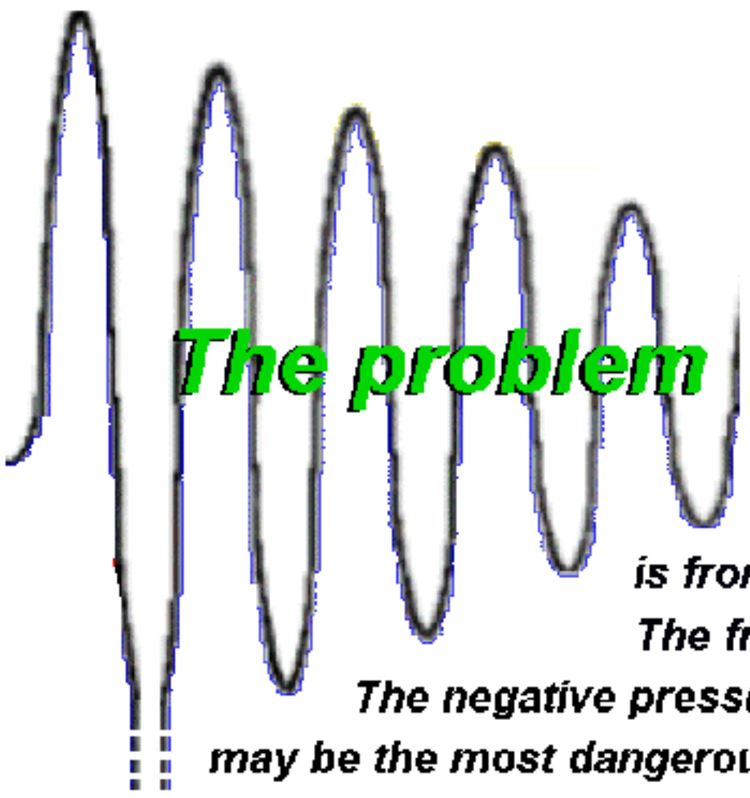
PREVENT WATER HAMMER FROM FAST VALVE CLOSURE.

Surgeguard dimensional drawing

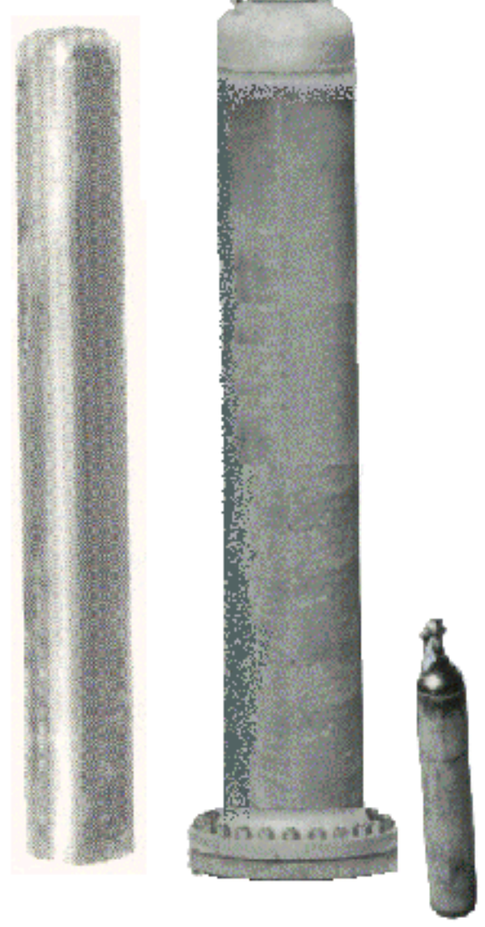
For installation below ground level, in shallow pits to avoid flooding, the SURGEGUARD has its bladder anchored at the open mouth and the dome end, to enable horizontal working. This feature proves valuable on military air fields for refuelling line protection from fast valve closure water hammer, at the aircraft dispersion bunkers.

The "Liquid In The Bladder" feature, with cushion prefill N2 in the epoxy coated vessel shell allows low cost vessels to be used in severe liquid compatibility duty. Only the liquid contact parts of the base requiring exotic materials.



The height of the peak pressure is from the rate of mass deceleration. The frequency is from the pipe length. The negative pressure "valley", between the peaks may be the most dangerous. When the negative drops off plot altogether, the liquid is flashing. Seals and gaskets may be "sucked in".

SURGEGUARD
Will prevent water hammer from fast valve closure.



Note, NB

The faster the valve closes, the higher the pressure spike. It is very important to put an accurate figure on valve closure time. *