SIDE STREAM BAG FILTER W/ BOLT-ON TOP. FILTER FLOW RATE FOR A GIVEN SYSTEM SHALL BE THAT REQURED TO PROVIDE EIGHT (8) TOTAL WATER SYSTEM VOLUME CHANGES PER DAY. DESIGNER SHALL UTILIZE THE FOLLOWING EQUATION:

\[
\text{Bag Filter Flow (gpm)} = \left[\frac{\text{Total System Volume} \cdot 8}{1440}\right]
\]

USE 2 1/2" I.D. FILTER SPECIALIST INC. GASKETS RATED FOR 250°F MAXIMUM STAINLESS STEEL VESSEL. FIS PIPING 25 MICRON BAG FILTER, 2" NPT SIDE INLET AND BOTTOM OUTLET. FURNISHED AND INSTALLED BY CONTRACTOR.

PRESSURE GAUGE W/ ISOLATION COCKS

SIZE FOR 4 FOOT PER SECOND MAXIMUM VELOCITY AT DESIGN FLOW.

DRAIN VALVE (N.C.) WITH MALE NPS THREAD ENO.

VICTAULIC/TA MODEL TA7M/1 PRESSURE INDEPENDENT BALANCE VALVE AND UNION. SIZE FOR REQUIRED SIDESTREAM BAG FILTER FLOW.

FOR SYSTEMS HAVING A TOTAL VOLUME GREATER THAN 500 GALLONS, INCREASE SIZE OF MAKE-UP SYSTEM COMPONENTS AS NEEDED TO ALLOW FOR A TOTAL SYSTEM FILL TIME OF UNDER 2 HOURS. DIRECT CONNECTIONS TO GLYCOL SYSTEMS ARE PROHIBITED.

GRUNDFOS IN-LINE CIRCULATOR CAPABLE OF CALCULATED BYPASS FLOW RATE FROM ABOVE AT 10 PSI. 120v

SEE TYPICAL PSU HEAT EXCHANGER PIPING DETAIL

WHERE PSUs VALVE SPECIFICATION DIETATES THAT BUTTERFLY VALVES MUST BE USED BASED UPON PIPE SIZE, PROVIDE HIGH PERFORMANCE BUTTERFLY VALVES ONLY WHERE PIPING EXITS MECHANICAL ROOM. ALL OTHERS IN MECHANICAL ROOM SHOULD BE STANDARD BUTTERFLY VALVES.

AIR CHARGING VALVE. DRY TANK FILL VALVE PRESSURE (PSIG) IS DETERMINED BY THE FOLLOWING EQUATION:

\[
\text{P} = \left[0.433 \times \text{Vertical Distance in Feet from System Highpoint Down to Tank Centerline}\right] + 4
\]

SAFETY PRESSURE RELIEF VALVE - PIPED TO FLOOR DRAIN. SELECT RELIEF VALVE TO PREVENT SYSTEM PRESSURE FROM RISING MORE THAN 10% ABOVE THE MAXIMUM ALLOWABLE WORKING PRESSURE OF THE SYSTEM COMPONENTS, TAKING INTO ACCOUNT THE EFFECT OF STATIC HEAD. NOT REQUIRED AT THIS LOCATION IF SAFETY PRESSURE RELIEF VALVE IS BEING PROVIDED ELSEWHERE IN THE SYSTEM TO MEET P&L REQUIREMENTS.

PRESSURE REDUCING VALVE. PRV SETTING (PSIG) IS DETERMINED BY THE FOLLOWING EQUATION:

\[
\text{P} = \left[0.433 \times \text{Vertical Distance in Feet from PRV to System Highpoint}\right] + 5 \leq \text{Not to exceed maximum pressure of lowest rated component.}
\]

REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTER WITH OPEN AIR GAP

PROVIDE SAFETY PRESSURE RELIEF VALVE AT THIS LOCATION BETWEEN PRESSURE VESSEL AND FIRST ISOLATION VALVE IF PRESSURE VESSEL CAPACITY IS GREATER THAN OR EQUAL TO 120 GALLONS (PA & L1 REQUIREMENT). PRESSURE VESSEL MUST BE ASME CERTIFIED. IF GREATER THAN OR EQUAL TO 120 GALLON CAPACITY, SELECT RELIEF VALVE TO PREVENT SYSTEM PRESSURE FROM RISING MORE THAN 10% ABOVE THE MAXIMUM ALLOWABLE WORKING PRESSURE OF THE SYSTEM COMPONENTS, TAKING INTO ACCOUNT THE EFFECT OF STATIC HEAD. PIPE TO FLOOR DRAIN.

SEE TYPICAL PSU PUMP PIPING DETAIL

5/8" NEPTUNE T-10 DIRECT READ WATER METER

CHEMICAL POT FEEDER. NEPTUNE MODEL #09F-2HP. NO EXCEPTIONS.

COALESCING TYPE AIR/DIRT SEPARATOR. SPIROTERM OR THURSH ONLY, NO EXCEPTIONS.

PRESSURE GAUGE WITH NEEDLE VALVE

EXPANSION TANK (FIXED OR REPLACEABLE FLANDER TYPE)

SPIROTERM SPIRITOP AIR VENT, NO EXCEPTIONS.

2" PIPE NIPPLE, WITH THREADED BALL VALVE AND CAP FOR QUICK FILL/FLUSH.

COUPON RACK. GE PART #2032806. 304SS, 1 NPT, WITH 4 COUPLING HOLDERS.

MCMASTER-CARR. HIGH TEMPERATURE (0-250°F) DOUBLE WINDOW, THREADED, BRONZE SIGHT WITH PADDLE OR FLAPPER, MATCH PIPE SIZE.

UNDERSLUNG CONNECTION TO CREATE THERMAL TRAP (12" MINIMUM DROP)

OPEN VALVE, REMOVE HANDLE, AND WIRE A TAG TO THE VALVE THAT STATES THE FOLLOWING: "VALVE SHALL REMAIN OPEN AT ALL TIMES."

NEW PACKAGED GLYCOL MAKE-UP FEED SYSTEM. SYSTEM SHALL INCLUDE STORAGE TANK, PUMP, STRAINER, CHECK VALVE, PRESSURE SWITCH, ALARM AND DRY ALARM CONTACTS AND ALL OTHER ACCESSORIES REQUIRED FOR SYSTEM OPERATION. NEPTUNE MODEL 0-50-1A, 1.5 HP @ 100 PSI, 120V PLUG IN ELECTRICAL CONNECTION. FOR TWO GLYCOL SYSTEMS WITH THE SAME PERCENTAGE AND TYPE OF GLYCOL, PROVIDE DUAL FEED SYSTEM IN LIEU OF MULTIPLE TANKS.

3/4" HOSE IRON REQUIRED IN ROOM FOR MAKEUP TANK FILL.