# DYNABLEND

**DRY POLYMER**
**APPLICATIONS WORK SHEET**
BASED ON "ACTIVE" POLYMER

***Sludge Dewatering / Thickening Application***

Step 1. _____ GPM sludge X 8.34 lbs/gal = _____ lbs / min liquid sludge

Step 2. _____ lbs / min sludge X _____% dry solids (expressed as a decimal, i.e. 4% = 0.04) = _____ lbs / min dry solids

Step 3. _____ lbs / min dry solids x 60 min / hr = _____ lbs / hr dry solids

Step 4.a $\frac{\text{\_\_\_\_\_ lbs / hr dry solids}}{\text{2000 lbs. / dry ton}}$ = _____ tons / hour dry solids

***-or- (if sludge volume is given in tons per day, skid steps 1 thru 4.a)***

Step 4.b $\frac{\text{\_\_\_\_\_ tons / day}}{\text{24 hrs / day}}$ = _____ tons / hour dry solids

Step 5. _____ tons / hr dry solids X _____ lbs of polymer / dry ton of sludge =_____ lbs active polymer / hr
(typically 10 – 20 lbs / dry ton)

***Sizing Solution Metering Pump***

$\frac{\text{\_\_\_\_\_ lbs active polymer / hr}}{\text{\_\_\_\_\_ \% solution desired}}$ = _____ lbs / hr solution
(expressed as a decimal, i.e. 0.25% = 0.0025)

$\frac{\text{\_\_\_\_\_ lbs / hr solution}}{\text{8.34 lbs / gallon}}$ = $\frac{\text{\_\_\_\_\_ gallons / hr solution}}{\text{60 min / hr}}$ = _____ gallons / min solution

| Dry Polymer Characteristics | | |
|---|---|---|
| % Active | % Dilution | |
| | Dewater. | Clar. |
| 100 | 0.25 - 0.5 | 0.15 – 0.3 |

**Clarifying / Filtration Application**

Step 1. _____ MGD plant flow X _____ PPM polymer dosage =_____ GPD active polymer
(typically 0.5 to 5 ppm)

Step 2. $\frac{\text{\_\_\_\_\_ GPD active polymer}}{\text{24 hrs / day}}$ = _____ GPH active polymer

Step 3. _____ gal active polymer / hr x 8.5 lbs / gallon = _____ lbs / hr dry polymer

***Sizing Solution Metering Pump***

$\frac{\text{\_\_\_\_\_ lbs active polymer / hr}}{\text{\_\_\_\_\_ \% solution desired}}$ = _____ lbs / hr solution
(expressed as a decimal, i.e. 0.25% = 0.0025)

$\frac{\text{\_\_\_\_\_ lbs / hr solution}}{\text{8.34 lbs / gallon}}$ = $\frac{\text{\_\_\_\_\_ gallons / hr solution}}{\text{60 min / hr}}$ = _____ gallons / min solution

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