

Translations:Bélier hydraulique/53/en

1. When priming, water flowing into the inlet line flows into the weir through the primary valve.
2. The acceleration of the water causes the primary valve to close suddenly.
3. The water column is suddenly braked and generates an overpressure in the pump casing (water hammer), which opens the internal valve.
4. Under the effect of this overpressure, water flows into the balloon (and the discharge duct), compressing the air volume until the pressures are balanced.
5. The pressure reversal closes the internal valve.
6. The water trapped under pressure in the balloon empties into the discharge line until the pressures are balanced (determined by the height of the pipe).
7. The closing of the internal valve has caused the pressure to drop, so the primary valve opens again. A new cycle begins....