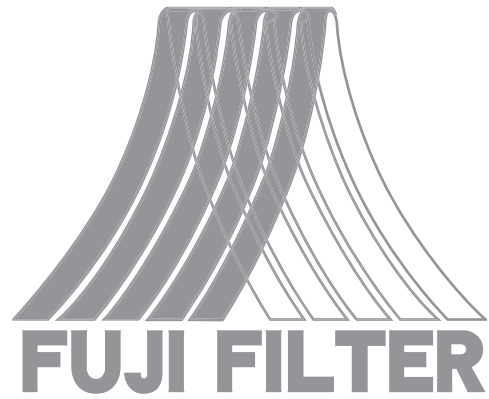


ISO 9001
CERTIFIED

Advanced Filtration Technology for the Future

General Product Information



Filtration of Gas

Filtration of Fluids

Filtration of High Viscosity Fluids

Filtration of Oil

Fuji Filter - FOR A MORE REWARDING FUTURE





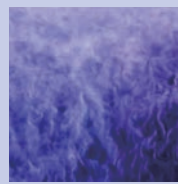
● Creating filters for the future

Fuji Filter is an integrated filtration engineering company manufacturing a broad spectrum of industrial filters that perform key roles in numerous diverse industries. As science and technology make exponential advances reaching more sophisticated levels than ever before, and as information technology becomes a sector of extreme importance, Fuji Filter is at the forefront of new technology supporting industry in many vital areas.

Fuji Filter believes that striving for excellence to exceed every expectation of our customers is a self-evident ideal. Fuji Filter further believes that perfection in any area goes hand in hand with a passionate commitment to improve our communities and society as a whole. Our high standards and ideals are attainable because of a key factor: The Happy Employee. Fuji Filter's ideal is to have the happiest employees around. A cutting edge, future-oriented work environment with advanced challenges, combined with the passion and expertise of happy collaborators, make for dynamic, progressive problem solving. Fuji Filter faces customers' challenges with a passionate symbiosis of discovery, enthusiasm and energy. We love to fulfill the needs of our customers with our output of continuously exciting products that turn problems into solutions ensuring a prosperous future. Fuji Filter and our cutting edge, advanced technology are committed to support industry combating global warming, -reducing Carbon footprint and -developing renewable energy. Fuji Filter makes the challenges of today things of the past, and opens up for a prosperous, more rewarding future.

Cutting Edge Filtration Technology For a Clean Future

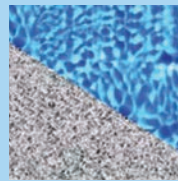




Filtration of Gas

Gas Filters

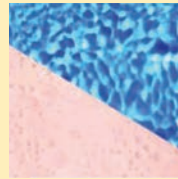
- High Temperature Gas Filters
- FUJI RECYCLING SEPARATORS
- FUJI OILMIST SEPARATORS



Filtration of Liquids Solid / Liquid Separation

Process Filters

- Process Filters ● Basket Filters for Centrifuges
- Nutche Disc Filters ● Lakos Separators



Separation of Liquids Liquid / Liquid

Oil Water / Water Oil Separation Filter

- Process line Coalescer
- FUJI FILTER SEPARATORS



Filtration of High Viscosity Fluids

Polymer Filters

- Duplex Polymer Filter System ● FPF System
- Melt Film & Melt Spinning Tester
- FUJI AUTOMATIC BACK-FLUSHING FILTER UNIT / P9
- FUJI JET FILTER (Marine Fuel Oil Filter System) / P10

Particle Range Chart / Applications for Porous Metal Materials

- FUJIPLATE
- FUJILOY

- FUJI METAL FIBER
- FUJIFLO

- FUJIBON
- FUJI OIL CLEANING CARTRIDGES
- FUJI OTHER FILTER ELEMENTS

- FUJI STANDARD VESSEL SERIES
- FUJI WOUND FILTERS
- FUJI BIO SEPARATION SYSTEMS

- Corporate Outline

Filtration of Gas Gas Filters

One function of gas filtration is to recover catalysts in process gas for recycling. It is also possible to efficiently utilize and recycle heat energy by filtering high temperature gas.

Another purpose of gas filtration is to protect peripheral equipment such as compressors, to prevent secondary line pollution, and to preserve the environment. This is achieved by filtering out solid contaminants, water and oil from air and gas.

Applications : Removal and recovery of solid contaminants in gaseous bodies

Removal and recovery of oil contained in gaseous bodies

Removal of water contained in gaseous bodies



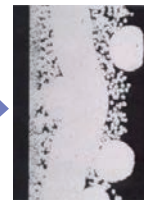
High temperature gas filter element

High Temperature Gas Filters

Metal media filter are fully capable of withstanding temperatures of over 250°C. Moreover, they can maintain a high level of filtration accuracy. They facilitate the continuous filtration of high temperature gas to remove solid contaminants contained in the gas. Compared to conventional systems in which gas is filtered after cooling, this high temperature system saves energy, improves production efficiency, and secondary pollution due to waste cooling water is eliminated. Moreover, the heat energy of the pure high temperature filtered clean gas can be utilized in drying, baking, and preheating processes.



Metal fiber element



Cross section photo



Metal powder element



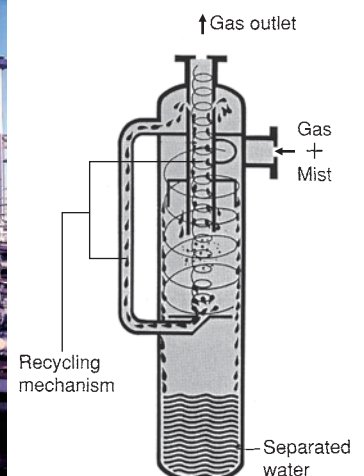
Surface photo

FUJI Recycling Separators

The FUJI Recycling Separator utilizes the effects of centrifugal force and gravity to remove up to 99.99% of water contained in gas. This unit has no moving parts such as rotors, a very strong internal and external structure, and no maintenance is required.

Applications

- Wellhead separator (natural gas)
- Separators for the inlet / outlet of gas / liquid contact zones
- Separators for utility gas and fuel gas
- Compressed air drain separation, lube oil recovery
- Condensation of cooling tower water after scrubbing
- Steam pipelines
- Geothermal steam separators



FUJI Oilmist Separators

By fitting a FUJI Oilmist Separator to the exhaust outlet of vacuum pumps such as rotary and reciprocal types, the generation of unpleasant oil mist is curbed, and a pleasant work environment is attained. The FUJI Oilmist Separator has been developed based on our extensive filter engineering experience, and it is very effective in coagulation separation/recovery and silencing. Compared with fitting an exhaust duct, the FUJI Oilmist Separator offers many advantages such as excellent economy, minimum installation space, prevents local pollution, and is easy to maintain. The FUJI Oilmist Separator serves a major role in maintaining a clean environment.



FCT Type



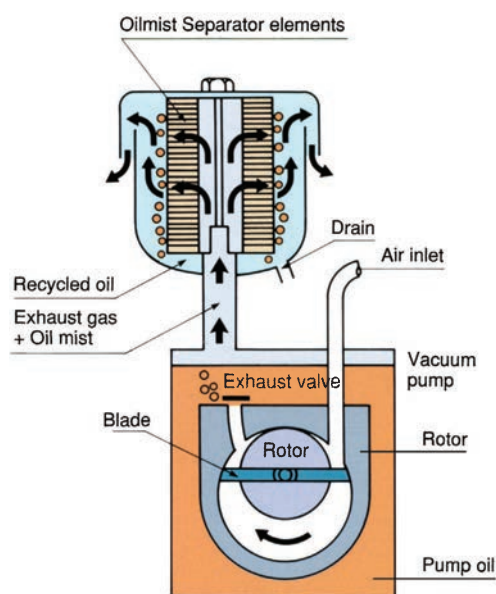
FDT Type



Oilmist Separator elements



Elements for corrosive gas

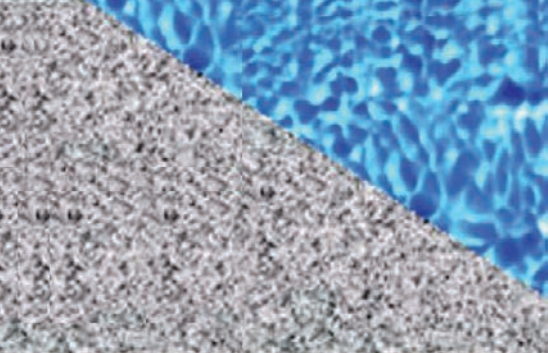


Features

- Complete removal of oil mist in the exhaust gas of rotary pumps (99.9%)
- By coagulating and recovering the mist, oil consumption is curbed
- Outstanding silencing performance
- Simple installation of the unit and element replacement
- Long service life - very economical

* In addition to vacuum pumps, the FUJI Oilmist Separator is also very effective for the exhaust of various air compressors and removal of oil mist from instrumentation compressed air in chemical plants.





Solid/Liquid Separation

Filtration of Liquids Process Filters

One aspect of progress in the chemical industry sector is the pursuit of absolutely pure materials, free from all contaminants. Filtration is one form of technology used to increase purity. Today, contaminants (impurities) in the angstrom range are being confronted. Thus, it is necessary to develop even more accurate filters to meet such requirements. Contaminants generated during each production process can inhibit or hinder the next process reaction, and may have a detrimental effect on the quality of the final product. Consequently, the role of filters is becoming increasingly important.

Applications : Removal of contaminants contained in fluids
Recovery of solids contained in fluids



■Track Record (Plants)

Our products have been installed in many plants such as:

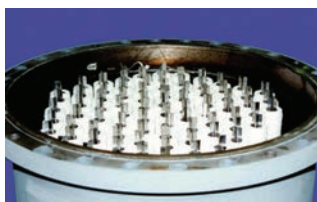
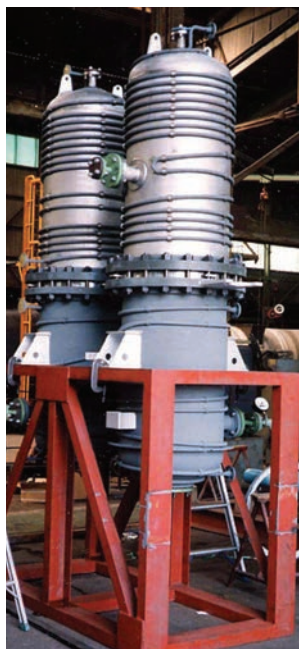
desulfurization, ethylene, BTX, LPG, Propylene, alkylation, oil reforming, MTBE, ethylene glycol, styrene monomer, terephthalic acid, high purity terephthalic acid, polypropylene, caprolactam, polyethylene, polystyrene, polyvinyl chloride, polyvinyl monomer, bisphenol, paraxylene, and fertilizer plants.

Process Filters for Various Liquids

Fuji Filter's solid/liquid separation equipment units are employed over a wide filtration range and for many applications ... from strainers to remove solid contaminants from 300 to 150 microns, and precision check filters on the final product shipping line that can remove 100% of contaminants of up to 0.5 microns.

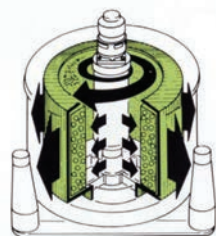
The filtration media of the filters used, such as metal, resin, cloth and paper, are selected based on the purpose of use and systemized.

There are various configurations of filtration media such as disc, cartridge (cylinder, pleat), leaf disc, and basket types. We undertake the design and fabrication of the optimal system to meet the customers' specifications.



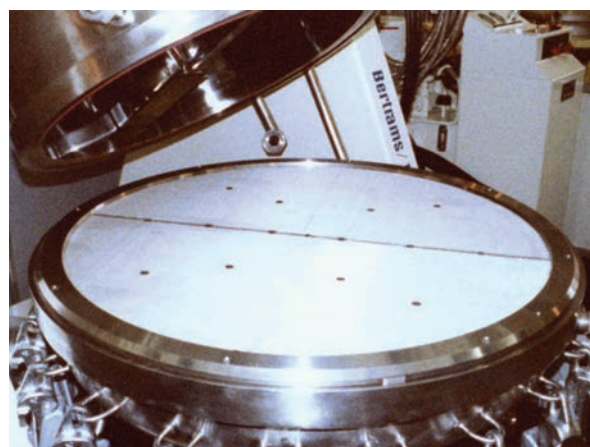
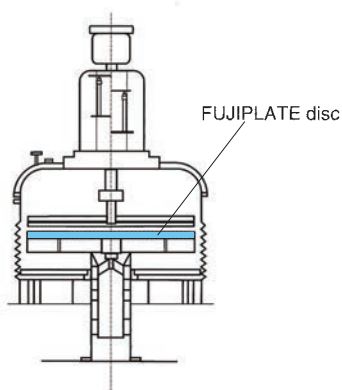
Basket Filters For Centrifuges

Solid constituents contained in process solutions are recovered by centrifuging in such production processes as pharmaceutical products, food and fine ceramics. The use of FUJIPLATE filter elements ensures very accurate filtration in the 2 micron range at high revolution speeds. FUJIPLATE can be easily flushed, permits quick detachment of cake and can be machined into appropriate configurations.



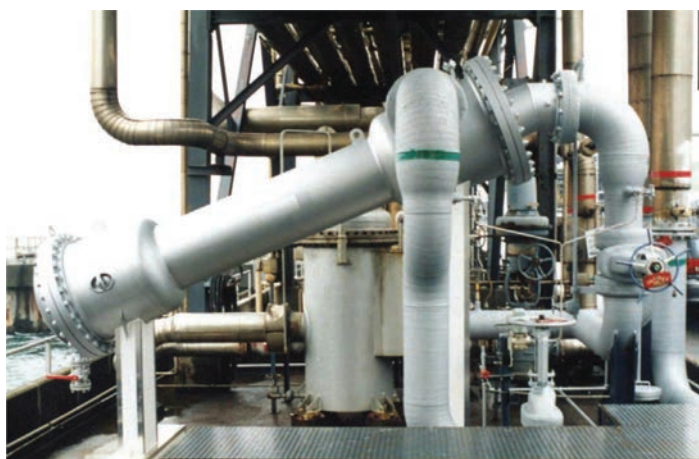
Nutsche Disc Filters

Solid constituents such as pharmaceuticals, food, dyes and pigments contained in solutions can be pressurized in vessels, vacuum adsorbed, separated by filters and recovered. The FUJIPLATE filter elements used are durable, permit easy cake removal and cleaning, and ensure a very high degree of filtration accuracy down to 2 microns. These outstanding properties allow a wide range of applications.



LAKOS Separators

LAKOS Separators utilize centrifugal force and the differences in the specific gravity of liquids and solids. They separate, concentrate, recover and remove contaminants suspended in water and other liquids. Currently, LAKOS Separators are achieving excellent results in the industrial water treatment sector including utility water and waste water treatment, heavy industry, chemicals, electric power, air conditioning, food and other industrial water treatment applications worldwide. We offer a wide range of LAKOS Separators from compact types with a unit processing capacity of 1.0m³/Hr to large units for 2,895 m³/Hr capacity.



Separation of Liquids

Oil Water/Water Oil Separation Filter

Oil is used for many purposes such as for fuel, lubricants, hydraulic oil, hydraulic power lines, vacuum pumps, etc. Even if minute amounts of solid contaminants are contained in the oil, this can result in failure of machinery. If water is contained in oil, it can lead to corrosion problem of both production machinery and the finished products. Water in oil also accelerates the deterioration of oil and results in a loss of the basic functions.

Applications : Removal of water in oil
Removal of oil in water
Removal of water in solvents

Liquid/Liquid Separation



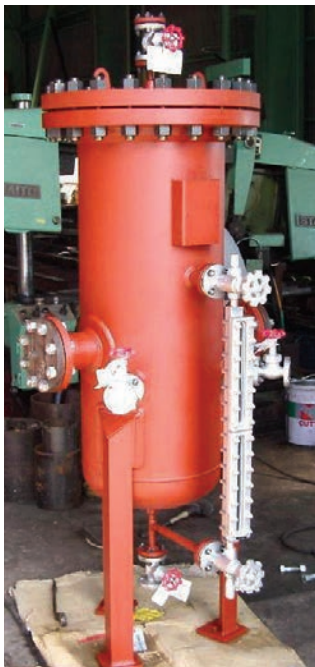
■Track Record (Type of Fluid)

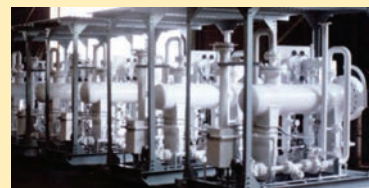
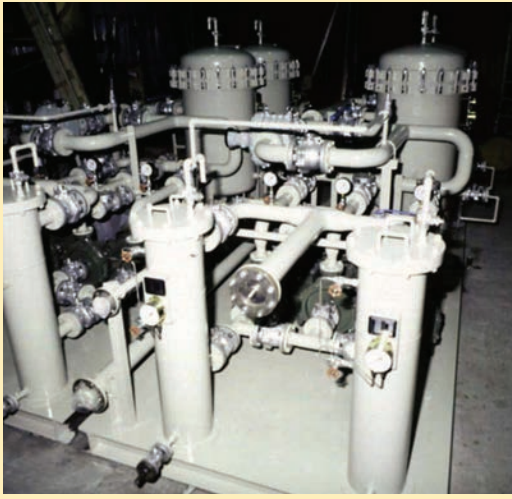
LPG, H.C (hydrocarbon), olefin, propylene solutions, lube oil, organic solvents, B.T.X. (benzene toluene xylene), kerosene, naphtha, drain water, coolants, etc.

Process Line Coalescers

Fuji Filter's liquid/liquid separators are used extensively over a wide spectrum in the oil refining and chemicals sector, and other areas. The main products are those using glass fiber cartridge type elements, and they are employed to remove the water contained in oil. Depending on the specifications and conditions of the fluids, they can be designed and fabricated using filtration media such as stainless steel, polypropylene, and other special filtration media. The configuration of the filtration media is not limited to cartridge type, and we also undertake the design and fabrication of pad type.

They are also used extensively as filters that remove oil from water in drain water and cooling water.





FUJI Filter Separators

FUJI Filter Separators have the function of separating free water contained in aviation fuel, mainly jet fuel, gasoline and kerosene, and they also remove contaminants. These filters are manufactured to API/IP 1581 specifications. They are installed at airports, and loading lines of refinery terminals, both in Japan and throughout the world. The separator contains a coalescer which coalesces the water contained in the oil, and a separator which traps minute suspended water particles, and this system ensures total water separation.

Coalescer Elements

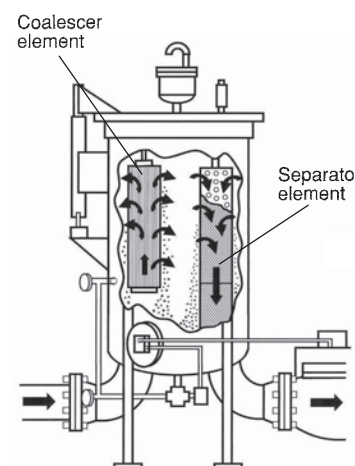
Coalescer elements have a highly specialized structure comprised mainly of glass fiber. When the emulsified water contained in the oil permeates out from the filter core to the outer surface, large water droplets are formed, and here the water droplets are enlarged until they drop out of the element due to the specific gravity differential.

Separator Elements

These are screen type elements. Some of the water drops produced by the coalescer are entrained in the process flow, but they do not flow out.

Applications

- Separation of water and contaminants in jet fuel
- Separation of water and contaminants in gasoline, kerosene and gas oil
- Separation of water and contaminants in industrial and chemical processes
- Water processing - Separation of oil contained in water



Coalescer (Left) and Separator



Filtration of High Viscosity Fluids

Polymer Filters

Advanced functional substances such as polymers, used for synthetic fiber, film, plastic, etc., are extremely versatile materials with a wide range of applications. The filtration of these high viscosity fluids under high temperature, high pressure conditions of, for example, 20,000 poise viscosity, 300°C temperature and 25.0 MPaG pressure, requires a very high degree of filtration accuracy of 3 microns or less. FUJI Polymer Filters working under such rigorous conditions are installed in each polymerization stage.

Applications : Removal of gel contained in polymer
Removal of contaminants contained in polymer
Removal of coagulants such as additives and catalysts

FUJI Duplex Polymer Filter Systems

The Fuji Dual Vessel Polymer Filter System (vertical type) is a leading filter system in polymer polymerization lines using FUJIPLATE (Laminated mesh sintered structure) and FUJI METAL FIBER (Laminated non-woven, metal fiber structure) as the filtration media. The A Vessel or B Vessel filter is in constant operation, and so work does not need to be interrupted. A vast amount of know-how is utilized in this system, based on the technology and experience accumulated by us over many years, and it is designed to give many advantages to users.

Features

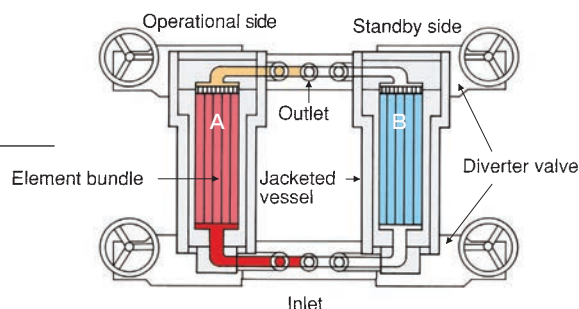
- Polymer quality is enhanced by the excellent filtration performance
- We fabricate filter systems matched to the requirements of our customers
- Our design reduces the residence time of the fluid to the minimum level (optimized flow balance design)
- Optimized element design and fabrication matched to applications and needs
- Long filtration life realized
- Smooth switchover ensured by valve and control system used

Applications

- Synthetic fiber polymerization lines
- Film chip polymerization lines
- Thermoplastic resin polymerization lines
- Engineering plastic polymerization lines
- Optical plastic lens polymerization lines
- Others

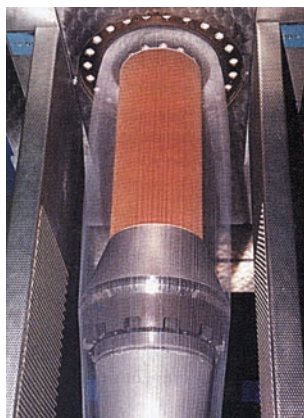


Structure



FUJIBON Spinning Filter Elements

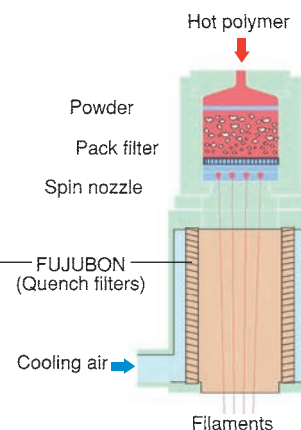
Quench filters for spinning are used for the fiber cooling cylinder in the synthetic fiber spinning process. Stable spinning is attained by blowing out directionally cooled air from the controlled uniform pores of the FUJIBON filter elements.

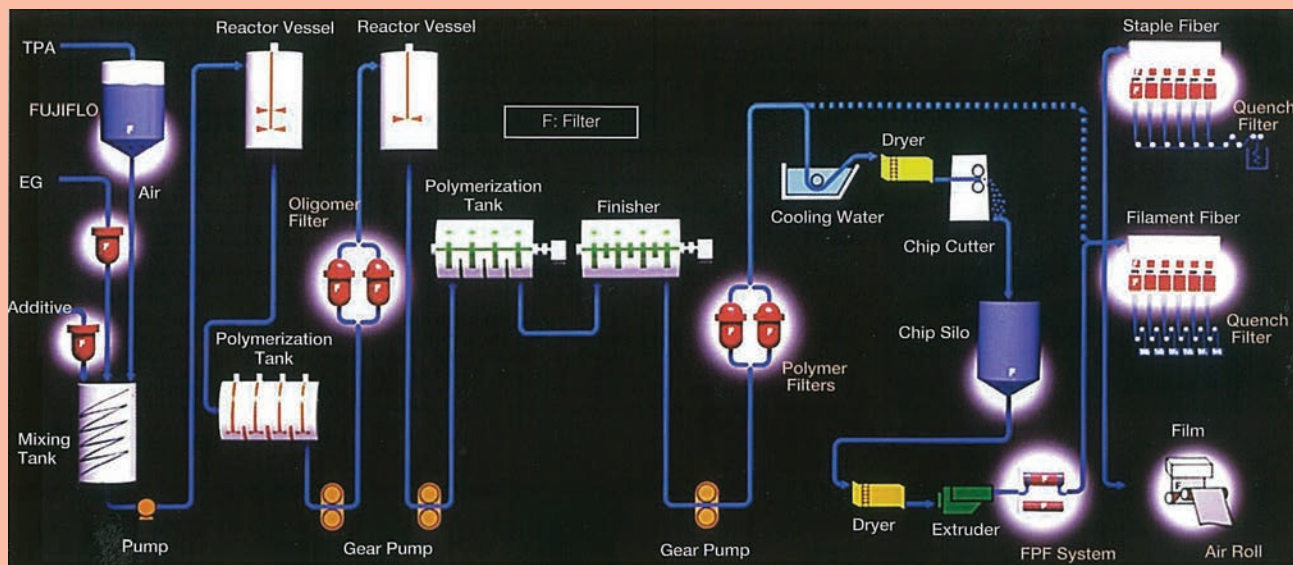


External flow type



Internal flow type





▲ Various spinning/pack filters ▲



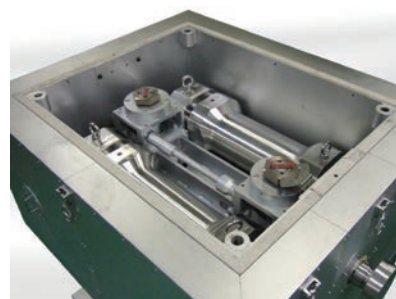
◀ Various bundles for polymer filters

FPF System

In the same way as the vertical type, the FPF polymer filter system (horizontal) continuously filters polymer for synthetic fiber, film, and plastic products without shutting down the production process and implements filter unit switching. The system uses sintered metal filters with excellent ability to remove solid and gel contaminants. Plug valves are used as they give an ideal polymer flow.

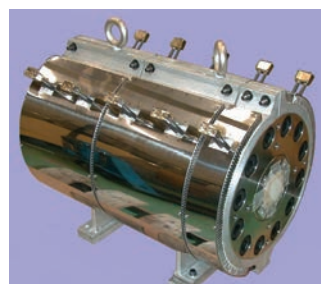
Features

- Excellent filtration performance ensures improved polymer quality
- The design reduces residence time of the fluid to the minimum level (optimized flow balance design)
- Operates continuously in the same way as the vertical type and gives a massive increase in productivity
- As the filter elements used are completely reusable and washable, this reduces running costs greatly
- A simple structure ensures easy operation and maintenance



Type-S

Type-W



FUJI Melt Film & Melt Spinning Tester



The FUJI Melt Film & Melt Spinning Tester is indispensable for a wide range of research and development work on melt polymer products. The Melt FilmTester is used to simulate film forming of thermoplastic polymer. The Melt Spinning Tester is used for spinning performance test of feedstock samples of synthetic fiber. Both of these testers give very accurate data.

FPF System
Housing & Elements



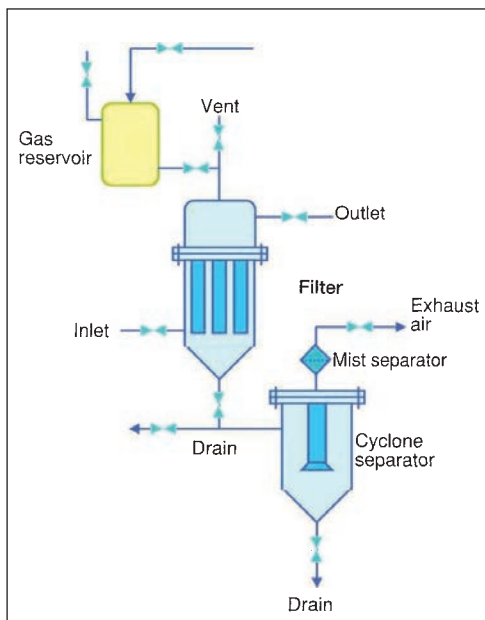
FUJI Automatic Backflushing Filtration Systems

The various functions of the FUJI Automatic Backflushing Filtration Systems from process fluid, filtration, prepurge and backflushing are controlled by a PLC. It can be programmed to comply with the filtration and washing of the customer's original system matched to application requirements. It has made possible double backflushing, up to now considered difficult. The filters elements employed include FUJIPLATE (sintered laminated mesh units) and wedge wire ensuring a high level of filtration accuracy. One-piece valves are used as they solve fluid leakage, previously a problem. This unit can withstand up to 900#, 320°C. It is lower in price than similar units made by other companies.

Automatic backflushing filter unit with bank



Automatic backflushing principle (gas assisted system)



Structure of automatic backflushing filter unit with bank (Example)

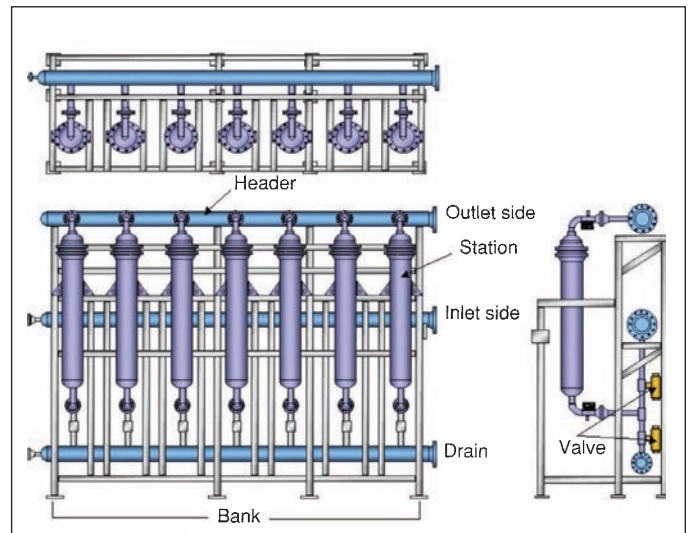
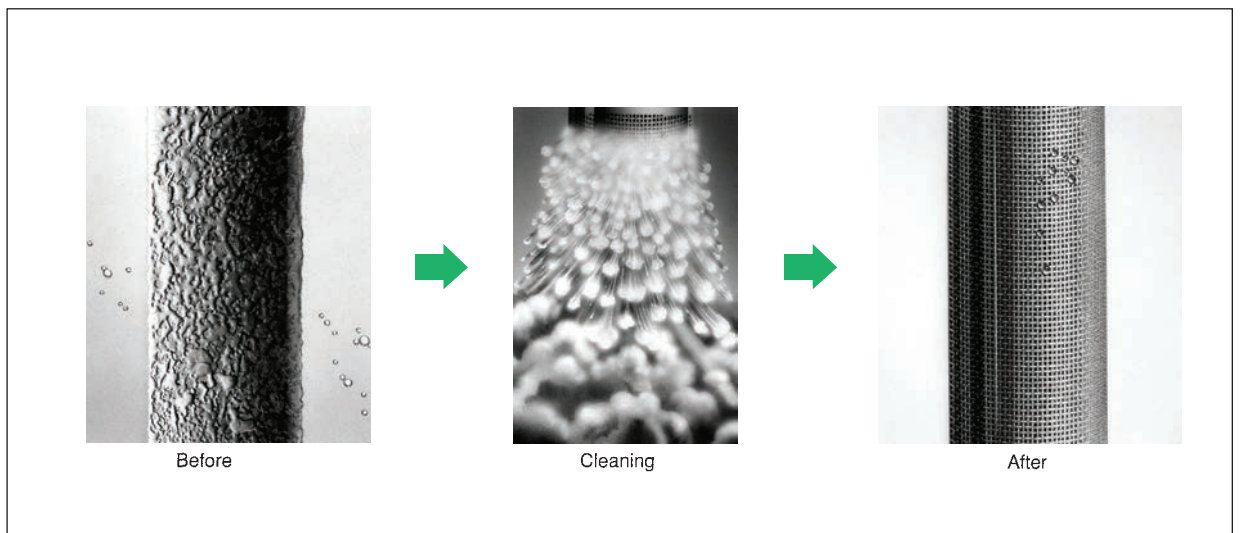


Image illustrating automatic backflushing



FUJI Jet Filters (Filtration System for Marine Fuel)

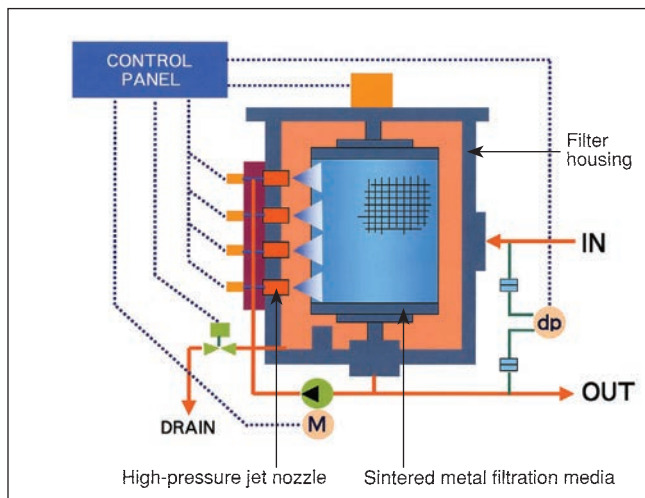
FUJI Jet Filters are an innovative filtration system for marine fuel which gives a massive increase in capacity to wash out clogged filters. This system can maintain a high level of filtration accuracy while operating for long periods of time without the need to overhaul the unit using a direct washing system in which the filtration media is directly washed by high pressure jet spray. FUJI Jet Filters are based on the concept of Dock - Dock Maintenance Free. This system affords many benefits to users.

- Under normal usage, it can be operated without overhaul inspection for long periods of time. "Dock - Dock Maintenance Free".
- Reduces the amount of drainage after washing and also reduces the drainage work time and process cost.
- Due to the high filtration accuracy of the stainless steel mesh sintered filtration media, the protection level for the engine and downstream equipment is improved.
- Filtration media can withstand long-term repeated washing operations. (High mechanical strength)
- Facilitates stable filtration of inferior, low-grade oil with a high level of contaminants

Features



Diagram of System Mechanism

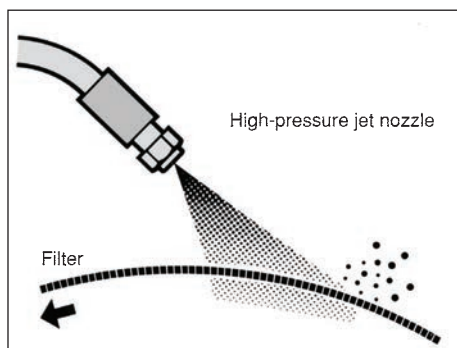


FJMA type



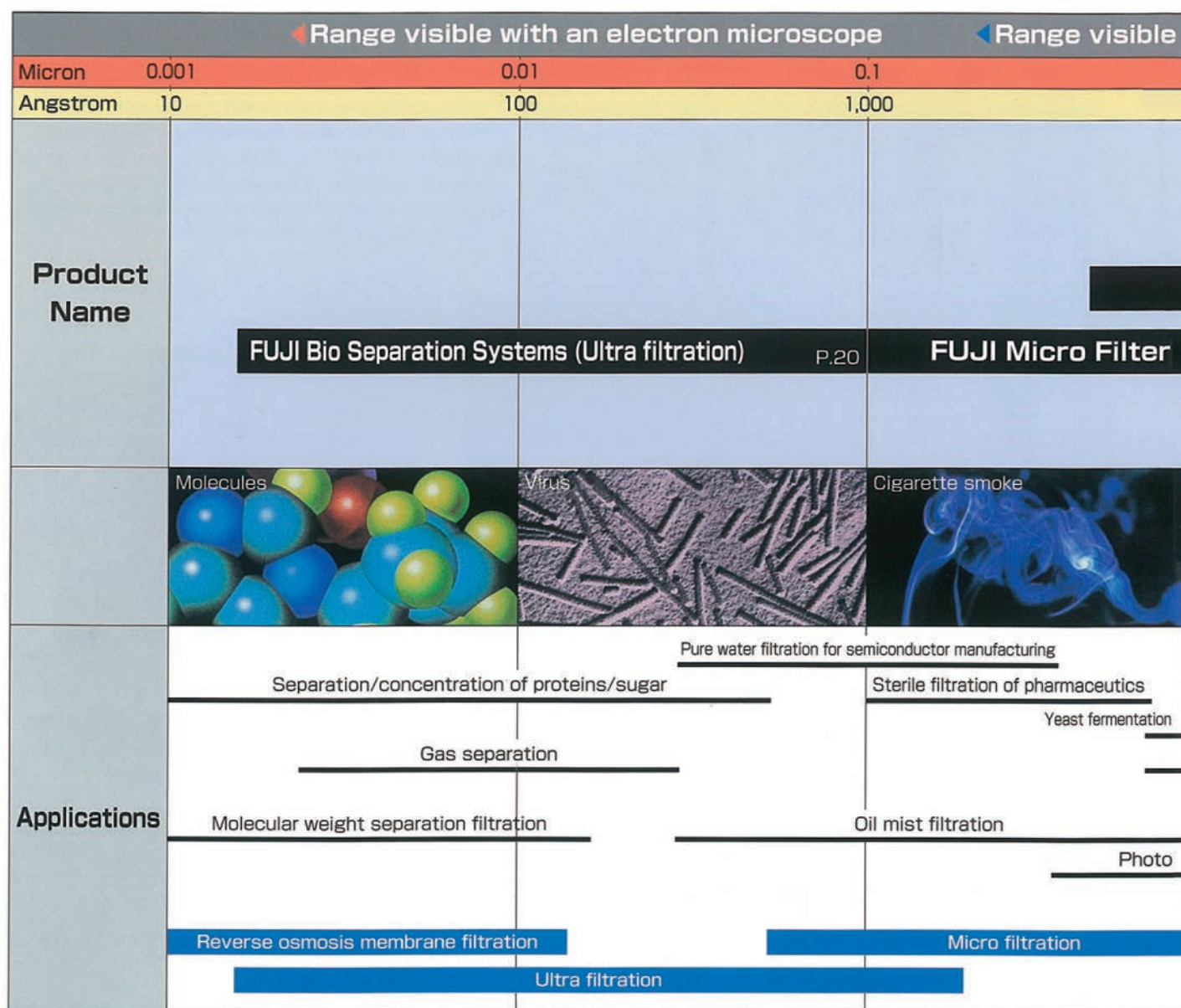
FJSA type

Diagram of Washing System



Filter elements

Particle Range Chart



Applications of multi-porous metal materials

Filtering

Removal of particles (contaminants) from fluids, recovery of solid substances, liquid separation

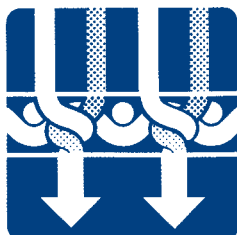
► Polymer filters, catalyst reclamation filters, oil refining process filters, and lubricating oil filters



Mixing

Uniform mixing and reaction of different liquids

► Quality stabilization of highly viscous fluids, quality homogenization of paint pigments, and ultrasonic emulsification



Sparging

To let air or gas bubbles disperse evenly in liquids.

► Chemical reaction promotion filters, growth promotion filters for biochemistry



Flame-arrester

To prevent ignition of the secondary side by excluding flames and absorbing the explosion energy

► Oxygen cylinder and furnace backfire preventive filters, gas-leak warning apparatus



Ventilation

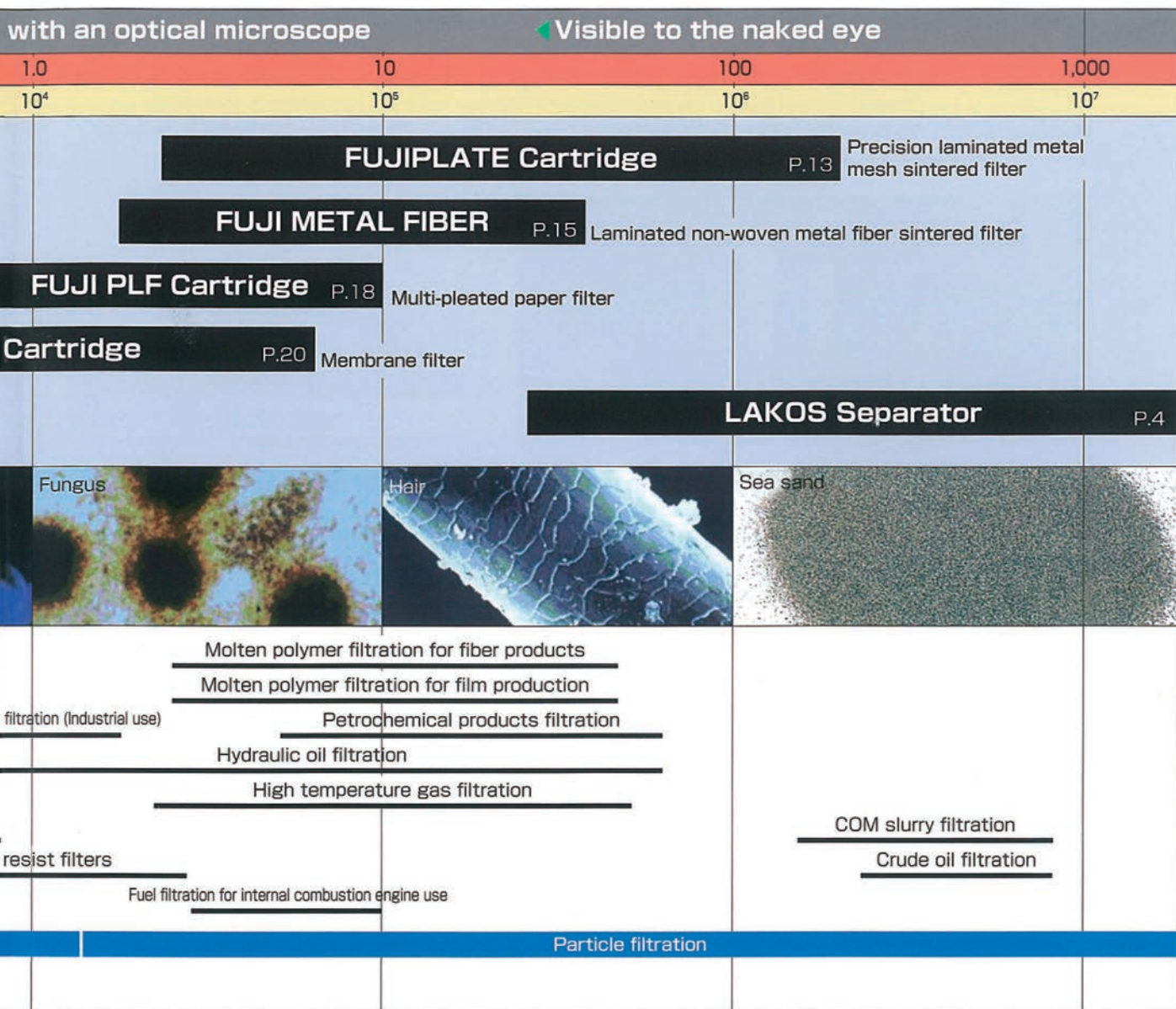
To trap dust in the air

► Air pressure gauge, air breathers for measurement instruments, filters for analyzers of SOx, NOx, and HC



Filter Engineering in the 10 Angstrom 1.000 Micron Range

Fuji Filter has developed an ideal system to cover the filtration of particles from the 10 angstrom particle level to the 1,000 micron range coal dust. This comprises an optimal combination of filters from Fuji's extensive range to meet all operational requirements and conditions.



Particle Range Chart

Sound-proofing

To absorb, direct, or deflect sound energy.

- ▶ Exhaust noise muffling filters, acoustic equipment filters

Absorption

To absorb a constant amount of fuel by capillary action

- ▶ Atomizers, wicks

Fluidization

To provide smooth transfer of powder and film by utilizing its uniform ventilation characteristics

- ▶ Air rolls, aerators, air sliders, air bearings

Buffering

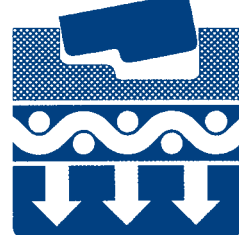
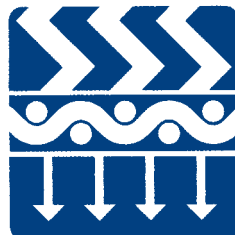
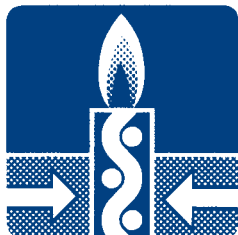
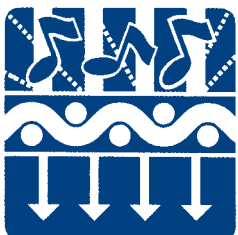
To protect measuring instruments from abrupt pressure fluctuations

- ▶ Measuring and instrumentation filters

Molding

To compact and mold casting sand by extracting air

- ▶ Vacuum casting, ferrite molding, and ceramic shaping



FUJIPLATE

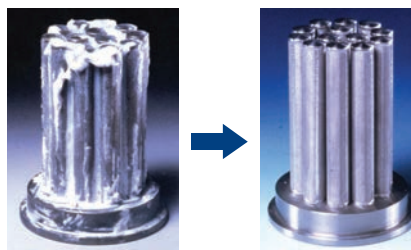
FUJIPLATE filter elements are made up of several layers of mesh sintered together to form an integrated porous metal element. The inner mesh is of very fine gauge and determines filtration accuracy (particle size). This is overlaid with coarse support mesh layers and protective outer mesh layers. Various combinations are used according to applications. This is a typical surface filtration type, and solid contaminants are retained on the surface of the filtration control layer. This facilitates high filtration accuracy and makes backflushing very easy. FUJIPLATE offers excellent heat, corrosion and pressure resistance. There is no delamination or mesh distortion, and it can be machined. Its outstanding durability and cleanability allow semi-permanent reuse.



Standard Specifications

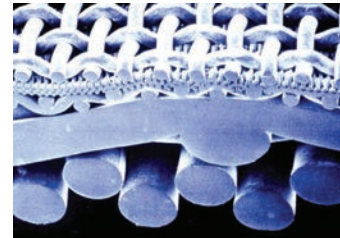
Material ● SUS 304 SUS 316 * Please consult us for other materials
Basic plate size ● (mm) 300×500, 500×1000, 1200×1200
 *Depending on mesh composition, 1200×2400 is also possible (Max)
Tubular size ● Dia. (mm) 10.5, 14, 18, 25, 35, 40, 50
Length ● any size available
Pleats ● Dia. (mm) 35, 50, 60, 115
Length ● any size available
Disc ● any size available from 2 to 2,000 mm
Thickness ● 1.66 mm
Void rate ● 35%
Operating temperature ● -269°C to +480°C
Filtration rating ● 0.5, 1, 2, 5, 10, 20, 40, 75, 100, 150, 200 microns (Nominal)

Washing for polymer filter elements

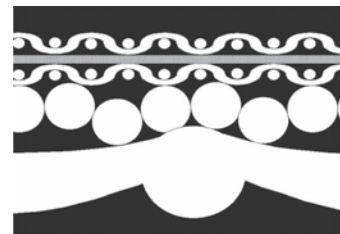


Before cleaning

After cleaning

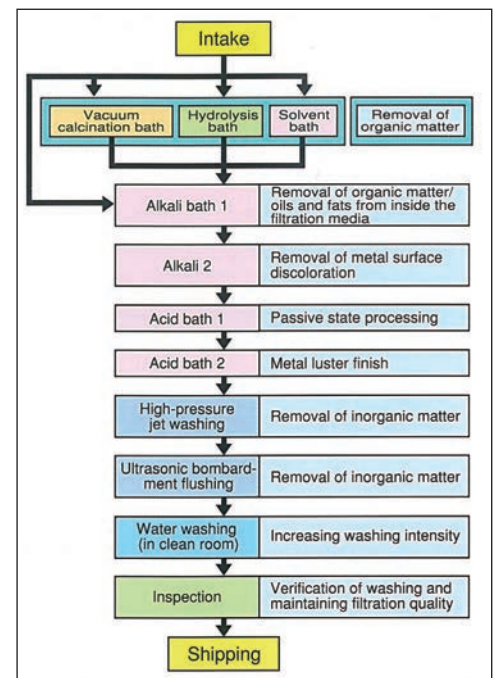


Cross-section of a five-layer laminated structure



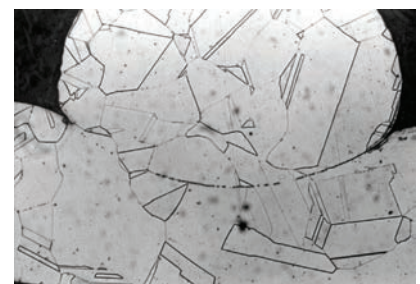
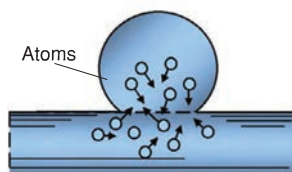
Protective layer
 Particle size control layer
 Distribution layer
 Coarse mesh supporting layer

Cleaning procedure for metal filters



Sintering Process

When metals are maintained at a temperature near their melting point (approx. 90%) for a set period of time, counter diffusion of metal occurs at the micro-structural level of the metal at contact points and crystal formation takes place between metals to form a completely integrated metal structure. This gives outstanding strength, and durability is greatly enhanced.



FUJILOY filter elements are made from a seamless, continuous flat metal ribbon wound on to a cylindrical or conical mandrel. The elements are made of various types of alloys, usually stainless steel. The angle at which wire is wound and the spacing are computer controlled to ensure high precision in the production of these metal wound sintered filter elements. The sintering process ensures total integration of metal to metal at the crossing points. Thus, there is no delamination of structural materials and high strength levels are achieved to ensure extremely accurate filtration performance. FUJILOY is an extremely reliable filter medium for hydraulic line check filters. Cylinder diameters range from 2 mm up. As there are no weld joints, a uniform, effective filtration surface is achieved



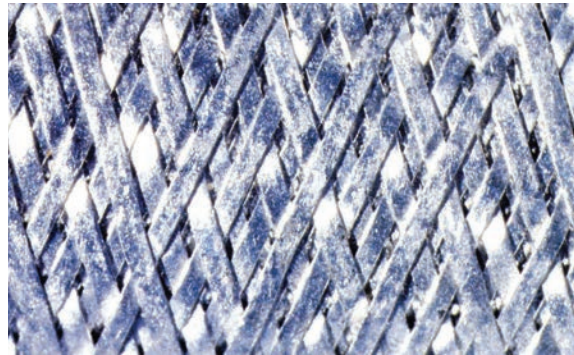
Standard Specifications

Material ● Stainless steel SUS 304, 316, 347, (titanium, Hastelloy, Inconel) * Please consult us for other materials
Configuration ● Cylindrical, Conical
Dimensions ● Dia. 2 to 250 mm, length from 3 mm up to any size
Operating temperature ● -269°C to 650°C
Filtration rating ● 2 to 500 microns (various types)



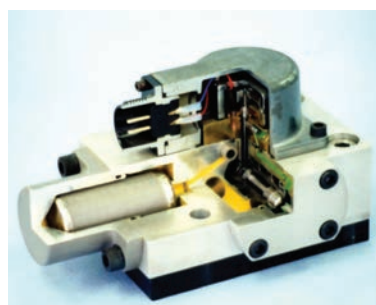
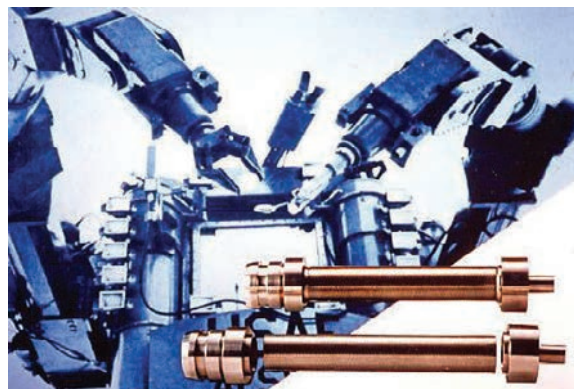
©JAXA

Rocket hydraulic control filters/Others



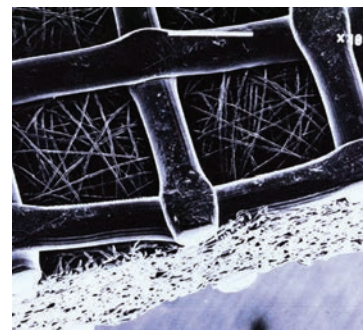
Applications

Precision Instruments Industry ● Built-in check filters for electro-hydraulic servo valves
Power generation ● Heat resistant elements for turbine blades
Sparging ● Promotion of chemical reactions / Promotion of microorganism breeding
Pharmaceutical and Food Industries ● Line filters / Recovery filters
Chemical Industry ● High temperature gas filters / Flame arresters
Others ● Nuclear power plants: Filters for power generation control rods - Servo valve check filters / Heat pump wicks / Filters for rocket engine nozzles

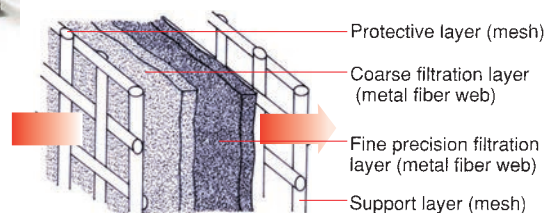
Industrial robot servo valve check filters/
Hydraulic line check filters

FUJI METAL FIBER

FUJI METAL FIBER is a non-woven filter made of laminated, sintered layers of metal fiber felt (stainless steel is standard). This medium has excellent heat resistance, pressure resistance, and corrosion resistance, and it is used for high temperature, high viscosity fluid filtration. FUJI METAL FIBER has a typical deep filtration structure giving high filtration efficiency, low filtration resistance, and a large contaminant retention capability. It gives outstanding performance, especially in the removal of gel contaminants in high molecular polymer. These filtration properties ensure increased product quality during manufacturing processes and extended filter life. All this adds up to higher productivity and lower costs.



Enlarged photo of metal fiber



Standard Specifications

Material ● stainless steel SUS 316L * Please consult us for other materials
Standard plate size ● 500 mm × 1000 mm, 1000 mm × 1000 mm
Configuration ● Tubular size: Dia. (mm) 14, 25, 50, 60
 Pleats: Dia. (mm) 35, 50, 60
Length ● any size available
Disc ● Dia. 30 to 400 mm (With frame)
Leaf disc ● 4.4B - 12B
Thickness ● 0.30 to 0.65 mm
Filtration rating ● 3 to 60 microns
Service temperature ● -269 to 480 °C

Applications

High Polymer Industrial ● High viscosity polymer filter for fiber, film, plastics / Raw materials production filters / Monomer/oligomer filters
Chemical Industry ● Process filters for chemical plants / Filters for petrochemical refineries
Pharmaceuticals/Food Industry ● Synthesis and production, crystallization, recovery filters for all types of pharmaceutical products, food, etc.
Aviation/Marine/Machinery ● Filters for fuel oil, lube oil, hydraulic power line oil, cutting oil
Measurement and Instruments ● Sampling filters for analysis, air filters for instrumentation
Others ● High temperature exhaust gas processing filters



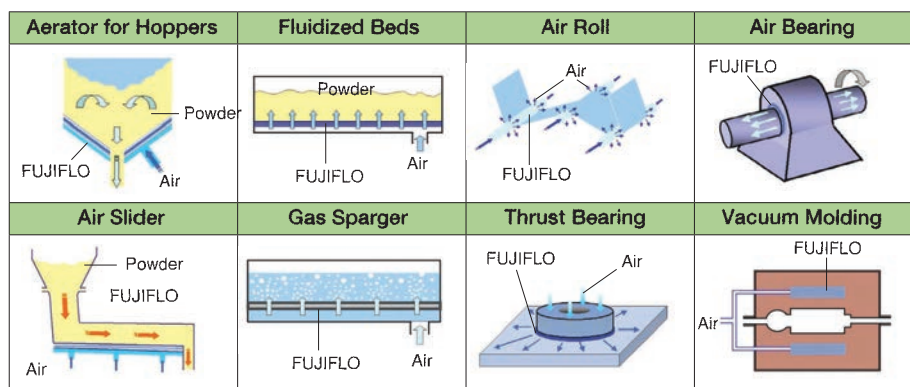
Various metal fiber elements

Metal fiber pleated type
(Polymer filter bundle)

Metal fiber leaf disc type

FUJIFLO

FUJIFLO elements are made of uniformly distributed porous metal plate with a degree of accuracy in the micron range. The precision steel mesh is laminated and sintered to form a multilayer plate and then press-rolled to obtain accurate control of air flow properties and give a smooth finish to the surface. FUJIFLO offers outstanding durability (heat resistance, pressure resistance, and corrosion resistance), and it is machinable in the same way as ordinary metal plate. Thus, it can be cut and welded. It also offers the added advantage of being washable, and so it can be used semi-permanently.



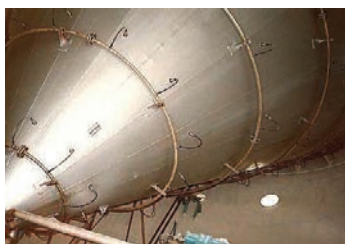
Standard Specifications

Material ● Stainless steel SUS 316
Configuration ● Flat plate
Dimensions ● 300 mm × 500 mm, 500 × 1000 mm, 1200 × 1200 mm
Thickness ● 1.22 to 1.50 mm (Lo-Flo, low air flow used) / 1.02 to 1.63 mm (Hi-Flo, high air flow used)
Air flow resistance ● 0.12 to 1.52 liters/min./cm² (Lo-Flo, $\Delta P/50.8$ mm H₂O) / 6.08 to 30.40 liters/min./cm² (Hi-Flo, $\Delta P/152.4$ mm H₂O)
Weight ● Lo-Flo/1.57kg, Hi-Flo/1.18kg (Weight of 300 × 500 mm sheet)

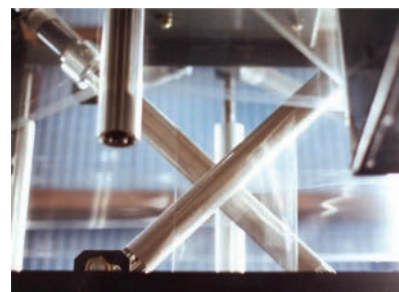
Applications

Air Fluidizing ● Gives smooth transportation of powder or film owing to the uniform air permeability
 Aerator, Air roll, Air Bearing (Static pressure bearing), Air slider
Sparging ● Gives minute uniform bubble sparging effect for air or gas in liquids
 Chemical reactor filters, Filters to promote micro-organism growth
Vacuum Molding ● When FUJIFLO is used to extract air from sand molds, a firm sand mold is obtained instantly, and when the air is once again allowed to return to the mold, the sand returns to its former state.

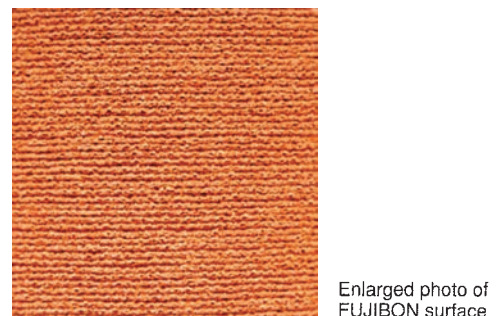
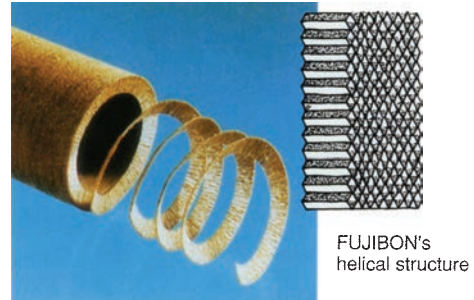
■ Aerator for Hoppers



■ Non-contact reversing guide roller "Tumblers"



FUJIBON filter elements are made of helically wound cellulose ribbon impregnated with phenolic resin and are highly corrosion resistant. The elements are heat cured and fused. Filtration takes place as the filtrate flows through the innumerable minute gaps formed between the layers of ribbon. This is one of the strongest paper filters available, it is washable, and offers very economical performance. The numerous uniformly distributed pores run straight from the outer circumference to the center core, and so in addition to filtration applications, it can also be used for many other purposes such as to supply a uniform air flow.



Standard Specifications

Material ● Phenolic resin impregnated cellulose

Configuration ● Cylindrical

Thickness ● 2.4, 4.6, 6.4, 12.7 mm

OD: 10 to 300 mm / Length: 10 to 500 mm

Operating temperature ● -130°C to +120°C (continuous) and up to 180°C (intermittent)

Filtration rating ● 40 microns (nominal)

Applications

Line Filters ● Removal of contaminants from hydraulic and air lines / Filters for automobile power steering

units

Air Breathers ● Fuel lines - prevention of pollution inside fuel and oil tank / Automotive air breathers / Air cleaner / Oil filter

Support Structure ● Support of structurally weak filtration media such as filtration paper, membranes, activated carbon, glass fiber

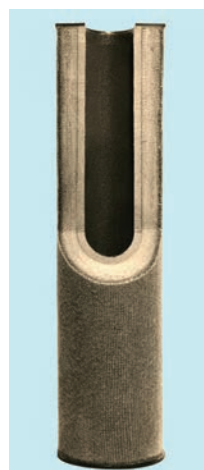
Silencers ● Exhaust noise mufflers

Paint Rollers ● Gives uniform paint coat due to water retention properties of FUJIBON

Quench Filters ● Effects cooling by providing a uniform air current (Used in the spinning process for synthetic fibers)



Oil mist separator element



GLASSBON



Air breathers



Gold recovery filters
(The gold dust used in dental surgery work on dentures can be recovered by burning the entire filter.)

Oil Cleaning Cartridges

Cartridge to remove solid contaminants present in oil - cartridge to lower overall oxidization - and cartridge to absorb water. A combination of these three cartridges is selected to perform the filtering and recycling required by the specific pollution conditions. Easy-to-use containers include both fixed and portable types. This system ensures total oil control.

FUJI Multi-pleats Cartridge (PLF)

Pleated paper cartridges are ideal for removing solid contaminants such as steel rust and piping scale.

Dimensions ● 160 x 450 mm

Filtration rating ● 2, 5 microns

FUJI Clay Cartridge

These cartridges are packed with active white clay. This lowers oxidization levels and absorbs surface-active agents.

Dimensions ● 160 x 450 mm

White clay ● 5.8kg

Filtration rating ● 50 to 80 mesh

FUJI Aquacon Cartridge

This special filtration cartridge has powerful chemical absorbent properties, and it absorbs emulsified water present in oil down to 2 ppm. It can contain up to 3,000 cc of water. (AC-718 type)

Dimensions ● 70×248 mm, 160×450 mm

Filtration rating ● 1, 5 microns

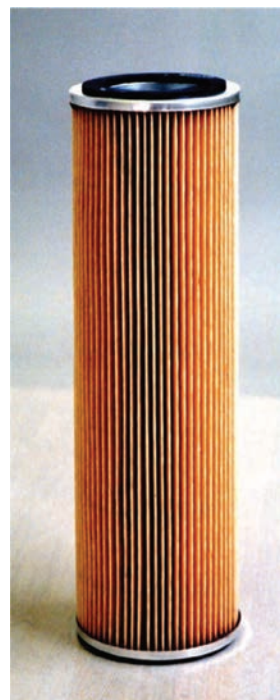


Other Filter Elements

In addition to standard elements, we also provide various metal and non-metal elements matched to the requirements of customers. We undertake design and fabrication of products outside the standard range such as bag elements using cloth, pad coalescers used in liquid/liquid separation such as pleated cartridges, and metal coalescer elements. For specifications, please contact our sales office.

Element types (Disposable type)

1. Solid/liquid separation: bag elements, cloth pleated cartridge, paper pleated cartridge, laminated cartridge
2. Liquid/liquid separation: SS coalescer cartridge, resin coalescer cartridge, pad type metal coalescer, glass fiber coalescer, resin coalescer
3. Other special specifications



FUJI Filter Vessel FVF-32/FVF-81



FVF-32/FVF-81 series

FUJI Filter Vessels FVF Series adopts a V band connection to facilitate easy operation of filter unit by customer. This type is used for a wide range of markets. A flange type is also available.

Features

- Main Material: SUS304
- Easy Operation thanks to V band connection, and easy element change
- Vessel can be selected based on flow rate
- Customer can choose several kinds of filter elements matched to applications
- Flange on housing and nozzle are available as a semi-custom order

Applications

General Liquids/Oil

Acids: (except: hydrochloric acid/sulfuric acid/phosphoric acid/hydrofluoric acid)

Alkalis: Liquid/Cleaning Fluid/Industrial Water/Cooling Water

* Other applications, please contact us.

Elements

*Customer can select element material, type filtration grade

1. FUJIPLATE Tube (Sintered Metal) Filter element Cleanable Type
2. FUJI WOUND ELEMENT (P.P./Nylon/Cotton, etc.) Disposable Type

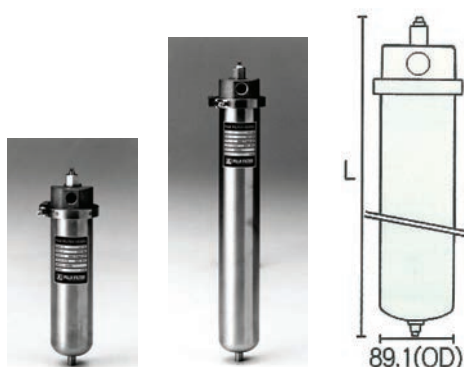
FVF-32 Standard Specifications

Max operating pressure: 7kgf/cm² Max temperature: 80°C
Connection: RC 3/4 Main material: SUS304

Specifications by Type Unit: mm

| Item# | L | Element length |
|------------|-----|----------------|
| FVF-32-110 | 413 | 250 |
| FVF-32-120 | 653 | 500 |

Element Length (mm)



FVF-32-110/FVF-32-120

FVF-81 Standard Specifications

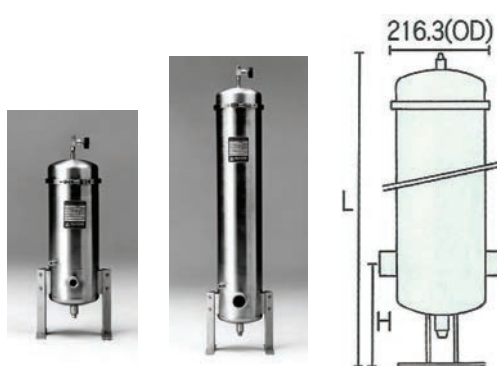
Max operating pressure: 7kgf/cm²G Max temperature: 80°C
Connection: Rc thread Main material: SUS304
Element quantity: 4pcs/housing

Specifications by Type Unit: mm

| Item # | Connection | Vessel length | Nozzle height | Element | Weight (V) |
|---------------|------------|---------------|---------------|---------|------------|
| | | L | H | ℓ | Kg |
| FVF-81-4101 | Rp1 | 760 | 118 | 250 | 16 |
| (FVF-81-4101) | Rp2 | 760 | 130 | 250 | 16 |
| FVF-81-4201 | Rp1 | 1010 | 118 | 500 | 19.2 |
| (FVF-81-4202) | Rp2 | 1010 | 130 | 500 | 19.2 |
| FVF-81-4301 | Rp1 | 1260 | 118 | 750 | 22.6 |
| (FVF-81-4302) | Rp2 | 1260 | 130 | 750 | 22.6 |

() Semi-code type. Weight is approx. (without fluids)

Flange type is also available with adapter



FVF-81-4101/FVF-81-4302

FUJI Wound Filters

FUJI Wound Filter elements are made from robing yarn and the winding pattern is determined according to the filtration accuracy required. Winding density is greater nearer the center of the element, thus the structural density varies throughout the depth of the element. This is a typical depth filtration type element, and is capable of a very wide range of contaminant removal from minute particles to large granules. As it has a very large contaminant retention capacity, this disposable type element gives long service life and is economical to use.

Standard Specifications

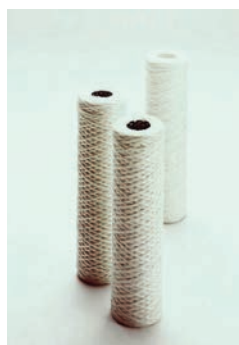
Material ● (Filtration media) Polypropylene, cotton, polyester, viscose rayon, glass fiber, carbon
(Core material) Polypropylene, SUS 304

Dimensions ● I.D. 28(30)mm/ O.D. 62mm/ Length. 250, 500, 750, 1000 mm

Filtration rating ● 1, 3, 5, 10, 25, 40, 50, 75, 100, 150, 200 microns

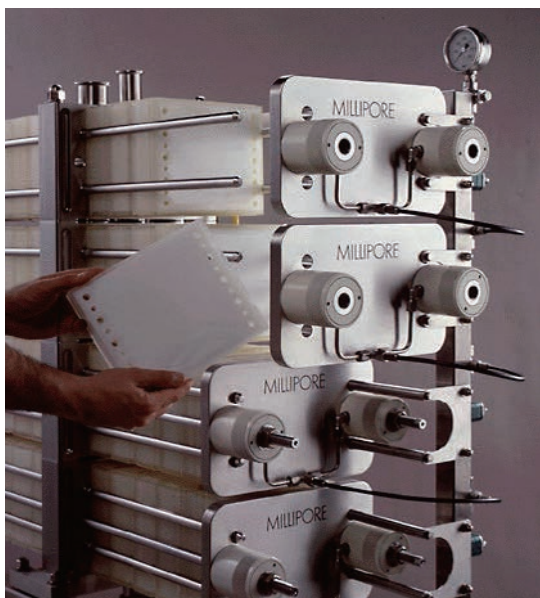
Applications

Filters for: Pharmaceuticals/Food products, Instruments, Machinery, Photography, Coating, Cleaning (flushing) machines



FUJI Bio Separation Systems

Drawing on its extensive experience in separation and precision manufacturing, Fuji's downstream processes include a wide spectrum of variations in areas such as ultra filtration systems, allowing it to provide more effective systems to industry. FUJI Micro Filters are high precision membrane filters manufactured using advanced membrane forming technology acquired from the precision chemical area. These filters allow reliable, precision filtration and separation of microorganisms and micro-particles.



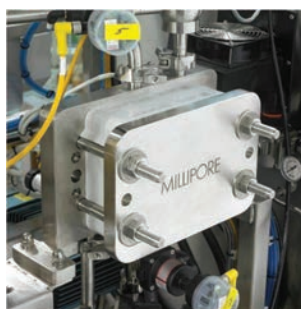
Large system for process



Tube pump assembly



Pellicon 2 cassette



Holder for process



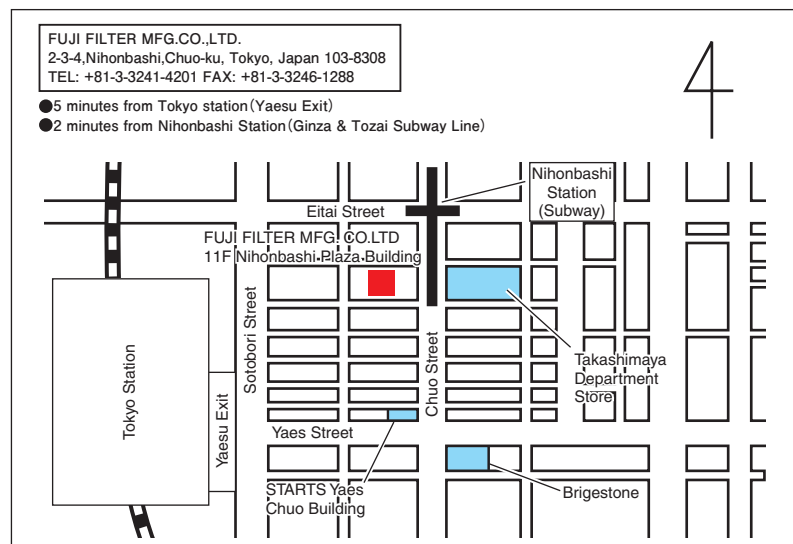
Pellicon 3 cassette



Tokyo Head Office



Tochigi Plant





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