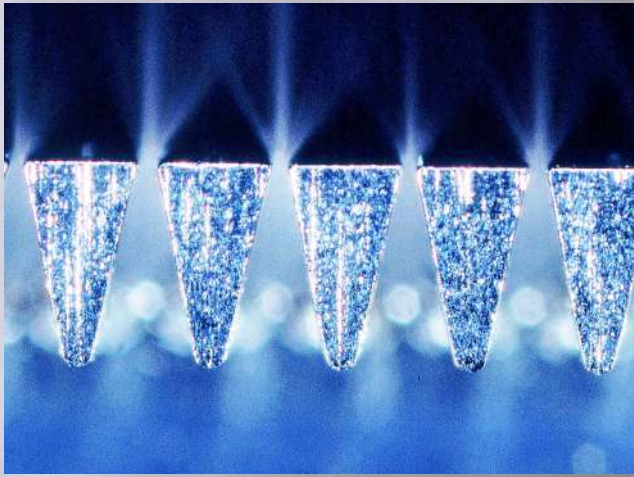


FINE WEDGE

Technical Product Information



The world's top-level technology realizes 5 (μm) order slits!

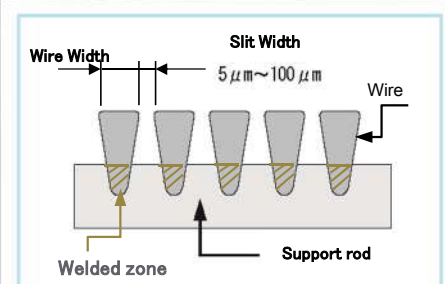
Properties of "Fine Wedge" wire products:

- ◆ High strength and durability give a long operating life.
- ◆ Design is available flexibly according to each purpose.
- ◆ Easy maintenance.

Section width of 'Fine Wedge' wire and Screen Opening Ratio

Wire Code		100CF	75F	50F	35CF	25CF
Wire Width (mm)		1.0	0.75	0.5	0.35	0.25
Material : SUS316L						
Slit Width	50μm	4.8%	6.3%	9.1%	12.5%	16.7%
	30μm	2.9%	3.8%	5.7%	7.9%	10.7%
	20μm	2.0%	2.6%	3.8%	5.4%	7.4%
	15μm	—	2.0%	2.9%	4.1%	5.7%
	10μm	—	—	2.0%	2.8%	3.8%
	5μm	—	—	1.0%	1.4%	2.0%

$$\text{Screen Opening Ratio} = \text{Slit Width} / (\text{Wire Width} + \text{Slit Width})$$

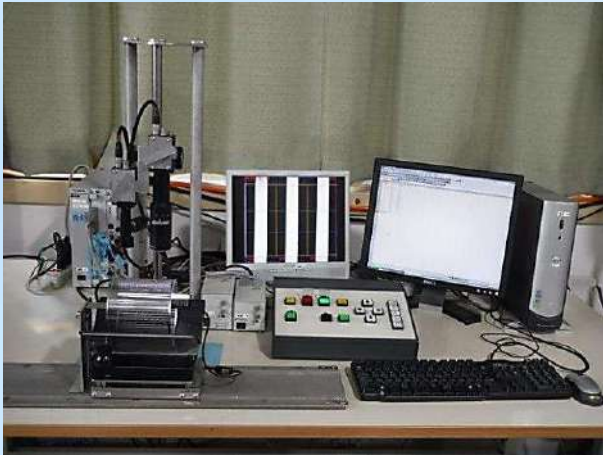


■ Slit Width between 'Fine Wedge' Wires

TOYO SCREEN

QUALITY CONTROL

Slit Measuring



Slit Measuring Device (Automatic measuring by a high-precision camera)

Example of 5 μ m order slit measuring dia.48.6 50F

Result of slit measuring (unit: μ m)

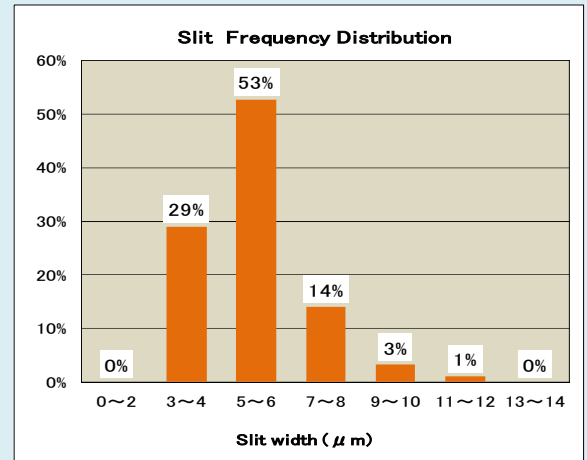
Number of data 93

Min. = 3

Max. = 11

Ave. = 5.5

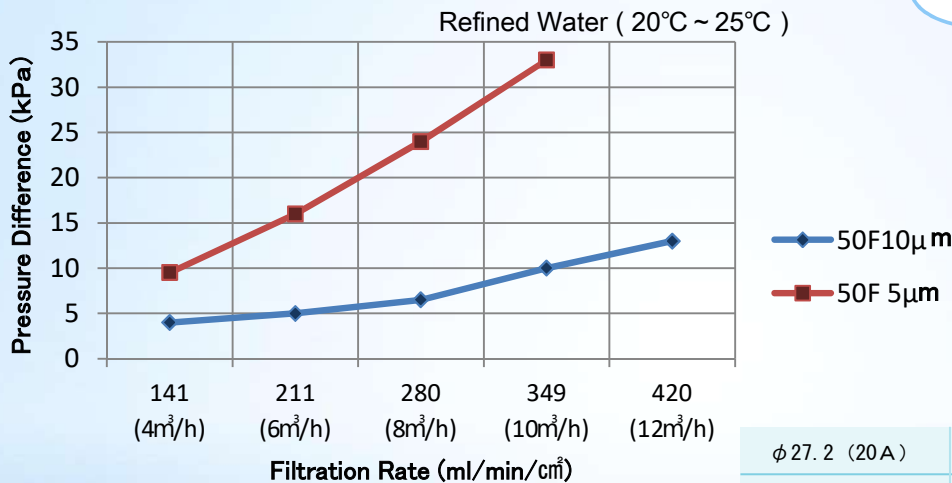
St.Dev = 1.5



For reference ; JIS G3556 Industrial Woven Wire Cloths
 'Allowance of slits'
 Nominal size 26 μ m, Max. +25 μ m, Ave. \pm 4 μ m

'FINE WEDGE' PRODUCT INFORMATION

(50Ax250L) Pressure Loss Data (for reference)



Cylindrical Strainer Parts



ϕ 27.2 (20 A)	ϕ 51.0 (-)	ϕ 101.6 (90 A)
ϕ 34.0 (25 A)	ϕ 60.5 (50 A)	ϕ 114.3 (100 A)
ϕ 42.7 (32 A)	ϕ 76.3 (65 A)	}
ϕ 48.6 (40 A)	ϕ 89.1 (80 A)	ϕ 400

※The diameter may change slightly depending on the applicable wire type.
 ※Please ask us for other sizes.

Various Screen Parts



※The material can be formed into various shapes according to each purpose.

Sieve Bends



※Reference size
 600Wx1600L

The Super Micro Slits will open up new possibilities!

Only "Fine Wedge" can realize these products!

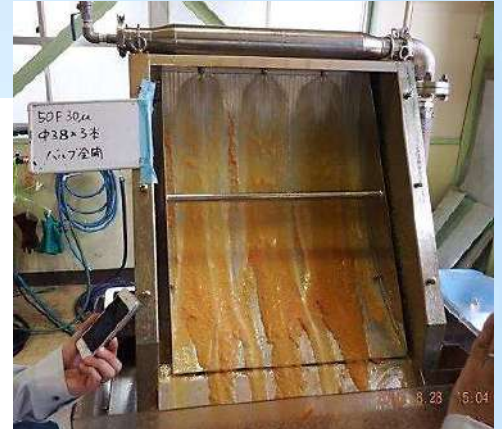
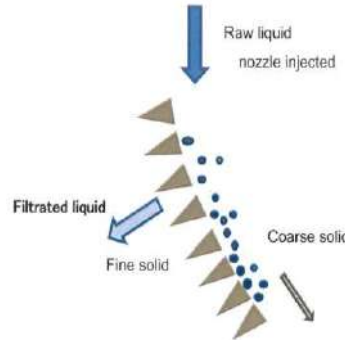
Applications of Dynamic Pressure Filtration

FineArc-60

Pressure injection-Type 60degree Arc Screen with slit width of 20 to 50µm

◆ Merit :

- ☆ Raw liquid is injected to the shoulders of the wedge shaped wires and separated instantly to the filtrated liquid and the coarse solids by the dynamic pressure.
- ☆ The coarse solids bigger than the slits flow over the screen surface.
- ☆ The fine solids pass through the slits by the dynamic pressure of the liquid which gives the clog-free screen.



It is defined as 'Dynamic pressure Filtration'

- ◆ Application: Recovery of resin powder, resist film and chemical plant's various particles, recovery of sludge and grindstone particles in the coolant and others, preliminary processing in advance of various fine filtrating equipment.
- ◆ Processing capacity: Max.35m³/h with slit width 30µm and nozzle discharge pressure 0.03MPa.
 - ※ It depends on raw liquid condition, specification of wire and nozzle.

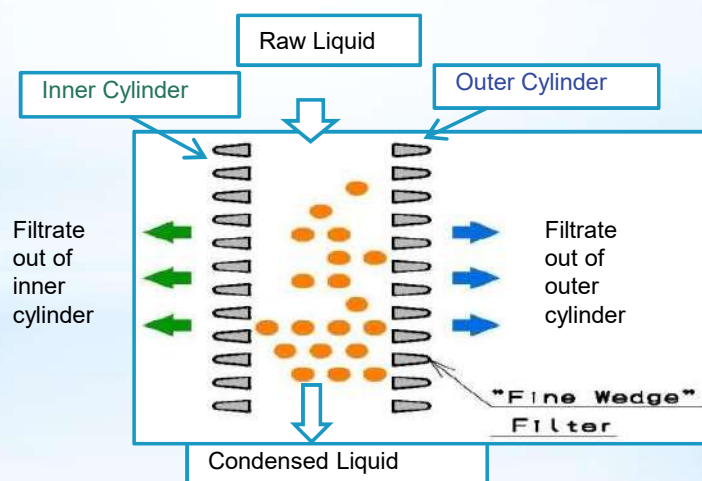
Applications of Inertial Filtration

Finecular

Bi-cylindrical Structure Inertial Filter
10µm and upward (Backwashing is not necessary.)



Features of Inertial Filtration



◆ Merit :

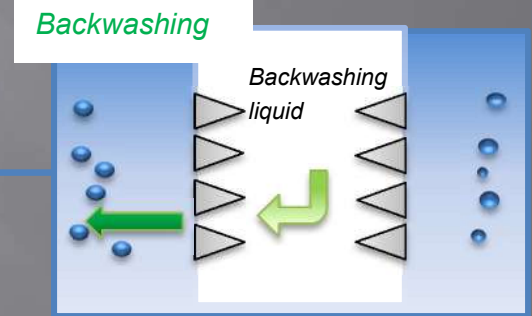
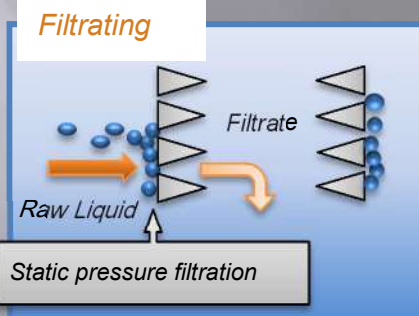
- ☆ Filtration is made by adopting 'Fine Wedge' filter for an outer cylinder and an inner cylinder and letting raw liquid run between them at a high velocity.
- ☆ By utilizing inertial filtration the equipment will work uninterruptedly without backwashing for a long period.
- ☆ The closed circulation system prevents evaporation, odor leaks and contamination.
- ◆ Application: Elimination of foreign solids from raw liquid, condensation of various raw liquid.
- ◆ Processing capacity: Max.30m³/h (Filtrate approx.14m³/h with fresh water)

Strainer built-in products

Prefine

High precision(5 μ m Class) AutoFilter with cylinders (dia.42.7) installed

- ◆ Merits:
 - ☆ Utilization of surface filtration's merit
 - ☆ Backwashing for preventing clogging is made effective by using "Fine Wedge" wire screen on a surface filtration basis.
 - ☆ Ultimate simple structure
- The rotary disk-type selector valves installed on the top and the bottom of the equipment backwash each cylindrical strainer one by one.
- ☆ Continuous operation without interruption of filtration is possible.



- ◆ Application: Pre-treatment before membrane filter, etc.
- ◆ Processing Capacity: Max. approx. 6m³/h (fresh water)

TOYO SCREEN KOGYO CO., LTD.

〈Head Office & Factory〉

2-10-6 Kouzen, Ikaruga-cho, Ikoma-gun,
Nara Prefecture, 636-0103 Japan.

TEL : +81-(0)745-70-1700

FAX : +81-(0)745-70-1701

E-Mail: sales_dep@toyoscreen.co.jp

〈Tokyo Office〉

Saito Building, 14-6, Kyobashi 3-Chome,
Chuo-ku, Tokyo, 104-0031 Japan

TEL : +81-(0)3-3567-2488

FAX : +81-(0)3-3564-6455

E-Mail: tokyo@toyoscreen.co.jp

<http://www.toyoscreen.co.jp>