



### Pump Suction:

Linde HPR-02 pumps are designed to work with a flooded suction, i.e., the inlet pressure at the pump's suction port at sea level should be zero psi gauge or above while the pump is operating. The reservoir oil level must be above the pump's inlet and the suction line must be of sufficient size and located in such a way to expel air and keep the pump's inlet full of oil at all times. The suction line should also be sized to insure the maximum velocity of the intake flow is equal to or below five (5) feet per second. It will not be uncommon in some instances for the I.D. of the suction line to be larger than the suction port of the pump. If this is the case, suction line transitions should be tapered and smooth, not stepped. Under no circumstances is the pump to work continuously with negative inlet pressure. When the pump upstrokes however, the pump's inlet pressure can momentarily drop to a maximum of negative two (-2) psi gauge, but it should return quickly to zero or above once the velocity of the inlet oil catches up with the displacement output of the pump.

### The use of suction screens:

Provided proper contamination control is designed into the system and practiced during operation, a suction screen **is not** required for the application of the Linde HPR-02 Pumps. Proper contamination control guidelines are considered to be:

1. Cleanliness control and proper flushing during system manufacturing must be exercised.
2. Assurance that no contaminants are present in the tank or lines upon initial start-up is essential.
3. The pump must be protected from system contamination during operation either by return line filtration or off-line filtration with return line screens.
4. Discipline must be exercised during operational maintenance to insure contaminants are not introduced into the system / pump.