GLOBAL WATER SOLUTIONS

PRESSURE TANKS & ACCESSORIES

CHALLENGER™ SERIES
PRESSUREWAVE™ SERIES
C2-LITE CAD™ SERIES
SUPERFLOW™ SERIES
GWS ENERGY SAVER
ACCESSORIES

PressureWave™ Series

PressureWave™ diaphragm pressure tanks are ideally suited for a wide range of general applications including pump booster systems, thermal expansion, irrigation systems, and to minimise water hammer.

- Single diaphragm design 100% potable quality butyl
- Patented 316 stainless steel connection
- Virgin polypropylene liner, so no water touches plain steel
- Internal clench ring becomes more secure at higher pressures
- Appliance quality two part polyurethane, epoxy primed paint finish - almond
- Brass stemmed air valve and o-ring sealed valve cap
- NSF standard 61, CE/PED, WRAS approvals
- Pre-charged air side 28 PSI/1.9 Bar
- Maximum temperature up to 90°C
- Standard maximum pressure 150 PSI/10 Bar
- Models available up to 235 PSI/16 Bar
- **5 year replacement warranty**

FLE-PWB8V

FLE-PWS20H

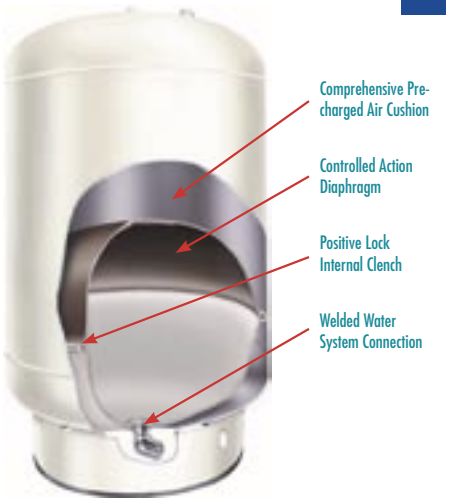
FLE-PWB60V

10 BAR DOMESTIC COMMERCIAL PRESSURE WAVE TANKS					
Model	**Actual Capacity (litres)**	**Nominal Draw-off (litres)**	**Recommended Max. Working Pressure**	**Connection BSP (inches)**	**Dimensions (mm x mm)**
FLE-PWB2V	2	0.6	10 Bar	1	127 x 183
FLE-PWB8V	8	3	10 Bar	1	203 x 317
FLE-PWB18V	18	6	10 Bar	1	279 x 368
FLE-PWB60V	60	22	10 Bar	1	388 x 554
FLE-PWB80V	80	29	10 Bar	1	388 x 787
10 BAR HORIZONTAL TANKS					
FLE-PWS20H	20	8	10 Bar	1	289 x 444
FLE-PWS60H	60	22	10 Bar	1	414 x 528
16 BAR INDUSTRIAL HIGH PRESSURE TANKS					
FLE-PWB8V-16	8	3	16 Bar	1	203 x 317
FLE-PWB18V-16	18	6	16 Bar	1	279 x 350
FLE-PWB80V-16	80	29	16 Bar	1	388 x 787

Accessories

BRAIDED CONNECTION KITS	
DAB-20HCONN	3/4" 90 deg F+20H Adaptor x 1" M x 500mm
DAB-60HCONN	1" 90 deg F x 1" M x 600mm
DAB-100HCONN	1" 90 deg F x 1" M x 700mm
DAB-200HCONN	1" F x 1" M x 800mm
STAINLESS STEEL BRAIDED CONNECTION KITS	
FLE-700MFCKIT	1" F x 1" M x 700mm
FLE-700MFECKIT	1" 90 deg F x 1" M x 700mm
FLE-800MFCKIT	1" F x 1" M x 800mm
FLE-800MFECKIT	1" 90 deg F x 1" M x 800mm
FLE-1000MFCKIT	1" F x 1" M x 1000mm
FLE-1000MFECKIT	1" 90 deg F x 1" M x 1000mm

Challenger™ Series



Challenger™ diaphragm pressure tanks are ideally suited for a wide range of general applications including; pump booster systems, thermal expansion, irrigation systems, and to minimise water hammer.

- Patented Controlled Action Diaphragm CAD Design, 100% potable quality butyl
- Patented 316 stainless steel elbow connection
- Connection includes a diffuser to suspend any solids and prevent clogging
- Internal clench ring becomes even more positive at higher pressures
- Double diaphragm reduces condensation due to 'air buffer' design
- Appliance quality two part polyurethane, epoxy primed paint finish, almond
- Brass stemmed air valve and o-ring sealed valve cap
- NSF Standard 61, CE/PED, WRAS approvals
- Pre-charged air side 38 PSI/2.6 Bar
- Maximum temperature up to 90°C
- Standard maximum pressure 150 PSI/10 Bar
- **5 year replacement warranty**

Model	Actual Capacity (litres)	Nominal Draw-off (litres)	Recommended Max. Working Pressure	Connection BSP (inches)	Dimensions (mm x mm)
FLE-C100V	100	36	10 Bar	1	406 x 876
FLE-C130V	130	46	10 Bar	1	406 x 1085
FLE-C170V	170	62	10 Bar	1	533 x 920
FLE-C240V	240	86	10 Bar	1	533 x 1219
FLE-C310V	310	113	10 Bar	1	533 x 1574
FLE-C450V	450	165	10 Bar	1	660 x 1504

GWS Energy Saver

Conventional electronic household water pressure systems do not have water pressure storage tanks which means that they will start immediately when the pressure drops below 150kPa.

This means that regardless of the amount of water you use, from a dripping tap to a cup of water the pump will start every time until you fix the leak or turn the tap off, then the pump will run for 10 seconds before turning off. Flushing the toilets, dripping taps, drip irrigation, roof top evaporative coolers, leaking taps, hot water systems all cause pumps to short cycle reducing pump life and using excessive amounts of electricity.

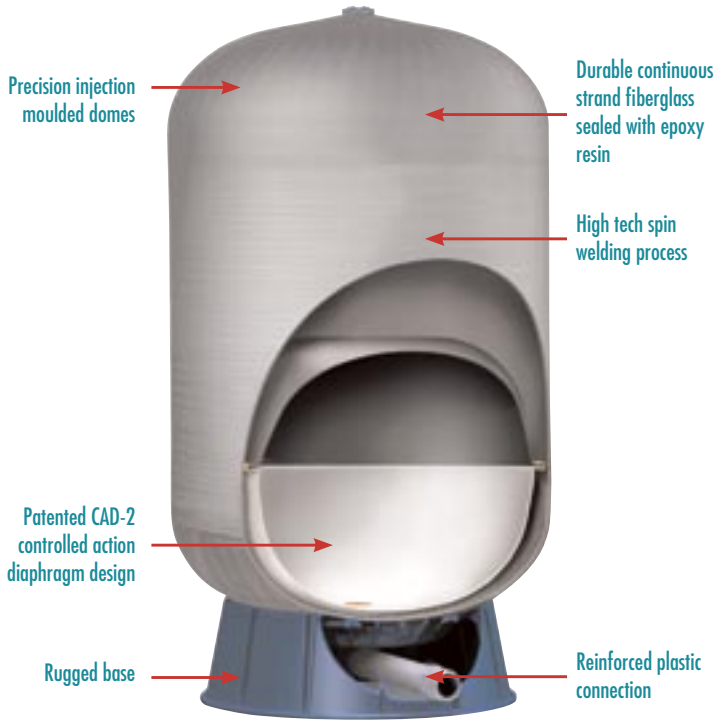
The GWS Energy Saver stores approximately 8 litres of water depending on pump pressure which dramatically reduces pump starts, i.e.: you can turn the tap on 20 times to fill 20 cups of water and the pump will not start.

- Quick and easy installation
- Kit comprises of an electronic control, 20 litre tank, hose connection, thread tape and installation instructions (pump sold separately)
- Saves power costs

No Maintenance - No Worries

C2-Lite CAD™ Series

C2 CAD™ diaphragm pressure tanks are ideally suited for a wide range of general applications including pump booster systems, thermal expansion, irrigation systems, and to minimise water hammer. Additionally they are corrosion resistant and lightweight.



- Lightweight non-corroding scratch resistant construction
- Precision injection moulded copolymer polypropylene domes
- Reinforced with durable continuous strand fibreglass
- Sealed with epoxy resin
- Rugged injection moulded ABS base
- Patented CAD-2 Controlled Action Diaphragm, 100% potable quality butyl
- Precision moulded copolymer polypropylene liner
- Connection includes a diffuser to suspend any solids and prevent clogging
- Internal clench ring becomes even more positive at higher pressures
- Double diaphragm reduces condensation due to 'air buffer' design
- Brass stemmed air valve and o-ring sealed valve cap
- Pre-charged air side 38 PSI/2.6 Bar
- Reinforced base mounted plastic connection
- Maximum temperature up to 60°C
- Standard maximum pressure 150 PSI/10 Bar
- **5 year replacement warranty**

Model	Actual Capacity (litres)	Nominal Draw-off (litres)	Recommended Max. Working Pressure	Connection BSP (inches)	Dimensions (mm x mm)
FLE-C2B-80	80	29	10 Bar	1	418 x 852
FLE-C2B-100	100	36	10 Bar	1	418 x 967
FLE-C2B-130	130	46	10 Bar	1	418 x 1227
FLE-C2B-200	200	72	10 Bar	1	542 x 1098
FLE-C2B-250	250	90	10 Bar	1	542 x 1303

FLE-PWSA3 & FLE-PWSA3TEE

Water Hammer Arrestor

WATER HAMMER ARRESTOR					
Model	**Actual Capacity (litres)**	**Nominal Draw-off (litres)**	**Recommended Max. Working Pressure**	**Connection BSP (inches)**	**Dimensions (mm x mm)**
FLE-PWSA3	0.3	0.1	10 Bar	1/2	114 x 85
FLE-PWSA3TEE	1/2' Brass compression Tee to suit				
FLE-SP2	Smart valve				

- **5 year replacement warranty**

Superflow™ Series

SuperFlow SF300-16V

SuperFlow™ interchangeable diaphragm high pressure tanks are ideally suited for a wide range of larger applications including pump booster systems, irrigation systems, high pressure systems and to minimise water hammer.

- Durable interchangeable tiered construction membrane
- Up to 1500 litres volume 100% EPDM diaphragm, maximum temperature up to 100°C
- From 2000 – 15000 litres volume 100% butyl diaphragm maximum temperature up to 70°C
- All models complete with integral pressure gauge for convenience
- High quality polyurethane paint over rugged steel construction - green
- Reinforced tripod legs for easy installation
- Pre-charged air side 150 PSI/10 Bar
- Standard model maximum pressure up to 235 PSI/16 Bar
- Premium model maximum pressure up to 365 PSI/25 Bar
- 1 year membrane replacement warranty

Model	Actual Capacity (litres)	Nominal Draw-off (litres)	Recommended Max. Working Pressure	Connection BSP (inches)	Dimensions (mm x mm)
FLE-SF2425V	24	9	25 Bar	1	260 x 445
FLE-SF6025V	60	22	25 Bar	1	380 x 780
FLE-SF10025V	100	36	25 Bar	1	460 x 935

Comparing a Diaphragm Tank to a Wet Tank (According to Boyle's Law)

The key data required is the pump flow rate and the pressure switch settings.

Tank drawdown of 1 – 2 minutes is recommended to minimise the 'short cycle' wear and tear caused to pipes, pump ends and motors by starting & stopping too frequently. Undersized tanks and automatic pump controllers are notorious for the decrease in longevity and performance they cause.

Example: Size a large house pressure tank to suit the DAB-Eurinox 50/50 MP

V_F= 50 LPM = 50 Litres draw off volume
(minimum 1 minute between pump starts)
P_A= Atmospheric Pressure = 14.7 PSI
P_1= Pre-Charge Tank Air Pressure = 68 PSI (NB: wet tank P_1= 0)
P_2= Cut-in Pressure = 70 PSI
P_3= Cut-out Pressure = 90 PSI
D_F= Draw Down Coefficient
T_V= Pressure Tank Volume

$$D_F = \frac{(P_1 + 14.7)}{(P_2 + 14.7)} - \frac{(P_1 + 14.7)}{(P_3 + 14.7)}$$

$$T_V = \frac{V_F}{D_F}$$

Wet Tank Example

D_F= (14.7 / 84.7) – (14.7 / 104.7)
= (0.174) – (0.140)
= 0.034

T_V = (50 / 0.034)
= 1470 litre tank volume

Diaphragm Tank Example

D_F= (82.7 / 84.7) – (82.7 / 104.7)
= (0.976) – (0.790)
= 0.186

T_V = (50 / 0.186)
= 270 litre tank volume

Available from:

CE ISO9001

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