



GEYSIR II STEAM SATURATOR

Saturated steam is the best that can be fed to production machinery. Textile dryers, evaporators, crystallizers, paper dryers, pasteurizers, chemical reactors, etc., all work at their highest efficiency when using saturated steam.

Although steam generated in boilers is saturated in principle, transport in long pipes causes it to cool and become wet. Heat exchangers get filled with water and lose efficiency.

Pressure reducing valves (PRV) lower steam pressure, but not its temperature. Exiting the PRV, steam has lost pressure but not energy; output temperature remains almost the same; steam becomes then superheated. When entering a heat exchanger, superheated steam does not condensate immediately: it only cools down until it reaches the condensation temperature corresponding to its new pressure; then it condensates. Therefore, part of the heat exchanger does not heat properly and the machine underperforms. More steam is used than calculated by design.

GEYSIR II lowers pressure without superheat. It also converts superheated and wet steam back into 100% saturated, dry steam. Water carried in pipes is also converted back into steam. Heat exchangers work then at design power; temperature distribution is homogeneous.

With saturated steam, product temperature can never raise above the saturation temperature, as corresponds to the steam pressure. Product is thus protected from damage in a natural way. Maintenance intervals may become longer.

Since the machinery works with higher efficiency, less steam is needed to keep production levels.

GEYSIR II raises equipment efficiency to up to 30%.

