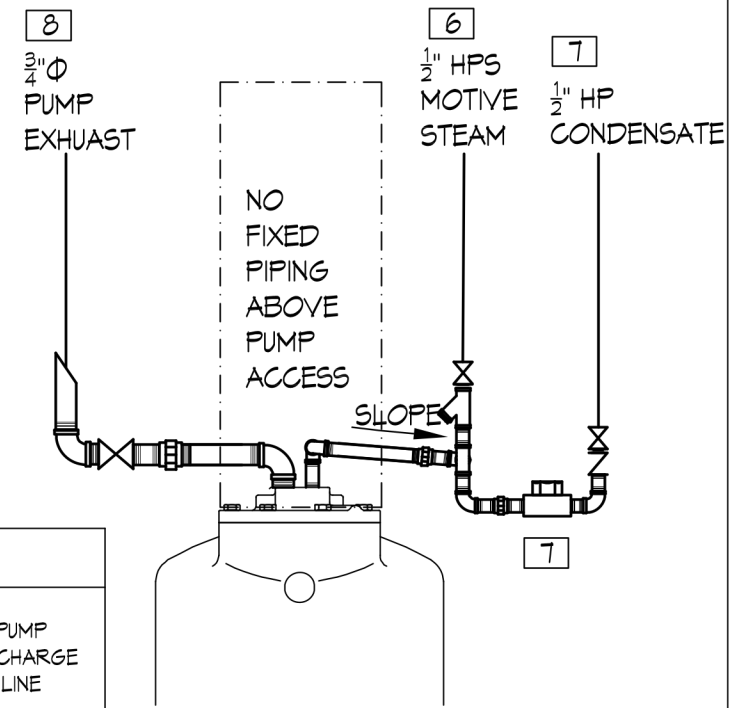


DUPLEX PUMP ARRANGEMENT SHOWN. ELIMINATE PUMP #2 AND ASSOCIATED PIPING FOR SIMPLEX INSTALLATION

- KEYNOTES**
1. LOW PRESSURE CONDENSATE FROM BUILDING HEATING EQUIPMENT, SEE TABLE COL. A
 2. CONDENSATE RECEIVER. SEE RECEIVER SIZING TABLE COL. B
 3. RECEIVER VENT. SEE VENT SIZING TABLE, COL. C PUMP INLET, 2"Ø
 4. ROUTE RECEIVER VENT TO POINT OUTSIDE BUILDING
 5. ROUTE PUMP DISCHARGE TO BUILDING EXIT
 6. HP MOTIVE STEAM, 1/2"Ø. PROVIDE SWING JOINT AND SLOPE PIPING AWAY FROM PUMP.
 7. THERMODYNAMIC STEAM TRAP, 1/2"Ø. ROUTE CONDENSATE DISCHARGE TO VENTED RECEIVER.
 8. PUMP EXHAUST, 3/4"Ø ROUTE TO RECEIVER VENT.



CONDENSATE PUMP SIZING AND DESIGN (FOR ENG'G USE ONLY)

| BUILDING STEAM/CONDENSATE FLOW | SUGGESTED CONDENSATE LINE SIZE | CONNECTION AT TOP OF RECEIVER (AFF) (A) | COIL/HX STEAM SUPPLY PRESSURE | STEAM TRAP PRESSURE | FLASH STEAM (@ 3.76%) | RECEIVER SIZE (B) | VENT SIZE (C) | PUMP SIZE | MOTIVE STEAM/BACK PRESSURE (PSIG) | CONDENSATE FLOW (GPM) | PUMP DISCHARGE LINE |
|--------------------------------|--------------------------------|---|-------------------------------|---------------------|-----------------------|-------------------|---------------|-------------------|-----------------------------------|-----------------------|---------------------|
| 310 | 3/4"Ø | 52" | 15 psig | 0.5 | 11.7 | 6"Ø X 36" | 2" | 2 X 2 PTC SIMPLEX | 50 / 40 | 0.6 | 2"Ø |
| 620 | 3/4"Ø | 52" | 15 | 0.5 | 23.4 | 6"Ø X 36" | 2" | 2 X 2 PTC SIMPLEX | 50 / 40 | 1.2 | 2"Ø |
| 930 | 1"Ø | 52" | 15 | 0.5 | 35.0 | 6"Ø X 36" | 2" | 2 X 2 PTC SIMPLEX | 50 / 40 | 1.9 | 2"Ø |
| 1800 | 1 1/4"Ø | 52" | 15 | 0.5 | 67.8 | 6"Ø X 36" | 2" | 2 X 2 PTC SIMPLEX | 50 / 40 | 3.6 | 2"Ø |
| 2425 | 1 1/2"Ø | 52" | 15 | 0.5 | 110.2 | 6"Ø X 36" | 2" | 2 X 2 PTC SIMPLEX | 50 / 40 | 5.9 | 2"Ø |
| 4680 | 2"Ø | 54" | 15 | 0.5 | 176.0 | 8"Ø X 36" | 3" | 2 X 2 PTC DUPLEX | 50 / 40 | 9.4 | 2"Ø |
| 6570 | 2 1/2"Ø | 54" | 15 | 0.5 | 247.5 | 8"Ø X 36" | 3" | 2 X 2 PTC DUPLEX | 50 / 40 | 13.1 | 2"Ø |
| 10290 | 3"Ø | 56" | 15 | 0.5 | 387.6 | 10"Ø X 36" | 4" | 3 X 2 PTC DUPLEX | 50 / 40 | 20.1 | 2"Ø |

CKD BY: _____
DWN BY: _____

PRESSURE POWERED CONDENSATE PUMP INSTALLATION DETAILS

MAINTENANCE
CAMPUS FACILITIES
UNIVERSITY OF MISSOURI-COLUMBIA

PROJECT NUMBER
NA

SHEET
3
of
3