

Problem 2	Cooling of gas and solutions with air coolers
The essence of the problem	In summer all air coolers work inefficiently. The technological mode is disturbed, large water consumption is required. At the required temperature of 40 degrees, even at maximum operation of cooling systems temperature is 50 degrees, which affects the operation of compressors, their overheating. In general, this occurs in a very hot period, the full load of cooling systems works about 25 days a year. Water consumption per day reaches 50-60 cubic meters per day, if 4 compressors are working at once.
Technological parameters	The cooling system must effectively cover 6 units of cooling compressors in each 2-3 units (compressors). It is also necessary that it cools the amine purification unit on gas (1 block) and the unit on solution (1 block), as well as propane-cooling unit.
Scale of the problem	The technological mode of the whole workshop is disturbed, there is a large consumption of water for cooling, additional energy resources are required, corrosion of air-cooling apparatus housings. The scale of the problem includes the entire gas treatment cycle, and wear and tear of all key equipment units is increasing.