



INDUSTRIES LIMITED

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Equalizing Sump Water Levels

If two or more sumps (cooling towers for example) are installed in parallel it is common to have equalizing lines connecting them so that they all operate at the same water level.

The only differential pressure available to push water from sump to sump is the difference in the sump water levels. In some applications this static head differential may only be on the order of a few inches of water column before the water level in the high sump reaches the overflow outlet.

For example, a 6' length of 2" steel pipe with a ball valve installed between sumps will only flow about 30 USgpm from one sump to the other if the difference in the sump water levels is 4".

If equalization lines are not properly sized to handle the required flow at low differentials, the high sump may flood and lose water (and possibly chemical) out the overflow. This can be an expensive problem. Increasing the size of the equalization line, including the entry and exit openings into the sumps, will keep the sumps close to the same level.

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