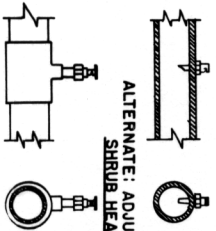


PAD CABINET & FAN SYSTEM

ASSUME:
 1) ONE AIR CHANGE PER MINUTE.
 2) I.E. BLDG. W/L=200, W=50, H=7.5'

CALCULATE:
 1. FAN CAPACITY=200 X 50 X 7.5 = 75,000 CFM.
 2. PAD AREA @ 1/2" GAGE ST. FABRIC = 375 FT².
 3. INLET VELOCITY = 75,000 CFM ÷ 375 FT² = 200 FPM.
 4. PAD WATER FLOW = 75,000 CFM X .4 GPM/1000 CFM = 30 GPM.
 5. NOZZLE PATTERN = 30 GPM ÷ 50 = .6 GPM/FT.
 SELECT: HALF CIRCLE FLAT SPRAY NOZZLES AT 3 ± .03 GPM @ 15 PSI, 9° O.C.

- 1) USE 3/4" OR 1/2" CEMENT ASBESTOS BD. FOR CABINET, SPLASH & DRAIN STORAGE LININGS.
- 2) WATERPROOF W/2" NYLON MESH TAPE TO CORNERS & SEAMS. COAT W/1/4" ASPHALT. ALTERNATE: USE FIBERGLASS TAPE. COAT W/1/4" POLYETHYLENE RESIN. VENTILATE OR USE GAS MASK. CLEAN BRUSH W/ACETATE.

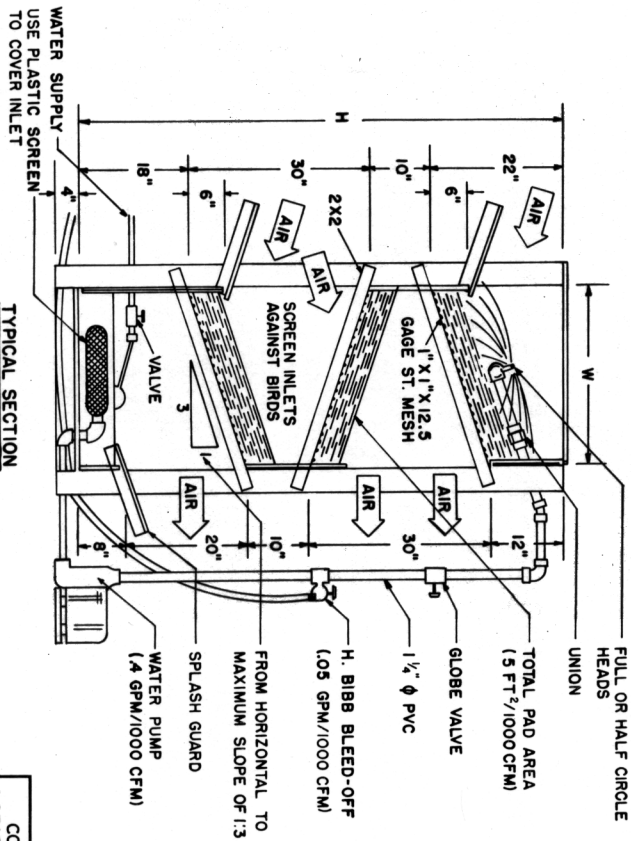
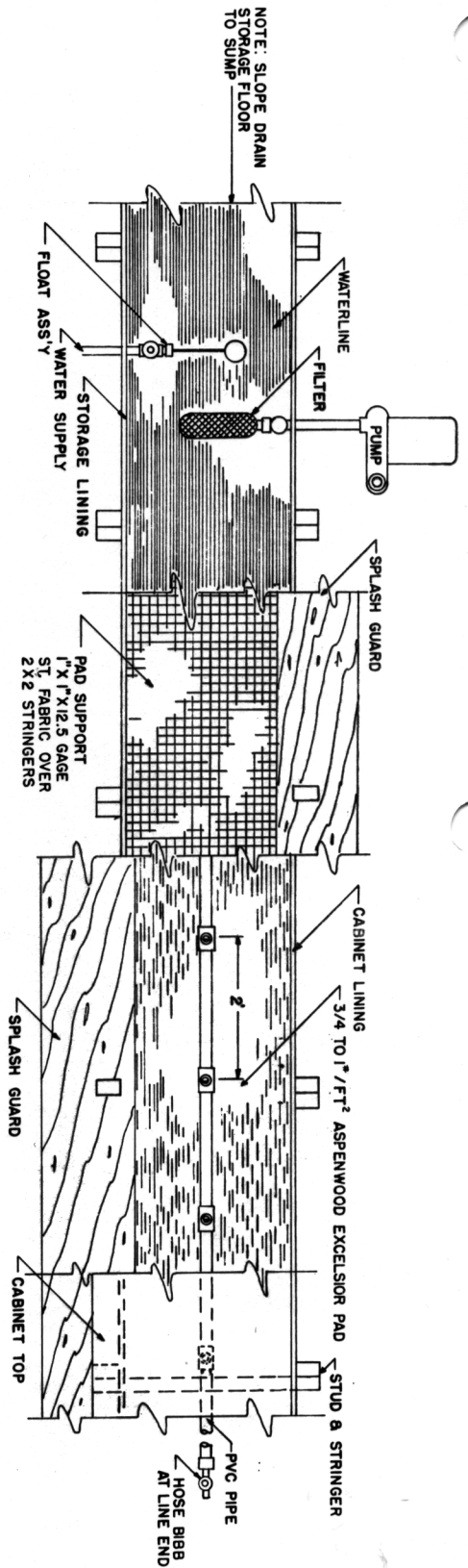


- A) USE 3/4" DRILL & 10-32 MACHINE TAP INTO PVC.
 - B) HAND TIGHTEN 3 OR 4 TURNS.
- ALTERNATE: ADJUSTABLE FULL OR HALF CIRCLE SHROUD HEADS AT .6 ± .1 GPM @ 15 PSI, 10° C.
- A) SPACE NOZZLES TO AT LEAST A DOUBLE OVER LAP PATTERN.
 - B) DIRECT SPRAY DOWNLINE.

6. PUMP H.P. = QM/2000 = 30 GPM X 59/2000 = .89
7. BLEED-OFF = 75,000 CFM X .05 GPM/1000 CFM = 4 GPM

CABINET LINING SUGGESTIONS

PLAN VIEW-AT VARIOUS LEVELS LEFT TO RIGHT: WATERLINE, FIRST PAD SUPPORT, TOP PAD, CABINET TOP, & END WATER DISTRIBUTION LINE.)



TYPICAL SECTION
 SCALE: 3/4" = 1'-0"

COOPERATIVE EXTENSION WORK IN
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UNITED STATES DEPARTMENT OF AGRICULTURE COOPERATING

EVAPORATIVE COOLING
 PAD CABINET

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