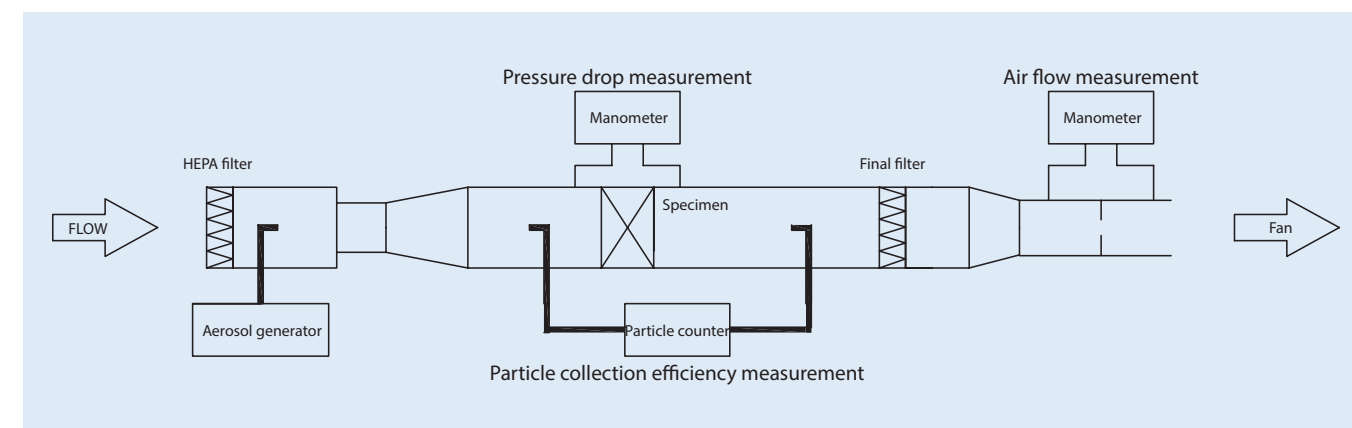


Particle collection efficiency (by particle size) test method (JIS B 9908:2011 Type 2)

1. Test equipment



2. Test method

- (1) Set the specimen to the testing equipment and ventilate at the rated air flow rate using the fan.
- (2) Supply aerosol for testing (JIS Class 11) from the aerosol generator. Measure concentrations upstream and downstream of the specimen using a light scattering airborne particle counter and calculate initial collection efficiency (Equation 1).
- (3) Supply dust for loading (JIS Class 11) to the specimen. Conduct dust loading test until the pressure drop reaches the final pressure drop. During the loading test, measure particle collection efficiency at least three times (including initial and final).
- (4) Obtain the collection efficiency at each session using Equation 1 to calculate the number-based average collection efficiency for each particle size under a dust load (Equation 2).

n-th particle collection efficiency for each particle size (%):

$$E_n(d) = \left(1 - \frac{C_{out}}{C_{in}}\right) \times 100 \dots\dots\dots \text{(Equation 1)}$$

Average collection efficiency for each particle size (%):

$$\overline{E(d)} = \left(\frac{M_1}{M_T}\right) \left[\frac{E_1(d) + E_2(d)}{2}\right] + \dots + \left(\frac{M_n}{M_T}\right) \left[\frac{E_n(d) + E_{n+1}(d)}{2}\right] \dots\dots\dots \text{(Equation 2)}$$

C_{in} : Number concentration of particles upstream of the specimen

C_{out} : Number concentration of particles downstream of the specimen

M_T : Total supply of dust for loading (g)

M_1 : Mass of dust for loading between initial and second sessions of particle collection (g)

$\overline{E(d)}$: Number-based average collection efficiency of specimen for particles with size of d under a dust load

* We also offer products built to custom frame thicknesses for a wide range of filter media types.
For more information, please contact our sales office.



Head office 1-2-29, Nankokita, Suminoe-ku, Osaka, 559-0034 Japan
Tel: 81-6-6612-7700 Fax: 81-6-6612-7701

Tokyo Office Kayabacho Ekimae Bldg. 7F, 2-11-8, Nihonbashi-Kayabacho, Chuo-ku, Tokyo
103-0025 Japan
Tel: 81-3-3662-8858 Fax: 81-3-3662-8860

<http://www.aqcnet.com>



Contact

Specifications for all products herein are subject to change without notice. MFSC17-09 (05-07)

Medium-to-high performance air filters

TAIDEN series




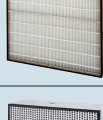

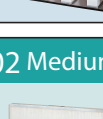



Improving air environment in offices and commercial spaces



Medium-to-high performance air filters enhance the quality of air in offices, commercial spaces, and various other facilities.

AQC’s Taiden Series medium-to-high performance air filters include general medium-to-high performance air filters, filters with replaceable filter media and reusable outer frames, filters that can be disposed of by incineration, filters to prevent salt damage, and filters with enzymatic sterilization. A diversified lineup with many different features helps improve the air environment quality in offices, commercial spaces, and various other facilities.

■ Lineup of Taiden Series

Product	Features	Filter type	Page
01 Medium-to-high performance air filter			
 Taiden BT	<ul style="list-style-type: none">Available in various shapes as well as standard and custom sizes.Ultra-thin mini pleat	Mini pleat	3
 Taiden MP	<ul style="list-style-type: none">Multi-purpose pleated type, which further advances the conventional mini-pleat designIncreased spacing between resin beads applied to the inflow side of the filter media for enhanced air inflowResin bead spacing is more dense on the outflow side of the filter media than on the inflow side to prevent deformation of the media.	Multi-purpose pleat	4
 Taiden WP	<ul style="list-style-type: none">A block of mini pleated filter media is formed into a wedge shape to maximize media surface area.To stabilize the shape of the filter media block, the far end of the inflow side is reinforced by a specially designed holder.	Double pleat	5
 Taiden ST	<ul style="list-style-type: none">Optimally shaped stabilizers closely match the folds of the filter media to ensure ideal performance.Stabilizers are available in a wide range of spacing intervals.Stabilizer covers provide high pressure resistance.	Stabilizer	6
 Taiden SP	<ul style="list-style-type: none">Wave-shaped aluminum separators ensure stable air flow.Wave-shaped aluminum separator also helps prevent contact between pleats induced by air currents.	Aluminum separator	7
 EW Taiden	<ul style="list-style-type: none">The filter media can be reused by professional cleaning, dramatically reducing operating costs.Non-electret filter media	Double pleat	8
02 Medium-to-high performance air filters with replaceable filter media			
 Taiden Compac BT	<ul style="list-style-type: none">The one-sided removable frame system makes replacing media easy.Ultra-thin and lightweight	Mini pleat	10
 Taiden Compac MP	<ul style="list-style-type: none">Optimized number of beads on inflow and outflow sides for higher efficiency and functionality and for light weight and resource conservation	Multi-purpose pleat	11
 W Taiden Compac	<ul style="list-style-type: none">Filter media is easier to replace than conventional frames.Light weight	Double pleat	12

Features of AQC’s Taiden Series medium-to-high performance air filters





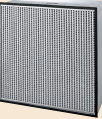




Diverse lineup

A wide range of design sizes

Low pressure drop

(Reference) Explanation of catalog efficiency figures
The conventional collection efficiency determined by the colorimetric method, as specified in the JIS B 9908:2001 Type 2 (colorimetric method), is given for all models, together with average particle collection efficiencies of 0.4 μm and 0.7 μm, as stipulated in the JIS B 9908:2011 Type 2 (by particle size). The table on the right shows the major differences in the new and old test specifications.

Standard	New standard	Old standard
	JIS B 9908:2011 Type 2 (by particle size)	JIS B 9908:2001 Type 2 (colorimetric method)
Concentration measuring instrument	Light scattering airborne particle counter (particle counter)	Light scattering dust concentration meter (digital dust meter)
Dust for loading	JIS Class 11	JIS Class 15
Dust for efficiency measurement	JIS Class 11	JIS Class 11

Product	Features	Filter type	Page
03 High-performance air filters that protect against salt damage			
 Salt Taiden BT	<ul style="list-style-type: none">● Lightweight and ultra-thin	Mini pleat	14
 Salt Taiden MP	<ul style="list-style-type: none">● Long life and handles large air flow● Easily tailored to various sizes; available in small lots with short delivery times	Multi-purpose pleat	
 Salt Taiden WP	<ul style="list-style-type: none">● Improved fold shape● Long life and handles large air flow	Double pleat	
04 Sterilizing / enzyme air filter			
 Kosoful BT	<ul style="list-style-type: none">● Powerful sterilization to disinfect air quickly and effectively● Uses natural enzymes safe for both people and the environment.● Thin body	Mini pleat	15
 Kosoful SP	<ul style="list-style-type: none">● Powerful sterilization to disinfect air quickly and effectively● Uses natural enzymes safe for both people and the environment.● Wave-shaped aluminum separators ensure stable air inflow.	Aluminum separator	
05 Eco-friendly air filters			
 Eco Taiden BT	<ul style="list-style-type: none">● Special flame-retardant paper is used for frames.● Lightweight, easy to handle filter	Mini pleat	17
 Eco Taiden MP	<ul style="list-style-type: none">● Reinforced corrugated cardboard made from recycled paper is used for frames.● Lightweight, easy to handle filter	Multi-purpose pleat	
 Eco Taiden WP	<ul style="list-style-type: none">● Reinforced corrugated cardboard made from recycled paper is used for frames.● Used filters can be compressed and disposed of by incineration.	Double pleat	
06 Antibacterial air filters			
 SEK Taiden BT	<ul style="list-style-type: none">● SEK Mark (red) certified● Suppresses mold growth.	Mini pleat	18

01

Medium-to-high performance air filters

Six types of air filters are available to meet the needs of various environments: Taiden BT ultra-thin filter, Taiden MP with new pleating technology, Taiden ST higher strength/stability filters, Taiden SP with aluminum separator, and EW Taiden reusable filters.

Features of medium-to-high performance air filters

- Broad selection of air filters to meet various installation requirements
- Ultralow pressure drop design featuring electret nonwoven fabric

Taiden BT

1. Ultra-thin mini pleat
2. Space saving filters are easy to install and remove.
3. No separator for flexibility in designing filter size and shape
4. Electret nonwoven fabric and density gradient nonwoven fabric for low pressure drop, high efficiency, and long life
5. Excellent high pressure resistance
6. Trapped dust won't re-entrain.



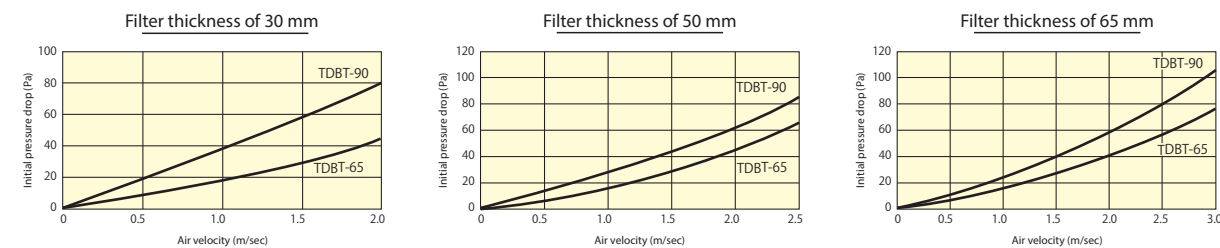
■ Standard specifications (Non-standard sizes are available on request.)

Product No.	Filter thickness (mm)	Particle collection efficiency (%) ^{*1}		Efficiency by colorimetric method ^{*2} (%)	Rated air velocity (m/sec)	Rated air flow rate (m ³ /min)	Initial pressure drop (Pa)	Final pressure drop (Pa)	Standard size W×H×T (mm)
		0.4 μm	0.7 μm						
TDBT-65	30	≥ 40	≥ 50	65	1.5	31	29	300	610×610×30
	50				2.25	46	55		610×610×50
	65				2.75	56	67		610×610×65
TDBT-90	30	≥ 70	≥ 80	90	1.5	31	58		610×610×30
	50				2.25	46	73		610×610×50
	65				2.75	56	93		610×610×65

*1 In accordance with JIS B 9908:2011 Type 2

*2 In accordance with JIS B 9908:2001 Type 2

Initial pressure drop data



Components and materials

Item	Material
Frame	Aluminum, plywood, zinc steel, stainless steel
Media	Electret nonwoven fabric
Separator	Beads (resin)
Sealant	Special adhesive
Gasket	Neoprene rubber

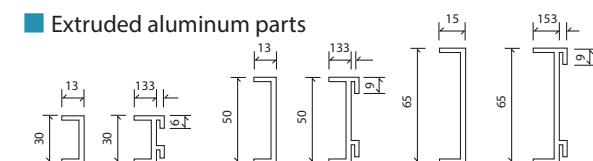
Note 1: Filter thickness does not include gasket.

Note 2: Available extruded aluminum parts are as shown on the right.

Service conditions

Maximum service temperature	Constant use: 60°C Short-time/irregular use: 80°C
Maximum service humidity	95%RH

Extruded aluminum parts

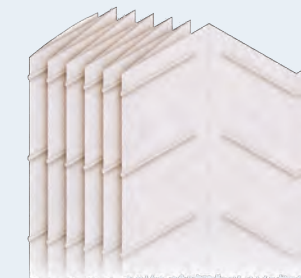


Taiden MP

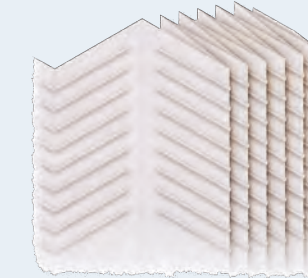
1. Multi-purpose pleated type, which further advances the conventional mini-pleat design.
2. Increased spacing between resin beads applied to the inflow side of the filter media facilitates air inflow.
3. Resin bead spacing is more dense on the outflow side of the filter media than on the inflow side to prevent deformation of the media.



Structure of multi-purpose pleated filter media



Inflow side
Increased bead spacing maintains the shape/structure so that it facilitates air inflow and reduces pressure drop.



Outflow side
The structure with more dense resin bead spacing prevents filter media deformation by air pressure.

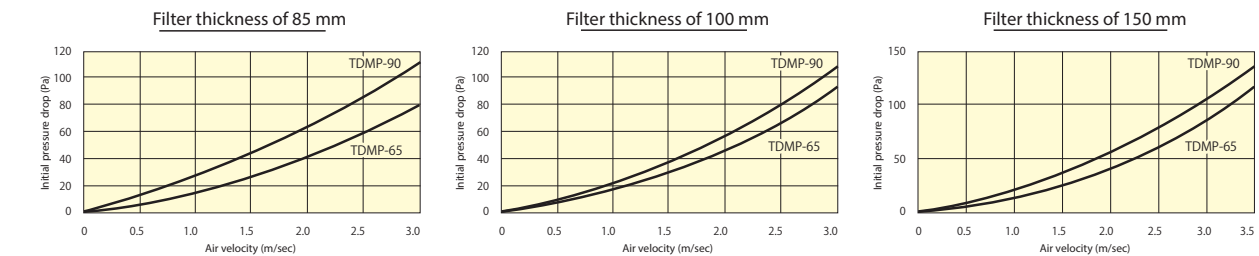
■ Standard specifications (Non-standard sizes are available on request.)

Product No.	Filter thickness (mm)	Particle collection efficiency (%) ^{*1}		Efficiency by colorimetric method ^{*2} (%)	Rated air velocity (m/sec)	Rated air flow rate (m ³ /min)	Initial pressure drop (Pa)	Final pressure drop (Pa)	Standard size W×H×T (mm)
		0.4 μm	0.7 μm						
TDMP-65	85	≥ 40	≥ 50	65	2.75	56	70	300	610×610×85
	100				2.75	56	80		610×610×100
	150				2.75	56	71		610×610×150
TDMP-90	85	≥ 70	≥ 80	90	2.75	56	100		610×610×85
	100				2.75	56	95		610×610×100
	150				2.75	56	93		610×610×150

*1 In accordance with JIS B 9908:2011 Type 2

*2 In accordance with JIS B 9908:2001 Type 2

Initial pressure drop data



Components and materials

Item	Material
Frame	Aluminum, plywood, zinc steel, stainless steel
Media	Electret nonwoven fabric
Separator	Beads (resin)
Sealant	Special adhesive
Gasket	Neoprene rubber

Note 1: Filter thickness does not include gasket.

Service conditions

Maximum service temperature	Constant use: 60°C Short-time/irregular use: 80°C
Maximum service humidity	95%RH

Taiden WP

1. A block of mini pleated filter media is formed into a wedge shape to maximize media surface area.
2. To stabilize the shape of the filter media block, the end of each pleat on the inflow side is reinforced by a specially designed holder.



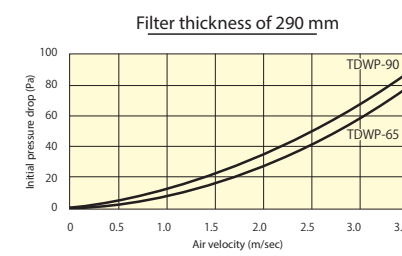
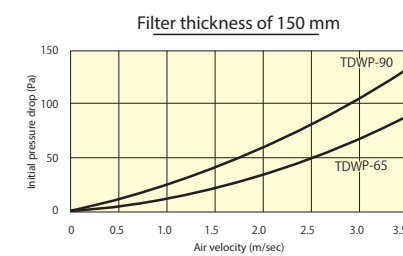
Standard specifications

Product No.	Filter thickness (mm)	Particle collection efficiency (%) ^{*1}		Efficiency by colorimetric method ^{*2} (%)	Rated air velocity (m/sec)	Rated air flow rate (m³/min)	Initial pressure drop (Pa)	Final pressure drop (Pa)	Standard size W×H×T (mm)
		0.4 μm	0.7 μm						
TDWP-65	150	≥ 40	≥ 50	65	2.75	56	60	300	610×610×150
	290				2.75	56	51		610×610×290
TDWP-90	150	≥ 70	≥ 80	90	2.75	56	95	300	610×610×150
	290				2.75	56	59		610×610×290

*1 In accordance with JIS B 9908:2011 Type 2

*2 In accordance with JIS B 9908:2001 Type 2

Initial pressure drop data



Components and materials

Item	Material
Frame	Plywood, aluminum, zinc steel, stainless steel
Media	Electret nonwoven fabric
Separator	Beads (resin)
Sealant	Special adhesive
Gasket	Neoprene rubber

Note 1: Filter thickness does not include gasket.

Service conditions

Maximum service temperature	Constant use: 60°C Short-time/irregular use: 80°C
Maximum service humidity	95%RH

Taiden ST

1. Optimally shaped stabilizers closely match the folds of the filter media to ensure ideal performance.
2. Stabilizers are available in a wide range of spacing intervals (various spacing pitches).
3. Stabilizer covers provide high pressure resistance.



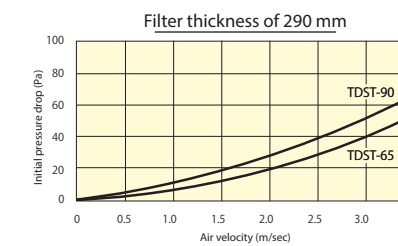
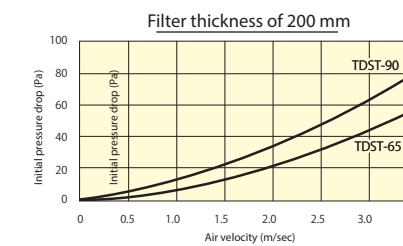
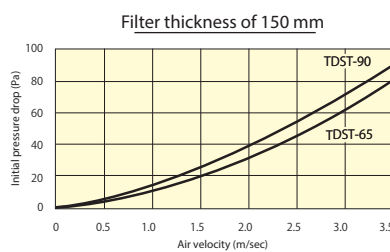
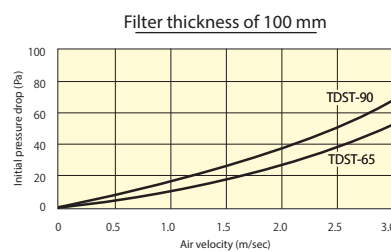
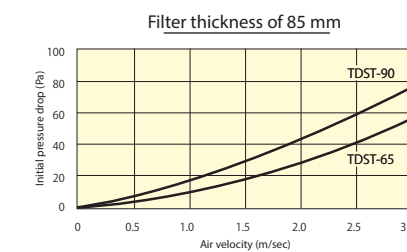
Standard specifications (Non-standard sizes are available on request.)

Product No.	Filter thickness (mm)	Particle collection efficiency (%) ^{*1}		Efficiency by colorimetric method ^{*2} (%)	Rated air velocity (m/sec)	Rated air flow rate (m³/min)	Initial pressure drop (Pa)	Final pressure drop (Pa)	Standard size W×H×T (mm)
		0.4 μm	0.7 μm						
TDST-65	85	≥ 40	≥ 50	65	2.75	56	49	300	610×610×85
	100				2.75	56	45		610×610×100
	150				3.0	62	61		610×610×150
	200				3.0	62	44		610×610×200
	290				3.4	70	50		610×610×290
TDST-90	85	≥ 70	≥ 80	90	2.75	56	68		610×610×85
	100				2.75	56	61		610×610×100
	150				3.0	62	71		610×610×150
	200				3.0	62	61		610×610×200
	290				3.4	70	61		610×610×290

*1 In accordance with JIS B 9908:2011 Type 2

*2 In accordance with JIS B 9908:2001 Type 2

Initial pressure drop data



Components and materials

Item	Material
Frame	Aluminum, plywood, zinc steel, stainless steel
Media	Electret nonwoven fabric
Separator	Stabilizer (special flame-retardant paper)
Sealant	Special adhesive
Gasket	Neoprene rubber

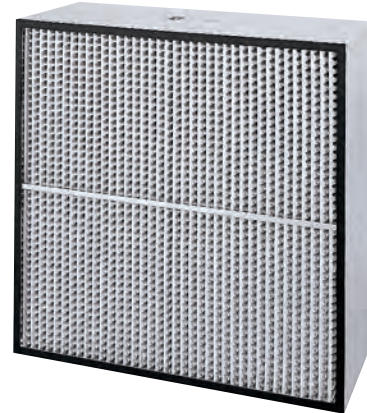
Note 1: Filter thickness does not include gasket.

Service conditions

Maximum service temperature	Constant use: 60°C Short-time/irregular use: 80°C
Maximum service humidity	95%RH

Taiden SP

1. Wave-shaped aluminum separator helps ensure stable air flow.
2. Wave-shaped aluminum separator also helps prevent contact between pleats induced by air currents.



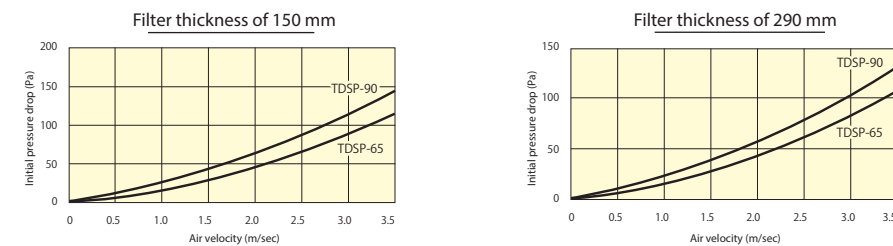
Standard specifications (Non-standard sizes are available on request.)

Product No.	Filter thickness (mm)	Particle collection efficiency (%) ^{*1}		Efficiency by colorimetric method ^{*2} (%)	Rated air velocity (m/sec)	Rated air flow rate (m³/min)	Initial pressure drop (Pa)	Final pressure drop (Pa)	Standard size W×H×T (mm)
		0.4 μm	0.7 μm						
TDSP-65	150	≥ 40	≥ 50	65	2.75	56	76	300	610×610×150
	290				2.75	56	71		610×610×290
TDSP-90	150	≥ 70	≥ 80	90	2.75	56	100		610×610×150
	290				2.75	56	90		610×610×290

*1 In accordance with JIS B 9908:2011 Type 2

*2 In accordance with JIS B 9908:2001 Type 2

Initial pressure drop data



Components and materials

Item	Material
Frame	Aluminum, plywood, zinc steel, stainless steel
Media	Electret nonwoven fabric
Separator	Aluminum
Sealant	Special adhesive
Gasket	Neoprene rubber

Note 1: Filter thickness does not include gasket.

Service conditions

Maximum service temperature	Constant use: 60°C Short-time/irregular use: 80°C
Maximum service humidity	95%RH

EW Taiden

1. The filter media can be reused by professional cleaning, dramatically reducing operating costs.
2. Non-electret filter media is used.



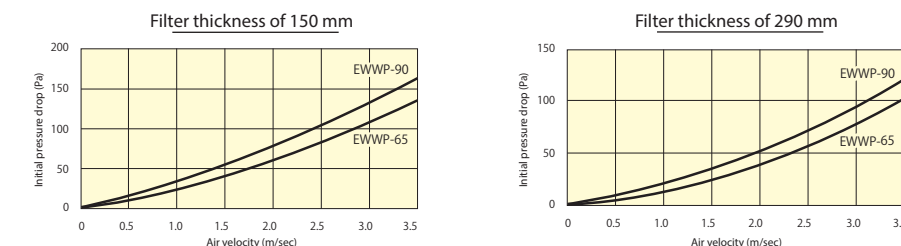
Standard specifications

Product No.	Filter thickness (mm)	Particle collection efficiency (%) ^{*1}		Efficiency by colorimetric method ^{*2} (%)	Rated air velocity (m/sec)	Rated air flow rate (m³/min)	Initial pressure drop (Pa)	Final pressure drop (Pa)	Standard size W×H×T (mm)
		0.4 μm	0.7 μm						
EWWP-65	150	≥ 40	≥ 50	65	2.75	56	95	300	610×610×150
	290				2.75	56	68		610×610×290
EWWP-90	150	≥ 70	≥ 80	90	2.75	56	118		610×610×150
	290				2.75	56	84		610×610×290

*1 In accordance with JIS B 9908:2011 Type 2

*2 In accordance with JIS B 9908:2001 Type 2

Initial pressure drop data



Components and materials

Item	Material
Frame	Aluminum, stainless steel
Media	Non-electret nonwoven fabric
Separator	Beads (resin)
Sealant	Special adhesive

Service conditions

Maximum service temperature	Constant use: 60°C Short-time/irregular use: 80°C
Maximum service humidity	95%RH

Note: We do not offer filter washing services. Thus, we cannot guarantee the performance of reused media. When reusing filter media, make sure the frame and the media are undamaged and that the filter functions properly. Do not reuse a filter if it is likely to have gathered pathogens or toxic substances.

02

Medium-to-high performance air filters with replaceable filter media

Taiden Compac series air filters feature medium to high performance and replaceable filter media, made of pleated electret non-woven fabric for higher efficiency, to help conserve energy and natural resources.

Taiden Compac air filters offer low pressure drop and energy-efficient performance. Reusable filter frames help conserve resources. Filter media can be disposed of by incineration.

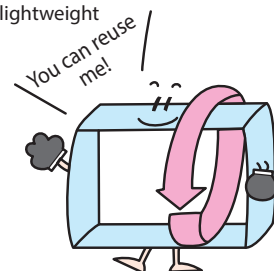
Based on comprehensive research and development on three technologies—mini pleats, multi-purpose pleats, and double pleats—these products combine superior performance, ease of use, and low environmental impact.



Taiden Compac features

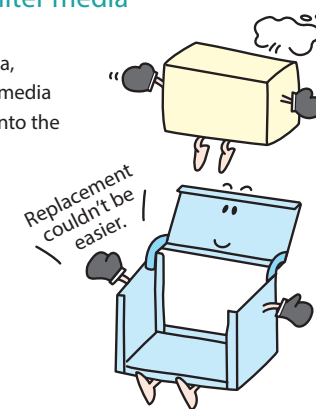
Resource-saving eco-friendly products with reusable outer frames

Replace just the filter media for dramatic reductions in maintenance costs. An extruded aluminum outer frame maintains corrosion resistance, durability, and visual appeal over an extended period, which makes them lightweight and safe to reuse.



Easily replaced filter media

To replace the filter media, simply remove the used media and insert a new media into the frame.

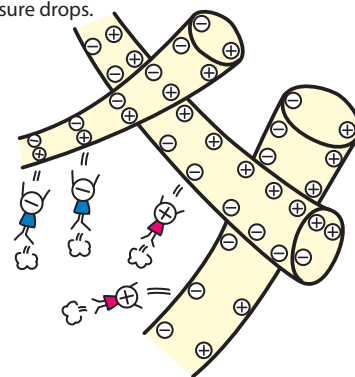


Available in a wide range of sizes to meet various installation requirements.

Frame thickness ranges from 30 mm to 290 mm; also available are models designed for use with prefilters. These filters can be tailored to various heights

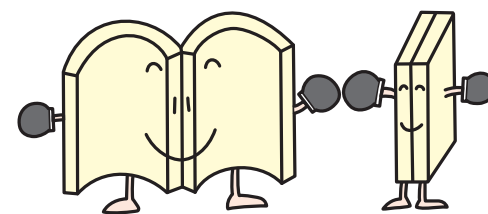
Ultralow pressure drop feature contributes to energy-efficient performance.

The filter media is made of electret nonwoven fabric for ultralow pressure drops.



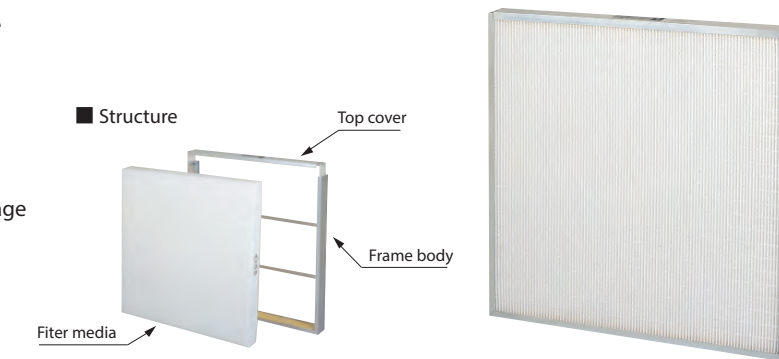
Reduced volume filter media

Folding helps reduce the volume of the filter media to about 1/3, an advantage in transport, replacement, and disposal. Media can be disposed of by incineration. (W Taiden Compac)



Taiden Compac BT

1. Features newly developed one-sided removable frame system; easy media replacement.
2. Frame thickness ranges from 30mm to 79mm (standard and custom sizes)
3. Lightweight, ultra-thin
4. Filters with media that protect against salt damage are also available.



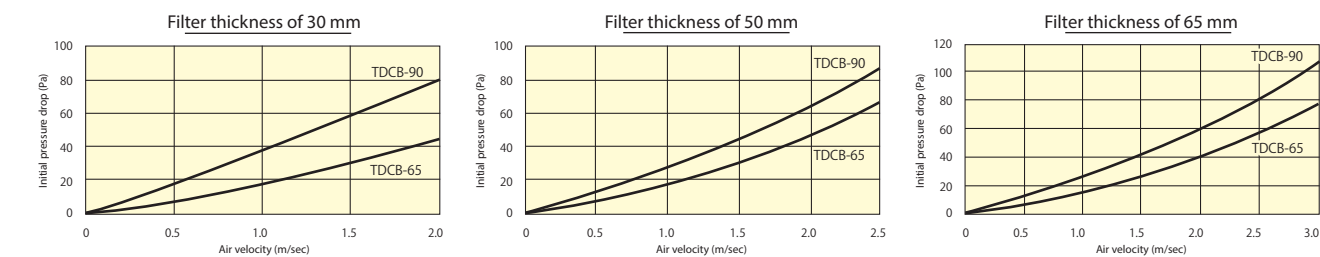
Standard specifications (Non-standard sizes are available on request.)

Product No.	Filter thickness (mm)	Particle collection efficiency (%)	Efficiency by colorimetric method ² (%)	Rated air velocity (m/sec)	Rated air flow rate (m ³ /min)	Initial pressure drop (Pa)	Final pressure drop (Pa)	Standard size WxHxT (mm)
TDCB-65	30	≥ 40	≥ 50	65	1.5	31	29	610×610×30
	50				2.25	46	53	610×610×50
	65				2.75	56	68	610×610×65
TDCB-90	30	≥ 70	≥ 80	90	1.5	31	58	610×610×30
	50				2.25	46	74	610×610×50
	65				2.75	56	93	610×610×65

*1 In accordance with JIS B 9908:2011 Type 2

*2 In accordance with JIS B 9908:2001 Type 2

Initial pressure drop data



Components and materials

Item	Material
Frame	Aluminum
Media	Electret nonwoven fabric
Separator	Beads (resin)
Sealant	Glass wool, synthetic rubber
Gasket	Neoprene rubber

Note 1: Filter thickness does not include gasket.

Service conditions

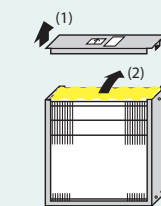
Maximum service temperature	Constant use: 60°C Short-time/irregular use: 80°C
Maximum service humidity	95%RH

Filter media replacement procedure (*For more information, refer to the instruction manual.)

Removal

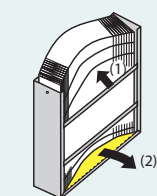
1

- (1) Remove the top cover.
- (2) Remove the seal mat.



2

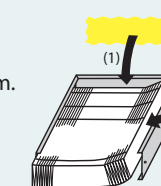
- (1) Apply pressure to the filter media to remove.
- (2) Remove the seal mat on the bottom.



Attachment

1

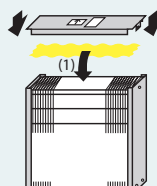
- (1) Place a new seal mat on the bottom.
- (2) Insert a new media.



2

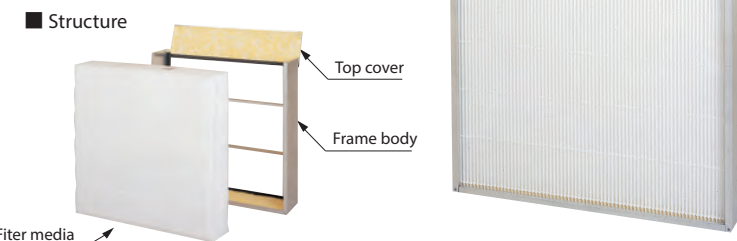
- (1) Place a new seal mat on the media.
- (2) Close the top cover.

Replacement is complete.



Taiden Compac MP

- Filters with media that protect against salt damage are also available.
- The top cover makes it easier to replace filter media.



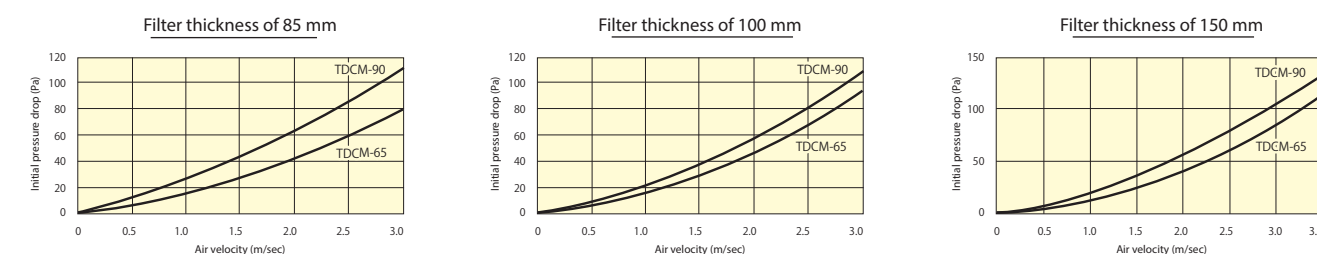
■ Standard specifications (Non-standard sizes are available on request.)

Product No.	Filter thickness (mm)	Particle collection efficiency (%) ^{*1}		Efficiency by colorimetric method ^{*2} (%)	Rated air velocity (m/sec)	Rated air flow rate (m³/min)	Initial pressure drop (Pa)	Final pressure drop (Pa)	Standard size W×H×T (mm)
		0.4 μm	0.7 μm						
TDCM-65	85	≥ 40	≥ 50	65	2.75	56	70	300	610×610×85
	100				2.75	56	80		610×610×100
	150				2.75	56	71		610×610×150
TDCM-90	85	≥ 70	≥ 80	90	2.75	56	100	300	610×610×85
	100				2.75	56	95		610×610×100
	150				2.75	56	93		610×610×150

*1 In accordance with JIS B 9908:2011 Type 2

*2 In accordance with JIS B 9908:2001 Type 2

Initial pressure drop data



Components and materials

Item	Material
Frame	Aluminum
Media	Electret nonwoven fabric
Separator	Beads (resin)
Sealant	Glass wool, synthetic rubber
Gasket	Neoprene rubber

Note 1: Filter thickness does not include gasket.

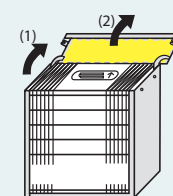
Service conditions

Maximum service temperature	Constant use: 60°C Short-time/irregular use: 80°C
Maximum service humidity	95%RH

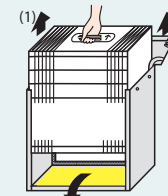
Filter media replacement procedure (*For more information, refer to the instruction manual.)

Removal

- Open the top cover from the inflow side.
- Remove the seal mat.

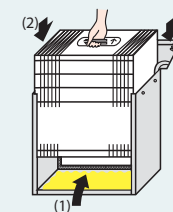


- Hold the handle of the filter media and remove the media.
- Remove the seal mat on the bottom.

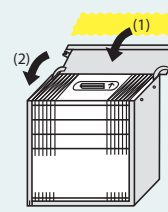


Attachment

- Place a new seal mat on the bottom.
- Hold the handle of a new media and insert into the frame.

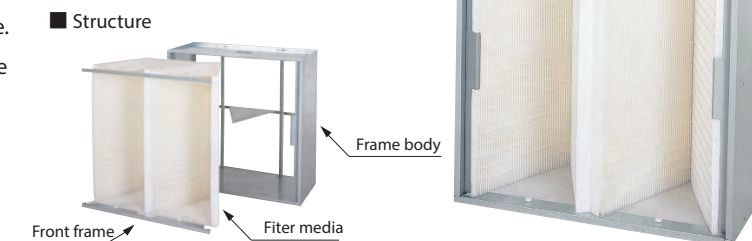


- Set a new seal mat to the top cover.
- Close the top cover. Replacement is complete.



W Taiden Compac

- Improvements to the conventional frame make it easier to replace filter media.
- Lightweight
- Filters designed for use with prefilters are available.
- Filters with media that protect against salt damage are available.



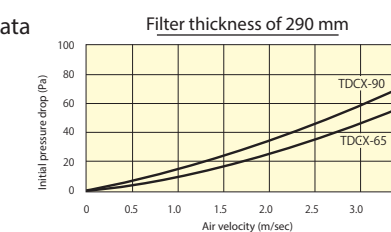
■ Standard specifications

Product No.	Filter thickness (mm)	Particle collection efficiency (%) ^{*1}		Efficiency by colorimetric method ^{*2} (%)	Rated air velocity (m/sec)	Rated air flow rate (m³/min)	Initial pressure drop (Pa)	Final pressure drop (Pa)	Standard size W×H×T (mm)
		0.4 μm	0.7 μm						
TDCX-65	290	≥ 40	≥ 50	65	2.75	56	41	300	610×610×290
						26	41		305×610×290
						26	41		610×305×290
TDCX-90	290	≥ 70	≥ 80	90	2.75	56	53	300	610×610×290
						26	53		305×610×290
						26	53		610×305×290

*1 In accordance with JIS B 9908:2011 Type 2

*2 In accordance with JIS B 9908:2001 Type 2

Initial pressure drop data



Components and materials

Item	Material
Frame	Zinc steel
Media	Electret nonwoven fabric
Separator	Beads (resin)
Sealant	Nonwoven fabric with hot melt adhesive
Gasket	Neoprene rubber

Note 1: Filter thickness does not include gasket.

Service conditions

Maximum service temperature	Constant use: 60°C Short-time/irregular use: 80°C
Maximum service humidity	95%RH

Filter incorporating prefilter (Model No.: TDCX-65P and TDCX-90P)



Prefilter specification

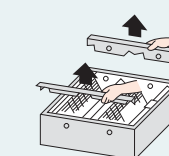
Type	Filter media	Air velocity (m/sec)	Initial pressure drop (Pa)	JIS gravimetric method ^{*1} (%)	Standard size W×H×T (mm)
Full size	Recyclable	2.5	64	76	605×595×20
Vertically longer	nonwoven				300×595×20
Horizontally longer	fabric				605×290×20

*1 In accordance with JIS B 9908:2011 Type 3

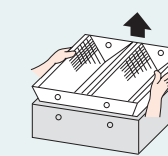
Filter media replacement procedure (*For more information, refer to the instruction manual.)

Removal

- Remove the top and bottom front frames.

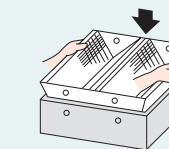


- Remove the filter media.

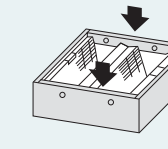


Attachment

- Place a new filter media into the frame.



- Attach the top and bottom front frames to the media. Replacement is complete.



03 High-performance air filters that protect against salt damage

In buildings, commercial spaces, and factories near the coast, the presence of sea salt particles can corrode air conditioning ducts and other equipment or affect electrical systems, product quality, electronic devices, and precision instruments.

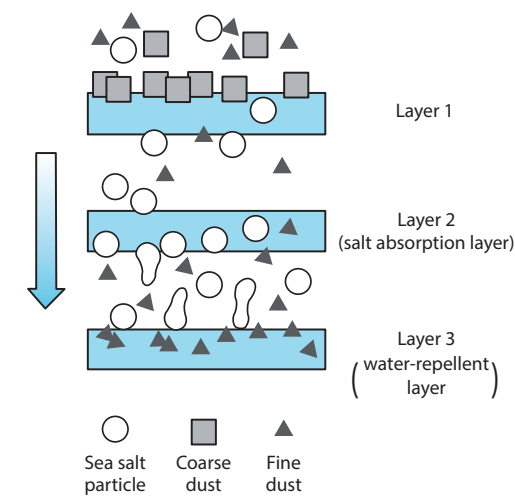
The Salt Taiden series is ideal for such environments. These air filters are designed for energy-efficient performance, easy disposal/incineration, and long life, as well as low environmental impact.

The lineup includes multi-purpose pleated models that meet various needs and models with economical, resource-saving replaceable filter media.

Features of the Salt Taiden series

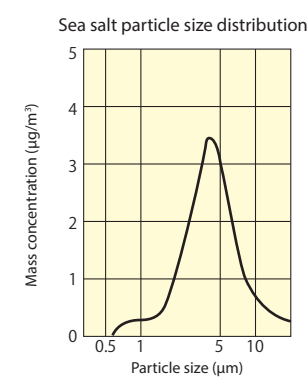
The Salt Taiden series high-performance filters combine an electrostatic filter and specially structured nonwoven fabric for dramatically improved salt damage protection over conventional products.

- Low pressure drop
- Collects sea salt particles with high efficiency.
- Long life
- Even if sea salt particles trapped in filter media deliquesce, the pressure drop and particle re-entrainment downstream (flowing out to the downstream side) have been minimized.
- Excellent shock resistance



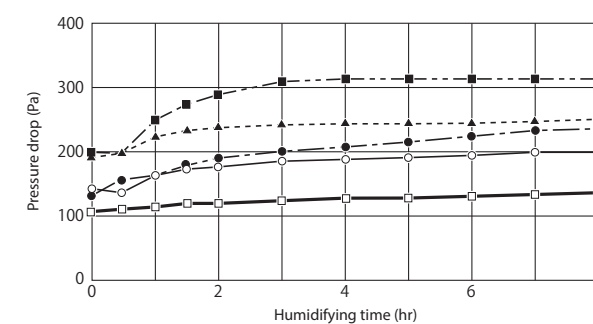
Principle of salt damage prevention

The sizes of airborne sea salt particles found in coastal areas show two peaks: one at less than 1.0 μm and one near 5 μm . Some 70% of all particles range from 2.0 to 7.0 μm , making particle collection relatively easy. Filter media consists of a salt absorption layer featuring a special structure and high water absorbency (Layer 2) and a water-repellent layer (Layer 3) in carefully balanced combination. Even if trapped sea salt particles deliquesce due to high humidity, the liquefied salt becomes droplets instead of spreading out into a film over the water-repellent layer, suppressing pressure drops. At the same time, the particles are quickly absorbed by the water-absorbent salt absorption layer to prevent re-entraining toward the downstream side. The special structure of the salt absorption layer is designed to restrain pressure drops at this layer.



Comparison of effects of deliquescent collected NaCl particles

Test conditions: Amount of collected NaCl: 50 g/unit (effective opening of unit: 180 mm × 180 mm)
Air velocity: 2.72 m/sec, temperature: 25°C, humidity: 90% RH



Symbol	Specimen
○	STST-90 150T
□	STST-90 290T
●	Competitor's specimen A
■	Competitor's specimen B
▲	Competitor's specimen C

Salt Taiden BT

1. Features resin bead separation.
2. Lightweight and ultra-thin



Salt Taiden MP

1. Multi-layer pleated filter with resin bead separation
2. Long life and handles large air flow
3. Easily tailored to various sizes; available in small lots and short delivery time.



Salt Taiden WP

1. Double-layer pleated filter with resin bead separation
2. Long life and handles large air flow
3. Improved fold shape



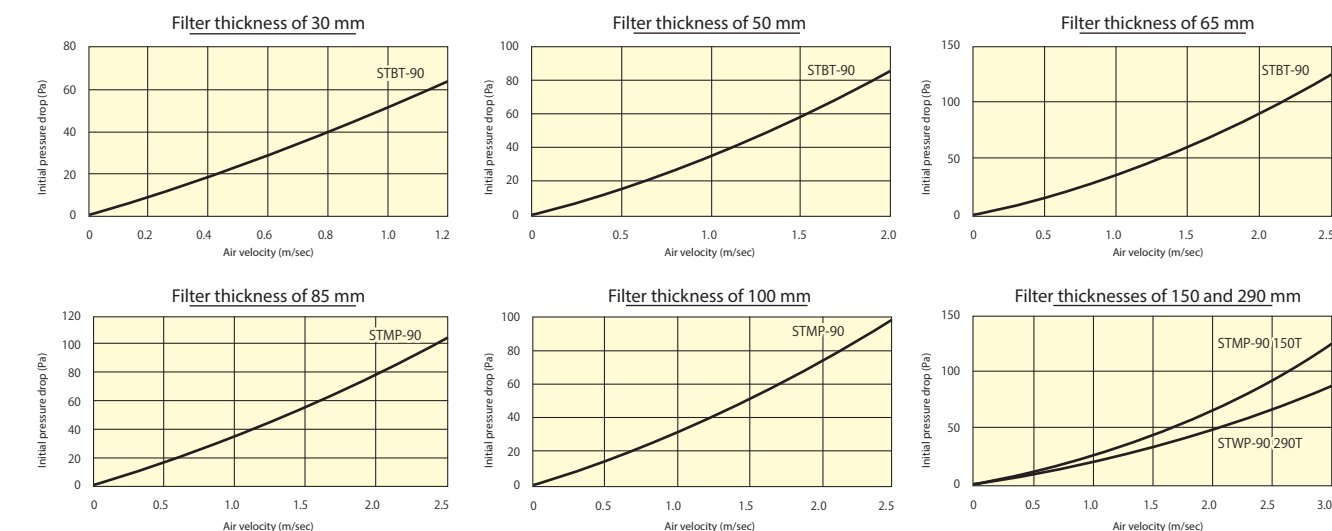
■ Standard specifications (Non-standard sizes are available on request. Filters meeting specifications for public construction works are also available.)

Product No.	Filter thickness (mm)	Particle collection efficiency (%) ^{*1}		Efficiency by colorimetric method ^{*2} (%)	Rated air velocity (m/sec)	Rated air flow rate (m³/min)	Initial pressure drop (Pa)	Final pressure drop (Pa)	Standard size W×H×T (mm)
		0.4 μm	0.7 μm						
STBT-90	30	≥ 70	≥ 80	90	1.0	20	52	200	610×610×30
	50				1.5	30	58		610×610×50
	65				2.0	40	90		610×610×65
STMP-90	85	≥ 70	≥ 80	90	2.0	40	78	300	610×610×85
	100				2.0	40	73		610×610×100
	150				2.75	56	107		610×610×150
STWP-90	290	≥ 70	≥ 80	90	2.75	56	76	300	610×610×290

*1 In accordance with JIS B 9908:2011 Type 2

*2 In accordance with JIS B 9908:2001 Type 2

Initial pressure drop data



Components and materials

Item	Material
Frame	Plywood, stainless steel, aluminum, zinc steel
Media	Electret composite nonwoven fabric
Separator	Beads (resin)
Sealant	Special adhesive
Gasket	Neoprene rubber

Note 1: Filter thickness does not include gasket.

Service conditions

Maximum service temperature	Constant use: 60°C Short-time/irregular use: 80°C
Maximum service humidity	95%RH

04 Sterilization/enzyme air filters

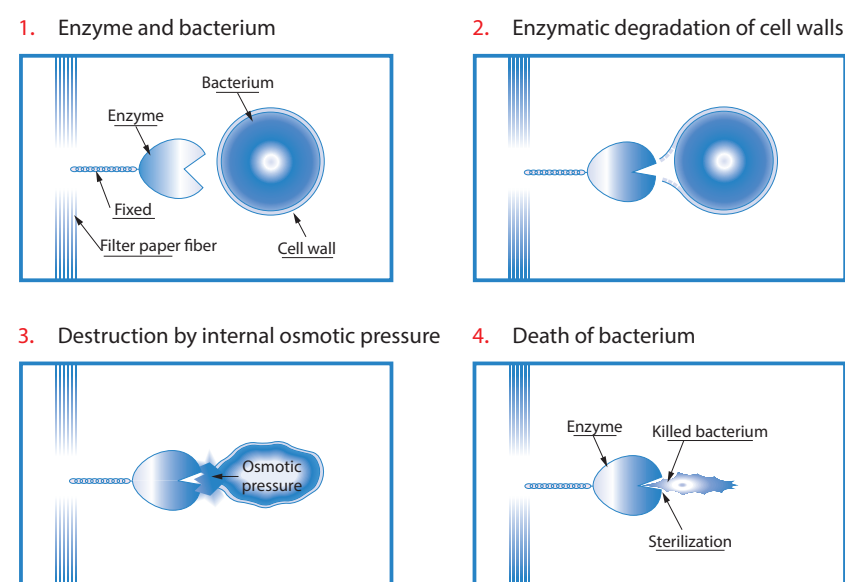
The Kosoful series is suitable for use in air conditioners at hospitals, food factories, and pharmaceutical factories. The natural bacteriolytic enzyme in the Kosoful products sterilizes the collected microorganisms to prevent secondary contamination from filters.

Kosoful features

- Powerful sterilization to disinfect air quickly and effectively
- Uses Natural enzymes safe for both people and the environment
- Pressure drop and collection efficiency equal or comparable to conventional filters

Mechanism of enzyme sterilization

Bacteria are sterilized by enzymes merged into the filter media fibers. Kosoful filter works as shown in the diagrams on the right. Lysozymes attached to filter media hydrolyze and break down the linkages of bacterial cell walls. Osmotic pressure inside the cell causes the cell membrane to burst, killing the bacterium.



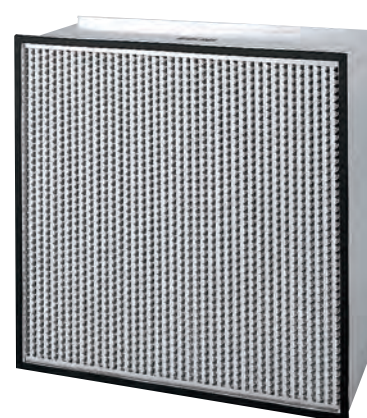
Kosoful BT

1. Ultra-thin mini pleats (resin bead separation)
2. No separator for flexibility in designing filter size and shape



Kosoful SP

1. Wave-shaped aluminum separator helps ensure stable air flow.
2. Wave-shaped aluminum separator also helps prevent contact between pleats induced by air currents.

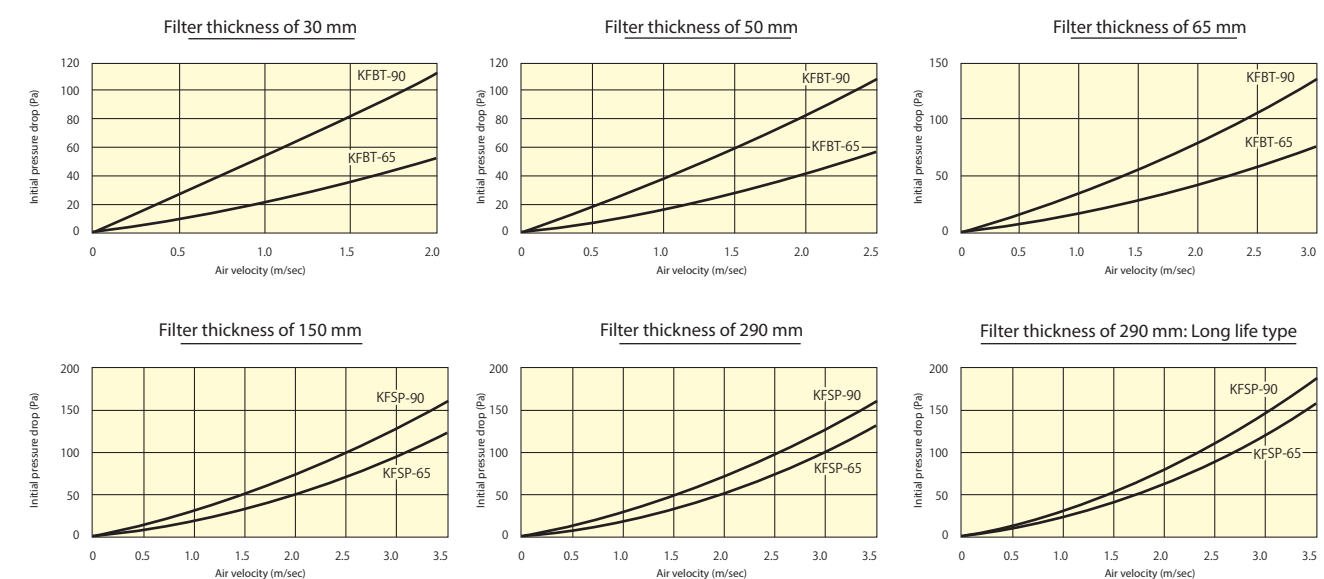


Standard specifications (Non-standard sizes are available on request.)

Product No.	Filter thickness (mm)	Particle collection efficiency (%) ^{*1}	Efficiency by colorimetric method (%) ^{*2}	Rated air velocity (m/sec)	Rated air flow rate (m³/min)	Initial pressure drop (Pa)	Final pressure drop (Pa)	Standard size W×H×T (mm)
KFBT-65	30	≥ 40	≥ 50	65	1.5	31	200	610×610×30
	50				2.25	46		610×610×50
	65				2.75	56		610×610×65
KFSP-65	150	≥ 70	≥ 80	90	2.75	56	300	610×610×150
	290				2.75	56		610×610×290
	Long life 290				2.75	56		610×610×290
KFBT-90	30	≥ 70	≥ 80	90	1.5	31	200	610×610×30
	50				2.25	46		610×610×50
	65				2.75	56		610×610×65
KFSP-90	150	≥ 70	≥ 80	90	2.75	56	300	610×610×150
	290				2.75	56		610×610×290
	Long life 290				2.75	56		610×610×290

*1 In accordance with JIS B 9908:2011 Type 2
*2 In accordance with JIS B 9908:2001 Type 2

Initial pressure drop data



*These models use filter media made by Nikki-Universal Co.
*No guarantee is provided for 100% sterilization of any bacteria.

Components and materials

Item	KFBT-65,90
Frame	Paper frame, aluminum (plywood, zinc steel, stainless steel)
Media	Glass fiber (holding enzymes)
Separator	Beads (resin)
Sealant	Special adhesive
Gasket	Neoprene rubber

Item	KFSP-65,90
Frame	Aluminum (plywood, zinc steel, stainless steel)
Media	Glass fiber (holding enzymes)
Separator	Aluminum
Sealant	Special adhesive
Gasket	Neoprene rubber

Note 1: Filter thickness does not include gasket.

Service conditions

Maximum service temperature	Constant use: 60°C Short-time/irregular use: 80°C
Maximum service humidity	95%RH

05

Eco-friendly air filters

The Eco Taiden series environmentally-friendly filters use for the frames special flame-retardant paper (thin type) or reinforced corrugated cardboard made of recycled paper (thick type). The carefully selected materials are free of volatile organic chemical substances, including formalin. With disposal issues in mind, the filters are metal-free.

Eco Taiden features

- Special flame-retardant paper and reinforced corrugated cardboard made of recycled paper conserve resources.
- Used filters can be compressed and disposed of by incineration.
- Lightweight and easy to handle (half the weight of conventional metal frames)
- Trapped dust won't re-entrain.
- Electret nonwoven fabric and density gradient nonwoven fabric for low pressure drop, high efficiency, and long life

Eco Taiden BT

1. Features resin bead separation.
2. Lightweight and ultra-thin



Eco Taiden MP

1. Multi-purpose pleated filter with resin bead separation
2. Long life and handles large air flow.



Eco Taiden WP

1. Double-layer pleated filter with resin bead separation
2. Long life and handles large air flow.



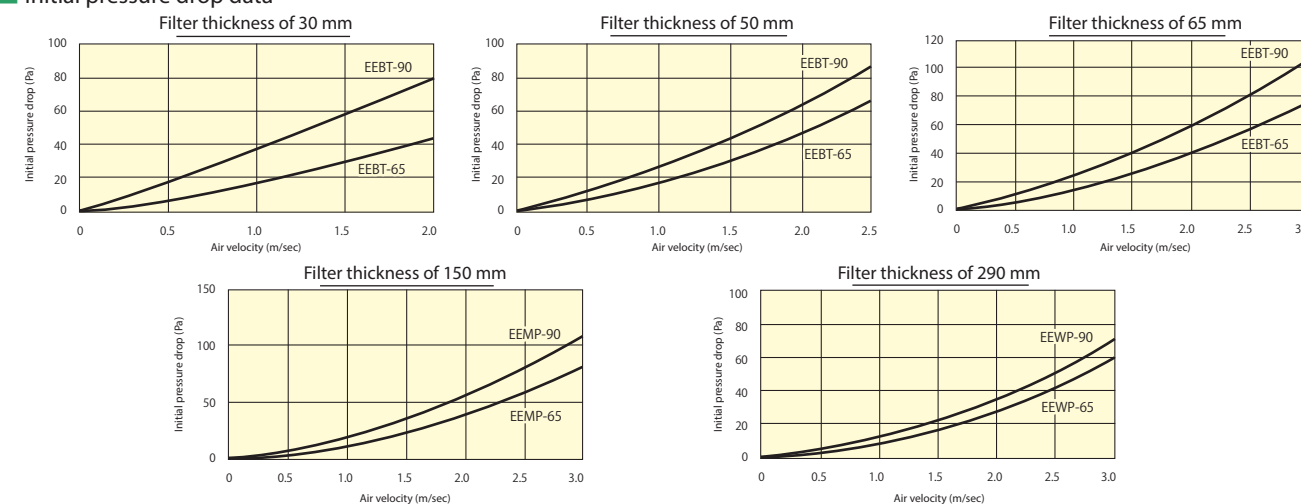
■ Standard specifications (Non-standard sizes are available on request.)

Product No.	Filter thickness (mm)	Particle collection efficiency (%)		Efficiency by colorimetric method ^{*1} (%)	Rated air velocity (m/sec)	Rated air flow rate (m ³ /min)	Initial pressure drop (Pa)	Final pressure drop (Pa)	Standard size W×H×T (mm)
		0.4 μm	0.7 μm						
EEBT-65	30	≥ 40	≥ 50	65	1.5	31	29	200	610×610×30
	50				2.25	46	55		610×610×50
	65				2.75	56	67		610×610×65
EEBT-90	30	≥ 70	≥ 80	90	1.5	31	58	200	610×610×30
	50				2.25	46	73		610×610×50
	65				2.75	56	93		610×610×65
EEMP-65	150	≥ 40	≥ 50	65	2.75	56	71	300	610×610×150
	150	≥ 70	≥ 80	90	2.75	56	93		610×610×150
EEMP-65	290	≥ 40	≥ 50	65	2.75	56	51	300	610×610×290
	290	≥ 70	≥ 80	90	2.75	56	60		610×610×290

*1 In accordance with JIS B 9908:2011 Type 2

*2 In accordance with JIS B 9908:2001 Type 2

■ Initial pressure drop data



■ Components and materials

Item	Material
Frame	Special flame-retardant paper, reinforced corrugated cardboard made of recycled paper
Media	Electret nonwoven fabric
Separator	Beads (resin)
Sealant	Special adhesive
Gasket	Neoprene rubber

Note 1: Filter thickness does not include gasket.

06

Antibacterial air filters

In addition to conventional dust removal functions, products in the SEK Taiden series suppress growth of bacteria trapped in the filter, using an agent added to filter media. These products help keep indoor air safe and clean.

These filters are recommended for medical institutions, eating and drinking facilities, schools, and other places where hygiene is especially important.



SEK Red Mark certification



Features of SEK Taiden

- SEK Mark (red) certified
- Capacity for suppressing bacterial growth has been certified by the Japan Textile Evaluation Technology Council.
- Suppresses mold growth.
- Choose from the colorimetric method 65% or 90% class based on conditions in the service environment.

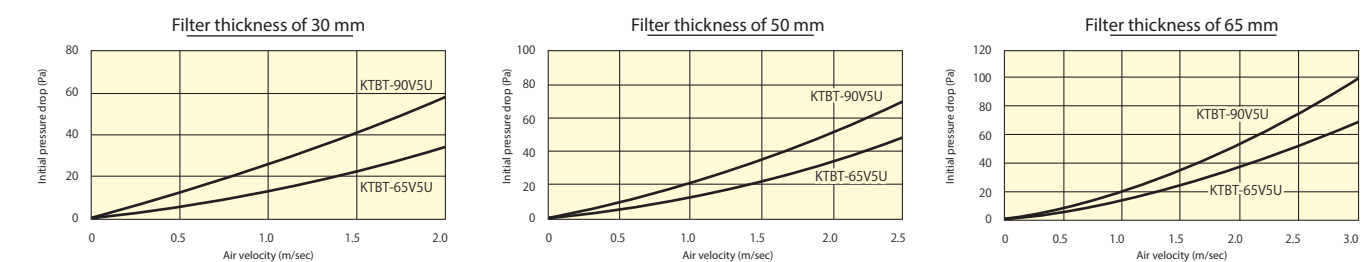
■ Standard specifications (Non-standard sizes are available on request.)

Product No.	Filter thickness (mm)	Particle collection efficiency (%)		Efficiency by colorimetric method ^{*2} (%)	Rated air velocity (m/sec)	Rated air flow rate (m ³ /min)	Initial pressure drop (Pa)	Final pressure drop (Pa)	Standard size W×H×T (mm)
		0.4 μm	0.7 μm						
KTBT-65V5U	30	≥ 40	≥ 50	65	1.5	30	23	300	610×610×30
	50				1.5	30	23		610×610×50
	65				2.0	40	39		610×610×65
	65				2.0	40	39		610×610×65
KTBT-90V5U	30	≥ 70	≥ 80	90	1.5	30	41	300	610×610×30
	50				1.5	30	35		610×610×50
	65				2.0	40	55		610×610×65
	65				2.0	40	55		610×610×65

*1 In accordance with JIS B 9908:2011 Type 2

*2 In accordance with JIS B 9908:2001 Type 2

■ Initial pressure drop data



■ Components and materials

Item	Material
Frame	Special flame-retardant paper (recycled paper)
Media	Polyester nonwoven fabric (containing quaternary ammonium salt)
Separator	Olefin resin
Sealant	Polypropylene resin
Gasket	Neoprene rubber

Note 1: Filter thickness does not include gasket.

■ Service conditions

Maximum service temperature	Constant use: 60°C
	Short-time/irregular use: 80°C
Maximum service humidity	95%RH