

ShinMaywa

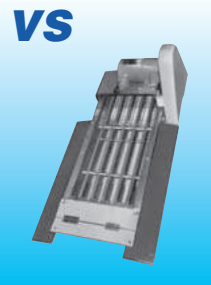
Screen series

BS·VS·SB/S

Automatic bar screen



Automatic bar screen



Wedge wire screen



Supply records

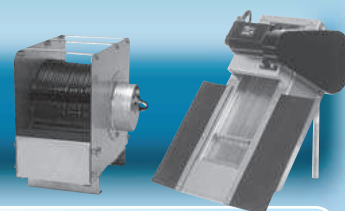


Original mechanism and durable structure!
ShinMaywa Screen series!

Original mechanism and durable structure! ShinMaywa Screen series!

BS series Automatic bar screen (fine spacing)

BS series is an automatic bar screen that applies to Japanese standard of human-waste treatment tank. It has high durability for hard usage conditions such as 24 hours continuous operation, submergence, etc. and available for industrial waste also.



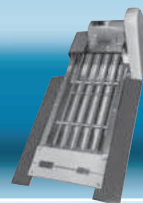
Applications

- *Removing suspended solid in sewage treatment facilities.
- *Removing suspended solid in industrial waste water treatment facilities.

VS series

Automatic bar screen (coarse spacing, belt moving type)

Automatic belt moving type screen VS series is designed as inflow screen for a human-waste treatment tank. The feature of this product is not only scrape-up solids, but also can separate a variety of solid mechanically. It is available to install not only for new plant, but also existing plant.



Applications

- *Removing suspended solid in sewage treatment facilities.
- *Removing suspended solid in industrial waste water treatment facilities.

S/SB series Wedge wire screen

SB/S-series are wedge wire screen for removing a solid contained in waste water. SB series: Non-clogging operation by built-in rotation brush. S series: Easy and economical operation by simple structure.



Applications

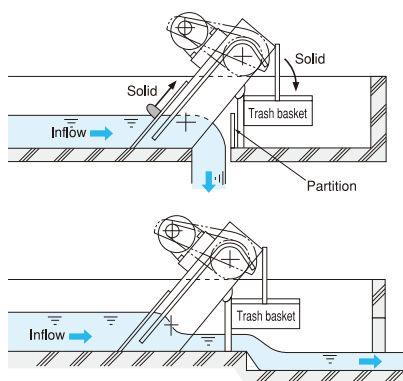
- *Removing suspended solid in sewage treatment plant.
- *Material recovery and waste water treatment process in the paper factory.
- *Waste water treatment process in the food, fiber, and chemical industry.
- *Separation and selection in mining water treatment facilities.

ShinMaywa Screen series

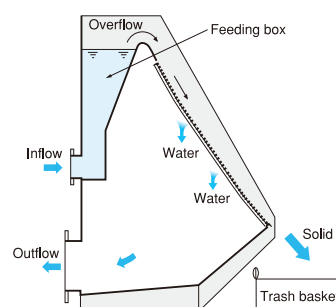
Type	Automatic bar screen		Wedge wire screen	
Model	BS	VS	SB	S
Slit (unit : mm)	1.0 2.0 2.5 5.0 10 20 30 50	20 30 50	0.25 0.5 0.75 1.0 2.0	
Output	BS-H: 25W, BS-N:100W	100W VS-H:25W	100W 220SB:200W	—
Applications	Removing suspended solid in waste water treatment facilities			

Installation
example

This type is to be installed in channel



This type is to be installed in the piping arrangement



* Details : Refer to instruction manual.

BS Series

BS1S·BS1D(Small-sized Bar Screen)

Toughness and long life

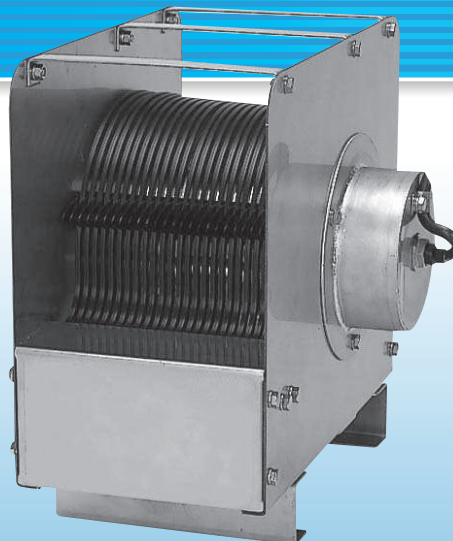
Adoption of a reduction gear built-in motor of outer rotor type and bearings not come into contact with sewage water realize long service life.

Easy maintenance

The reduction gear built-in motor and rake built in one piece facilitates maintenance.

Adoption of a reduction gear with submergence Tolerance

In the event that a reduction gear built-in motor is submerged due to unexpected increase of water, screen can be used continuously provided that such submergence is detected early and appropriate measures are taken.



Applications

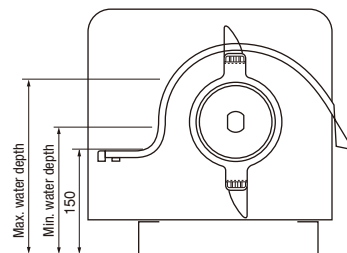
* Septic tanks or small sized water treatment facilities

Examples of Modification

* Changing Cable lengths
* Changing Voltage

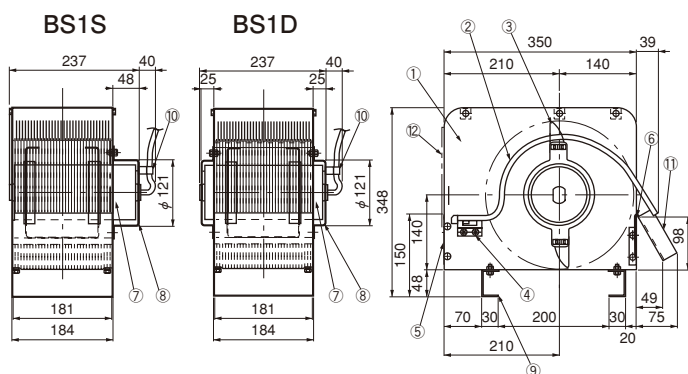
Standard specification

Capacity (Clear water) (m³/h)	Silt (mm)	Model
		BS1S·BS1D
	2	23
	2.5	27
Rotation Speed (min⁻¹)		13/16 (50/60Hz)
Motor		25 W (water-proof type), 3-ph
Weight (kg)		14
Applicable Min. Water Depth (mm)		165
Applicable Max. Water Depth (mm)		230
Standard Accessories		Cable (2 PNCT 0.75mm², 4 cores, outer diameter : ϕ 10.5mm) × 3m



Dimensions

Unit: mm



⑪ Chute is optional.

Number	Name	Quantity	Material
1	Frame	2	SUS304
2	Screen Bar	—	PET
3	Rake	2	PC
4	Bar Receipt	1	PP
5	Inflow Cover	1	SUS304
6	Outflow Cover	1	SUS304
7	Geared Motor	1	SUS304
8	Motor Cover	1	SUS304
9	Legs	2	SUS304
10	Cable Band	1	PE
11	Chute	1	PE
12	Inflow Packing	1 set	NBR

* Note **VCT**: Polyvinyl-chloride sheathed cabtyre cable **2PNCT**: Chloroprene sheathed cabtyre cable **SUS**: Stainless steel
PET: Polyethylene terephthalate **PC**: Polycarbonate **PP**: Polypropylene **PE**: Polyethylene **NBR**: Nitril Rubber

BS Series

Automatic bar screen (fine spacing)

Stainless steel body

Main parts such as frame, screen bars, rakes and drive chain are made of stainless steel that has high strength and corrosion resistance.

Inner chain structure

The carriage chain and sprockets are put in side frame. Therefore garbage hardly twines around the chain and sprocket.

Newly developed link type bar support mechanism

This mechanism prevents a slack of screen bar caused by bar's own weight. Also, this mechanism is less frictional and more durable compared with conventional rake type bar support mechanism.

One-way clutch mechanism

Even if the motor reverses due to power supply condition or faulty wiring at site, one-way clutch mechanism cut drive train and protects the raking system.

Water proof motor with reducer

BS series employs a water proof motor enjoying high reputation as before. Even if the screen was submerged due to unexpected freshet, it can be used again if you take early detection and treatment.



Standard specification

Capacity (m³/h)	Slit (mm)	Model							
		BS1H	BS2H	BS3H	BS1N	BS2N	BS3N	BS4N	BS5N
	1	18	25	43	18	25	43	86	99
	2	23	45	65	23	45	65	106	145
	2.5	27	50	75	27	50	75	130	179
	5	38	70	105	38	70	105	182	240
	10	43	75	112	43	75	112	206	251
	20	47	88	130	47	88	130	226	260
	30	50	92	138	50	92	138	240	276
50	—	—	—	—	—	—	252	290	
Rake-up speed (m/min)		1.9 / 2.3 (50 / 60Hz)							
Motor		25W, Three-phase (Water-proof type)				0.1kW, Three-phase (Water-proof type)			
Weight (kg)		21~24	28~33	29~37	21~24	28~33	29~37	32~50	43~68
Applicable Channel Width (mm)		300~400						500~600	
Standard Accessories		Power cable (VCT 1.25mm² 4 Cores Dia.φ11.5)×6m Trash basket (SUS304) 1 ps V-belt (Spare) 1 ps							

* Special specification: manual type (Available for BS1H,1N,2H,2N only)

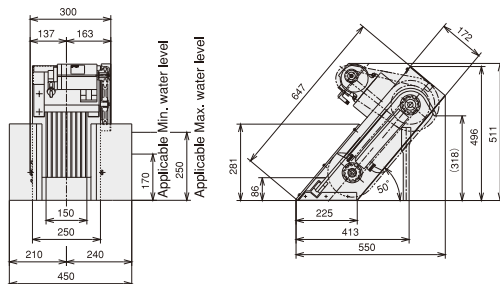
Special specification: BS1H~3H,1N~3N bar spacing 50mm

* Treated water capacity is the value measured in clear water.

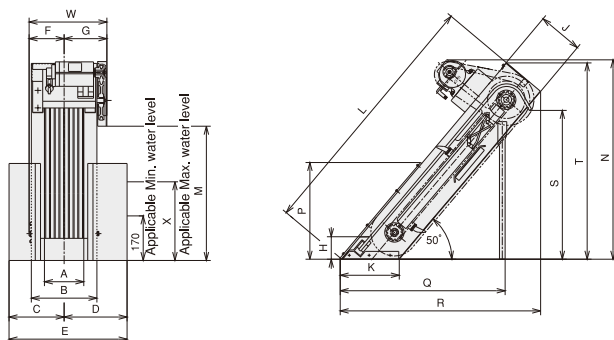
Dimensions

(unit : mm)

BS1N,BS1H

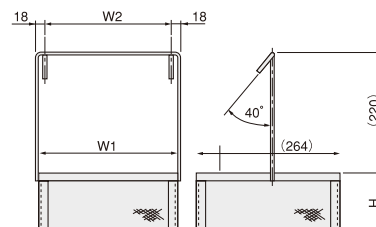


BS2N,BS3N,BS4N,BS5N,BS2H,BS3H



Model	BS2N BS2H	BS3N BS3H	BS4N	BS5N
A	150	150	350	350
B	250	250	450	450
C	210	210	335	335
D	240	240	365	365
E	450	450	700	700
F	137	137	237	237
G	163	163	263	263
H	86	86	86	86
J	172	172	172	172
K	225	225	225	225
L	981	1,140	1,140	1,568
M	512	634	634	961
N	766	894	894	1,216
P	370	570	570	650
Q	629	731	734	1,010
R	765	868	868	1,143
S	573	701	701	1,023
T	751	879	879	1,201
W	300	300	500	500
X	330	510	510	580

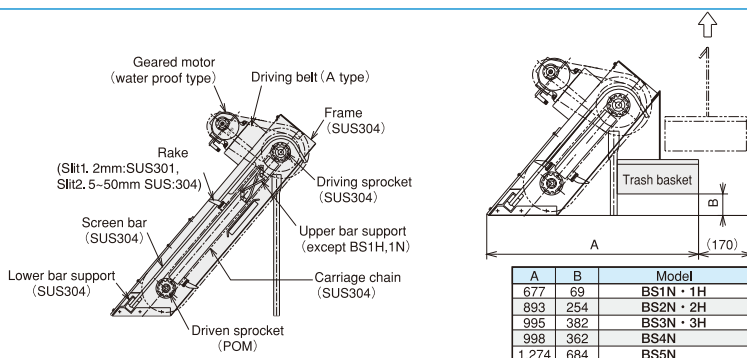
Dimension of trash basket



H	W1	W2	Model
110	254	230	BS1N·BS1H
180	254	230	BS2N·3N·2H·3H
200	454	430	BS4N·5N

Structure and materials

(unit : mm)



A	B	Model
677	69	BS1N · 1H
893	254	BS2N · 2H
995	382	BS3N · 3H
998	362	BS4N
1,274	684	BS5N

Notice

- * In case of the following applications, please contact us in advance. Special specifications may be required.
- For oily solid in a food processing or spherical solid
- For industrial waste water
- Install in outdoor

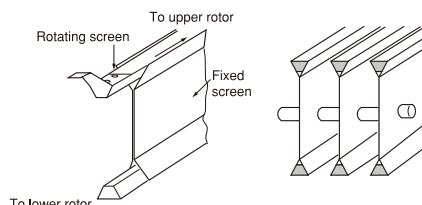
VS Series

Automatic bar screen (coarse spacing)

The automatic bar screen <Model VS series> is developed and designed as an inflow screen in the sewage treatment plant. It has such a structure that scrapes up and separates paper, cloth, vinyl, etc., contained in the inflow and does not scrape up feces. Also high-durability structure against hard conditions such as 24 hours continuous operation, lower bearing in submergence, etc., makes it long-term operation.

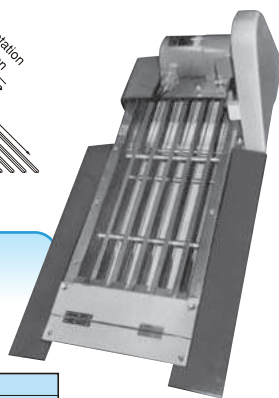
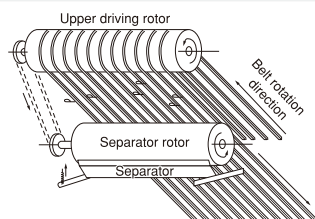
Fixed bar and rotating belt scraper

Rotating belt with hooks moves along V-shape groove on fixed bar and scrape up paper, cloth, vinyl, etc., contained in the inflow and does not scrape up feces.



Separating device

Paper, cloth, vinyl, etc., scraped up by rotating belt are separated forcibly by separating device which is consist of separator-rotor and separator. Therefore, the surface of rotation screen is always kept clean.

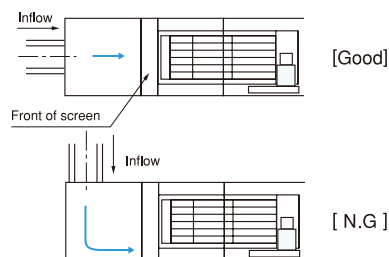


Notice

- Selection for bar spacing
In general wastewater treatment plant, the bar spacing of coarse screen shall be 50mm. Feces may be scraped up, in case the bar spacing of it is 20mm and/or 30mm.
- This equipment is designed for indoor use.
If this will be used at outdoor, please contact us in advance as special spec. may be required.
- This equipment cannot be applied to industrial wastewater containing oil in plenty. If this will be used such conditions, please contact us in advance as special spec. may be required.

Caution

Make sure that the waste water flows into the screen squarely against the front face of the screen. If the inflow direction becomes diagonal or sideways to the face of the screen, feces can be easily stuck on the midway of the channel.



VS

Coarse spacing automatic bar screen

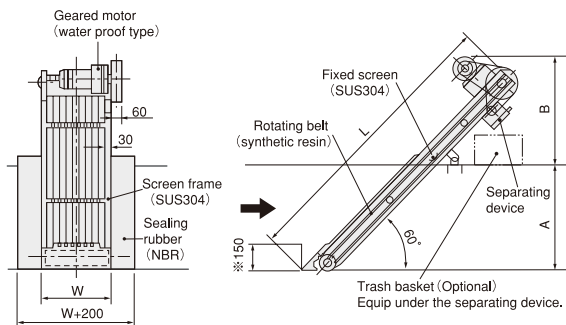
Standard specification

Capacity (m³/h)	Slit (mm)	Model					
		VS-1H	VS-2H	VS-1	VS-2	VS-3	
	20	40	70	40	70	120	
	30	50	80	50	80	150	
	50	70	100	70	100	180	
Rake-up speed (m/min)		3.0 / 3.6 (50 / 60Hz)					
Weight (kg)		55		65	55	65	70
Motor		25W, Three-phase (Water proof type)		0.1kW, Three-phase (Water proof type)			
Applicable channel width (mm)		400~500	400~500	400~500	400~500	400~500	400~500
Applicable water depth (mm)		150~300	150~400	150~300	150~400	150~400	150~600
Applicable channel height (mm)		420~490	610~820	420~490	610~820	930~1,140	

* Treated water capacity is the value measured in clear water.

Dimensions

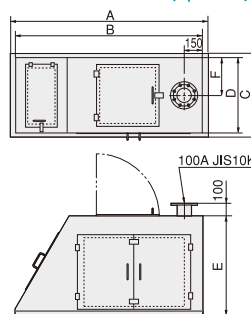
(unit : mm)



Model	Bar spacing			Length(L)	Width(W)	A	B
VS-1 · 1H	20	30	50	1,000	380	490	440
VS-2 · 2H	20	30	50	1,500	380	820	580
VS-3	20	30	50	1,950	380	1,140	660

* Caution : The minimum water depth for the screen is 150 mm.

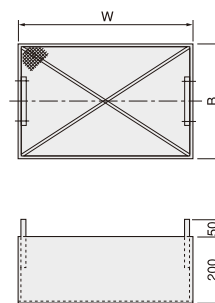
Dimensions for screen cover (optional)



Model	A	B	C	D	E	F	Applicable channel width	Applicable channel depth
VS-1 · 1H	1,280	1,200	680	600	700	300	400~500	420~490
VS-2 · 2H	1,380	1,300	680	600	1,000	300	400~500	610~820
VS-3	1,480	1,400	680	600	1,100	300	400~500	930~1,140

Material : PVC (Stainless is available as optional.)

Dimension of trash basket



W	B	Applicable model
400	350	VS-1 · 1H · 2 · 2H · 3

Material : SUS304

SB Series

SS Screen (with a built-in rotating brush)

Always clean

The rotating brush equipped behind the screen automatically washes and always keeps the screen clean.

Low running cost

The driving power of the rotating brush is 100W. Moreover, the intermittent operation keeps power consumption lower.

High screening effect

Clean slit kept by rotating brush maintain the higher screening effect.

Easy washing

The water separated by screen hits the rotating brush, which moves horizontally along the slit, and is emitted from the back of screen by centrifugal force.



Treatment capacity

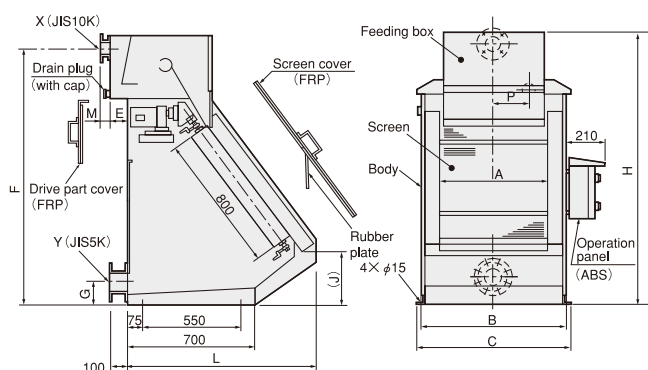
(unit : m³/h)

Kinds of waste water	Slit (mm)	Model						
		32SB	62SB	92SB	122SB	152SB	182SB	220SB
Clear water	0.25	16	32	48	85	106	127	154
	0.5	18	36	54	95	118	141	171
	0.75	20	40	60	106	132	158	192
	1.0	22	44	66	117	146	175	212
	1.5	24	48	72	127	158	189	229
	2.0	27	54	81	143	178	213	259
From Pulp bleaching process	0.25	6	11	17	22	28	33	39
From Dyeing process	0.5	8	15	23	31	39	47	57
From Livestock farm	0.5	10	20	30	40	50	60	70
From Garbage incinerator	0.5	15	31	47	62	78	93	113
From Fish process/Leather process	0.5	11	22	33	44	55	66	80
Waste paper in empty bottles recycling process	0.5	12	24	36	49	61	73	88
From Old newspaper concentration	0.5	10	20	30	40	50	60	70
From Beer brewery	0.5	16	32	48	64	80	96	116
Vegetable debris from food processing factory	0.75	16	32	48	64	80	96	116
From Tofu process	0.9	13	26	39	52	65	78	94
From Kitchen (Restaurant)	1.0	16	32	48	64	80	96	116
Sewage	1.0	20	40	60	80	100	120	140

*This table shall be used only for reference. Please select a suitable model after checking actual liquid, because the treatment capacity depends on not only the kinds of wastewater, but also the condition of liquid.

Dimensions

(unit : mm)



*Deodorization cover, screen-washing shower is available as optional.

Standard specification <32SB~182SB>

Frequency	Output (W)	Phase	Brush speed (mm/s)	Rotation (min ⁻¹)
50Hz	100	Three-phase	116	55
60Hz	100	Three-phase	139	66

<220SB>

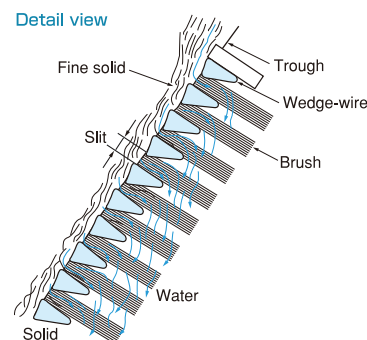
Frequency	Output (W)	Phase	Brush speed (mm/s)	Rotation (min ⁻¹)
50Hz	200	Three-phase	116	55
60Hz	200	Three-phase	139	66

Model	Effective size of screen Length×Width (mm)	A	B	C	E	F	G	H	J	L	M	P	Q	X	Y	Weight (kg)
32SB	800× 295	295	503	538			120					75		50A	100A	150
62SB	800× 600	600	808	843	95	1,450	132	1,525	300	1,040	50	200	25A	65A	125A	200
92SB	800× 905	905	1,113	1,148			145					350		80A	150A	250
122SB	800×1,190	1,190	1,429	1,474			180					500		100A	200A	350
152SB	800×1,495	1,495	1,734	1,779	120	1,650	205	1,750	390	1,070	75	650		125A	250A	400
182SB	800×1,800	1,800	2,039	2,084			230					800		150A	300A	450
220SB	800×2,190	2,190	2,446	2,506		1,800	255	1,950	500	1,140		1,000		200A	350A	550

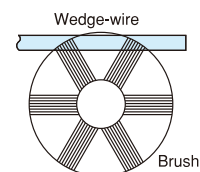
Structure

* SS screen consists of feeding box, body and screen. Screen is composed of wedge wires and support rods which are welded together. Main parts of SS screen are made of stainless steel.

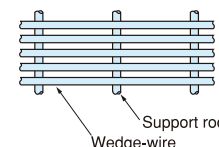
Detail view



- Wedge wire and support rod are one structures by special welding, there is no deviation of a slit.
- Welded downward (slanting) to wedge wire and support rod, a solid and water are effectively separated.



- Rotating brush is installed behind the screen, and timer controlled.
- The controller is built into water-proof operation panel.



Slit size

(unit : mm)

0.25	0.5	0.75	1.0	1.5	2.0
------	-----	------	-----	-----	-----

*Size for 0.2, 0.3, 0.4, 0.6, 0.9, can also be manufactured.

Economical

Since power is not used, a running cost is unnecessary. Simple structure enabled easy and economical operation.

Easy installation

Small installation area and light-weight enable easy installation even in existing plant.

High screening capability

Wedge wire having an angle against wastewater flow realizes high screening capability.



Treatment capacity

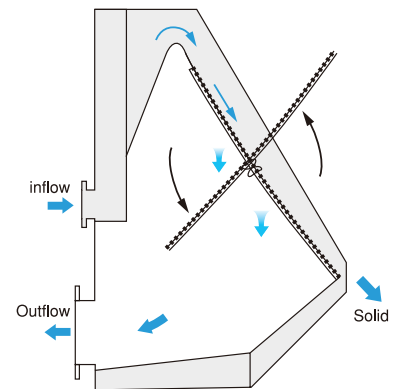
(unit : m³/h)

Kinds of waste water	Slit (mm.)	Model							
		30S	60S	90S	130S	170S	200S	230S	
Clear water	0.25	16	32	48	85	106	127	160	
	0.5	18	36	54	95	118	141	178	
	0.75	20	40	60	106	132	158	199	
	1.0	22	44	66	117	146	175	221	
	1.5	24	48	72	127	158	189	238	
	2.0	27	54	81	143	178	213	269	
From Pulp bleaching process	0.25	5	10	15	26	32	38	48	
From Dyeing process	0.5	7	14	21	38	47	56	70	
From Livestock farm	0.5	9	18	27	47	59	70	88	
From Garbage incinerator	0.5	14	28	43	76	94	113	142	
From Fish process/Leather process	0.5	10	21	32	55	67	80	101	
Waste paper in empty bottles recycling process	0.5	11	22	33	57	71	85	107	
From Old newspaper concentration	0.5	9	18	27	45	56	67	84	
From Beer brewery	0.5	16	32	48	86	106	127	160	
Vegetable debris from food processing factory	0.75	15	30	45	80	99	119	150	
From Tofu process	0.9	13	26	39	70	88	105	132	
From Kitchen (Restaurant)	0.5	14	28	43	76	94	113	142	
Sewage	1.0	18	35	53	94	117	140	176	

*This table shall be used only for reference. Please select a suitable model after checking actual liquid, because the treatment capacity depends on not only the kinds of wastewater, but also the condition of liquid.

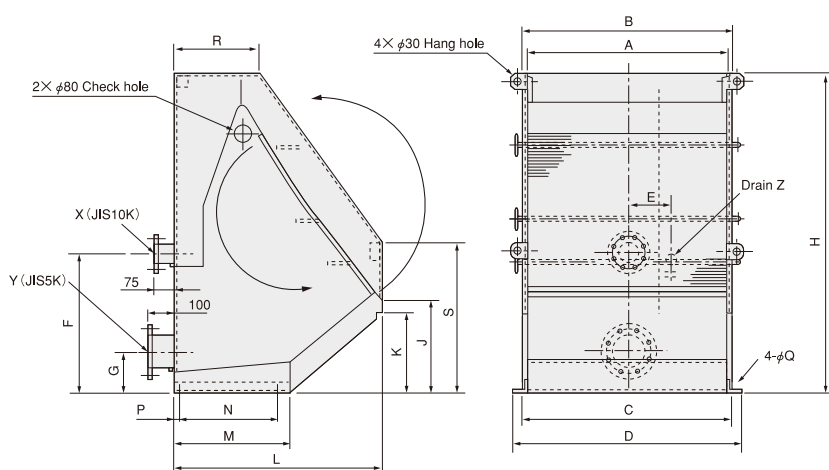
One structure by special welding

* Screen is composed of wedge wires made of stainless steel and support rods which are welded together. There is no deviations of a slit. Since a screen part can be rotated, maintenance is also easy.



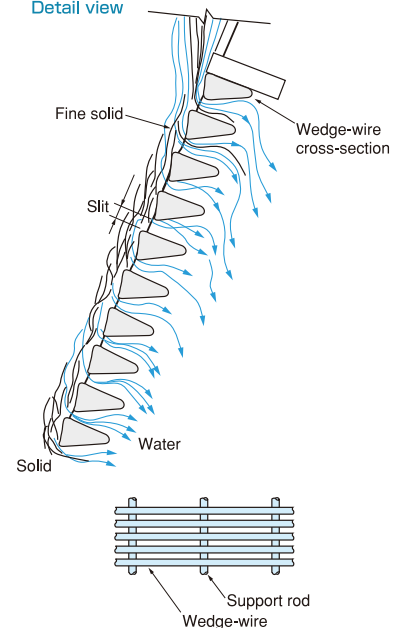
Dimensions

(unit : mm)



Model	Effective size of screen Length×Width (mm)	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	X	Y	Z	Weight (kg.)
30S	900× 285	285	333	339	389	115	632	160											50A	100A	25A	70
60S	900× 600	600	648	654	704	150	640	172	1,500	430	363	960	555	450	50	15	390	686	65A	125A	40A	105
90S	900× 905	905	953	959	1,009	200	646	185											80A	150A		135
130S	1,200×1,220	1,222	1,270	1,276	1,326		859	211											100A	200A		215
170S	1,200×1,500	1,502	1,550	1,556	1,606	300	872	236	1,800	477	460	1,180	720	600	60	19	470	786	125A	250A	50A	250
200S	1,200×1,805	1,807	1,855	1,861	1,911		885	262											150A	300A		300
230S	1,300×2,280	2,280	2,350	2,366	2,436	600	920	290	2,000	558	483	1,469	893	700	100		703	673	200A	350A		630

Detail view



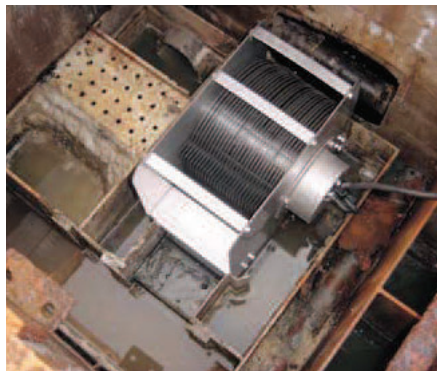
Slit size

(unit : mm)

0.25	0.5	0.75	1.0	1.5	2.0
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*Size for 0.2, 0.3, 0.4, 0.6, 0.9, can also be manufactured.

BS1S



Site: Septic tank

BS1H



Site: Agricultural community waste water treatment plant

BS5N



Site: Confectionery plant

SB Screen



Site: Dairy products plant

SB Screen



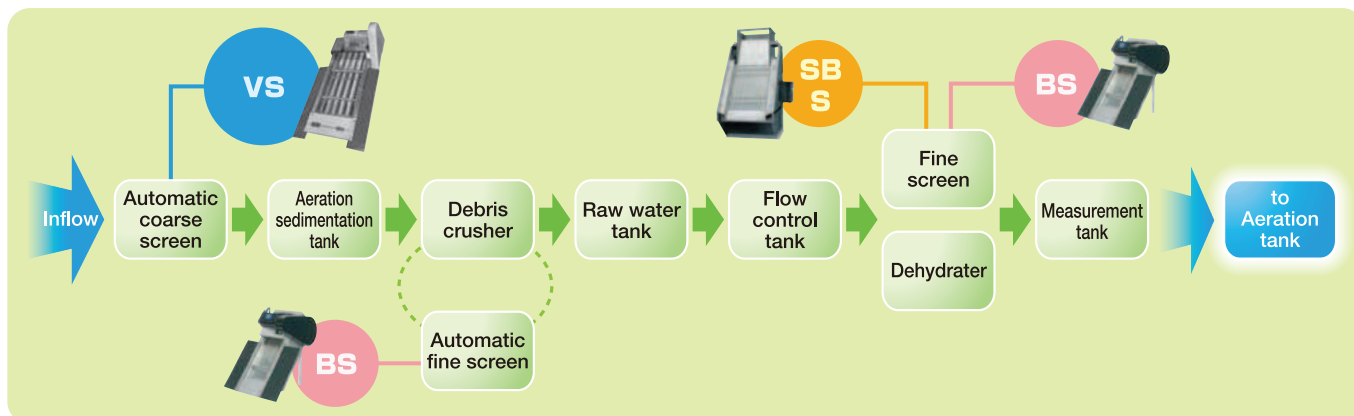
Site: Fish processing plant

S Screen



Site: Pumping station (Iutake river water)

Flow chart of pre-treatment



Specifications and dimensions are subject to change without notice.

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