

Master Pumps Sales and Technical Training



Training Agenda

- **Introductions**
- **Master Pumps Nuemonic**
- **Sales Skills**
- **Technical Seals,
Temperature, etc.**



Master Pumps Nuemonic

“Master”

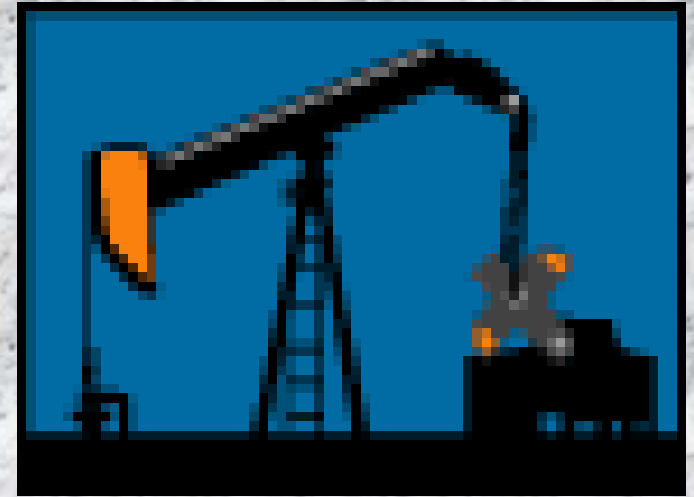
- M = Material, Make, and Model
- A = Amount to be Pumped
- S = Specific Gravity
- T = Temperature of System
- E = Energy to Drive the Pump – HP
- R = Resistance to Pump



Master Pump Nuemonic

“Pumps”

- P = PH of Pumpage
- U = Unidentified Obstacles
- M = Mounting Types
- P = Pumpage Characteristics
- S = Suction Conditions



“Master”

- M =
 - Material
 - Carbon or Stainless Steel
 - Cast Iron
 - Composite Material



“Master” (Continued)

- M =
 - Make
 - Roper
 - Waukesha
 - Watson Marlow (Bredel)
 - ProFlow
 - Gardner Denver
 - Hydra Cell
 - Crane



“Master” (Continued)

- M =
 - Model
 - Roper – Model 70200



“Master” (Continued)

- A =
 - Amount to be Pumped
 - How much product needs to be moved?
 - Gallons Per Minute
 - Liters Per Minute



“Master” (Continued)

- $T =$
 - Temperature of System
 - Fahrenheit
 - Celsius
 - Kelvin
 - Rankin
 - Formulas



“Master” (Continued)

- E =
 - Energy to Drive the Pump
 - What is the horse power?



“Master” (Continued)

- $R =$
 - Resistance to Pump
 - Total Dynamic Head = Friction Loss



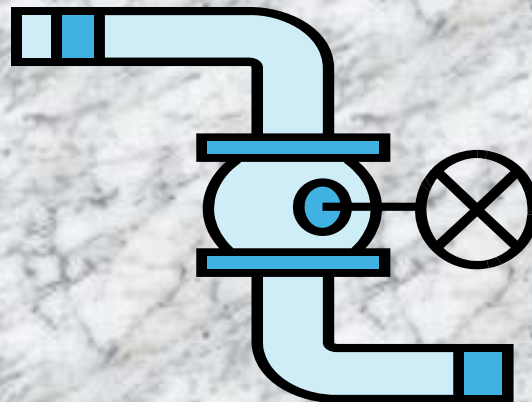
“Pumps”

- P =
 - PH of Pumpage
 - Will the product corrode the pump?
 - What is the chemical make up of the product?
 - Acid
 - Base



“Pumps” (Continued)

- U =
 - Unidentified Obstacles
 - How big or small is the piping?
 - What is the suction lift?
 - Is the system closed or opened?



“Pumps” (Continued)

- M =
 - Mounting Type
 - How is the pump mounted?
 - LC = Long Coupled
 - SC = Short Coupled
 - H = Horizontal
 - V = Vertical



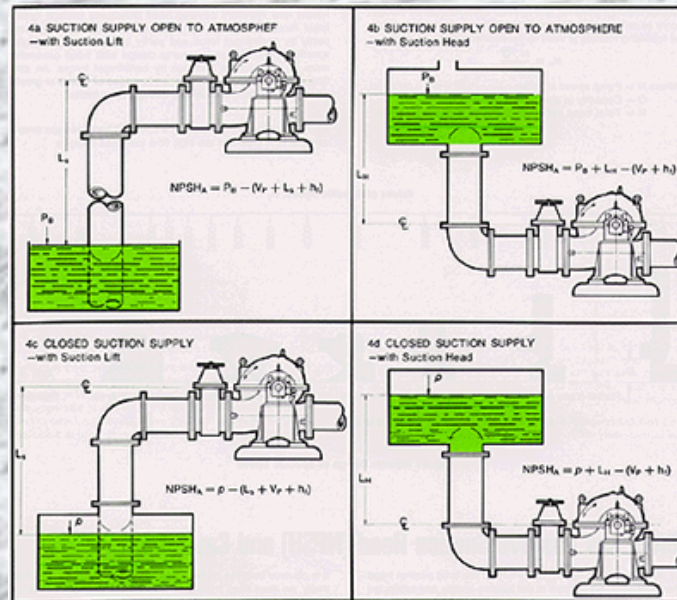
“Pumps” (Continued)

- P =
 - Pumpage Characteristics
 - What is the viscosity of the product?
 - What is the product?
 - What is the resistance of the product?



“Pumps” (Continued)

- $S =$
 - Suction Characteristics
 - What is the Net Positive Suction Head (NPSH)?



P_a = Barometric pressure, in feet absolute.
 V_r = Vapor pressure of the liquid at maximum pumping temperature, in feet absolute.
 p = Pressure on surface of liquid in closed suction tank, in feet absolute.

L_s = Maximum static suction lift in feet.
 L_h = Minimum static suction head in feet.
 h_f = Friction loss in feet in suction pipe at required capacity

“MASTER PUMPS” Nuemonic Test

