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Allied Pumps

Sediment Bag Filters

Bag filtration from 0.5 micron to 200 micron with no backwash required

Sediment Bag Filters remove sediment through a replaceable filter bag, with filtration configurations from 0.5 micron to 200 micron. No backwash connection is required, so installation is simpler and no water is lost to backwashing. Maintenance is limited to replacing or cleaning the bag, and flows are available to 1,200 litres per minute.

KEY FEATURES

- Filtration From 0.5 Micron to 200 Micron
- No Backwash Connection Required
- Maintenance Limited to Bag Replacement or Cleaning
- Clamp Closure for Tool Free Access
- Stainless Steel Housing
- Pressure Gauge Fitted
- Flows to 1,200 Litres per Minute

PRODUCT APPLICATIONS

- Mains Water
- Water Treatment
- Pre Filtration Ahead of Ultraviolet Systems
- Industrial Process Water
- Waste Treatment





PRODUCT SPECIFICATION

Model No.	Max Flow (L/min)	Connection Size (mm)	Diameter (mm)	Height (mm)
MCX408	113	25	114	325
MCX415	227	32	114	460
MCX717	300	50	175	508
MCX732	757	50	175	860

THE HOUSING

The filter housing is stainless steel, mounted on a fabricated stand with bolt down feet for fixing to a floor or plinth. The clamp closure at the top opens without tools, so the bag can be removed and replaced in place. A pressure gauge is fitted above the lid, and inlet and outlet connections are sized from 25 mm to 50 mm depending on model. Four housing sizes are available.

CLEAR WATER TREATMENT AND REUSE SYSTEMS

Reverse Osmosis Systems

Reverse Osmosis Systems are supplied as skid mounted or containerised modules, manufactured to suit your site specifications. Each system is built with heavy duty components and control equipment, and arrives complete for transport and installation. Systems are engineered for demanding processes where supply continuity matters and maintenance access is limited.



KEY FEATURES

- Skid Mounted or Containerised Modules
- Manufactured to Suit Site Specifications
- Supplied Complete for Transport and Installation
- Heavy Duty Components
- Turnkey Approach to Filtration
- Engineered for Demanding Processes

PRODUCT APPLICATIONS

- Mining
- Industrial Process
- Desalination
- Bore Water
- Food Industry



Containerised system with doors open, showing the skid mounted plant and control cabinet installed inside the container

PRODUCT SPECIFICATION

Model No.	Max Flow (L/h)
APRO-1500	180
APRO-3000	360
APRO-6000	725
APRO-9000	1,090
APRO-12000	1,450
APRO-15000	1,815

Flows shown at the table are nominal. Rates to 5 ML per day are available on application.

CONFIGURATION

Systems are supplied skid mounted for installation in an existing plant room, or containerised where no building is available. Containerised units arrive as a complete plant, transported to site and connected on arrival. Both configurations are manufactured to your site specifications rather than adapted from a standard unit.

Ultraviolet Systems

Ultraviolet disinfection with lamp monitoring and intensity control

Ultraviolet Systems disinfect water by passing it through a treatment chamber housing a high efficiency ultraviolet lamp. Every system monitors lamp hours, carries an in-built alarm and shows lamp life remaining, so the lamp is replaced before performance drops rather than after.

Systems are supplied in two ranges. Cobalt provides that monitoring in a compact unit. Platinum adds an ultraviolet intensity monitor, flow paced lamp intensity for extended lamp life and temperature control, a safety lock, and 316 stainless steel construction, for applications where disinfection performance has to be verified continuously.

KEY FEATURES

- High Efficiency Ultraviolet Lamp
- Lamp Hours Monitor
- In-built Alarm System
- Lamp Life Remaining Meter
- Two Ranges to Suit the Application
- Stainless Steel Treatment Chamber
- Advanced Monitor Control System

PRODUCT APPLICATIONS

- Potable Water Disinfection
- Rainwater Reuse
- Process Water
- Bore Water
- Point of Entry Treatment



PRODUCT SPECIFICATION

Model No.	Dimensions (mm)	Power (W)	UV Dose (mJ/cm^2)	Flow Rate (L/s)
VP600/2A	780 x 83	70	16	2.52
VP600/2A	780 x 83	70	30	1.89
VP600/2A	780 x 83	70	40	1.39
VP9502/A	1140 x 89	95	16	3.79
VP9502/A	1140 x 89	95	30	2.90
VP9502/A	1140 x 89	95	40	2.52

SELECTING A UV DOSE

Flow rate depends on the ultraviolet dose required. A higher dose means a longer exposure time, so the flow through the chamber must be lower. The dose needed depends on the water quality and the organisms being targeted, and is usually set by the relevant guideline or authority for the application.



CLEAR WATER TREATMENT AND REUSE SYSTEMS

Water Treatment Systems

Water Treatment Systems are packaged filtration systems supplied as one unit, pre-wired and pre-plumbed on a skid. Each package combines heavy duty flow filtration with a coordinated control system, selected from four configurations to suit how the site uses water. Systems can be supplied with pre-filtration and interconnecting pipework, as a coordinated package or as single units.



PRODUCT OPTIONS

Every system is configured to suit the site, so the package arrives with the pump, filtration and pipework your installation needs already fitted.

- INTEGRAL PUMP SYSTEM: Built into the package where incoming feed pressure will not carry the system.
- PRE-FILTRATION: Fitted ahead of the media vessels to reduce sediment loading on the bed.
- INTERCONNECTING PIPEWORK: Supplied where several units work together as a coordinated package.

KEY FEATURES

- One Piece Packaged Unit
- Pre-wired and Pre-plumbed on Skid
- Coordinated Control System
- Four Control Configurations
- Pre-filtration and Interconnecting Pipework Available
- Supplied as a Package or Single Units

PRODUCT APPLICATIONS

- pH Control
- Fine Sediment Removal
- Water Softening
- Iron Removal
- Chemical Treatment

CONTROL CONFIGURATIONS

Configuration	Supply Duringm Regeneration	Control Method
Twin Alternating	Uninterrupted	Automatic
Single, No Raw Water Bypass	Interrupted during non-use times	Automatic
Single, Raw Water Bypass	Uninterrupted, some raw water during backwash	Automatic
Simple Timer Control	Depends on timing	Timer

QUALITY ASSURANCE ISO 9001:2015 CERTIFIED

HEALTH & SAFETY ASSURANCE ISO 45001:2018 CERTIFIED

ENVIRONMENTAL ASSURANCE ISO 14001:2015 CERTIFIED

Chlorine Dosing Systems

Allied Pumps Chlorine Dosing Systems automatically monitor and maintain chlorine levels in potable water storage, in accordance with the Australian Drinking Water Guidelines. Water is chlorinated using sodium hypochlorite solution or an on-site chlorine generator. Each system is sized to the required chlorine usage rate and the refill frequency of the sodium hypochlorite storage tank.



PRODUCT OPTIONS

Every system is configured to suit the site, so the package arrives with the pump, filtration and pipework your installation needs already fitted.

- DUTY STANDBY DOSING PUMPS: A second pump takes over if the duty pump is unavailable, improving plant reliability.
- FLOW TRANSMITTER: Doses proportionally to flow rather than on a fixed rate.
- STATIC MIXER: Improves mixing of the dosed solution into the water stream.
- REMOTE MONITORING: Chlorine levels and system status can be monitored off site.
- AIR CONDITIONING: Fitted to containerised systems to control internal temperature and avoid chlorine degradation.



Chemical injection pumps installed as part of a water treatment plant, with bunded dosing enclosures in the foreground

CONFIGURATION

Systems are supplied skid mounted for internal or external installation, or containerised as a complete plant. Containerised units are air conditioned to keep internal temperature stable, since chlorine degrades in heat. Both configurations are sized to the chlorine usage rate and the storage tank refill frequency.

KEY FEATURES

- Automatic Monitoring and Dosing Control
- Continuous Residual Chlorine Monitoring
- Sodium Hypochlorite or On-site Chlorine Generation
- Sized to Chlorine Usage Rate and Tank Refill Frequency
- Simple to Maintain
- Skid Mounted or Containerised

PRODUCT APPLICATIONS

- Potable Water Storage
- Water Treatment
- Wastewater
- Sewage
- Process Water

Rainwater Reuse Systems

Packaged filtration, disinfection and pressurisation for rainwater reuse

Allied Pumps Rainwater Reuse Systems combine filtration, ultraviolet disinfection and pressurisation in one package, delivering rainwater for toilet flushing, irrigation and similar applications. Twin pumps provide duty standby capability, and a DN25 mains fill solenoid valve maintains supply if rainwater runs short or power is lost.

Model numbers identify the equipment fitted. B04 and B02 denote SL-SS-04 and SL-SS-02 bag filters, rated at 12 m^3/h and 40 m^3/h. U320, U740 and U950 denote the ultraviolet unit. On below ground models, UR4, UR7 and UR11 give tank size in thousands of litres.



KEY FEATURES

- Twin Pumps With Duty Standby Capability
- Variable Speed Pumps for Constant Pressure
- Stainless Steel Bag Filter and Ultraviolet Filter
- Full 316 Stainless Steel Valves and Pipework
- Wetted Parts to AS/NZS 4020 and WaterMark
- Automatic Mains Backup With Bypass for Servicing
- Thermal Relief on the Ultraviolet Filter
- Hot Dip Galvanised Base Frame
- Designed to Minimise Loss of Prime

PRODUCT APPLICATIONS

- Commercial and Industrial
- Shopping Centres
- Universities and Schools
- Hospitals and Aged Care
- Recreational Areas and Parks

Above Ground Rainwater Reuse Systems

Model No.	Duty Flow (L/s)	Duty Pressure at BEP (kPa)	Manifold (mm)	Pressure Vessel (L)	Motor (kW)
APWR-37-2C-B04-U320	Up to 1.2, 0.8 at BEP	350	50	60	0.55
APWR-58-2C-B04-U740	Up to 2.3, 1.7 at BEP	330	50	60	1.10
APWR-510-2C-B04-U740	Up to 2.3, 1.7 at BEP	450	50	60	1.50
APWR-104-2C-B02-U950	Up to 3.6, 2.8 at BEP	300	65	80	1.50
APWR-106-2C-B02-U950	Up to 3.6, 2.8 at BEP	450	65	80	2.20
APWR-155-2C-B02-U950	Up to 6.5, 5.0 at BEP	500	80	100	4.00

Below Ground Rainwater Reuse Systems

Model No.	Duty Flow (L/s)	Duty Pressure at BEP (kPa)	Manifold (mm)	Pressure Vessel (L)	Motor (kW)	Tank Size (L)
APWR-Y5-2C-B04-U320-UR4	Up to 1.2, 1.0 at BEP	400	50	60	0.90	4,000
APWR-B5-2C-B04-U740-UR7	Up to 2.5, 2.0 at BEP	350	50	60	1.50	7,000
APWR-B7-2C-B04-U740-UR7	Up to 2.5, 2.0 at BEP	550	50	60	2.20	7,000
APWR-C5-2C-B02-U950-UR11	Up to 3.5, 4.0 at BEP	340	65	80	2.20	11,000

CLEAR WATER TREATMENT AND REUSE SYSTEMS

Case Study: Bannister Downs Dairy

South West, WA



The Project

Bannister Downs Dairy is a family owned dairy farm in the South West of Western Australia. Having always sent raw milk off site for processing, the owners set out to build their own production facility so they could process and bottle in house, a major expansion for the business.

The Challenge

The site had no access to scheme water. Rainfall was captured and stored, but supply was seasonal and could not be guaranteed through summer. That left bore water, which was heavily laden with iron bacteria and low in pH. Before it could be used in food processing, that water had to be brought up to food grade potable standard, on a remote site, for a facility that would run every day.

Our Approach

The hydraulic engineer had worked with the appointed builder before and knew Allied Pumps could engineer a solution. Working with the engineer, the builder and the farmer together, we designed a seven step treatment process rather than specifying equipment against a brief. Each stage addresses a specific property of the bore water, and the order matters, because iron bacteria has to be settled out before filtration and softening can work.

The Solution

The design team built a custom skid mounted treatment system, twelve metres long, giving the client a single location for every pipe connection. Water passes through seven stages: pH adjustment, aeration, flocculant dosing, carbon filtration, water softening, ultrafiltration and ultraviolet disinfection. The skid was pre-wired with a central distribution board before delivery, so tanks and clarifiers could be assembled on site and connected without electrical work in the field.

The Outcome

The treatment system was commissioned and put into production in a very short space of time. The dairy now processes thousands of litres of milk a day, relying on that supply of potable water for both processing and washdown. For a facility with no scheme water and a bore full of iron bacteria, the water treatment was not a service to the operation, it was what made the operation possible.

Why it mattered?

- ✓ The dairy could not have operated without a reliable source of food grade potable water.
- ✓ Pre-wiring the skid meant a plumber could install the system with support rather than requiring a specialist crew.

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