

Vol.10



ISO/IEC 17025:2017



ISO 9001:2015

Product Catalog

TOKYO SCREEN CO., LTD.

- JIS test sieves ● Test sieves ● Stainless steel products ● Metal nets
- Bolting cloth nets ● Toray industries' brand Toraysee wiping cloth

We contribute to manufacturing and society through particle technology.

C O N T E N T S

Company Profile.....	P1
Wire Sieves.....	P2
Plate Sieves and Manual Sieves with Wooden Frames.....	P6
Brushes for Test Sieves.....	P7
Small-Sized Vibrating Sieves.....	P8
Large sieve handle attachment processing and Test Sieves.....	P9
Nafitec®.....	P10
Ultrasonic Sieving Machine.....	P12
Sieving Test Machines.....	P14

Company Outline

■ Company Name	Tokyo Screen Company Limited
■ Membership	The Association of Powder Process Industry and Engineering (Japan) Tokyo Scientific Instrument Association (Japan)
■ Certification	JIS Z 8801 - Information Technology Standards Commission of Japan ISO/TC24 - Information Technology Standards Commission of Japan
■ Head Office	6-16, Kajicho 1-chome, Chiyoda-ku, Tokyo 101-0044, Japan Telephone: +81-3-3256-7457 Facsimile: +81-3-3256-7460
■ Factory	13-29, Kuramatsu 3-chome, Sugitomachi, Kita-katsushika-gun, Saitama 345-0034, Japan Telephone: +81-480-35-0610 Facsimile: +81-480-35-1861
■ Representative	Yoshihiro Ogita, President
■ Establishment	November 8, 1973
■ Share Capital	10 million yen (Boost Capital: 24 million yen)
■ No. of Employees	Headquarters/Factory: 22 all together
■ Main Banks	Higashi Nippon Bank Limited (Kanda Branch) Mizuho Bank Limited (Kanda Ekimae Branch) Mizuho Bank Limited (Nihonbashi Branch) The Kosan Shinkin Bank Limited Japan Post Net Work Company Limited (Kajicho Post Office)
■ Manufacturing and Sales	<ul style="list-style-type: none">• Test Sieves• Metal Wire Cloth• Bolting Cloth• Stainless Steel Mesh Baskets and Test Tube Stands• Stainless Metal Plate and Sheet Metal Processing
■ Main Products	<ul style="list-style-type: none">• Test Sieves (JIS Z 8801 and ISO 565, including Japanese Pharmacopoeia certificated)• Micro Screen Sieves - Electroformed Sheet Type• Industrial Test Sieves• Test Sieve Shaker• Wooden Round Sieves (applied with Metal Mesh and Chemical Fiber)• Wooden Square Sieves• Mesh Products (Material: Stainless Steel, Brass, Forged Copper, Bronze, Copper, Nylon, Tetron, PE, PP, and fluoride)• Stainless Steel Punching Sheets• Custom-made Stainless Steel Mesh Baskets and Test Tube Stands• Custom-made Stainless Steel Mesh Tray (Water Cooler, etc.)• Bolting Cloth Products (Mesh Bag, Insect Net, Cleaning Net, etc.)• Stainless Metal Plate Works (Tank, Box Container, etc.)• Wire Mesh Screens for Laboratory Burners• Screen Nets and Filters for Papermaking Machines• Toray Industries' Brand Toraysee Wiping Cloth

Company History

November 8, 1973	Originally founded with capital of 6 million yen at 6-5, Tsukiji 4-chome, Chuo-ku, Tokyo, and constructed the factory in Miyashinomachi, Kita-katsushika-gun, Saitama. Started manufacturing and sales of normal and test sieves, stainless steel baskets, test tube stands.
November 28, 1974	Increased capital to 9 million yen.
July 21, 1975	Expanded the business scale and moved the head office to 30, Kanda Toyama-cho, Chiyoda-ku, Tokyo.
August 19, 1977	Moved the head office to 10, Kanda Toyama-cho, Chiyoda-ku, Tokyo.
November 7, 1981	Started the present factory at 13-29, Kuramatsu 3-chome, Sugitomachi, Kita-katsushika-gun, Saitama.
September 3, 1984	Moved the head office to 13, Kanda Konya-cho, Chiyoda-ku, Tokyo.
September 24, 1991	Increased capital to the present amount of 10 million yen.
April 2, 1995	Moved the head office to 11, Kanda Kitanorimono-cho, Chiyoda-ku, Tokyo.
April 2, 2007	Moved the head office to the present location, 6-16, Kajicho 1-chome, Chiyoda-ku, Tokyo.
April 1, 2016	Obtained ISO 9001:2015 accreditation.
October 26, 2016	Obtained ISO/IEC 17025:2005 accreditation (test sieves under JIS Z 8801).

TOKYO SCREEN CO., LTD. has been established as the only "test sieve (standard sieve)" (JIS Z 8801) manufacturer in Tokyo and earned trust from customers and partners as a leading manufacturer to date. The products of TOKYO SCREEN are widely exported abroad in addition to meeting the demands in Japan. The use application covers a lot of ground: pharmaceutical industry, flour milling, food products, cosmetic products, batteries, resin, FC, polishing materials, abrading agents, iron and steel, architecture, civil engineering, particle technology field, science field and the products are generally used in industry, academic society, and analytical institutions etc. based on the power technology industry. All employees are prepared to exert further efforts and a vigorous push to meet the needs of industry and research, and secure a bright future.

Moreover, TOKYO SCREEN obtained certification of a registered certification body as a test laboratory fulfilling the requirements of the international standard of ISO/IEC 17025 and has been publicly accredited as a test laboratory with a capability to provide technologically adequate test results. It has also been able to issue calibration certificates with the ilac / MRA symbol mark for a JIS Z 8801-1 test sieve.

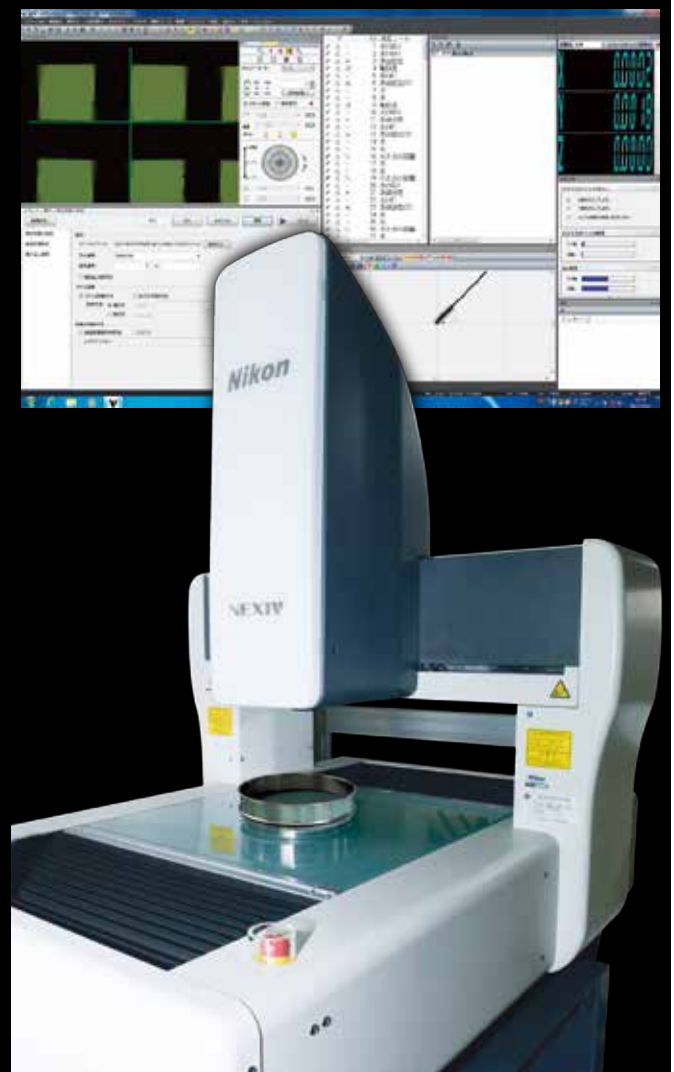
Sieve Measuring System

TOKYO SCREEN ensures the quality of the opening wire diameter by issuing an ISO/IEC17025 calibration certificate with two highly reliable measuring systems as a calibration institution of test sieves.

Measuring microscope MM-60 type +
measurement support system E-MAX (made by NIKON)



CNC image measurement system
NEXIV VMZ-R4540 (made by NIKON)



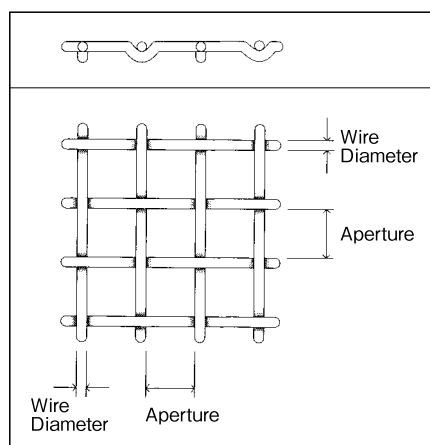
Stainless Steel Sieves - Metal Wire Cloth Type (Revised in 2019)

Test Sieves JIS Z 8801 Standard

Metal Wire Mesh

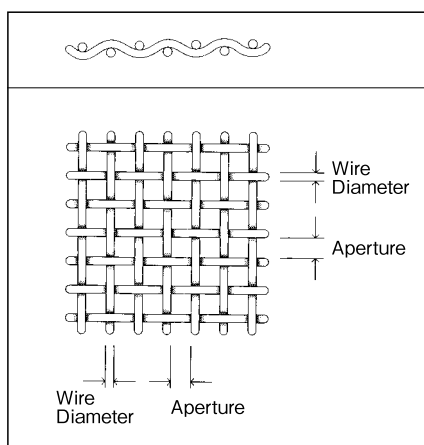
According to the JIS standard, the metal wire mesh of sieves is defined such that each metal wire should cross vertically, shaping a regular square as the aperture for screens (flat weave). When one side of the square (aperture) is less than $45 \mu\text{m}$, the mesh may be woven into twill by wires (twill weave). To comply with the JIS standard, Tokyo Screen embraces two types of wire cloth: (1) flattop weave when the aperture is over 2.36 mm , and (2) twill weave when the aperture is less than $38 \mu\text{m}$.

● Flattop Weave Mesh



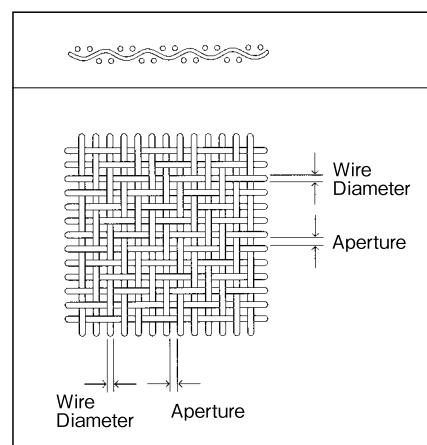
Flattop weave is used for screening large and middle-size particles. The surface of the mesh is designed to be flat and smooth.

● Flat Weave Mesh



Flat weave mesh is basic as each wire crosses vertically to keep the aperture squares stable in the screen. This standard cross enables accurate and effective screening.

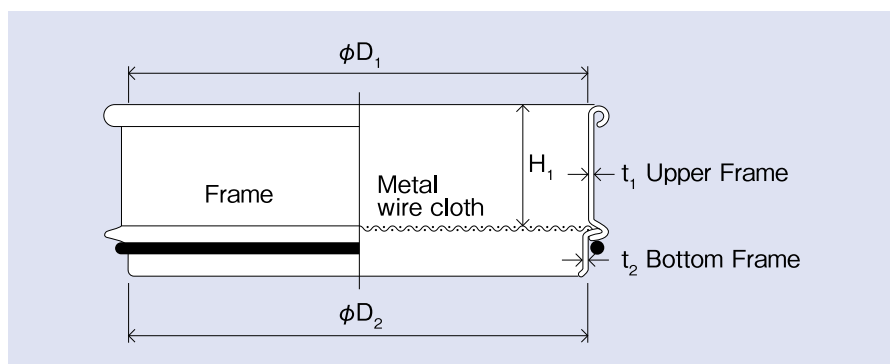
● Twill Weave Mesh



Twill weave mesh is structured by crossing two parallel wires with each other in one uneven pattern. The mesh is woven using thick wires and is good for screening small particles.

Frame of Sieves

Cross-section of Sieves



Scale and Tolerance of Test Sieves

Unit : mm

Nominal frame size		Diameter or length of Effective sieving surface		Depth	Frame plate Thickness	
D_1	D_2	Minimum	Maximum	H_1	t_1 Upper Frame	t_2 Bottom Frame
300 $^{+0.6}_0$	300 $^{-0.1}_{-0.7}$	285	300	100 or 60	0.6	1.0
200 $^{+0.6}_0$	200 $^{-0.1}_{-0.7}$	185	200	100, 60, 45, or 25	0.6	1.0
150 $^{+0.6}_0$	150 $^{-0.1}_{-0.7}$	135	150	60, 45, or 25	0.6	1.0
75 $^{+0.6}_0$	75 $^{-0.1}_{-0.7}$	65	75	20	0.4	0.4

*Please see pp. 4 and 5 for data on the apertures.

Scale Code of Sieves.....



Size	Code	Notes
φ75mm×20mm H	JTS-75-20-Code	Available for an aperture less than 9.5 mm
φ150mm×25mm H	JTS-150-25-Code	Available for an aperture less than 45 mm
φ150mm×45mm H	JTS-150-45-Code	Available for an aperture less than 45 mm
φ150mm×60mm H	JTS-150-60-Code	Available for an aperture less than 45 mm
φ200mm×25mm H	JTS-200-25-Code	
φ200mm×45mm H	JTS-200-45-Code	
φ200mm×50mm H	ISO-200-50-Code	
φ200mm×60mm H	JTS-200-60-Code	
φ200mm×100mm H	JTS-200-100-Code	
φ300mm×60mm H	JTS-300-60-Code	
φ300mm×100mm H	JTS-300-100-Code	
φ50mm×20mm H	TS-50-20-Code	Available for an aperture less than 9.5 mm
φ75mm×45mm H	TS-75-45-Code	Available for an aperture less than 9.5 mm
φ100mm×45mm H	TS-100-45-Code	Available for an aperture less than 16 mm
φ250mm×60mm H	TS-250-60-Code	
φ350mm×100mm H	TS-350-100-Code	Not available for an aperture less than 32 μm
φ400mm×100mm H	TS-400-100-Code	Not available for an aperture less than 32 μm
φ450mm×100mm H	TS-450-100-Code	Not available for an aperture less than 32 μm
φ500mm×100mm H	TS-500-100-Code	Not available for an aperture less than 32 μm

Frame material: SUS316L

Aperture	
Code	Scale
01	125 mm
02	106
03	90
04	75
05	63
06	53
07	45
08	37.5
09	31.5
10	26.5
11	22.4 mm
12	19
13	16
14	13.2
15	11.2
16	9.5
17	8
18	6.7
19	5.6
20	4.75
21	4 mm
22	3.35
23	2.8
24	2.36
25	2
26	1.7
27	1.4
28	1.18
29	1

Mesh material: SUS304

Aperture	
Code	Scale
30	850 μm
31	710
32	600
33	500
34	425
35	355
36	300
37	250
38	212
39	180
41	150 μm
42	125
43	106
45	90
46	75
47	63
48	53
49	45
50	38
51	32
52	25
53	20

Mesh material: SUS316

Code	Material
60	Pan/cover
61	Pan Only
62	Cover Only
63	Middle Pan

Material: SUS316L

Capable of Issuing Calibration Certificates of ISO/IEC 17025

Stainless Steel Sieves - Metal Wire Cloth Type

Tokyo Screen manufactures all sieve products with a lead-free process in compliance with the Restriction of Hazardous Substances (RoHS).

Table 1 Aperture Size of Metal Wire Cloth and Wire Diameter

Unit : mm

Nominal Aperture ^a w		Tolerance			Wire Diameter		
		Maximum Aperture	Average Aperture	Maximum standard deviation	Preferred	Maximum	Minimum
Principal	Supplementary	+ X	± Y	σ 0	d nom	d max	d min
125	125	4.056	3.296	b	8	9.2	6.8
	106	3.590	2.805		6.3	7.2	5.4
90	90	3.180	2.389		6.3	7.2	5.4
	75	2.779	1.999		6.3	7.2	5.4
63	63	2.443	1.685		5.6	6.4	4.8
	53	2.150	1.423		5	5.8	4.3
45	45	1.906	1.212	1.000	4.5	5.2	3.8
	37.5	1.667	1.014	1.000	4.5	5.2	3.8
31.5	31.5	1.467	0.855	0.907	4	4.6	3.4
	26.5	1.292	0.722	0.757	3.55	4.1	3.0
22.4	22.4	1.143	0.613	0.641	3.55	4.1	3.0
	19	1.013	0.522	0.547	3.15	3.6	2.7
16	16	0.894	0.441	0.462	3.15	3.6	2.7
	13.2	0.777	0.365	0.392	2.8	3.2	2.4
11.2	11.2	0.690	0.311	0.339	2.5	2.9	2.1
	9.5	0.613	0.265	0.294	2.24	2.6	1.9
8	8	0.542	0.224	0.254	2	2.3	1.7
	6.7	0.477	0.189	0.218	1.8	2.1	1.5
5.6	5.6	0.420	0.159	0.188	1.6	1.9	1.3
	4.75	0.373	0.135	0.164	1.6	1.9	1.3
4	4	0.330	0.114	0.143	1.4	1.7	1.2
	3.35	0.292	0.096	0.124	1.25	1.5	1.06
2.8	2.8	0.257	0.081	0.108	1.12	1.3	0.95
	2.36	0.228	0.069	0.094	1	1.15	0.85
2	2	0.204	0.059	0.083	0.9	1.04	0.77
	1.7	0.182	0.050	0.073	0.8	0.92	0.68
1.4	1.4	0.159	0.042	0.063	0.71	0.82	0.60
	1.18	0.142	0.036	0.056	0.63	0.72	0.54
1	1	0.127	0.030	0.049	0.56	0.64	0.48

Note a) The nominal sizes of the sieve openings conform to ISO565, Table 1 (Basic dimension: R20/3, reference dimension: R40/3).
b) These columns are left blank because the number of openings in these sieves is small, σ: 0 is not a realistic value.

Capable of Issuing Calibration Certificates of ISO/IEC 17025

Please see p. 3 for data on the sieve scales.

Table 2 Aperture Size of Metal Wire Cloth and Wire Diameter (Nominal Size of Sieve Opening: Less Than 1 mm)

Unit : μm

Nominal Aperture ^a w		Tolerance			Wire Diameter		
		Maximum Aperture	Average Aperture	Maximum Standard deviation	Preferred	Maximum	Minimum
Principal	Supplementary	+ X	$\pm Y$	$\sigma 0$	d nom	d max	d min
	850	113.9	26.2	43.7	500	580	430
710	710	101.1	22.2	38.4	450	520	380
	600	90.6	19.0	34.0	400	460	340
500	500	80.5	16.2	30.0	315	360	270
	425	72.5	14.0	26.8	280	320	240
355	355	64.7	12.0	23.7	224	260	190
	300	58.2	10.4	21.2	200	230	170
250	250	52.0	8.9	18.8	160	190	130
	212	47.1	7.8	16.9	140	170	120
180	180	42.7	6.8	15.3	125	150	106
	150	38.3	6.0	13.6	100	115	85
125	125	34.5	5.2	12.2	90	104	77
	106	31.4	4.7	11.1	71	82	60
90	90	28.6	4.2	10.1	63	72	54
	75	25.9	3.7	9.1	50	58	43
63	63	23.6	3.4	8.3	45	52	38
	53	21.5	3.1	7.6	36	41	31
45	45	19.7	2.8	6.9	32	37	27
	38	18.1	2.6	6.4	30	35	24
R*10							
32		16.6	2.4	5.9	28	33	23
25		14.8	2.2	5.2	25	29	21
20		13.3	2.1	4.7	20	23	17

Note a) The nominal sizes of the sieve openings conform to ISO 565, Table 1 (Basic dimension: R20/3, reference dimension : R40/3).

Table 3 Aperture Size of Metal Wire Cloth and Wire Diameter

Nominal Aperture ^a w		Tolerance			Wire Diameter		
		Maximum Aperture	Average Aperture	Maximum Standard deviation	Preferred	Maximum	Minimum
Principal	Supplementary	+ X	$\pm Y$	$\sigma 0$	d nom	d max	d min
	1.6	0.175	0.047	0.070	0.8	0.92	0.68
	160	39.8	6.3	14.2	112	130	95
	100	30.4	4.5	10.7	71	82	60
	80	26.8	3.9	9.5	56	64	48

Note a) The nominal sizes of the sieve openings conform to ISO 565, Tables 1 and 2 (Reference dimension: R20).

Sieves for Medical Use

Certificated by the Japanese Pharmacopoeia (15th Revision)

The Japanese Pharmacopoeia designates sieves for medical use under the JIS Z 8801 standard. Tokyo Screen's products comply with the standard. The table on the right shows an extract of the contents from the standard.

Degree of Cutting and Fineness of Powder

No.	Sieve No.	Name	Aperture
1	4.0	Coarse Cutting	4.75mm
2	6.5	Medium Cutting	2.80mm
3	8.6	Fine Cutting	2.00mm
4	18	Coarse Powder	850 μm
5	50	Medium Powder	300 μm
6	100	Fine Powder	150 μm
7	200	Very Fine Powder	75 μm

TSK Original Sieves (Out of JIS Specifications)

Opening	Weave	Allowance (\pm) and Maximum Value (+)	Standard Specifications		
16 μ m	Twill	Equivalent to JIS Standards 20 μ m	① Tin solder	② Inside solder (tin)	③ 60-mesh support screen
13 μ m	Twill	Equivalent to JIS Standards 20 μ m	① Tin solder	② Inside solder (tin)	③ 60-mesh support screen

*The standard specifications can be changed by consultation. *Sieve frames: ϕ 75, 100, 150, and 200
 *The allowances and maximum values are determined in accordance with our company standards.

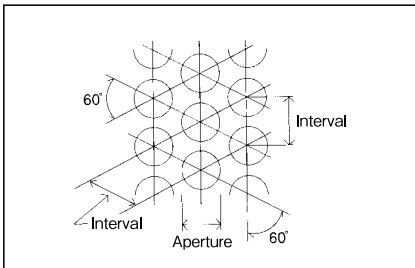
Stainless Steel Test Sieves - Perforated Metal Plate Type

Test Sieves JIS Z 8801 Standard

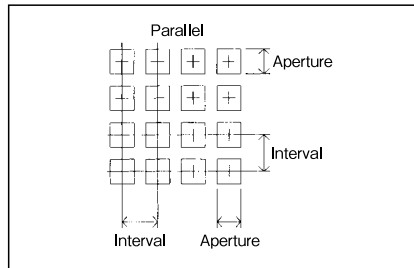
Perforated Metal Plate

The perforated metal plates are standardized with round or square holes arranged regularly. The figures below show the straight lines running through the centers of the round holes crossing at an angle of 60 degrees. Also, the square holes are laid out in parallel or in a cross-stitch. In these three cases, the interval between the hole centers should be the same distance.

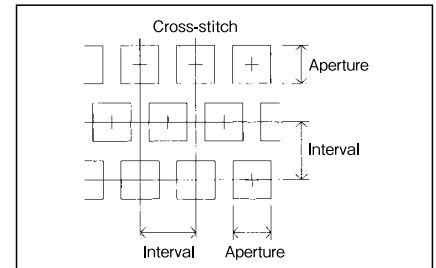
● Round Hole



● Square Hole



● Square Hole



*Please contact us for details on the size and aperture of the perforated metal plates.

Wood Grip Sieves Standard



Specifications

Size (Lauan Wood: Thickness = 20 mm)

Inside Screen Size 400 mm x 600 mm x 70 mm H (upper from the screen)
 Product Code = WD-4-6-70-Aperture Size
 Inside Screen Size 400 mm x 600 mm x 100 mm H (upper from the screen)
 Product Code = WD-4-6-100-Aperture Size

Custom Order Reinforcement

ϕ 6 mm Wooden Bar - 2 Horizontal by 1 Vertical Cross Reinforcement
 ϕ 6 mm Wooden Bar - 2x2 Cross Reinforcement
 Flat Bar and Angle Reinforcement

Double Layer Support

Stainless Steel Mesh ϕ 0.29 x 20 Aperture Sizes (per approx. 1 mm)

Nominal Size	Aperture	Code	Concrete	Asphalt	Soil
100 mm	106 mm	02	●		
90 mm	90.0 mm	03		●	
80 mm	75.0 mm	04	●	●	
60 mm	63.0 mm	05	●	●	
50 mm	53.0 mm	06	●	●	●
40 mm	37.5 mm	08	●	●	●
30 mm	31.5 mm	09	●	●	
25 mm	26.5 mm	10	●	●	●
20 mm	19.0 mm	12	●	●	●
15 mm	16.0 mm	13	●		
13 mm	13.2 mm	14		●	
10 mm	9.50 mm	16	●	●	●
5 mm	4.75 mm	20	●	●	●
2.5 mm	2.36 mm	24	●	●	
2 mm	2.00 mm	25		●	●
1.7 mm	1.70 mm	26	○		
1.2 mm	1.18 mm	28	●	●	
0.85 mm	850 μ m	30			●
0.6 mm	600 μ m	32	●	●	
0.4 mm	425 μ m	34		●	
0.3 mm	300 μ m	36	●	●	
0.25 mm	250 μ m	37			●
0.15 mm	150 μ m	41	●	●	
0.11 mm	106 μ m	43			●
0.09 mm	90 μ m	45	○		
0.075 mm	75 μ m	46	●	●	●
Pan/cover	Pan/cover	60	●	●	●

Brushes for Test Sieves

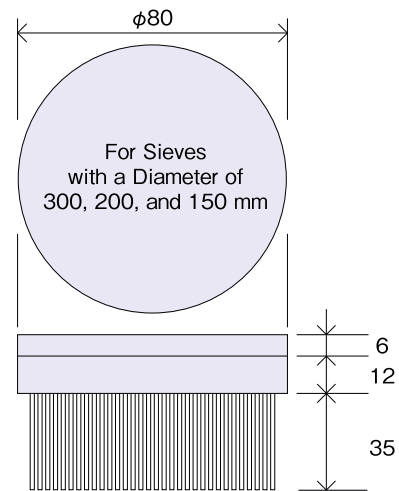
Tokyo Screen provides standardized brushes for test sieves (JIS Z 8815-1994). As the standard prescribes (6.1.1 and/or 6.2.1), the brushes clean the remaining particles through the mesh without damage to the screen. Along with the standard (description pp. 5 and 14), the brush should not press the screen mesh too forcefully and must move in the same direction as the aperture layout. The standard designated appropriate brushes in Tables 2 and 3.

JIS Z 8815-1994 Tables 2 and 3

Standard Type



- Applicable for Sieves with Diameters over 150 mm
- Should Brush a Wide Area on the Screen Mesh
- Easy to Hold and Handle
- Strong Enough Against Losing Fiber
- Variable for Different Aperture Sizes
- Diameter 80 mm x 55 H (35 mm Brush Length)



Thickness of Brush

Aperture	Thickness	Code
Over 500 μ m	Over ϕ 0.5mm	JNB-1
425 μ m ~ 125 μ m	Over ϕ 0.4mm	JNB-2
106 μ m ~ 63 μ m	Over ϕ 0.3mm	JNB-3
Less than 53 μ m	Over ϕ 0.2mm	JNB-4

Brush: Nylon / Base: PE

Stick Type



- Applicable for Small Sieves
- Reach to the edge of the screen mesh
- Easy to hold and feels light when handling
- Strong Enough against Losing Fiber
- 2 Types must suit all small sizes.
- 25 mm Width x 155 H (35 mm Brush Length)

Thickness of Brush

Aperture	Thickness	Code
Set of Two Types		JNB-56
Less than 106 μ m	ϕ 0.2mm · ϕ 0.3mm	JNB-5
Over 125 μ m	ϕ 0.4mm · ϕ 0.5mm	JNB-6

Brush: Nylon / Base: PE

Small Vibration Sieve MS-123 Model 300



▲ For $\phi 300 \times 100$, 1 tier



▲ Standard 3 tiers for $\phi 200$ (including plate)



▲ Cover for $\phi 300$

Specifications of the standard model

Voltage	100 V
Frequency	50/60 Hz
Power consumption	125 W
Main material	SUS304
Weight	20 kg (21 kg for Type VH)
Switch	Rainproof type
Standard equipment	NW mesh frame

The small vibration sieve MS-123 Model 300 provides a strong cleaning effect that is required for removing small amounts of various kinds of dirt adhered to the sieves.

- Sifting powders, grains, fluids, and viscous substances
- Checking for mixed foreign matter
- Preprocessing for mixing, removing, and breaking lumps

This product is best suited for use in food, medical products, chemical products, ceramics, and electronic components, as well as use in research rooms and shops.

Large sieve handle attachment processing



For large sieves ($\phi 300$, $\phi 350$, $\phi 400$, $\phi 450$, $\phi 500$) Custom order

Test Sieves and Accessories, and Examples of Application



▲ Yamato Scientific Co., Ltd.
Tabletop chamber to prevent flying of powder
Nanoparticle Enclosure NE Series

Application example - Ultrasonic vibrating
sieving machine set in the nanoparticle enclosure



▲ Inspection sieve for metallic contaminants (magnet)



▲ Sieve with a replaceable mesh (upper frame + gasket + circular mesh +
gasket + lower frame + wing bolts)

For details, please contact us.

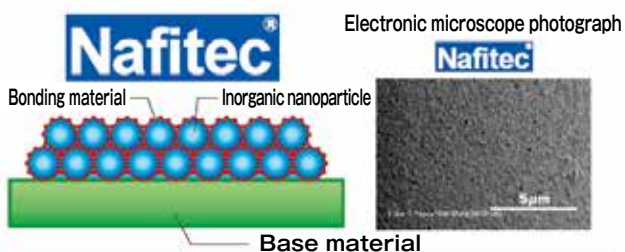
Nafitec[®] Test Sieve

The existing test sieve easily clogs during use.

Nafitec[®] test sieves offer a solution to the problem.

What is nanoparticle fixation technology of Nafitec[®]

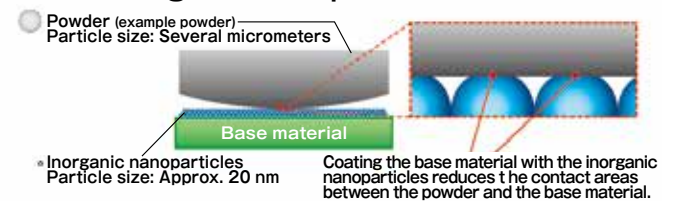
■ Schematic Diagram



Nafitec[®] is a technology to chemically coat inorganic nanoparticles onto the surface of a base material.

■ Nafitec[®] 's Mechanism to Prevent Clogging

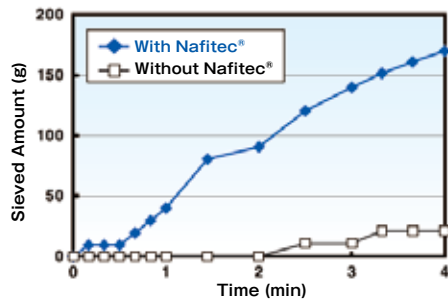
Conceptual image of powder adhering to the inorganic nanoparticles



The inorganic nanoparticles are very small, which reduces the contact areas between the powder and the nanoparticles coating the surfaces of sieve threads. Nafitec[®] technology prevents the powder from adhering, reduces clogging, and improves sieving efficiency.

Evaluation Test Results

Fine particles of copper Sieving Test Results



Tested powder: Copper powder
 Particle shape: Globular
 Average particle size: 10 μm

Sieve mesh without the Nafitec® coating



Sieve mesh with the Nafitec® coating



The copper powder adheres to the SUS mesh without Nafitec® coating. Conversely, the mesh with Nafitec® coating prevents the powder from adhering, which improves sieving efficiency.

The improvement in sieving efficiency helps to reduce the time for analyses and expenses.

Nafitec® applies to the following powders

Classifications	Fine Particles to Sieve
Metal	Silver, copper, iron, nickel, tin, metallic silicon, alloys
Polymer	Toner, powder coating, PE powder, PTFE powder, cellulose
Ceramics	Alumina, magnesium oxide, magnesium hydroxide, magnesium carbonate, metallic oxide (battery material)
Food	Flour, rice flour, green tea powder, dried kelp powder, calcium carbonate
Other	Carbon, titanate, barium titanate, talc, silica

Specifications of Nafitec® Sieving Meshes / Mech Type Determination Tool

There are three specifications of Nafitec® coatings to suit production needs. We lend [Mesh Type Determination Tool] free of charge so you can confirm which mesh type is appropriate for your product.



The mech type determination tool is divided four sections, and each section is treated with three kinds of Nafitec® coatings. (The rest is non-coated).

See the photo on the left side. In the Specification F section, the amount of powder adhering to the mesh is less than the other sections. Therefore, Specification F is the most suitable specification.

Ultrasonic Vibration Sieving Machine Type TSK-PNS

The low-price type TSK-PNS with the advanced functions of the digital control type DGS oscillator carries out automatic tuning in the ultrasonic operation frequency band from 30 to 38 kHz and is capable of continuous operation in the basic setting of the 500 Hz sweeping band (reciprocal speed: 50 Hz) free of any influences from the shapes and natural oscillation frequencies of connected metallic samples. It allows easy attachment of the JIS Z 8801 testing sieves, which can be attached and detached simply by replacing the bands and has versatility using sieves with various frame shapes. With improved sieving efficiency, reduced or eliminated clogging, reduced cleaning frequency, and other features, the TSK-PNS can improve work efficiency on sieving sites. It also has a waterproof type converter (IP67 ATEX22 explosion-proof) and allows cleaning in the isolator.

● Features

- Operation mode: Operation frequency band from 30 to 38 kHz, tuning frequency ± 250 Hz sweep oscillation, sweep speed fixed to 50 Hz
- Operation: Oscillation starts when the main switch is turned on.
- Operation panel: Three LEDs go on or blink to indicate an error, oscillation 1, and oscillation 2.
- Sieve diameter: $\phi 75$ to $\phi 300$ mm (JIS Z 8801) and so forth
- Connection: A maximum of two converters can be connected in parallel.
- Safety Standards: [Oscillator] IP65, CE, dustproof and explosion-proof

● Specifications

[TSK-PNS oscillator]

- Frequency: 30 to 38 kHz
- Maximum output: 50 W
- Power source: Single phase, 110V $\pm 10\%$, 50/60 Hz
- Dimensions: 280 x 190 x 170mm
- Weight: 3kg

[C35-SD8 converter]

- General: High output model with four-layer PZT element (C35-SD8) in the converter
- Weight: 300g
- Dimensions: 120mm x $\phi 42$ mm
- Heat resistance: -20°C to $+45^{\circ}\text{C}$
- Safety Standards: ATEX (Article 22), IP65 dustproof
- Waterproof type: Body – IP65 (ATEX 22 explosion-proof)
Connector – IP67 waterproof (when connected)

● Mounting methods

- Applicable to various sieves.
- Ring nets exclusive for the ultrasonic sieving machine and other custom-order sieves are also available.



Ultrasonic Vibration Sieving Machine Type TSK-DGS

The digital control type DGS oscillator can apply ultrasonic vibrations at the appropriate frequencies in the ultrasonic operation frequency band from 30 to 38 kHz free of any influences from the shapes and natural oscillation frequencies of connected metallic samples. With exclusive PC software, it can set the frequency band, sweeping frequencies, and other conditions. It allows easy attachment of the JIS Z 8801 testing sieves, which can be attached and detached simply by replacing the bands and demonstrates versatility using sieves with various frame shapes. With improved sieving efficiency, reduced or eliminated clogging, reduced cleaning frequency, and other features, the TSK-PNS can improve work efficiency on sieving sites. It also has a waterproof type converter (IP65 ATEX explosion-proof) and allows cleaning in the isolator.

● Features

- Operation mode: Frequency sweep oscillation and complex oscillation
- Sieve diameter: ϕ 75 to ϕ 300 mm (JIS Z 8801) and so forth
- Power limit: Controls maximum output of 100 W/200 W oscillator.
- PC software: Parameter setting, frequency analysis software
- Interface: RS-232



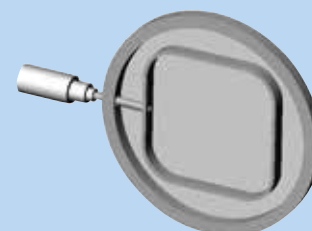
● Specifications

[TSK-DGS oscillator]

- Frequency: 30 to 38 kHz
- Maximum output: 100 and 200 W
- Power source: Single phase, 200V \pm 10%, 50/60 Hz
- Dimensions: 280 x 190 x 170mm
- Weight: 3kg

[D35-SD8 (E) converter]

- Weight: 300g
- Dimensions: 120mm x ϕ 42 mm
- Heat resistance: -20°C to +45°C
- Safety Standards: ATEX (Article 22), IP65 dustproof
- Waterproof type E: With waterproof connector. Alumite-treated body. Not applicable to strong acid or alkaline detergent.

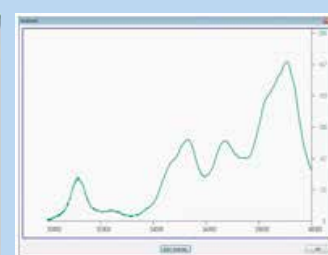


● Mounting methods

- Applicable to various sieves.

● PC software

- Exclusive analysis software allows 1 Hz order adjustment of the frequency band (30 to 38 kHz) and reciprocal frequency (sweeping frequency) up to 100 Hz. It also has a maximum output limiting function, frequency analysis function, frequency setting when several converters are connected, condition data storage and management function, etc.



Test Sieves Shaker TSK B-1



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Specifications (including vibration)

Size	W520 × D320 × H710mm
Voltage V	AC100V 50/60Hz (5A)
Power W	60W
Rotation	Max. 60 Hz/2300 rpm (adjustable)
Shake	6mm
Weight	42kg
Material	Exterior (paint): Aluminum, etc.
Timer	60 min Clockwork

Specifications on Horizontal Tapping Wave

Power W	15W
Tapping Rotation	0 - 12 rpm, repeatable
Hammer	3
Tapping Force	12kgf
Material	Exterior (paint): Metal Work, etc.
Sieve (Max. No.)	φ 200mm × 45mm H Max. 7 (including 1 receiver)
	φ 200mm × 60mm H Max. 7 (including 1 receiver)

Vibration and Horizontal Tapping Combined Motion

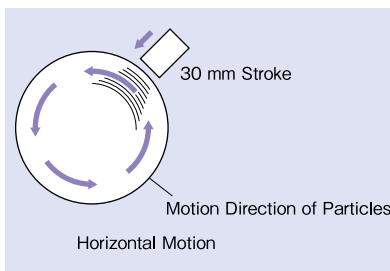
The Test Sieves Shaker is the application machine that generates vibrations and horizontal tapping motions for sifting sieves. The shaking motion is combined with a circular motion (vibration) and shockwaves to multi-laid sieves, resulting in efficient screening tests (available for the adjusting the strength of the motion). The shaker is more compact than devices currently in use and can be placed on a desktop without screws or bolts. The model is the most suitable for laboratories because of the low noise level.



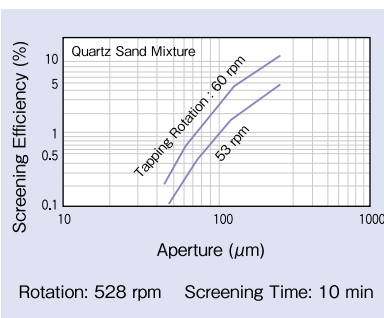
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Test Sieves Shaker, φ 200mm x 60H, 7-Layer (Including 1 Receiver)

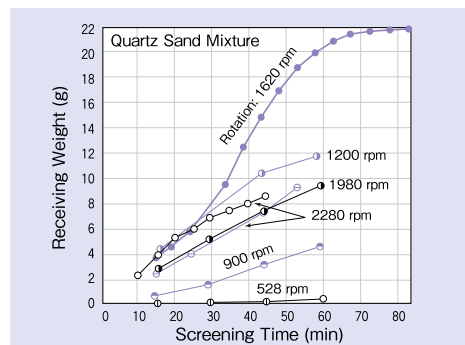
Motion of Particles



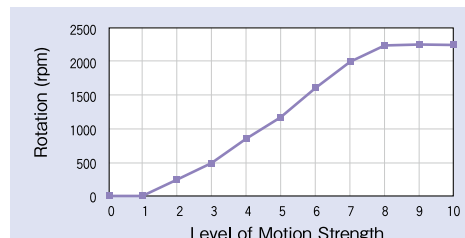
Screening Test Example



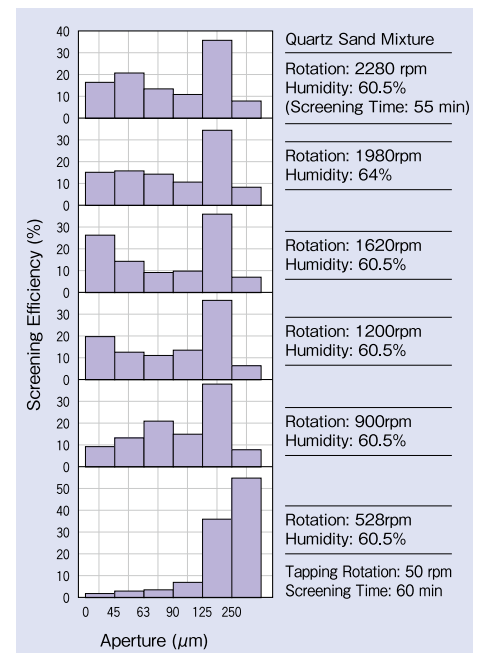
Screening Process Example



Motion Strength Level and Rotation



Rotation and Remaining Rate



Make connections with accuracy and reliability



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ISO/IEC 17025:2017



ISO 9001:2015