INJECTION POINT SPACING

In systems using multiple pumpheads to pump one chemical, blending can be improved by spacing the injection points. This can reduce blending tank size requirements by one-half. (See Section 3. of this manual for a discussion of blending tank sizing.) Use the following formula for caculating the injection point spacing.

Of course, this is only practical where there is adequate room to space out the injection points. However, the space between injection points is inversely proportional to the square of the inside diameter (I.D.) of the pipe. Therefore, you can greatly reduce the spacing between injection points by using a larger section of pipe just long enough to install the injection fittings.

Use the following formula to calculate the distance between injection points:

$$D = \frac{G \times L}{N}$$

Where: D = Distance between injection points
G = Gallons of water per stroke for your motor control unit
L = Linear feet of pipe per gallon of water (From TABLE II)
N = Number of pumpheads pumping same chemical

TABLE II - Pipe Lengths per Gallon Volume

Pipe Size I.D.	Linear Feet of Pipe per Gallon Volume
1-1/4"	15.7'
1-1/2"	10.9'
2"	6.1'
3"	2.7'
4"	1.5'
6"	0.7'

EXAMPLE: A model FZC-1 water motor control unit strokes once every 10.2 gallons. With five pumphead assemblies, and using a 4" I.D. section of pipe to install the injection fittings:

$$D = \frac{10.2 \times 1.5}{5} = 3.06'$$

Therefore, with four such increments required for five heads, the length of 4" I.D. pipe required would be about 12-1/2' minimum. This length does not have to be straight; it could include one or more elbows.