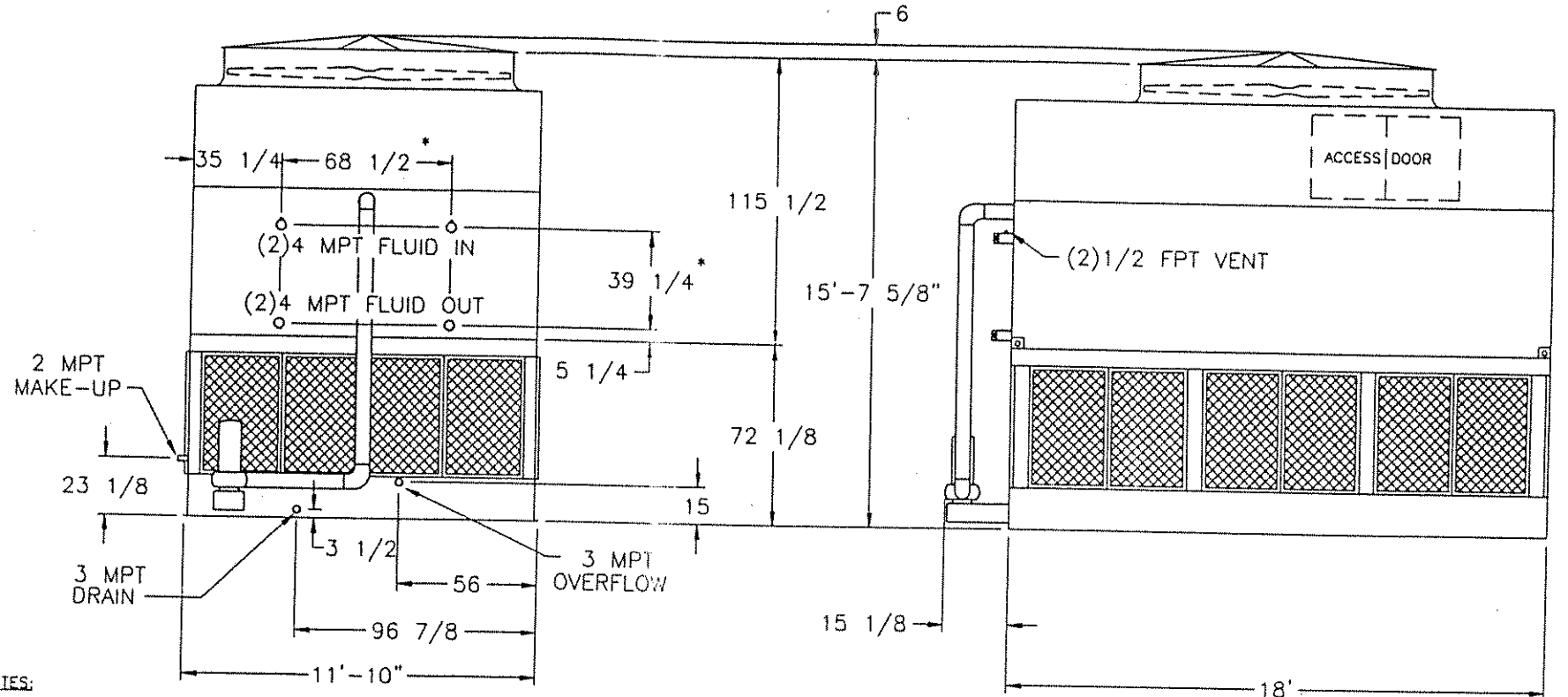


NOTES:

1. MAKE-UP LOCATED 4 3/4" FROM EACH CONNECTION END
2. MAKE-UP WATER PRESSURE 20psi MIN. 50psi MAX.
3. 3/4ø MOUNTING HOLES. REFER TO RECOMMENDED STEEL SUPPORT DRAWING.
4. * APPROXIMATE DIMENSIONS. DO NOT USE FOR PREFABRICATION OF EXISTING PIPING.
5. HEAVIEST SECTION IS UPPER SECTION.
6. MPT DENOTES MALE PIPE THREAD. FPT DENOTES FEMALE PIPE THREAD. BFW DENOTES BEVELED FOR WELDING.

WEIGHTS			NO. SHIPPING SECTIONS
SHIPPING	OPER.	HEAVIEST SECTION	
33710	48570	30240	2

MODEL NUMBER: (8) ATW-207C CLOSED CIRCUIT COOLERS
CERTIFIED FOR FRONTIER GLOBAL PROJECT: FRONTIER GOLBAL – NEW YORK CITY, NY
CUSTOMER ORDER NO. SC93442 EVAPCO NO. T000379-T000386
CAPACITY EACH UNIT 546.0 GPM OF 40% ETHYLENE GLYCOL 96.5 °F IN 84.0 °F OUT 78.0 ° F E.W.B.
ALT. DRY CAPACITY EACH UNIT 546.0 GPM OF 40% ETHYLENE GLYCOL 60.0 °F IN 50.0 °F OUT 32.0 ° F E. D.B.
ALT. DRY CAPACITY EACH UNIT 546.0 GPM OF 40% ETHYLENE GLYCOL 96.5 °F IN 84.0 °F OUT 60.0 ° F E. D.B.
FAN MOTOR HP EACH UNIT (1) 40 (2-SPEED/1-WINDING) ELEC. SPEC. 460/60/3
PUMP MOTOR HP EACH UNIT (1) 7.5 ELEC. SPEC. 460/60/3
REMARKS: EACH UNIT FURNISHED WITH (2) 12KW PAN HEATERS, 460/60/3 WITH COMBINATION THERMOSTAT/LOW WATER CUTOFF AND CONTACTOR WITH TRANSFORMER AND DISCONNECT, (1) VIBRATION CUT-OUT SWITCH, (1) LADDER, (1) JIB BOOM WITH BASE AND ALL STAINLESS STEEL CONSTRUCTION PER SPECIFICATION SHEET. EXTENDED SURFACE COIL FOR DRY OPERATION. COIL PRESSURE DROP 2.8 PSI. DRIVES SIZED FOR 0" ESP.

evapco

CLOSED CIRCUIT COOLER

WA121810ERC-34

DATE FEBRUARY 11, 2000

MECHANICAL SPECIFICATIONS

EVAPCO® INDUCED DRAFT CLOSED CIRCUIT COOLERS AND EVAPORATIVE CONDENSERS

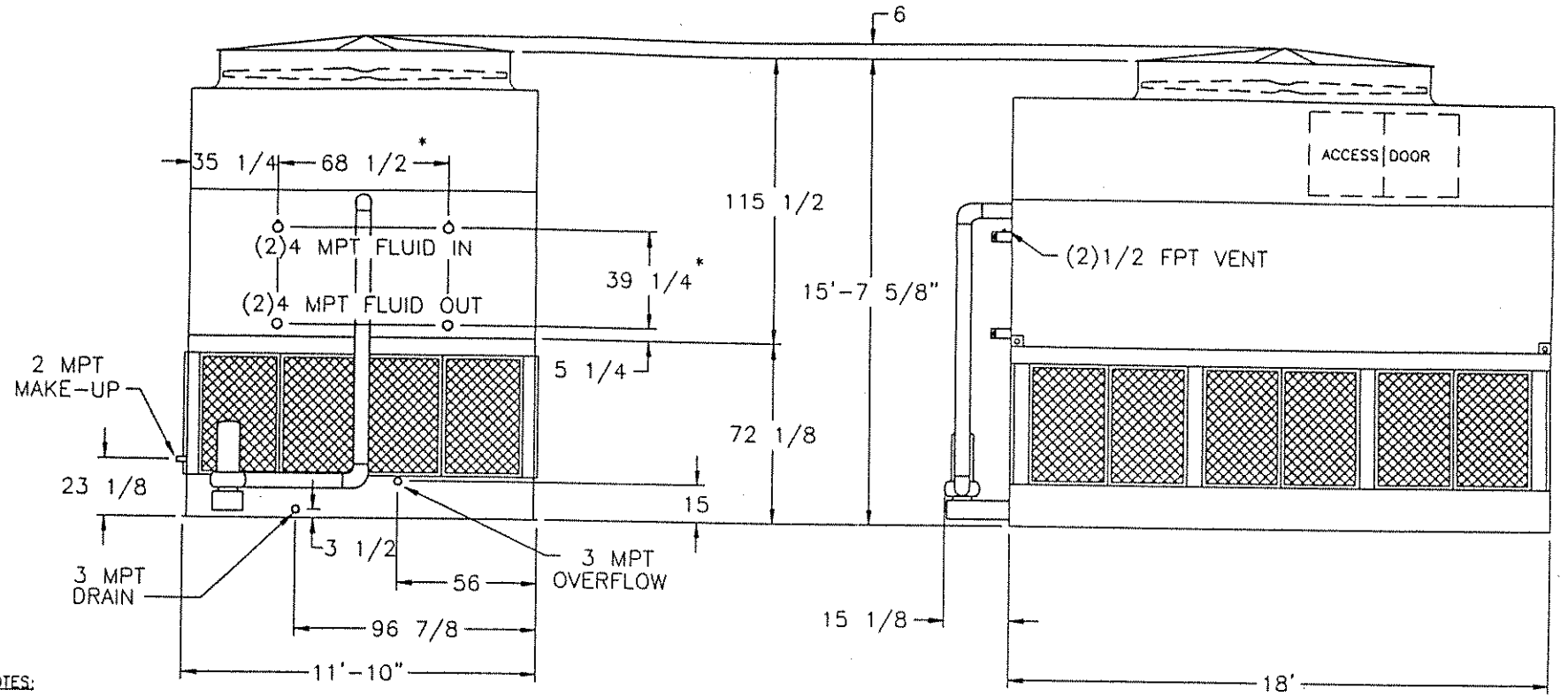
PROJECT FRONTIER GLOBAL – NEW YORK CITY, NY UNIT (8) ATW-207C CLOSED CIRCUIT COOLERS

CUSTOMER FRONTIER GLOBAL P.O. SC93442

EVAPCO SERIAL NUMBER T000379-T000386 ENGINEER EYP ENGINEERS

UNIT TYPE	Factory assembled, induced draft, counterflow.
CONSTRUCTION	Pan basin and casing are constructed of Type 304 Stainless steel. Type 304 channel and angle supports. Fan cowl is constructed of stainless steel.
MAKE-UP FLOAT VALVE ASSEMBLY*	Brass float valve with adjustable plastic float.
PAN STRAINER*	All type 304 stainless steel construction with large area removable perforated screens.
ACCESS	Sliding door in the upper casing for fan drive and water distribution system access. Removable louver panels on all four sides of the unit for pan and sump access.
BLEED-OFF*	Waste water bleed line with adjustable valve provided.
PUMP*	Vertically installed close-coupled centrifugal pump with mechanical seal installed to drain on shut-down. Totally enclosed motor suitable for outdoor operation provided with protective canopy.
FANS	Fans are axial propeller type constructed of aluminum alloy and statically balanced. The fan is installed in a closely fitted cowl with venturi air inlet. Fan screens are galvanized steel mesh and have galvanized steel frames bolted to the fan cowl.
FAN SHAFT	Solid shaft of ground and polished steel. Exposed surface coated with rust preventative.
FAN SHAFT BEARINGS	Heavy-duty, self aligning ball type bearings with extended lubrication lines to grease fittings on the access door frame. Bearings are designed for a minimum L-10 life of 75,000 hours.
FAN MOTOR	Totally enclosed, two-speed/single-winding, fan cooled, ball bearing type electric motor(s) suitable for moist air service. Motor(s) are 1.15 service factor design. Motors are mounted on an adjustable base allowing the motor to swing to the outside of the unit for servicing.
FAN DRIVE	The fan drive is a multi-groove, solid back, reinforced neoprene V-belt type with taper lock sheaves designed for 150% of the motor nameplate horsepower. Fan and motor sheaves are constructed of aluminum alloy. The fans and fan sheaves shall be mounted on the shaft with a special cadmium plated bushing for maximum corrosion protection.
COIL	Thermal-Pak coil design of prime surface steel and carbon steel fins, encased in steel framework with entire assembly hot-dip galvanized after fabrication. Designed with sloping tubes for liquid drainage and tested to 400 psig air under water. (Patent No. 4755331)
WATER DISTRIBUTION SYSTEM	Water flow rate of 6 GPM over each square foot of unit face area to insure proper flooding of the coil. Precision molded ABS spray nozzles with large 1-1/4" x 5/16" orifice and internal sludge ring to eliminate clogging. Nozzles are threaded into Schedule-40 Polyvinyl Chloride headers equipped with removable end plugs for ease of cleaning.
ELIMINATORS	The eliminators are constructed entirely of Polyvinyl Chloride (PVC) in easily handled sections. Design incorporates three changes in air direction and limits the water carryover to a maximum of 0.001% of the circulating water rate.
LOUVERS	The louvers are constructed from Polyvinyl Chloride (PVC) and are mounted in easily removable frames for access to the pan for maintenance.

* OMITTED ON UNITS FOR REMOTE SUMP OPERATION



NOTES:

1. MAKE-UP LOCATED 4 3/4" FROM EACH CONNECTION END
2. MAKE-UP WATER PRESSURE 20psi MIN. 50psi MAX.
3. 3/4ø MOUNTING HOLES. REFER TO RECOMMENDED STEEL SUPPORT DRAWING.
4. * APPROXIMATE DIMENSIONS. DO NOT USE FOR PREFABRICATION OF EXISTING PIPING.
5. HEAVIEST SECTION IS UPPER SECTION.
6. MPT DENOTES MALE PIPE THREAD. FPT DENOTES FEMALE PIPE THREAD. BFW DENOTES BEVELED FOR WELDING.

WEIGHTS			NO. SHIPPING SECTIONS
SHIPPING	OPER.	HEAVIEST SECTION	
33710	48570	30240	2

MODEL NUMBER: (6) ATW-207C CLOSED CIRCUIT COOLERS
CERTIFIED FOR FRONTIER GLOBAL PROJECT: FRONTIER GOLBAL – BOSTON, MA
CUSTOMER ORDER NO. SC93444 EVAPCO NO. T000387-T000392
CAPACITY EACH UNIT 546.0 GPM OF 40% ETHYLENE GLYCOL 96.5 °F IN 84.0 °F OUT 78.0 ° F E.W.B.
ALT. DRY CAPACITY EACH UNIT 546.0 GPM OF 40% ETHYLENE GLYCOL 60.0 °F IN 50.0 °F OUT 32.0 ° F E. D.B.
ALT. DRY CAPACITY EACH UNIT 546.0 GPM OF 40% ETHYLENE GLYCOL 96.5 °F IN 84.0 °F OUT 60.0 ° F E. D.B.
FAN MOTOR HP EACH UNIT (1) 40 (2-SPEED/1-WINDING) ELEC. SPEC. 460/60/3
PUMP MOTOR HP EACH UNIT (1) 7.5 ELEC. SPEC. 460/60/3
REMARKS: EACH UNIT FURNISHED WITH (2) 12KW PAN HEATERS, 460/60/3 WITH COMBINATION THERMOSTAT/LOW WATER CUTOFF AND CONTACTOR WITH TRANSFORMER AND DISCONNECT, (1) VIBRATION CUT-OUT SWITCH, (1) LADDER, (1) JIB BOOM WITH BASE AND ALL STAINLESS STEEL CONSTRUCTION PER SPECIFICATION SHEET. EXTENDED SURFACE COIL FOR DRY OPERATION. COIL PRESSURE DROP 2.8 PSI. DRIVES SIZED FOR 0" ESP.

evapco

CLOSED CIRCUIT COOLER

WA121810ERC-34

DATE FEBRUARY 11, 2000

MECHANICAL SPECIFICATIONS

EVAPCO® INDUCED DRAFT CLOSED CIRCUIT COOLERS AND EVAPORATIVE CONDENSERS

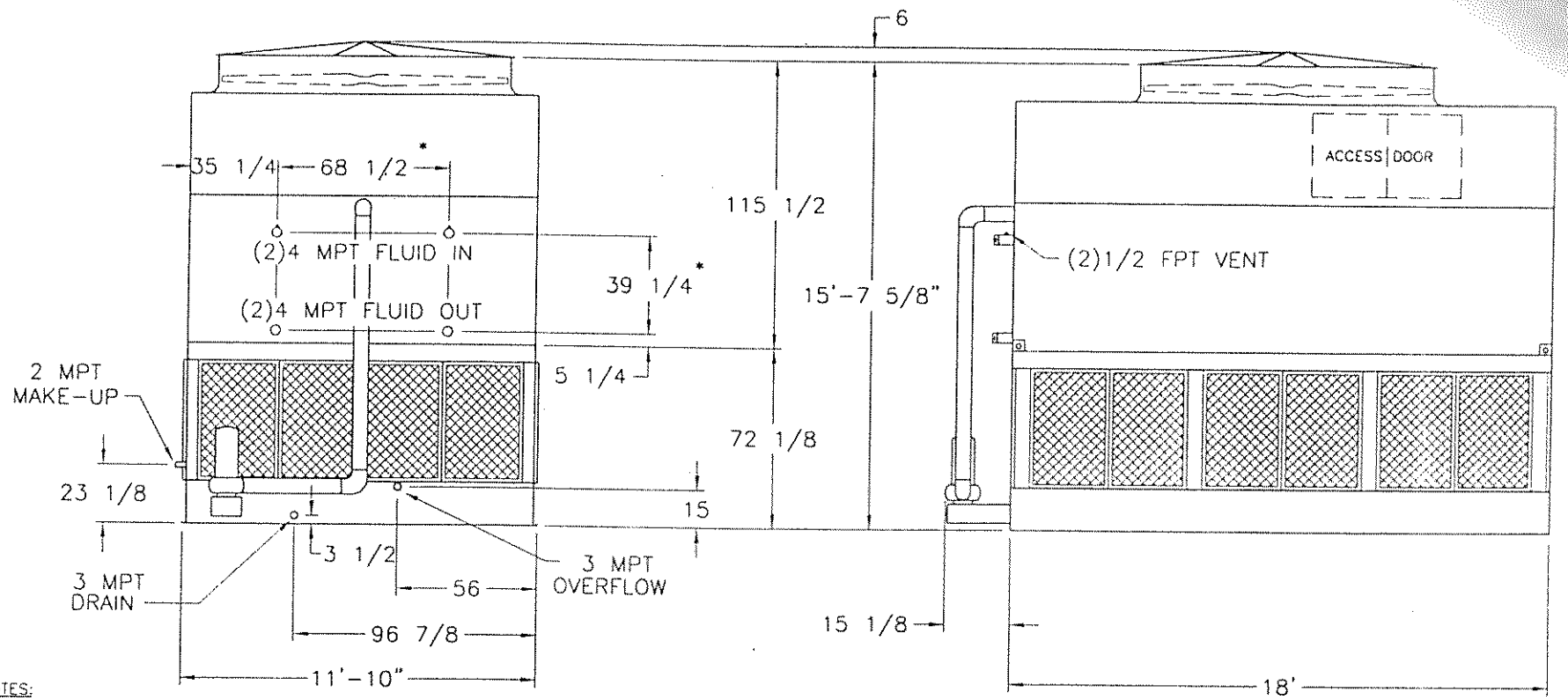
PROJECT FRONTIER GLOBAL – BOSTON, MA UNIT (6) ATW-207C CLOSED CIRCUIT COOLERS

CUSTOMER FRONTIER GLOBAL P.O. SC93444

EVAPCO SERIAL NUMBER T000387-T000392 ENGINEER EYP ENGINEERS

UNIT TYPE	Factory assembled, induced draft, counterflow.
CONSTRUCTION	Pan basin and casing are constructed of Type 304 Stainless steel. Type 304 channel and angle supports. Fan cowl is constructed of stainless steel.
MAKE-UP FLOAT VALVE ASSEMBLY*	Brass float valve with adjustable plastic float.
PAN STRAINER*	All type 304 stainless steel construction with large area removable perforated screens.
ACCESS	Sliding door in the upper casing for fan drive and water distribution system access. Removable louver panels on all four sides of the unit for pan and sump access.
BLEED-OFF*	Waste water bleed line with adjustable valve provided.
PUMP*	Vertically installed close-coupled centrifugal pump with mechanical seal installed to drain on shut-down. Totally enclosed motor suitable for outdoor operation provided with protective canopy.
FANS	Fans are axial propeller type constructed of aluminum alloy and statically balanced. The fan is installed in a closely fitted cowl with venturi air inlet. Fan screens are galvanized steel mesh and have galvanized steel frames bolted to the fan cowl.
FAN SHAFT	Solid shaft of ground and polished steel. Exposed surface coated with rust preventative.
FAN SHAFT BEARINGS	Heavy-duty, self aligning ball type bearings with extended lubrication lines to grease fittings on the access door frame. Bearings are designed for a minimum L-10 life of 75,000 hours.
FAN MOTOR	Totally enclosed, two-speed/single-winding, fan cooled, ball bearing type electric motor(s) suitable for moist air service. Motor(s) are 1.15 service factor design. Motors are mounted on an adjustable base allowing the motor to swing to the outside of the unit for servicing.
FAN DRIVE	The fan drive is a multi-groove, solid back, reinforced neoprene V-belt type with taper lock sheaves designed for 150% of the motor nameplate horsepower. Fan and motor sheaves are constructed of aluminum alloy. The fans and fan sheaves shall be mounted on the shaft with a special cadmium plated bushing for maximum corrosion protection.
COIL	Thermal-Pak coil design of prime surface steel and carbon steel fins, encased in steel framework with entire assembly hot-dip galvanized after fabrication. Designed with sloping tubes for liquid drainage and tested to 400 psig air under water. (Patent No. 4755331)
WATER DISTRIBUTION SYSTEM	Water flow rate of 6 GPM over each square foot of unit face area to insure proper flooding of the coil. Precision molded ABS spray nozzles with large 1-1/4" x 5/16" orifice and internal sludge ring to eliminate clogging. Nozzles are threaded into Schedule-40 Polyvinyl Chloride headers equipped with removable end plugs for ease of cleaning.
ELIMINATORS	The eliminators are constructed entirely of Polyvinyl Chloride (PVC) in easily handled sections. Design incorporates three changes in air direction and limits the water carryover to a maximum of 0.001% of the circulating water rate.
LOUVERS	The louvers are constructed from Polyvinyl Chloride (PVC) and are mounted in easily removable frames for access to the pan for maintenance.

* OMITTED ON UNITS FOR REMOTE SUMP OPERATION



NOTES:

1. MAKE-UP LOCATED 4 3/4" FROM EACH CONNECTION END
2. MAKE-UP WATER PRESSURE 20psi MIN. 50psi MAX.
3. 3/4ø MOUNTING HOLES. REFER TO RECOMMENDED STEEL SUPPORT DRAWING.
4. * APPROXIMATE DIMENSIONS. DO NOT USE FOR PREFABRICATION OF EXISTING PIPING.
5. HEAVIEST SECTION IS UPPER SECTION.
6. MPT DENOTES MALE PIPE THREAD. FPT DENOTES FEMALE PIPE THREAD. BFW DENOTES BEVELED FOR WELDING.

WEIGHTS			NO. SHIPPING SECTIONS
SHIPPING	OPER.	HEAVIEST SECTION	
33710	48570	30240	2

EVAPCO MODEL (4) ATW-207C CLOSED CIRCUIT COOLERS

CERTIFIED FOR FRONTIER GLOBAL

CUSTOMER ORDER NO. SC93557

PROJECT FRONTIER GLOBAL - BOSTON PHASE II

EVAPCO NO. T002094-T002097

CAPACITY	EACH UNIT 546.0 GPM OF 40% ETHYLENE GLYCOL	96.5	°F IN	84	°F OUT	78 °F E.W.B.
ALT. DRY CAPACITY	EACH UNIT 546.0 GPM OF 40% ETHYLENE GLYCOL	60	°F IN	50	°F OUT	32 °F E.D.B.
ATL. DRY CAPACITY	EACH UNIT 546.0 GPM OF 40% ETHYLENE GLYCOL	96.5	°F IN	84	°F OUT	60 °F E.D.B.

FAN MOTOR HP EACH UNIT (1) 40 (2-SPEED/1-WINDING) ELEC. SPEC. 460/60/3

PUMP MOTOR HP (1) 7-1/2 ELEC. SPEC. 460/60/3

REMARKS UNIT FURNISHED WITH (2) 12KW PAN HEATERS, 460/60/3, WITH COMBINATION THERMOSTAT/LOW WATER CUTOFF, EXTENDED SURFACE COIL FOR DRY OPERATION, (1) VIBRATION CUT-OUT SWITCH, (1) LADDER, (1) MOTOR DAVIT WITH BASE AND ALL STAINLESS STEEL CONTRUCTION PER SPECIFICATION SHEET. COIL PRESSURE DROP 2.8 PSI. DRIVES SIZED FOR 0" ESP.

evapco

CLOSED CIRCUIT COOLER

CAG/LAS 8/21/00

WA121810ERC-36