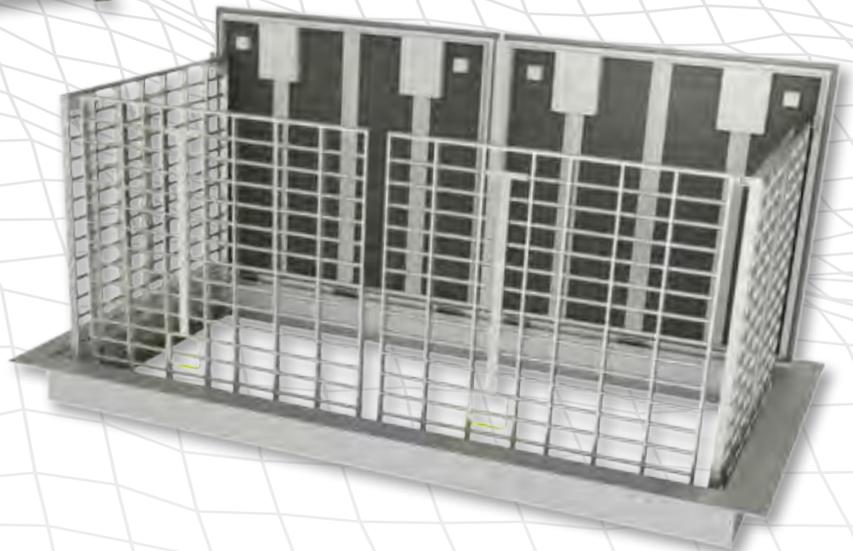
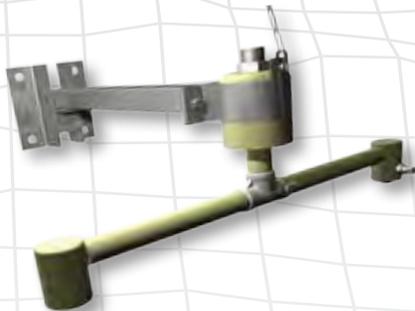


MCBERNS

INNOVATIVE SOLUTIONS



ODOUR MANAGEMENT

SAFETY ACCESS COVERS

DESIGN & FABRICATION

THE M^CBERNS STORY

"Working in the Water and Wastewater sector for 27 years, McBerns has built a solid reputation for providing the highest quality designed and manufactured products with honest, reliable service.

We incorporate Flexibility, Adaptability, Reliability and Innovation into all aspects of our operation, ensuring our clients achieve their best outcomes:

Value for Money, Quality Workmanship and Service."



ZC4000

THE BENEFITS OF CHOOSING McBERNS PRODUCTS AND SERVICES

- 100% Australian owned company with 25 years of trading
- Quality Management Systems Certified
ISO9001 : 2008; OHS AS:18001:2007; ISO 14001:2004
- More than 100 years combined industry knowledge
- McBerns Products are designed and manufactured in Australia
- Solid technical and backup support with full product warranty
- Reliable, efficient and friendly service
- Employ local, buy local
- Supporting local businesses and our community

Members of



McBERNS PRODUCTS ARE DESIGNED AND CUSTOM MANUFACTURED IN AUSTRALIA

THE M^CBERNS STORY

OUR HISTORY

McBerns Pty Ltd is a market leader in Australia for products and services relating to odour management, as well as the leading design manufacturer of void protection safety access covers. We specialise in developing products and services for odour management and maintenance activities that assist in making these tasks safer and faster.

Founded in Queensland in 1991, McBerns started out as a consultancy and Original Equipment Manufacturing (OEM) firm in the water and construction industries. Over the years the company has built quality relationships with its clients based on reliability, trust and an unwavering commitment to customer satisfaction.

These qualities have built the foundations for which the company prides itself and has been a contributing factor to its significant growth from small family business to what it is today. McBerns strives to continue its commitment to providing quality products and services for their clients well into the future.

OUR EXPERIENCE

McBerns staff have more than 100 years combined water industry operating experience and engineering expertise, ensuring that we are well equipped to custom design and manufacture our range of innovative products for use in the water, transport, rail, telecommunication, gas, construction and mining industries.

OUR PRODUCTS AND SERVICES

McBerns offers a complete design and fabrication service for Safety Access Covers and Odour Control Filters. We can also manage your projects from concept to completion as your primary contractor or working in partnership with major consulting engineers and civil contractors.

Our leading products are:

Odour Control Filter Range will eliminate odours from small domestic situations through to large industrial scale odour emissions.

Void Protection Safety Access Covers are custom designed and manufactured to suit each individual site, ensuring better protection for staff when working around open voids.

AutoWellWasher™ is a cleverly designed washing device that uses only water to keep sewerage pump stations clean and fat/grease free.

OUR CUSTOMER COMMITMENT

McBerns is committed to providing superior quality service and ensuring customer satisfaction. Some of our achievements reflecting this ethos include:

Pre-Qualified Supplier with:

- **Local Government Association of Queensland:**
Contract BUS 226-0212- Engineering Consultancy Services
Contract BUS256-0416- Pipes, Pipe Relining, Pumps, Water Meters, Pre-cast Concrete and Fibre Reinforced Products
Contract for BUS253-1215- Civil Works - Marine, Water, Sewerage and Tunnelling.
- **New South Wales Local Government Procurement Arrangement:** Pipes, Pipe Relining, Pumps, Water Meters, Precast Concrete Products and Associated Fittings, Products and Services Contract No. LGP908-3
- Inclusion on the **South-East Queensland Design and Construction Code -Mech.Products & Materials**
- The recognition for innovative design and quality of our safety access covers and the development of new odour abatement technology resulting in the specification of the McBerns odour filter range by more than 20 water authorities throughout Australia and New Zealand.
- McBerns Safety Lids chosen as the preferred product for the Christchurch rebuild in New Zealand
- Quality Management System Certified



MCBERNS CAPABILITIES

DESIGN

With innovative design being an integral part of McBerns' focus since its earliest beginnings, came the inception of their patented product the AutoWellWasher™.

Since then, dedication and focusing on the ongoing development of the company's wide range of products has guided and underpinned the company's design functions.

McBerns combines decades of industry experience with a dedicated design team offering specialist knowledge to develop effective solutions for the water and construction industries.

Be it a complex odour issue or integrated cover and void protection system, McBerns' product range combines safety in design and value for money.

McBerns design services include detailed design and drafting, as well as consulting services backed by RPEQ certification.

FABRICATION & INSTALLATION

McBerns offers a comprehensive fabrication and installation service for Odour Filters and Safety Access Covers. All McBerns products are locally manufactured in Australia.

SEALED SAFETY LIDS

McBerns provides a complete package including design, manufacture and installation of our safety lids. We can supply and deliver our sealed safety lids to site for installation by other contractors.

ODOUR FILTERS

We can monitor and assess your airflow rates and H₂S concentrations and recommend the correct size filter for your site. We install Australia wide and export worldwide.

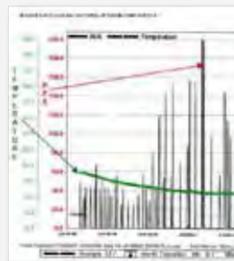
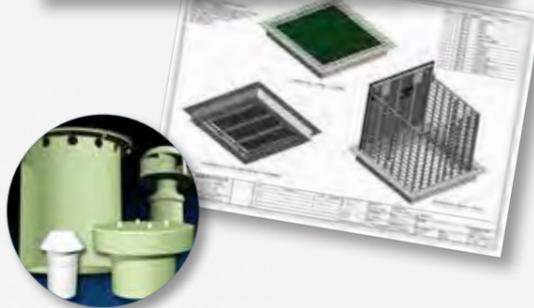
When McBerns manages a safety lid or filter installation we coordinate with your maintenance staff and supervise all the on-site logistics such as site preparation, crane hire, traffic management, removal of old access covers and clean up of site where appropriate.

We can recommend and undertake a maintenance or replacement program for your odour filters.

ASSET MANAGEMENT

Specialising in the water industry, McBerns offers a host of asset management services, specialising in odour monitoring and maintenance as well as inspection, reporting and repair services to support this sector of industry.

- Optimise your current asset maintenance strategy.
- Manage odorous sites and your existing odour filter network.
- Conduct network investigations.
- Undertake manhole, pump station and SPS facility maintenance
- Assess asset condition/corrosion and odour generation potential.
- Conduct H₂S gas monitoring as well as sulphide sampling and testing.
- Assess filter media capacity and the remaining useful life of odour filters, dosing systems and void protection/access systems (i.e. McBerns and other proprietary systems) using best practice sampling and testing methods.
- Provide written reports on facility and/or network performance and develop site specific maintenance plans.



MCBERNS CAPABILITIES

PROJECT MANAGEMENT

McBerns is committed to a provision of best practice products and services, this has allowed the company to develop a reputation of reliability and credibility across Australia and New Zealand.

McBerns operates a certified quality management system and applies this to all projects undertaken regardless of its size. For quality assurance this management system incorporates comprehensive project management, contract administration and associated plans for environmental management.

Occupational Health and Safety (OH&S), risk assessment, construction management, communications, management and traffic management are all aspects covered under McBerns' project management system.

McBerns concentrates on offering attention to detail and professionalism to their clients and this has resulted in an increase in securing larger projects such as a recently completed \$1.9 million third party contract for the design, manufacture and installation of over 200 access covers.

MANAGEMENT SYSTEMS

QUALITY ASSURANCE

For each of its projects undertaken, McBerns develops a specific plan covering all aspects of administration and work methods, document control, inspection and testing as well as compliance check sheets and reporting.

The McBerns Quality Management System, associated policies and procedures are third party certified to ISO 9001:2008.

Independent third party audits are conducted across this system, while structured internal audits are performed to ensure ongoing compliance and continual improvement to systems and procedures.

ENVIRONMENTAL MANAGEMENT

McBerns is thoroughly aware of its potentially significant environmental impacts as a result of the company, its facilities and project locations. For this reason, McBerns works closely with clients and stakeholders to reduce risk and comply with Environmental Management Standards.

In doing this, McBerns aims to accomplish project planning that specifically identifies significant aspects and impacts, risks and compliance requirements to achieve zero incidences and compliance with ISO14001. 2004

WORKPLACE HEALTH & SAFETY

McBerns is committed to:

- Ensuring a safe workplace for its employees
- Continually striving to improve safety performance
- ZERO-HARM work environment.

McBerns is committed to providing a zero-harm workplace environment for its employees and that the company's occupational health and safety management system conforms to AS/NZS4801:2001 standard. McBerns works to identify and rectify any unsafe work conditions and/or practices, as well as promote safe working environments for its employees and sub-contractors.

All McBerns employees and sub-contractors are fully engaged in the system and are made aware of their responsibilities through company and project inductions, toolbox meetings, safe work methods (SWMs) job safety and environmental assessments.



MCBERNS COMBINED MEDIA ODOUR FILTER UNITS

"McBerna Odour Filters don't mask odours, they adsorb, absorb and treat hydrogen sulphide (H₂S), acidic gases and volatile organic compounds (VOCs).

Combined Media Filters are a proven efficient, cost effective way to treat odours without the chemical scrubbing or bio-mass."



Sewage networks worldwide have suffered from problematic odours, and water authorities have always sought to find a solution with varying degrees of success.

For over 20 years, McBerna has worked with water authorities across Australia, New Zealand and internationally and has developed an odour treatment system to provide the perfect solution with their Combined Media odour filter units.

THE FILTRATION PRINCIPLE

Combined media filtration is a multi-stage process allowing for a more comprehensive removal of noxious emissions including, but not limited to, hydrogen sulphide (H₂S) and Volatile Organic Compounds (VOCs).

1. The first stage in this process consists of blended, micro-porous, hyper-absorbent material providing initial odour removal.
2. Activated Carbon adsorption is stage two, further reducing odour concentration.
3. The final stage uses McBerna Media Cartridges. It is at this stage that the filtration process truly surpasses carbon-only filtration. Here the unique McBerna Media Mix absorbs odours and facilitates chemical conversion. It is this process that is key to the removal of any residual hydrogen sulphide along with other gases and VOCs that have not been captured by the carbon.

RESEARCH & DEVELOPMENT

With over 20 years of research and development, coupling data collection and analysis, along with our team's extensive field experience and a rigorous design evaluation process, McBerna has developed a suite of complete odour management solutions tailored to each client's needs.

MCBERNS COMBINED MEDIA ODOUR FILTERS

- ADSORB & TREAT GASES FAST
- LOW OPERATING & MAINTENANCE COSTS
- PASSIVE - NO MAINS POWER REQUIRED
- LONG MEDIA LIFE COMPARED TO STANDARD CARBON FILTERS
- REDUCE CUSTOMER COMPLAINTS
- QUICK, SAFE & EASY TO INSTALL
- REPLACEMENT MEDIA CARTRIDGES
- SIZE RANGE TO SUIT ALL SITES
- ECONOMICAL & EFFECTIVE
- ODOUR LOGGING DATA SUPPORT
- EASY & SAFE SERVICING
- CAN BE ADAPTED TO ANY PIPE SIZE
- WIND ASSISTED OR ELECTRIC FANS AVAILABLE

MCBERNS COMBINED MEDIA ODOUR FILTER UNITS

SIMPLICITY & SAFETY IN DESIGN

Unlike other mainstream odour filtration processes which are complex in design, the McBerna Combined Media Filtration system is simplistic in its design and functionality.

THE MCBERNS UNITS -

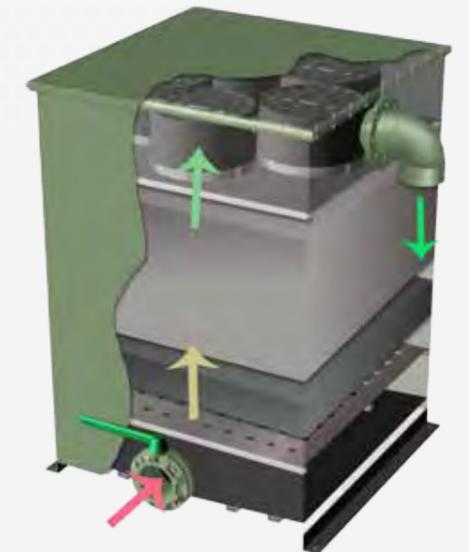
- NEED NO INTERNAL REGULATION OF WATER OR NUTRIENTS
- DON'T USE TEMPERAMENTAL LIVING ORGANISMS
- BEGIN TO TREAT ODOURS INSTANTLY
- OPERATIONAL FLEXIBILITY - CAN BE DISCONNECTED AND RECONNECTED WITHOUT IMPACT TO OPERATIONS
- REQUIRE LITTLE TO NO AUTOMATION OR PROGRAMMING
- ARE CAPABLE OF PASSIVE FILTRATION (NO POWER OR WATER REQUIRED)
- HAVE NO MOVING PARTS, NO PROGRAMMING REQUIRED
- PROVIDE INCREASED SAFETY FOR MAINTENANCE STAFF INCLUDING A REDUCED NEED TO WORK WITH HAZARDOUS MATERIALS

INSTALLATION & MAINTENANCE

McBerna filters are designed to be simple to install and service. In most cases there is no need for electrical or water connections and there is no need for programming to operate efficiently.

Installation is kept simple, as filters are ready for immediate use, requiring only minor site work to connect the filter.

Our Combined Media cartridges make servicing of the McBerna Odour Filter Range easy and safe; no mess, no fuss. And spent cartridges can be disposed into landfill.



During those 20 years, our foremost objective has consistently been to achieve market leading odour abatement, simplicity and safety in design as well as cost effectiveness for customers. Our McBerna Combined Media Filters achieve all of the above and more.

ODOUR ABATEMENT

The odour abatement potential of Combined Media Filtration has proven itself time and time again for customers, often replacing other failed units. It has been found to be effective under Australian water industry conditions with hydrogen sulphide (H₂S) concentration in excess of 1000ppm.

In addition, the unique filtration process allows for the simultaneous filtration of low H₂S averages and high H₂S peaks without the need for filter alteration.

The outstanding performance of Combined Media Filtration continues to impress our customers, regularly outperforming design calculations.

COST EFFECTIVENESS

The simple design of Combined Media Filters offers an affordable solution compared to alternative complex filter options requiring a generous outlay of capital without an effective solution.

Despite the recurring cost of media replacement, McBerna Combined Media Filters offer significant cost reductions. On average, the net present value over a ten year period equates to 40% lower expenditure than its bio-filter equivalent.

VENT COMBINED MEDIA ODOUR FILTERS

All McBerns Vent Filters use Combined Media Filtration. They are designed to be used on venting pipes of varying diameter: vent stacks, pump station buildings, sewer lines, overflow tanks, holding tanks, manholes, trade waste/grease traps and commercial premises where odours occur.

VF300 ODOUR FILTER

AIRFLOW: up to 20 l/s
DIMENSIONS: 385mm Dia Top X 315mm Dia Base X 400mm H
WEIGHT: 15 kg
REPLACEMENT MEDIA: 1 X F300MC media cartridge

Designed to be used at sites experiencing medium to high air-flow rates. Can be adapted to most pipe diameters if required. Can be adapted to carry a wind assisted fan for extra extraction if required.



VF150 ODOUR FILTER

AIRFLOW: up to 7 l/s
DIMENSIONS: 160mm ID X 185mm H X 260mm CAP
WEIGHT: 2 kg
REPLACEMENT MEDIA: 1 X F150MC media cartridge

A very versatile filter that can be used on vent stacks, grease traps and small pump stations.

Suits 150mm dia vent and can be adapted to different vent pipes sizes.

Can be adapted to carry a wind assisted fan for extra extraction if required.



VENT COMBINED MEDIA ODOUR FILTERS

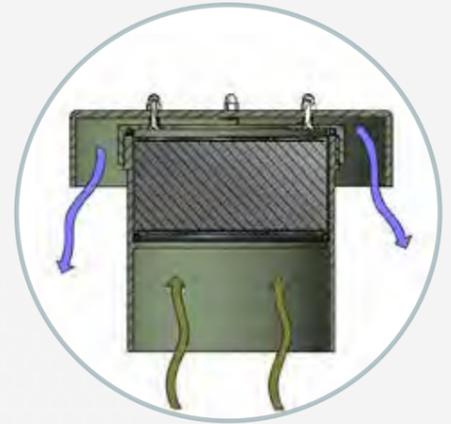
VF100 ODOUR FILTER

AIRFLOW: up to 5 l/s
DIMENSIONS: 110mm Dia Top X 120mm Dia Base X 165mm CAP
WEIGHT: 1 kg
REPLACEMENT MEDIA: 1 X F100MC media cartridge

Designed for use in domestic situations on house toilet or septic vents and grease trap vents.

Suits 100mm diameter vents and can be adapted to different vent pipes sizes

Can be adapted to carry a wind assisted fan for extra extraction if required.

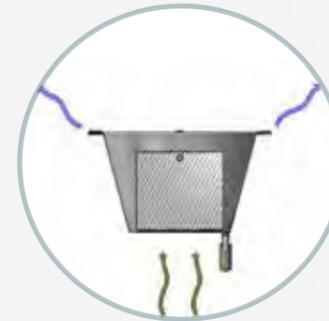


MH300HD UNDER MAN HOLE ODOUR FILTER

AIRFLOW: up to 20 l/s
DIMENSIONS: 620mm Dia Top X 340mm Dia Base X 300mm H
WEIGHT: 19 kg
REPLACEMENT MEDIA: 1 X F300MC media cartridge

Designed to be used under manhole covers. Easy to fit, no fixing necessary.

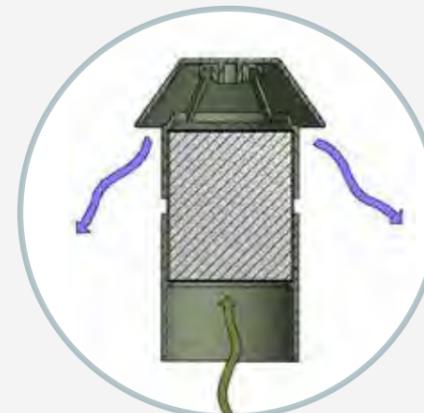
Simply clean the manhole rim of debris and slip filter casing into place, lower MC300HD media cartridge over the opening and place cover back on the manhole.



VF50 VENT FILTER

AIRFLOW: up to 2 l/s
DIMENSIONS: 55mm ID X 125mm H X 85mm CAP
WEIGHT: 0.5kg
Not Rechargeable

Designed to be used in domestic situations on house toilets or septic vents and grease trap vents.



MCBERNS MEDIA CARTRIDGES

Our COMBINED MEDIA cartridges make servicing of all the McBerns Odour Filter Range easy and safe; no mess, no fuss. The spent cartridges can be disposed into landfill.

WIND ASSISTED FAN OPTIONAL

A corrosion resistant, wind assisted fan can be adapted to fit filter Models VF100, VF150, VF300 and vent poles. This can be employed where extraction is required and power is unavailable on site.

GROUND MOUNT COMBINED MEDIA ODOUR FILTERS

Ground Mount Odour Filters improve on site safety, maintenance and expenditure as all servicing is carried out at ground level - there is no longer a need to work from heights, cranes or cherry pickers.

They are suitable for commercial scale odour problems. They are robust vandal proof and will last many years exposed to the harsh environment.

Increasingly the ground mounted filters are being used to replace old corroded vent poles, saving on all future maintenance costs.

WHY CHOOSE A GROUND MOUNT FILTER?

- A PREFERRED REPLACEMENT FOR OLD CORRODED VENT POLES
- EASY INSTALLATION AND SAFE SERVICING AT GROUND LEVEL
- SUITABILITY FOR COMMERCIAL SCALE ODOUR PROBLEMS AND WILL LAST MANY YEARS EXPOSED TO THE HARSH ELEMENTS
- NO MAINS POWER OR WATER REQUIRED
- FULLY RECHARGEABLE WITH OUR SPECIALLY FORMULATED MCBERNS Combined Media CARTRIDGES
- ROBUST, VANDAL PROOF AND COMPACT CONSTRUCTION

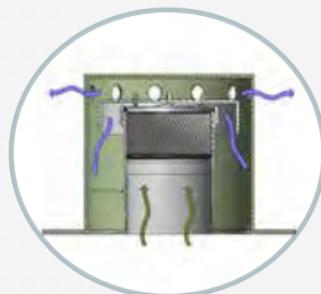


GM150 GROUND MOUNT

AIRFLOW: up to 7 l/s
 DIMENSIONS: 470mm Dia Base X 260mmH
 WEIGHT: 4 kgs
 REPLACEMENT MEDIA: 1 X F150MC media cartridge



GM150 can be mounted at ground level where a vent pole is no longer appropriate and can be used in pump station buildings. A vandal-proof cover can be supplied for outside use.



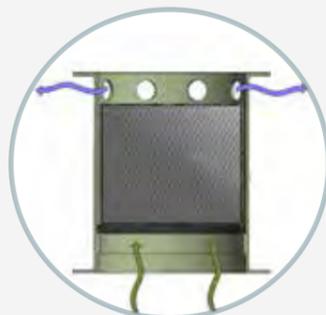
GM300 ODOUR FILTER

AIRFLOW: up to 20 l/s
 DIMENSIONS: 440mm Dia Top X 70mm Dia Base X 460mm H
 WEIGHT: 25 kg
 REPLACEMENT MEDIA: 1 X F300M media cartridge



GM300 is capable of handling airflows up to 20l/s and medium H₂S levels. This unit is designed for passive operation and has a vandal-proof cover making it suitable for installation in public areas.

GM300 has been designed to be installed on receiving manholes and pump stations.



GM300NC ODOUR FILTER

AIRFLOW: up to 20 l/s
 DIMENSIONS: 350mm DiaTop X 410mm DiaBase X 410mmH
 WEIGHT: 25 kgs
 REPLACEMENT MEDIA: 1 X F300MC media cartridge



GM300NC operates the same as the GM300 above. It has been designed without the vandal proof cover which makes it suitable for installation in enclosed or fenced areas.

GROUND MOUNT COMBINED MEDIA ODOUR FILTERS

GM375 & GM375T ODOUR FILTERS



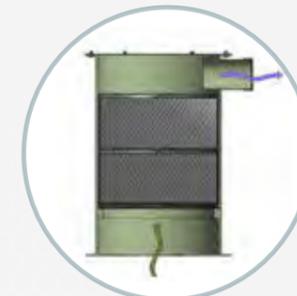
AIRFLOW: up to 40 l/s
 DIMENSIONS: 460mm Dia Top X 470mm Dia Base X 660mmH
 WEIGHT: 60 kgs
 REPLACEMENT MEDIA: 2 X F375MC media cartridges



GM375 is a vented unit designed for passive operations, side-mount installation.

GM375T is a sealed unit designed to be attached over the vent with a vent pole connected to the top outlet.

Capable of handling airflows of 40 l/s and medium H₂S levels, the GM375 is suited for air valves, receiving manholes and pump stations.



GM450 ODOUR FILTER **NEW**

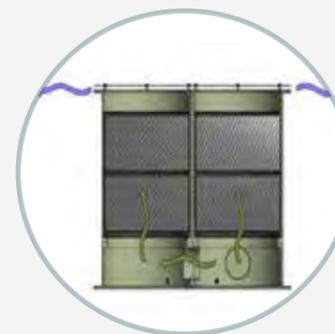
AIRFLOW: up to 50 l/s
 DIMENSIONS: 460mm Dia Top X 460mm Dia Base X 840mmH
 WEIGHT: 90 kgs
 REPLACEMENT MEDIA: 3 X F375MC media cartridges



GM450 is a sealed unit designed to be attached over the outlet vent with a vent pole connected to the top outlet.

Capable of handling airflows of 40l/s and medium/high H₂S levels, the GM450 is suited for air valves, receiving manholes and pump stations.

A wind-assisted fan for vent pole is available.



GM700 ODOUR FILTER

AIRFLOW: up to 60 l/s
 DIMENSIONS: 870mmW X 470mmD X 680mmH
 WEIGHT: 96.6 kgs
 REPLACEMENT MEDIA: 4 X F375MC media cartridges



GM700 is designed for passive operations, in situations with medium/high H₂S levels with high airflow.

Capable of handling airflows of 60l/s through the side inlet point.

Suited for air valves, receiving manholes and pump stations.



MCBERNS MEDIA CARTRIDGES

Our COMBINED MEDIA cartridges make servicing of all the McBerns Odour Filter Range easy and safe; no mess, no fuss. The spent cartridges can be disposed into landfill.



WIND ASSISTED FAN OPTIONAL

A corrosion resistant, wind assisted fan can be adapted to fit filter Models VF100, VF150, VF300 and vent poles. This can be employed where extraction is required and power is unavailable on site.

VENT POLES

VENT POLE PACKAGES **NEW**

McBerns has designed a complete Vent Pole package which can be fully integrated with extraction, power, telemetry and switchboards.

They are RPEQ certified and constructed in galvanised steel pipe, with a 2-pack eucalypt green exterior coating. Internally a PVC lining is installed to prevent hydrogen sulphide gas corrosion.

The vent poles can be manufactured to varying heights, with or without 150mm side stubs.

- 150mm vent pole up to a maximum height of 6.5 metres.
- 300mm vent pole up to a maximum height of 12 metres.

VENT FILTER COWL MOUNT ADAPPTIONS



Various adaption brackets are available for fitting the VF300 Odour Filter to both the 150 or 300mm vent poles.

ENGINEER CERTIFIED FOOTINGS

We have designed footings to suit our 150mm and 300mm vent poles. They have been RPEQ assessed and are certified. There are pad and pier footing arrangements to suit site requirements.



150MM VENT POLES

300MM VENT POLES

PIER FOOTINGS

VF300 ODOUR FILTER ON 300mm VENT POLE WITH TELEMETRY AND WIND ASSISTED FAN

ODOUR FILTER UNIT INSTALLATIONS



300mm VENT POLE WITH TELEMETRY BOX



VF300 ON 150MM VENT POLE



VF300 ON 100MM VENT POLE



MH300HD MANHOLE ODOUR FILTER



GM375



VF300 ON CUT-OFF CONCRETE VENT POLE



GM300



GM375



GM700

ZC-SERIES COMBINED MEDIA ODOUR FILTERS

WHY CHOOSE THE ZC-SERIES ?

- COMBINED MEDIA FILTRATION: 3-STAGE TREATMENT
- TREATS HIGH TO EXTREME LEVELS OF H₂S & VOCs
- HIGH AIRFLOW RATES IN-EXCESS OF 260L/S
- FAST AND EASY TO INSTALL - NO DISRUPTIONS
- RELOCATABLE
- NO PROGRAMMING OR ELECTRONICS REQUIRED
- NO WATER OR BIOLOGICAL ORGANISMS
- SUITABLE FOR LOW SECURITY SITES
- AVAILABLE FOR LONG OR SHORT-TERM HIRE

The ZC-Series Odour Filter Unit demonstrates the true performance of the McBerns Combined Media Filtration. The filter has a proven reputation for eliminating odours fast while being cost effective.

Designed for use on trunk sewerage systems, sewer air-release valves, manholes, pump stations, packaged treatment systems, sewer pressure main discharge and treatment plants.

The ZC-Filters achieve up to 99.9% hydrogen sulphide (H₂S) gas removal through adsorption, absorption and conversion of gaseous compounds. They can be operated as either passive or extractive units, capturing large gas surges which occur with high-volume sewage flows.

They are capable of handling high airflows with high gas concentrations and they operate very effectively in high humidity.

The modular design allows for flexible installation, as they can be fitted as stand-alone units or installed in parallel to increase overall treatment capacity. All models come complete, ready for plumbing on site, reducing shutdown times and disruption to operations.

Operating costs are minimal for the passive installation as electronics, programming and connection to power and/or water is not required to operate efficiently. Ongoing maintenance is also safer and easier to carry out.

The units are fully rechargeable with our Combined Media cartridges and carbon.

A three-phase 'ExE' extraction fan can be added where mechanical air extraction is required.



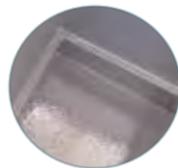
STORM 'EXE' EXTRACTION FAN

AVAILABLE IN 3 SIZES : STORM 12; STORM 16; STORM 25;

Storm EXE fans are three-phase "EXE" explosion and fire proof. The CMG Motors series are designed and manufactured to a high quality, are robust and reliable.

FILTER CONSTRUCTION

The filter housing is robustly constructed in powder coated stainless steel with an internal anti-corrosion polymer coating designed to withstand the highly corrosive environments.



MCBERNS MEDIA CARTRIDGES

Our COMBINED MEDIA cartridges make servicing of all the McBerns Odour Filter Range easy and safe; no mess, no fuss. The spent cartridges can be disposed into landfill.



WIND ASSISTED FAN OPTIONAL

A corrosion resistant, wind assisted fan can be adapted to fit filter Models VF100, VF150, VF300 and vent poles. This can be employed where extraction is required and power is unavailable on site.



ZC1200



ZC-SERIES COMBINED MEDIA ODOUR FILTERS

ZC300 ODOUR FILTER

AIRFLOW: up to 100 l/s
DIMENSIONS: 800mm sq x 1230mmH
WEIGHT: 380 kgs



CONSTRUCTION: powder coated stainless steel with chemical resistant lining
REPLACEMENT MEDIA: 4 X F300MC media cartridges plus Activated Carbon

ZC1200 ODOUR FILTER

AIRFLOW: up to 200+l/s
DIMENSIONS: 1100mm sq x 1300mmH
WEIGHT: 850 kgs



CONSTRUCTION: powder coated stainless steel with chemical resistant lining
REPLACEMENT MEDIA: 5 X F375MC media cartridges plus Activated Carbon

ZC1500 ODOUR FILTER

AIRFLOW: up to 260 l/s
DIMENSIONS: 1100mm sq x 1580mmH
WEIGHT: 1050 kgs



CONSTRUCTION: powder coated stainless steel with chemical resistant lining
REPLACEMENT MEDIA: 5 X F375MC media cartridges plus Activated Carbon

ZC3000 ODOUR FILTER **NEW**

The ZC3000 has a smaller overall footprint with increased treatment capacity, extracting odorous gases adsorbing and treating them through our multi-stage combined filter process.

It is designed for trunk sewerage systems and treatment plants. Typical installation sites are sewers over 200mm in diameter and centralised or on-site treatment plants.

The compact design makes servicing and monitoring simpler with only one test point on the inlet and outlet for H₂S and differential pressure monitoring.

Future servicing is efficient with our easy exchange McBerns Combined Media Cartridges installed in the upper chamber and a blend of activated carbon and natural minerals in the base chambers.

The ZC series odour filters are modular in design and can operate as a stand-alone units or placed in parallel to achieve the designed treatment capacity.

ZC3000 ODOUR FILTER

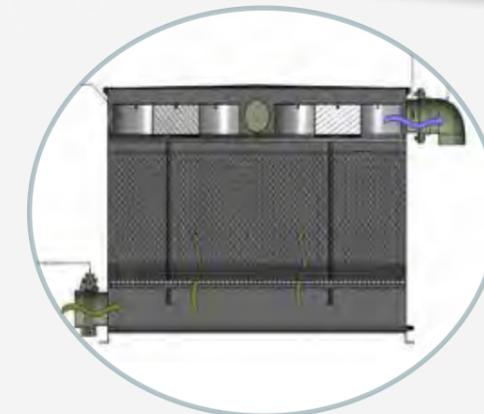
AIRFLOW: over 260 l/s
DIMENSIONS: 1100mmW x 2400mmD x 1560mmH
WEIGHT: 650 kgs + media (approx)



CONSTRUCTION: powder coated stainless steel with chemical resistant lining
REPLACEMENT MEDIA: 10 X F375MC media cartridges plus Activated Carbon



ZC3000



UNDERGROUND COMBINED MEDIA ODOUR FILTER

UG300 UNDERGROUND ODOUR FILTER

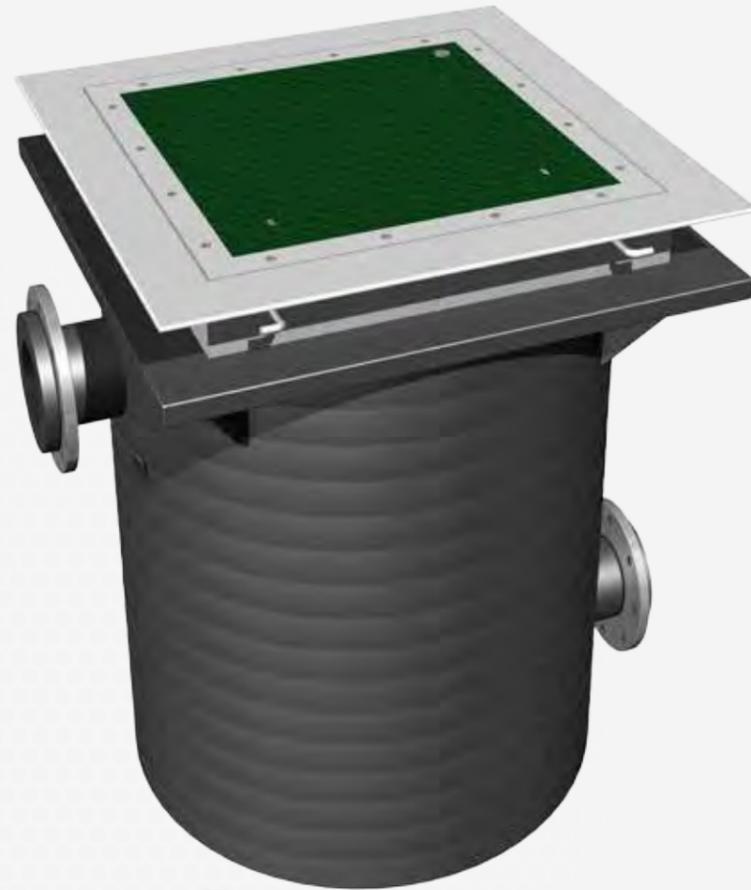
The new McBerns UG300 is an odour filter specifically designed for installation underground.

It is particularly well suited for areas where an above ground unit would restrict site access or be aesthetically undesirable.

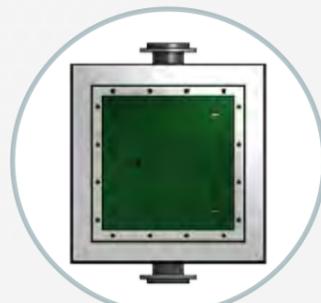
The unit is constructed from chemical resistant HDPE with stainless steel fittings and a trafficable aluminum access cover. Fully rechargeable with McBerns combined media cartridges and carbon.

The cover includes A, B, C and D load rating options allowing for installation beneath high load traffic areas such as driveways.

The UG300 is suitable for use on pump stations, air valves and receiving manholes.



AIRFLOW: up to 100 l/s
 TANK DIMENSIONS: 964mmH x 888mmDia
 LID DIMENSIONS: 960mmSQ x 106mmD
 WEIGHT: 324 kgs (approx)
 REPLACEMENT MEDIA: 4 X F300MC media cartridges plus Activated Carbon

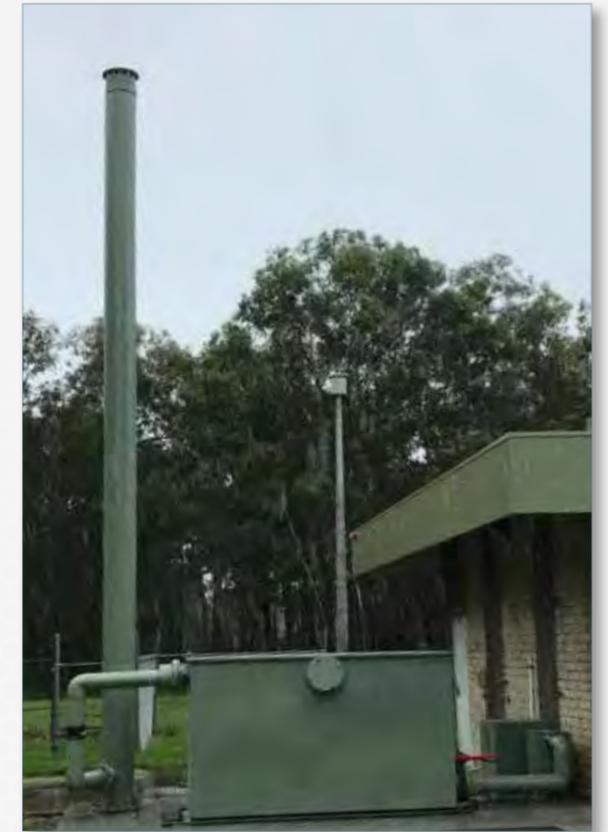


INSTALLING UNDERGROUND ODOUR FILTER IN ROADSIDE VERGE EXTRACTING FROM ADJACENT MANHOLE

ZC-SERIES ODOUR FILTER UNIT INSTALLATIONS



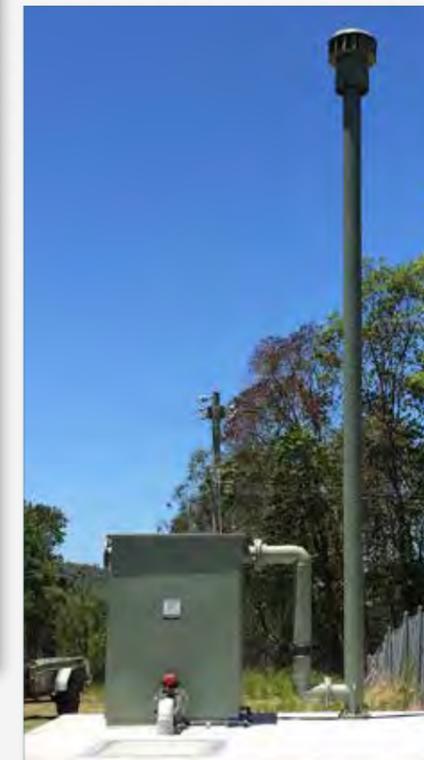
ZC4000



ZC3000



ZC1500 MOUNTED TO A 300mm VENT POLE COMPLETE WITH TELEMETRY CABINET



ZC1500



ZC1200 IN PUMP STATION BUILDING

SAFETY ACCESS COVERS

McBerns has been designing and manufacturing Pump Station Safety Access Covers for over 17 years and they just keep improving. Our access cover designs have set new standards in void protection and workers' safety.

Now specified throughout major Water & Wastewater Authorities. Also used throughout construction, mining and telecommunications companies.

Our innovative 4-side void protection safety grate designs allow for safe, easy access with an external barrier. Suited for use in new pump station designs or retro-fitted to existing sites.

The Safety Access Covers are suited to any situation where fall protection is needed. They are used on pump stations, valve pits, sewerage treatment plants, and water reservoirs.

CONSULTATION • DESIGN • MANUFACTURE

McBerns offers a highly qualified design team skilled with industry knowledge and engineering expertise.

With each McBerns Access Cover individually designed and manufactured to suit specific site requirements, McBerns prides itself on working closely with its customers and being involved from the concept design stage to ensure product suitability and total safety.

Our design consulting service involves:

- Consultation with all stake holders at design stage
- Design specifications and drawings for approval
- On site inspections throughout project life
- Manufactured to meet Australian Standards
- Follow-up maintenance service

SAFETY ACCESS COVER TESTING

McBerns aluminium safety covers comply with the following standards and codes of practice:

AS3996:2006-Access covers and grates.

Our latest laboratory testing results showed the lid sizes complied to a very high standard. Certification for lid sizes

Class A Certification:

1) 1510mm x 2340mm Double opening cover

2) 1490mm x 1490mm Single opening cover

Class B Certification: 1400mm x 1400mm single opening cover

Class D Certification: up to 900mm x 900mm clear opening

AS1657:2013 Fixed platforms, walkways, stairways and ladders

AS/NZS 1866:1997 - Aluminium and aluminium alloys

AS4586:2013- Slip resistance classification, lid slip resistant coating

AS/NZS1665:2004 Cat B-Welding of aluminium structures

AS1391:2007-Metallic materials

WHY CHOOSE A MCBERNS ACCESS COVER ?

- EXCLUSIVE MCBERNS FRAME EXTRUSION -
- CUSTOM MADE TO SUIT SITE REQUIREMENTS
- 4-SIDE VOID PROTECTION SAFETY GRATE SYSTEM
- DESIGN • FABRICATE • INSTALLATION SERVICE
- A, B, C & D, LOAD RATE TESTED
- LIGHTWEIGHT LIFT
- FLUSH MOUNTED OR MOUNTED ON A HOB
- HINGED SAFETY GRATES (REMOVABLE)

INNOVATION

McBerns' innovative designs include an exclusive frame extrusion which ensures McBerns Access Covers are structurally stronger by reducing the number of welds.

This results in better sealing and also increases the strength of the cover. The extrusion enables McBerns to manufacture load ratings A, B, C and D covers for different sites, as well as streamlining production and quality outputs - helping to reduce production costs.

All McBerns access cover designs are assessed for manufacturer compliances and any new designs are assessed and tested to meet the Australian Standards.

AS2865 - Confined spaces, general design considerations

Alpha Test (NATA accredited) test procedure TP208

AS1319 - Safety signs, confined space entry signage.

McBerns will continue to monitor and test our products to ensure compliance and safety are always a top priority.



SAFETY ACCESS COVERS

LFVP: 4-SIDE VOID PROTECTION

- IDEAL FOR NEW INSTALLATIONS
- 4-SIDE SAFETY GRATES BUILT INTO FRAME
- FRAME DEPTH -180MM
- FLUSH MOUNT
- MULTIPLE OPENINGS
- MULTIPLE HINGED/REMOVABLE SAFETY GRATES
- CAN BE MOUNTED ON A HOB TO MAINTAIN EXISTING OPENING

Minimum size for this configuration is 1050mm x 1050mm. Enabling it to conform to AS1657 standard safety barrier minimum height of 900mm when opened.



LFM: FLUSH MOUNT

- IDEAL FOR RETRO-FITTING
- FRAME DEPTH -100MM
- MULTIPLE OPENINGS
- MULTIPLE HINGED/REMOVABLE SAFETY GRATES (SIDE PREFERENCE OPTIONAL)
- CAN BE MOUNTED ON A HOB TO MAINTAIN EXISTING OPENING

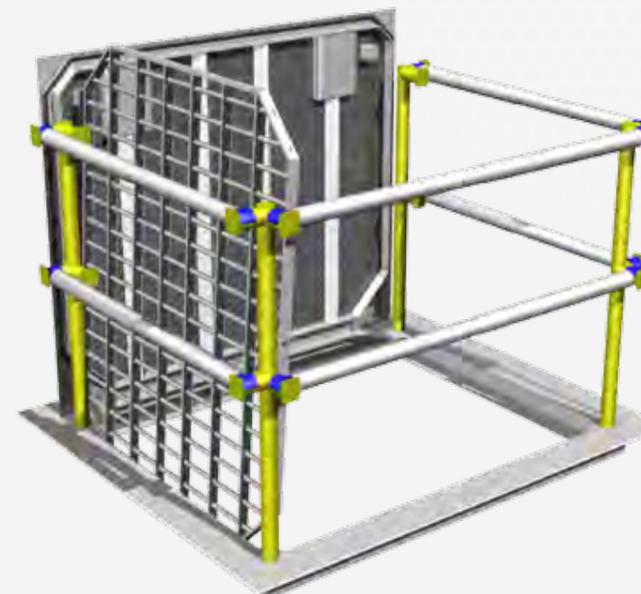


LFPR: WITH POST HOLES *

This configuration is suited for small openings where the grates and openings do not meet AS1657 standard safety barrier minimum height of 900mm. Post and Rail systems can be used with this access cover design.

- POST & RAIL SYSTEM* MEETS REGULATION BARRIER HEIGHT
- FRAME DEPTH -100MM
- POST HOLES UNDER LID IN FRAME
- MULTIPLE OPENINGS
- MULTIPLE HINGED/REMOVABLE SAFETY GRATES (SIDE PREFERENCE OPTIONAL)
- LID OPENS FULLY FLAT TO THE GROUND

* Post and rail kits are available as an optional extra.



SAFETY ACCESS COVERS

BOLT DOWN SAFETY ACCESS COVER

The Bolt Down Access Cover is a tight-seal cover providing an effective solution for voids subject to shallow, flash flooding or any situation where water ingress into the void is possible. The cover designs conform to AS3996.

- **BOLT DOWN ACCESS COVERS CLASS A, B, C and D LOAD RATING**
- **Available up to 900mm X 900mm CLEAR OPENING**

Custom designed and manufactured to suit the site specifications. Extra reinforcing is added to the D-Rated design to increase the load bearing capacity.



MANHOLE SAFETY GRATES

McBerns have designed a safety grate for use on standard manholes. When undertaking maintenance work crews can easily place over an open manhole while carrying out their regular on site duties. They are constructed from strong lightweight aluminium.

MHG-ROLLER GRATE: is a portable grate with guide rollers incorporated for smooth access of water hoses and pump out hoses. Easily removed to allow good access into the void below.

MHG-LOCKBOX GRATE: is portable or can be fixed in place when doing short term maintenance work where the manhole needs to be accessed over a period of time.



MHG- LOCKBOX GRATE

MHG- ROLLER GRATE

VALVE SPINDLE CAP

The Valve Spindle Cap can be fitted into all McBerns access cover designs. The cap is installed over the spindle to allow easy access to the spindle without having to open the cover.

Constructed from aluminium

Sizes available: 100mm and 150mm diameters



REFURBISHMENT OF STP CHANNEL COVERS

McBerns was contracted to refurbish a channel treatment plant. It required the removal of all the old covers and replacement with aluminium surrounds and safety access covers over required access points throughout the site.

SCOPE OF WORK

1. Removal and disposal of existing covers
2. Laser survey on-site for accurate sizing and feature detailing
3. Production and documentation of BIM 3D model
4. Detailing of all treadplate, gussets and fixtures
5. Supply, delivery, installation and testing of:
 - a. 134 m2 of aluminium treadplate with anti-slip coating
 - b. Re-designed inlet screen structure and hatches
 - c. LFM hinged covers, ten (10) off
 - d. Fixtures and fittings to fasten all treadplate covers to existing support structure
 - e. Separation of dissimilar metals to Unitywater specifications
 - f. Sealing of aluminium treadplate for effective odour removal



BEFORE OLD COVERS WERE REMOVED



AFTER NEW SURROUNDS WERE INSTALLED



CRANE LIFTING ACCESS COVERS ON SITE



AFTER NEW ALUMINIUM SURROUNDS WERE INSTALLED BEFORE COATING WAS APPLIED



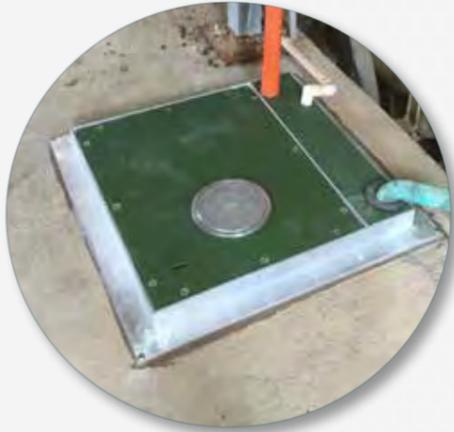
SOME FINISHED SECTIONS OF THE REFURBISHMENT PROJECT



SAFETY ACCESS COVER INSTALLATIONS



MULTI-OPENING SAFETY ACCESS COVER & ZC1200 ODOUR FILTER



BOLT DOWN ACCESS COVER WITH A 150MM SPINDLE CAP



MULTI-OPENING SAFETY ACCESS COVER DESIGN

SAFETY ACCESS COVER INSTALLATIONS



MULTI-COVER CUSTOM DESIGN FOR PUMP STATION UPGRADE



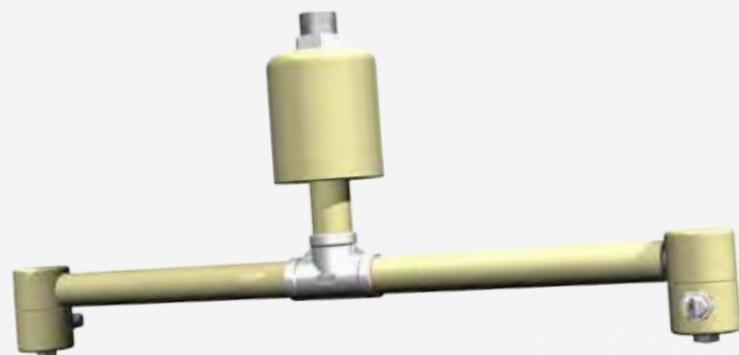
4-SIDED VOID PROTECTION SAFETY ACCESS COVER



CUSTOM DESIGNED ACCESS COVERS



4-SIDED VOID PROTECTION SAFETY ACCESS COVER ON A HOB



AUTOWELLWASHER™

The AutoWellWasher has been in the marketplace for 25 years and is still the preferred method in keeping pump stations fat free

The AutoWellWasher will reduce maintenance in wet wells and tanks that accumulate fats,oils and greases (FOGs)

Our design uses town water or recycled treated effluent at mains pressure to keep pump stations clean.

By installing a wellwasher you will eliminate large fatty build-up in pump stations, this then reduces blockages in pumps and downstream sewers. The level sensors remain clean so the pumps work more efficiently, reducing the risk of overflows due to FOG build-up.

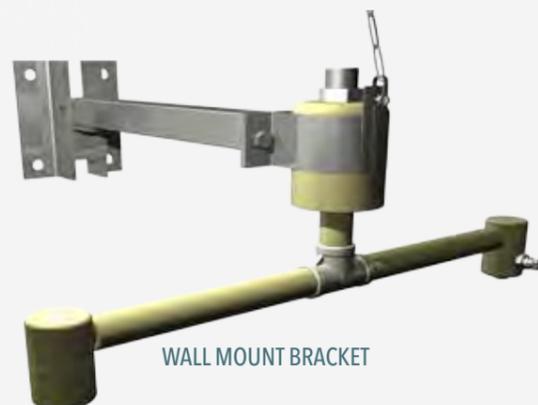
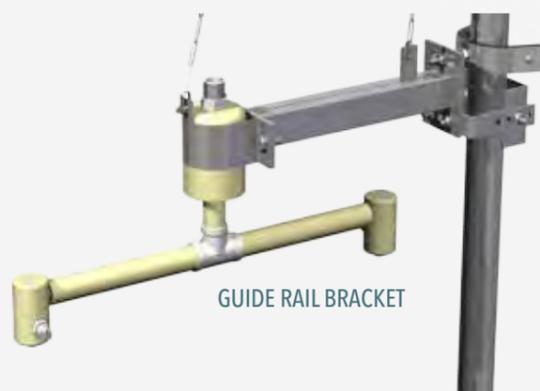
It has also been shown to significantly reduce sulphide corrosion on concrete walls, pumps and other internal infrastructure components.

There are fewer confined space entries required, only when essential maintenance tasks are needed.

The total water usage for a single washer is as little as 100 litres per day.

During the extreme drought conditions in South East Queensland in the early 2000's one council tweaked the washers down to 1x1 minute wash per day and the washer still kept the pump stations clean.

The AutoWellWasher™ is wholly designed and manufactured in Australia and has Australian, United States & International Patents.



WHY CHOOSE THE AUTOWELLWASHER™

- ELIMINATES FAT & GREASE BUILD-UP ON INFRASTRUCTURE & WALLS
- NO POWER REQUIRED
- OPERATES WITH MAINS PRESSURE WATER
- USES LESS THAN 100 LTS WATER Per/DAY
- CLEANER LEVEL SENSOR PROBES
- REDUCES OVERFLOWS CAUSED BY FOGs
- REDUCES ODOUR
- REDUCES CONFINED SPACE ENTRIES
- REDUCES INFRASTRUCTURE CORROSION
- REDUCES MAINTENANCE
- IMPROVED SAFETY AT PUMP STATIONS
- REDUCES CUSTOMER COMPLAINTS
- HEALTHIER ENVIRONMENT

The principle behind the design is simple:

The AutoWellWasher™ cleans the fat and grease away before it solidifies.

WATER SAVING RELAY

The AutoWellWasher can be programed to use less than 100 litres of water per day .

We are acutely aware that water is a precious commodity and want to care for the environment by keeping consumption to a minimum.

We use the Allen-Bradley Micro810 Smart Relay Controller which is used to activate the wellwasher cycles.

The relay has been pre-programmed with five cleaning cycle durations.

Each cycle variation will ensure that the wellwasher unit will achieve the optimum cleaning results in each pump station.

Easily fitted by an electrician to the board at the pump station.

No programming necessary just select a cleaning cycle.



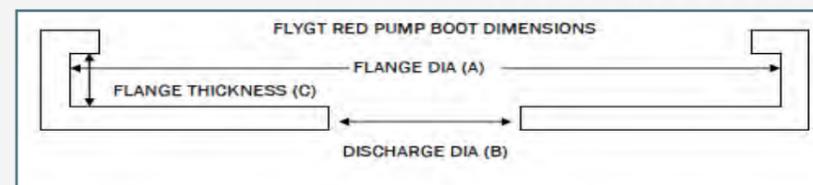
MCBERNS PUMPBOOTS FOR FLYGT PUMPS

McBerna PumpBoots are an innovative polyurethane seal designed to improve pump maintenance.

If the pump volute or pedestal face on a submersible pump is worn and will not seal, then the boots are quick, easy and safe to fit, the pump station doesn't have to be shut down for an extended time.

PumpBoots are manufactured to suit 220mm, 235mm, 285mm and 80mm FLYGT discharge pumps. They are strong, durable and will extend the life of older worn pumps.

Fitted to new pumps will protect them from wear and tear.



RED FLYGT PUMPBOOT DIMENSIONS

FLANGE DIA. (A)	DISCHARGE DIA. (B)	FLANGE THICKNESS(C)
220mm	100mm	X 20mm
220mm	100mm	X 25mm
225mm	100mm	X 25mm
235mm	100mm	X 25mm
285mm	150mm	X 25mm



'EXE' EXTRACTION FANS

'EXE' EXTRACTION FANS

Extraction Fans can be used with the ZC-Series Filters to assist with the fast removal of gaseous odours if required.

The three-phase fans are robust, explosion and fire proof and manufactured to high quality standards.

There is a broad range of sizes and capacities available in extraction fans. We can provide a vandal/weatherproof cover for the fans.

Call us for more information or for advice on which fan best suits your needs.



STORM 12 ExE EXTRACTION FAN

Polypropylene centrifugal exhaust fan is designed to extract highly corrosive gases with a maximum airflow of 550 M³/H and the inlet and outlet dimension of 90mm.

Airflow: 100-550 M³/H **Total pressure:** 200-1200 Pa
Inlet: 90 mm
Material: polypropylene
Motor: single or three phase **Driving:** direct
Frequency: 50 Hz ou 60 Hz , frequency inverter optional



STORM 16 ExE EXTRACTION FAN

Polypropylene centrifugal exhaust fan designed to extract highly corrosive gases with a maximum airflow of 1800 M³/H and the inlet and outlet dimension of 160mm.

Airflow: 500-1800 M³/H **Total pressure:** 250-3000 Pa
Inlet: 160 mm
Material: polypropylene
ATEX: only Zone II only with three phase motors
Motor: single or three phase **Driving:** direct
Frequency: 50 Hz ou 60 Hz , frequency inverter optional



SEAT 25 ExE EXTRACTION FAN

Polypropylene centrifugal exhaust fan designed to extract highly corrosive gases with a maximum airflow of 2500 M³/H and the inlet and outlet dimension of 200mm. Available in ATEX version.

Airflow: 500-2500 M³/H **Total pressure:** 60-1400Pa
Inlet: 200mm **Material:** polypropylene
Motor support options: metal stand, enclosed pedestal or kit roof unit
ATEX: available in Zone II
Motor: single or three phase **Driving:** direct
Frequency: 50 Hz or 60 Hz, frequency inverter optional

TURBO IN-LINE FANS

TURBO IN-LINE FANS

The new Blauberg Turbo in-line mix flow duct fans feature wide capabilities and high performance that are designed to be used in applications that require high pressure, powerful airflow and low noise level.

The fan casing is made from high quality and durable low-flammable polypropylene. Fitted with 220 - 240V single phase at 50Hz. All motors have a sealed ball bearing motor with a service life of up to 40,000 hours, are two speed with an exterior two speed switch and can be fitted with a speed controller. All motors have manual reset thermal overload protection as required for in-line duct fans AS/NZS60335-2-80:2004.

Various sizes are available:

MCB100TMF; MCB125TMF; MCB150TMF; MCB200TMF; MCB250TMF; MCB315TMF;



MODEL	RPM	WATTS	AMPS	m3/hr	dBA
MCB100TMF	1980	0.023	0.10	170	27
	2545	0.025	0.11	220	32
MCB125TMF	1935	0.025	0.11	230	27
	2265	0.030	0.15	345	32
MCB150TMF	1940	0.042	0.18	430	34
	2620	0.050	0.26	560	45
MCB200TMF	1915	0.076	0.34	805	44
	2380	0.108	0.48	1080	52
MCB250TMF	1955	0.125	0.54	1070	47
	2440	0.177	0.79	1360	55
MCB315TMF	2115	0.227	0.99	1420	47
	2505	0.315	1.42	1750	56

McBERNS PRODUCTS ARE DESIGNED AND CUSTOM MANUFACTURED IN AUSTRALIA



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MAJOR CLIENTS WHO SPECIFY M^CBERNS PRODUCTS

- Xylem
- Brisbane Airport Corporation
- Unitywater
- Queensland Urban Utilities
- Redland Water
- Gladstone Regional Council
- Cairns Regional Council
- South Burnett Regional Council
- Fraser Coast Regional Council
- Central Highlands Regional Council
- Goondiwindi Regional Council
- Logan Water
- Mareeba Shire Council
- North Burnett Regional Council
- SEQ Water
- Toowoomba Regional Council
- Western Downs Regional Council
- Alexandrina Council - SA
- Canberra
- Clarence Valley Council
- Byron Shire Council
- Ballina Shire Council
- Tweed Shire Council
- Coffs Harbour City Council
- Port Macquarie-Hastings Council
- Melbourne Water
- Bega Valley Shire Council
- Brewarrina Shire Council
- Greater Hume Shire Council
- Moree Plains Shire Council
- Richmond Valley Shire Council
- Shoalhaven Water
- Eurobodalla Shire Council
- Mid-Western Regional Council
- Taswater
- Christchurch City Council - NZ
- Waimakariri District Council - NZ
- Watercare - NZ
- East Gippsland
- Gippsland Water
- Goulburn Valley Water
- Lower Murray
- North East Water
- South East Water
- GWM Water
- Yarra Valley

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