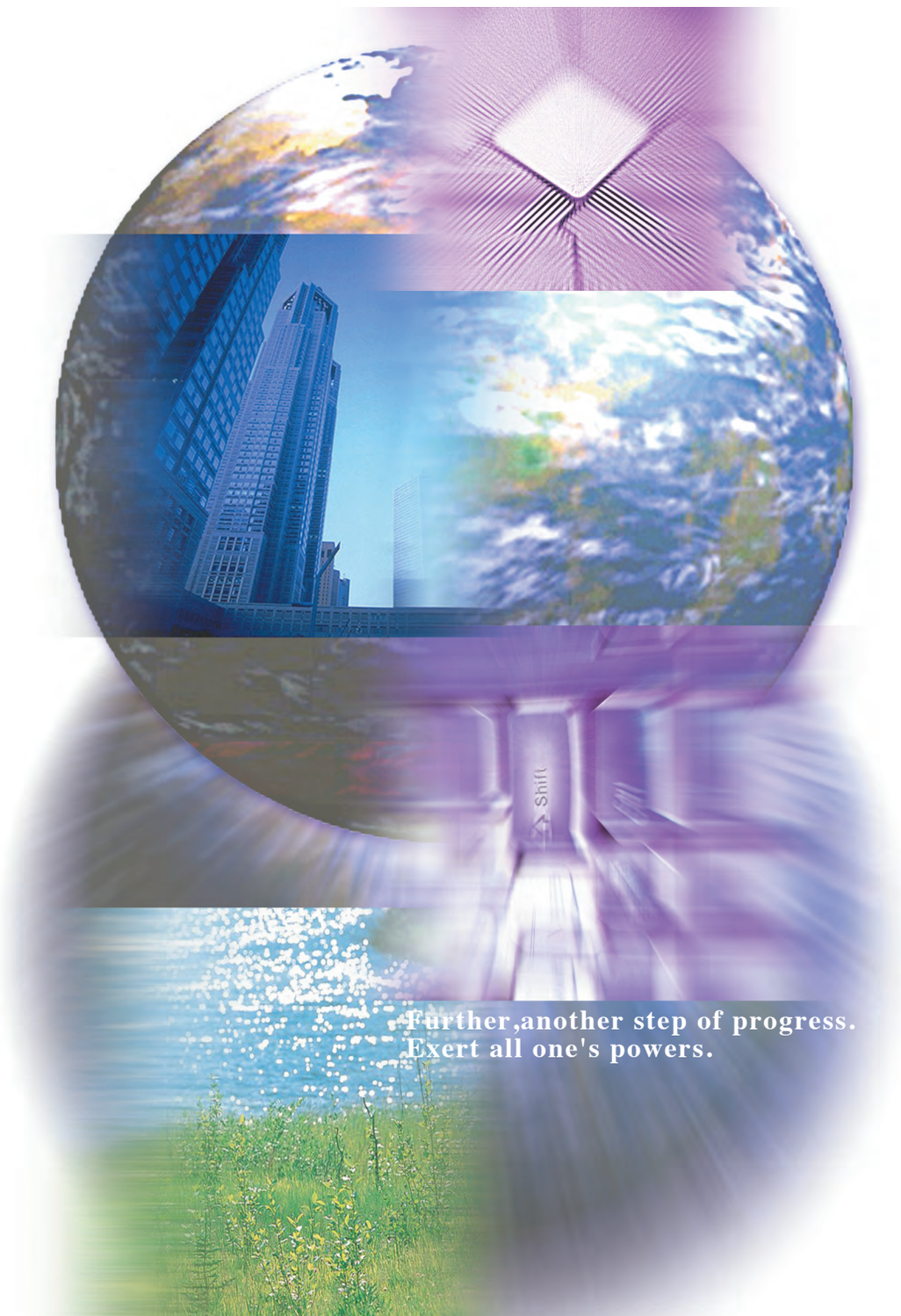
Air Filters and Air-Conditioning Systems

General Catalog of Air-Conditioning Products

Air Filtration Products & Systems



JAPAN vilene COMPANY, LTD.

Air Filtration Products & Systems

Japan Vilene Company, Ltd. develops a broad range of air-conditioning filters and equipment that help us live synergistically with the earth and our environment.

Based on our technologies for developing non woven fabrics,we have developed comprehensive filtration systems to help create a clean environment.

Since the 1960s, Japan Vilene Company, Ltd. has been allied with the Freudenberg group Germany—a world-renown manufacturer of non woven fabrics—and has been developing and marketing the "Viledon" series of non woven air filter products. We have since expanded our technologies into the realm of filtration systems, and are currently focusing our energies in applications for generic air-conditioning as well as in creating clean spaces in industrial air-conditioning applications.

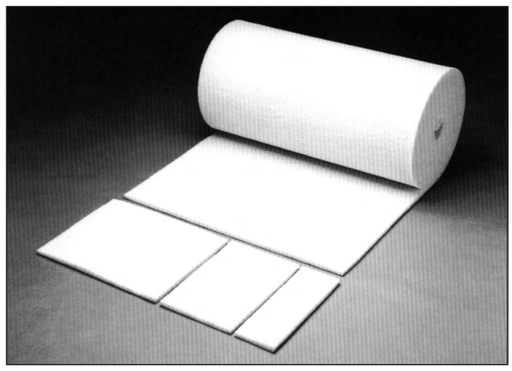
Further, another step of progress.
Exert all one's powers.

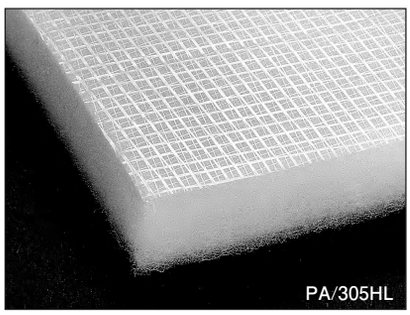
CONTENTS

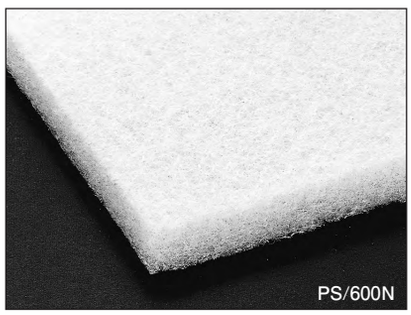
- This is a general catalog for air-conditioning products marketed by Japan Vilene. Please refer to individual product catalogs for more specific product information.
- If you do not have a product catalog, you can either download one from our web site, or request one of our agents to have one mailed to you.

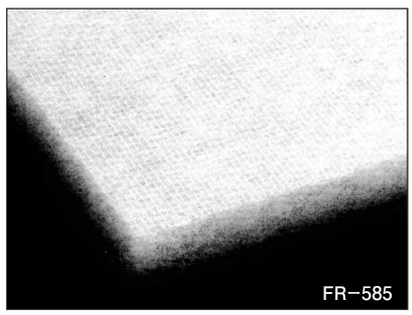
VILEDON AIR FILTER

The Viledon air filter is a high-quality air filter that is based on non-woven fabric. Non-woven literally means "not woven."
This material was developed through a marriage of the idea behind paper and felt production with state-of-the-art technologies, namely organic chemistry and polymer chemistry.
This allows us to combine synthetic fibers and a variety of other materials, offering great latitude in designing specific physical and chemical properties for specific applications.
Viledon air filters are made of materials that are highly flexible in this regard.




PA/305HL


PS/600N


FR−585

Viledon®

List of Viledon air filter applications

Application	Notable features	Types
Spray-painting booth	Filters for painting booths almost completely remove large visible particles (10μm or larger) that make up the suspended dust particles in the air and are therefore effective in reducing paint defects.	・PA/350HL ・PA/305HL ・PH−400
Drying oven	Heat-resistant filters for drying ovens efficiently remove tar, soot, rust and other substances that are created inside a drying oven to prevent surface contamination to products that undergo the drying process. These filters are made of special synthetic fibers that deliver excellent durability even in high-temperature environments.	・AI −100W ・AE−100 Two-ply ・AE−100
General-purpose regenerative	General-purpose regenerative filters are optimum for filtering outdoor air or as a pre-filter to mid- to high-performance filters. They can be washed several times for easy regeneration. These filters are primarily used in panel format.	・PS/600N ・PS/400N ・PS/300N ・PS/150N
General-purpose disposable	General-purpose disposable filters are optimum for filtering outdoor air. FR-585 in particular delivers excellent running costs when used in automatic roll filter(V・MR). These filters have been treated with a adhesive to improve collection efficiency making it an effective filter against sandy dust.	・FR−585 ・FS−6200 ・FS−6500 ・PE/205HL ・FR−580
Special equipment	Filters for special equipment deliver low pressure loss and excellent collection efficiency for better dust holding capacity. This material can be cast with plastic or folded into a zig-zag configuration, and is optimally suited for maintaining a variety of equipment for example when used as a medium for long-life filters used in individual air-conditioning facilities.	・FS−1710 ・FS−1705 ・FS−1705W
Semi-conductor plant	This type of Viledon filter has been given a low gas generation treatment, and is optimally suited for use as outdoor air filters for cleanrooms in semi-conductor and LCD plants.	・FR−580−OGL

■ Features


"Density gradient" structure

●Flexible in density control

The fabrics have a porous structure, whose pore sizes can be controlled using different combinations of fiber and binders to meet a variety of applications.

●Its "density gradient" is optimum for air filters.

With a graduated density that is greater on the downstream side than on the upstream, these filter media deliver minimal pressure loss, good collection efficiency, and large holding capacity.
(Some products do not have a density gradient)

●Easy to regenerate.

Viledon air filters for general regeneration purposes can be regenerated using water washing or spray cleaning.

●Peace of mind with excellent flame retardancy

These products are categorized in Class 3 according to the Japan Air Cleaning Association's (JACA) Flammability Test No. 11A-2003 for Air Purifier Filter Media.
・FR-580 and FR-580-OGL are not flame retardant.

●Versatile and suited for a variety of applications

These media are employed in a diverse range of applications ranging from everyday uses in office buildings and music halls, to applications in state-of-the-art facilities such as semiconductor factories.

■ List of Viledon air filter Specification

Application	Types	Material	Standard size W x L	Thickness (mm)	Thermal stability (℃)	Velocity (m/s)	Pressure drop (Pa)		ASHRAE average arrestance (%)
							Initial	Final	
Spray painting booth	PA/350HL	Polyolefin	1.6m×20m	18±3	≦60	0.5	45	400	>98
	PA/305HL			19±3			45		≧98
	PH−400			18±3	≦100		45		≧98
Drying oven	AI−100W	Aromatic polyamides	500mm×500mm	20±3	≦240	1.0	45	200	90
	AE-100 Two-ply		500mm×500mm	20±4	≦180		45		90
	AE−100		1.6m×20m	10±2	≦180		25		88
General-purpose regenerative	PS/600N	Polyester/modacrylic	1.6m×20m	20±3	≦80	2.5	90	200	82
	PS/400N			14±2			64		76
	PS/300N		1.6m×30m	10±2			54		73
	PS/150N			8±2			30		63
General-purpose disposable	FR−585	Polyolefin	1.73m×20m	18±3	≦60	2.5	59	200	85
	FS−6200	Polyester/modacrylic	1.6m×15m	14±2			54		78
	FS−6500	Polyester/modacrylic	1.6m×20m	13±2		1.0	35		90
	PE/205HL	Polyolefin	1.6m×20m	18±3			40		90
	FR−580※	Polyolefin	1.6m×20m	20±3		2.5	54		80
Special equipment	FS−1710	Polyamide/modacrylic	1.0m×50m	11±2	≦60	2.5	35	200	74
	FS−1705	Polyester/modacrylic		5.5±1.5			20		68
	FS−1705W	Polyester/modacrylic		6.5±1.5			20		68
Semi-conductor plant	FR−580−OGL※	Polyolefin	1.6m×20m	20±3	≦60	2.5	54	200	80

※FR-580 and FR-580-OGL are not flame retardant.
※Filter thickness can be thinner according to storage condition.
Because inner part of roll type filters especially has a tendency to become thinner, thickness information on this catalogue is not guaranteed value.

PANEL FILTER

These filters are framed air filters that were designed to maximize the performance of Viledon filter media.
These filters are optimally suited for general-purpose treating of outdoor air, and as a pre-filter for mid- to high-performance filters.

VT

VP

VK

■ VT series (aluminum frame, lightweight)

Lightweight and easy to handle. Model variations that can be joined together laterally are also available.

■ VA series (aluminum frame, detachable frame)

The inner frame can be easily removed from the outer frame for easy replacement of the filter medium. The frame is made of anti-corrosion aluminum, making it lightweight and easy to handle.

■ VB series (aluminum frame, detachable frame/bolt-connected)

This is an easy-to-assemble, bolt-connected type of filter.

■ VP series (built-in Viledon zig-zag format)

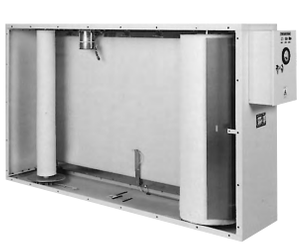
The filter surface is assembled in a zig-zag fashion to give this air filter a three-fold increase in filtering area.
This allows users to extend their replacement cycles for excellent economy.

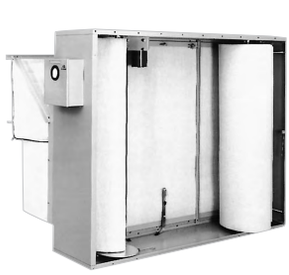
■ VK series (paper frame, disposable)

These filters are made by encapsulation-molding pleated filter media onto a frame made of recycled paper using a special adhesive. A notable feature of this long-lasting and highly economical filter are the waste reduction measures that have been taken.

AUTOMATIC ROLL FILTER

Autmatic Roll filters are an automatic roll filtration system that was developed through our extensive experience in marketing Viledon filters over the years. A variety of sizes to suit customer requirements are available in a range of different categories that respectively range from (1) coarse dust filters to mid- and high efficiency filters, (2) standard air volume to large air volume filters, and (3) generic filters with simple shape to high-performance filters.





【Automatic Roll Filter】

■ V・MR series

<Standard>

Equipped with Viledon, The V・MR is a system that collects dust on the surface of its filter media.
This is an automatic roll air filter with a drive mechanism that automatically winds used media and exposes new media.

■ V・HR series

<Larger air volume>

The V・HR is an automatic roll air filter designed to treat large air volumes with Viledon media installed in a zig-zag configuration.

■ V・BR series

<Automatic Roll air filter + Pocket filter>

The V・BR is a mid- to high-performance grade air filter system that is a combination of an automatic roll filter and pocket filter.
With low pressure loss, high collection efficiency, and long service life, this system delivers extremely large dust holding capacity and can therefore be used for extended periods of time.

Environment-friendly filter series

Middle and High Efficiency Filtraion

The environment-friendly filter series of mid- to high-performance filters is optimally suited for green procurement purposes for a variety of businesses, as well as for improving general indoor air quality (IAQ) in buildings.
This series of filters is equipped with a new type of filter media that were developed through Japan Vilene's superior non-woven technologies.

Notable Features of the Environment-friendly filter series of Air Filters

1. Filter is made of self-developed non woven media that delivers low pressure loss, high efficiency, and long service life.
2. Low pressure loss results in a reduction in power consumption of approximately 24% (Compared to previous Japan Vilene products).
3. Filter can be reused as a resource when recycled through our "used filter recycling system." RPF implementation results in a roughly 30% reduction in CO_2 emissions during recycling compared to when coal is used.
4. The amounts of regulated chemical substances halogen※1, formaldehyde※2, and VOCs※3 used have been reduced.
5. Smaller volume and reduced weight thanks to thinner design and removable format.

※1) Does not contain halogen series raw materials.
※2) Does not contain raw materials that generate formaldehyde.
※3) Reduced VOC (volatile organic compounds) content. (Compared to previous Japan Vilene products)

Environment-friendly filter

Rigid Filter 【Element changeable】

These filters are a mid- to high efficiency filter with a smaller volume and a replaceable medium. Its outer frame can be reused with only the element requiring replacement to achieve a dramatic reduction in running costs.

■ VZ・DH series <Larger air volume>

Element							Outer frame (standard)			Total weight (kg)
Model	JIS dust-spot efficiency	Air flow rate (m^3/min)	Pressure drop (Pa) Initial	Pressure drop (Pa) Final	Folded dimensions (mm) W×H×D	Weight (kg)	Model	Dimensions (mm) W×H×D	Weight (kg)	
VZ-DH-95M-70F3	95%	70 (56)	150 (120)	300	270×590×300	3.0	VC-290H-70F3	610×610×290	6.5	9.5
VZ-DH-95M-35H3		35 (28)	160 (130)		270×285×300	1.5	VC-290H-35H3	610×305×290	5.0	6.5
VZ-DH-95M-35V1		35 (28)	160 (130)		110×590×300	1.0	VC-290H-35V1	305×610×290	5.0	6.0
VZ-DH-90M-70F3	90%	70 (56)	130 (100)	300	270×590×300	3.0	VC-290H-70F3	610×610×290	6.5	9.5
VZ-DH-90M-35H3		35 (28)	140 (110)		270×285×300	1.5	VC-290H-35H3	610×305×290	5.0	6.5
VZ-DH-90M-35V1		35 (28)	140 (110)		110×590×300	1.0	VC-290H-35V1	305×610×290	5.0	6.0
VZ-DH-65M-70F3	65%	70 (56)	120 (90)	300	270×590×300	3.0	VC-290H-70F3	610×610×290	6.5	9.5
VZ-DH-65M-35H3		35 (28)	130 (100)		270×285×300	1.5	VC-290H-35H3	610×305×290	5.0	6.5
VZ-DH-65M-35V1		35 (28)	130 (100)		110×590×300	1.0	VC-290H-35V1	305×610×290	5.0	6.0

■ VZ・DT series <150mm depth>

Element						Outer frame (standard)			Total weight (kg)
Model	JIS dust-spot efficiency	Air flow rate (m^3/min)	Pressure drop (Pa) Initial	Pressure drop (Pa) Final	Weight (kg)	Model	Dimensions (mm) W×H×D	Weight (kg)	
VZ-DT-95M-56F5	95%	56	130	300	2.0	VC-DT-56F5	610×610×150	4.5	6.5
VZ-DT-95M-28H5		28	140		1.5	VC-DT-28H5	610×305×150	3.0	4.5
VZ-DT-95M-28V2		28	140		1.0	VC-DT-28V2	305×610×150	3.0	4.0
VZ-DT-90M-56F5	90%	56	110	300	2.0	VC-DT-56F5	610×610×150	4.5	6.5
VZ-DT-90M-28H5		28	120		1.5	VC-DT-28H5	610×305×150	3.0	4.5
VZ-DT-90M-28V2		28	120		1.0	VC-DT-28V2	305×610×150	3.0	4.0
VZ-DT-65M-56F5	65%	56	90	300	2.0	VC-DT-56F5	610×610×150	4.5	6.5
VZ-DT-65M-28H5		28	100		1.5	VC-DT-28H5	610×305×150	3.0	4.5
VZ-DT-65M-28V2		28	100		1.0	VC-DT-28V2	305×610×150	3.0	4.0

■ VZ・D series <Standard air volume>

Element							Outer frame (standard)			Total weight (kg)
Model	JIS dust-spot efficiency	Air flow rate (m^3/min)	Pressure drop (Pa) Initial	Pressure drop (Pa) Final	Folded dimensions (mm) W×H×D	Weight (kg)	Model	Dimensions (mm) W×H×D	Weight (kg)	
VZ-D-95M-56F3	95%	56	130	300	270×580×290	3.0	VC-290-56F3	610×610×290	7.0	10.0
VZ-D-95M-28H3		28	140		270×275×290	1.5	VC-290-28H3	610×305×290	5.0	6.5
VZ-D-95M-28V1		28	140		110×580×290	1.0	VC-290-28V1	305×610×290	5.0	6.0
VZ-D-90M-56F3	90%	56	110	300	270×580×290	3.0	VC-290-56F3	610×610×290	7.0	10.0
VZ-D-90M-28H3		28	120		270×275×290	1.5	VC-290-28H3	610×305×290	5.0	6.5
VZ-D-90M-28V1		28	120		110×580×290	1.0	VC-290-28V1	305×610×290	5.0	6.0
VZ-D-65M-56F3	65%	56	90	300	270×580×290	3.0	VC-290-56F3	610×610×290	7.0	10.0
VZ-D-65M-28H3		28	100		270×275×290	1.5	VC-290-28H3	610×305×290	5.0	6.5
VZ-D-65M-28V1		28	100		110×580×290	1.0	VC-290-28V1	305×610×290	5.0	6.0

Environment-friendly filter

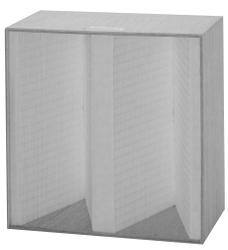
Rigid Filter
【Box-shaped】

These filters are a mid- to high efficiency filter in a unit format. This series is optimally suited for air-conditioning in buildings as well as for a variety of industrial applications.

■ VZ・H series <Larger air volume>

Model	JIS dust-spot efficiency	Air flow rate (m^3/min)	Pressure drop (Pa) Initial	Pressure drop (Pa) Final	Dimensions (mm) W×H×D	Weight (kg)
VZ・H−95M−70F	95%	70 (56)	140 (110)	300	610×610×290	7.0
VZ・H−95M−35H	95%	35 (28)	140 (110)	300	610×305×290	5.0
VZ・H−95M−35V	95%	35 (28)	140 (110)	300	305×610×290	5.0
VZ・H−90M−70F	90%	70 (56)	120 (90)	300	610×610×290	7.0
VZ・H−90M−35H	90%	35 (28)	120 (90)	300	610×305×290	5.0
VZ・H−90M−35V	90%	35 (28)	120 (90)	300	305×610×290	5.0
VZ・H−65M−70F	65%	70 (56)	100 (70)	300	610×610×290	7.0
VZ・H−65M−35H	65%	35 (28)	100 (70)	300	610×305×290	5.0
VZ・H−65M−35V	65%	35 (28)	100 (70)	300	305×610×290	5.0

■ VZ・E series <Standard air volume>



Model	JIS dust-spot efficiency	Air flow rate (m^3/min)	Pressure drop (Pa) Initial	Pressure drop (Pa) Final	Dimensions (mm) W×H×D	Weight (kg)
VZ・E−95M−56F	95%	56	140	300	610×610×290	5.5
VZ・E−95M−28H	95%	28	140	300	610×305×290	4.0
VZ・E−95M−28V	95%	28	140	300	305×610×290	4.0
VZ・E−90M−56F	90%	56	100	300	610×610×290	5.5
VZ・E−90M−28H	90%	28	100	300	610×305×290	4.0
VZ・E−90M−28V	90%	28	100	300	305×610×290	4.0
VZ・E−65M−56F	65%	56	70	300	610×610×290	5.5
VZ・E−65M−28H	65%	28	70	300	610×305×290	4.0
VZ・E−65M−28V	65%	28	70	300	305×610×290	4.0

■ VZ・T series <150mm depth>

Model	JIS dust-spot efficiency	Air flow rate (m^3/min)	Pressure drop (Pa) Initial	Pressure drop (Pa) Final	Dimensions (mm) W×H×D	Weight (kg)
VZ・T−95M−56F	95%	56	160	300	610×610×150	4.0
VZ・T−95M−28H	95%	28	160	300	610×305×150	3.0
VZ・T−95M−28V	95%	28	160	300	305×610×150	3.0
VZ・T−90M−56F	90%	56	120	300	610×610×150	4.0
VZ・T−90M−28H	90%	28	120	300	610×305×150	3.0
VZ・T−90M−28V	90%	28	120	300	305×610×150	3.0
VZ・T−65M−56F	65%	56	90	300	610×610×150	4.0
VZ・T−65M−28H	65%	28	90	300	610×305×150	3.0
VZ・T−65M−28V	65%	28	90	300	305×610×150	3.0

■ VZ series <Longer lite>

Model	JIS dust-spot efficiency	Air flow rate (m^3/min)	Pressure drop (Pa) Initial	Pressure drop (Pa) Final	Dimensions (mm) W×H×D	Weight (kg)
VZ−95M−56F	95%	56	120	300	610×610×290	7.0
VZ−95M−28H	95%	28	120	300	610×305×290	5.0
VZ−95M−28V	95%	28	120	300	305×610×290	5.0
VZ−90M−56F	90%	56	100	300	610×610×290	7.0
VZ−90M−28H	90%	28	100	300	610×305×290	5.0
VZ−90M−28V	90%	28	100	300	305×610×290	5.0
VZ−65M−56F	65%	56	70	300	610×610×290	7.0
VZ−65M−28H	65%	28	70	300	610×305×290	5.0
VZ−65M−28V	65%	28	70	300	305×610×290	5.0

Environment-friendly filter

Rigid Filter

【Prevent sea salt particle】

These filters are a high-performance filter that was designed to prevent salt damage and is effective in preventing salt damage-related problems with air-conditioner ducts, digital office equipment, and production facilities.

■ VX･D series <Element changeable>

Element							Outer frame (standard)			Total Weight (kg)
Model	JIS dust-spot efficiency	Air flow rate (m^3/min)	Pressure drop (Pa) Initial	Pressure drop (Pa) Final	Folded dimensions (mm) W×H×D	Weight (kg)	Model	Dimensions (mm) W×H×D	Weight (kg)	
VX･D-98M-56F3	98%	56	130	300	270×580×290	3.0	VC-290S-56F3	610×610×290	7.0	10.0
VX･D-98M-28H3		28	140	300	270×275×290	1.5	VC-290S-28H3	610×305×290	5.0	6.5
VX･D-98M-28V1		28	140	300	110×580×290	1.0	VC-290S-28V1	305×610×290	5.0	6.0
VX･D-95M-56F3	95%	56	120	300	270×580×290	3.0	VC-290S-56F3	610×610×290	7.0	10.0
VX･D-95M-28H3		28	130	300	270×275×290	1.5	VC-290S-28H3	610×305×290	5.0	6.5
VX･D-95M-28V1		28	130	300	110×580×290	1.0	VC-290S-28V1	305×610×290	5.0	6.0

■ VX series <Standard>

Model	JIS dust-spot efficiency	Air flow rate (m^3/min)	Pressure drop (Pa) Initial	Pressure drop (Pa) Final	Dimensions (mm) W×H×D	Weight (kg)
VX-98M-56F	98%	56	120	300	610×610×290	7.0
VX-98M-28H		28	120		610×305×290	5.0
VX-98M-28V		28	120		305×610×290	5.0
VX-95M-56F	95%	56	110	300	610×610×290	7.0
VX-95M-28H		28	110		610×305×290	5.0
VX-95M-28V		28	110		305×610×290	5.0

Environment-friendly filter

Pleated Filter

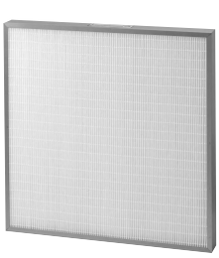
With a depth measuring only 65mm, These filters are a series of thin and lightweight mid- to high-performance filters that deliver low pressure loss with a configuration where the media is folded into fine pleats.

■ VM･D series <Element changeable 65mm>

Element							Outer frame (standard)			Total Weight (kg)
Model	JIS dust-spot efficiency	Air flow rate (m^3/min)	Pressure drop (Pa) Initial	Pressure drop (Pa) Final	Dimensions (mm) W×H×D	Weight (kg)	Model	Dimensions (mm) W×H×D	Weight (kg)	
VM･D-90M-56F	90%	56	90	300	604×608×53	1.5	VC-65-56F	610×610×65	1.5	3.0
VM･D-90M-23H		23			604×304×53	1.0	VC-65-23H	610×305×65	1.0	2.0
VM･D-90M-23V		23			299×608×53	1.0	VC-65-23V	305×610×65	1.0	2.0
VM･D-65M-56F	65%	56	70	300	604×608×53	1.5	VC-65-56F	610×610×65	1.5	3.0
VM･D-65M-23H		23			604×304×53	1.0	VC-65-23H	610×305×65	1.0	2.0
VM･D-65M-23V		23			299×608×53	1.0	VC-65-23V	305×610×65	1.0	2.0

※The VM･D-90M series uses media that has been given an electrification treatment.

■ VM series <Standard 65mm>



Model	JIS dust-spot efficiency	Air flow rate (m^3/min)	Pressure drop (Pa) Initial	Pressure drop (Pa) Final	Dimensions (mm) W×H×D	Weight (kg)
VM-90M-56F	90%	56	90	300	610×610×65	3.0
VM-90M-23H		23			610×305×65	2.0
VM-90M-23V		23			305×610×65	2.0
VM-65M-56F	65%	56	70	300	610×610×65	3.0
VM-65M-23H		23			610×305×65	2.0
VM-65M-23V		23			305×610×65	2.0

※The VM-90M series uses media that has been given a electrification treatment.

Environment-friendly filter

Pocket Filter

With superb collection efficiency and low pressure drop, the VG series delivers excellent dust holding capacity. As such, this is a streamer type filter that can be used for longer periods of time compared to unit type filters.

Notable Features of the Environment-friendly filter series of Pocket Air Filter

1. Based on innovative self-developed nonwoven fabric.
2. Low pressure loss results in a roughly 24% reduction in power consumption (Compared to previous Japan Vilene products). [VG-95M]
3. Roughly 150% longer service life (Compared to previous Japan Vilene products). [VG-95M,VG-90M]
4. Smaller CO_2 emissions in terms of LCA (Life Cycle Assessment).

■ VG series

Model	JIS dust-spot efficiency	Air flow rate (m^3/min)	Pressure drop (Pa)		Dimensions (mm) W×H×D	Pocket number	Weight (kg)
			Initial	Final			
VG-95M-56F	95%	56	130	300	595×595×860	6	3.0
VG-95M-28H		28	130		595×305×860	6	2.0
VG-95M-28V		28	130		305×595×860	3	2.0
VG-90M-56F	90%	56	110	300	595×595×860	6	3.0
VG-90M-28H		28	110		595×305×860	6	2.0
VG-90M-28V		28	110		305×595×860	3	2.0
VG-70M-56F	70%	56	90	300	595×595×860	6	3.0
VG-70M-28H		28	90		595×305×860	6	2.0
VG-70M-28V		28	90		305×595×860	3	2.0

Filters related to Pocket Filter

■ VG-40 series

This is a lightweight filter with a plastic frame that provides excellent shape retention, and is optimally suited for use as a pre-filter for high-performance filters or an intermediate filter within a ceiling filter system in spray-painting booths.

Model	JIS dust-spot efficiency	Air flow rate (m^3/min)	Pressure drop (Pa)		Folded dimensions (mm) W x H x D	Pocket number	Weight (kg)
			Initial	Final			
VG-40-70F	40%	70	70	300	595×595×350	4	1.0
VG-40-35H		35	70		595×305×350	4	0.6
VG-40-35V		35	70		305×595×350	2	0.6
VG-40-56F		56	70		595×595×280	4	0.9
VG-40-28H		28	70		595×305×280	4	0.5
VG-40-28V		28	70		305×595×280	2	0.5

RIGID FILTER CASING SERIES

With the enactment of the Law for Maintenance of Sanitation in Buildings, filter performance levels have evolved as environmental standards for designated buildings, and cleanness level requirements in industrial spaces have become more stringent. Coupled with demand for greater economic performance, space-saving air-conditioning equipment that provide good efficiency in terms of both function and cost have become indispensable.
Specially designed for coarse dust filters, mid- to high efficiency filters, and HEPA filters, the filter casing series of casings meet these new demands.

Filter casing (For Panel filter VT)

■ VT・CA series

The VT・CA is used together with Japan Vilene's Panel filter VT as a primary treatment filter for outdoor air.

Filter casing (For Pleated filter VM)

■ VM・CA series

The main filter of the VM・CA consists of the environmentally -friendly filter.Users can choose from one that is fitted with a pre-filter, or one without.

Filter cam casing

■ V・CM series

The V・CM casing consists of a pre-filter and main filter configuration. The main filter is fixed in place by way of a cam. Its main filter consists of the environmentally-friendly filter.

Automatic roll air filter + filter cam casing

■ V・CM・R series

A design that combines pre-filter main filter, makes the V・CM・R a labor-saving filter casing.
Its main filter consists of the environmentally-friendly filter.

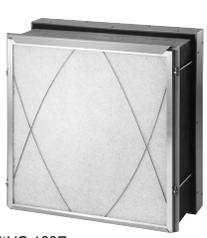
Super-high-performance filter casing

■ V・CM・H series <HEPA filter>

The V・CM・H is a super-high-efficlency filter casing that was developed specially for HEPA filters.
It comes with a special, high-precision tightening mechanism for installing HEPA filters.

【Filter installation frame】

● VC Studs <Midium Efficiency filter> series

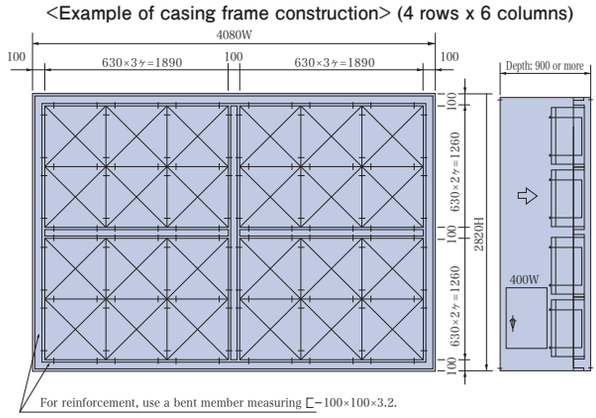


※VC-100E

Installation frames
- VC−100E (For VZ・H,VZ・E,and VZ only)
- VC−100T (For VZ・T only)
- VC−100ES (For VX only)
- VC−100VM (For VM only)
- VC−VG (For VG only)

Outer frames
- VC−290H (For VZ・DH only)
- VC−290 (For VZ・D only)
- VC−DT (For VZ・DT only)
- VC−290S (For VX・D only)
- VC−65 (For VM・D only)

<Example of casing frame construction> (4 rows x 6 columns)



・The drawing is an example where VC-100E-56F is used.

● VC Studs<HEPA filters> series

Installation frame VC-150H (For HEPA filters only)

GAS REMOVAL FILTER

These filters are a series of filters that were designed to remove※ gases with foul odors or harmful gases using active carbon and chemical adsorbent.
※This in no way implies that these filters guarantee personal safety.
※Effectiveness varies depending on the type of gas. Please call Japan Vilene for details.

■ VZ・G series <Foul odor gas and harmful gas filter with dust removal function>

These filters are a combination of a layer of adsorbent for removing foul odors and harmful gases, and a layer for removing dust particles.

Types		Model	Dimensions (mm) W×H×D	JIS dust-spot efficiency	Adsorption capacity※1 (g/filter)	Air flow rate (m^3/min)	Pressure drop (Pa) Initial	Pressure drop (Pa) Final	Weight (kg)
High-dust-removal-efficiency filter (Dust-spot grade)	Acidic gas	VZ・G−90A−56F	610×610×290	90%	96	56	140	300	10.5
		VZ・G−90A−28H	610×305×290		48	28			6.0
		VZ・G−90A−28V	305×610×290		48	28			6.0
		VZ・G−65A−56F	610×610×290	65%	96	56	90		10.5
		VZ・G−65A−28H	610×305×290		48	28			6.0
		VZ・G−65A−28V	305×610×290		48	28			6.0
	Basic gas	VZ・G−90B−56F	610×610×290	90%	41	56	140	300	10.5
		VZ・G−90B−28H	610×305×290		21	28			6.0
		VZ・G−90B−28V	305×610×290		21	28			6.0
		VZ・G−65B−56F	610×610×290	65%	41	56	90		10.5
		VZ・G−65B−28H	610×305×290		21	28			6.0
		VZ・G−65B−28V	305×610×290		21	28			6.0
	Organic solvent gas	VZ・G−90C−56F	610×610×290	90%	551	56	140	300	10.5
		VZ・G−90C−28H	610×305×290		276	28			6.0
		VZ・G−90C−28V	305×610×290		276	28			6.0
		VZ・G−65C−56F	610×610×290	65%	551	56	90		10.5
		VZ・G−65C−28H	610×305×290		276	28			6.0
		VZ・G−65C−28V	305×610×290		276	28			6.0
Low-pressure-loss type (Arrestance grade)	Acidic gas	VZ・G−20A−56F	610×610×290	90%※2	96	56	70	300	10.0
		VZ・G−20A−28H	610×305×290		48	28			5.5
		VZ・G−20A−28V	305×610×290		48	28			5.5
	Basic gas	VZ・G−20B−56F	610×610×290	90%※2	41	56	70	300	10.0
		VZ・G−20B−28H	610×305×290		21	28			5.5
		VZ・G−20B−28V	305×610×290		21	28			5.5
	Organic solvent gas	VZ・G−20C−56F	610×610×290	90%※2	551	56	70	300	10.0
		VZ・G−20C−28H	610×305×290		276	28			5.5
		VZ・G−20C−28V	305×610×290		276	28			5.5

● ※1) Adsorption capacity refers to the volume of gas a single test filter was able to adsorb up to the point where gas permeability reached 95% (breakthrough) as a result of having fed with acidic gas (sulfur dioxide at 30 ppm), basic gas (ammonia at 30 ppm), and organic solvent gas (toluene at 80 ppm). (Test conducted in accordance with DIN71460 Part 2)
● ※2) Collection efficiency indicates collection efficiency (%) as stipulated in the JIS arrestance.
● Please consult with Japan Vilene for specific types and concentrations of different organic solvent gases.

■ VT・G series <Foul odor gas and harmful gas filter>

These are space-saving, low-pressure-loss filters.

Types		Model	Dimensions (mm) W×H×D	JIS arrestams efficiency	Adsorption capacity※1 (g/filter)	Air flow rate (m^3/min)	Pressure drop (Pa) Initial	Pressure drop (Pa) Final	Weight (kg)
Low-pressure-loss, thin filter (Arresta grade)	Acidic gas	VT・G−6161−65A	610×610×65	90%	45	27	50	300	5
		VT・G−6161−50A	610×610×50		34				4
		VT・G−6161−35A	610×610×35		23				3
	Basic gas	VT・G−6161−65B	610×610×65	90%	23	27	50	300	5
		VT・G−6161−50B	610×610×50		17				4
		VT・G−6161−35B	610×610×35		11				3
	Organic solvent gas	VT・G−6161−65C	610×610×65	90%	224	27	50	300	5
		VT・G−6161−50C	arrestams		168				4
		VT・G−6161−35C	610×610×35		112				3

● ※1) Adsorption capacity refers to the volume of gas a single test filter was able to adsorb up to the point where gas permeability reached 95% (breakthrough) as a result of having fed with acidic gas (sulfur dioxide at 30 ppm), basic gas (ammonia at 30 ppm), and organic solvent gas (toluene at 80 ppm). (Test conducted in accordance with DIN71460 Part 2)
● Available in custom sizes.
● Specific dimensions apply if used as a replacement to the model VC・L palette filter.
● Please consult with Japan Vilene for specific types and concentrations of different organic solvent gases.

■ VC・L series <Foul odor gas and harmful gas filter, adsorbent-filled>

These are adsorbent-filled filters that efficiently remove foul odors and harmful gases through optimum selections of chemical adsorbent and active carbon. At the end of the filter life, the adsorbent in the palette can be replaced without having to replace the casing.

Model	Dimensions (mm) W×H×D	Air flow rate (m^3/min)	Initial pressure drop※3 (Pa)	Filling capacity (L/filter)	Weight of adsorbent (kg/filter) E3☆、A2☆	Weight of adsorbent (kg/filter) FF☆	Weight of adsorbent (kg/filter) 02☆、KK☆	Weight of casing and palette frame (kg/filter)	Palette Quantity	Palette Dimensions (mm) W×H×D
VC・L− −56F	610×610×460	56	170	57	39	47	30	43	8	600×400×35
VC・L− −28H	610×305×460	28	170	28.5	19	23	15	25	4	600×400×35
VC・L− −28V	305×610×460	28	170	28	19	24	15	28	8	295×400×35
VC・L− −30F	610×610×290	30	100	34	22	27	17	31	8	600×230×35
VC・L− −14H	610×305×290	14	100	17	11	13	8	19	4	600×230×35
VC・L− −14V	305×610×290	14	100	16.5	11	13	8	21	8	295×230×35

● ※3) Pressure loss indicates the initial value at air flow rate when it is filled with KK.
● The "☆" indicates the symbol of the adsorbent's target gas. Please refer to the VILO FRESH catalog for details.
● Versions with pre-filters are also available.

HEPA / ULPA FILTER

Unit filters (High Efficiency Particlate Air Filter)

As the electronic and precision instrument industries continues to grow, the demand for extremely clean air has also been growing from the perspective of productivity and quality management. HEPA and ULPA filters are essential in creating air that meets these cleanness standards. Based on our many years of experience in the air-conditioning industry, Japan Vilene has been developing and marketing HEPA and ULPA filters for many years that meet the demands of these markets.

HEPA FILTER

■ VN series <Standard filter>

These filters were designed to be used as main filters in cleanrooms and cleanroom equipment.

Types	Model	Collection efficiency	Air flow rate (m^3/min)	Initial pressure drop ※2 (Pa)
HEPA standard VN	VN−100−*** ※1	At least 99.97% of 0.3μm particles.	3.7～64.5	245

■ VH series <Large air volume filter>

These filters have a smaller pressure drop than that of VN (standard) filters. At the same pressure drop, these filters are capable of treating between roughly 1.3 to 2 times the rated air volume. These were designed to be used as main filters in cleanrooms and cleanroom equipment which must treat large volumes of air.

Types	Model	Collection efficiency	Air flow rate (m^3/min)	Initial pressure drop ※2 (Pa)
HEPA large air volume type VH	VH−100−*** ※1	At least 99.97% of 0.3μm particles.	7.8～55.0	245

■ VY series <Separator-less filter>

These are super-thin filters with a thickness of only **45mm**. They are designed for energy conservation, can be fitted with noise reduction measures, and are optimally suited for a broad range of instruments.

Types	Model	Collection efficiency	Air flow rate (m^3/min)	Initial pressure drop ※2 (Pa)
Separator-less HEPA super thin type VY	VY−100−*** ※1	At least 99.97% of 0.3μm particles.	6.5～20.7	152Pa at 0.5m/s

■ VQ series <Low-pressure-drop, separator-less filter>

These are thin filters with a thickness of only **66mm**, and are optimally suited for cleanrooms and various instruments that require low-pressure-loss air treatment.

Types	Model	Collection efficiency	Air flow rate (m^3/min)	Initial pressure drop ※2 (Pa)
Separator-less HEPA low-pressure-loss type VQ	VQ−100−*** ※1	At least 99.97% of 0.3μm particles.	3.7～64.5	167Pa at 0.84m/s

■ VN−95 series <95% efficiency, standard filter>

This is a series of semi-HEPA filters that are optimum for cleanroom equipment and the like including cleanroom changing rooms and pass-through chambers.

Types	Model	Collection efficiency	Air flow rate (m^3/min)	Initial pressure drop ※2 (Pa)
Semi-HEPA, standard VN	VN−95−*** ※1	At least 95% of 0.3μm particles.	3.7～64.5	88Pa(depth: 150) 118Pa(depth: 290)

■ VH−95 series <95% efficiency, large air volume filter>

This is a series of semi-HEPA filters with a rated air volume of between roughly 1.3 to 2 times that of VN-95 at the same pressure loss.

Types	Model	Collection efficiency	Air flow rate (m^3/min)	Initial pressure drop ※2 (Pa)
Semi-HEPA, large air volume type VH	VH−95−*** ※1	At least 95% of 0.3μm particles.	7.8～55.0	128Pa(depth: 75) 147Pa(depth: 150) 167Pa(depth: 290) (Super large air volume filters 150/290)

ULPA FILTER

■ VU series <99.9995% efficiency, standard filter>

This series of filters are optimally suited as main filters used in spaces that require exceptionally high levels of cleanness such as in the semiconductor industry, nuclear facilities and medical equipment.

Types	Model	Collection efficiency	Air flow rate (m^3/min)	Initial pressure drop ※2 (Pa)
ULPA Standard VU	VU−100−*** ※1	At least 99.9995% of 0.15μm particles.	3.7～64.5	245

● ※1) The "***" indicate the air flow rate and material. Please refer to the HEPA/ULPA catalog for details.
● ※2) Initial pressure drop values are indicated for air flow rate operation. Initial pressure drop air speed varies depending on filter thickness. Please refer to the HEPA/ULPA catalog for details.

【Filter installation frame】VC Stud <HEPA filter> series

■ VC−150H

VC-150H is an installation frame that was designed specifically for HEPA filters, and allows users to easily assemble the filter without error.

Special Applications

Anti-Viral Infection Filter

VZ , iV type

The VZ, i V type filters mitigate the infectiousness of flu viruses that they collect. They help reduce the risk of infections in airports, train stations, hospitals, schools, offices and other large buildings and facilities where large numbers of people gather.

※This filter will not completely eliminate the risk of disease or infection.

Anti-Pollen Air Shower

V･AS-CB type

Anti-pollen Air shower uses jets of clean air to remove approximately 90%※of plant pollen that can be attached to our clothing.
With a slim and refined design, Anti-pollen Air shower is optimally suited for use in condominiums, hotels, and office buildings.

※According to our test result.

Asbestos removal work

Japan Vilene also supplies an easy-to-install Air shower, and Negative pressure dust remover, both of which are essential in asbestos removal work.

Easy-to-Install Air shower

The easy-to-install Air shower consists of a filter unit and blower unit configured into a two-tiered construction, and can therefore be installed very easily at construction sites.

※V･AS-0010S

Negative pressure dust remover

Negative pressure dust remover is a unit that maintains negative pressure on the inside of work areas within demolition sites that have been cordoned off to prevent the spreading of contamination from designated dust particle such as asbestos. The air is treated by a pre-filter, secondary filter(mid-performance), and main filter (HEPA), after which it is expelled outdoors.

※V･DC-65A

- This is a general catalog for air-conditioning products marketed by Japan Vilene. Please refer to individual product catalogs for more specific product information.
- If you do not have a product catalog, you can either download one from our web site, or request one of our agents to have one mailed to you.

JAPAN vilene COMPANY, LTD.

AIR-FILTERS DEPT.

Head Office
5-6-4, Tsukiji, Chuo-ku, Tokyo 104-8423, JAPAN
TEL. +81-3-4546-1166 FAX. +81-3-4546-1162

2018.12 CP 0000