The Thin-Mat Filter Machine

Improvements
As industry has changed, so has the Thin-Mat Filter Machine. Here are the ways we have improved our design to better serve you. Take advantage of these innovative ideas that keep us one step ahead of the competition.

✦ Elimination of dirty roll cover allows easy access for maintenance.
✦ Redesign of bottom trunions allows take-up core to be top-loaded for easier installation and removal.
✦ High impact and high strength plastic trunion bearings and flange bearings provide improved wear and easy installation.
✦ Side track seals and standard air straighteners create the best air flow pattern and prevent air bypass.
✦ Supply roll area is larger, accommodating larger rolls of filter media.
✦ Convertible take-up core reduces maintenance time and worker dust level exposure.
✦ Magnehelic gauge provides visual indication of media index pressure setting.

Applications
The Thin-Mat Filter Machine has been used successfully on the filtration of:
✦ Textile lint and dusts
✦ Oil mist and smoke
✦ Monomer and polymer dusts
✦ Phase changing contaminants
✦ Fine dust in high concentrations
✦ General ventilation air
✦ Very dirty plant atmospheres
✦ Industrial exhausts for energy conservation
✦ Industrial exhausts for reuse of air
✦ Chicken feathers and animal hair
✦ Paper dust
✦ Tobacco dust
✦ Contaminants too costly to be controlled by regular filters and too small for dust collectors
✦ Welding smokes
Benefits

The Thin-Mat Filter Machine offers you the technology of an innovative design for easy installation, the peace of mind of compliance with government regulations, and an improved, productive manufacturing environment. Consider all the benefits before you decide which filtration system will meet your specific needs...

- Efficient filtration
- Minimal initial cost
- Better air flow pattern
- A built-to-last design
- High efficiency performance
- High moisture resistance
- Ability to handle high air volumes
- Ability to handle heavy lint loads
- Minimal foot print requirements
- Flexible design for easy adaptation to available space
- Manual or automatic drive
- Pressure switch or timer activated media indexing control
- Magnethelic gauge for monitoring filter resistance
- Filtration of fine dust in high concentration
- A strong history of proven technology

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**Thin-Mat Dimension and Capacity Chart**

**44" Standard Unit (special sizes also available)**

<table>
<thead>
<tr>
<th>Width Designator</th>
<th>114</th>
<th>224</th>
<th>344</th>
<th>444</th>
<th>544</th>
<th>644</th>
<th>744</th>
<th>844</th>
<th>944</th>
<th>1044</th>
<th>1144</th>
<th>1244</th>
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<tbody>
<tr>
<td>Width B (&quot; )</td>
<td>3&quot;</td>
<td>4&quot;</td>
<td>6&quot;</td>
<td>9&quot;</td>
<td>12&quot;</td>
<td>15&quot;</td>
<td>18&quot;</td>
<td>21&quot;</td>
<td>24&quot;</td>
<td>27&quot;</td>
<td>30&quot;</td>
<td>33&quot;</td>
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**CFM Capacities at 300 FPM, Net Effective Media Area**

<table>
<thead>
<tr>
<th>Model No.</th>
<th>Height A</th>
<th>CFM Capacities</th>
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<tbody>
<tr>
<td>VT60</td>
<td>3 ½&quot;</td>
<td>6,625 12,250 19,875 26,500 33,125 39,750 46,375 53,095 59,725 66,350 72,975 79,600</td>
</tr>
<tr>
<td>VT80</td>
<td>5 ½&quot;</td>
<td>7,250 15,500 23,750 32,000 39,250 46,500 53,750 61,000 68,250 75,500 82,750 90,000</td>
</tr>
<tr>
<td>VT100</td>
<td>7 ½&quot;</td>
<td>7,875 18,000 26,250 34,500 42,750 51,000 59,250 67,500 75,750 83,950 92,200 100,000</td>
</tr>
<tr>
<td>VT120</td>
<td>9 ½&quot;</td>
<td>8,500 19,000 27,250 35,500 43,750 52,000 60,250 68,500 76,750 84,950 93,200 101,000</td>
</tr>
<tr>
<td>VT140</td>
<td>11 ½&quot;</td>
<td>9,125 20,000 28,250 36,500 44,750 53,000 61,250 69,500 77,750 85,950 94,200 102,000</td>
</tr>
<tr>
<td>VT160</td>
<td>12 ½&quot;</td>
<td>9,750 21,000 29,250 37,500 45,750 54,000 62,250 70,500 78,750 86,950 95,200 103,000</td>
</tr>
<tr>
<td>VT180</td>
<td>13 ½&quot;</td>
<td>10,375 22,000 30,250 38,500 46,750 55,000 63,250 71,500 79,750 87,950 96,200 104,000</td>
</tr>
<tr>
<td>VT200</td>
<td>14 ½&quot;</td>
<td>11,000 23,000 31,250 39,500 47,750 56,000 64,250 72,500 80,750 88,950 97,200 105,000</td>
</tr>
<tr>
<td>VT220</td>
<td>15 ½&quot;</td>
<td>11,625 24,000 32,250 40,500 48,750 57,000 65,250 73,500 81,750 89,950 98,200 106,000</td>
</tr>
<tr>
<td>VT240</td>
<td>16 ½&quot;</td>
<td>12,250 25,000 33,250 41,500 49,750 58,000 66,250 74,500 82,750 90,950 99,200 107,000</td>
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<tr>
<td>VT260</td>
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<tr>
<td>VT280</td>
<td>18 ½&quot;</td>
<td>13,500 27,000 35,250 43,500 51,750 60,000 68,250 76,500 84,750 92,950 101,000 109,000</td>
</tr>
<tr>
<td>VT300</td>
<td>19 ½&quot;</td>
<td>14,125 28,000 36,250 44,500 52,750 61,000 69,250 77,500 85,750 93,950 102,000 110,000</td>
</tr>
<tr>
<td>VT320</td>
<td>20 ½&quot;</td>
<td>14,750 29,000 37,250 45,500 53,750 62,000 70,250 78,500 86,750 94,950 103,000 111,000</td>
</tr>
<tr>
<td>VT340</td>
<td>21 ½&quot;</td>
<td>15,375 30,000 38,250 46,500 54,750 63,000 71,250 79,500 87,750 95,950 104,000 112,000</td>
</tr>
<tr>
<td>VT360</td>
<td>22 ½&quot;</td>
<td>16,000 31,000 39,250 47,500 55,750 64,000 72,250 80,500 88,750 96,950 105,000 113,000</td>
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<tr>
<td>VT380</td>
<td>23 ½&quot;</td>
<td>16,625 32,000 40,250 48,500 56,750 65,000 73,250 81,500 89,750 97,950 106,000 114,000</td>
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<tr>
<td>VT400</td>
<td>24 ½&quot;</td>
<td>17,250 33,000 41,250 49,500 57,750 66,000 74,250 82,500 90,750 98,950 107,000 115,000</td>
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<tr>
<td>VT420</td>
<td>25 ½&quot;</td>
<td>17,875 34,000 42,250 50,500 58,750 67,000 75,250 83,500 91,750 99,950 108,000 116,000</td>
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<tr>
<td>VT440</td>
<td>26 ½&quot;</td>
<td>18,500 35,000 43,250 51,500 59,750 68,000 76,250 84,500 92,750 100,950 109,000 117,000</td>
</tr>
<tr>
<td>VT460</td>
<td>27 ½&quot;</td>
<td>19,125 36,000 44,250 52,500 60,750 69,000 77,250 85,500 93,750 101,950 110,000 118,000</td>
</tr>
<tr>
<td>VT480</td>
<td>28 ½&quot;</td>
<td>19,750 37,000 45,250 53,500 62,750 71,000 79,250 87,500 95,750 103,950 112,000 120,000</td>
</tr>
<tr>
<td>VT500</td>
<td>29 ½&quot;</td>
<td>20,375 38,000 46,250 54,500 64,750 73,000 81,250 89,500 97,750 105,950 114,000 122,000</td>
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Number of 44" Filter Sections

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<thead>
<tr>
<th>Number of Drive Sections</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
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<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
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</table>

Example: Model 544 VT120 is a 5-section unit including 3 drive sections, measuring 18 ½" wide by 10 1/2" high. It has a design capacity of 70,625 CFM.
The Versatile, Easy-To-Install, Cost-Effective Filtration Solution.

The Thin-Mat Filter Machine and Filtration Technology Inc. set the industry standard for quality air filtration systems in 1975. It's easy to see why.

The Thin-Mat is an automatic roll-type unit which indexes a variety of strong, specially selected filter media through an air stream. The filter machine is constructed of U.S.S. 14 gauge galvanized sheet metal and all components are moisture protected.

The unit is designed for use in general ventilation air, high temperature air (up to 350°F), high moisture conditions, high static pressure operation (up to 3" w.g.) and in high velocity conditions (up to 1,000 FPM, however 500 FPM is recommended). The unit can also be used as a second-stage filter, downstream from drum filters, condensers and dust collectors where dust concentrations are too high for regular filters and too light or fine for dust collectors.

With its narrow profile in the direction of air flow, the Thin-Mat Filter Machine is factory wired and factory assembled for minimal field installation. The unit can be operated manually or automatically with either pressure control and/or timer control. There are no restrictions when it comes to the plane of media indexing.

The simplified mechanical drive is an enclosed gear motor with built-in thermal protection. Each filter section has a media run-out automatic cut-off switch. The motor and controls can be unit-mounted or remote-mounted as required. The control panel contains a pressure switch or timer control, media run-out signal, power-on signal, media indexing signal, and if required, a high-pressure-drop fan cut-off and a maneghelic gauge.

The design versatility of the Thin-Mat Filter Machine accommodates a wide variety of difficult filtration applications and can be engineered to meet government clean air specifications and regulations.
Media Choices
The Thin-Mat Filter Machine uses a variety of filter material, all requiring tensile strengths capable of being indexed at static pressures up to 3.0" w.g. while providing efficient filtration and replacement media costs.

Field experience proves that one media cannot satisfy all the requirements of a manufacturing facility. So, Filtration Technology Inc. has developed a range of material designed to handle heavy lint to fine dust. Our Research and Development personnel continue to create additional media choices which produce maximum filtration efficiency with minimal initial resistance and cost.

Samples and specifications on current materials are available upon request.
Getting Down To Specifics
At Filtration Technology Inc., we leave nothing to chance. By paying attention to the details of quality design, the Thin-Mat Filter Machine delivers the high performance required by industry today.

The following describes the Thin-Mat Filter Machine as manufactured by Filtration Technology Inc.

- All metal parts are either galvanized, cadmium plated, stainless steel or aluminum.
- The units are built to resist moisture. Sheet metal components are L.S.S. 14 gauge.
- The filter machines are factory-wired, factory-assembled, and factory-aligned.
- The unit is pressure switched or timer controlled and suitable for 115v or 230v 60 HZ, 1 ph electrical service.
- The unit is equipped with a totally enclosed thermally protected motor.
- Each control panel has a media run-out signal, power-on signal, media indexing signal and magnehelic gauge.
- Each section has a separate media run-out switch.
- Each section is equipped with air straighteners to improve air flow patterns.
- Each dual section master-slave assembly has a common shaft direct drive to individual take-up cores.

The filter media is sufficiently strong to index itself through the air stream.
- Convertible take-up cores offer easy removal of used media, low level dust exposure and effective media replacement.