

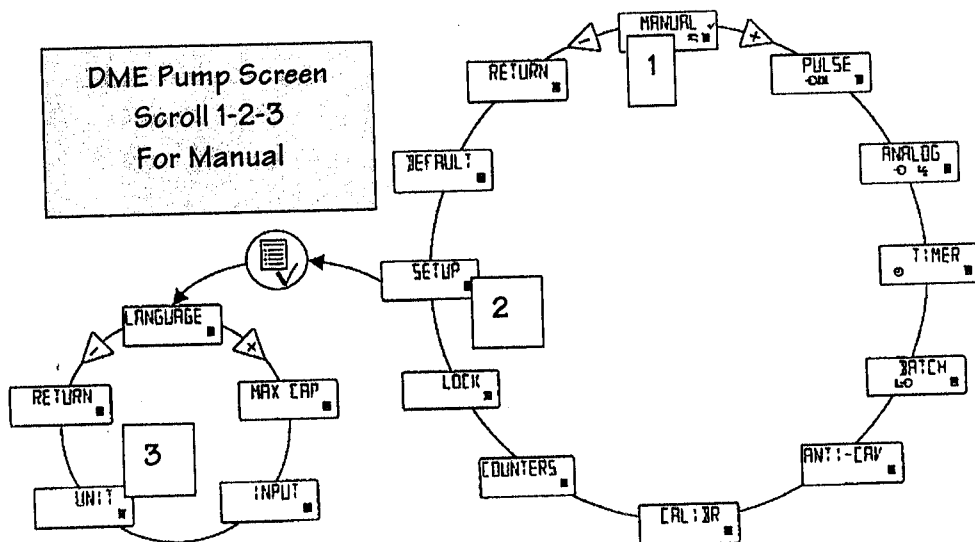
GRUNDFOS DME CHEMICAL PUMP CHEAT SHEET

RECOMMENDED STARTING DOSAGES

Ground Water.....1-2 ppm
 Surface Water.....3-5 ppm

SET-UP FOR CONSTANT FLOW

1. On display screen set pump to "MANUAL" mode.
2. Scroll to "SETUP".
3. Press center button and scroll to "UNIT".
4. Scroll to "METRIC" and set by pushing center button.



Calculate pump capacity setting. Needed information.

- a. GPM
- b. Cl Dosage
- c. % Strength of solution (in percentage **not** a decimal equivalent).
 Start with a fresh batch if possible

$$l/hr = \frac{(0.378) \times (Cl \text{ Dosage}) \times (GPM) \times (60)}{(\% \text{ Cl Solution}) \times 1000}$$

Example:

30 GPM constant flow
Surface water-Start at 4 ppm Dosage
1.5% Cl solution

$$\frac{0.378 \times 4 \times 30 \times 60}{(1.5) \times 1000} = \frac{2721.6}{1500} = 1.8144 \text{ l/hr}$$

On pump set the pumping rate to 1.81 l/hr.

Verify residuals normally and adjust the chemical pump accordingly using the "+" up key & "-" down key.

SET UP FOR PULSED INPUT

Using above example. Say a calculated **average flow** is 30 gpm for the variable flow through a plant. The DME Pump uses a ml/pulse quantity. Two factors are important.

1. The set amount per pulse.
2. Frequency of external pulses.

From previous example:

Calculate the amount in ml to be injected per gallon.

Liters/hour x Conv. Factor x Conv. Factor x GPM = Milliliters/Gallon

$$1.81 \text{ l/hr} \times 1 \text{ hr}/60 \text{ min} \times 1000 \text{ ml/l} \times 1 \text{ min}/30 \text{ gal} = 1.008 \text{ ml/gallon}$$

Or

$$\frac{\text{Liters per Hour} \times (16.667)}{\text{GPM}} = \text{Milliliters per Gallon}$$

The 1.008 ml/gallon is the amount that will be injected if a pulse from the sending unit (SeaFlow, Signet etc.) is set at one pulse per gallon. If it is different say 3 gallons per pulse the amount per pulse on the pump must be set accordingly.

$$\text{Milliliters/Gallon} \times \text{Gallon(s)/Pulse} = \text{Milliliters/Pulse}$$

MAXIMUM FLOW OF WATER LINE
MAXIMUM FLOW OF CURRENT PUMP
WATER LINE SIZE
WATER LINE PRESSURE

USING FLOW CONTROL

WHAT BRAND AND MODEL FLOW CONTROLS

4-20 MU?

IF YES, SET PUMP MAXIMUM TO PREVIOUS PUMP MAXIMUM
SET PUMP TO ANALOG PRIOR TO WIRING THEN SELECT 4-20MU
CALIBRATE TO US GALLONS

IF THERE IS HIGH SUCTION LIFT OR HIGH VISCOSITY BE SURE TO
ACTIVATE THE ANTI-CAVITATION FEATURE. THIS WILL REDUCE THE
DME'S MAXIMUM OUTPUT. IF USING SEA METRICS FT420, OVERSTATE
THE 20 MU GPM BY 10%

WIRE ACCORDING TO SCHEMATIC

NOT USING FLOW CONTROL

SET LANGUAGE TO ENGLISH

SET PUMP TO DEFAULT

SET PUMP TO MANUAL SET PUMP MAXIMUM TO PREVIOUS PUMP OUTPUT