1. INSTALL OUTDOOR CHILLER IN AN ACCESSIBLE AREA AND CREATE THE CHILLER LOOP WITH SCHEDULE 80 CPVC OR PREFERRED COMPATIBLE MATERIAL. 1 1/2" PIPING AND FITTINGS FOR 10 TON CHILLER SYSTEMS; 3" FOR 30 TON CHILLER SYSTEMS. CHILLER, STRAINER AND PRESSURE CONTROL VALVE ARE SUPPLIED BY APEKS. ALL OTHER ITEMS ARE AT THE DISCRETION OF SYSTEM OWNER AND/OR 3RD PARTY PLUMBING CONTRACTOR. REFERENCE THIS SCHEMATIC FOR SEQUENCE OF COMPONENTS AND CONNECTIONS. INSULATE MAIN CHILLER LOOP SECTIONS THAT ARE INDOORS TO CONDENSATION Drips AND PUDDLING. OBTAIN AND INCLUDE CHECK-VALVE, VALVED VENT AND OR VALVED DRAIN ONTO CHILLER LOOP AS NECESSARY. STEP 1 TO BE DONE BY INDUSTRIAL PLUMBER.

2. CONNECT THE TCUS TO THE MAIN CHILLER LOOP AND TO THE EXTRACTION SYSTEM (SEE SYSTEM INSTALL MANUAL) USING THE APEKS SUPPLIED 3/4" HOSE AND CLAMPS. CUT THE HOSE TO NECESSARY LENGTHS. BE SURE THE EXTRACTOR AND SEPARATOR TCU ARE ON THE CORRECT SIDE OF THE SYSTEM BEFORE FINAL CONNECTION.

3. FILL CHILLER RESERVOIR WITH COOLANT MIXTURE 40% INHIBITED PROPYLENE GLYCOL 60% TAP WATER.

4. CLOSE THE FOUR VALVES AND START CHILLER (PUMP) TO BEGIN CIRCULATING COOLANT THROUGH MAIN LOOP AND ALLOWING STRAINER TO CAPTURE ANY FOREIGN PARTICLES LEFT FROM ASSEMBLY WITHOUT REACHING THE TCUS OR EXTRACTOR. CONTINUE TO FILL COOLANT.

5. OPEN VALVES TO TCU'S. OPEN VENT ON CHILLER LOOP AS NECESSARY TO ALLOW AIR TO ESCAPE. CONTINUE TO FILL COOLANT.

6. ADJUST PRESSURE CONTROL VALVE ON CHILLER LOOP SO THAT HIGH SIDE PRESSURE IS AT LEAST 35 PSI, NO MORE THAN 50 PSI AND THE LOW SIDE IS LOWER IN PRESSURE BY AT LEAST 10 PSI.

7. COMPLETE FILLING, CHECK STRAINER FOR PRESSURE DROP AND CLEAN STRAINER MESH IF NECESSARY.

8. INSTALL OUTDOOR CHILLER IN AN ACCESSIBLE AREA AND CREATE THE CHILLER LOOP WITH SCHEDULE 80 CPVC OR PREFERRED COMPATIBLE MATERIAL. 1 1/2" PIPING AND FITTINGS FOR 10 TON CHILLER SYSTEMS; 3" FOR 30 TON CHILLER SYSTEMS. CHILLER, STRAINER AND PRESSURE CONTROL VALVE ARE SUPPLIED BY APEKS. ALL OTHER ITEMS ARE AT THE DISCRETION OF SYSTEM OWNER AND/OR 3RD PARTY PLUMBING CONTRACTOR. REFERENCE THIS SCHEMATIC FOR SEQUENCE OF COMPONENTS AND CONNECTIONS. INSULATE MAIN CHILLER LOOP SECTIONS THAT ARE INDOORS TO CONDENSATION Drips AND PUDDLING. OBTAIN AND INCLUDE CHECK-VALVE, VALVED VENT AND OR VALVED DRAIN ONTO CHILLER LOOP AS NECESSARY. STEP 1 TO BE DONE BY INDUSTRIAL PLUMBER.

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12. OPEN VALVES TO TCU'S. OPEN VENT ON CHILLER LOOP AS NECESSARY TO ALLOW AIR TO ESCAPE. CONTINUE TO FILL COOLANT.

13. ADJUST PRESSURE CONTROL VALVE ON CHILLER LOOP SO THAT HIGH SIDE PRESSURE IS AT LEAST 35 PSI, NO MORE THAN 50 PSI AND THE LOW SIDE IS LOWER IN PRESSURE BY AT LEAST 10 PSI.

14. COMPLETE FILLING, CHECK STRAINER FOR PRESSURE DROP AND CLEAN STRAINER MESH IF NECESSARY.

OUTDOOR CHILLER LAYOUT

APEKS SUPPLIED 'WYE' STRAINER
(APPLES SUPPLIED 'WYE' STRAINER (FILTRATION))

APEKS SUPPLIED ADJUSTABLE PRESSURE CONTROL VALVE
(TURN HANDLE TO ADJUST MAIN CHILLER LOOP HIGH SIDE PRESSURE TO 40-50 PSI. HIGH AND LOW SIDE AT LEAST 10 PSI DIFFERENCE)

OUTDOOR CHILLER LAYOUT

APEKS PART NUMBERS

10 TON CHILLER INCLUDED PARTS:
6774701= 1/2" pressure control valve
6774302= 1 1/4" Wye strainer
30 TON CHILLER INCLUDED PARTS:
6774301= 1 1/2" pressure control valve
6774802= 3" Wye strainer
OPTIONAL REPLACEMENT PARTS:
6774303= replacement 20 mesh screen for 1 1/4" wye strainers
6774802= Replacement 40 mesh Stainless Steel screen for 3" wye strainers
6774201= "NPT Solenoid operated cooling valve for Delta T TCUs
6774901= 1 1/4" ASCO solenoid operated valve used on Advantage OACS 10 chiller for "To process"

APEKS AND ADVANTAGE CHILLERS BOTH HAVE A DRAIN. IF THE CHILLER IS LOCATED ON ROOFTOP OR HIGHER THAN LOOP THEN A VALVED DRAIN WILL BE NEEDED AT THE LOWEST POINT ON LOOP.

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10 TON CHILLER INCLUDED PARTS:
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OPTIONAL REPLACEMENT PARTS:
6774303= replacement 20 mesh screen for 1 1/4" wye strainers
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(TURN HANDLE TO ADJUST MAIN CHILLER LOOP HIGH SIDE PRESSURE TO 40-50 PSI. HIGH AND LOW SIDE AT LEAST 10 PSI DIFFERENCE)