

Customer wants a COMPLETE NEW CONDENSATE VACUUM UNIT:

A. VACUUM (Air):

1. Capacity of system _____ or total capacity of all boiler[s] _____
2. Motor horsepower of existing vacuum pumps _____
3. CFM rating of existing vacuum pumps _____

Note: *Sizing guidelines:*

- *New installation normally sized at (.5) times Square Ft. EDR divided by 1000.*
 - *If replacing unit on older systems, normally sized at (.7) times Square Ft. EDR divided by 1000. Older systems sized larger to compensate for leakage in steam traps.*
4. Note: **Remember to add 5 PSIG to any condensate or boiler feed pumps discharge pressure to overcome vacuum effect.**

B. CONDENSATE (Water):

1. Required pump flow rate (GPM) _____
 - a. If customer can not supply GPM, then measure tank (**in inches**) to calculate tank volume:
 - For rectangular tanks, measure length x width x height
 - For cylindrical tanks, measure diameter x length
 - b. To calculate volume:
 - For rectangular tanks: (length x width x height)/231
 - For cylindrical tanks: (radius squared x 3.14 x length)/231
 - c. The value obtained in above calculation indicates the tanks size (in gallons) and the pump flow rate (GPM).
2. Required pump discharge pressure _____
 - a. If customer cannot provide discharge pressure, measure the vertical lift in feet _____.
 - b. Also ask if condensate unit is pumping into a gravity return line or a pressurized line _____.
 - c. If pumping into a gravity line, take the vertical lift (in feet) and divide by 2.31 to determine discharge pressure (PSIG). Note: **Add an additional 5 PSIG as safety margin to answer.**
 - d. If pumping into a pressurized line, take the vertical lift (in feet) and divide by 2.31 to determine discharge pressure (PSIG) AND add the pressure in that line. Note: **Add an additional 5 PSIG as safety margin to answer.**
3. Required pump voltage/motor phase _____ (**MUST be EXACT!**)
Single Phase: 115/1/60 or 208/1/60 or 230/1/60
Three Phase: 208/3/60 or 230/3/60 or 460/3/60 or 575/3/60 or Other _____
4. Required pump speed: 1750 RPM or 3500 RPM _____ (can leave blank)
5. Required motor enclosure: ODP or TEFC or Explosion Proof or Other _____
6. Temperature of returning condensate _____
7. Inlet height on unit being replaced _____
8. Number of pumps desired: Simplex or Duplex _____
9. Does customer need a control panel? Yes or No _____
If yes, does customer want disconnects in control panel Yes or No? _____
10. Required panel enclosure: NEMA 1, NEMA 2, NEMA 4, NEMA 7, or NEMA 12 _____
11. Required type of receiver material: Cast Iron, Black Steel, Lined Steel, Galvanized steel, Plasite Lined, Stainless Steel _____
12. Does customer want premium efficient motors? Yes or No _____
If yes, provide efficiency rating _____