



A HEAT EXCHANGER PIPING DETAIL
NO SCALE

PLAN NOTES

- 1 CONNECTION TO STEAM MAIN SHALL BE MADE FROM TOP OF HEADER OR AT A 45 TAKE-OFF IN LOW HEIGHT SITUATIONS.
- 2 SEE STEAM TRAP DETAIL.
- 3 WATER PRESSURE RELIEF VALVE MUST BE LOCATED WITH NO VALVE BETWEEN IT AND THE HEAT EXCHANGER. "HV" STAMPED SAFETY VALVE SHALL RELIEVE RATED BTU/HOUR AT MAXIMUM WORKING PRESSURE. PIPE DISCHARGE TO FLOOR DRAIN.
- 4 MANUAL BY-PASS LINE
- 5 PROVIDE BALL VALVES IN LIEU OF BUTTERFLY VALVES WHEN PIPE SIZES ARE 2" AND BELOW.
- 6 "U" STAMPED STEAM RELIEF VALVE MUST BE LOCATED WITH NO VALVE BETWEEN IT AND THE HEAT EXCHANGER. PIPE DISCHARGE DOWN TO 6" AFF. "U" STAMPED SAFETY VALVE WITH RESILIENT SEAT SUITABLE FOR 250°F WITH PACKED LEVER (STEAM SERVICE ASME SEC. VIII) AND STAINLESS SPRING SIZED FOR 1200 PPH STEAM (90% RATED AT 10% OVERPRESSURE). SET TO RELIEVE AT 125 PSIG OR AS REQUIRED BY ASME CODE.
- 7 ROTATE 45 DEGREES FROM HORIZONTAL, TYPICAL.
- 8 STRAINER TO BE HORIZONTAL TO MINIMIZE CONDENSATE BUILDUP.
- 9 PROVIDE LOW POINT STEAM TRAP AS REQUIRED.
- 10 TO OTHER HEAT EXCHANGER, PIPED IDENTICAL TO THAT SHOWN.
- 11 SHUTOFF VALVE REQUIRED FOR TWO HEAT EXCHANGERS SERVED BY THE SAME CONTROL VALVES. SHUTOFF VALVE TO BE FULL SIZE OF HEAT EXCHANGER CONNECTION.
- 12 STEAM CONTROL VALVE STATION SHALL BE SUPPORTED ON PIPE ROLLERS. ROLLERS SHALL BE SUPPORTED BY FLOOR MOUNTED SUPPORT STRUCTURE FABRICATED FROM 4" X 4" ANGLE IRON WITH BASE PLATES GROUTED AND ANCHORED TO FLOOR.
- 13 HEAT EXCHANGER SHALL BE SUPPORTED BY FABRICATED STRUCTURE SUITABLE FOR WEIGHTS AND LOADS. STRUCTURE BASEPLATES SHALL BE GROUTED AND ANCHORED TO FLOOR.
- 14 TRAP IS REQUIRED IF LOW POINT EXISTS AFTER CONTROL VALVES. THIS STEAM TRAP HAS ZERO ABILITY TO LIFT CONDENSATE DUE TO MODULATING STEAM CONTROL VALVES. GRAVITY ROUTE TO CONDENSATE COOLER TO DISPOSE OF CONDENSATE.
- 15 ROTATE CONTROL VALVES WITH ACTUATOR AT AN ANGLE OF 15 TO 45 DEGREES FROM VERTICAL AND PROVIDE A MINIMUM OF 1.5 TIMES ACTUATOR LENGTH CLEAR SPACE TO DISASSEMBLE ACTUATOR.
- 16 THIS STEAM TRAP HAS ZERO ABILITY TO LIFT CONDENSATE DUE TO MODULATING STEAM CONTROL VALVES. GRAVITY ROUTE TO CONDENSATE COOLER TO DISPOSE OF CONDENSATE IF CONDENSATE CANNOT BE RETURNED.
- 17 MOUNT VACUUM BREAKER MINIMUM 6" ABOVE TOP OF SHELL OR PER MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS.
- 18 3/4" LOW POINT DRAIN VALVE WITH HOSE END AND CAP.