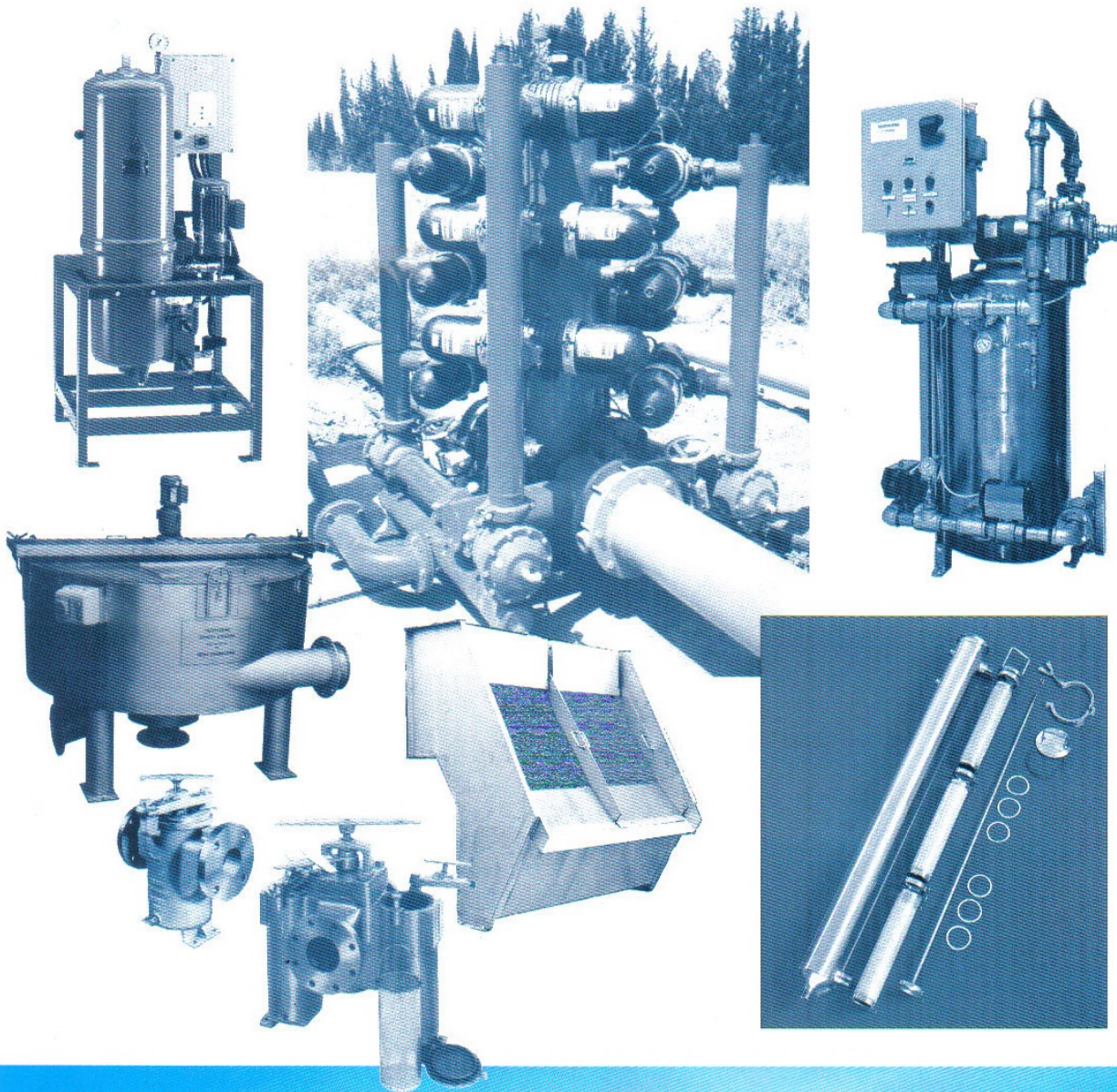


# Industrial Filtration Systems from *Premier* **FILTRATION**

**INDUSTRIAL FILTERS FOR ALL LIQUID APPLICATIONS**



- ▶ VHP jetting water
- ▶ fats & oils (foods)
- ▶ brewing & distilling
- ▶ hot-melt adhesives
- ▶ resins & starches
- ▶ alkalis & acids
- ▶ petrochemicals
- ▶ paints & varnishes
- ▶ viscous coatings & pigments
- ▶ lubrication & hydraulic oils
- ▶ cooler circuits & fine sprays
- ▶ pvc & latex processing

# HI-FLO THE VERSATILE FILTER SYSTEM

## Hi-Flo in-line filter units

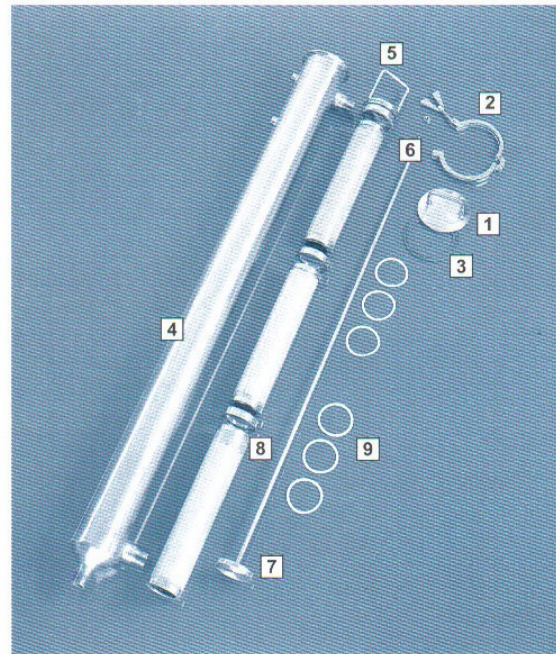
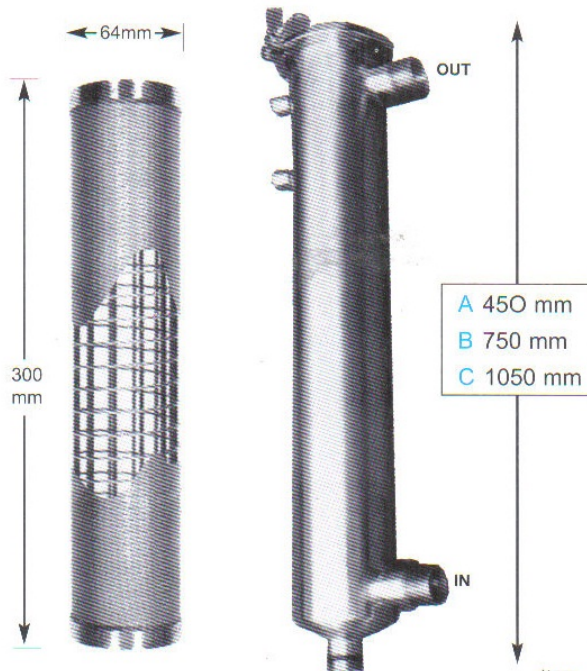
### KEY FEATURES

- All 316 stainless steel construction
- Smooth hygienic internals for high flow rates
- Space-conscious design
- Horizontal or vertical mounting
- Option of 3 body lengths
- O-ring & gasket seals in choice of materials
- Easy-open cap - no tools required

### Unique Multi-Media Concept

A single Hi-Flo body can accommodate any one of 6 different filter elements of standard design. This gives unprecedented flexibility & versatility to the user, where previously a media-change often involved a complete filter body change.

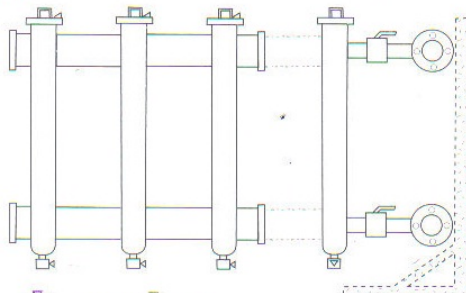
Hi-Flo filters are primarily designed to accommodate the unique Top-Mesh stainless-steel filtration element, with its innovative diffusion-bonded construction on a spiral support structure.



**TOP-MESH STAINLESS STEEL MESH  
ON STAINLESS STEEL SPIRAL SUPPORT**  
5 - 500 MICRON    6 BAR DIFFERENTIAL PRESSURE

### Manifold System

To cope with the highest flow-rates, units may be manifolded together in any number, with or without support frames.



▲ A simple & effective filter to manifold for high flows. it can be made automatic for programmed flush cycles.

◀ Changeover duplex design to maintain uninterrupted flow, even when cleaning one element

Item	Description	Options	Part No
1	cap & handle		701-000-SS
2	toggle clamp		702-000-SS
3	cap seal	Silicone Viton EPDM PTFE	703-003-C 703-004-D 703-005-E 703-006-F
4	filter body		700-000-A/B/C
5	basket handle	1 & 1.5" 2" filters	704-000-Std 704-001-Ext
6	basket handle O seal	Buna Viton EPDM PTFE (encap)	705-001-A 705-002-B 705-003-C 705-004-D
7	basket bottom & rod assembly		708-001-SS-A 708-002-SS-B 708-003-SS-C
8	element spacer		706-000-SS
9	spacer seal	Viton PTFE	707-001-A 707-002-B

Optional additions include:

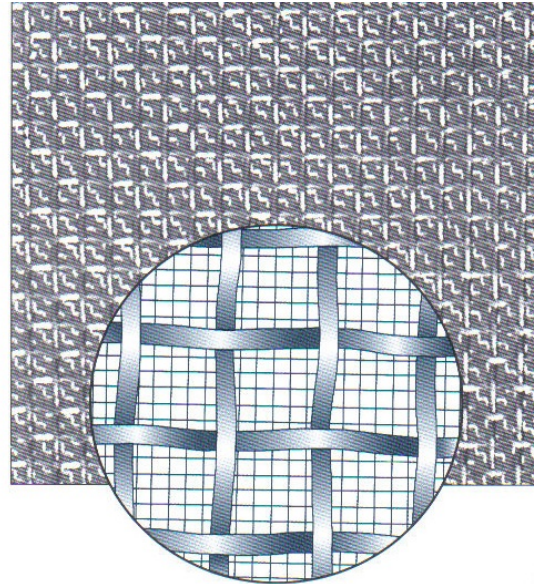
**steam purge    external backflush (water/solvent)    liquid reclaim    differential pressure sensing**

# TOP-MESH FILTRATION MEDIA

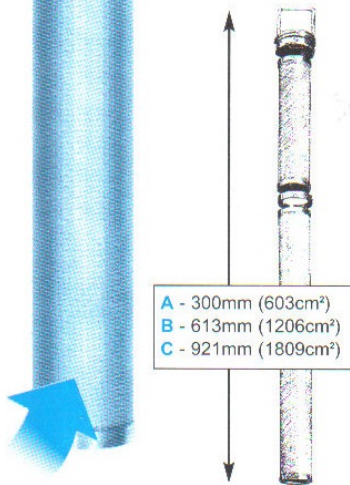
This revolutionary filtration media is changing the face of pressure filtration for a wide range of liquids. The secret of its success is a unique diffusion-bonding process for attaching the stainless-steel mesh to a rugged stainless-steel support mesh.

The robust characteristics of Top-Mesh permit its use at differential pressures where it achieves high levels of solids removal that exceed those previously known using conventionally-supported mesh elements. Constantly-changing dynamic loads exerted by the liquid do not affect the performance or life of Top-Mesh, whilst conventional unsupported media would crease or wrinkle until they finally split.

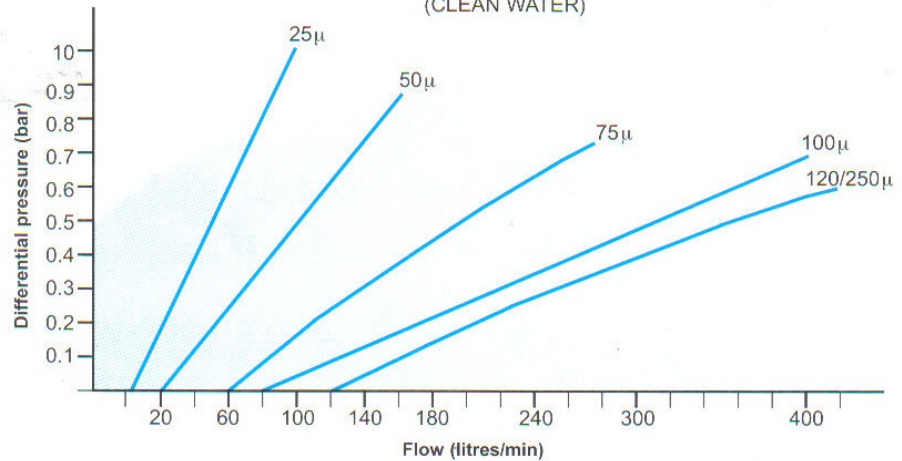
Top-Mesh has proved that it retains its integrity and high-performance without migration of wire fragments and without product by-pass. It can be readily & quickly cleaned by vigorous high-pressure water jets.



**OUTSIDE-TO-INSIDE FILTRATION**  
(inside-to-outside flow optional)



## TYPICAL FLOW RATES FOR TOP-MESH (CLEAN WATER)



The heart of the Top-Mesh tubular element is a spiral wire structure of stainless steel which gives the support necessary to cope with higher operating/differential pressures and liquid viscosities.

In its design, Premier Filtration have specified 10mm spacing between contact points on the spiral support. This creates the highest possible open surface area for filtration.

### Technical Specification

Pressure rated at	35 bar (max) at 90°C
Static test pressure	52.5 bar (30 mins) certified
Material of construction	316L grade stainless steel
Housing clamp (quick release)	304 grade stainless steel
Connections	1" BSPT (R) Standard 1.5" BSPT (R) Standard 2" BSPT (R) Standard
Flanges or RJT fittings	available on request
Seals	silicone, nitrile Viton, EPDM, PTFE (encapsulated)
Temperature range	90°C standard (higher on application)
Weight (dry)	"A" 15kg "B" 28kg "C" 41kg
Element size	300mm long x 64mm dia (603cm <sup>2</sup> ) (1, 2 or 3 per housing, depending on flow requirements. Please state length A, B or C.)

### FILTER MEDIA

Premier's Hi-Flo filter housing can be supplied with the following alternative internal media:

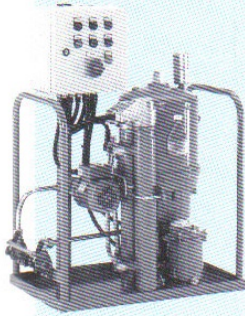
	micron range	max operational differential pressure (bar)
Top Mesh stainless steel mesh on s/s spiral support	5 - 500	6
Woven polyester sleeve on s/s perforated mesh	5 - 250	2.5
Spiral radially wound wedge wire	15 - 2000	10
Stainless steel mesh on perforated support	10 - 1000	2.5
Pleated polypropylene disposable element	1 - 35	2.5
Synthetic wound element disposable	1 - 100	1.5

# Premier FILTRATION

Other products include...

## OIL FILTRATION AT 3 MICRON ABSOLUTE

An off-line solution to the filtration of oils, for removal of dirt & water

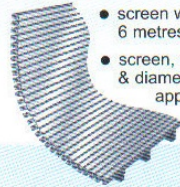


- longlife filter element (holds up to 5kg dirt)
- returns oil to 'spotless' condition
- removes dirt to 3 micron absolute
- removes water with inbuilt coalescer
- independent integral pumped system
- recirculation flow recommended at 15% of tank volume
- oil preheater option, to reduce viscosity
- fixed or mobile system options
- sizes to suit all flow systems
- prolongs oil properties & extends bearing/hydraulic component life

## SCREEN PLATES & SLOT TUBES

Radially-wound welded screens as replacements for run-down screens, upward flow clarifiers and filters.

- flat, curved & cylindrical
- wedge form wire
- stainless steel construction
- filtration rate from 25 microns



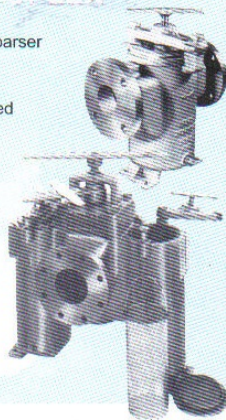
- screen widths up to 6 metres
- screen, tube length & diameters to suit application



## CAST STRAINERS SIMPLEX & DUPLEX

Pipeline strainers for removal of coarser contaminants

- basket and screen types, perforated & mesh
- cast-iron, bronze, carbon steel or stainless construction
- easy switch-over with continuous uninterrupted flow
- flanges to meet all standards
- wide range of pressure ratings
- simplex or duplex configurations
- threaded connections 1/2" to 2"
- flanged connections to 8"



## FLOATING TUBE OIL SKIMMER

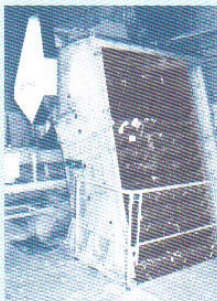
Simple, rugged, reliable removal of fats & oils from water surfaces



- tube continuously drawn through ceramic skimmer mechanism for oil removal
- rated up to 1440 gallons of oil removal per day
- polyurethane endless tube ensures oil collection from entire surface
- operating temp range to 90°C
- low power consumption with motor voltage choice
- decant vessel option gives 100% water recovery, making oil salvage/disposal easier

## EFFLUENT RAKE SCREEN

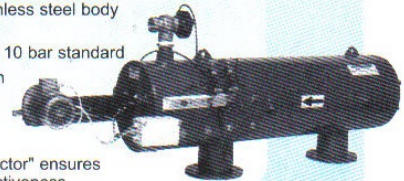
Widely used in effluent and municipal water treatment plants



- travelling-band, self-cleaning screen
- independent blocks of filter elements on support shafts, endlessly linked
- blocks individually removable
- filter gap widths to suit particle size
- double chain drive mechanism
- separate drive for cleaning brush
- backwash by spray cleaner nozzles
- level control for automatic activation of cleaning
- all maintenance points easily accessed
- standard width from 400 to 3800mm
- separation levels from 1-30mm

## AUTO SELF-CLEANING FILTER

- 30-200 micron filtration with suction cleaning
- self-cleaning, continuous operation
- simplex units rated up to 3200m<sup>3</sup>/hr
- high-performance stainless steel welded screens
- delivers filtered output even whilst in backwash cycle
- virtually eliminates replacement filter media
- carbon steel or stainless steel body options
- pressure range 1 to 10 bar standard
- high-pressure option available
- low backwash volumes
- motorised "dirt collector" ensures 100% cleaning effectiveness



**Premier**   
**FILTRATION**

26 St Birinus, Oakwood, Flackwell Heath,  
High Wycombe, Bucks HP10 9DJ

Tel 01628 527704 Fax 01628 520502 Mobile 07767 201539

Other services include:

- ▶ site consultancy
- ▶ filter throughput assessment
- ▶ particle removal/analysis
- ▶ viscosity evaluation
- ▶ pore-size selection
- ▶ complete customer support

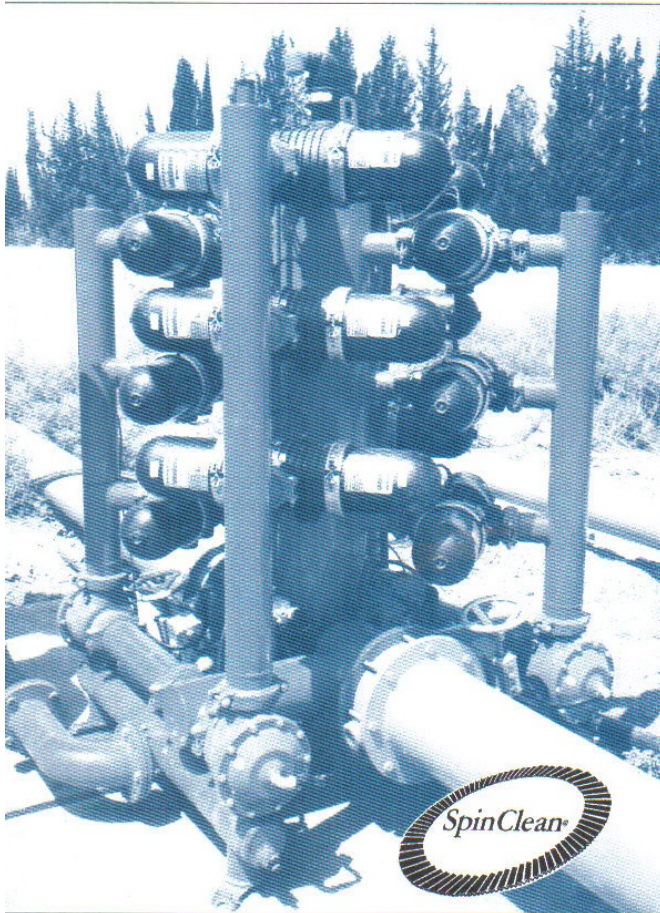
www.premierfiltration.com

E-mail: premier@filt.fsnet.co.uk

**Premier**  
FILTRATION

# Spin-Clean Filters

Water Purification

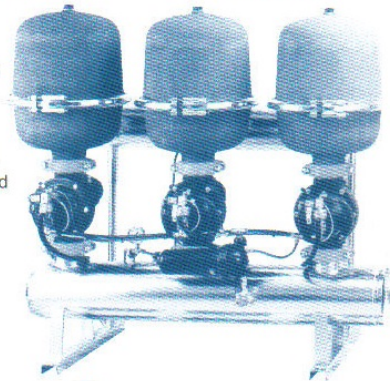


- compact modular construction offers exceptionally high flow rates in limited space conditions
- layered micro-grooved discs provide combined surface & depth filtration from 5 to 400 microns
- disc separation during backwash, combined with centrifugal spin action, ensures particle release
- designed for rugged applications, assuring long life for components & filtration media
- exceptionally low rates of backwash flow (optimising water or water/air) ensuring low demand upon later effluent treatment
- flow capacities from 3 to 450m<sup>3</sup>/hour as standard. Larger flows can be accommodated

- ▶ Paper Industry
- ▶ Water Treatment
- ▶ Chemical Industry
- ▶ Food Processing
- ▶ Effluent Industry
- ▶ Processing Industry

### NEW GALAXY SYSTEM

The new modular Galaxy Spin Clean system offers 5 filter units in a single housing - maximising the flow rate, for the minimum space occupied. Backwash cycle uses regulated water volumes for optimum efficiency.



The Spin Clean filtration system is a new & unique concept which uses micro-grooved disc technology to provide highly efficient depth filtration and particle retention.

Backwash effectiveness is ensured by the total separation of every individual disc. Internal flushing nozzles create a wash-through action to release trapped particles, and a spinning action of the discs assists the total

removal of all solids.

High liquid flows are achieved by the exceptionally high surface area of the media in each module. Systems range in size from single units, multiple units, and up to 42 in a "Star" construction. (Star system illustrated above)

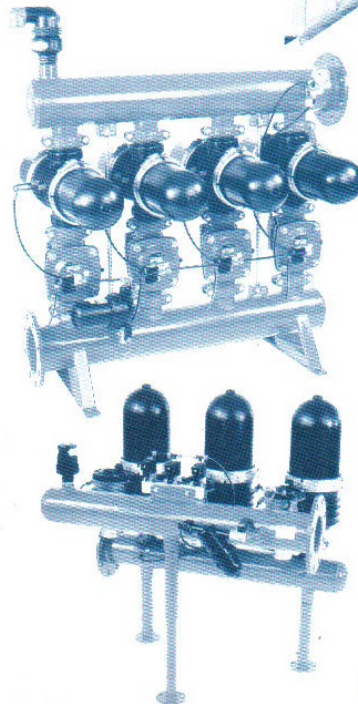
Technical data & specification details are available in additional literature.

Please ask for details.

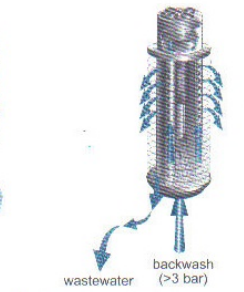
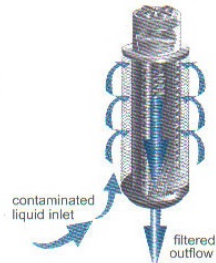


### MANUAL IN-LINE OPTIONS

¾" to 4" manual in-line filters, using the same grooved-disc technology. Easy clean & exceptional media life.



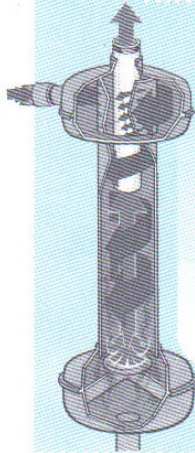
Filter mode (discs compressed)



Backwash mode (discs separated)

## Some of our other filtration products include...

### KINETIC SEPARATORS



- simple system, no moving parts
- ideal for removing grit, sand, pipescale etc
- perfect prefilter for nozzles, sprays, etc
- protects pump seals, cartridge filters, etc
- ideal for cooling systems
- periodic purge action built-in
- ensures lowest flow to final effluent
- range of sizes ½" to 20" connections
- choice of materials
- manifold systems for variable flow conditions
- low energy requirement to maintain vortex

### GRAVITY STRAINERS

- ideal for continuous removal of difficult solids
- removes fibrous & tenacious debris by underscreen showering
- achieves exceptional output water quality
- non-pressurisation avoids "stapling"
- perfect for re-using water polluted with solids
- 304/316 grade stainless steel construction
- choice of 6 sizes to suit all applications
- flows up to 12,000 litres/min
- suited to river, process & fibrous duties alike
- 60 - 250 micron retention



### BAG FILTERS

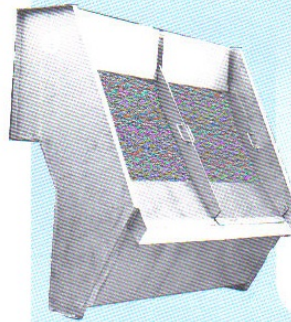
A single filter unit which offers :

- large capacity & low pressure drop
- 7" dia x 32" length bags, for high flow & solids capacity
- single monofilament bag in perforated lift-out support
- top ring for strength & sealing
- 15 - 830 micron retention for bags
- Top Mesh fine wire media option at 5 - 500 micron filtration
- jet-clean & re-use
- mild steel or stainless steel housings
- 2" threaded & 2.5", 3" & 4" flange sizes
- 10 bar standard rating
- choice of O-ring seal types for various applications



### RUN-DOWN SCREENS

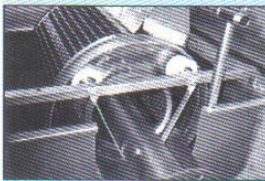
A popular and widely-used method for economical separation of larger solids. The simple construction & operation, using slotted wedge wire (horizontal & vertical) media, provides a self-cleaning low-maintenance screening system.



- choice of 304 or 316 stainless-steel construction
- easy 'lift-out' screens
- compact units with choice of connection sizes & types
- wide range of aperture sizes
- optional screen wash showers available
- optional vibration for added throughput
- standard screen/slot sizes from 75 micron to 5mm

### GRAVITY DRUM SCREENS

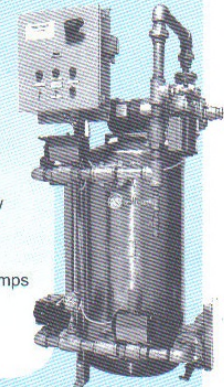
- perfect for water-based liquids at lower pressures
- developed for filtering intake river/canal water



- particularly good for removing algae & organic material
- automatic reverse wash function
- wash shower ensures total screen cleaning (6-10 bar)
- stainless steel mesh, grid & tank
- drum rotates when signalled by level switches
- zero loss achievable even with high solids content
- single or manifold sets
- flows from 1m<sup>3</sup>/hr to 10,000m<sup>3</sup>/hr
- effective range 20 to 3000 micron
- full enclosure cover optional

### COOLING TOWER HIGH-EFFICIENCY SAND FILTRATION

- controls bio-fouling & scale
- improves heat exchange by ensuring minimum fouling
- optimises chemical treatment processes
- removes particles down to 0.45 micron
- combines centrifugal and sand filtration
- high flow rates even from small systems
- low power consumption
- auto backwash uses minimum water flow
- single or manifold optional
- stainless steel 304 ASME vessel
- reduces manual cleaning of towers & sumps
- "sidestream" offers effective control at minimum cost
- effective pre-filtration for RO & DI



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FILTRATION

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