' English Catalogue 2019-2020

Made in Japan

shimabun.com



## SHIMABUN



## Since 1871

Driven By Innovation





### Design, Engineering and Manufacture in JAPAN

Shimabun is one of the leading grating manufacturing company in Japan. Shimabun's gratings are built for strength and designed to perform. Since the beginning, we have focused to research and develop universal design products for residential houses and building materials sector to create comfortable and happiness towards the people of the society. What we mean by universal design products is that it is safe, easy and comfortable to use regardless any ages.

Shimabun mainly manufactures linear water drainage products both for indoor and outdoor use. We are also well known as an OEM company; manufacturing linear water drainage both for TOTO and LIXIL for the Japan market. Other than linear water drainage, we also manufacture stainless steel mirror, porcelain ceramic door handle, wood handrail and wooden rack and other sanitary products.

Over the years, we have accumulated vast experiences and developed a wide range of product line up with different materials. All the factories and manufacturing processes are carefully done in Japan. Our products are manufactured with trust and quality guaranteed. We will continuosly bring you the best products that are equipped with the latest technology. Not only do we offer a wide selection of contemporary designs but also the beauty and functionality that will last you for years to come.

Message from the President

We started our journey with the aim to research, develop and manufacture universal design products for residential houses and building materials sector to create comfortable and happiness towards the people of the society. Our mission is to improve the lifestyle and culture of the people and to provide a healthy and civilized way of life. Since our establishment, we have valued creativity and challenged the limits of technological innovation with a pioneering spirit. Over the years, Shimabun brand has won customers' trust in locally and internationally as a grating specialist manufacturer with a wealth of experience and a solid track record. Customer satisfaction is our main priority that drives us to develop the latest technologies and manufacturing capabilities and contribute to the society by providing excellent products and services. Our amazing universal design products do not only provide customers safe and secure but also make their usage comfortable. We always listen to our customers very carefully which help us to become stronger in various ways, in areas including quality, productivity and manufacturing technology and become more competent in the market. We believe we can increase the company value much further by enhancing the products and expanding the domestic/overseas sales network. We will continue working together with society toward achieving our goals to enhance our corporate value and helping create an affluent society.

pobuhide Shima

President and CEO

## **Company Overview**

| Company Name | Shimabun Company Limited
| Founded | 1871
| Establishment | Octorber 12,1966
| Representative | Nobuhide Shima,President
| Major products and operations | Manufacturing and sales of housing equipments,building materials, and universal design products
| Head Office | 28-7 Chuomachi,Kurume-shi,Fukuoka 830-0023,Japan
| Factory | 2488-5 Eguchi,Miyaki-cho,Miyaki-gun,Saga 849-0112,Japan
| Tokyo Sales Office | 6F Ryogoku Sakamoto Building,1-8-4 Ryogoku,Sumida-ku,Tokyo 130-0026,Japan
| Okinawa Sales Office | 3F New Wing Watari,2-6-36 Omoro-machi,Naha-shi,Okinawa 900-0006,Japan
| Operating Countries | Japan, Singapore, Malaysia, Thailand.



ARRAGES STR

# New face Of JAPA

## RISE ABOVE QUALITY

Quality is the standard, safety is our Shimabun's drainage solutions inspire priority. All of our products are made creative planning. They allow to use or from the highest grade JIS(Japanese elimination of physical barriers within the Industrial Standard) and undergoes a floor and can be incorporated into wide meticulous manufacturing process. A very range of materials and designs. The high important characteristics of our products is quality of components is not limited to the its resilience, no matter the location or design, materials and finish; ease of climate. Our products concept is based on handling and installation are given the universal design for residential houses and same attention to detail. the building materials sector. What we Products are designed to provide a long mean by universal design is that it will be reliable service life. The smooth surfaces safe, easy and comfortable to use guarantee efficient drainage and hygiene in both indoors and outdoors use. regardless any age and place.

# CONTENTS



All tests are performed and maintenance instructions have been followed in accordance with the Japanese Industrial Standard.

### Note:

Although Shimabun provides all information, recommendation, and/or advice regarding its products in good faith, the customer is solely responsible for determining the effectiveness, suitability, and safety of any particular use or application of the product.

The installation process has been followed in accordance to the Japanese standard. Base on country to country, the process/steps may differ.

Please Login to: www.shimabun.com



## **PVC Grating**

- Swimming Pool Grating
- Safety Grating
- Sugra
- UG

## Wood Grating

• Natural Linear Grating

## **Stainless Grating**

- Premium
- Raffine
- Standard Type

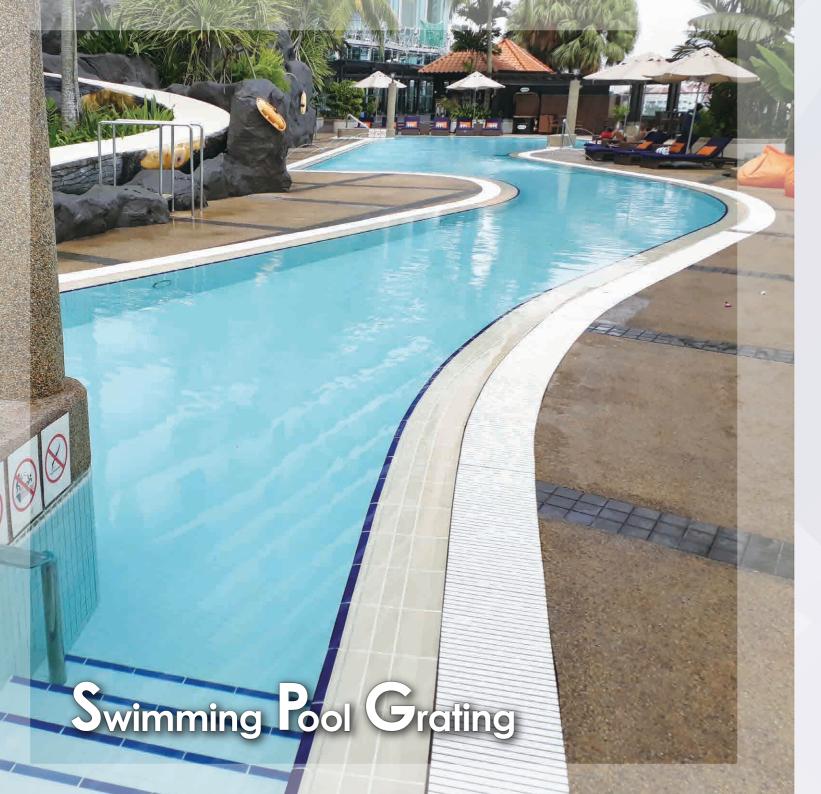
## Accessories

- Stainless Steel Mirror
- Cerahand
- Wood Handrail
- Drain Trap

Pg30 - Pg35

Pg36 - Pg61

Pg62 - Pg83



### **Key Features**

### Flexible

This resin grating can be fit into curved sections easily as it can bends toward both right and left according to suit the pool design. Non-slippery

The surface and bottom are made of soft PVC (polyvinyl chlorid) which make it safe for bare feet even at wet places.

### Easy maintenance

Light weight and can be rolled up at the time of cleaning easily which reduce costly recoating exercises. As the surface is inverted-U shaped, it has excellent water drainage property.

### Narrow Gaps

It is noted that the gaps between bars are 6 mm or less which prevent children from inserting fingers.

### Durability

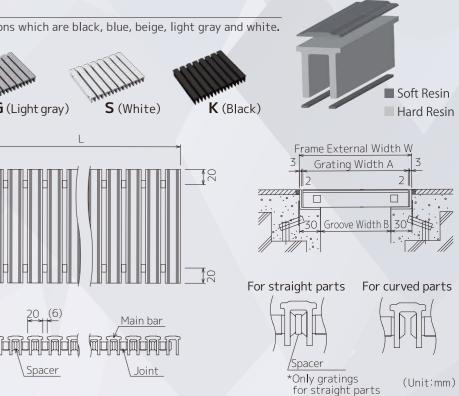
The whole part is made of resin which is excellent in chemical resistance. Anti-bacterial and antifungal agent is also contained which makes it excellent in durability.

### Excellent resistance

It has excellent resistance to hot water and weather resistance.

### **Color Variation**





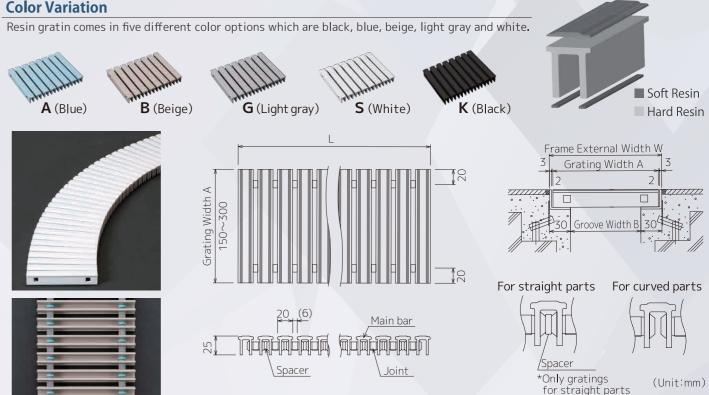
**B** (Beige)

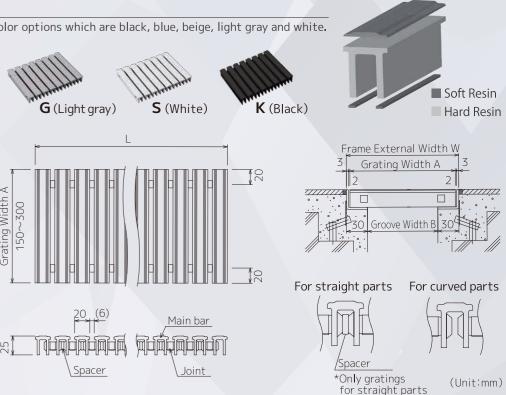




For straight, there will be blue spacer

at the both end.





require measure.

Note : Each grating is 1000 millimeter long. Space disconnect the joints according to your

### Material and specifications

Members	Materials	Note
Main bar	Hard/soft vinyl chloride(PVC)	Antibacterial and antifungal
Joint	Soft vinyl chloride(PVC)	Antibacterial and antifungal
Spacer for straight part	Polypropylene(P.P)	-

### [Test Results of Resin Grating for Swimming Pool]

Test items	Contents of test	Evaluation
Load bearing test	Apply a concentrated load on one point whose area is equivalent to the area of a wheel of one wheel chair ( $\varphi$ 50) (local load test). The test is implemented based on JIS A 1450.	No significant bend or have residual deformation within the range of withstanding load indicated in the specifications.
Weather resistance accelerated exposure test	Sunshine weather meter $63 \text{ C} \times 200 \text{ hr}$ Rainfall duration $12 \text{ min/hr}$	No significant color deterioration or change of color
	Apply alkaline, neutral, and acidic chemicals once a day × 14 days	No abnormality in appearance.
Chemical resistance test	The following chemicals which are used in swimming pools, kitchens, and factories are tested for 4 months. 1. Sodium hypochlorite 2. Hydrogen peroxide 3. Sulfuric acid	No color change or abnormality in appearance. *If the product is adhered with a dark colored chemical and left for a long time, the color does not go off easily.

### For straight parts

Groove width	Part number	Color	Width Amm	Height	Length L mm	Weight (Grating)	Withstanding load	Frame external width Wmm
100	GRP-25W150	A (Blue)	150			1.9kg	2.0kN(200kgf)	154
130	GRP-25W180	B (Beige)	180			2.2kg		184
150	GRP-25W200	G (Light gray)	200	25	1000	2.4kg	1.5kN(150kgf)	204
200	GRP-25W250	S (White) K (Black)	250			3.0kg	4.01.01(4.0.01	254
250	GRP-25W300	K (DIACK)	300			3.6kg	1.0kN(100kgf)	304

### For curved parts

Groove width	Part number	Color	Width Amm	Height	Length L mm	Weight (Grating)	Withstanding load	Minimum curve inner R	Frame external width W mm
100	GRPR-25W150	A (Blue)	150			1.9kg	2.0kN(200kgf)	500	154
130	GRPR-25W180	B (Beige)	180		1000	2.2kg	1 EkN(1EOkaf)	650	184
150	GRPR-25W200	G(Light gray) S(White)	G (Light gray) 200 25 (Note 1) 2.4kg 1.5kN(150kgf)	750	204				
200	GRPR-25W250		250		(	3.0kg	1.0kN(100kmf)	1000	254
250	GRPR-25W300	K (Black)	300			3.6kg	1.0kN(100kgf)	1250	304

### •Notes for Ordering

\*Please specify the color when you order. Example : If you wish to order a blue grating, please specify GRP-25W150-A.

\*The only color option for a joint is light gray.

\*Depending on request, we can manufacture special order-made products with non-standard dimensions and color.

\*Custom sizes are available.

\*Minimum order request 50 meter.

\*In regards of L shape angle, please discuss with us.

















## Durability

Steel crossbars are cover inside the resin makes it stronger to bear the passage of a wheel. Wheel chairs and the like can go smoothly across the grating.

## Non-slippery

The top surface is made of soft PVC (polyvinyl chlorid) which make sure it is safe for bare feet even at wet places. Moreover, the resin surface does not feel cold in winter.

### **Color Variation**

Safety grating comes in nine different color options. \*Please specify a color when you place an order. Example: If you wish to order a beige grating, please specify GRS-20W150-B.



B:Beige G:Light gray

ray S:White

P:Pink

Application

Drainage trench for shower room, toilet, rest room, balcony, kitchen, swimming pool etc.

## Narrow Gaps

The gaps between bars are 6 mm or less which prevent children from inserting fingers.

## Resistance

Excellent resistance to chemicals, hot water, and weather enables outdoor use such as in swimming pools.



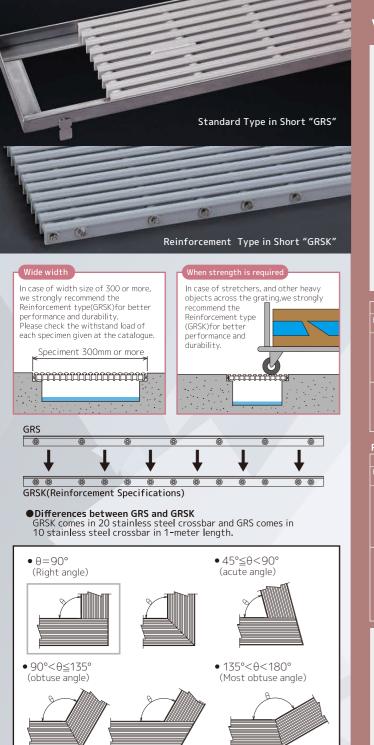
## Easy Maintenance

Safety Grating is light weight and each resin has a pull ring that makes cleaning easier.

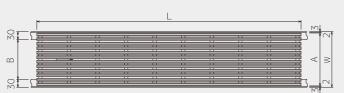


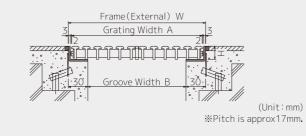






## Vertical type (standard specifications)





		L-angle receiving frame							
Height Hmm	Bmm	No.	Width Amm	Length L mm	Weight (Grating)	Withstanding load	No.	Wmm	
	100	GRS-20W150			1.8kg	1.5kN(150kgf)		160	
	150	GRS-20W200	200		2.4kg	1.0kN(100kgf)	GSL-20	210	1.2kg
20	200	GRS-20W250	250	999	3.0kg			260	
	250	GRS-20W300	300		3.6kg			310	
	100	GRS-25W150	150		2.0kg	2,0kN(200kgf)		160	1.3kg
25	150	GRS-25W200	200		2.7kg		GSL-25	210	
25	200	GRS-25W250	250	999	3.3kg	1.5kN(150kgf)	GSL-25	260	
	250	GRS-25W300	300		4.0kg			310	

### **Reinforcement Specifications**

		L-angle r	L-angle receiving frame						
Height Hmm	Bmm		Width Amm	Length L mm	Weight (Grating)	Withstanding load	No.	Wmm	Weight
	100	GRSK-20W150	150		2.3kg				
	150	GRSK-20W200	200		3 <b>.</b> 1kg	2.0kN(200kgf)	GSL-20	210	1.2kg
	200	GRSK-20W250	250		3.9kg			260	
	250	GRSK-20W300	300		4.7kg	1.5kN(150kgf)		310	
	300	GRSK-20W350	350		5 <b>.</b> 5kg	1.0kN(100kgf)		360	
	100	GRSK-25W150	150		2.5kg		GSL-25	160	
	150	GRSK-25W200	200		3 <b>.</b> 4kg	2.0kN(200kgf)		210	
25	200	GRSK-25W250	250	999	4.2kg	2.0KIN(200KgT)		260	
	250	GRSK-25W300	300		5.1kg		GSL-25	310	
	300	GRSK-25W350	350		6 <b>.</b> 0kg	1,5kN(150kgf)		360	
	350	GRSK-25W400	401		6.8kg	1.0kN(100kgf)		410	

### Notes for Ordering

\* Please specify a color when you order. Example: If you wish to order a beige grating, please specify GRS-20W150-B.

\* Depending on the request, we can manufacture special order-made products with non-standard dimensions and color.

- <Caution>The product may bend if it is propped against a wall or placed diagonally for a long time. Please make sure to store it on a flat place in stable condition.
- \* Custom sizes are available.
- \* Minimum order request 50 meter.
- \* In regards of L shape angle, please discuss with us.



		L-angle receiving frame							
Height Hmm	Bmm	No.	Width Amm	Length L mm	Weight (Grating)	Withstanding load	No.	Wmm	Weight
	100	GRSJ-20W151	151		1.6kg			160	
	150	150 GRSJ-20W201 201 999 2.2kg 1.0kN(100kgf)	GSL-20	210					
	200	GRSJ-20W251	251		2.7kg			260	
	100	GRSJ-25W151	151		1.9kg	1.5kN(150kgf)		160	1.3kg
25	150	GRSJ-25W201	201		2.5kg		GSL-25	210	
	200	GRSJ-25W251	251	999	3.1kg	1.0kN(100kgf)		260	
	250	GRSJ-25W301	301		3.7kg			310	

Members	Materials	Finishing	Note
Main bar	Hard/soft vinyl chloride (PVC)	_	Antibacterial and antifungal
Spacer	Hard vinyl chloride (PVC)	_	-
Pu <b>ll</b> ring	Hard vinyl chloride (PVC)	_	-
Crossbar	SUS304	-	-
Nut	SUS304	_	M4
Washer	SUS304	-	-
L-angle receiving frame	SUS304	2B	t=3.0

Test items	Contents of test	Evaluation
Load bearing test	Total weight load of a wheel chair has been imposed on one wheel (Ф50). The test was followed based on JIS A 1450.	No significant bend or residual deformation within the range of withstanding load indicated in the specifications.
Weather resistance accelerated	Sunshine weather meter 63 ℃ × 200 hr Rainfall duration 12 min/hr	No significant color deterioration or change of color.
Chemical resistance test	Apply alkaline, neutral, and acidic chemicals once a day × 14 days	No abnormality in appearance.
Warm water resistance test	Immerse product in 60°C warm water for 7 days.	No change of color or deformation



Jugra grating have stood the test of decades of use in all types of wet are which present a risk of slipping and infection, proving themselves to be an ideal solution where the particular emphasis to be placed on accident prevention. Shimabun' s Sugra can easily be incorporated into the design of the facilities question.



The top surface is made of soft PVC(polyvinyl chlorid) which make sure it is safe for bare feet even at wet

Narrow Gaps The gaps between bars are 6 mm or less which prevent children from inserting fingers.

Resistance Excellent resistance to chemicals, hot water, and weather enables outdoor use such as in bathroom,

### Can be use in

Non-slippery

places,



**1** 

Sports centers

Shower facilities

Wudu area

Sunas

♦ Schools

Hotels

◆ Indoor and outdoor pools

◆ Adventure pools and thermal baths

Rehabilitation clinics and hospitals

....



- Restaurants
- ♦ Fitness Studios
- ◆ Solariums
- Dental and chemical laboratories
  - 3. Households

  - ♦ Swimming pools
  - ♦ Sunas
- Fitness Studios
- Shower

### **Color Variation**

SUGRA comes in nine different color options. \*Please specify a color when you order. e.g.) If you wish to order a beige grating, please specify GRZ-25W500-B.







### Durability

Steel crossbars are cover inside the resin makes it stronger to bear the passage of a wheel. Wheel chairs and the like can go smoothly across the grating.

### Easy Maintenance

The lid is light weight and each resin has a pull ring that makes cleaning easier.









## Standard







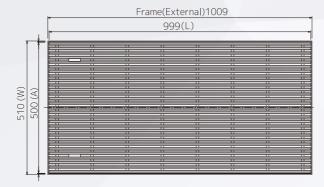
Sugra can be use directly on the flat concrete structure In that case, no need to use additional frame

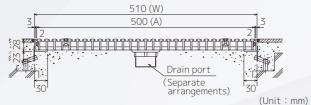
### Material and specifications

Members	Materials	Finishing	Note
Resin bar	Hard/soft vinyl chloride (PVC)	-	Antibacterial and antifungal
Spacer	Hard vinyl chloride (PVC)	-	Antibacterial and antifungal
Pull ring	Hard vinyl chloride (PVC)	-	Antibacterial and antifungal
Stud bolt	SUSXM7	-	M4
Nut	SUS304	-	M4
Washer	SUS304	-	-
L-angle receiving frame	SUS304	2B	t=3,0

### [Test Results of SUGRA]

Test items	Contents of test	Evaluation
Load bearing test	Total weight load of a wheel chair has been imposed on one wheel (Ф50). The test was followed based on JIS A 1450.	No significant bend or residual deformation within the range of withstanding load indicated in the specifications.
Weather resistance accelerated	Sunshine weather meter 63 ℃ × 200 hr Rainfall duration 12 min/hr	No significant color deterioration or change of color.
Chemical resistance test	Apply alkaline, neutral, and acidic chemicals once a day × 14 days.	No abnormality in appearance.
Warm water resistance test	Immerse product in 60°C warm water for 7 days.	No change of color or deformation





	L-angle recei	iving frame				
No.	Weight (Grating)	No.	Wmm			
GRZ-25W500	500	25	999	5.2kg	GSL-25	510

•Notes for Ordering \* Custom sizes are available.





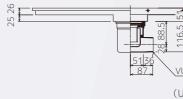




Vertical drain outlet



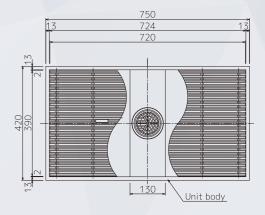
Horizontal drain outlet



Notes for Ordering
\* Custom sizes are available.

Horizontal drain outlet

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	No.	Weight
vertical drain outlet	HRHT-4275	6,4kg
horizontal drain outlet	HRHY-4275	6.4kg







J-50

(Unit:mm)



**UG** grating is specially designed for outdoor units and suitable for installation in areas exposed to water! UG's wings is made of stainless steel which can take heavier loads than human weights. Only high-quality PVC (soft and hard) and stainless steel (304) are used in the production of these grating. This material guarantees high resistance to wear, a high level of durability and thanks to its non-porous, closed surfaces, outstanding hygiene levels.

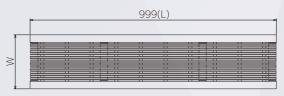


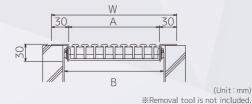
Durability The gaps between bars are 6 mm or less which prevent children from inserting fingers.

### Resistance

Narrow Gaps

Excellent resistance to chemicals, hot water, and weather enables outdoor use such as in sidewalk.





### Connecting metal fitting(Option)



This fitting protects this grating from theft and scattering.

### Silencing Rubber (Option)



To prevent any noises while walking on the grating.

Rubber



Steel crossbars are cover inside the resin makes it stronger to bear the passage of a wheel. Stroller and the like can go smoothly across the grating.



Non-slippery

The top surface is made of soft PVC (polyvinyl chlorid) which make sure it is safe for bare feet even at wet places. Moreover, the resin surface does not feel cold in winter.

Groove width	Part number	Color	W	A	В	Height	Length L mm	Weight (Grating)	Withstanding load
100	GRU-100		135	75	90			3.3kg	
120	GRU-120		153	93	108			3.6kg	
150	GRU-150		185	125	140			4.1kg	
180	GRU-180	Dark gray	219	159	174	30	999	4.5kg	5.0kN/m <sup>2</sup>
240	GRU-240		275	215	230			4.9kg	
300	GRU-300		338	278	293			6.3kg	
360	GRU-360		395	335	350			7.2kg	

### Notes for Ordering

\* Depending on the request, we can manufacture special order-made products with non-standard dimensions and color.

<Caution>The product may bend if it is propped against a wall or placed diagonally for a long time. Please make sure to store it on a flat place in stable condition.

\* Custom sizes are available.

### Material and specifications

Members	Materials	Finishing	Note	
Main body	Hard/soft vinyl chloride (PVC) +Stainless	_	Antibacterial and antifungal	

### [Test Results of Groove Grating]

Test items	Contents of test	Evaluation
Load bearing test	Total weight load of a wheel chair has been imposed on one wheel (Ф50). The test was followed based on JIS A 1450.	No significant bend or residual deformation within the range of withstanding load indicated in the specifications.
Weather resistance accelerated	Sunshine weather meter 63 ℃ × 200 hr Rainfall duration 12 min/hr	No significant color deterioration or change of color.
Endurance(Fatigue) test	80kg load 1 million times in servo Pulser tester	No deformation or warping or damage



## Natural Linear Grating Made of American Walnut Wood

ARCHIDEX

Natural Linear Grating was awarded under the category of 'New Product Award' at Archidex Exlibition 2017 in Malaysia Thin layer coating has been applied in order to keep the wooden feeling. and keep it safe from bacteria.

Natural Linear Grating is made of high grade American Walnut Wood which is exceptionally durable and beautiful. American Walnut wood; A very strong and stable wood with rich color and the nice touch of contrast. Every component is designed, developed and produced in-house to the highest international standard. It has been developed not only to upgrade your shower room, lifestyle but also considering its lifelong durability. Natural Linear Grating is the beauty of a shower room, transforms a normal shower space into an amazing space.

### Material and specifications

Members	Materials	Finishing	Note
Top cover	Walnut (natural wood) +SUS304	Coating with a wooden surface Texture	Antibacterial and antifungal
Main body	SUS304	_	—
Trap portion	SUS304 +Resin (ABS)	_	-

For 150 × 150 tiles:Top cover has 6 bars For 200 × 200 tiles:Top cover has 8 bars

A Premium grade grating made of high grade American Walnut Wood especially for indoor use.



Round upper surface makes you feel comfortable and prevent slippage.

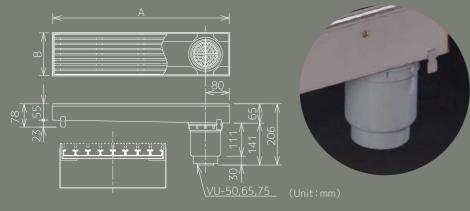
The gaps between bars are 6 mm or less which prevent the risk of getting children's foot finger caught.

## Antifungal has been processed to avoid growth of fungus.

Evaluation Assessment									
Test items	Contents of test	Evaluation							
Load bearing test	The total weight load of a wheel chair has been imposed on one wheed(Φ50). The test was followed based on JIS A 1450.	No significant bend or residual deformation within the range of withstanding load indicated in the pecifications.							
Chemical resistance test	Apply alkaline, neutral, and acidic chemicals once a day × 14 days	No abnormality in appearance.							
Warm water resistance test	Immerse product in 60°C warm water for 7 days.	No change of color or deformation							
Impact resistance test	Drop a 20 mm radius ball of 1.2 kg from the height of 1 m.	No crack or breakage							
Heat resistance test	70°C × 72 hr, exposure duration:2 hr	No abnormality in appearance.							
Moisture resistance test	40°C and humidity of 95% × 24 hr	No abnormality in appearance.							
Hot water resistance test	87℃×48hr	No change in weight or change of color or in appearance to the extent that may disrupt use.							
Heating/ cooling cycle test	$\begin{array}{l} \mbox{Minus15°C (30 min)} \leftrightarrow \mbox{room temperature } (20°C \times 3 \\ \mbox{min}) \leftrightarrow 70°C (30 min) = 1 \mbox{cycle,number of cycles:} 25, \\ \mbox{exposure duration at room temperature:} 2 \mbox{ hr} \end{array}$	No abnormality in appearance.							
Antibacterial test	JIS Z 2801	Antibacterial activity value of 2.0 or higher							
Antifungal test	The test is implemented in accordance with JIS Z 2911(Methods of test for fungus resistance).	No growth of mycelium was observed.							
Abrasion test	Move a nylon scrub brush back and forth 10 thousand times with a pressing force of 20 Nf.	No abnormality in appearance.							
Immersion test	Room temperature(20℃)×8 hr.↔Dry(60℃)×16hr., 10 cycles	No abnormality in appearance.							



## Grating and Stainless Frame With Vertical Drain Trap

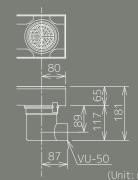


### For 150 × 150 tiles

non waterproof		Part number of non waterproof horizontal drain outlet			Anchor (pair)	Weight
Set	HWFT <b>-</b> 15L600	HWFY-15L600	594	144	2	4.2kg
Cover only	HWF-15L600-11	HWF-15L600-11	583	134	-	2.7kg

( VU-50, 65, 75, VP-65 can be connect directly. For VP 50 and75, a socket will require.

## Grating and Stainless Frame With Horizontal Drain Trap





### For 200 × 200 tiles

	non waterproof	Part number of non waterproof horizontal drain outlet	A	В	Anchor (pair)	Weight	(VU-50 ca connect
Set	HWFT-20L600	HWFY-20L600	596	196	2	5.0kg	
Cover only	HWF-20L600-11	HWF-20L600-11	585	186	-	3 <b>.</b> 1kg	

- Notes for Ordering
   \* Depending on your requests, we can manufacture special order products with other than standard dimensions.
   \* The maximum length of the wooden grating is 600 mm.
   \* Custom sizes available.
   \* The pipe hole can be customize a according to the request.
   \* Minimum order request 5 set.



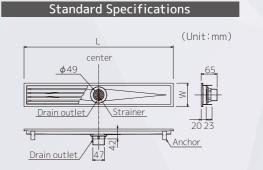


Shimabun has always been built around a singular vision: to create gratings that are as durable and functional as they are beautiful and intuitive. Premium Black is a stunning realization of that ideal. Special ceramic coating has been used on the surface of the Stainless Steel to make antiskid and prevent any accident at slippery places. Premium series also offers a wide range of color options to match with your surroundings and design. For color options, please follow JPMA Standard Paint Colors.

Premium Black **Designed for yours** 

## Premium Drain Outlet with Trap





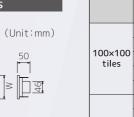
Horizontal Specifications



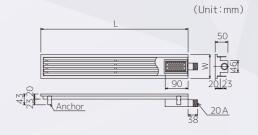
100×100 tiles

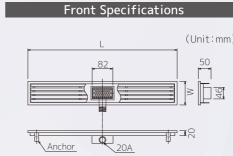
100×100 tiles





150×150 tiles







## **Drain Outlet Unit for Entrance** Premium type

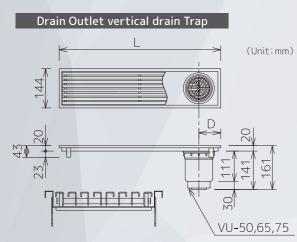
No.	Lot	Length L mm	Width W mm	Anchor (pair)	Weight	Withstanding load	
GSG-10L600-P		594		2	1.6kg		
GSG-10L900-P		894		3	2.3kg	0.01.01	
GSG-10L1200-P	4 119	1194	94	5	3.0kg	9.0kN (900kqf)	
GSG-10L1800-P		1794		*********		4.4kg	(300kg1)
GSG-10L2000-P		1994		5	4.8kg		
GSG-15L600-P		596		2	2.1kg		
GSG-15L900-P		896		3	3.3kg	9.0kN	
GSG-15L1200-P	4	1196	144	,	4.4kg	(900kgf)	
GSG-15L1800-P		1796		5	6.6kg	(Soongry	
GSG-15L2000-P		1996		5	8.0kg		

No.	Lot	Length L mm	Width W mm	Anchor (pair)	Weight	Withstanding load	
GSGY-10L600-P		585		2	1.7kg		
GSGY-10L900-P		885		3	2.4kg	0.01.11	
GSGY-10L1200-P	4	1185	94		3.1kg	9.0kN (900kgf)	
GSGY-10L1800-P		1785			5	4.5kg	(SOOKGI)
GSGY-10L2000-P		1985		C	4.9kg		
GSGY-15L600-P		586		2	2 2.4kg		
GSGY-15L900-P		886		3	3.6kg	9.0kN	
GSGY-15L1200-P	4	1186	144	C	4.7kg	(900kqf)	
GSGY-15L1800-P		1786		5	6.9kg	(Soongr)	
GSGY-15L2000-P		1986		5	8.3kg		

No.	Lot	Length L mm	Width W mm	Anchor (pair)	Weight	Withstanding load
GSGM-10L600-P		594		2	1.7kg	
GSGM-10L900-P	4	894		3	2.4kg	0.01.11
GSGM-10L1200-P		1194	94	5	3.1kg	9.0kN (900kqf)
GSGM-10L1800-P		1794		5	4.5kg	(SOOKgi)
GSGM-10L2000-P	/	1994		C	4.9kg	
GSGM-15L600-P		596		2	2.4kg	
GSGM-15L900-P		896		3	3.6kg	O OLNI
GSGM-15L1200-P	4	1196	144	5	4.7kg	9.0kN (900kgf)
GSGM-15L1800-P		1796		E	6.9kg	(Seeingr)
GSGM-15L2000-P		1996		5	8.3kg	

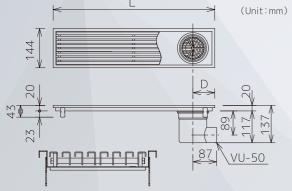


## Drain Outlet: Bar Type in Premium Black



No.	Lot	L	D	Anchor (pair)	Weight	Withstanding load	
HSAT-15L600-P		596	80	2	2.6kg		
HSAT-15L900-P		896		80	7	3.8kg	9.0kN
HSAT-15L1200-P	4	1196		5	4.9kg	(900kgf)	
HSAT-15L1800-P	]	1796	898 (Center)	5	7.1kg		

Drain Outlet horizontal drain Trap



No.	Lot	L	D	Anchor (pair)	Weight	Withstanding load
HSAY-15L600-P		596		2	2.6kg	
HSAY-15L900-P		896	80	3	3.8kg	9.0kN
HSAY-15L1200-P	4	1196		5	4.9kg	(900kgf)
HSAY-15L1800-P		1796	898 (Center)	5	7.1kg	

### Notes for Ordering

\* Depending on request, we can manufacture special order-made products with non-standard dimensions. The length can be customize up to 4000 mm. \* Custom sizes available. \* The pipe hole can be customize according to the request. \* Minimum order request 10 set.

\* You can also order this grating without any ceramic cooting and color.

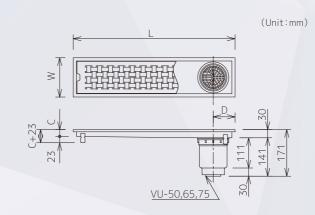
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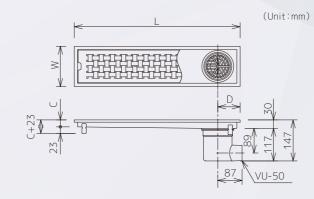




Drain Outlet vertical drain Trap



Drain Outlet horizontal drain Trap



Notes for Ordering

\* Depending on request, we can manufacture special order-made products with non-standard dimensions. The length can be customize up to 4000 mm. \* Custom sizes available. \* The pipe hole can be customize according to the request. \* Minimum order request 10 set. \* You can also order this grating without any ceramic cooting and color.

## Drain Outlet: Check Weave Type in Premium Black

### 150×150 tiles

No.	Lot	L	w	с	D	Anchor (pair)	Weight	Withstanding load
HSUT-15L150-SP	6	144		30	72	- /	0 <b>.</b> 9kg	
HSUT-15L450-SP		444		26			2.0kg	
HSUT-15L600-SP		594	144	25		2	2.5kg	1.5kN
HSUT-15L750-SP	4	744	144	24	80		3.0kg	(150kgf)
HSUT-15L900-SP		894		23		_	3.5kg	
HSUT-15L1200-SP		1194		20		3	4.5kg	

### 200×200 tiles

No.	Lot	L	w	с	D	Anchor (pair)	Weight	Withstanding Ioad
HSUT-20L200-SP	6	196		30	98	_	1.5kg	
HSUT-20L600-SP		596		25		2	3.4kg	1.5kN
HSUT-20L800-SP		796	196	25			4.4kg	(150kgf)
HSUT-20L1000-SP	4	996		22	80	80 3	5.5kg	
HSUT-20L1200-SP		1196		20			6.3kg	

### 150×150 tiles

No.	Lot	L	w	с	D	Anchor (pair)	Weight	Withstanding Ioad
HSUY-15L150-SP	6	144		30	72	-	0.9kg	
HSUY-15L450-SP		444		26			2.0kg	
HSUY-15L600-SP		594		25			2 <b>.</b> 5kg	1.5kN
HSUY-15L750-SP	4	744	144	24			3.0kg	(150kgf)
HSUY-15L900-SP		894		23			3.5kg	
HSUY-15L1200-SP		1194		20		3	4.5kg	

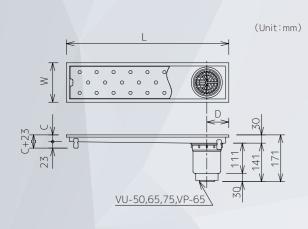
### 200×200 tiles

No.	Lot	L	w	с	D	Anchor (pair)	Weight	Withstanding load
HSUY-20L200-SP	6	196		30	98	—	1.5kg	
HSUY-20L600-SP		596		25		2	3.4kg	1.5kN
HSUY-20L800-SP		796	196	25	~~		4.4kg	(150kgf)
HSUY-20L1000-SP	4	996		22	80	3	5.5kg	
HSUY-20L1200-SP		1196		20			6.3kg	



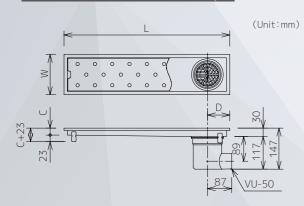
## Drain Outlet: Punch Type in Premium Black

### Drain Outlet vertical drain Trap



### Drain Outlet horizontal drain Trap

Notes for Ordering



### 150×150 til

No.	Lot	L	W	С	D	Anchor (pair)	Weight	Withstanding load
HSUT-15L150-P	6	144		30	72	-	0.9kg	
HSUT-15L450-P		444		26			2.0kg	
HSUT-15L600-P		594	144	25		2	2.5kg	1.5kN
HSUT-15L750-P	4	744	1144	24	80		3.0kg	
HSUT-15L900-P		894		23		7	3.5kg	
HSUT-15L1200-P		1194		20		5	4.5kg	

### 200×200 tiles

No.	Lot	L	W	С	D	Anchor (pair)	Weight	Withstanding Ioad
HSUT-20L200-P	6	196		30	98	-	1.5kg	
HSUT-20L600-P		596		25		2	3.4kg	
HSUT-20L800-P	4	796	196	25			4.4kg	1.5kN
HSUT-20L1000-P	4	996		22	80	3	5.5kg	
HSUT-20L1200-P	1	1196		20			6.3kg	

### 150×150 tiles

No.	Lot	L	W	с	D	Anchor (pair)	Weight	Withstanding load
HSUY-15L150-P	6	144		30	72	-	0.9kg	
HSUY-15L450-P		444		26			2.0kg	
HSUY-15L600-P		594	1 1 1	25		2	2.5kg	4 51 11
HSUY-15L750-P	4	744	144	24	80		3.0kg	1.5kN
HSUY-15L900-P		894		23		7	3.5kg	
HSUY-15L1200-P		1194		20		S	4.5kg	

### 200×200 tiles

	No.	Lot	L	W	С	D	Anchor (pair)	Weight	Withstanding load
	HSUY-20L200-P	6	196		30	98	-	1.5kg	
N	HSUY-20L600-P		596		25		2	3.4kg	
	HSUY-20L800-P	4	796	196	25			4.4kg	1.5kN
	HSUY-20L1000-P	4	996		22	80	3	5.5kg	
	HSUY-20L1200-P		1196		20			6.3kg	

\* Depending on request, we can manufacture special order-made products with non-standard dimensions. The length can be customize up to 4000 mm. \* Custom sizes available. \* The pipe hole can be customize according to the request. \* Minimum order request 10 set. \* You can also order this grating without any ceramic cooting and color.

tiles								
lo.	Lot	L	W	с	D	Anchor (pair)	Weight	Withstanding load
L150-P	6	144		30	72	-	0.9kg	
L450-P		444		26			2.0kg	
L600-P		594	144	25		2	2.5kg	1.5kN
L750-P	4	744	144	24	80		3.0kg	

No.	Lot	L	W	С	D	Anchor (pair)	Weight	Withstanding load
HSUT-20L200-P	6	196		30	98	-	1.5kg	
HSUT-20L600-P		596		25		2	3.4kg	
HSUT-20L800-P	4	796	196	25			4.4kg	1.5kN
HSUT-20L1000-P	4	996		22	80	3	5.5kg	
HSUT-20L1200-P	1	1196		20			6.3kg	



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## RAFFINE

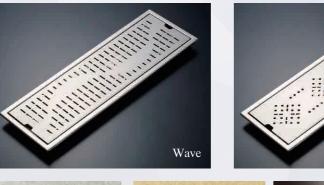
Drain Outlet with Trap

## STAINLESS

Kaffine Gratings are made from the finest raw materials and assembled with scrupulous attention to detail. Every component is designed, developed and produced in-house to the most exacting standard. Raffine Grtaing does not only enhance your interior design and environment but also greater structural strength, more impact resistance and contraction properties. Stainless Gratings are for Prestige, the taste of paradise. A Luxury grating specially made to upgrade your shower room.

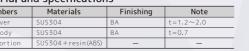
### Designs and Colors

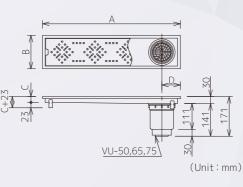
Raffine grating comes with 3 unique designs with 5 different colors.





Material an			
Members	Materials	Finishing	Note
Top cover	SUS304	BA	t=1.2~2.0
Main body	SUS304	BA	t=0.7
Trap portion	SUS304 + resin(ABS)	_	_







### Notes for Ordering

\*Please specify a drain hole design code at  $\blacklozenge$ :Wave (W),square (S),or circle (C). Please specify a color code at the end of the part number: Champagne gold (C), Yellow gold (Y), Champagne gold gradation(CG), Yellow gold gradation(YG), premium black (P). Example : When you specify the wave design and champagne gold color: HSWB-15L450-C \*Depending on request, we can manufacture special order-made products with non-standard dimensions. For W82 the length can be customize up to 4000 mm. \*Custom sizes available. \*The pipe hole can be customize according to the request. \*Minimum order request 5 set.









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Test	Test Content	Result
water istance test	One week in hot water at 60℃, 87℃×48H	Clear
ather resistance promotion osure test	Sunshine Weather Meter 4000 hr	Clear
mical resistance test	Alkaline, neutral, acidic coating × 14 days	Clear
act resistance test	A steel ball of 1.2kg is dropped from a height of 1m at Φ40	Some indentation No paint peeling
sture resistance test	40℃ Humidity 95% × 24hr	Clear
asion resistance test	37,000 round trips with nylon scourer	No scratches
test	Friction coefficient(dry/wet) : 0.37/0.36 Stainless steel surface friction coefficient at wet:0.17	Non slippery

	No.	Lot	А	В	с	D	Anchor (pair)	Weight	Withstanding load
	HS <b>◆</b> T-15L450		444		26			1.6kg	
	HS <b>♦</b> T-15L600		594		25		2	2.3kg	1 51 11
0×150 iles	HS <b>♦</b> T-15L750		24	80		3.0kg	1.5kN (150kgf)		
.iics	HS <b>♦</b> T-15L900			23	7	3 4.4kg			
	HS&T-15L1200	7	1194		20		5	4.8kg	
	HS <b>T</b> -20L600		596		25		2	3.4kg	
0×200	HS <b>T</b> -20L800	4	796	106	25	80		4.4kg	1.5kN
iles	HS <b>T</b> -20L1000	4	996	196 5	22 80	00	3	5.5kg	(150kgf)
	HS <b>♦</b> T-20L1200		1196		20			6.3kg	





### Material and specifications

	Members	Materials	Finishing	Note
	P <b>l</b> ain type	SUS304+AES	Hair-line	t=1.2
Lid	Nonslippery type	SUS304+AES	Hair-line, nonslippery processing	t=1.2
	Resin material	Hard vinyl chloride (PVC)	-	-
Mair	n body	SUS304	Groove:2B,Frange:HL	t=1.0
Ancł	nor	Stainless	-	accessory
Trap	portion	Stainless+Resin (ABS)	-	-

### Note

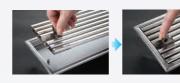
\* Depending on request, we can manufacture special order-made products with non-standard dimensions. For W144 and W196 the length can be customize up to 4000 mm.

### With the removal tool (Option)





### With the burglar proof metal fitting (Option)



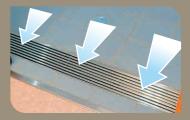


## Stainless Grating — Drain Outlet Unit with Floor Trap —

### Features

- Narrow Gaps : The gaps between bars are 6 mm or less which prevent children from inserting fingers.
- Easy Maintenance : Upper lid is light weight and each resin has a pull ring that makes cleaning easier.
- **Durability** : As upper surface is flat, wheel chairs and the like can go smoothly across the grating.
- **Type** : Two type of lids are available: Plain type and Non-slip type.

Water can drain smoothly bars are 6mm.



The resin material on the





An attached fitting is useful for maintenance. It allows easy removal of the top cover before cleaning.

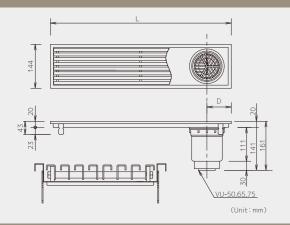
Plain type	Nonslippery type
No.	No.
HSAT-15L●●T-F	HSAT-15L●●T-D

This fitting protects this unit from theft to ensure safe outdoor use. Since it prevents the top cover from being raised easily, it also provides a childproof feature.

\*This metal fitting does not provide perfect antitheft measures, because it is fastened by a nut.

Plain type	Nonslippery type
No.	No.
HSAT-15L●●N-F	HSAT-15L●●N-D

### Drain Outlet with Vertical drain outlet



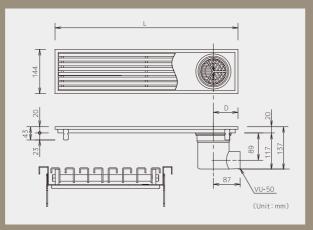
Plain type	Nonslippely type				Anchor	
No.		Lot	L	D	(pair)	Weight
HSAT-15L600-F	HSAT-15L600-D		596		2	2.6kg
HSAT-15L900-F	HSAT-15L900-D		896		7	3 <b>.</b> 8kg
HSAT-15L1200-F	HSAT-15L1200-D		1196		3	4.9kg
HSAT-15L1800-F	HSAT-15L1800-D		1796	898( <sup>Trap position:</sup> )	5	7 <b>.</b> 1kg







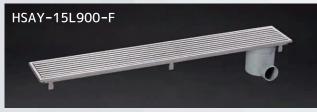
### Drain Outlet Unit Horizontal drain outlet

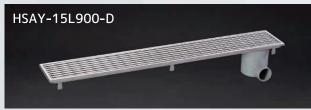


Plain type	Nonslippely type				Anchor	
No.	No.	Lot		D	(pair)	Weight
HSAY-15L600-F	HSAY-15L600-D		596		2	2.6kg
HSAY-15L900-F	HSAY-15L900-D		896	80	7	3 <b>.</b> 8kg
HSAY-15L1200-F	HSAY-15L1200-D		1196		3	4.9kg
HSAY-15L1800-F	HSAY-15L1800-D		1796	$898(\frac{Trap \ position:}{Center})$	5	7 <b>.</b> 1kg









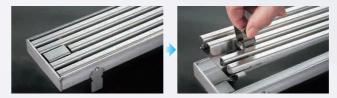
## Entrance Drainage G

Water Draining Made for draining water especially on the rainy season.

**Easy Maintenance** The lid is light weight which makes cleaning easier.



### With the removal tool (Option)



### With the burglar proof metal fitting (Option)



/ Tighten with a nut

Application

Drainage trench for entrance door, elevator, balcony, kitchen at hospital, store, office, residence area etc.

## Narrow Gaps

The gaps between bars are 6 mm or less which prevent children from inserting fingers.

## Durability

As upper surface is flat, wheel chairs and the like can go smoothly across the grating.



## Туре

Two type of lids are available : Plain type and Non-slip type.

The resin material attached to the back side restrains displacement and muffles the sound of this unit under your shoes.

An attached fitting is useful for maintenance. It allows easy removal of the top cover before cleaning.

	Plain type	Nonslippery type
	No.	No.
100×100tiles	GSG-10L●●T-F	GSG-10L●●T-D
150×150tiles	GSG-15L●●T-F	GSG-15L●●T-D

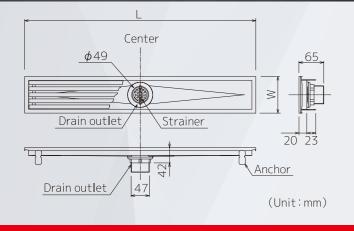
This fitting protects this unit from theft to ensure safe outdoor use. Since it prevents the top cover from being raised easily, it also provides a childproof feature.

\*This metal fitting does not provide perfect antitheft measures, because it is fastened by a nut.

	Plain type	Nonslippery type
	No.	No.
100×100tiles	GSG-10L●●N-F	GSG-10L●●N-D
150×150tiles	GSG-15L●●N-F	GSG-15L●●N-D

## GSG Type — With Drain Outlet Unit —





### 100×100 tiles

TOOK TOO LINES						
Plain type	Nonslippery type				Anchor	
No.	No.	Lot	L	W	(pair)	Weight
GSG-10L600-F	GSG-10L600-D		594		2	1.6kg
GSG-10L900-F	GSG-10L900-D	) <b>-</b> D			3	2.3kg
GSG-10L1200-F	GSG-10L1200-D	4	1194	94	5	3.0kg
GSG-10L1800-F	GSG-10L1800-D		1794			4.4kg
GSG-10L2000-F	GSG-10L2000-D		1994		5	4.8kg

### 150×150 tiles

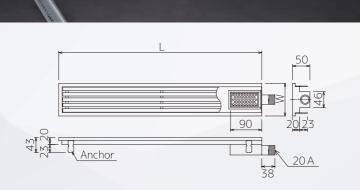
Plain type	Nonslippery type				Anchor	
No,	No.	Lot	L	W	(pair)	Weight
GSG-15L600-F	GSG-15L600-D		596		2	2.1kg
GSG-15L900-F	GSG-15L900-D		896		3	3.3kg
GSG-15L1200-F	GSG-15L1200-D	4	1196	144	,	4.4kg
GSG-15L1800-F	GSG-15L1800-D		1796		5	6.6kg
GSG-15L2000-F	GSG-15L2000-D		1996			8.0kg

### ●Note

\* Depending on request, we can manufacture special order-made products with non-standard dimensions. For W94 and W144 the length can be customize up to 4000 mm.

\* Minimum order request 10 set.

# GSGY Type — With Drain Outlet Unit —



### (Unit:mm)

GSE Type — Without Outlet Drain Outlet Unit —

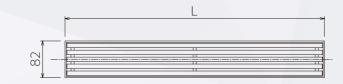


Plain type	Nonslippery type			Anchor		
No.	No.	L	W	(pair)	Weight	
GSE-L600-F	GSE-L600-D	580		2	2.4kg	
GSE-L900-F	GSE-L900-D 880		3	3.4kg		
GSE-L1200-F	GSE-L1200-D	1180	82	4	4.5kg	
GSE-L1800-F	GSE-L1800-D	1780		-	6.7kg	
GSE-L2000-F	GSE-L2000-D	1980		5	7.3kg	

### Note

\* Depending on request, we can manufacture special order-made products with non-standard dimensions. For W94 and W144 the length can be customize up to 4000 mm.

\* Minimum order request 10 set.







### Material and specifications

	Members	Materials	Finishing	Note	
	Plain type	SUS304 + AES	Hair-line	t=1.2	
Lid	Nonslippery type	SUS304 + AES	Hair-line, nonslippery processing	t=1.2	
Res	in material	Hard vinyl chloride(P.V.C)	-	—	
L-a	ngle receiving frame	SUS304	2B	t=3.0	
Rem	noval tool	Stainless	—	accessory	

## Nonslippery type Lo No. No. Lo GSGY-10L600-F GSGY-10L600-D Lo

INO.	NO.				(puil )	
GSGY-10L600-F	GSGY-10L600-D		585		2	1.7kg
GSGY-10L900-F	GSGY-10L900-D		885		7	2.4kg
GSGY-10L1200-F	GSGY-10L1200-D	SSGY-10L1200-D 4 11		94	5	3 <b>.</b> 1kg
GSGY-10L1800-F	GSGY-10L1800-D		1785		F	4.5kg
GSGY-10L2000-F	GSGY-10L2000-D		1985		2	4 <b>.</b> 9kg

Anchor

### 150×150 tiles

Plain type	Nonslippery type	Lot			Anchor	
No.	No.	Lot	L	W	(pair)	Weight
GSGY-15L600-F	GSGY-15L600-D		586		2	2.4kg
GSGY-15L900-F	GSGY-15L900-D		886		3	3.6kg
GSGY-15L1200-F	GSGY-15L1200-D	4	1186	144	2	4.7kg
GSGY-15L1800-F	GSGY-15L1800-D		1786		_	6 <b>.</b> 9kg
GSGY-15L2000-F	GSGY-15L2000-D		1986		5	8.3kg

### Note

\* Depending on request, we can manufacture special order-made products with non-standard dimensions. For W94 and W144 the length can be customize up to 4000 mm.

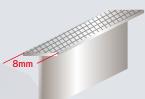
\* Minimum order request 10 set.





## **Stainless Grating** Horizontal type





### Non slip type

	Grating				L-angle	e receivin	g frame
No.	Width Amm	Length Lmm	Weight (Grating)	Withstanding lord	No.	Wmm	Weight
-15W92-F(D)	92		0.8kg			102	
-15W148-F(D)	148		1.3kg			158	
-15W204-F(D)	204	499	1.7kg	Sidewalk (5.0kN/m)	GSL-15	214	1.1kg
-15W246-F(D)	246		2.1kg	(S.OKIW/III)	-	256	-
-15W302-F(D)	302		2.6kg			312	
-15W344-F(D)	344		3.1kg			354	
-20W92-F(D)	92		1.0kg			102	
-20W148-F(D)	148		1.6kg			158	
-20W204-F(D)	204	499	2.2kg	Sidewalk	GSL-20	214	1.2kg
-20W246-F(D)	246	155	2.7kg	(5.0kN/m)	002 20	256	meng
-20W302-F(D)	302		3.3kg			312	
-20W344-F(D)	344		3.7kg			354	
o / DNon cliv	h + v n o		-				

\* F…Plain type / D…Non slip type

	Grating				L-angle receiving frame			
No.	Width Amm	Length Lmm	Weight (Grating)	Withstanding lord	No.	Wmm	Weight	
TJ-15W150-F(D)	150		3.0kg			160		
TJ-15W200-F(D)	200		3.8kg		GSL-15	210		
TJ-15W250-F(D)	250	988	4.6kg	Sidewalk (5.0kN/m <sup>2</sup> )		260	1.1kg	
TJ-15W300-F(D)	300		5.3kg	(J.OKIN/III)		310		
TJ-15W350-F(D)	350		6.0kg			360		
TJ-20W150-F(D)	150		3.9kg			160		
TJ-20W200-F(D)	200		4.8kg			210		
TJ-20W250-F(D)	250	988	5.9kg	Sidewalk	GSL-20	260	1.2kg	
TJ-20W300-F(D)	300		6.8kg	(5.0kN/m)		310		
TJ-20W350-F(D)	350		7.7kg			360		

\* F…Plain type / D…Non slip type \* The gaps between the bars are 6mm

## **Stainless Steel Mirror**

## World's most safest and secure mirror

Key Features

- Earthquake resistance makes it unbreakable even if it falls.
- Safest mirror as it won't break even if hit by ballistic fragments.
- •Stainless Steel Mirror is efficient in terms of life cycle cost due to long(semi-permanent) useful life.
- As the mirror main body is 100% recyclable, it is environment friendly.
- Easy to clean. A special towel made of a micro cloth (Nouveau Spugna) comes with the mirror.



### [Back side specification] Three-layer structure



- Foamed polyethylene sheet
- Synthetic resin (Polypropylene, polyethylene)
   Mirror main body (SUS304)

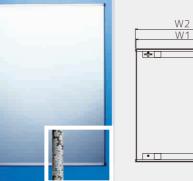


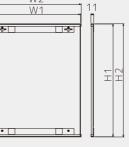


### Highest dimension is 1.2 × 2.4 meters.

### Burglar-proof metal fitting type(KSN)

\*When constructing, please secure a clearance of 30 mm which is necessary for attaching metal fittings on the top of the mirror.





(Scale:mm)

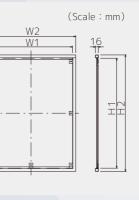
### KSN

No.		Dimensions of the mirror		Dimensio		Lat	Waight
'	NO.	W1	H1	W2	H2	Lot	Weight
KSN-3	3545	357	455	361	457	-	2.4kg
KSN-4	4560	460	608	464	610	5	3.9kg
KSN-4	4590	460	910	464	912	3	5.6kg

### Four-side frame metal fitting type(KSS)

When constructing, please secure a clearance of 30 mm which is necessary for attaching metal fittings on the top of the mirror.





KSS

Na	Dimensions of the mirror			ons when g bracket		Wainht	
No.	W1	H1	W2	H2	Lot	Weight	
KSS-3545	357	455	391	491	F	3,3kg	
KSS-4560	460	608	494	644	5	5.1kg	
KSS-4590	460	910	494	946	3	7.2kg	

<Caution>

\* If you wish to use it at a wet location such as a bathroom, please sed the gaps with caulk between the mirror and wall in order to prevent water from entering the gap.

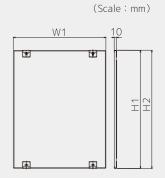
### Note

\* Custom sizes are also aeailable. \* The highest dimeusion can be 1200\*2400. \* Minimum order request 20 pcs.

### Four-points securing metal fitting type(KSF)

\*When constructing, please secure a clearance of 30 mm which is necessary for attaching metal fittings on the top of the mirror.





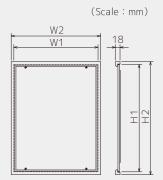
### KSF

No	Dimensions of the mirror			ons when g bracket	Lat	Waiaht	
No.	W1	H1	W2	H2	Lot	Weight	
KSF-3545	357	455	357	457	F	2.1kg	
KSF-4560	460	608	460	610	5	3.6kg	
KSF-4590	460	910	460	912	3	5.4kg	

### Wood frame type(KSW)

When constructing, please secure a clearance of 30 mm which is necessary for attaching metal fittings on the top of the mirror.





### KSW

No.	Dimensions of the mirror			ons when g bracket	1.04	Wainkt
NO.	W1	H1	W2	H2	Lot	Weight
KSW-3545	357	455	379	479	-	2.5kg
KSW-4560	460	608	482	632	5	4.1kg
KSW-4590	460	910	482	934	3	5.9kg



Arita Ware Cerahand

Luxury In Every Detalis

## Traditional Cerahand of Japan 日本を代表する伝統工芸

Arita ware is one of the world's famous porcelain fired in the vicinity of Arita-cho in Saga Prefecture. It has over 400 years of long history and Japan's first porcelain. In 1653, Arita ceramics were exported to European countries by Dutch East Indian Company (Vereenigde Oostindische Compagnie). They were especially popular with European nobles who used the somenishiki's dishes, the large jars, and the bowls. Arita ceramics started to undergo some changes to adjust to the European lifestyle. Designs accorded with the seasons enriched the arts and way of life in the traditional Japanese society. Printed figures represent the beauty of Japan's tradition which is why these figures are done very carefully by the specially trained craftsman. This luxury porcelain ceramic grab bar is contained with anti-bacterial agent does not only looks vibrant, vivid and colorful but also feels astonishing.





10. N



## Easy to Grip

The handrails are shaped in a way that you can grip even at wet places without being slipped.

## Art on Handrail

All the printed figures represent the beauty of Japanese season and tradition which are drawn by the renown Arita artist.



## Material structure

The main component of the handrail body is made with Ceramic, Mortar and Stainless Crossbar. The handrail is also contained with anti-bacterial agent.



## Arita Ware Cerahand

This art design is drawn completely by the ARITA artist to express the peace and beauty of the Japanese surrounding environment.

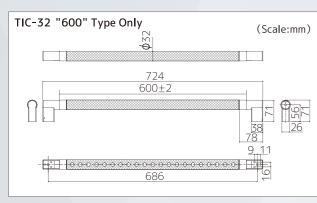
Designed and drawn by renowned Japanese craftsman Artist Fukagawa Morimoto. The design is inspired by the Japanese Sakura season



Inspired from one of the Japanese famous flower name アマリリス (Amaririsu) which represent the humble and shy of Japanese society



ontents	Result	
ere implemented in with the "Method	Application of a load of 1150N(120kgf) resulted in no backlash, coming off, cracking,or breakage of rail and accessory metal fittings,or harmful deformation of the rail.	
Performance for sing Component" by g,BLTRW:2008.	Application of a load of 590N(60kgf) resulted in no deformation,cracking,breakage,or backlash to an extent disrupting use of handrail, mounting portions and center portion.	
like bag containing and sand in the f 70% and 30% product to observe mon of breakage.	No cracking or breakage was observed after dropping from a height of up to 500mm.	and the second s
00 times the motion up while holding and ahand attached to a ne.	No backlash, coming off, deformation, or bending of mounting portion.	THE PARTY IN



Please make sure the following type number:

### 600Type

 TIC-32S600-CW
 TIC-32S600-KIK
 TIC-32S600-KIC
 TIC-32S600-IE
 TIC-32S600-SWS
 TIC-32S600-SWS
 TIC-32S600-IW
 Body : Ceramic, Mortart, Stainless Bolt, Resin cap, Attached bis Metal Fittings : Aluminum, Cation, Painting clothing, Acrylic baking finish

TIC-30 "600" or "300" Type	⊙(Scale:mm)
720(420)	
600(300)±2	
	50 75
670(370)	13 9

Please make sure the following type number:

### (600Type)

●TIC-30S600-TSG ●TIC-30S600-OW ●TIC-30S600-KKB ●TIC-30S600-SKR ●TIC-30S600-YP

### 300Type

●TIC-30S300-TSG ●TIC-30S300-OW ●TIC-30S300-KKB ●TIC-30S300-SKR ●TIC-30S300-YP

Body:Ceramic,Mortart,Stainless Bolt,Resin cap,Attached bis Metal Fittings:Zinc Alloy,Acrylic Baking Finish

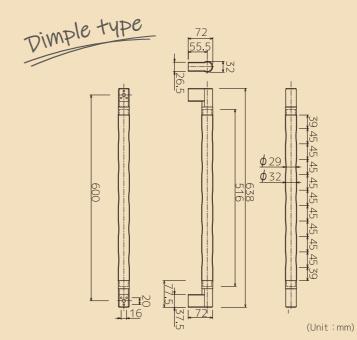






# Wooden Handrail

Elegant Design Made of Maple Wood Easy tio Grip Light Weight



•Notes for Ordering \*Minimum order request 1 pcs.



TIWS-32S600-D (Dark)



TIWS-32S600-S

TIWS-32S600-C

(Snow White)	(White C	herry)	
No.	Color	φ	Weight
TIWS-32S600-N	Natural		
TIWS-32S600-D	Dark	φ 32 0.6	0.6kg
TIWS-32S600-S	Snow White		
TIWS-32S600-C	White Cherry		





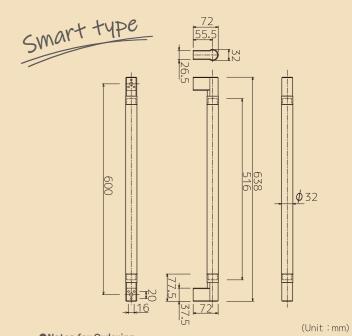
TIWD-32S600-N (Natural)

TIWD-32S600-D (Dark)

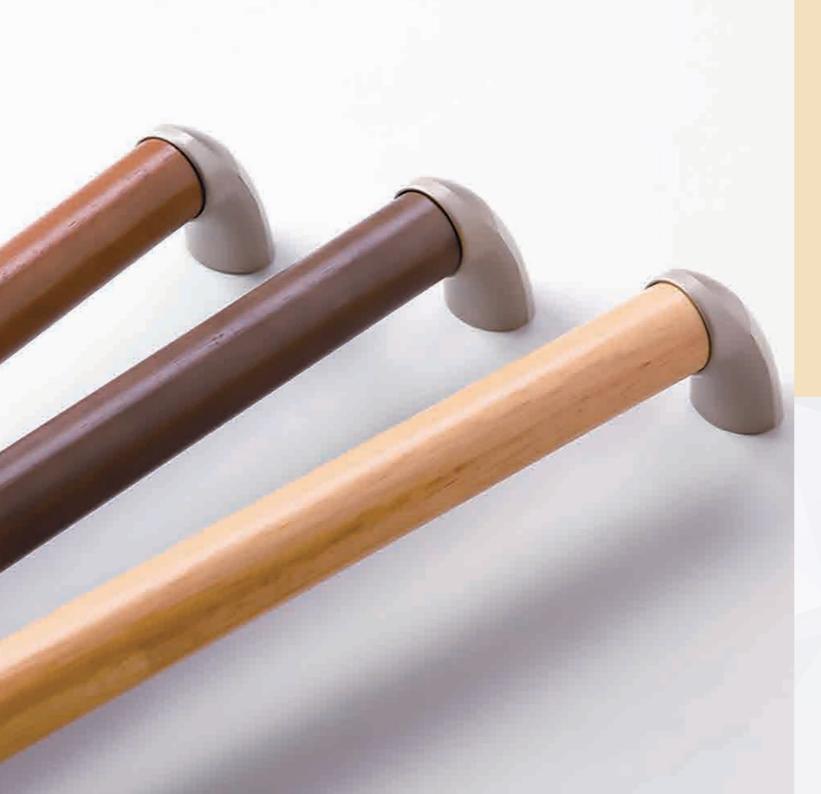


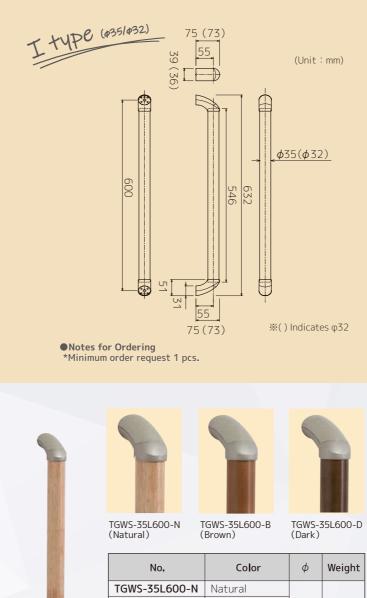
TIWD-32S600-S (Snow White)

No.	Color	φ	Weight
TIWD-32S600-N	Natural	φ32 0.6	
TIWD-32S600-D	Dark		0.6kg
TIWD-32S600-S	Snow White		



•Notes for Ordering \*Minimum order request 1 pcs.





NO.	Color	φ	weight
TGWS-35L600-N	Natural		
TGWS-35L600-B	Brown	<b>\$</b> 35	
TGWS-35L600-D	Dark		0.5kg
TGWS-32L600-N	Natural		
TGWS-32L600-B	Brown	φ32	
TGWS-32L600-D	Dark		









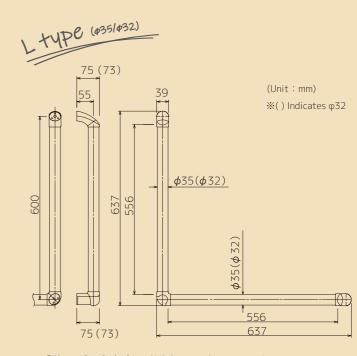


TGWS-35S600-N (Natural)

TGWS-35S600-B (Brown)

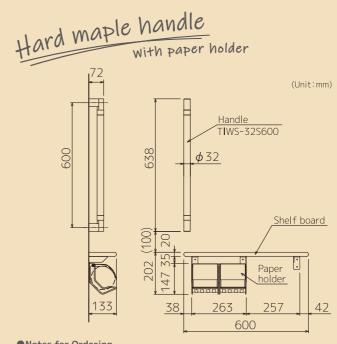
TGWS-35S600-D (Dark)

No.	Color	φ	Weight
TGWS-35S600-N	Natural		0.5kg
TGWS-35S600-B	Brown	<b>\$</b> 35	
TGWS-35S600-D	Dark		
TGWS-32S600-N	Natural		
TGWS-32S600-B	Brown	φ32	
TGWS-32S600-D	Dark		



•Notes for Ordering \*Minimum order request 1 pcs.





•Notes for Ordering \*Please specify a color when you order. Example : PR-2ALD-S/N \*Minimum order request 1 pcs.



No.	Body Color	Shelf • Handle Color	Weight
PR-2BLS-S	White		
PR-2BLS-i	Pastel Ivory	N (Natural)	2.51
PR-2BLS-P	Pastel Pink	B (Brown)	2.5kg
PR-2BLS-A	Pastel Blue	B ( BIOWIT )	





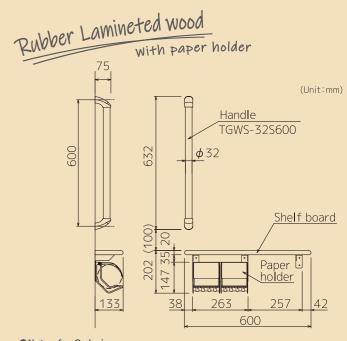


### Dimp**l**e type

No.	Paper holder Color	Shelf & Handle Color	Weight
PR-2ALD-S	White		) ) 2.7kg e)
PR-2ALD-i	Pastel Ivory	N (Natural) D (Dark) S (Snow White)	
PR-2ALD-P	Pastel Pink		
PR-2ALD-A	Pastel Blue	S (Show White)	

### Smart type

No.	Paper holder Color	Shelf & Handle Color	Weight	
PR-2ALS-S	White			
PR-2ALS-i	Pastel Ivory	N(Natural) D(Dark) S(Snow White)	2 7	
PR-2ALS-P	Pastel Pink		2.7kg	
PR-2ALS-A	Pastel Blue			



### Notes for Ordering

\*Please specify a color when you order. Example : PR-2ALD-S/N \*Minimum order request 1 pcs.

# Floor Drain Trap

Material: Main body is made of ABS and upper lid is stainless steel.

## Main Features

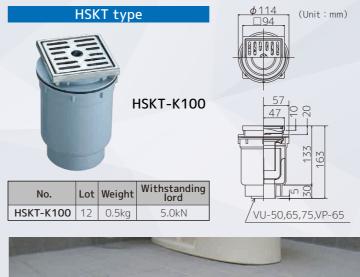
- \* Easy to maintenance. The whole drain trap parts can be separated and clean easily.
- \* Smooth water drain. It can drain 90 liters of water in 1 minute.
- \* Body's main cup is always fill with water which prevents any kind of bad smells from the main pipe line.
- \* It can last years with minimum maintenance.





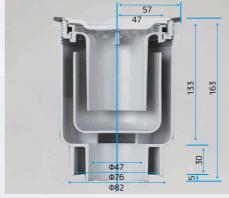
## Pipe size to connect

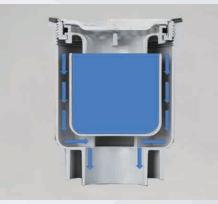
Vertical drain trap: VU-50, 65, 75, VP-65 can be connect directly. For VP 50 and 75, a socket will require. Horizontal drain trap: VU-50 can be connect directly.





### Sectional Drawing



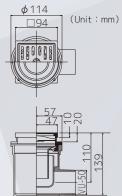


Inner Dimension

Water flow from the edge of the cup







Prevent bad mells to get in

Since the main cup is always fill with weter, it prevemts from any bad smells or insects to get in.

Мемо