

HVAC MISC. PRESCRIPTIVE REQUIREMENTS: MECH-4-C

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| PROJECT NAME | DATE |
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FAN POWER CONSUMPTION §144(c)

NOTE: Provide one copy of this worksheet for each fan system with a total fan system horsepower greater than 25 hp for Constant Volume Fan Systems or Variable Air Volume (VAV) Systems when using the Prescriptive Approach.

| FAN DESCRIPTION | DESIGN BRAKE HP | EFFICIENCY | | NUMBER OF FANS | PEAK WATTS B x E x 746 / (C x D) |
|-----------------|-----------------|------------|-------|----------------|-------------------------------------|
| | | MOTOR | DRIVE | | |
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| <p>FILTER PRESSURE ADJUSTMENT Equation. 144-A</p> <p>A) If filter pressure drop is greater than 1 inch W. C. enter filter pressure drop. SP_a on line 4 and Total Fan pressure SP_f on Line 5.</p> <p>B) Calculate Fan Adjustment and enter on line 6.</p> <p>C) Calculate Adjusted Fan Power Index and enter on Row 7</p> | <p>1) TOTAL FAN SYSTEM POWER (WATTS, SUM COLUMN F)</p> <p>2) SUPPLY DESIGN AIRFLOW (CFM)</p> <p>3) TOTAL FAN SYSTEM POWER INDEX (Row 1 / Row 2)¹</p> <p>4) SP_a</p> <p>5) SP_f</p> <p>6) Fan Adjustment = $1 - (SP_a - 1) / SP_f$</p> <p>7) ADJUSTED FAN POWER INDEX (Line 3 x Line 6)¹</p> | <table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td> </td></tr> <tr><td> </td></tr> <tr><td style="text-align: right;">W/CFM</td></tr> <tr><td> </td></tr> <tr><td> </td></tr> <tr><td style="text-align: right;">W/CFM</td></tr> </table> | | | W/CFM | | | W/CFM |
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| W/CFM | | | | | | | | |
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| W/CFM | | | | | | | | |

1. TOTAL FAN SYSTEM POWER INDEX or ADJUSTED FAN POWER INDEX must not exceed 0.8 w/cfm, for Constant Volume systems or 1.25 w/cfm for VAV systems

| ITEM or SYSTEM TAG(S) | | | | |
|--|--|----------|-----------|-------|
| PRESCRIPTIVE MEASURES | T-24 Section | Capacity | Exception | Notes |
| | Electric Resistance Heating ¹ | §144 (g) | | |
| Heat Rejection System ² | §144 (h) | | | |
| Air Cooled Chiller Limitation ³ | §144 (i) | | | |
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1. Total installed capacity (MBtu/hr) of all electric heat on this project exclusive of electric auxiliary heat for heat pumps. If electric heat is used explain which exception(s) to §144(g) apply.

2. Are centrifugal fan cooling towers used on this project? (Enter "Yes" or "No") If centrifugal fan cooling towers are used explain which exception(s) to §144(h) apply.

3. Total installed capacity (tons) of all chillers and air cooled chillers under this permit, If there are more than 100 tons of air-cooled chiller capacity being installed explain which exception(s) to §144(i) apply.