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# Water Supply

### ABOUT

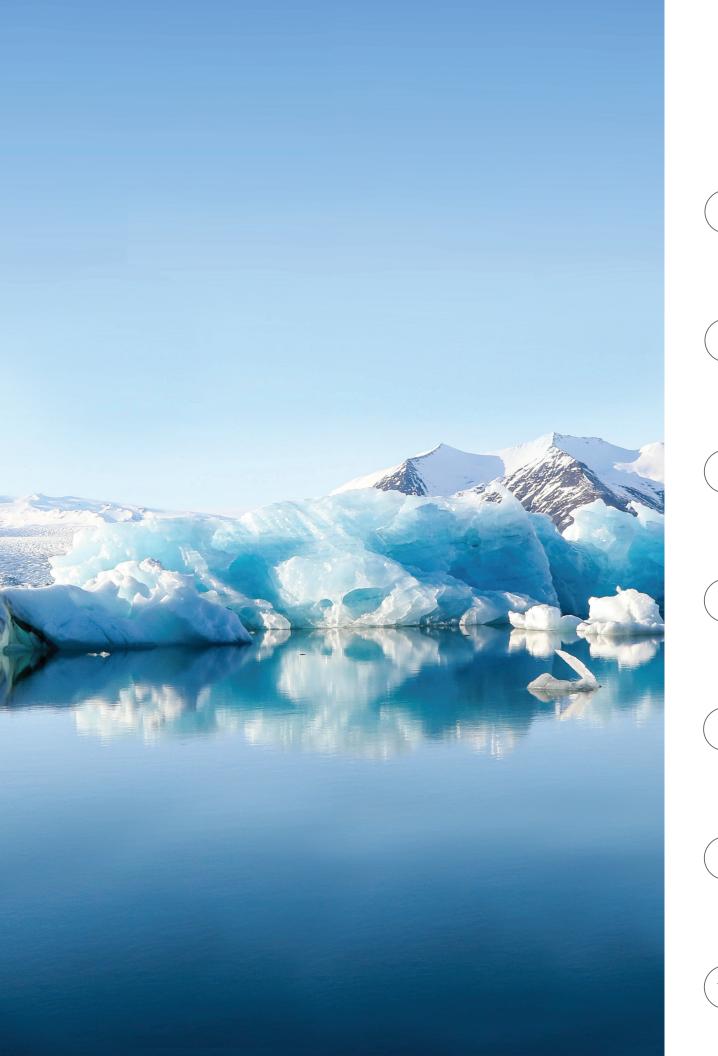
Global Water Solutions USA LLC (GWS USA) is an affiliated company of Global Water Solutions (GWS), one of the world's largest pressure tank and water treatment component manufacturers. Headquartered in Bradenton, Florida, GWS USA was founded to distribute and supply high-quality, affordable products to North America, Central America, Mexico, and the Caribbean.

GWS USA's pressure tank range includes a full line of pressure vessels for different applications. They are available in sizes from 0.5 - 119 gal (2 - 500 L) to accommodate all your requirements.

GWS USA's unique product offering includes its line of single diaphragm tanks with a patented water connection and now including a pressure tank series with a replaceable, intricate tiered membrane design and a higher maximum pressure rating than most. GWS offers customers flexibility in selecting products for a variety of applications. All of our products undergo a series of rigorous tests to insure excellent quality. Beyond that, we offer our customers extensive warranties and superior customer support.

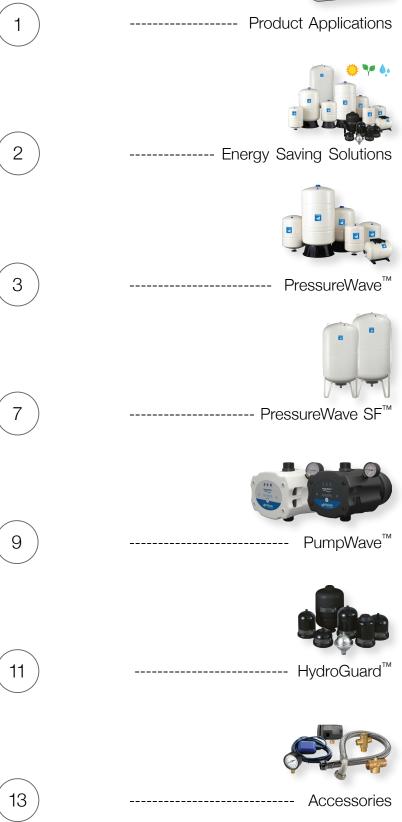
GWS has built a global reputation for creating comprehensive and durable solutions to help address the increasing demand for safe and abundant drinking water. The company continues to expand its operations and product range to meet customer needs worldwide.





### **TABLE OF CONTENTS**





### **Product Applications**

#### **PressureWave**<sup>"</sup>

PressureWave<sup>™</sup> tanks are designed for a wide range of applications, including well water systems, irrigation systems including VFD systems, booster systems and water hammer arresting.

### **PumpWave**<sup>™</sup>

Our superior quality pump controller's applications include pressure boosting for residential or small commericial spaces, pump control for gardening, and dry run protection.

#### **Water Treatment Products**

\*Water treatment products are also available, such as our reverse osmosis (RO) systems and our RO storage tanks. Visit www.gwsusa.com for more info or contact a sales representative today!

### PressureWave SF<sup>™</sup>

GWS USA's PressureWave SF™ series tanks are perfectly suited for applications where higher volumes of water storage are required. These include well water systems, irrigation systems and water hammer arresting in residential and light commercial applications.

#### **HydroGuard**<sup>™</sup>

Shock arrestor tanks suitable for booster systems, plumbing installations, commercial bathrooms and sinks, and solenoid valve protection.

### **Energy Saving Solutions**



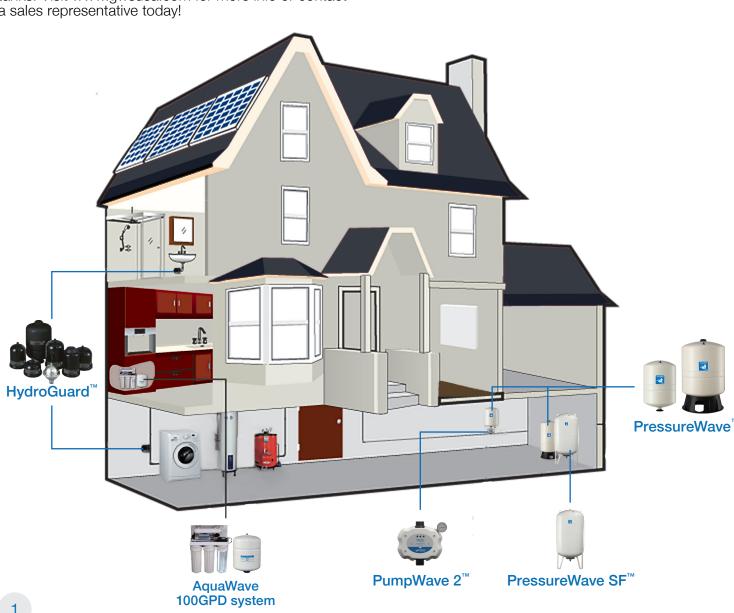
#### Upgrade your pressure tank size and gain the following benefits:

- toilet flushes, washing machine fill ups, leaks, drip irrigation, etc.
- Extend pump life by dramatically reducing wear on moving parts •
- Protect against heat expansion damage to pump bodies •
- Reduce disruptive noise from unnecessary pump starts •
- Eliminate pump motor burn outs and low-flow cycling •
- Eliminate water hammer damage to your system's pump •

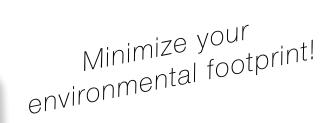
All of these benefits plus a maintenance-free tank that has the longest warranty for guaranteed reliability.



Water treatment products not included in pressure tank catalog. Visit www.gwsusa.com or contact a sales representative for more information.



• Substantially reduce electric power consumption by reducing small draw off pump starts, i.e.,



# Pump Applications PressureWave ™





#### **Features**

- Maintenance-free
- FDA approved chlorobutyl diaphragm design
- CE/PED, WRAS, ACS, ISO:9001 approved
- Certified to NSF/ANSI 61 and NSF/ANSI 372
- 100% virgin polypropylene liner
- Patented stainless steel water connection
- Exterior polyurethane & epoxy-primed paint finish
- Leak-free, O-ring sealed air valve cap
- Durable brass air valve
- 150 psi working pressure for extensive applications
- Comprehensive testing

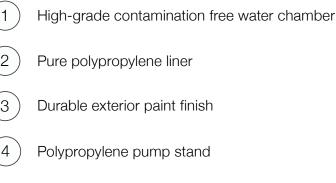
PressureWave<sup>™</sup> tanks are designed for a wide range of applications, including well water systems, irrigation systems including VFD systems, booster systems and water hammer arresting. In these applications the PressureWave<sup>™</sup> series maintains contaminant free pressurized water storage. The PressureWave<sup>™</sup> series water storage vessel is constructed of a pure polypropylene liner combined with an FDA approved butyl diaphragm, contributing to the contaminant free water storage environment. This FDA approved diaphragm is securely attached to the interior wall of the tank with a steel clench ring, and the diaphragm and liner are both reinforced in specific wear areas for longer life. Water enters the tank through a patented stainless steel water connection, eliminating contamination and corrosion. This water connection provides a dual water/air seal, ensuring a complete leak-free and maintenance-free pressure vessel. The brass air valve is precision constructed, withstanding high pressures and temperatures and is resistant to corrosion. All internal parts including the air valve are rounded to prevent piercing of the diaphragm in extreme conditions.

To provide enhanced exterior protection from UV rays and salt spray damage, our almond colored exterior finish is a two-part polyurethane paint over an expoxy undercoating. PressureWave<sup>™</sup> tanks are quality tested at several stages on the production line to ensure the structural integrity, perofrmance and certification compliance of every tank. PressureWave<sup>™</sup> tanks represent excellence, the best value for the investment and are the highest quality pressure vessels available worldwide!

#### **Horizontal Model**







#### **Inline Model**

#### **Vertical Model**



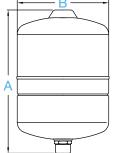
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- (5) Patented stainless steel water connection
- 6) Leak-free air valve cap
- ) Corrosion-free tank feet with mounting holes
- (8) Stabilizing base with mounting holes

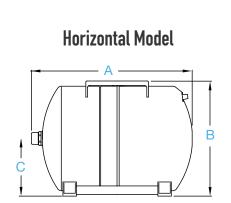
# **Pump Applications PressureWave**<sup>™</sup>



### Inline Model

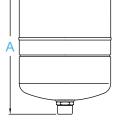


#### Inline Model



#### **Vertical Model**

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### **Specifications**

Materials	Carbon steel tank Exterior polyurethane & epoxy paint finish 100% chlorobutyl diaphragm Pure polypropylene liner
Volume	0.5 - 40 gal   2 - 150 L
Connection	Standard 1" NPT
Maximum working pressure	150 psi   10 bar
Maximum operating temperature	194°F   90°C
Factory pre-charge	28 psi   1.9 bar

Note: Minor dimensional variations may occur. All connections are stainless steel unless stated otherwise.



Model	Nominal			Net		Gross		Dimensions					
	Vol	lume	We	eight	We	Weight		A		B		ç	
	gal	liter	lb	kg	lb	kg	in	cm	in	cm	in	cm	
Inline Models													
PWN-US-2LX*	0.50	2	2.29	1.04	2.49	1.13	8.23	20.90	4.96	12.60			
PWN-US-3LX*	0.8	3	2.91	1.32	3.28	1.49	9.57	24.30	5.51	14.3			
PWN-US-4LX	1.1	4	3.28	1.49	3.83	1.74	10.28	26.10	6.38	16.20			
PWN-US-6LX*	1.6	6	3.79	1.72	4.40	2.00	11.42	29.00	6.69	17.80			
PWN-US-8LX	2.1	8	4.69	2.13	5.46	2.48	12.32	31.56	7.95	20.20			
PWN-US-12LX	3.2	12	6.01	2.73	7.07	3.21	14.45	36.70	9.06	23.00			
PWN-US-18LX	4.8	18	7.91	3.59	8.97	4.07	14.45	36.70	10.98	27.90			
PWN-US-24LX	6.3	24	10.40	4.72	11.92	5.41	17.60	44.70	11.42	29.00			
PWN-US-35LX	9.3	35	14.15	6.42	15.87	7.20	18.90	48.10	12.52	31.80			
Horizontal Models													
PWN-US-8LH	2.1	8	5.46	2.48	6.30	2.86	12.32	31.30	9.13	23.20	4.57	11.60	
PWN-US-12LH	3.2	12	6.79	3.08	7.84	3.56	14.45	36.70	10.24	26.00	5.12	13.25	
PWN-US-20LH	5.3	20	9.56	4.34	11.00	4.99	17.60	44.70	11.57	29.20	5.79	14.50	
PWN-US-24LH	6.3	24	11.59	5.26	13.22	6.00	17.60	44.70	12.64	32.10	6.34	16.10	
PWN-US-35LH	9.3	35	15.23	6.91	17.54	7.96	18.94	48.10	13.90	35.30	7.05	17.90	
PWN-US-60LH	15.9	60	22.77	10.33	25.37	11.51	20.87	53.00	16.69	42.40	8.46	21.50	
PWN-US-80LH	21.1	80	31.83	14.44	35.69	16.19	28.58	72.60	16.69	42.40	8.46	21.50	
PWN-US-100LH	26.4	100	38.62	17.52	43.71	19.83	28.35	72.00	18.70	47.50	9.65	24.50	
Vertical Models													
PWN-US-35LV	9.3	35	15.07	6.84	16.97	7.70	2185	55.50	12.52	31.80	4.72	12.00	
PWN-US-60LV	15.9	60	22.95	10.41	24.86	11.28	24.41	62.00	15.31	38.90	5.00	12.70	
PWN-US-80LV	21.1	80	32.18	14.60	35.80	16.24	32.09	81.50	15.31	38.90	5.00	12.70	
PWN-US-100LV	26.4	100	38.66	17.54	39.50	19.72	31.65	80.40	16.93	43.00	5.08	12.90	
PWN-US-130LV	34.3	130	52.77	23.94	58.92	26.73	42.28	107.40	16.93	43.00	5.08	12.90	
PWN-US-150LV	39.6	150	66.75	30.28	76.27	34.60	36.38	93.80	20.87	53.00	5.45	13.85	

\*PWN-US-2LX: 12 pcs/box, PWN-US-3LX: 6pcs/box, PWN-US-6LX: 4 pcs/box

# High Volume **PressureWave SF**<sup>™</sup>





#### **Features**

- ISO: 9001 approved
- FDA approved butyl diaphragm design
- Pressure rating 150 psi | 10 bar
- Operating temperature range 14-194°F
- 53-119 gal for sizes not covered by PressureWave™
- Built-in pressure gauge
- Suitable for high-volume applications
- Comprehensive testing

Model Connection		Nominal		Net		Dimensions				
		Volume		Weight		А		В		
		gal	liter	lb	kg	in	cm	in	cm	
SFN-US-200LV	1 1⁄4" NPT	53	200	149.91	68	23.23	59	44.09	112	
SFN-US-300LV	1 1⁄4" NPT	86	325	174.16	79	25.19	64	48.42	123	
SFN-US-500LV	1 1⁄4" NPT	119	450	253.53	115	29.52	75	61.02	155	

Note: Minor dimensional variation may occur. Maximum working pressure: 150 psi | 10 bar. Operating temperature: 14-194°F | -10-90°C. Tank precharge: 58 psi | 4 bar. Interchangable membranes - contact a sales representative for more information.

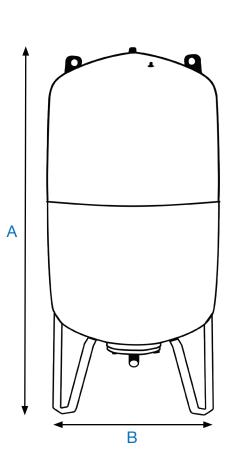
GWS USA's PressureWave SF<sup>™</sup> tanks are perfectly suited for applications where higher volumes of water storage are required. These include well water systems, irrigation systems and water hammer arresting in residential and light commercial applications. PressureWave SF<sup>TM</sup> series range from 53-119 gallon volumes with a max working pressure rating of 150 psi (10 bar). All PressureWave SF<sup>TM</sup> tanks are \*pre-charged to 28 psi allowing for greater water capacity between pump cycles for enhanced system life, also utilizes less space than a standard conventional tank. Pre-charge can be field adjusted to suit various applications. Our PressureWave SF<sup>™</sup> tanks feature an NSF listed butyl interchangeable membrane, providing a contaminant and corrosion free water storage chamber that allows for replacement if required. This durable and intricate membrane design and its fully secured installation structure, prevents the membrane (water chamber) from failing, as seen in our competitor's "bladder" designed tanks.

Our membrane's secured design installation prevents inconsistent and uneven contraction and expansion of the membrane during the operations of water storage, providing maximum life, durability and high performance. Water enters the membrane through a stainless-steel water connection, supporting the prevention of contaminants and corrosion resistance in the water storage chamber. This water connection provides a dual water/air seal, ensuring a complete leak-free pressure vessel. PressureWave SF<sup>™</sup> tank's brass air valve is exceptionally durable, withstanding high pressures, high temperatures and is resistant to corrosion. All internal parts, including the air valve, are rounded to prevent piercing of the membrane in extreme conditions. To provide enhanced exterior protection from UV ray and salt spray damage, our almond colored exterior finish is a two-part powder coated polvurethane paint finish over an epoxy undercoating.

PressureWave SF<sup>™</sup> series high-volume pressure tanks are rigorously quality tested at several stages during the manufacturing process and given regular maintenance to ensure structural integrity, performance and certification compliance of every tank. These vessels represent the best value for the investment and are designed to serve your needs for years to come, which makes us the most comprehensive pressure tank supplier in the market!

\*On the SuperFlow<sup>TM</sup> series tank we recommend a pre-charge maintenance check every six (6) months







### **Electronic Pump Controllers PumpWave**

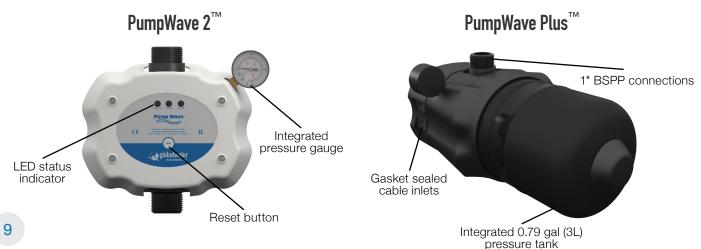




#### **Features**

- Eliminates frequent small drawoff pump starts
- Assures constant flow
- Protects against pump dry run
- Starting pressure adjustable from 1 to 2.5 bar
- LED status indicators: power on, pump on/off, and dry run control
- Can reduce the need for larger tank

The PumpWave<sup>™</sup> series is a range of electronic pump controllers ideally suited for domestic water supply in and around the home. PumpWave™ offers complete automatic management of most electric pumps up to 1HP. Both the PumpWave Plus<sup>™</sup> and PumpWave 2<sup>™</sup> offer efficient pump management, protect against pump dry running and eliminate frequent small draw-off pump starts due to leaks and low flow pumping applications. It allows the pump to run continuously when water demand is over 0.5 gpm and eliminates the pressure variation typically seen with traditional pressure switch systems. Unlike other electronic pump controllers, the PumpWave<sup>™</sup> incorporates a small pressure tank which allows it to prevent short cycling of pumps, thereby extending pump life and saving energy. The process is simple. The PumpWave<sup>™</sup> device draws water from the (integrated) pressure tank until the adjustable start or cut-in pressure is achieved, at which point the pump is switched on and allowed to run until there is no longer any flow within the system.



### PumpWave 2<sup>™</sup>

For those looking for a customizable system, look no further, The PumpWave 2<sup>™</sup> is a standalone pump controller that can be installed in combination with a range of inline and horizontal tanks.

Horizontal	Inline
PWN-US-8LH	PWN-US-2L>
PWN-US-12LH	PWN-US-3L>
PWN-US-20LH	PWN-US-4L>
PWN-US-24LH	PWN-US-8L>
PWN-US-35LH	
PWN-US-60LH	
PWN-US-80LH	
PWN-US-100LH	



#### **Specifications**

	PWP-110B & PWS-110B	PWP-220B & PWS-220B				
Supply Voltage	110 V AC	220-240 V AC				
Frequency	60 Hz	50/60 Hz				
Maximum operating power	0.74 kW (1hp) 10(8)A	1.47 kW (2hp) 10(8)A				
Connection	1" BSPP (compatible with NPT)					
Protection level	IP 55					
Maximum pressure	116 psi   8 bar					
Maximum flow rate	26.4 gal/min   100 L/min					
Minimum flow rate	0.4 gal/mir	n   1.5 L/min				
Maximum water temperature	95°F   35°C					
Ambient temperature	32-104°F   0-40°C					
Factory reset cut-in pressure	29 psi	2 bar				

#### **PumpWave Plus**<sup>™</sup>



PumpWave Plus<sup>™</sup> is a compact solution that combines a pump controller with an integrated 0.79 gallon (3L) pressure tank. It is ideal for applications where space is limited. The PumpWave Plus<sup>™</sup> is easy to install as you simply connect it to the pump and the system is ready to go. The PumpWave Plus<sup>™</sup> assures a constant flow and provides guaranteed pump dry run protection. Contact a sales representative for more information.

- All-in-one compact system
- Comes with integrated 0.79 gallon (3L) pressure tank



## **Hydraulic Shock Arrestors HydroGuard**<sup>™</sup>





They are built to reduce or eliminate hydraulic shock, otherwise known as water hammer. They do this by absorbing pressure surges within water or other fluids that are suddenly stopped or forced in other directions by fast closing valves. HydroGuard<sup>™</sup> shock arrestors are best used at the point of shock and

HydroGuard<sup>™</sup> shock arrestors are designed with the latest diaphragm technology. A high-grade butyl

diaphragm is sealed inside the vessel creating a barrier between fluid and air chambers. The air chamber

acts as a cushion which compresses when system pressure suddenly increases or surges as a result of hydraulic shock. HydroGuard<sup>™</sup> shock arrestors are guality tested at several stages along the production

HydroGuard<sup>™</sup> shock arrestors represent the best value for your investment, and are the highest quality

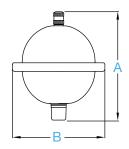
should be installed as close to the valve or piping where the shock originates from.

#### **Features**

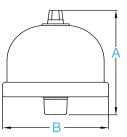
- Maintenance-free
- FDA approved chlorobutyl diaphragm design
- Patented stainless steel or Noryl® water connection
- Exterior polyurethane & epoxy-primed paint finish
- Leak-free, O-ring sealed air valve cap
- Comprehensive testing

Model	Connection	Nominal			Net Weight		Gross Weight		Dimensions			
		Vol	Volume						А		3	
		gal	liter	lb	kg	lb	kg	in	cm	in	cm	
HGNSA-US-0.16LX	1/2" SS	0.04	0.16	0.66	0.30	0.72	0.33	4.44	11.30	3.34	8.50	
HGBSC-US-0.3LX	1/2" Noryl®	0.08	0.30	0.79	0.36	0.85	0.39	4.05	10.30	3.81	9.70	
HGBSC-US-0.5LX	1/2" Noryl®	0.13	0.50	0.81	0.37	0.88	0.40	5.31	13.50	4.44	11.30	
HGBSF-US-0.6LX	1/2" Noryl®	0.16	0.60	1.14	0.52	1.25	0.57	6.41	16.30	3.81	9.70	
HGPSO-US-1LX	1/2" Noryl®	0.26	1.00	1.49	0.68	1.69	0.77	5.62	14.30	5.35	13.60	
HGPSR-US-1LX	1/2" Noryl®	0.26	1.00	1.76	0.80	1.94	0.88	7.75	19.70	4.72	12.00	
HGPSO-US-2LX	3/4" Noryl®	0.52	2.00	2.68	1.22	2.91	1.32	6.22	15.80	6.69	17.00	
HGNPA-US-2LX	1" Noryl <sup>®</sup>	0.52	2.00	2.29	1.04	2.49	1.13	8.22	20.90	4.96	12.60	
HGNPA-US-4LX	1" Noryl <sup>®</sup>	1.05	4.00	3.28	1.49	3.83	1.74	10.27	26.10	6.37	16.20	

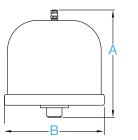
Note: Minor dimensional variation may occur. Maximum working pressure: 150 psi | 10 bar. Maximum operating temperature: 194°F | 90°C. Factory pre-charge: 15 or 58 psi | 1 or 4 bar.

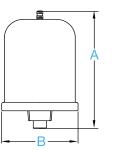


HGNSA-0.16LX



HGBSC-0.3LX





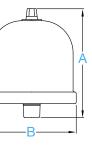
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line to ensure overall structural integrity.

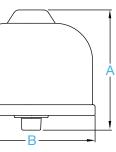
shock arrestors available in the market!

HGPSO-1LX

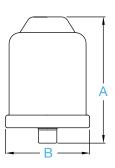
HGPSR-1LX



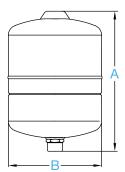
HGBSC-0.5LX



HGPSO-2LX



HGBSF-0.6LX



### **Pressure Tank Accessories**



Notes



#### 3-Way Connector

A3WYC-NPT 3-way brass connector 1" MÉF NPT



5-Way Connector

A5WYC-NPT 5-way brass connector 1" MFF NPT



#### **Pressure Gauges**

A2PG 2" pressure gauge with 1/4" male connection, 100 psi

A25PG 2.5" pressure gauge with 1/4" male connection, 145 psi

**Universal Bracket** 

**BR UNIVERSAL** 

Stainless belt with

mounting bracket



#### **Pressure Switches**

Pressure switch with 1/4" female connection, 20.3-40.6 psi

Pressure switch with 1/4" female connection, 30.5-49.3 psi



#### **Pump Stands**

Nylon Plastic Pump Stands

Compatible with horizontal PressureWave™ series tanks

#### **APSW2F**

**APSW3F** 



#### **Stainless Steel Flex Connector**

A70MFC-NPT 700mm MF SS flex connector, 1" NPT

A80MFC-NPT 800mm in MF SS flex connector, 1" NPT

A100MFC-NPT 1000mm in MF SS flex connector, 1" NPT



#### **Stainless Steel Flex Connector with Elbow**

A70MFEC-NPT 700mm MF SS flex elbow connector, 1" NPT

A80MFEC-NPT 800mm MF SS flex elbow connector, 1" NPT

A100MFEC-NPT 1000mm MF SS flex elbow connector, 1" NPT

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