EN

globalwater solutions

WATER MOVEMENT

Where Water Gets Better

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About

Global Water Solutions

About us

Global Water Solutions Ltd (GWS) is a leading global manufacturer of pressure tanks and water treatment products. Crafted from the highest quality materials, GWS products undergo rigorous testing and come with extensive warranties, ensuring durability and performance excellence. GWS products are purchased, sold and serviced by some of the most reputable large pump specialty wholesalers and Original Equipment Manufacturers in over 100 countries. A strong commitment to customer service is at the heart of the GWS offering. Its team of highly experienced technical sales and engineering staff delivers exceptional after-sales service and field support for customers.

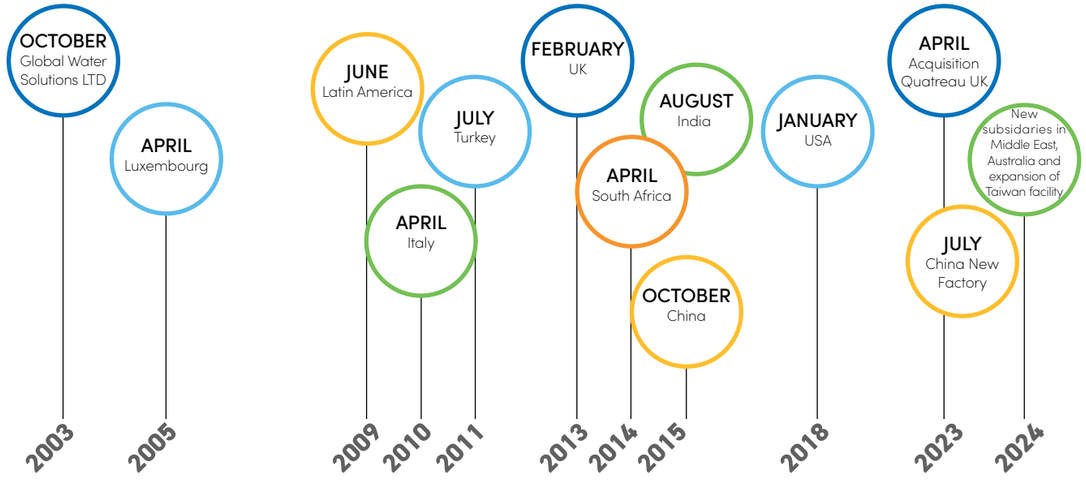
A broad product offering, and innovative product development has secured GWS' place in the market as the most comprehensive supplier of pressure tanks and water treatment products. GWS' core values prioritize delivering long-term benefits, being environmentally friendly, and remaining socially conscious when partnering with the communities the company serves. To address the growing demand for safe and abundant drinking water, GWS concentrates on delivering cutting-edge technologies for water movement and processing through the creation of adaptable, affordable solutions.

Our vision

Global Water Solutions aims to be a leading solutions provider for the worldwide need of accessing, processing, and delivering potable clean water to improve people's lives.

Our mission

Global Water Solutions mission is to develop and deliver innovative products and cutting-edge technologies for the movement and processing of water. We strive to provide the highest quality products, world-class service, efficient supply channels, and superior value to our customers.



Our locations

- North America
- GWS USA
- Latin America
- United Kingdom
- Luxembourg
- Italy
- South Africa
- Turkey
- India
- China
- Taiwan
- Australia
- Middle East
- South Korea
- Brazil
- Bangalore

Product Certifications

TUV certification website

TÜVRheinland®
Precisely Right.

GWS is the industry leader in approvals and certifications.

We provide a wide range of sanitary and structural certifications, as well as various country-specific approvals, ensuring our products meet or exceed global standards.

Additionally, we adhere to numerous regulatory compliances related to materials, conflict minerals, labor rights & environmental sustainability, packaging materials and more.

Certifications and approvals may vary by product series and/or model. Check with your GWS sales representative for more detailed information.

Energy saving solutions

Upgrade your pressure tank size and gain the following benefits:

- Substantially reduce electric power consumption by reducing small draw off pump starts, i.e., toilet flushes, washing machine fill-ups, leaks, drip irrigation, etc.
- Extend pump life by dramatically reducing wear on moving parts
- Protect against overheating damage to the pump system
- Reduce disruptive noise from unnecessary pump starts
- Eliminate pump motor burnouts and low-flow cycling
- Eliminate water hammer damage to your system's pump

Minimize your environmental footprint!

PressureWave™

Multi-purpose maintenance-free pressure tanks

The PressureWave™ series is constructed of a virgin polypropylene liner combined with an FDA compliant high-grade butyl diaphragm, which is held against the wall of the tank with a steel clench ring. The brass air valve, sealed by a threaded O-ring valve cap, prevents air leaks. Water enters the tank through a patented stainless-steel water connection.

The diaphragm and liner are both reinforced in specific, known wear areas for longer life. All internal parts including the air valve are rounded to prevent piercing of the diaphragm in extreme conditions. The water connection uniquely provides a dual water/air seal ensuring a complete leak-free and maintenance-free pressure tank.

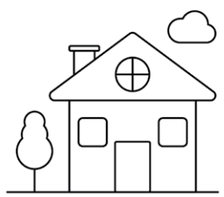
Available in horizontal, vertical and inline.

- Leak-free, O-ring sealed air valve cap
- High-grade butyl diaphragm design
- Dual layer polyurethane paint finish
- Reinforced engineered thermoplastic pump stand and feet
- Virgin polypropylene liner
- Patented stainless steel water connection
- Carbon steel shell
- RCP - reinforced connection plate for inline models from 8L to 35L

Nominal Volumes	2 - 150 L / 0.5 - 39.6 gal
Min. Operating Temperature	-10°C / 14°F (Avoid Freezing)
Max. Operating Temperature	90°C / 194°F
Max. Operating Pressure	10 bar | 150 psi (Available in 16 and 25 bar as Max and UltraMax series)
Factory Pre-charge	1.9 bar | 28 psi

PressureWave™ is suitable for

- Booster systems
- Thermal expansion
- Irrigation systems
- Hydraulic hammer arresting

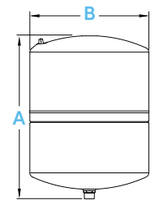


Models

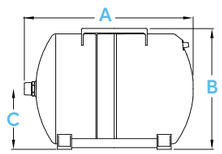
Model Number		Connection	Nominal Volume		Installation Dimensions [mm]			Gross Weight [kg]
BSP	NPT		Liters	Gallons	A	B	C	
Inline								
PWB-2LX *	PWN-2LX *	1" BSPT / NPT	2	0.5	208	126	-	13.8 *
PWB-3LX **	PWN-3LX **	1" BSPT / NPT	3	0.8	243	143	-	9.1 **
PWB-4LX	PWN-4LX	1" BSPT / NPT	4	1.1	261	162	-	1.8
PWB-6LX ***	PWN-6LX ***	1" BSPT / NPT	6	1.6	290	178	-	8.1 ***
PWB-8LX	PWN-8LX	1" BSPT / NPT	8	2.1	314	202	-	2.5
PWB-12LX	PWN-12LX	1" BSPT / NPT	12	3.2	367	230	-	3.3
PWB-18LX	PWN-18LX	1" BSPT / NPT	18	4.8	367	279	-	4.2
PWB-24LX	PWN-24LX	1" BSPT / NPT	24	6.3	447	290	-	5.6
PWB-35LX	PWN-35LX	1" BSPT / NPT	35	9.2	483	318	-	7.4
Horizontal								
PWB-8LH	PWN-8LH	1" BSPT / NPT	8	2.1	312	231	115	2.9
PWB-12LH	PWN-12LH	1" BSPT / NPT	12	3.2	376	260	133	3.6
PWB-20LH	PWN-20LH	1" BSPT / NPT	20	5.3	447	292	145	5.1
PWB-24LH	PWN-24LH	1" BSPT / NPT	24	6.3	447	321	161	6.1
PWB-35LH	PWN-35LH	1" BSPT / NPT	35	9.2	481	353	179	8.0
PWB-60LH	PWN-60LH	1" BSPT / NPT	60	15.8	530	423	214	11.7
PWB-80LH	PWN-80LH	1" BSPT / NPT	80	21.1	726	424	214	16.5
PWB-100LH	PWN-100LH	1" BSPT / NPT	100	26.4	720	475	245	20.2
Vertical								
PWB-35LV	PWN-35LV	1" BSPP / NPT	35	9.2	556	318	65	7.9
PWB-60LV	PWN-60LV	1" BSPP / NPT	60	15.8	619	389	63	11.5
PWB-80LV	PWN-80LV	1" BSPP / NPT	80	21.5	815	389	63	16.6
PWB-100LV	PWN-100LV	1" BSPP / NPT	100	26.4	805	430	59	20.1
PWB-130LV	PWN-130LV	1" BSPP / NPT	130	34.3	1073	430	60	27.2
PWB-150LV	PWN-150LV	1" BSPP / NPT	150	39.6	938	530	66	35.3

* PWB-2LX and PWN-2LX: 12 pcs/box
** PWB-3LX and PWN-3LX: 6 pcs/box
*** PWB-6LX and PWN-6LX: 4 pcs/box

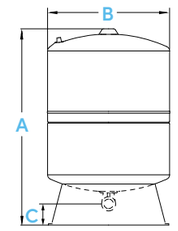
Note: Minor dimensional variations may occur.



2L~35L



8L~100L



35L~150L

Construction of a PressureWave™ tank

1. Leak-free, O-ring sealed air valve cap
2. Diaphragm design
3. Dual layer polyurethane paint finish
4. Reinforced engineered thermoplastic pump stand and feet
5. Virgin polypropylene liner
6. Patented stainless steel water connection
7. Carbon steel tank shell

Max™ & UltraMax™

Toughest high-pressure applications

- Leak-free, O-ring sealed air valve cap
- High-grade butyl diaphragm design
- Dual layer polyurethane paint finish
- Virgin polypropylene liner
- Patented stainless steel water connection
- Super thick steel construction
- Replaceable tank base
- RCP - reinforced connection plate for inline models from 8L to 35L

Max™ and UltraMax™ tanks are built with thicker gauge steel to handle the toughest high-pressure applications. From high-rise commercial and residential properties to large-scale irrigation and industrial systems, Max and UltraMax tanks are the #1 choice of engineers, designers, consultants and specifiers the world over.

Max and UltraMax tanks stand out as the top choice for various high-pressure applications, such as water supply, flushing, pressure regulation in fire pump and sprinkler systems, and protection against pressure surges caused by hydraulic shock and water hammer, according to industry experts.

Often high pressure is required to deliver to large capacity potable water systems. High-rise buildings will require high pressure expansion tanks. Long water supply runs will sometimes require high pressure equipment including expansion tanks.

Available in vertical and inline.

Nominal Volumes	Max: 2 - 100 L / 0.5 - 26.4 gal UltraMax: 8 -100 L / 2.1 - 26.4 gal
Min. Operating Temperature	-10°C / 14°F (Avoid Freezing)
Max. Operating Temperature	90°C / 194°F
Max. Operating Pressure	Max: 16 bar | 232 psi UltraMax: 25 bar | 363 psi
Factory Pre-charge	4 bar | 58 psi

Max™ and UltraMax™ are suitable for

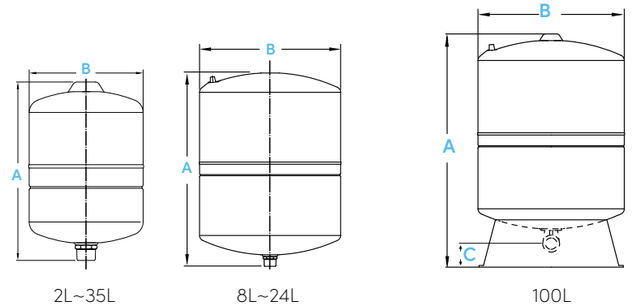
- Deep private water supplies
- Long distant agricultural supply
- Hotels
- Hospitals
- Schools and universities
- High-rise buildings

Models

Model Number		Connection	Nominal Volume		Installation Dimensions [mm]			Gross Weight [kg]
BSP	NPT		Liters	Gallons	A	B	C	
Max Inline								
MXB-2LX*	MXN-2LX*	1" BSPT / NPT	2	0.5	208	126	-	13.2
MXB-8LX	MXN-8LX	1" BSPT / NPT	8	2.1	312	202	-	3.0
MXB-12LX	MXN-12LX	1" BSPT / NPT	12	3.2	367	231	-	4.0
MXB-18LX	MXN-18LX	1" BSPT / NPT	18	4.8	367	279	-	5.0
MXB-24LX	MXN-24LX	1" BSPT / NPT	24	6.3	447	290	-	6.4
MXB-35LX	MXN-35LX	1" BSPT / NPT	35	9.2	480	319	-	8.9
Max Vertical								
MXB-60LV	MXN-60LV	1" BSPP / NPT	60	15.8	619	390	63	15.1
MXB-80LV	MXN-80LV	1" BSPP / NPT	80	21.1	815	390	63	20.7
MXB-100LV	MXN-100LV	1" BSPP / NPT	100	26.4	805	432	59	26.8
UltraMax Inline								
UMB-8LX	UMN-8LX	1" BSPT / NPT	8	2.1	309	203	-	3.6
UMB-24LX	UMN-24LX	1" BSPT / NPT	24	6.3	444	293	-	8.9
UltraMax Vertical								
UMB-100LV	UMN-100LV	1" BSPP / NPT	100	26.4	819	435	59	40.6

* MXB-2LX: 12 pcs/box

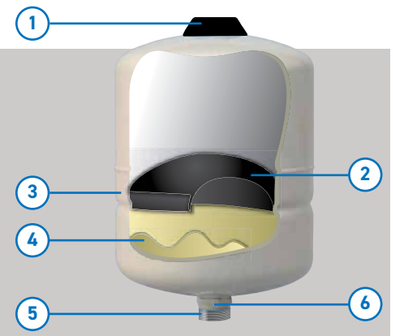
Note: Minor dimensional variations may occur.



2L~35L 8L~24L 100L

Construction of a Max™ and an UltraMax™ tank

1. Leak-free, O-ring sealed air valve cap
2. High-grade butyl diaphragm design
3. Dual layer polyurethane paint finish
4. Virgin polypropylene liner
5. Patented stainless steel water connection
6. RCP - reinforced connection plate



Challenger™

Middle-sized multi-use pressure tanks

- Patented stainless steel water connection
- Two-part polyurethane, epoxy primed paint finish
- Leak-free air valve cap, sealed and closed cell foam
- Replaceable tank base
- Maintenance-free
- Carbon steel shell
- Patented CAD-2 diaphragm technology
- Comprehensive testing

Nominal Volumes	60 - 450 L / 15.8 - 118.9 gal
Min. Operating Temperature	-10°C / 14°F (Avoid Freezing)
Max. Operating Temperature	90°C / 194°F
Max. Operating Pressure	GCB Models: 10 bar | 150 psi GCN Models: 8.6 bar | 125 psi
Factory Pre-charge	1.4 bar | 20 psi

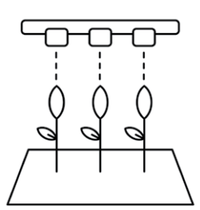
Efficient and cost effective, Challenger™ tanks are designed with a patented controlled action CAD-2 diaphragm assembly, which features a chlorine resistant 100% butyl diaphragm with a precision molded copolymer polypropylene liner for superior air and water separation.

The CAD-2 diaphragm assembly is clenched together with a positive lock internal clench ring which contains drawdown water in a pre-charged air atmosphere, thus providing separation between the diaphragm and tank wall. This "air buffer" design means zero problems with condensation.

Constructed with an FDA compliant high-grade butyl, the diaphragm assembly seals water in a true non-corrosive chamber. The air chamber is sealed with a fixed O-ring and closed cell foam, providing many years of leak free and service free life.

Challenger™ is suitable for

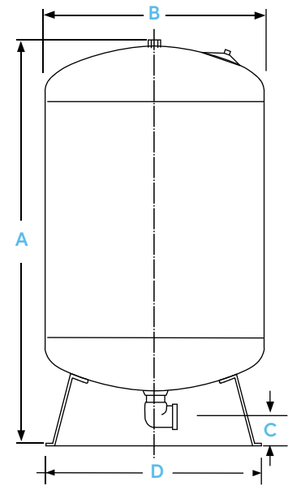
- Booster systems
- Thermal expansion
- Heating expansion
- Irrigation systems



Models

Model Number		Connection	Nominal Volume		Installation Dimensions [mm]				Gross Weight [kg]	
BSP	NPT		Liters	Gallons	A	B	C	D	BSP	NPT
Vertical										
GCB-60LV	-	1" BSPP	60	15.8	573	407	48	369	12.2	12.3
GCB-80LV	GCN-20GV	1" BSPP / NPT	80	21.1	753	407	48	369	15.4	15.4
GCB-100LV	GCN-25GV	1" BSPP / NPT	100	26.4	897	407	48	369	19.5	18.1
GCB-130LV	GCN-35GV	1" BSPP / NPT	130	34.3	1109	407	48	369	24.9	22.7
GCB-200LV	GCN-50GV	1¼" BSPP / NPT	200	52.8	1056	533	57	446	38.6	38.6
GCB-250LV	GCN-60GV	1¼" BSPP / NPT	250	66.0	1228	534	57	446	44.0	39.5
GCB-300LV	GCN-80GV	1¼" BSPP / NPT	300	79.2	1513	534	57	446	52.6	47.2
GCB-325LV	GCN-85GV	1¼" BSPP / NPT	325	85.8	1167	662	64	542	59.0	54.8
GCB-450LV	GCN-120GV	1¼" BSPP / NPT	450	118.9	1551	662	64	542	80.7	69.9

Note: Minor dimensional variations may occur.



60L~450L

Construction of a Challenger™ tank

1. Leak-free, O-ring sealed air valve cap
2. Carbon steel tank shell with two-part polyurethane, epoxy primed paint finish
3. Patented CAD-2 diaphragm design
4. Stainless steel water connection
5. Condensation reducing design
6. Virgin polypropylene liner

SuperFlow™

Pressure tanks with replaceable membrane

- Built-in pressure gauge
- Patented stainless steel water connection
- Lifting lugs for easy on-site movement
- Replaceable membrane design
- ISO9001, ISO14001, ISO45001 approved facility
- Carbon steel shell
- High-grade butyl membrane
- High-quality durable powder coat finish (3000L+: Two-part polyurethane, epoxy primed paint finish)

SuperFlow™ series tanks are ideally suited for applications where high-volumes and/or high-pressure ratings are required. These applications may include pressure booster systems, hot water circulation systems as well as water hammer arresting in high-rise and multistory buildings such as hotels, hospitals or business centers.

The interchangeable membrane design allows the end user to replace the membrane as required, while the built-in pressure gauge (available on 100 L /26.4 gal models and above) allows for easy and efficient pressure monitoring.

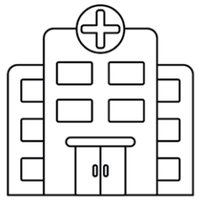
SuperFlow series tanks are designed to the EN13831:2007 technical standard and produced in accordance with the Pressure Equipment Directive 2014/68/EU.

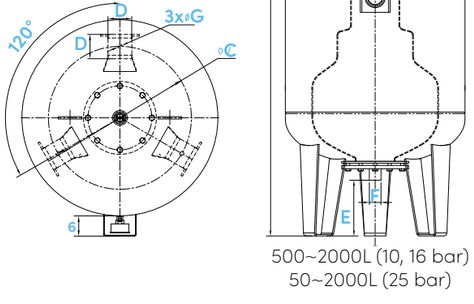
SuperFlow series tank volumes range 50 - 10,000 L / 60 - 2,640 gal making SuperFlow one of the most comprehensive pressure tank lines globally.

Nominal Volumes	50 - 10000 L / 13.2-2641 gal
Min. Operating Temperature	-10°C / 14°F (Avoid Freezing)
Max. Operating Temperature	90°C / 194°F
Max. Operating Pressure	SFB Series: 10 bar | 150 psi SMB Series: 16 bar | 232 psi SUB Series: 25 bar | 362 psi
Factory Pre-charge	4 bar | 58 psi

SuperFlow™ is suitable for

- High-rise buildings
- Commercial applications
- Water utility supplies
- High-volume applications





500~2000L (10, 16 bar)
50~2000L (25 bar)

Models

Model Number	Connection F	Nominal Volume [L]	Dimensions [mm] A	B	Installation Dimensions [mm] C	D	E	G	Gross Weight [kg]
10 bar									
SFB-INT-100LV	1" BSPT	100	897	480	350	60*60	170	14	20
SFB-INT-150LV	1" BSPT	150	933	590	460	60*60	150	14	25
SFB-INT-200LV	1 ¼" BSPT	200	1073	590	460	60*60	150	14	40
SFB-INT-300LV	1 ¼" BSPT	300	1238	680	480	60*70	217	14	51
SFB-INT-500LV	1 ¼" BSPT	500	1561	756	530	80*80	195	14	99
SFB-INT-750LV	2" BSPT	750	1834	756	530	80*80	190	14	121
SFB-INT-850LV	2" BSPT	850	1976	806	590	100*100	280	20	134
SFB-INT-1000LV	2" BSPT	1000	2376	806	590	100*100	280	20	169
SFB-INT-1500LV	2" BSPT	1500	2435	958	690	100*100	270	20	258
SFB-INT-2000LV	2" BSPT	2000	2505	1110	760	100*100	270	20	363
SFB-INT-3000LV	DN150	3000	3175	1210	900	150*150	230	24	630
SFB-INT-4000LV	DN150	4000	3378	1410	1050	150*150	230	24	747
SFB-INT-5000LV	DN150	5000	3778	1410	1050	150*150	230	24	838
SFB-INT-6000LV	DN150	6000	4578	1410	1050	150*150	230	24	978
SFB-INT-10000LV	DN150	10000	5840	1610	1100	150*150	210	24	1380
16 bar									
SMB-INT-150LV	1" BSPT	150	935	590	460	60*60	150	14	41
SMB-INT-200LV	1¼" BSPT	200	1075	590	460	60*60	150	14	51
SMB-INT-300LV	1¼" BSPT	300	1240	680	480	60*70	217	14	65
SMB-INT-500LV	1¼" BSPT	500	1565	760	530	80*80	190	14	160
SMB-INT-750LV	2" BSPT	750	1862	760	530	80*80	190	14	187
SMB-INT-850LV	2" BSPT	850	1976	810	590	100*100	280	20	203
SMB-INT-1000LV	2" BSPT	1000	2376	810	590	100*100	280	20	258
SMB-INT-1500LV	2" BSPT	1500	2443	962	690	100*100	270	20	362
SMB-INT-2000LV	2" BSPT	2000	2511	1116	760	100*100	270	20	572
SMB-INT-3000LV	DN150	3000	3177	1212	900	150*150	230	24	710
SMB-INT-4000LV	DN150	4000	3384	1416	1050	150*150	230	24	1051
SMB-INT-5000LV	DN150	5000	3784	1416	1050	150*150	230	24	1185
SMB-INT-6000LV	DN150	6000	4584	1416	1050	150*150	230	24	1408
SMB-INT-10000LV	DN150	10000	5846	1616	1200	150*150	210	24	2036
25 bar									
SUB-INT-50LV	1" BSPT	50	740	380	295	60*60	130	14	26
SUB-INT-60LV	1" BSPT	60	820	380	295	60*60	130	14	28
SUB-INT-80LV	1" BSPT	80	965	460	350	60*60	130	14	57
SUB-INT-100LV	1" BSPT	100	985	460	350	60*60	130	14	58
SUB-INT-150LV	1" BSPT	150	1060	510	400	60*60	125	14	68
SUB-INT-200LV	1¼" BSPT	200	1109	612	460	60*60	115	14	115
SUB-INT-300LV	1¼" BSPT	300	1301	666	480	80*80	190	14	173
SUB-INT-500LV	1¼" BSPT	500	1594	766	530	80*80	190	14	237
SUB-INT-750LV	2" BSPT	750	1866	766	530	80*80	190	14	281
SUB-INT-850LV	2" BSPT	850	1984	816	590	100*100	280	20	325
SUB-INT-1000LV	2" BSPT	1000	2384	816	590	100*100	280	20	403
SUB-INT-1500LV	2" BSPT	1500	2447	970	690	100*100	270	20	581
SUB-INT-2000LV	2" BSPT	2000	2519	1124	760	100*100	270	20	831
SUB-INT-3000LV	DN150	3000	3185	1220	900	150*150	230	24	1071
SUB-INT-4000LV	DN150	4000	3388	1420	1050	150*150	230	24	1290
SUB-INT-5000LV	DN150	5000	3788	1420	1050	150*150	230	24	1451
SUB-INT-6000LV	DN150 (6")	6000	4588	1420	1050	150*150	230	24	1730
SUB-INT-10000LV	DN150	10000	5854	1624	1200	150*150	210	24	2953

Note: Minor dimensional variations may occur.

ASME Series

Heavy duty pressure vessels

GWS is the leading manufacturer of pressure vessels that are built to the world's most rigorous and demanding quality standard - the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code.

Design, fabrication, assembly, and inspection are all carried out in our own ASME-accredited facility, ensuring our pressure vessels meet the safety, reliability and peace of mind that our customers demand for their most challenging applications.

In addition to our standard range, GWS also offers a complete suite of ASME pressure vessel design and fabrication services for custom sizes and pressure ratings to suit any applications, which we supply with U-stamp to ensure regulatory compliance in the strictest jurisdictions.

- Replaceable membrane design
- ISO9001, ISO14001, ISO45001 approved facility
- Radiographically tested (RT) weld joints
- Manufacturer's Data Report (MDR)
- Permanent data record maintained for each vessel
- Certified to ASME boiler and pressure section VIII division 1 code

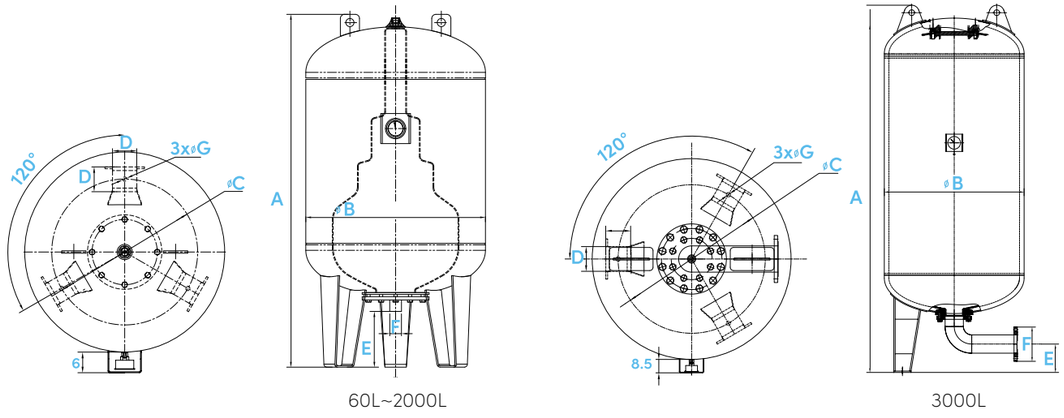
Nominal Volumes	60L - 3000L | 15.8 - 792.5 gal
Min. Operating Temperature	-10°C / 14°F (Avoid Freezing)
Max. Operating Temperature	90°C / 194°F
Max. Operating Pressure	10 bar | 150 psi
Factory Pre-charge	4 bar | 58 psi

ASME Series are suitable for

- Government projects
- Mining, oil, and gas
- Marine applications
- Heavily regulated installation sites
- Municipal and industrial applications

Models

Model Number	Connection	Nominal Volume [L]	Dimensions [mm]		Installation Dimensions [mm]				Gross Weight [kg]
	F		A	B	C	D	E	G	
10 bar									
ASME-60LV	1" BSPT	60	820	377	295	60	130	14	28.8
ASME-80LV	1" BSPT	80	960	456	350	60	130	14	36.5
ASME-100LV	1" BSPT	100	986	456	350	60	130	14	37.2
ASME-200LV	1¼" BSPT	200	1103	606	460	60	115	14	68.0
ASME-300LV	1¼" BSPT	300	1286	656	480	80	190	14	81.0
ASME-500LV	1¼" BSPT	500	1563	758	530	80	195	14	137.0
ASME-1000LV	2" BSPT	1000	2378	808	590	100	280	20	235.0
ASME-1500LV	2" BSPT	1500	2437	960	690	100	270	20	316.0
ASME-2000LV	2" BSPT	2000	2505	1110	760	100	270	20	385.0
ASME-3000LV	DN150 (6")	3000	3177	1212	900	150	230	24	719.0

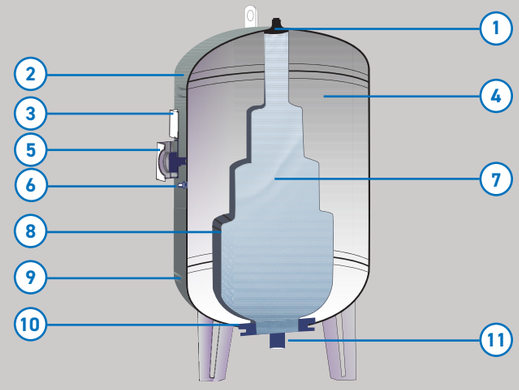


60L~2000L

3000L

Construction of an ASME tank

1. Membrane hanger
2. Carbon steel tank shell
3. ASME stamp
4. Pre-charged air
5. Built-in pressure gauge
6. Air valve
7. Water chamber
8. High-grade butyl membrane
9. High-precision welded seam
10. Bolted flange
11. Stainless steel water connection



InoxFlow™

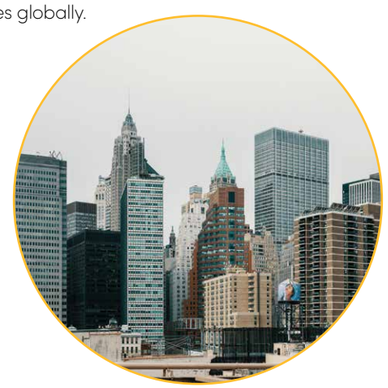
Stainless steel pressure tanks with replaceable membrane

InoxFlow™ series tanks are ideally suited for applications where high-volumes and/or high-pressure ratings are required. These applications may include pressure booster systems, hot water circulation systems as well as water hammer arresting in high-rise and multistory buildings such as hotels, hospitals or business centers.

The interchangeable membrane design allows the end user to replace the membrane as required, and the built-in pressure gauge allows for easy and efficient pressure monitoring.

InoxFlow series tanks are designed to the EN13831:2007 technical standard and produced in accordance with the Pressure Equipment Directive 2014/68/EU.

InoxFlow series tank volumes range from 100 - 3,000 L / 26.4 - 792.5 gal making InoxFlow one of the most comprehensive pressure tank lines globally.

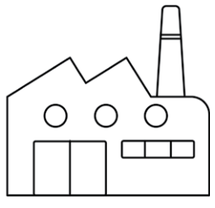


- Built-in pressure gauge
- Patented stainless steel water connection
- ISO9001, ISO14001, ISO45001 approved facility
- With lifting lugs for easy on-site handling
- Replaceable membrane design
- High-grade butyl membrane

Nominal Volumes	100-3,000 L / 26.4-792 gal
Min. Operating Temperature	-10°C / 14°F (Avoid Freezing)
Max. Operating Temperature	90°C / 194°F
Max. Operating Pressure	IFB Series: 10 bar | 150 psi IMB Series: 16 bar | 232 psi IUB Series: 25 bar | 362 psi
Factory Pre-charge	4 bar | 58 psi

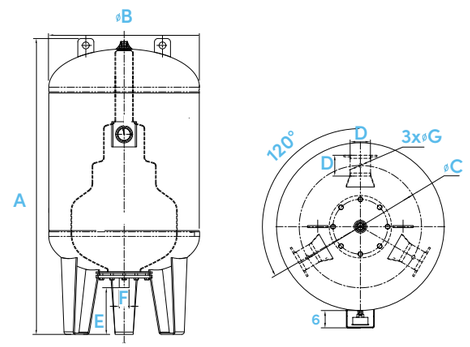
InoxFlow™ is suitable for

- High-volume applications
- High-pressure ratings
- Booster systems
- Hot water circulation
- Water hammer arresting in high-rises

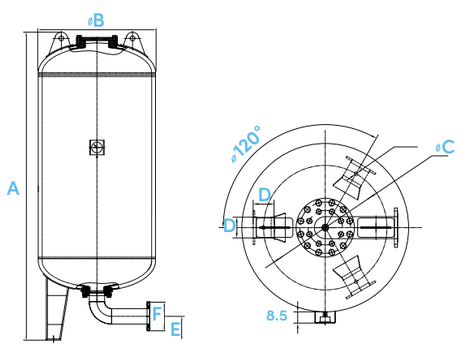


Models

Model Number	Connection	Nominal Volume [L]	Dimensions [mm]		Installation Dimensions [mm]				Gross Weight [kg]
	F		A	B	C	D	E	G	
10 bar									
IFB-100LV	1″ BSPT	100	983	456	350	60*60	130	14	36
IFB-150LV	1″ BSPT	150	1056	506	400	60*60	125	14	43
IFB-200LV	1¼″ BSPT	200	1103	606	460	60*60	115	14	58
IFB-300LV	1¼″ BSPT	300	1286	656	480	80*80	190	14	73
IFB-500LV	1¼″ BSPT	500	1561	756	530	80*80	190	14	101
IFB-750LV	2″ BSPT	750	1834	756	530	80*80	190	14	120
IFB-850LV	2″ BSPT	850	1976	808	590	100*100	280	20	170
IFB-1000LV	2″ BSPT	1000	2376	808	590	100*100	280	20	212
IFB-1500LV	2″ BSPT	1500	2435	958	690	100*100	270	20	256
IFB-2000LV	2″ BSPT	2000	2505	1110	760	100*100	270	20	363
IFB-3000LV	DN150	3000	3181	1210	900	150*150	240	24	635
16 bar									
IMB-100LV	1″ BSPT	100	983	456	350	60*60	130	14	36
IMB-150LV	1″ BSPT	150	1058	508	400	60*60	125	14	55
IMB-200LV	1¼″ BSPT	200	1105	608	460	60*60	115	14	72
IMB-300LV	1¼″ BSPT	300	1290	658	480	80*80	190	14	91
IMB-500LV	1¼″ BSPT	500	1565	760	530	80*80	190	14	155
IMB-750LV	2″ BSPT	750	1838	760	530	80*80	190	14	182
IMB-850LV	2″ BSPT	850	1980	812	590	100*100	280	20	241
IMB-1000LV	2″ BSPT	1000	2380	812	590	100*100	280	20	302
IMB-1500LV	2″ BSPT	1500	2443	962	690	100*100	270	20	366
IMB-2000LV	2″ BSPT	2000	2511	1116	760	100*100	270	20	571
IMB-3000LV	DN150	3000	3183	1216	900	150*150	240	24	880
25 bar									
IUB-100LV	1″ BSPT	100	989	460	350	60*60	130	14	56
IUB-150LV	1″ BSPT	150	1062	510	400	60*60	125	14	68
IUB-200LV	1¼″ BSPT	200	1109	612	460	60*60	115	14	112
IUB-300LV	1¼″ BSPT	300	1301	666	480	80*80	190	14	173
IUB-500LV	1¼″ BSPT	500	1594	766	530	80*80	190	14	242
IUB-750LV	2″ BSPT	750	1866	766	530	80*80	190	14	284
IUB-850LV	2″ BSPT	850	1986	816	590	100*100	280	20	332
IUB-1000LV	2″ BSPT	1000	2386	816	590	100*100	280	20	408
IUB-1500LV	2″ BSPT	1500	2447	970	690	100*100	270	20	592
IUB-2000LV	2″ BSPT	2000	2519	1124	760	100*100	270	20	831
IUB-3000LV	DN150	3000	3189	1224	900	150*150	240	24	1245



100L~2000L



3000L

M-Inox™

Maintenance-free stainless steel tanks

M-Inox™ stainless steel tanks are ideally suited for special demands and environments. The M-Inox series is constructed with a virgin polypropylene liner combined with a high-grade butyl diaphragm, which is held against the wall of the tank with a steel clench ring. The brass air valve, sealed by a threaded O-Ring valve cap, prevents air leaks.

Water enters the tank through a patented stainless steel water connection. The diaphragm and liner are both reinforced in specific, known wear areas for longer life. All internal parts including the air valve are rounded to prevent piercing of the diaphragm in extreme conditions. The water connection uniquely provides a dual water/air seal ensuring a complete leak-free and maintenance-free pressure tank.

M-Inox tanks represent the best value for the investment and are the highest quality stainless steel pressure vessels available today.

Tanks are available as inline and horizontal models.

- High-grade stainless steel tank construction
- High-grade butyl diaphragm design
- Virgin polypropylene liner
- Replaceable pump stand / replaceable tank feet
- Comprehensive testing
- Maintenance-free

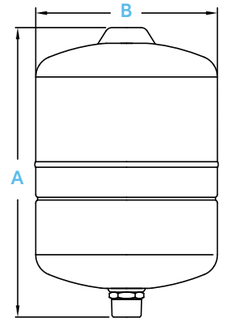
Nominal Volumes	8 - 24 L / 2.1 - 6.3 gal
Min. Operating Temperature	-10°C / 14°F (Avoid Freezing)
Max. Operating Temperature	90°C / 194°F
Max. Operating Pressure	10 bar | 150 psi
Factory Pre-charge	1.9 bar | 28 psi

M-Inox™ is suitable for

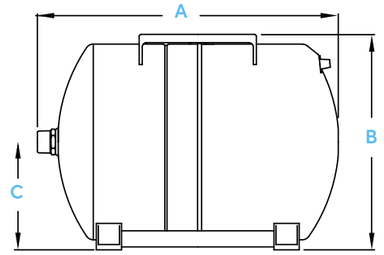
- Aggressive environments
- Hazardous environments
- Applications requiring all stainless steel equipment
- Clean environments
- Food & beverage production

Models

Model Number		Connection	Nominal Volume		Installation Dimensions [mm]			Gross Weight [kg]
BSP	NPT		Liters	Gallons	A	B	C	
Inline								
MIB-8LX	MIN-8LX	1" BSPT / NPT	8	2.1	314	202	-	2.6
MIB-18LX	MIN-18LX	1" BSPT / NPT	18	4.7	383	279	-	4.4
MIB-24LX	MIN-24LX	1" BSPT / NPT	24	6.3	466	290	-	5.4
Horizontal								
MIB-18LH	MIN-18LH	1" BSPT / NPT	18	4.7	385	309	155	4.8



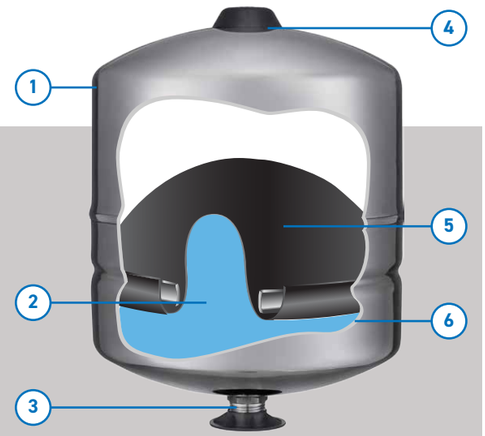
8L~24L



18L

Construction of a M-Inox™ tank

1. Stainless steel shell
2. Water chamber
3. Patented stainless steel water connection
4. Leak-free O-ring sealed air valve
5. High-grade butyl diaphragm
6. Virgin polypropylene liner



C2-Lite CAD™

Lightweight composite pressure tanks

If you are looking for the proven performance of a GWS steel tank in a lightweight composite design, C2-Lite CAD™ series is the answer. Efficient and corrosion proof, C2-Lite CAD tanks are designed with the patented controlled action diaphragm design of GWS Challenger™ tanks.

Unlike other composite tanks that hide tired, old bag technology in a plastic shell, the patented CAD-2 diaphragm design is stronger and will not crease and wear out.

It features a 100% butyl diaphragm with a precision molded copolymer polypropylene liner for superior air and water separation.

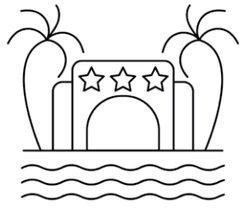
This patented design allows each size tank to have a properly sized water chamber matched to the drawdown performance of that tank. C2-Lite CAD tanks are easy to install, weather-resistant, and engineered to withstand extreme environmental conditions. When it comes to performance and durability, the GWS C2-Lite CAD design is unbeatable.

- High-tech spin welding process.
- Patented CAD-2 controlled action diaphragm design
- Maintenance-free
- Unique three-piece construction
- Quality brass air stem with O-ring seal
- No-sweat design
- Comprehensive testing

Nominal Volumes	60 - 450 L / 15 - 120 gal
Min. Operating Temperature	-10°C / 14°F (Avoid Freezing)
Max. Operating Temperature	49°C / 120°F
Max. Operating Pressure	8.6 bar | 125 psi
Factory Pre-charge	1.4 bar | 20 psi

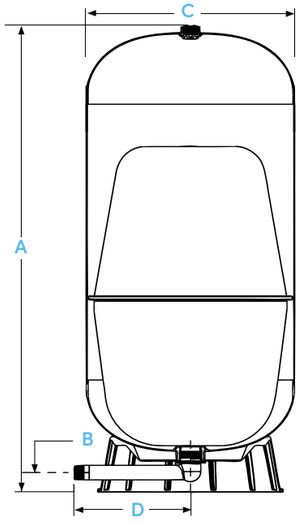
C2-Lite CAD™ is suitable for

- Coastal applications
- Beach resorts & golf courses
- Booster systems
- Water wells
- Irrigation systems



Models

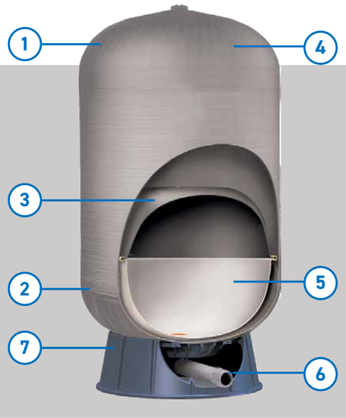
Model Number		Connection	Nominal Volume		Installation Dimensions [mm]				Gross Weight [kg]
BSP	NPT		Liters	Gallons	A	B	C	D	
Vertical									
C2B-60LV	C2N-15GV	1" BSPT / NPT	60	15.8	650	45	421	239	8.6
C2B-80LV	C2N-20GV	1" BSPT / NPT	80	21.1	865	45	421	239	10.9
C2B-100LV	C2N-25GV	1" BSPT / NPT	100	26.4	980	45	421	239	12.3
C2B-130LV	C2N-35GV	1" BSPT / NPT	130	34.3	1242	45	421	239	15.4
C2B-200LV	C2N-50GV	1¼" BSPT / NPT	200	52.8	1099	57	546	302	20.4
C2B-250LV	C2N-65GV	1¼" BSPT / NPT	250	66.0	1355	57	546	302	24.9
C2B-300LV	C2N-80GV	1¼" BSPT / NPT	300	79.2	1644	57	546	302	28.1
C2B-350LV	C2N-90GV	1¼" BSPT / NPT	350	92.4	1448	57	618	340	33.1
C2B-450LV	C2N-120GV	1¼" BSPT / NPT	450	118.8	1832	57	618	340	36.3



60L~450L

Construction of a C2-Lite CAD™ tank

1. Precision injection molded domes
2. High-tech spin welding process
3. Patented CAD-2 controlled action diaphragm design
4. Durable continuous strand fiberglass sealed with epoxy resin
5. Virgin polypropylene liner
6. Reinforced plastic connection
7. Rugged base



All-Weather™

The perfect tank for harsh environments

All-Weather™ series pressure tanks are suitable for a variety of applications where the tank requires more protection from harsh environments.

The patented PLASTEEL™ shell ensures an impenetrable protective shielding against the harshest elements. The All-Weather series is capable of resisting all weather conditions such as wind, rain, snow, and sun—making it the perfect solution for marine or mining applications.

- Rugged polypropylene outer shell
- Carbon steel inner shell
- High-grade butyl diaphragm design
- Leak-free O-ring sealed air valve
- Virgin polypropylene liner
- Comprehensive testing
- Maintenance-free

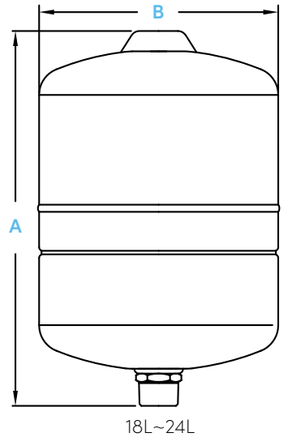
Nominal Volumes	18 - 24 L / 4.7- 6.3 gal
Min. Operating Temperature	-10°C / 14°F (Avoid Freezing)
Max. Operating Temperature	90°C / 194°F
Max. Operating Pressure	10 bar | 150 psi
Factory Pre-charge	1.9 bar | 28 psi

All-Weather™ is suitable for

- Marine applications
- Mining applications
- Offshore wind farms
- Outdoor booster systems

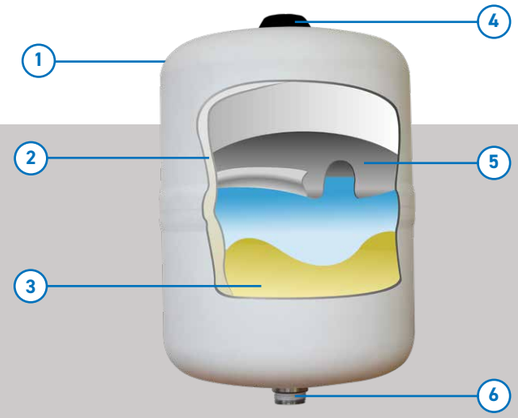
Models

Model Number		Connection	Nominal Volume		Installation Dimensions [mm]			Gross Weight [kg]
BSP	NPT		Liters	Gallons	A	B	C	
Inline								
AWB-18LX	AWN-18LX	1" BSPT / NPT	18	4.8	422	276	-	5.1
AWB-24LX	AWN-24LX	1" BSPT / NPT	24	6.3	451	301	-	6.2



Construction of an All-Weather™ tank

1. Polypropylene shell
2. Internal steel shell
3. Virgin polypropylene liner
4. Leak-free O-ring sealed air valve
5. High-grade butyl diaphragm
6. Patented stainless steel water connection



Flow-Thru™ Tanks

Recirculation device for the freshest water

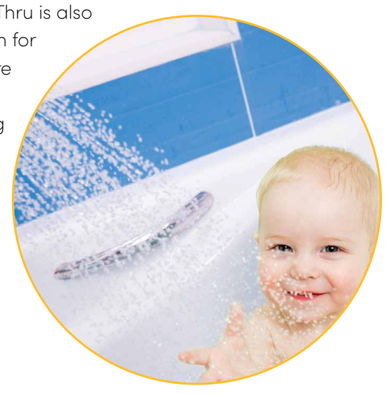
- The system avoids colonization taking place as fresh water is constantly forced into the water chamber
- Available in composite and steel
- Patented CAD-2 diaphragm technology
- No stagnation
- Patented water vane, total recirculation of water
- Leak-free air valve cap sealed with closed cell foam

Global Water Solutions guarantees the freshest water quality possible with the revolutionary Flow-Thru™ series design, available in both composite and steel models. All Flow-Thru tanks feature GWS' exclusive patented Flow-Thru technology which ensures your system will provide the freshest water quality possible by simply eliminating stagnation!

The Flow-Thru connection diverts system water into, and more importantly out of the tank. Flow-Thru will work with pumped supply or direct connection to the water supply without any pump. This constant flushing action assures that the water in the tank remains as fresh as possible and eliminates the possibility of stagnant water during normal system operation.

Both our steel and composite Flow-Thru tanks incorporate our proven, patented, controlled action diaphragm (CAD-2). CAD-2's steel clench ring regulates movement and prevents the diaphragm from rubbing against the tank wall. Flow-Thru is also the ideal solution for constant pressure water system installers seeking to store water without the risk of stagnation.

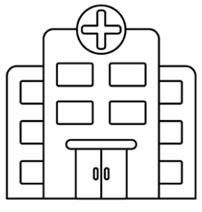
Available in vertical, in steel and composite.



Nominal Volumes	60 - 450 L / 15 - 119 gal
Min. Operating Temperature	-10°C / 14°F (Avoid Freezing)
Max. Operating Temperature	90°C / 194°F (Steel) 49°C / 120°F (Composite)
Max. Operating Pressure	8.6 bar | 125 psi
Factory Pre-charge	1.4 bar | 20 psi

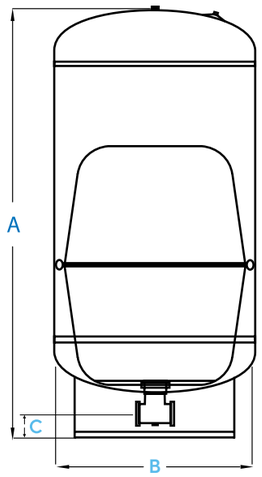
Flow-Thru™ is suitable for

- Commercial water supply systems
- VFD/VSD controlled pressure boosting system
- Heating, ventilation, and air conditioning
- Swimming pools and spas
- Wet cooling towers
- Evaporative cooling



Models

Model Number		Connection	Nominal Volume		Installation Dimensions [mm]			Gross Weight [kg]
BSP	NPT		Liters	Gallons	A	B	C	
Steel								
GFU-80LV	GFU-80LV	1¼" + BSP Adaptor	80	21.1	736	407	51	15.4
GFU-170LV	GFU-170LV	1¼" + BSP Adaptor	170	44.9	943	533	65	31.3
GFU-325LV	GFU-325LV	1¼" + BSP Adaptor	325	85.8	1149	660	61	53.5
GFU-450LV	GFU-450LV	1¼" + BSP Adaptor	450	118.8	1537	660	75	69.9
Composite								
CFB-60LV	CFN-15GV	1¼" BSPP / NPT	60	15.8	650	421	45	8.6
CFB-80LV	CFN-20GV	1¼" BSPP / NPT	80	21.1	865	421	45	10.9
CFB-150LV	CFN-40GV	1¼" BSPP / NPT	150	39.6	775	617	57	15.9
CFB-200LV	CFN-50GV	1¼" BSPP / NPT	200	52.8	1099	546	58	20.4

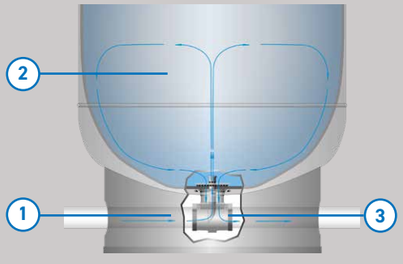


80L~450L

Flow-Thru™ Technology

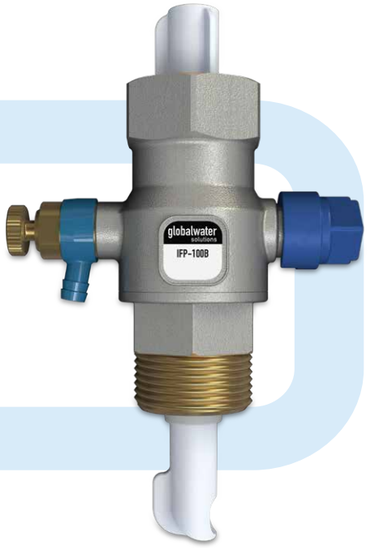
Flow-Thru technology assures total recirculation of the tank's water content

1. The scoop redirects water into the tank
2. The water mixes, eliminating the possibility of stagnant water
3. The water leaves the tank



Flow-Thru™ Plus Adapters

Anti-legionella solutions



Global Water Solutions' Flow-Thru™ Plus inline adapters are ideally suited for continuous pressure systems where there is risk of stagnant water in the tank. The Flow-Thru Plus inline adapter diverts the water through the tank while the water is running, eliminating the risk of stagnant water and reducing the risk of waterborne bacteria such as legionella. This constant flushing ensures the freshest water in the tank.

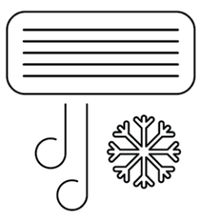
Flow-Thru Plus inline adapters are 1″ full bore recirculation devices that offer superior flow rates compared to other 3/4″ devices. Their unique design provides maximum circulation in the tank while assuring minimal pressure drop in the main pipe.

- Self-orientating design eliminates the risk of leaking or overtightened connections
- Isolation valve allows for easy expansion tank servicing
- Built-in drain valve to allow full service and maintenance of the expansion tank without disruption to water supply
- Prevents stagnant water on booster sets
- Built-in sample point

Max. Operating Temperature	90°C / 194 °F
Compatibility	PressureWave™ 2-35 liter inline tanks M-Inox™ 8 - 24 liter inline tanks All-Weather™ 18 and 24 liter inline tanks

Flow-Thru™ Adapter is suitable for

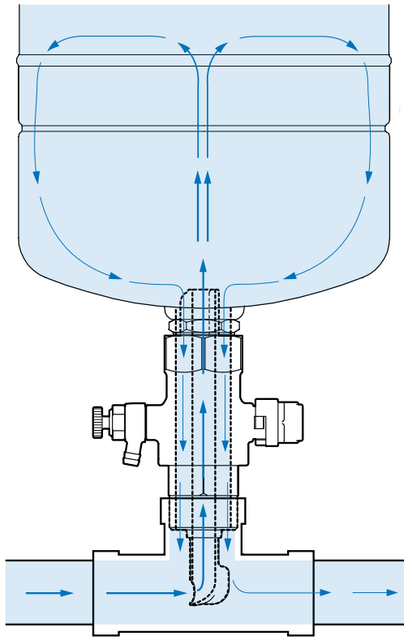
- Showers
- Pressure boosting
- Heating, ventilation, and air conditioning
- Swimming pools and spas
- Wet cooling towers
- Evaporative cooling



Models

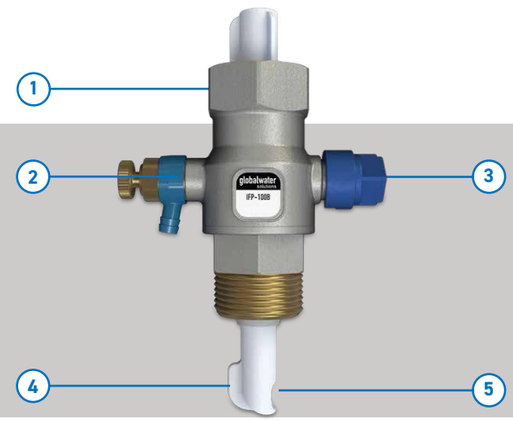
Model Number	Connection	Installation Dimensions [mm]			Gross Weight [kg]
		Height	Width	Depth	
IFA-100BSP / IFA-100NPT*	1″ BSP / NPT	141	103	45	0.6
IFP-100B / IFP-100N	1″ BSP / NPT	141	103	45	0.6

*Limited stocks, ask your representative



Construction of a Flow-Thru™ adapter

1. Full bore 1″ water outlet
2. Drain valve with sample point
3. Full bore 1″ isolator
4. Self orientating design
5. High-pressure water inlet



SolarWave™

Indirect solar heating expansion tanks

If you are looking for the proven performance of a GWS tank for your solar system, SolarWave™ expansion tanks are the highest-quality solution. SolarWave expansion tanks are designed to control the expansion and contraction of solar thermal transfer fluids in solar heating systems. The SolarWave series is intended for use on the solar liquid loop of indirect thermal transfer systems.

A properly sized SolarWave tank eliminates the need for recharging the system after periods of no use or in cases of extreme temperature buildup. It will eliminate relief valve release of system liquid and maintain minimum operating pressures throughout the system.

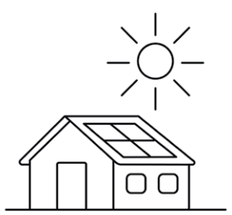
Available in vertical and inline.

- High-temperature butyl diaphragm
- Patented stainless steel water connection
- High expansion volume factor
- Dual layer polyurethane paint finish
- Leak-free O-ring sealed air valve
- Replaceable tank base
- Comprehensive testing
- Maintenance-free

Nominal Volumes	2 - 150 L / 0.5 - 39.6 gal
Min. Operating Temperature	-10°C / 14°F (Avoid Freezing)
Max. Operating Temperature	130°C / 266°F
Max. Operating Pressure	10 bar | 150 psi
Factory Pre-charge	1.9 bar | 28 psi

SolarWave™ is suitable for

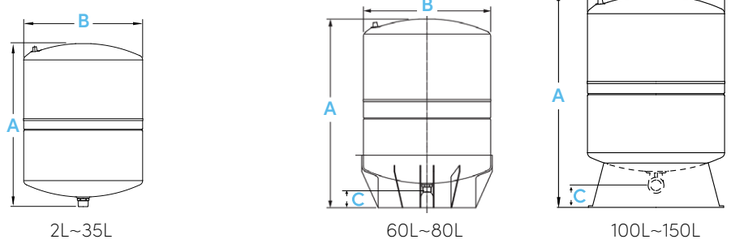
- Solar closed loop circuits
- Hydronic heating circuits

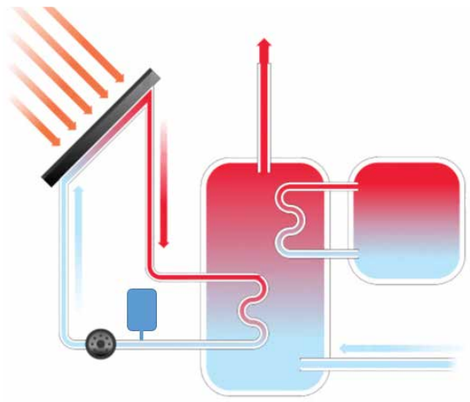


Models

Model Number	Connection	Nominal Volume		Installation Dimensions [mm]			Shipping Weight [kg]
		Liters	Gallons	A	B	C	
Inline							
SWB-2LX*	3/4" BSPT	2	0.5	204	126	-	12.6*
SWB-8LX	3/4" BSPT	8	2.1	308	202	-	2.2
SWB-12LX	3/4" BSPT	12	3.2	362	230	-	3.0
SWB-18LX	3/4" BSPT	18	4.8	362	279	-	3.9
SWB-24LX	3/4" BSPT	24	6.3	442	290	-	5.1
SWB-35LX	3/4" BSPT	35	9.2	476	318	-	6.8
Vertical							
SWB-60LV	3/4" BSPT	60	15.8	619	389	63	11.0
SWB-80LV	3/4" BSPT	80	21.1	815	389	63	14.3
SWB-100LV	1" BSPP	100	26.4	850	430	59	19.2
SWB-130LV	1" BSPP	130	34.3	1073	430	60	25.9
SWB-150LV	1" BSPP	150	39.6	938	530	66	34.0

* SWB-2LX: 12 pcs/ box





HeatWave™

Non-potable hydronic heating expansion tanks

- Leak-free O-ring sealed air valve
- Dual layer polyurethane paint finish
- High-grade butyl diaphragm design
- Patented chromed steel water connection
- Maintenance-free
- Comprehensive testing

HeatWave™ tanks are designed for use in closed-loop hydronic heating systems, and should never be installed in open loop or potable water systems. They are the ideal solution for fluid expansion in radiant heating systems and can be used with systems running glycol with a water to glycol mixture of up to 50%. The air chamber is sealed with a brass air valve and O-ring sealed air valve cap, providing many years of leak-free and maintenance-free life. Its dual layer polyurethane paint finish will withstand the harshest indoor and outdoor environments.

HeatWave inline models feature a welded hex nut connection and can be installed on system piping and supported by the GWS universal wall-mounting bracket. Freestanding vertical and horizontal models are constructed with a rigid base, designed to support the weight of the tank during operation The expansion tank must be connected to the closed loop circuit and should only be used in close loop circuits with corrosion inhibitor.

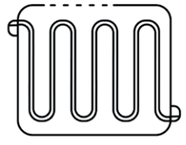
Do not connect to an open-loop circuit or any system where fresh water is used for regular top up.

Available vertical and inline.

Nominal Volumes	2 - 150 L / 0.5 - 39.6 gal
Min. Operating Temperature	-10°C / 14°F (Avoid Freezing)
Max. Operating Temperature	99°C / 210°F
Max. Operating Pressure	6 bar | 87 psi
Factory Pre-charge	HWB-2LX ~ HWB-24LX: 0.7 bar | 10 psi HWB-35LX: 1 bar | 15 psi HWB-60LV ~ HWB-150LV: 1.5 bar | 22 psi

HeatWave™ is suitable for

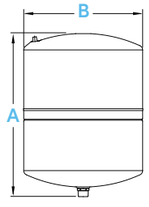
- Closed loop heating circuits
- Hydronic heating circuits



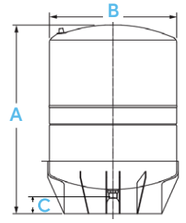
Models

Model Number	Connection	Nominal Volume		Installation Dimensions [mm]			Shipping Weight [kg]
		Liters	Gallons	A	B	C	
Inline							
HWB-2LX*	3/4" BSPT	2	0.5	204	126	-	12.4 *
HWB-4LX	3/4" BSPT	4	1.1	256	162	-	1.7
HWB-8LX	3/4" BSPT	8	2.1	308	202	-	2.0
HWB-12LX	3/4" BSPT	12	3.2	362	230	-	2.8
HWB-18LX	3/4" BSPT	18	4.8	362	279	-	3.5
HWB-24LX	3/4" BSPT	24	6.3	442	290	-	4.4
HWB-35LX	3/4" BSPT	35	9.2	476	318	-	6.8
Vertical							
HWB-60LV	3/4" BSPT	60	15.8	619	389	63	10.5
HWB-80LV	3/4" BSPT	80	21.1	815	389	63	14.3
HWB-100LV	1" BSPP	100	26.4	805	430	59	19.5
HWB-130LV	1" BSPP	130	34.3	958	430	60	18.9
HWB-150LV	1" BSPP	150	39.6	938	530	66	34.0

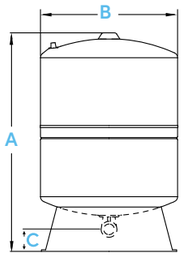
* HWB-2LX: 12 pcs/box



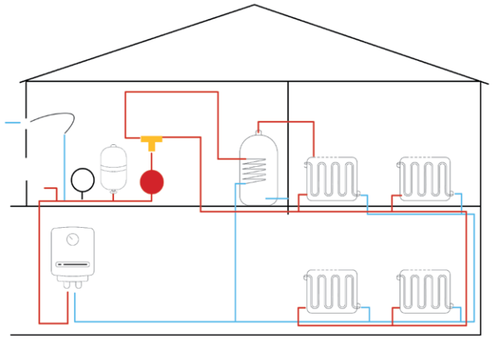
2L~35L



60L~80L



100L~150L



ThermoWave™

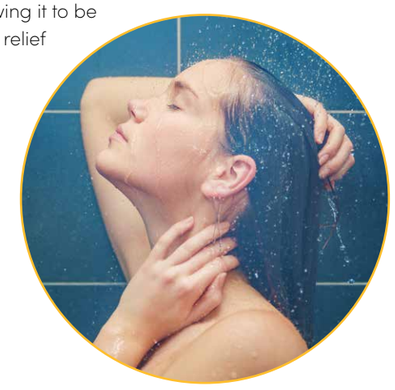
Potable hot water expansion tanks

- Leak-free O-ring sealed air valve
- Dual layer polyurethane paint finish
- High-grade butyl diaphragm design
- Virgin polypropylene liner
- Patented stainless steel water connection
- Maintenance-free

ThermoWave™ expansion tanks are specially designed for use in potable water heating applications. Many homes and buildings have potable water heating systems to provide hot water for washing, cooking, showering, etc. As the water is heated, it also expands. This expansion leads to increased system pressure and can cause serious damage. In most systems, a relief valve is installed to vent the expanded water volume and prevent the system from exceeding maximum operating pressure.

Unfortunately, this creates wasted energy as hot water is vented and additional water must be filled and heated again. In order to safely accommodate the natural expansion of water without venting from a relief valve, a ThermoWave expansion tank is used. ThermoWave expansion tanks conserve water and energy while safely maintaining system operating pressures. They do so by temporarily absorbing the expanded water volume instead of allowing it to be vented out of a relief valve.

Available in vertical, horizontal and inline.



Nominal Volumes	2 - 60 L / 0.5 - 15.9 gal
Min. Operating Temperature	-10°C / 14°F (Avoid Freezing)
Max. Operating Temperature	90°C / 194°F
Max. Operating Pressure	10 bar | 150 psi
Factory Pre-charge	1.9 bar | 28 psi

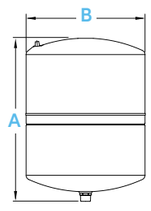
ThermoWave™ is suitable for

- Stored hot water
- Open loop potable hot water circuits
- Potable hot water systems

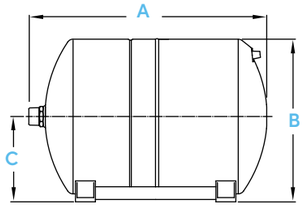
Models

Model Number	Connection	Nominal Volume		Installation Dimensions [mm]			Gross Weight [kg]
		Liters	Gallons	A	B	C	
Inline							
TWB-2LX*	3/4" BSPT	2	0.5	206	126	-	13.8 *
TWB-4LX	3/4" BSPT	4	1.1	258	162	-	1.6
TWB-8LX	3/4" BSPT	8	2.1	310	202	-	2.3
TWB-12LX	3/4" BSPT	12	3.2	364	230	-	3.1
TWB-18LX	3/4" BSPT	18	4.8	364	279	-	4.0
TWB-24LX	3/4" BSPT	24	6.3	444	290	-	5.3
TWB-35LX	3/4" BSPT	35	9.2	478	318	-	7.1
Horizontal							
TWB-12LH	3/4" BSPT	12	3.2	364	260	133	3.6
TWB-18LH	3/4" BSPT	18	4.8	364	294	155	4.4
TWB-24LH	3/4" BSPT	24	6.3	444	306	161	5.6
TWB-35LH	3/4" BSPT	35	9.2	478	338	179	8.0
TWB-60LH	3/4" BSPT	60	15.9	527	408	214	11.5
Vertical							
TWB-60LV	3/4" BSPT	60	15.9	619	389	63	11.6

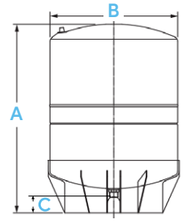
* TWB-2LX: 12 pcs/ box



2L~35L



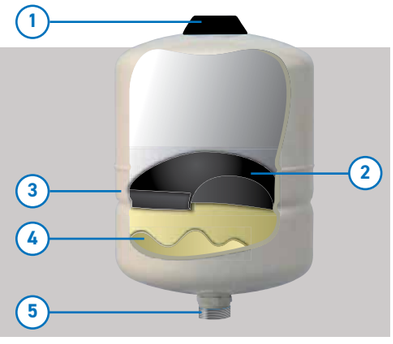
12L~60L



60L

Construction of a ThermoWave™ tank

1. Leak-free, O-ring sealed air valve cap
2. High-grade butyl diaphragm design
3. Dual layer polyurethane paint finish
4. Virgin polypropylene liner
5. Patented stainless steel water connection



HydroGuard™

Water hammer & hydraulic shock arrestors

HydroGuard™ shock arrestors are specially built with the latest diaphragm technology designed to reduce and eliminate hydraulic shock. The internal diaphragm divides the arrestor into separate air and water chambers. The sealed air chamber acts as a cushion that compresses when the water pressure suddenly increases or surges, due to hydraulic shock.

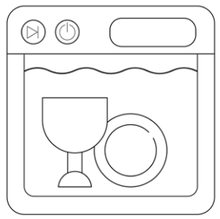
HydroGuard shock arrestors are best used at the point of shock and should be installed as close to the valve or piping where the shock originates. They are ideal for washing machine and dish washer installations, sinks and toilets, reverse osmosis systems, and any other plumbing application where quick closing valves or fast acting solenoid valves are installed. HydroGuard shock arrestors are certified and approved for potable systems, making them safe for drinking water.

- High-grade butyl diaphragm
- Adjustable pre-charged air pressure
- Dual layer polyurethane paint finish
- Leak-free O-ring sealed air valve
- Comprehensive testing
- Maintenance-free

Nominal Volumes	0.16 - 4 L / 0.04 - 1.1 gal
Materials	Carbon Steel and Stainless Steel
Min. Operating Temperature	-10°C / 14°F (Avoid Freezing)
Max. Operating Temperature	90°C / 194°F
Max. Operating Pressure	10 bar | 150 psi
Factory Pre-charge	Available with 1 or 4 bar (15 or 58 psi)

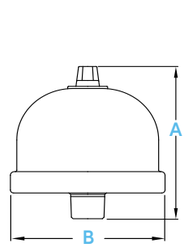
HydroGuard™ is suitable for

- Dishwashers and washing machines
- Domestic plumbing and heating systems
- Commercial water systems
- Booster pump water hammer arresting

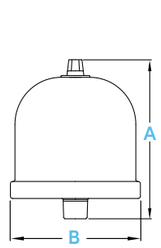


Models

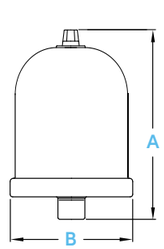
Model Number	Connection	Nominal Volume		Installation Dimensions [mm]		Pieces per box	Gross Weight [kg]
		Liters	Gallons	A	B		
Carbon Steel							
HGBSC-0.3LX-C0.25	1/4" BSPP	0.3	0.08	103	97	40	16.4
HGBSC-0.3LX-C0.50	1/2" BSPP	0.3	0.08	104	97	40	16.0
HGBSC-0.5LX-C0.25	1/4" BSPP	0.5	0.13	134	113	24	15.4
HGBSC-0.5LX-C0.50	1/2" BSPP	0.5	0.13	135	113	24	15.4
HGBSH-0.6-C0.50	1/2" BSPP	0.6	0.16	159	97	20	11.4
HGPSE-1LX-C0.50	1/2" PF	1.0	0.26	197	120	20	17.6
HGPSR-1LX-C0.50	1/2" PF	1.0	0.26	197	120	20	17.4
HGBPA-2LX	1" BSPT	2.0	0.5	208	126	12	13.8
HGBPA-3LX	1" BSPT	3.0	0.8	243	143	6	9.13
HGBPA-4LX	1" BSPT	4.0	1.1	261	162	1	1.66
Stainless Steel							
HGNSA-0.16LX-C0.25	1/4" NPT	0.16	0.04	102	85	24	7.0
HGNSA-0.16LX-C0.50	1/2" NPT	0.16	0.04	113	85	24	8.2
HGPSB-1LX-C0.50	1/2" PF	1.0	0.26	144	136	15	11.9



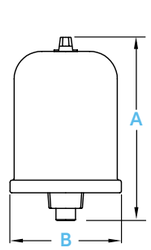
HGBSC-0.3LX



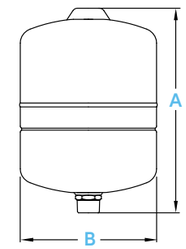
HGBSC-0.5LX



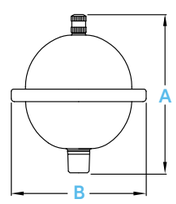
HGBSH-0.6LX



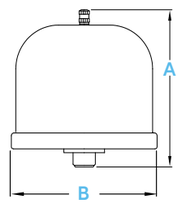
HGPSE-1LX
HGPSR-1LX



HGBPA-2LX/3LX/4LX
HGNPA-2LX/3LX/4LX



HGNSA-0.16LX



HGPSB-1LX

What is Water Hammer?

Hydraulic shock, also known as Water Hammer, is the sudden pressure surge or shock wave that is created when water is stopped or forced to change direction suddenly. This usually occurs due to fast-acting solenoid valves or other quick closing valves, as well as pipe bends, elbows, and other plumbing transitions. The shock wave causes a rapid spike in pressure that may result in burst pipes, excess stress on joints and fittings, leaky taps and faucets, as well as damage to appliances. It can also cause pipes to vibrate and rattle creating banging or knocking noises inside walls.

PumpWave™ Series

Electronic pump controller

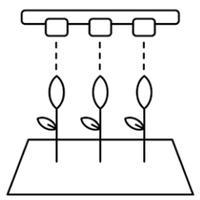
Discover PumpWave™ controllers, offering innovative solutions for efficient water supply systems. The Classic Series provides automatic constant water pressure for 1-2 homes, preventing dry running and water hammering. The compact, silent kits include a check valve, electronic circuit, and reset button. PumpWave™ Plus, designed for domestic use, combines an electronic pump controller with a 3L pressure tank, managing pumps up to 2 HP for smooth operation. PumpWave™ 2 controllers are ideal for larger water needs, featuring proven technology for pumps up to 2 HP. Both series ensure reliable, high-quality performance, with the Plus series preventing wear from frequent small draw-off starts.

- Automatically controls most domestic pumps
- Ensures constant flow
- Protects against pump dry run
- All-in-one compact device
- Eliminates small draw-off pump starts

Model Number	PWClassic-B	PWPress-B	PWP-220-B / PWS-220-B
Supply Voltage	110/220-260V AC	110/220-260V AC	220-240V AC
Frequency	50/60 Hz	50/60 Hz	50/60 Hz
Max. Operating Power	1.1 kW 16A	1.1 kW 16A	1.47 kW (2hp) 10(8)A
Connections	1" BSPP / G1 – ISO 228	1" BSPP / G1 – ISO 228	1" BSPP
Protection Level	IP 65	IP 65	IP 55
Min. Flow Rate	1 L/min (0.26 gal/min)	1 L/min (0.26 gal/min)	1.5 L/min (0.4 gal/min)
Max. Flow Rate	56.6 L/min (15 gal/min)	56.6 L/min (15 gal/min)	100 L/min (26.4 gal/min)
Ambient Temperature	1-60°C / 34-140°F (Avoid Freezing)	1-60°C / 34-140°F (Avoid Freezing)	1-40°C / 34-104°F (Avoid Freezing)
Max. Water Temperature	60°C / 140°F	60°C / 140°F	35°C / 95°F
Max. Operating Pressure	10 bar | 150 psi	10 bar | 150 psi	8 bar | 116 psi
Factory-set Cut-in Pressure	1.5 bar | 21.7 psi	1.5 bar | 21.7 psi	2 bar | 29 psi
Cut-in Pressure Range*	Adjustable from 1 to 2.5 bar | 15 to 36 psi	Fixed at 1.5 bar	Adjustable from 1 to 2.5 bar | 15 to 36 psi

PumpWave™ Series are suitable for

- Domestic and residential applications
- Agricultural and horticultural applications

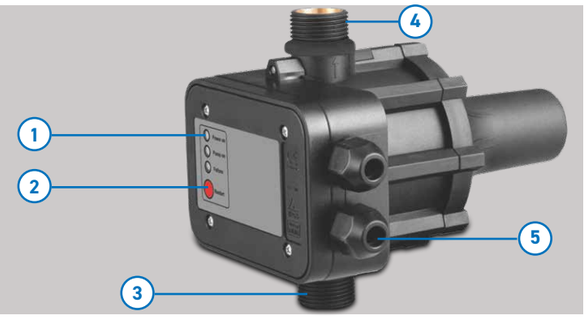


Construction of a PumpWave™ Classic

1. Reset button
2. 1" BSPP inlet connection
3. 1" BSPP outlet connection
4. Integrated pressure gauge
5. Integrated adjustable pressure switch

Construction of a PumpWave™ Press

1. LED indicator lights
2. Reset button
3. 1" BSPP inlet connection
4. 1" BSPP outlet connection
5. Electrical cable glands



Construction of a PumpWave™ 2

1. LED status indicator lights
2. Reset button
3. 1" BSPP outlet connection
4. 1" BSPP inlet connection
5. Integrated pressure gauge
6. Integrated adjustable pressure switch (not shown)

Construction of a PumpWave™ Plus

1. LED status indicator lights
2. Reset button
3. 1" BSPP outlet connection
4. 1" BSPP inlet connection
5. Integrated pressure gauge
6. Integrated 3L pressure tank
7. Integrated adjustable pressure switch (not shown)

ProLine™

Long-lasting, easy to install borehole riser pipe

- Corrosion proof
- Light weight for easy handling
- Energy saving pipe
- Maximum load carrying capacity
- Smooth internal pipe surface reduces head loss and prevents scale build up
- Lower thermal conductivity than traditional pipes
- Virgin, high grade material blending in-house
- Exclusive screw-locking system design
- Permanent fusion lock design

A high quality and unique alternative for conventional steel pipes, ProLine™ series pipes are high-tensile, high-impact uPVC threaded pipes—commonly known as riser pipes or column pipes for submersible pumps.

ProLine riser pipes are an excellent alternative to galvanized or stainless steel pipes, as they are 100% corrosion resistant and bacteria-free. Featuring 100% leak-proof and water tight joints, the ProLine series is the ideal solution for bore well and deep submersible pump delivery. Installed between the pump at the bottom of a well and the surface, ProLine pipes can be assembled easily, without the need for sophisticated installation tools.

ProLine riser pipes are differentiated from other pipes on the market due to the use of the exclusive screw-locking system design. The screw-lock prevents the opening of pipe joints and works as an additional safety feature. Additional sealing within the coupling is accomplished through our industry-leading Permanent Fusion Lock technology, which prevents leakage, controls vibration and helps avoid over tightening.

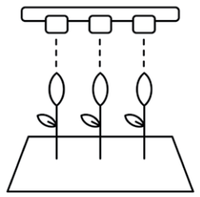
Lightweight without compromising on strength, the ProLine features bi-axial orientation, increased wall thickness, and is perfectly aligned, resulting in stronger, stress free pipe.

Models

Model Number	Type & Size	Net Weight (kg)	Ultimate Breaking Load (kg)	Max			Recommended Installation					
				Pulling Load with Chain Pulley or Crane (kg)	Maximum Permissible Pressure Rating (kg/cm²)	Total Shut Off Head of the Pump (m)	Depth of Pipes (m)	Depth of Pipes (ft)	Approx. Weight of Pipe Column at Depth (kg) (A)	Weight of Water at Depth (kg) (B)	Weight of Pump & Motor at Depth (kg) (C)	Total Weight at Depth (A+B+C) (kg)
OD: 33mm (1") NB: 25 mm												
uPVC-MED-1.00-PL	Medium	1.3	1500	800	21	210	147	482	64	72	42	178
uPVC-STD-1.00-PL	Standard	1.7	2200	1250	27	270	189	620	103	93	45	241
OD: 42mm (1.25") NB: 32 mm												
uPVC-MED-1.25-PL	Medium	1.9	1800	1150	21	210	147	482	95	118	40	253
uPVC-STD-1.25-PL	Standard	2.1	2650	1400	27	270	189	620	135	152	60	347
uPVC-HVY-1.25-PL	Heavy	2.8	3100	1800	35	350	245	804	230	197	84	511
OD: 48mm (1.5") NB: 40 mm												
uPVC-MED-1.50-PL	Medium	2.3	2300	1200	21	210	147	482	113	185	60	358
uPVC-STD-1.50-PL	Standard	2.6	3200	1700	27	270	189	620	165	237	75	477
uPVC-HVY-1.50-PL	Heavy	3.5	4200	2200	35	350	245	804	285	308	86	679
OD: 60mm (2") NB: 50 mm												
uPVC-MED-2.00	Medium	2.7	3040	2000	18	180	126	413	113	247	80	440
uPVC-STD-2.00	Standard	3.9	5098	2700	21	210	147	482	191	288	110	589
uPVC-HVY-2.00	Heavy	4.6	5682	3200	27	270	189	620	290	371	128	789
uPVC-SHVY-2.00	Super Heavy	5.5	6200	3600	35	350	245	804	449	481	145	1075
OD: 75mm (2.5") NB: 65 mm												
uPVC-MED-2.50	Medium	3.9	4496	2800	15	150	105	344	138	348	98	584
uPVC-STD-2.50	Standard	4.8	5934	3600	18	180	126	413	200	418	125	743
uPVC-HVY-2.50	Heavy	6.1	7432	4200	27	270	189	620	386	627	180	1193
uPVC-SHVY-2.50	Super Heavy	7.8	9194	5300	35	350	245	804	636	812	203	1651
OD: 88mm (3") NB: 80 mm												
uPVC-MED-3.00	Medium	4.9	5934	4000	11	110	77	253	126	349	120	595
uPVC-STD-3.00	Standard	6.6	9112	5010	18	180	126	413	277	572	220	1069
uPVC-HVY-3.00	Heavy	8.7	10000	6000	27	270	189	620	548	857	380	1785
uPVC-SHVY-3.00	Super Heavy	10.6	12000	7250	35	350	245	804	870	1111	418	2399
OD: 113mm (4") NB: 100 mm												
uPVC-MED-4.00	Medium	7.6	11402	4500	10	100	70	230	175	549	181	905
uPVC-STD-4.00	Standard	9.8	12150	7250	16	160	112	367	363	879	326	1568
uPVC-HVY-4.00	Heavy	14.5	15980	5950	27	270	189	620	910	1484	441	2835
uPVC-SHVY-4.00	Super Heavy	16.5	19500	12000	35	350	245	804	1349	1924	455	3728
OD: 140mm (5") NB: 125 mm												
uPVC-MED-5.00	Medium	13.3	12000	7540	10	100	70	230	305	859	176	1340
uPVC-STD-5.00	Standard	16.2	16000	10100	16	160	112	367	598	1374	377	2349
uPVC-HVY-5.00	Heavy	18.9	23860	15100	27	270	189	620	1191	2319	465	3975
uPVC-SHVY-5.00	Super Heavy	24.5	30000	18000	35	350	245	804	2009	3006	478	5493
OD: 165mm (6") NB: 150 mm												
uPVC-STD-6.00	Standard	30.0	22500	12550	16	160	112	367	1110	1979	650	3739
uPVC-HVY-6.00	Heavy	35.0	40000	23500	27	270	189	620	2520	3340	980	6840

ProLine™ is suitable for

- Tube wells / bore wells
- Commercial irrigation
- Livestock watering
- Drinking water supply lines
- Main line for sprinklers / drip irrigation



Accessories

1. Top Adapters / Connectors
2. Bottom Adapters / Connectors
3. Pump Guard
4. Lowering Fixture

Notes

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