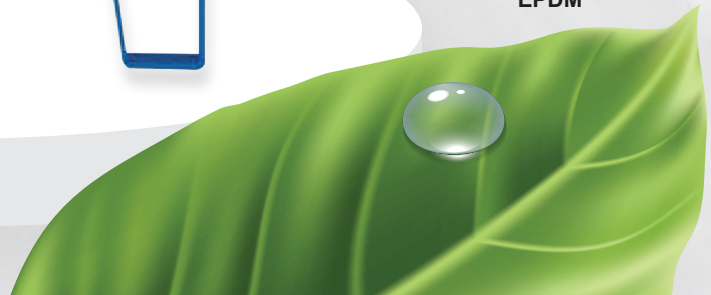


# Bauman

Pressure Tank



EPDM



# Pressure Tank

## FOR HEATING, COOLING, AND PRESSURIZING SYSTEM

### ATTRIBUTE

BAUMAN pressure tank is the best choice for irrigation pump, centrifugal pump, submersible pump and booster pump set. It is a solution of water pressure since tank keeps pressure in the system constantly, minimize pump starts and reduces energy consumption. Furthermore, it can decrease damage from water hammer when pump starts up at any time.

- EPDM membrane is suitable for general use.

### FEATURES

**TOUGH BUT ECONOMICAL** - Thanks to the replaceable membrane, the tank will not be damaged by inner rust and has practically unlimited life. Customer will save money from vessel replacement.

**WORLD CLASS PRODUCTION** - With the top steel quality and MIG-welded technique, carbon steel tank body has no interior rough spots or sharps edges to damage membrane. Tanks have long life use cycle.

**CHOICE IS YOURS** - Galvanized or stainless steel flanges can be selected based on application.

**EASY USE** - Tanks are installed with pressure gauge to monitor air pressure inside. Users can easily check if it is time to put the air in.

**VARIETY RANGE** - Factory can provide wide range, either vertical type or horizontal type.

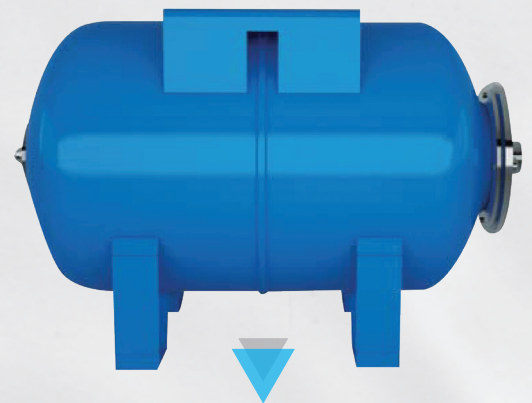
**CE APPROVED** - All tanks are certified according to CE standard and under the qualified production line of ISO-9001.

## 10 BAR HORIZONTAL PRESSURE TANK SERIES



### Pressure tank with replaceable membrane for booster set

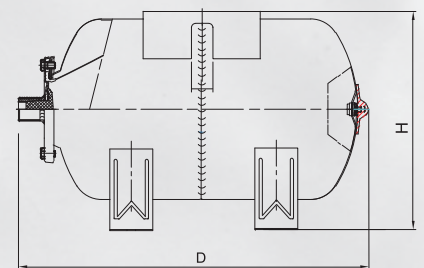
|                                  |                    |
|----------------------------------|--------------------|
| CE marked according to Directive | PED 2014 / 68 / EU |
| Maximum working pressure         | 10 BAR             |
| Standart pre-set pressure        | 2 BAR              |
| Working temperature              | 0 °C - 90 °C       |
| Membrane type                    | EPDM               |



## • H series

### Technical Specifications of Pressure Tanks Horizontal 10 Bar

| Model<br>Modello | Capacity<br>Capacità<br>(ltr) | Diameter<br>Diametro<br>(mm) | Height<br>Altezza<br>(mm) | Connection<br>Raccordo<br>(inch) | Stand<br>Cavalletto |
|------------------|-------------------------------|------------------------------|---------------------------|----------------------------------|---------------------|
| H24-W            | 24                            | 280                          | 470                       | 1"                               | Yes                 |
| H50-W            | 50                            | 380                          | 620                       |                                  |                     |
| H60-W            | 60                            | 380                          | 700                       |                                  |                     |
| H80-W            | 80                            | 425                          | 790                       |                                  |                     |
| H100-W           | 100                           | 460                          | 800                       |                                  |                     |



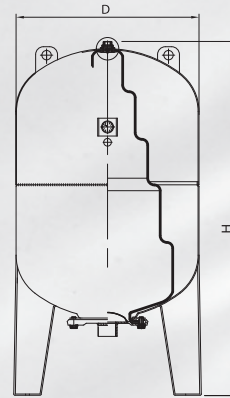


## 10 BAR VERTICAL PRESSURE TANK SERIES



### Pressure tank with replaceable membrane for booster set

|                                  |                    |
|----------------------------------|--------------------|
| CE marked according to Directive | PED 2014 / 68 / EU |
| Maximum working pressure         | 10 BAR             |
| Standart pre-set pressure        | 4 BAR              |
| Working temperature              | 0 °C - 90 °C       |
| Membrane type                    | EPDM               |



## • V series

### Technical Specifications of Pressure Tanks Vertical 10 Bar

| Model<br>Modello | Capacity<br>Capacità<br>(ltr) | Diameter<br>Diametro<br>(mm) | Height<br>Altezza<br>(mm) | Connection<br>Raccordo<br>(inch) | Stand<br>Cavelletto | Manometer<br>Manómetro |
|------------------|-------------------------------|------------------------------|---------------------------|----------------------------------|---------------------|------------------------|
| V50-W            | 50                            | 380                          | 720                       | 1"                               | Yes                 | No                     |
| V60-W            | 60                            | 380                          | 810                       | 1"                               |                     |                        |
| V80-W            | 80                            | 425                          | 960                       | 1"                               |                     |                        |
| V100-W           | 100                           | 460                          | 980                       | 1"                               |                     |                        |
| V150-W           | 150                           | 508                          | 1100                      | 1"                               |                     | Yes                    |
| V200-W           | 200                           | 585                          | 1090                      | 1-1/4"                           |                     |                        |
| V300-W           | 300                           | 635                          | 1230                      | 1-1/4"                           |                     |                        |
| V500-W           | 500                           | 750                          | 1500                      | 1-1/4"                           |                     |                        |
| V750-W           | 750                           | 800                          | 1850                      | 2"                               |                     |                        |
| V900-W           | 900                           | 800                          | 1950                      | 2"                               |                     |                        |
| V1000-W          | 1000                          | 800                          | 2180                      | 2"                               |                     |                        |
| V1250-W          | 1250                          | 958                          | 2220                      | 2"                               |                     |                        |
| V1500-W          | 1500                          | 958                          | 2380                      | 2"                               |                     |                        |
| V2000-W          | 2000                          | 1100                         | 2520                      | 2"                               |                     |                        |
| V2500-W          | 2500                          | 1200                         | 2500                      | 2"                               |                     |                        |
| V3000-W          | 3000                          | 1200                         | 2800                      | 2-1/2"                           |                     |                        |
| V4000-W          | 4000                          | 1500                         | 2940                      | 3"                               |                     |                        |
| V5000-W          | 5000                          | 1500                         | 3600                      | 3"                               |                     |                        |
| V10000-W         | 10000                         | 1600                         | 6100                      | DN 100                           |                     |                        |

| Membrane<br>Tipo Membrana | Application<br>Utilizzo   |
|---------------------------|---|
| EPDM                      | Potable or Non-Potable Water<br>sia con acqua potabile che non potabile |
| Butyl<br>Butile           | Potable or Non-Potable Water<br>sia con acqua potabile che non potabile |
| S.B.R.                    | Non-Potable Water Only<br>solo acqua non potabile                       |
| Nitril<br>Nitrile         | Oil Application<br>per usi con olio                                     |

Note: Butyl is less permeable than EPDM

### OPTIONAL ACCESSORIES ACCESSORI A RICHIESTA



Air Valve  
Valvola



Pressure Gauge  
Manómetro



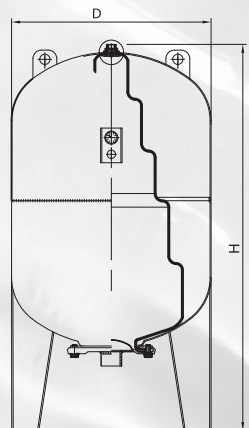
Replacement Flange  
Flangia Di Ricambio

# 16 BAR VERTICAL PRESSURE TANK SERIES



## Pressure tank with replaceable membrane for booster set

|                                  |                    |
|----------------------------------|--------------------|
| CE marked according to Directive | PED 2014 / 68 / EU |
| Maximum working pressure         | 16 BAR             |
| Standart pre-set pressure        | 4 BAR              |
| Working temperature              | 0 °C - 90 °C       |
| Membrane type                    | EPDM               |



## VH series

### Technical Specifications of Pressure Tanks Vertical 16 Bar

| Model<br>Modello | Capacity<br>Capacità<br>(ltr) | Diameter<br>Diametro<br>(mm) | Height<br>Altezza<br>(mm) | Connection<br>Raccordo<br>(inch) | Stand<br>Cavelletto | Manometer<br>Manometro |
|------------------|-------------------------------|------------------------------|---------------------------|----------------------------------|---------------------|------------------------|
| VH8-W            | 8                             | 220                          | 320                       | 1"                               | No                  |                        |
| VH12-W           | 12                            | 220                          | 410                       | 1"                               |                     |                        |
| VH19-W           | 19                            | 280                          | 430                       | 1"                               |                     |                        |
| VH24-W           | 24                            | 280                          | 512                       | 1"                               |                     |                        |
| VH35-W           | 35                            | 380                          | 470                       | 1"                               |                     |                        |
| VH50-W           | 50                            | 380                          | 750                       | 1"                               |                     |                        |
| VH60-W           | 60                            | 380                          | 810                       | 1"                               |                     |                        |
| VH80-W           | 80                            | 425                          | 960                       | 1"                               |                     |                        |
| VH100-W          | 100                           | 460                          | 990                       | 1"                               |                     |                        |
| VH150-W          | 150                           | 508                          | 1100                      | 1"                               |                     |                        |
| VH200-W          | 200                           | 585                          | 1120                      | 1-1/4"                           | Yes                 |                        |
| VH300-W          | 300                           | 635                          | 1230                      | 1-1/4"                           |                     |                        |
| VH500-W          | 500                           | 750                          | 1550                      | 1-1/4"                           |                     |                        |
| VH750-W          | 750                           | 800                          | 1850                      | 2"                               |                     |                        |
| VH1000-W         | 1000                          | 800                          | 2180                      | 2"                               |                     |                        |
| VH1250-W         | 1250                          | 958                          | 2220                      | 2"                               |                     |                        |
| VH1500-W         | 1500                          | 958                          | 2380                      | 2"                               |                     |                        |
| VH2000-W         | 2000                          | 1100                         | 2520                      | 2"                               |                     |                        |
| VH2500-W         | 2500                          | 1200                         | 2500                      | 2"                               |                     |                        |
| VH3000-W         | 3000                          | 1200                         | 2800                      | 2-1/2"                           |                     |                        |
| VH4000-W         | 4000                          | 1500                         | 2940                      | 3"                               | Yes                 |                        |
| VH5000-W         | 5000                          | 1500                         | 3600                      | 3"                               |                     |                        |
| VH10000-W        | 10000                         | 1600                         | 6100                      | DN 100                           |                     |                        |

## INSTRUCTIONS FOR THE VESSEL SELECTION

Recognizing the maximum absorption  $A_{max}$  (liters/min) and the water pump power, it calculate the water reserve needed as  $V_u = k(A_{max})$  and, select equivalent tank volume ( $V_t$ ).

$$\text{The formula for the calculation is : } V_t = K(A_{max}) \frac{(P_{max}+1)(P_{min}+1)}{(P_{max}-P_{min})(P_{pre}+1)}$$

$V_t$  = Vessel Volume (liters)

$A_{max}$  = Maximum Absorption (liters/min)

$P_{min}$  = Minimum pressure for the pump starts (bar)

$P_{max}$  = Maximum pressure for the pump stops (bar)

$P_{pre}$  = Pre-charge Pressure (bar)

$K$  = Coefficient regarding the pump power ( $P$ ), please see table below

|       |      |       |       |       |
|-------|------|-------|-------|-------|
| P(hp) | 1-2  | 2.5-4 | 5-8   | 9-12  |
| K     | 0.25 | 0.375 | 0.625 | 0.875 |

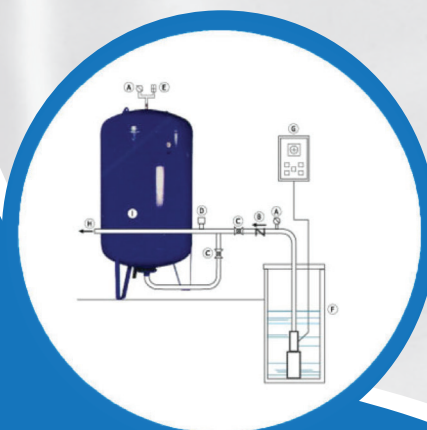
Example for calculation

$A_{max}$  = 115 liters/min

$P_{min}$  = 1.5 bar :  $P_{max}$  = 3.5 bar :  $P_{pre}$  = 1.3 bar

Pump power is 4 hp so  $K$  = 0.375

$$V_t = 0.375 \times 115 \frac{(3.5+1)(1.5+1)}{(3.5-1.5)(1.3+1)} = 105 \text{ liters}$$



Remark

$P_{pre}$  is 1.3 because the Pre-charge pressure must set 0.2 bars less than the pump starting pressure ( $P_{min}$ )