

Manual or Automatic Bleed System

The right choice for water saving

An evaporative cooling system rejects heat through water evaporation. A portion of the cooling water is released into atmosphere as warm, saturated discharge air, while the dissolved salts remain in the recirculating water by increasing its concentration. To avoid an excessive salt concentration, a portion of the remaining water shall be eliminated through a mechanism called bleed system.

Input Data

Cooling unit thermal load	1000 kW
CoC	2
Bleed system inlet pressure	0,5 bar
Water cost + Sewer cost	2 €/m ³



Manual bleed valve

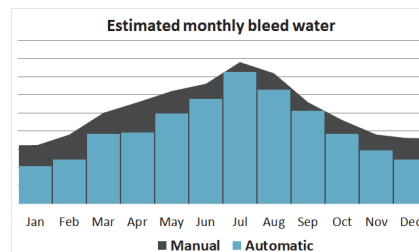
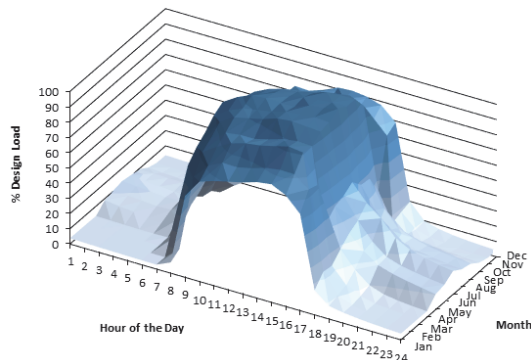
Pvc ball valve
Size: 3/4" (75% open)
Piping length: 0,6 m



Automatic bleed system

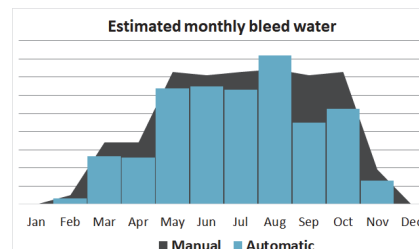
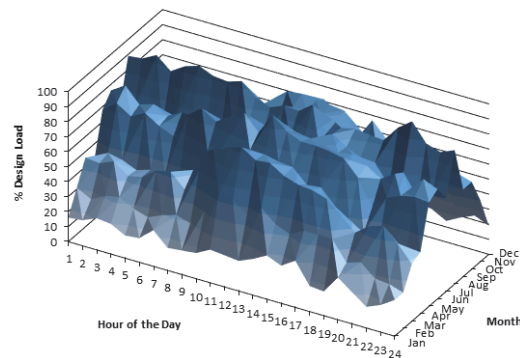
Evapco blowdown system
Model: EBDS
Size: 120

Water Savings with different design loads

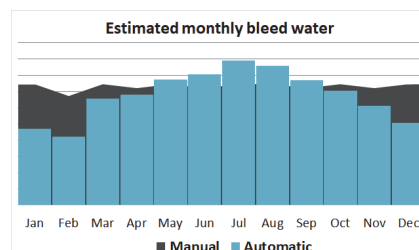
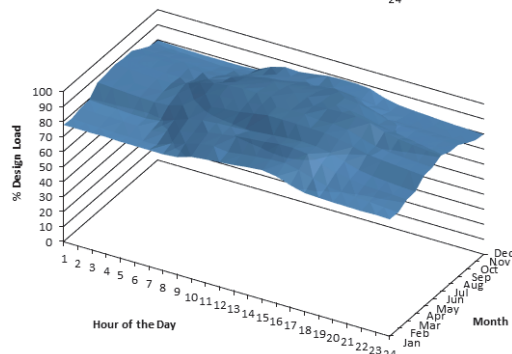


EBDS Water Saving

 2.230 €/year *



 3.320 €/year *



 2.460 €/year *

* The saving of chemicals is not included. It can be estimated at an additional 10–20%

The manual bleed valve continuously discharges water, sometimes wasting an excessive amount that is not needed and sometimes wasting an insufficient amount to meet the required CoC, which can lead to scale and corrosion risks. The automatic Evapco blowdown system, EBDS, discharges water only when it is necessary and for the appropriate amount, strictly adhering to the evaporative thermal load, the desired CoC and the external climatic conditions.

The EBDS system is the best solution to properly control the water consumption and its salt concentration.