



## **Horizontal Pump Installation - Operation - Maintenance Instructions**

To obtain optimum performance from your Camac Pump please review these instructions carefully. Failure to follow these recommendations may result in severe pump damage and premature failure, along with voiding your factory warranty.

### **INSTALLATION**

**NOTE: The vast majority of pumping problems occur as a result of poor suction conditions. This section in particular should be reviewed carefully.**

1. Locate the pump as close to the liquid supply source as possible.
2. The pump inlet should be well below the supply tank liquid level to avoid vortexing.
3. The suction line should be rigid (vacuum service), and as straight and short as possible.
4. Long radius elbows are preferred and increased size is recommended.
5. The suction line should never be a smaller ID than the pump suction port.
6. The suction line should continuously decline to the pump to avoid air pockets.  
NOTE: Reducers on the suction should be of the eccentric type.
7. Pumps may be mounted either in a horizontal or vertical position.  
NOTE: Vertical mounting requires liquid level to be even with motor mounting flange.
8. A motor starter is recommended to:
  - \* Prevent accidental re-start after a power failure
  - \* Provide a safe, moisture-proof switch enclosure
  - \* Protect the motor with a correctly sized overload
  - \* Withstand high starting current and prevent arcing & contact wear

### **START-UP AND RUNNING**

1. Check that the suction side valve is open and liquid supply is sufficient.  
NOTE: If pump is started before opening the valve it may become air-locked and run dry.
2. Bump start the motor to check that rotation.
3. Discharge valve should be partially closed and opened gradually after starting.

### **ESSENTIAL RUNNING PRECAUTIONS**

1. **DO NOT RUN DRY**  
Pump seals are cooled and lubricated with product.
2. Avoid pumping liquids containing abrasive particles.
3. A 40-80 mesh suction strainer is recommended if solids are likely.
4. To reduce flow partially close the discharge valve (suction valve is always fully open).
5. If the fluid being pumped tends to crystallize, the pump should be flushed prior to extended shut down.