.40	0.42	0.48
	40	13.5	0.75	0.39	0.46	40	19	1.47	0.39	0.45	40	30	3.64	0.39	0.45
	45	14.0	0.80	0.39	0.45	45	20	1.56	0.38	0.43	45	30	3.86	0.41	0.48
	50	14.5	0.84	0.38	0.44	50	21	1.64	0.36	0.41	50	30	4.07	0.44	0.50
55	15.0	0.87	0.37	0.43	55	21	1.70	0.37	0.43	55	30	4.27	0.46	0.53	

*To obtain full radius reduction for the MP1000 and MP2000, operate at a maximum of 30 PSI. **When operating the MP3000 at full radius reduction maintain a minimum pressure of 40 PSI to assure reliable operation. Radius measured on a 4" high tier. Precipitation rates are based on head-to-head throw coverage.

Arc Setting	MP CORNER			MP LEFT STRIP			MP SIDE STRIP			MP RIGHT STRIP					
	PSI	Rad. Ft.	GPM	PSI	Unadjusted Radius GPM	Reduced Radius GPM	Precip. Rate in/hr	PSI	Unadjusted Radius GPM	Reduced Radius GPM	Precip. Rate in/hr	PSI	Unadjusted Radius GPM	Reduced Radius GPM	Precip. Rate in/hr
45°	25	-	-	30	19	14	.49	30	38	27	.49	30	19	14	.49
	30	12.0	0.17	35	21	15	.49	35	41	30	.49	35	21	15	.49
	35	13.0	0.18	40	22	16	.48	40	44	32	.48	40	22	16	.48
	40	13.5	0.19	45	23	17	.48	45	47	34	.48	45	23	17	.48
	45	14.0	0.21	50	25	18	.48	50	49	36	.48	50	25	18	.48
	50	15.5	0.22	55	26	19	.48	55	51	38	.48	55	26	19	.48
90°	25	10.5	0.31	30 PSI			30 PSI			30 PSI					
	30	12.0	0.34	15' x 5' 19 GPM			30' x 5' 28 GPM			15' x 5' 19 GPM					
	35	13.0	0.36	12' x 4' 14 GPM			24' x 4' 27 GPM			12' x 4' 14 GPM					
	40	13.5	0.39	50 PSI			50 PSI			50 PSI					
	45	14.0	0.41	17' x 6' 25 GPM			34' x 6' 49 GPM			17' x 6' 25 GPM					
	50	15.5	0.43	14' x 5' 18 GPM			28' x 5' 36 GPM			14' x 5' 18 GPM					
105°	25	10.5	0.36	30 PSI			30 PSI			30 PSI					
	30	12.0	0.39	17' x 6' 25 GPM			34' x 6' 49 GPM			17' x 6' 25 GPM					
	35	13.0	0.42	14' x 5' 18 GPM			28' x 5' 36 GPM			14' x 5' 18 GPM					
	40	13.5	0.45	50 PSI			50 PSI			50 PSI					
	45	14.0	0.48	17' x 6' 25 GPM			34' x 6' 49 GPM			17' x 6' 25 GPM					
	50	15.5	0.51	14' x 5' 18 GPM			28' x 5' 36 GPM			14' x 5' 18 GPM					

**The slightly higher precipitation rate of the MP Strips is intentional. It compensates for the significant proportion of edge wetting in strip applications.

See Price Sheet for Model numbers and Pricing

BUCKNER QUICK COUPLERS, KEYS, SWIVELS

Quick Coupling Valves

Model	Description
BUVQCV075	3/4" NPT, single slot stainless steel lid
BUVQCV100	1" NPT, single slot stainless steel lid
BUVQCV100R	1" NPT, single slot, yellow Tuff top lip
BUVQCV100RL	1" NPT, single slot, locking yellow Tuff top lid
BUVQCV101	1" NPT, single slot stainless steel lid
BUVQCV101R	1" NPT, single slot, locking yellow Tuff top
BUVQB5SL10	1" NPT, double slot, stainless steel lid
BUVQB5RC10	1" NPT, double slot, yellow Tuff top
BUVQCV151	1 1/2" NPT, single slot, stainless steel lid
BUVQCV151R	1 1/2" NPT, single slot, yellow cover



BUHS101



BUHS100

Coupler Keys - Single Lug

BUQB33K07	Key for BUVQCV075, 3/4" male x 1/2" female
BUQC100	Key for (BUVQCV100R & RL), 1" male x 3/4" female
BUQC101	Key for (BUVQCV101 & 101R), 1" male x 3/4" female
BUQC151	Key for (BUVQCV151 & 151R), 1 1/2" male x 1 1/4" female

Coupler Key - Double Lug

BUQB55K10	Key for BUVQB5SL10, BUVQB5RC10 1" male x 3/4" female
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Hose Swivels

BUHS075	3/4" FPT x 3/4" MHT
BUHS100	1" FPT x 3/4" MHT
BUHS101	1" FPT x 1" MHT
BUHS125	1 1/4" FPT x 1" MHT
BUHS151	1 1/2" FPT x 1" MHT



BUHS075



ANTI ROTATE



ACME TREATS



TWO PIECE



BUVQCV100R



NON-POTABLE

BUCKNER & MISC.

NETAFIM TECHLINE

TECHLINE CV™

- Each dripper has a 2 psi check valve - all drippers turn on and off at the same time
- Minimizes water loss
- Holds back up to 4-1/2' of water
- No low drainage, great on slopes
- More precise watering
- Built-in physical root barrier - drippers are protected from root intrusion without chemical reliance
- Pressure compensation - all drippers deliver equal flow
- Unique flow path - Turbonet technology allows more control of water flow and less chance for clogging
- Continuous self-flushing dripper design - flushes debris, as it is detected - throughout operation, not just at the beginning or end of a cycle and ensures uninterrupted dripper operation



TECHLINE CV™

Techline CV™ Flow per 100 feet								
Dripper Spacing	0.26 GPH Dripper		0.4 GPH Dripper		0.6 GPH Dripper		0.9 GPH Dripper	
	gph	gpm	gph	gpm	gph	gpm	gph	gpm
12"	26.40	0.44	40.00	0.67	61.00	1.02	92.00	1.53
18"	17.58	0.29	26.67	0.44	41.00	0.68	61.00	1.02
24"	Not available		Not available		31.00	0.51	46.00	0.77

Techline CV™ Maximum Length of a single lateral (feet)											
Spacing	12"				18"				24"		
	Flow Rate	0.26	0.4	0.6	0.9	0.26	0.4	0.6	0.9	0.6	0.9
Inlet (psi)											
15	127	109	86	65	177	151	120	91	152	116	
25	427	325	256	194	604	459	361	274	458	348	
35	539	409	322	244	763	579	456	346	580	440	
45	618	469	369	280	877	664	523	397	666	506	

Techline CV Dripperline .6gph Flow

Model	Description
NECV61210	12" dripper spacing, 1,000' coil
NECV612025	12" dripper spacing, 250' coil
NECV61810	18" dripper spacing, 1,000' coil
NECV618025	18" dripper spacing, 250' coil
NECV62410	24" dripper spacing, 1,000' coil
NECV624025	24" dripper spacing, 250' coil

Techline CV Dripperline .9gph Flow

NECV91210	12" dripper spacing, 1,000' coil
NECV912025	12" dripper spacing, 250' coil
NECV91201	12" dripper spacing, 100' coil
NECV91810	18" dripper spacing, 1,000' coil
NECV918025	18" dripper spacing, 250' coil
NECV92410	24" dripper spacing, 1,000' coil
NECV924025	24" dripper spacing, 250' coil

Techline CV Blank Tubing

NECV001	CV Blank Tubing, 100' coil
NECV0025	CV Blank Tubing, 250' coil
NECV010	CV Blank Tubing, 1000' coil

TECHLINE® CV General Guidelines

	TURF			SHRUB and GROUND COVER		
	Clay Soil	Loam Soil	Sandy Soil	Clay Soil	Loam Soil	Sandy Soil
Dripper	0.26 GPH	0.4 GPH	0.6 GPH	0.26 GPH	0.4 GPH	0.6 GPH
Dripper Interval	18"	12"	12"	18"	18"	12"
Lateral (Row) Spacings	18" - 22"	18" - 22"	12" - 16"	18" - 24"	18" - 24"	16" - 20"
Burial Depth	On-surface or bury evenly throughout the zone to a maximum of 6 inches					
Application Rate (in./hr.)	.19 - .15	.43 - .35	.96 - .72	.19 - .14	.29 - .21	.72 - .58
Time to Apply 1/4" of Water (in minutes)	79 - 100	35 - 43	16 - 21	79 - 107	52 - 71	21 - 26

Maximum spacing recommendations: Following these spacing guidelines, dripper flow selection can be increased if desired by the designer.

NETAFIM FITTINGS

TECHLINE FITTINGS

Features & Benefits:

- Barbed fittings for secure fit and easy installation without glue or tools
- Maximum recommended system pressure: 45 psi
- Durable one-piece construction
- Allows for easy on-site inspection of proper fitting installation
- UV resistant



TLS6 Soil Staple

On-surface applications should use one TLS6 for approximately every 3' of tubing, plus 2 on each tee, elbow or cross



NETLCOUP
Insert Coupling



NETLCROSS
Insert Cross



NETLELL
Insert Elbow



NETL075Ftee
Combination Tee
Ins x Ins x 3/4" FPT



NETL075MA
3/4" Male Adapter



NETLDPLUG
Dripper Plug Ring



NETLMTUBEADP
Drifter Micro-Tubing Adapter



NETL2W075MA
3/4" MPT "V" 2 Way Insert



NETLTEE
Insert Tee



NETL050MA
1/2" Male Adapter

FLUSH VALVE

Features & Benefits:

- Flushing reduces sediment build-up
- Automatic cleaning operation at start of each irrigation cycle
- Unique design reacts to flow, not pressure, allowing operation even at full line pressure
- Can be disassembled, allows for winterization "blowout"
- As irrigation starts, valve flushes out dirt particles in the open position
- After flushing, the valve closes. Normal system operation begins



Flush Valve



NETLSOV
Shut-Off Valve
Ins x Ins



NETLFIG8
Figure * Line End

AIR RELIEF VALVE

Features & Benefits:

- Eliminates vacuum that could draw contaminants into the piping system
- Non-corrosive



Techline & 17mm Techlite Fittings & Accessories

Model	Description
NETLCOUP	Techline insert coupling
NETLELL	Techline insert elbow
NETLTEE	Techline insert tee
NETL050MA	Techline male adapter 1/2"
NETL075MA	Techline male adapter 3/4"
NETL075FTEE	Techline combination tee
NETL2W075MA	Techline "V" 2 way insert x 3/4" MPT
NETLCROSS	Techline insert cross
NETLFIG8	1/2" figure eight line end
NETLDPLUG	Techline dripper plug
NETLMTUBEADP	Techline micro tubing adapter
NESTAPLE	6" soil staple, 25 unit pack
NETLSOV	Techline shut-off valve (ins x ins)
NEFLUSH50	Automatic flush valve 1/2" MPT
NEFLUSH	Automatic flush valve w/ collar
NETLAVRV	Air/vacuum relief valve 1/2" MPT

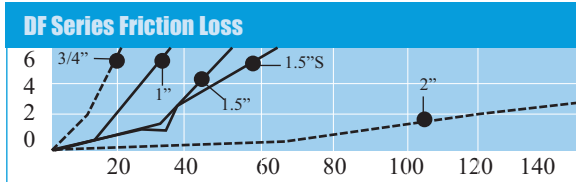
NETAFIM

NETAFIM REGULATOR VALVES & FILTERS

PRESSURE REGULATOR VALVE

Features & Benefits:

- Provides constant outlet pressure
- 6 color-coded interchangeable regulating springs, 15-50 psi available
- Easy inline assembly
- Female inlet, male outlet in 3/4" models
- Built-in indicator shows when proper outlet pressure is achieved



DISCS FILTERS

Features & Benefits:

- Highly effective multiple disc filter design
- Low friction loss
- 3/4" model available with or without manual shut-off valve
- 100% thermoplastic discs provide extremely high corrosion resistance
- Color-coded replacement filter rings available
- Extra filtration capacity mesh less frequent cleaning
- Maximum pressure: 140 psi



Micron Equivalency	Filter Size
80 Mesh = 200 Microns	3/4" to 13 GPM
120 Mesh = 130 Microns	1" to 22 GPM
140 Mesh = 115 Microns	1-1/2" to 35 GPM
200 Mesh = 75 Microns	2" to 132 GPM

Pressure Regulator Springs

Model	Description
PRVS15	15 psi, Blue
PRVS20	20 psi, Steel
PRVS25	25 psi, Yellow
PRVS35	35 psi, Red
PRVS45	45 psi, White
PRVS50	50 psi, Orange

Netafim USA Pressure regulators are the only ones that can be disassembled without removing from the manifold

Pressure Regulator Springs

Model	Description	Flow Rate
NEPRVOHF15	3/4" MPT x FPT 15 psi	3.5-20 GPM
NEPRVOHF20	3/4" MPT x FPT 20 psi	
NEPRVOHF25	3/4" MPT x FPT 25 psi	
NEPRVOHF35	3/4" MPT x FPT 35 psi	
NEPRVOHF45	3/4" MPT x FPT 45 psi	
NEPRV15025	1 1/2" MPT x MPT 35 psi	7-40 GPM
NEPRV15045	1 1/2" MPT x MPT 45 psi	

3/4" Disc Filters - 13 GPM Max. Flow

Model	Description
NEDF075120	3/4" MPT x MPT 120 mesh
NEDF075140	3/4" MPT x MPT 140 mesh

1" Disc Filters - 22 GPM Max. Flow

NEDF100080	1" MPT x MPT 80 mesh
NEDF100120	1" MPT x MPT 120 mesh
NEDF100140	1" MPT x MPT 140 mesh
NEDF100200	1" MPT x MPT 200 mesh

1 1/2" Disc Filters - 35 GPM Max. Flow

NEDF150080	1 1/2" MPT x MPT 80 mesh
NEDF150120	1 1/2" MPT x MPT 120 mesh
NEDF150140	1 1/2" MPT x MPT 140 mesh
NEDF150200	1 1/2" MPT x MPT 200 mesh

2" Disc Filters - 132 GPM Max. Flow

NEDF200080	2" MPT x MPT 80 mesh
NEDF200120	2" MPT x MPT 120 mesh
NEDF200140	2" MPT x MPT 140 mesh
NEDF200200	2" MPT x MPT 200 mesh

NETAFIM DRIPPERS & ACCESSORIES

PRESSURE COMPENSATING SELF CLEANING DRIPPER WITH CHECK VALVE

Features & Benefits:

- Unique design regulates flow and provides self-cleaning action
- 5.0 psi internal check valve prevents low pressure drainage
- Anti-siphon operation prevents contaminants from being drawn into dripper
- Color-coded flow ranges

Features & Benefits:

- 7-60 psi pressure compensation
- Use .160 x .220 micro-tubing
- Maximum pressure: 60 psi
- Filtration requirement: 120 mesh



WPCT



PC Drimmers



WPC Drimmers



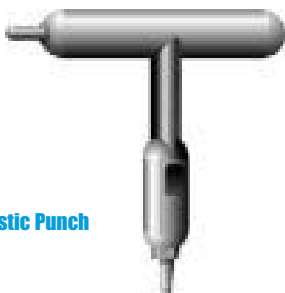
WPBC Bug Cap



WPBA Barbed Adapter



Metal Punch



Plastic Punch



EDTUBE8XMT



EDTUBETEE

MTUBESTK



GOOFPLUG



MTUBEBA



Micro Tubing

TechFlow Pressure Compensating Drippers w/ Check Valve

Model	Description
NEWPC5	0.5 gph barb inlet x straight nipple outlet
NEWPC10	1.0 gph barb inlet x straight nipple outlet
NEWPC20	2.0 gph barb inlet x straight nipple outlet
NEPC5	0.5 gph barb inlet
NEPC10	1.0 gph barb inlet
NEPC20	2.0 gph barb inlet
NEWPCT5	0.5 gph 1/2" FPT inlet x straight nipple outlet
NEWPCT10	1.0 gph 1/2" FPT inlet x straight nipple outlet
NEWPCT20	2.0 gph 1/2" FPT inlet x straight nipple outlet
NEWPCT60	6.0 gph 1/2" FPT inlet x straight nipple outlet
NEWPBC	Bug cap for straight nipple outlet
NEWPBA	Barb adapter for straight nipple outlet

Note: use .160 x .220 tubing "EDTUBE" tubing

Poly Tubing / Micro Fittings / Tools

NEEDTUBE01	.16" poly micro tubing 100' (.160x.220)
NEEDTUBE10	.16" poly micro tubing 1000' (.160x.220)
NE5MMTEE	5mm barb tee
NE5MMADB	5mm barb adapter
NEEDTUBESTK	5mm tubing stake for MTUBE & EDTUBE
NEGOFPLUG	5mm / 8mm goof plug
NEEDTUBE8XMPT	1/2" MPT x 8-way for EDTUBE
NE5MMPP	Plastic punch for 5mm micro fittings

AMIAD FILTERS

PLASTIC FILTERS

Features & Benefits:

- All-purpose plastic filters from 3/4" to 3" in diameter
- Filtration degrees available from 3500-22 micron
- High particle retention: Large filter area allows long intervals between cleaning
- Non-corrosive and durable: Engineering plastics; No metal parts in contact with water
- Easy maintenance: The filters' elements can be extracted from the filter housing for rinsing
- Interchangeable filter element types and wide range of filtration degrees to suit different requirements
- Minimum energy loss: Extremely low pressure loss at high flow rates
- Multi-purpose: Suitable for irrigation, industrial, domestic and laboratory applications



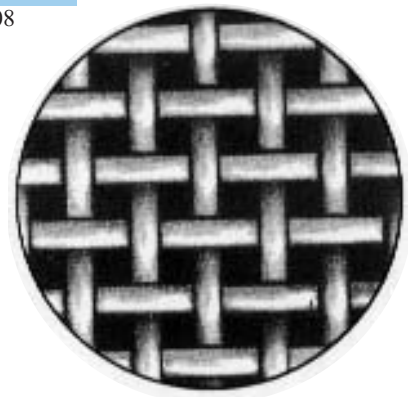
**ECONOMY
Y FILTER**

Filtration Degrees Available

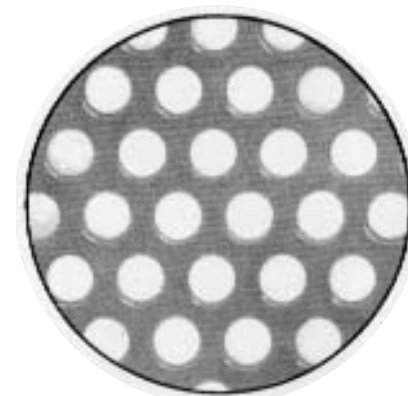
CODE	Perforated Stainless Steel Cylinder				Weavewire Stainless Steel Screen				
	Brown	Purple	Orange	Gray	Blue	White	Red	Yellow	Black
Micron	3500	2500	1500	800	500	300	130	100	80
Mesh	4	6	10	20	30	50	75	120	200
MM	3.5	2.5	1.5	0.8	0.5	0.3	0.2	0.13	0.08

Filtration Degrees Available

Filter Model	3/4"	1"	1 1/2"	1 1/2"-S	2"T	2"T-S	3"T	3"S
Cat. No.	101	112	115	116	122	126	137	130
Inlet/Outlet diameter (in)	3/4	1	1 1/2	1 1/2	2	2	3	3
Maximum flow rate (GPM)	13	30	45	60	80	110	180	220
Weight (lb)	0.7	2	4	4	12	15	15	28
Filter Area In ²	Screen	17	26	26	52	72	109	144
	Disc	-	31	31	71	122	184	245



WEAWEWIRE SCREEN



PERFORATED CYLINDER

Plastic Filters

Model	Description
NEAMYFILTER	3/4" Economy Y Filter
NEAMYFILTER100	1" Economy Y Filter
NEAMIAD100	1" Y Filter
NEAMIAD150	1 1/2" Y Filter
NEAMIADS75	3/4" Super Filter
NEAMIADS1	1" Super Filter
NEAMIADS150	1 1/2" Super Filter
NEAMIADS2	2" Super Filter
NEAMIADTURBCLN	2" TurboClean
NEAMIADCLOG	Clogging indicator
NEAMIADTURBO	Turbo Torpedo



DECORATIVE HAMMERED ROOF

The decorative patterns of the pierced shade cast a subtle glow of light over paths or featured garden elements. Simply beautiful day or night. **KL153430B**



DECORATIVE HAMMERED ROOF ACCENT

The delicate glow of this pierced shade with scalloped edges lends the beauty of nature to your deck or patio. Complete the look with matching path lights. **KL150630B**



ADJUSTABLE WALL WASH

Use units to create a low, even spread of light that will illuminate shrubs, plants, or textured wall surfaces. Silhouetting a “special” detail will add a nice highlight to your landscape. **KL15361AZT**



MINI ACCENT

Draw attention to the beauty of a fountain or favorite tree. With this compact adjustable accent light, you don't light, you create effects...as dramatic or romantic as you wish. **KL15384AZT**



ACCENT LIGHT

Installation is made easy with this one pack accent light. A stake is included in this value-added package, and the durable die-cast aluminum housing tolerates harsh weather conditions. **KL15309AZT**



ADJUSTABLE WIDE FLOOD LIGHT

This durable floodlight allows you to create sensational effects while adding security year round. **KL15395AZT**



36-WATT PAR 36 WELL LIGHT

A versatile well light design with multiple usage options. The support sleeve is reversible to accommodate either uplighting when flush mounted or semi-recessed for angle lighting effects. Its unique stainless steel yolk design holds lamps securely in place at the angle you desire. **KL15388BK**



MR-16 WELL LIGHT

This durable well light sheds focused illumination upwards to feature your favorite sculpture and adds drama to every landscape. **KL15190BK**



UNDERWATER POND LIGHT

This accent light stands on its own, no mounting stake required, and can be placed randomly in your landscape. **KL15191BK**

UNIQUE LIGHTING SYSTEMS

Odyssey Fixtures: Experience the marriage of beauty and durability as each odyssey line fixture is built from solid brass and stainless steel and designed to last a lifetime. All odyssey fixtures come standard with 25 foot wire leads on all directional lights, and 50 foot wire leads on all path/area lights.

**Starburst
ULSTARBURSTWB**



**Stellar
ULSTELLARWB**



**BigBand
ULBIGBANGWB**



**Pulsa
ULPULSARWB**



**Probe
ULPROBEB2520WB**



**Comet
ULCOMETWB**



**Gemini
ULGEMINIWB**



**Centaurus 4 & 6
ULCENTAURUS6WB**



**Mercury 4 & 7
ULMERCURYWB**



**Lunar
ULLUARWB**



**F225
ULF225BK**



PINNACLE OUTDOOR LIGHTING

Pinnacle's VALUE line.

These beautiful, carefully chosen cast aluminum fixtures are built by the finest artisans. They are beautifully appointed, and come backed by a 5 year limited manufactures warranty. The VALUE line is incredibly durable, yet surprisingly affordable. Enjoy the breathtaking luminescence of these fixtures for years to come.

Available Colors



PLGL204BK



PLGL211ABL



PLGL201BK



PLGL103BK



PLGL104BK



PLGL106BK



PLGL603



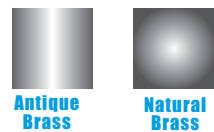
PLGL601BL



Pinnacle's RESERVE line.

The RESERVE line was designed for the homeowner with the most discerning of taste, when only the absolute finest will do. These solid brass fixture are second to none. Built from the finest brass in the world, they come with a lifetime limited warranty.

Available Colors



PLGL815



PLGL807AAN



PLGL806A



PLGL810



TRANSFORMERS & WIRES



Kichler Transformers

Model	Description
KLPL300AZT	300 VA, black
KL15PL600AZT	600 VA, black
KL15PL900AZT	900 VA, black
KL15PR300SS	300 VA, stainless steel
KL15PR600SS	600 VA, stainless steel
KL15PR900SS	900 VA, stainless steel
KL15552WH	Plug-in timer
KL15565BK	Plug-in photocell

RYCO Transformer, Stainless Steel, with Photocell and Timer

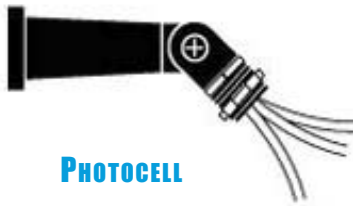
Model	Description
RYCOTR300WSSPCT	300 Watt
RYCOTR600WSSPCT	600 Watt
RYCOTR900WSSPCT	900 Watt

Unique Lighting Transformers, Stainless Steel with Slug

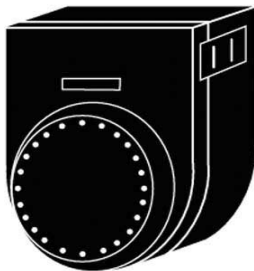
Model	Description
UL300SSSL	300 Watt
UL360SSSL	360 Watt
UL500SSSL	500 Watt
UL600SSSL	600 Watt
UL840SSSL	840 Watt
UL1120SSSL	1120 Watt
ULSNPC2	Snap-in photocell
ULT	Timer

Two conductor Low Voltage Lighting Cable, Direct Burial, UL Listed, Spec P7190D

Model	Size	Weight (lbs)	Roll Length
IW182250L	18/2	7	250'
IW162250L	18/2	15	250'
IW122250L	12/2	40	250'
IW102250L	10/2	50	250'
IW82250L	8/2	40	250'
IW122500L	12/2	40	500'
IW102500L	10/2	45	500'
IW82500L	8/2	81	500'
IW1221000L	12/2	80	1000'
IW1021000L	10/2	97	1000'
IW821000L	8/2	161	1000'



PHOTOCELL



TIMER



FLINT & WALLING PUMPS

SERIES CJ103 1/3—2 HP SINGLE OR THREE PHASE

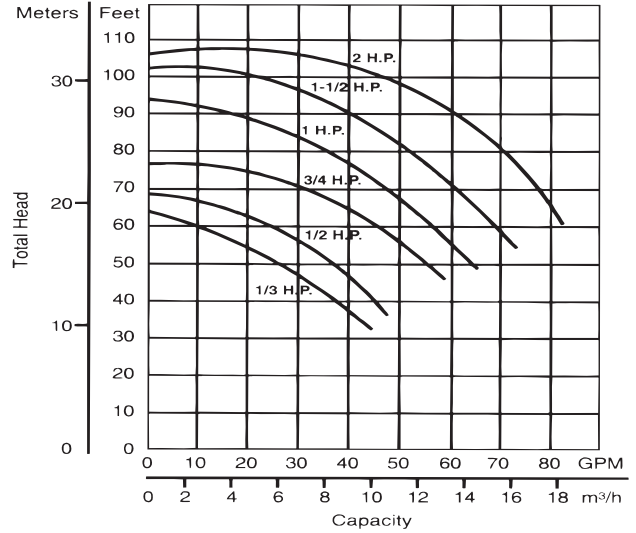
Features & Benefits:

- Flint & Walling's 56-frame, NEMA J, capacitor start, double ball bearing motors for continuous operation.
- 1/3, 1/2, 3/4, 1, 1 1/2 and 2 HP sizes with single or three phase options.
- No-lead brass impellers electronically balanced.

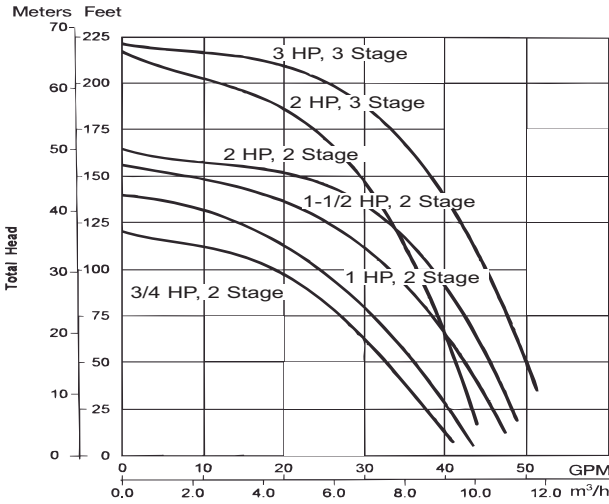


SINGLE STAGE FOR ECONOMY

CJ103 - BRASS IMPELLERS



CJ101 BRASS IMPELLERS



CJ103

Model	Description
PUFWCJ103051	Single Stage 1/2 HP
PUFWCJ103071	Single Stage 3/4 HP
PUFWCJ103101	Single Stage 1 HP
PUFWCJ103151	Single Stage 1 1/2 HP
PUFWCJ103201	Single Stage 2 HP

CJ101

Model	Description
PUFWCJ101B071	Two Stage 3/4 HP
PUFWCJ101B101	Two Stage 1 HP
PUFWCJ101B151	Two Stage 1 1/2 HP
PUFWCJ101B201	Two Stage 2 HP
PUFWCJ101C201	Three Stage 2 HP
PUFWCJ101C301	Three Stage 3 HP

SERIES CJ101 3/4—3 HP SINGLE OR THREE PHASE

Features & Benefits:

- Flint & Walling's 56-frame, NEMA J, capacitor start, double ball bearing motors for continuous operation.
- 1/3, 1/2, 3/4, 1, 1 1/2 and 2 HP sizes with single or three phase options.
- No-lead, electronically balanced brass or thermoplastic impellers.
- Rugged cast iron pump casing. Multi stage for high head.
- Fast, easy service. Normal wearing parts are easily removed for service and replacement without disturbing the suction or discharge piping.

MULTI STAGE FOR HIGH HEAD

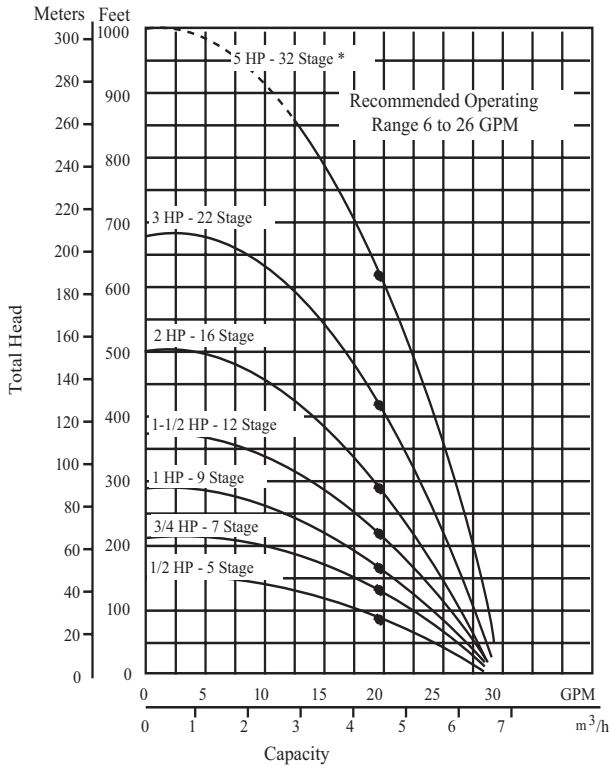


Suction & Discharge Tapping: 1-1/2" x 1-1/4"

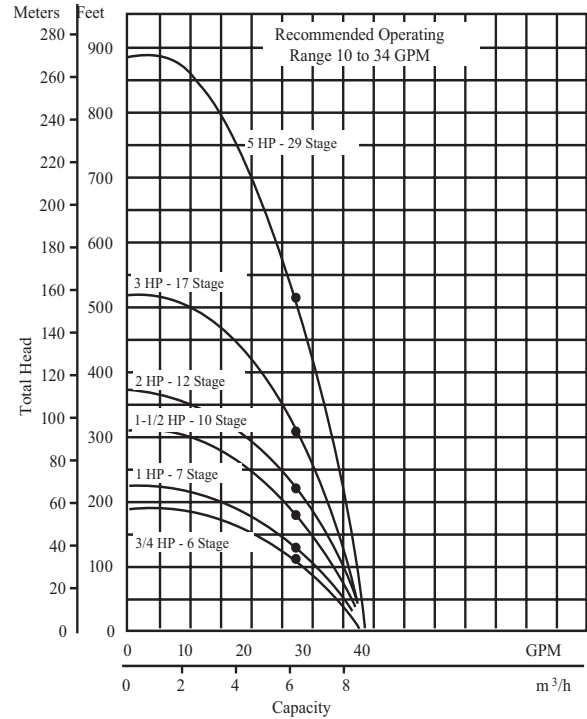
Motor Voltage: Single phase: 1/3 - 115V; 1/2 thru 2 HP - 115/230V; 3 HP - 230V, 60HZ
 Three phase: 1/2 thru 2 HP - 208-230/460V - 50/60HZ
 3 HP - 208-230/460V - 60HZ

FLINT & WALLING PUMPS - SUBMERSIBLE 4"

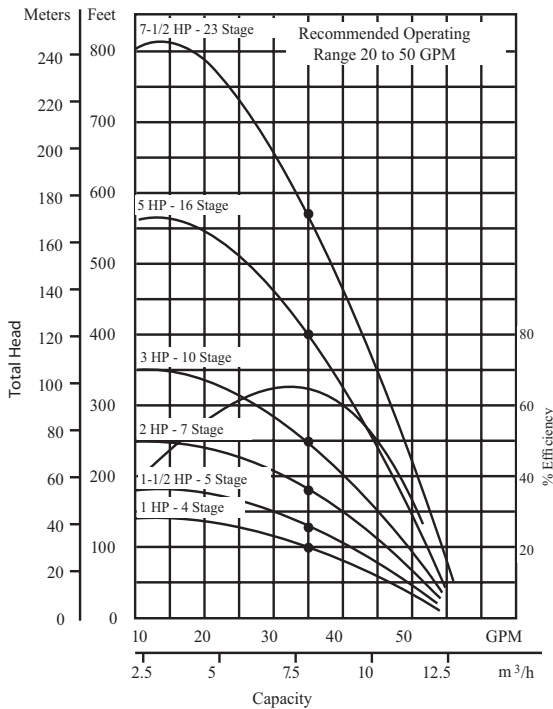
19 GPM • 1/2-5 HP



27 GPM • 3/4-5 HP



35 GPM • 1-7 1/2 HP



4" Submersibles

Model	Description
PUFW4F19S10301	1 HP 19 GPM 3 Wire
PUFW4F19S15301	1 1/2 HP 19 GPM 3 Wire
PUFW4F19S20301	2 HP 19 GPM 3 Wire
PUFW4F27S10301	1 HP 27 GPM 3 Wire
PUFW4F27S15301	1 1/2 HP 27 GPM 3 Wire
PUFW4F27S20301	2 HP 27 GPM 3 Wire
PUFW4F35S10301	1 HP 35 GPM 3 Wire
PUFW4F35S15301	1 1/2 HP 35 GPM 3 Wire
PUFW4F35S20301	2 HP 35 GPM 3 Wire



FloBoy D SERIES PUMPING SYSTEM

Flow Rates: up to 110 gpm
 Pressure Range: 22-87 psi
 Horsepower Range: up to 10 hp



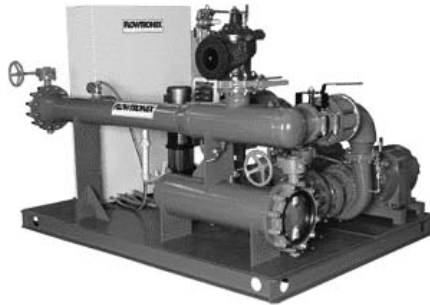
FloBoy S SERIES

Flow Rates: up to 250 gpm
 Pressure Range: 22-130 psi
 Horsepower Range: up to 25 hp



FloBoy S VFD

Flow Rates: up to 450 gpm
 Pressure Range: 22-130 psi
 Horsepower Range: up to 50 hp



SILENT STORM HORIZONTAL PUMPING SYSTEM

Flow Rates: from 200 to 15,000 GPM
 Pressure Range: from 50-150 psi



FloBoy S LARGE VFD

Flow Rates: 450 to 850 gpm
 Pressure Range: 22-130 psi
 Horsepower Range: up to 75 hp
Voltages:
 230/Single Phase: up to 40 hp
 208-230-460 / 3-Phase: up to 75 hp



FLOMAX VERTICAL TURBINE PUMPING SYSTEM

Flow Rates: 200 to 1,200 gpm
 Pressure Range: 50-150 psi
 Horsepower:
 230V/3-Phase, up to two 30 hp mains
 460, 575V/3-Phase, up to two 60 hp mains

Call your local branch for specifications and prices



Foot Valves



Spring Check

PVC Spring Check Valves (FIPT x FIPT) - Rated @200 PSI Static Press @72°F

Model	Description
FC100110	1" IPS size, 1/2 lb. spring tension
FC100112	1-1/4" IPS size, 1/2 lb. spring tension
FC100115	1-1/2" IPS size, 1/2 lb. spring tension
FC100120	2" IPS size, 1/2 lb. spring tension

Foot Valves

Model	Description
AGFV100B	1" foot valve and strainer
AGFV125B	1-1/4" foot valve and strainer
AGFV150B	1-1/2" foot valve and strainer
AGFV200B	2" foot valve and strainer
AGFV300B	3" foot valve and strainer

Kleen Flo Intake Screens

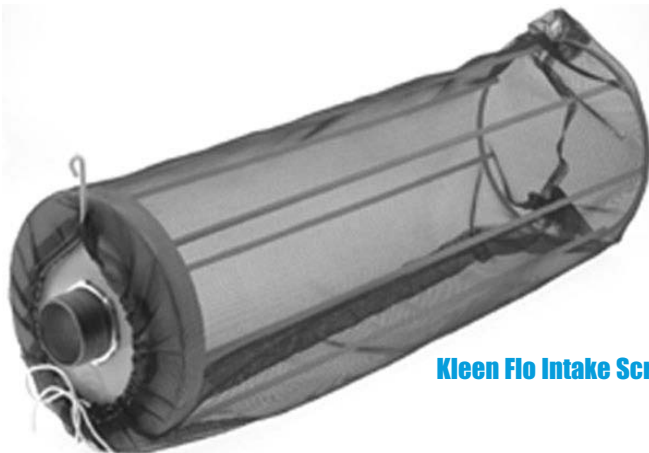
Model	Description
PUKLEEN	Kleen Flo Filter
PUKF101	Replacement bag

PVC Well Screens

Model	Description
PUWELLSCREEN	4" Well Screen per foot

Well Seals

Model	Description
PUSUB4X1P	4x1 Well seal
PUSUB4X125	4x1-1/4 Well seal
PUSUB4X150	4x1-1/2 Well seal
PUSUB4X2	4x2 Well seal



Kleen Flo Intake Screen



Well Seal

CALIBRATED PRESSURE RELIEF VALVE - P1500 SERIES

Features & Benefits:

- Pressure relief valve poppet type
- All bronze body and poppet
- Recommended for cold water relief only
- Calibrated adjustments from 25 to 175 psi
- Scale permanently etched on stem
- Male NPT inlet, female NPT outlet
- Domestically manufactured



PRV



SWITCH

TANK CROSS KIT

Features & Benefits:

- Long brass or bronze safety tank cross
- Pressure switch
- Brass nipple
- 100lb steel case pressure gauge
- Relief valve
- Boiler drain valve



TANK CROSS KIT



TANK CROSS

LIQUID FILLED PRESSURE GAUGE

Features & Benefits:

- Black steel case
- Glycerine filled
- Phosphor bronze bourdon tube
- Accuracy +/- 3%
- 2" dial face
- Clear acrylic lens
- For use in high vibration situations
- Imported



EILPG SERIES

HGI-25 HOSE BIBB PRESSURE GAUGE

Features & Benefits:

- Size: 3/4" hose thread
- Dial size: 2"
- Indicator needle identifies the highest pressure
- Range: 0-200 psi; 2 psi graduations

Calibrated Pressure Relief Valve - P1500 Series	
Model	Description
BP150075	3/4", 26 lb, 36 per carton
Tank Cross Kit	
Model	Description
PUIP100BSR	CIC100BS, cross included, cast brass, 11"
PUIP125BS14	CIC125BS14, cross included, cast bronze, 14"
Short Cast Brass Crosses w/ 2 Drain & 2 Top Ports - 1/4" -- Length 4-1/2"	
Model	Description
PUCIC100BS	1"x3/4" tank conn., 1/2" port
PUCIC3125BS	1-1/4"x1" tank conn., 3/4" port
PUCIC71250BS	1-1/4"x1" tank conn., 1/2" port
Pump Switches	
Model	Description
PUPS4060	Standard, 40/60 cut-in/cut-off
PUPS6080	Standard, 60/80 cut-in/cut-off
EILPG Series Liquid Filled Pressure Gauge	
Model	Description
PUEILPG10024L	0-100# range, 1/4" lower
PUEILPG20024L	0-200# range, 1/4" lower
OSP53020	0-200# range, 3/4" hose

PUMPS - ACCESSORIES

BRONZE FLOAT VALVE

Features & Benefits:

- Cast bronze body
- Buna-N disc
- Heavy duty
- Tapped for 1/4-20 SAE rod
- Threaded outlet
- Rated at 125 psi

PLASTIC FLOAT

Features & Benefits:

- PVC
- Corrosion resistant
- Lightweight
- Up to 175°F
- For open tank service only

BRASS ROD

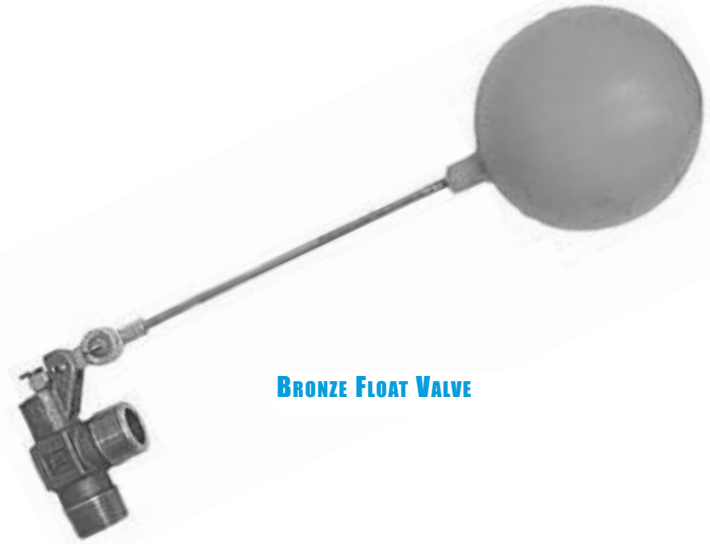
Features & Benefits:

- Brass SAE
- Male thread both ends

5451 SERIES FREEZE PROOF YARD HYDRANT

Features & Benefits:

- Fully frost proof, shut-off valve below frost line
- Heavy cast iron head with 3/4" brass discharge connection
- Heavy, zinc plated steel corrosion resistant stand-pipe
- Galvanized carbon steel rod
- Long lasting Buna-N rubber plunger with solid brass core
- Integral valve seat cast into bronze body. 3/4" FPT connection with six flow channels in bottom valve for better flow, less risk of debris blockage
- 1/8" FPT drain hole
- Rated to 80 psi, adjustable



BRONZE FLOAT VALVE



5451 SERIES FREEZE PROOF YARD HYDRANT

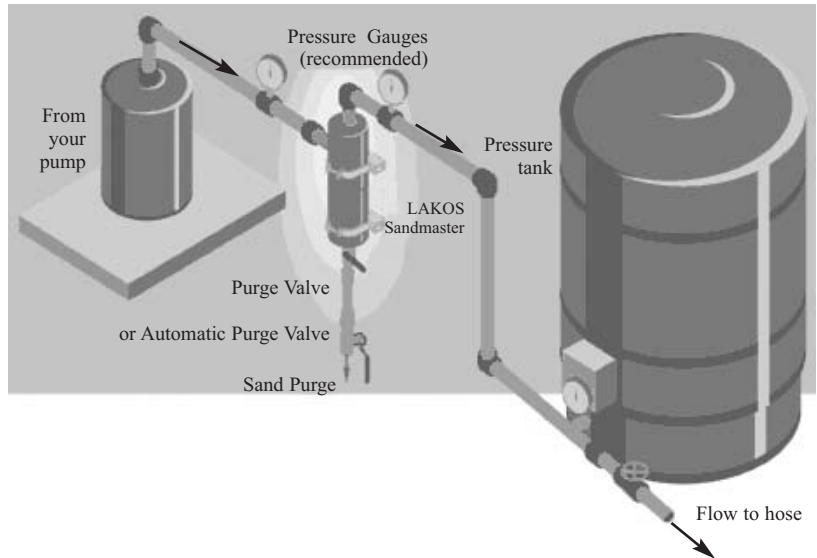
Bronze Float Valves	
Model	Description
AGBFV75	3/4"
AGBFV100	1"
Brass Rods	
Model	Description
AGBFVR8	8"
AGBFVR10	10"
AGBFVR12	12"
Plastic Floats	
Model	Description
AGBFVFP5	5", 2.17 lbs.
AGBFVFP6	6", 3.8 lbs.
5451 Series Freeze Proof Yard Hydrant	
Model	Description
AGYH54513	3 bury depth, 66" long
AGYH54514	4 bury depth, 78" long
AGYH54515	5 bury depth, 90" long

LAKOS FILTRATION & SEPARATION SYSTEMS

SANDMASTER SEPARATORS

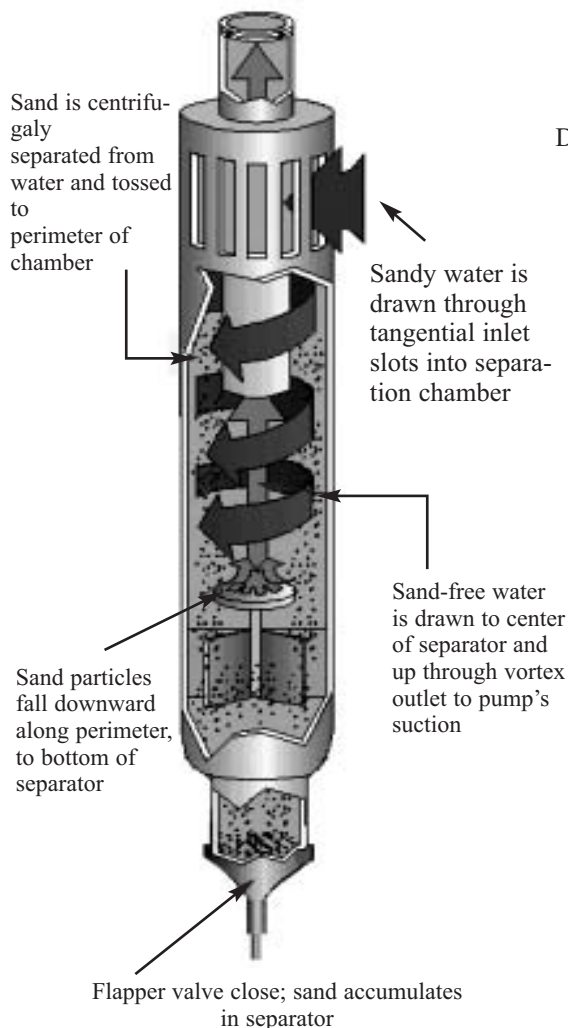
For residential water wells, the LAKOS SandMaster installs easily between the pump and pressure tank. Keeps sand and grit out of sprinklers, appliances, water conditioning systems and more. Maximum pressure rating 100 psi. Now available in stainless or carbon steel.

TYPICAL SANDMASTER INSTALLATION



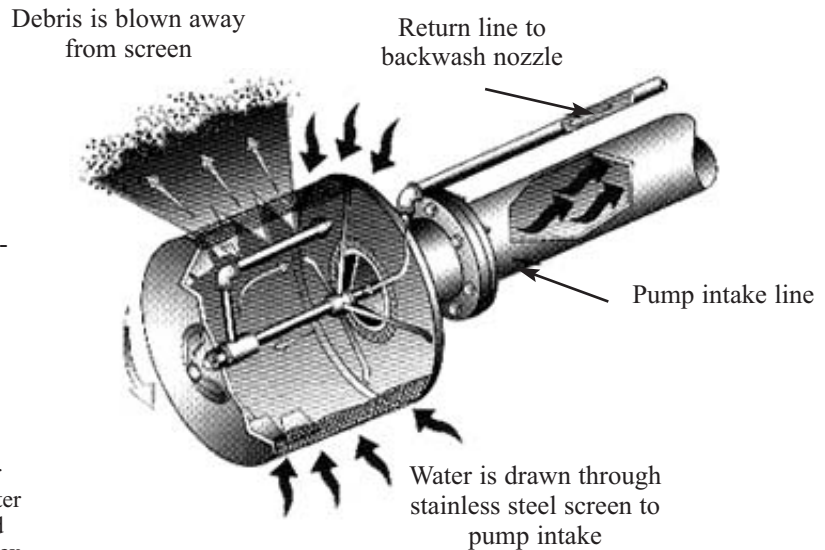
PUMP PROTECTION SEPARATORS

LAKOS Pump Protection Separators remove sand and grit extending a pump's life by 4 times or more. Installed directly onto the suction of a submersible or turbine pump, the Pump Protection Separator is designed and specified for virtually every make and model pump.



SELF-CLEANING PUMP INTAKE SCREENS

50-2400 U.S. gpm



Sandmaster Separators

Model	Description
PUH2010	10-20 GPM, 3/4" male NPT & 3/4" purge size
PUH2020	20-32 GPM, 1" male NPT & 3/4" purge size
PUH2030	30-48 GPM, 1-1/4" male NPT & 3/4" purge size
PUH2045	45-70 GPM, 1-1/2" male NPT & 3/4" purge size

FERTIGATION - EZ FLO

SPRINKLER MAIN LINE CONNECTION - PVC TANK - FOR USE UNDER CONSTANT PRESSURE

Whether you fertilize your lawn or garden, EZ-Flo is the right system - for everything you grow. The EZ-Flo sprinkler main line connection is a commercial grade fertilization system. The system connects directly to the sprinkler main line between the black flow preventer and the sprinkler valves so the tank is under constant pressure. The main line connection can feed multiple sprinkler zones with one tank. The system feeds through all types of sprinklers or drip emitters each time the area is watered. The EZ-Flo System is ideal for residential or commercial landscapes, gardens or small growers.

- Back flow protection required - Reduced pressure back flow preventer
- Uses any dry water soluble, liquid or organic fertilizer



PVC Tanks

Ez Flo Premium Fertilizers & Supplements

Model	Description
FEREZ25151025	25-15-10 EZ Spring formula - 25 lb bag
FEREZ2515105	25-15-10 EZ Spring formula - 5 lb bag
FEREZ2881825	28-8-18 EZ Summer formula - 25 lb bag
FEREZ288185	28-8-18 EZ Summer formula - 5 lb bag
FEREZ10203025	10-20-30 EZ Fall formula - 25 lb bag
FEREZ1020305	10-20-30 EZ Fall formula - 5 lb bag
FEREZ1701725	17-0-17 Phosphate free formula - 25 lb bag
FEREZ170175	17-0-17 Phosphate free formula - 5 lb bag
FEREZCRITTER1	Organic Critter Control 1 gallon
FEREZCRITTER5G	Organic Critter Control 5 gallons
FEREZLN5P	All Season premium supplement 1 Pint

Ez Flo - PVC Tanks

FEREZ001CX	1. 5gallon tank with shut off & pressure relief
FEREZ003CX	2.5 gallon tank with shut off & pressure relief
FEREZ005FX	4.25 gallon tank with shut off & pressure relief
FEREZ010FX	9.4 gallon tank with shut off & pressure relief
FEREZ010HC	10 gallon Hi-capacity tank with pressure relief
FEREZ030HC	30 gallon Hi-capacity tank with pressure relief

PVC Coupling Installation Kit

FEREZC075	3/4" Sch. 40 Coupling socket
FEREZC100	1" Sch. 40 Coupling socket
FEREZCT100	1" Sch. 40 Coupling threaded
FEREZC125	1-1/4" Sch. 40 Coupling socket
FEREZC150	1-1/2" Sch. 40 Coupling socket

* More sizes available, call for details.

Sprinkler Connection Units

Settings	Ratio		Results
Slow	15,000-1	15,000 gal. water to 1 gal. fertilizer or	Low grow & color
1	7,500-1	7,500 gal. water to 1 gal. fertilizer or	Moderate growth & color
2	2,000-1	2,000 gal. water to 1 gal. fertilizer or	Vigorous grow & color
Fast	400-1	400 gal. water to 1 gal. fertilizer or	High grow & color

25-15-10 EZ Spring Formula

Total Nitrogen (N)	25%
5.99% Ammoniacal Nitrogen	
2.85% Nitrate Nitrogen	
16.16% Urea Nitrogen	
Available Phosphate (P ₂ O ₅)	15%
Soluble Potash (K ₂ O)	10%
Sulphur (S)	3.6%
Copper (Cu)	.05%
Iron (Fe)	.20%
Total Manganese (Mn) Water Soluble	.05%
Molybdenum (Mo)	.0009%
Zinc (Zn)	.05%

EZ FLO Premium Fertilizer

28-8-18 EZ Summer Formula

Total Nitrogen (N)	28%
0.69% Ammoniacal Nitrogen	
4.43% Nitrate Nitrogen	
22.66% Urea Nitrogen	
Available Phosphate (P ₂ O ₅)	8%
Soluble Potash (K ₂ O)	18%
Magnesium (Mg)	0.05%
Sulphur (S)	0.05%
Copper (Cu)	.05%
Iron (Fe)	.20%
Total Manganese (Mn) Water Soluble	.05%
Molybdenum (Mo)	.0009%
Zinc (Zn)	.05%

10-20-30 EZ Fall Formula

Total Nitrogen (N)	10%
2.03% Ammoniacal Nitrogen	
7.97% Nitrate Nitrogen	
Available Phosphate (P ₂ O ₅)	20%
Soluble Potash (K ₂ O)	30%
Boron (B)	0.02%
Copper (Cu)	.05%
Iron (Fe)	.10%
Total Manganese (Mn) Water Soluble	.05%
Molybdenum (Mo)	.0009%
Zinc (Zn)	.05%

28-8-18 EZ Phosphate Free Formula

Total Nitrogen (N)	17%
3.40% Ammoniacal Nitrogen	
13.60% Nitrate Nitrogen	
Soluble Potash (K ₂ O)	17%
Calcium (Ca)	4%
Magnesium (Mg)	2.0%
Boron (B)	0.02%
Copper (Cu)	0.01%
Iron (Fe)	0.075%
Total Manganese (Mn) Water Soluble	.04%
Molybdenum (Mo)	.0009%
Zinc (Zn)	.02%

PUMPS - RID O' RUST

AMERICAN HYDRO SYSTEMS INC.



Iron+Oxygen=Iron Oxide (Rust)

Rid O' Rust Formulas totally prevent this chemical reaction from taking place, thus preventing the formation of ugly rust stains

PUMPS & FOUNTAINS

Hours of Irrigation from Full Tank

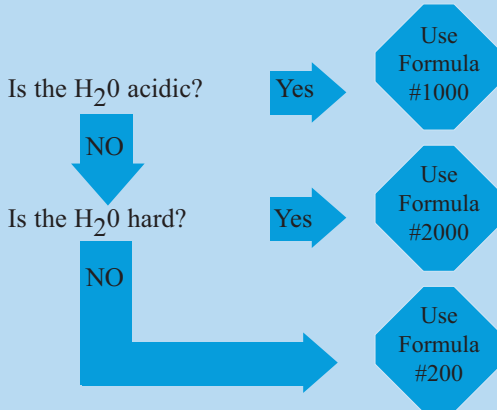
Output	30 gallons /Hours
5 GPD	143 hours
6 GPD	120 hours
10 GPD	71.5 hours
12 GPD	60 hours

Rust Stain Prevention Formulas Dosage Chart

Important:

In order to use this chart you MUST know the feed rate of the feeder system you are using. The chart is based on (A) a 30 gallon feed tank, and (B) a 25 gallon per minute flow rate for the irrigation system. If your particular application has a different tank size or flow rate, the dosage figure must be adjusted. Please note that Formula 500 is presented in **quart units**. All other Formulas are presented in gallon units.

WHICH FORMULA DO YOU USE TO STOP RUST STAINS?



Parts Per Million of Iron	Gallons of Formula 300, 1000 and 200 and Quarts of Formula 500 to Be Added to Feed Tank			
	Feed Rate of Feeder System			
	5 gallons per day (.21 gallons per hour)	10 gallons per day (.42 gallons per hour)	17 gallons per day (.71 gallons per hour)	24 gallons per day (One gallons per hour)*
1	2.00	1.00	0.75	0.50
2	3.50	1.75	1.25	0.75
3	5.25	2.75	2.00	1.25
4	7.25	3.75	2.75	1.50
5	9.00	4.50	3.25	2.00
6	10.75	5.50	4.00	2.25
7	12.50	6.25	4.50	2.75
8	14.25	7.25	5.25	3.00
9	16.50	8.25	6.00	3.50
10	18.00	9.00	6.50	4.00

* This is the feed rate of a siphoning system

Injection Feeder Systems & Maturing Pumps

Model	Description
AHS26681	LMI 10 qpd adjustable outdoor 110 volt*
AHS2688	Stenner 10 qpd indoor 110 volt*

* 220 volt and other pumps available

Feeder Tanks

Model	Description
AHS265064	15 gallon tank, Siphon & Injection system
AHS265057	30 gallon tank, Siphon system

* 220 volt and other pumps available

What Causes Irrigation Stains?

Color of Stain	Stain Source
LIGHT YELLOW	TANNIN
RED/ORANGE	IRON
WHITE	HARD WATER

Chemicals - Liquid Rust Stain Remover

Model	Description
AHS2662QT	Rust stain remover, 1 quart
AHS2662	Rust stain remover, 1 gallon
AHS2662PA	Rust stain remover, 5 gallons

Chemicals - Formula Products for Rust Stain Prevention, Fertilizer

Model	Description
AHS2656GL	Formula 500, 1 gallon
AHS2656PA	Formula 500, 5 gallons
AHS2665	Formula 1000, 1 gallon
AHS2665PA	Formula 1000, 5 gallons
AHS2666	Formula 2000, 1 gallon
AHS2666PA	Formula 2000, 5 gallons
AHS2655	GrassSoGreen

Water Testing Materials

Model	Description
AHSTEST1	Hach iron test kit
AHSTEST2	Replacement iron test "pillows" (pkg. of 100)
AHSTEST3	"Pocket Pal" pH tester
AHSTEST4	pH test strips (bottle of 50)
AHSTEST5	Hardness test strips (bottle of 50)
AHSTEST6	Hardness test kit, titration-type
AHSTEST7	"All-in-one" test kit (3 kits in plastic case)
AHSTEST8	"Dot-it-yourself" kit, 2 each iron, hardness, pH

PUMPS - VU-FLOW SCREEN FILTERS

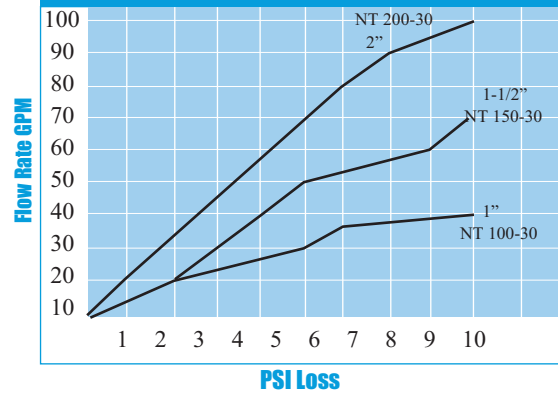


T STYLE SCREEN FILTER

Features & Benefits:

- 180° in-line “T” style installation
- 1-100 GPM models
- 1/2” MPT cleanout with purge valve
- Supplied with polyester filter screen
- Also available with stainless steel screen as special order
- Water Use Only

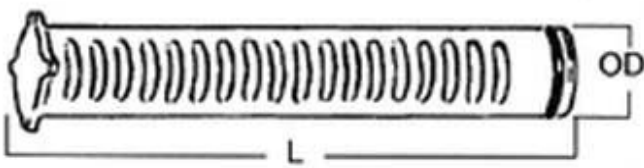
Pressure Loss Graph



NT Series - Screen Filters

Model	Description
PUNT10060P	1"x1", 60 (254 mic) mesh, 0.01 mesh opening, 1-25 GPM, 11-3/8 long, 5" wide
PUNT100100P	1"x1", 100 (152 mic) mesh, 0.006 mesh opening, 1-25 GPM, 11-3/8 long, 5" wide
PUNT15060P	1-1/2"x1-1/2", 60 (254 mic) mesh, 0.010 mesh opening, 10-50 GPM, 15-3/8 long, 5-1/4" wide
PUNT150100P	1-1/2"x1-1/2", 100 (152 mic) mesh, 0.006 mesh opening, 10-50 GPM, 15-3/8 long, 5-1/4" wide
PUNT20060P	2"x2", 60 (254 mic) mesh, 0.010 mesh opening, 18-100 GPM, 17-7/8 long, 5-1/2" wide
PUNT200100P	2"x2", 100 (152 mic) mesh, 0.006 mesh opening, 18-100 GPM, 17-7/8 long, 5-1/2" wide

REPLACEMENT SCREENS FOR FILTERS



NT Screen	L	OD
NT30	5-1/8	1-1/8
NT60	8-1/8	1-5/8
NT120	10	1-7/8

Replacement Screens for Filters

Model	Description
PUNT30SC24	3/4" & 1" NT filters
PUNT30SC30	3/4" & 1" NT filters
PUNT30SC40	3/4" & 1" NT filters
PUNT30SC60	3/4" & 1" NT filters
PUNT30SC100	3/4" & 1" NT filters
PUNT60SC24	1-1/2" NT or combo filters
PUNT60SC30	1-1/2" NT or combo filters
PUNT60SC40	1-1/2" NT or combo filters
PUNT60SC60	1-1/2" NT or combo filters
PUNT60SC100	1-1/2" NT or combo filters
PUNT120SC24	2" NT or combo filters
PUNT120SC30	2" NT or combo filters
PUNT120SC40	2" NT or combo filters
PUNT120SC60	2" NT or combo filters
PUNT120SC100	2" NT or combo filters

AERATOR FOUNTAINS - OTTERBINE

Aerators Fountain Unites (AF)

- Includes:
- 60 Hz Power Unit, Pumping Changer (pick from the selection below) & Float
 - PPC with timer, surge arrester and GFCI (GFCI not included on 460 V units)
 - Cable connectors not included, **cable is not included and must be ordered seperately.**

note - pigtail will be vulcanized to cable ordered

When ordering choose the **HP, voltage and phase** required then *just pick a Pattern* and order your cable.

AERATORS BUILT TO LAST

Otterbine aerating fountains and industrial aerators help to give nature a boost by treating the causes of poor water quality. These systems, known for their ability to keep water clean, are unlike other fountain systems. Otterbine has adopted disciplines from wastewater engineering and lake management experts to produce systems that offer beautiful spray patterns.

All of the spray patterns are easily interchangeable and offer customers an industry first five-year warranty.



Aerating Fountain Units (AF)

Model	Description
PUOT010011116	1 HP, 115/1/60/MOTOR
PUOT010011216	1 HP, 230/1/60/MOTOR
PUOT010012216	2 HP, 230/1/60/MOTOR
PUOT010013216	3 HP, 230/1/60/MOTOR
PUOT010013236	3 HP, 230/3/60/MOTOR
PUOT010013436	3 HP, 460/3/60/MOTOR
PUOT010015236	5 HP, 230/3/60/MOTOR
PUOT010015436	5 HP, 460/3/60/MOTOR
PUOT010015536	5 HP, 575/3/60/MOTOR

Aerating Fountain Nozzles

Model	Description
PUOT180038	SUNBURST, 60Hz, AF, PA
PUOT180039	GEMINI, 60Hz, AF, PA
PUOT180040	SATURN, 60Hz, AF, PA
PUOT180041	PHOENIX, 60Hz, AF, PA
PUOT180042	ROCKET, 60Hz, AF, PA
PUOT180043	TRISTAR, 60Hz, AF, PA
PUOT180044	COMET, 60Hz, AF, PA
PUOT180045	G, 60Hz, AF, PA

C3 Aerating Fountains/Patterns

HP	1	2	3	5
Volt/Phase/Amp.	115/1/13.4	230/1/13.2	230/1/14.8	230/1/23
	230/1/7.2		230/3/9.2	230/3/13.7
			460/3/4.3	460/3/7.2



	1	2	3	5
SUNBURST				
Spray Height	4'	7'	10'	11'
Spray Diam.	15'	24'	30'	40'
GPM	530	640	775	1,100



	1	2	3	5
GEMINI				
Spray Height	5'	9'	12'	15'
Spray Diam.	10'	16'	24'	34'
GPM	555	665	800	1,125



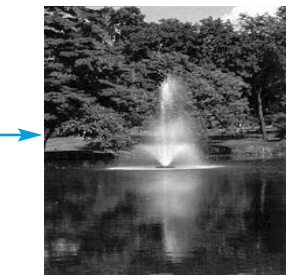
	1	2	3	5
SATURN				
Spray Height	1.5'	3'	4.5'	5'
Spray Diam.	7'	11'	20'	24'
GPM	400	480	580	825



	1	2	3	5
PHONENIX				
	in out	in out	in out	in out
Spray Height	8'4'	11'6'	15'9'	18'10'
Spray Diam.	2'17"	2'20"	3'28"	3'34"
GPM	150	210	275	400



	1	2	3	5
ROCKET				
Spray Height	11'-13'	17'/19'	20'/22'	23'/25'
Spray Diam.	5'	5'	8'	8'
GPM	110	155	200	290



	1	2	3	5
TRISTAR				
	in mid out	in mid out	in mid out	in mid out
Spray Height	8'5'/3'	12'7'/4'	16'11'/7'	19'13'/8'
Spray Diam.	2'9'/13'	2'10'/17'	3'13'/23'	3'15'/27'
GPM	150	210	275	400



	1	2	3	5
COMET				
Spray Height	9'11'	16'18'	19'21'	21'23'
Spray Diam.	5'	5'	8"	8'
GPM	130	185	240	325



	1	2	3	5
GENESIS				
	in out	in out	in out	in out
Spray Height	6'3'	10'5'	15'6'	18'7'
Spray Diam.	8'24"	11'32"	20'50"	24'62"
GPM	150	210	275	400

AERATORS - INDUSTRIAL, INSTANT & AQUA



Sub-Triton Mixer



High Volume-2 HP



1/2 HP Starburst



1/2 HP Phoenix



AquaGem 1/2 HP



3/4 HP Rocket



AquaBlast 1/2 HP

C2 Industrial Aerators

HP	1	2	3	5
Volt/Phase/Amp.	115/1/13.4	230/1/11.9	230/1/13.5	230/3/13.5
	230/1/6.8		230/3/8.5	460/3/7
			460/3/4.2	

HIGH VOLUME

Spray Height	1.5'	2'	3'	4.5'
Spray Diam.	4'	7'	9'	11'
GPM	920	1,525	2,100	3,000

TRITON ASPIRATOR

GPM	210,000	420,000	630,000	1,050,000
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TRITON MIXER

GPM	490,000	980,000	1,470,000	N/A
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SUB-TRITON ASPIRATOR

GPM	210,000	420,000	630,000	1,050,000
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SUB-TRITON MIXER

GPM	490,000	980,000	1,470,000	N/A
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Instant Fountains

HP	1/2	1/2	3/4
Volt/Phase/Amp.	115/1/12	230/1/6	230/1/8

w/ 3 light set

STARBURST

Spray Height	2.5'	2.5'	3'
Spray Diam.	12'	12'	19'
GPM	125	125	135
	in out	in out	in out

PHONENIX

Spray Height	8'4'	8'4'	9'6'
Spray Diam.	2'12'	2'12'	2'16'
GPM	80	80	80

ROCKET

Spray Height	12'	12'	15'
Spray Diam.	2'	2'	2'
GPM	80	80	90

Aqua Series

HP	1/4	1/2
Volt/Phase/Amp.	115/1/3.1	230/1/16
	230/1/1.8	

w/ cable length 50' 100'

w/ 2 light set

AQUAGEM

Spray Head	3'	4'
Spray Diam.	7'	9.5'
GPM	175	200

AQUABLAST

Spray Head	1.5'	2'
Spray Diam.	4'	5.5'
GPM	210	260

AERATOR FOUNTAINS - OTTERBINE

Aqua Series

These units have limited water management capabilities. Units are maintenance free, but must be protected from freezing. 110V sites must be boosted to 115V. Each unit comes with a new 2 year warranty.

Includes: • Interchangeable AquaGem and AquaBlast spray patterns

- Mini PCC with GFCI & Timer
- **"Cable is included"** 1/4 HP comes with 50 ft. of cable and 1/2 HP comes with 100 ft. of cable.
- All units are hardwired. If additional cable is required you must order a quick disconnect (QDC).
- Debris Screen

Model	Description
PUOT040020115	AQUA SERIES, 1/4HP, 115/60, 50FT
PUOT040020230	AQUA SERIES, 1/4HP, 230/60, 50FT
PUOT040021115	AQUA SERIES, 1/2HP, 115/60, 100FT
PUOT040021230	AQUA SERIES, 1/2HP, 230/60, 100FT

Deluxe Aqua Series

These units have limited water management capabilities. Units are maintenance free, but must be protected from freezing. 110V sites must be boosted to 115V. Each unit comes with a new 2 year warranty.

Includes: • Interchangeable AquaGem and AquaBlast spray patterns

- Mini PCC with GFCI & Timer
- **"Cable is included"** 1/4 HP comes with 50 ft. of cable for the unit and 50 ft. for the lights and 1/2 HP comes with 100 ft. of cable for the nit and 100 ft. for the lights.
- All units are hardwired. If additional cable is required you must order a quick disconnect (QDC).
- Debris Screen
- Standard 20 watt 2 light set, with clear lenses and Mini PCC with timer/transformer.

Model	Description
PUOT040026115	AQUA DELUXE, 1/4HP, 115/60, 50FT
PUOT040026230	AQUA DELUXE, 1/4HP, 230/60, 50FT
PUOT040027115	AQUA DELUXE, 1/2HP, 115/60, 100FT
PUOT040027230	AQUA DELUXE, 1/2HP, 230/60, 100FT

Aqua Series Light Sets

- Light Sets are available with either 50 ft. or 100 ft. of cable.
- Lights are hardwired. If additional cable is required you must order the quick disconnect option (QDC)
- 20 Watt 2 light sets, Mini PCC with time/transformer.

Model	Description
PUOT020026002	AQUA 2 LIGHT MR16 SET, 50FT
PUOT020027002	AQUA 2 LIGHT MR16 SET, 100FT

Aqua Series Options

Model	Description
PUOT080041123	CABLE,12/3 FRACTIONAL UNITS
PUOT170056	QDC OPTION,FRAC UNIT,FACTORY
PUOT170057	QDC OPTION,FRAC UNIT,FIELD APPL
PUOT170058	QDC OPTION, FRAC LTS, FACTORY
PUOT170059	QDC OPTION, FRAC LTS, FIELD APPL

Instant Fountains

These units have limited water management capabilities. Units are maintenance free, but must be protected from freezing. 208V sites must be boosted to 230V. Each unit comes with a new 2 year warranty.

Includes: • Interchangeable Phoenix, Rocket & Starburst spray patterns

- Mini PCC with GFCI & Timer
- Cable is not included and must be ordered separately
- Debris Screen

Model	Description
PUOT040001115	INSTANT FTN,1/2HP,115V 60Hz
PUOT040001230	INSTANT FTN,1/2HP,230V 60Hz
PUOT040002230	INSTANT FTN,3/4HP,230V 60Hz

Industrial Aerating Units (IA) Floating and Sub-Surface Units

- Includes:** • 60 Hz Power Unit, Pumping Chamber, Float (floating units) & Bottom Barrier (sub-surface units)
- 2 ft or 50 ft (length depends on floating or sub-surface unit) of 1/2" air tube and air tube float on aspirating Triton Units.
 - PPC with timer, surge arrestor and GFCI (GFCI not included on 460 V units)
 - Cable connectors not included, cable is not included and must be ordered separately.

Note - pigtail will be vulcanized to cable ordered

When ordering choose the HP, voltage and phase required then just pick a Pattern and order your cable.

Industrial Aerators

Model	Description
PUOT010091116	1 HP, 115/1/60/MOTOR
PUOT010091216	1 HP, 230/1/60/MOTOR
PUOT010092216	2 HP, 230/1/60/MOTOR
PUOT010093216	3 HP, 230/1/60/MOTOR
PUOT010093236	3 HP, 230/3/60/MOTOR
PUOT010093436	3 HP, 460/3/60/MOTOR
PUOT010095236	5 HP, 230/3/60/MOTOR
PUOT010095436	5 HP, 460/3/60/MOTOR
PUOT010095536	5 HP, 575/3/60/MOTOR

Patterns

Model	Description
PUOT180061	HIGH VOLUME, 60Hz,IA,PA
PUOT180062	SUB-TRITON ASP, 60Hz,IA,PA
PUOT180063	TRITON ASP, 60Hz,IA,PA
PUOT180064	SUB-TRIT MIX, 60Hz,IA,PA No 5HP
PUOT180065	TRITON MIXER, 60Hz,IA,PA No 5HP

Cable

Model	Description
PUOT080021063	6/3, C3, 5HP1Ph
PUOT080021083	8/3, C2/C3
PUOT080021084	8/4, C2/C3/10HP
PUOT080021103	10/3, C2/C3
PUOT080021104	10/4, C2/C3/10HP
PUOT080021123	12/3, C2/C3
PUOT080021124	12/4, C2/C3

Instant Fountain Deluxe

These units have limited water management capabilities. Units are maintenance free, but must be protected from freezing. 110V sites must be boosted to 115V. Each unit comes with a new 2 year warranty.

Includes: • Interchangeable Phoenix, Rocket and Starburst spray patterns with Debris Screen

- Mini PCC with GFCI & Timer
- Standard 20 watt 3 light set, with clear lenses and controls. Colored lenses are available for an additional cost
- Cable is not included & must be ordered separately for both the unit & lights. The maximum cable length on the Deluxe Instant Fountain is 100 ft

Model	Description
PUOT040005115	DELUXE PKG,1/2HP,115V,w/3LIGHT
PUOT040005230	DELUXE PKG,1/2HP,230V,w/3LIGHT
PUOT040006230	DELUXE PKG,3/4HP,230V,w/3LIGHT

Cable

Cable is sold in 25 ft. increments with a minimum length of 50ft for each unit. Please order the total length of cable required for installation. Cable is priced per foot.

Model	Description
PUOT080029123	CABLE,HI,STD,1/6HP,12/3,UOM=FT
PUOT080041123	CABLE,12/3,FRACTIONAL UNITS

Quick Disconnect

This option is a factory installed disconnect available for the Instant Fountain and the Instant Fountain Deluxe. For field retrofit kids please refer to the parts price list.

Model	Description
PUOT170039	DISCONNECT, I.F. LIGHTS, FACTORY
PUOT170042	DISCONNECT,1/2 & 3/4HP, FACTORY

AERATORS - LIGHTS AND TECHNICAL DATA

Maximum Cable Runs (feet)

HP	Volt/Phase	12awg	10awg	8awg
1	115/1	N/A	175	275
1	208-230/1	385	615	985
2	208-230V/1	210	340	535
3	208-230V/1	n/a	315	500
3	208-230V/3	380	610	965
3	460V/3	1600	2525	4000
5	208-230V/1	N/A	N/A	370
5	208-230V/3	235	375	590
5	460V/3	925	1475	2350
5	575V/3	1525	2450	3850



Low Voltage Light Specifications

Lights per set	Voltage/Watt/	Total Wattage/Candle power	Amp Draw*	Max. Cable Run (feet)
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Junction Box Mounted Transformer and 12/3 Power Cable

2	115/65	130/8,000	1.13	1275
4	115/65	260/16,000	2.26	640

Store Mounted Transformer and 12/3 Power Cable

2	115/20	40/1,400	.35	150
3	115/20	60/2,000	.52	100
4	115/20	80/2,800	.7	50

*Amp draw is calculated from primary side (line side) of transformer.

Distance Between Anchors

Depth (Feet)

5	11
6	15
7	20
8	30
9	40
10	55
11	70
12	85
13	100
14	120
15	150

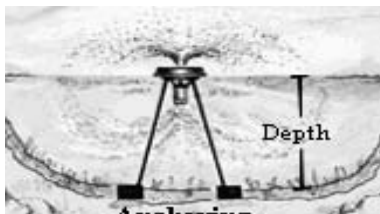
SIZING PARAMETERS

In ponds that are less than 6' deep we recommend 2 HP per surface acre. In effluent lakes with a history of algae, aquatic weed and odor problems use 2.5-3 HP per surface acre. When sizing units for aesthetic enhancement, the bigger the horsepower the more dramatic the effect.

UNIT PLACEMENT

Units should be placed strategically so that they can mix and aerate the entire basin to achieve maximum influence. It is often better to break the horsepower requirement up into smaller units and regularly space the units throughout the pond/basin. Beware of isolated canals that are the perfect breeding ground for algae and weeds.

Anchor / Mooring Install



Anchoring



Mooring

Concept³ Running Costs and Power Factors

Power factors of High Speed Franklin Motors and calculating Kilowatts:

$$Kw(1ph) = \frac{I \times E \times PF}{1000} \quad Kw(3ph) = \frac{I \times E \times 1.73 \times PF}{1000}$$

1 HP=.81

2 HP=.82

3 HP 1Ph=.96

3 HP 3Ph=.89

5 HP 1Ph=.99

5 HP 3Ph 208-230/460V=.90

5 HP 3Ph 575V=.95

I=Amperage

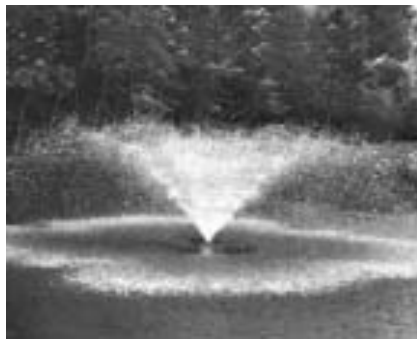
E= Voltage

PF= Power Factors (listed at left)

Kw= Kilowatts for 3 Phase only

Cost=Kw x (cost of one kilowatt hour)

AERATORS - AQUAMASTER



STANDARD HIGH VOLUME FLOW

Our classic, Standard High Volume Flow Pattern is created without a nozzle. Should you desire other decorative fountain patterns, see below.

Fountain Aerator Performance Specifications				
Horse Power	Voltage & Phase	Amp Draw	Suggested Pond Size Acre ²	Minimum Operating Depth
1-1/2	120-1PH 240-1PH	5.0 2.5	1/2	1-1/2'
1	120-1PH 240-1PH 230-3PH 460-3PH	20.0 10.0 4.4 2.2	1/2	2'
2	240-1PH 230-3PH 460-3PH	12.5 7.6 3.8	1	2'
3	230-3PH 460-3PH	9.0 4.5	1 to 1-1/2	2'
3-1/2	240-1PH	18.0	1 to 1-1/2	2'
5	240-1PH 230-3PH 460-3PH	28.0 16.2 8.1	1 to 2-1/2	2'
10	230-3PH 460-3PH	35.0 17.5	1 Plus	4'



GEYSER

HP	Height x Diameter
1/2	8' x 3'
1	12' x 2'
2-3.5	15'-16' x 2'-6'
5	19' x 6'
10	30' x 6'



WIDE GEYSER

HP	Height x Diameter
1/2	7' x 4'
1	12' x 5'
2-3.5	14'-15' x 6'-7'
5	16' x 10'
10	26' x 10'



CROWN

HP	Height x Diameter
1/2	5' x 20'
1	6' x 20'
2-3.5	8'-10' x 24'-30'
5	12' x 36'



CRYSTAL GEYSER

HP	Height x Diameter
1/2	4' x 14'
1	8' x 20'
2-3.5	10'-13' x 20'-22'
5	14' x 24'
10	18' x 24'



PLUM TREE

HP	Height x Diameter
1/2	3' x 3'
1	7' x 8'
2-3.5	7'-8' x 10'
5	10' x 10'



PLUME

HP	Height x Diameter
1/2	4' x 10'
1	6' x 16'
2-3.5	8'-10' x 20'-22'
5	11' x 24'



CLOVERLEAF

HP	Height x Diameter
1-3.5	4'-6' x 30'-40'
5	7' x 46'



CROWN & GEYSER

HP	Height x Diameter
1/2	4' x 14'
1	8' x 20'
2-3.5	10'-13' x 20'-22'
5	14' x 24'
10	18' x 24'

AERATORS - AQUAMASTER

The Classic Series Fountain Aerators Floating Fountain Aerators; 1/2 - 10HP Standard High Volume Flow (HVF) Models

Single Phase		
Model	Description	Volts
PUAM5401ESC	1/2HP stainless steel aerator with panel	120
PUAM5402ESC	1/2HP stainless steel aerator with panel	208-240
PUAM5410SC	1HP stainless steel aerator with panel (1)	120
PUAM5412SC	1HP stainless steel aerator with panel	208-240
PUAM5422SC	2HP stainless steel aerator with panel	208-240
PUAM5432SC	3.5HP stainless steel aerator with panel	208-240
PUAM5452SC	5HP stainless steel aerator with panel	208-240
PUAM5512SC	10HP stainless steel aerator with panel	208-240

(1) 30 Amp service is required

Three Phase - now including GFI		
Model	Description	Volts
PUAQ54123SC	1HP 3 phase stainless steel aerator with panel	208-240
PUAQ54143SC	1HP 3 phase stainless steel aerator with panel	440-480
PUAQ54223SC	2HP 3 phase stainless steel aerator with panel	208-240
PUAQ54243SC	2HP 3 phase stainless steel aerator with panel	440-480
PUAQ54323SC	3HP 3 phase stainless steel aerator with panel	208-240
PUAQ54343SC	3HP 3 phase stainless steel aerator with panel	440-480
PUAQ54523SC	5HP 3 phase stainless steel aerator with panel	208-240
PUAQ54543SC	5HP 3 phase stainless steel aerator with panel	440-480
PUAQ55123SC	10HP 3 phase stainless steel aerator with panel	208-240
PUAQ55143SC	10HP 3 phase stainless steel aerator with panel	440-480

Options		
Model	Description	Volts
PUAQ870162	Large Custom Stainless Steel Intake Screen - 1/2HP*	—
PUAQ870163	Large Custom Stainless Steel Intake Screen - 1-5HP*	—
PUAQ870164	Large Custom Stainless Steel Intake Screen - 10HP*	—
PUAQCCP	Custom Control Panel (per unit)	All Voltages

*Factory recommends adding a large custom intake screen if units will operate in potentially high debris filled water.

NOTES:

1. Our classic, Standard High Volume Flow conical pattern is created without a nozzle.
2. Minimum operating depth for classic Series 1/2HP models is 2 feet and 1 - 5HP models is 2.5 feet.
3. Minimum operating depth for 10HP Fountain Aerators is 4 feet as it utilizes the same cart style floatation.

NOTE:

Factory recommends adding a large custom stainless steel intake screen, if units will operate in potentially high debris filled water.

Aquamaster's Classic Series Fountain Nozzles Models 5401 - 5514

Crystal Geyser Pattern	
Model	Description
PUAQ870187	1/2HP
PUAQ870188	1HP
PUAQ870189	2 - 3.5HP
PUAQ870190	5HP
PUAQ870191	10HP

Crown & Geyser Pattern	
Model	Description
PUAQ870029	1/2HP
PUAQ870034	1HP
PUAQ870039	2 - 3.5HP
PUAQ870044	5HP
PUAQ870049	10HP

Wide Geyser Pattern	
Model	Description
PUAQ870180	1/2HP
PUAQ870181	1HP
PUAQ870182	2 - 3.5HP
PUAQ870183	5HP
PUAQ870184	10HP

Geyser Pattern	
Model	Description
PUAQ870021	1/2HP
PUAQ870022	1HP
PUAQ870023	2 - 3.5HP
PUAQ870024	5HP
PUAQ870025	10HP

Plume Pattern	
Model	Description
PUAQ870072	1/2HP
PUAQ870073	1HP
PUAQ870074	2 - 3.5HP
PUAQ870075	5HP

Plum Tree Pattern	
Model	Description
PUAQ870078	1/2HP
PUAQ870079	1HP
PUAQ870080	2 - 3.5HP
PUAQ870081	5HP

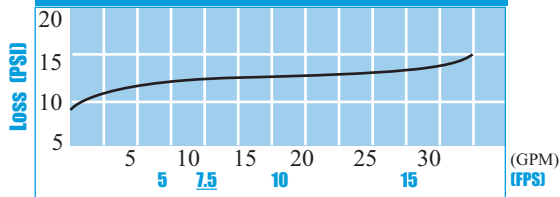
Cloverleaf Pattern	
Model	Description
PUAQ870088	1/2HP
PUAQ870083	5HP

Crown Pattern	
Model	Description
PUAQ870066	1/2HP
PUAQ870067	1HP
PUAQ870068	2 - 3.5HP
PUAQ870069	5HP

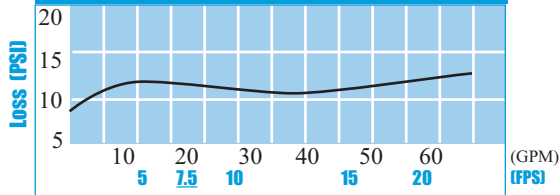
BACKFLOW PREVENTORS - FEBCO

REDUCED PRESSURE

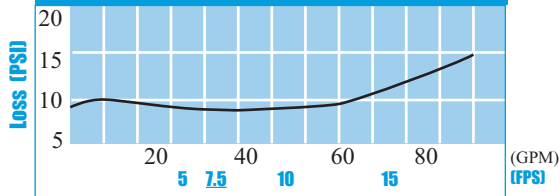
825Y Series Flow Curve - 3/4"



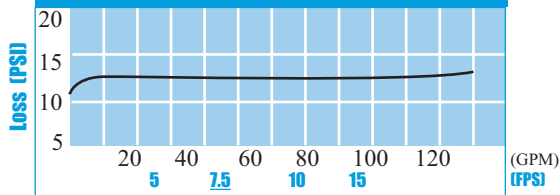
825Y Series Flow Curve - 1"



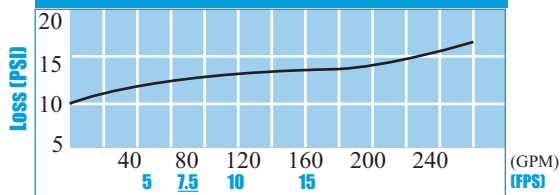
825Y Series Flow Curve - 1-1/4"



825Y Series Flow Curve - 1-1/2"

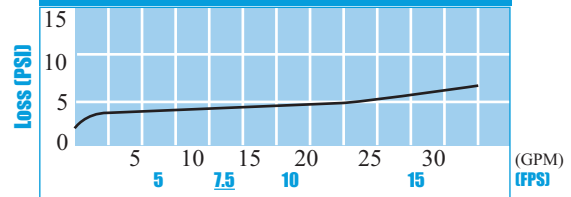


825Y Series Flow Curve - 2"

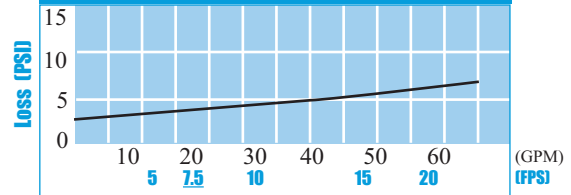


PRESSURE VACUUM BREAKER

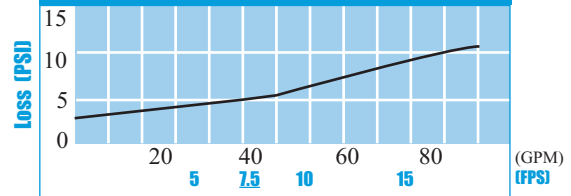
765 Series Flow Curve - 3/4"



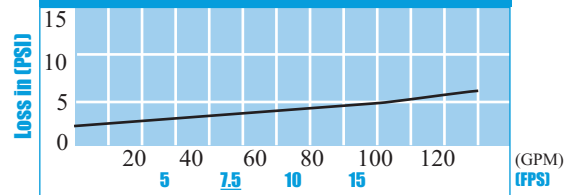
765 Series Flow Curve - 1"



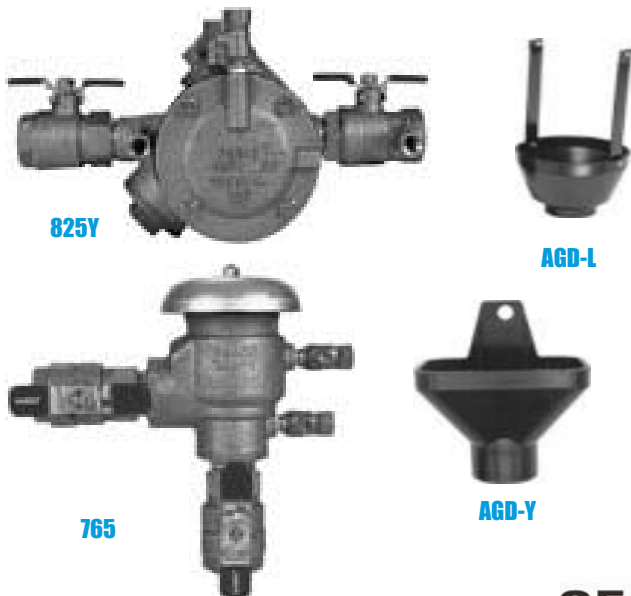
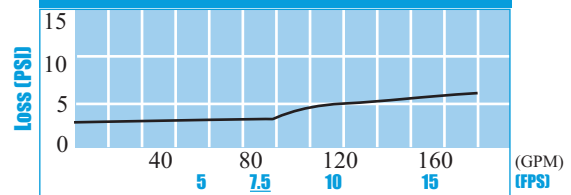
765 Series Flow Curve - 1-1/4"



765 Series Flow Curve - 1-1/2"



765 Series Flow Curve - 2"



825Y Series - Reduced Pressure Assembly - With Ball Valves

Model	Description
RP825Y75	3/4"
RP825Y100	1"
RP825Y125	1-1/4"
RP825Y150	1-1/2"
RP825Y200	2"

765 Series - Pressure Vacuum Breaker - With Ball Valves

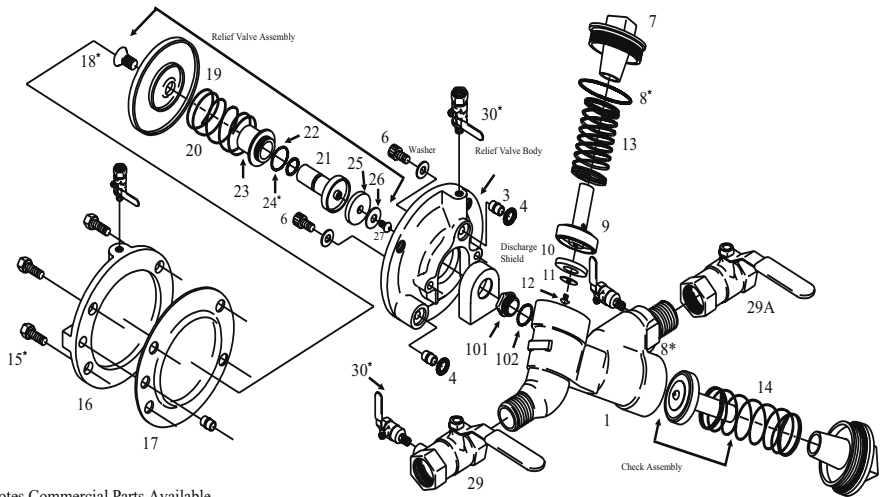
PV76575	3/4"
PV765100	1"
PV765125	1-1/4"
PV765150	1-1/2"
PV765200	2"

Air Gap Drains - Model AGD-Y / AGD-L for Models 825Y

FP905082	3/4" - 2"
FP905083	2-1/2" - 10"

BACKFLOW PREVENTORS - FEBCO PARTS

MODEL 825Y (3/4" - 2")



*Denotes Commercial Parts Available.
Unit is shown with ball valve shut-offs.
Some parts are sold in kits only. Consult Parts Price List for specifics.

Shut-offs: Model 825Y & YA

Description	1"	1 1/4"	1 1/2"	2"
Ball Valve (Inlet)	FP781054	FP781055	FP781056	FP781057
Ball Valve (Outlet)	FP781049	FP781050	FP781051	FP781052
Testcock	FP781074	FP781075		

Assemblies/Kits: Model 825Y & YA

Description	1"-1 1/4"	1 1/2"-2"
Check Valve Rubber (8 & 10)	FP905042	FP905053
Relief Valve Rubber (17, 22, 24 & 25)	FP905043	FP905054
Check Valve Assembly (8 to 12)	FP905044	FP905055
Relief Valve Assembly (17 to 27)	FP905045	FP905056
Seat Ring Kit (101, 102)	FP905113	FP905114
Complete Rubber Parts Kit (3,4,5,8,10,22,24,25,102)	FP905111	FP905112

Assemblies/Kits: Model 765

Description	1"-1 1/4"	1 1/2"-2"
Canopy	FP300089	FP300083
Spring	FP630106	FP630063
Bonnet Assembly (5-10)	FP905048 ⁽²⁾	FP901857
Poppet Assembly (11, 12)	FP905050	FP901860
Check Assembly (15-18)	FP905052	FP905070

(2) KIT INCLUDES PARTS TO RETROFIT OLDER STYLE UNITS

MODEL 765

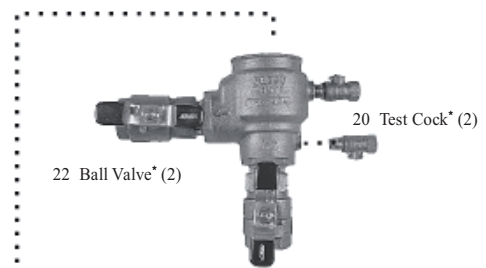
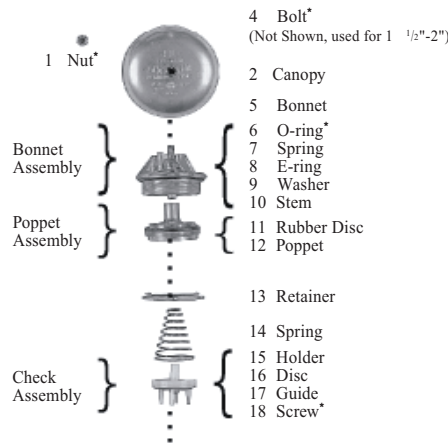


Illustration shown is for sizes 3/4" through 1 1/4" only.

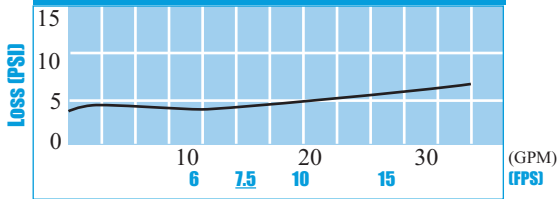
Bonnet and bolt for 1 1/2" and 2" not shown.

*COMMERCIAL PARTS

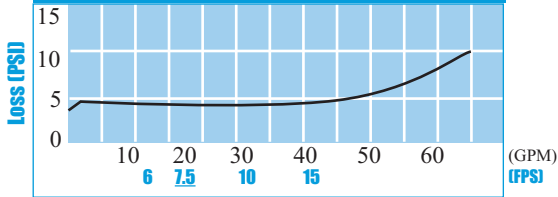
BACKFLOW PREVENTORS - FEBCO

DOUBLE CHECK VALVE

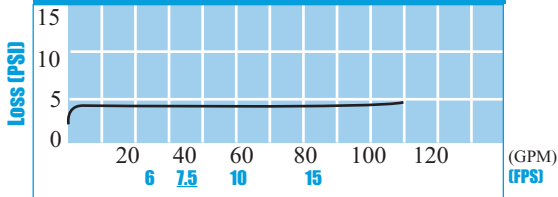
805 Series Flow Curve - 3/4"



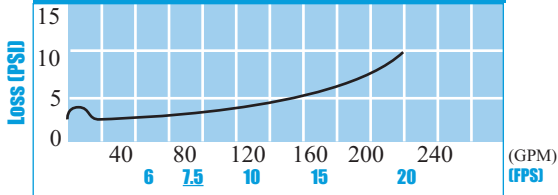
850 Series Flow Curve - 1"



850 Series Flow Curve - 1-1/2"

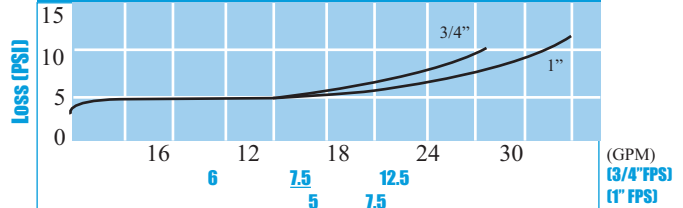


850 Series Flow Curve - 2"



DUAL CHECK VALVE

810 Series Flow Curve

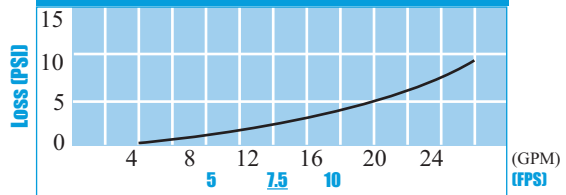


NOTES: Flow Rate (GPM and FPS)

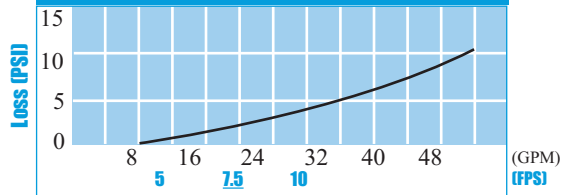
1. Velocity are calculated for flows in schedule 40 steel pipe.
2. Typical water systems flow velocities of 0 to 7.5 FPS should be used for head loss efficiency comparisons.

ATMOSPHERE VACUUM BREAKER

715 Series Flow Curve - 3/4"



710 Series Flow Curve - 1"



850 Series - Double Check Assembly - With Ball Valves

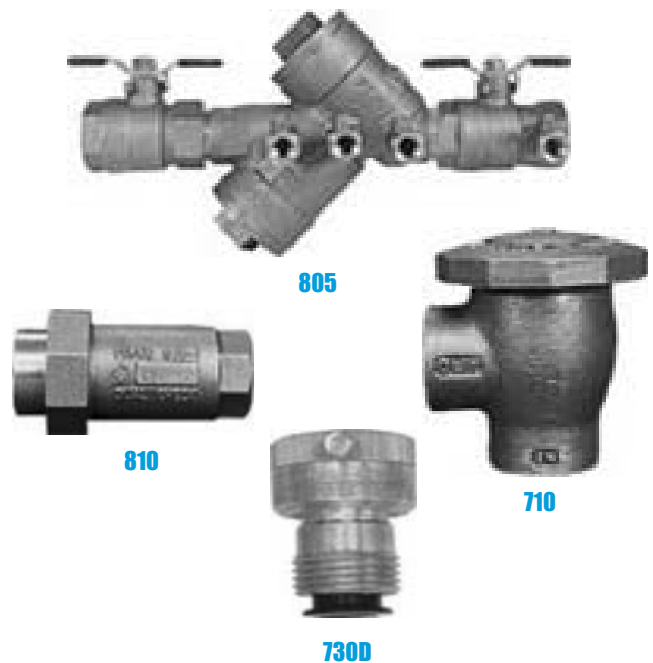
Model	Description
BP85075	3/4"
BP850100	1"
BP850150	1-1/4"
BP850200	1-1/2"

810 Series - Dual Check

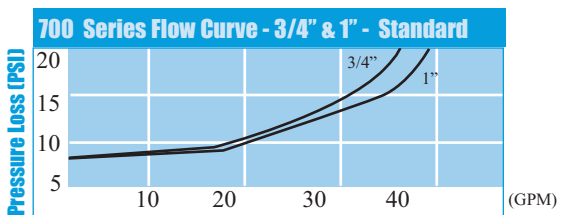
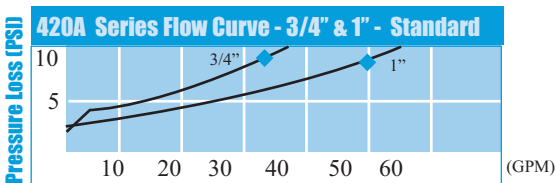
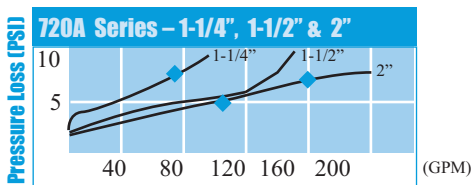
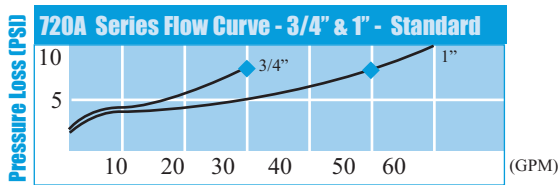
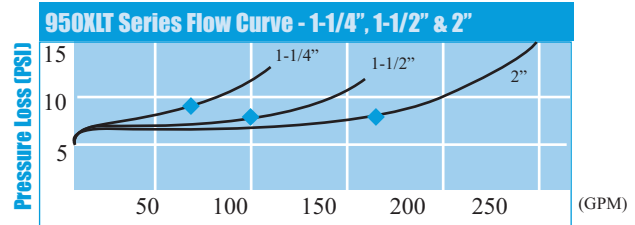
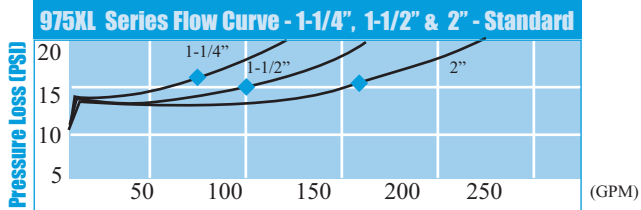
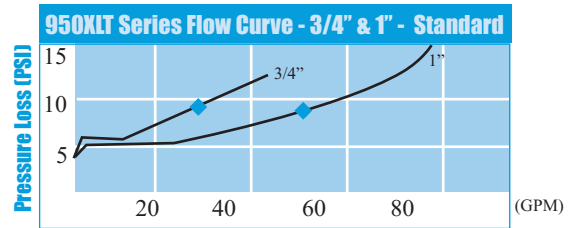
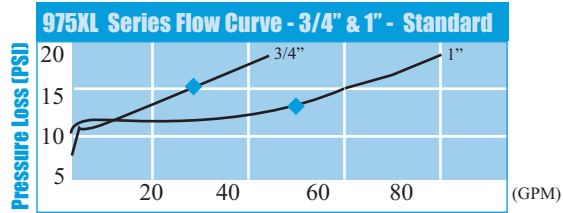
BP81075	3/4", FPT x FPT, union inlet
BP810100	1" FPT x FPT, union outlet

710/715 Series - Atmospheric Vacuum Breaker

BP715A75	3/4"
BP710A100	1"



BACKFLOW PREVENTORS - WILKINS



◆ Rated Flow

Reduced Pressure 975XL

Model	Description
RP975XL75	3/4" RPZ
RP975XL100	1" RPZ
RP975XL125	1 - 1/4" RPZ
RP975XL150	1 - 1/2" RPZ
RP975XL200	2" RPZ

Pressure Vacuum Breaker 720

Model	Description
PV720A75	3/4" PVB
PV720A100	1" PVB
PV720A125	1 - 1/4" PVB
PV720A150	1 - 1/2" PVB
PV720A200	2" PVB

Double Check 950XLT

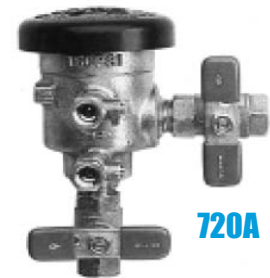
Model	Description
BP950XLT75	3/4" Double Check
BP950XLT100	1" Double Check
BP950XLT125	1 - 1/4" Double Check
BP950XLT150	1 - 1/2" Double Check
BP950XLT200	2" Double Check

Dual check 700

Model	Description
BP70075	3/4" Double Check
BP700100	1" Double Check



975XL



720A



950XLT



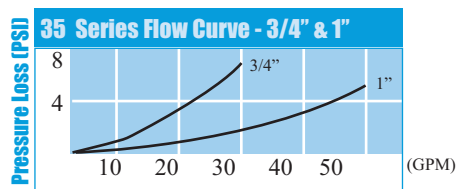
700

BACKFLOW PREVENTORS - WILKINS

ATMOSPHERIC VACUUM BREAKERS – MODEL 35

Features & Benefits:

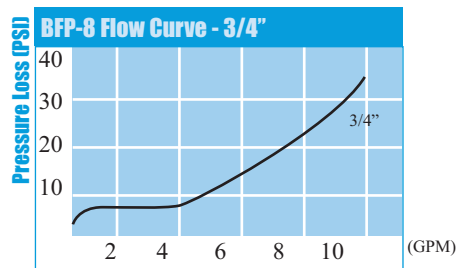
- Angle pattern atmospheric vacuum breaker in FNPT
- Brass body and cap
- Import manufactured



HOSE CONNECTION VACUUM BREAKERS – MODEL BFP-8

Features & Benefits:

- Brass hose bib backflow preventer with vandal resistant feature
- Maximum pressure 125 psi



MODEL BFTG-5

Backflow prevention assembly test kit designed for field testing all brands of reduced pressure principle and double check, pressure vacuum breaker backflow prevention devices.

Features & Benefits:

- Test kit with 5 control valves
- Case material: rugged molded plastic
- Accuracy: +/- 0.2 P.S.I.D.
- Dial size: 4-1/2" round, 0-15 P.S.I.D. (150 divisions)
- Gauge body material: acetal with 316 stainless steel internals
- Valves: 1/4" resilient seated needle
- Hoses and end fittings: three 5 ft lengths; color coded with neoprene liner and jacket, SAE 45° flared fittings and 90 micron cleanable porous metal (brass) filters
- Temperature range: 35° F to 150° F
- Maximum working pressure: 200 psi



35



BFP-8



BFTG-5

MODEL 600

Features & Benefits:

- Pressure rated 300 psi
- Spring range 25 to 75 psi, factory set at 50 psi
- Maximum temperature 180° F
- Union end connection standard and available 1/2" through 2" FNPT
- All bronze body and bell housing
- Replaceable stainless steel seat



600 HLR

Vacuum Breakers

Model	Description
BP135	1" Atmospheric Vacuum Breaker
BPBFP8	Hose Connection Vacuum Breaker

600 HLR Series

BP600HLR75	3/4" WILK ADJ PR REG 3/4"
BP600HLR100	1" WILK ADJ PR REG 1"
BP600HLR125	1-1/4" WILK ADJ PR REG 1 1/4"
BP600HLR150	1-1/2" WILK ADJ PR REG 1 1/2"
BP600HLR200	2" WILK ADJ PR REG 2"

BACKFLOW PREVENTORS - WILKINS

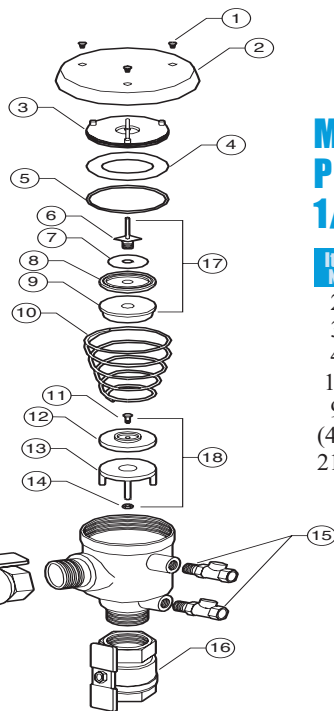
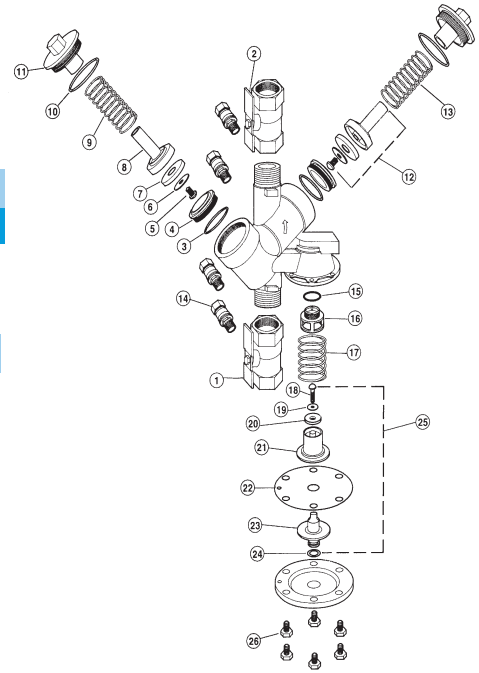
MODEL 975XL Reduced Pressure Principle Backflow Preventers 3/4" to 2"

975XL Reduced Pressure Assembly - 3/4" to 1"

Item No.	Description	Model
(1,9,10,13,15,17,20,22)	COMPLETE REPAIR KIT	BPRK34975XL
(1,10,15,20,22)	RUBBER REPAIR KIT	BPRK34975XLR

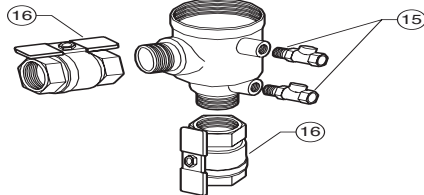
975XL Reduced Pressure Assembly - 1-1/4" to 2"

(1,9,10,13,15,17,20,22)	COMPLETE REPAIR KIT	BPRK34975XL
(1,10,15,20,22)	RUBBER REPAIR KIT	BPRK34975XLR



MODEL 720A Pressure Vacuum Breakers 1/2", 3/4" & 1"

Item No.	Description	QTY.	Model
2	CANOPY	1	BP7213
3	BONNET	1	BP72120
4	PLASTIC WASHER	1	BP721A12
15	TEST COCK	1	BP18860
9	POPPET, ASSEMBLY	1	BP721300
(4,5,10,21,22)	REPAIR KIT	1	BPRK1720A



MODEL 720A Pressure Vacuum Breakers 1 1/4", 1 1/2" & 2"

Item No.	Description	QTY.	Model
2	CANOPY	1	BP7243
4	BONNET	1	BP72420
5	PLASTIC WASHER	1	BP724A12
6	O-RING	1	BP156N
21	POPPET ASSEMBLY	1	BP724300

Repair Kit for BPRK2720A

Item No.	Description	Model
22	DISC SPIDER ASSEMBLY	BP724310
5,6,11,21,22	COMPLETE REPAIR KIT	BPRK2720A

