



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
- ▶ Magnehelic gauge for monitoring filter resistance
- ▶ Filtration of fine dust in high concentration
- ▶ A strong history of proven technology



Thin-Mat Dimension and Capacity Chart 44" Standard Unit (special sizes also available)

Width Designator	144	244	344	444	544	644	744	844	944	1044	1144	1244	
Width B	3'8"	7'4"	11'0"	14'8"	18'4"	22'0"	25'8"	29'4"	33'0"	36'8"	40'4"	44'0"	
Model No.	Height A	CFM Capacities at 500 FPM Net Effective Media Area											
VT60	5'0"	6,625	12,250	19,875	26,500	33,125	39,750	46,375	53,000	59,625	66,250	72,875	79,500
VT65	5'5"	7,250	14,500	21,750	29,000	36,250	43,500	50,750	58,000	65,250	72,500	79,750	87,000
VT70	5'10"	7,875	15,750	23,625	31,500	39,375	47,250	55,125	63,000	70,875	78,750	86,625	94,500
VT75	6'3"	8,500	17,000	25,500	34,000	42,500	51,000	59,500	68,000	76,500	85,000	93,500	102,000
VT80	6'8"	9,125	18,250	27,375	36,500	45,625	54,750	63,875	73,000	82,125	91,250	100,375	109,500
VT85	7'1"	9,750	19,500	29,250	39,000	48,750	58,500	68,250	78,000	87,750	97,500	107,250	117,000
VT90	7'6"	10,375	20,750	31,125	41,500	51,875	62,250	72,625	83,000	93,375	103,750	114,125	124,500
VT95	7'11"	11,000	22,000	33,000	44,000	55,000	66,000	77,000	88,000	99,000	110,000	121,000	132,000
VT100	8'4"	11,625	23,250	34,875	46,500	58,125	69,750	81,375	93,000	104,625	116,250	127,875	139,500
VT105	8'9"	12,250	24,500	36,750	49,000	61,250	73,500	85,750	98,000	110,250	122,500	134,750	147,000
VT110	9'2"	12,875	25,750	38,625	51,500	64,375	77,250	90,125	103,000	115,875	128,750	141,625	154,500
VT115	9'7"	13,500	27,000	40,500	54,000	67,500	81,000	94,500	108,000	121,500	135,000	148,500	162,000
VT120	10'0"	14,125	28,250	42,375	56,500	70,625	84,750	98,875	113,000	127,125	141,250	155,375	169,500
VT125	10'5"	14,750	29,500	44,250	59,000	73,750	88,500	103,250	118,000	132,750	147,500	162,250	177,000
VT130	10'10"	15,375	30,750	46,125	61,500	76,875	92,250	107,625	123,000	138,375	153,750	169,125	184,500
VT135	11'3"	16,000	32,000	48,000	64,000	80,000	96,000	112,000	128,000	144,000	160,000	176,000	192,000
VT140	11'8"	16,625	33,250	49,875	66,500	83,125	99,750	116,375	133,000	149,625	166,250	182,875	199,500
VT145	12'1"	17,250	34,500	51,750	69,000	86,250	103,500	120,750	138,000	155,250	172,500	189,750	207,000
VT150	12'6"	17,875	35,750	53,625	71,500	89,375	107,250	125,125	143,000	160,875	178,750	196,625	214,500
VT155	12'11"	18,500	37,000	55,500	74,000	92,500	111,000	129,500	148,000	166,500	185,000	203,500	222,000
VT160	13'4"	19,125	38,250	57,375	76,500	95,625	114,750	133,875	153,000	172,125	191,250	210,375	229,500
VT165	13'9"	19,750	39,500	59,250	79,000	98,750	118,500	138,250	158,000	177,750	197,500	217,250	237,000
VT170	14'2"	20,375	40,750	61,125	81,500	101,875	122,250	142,625	163,000	183,375	203,750	224,125	244,500
VT175	14'7"	21,000	42,000	63,000	84,000	105,000	126,000	147,000	168,000	189,000	210,000	231,000	252,000
VT180	15'0"	21,625	43,250	64,875	86,500	108,125	129,750	151,375	173,000	194,625	216,250	237,875	259,500
Number of 44" Filter Sections	1	2	3	4	5	6	7	8	9	10	11	12	
Number of Drive Sections	1	1	2	2	3	3	4	4	5	5	6	6	

Example: Model 544VT120 is a 5-section unit including 3 drive sections, measuring 18'4" wide by 10'0" 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 magnehelic gauge.

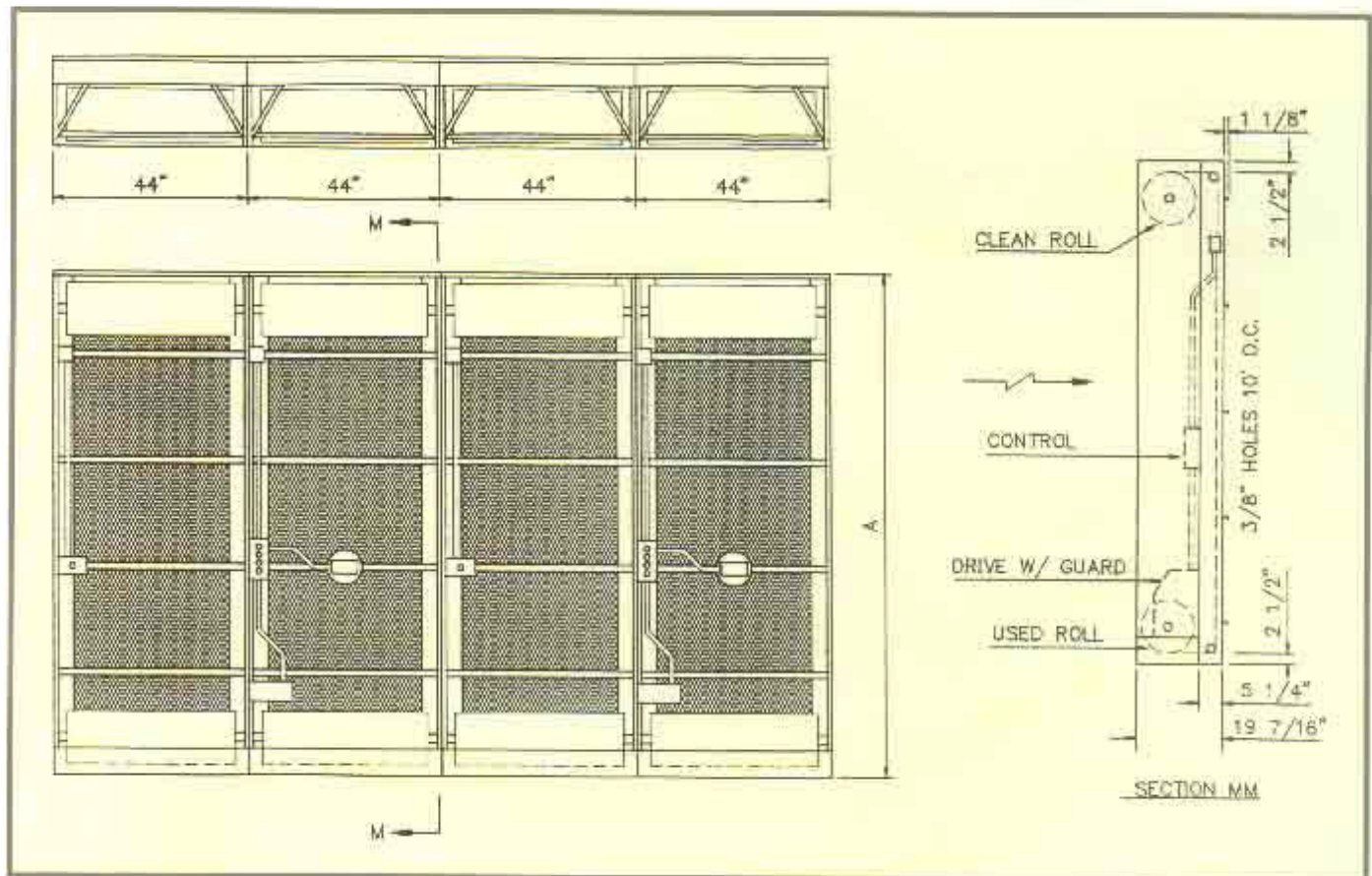
The design versatility of the Thin-Mat Filter Machine accommodates a wide variety of difficult filtration applications and can be engineered to meet government clean air specifications and regulations.

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 U.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.

