



**BALTIMORE AIRCOIL**  
 One of the  
 Amsted Industries

**SUBMITTAL DATA FORM**

<b>C U S T O M E R</b>	<b>FES INC</b>	<b>DATE</b>	<b>4/3/96</b>
	<b>P.O. BOX 2306</b>	<b>P.O. NO.</b>	<b>036138</b>
	<b>3475 BOARD ROAD</b>	<b>B.A.C. NO.</b>	<b>96100694</b>
	<b>YORK, PA 17405-2306</b>	<b>MODEL NO.</b>	<b>VT1-340-QMAX</b>

<b>PROJECT:</b>	<b>KEMPS - YORK, PA</b>
<b>ENGINEER:</b>	
<b>B.A.C. REP:</b>	<b>IRESCO - YORK, PA</b>

**COOLING TOWER**

**CERTIFIED CAPACITY:** 460 USGPM OF WATER FROM 150 F TO 88 F AT 78 F ENTERING WET BULB AND 0.99 PSIG SPRAY PRESSURE

**FAN MOTOR(S):** (1) 50 HP, 1800 RPM, 3 PHASE, 60 HERTZ, 230/460 SUIT 220 VOLTS, STANDARD TEFC ENCLOSURE. FAN DRIVES BASED ON 0 " ESP.

**NOTE:** Two speed fan motors and Energy Miser Fan Systems require a starter that incorporates a 15 second time delay when switching from high to low speed.

8 COPIES OF SUBMITTAL DATA FOR RECORD

FEATURE	FEATURE
REMOTE SUMP: LESS FLOAT VALVE & STRAINER  GALVANIZED STEEL FILL  HIGH TEMP SEALER & GROMMETS  GALVANIZED STEEL HEADER AND BRANCHES  STEEL ADAPTER FRAME FOR 9' STEEL (SEE CERTIFIED PRINT)	

**THANK YOU FOR YOUR ORDER ACCEPTED AT THE B.A.C. BALTIMORE, MD PLANT ON: MARCH 22, 1996.**

**AN APPROVED SUBMITTAL IS NOT REQUIRED. YOUR ORDER IS SCHEDULED TO SHIP FROM OUR FACTORY APPROXIMATELY 5/17/96. PLEASE BE PREPARED FOR THE ARRIVAL OF THIS EQUIPMENT, AS OUR FACILITIES CANNOT ACCOMMODATE THE STORAGE OF COMPLETED UNITS.**

**MECHANICAL SPECIFICATIONS**

**FES COOLING TOWERS**

**CENTRIFUGAL FAN MODELS**

**G235 Hot-Dip Galvanized Steel Construction**

**PROJECT: Kempes - York, PA  
FES P.O. NUMBER: 036138  
SERIAL NUMBER: 96100694**

<b>UNIT TYPE</b>	<b>Factory-assembled, counterflow, blow-through design cooling tower. All steel panels and structural members are constructed from G235 hot-dip galvanized steel. Edges are given a protective coat of zinc-rich compound. A low VOC acrylic latex finish is applied to the exterior of the unit after assembly.</b>
<b>PAN/FAN SECTION CONSTRUCTION</b>	<b>Heavy gauge panel construction of G235 hot-dip galvanized steel. The centrifugal fans and motors are located in the dry entering airstream beneath the sloping side of the pan.</b>
<b>ACCESS</b>	<b>Circular access doors of hot-dip galvanized steel are held in place with phenolic knob screws.</b>
<b>FAN WHEELS</b>	<b>Forwardly curved centrifugal squirrel cage type fan wheels, constructed from hot-dip galvanized steel, are statically and dynamically balanced. Fan housings have curved inlet rings for efficient air entry.</b>
<b>FAN DISCHARGE COWLS</b>	<b>Fan discharge cowls, constructed of hot-dip galvanized steel, are provided on each fan. They extend within the pan to protect the fans from falling water.</b>
<b>FAN SHAFT AND BEARINGS</b>	<b>Hollow steel shaft, protected with two part epoxy, with bearing journals at each end. Solid polished steel journals are coated with a rust preventative. Self-aligning, heavy-duty, grease-lubricated, ball bearings with eccentric locking collars are furnished at each end of the shaft.</b>
<b>MOTOR</b>	<b>T.E.F.C. ball bearing type with 1.15 service factor, suitable for outdoor service is mounted on an adjustable motor base. Motor base is adjusted by means of a single threaded bolt-and-nut arrangement. Motor is located in weather protected position under the sloping pan side.</b>
<b>DRIVE</b>	<b>V-belt sheaves, selected for 150% motor nameplate horsepower, are mounted and aligned at the factory.</b>
<b>FAN GUARD SCREENS</b>	<b>Hot-dip galvanized steel screens are provided.</b>
<b>HEAT TRANSFER SECTION CONSTRUCTION</b>	<b>Heavy gauge panel construction of G235 hot-dip galvanized steel. Heat transfer section is separable from pan/fan section.</b>

**WET DECK SURFACE**

Wave-formed, hot-dip galvanized steel. This wet deck is suitable for a maximum entering water temperature of 170°F.

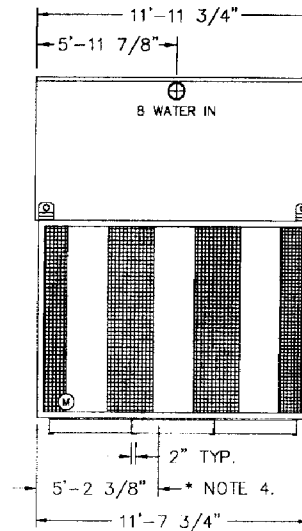
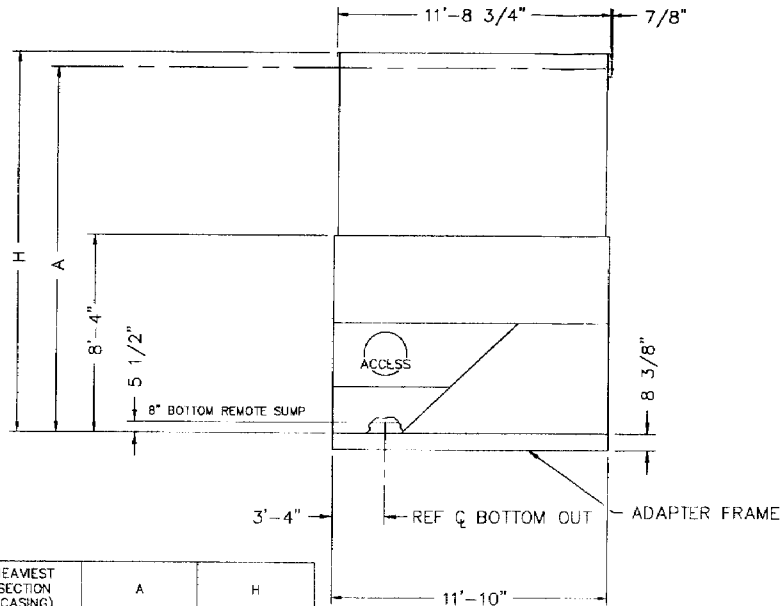
**WATER  
DISTRIBUTION  
SYSTEM**

Hot-dip galvanized steel spray header and branches. Removable branches and large orifice, plastic spray nozzles are held in place with snap-in rubber grommets.

**ELIMINATORS**

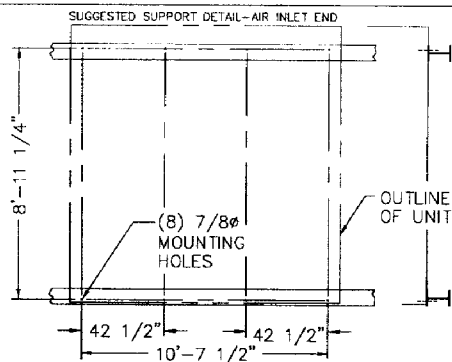
Eliminators are constructed of G235 hot-dip galvanized steel and are removable in easily handled sections. They impart three distinct changes in air direction to effectively strip entrained moisture from the leaving airstream with minimum air resistance, and to direct discharge air away from fans.

[VT1:9/91]



(M) FAN MOTOR LOCATION.

MODEL NUMBER	APPROXIMATE SHIPPING WEIGHT	APPROXIMATE OPERATING WEIGHT	HEAVEST SECTION (CASING)	A	H
VTI-340-QMAX	13680	16870	B040	13'-11 7/8"	14'-7 5/8"



NOTES:

NOTES:

1. THE RECOMMENDED SUPPORT ARRANGEMENTS FOR T1000 UNITS CONSISTS OF TWO PARALLEL I-BEAMS EXTENDING THE FULL LENGTH OF THE UNIT. SUPPORTS AND ANCHOR BOLTS ARE TO BE DESIGNED AND FURNISHED BY OTHERS.
2. ALL SUPPORTING BEAMS ARE TO BE FLUSH AND LEVEL AT TOP AND MUST BE ORIENTATED RELATIVE TO GAGE LINE AS SHOWN.
3. RECOMMENDED DESIGN LOADS FOR EACH BEAM SHOULD BE 70% OF THE TOTAL UNIT OPERATING WEIGHT APPLIED AS A UNIFORM LOAD TO EACH BEAM. BEAMS SHOULD BE DESIGNED IN ACCORDANCE WITH STANDARD STRUCTURAL PRACTICE. THE MAXIMUM ALLOWABLE DEFLECTION OF BEAMS UNDER THE UNIT SHALL BE 3/8 OF AN INCH.

4. ALL MOUNTING HOLES ARE 7/8 INCH DIAMETER AT THE LOCATIONS SHOWN.
5. IF VIBRATION ISOLATORS ARE USED, A RAIL OR CHANNEL MUST BE PROVIDED BETWEEN THE UNIT AND THE ISOLATORS TO PROVIDE CONTINUOUS UNIT SUPPORT. ADDITIONALLY, THE SUPPORT BEAMS MUST BE DESIGNED TO ACCOMMODATE THE OVERALL LENGTH AND MOUNTING HOLE LOCATION OF THE ISOLATORS WHICH MAY DIFFER FROM THOSE OF THE UNIT. REFER TO VIBRATION ISOLATOR DRAWINGS FOR THIS DATA.

1. ALL DIMENSIONS ARE IN FEET AND INCHES. WEIGHTS ARE IN POUNDS.
2. UNLESS OTHERWISE INDICATED, ALL CONNECTIONS 6 INCHES AND SMALLER ARE MPT AND CONNECTIONS 8 INCHES AND LARGER ARE BEVELED FOR WELDING.
3. FIELD PIPING SHOULD BE FABRICATED AT TIME OF UNIT INSTALLATION. PREFABRICATION OF PIPE WORK IS NOT RECOMMENDED.
- \*4. BOTTOM OUTLET IS DRILLED TO CONFORM TO A 150 POUND FLAT FACED AMERICAN STANDARD FLANGE. FLANGE AND GASKET PROVIDED BY OTHERS.

ORDER NO. 96100694

DATE: 4/2/96

VLD

fes

CENTRIFUGAL FAN COOLING TOWER

DRAWING NUMBER: FES-9894/TM