

Machinery and Plants for
Paper Industry
Water Treatment Systems



Pressure reactor vertical PRV
Pressurization System

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In a flotation process it is fundamental that the amount of the dissolved air into the water to be treated is in a correct ratio with the concentration of the suspended solids to be removed.

The efficiency of a flotation process is depending on the yield of the saturator that has to guarantee a continuous and homogeneous dissolution of the air into the water, to generate the microbubbles responsible of the flotation process.

The microbubbles, the lifting device for the solids to be floated up, are produced when the pressure is reduced from the saturator pressure at the atmospheric value, by laminating the pressurized water through a suitable depressurization valve. Then it is mixed with the raw water before entering the flotation tank.

Main characteristics:

High efficiency vertical saturator designed and tested in accordance with the safety standards and directives of the installation Country.

Inlet of the water to be pressurized from the top of the tank, together with a controlled amount of pressurized air.

Designed to generate an internal turbulence that is guaranteeing the optimal mixing between water and air, thus allowing the air to be dissolved into the water.

Feeding not only with clarified water but even with raw water, thus allowing to use the full hydraulic capacity of the flotation unit (partial pressurization mode).

Model	Capacity m ³ /h	Diameter mm	Height mm
PRV 0,03	10	200	1300
PRV 0,3	30	440	2390
PRV 0,6	75	580	3080
PRV 1	140	760	3320
PRV 2	250	1000	3620
PRV 4	500	1440	4190
PRV 7,5	700	1700	5250

