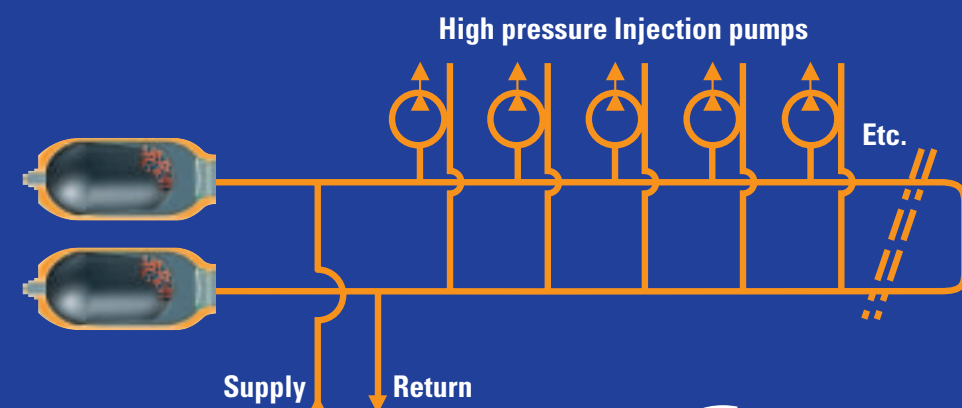


# Olaer pulsation dampeners protect your fuel system

## Safer operation of your diesel engine with low pressure accumulators filled with silicone

By installing the special low pressure silicone filled Olaer accumulator in your fuel system you reduce the existing peak pressures to an acceptable level. The installation of this maintenance-free pulsation dampener protects your fuel line including all additional equipment such as coolers, heaters, flow meters and all measuring equipment.

### Typical installation example



### Technical specifications

#### Model

Bladder accumulator with re-inforced grid. Shell in forged seamless carbon steel. All rubber parts in FPM.

#### Pre-charge pressure

No precharge pressure requested.  
Bladder filled with silicone particles.

#### Temperature range

Standard construction -20/+150 °C.

#### System fluids

Suitable for diesel oil and heavy oil.

#### Installation

Vertical, (Fluid port on bottom side) preferable to horizontal.

#### Maximum working pressure

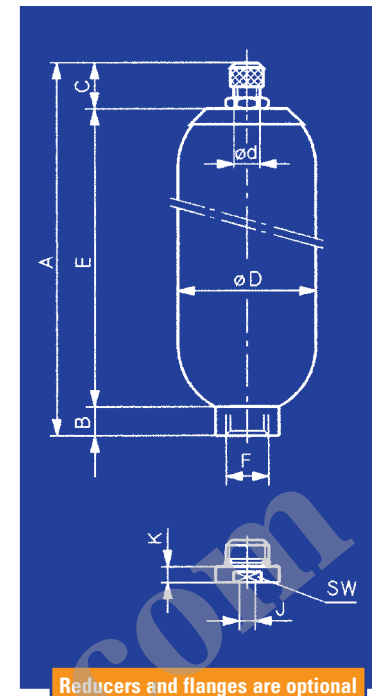
Depending on model.

#### Accessories

Supports and collars are available.

#### Special constructions

Other bladder material such as Butyl, EPR, Nitrile, etc, In- or outside coatings and/or protections, and special reducers or flanges are also available on request.

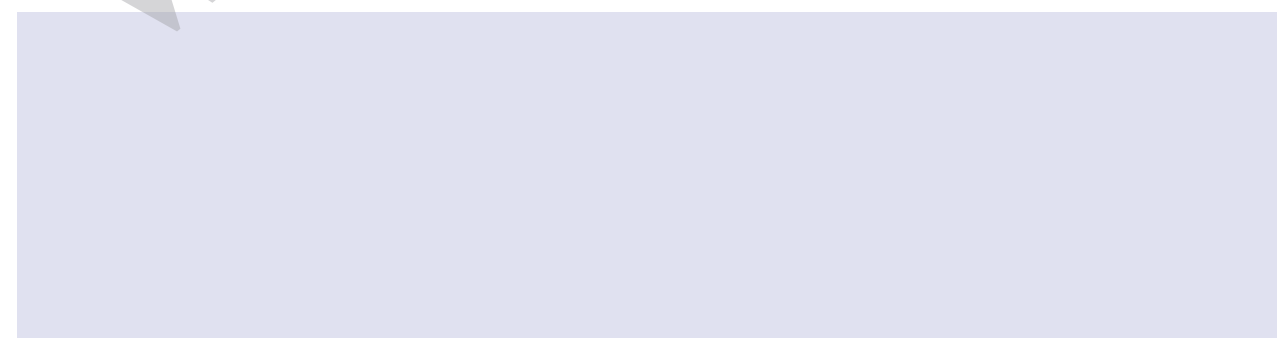


Model	Vol. Ltr.	max Press	Mass Kg	Measurements in mm.										
				A	B	C	ØD	Ød	E	F	J*	K	SW	
SBV 0,5-50	0,5	50	3	270	44	55	90	22,5	170	G 2"	G 1"	13	65	
SBV 1-80	1	80	5	292	44	55	116	22,5	193	G 2"	G 1"	13	65	
SBV 2,5-80	2,5	80	10	466	44	55	116	22,5	367	G 2"	G 1"	13	65	

\* Other connections on request.

The dimensions given in the table above are in mm and the manufacturing tolerances are not taken into account

Patents applied in most major industrial countries.



Olaer Nederland B.V. De Lind 10, 4841 KC Prinsenbeek. The Netherlands. Tel: +31 76 541 24 53. Fax: +31 76 541 15 02. Internet: www.olaer.nl E-mail: info@olaer.nl

Take your responsibility.







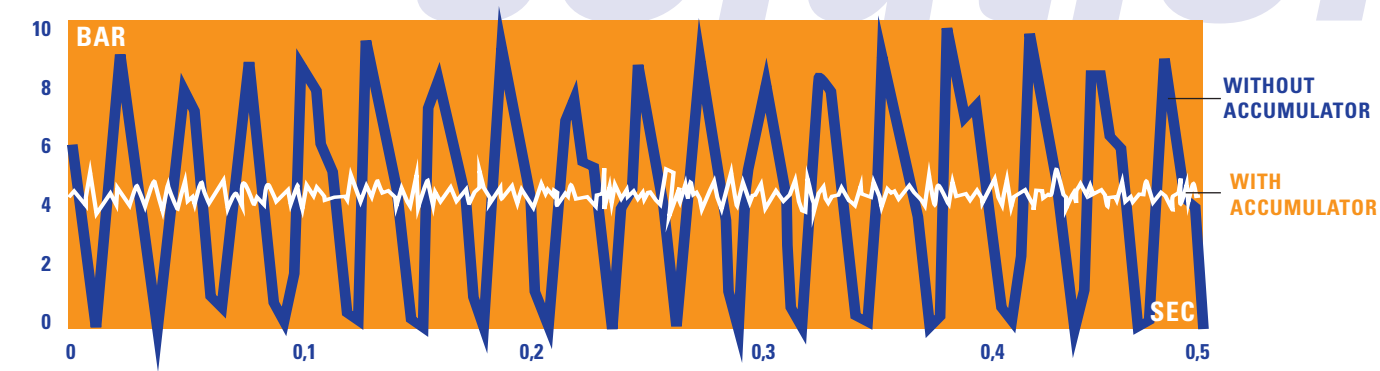
on a diesel engine, the fluid side is connected to the fuel system and the external connection on the "gas"-side, to a spill detection system. There is no gas precharge pressure in the bladder. The accumulator functions using only the mechanical resistance of the silicone particles. Tests proved that the performance of the accumulator was excellent, even better than a gasfilled accumulator. Peak pressures on a 6 bar system normally went up to 32 bar, but were reduced to 11 bar.



The graph shows the measured results on a system without an accumulator and with a silicone filled accumulator. Some major diesel engine manufacturers have standardized the silicone filled accumulator on several of their engine types.

**The problem**  
The existence of pulsations in low pressure fuel systems of large diesel engines is a well known problem. Severe damage to fuel line and equipment possibly results in engine room fire due to pipe fractures. Historically, numerous solutions have been proposed such as air filled chambers, special dampers, attenuators and gas filled accumulators. The gas-loaded bladder accumulator performance is excellent; the only problem is maintenance required due to gas permeation through the bladder wall at

elevated temperatures. Such accumulators require recharging weekly. Piston accumulators are not ideal due to the slow reaction of the piston and rapid wear of the cylinder and seals.  
**The solution**  
During 1994 Olaer commenced development of a new type of accumulator. The FPM bladder of a low-pressure accumulator is filled with silicon particles of special shape and size. The gas valve was removed and changed to an external connection. Two accumulators are installed



**Olaer combines long life time and no maintenance**  
The combination of using FPM bladder material and the silicone granulate filling has proven that this is the ideal solution for creating a maintenance-free pulsation dampener. Specifically, the use of these materials gives us the possibility to use the dampener at high temperatures without being influenced by the negative effects which normally occur when using a gas filled accumulator. The main problem of diffusion of gas is totally eliminated by the use of the silicone filling. By combining the forged shell, FPM bladder, reinforced grid and silicone filling, Olaer succeeded in producing the perfect pulsation dampener.

**Other applications and models**  
Beside the models shown at the back of this brochure Olaer also manufactures other silicone filled accumulators for specific applications. The whole membrane series can be equipped with a silicone filling. These models are often used as maintenance free pulsation



dampeners on high pressure water cleaning systems (Up to 250 bar). Olaer supplied 5 and 10 litre silicone filled pulsation dampeners for special applications with success. In case you require a special model do not hesitate to contact your local dealer.

**The advantages**

- Easy to install in system
- No precharge required
- Long life-time
- Maintenance free
- No limitation P0 - P2
- No permeation
- Bladder failure indication

**models**