



Wedgewater™ Drying Bed Process

Our drying beds are designed around the Wedgewater tile. The tile is designed with slots to allow water through but retain solids when the sludge is properly mixed with an appropriate polymer solution. The separated water drains very rapidly so that only a small percentage of the total amount of sludge wasted actually remains on the bed surface. The understructure of the tile is designed to allow water to flow beneath and through the interlocked tiles to reach the drain pipes in the bed floor. This also allows some evaporation below the sludge in addition to the evaporation on the top of the sludge due to the elements (sun, wind, etc....)

For standard municipal waste water each tile is designed to dry, under normal conditions (mostly dry, relatively warm weather) the amount of sludge that, once dried, will yield 2 pounds of solids. This is accomplished in less than 3 ½ days.

Here is a sample formula:

10,000 gpd of municipal sludge @ 1%
X 7 days = 70,000 gallons/ week
70,000/2 = 35,000 gallons/ cycle
@ 8.34 lbs./gallon = 291,900 lbs.
X 1% = 2,919 lbs. of solids/ cycle
@ 2 lbs./ ft² = 1,459.5 or 1,460 ft² of bed area needed

It is important to note that each bed can only receive waste one time per cycle. Then it must be allowed to dry for the full cycle time or until the target percentage is reached. Wasting on top of another partially dried batch will result in a greatly extended cycle length or unsatisfactory drying performance. GFS' Wedgewater Bed Systems are always designed with no less than 2 beds to accommodate each plant's particular sludge holding capacity/wasting schedule.

Number and size of beds is adjusted for particularly wet or dry climates. Adjustment is also made for widely variable climates such as those with hot, dry summers and frigid or very damp winters. For these reasons GFS offers and prefers to perform the initial calculations for bed sizing and number. We also are happy to provide specs and drawings for each particular project as a service to engineers.

Contact your GFS Representative if you have more questions. Or you can reach us directly @ info@gravityflow.com or 830-379-5730.