

# PRODUCT GUIDE



# Why You Need a Self-cleaning Pump Filter

Wouldn't it be great to have a self-cleaning filterpump and not have to worry about the pump filter clogging or the pump failing?

Our robust and reliable self-cleaning intake strainers and submersible filterpumps filter out debris that blocks pumps. They keep their filter screens clear and clean with a continuous automatic backwash system. A self-cleaning pump filter ends the worry of a constantly blocking filter or pump.

Our filters allow the use of high pressure, multi stage pumps in water contaminated with suspended solids – e.g., final effluent, flood water, lake and river water, and waste water from industry. A blocked filter can quickly cause a pump to dry run and damage the pump motor – unless it has a suction -side Rotorflush self-cleaning pump filter.

In addition, valuable equipment – heat exchangers, water features, irrigation equipment, fountains etc – are protected from blocking. At the least this saves on downtime and maintenance and at best protects against loss of expensive machinery.

Rotorflush's continuous backwash  
Self-cleaning Filters and Suction Strainers  
keep filters clear, keep pumps running,  
protect upstream equipment and minimize  
maintenance for trouble-free operation.

We also supply submersible pumps with our award-winning intake filters integrated into their design.

Water filtration and pumping combined. Our submersible filterpumps combine suction intake filtration and pumping directly from a water source.

All our submersible filterpumps have a built-in self-cleaning mechanism driven by an additional impeller in the pump.

Installation and operation are simple, put it in the water and plug it in. The self-cleaning mechanism keeps the filter clean and the pump delivers filtered water – output is uninterrupted by the backwash.

Typical uses are filtering and pumping water from dirty lagoons lakes or rivers, filtering wash water for water treatment works, filtering water used in industrial processes and many other applications where dirty water is recycled or needs to be cleaned up before disposal.

Life's too short to spend time  
unblocking pumps and filters!

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# SUBMERSIBLE FILTERPUMPS

A range of high quality submersible pumps with self-cleaning filters built-in. The pumps are fitted with self-cleaning filters that prevent the pump and filter from blocking. They use a continuous automatic backwash to clean the filter screen while delivering an uninterrupted supply of filtered output. They are ideal for use in water contaminated with suspended solids.

The self-cleaning inlet filters are capable of filtering from 40 to 660 US GPM. They have screen apertures ranging from 230 mesh – 45 mesh on the fine filters, and 35 mesh – 3 mesh for coarser filtration. They protect the pump and other equipment from blockage. They extend pump life and reduce maintenance to a minimum.

### FILTER WATER FOR:

- LANDSCAPE IRRIGATION
- WASTE WATER TREATMENT
- FOUNTAINS AND WATER FEATURES
- LAUNDRIES
- ONLINE ANALYSERS
- FARM USE
- VEGETABLE WASHING
- AND MUCH MORE...

#### PLEASE NOTE:

Our filters are designed for use in dirty water or liquids with a viscosity close to that of water.

Our filters and filterpumps are NOT suitable for use in raw sewage or any other dirty water which contains oils or fat.



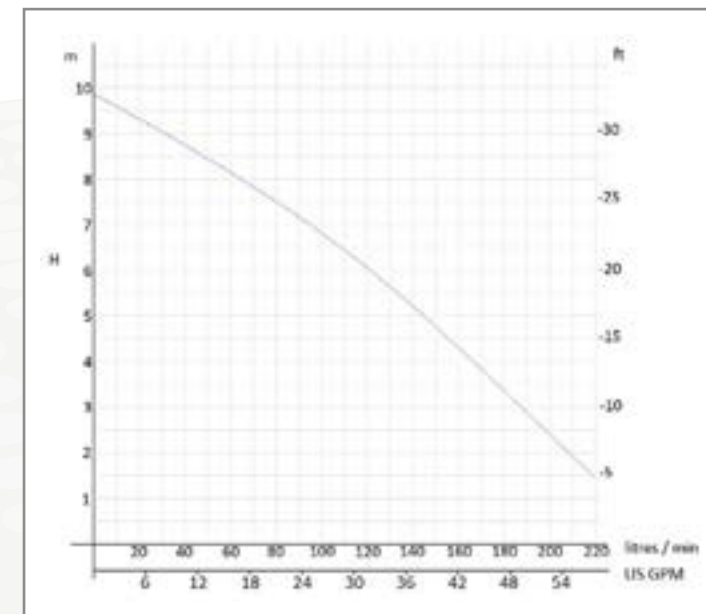
## Omnia range submersible pumps

Our Omnia submersible filterpump is a low head filterpump with an integral self-cleaning intake screen. They have a maximum output of 58 US GPM and 32 feet maximum head, 14 psi.

The pump body and self-cleaning intake are stainless steel. The Omnia submersible pump can be fitted with 230, 120 and 50 US Mesh nylon screens. A range of stainless-steel mesh options are also available, please see below.

The pump has a single phase 115v 60 Hz motor.

Omnia pumps are used extensively as sample pumps for water quality monitoring and are ideal for small open loop heat pump systems.



Omnia Model	Voltage	Outlet	HP	Max US GPM	Max Head	Height x Diameter (mm)	Weight
<b>O25010-16MA US</b>	115 v	1 1/4 ins	0.75	58	32 ft	491 x 220	22 lbs

Standard nylon mesh sizes are 230, 120 and 50 US Mesh  
Standard sintered stainless steel mesh sizes are 270, 140 and 50 US mesh  
Standard woven stainless steel mesh sizes are 35, 18, 10 and 3 US mesh



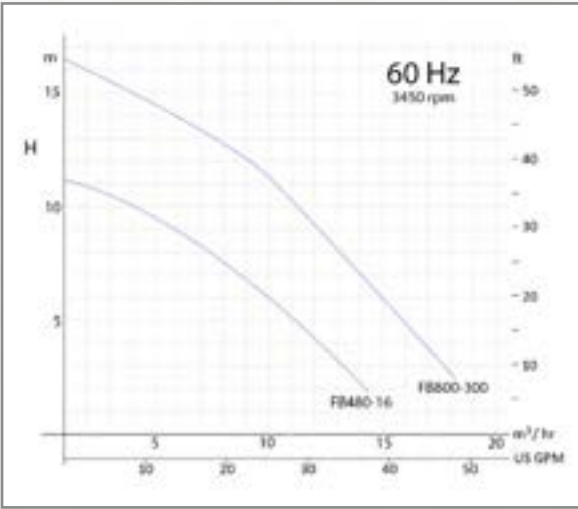
Flint Range Submersible Filterpumps

Our Flint submersible filterpumps have a maximum output of 79 US GPM, maximum head of 54 ft. They are robust medium-head, multi-stage pumps with an integral self-cleaning suction intake.

FFB filterpumps are made of wear-resistant rubber and ductile iron for durability. The integral self-cleaning intake is 316 stainless steel with stainless steel and ABS internals.

The Flint Range of submersible pumps can be fitted with 230, 120 and 50 US Mesh nylon screens. A range of stainless-steel mesh options are also available, please see below. These filterpumps have a single phase, 60 Hz motors.

Typical uses for Flint filterpumps are filtering and pumping water from dirty lagoons, lakes, or rivers for irrigation, cooling water or open loop heat pump open loop heat pump .



Flint Model	Voltage	Outlet (mm)	HP	Amps	Max US GPM	Max Head	Height x Diameter	Weight
FFB480-16M	230 v	50 mm Hose tail	0.65	3.0	63	36 ft	296 x 220	37 lbs
FFB800M-300	230 v	50 mm Hose tail	1	5.0	79	54 ft	336 x 320	45 lbs

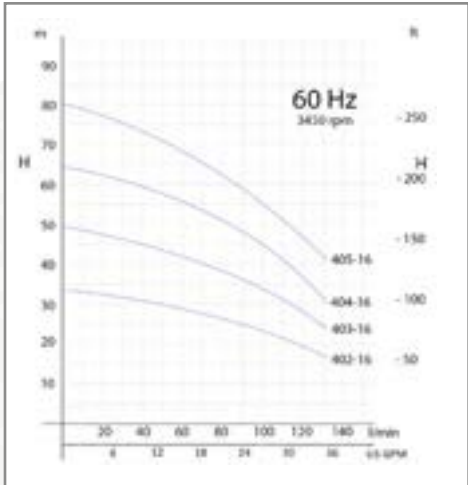
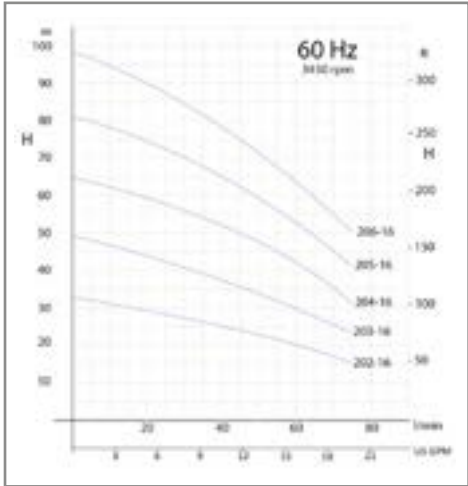
Standard nylon mesh sizes are 230, 120 and 50 US Mesh  
Standard sintered stainless steel mesh sizes are 270, 140 and 50 US mesh  
Standard woven stainless steel mesh sizes are 35, 18, 10 and 3 US mesh

Amber Range Submersible Filterpumps

The Amber Range of submersible filterpumps can deliver up to 50 US GPM. These filterpumps have a maximum head of 324 ft. They are medium – high head, close coupled multistage submersible pumps in chrome-nickel stainless steel with a stainless steel integral self-cleaning suction intake.

The self-cleaning intake can be fitted with 230, 120 and 50 US Mesh nylon screens. Stainless-steel mesh options are also available, please see below.

Typical uses for Amber filterpumps are filtering and pumping water from wells, tanks or reservoirs, domestic use and for civil and industrial applications.



Amber 60 Hz Models 1 ph 220v / 3 ph 480 v	HP	Outlet	Max US GPM	Max Head	Height x Diameter	Weight
AXS202-16M / AXS202-16T	0.75	1¼ ins	20	104 ft	485 x 220	20.0 lbs / 32.7 lbs
AXS203-16M / AXS203-16T	1	1¼ ins	20	157 ft	509 x 220	21.9 lbs / 30.6 lbs
AXS204-16M / AXS204-16T	1.5	1¼ ins	20	213 ft	557 x 220	23.8 lbs / 35.3 lbs
AXS205-16M / AXS205-16T	1.5	1¼ ins	20	269 ft	581 x 220	24.8 lbs / 36.4 lbs
AXS206-16M / AXS206-16T	2	1¼ ins	20	324 ft	629 x 220	27.1 lbs / 41.2 lbs
AXS402-16M / AXS402-16T	1	1¼ ins	35	108 ft	485 x 220	21.0 lbs / 29.5 lbs
AXS403-16M / AXS403-16T	1.5	1¼ ins	35	160 ft	533 x 220	22.9 lbs / 34.2 lbs
AXS404-16M / AXS404-16T	2	1¼ ins	35	43 ft	581 x 220	25.2 lbs / 38.8 lbs
AXS405-16M / AXS405-16T	2	1¼ ins	35	209 ft	605 x 220	26.2 lbs / 42.3 lbs
AXS802-16M / AXS802-16T	1.5	1¼ ins	50	106 ft	545 x 220	23.8 lbs / 36.6 lbs
AXS803-16M / AXS803-16T	2	1¼ ins	50	160 ft	575 x 220	25.0 lbs / 41.0 lbs

All Amber filterpumps have:  
• 1¼ inch outlet  
• 5" diameter pump body  
• 50 ft power cable

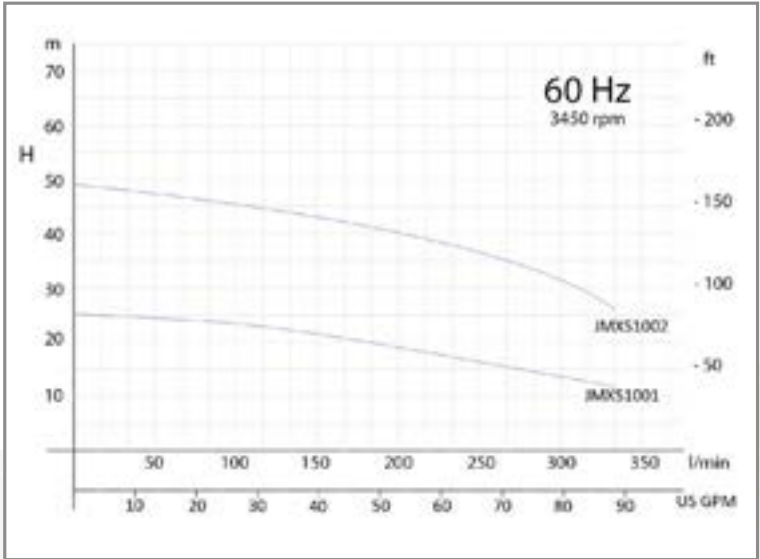


Jade Range Submersible Filterpumps

The Jade Range of submersible filterpumps can deliver up to 92 US GPM. These filterpumps have a maximum head of 160 ft.

They are medium – high head, close coupled multistage submersible pumps in chrome-nickel stainless steel with a stainless steel integral self-cleaning suction intake.

The self-cleaning intake can be fitted with 230, 120 and 50 US Mesh nylon screens. Stainless-steel mesh options are also available, please see below. Domestic and light industrial pumping and filtration, irrigation and rainwater harvesting.



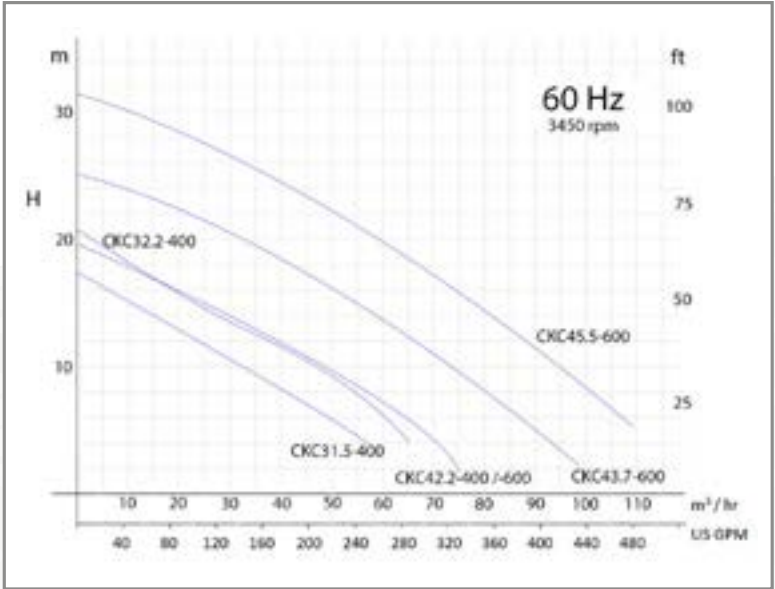
Jade 60Hz Models	Voltage	Outlet	HP	Max US GPM	Max Head	Height x Diameter (mm)	Weight
JMXS1001M-300	220 v	1½ inch	1.75	92	82	542 x 320	75 lbs
JMXS1002M-300	220 v	1½ inch	2.2	92	160	634 x 320	88 lbs
JMXS1001T-300	480 v	1½ inch	1.75	92	82	542 x 320	75 lbs
JMXS1002T-300	480 v	1½ inch	2.2	92	160	634 x 320	88 lbs

Standard nylon mesh sizes are 230, 120 and 50 US Mesh  
Standard sintered stainless steel mesh sizes are 270, 140 and 50 US mesh  
Standard woven stainless steel mesh sizes are 35, 18, 10 and 3 US mesh

Cobalt Range Submersible Filterpumps

Cobalt filterpumps are a range of industrial low to medium pressure submersible pumps with integral self-cleaning suction intake screens. These robust filterpumps benefit from a cast iron upper cover, a strengthened AIS1304SS motor case, chrome steel impeller and a stainless-steel self-cleaning intake.

These three-phase motor 60 Hz filterpumps are capable of delivering up to 1800 litres minute of filtered water. They combine pumping and screening and are ideal for use in difficult and dirty water. Cobalt filterpumps can be fitted with a range of mesh sizes – see below.



Cobalt 60Hz Models	Voltage	Outlet	HP	Max US GPM	Max Head	Height x Diameter (mm)	Weight
CKC31.5-400	480	80 mm	2	251	56 ft	745 x 420	130 lbs
CKC32.2-400	480	80 mm	3	285	69 ft	745 x 420	140 lbs
CKC42.2-400	480	100 mm	3	330	66 ft	765 x 420	140 lbs
CKC42.2-400	480	100 mm	3	330	66 ft	965 x 655	265 lbs
CKC43.7-400	480	100 mm	5	423	82 ft	1050 x 655	310 lbs
CKC45.5-400	480	100 mm	7.4	476	102 ft	1090 x 655	325 lbs

Standard woven stainless steel mesh sizes are 35, 18, 10 and 3 US mesh

# Topaz 400

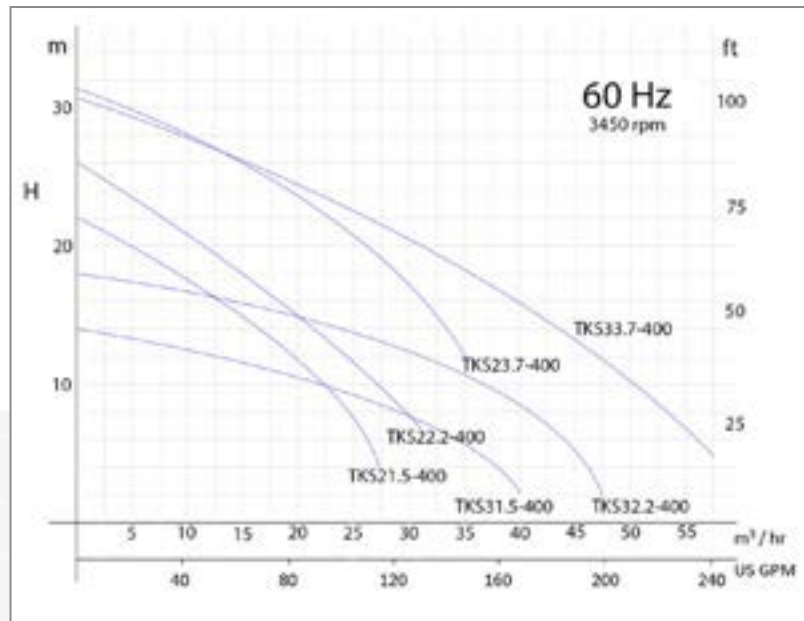
SUBMERSIBLE FILTERPUMPS

## Topaz 400 Range Submersible Filterpumps

Rotorflush Topaz 400 filterpumps are low to medium pressure general purpose submersible pumps with integral self-cleaning suction intakes.

These filterpumps benefit from a cast iron upper cover, a strengthened AISI304SS motor case and a 400 mm diameter stainless steel self-cleaning intake, capable of delivering up to 265 US GPM of filtered water.

Topaz 400 filterpumps combine pumping and screening - their powerful 400mm self-cleaning intakes prevent debris entering the pump while keeping the intake screen clear.



Topaz 400 60Hz Models	Voltage	Outlet	HP	Max US GPM	Max Head	Height x Diameter (mm)	Weight
TKS21.5-400	480	50 mm	2	119	72 ft	733 x 420	125 lbs
TKS31.5-400	480	80 mm	2	185	46 ft	733 x 420	125 lbs
TKS22.2-400	480	50 mm	3	137	85 ft	733 x 420	132 lbs
TKS32.2-400	480	80 mm	3	243	62 ft	733 x 420	132 lbs
TKS23.7-400	480	50 mm	5	185	105 ft	685 x 655	150 lbs
TKS33.7-400	480	80 mm	5	251	102 ft	685 x 655	150 lbs

Standard woven stainless steel mesh sizes are 35, 18, 10 and 3 US mesh

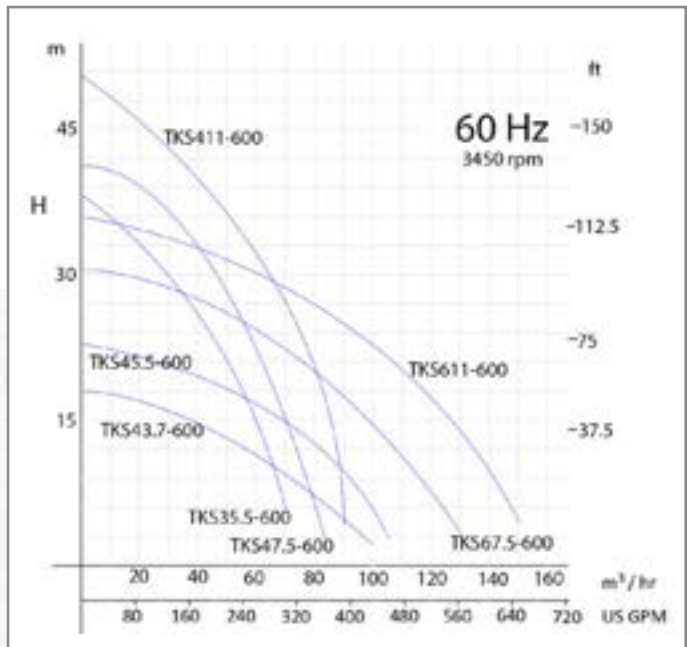
# Topaz 600

SUBMERSIBLE FILTERPUMPS

## Topaz 600 Range Submersible Filterpumps

Rotorflush Topaz 600 filterpumps are low to medium pressure general purpose submersible pumps with integral self-cleaning suction intakes. They offer more capacity than the Topaz 400 range, up to 475 US GPM (108 m<sup>3</sup> / hr).

These filterpumps have a cast iron upper cover, a strengthened AISI304SS motor case and a chrome steel impeller. Their powerful 600mm self-cleaning intake lets you combine pumping and screening from source without the screen or pump blocking. They are ideal for screening and moving large volumes of dirty water.



Stand is optional  
Outlet flanges can be fitted to suit

Topaz 600 60Hz Models	Voltage	Outlet	HP	Max US GPM	Max Head	Height x Diameter (mm)	Weight
TKS43.7-600	480	100 mm	5	417	72 ft	956 x 655	344 lbs
TKS35.5-600	480	80 mm	7.4	304	46 ft	971 x 655	355 lbs
TKS45.5-600	480	100 mm	7.4	462	85 ft	996 x 655	357 lbs
TKS47.5-600	480	100 mm	10	370	62 ft	115 x 655	448 lbs
TKS67.5-600	480	150 mm	10	572	105 ft	1151 x 655	452 lbs
TKS411-600	480	100 mm	15	391	102 ft	1195 x 655	481 lbs
TKS611-600	480	150 mm	15	660	112 ft	1195 x 655	485 lbs

Standard woven stainless steel mesh sizes are 35, 18, 10 and 3 US mesh



# Sapphire 400

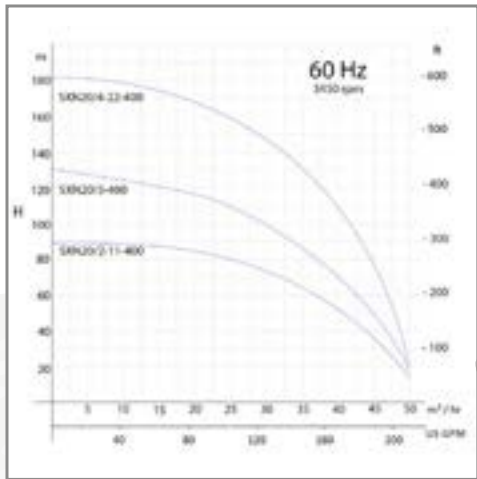
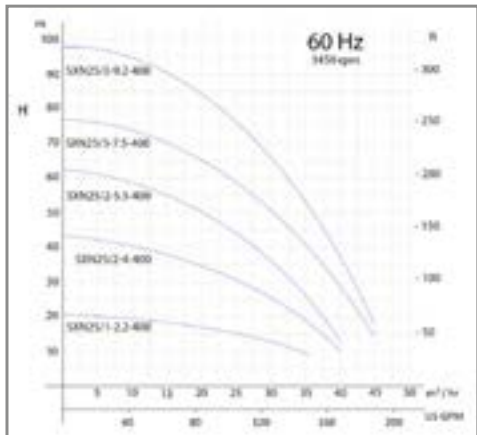
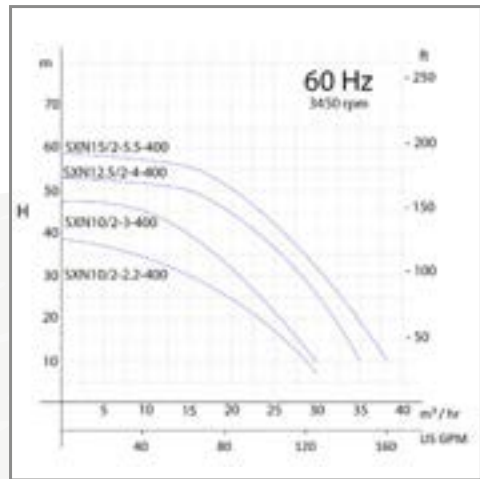
SUBMERSIBLE FILTERPUMPS

## Sapphire 400 Range Submersible Filterpumps

Rotorflush Sapphire 400 filterpumps are general purpose, high pressure, submersible pumps with a built-in self-cleaning suction intake screen. The Sapphire range of filterpumps uses Rotorflush's unique self-cleaning intake filter technology while pumping at up to 13 bar (188 psi).

Their 400mm diameter stainless steel self-cleaning intake screen, cast iron body with a 304 stainless steel outer casing make these very tough filterpumps. The powerful three phase motors have a thermal cut-out and the intake screens are available in a range of mesh sizes (see below).

Sapphire 400 filterpumps can deliver up to 265 US GPM and provide the same low maintenance and efficient intake screening of all our submersible filterpumps.



Sapphire-400 480 v 60Hz Three phase Models	Outlet (mm)	HP	Max US GPM	Max Head	Height x Diameter (mm)	Approx Dry Weight
<b>SXN10/2-2.2-400</b>	50	3	132	125 ft	870 x 420	190 lbs
<b>SXN25/1-2.2-400</b>	65	3	153	69 ft	830 x 420	180 lbs
<b>SXN10/2-3-400</b>	50	4	132	154 ft	868 x 420	200 lbs
<b>SXN12.5/2-4-400</b>	50	5.4	164	174 ft	903 x 420	220 lbs
<b>SXN25/2-4-400</b>	65	5.4	177	141 ft	915 x 420	215 lbs
<b>SXN15/2-5.5-400</b>	50	7.4	153	194 ft	948 x 420	240 lbs
<b>SXN25/2-5.5-400</b>	65	7.4	177	203 ft	965 x 420	240 lbs
<b>SXN25/3-7.5-400</b>	65	10.1	198	249 ft	1055 x 420	275 lbs
<b>SXN25/3-9.2-400</b>	65	12.3	198	315 ft	1115 x 420	310 lbs
<b>SXN20/2-11-400</b>	65	14.8	219	285 ft	1156 x 420	475 lbs
<b>SXN20/3-15-400</b>	65	20.1	219	427 ft	1253 x 420	550 lbs
<b>SXN20/4-22-400</b>	65	30	219	597 ft	1400 x 420	600 lbs

Standard woven stainless steel mesh sizes are 35, 18, 10 and 3 US mesh

# Sapphire 600

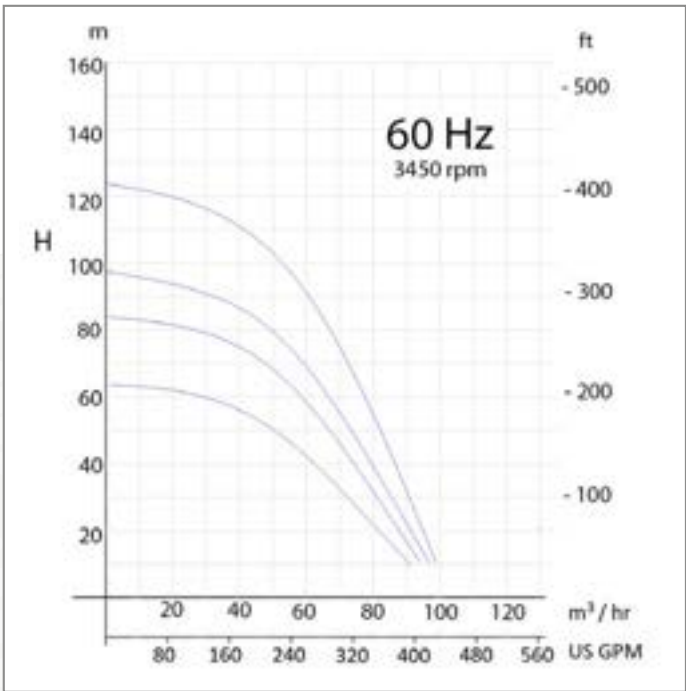
SUBMERSIBLE FILTERPUMPS

## Sapphire 600 Range Submersible Filterpumps

Rotorflush Sapphire-400 filterpumps are high pressure submersible pumps suitable for general industrial and agricultural applications.

Their 600 mm diameter stainless steel self-cleaning intake screen is manufactured from stainless steel, the pump body from cast iron and stainless steel. The powerful three phase motors offer high pressure pumping while the self-cleaning intake screens protect the intake and pump from blockage.

The Sapphire range 600 filterpumps deliver up to 90 m<sup>3</sup> / hr (396 US GPM) and have a maximum head of 18.2 bar (264 psi)



Sapphire-600 480 v 60Hz Three phase Models	Outlet (mm)	HP	Max US GPM	Max Head	Height x Diameter (mm)	Approx Dry Weight
<b>SXN40/2-11-600</b>	80	15	396	207 ft	1386 x 620	614 lbs
<b>SXN40/2-15-600</b>	80	20	396	295 ft	1431 x 620	653lbs
<b>SXN40/2-18.5-600</b>	80	25	396	266 ft	1451 x 620	715lbs
<b>SXN40/3-22-600</b>	80	30	396	466 ft	1602 x 620	728 lbs

Standard woven stainless steel mesh sizes are 35, 18, 10 and 3 US mesh

# SELF-CLEANING INTAKE FILTERS

Rotorflush Self-Cleaning Suction Intake Filters & Strainers are for use with surface mounted pumps. They are a welcome alternative to the traditional suction intake basket strainer.

All our filters are self-cleaning with an automatic backwash. The self-cleaning mechanism prevents the filter blinding or the pump blocking.

Our self-cleaning suction intake filters & strainers have capacities from 8 US GPM to 5000 US GPM. Screen apertures range from 60 microns to 6mm depending on models.

They are used for keeping pumps and equipment clear in the Water Industry, in Agriculture, in Food Manufacturing and in the oil and gas sector.

They are ideal for complying with EPA Rule 316(b) at cooling water intakes.

Our filters and screens deliver low maintenance efficient screening in very difficult conditions.

**SELF-CLEANING SUCTION INTAKE FILTERS & STRAINERS – FILTER FROM 8 TO 5000 US GPM**



Rotorflush self-cleaning suction intake screens can be used with vertically mounted pumps freshwater and sea water

## How Rotorflush Self-Cleaning Filters Work to keep Filter Mesh Clear

**It is no mystery how Rotorflush self-cleaning filters work.**

The same self-cleaning mechanism keeps the filter mesh clear on all our products. Our submersible filter pumps with their built-in self-cleaning intakes produce a continuous backwash to the filter mesh whenever they run.

Our self-cleaning filters take a backwash flow from the filtered output of your surface mounted pump to keep their mesh clear. Here's how:



### Self-cleaning Filters and Strainers using your Pump

Our self-cleaning filters and strainers, whatever their size, all work on the same basic principles – from the smallest pond and analyser filters up to the largest 1000 cubic metres per hour filters.

Rotorflush filters do not rely on a separate power source or motor to drive their effective self-cleaning mechanism.

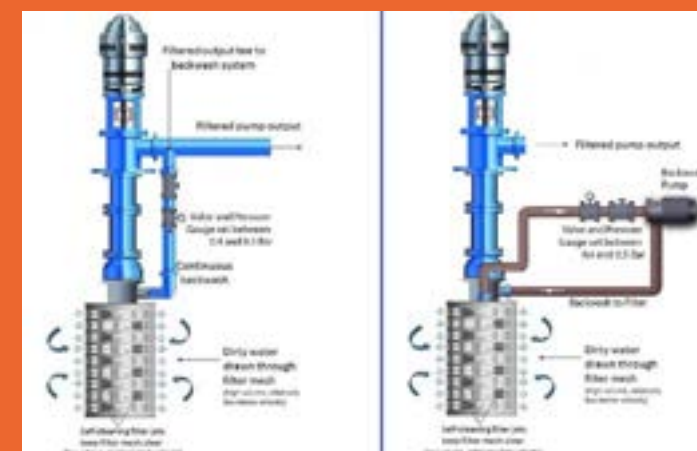
They can be driven by water power from your main pump or from a small separate backwash pump – that's how Rotorflush self-cleaning filters work.

These filters are designed for the suction side of surface mounted pumps; so, as long as the pump is running, Rotorflush self-cleaning filters will keep their filter mesh clear.

### Self-cleaning Filters using a Surface Mounted Pump

These filters are designed for the suction side of surface mounted pumps; as long as the pump is running Rotorflush self-cleaning filters will keep their filter mesh clear.

The pump draws water through the filter mesh. The filtered water is and pumped out from the pump for your use. The self-cleaning filter is back washed by taking a tee off the clean water output of your pump. Our unique and patented self-cleaning filter mechanism is driven by a proportion of filtered water sent back to the filter.



The jets inside the filter gently remove debris, suspended solids and aquatic life away from the filter mesh without impeding the flow of water through the filter. Simple!

**Please Note:** Our filters are designed for use in dirty water or liquids with a viscosity close to that of water. Our filters and filterpumps are **NOT** suitable for use in raw sewage or any other dirty water which contains oils or fat.

**Please Note:** Our filters are designed for use in dirty water or liquids with a viscosity close to that of water. Our filters and filterpumps are **NOT** suitable for use in raw sewage or any other dirty water which contains oils or fat.



# RF100IND-Q

SELF CLEANING INTAKE FILTERS

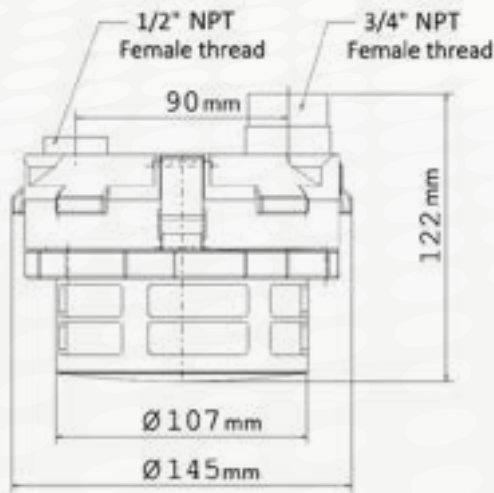
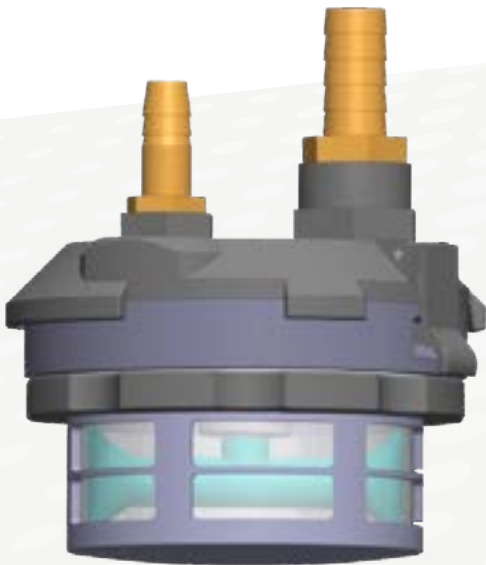
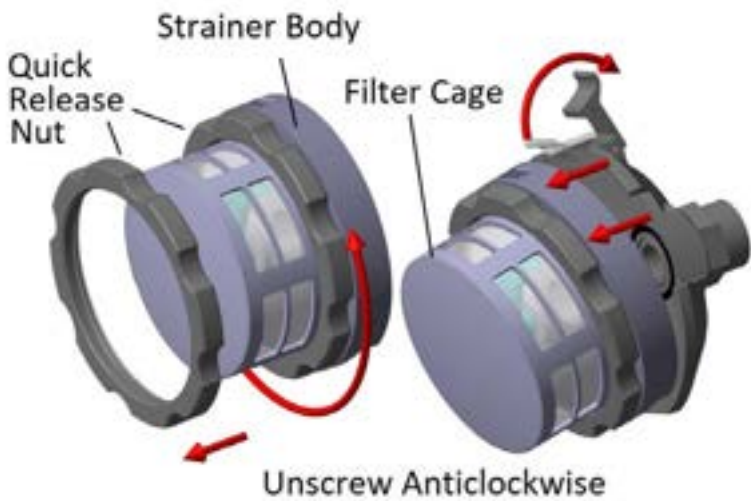
## RF100IND-Q - Self-cleaning Suction Intake Filter

The RF100INDQ is the smallest of our- winning self-cleaning inlet filters. It filters up to 8 US GPM (30 litres / minute). It connects to the suction side of your pump and is designed to protect dry mounted pumps and other equipment from blockage.

The filter screens out any debris or weed, and the patented cleaning rotors keep the filter mesh clear. The RF100INDQ requires no external power source and operates whenever your pump is working. The latest version of this highly efficient dirty water filter has quick release for simple and fast filter mesh changes.

Robust and reliable with compact lightweight design and simple connections, it can be used for many light industrial applications where there is a need to filter dirty water.

Ideal for protecting small water features and screening sample water for environmental monitoring.



General Characteristics and Construction	RF100IND-Q Self Cleaning Pump Inlet
Maximum output	8 US GPM (30 litres / min_
Backwash flow	Approx 1.5 - 2 US GPM
Standard screen mesh	US Mesh 230, 140 and 60 (60, 115, 250 micron) nylon mesh in a polypropylene cage
Dimensions (diameter / width x height) mm	145 mm x 122 mm
Outlet / backwash connection	1¼" NPT / ¾" NPT
Weight	1 lb
Filter cage and lid	Polypropylene
Jets	Acetal copolymer
Body	ABS

# RF100 Duplex

SELF CLEANING INTAKE FILTERS

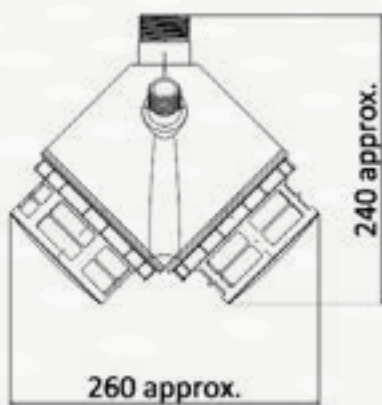
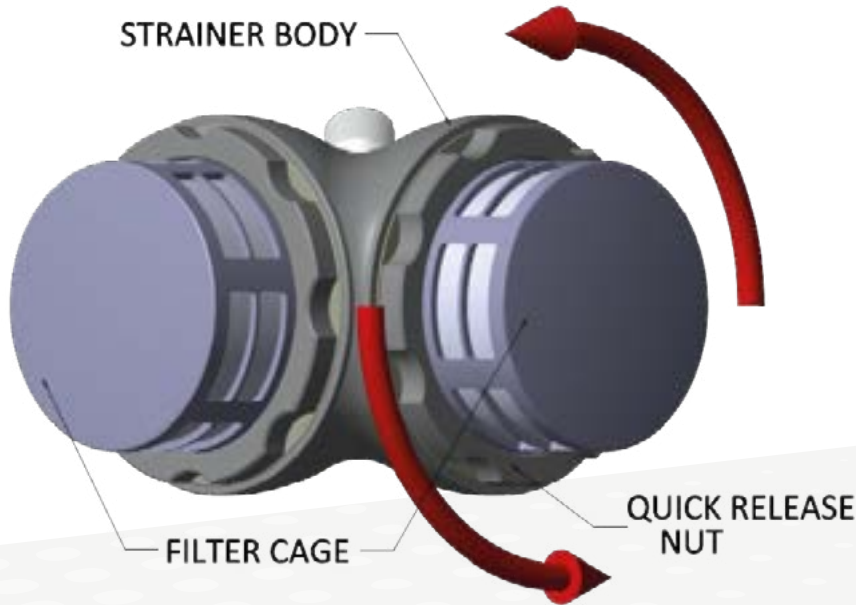
## RF100 Duplex - Self-cleaning Suction Intake Filter

The RF100 Duplex self-cleaning inlet filter is a twin headed suction inlet filter with a capacity of up to 16 US GPM (60 litres / minute).

It is designed to protect dry mounted pumps and other equipment. It has the same efficient self-cleaning action as the RF100 filter to keep the filter mesh clear.

The RF100 Duplex inlet filter offers the same effective protection against blockage and blinding as all our self-cleaning filters.

Ideal as a pond filter, for protecting water features and for domestic use. In more industrial settings debris and suspended solids can be filtered out of water ahead of re-use or disposal. Filters are available fitted with 230, 140 and 60 US Mesh.



General Characteristics and Construction	RF100 Duplex Self-Cleaning Pump Inlet
Maximum output	16 US GPM (60 litres / min_
Backwash flow	Approx 3 - 5 US GPM
Standard screen mesh	US Mesh 230, 140 and 60 (60, 115, 250 micron) nylon mesh in a polypropylene cage
Dimensions (length / width x height) mm	260 mm x 140 mm x 240 mm
Outlet / backwash connection	1¼" NPT / ¾" NPT
Weight	1 lb
Filter cage and lid	Polypropylene
Jets	Acetal copolymer
Body	ABS

# RF100 Triplex

SELF CLEANING INTAKE FILTERS

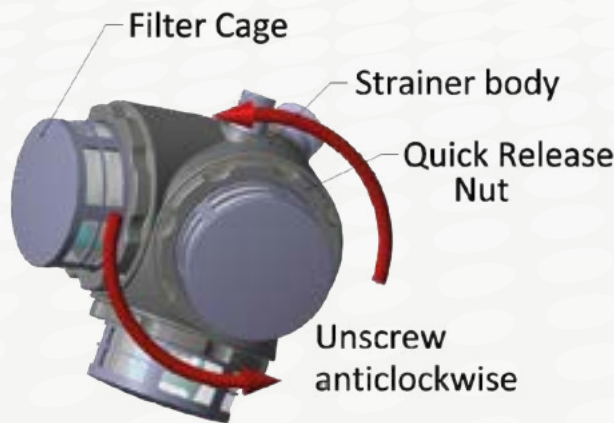
## RF100 Triplex - Self-cleaning Suction Intake Filter

The RF100 Triplex self-cleaning inlet filter comprises three self-cleaning filter heads and triples the capacity of the smallest of Rotorflush's award winning filters. It has a maximum usable flow (depending on conditions) of 24 US GPM (90 litres per minute).

The RF100 Triplex self-cleaning inlet filter is designed to protect surface mounted pumps and other equipment. The self-cleaning action of all our filters continuously backwashes the filter mesh. The mesh is kept clear of debris to minimise maintenance.

The low velocity intake and persistent backwash pushes debris, weed and wildlife away from the filter mesh. This prevents pump blockages and keeps the filter clear.

The RF100 Triplex is ideal for many domestic and light industrial applications where there is a need to filter water contaminated with suspended solids. The latest version of this highly adaptable and efficient dirty water filter now has an easy-to-use quick release enabling simple and fast filter mesh changes. Filters are available fitted with 230, 140 and 60 US Mesh.



General Characteristics and Construction	RF100 Triplex Self Cleaning Pump Inlet
Maximum output	24 US GPM (90 litres / min_
Backwash flow	Approx 5 - 7 US GPM
Standard screen mesh	US Mesh 230, 140 and 60 (60, 115, 250 micron) nylon mesh in a polypropylene cage
Dimensions (diameter / width x height) mm	286 mm x 245 mm
Outlet / backwash connection	1 1/4" NPT / 3/4" NPT
Weight	1.2 lb
Filter cage and lid	Polypropylene
Jets	Acetal copolymer
Body	ABS

# RF200

SELF CLEANING INTAKE FILTERS

## RF200 - Self-cleaning Suction Intake Filter

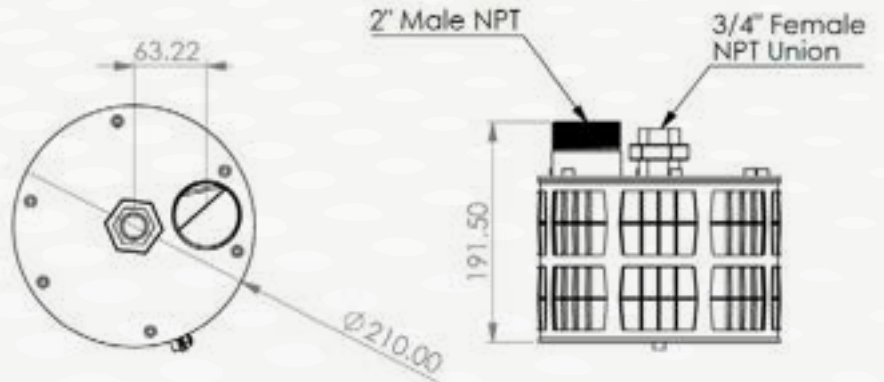
Rotorflush RF200 self-cleaning filters and strainers are versatile low maintenance suction intake screens for use with surface mounted pumps.

They are ideal for protecting pumps and other equipment when pumping up to 60 US GPM (225 litres / minute) in dirty water. RF200's are stainless steel dirty water suction intake filters, capable of filtering from 60 microns. The RF200 filters can be fitted with a range of mesh sizes and types to suit most applications, mesh apertures range from 60 microns to 6mm.

These filters can operate in very dirty water without blocking, reducing the need for settlement tanks and keeping maintenance to a minimum.

RF200 filters use a proportion of your pump's output to supply a feed to an internal backwashing rotor. This supply is taken off the already filtered pump output. The twin jets of the cleaning rotor rotate at about 60 rpm in each filter, clearing the whole screen every 1/2 second.

At their maximum flow rate, these filters comply with EPA Rule 316 (b) as their intake velocity does not exceed 0.5 ft per second.



RF200 Filters – General Characteristics and Materials			
RF200 Model	RF200A	RF200AS	RF200AR
Maximum output	62 US GPM	62 US GPM	62 US GPM
Mesh sizes	US Mesh 230, 120, or 50		
(60, 115 or 300 microns)	US Mesh 270, 140, or 50		
(50, 100 or 315 microns)	0.5, 1, 2 or 3 mm		
Diameter x Height (mm)	210 x 206	210 x 206	210 x 206
Weight (lbs)	8	11	11
Suction pipe connection	2" NPT	2" NPT	2" NPT
Return pipe connection	3/4" NPT	3/4" NPT	3/4" NPT
Backwash flow & pressure	24 US GPM @ 6 psi	24 US GPM @ 6 psi	20 US GPM @ 6 psi
Materials			
Filter cage and lid	Stainless Steel	Stainless Steel	Stainless Steel
Central turbine	Stainless Steel	Stainless Steel	Stainless Steel
Jets	Stainless Steel	Stainless Steel	EPDM
Bearings	Acetal Copolymer	Acetal Copolymer	Acetal Copolymer
Mesh	Bias cut Nylon mesh in polypropylene inserts	Sintered stainless steel	Woven stainless steel



# RF300

SELF CLEANING INTAKE FILTERS

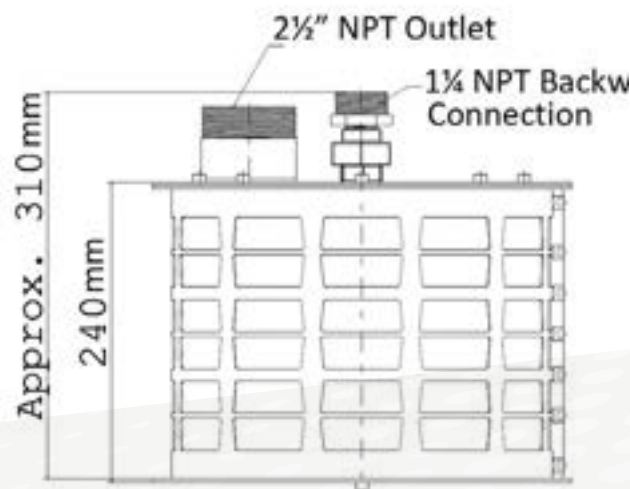
## RF300 - Self-cleaning Suction Intake Filter

The Rotorflush RF300 self-cleaning filters and strainers are a mid-range filter, offering up to 150 US GPM or 560 litres a minute. They are tough, versatile, easy to install and require minimal maintenance. They are used across a wide range of industries for all kinds of dirty water filtration.

RF300 self-cleaning filters and intake strainers provide protection against blockage for surface mounted pumps and other connected equipment. These filters can be fitted with coarse stainless-steel filter mesh (1 mm – 3 mm), or finer sintered stainless-steel mesh screens (see below).

At their maximum flow rate 560 litres a minute (150 US GPM) these screens easily comply with EPA Rule 316 (b).

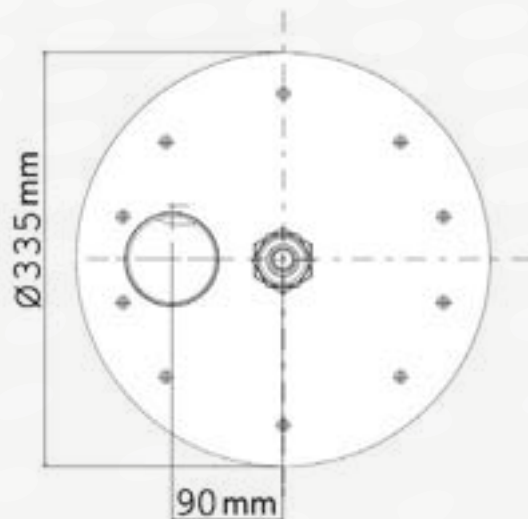
Their stainless-steel filter cages make them very strong, long-lasting, low maintenance strainers, requiring only the occasional jet wash to keep them running.



RF300 Filters – General Characteristics and Materials	
Maximum output	154 US GPM
Diameter x Height (mm)	335 x 310
Weight (lbs)	24
Suction pipe connection	2 1/2" NPT
Return pipe connection	1 1/4" NPT
Backwash flow & pressure	30 US GPM @ 6 psi
Materials	
Filter cage and lid	Stainless Steel
Central turbine	Stainless Steel
Jets	EPDM
Bearings	Acetal Copolymer

### Mesh Options for RF300 filters

US Mesh 230, 120, or 50 (60, 115 or 300 microns) - bias cut nylon mesh in polypropylene inserts  
US Mesh 270, 140, or 50 (50, 100 or 315 microns) - sintered stainless steel  
0.5, 1, 2 or 3 mm - woven stainless steel



# RF400

SELF CLEANING INTAKE FILTERS

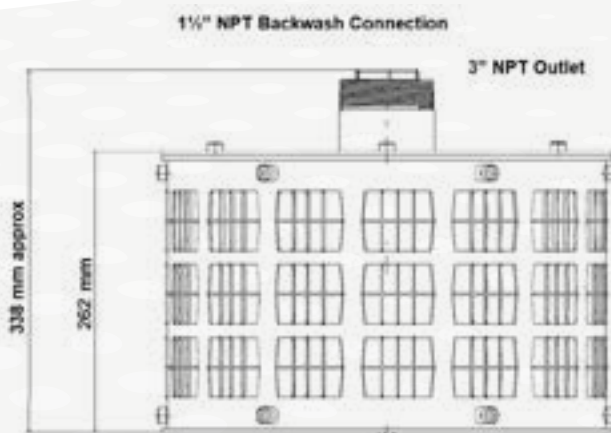
## RF400 - Self-cleaning Suction Intake Filter

Rotorflush RF400 self-cleaning filters and strainers are versatile of low maintenance suction intake screens for surface mounted pumps. Capable of screening a ton of water every minute, these are our one of our most popular filters.

They are ideal for protecting pumps and other equipment when pumping up to 264 US GPM (1000 litres / minute) in dirty water. These stainless steel RF400 filters can be fitted with a range of mesh sizes and types to suit most applications (see below).

These 420mm diameter filters can operate in very dirty water without blocking, reducing the need for settlement tanks and keeping maintenance to a minimum.

Using these filters to screen 210 US GPM or less will keep the intake flow velocity below the maximum EPA Rule 316 (b) intake velocity of 0.5 ft per for cooling water intakes.

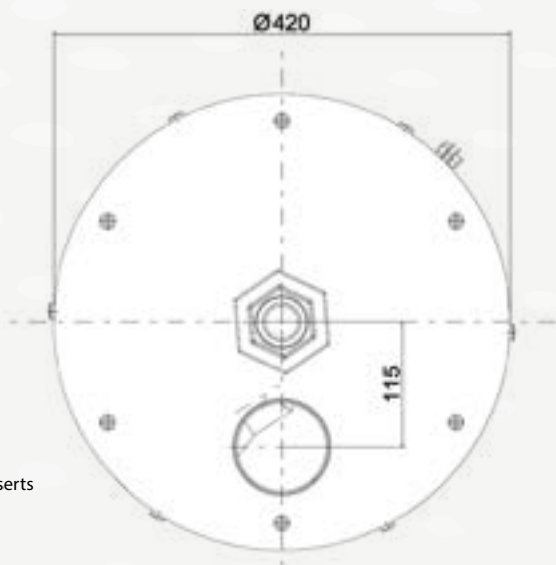


RF400 Filters – General Characteristics and Materials	
RF400 Model	RF400AR
Maximum output	264 US GPM
Diameter x Height (mm)	420 x 338
Weight (lbs)	24
Suction pipe connection	3" NPT
Return pipe connection	1 1/2" NPT
Backwash flow & pressure	30 – 40 US GPM @ 6 psi
Materials	
Filter cage and lid	Stainless Steel
Central turbine	Stainless Steel
Jets	EPDM
Bearings	Acetal Copolymer

### Mesh Options for RF400 filters

RF400AR: US Mesh 230, 120, or 50 (60, 115 or 300 microns) - bias cut nylon mesh in polypropylene inserts  
US Mesh 270, 140, or 50 (50, 100 or 315 microns) - sintered stainless steel  
0.5, 1, 2 or 3 mm - woven stainless steel

**Please Note:** Our filters are designed for use in dirty water or liquids with a viscosity close to that of water. Our filters and filterpumps are **NOT** suitable for use in raw sewage or any other dirty water which contains oils or fat.



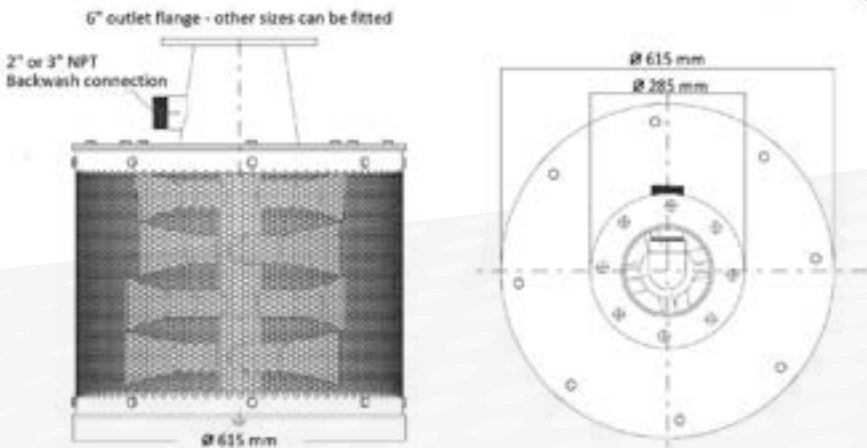
RF600R - Self-cleaning Suction Intake Filter

Rotorflush RF600R self-cleaning strainers are coarse meshed of low maintenance suction intake screens for surface mounted pumps.

These screens are a favourite for agricultural use and dirty water systems. They are ideal for screening dirty water ahead of pumps and other equipment when pumping up to 1210 US GPM (275 m3 per hour) of dirty water.

Stainless steel RF600R models have coarse perforated steel mesh, either 3 mm or 6 mm aperture. These 615 mm diameter screens can operate in very dirty water, reducing the need for settlement tanks and keeping maintenance to a minimum.

There are five models both RF600R and RF600AR self-cleaning intake strainers offering a broad range of capacities. Rotorflush manufacture to order and can vary outlet size to suit particular applications. Please contact us to discuss your requirements.



RF600R Filters – General Characteristics and Materials					
RF600R Model	RF600-200R	RF600-300R	RF600-400R	RF600-500R	RF600-600R
Maximum output US GPM	396	572	792	991	1211
Approx Diameter x Height (mm)	615 x 530	615 x 630	615 x 730	615 x 830	615 x 930
Approx Weight (lbs)	60	70	80	90	105
Standard Suction pipe flange connection*	6" PN 16/3	6" PN 16/3	6" PN 16/3	6" PN 16/3	6" PN 16/3
Backwash connection	2" male NPT	2" male NPT	2" male NPT	3" male NPT	3" male NPT
Backwash flow & pressure	40 @ 6 psi	60 @ 6 psi	79 @ 6 psi	99 @ 6 psi	119 @ 6 psi
Max US GPM to comply with EPA Rule 316 (b)	295	440	590	735	885
Materials	All Models				
Filter cage and lid	Stainless Steel				
Central turbine	Stainless Steel				
Jets	Natural Rubber				
Bearings	Acetal Copolymer				
Mesh Material	Perforated stainless steel plate, 3 mm or 6 mm aperture				

\*Flange type and size can be varied; therefore weights and dimensions are approximate.

Please Note: Our filters are designed for use in dirty water or liquids with a viscosity close to that of water. Our filters and filterpumps are NOT suitable for use in raw sewage or any other dirty water which contains oils or fat.

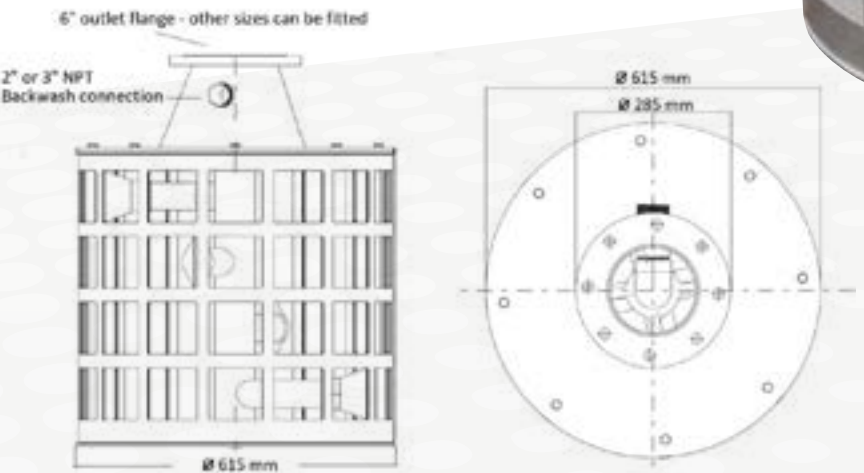
RF600AR - Self-cleaning Suction Intake Filter

Rotorflush RF600AR self-cleaning filters and strainers are our most versatile medium capacity low maintenance suction intake screens for surface mounted pumps. Covering a wide range of flow rates these popular filters can be fitted with mesh sizes ranging from 315 microns to 6 mm, and are available in five standard sizes.

They are ideal for protecting pumps and other equipment when pumping up to 1,655 US GPM (376 m3 / hr) and are used for many applications across a range of industrial sectors.

These 615 mm diameter screens can operate in very dirty water, reducing the need for settlement tanks and keeping maintenance to a minimum.

These screens enable compliance with EPA Rule 316 (b) for cooling water intakes at the flow rates indicated below. Rotorflush filters can customise these filters to suit particular applications. Please contact us to discuss your requirement.



RF600AR Filters – General Characteristics and Materials					
RF600AR Model	RF600-200AR	RF600-300AR	RF600-400AR	RF600-500AR	RF600-600AR
Maximum output US GPM	550	828	1101	1378	1655
Approx Diameter x Height (mm)	615 x 550	615 x 670	615 x 790	615 x 910	615 x 1030
Approx Weight (lbs)	60	70	80	90	105
Standard Suction pipe flange connection*	6" PN 16/3	6" PN 16/3	6" PN 16/3	6" PN 16/3	6" PN 16/3
Backwash connection	2" male NPT	2" male NPT	2" male NPT	3" male NPT	3" male NPT
Backwash flow & pressure	40 @ 6 psi	60 @ 6 psi	79 @ 6 psi	99 @ 6 psi	119 @ 6 psi
Max US GPM when fitted with 2 mm mesh for EPA Rule 316 (b)	414	621	828	1035	1241
Materials	All Models				
Filter cage and lid	Stainless Steel				
Central turbine	Stainless Steel				
Jets	Natural Rubber				
Bearings	Acetal Copolymer				
Mesh Material	Fine mesh: US Mesh 50 (315 microns) - sintered stainless steel Coarse Mesh: 0.5, 1, 2, 3 or 6 mm - woven stainless steel				

\*Flange type and size can be varied; therefore weights and dimensions are approximate.



# RF600LW

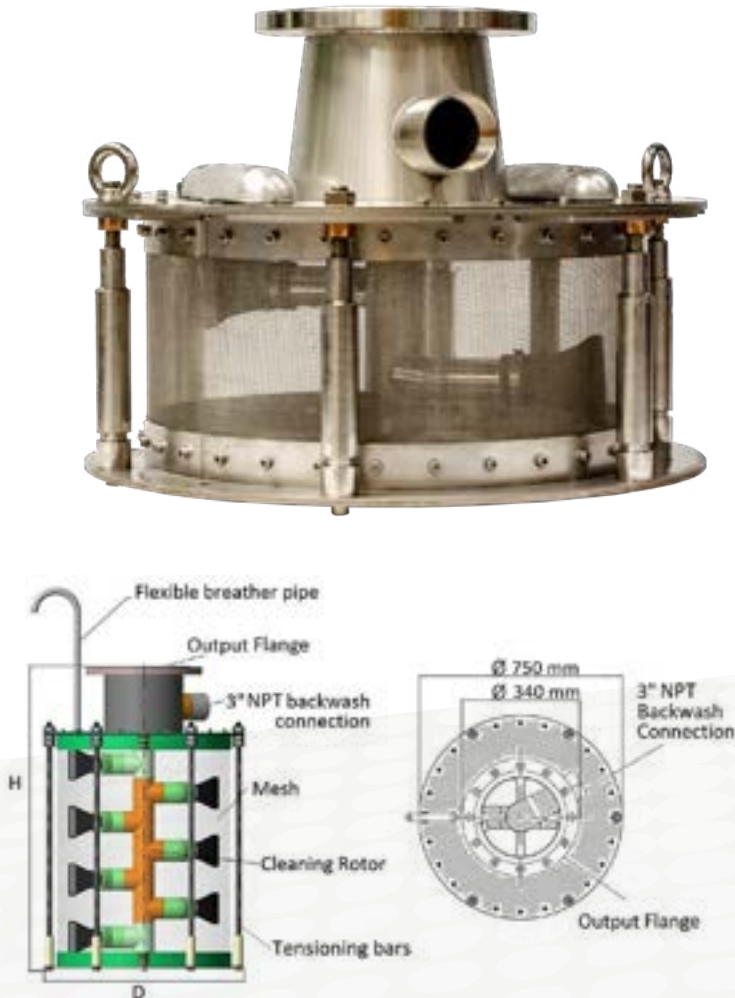
SELF CLEANING INTAKE FILTERS

## RF600LW - Self-cleaning Suction Intake Filter

Rotorflush RF600LW self-cleaning filters and strainers are all stainless-steel suction intake screens. They are designed to maximise the open area of the intake screen. This is particularly important for keeping the screen size as small as possible while meeting regulatory restrictions on allowable intake velocity through the screen, such as where EPA Rule 316(b) applies (flow rates below).

The high open area and innovative design of the RF600-LW range gives these screens high maximum flow rates for their size. The RF600LW range screens can be fitted with mesh sizes ranging from 1 mm to 6 mm, and are available in eight standard sizes.

These 750 mm diameter screens are ideal for protecting pumps and other equipment when pumping up to 3,214 US GPM (730 m3 / hr) in dirty water. Rotorflush Filters Ltd can customise these filters to suit particular applications. Please contact us to discuss your requirements.



RF600LW Filters – General Characteristics and Materials					
RF600LW Model	RF600-200R	RF600-300R	RF600-400R	RF600-500R	RF600-600R
Maximum output US GPM	396	572	792	991	1211
Approx Diameter x Height (mm)	615 x 530	615 x 630	615 x 730	615 x 830	615 x 930
Approx Weight (lbs)	60	70	80	90	105
Standard Suction pipe flange connection*	6" PN 16/3	6" PN 16/3	6" PN 16/3	6" PN 16/3	6" PN 16/3
Backwash connection	2" male NPT	2" male NPT	2" male NPT	3" male NPT	3" male NPT
Backwash flow & pressure	40 @ 6 psi	60 @ 6 psi	79 @ 6 psi	99 @ 6 psi	119 @ 6 psi
Max US GPM to comply with EPA Rule 316 (b)	295	440	590	735	885
Materials	All Models				
Filter cage and lid	Stainless Steel				
Central turbine	Stainless Steel				
Jets	Natural Rubber				
Bearings	Acetal Copolymer				
Mesh Material	Perforated stainless steel plate, 3 mm or 6 mm aperture				

\*Flange type and size can be varied; therefore weights and dimensions are approximate.

**Please Note:** Our filters are designed for use in dirty water or liquids with a viscosity close to that of water. Our filters and filterpumps are **NOT** suitable for use in raw sewage or any other dirty water which contains oils or fat.

# RF800LW

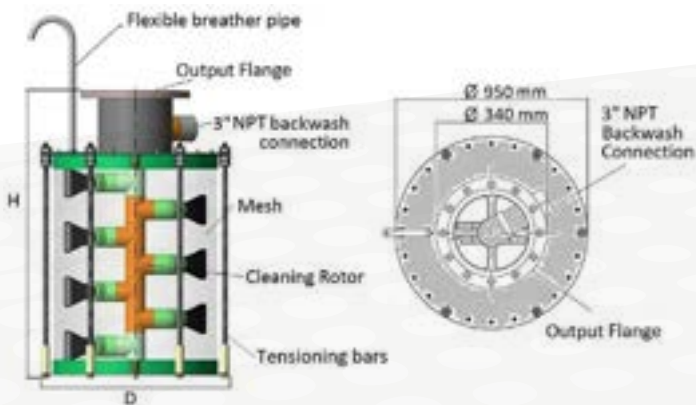
SELF CLEANING INTAKE FILTERS

## RF800LW - Self-cleaning Suction Intake Filter

Rotorflush RF800LW self-cleaning filters and strainers are all stainless-steel suction intake screens. They are designed to maximise the open area of the intake screen. This is particularly important for keeping the screen size as small as possible while meeting regulatory restrictions on allowable intake velocity through the screen, such as where EPA Rule 316(b) applies (flow rates below).

The high open area and innovative design of the RF600-LW range gives these screens high maximum flow rates for their size. The RF600LW range screens can be fitted with mesh sizes ranging from 1 mm to 6 mm, and are available in eight standard sizes.

These 750 mm diameter screens are ideal for protecting pumps and other equipment when pumping up to 3,214 US GPM (730 m3 / hr) in dirty water. Rotorflush Filters Ltd can customise these filters to suit particular applications. Please contact us to discuss your requirements.



RF800LW Filters – General Characteristics and Materials									
RF800LW Model	RF800-200LW	RF800-300LW	RF800-400LW	RF800-500LW	RF800-600LW	RF800-700LW	RF800-800LW	RF800-900LW	RF800-1000LW
Maximum output US GPM	4205	6301	8414	10505	12619	14732	16828	18941	21033
Approx Dia. x Height (mm)	555 x 950	675 x 950	775 x 950	875 x 950	975 x 950	1075 x 950	1175 x 950	1275 x 950	1375 x 950
Approx Weight (lbs)	418	440	462	484	506	528	550	572	594
Standard Suction pipe flange connection*	8" PN 16/3	8" PN 16/3	8" PN 16/3	8" PN 16/3	8" PN 16/3	8" PN 16/3	8" PN 16/3	8" PN 16/3	8" PN 16/3
Backwash connection	3" male NPT	3" male NPT	3" male NPT	3" male NPT	3" male NPT	3" male NPT	3" male NPT	3" male NPT	3" male NPT
Backwash flow & pressure	40 @ 6 psi	60 @ 6 psi	79 @ 6 psi	99 @ 6 psi	119 @ 6 psi	139 @ 6psi	159 @ 6psi	178 @ 6 psi	187 @ 6 psi
Max US GPM (with 2 mm mesh) for EPA Rule 316 (b)	718	1074	1431	1788	2144	2501	2857	3214	3571
Materials	All Models								
Filter cage and lid	Stainless Steel								
Central turbine	Stainless Steel								
Jets	Natural Rubber								
Bearings	Acetal Copolymer								
Mesh Material	1, 2, 3 or 6 mm - Woven stainless steel								

\*Flange type and size can be varied; therefore weights and dimensions are approximate.

**Please Note:** Our filters are designed for use in dirty water or liquids with a viscosity close to that of water. Our filters and filterpumps are **NOT** suitable for use in raw sewage or any other dirty water which contains oils or fat.

## FILTERS FOR ANALYSERS

Rotorflush Filters Ltd supplies self-cleaning filtration products specifically developed for water monitoring instruments and online analysers.

The Rotorflush Filter System for Analysers filters to 60 microns from a constant head. The output flow is not interrupted and the intake filter self-cleans to prevent blocking.

The system is particularly useful for systems using dosing pumps and where there is a need to

continuously monitor water quality. The self-cleaning filter keeps the filter mesh clear to deliver low maintenance sampling and filtration.

We also supply submersible sample pumps with built-in self-cleaning intakes for use directly in your water supply.

Both products are ideal for supplying filtered sample water for ammonia, chlorine and phosphate analysis.



## RF100AN-Q

The Rotorflush RF100ANQ Self-cleaning Analyzer Filter System has been designed to allow constant, low maintenance sampling for water monitoring equipment. The system screens sample water down to 60 microns, protecting wet chemistry analytical equipment from blockage.

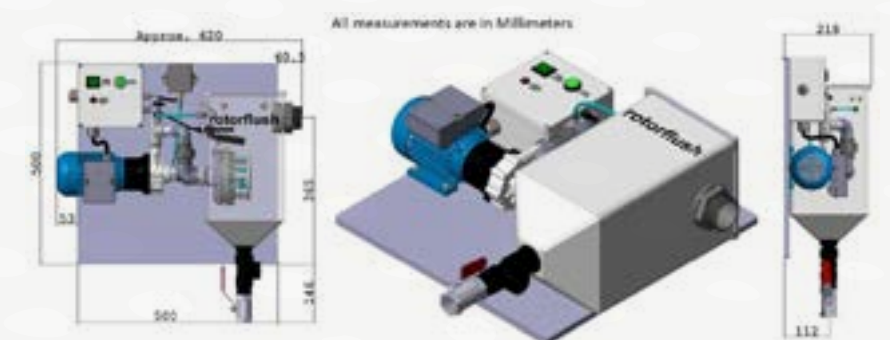
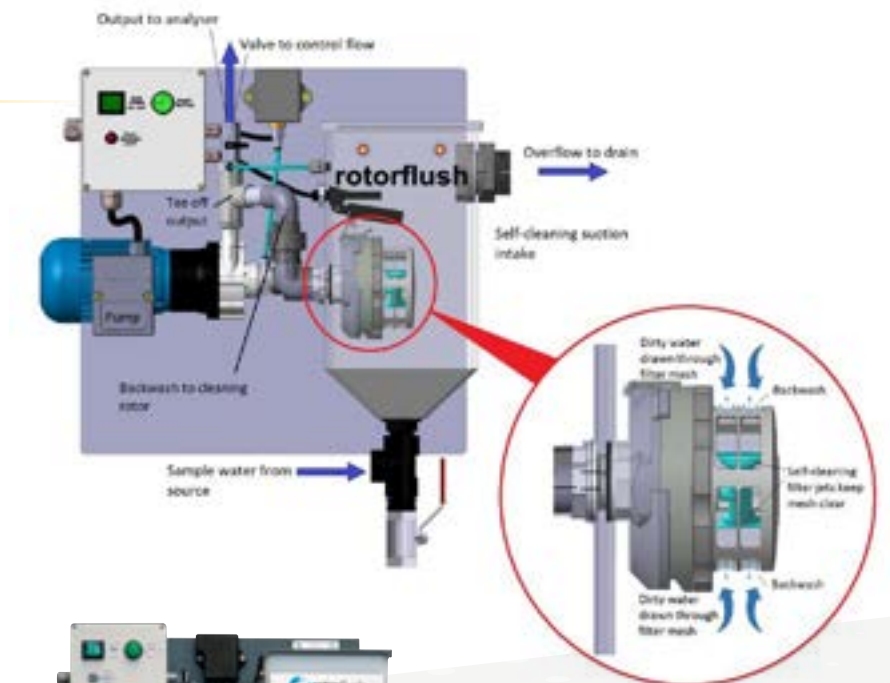
The RF100ANQ Analyzer Filter System draws sample water from a fast loop flow through the RF100ANQ tank. Sample water is drawn from a constant head.

The self-cleaning filter head in the tank continuously backwashes the intake filter mesh whenever the pump is operating. This clears contaminants from the filter mesh allowing for very low maintenance operation even in very dirty water.

Debris greater than 60 microns is carried away through the overflow. Heavier particulate can be purged manually or automatically (APV version) using a timed valve at the base of the tank.

All RF100AN-Q Analyser Filter Systems are now fitted with auto priming and a pressure sensor for dry running protection.

We have supplied many of these units for remote monitoring at unmanned raw water intakes and treatment works.



### Construction

Component	Material
Pump	Magnetic drive, polypropylene pump head
Filter head	Polypropylene, acetal with nylon filter screen
Backing board	PVC
Standard filter mesh screen	60, 115 or 250 micron nylon
Tank	Polyethylene
Pipework	PVC
IP66 Control Box	ABS

### Sampling Directly from Source

All our smaller submersible pumps with integral self-cleaning intakes can be used for sampling. These filterpumps screen and pump sample water, and can filter from 60 - 250 microns.





Pipe Friction Loss

There are many factors that can affect pipe friction loss. The most significant is the diameter and length of the pipe, but other factors such as the turbulence of the flow, the roughness of the pipe (often increasing with the age of the pipe) and any additional bends, joins or equipment such as valves can increase the head loss you may need to account for.

Pipe Friction Loss Table – PVC and Polyethylene Circular Pipes

Friction Loss is given in Bar / Metres Head

Flow Rate Litres / min	PIPE SIZE – Inches Internal, Diameter											
	½	¾	1	1¼	1½	2	2½	3	3½	4	5	6
30	70	16.5	5.3	1.4	0.7	0.2	-	-	-	-	-	-
40	-	28	9	2.3	1.2	0.3	-	-	-	-	-	-
50	-	42	13	3.5	1.8	0.5	0.15	-	-	-	-	-
60	-	58	18	5	3	0.7	0.2	-	-	-	-	-
70	-	76	24	6.5	3	0.9	0.2	0.1	-	-	-	-
80	-	-	30	8	4	1.2	0.3	0.16	-	-	-	-
90	-	-	38	9	5	1.5	0.45	0.23	-	-	-	-
100	-	-	46	11	6	2	0.5	0.2	0.12	-	-	-
125	-	-	70	17	9	3	0.8	0.3	0.18	0.1	-	-
150	-	-	-	25	12	4	1.2	0.5	0.2	0.14	-	-
175	-	-	-	33	16	6	1.5	0.6	0.33	0.18	-	-
200	-	-	-	42	21	7	2	1	0.4	0.2	0.08	-
250	-	-	-	64	32	10	2.8	1.2	0.6	0.3	0.12	-
300	-	-	-	-	45	14	4	2	1	0.45	0.17	-
400	-	-	-	-	78	24	6.8	3	1.5	0.8	0.2	0.12
500	-	-	-	-	-	36	11	5	3	1.5	0.5	0.17

The table below is an indicative guide only. If you have a long pipe run or if pressure loss is critical to your installation please contact Rotorflush Filters Ltd to discuss this in more detail.

Maximum Cable Lengths for Submersible Pumps

Cable sizing is an important consideration when installing pumps. This is especially true for electric submersible pumps where the location may often be a significant distance from the power supply.

Voltage drop increases with distance and most electric submersible pumps will not run efficiently if the voltage drop exceeds approx 5% of the rated voltage for the pump motor. Single phase pumps are particularly vulnerable to voltage drop as this can shorten the life of pump motor capacitors.

The Cable Chart below is an **indicative guide only**. If you have a long cable run or if you are uncertain about the type of cable your installation needs then please contact Rotorflush Filters Ltd to discuss this in more detail.

Recommended Cable Size for Pumps (based on 4 core cable)

Motor (kW)	Maximum Length of Cable in metres					
	240v	1.5mm	2.5mm	4mm	6mm	10mm
0.37		80	130	230	350	580
0.55		55	90	140	200	350
0.75		40	65	105	160	300
1.1		30	50	75	115	190
1.5		25	35	60	90	145
2.2		-	3	50	70	120
415v	1.5mm	2.5mm	4mm	6mm	10mm	16mm
0.37	400	500	600	850	1000	1300
0.55	315	430	600	700	900	1200
0.75	240	350	500	650	750	1000
1.1	180	285	350	450	600	900
1.5	135	225	360	470	600	900
2.2	100	165	255	390	450	700
3.0	65	110	180	255	420	560
4.0	50	85	135	195	330	500
5.5	40	70	110	165	270	390
7.5	30	55	90	130	220	495
9.2	-	52	84	126	210	337
11.0	-	-	70	106	176	282
13.0	-	-	60	90	149	239
15.0	-	-	-	78	130	208
18.5	-	-	-	-	105	170
22.0	-	-	-	-	89	139

Maximum volt drop allowed is 2.5% which is 6v @ 230v.  
This table is indicative only please check with an electrician for your installation.

# FREQUENTLY ASKED QUESTIONS

## Frequently Asked Questions

To help find the right Rotorflush products for your application

These are only a guide, talking to us is by far the best way to get the right Rotorflush for you!

### Q Can the filter system operate non-stop 24/7?

A All our filter systems are designed for continuous use in all conditions. This is what makes the Rotorflush range of industrial filters unique. We recommend the use of some form of dry run protection – float switches and electronic controls – to ensure that changing conditions do not affect the performance of the pumps.

### Q Will the filters cope with rubbish such as plastic bags?

A The principal of the self-cleaning filter is a continuous cycle of blowing away material blocking the filter with a small amount of filtered liquid, in between drawing in large amounts of filtered liquid. If a large object such as a plastic bag was to be sucked onto the surface of the filter then this will normally be removed from the screen by the backwash jets.

### Q Where does the solid matter go, that is filtered out?

A The filters leave the solids in the water you are pumping from. Put another way the filters extract a filtered supply from the dirty water. We do have solutions if you wish to retain the solids that are filtered out ring us to discuss.

### Q Will the filters extract water from sludge?

A No they won't. As a rule of thumb they work in water with some solids, not in solids with some water. The water to be filtered still has roughly the same viscosity as water. Once it becomes more viscous than water they are not suitable.

### Q Do you do one-offs or adapt your equipment for specific applications?

A Yes - we have worked with a number of companies to provide bespoke equipment to solve their filtration problems that changing conditions do not affect the performance of the pumps.

### Q Are your products guaranteed?

A Yes we give a 1 year guarantee on products incorporating an electric motor and 3 years on all other industrial products.

### Q If the motor fails on a Filterpump do I have to buy a whole new pump?

A Normally we can repair it, which is much cheaper than buying a whole new pump.

### Q Are Rotorflush products suitable for Seawater?

A The RF400A, RF600R, (Filters for surface mounted pumps) and the Analyser Filter system are fine in sea water, other products will work in sea water but their life may be shortened.

### Q Do you export to overseas customers?

A Yes we often export.

## Questions we might ask you

### Q What is the application?

A Pumping what fluid from where to where?

### Q Are there suspended solids in the fluid?

A If so, what type of solids, e.g sewage, sand, weed please specify.

### Q What temperature is the fluid?

A Maximum and minimum temperature.

### Q How finely do you need to filter?

A If not known, what equipment do you need to protect from suspended solids, e.g. valves and nozzles.

### Q What is the aperture size of the nozzles?

A minimum aperture size in the system.

### Q What flow rate do you need?

A e.g. litres/second, litres/minute, cubic metres/hour, gallons/minute etc.

### Q What pressure do you require from the pump?

A e.g. pounds/square inch, bars etc.

### Q Do you have an existing surface mounted pump?

A If so does it have any surplus capacity to power a self cleaning filter? (they normally use 15-25% of the pump's output).

### Q Electricity Supply?

A If you need a submersible pump, do you want the motor to be single phase three phase, 230v or 110v, 50Hz or 60Hz?



# Award Winning UK Engineering Company

Rotorflush Filters Limited is an Award Winning UK Engineering Company. We produce a unique range of self-cleaning pump intake filters, suction strainers and on-line analyser filter systems.

We produce standard and bespoke self cleaning filters and strainers for pump suction intakes. We also produce a range of submersible filter-pumps with built-in self-cleaning pump intake filters. All our products incorporate our patented and unique Rotorflush self-cleaning filter technology.

We help our customers manage their dirty water filtration problems. We help them to keep pumps unblocked, keep their fountains looking good and their irrigation equipment unblocked and running.

We are experts in liquid / solids separation. We offer practical real world solutions to the problems customers face when pumping dirty water. We have advised and helped our many satisfied customers worldwide.

We are very happy to share our knowledge and expertise with you. Let us know your pumping and filtration issues.

Designed by coastline.agency



**rotorflush**  
Self-Cleaning Filters

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