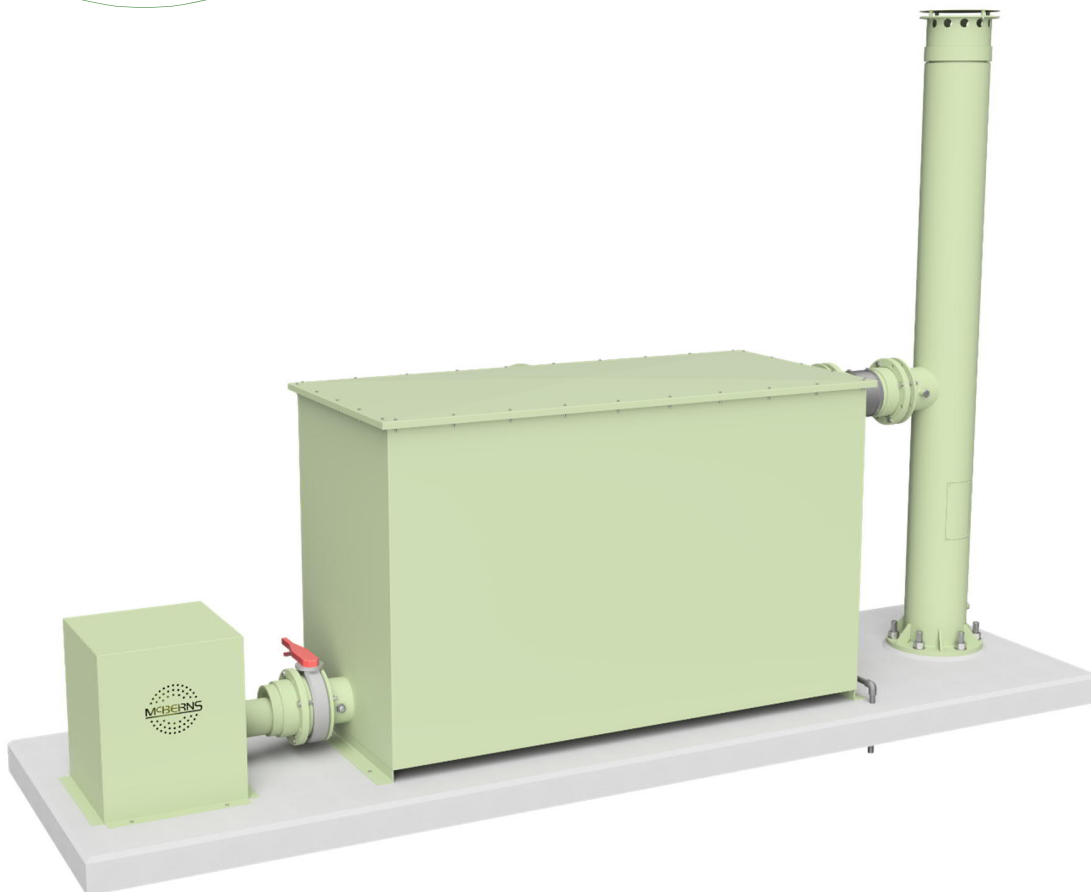


# ZC3000 FAN VP AIR FILTRATION SYSTEM INSTALLATION MANUAL



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## 1.0 Safety Advice

- Keep out of reach of children
- Refer to Safety Data Sheet (Appendix A).
- Ensure adequate ventilation when removing filter from pack and installing.
- Do not puncture the container or otherwise interfere with the product as this will reduce the effectiveness and/or produce harmful vapors.
- First Aid Information: Poison Information Centre in each State capital city can provide additional assistance for:
  - Scheduled Poisons: Phone (Australia 13 1126)
  - Ingestion: Rinse mouth with water. Do NOT induce vomiting. Seek medical assistance.
  - Eyes & Skin: Be careful to avoid contact with contents, or fumes from the filter as they may cause irritation to eyes, skin or breathing passages. If contact occurs wash affected area with plenty of water.
  - Inhalation: Remove victim from exposure. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered.
  - Seek medical advice if symptoms persist.

## 2.0 Overview

The (air filtration system) is designed to treat wastewater odour emissions entering the inlet compartment via the DN150 uPVC butterfly valve. The odour emissions are processed in three stages, which comprises of:

1. Initial treatment by the Potassium Hydroxide (KOH) Impregnated Activated Carbon,
2. Secondary treatment by McBems Proprietary Bulk Combined Media, and
3. Tertiary treatment by McBems Proprietary Combined Media Cartridges, which is then emitted to atmosphere.

The odour control unit is fabricated from 316 Stainless Steel with the exterior powder coated in 'Pale Eucalypt'. The interior is sprayed with an approved chemical and corrosion protective coating.

## 3.0 Installation

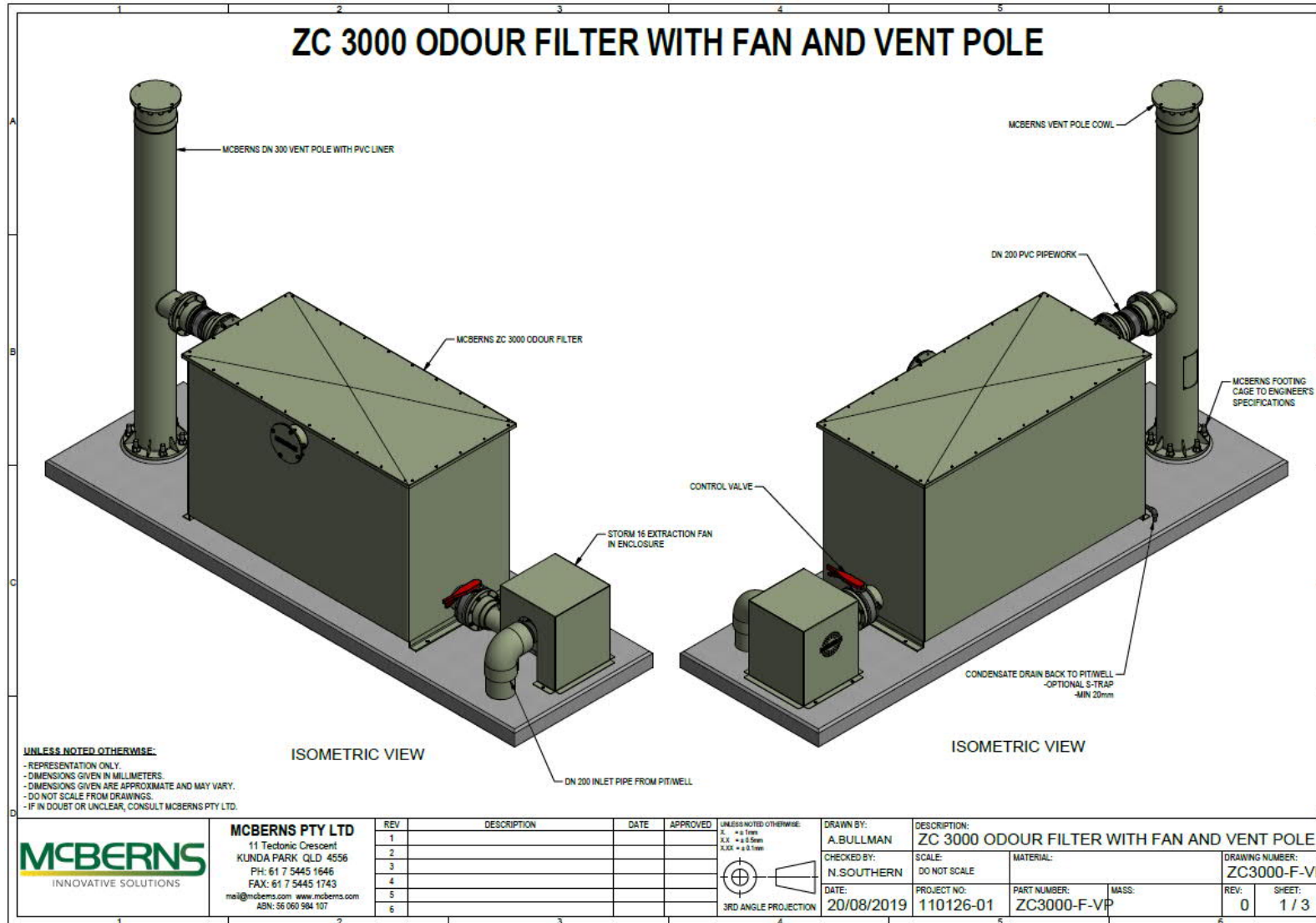
*Note: Failure to comply with installation procedure will result in a void of warranty.*

1. Confirm position and site layout with local authority ensuring a suitable and level base for the unit.
2. Remove lid of filter to access the required kit componentry supplied.
3. Install butterfly valve and flange on (filtration unit) inlet using M16 x 140mm 316 Stainless Steel bolts, nuts and washers supplied.
4. Install DN200 flange and gasket supplied to (filtration unit) outlet and align with the vent pole position.
5. Connect filtration unit to ventilation pole using DN200 uPVC pipework and connections, with fall back to filtration unit. Please ensure the ventilation pole is suited for the filtration unit.
6. Connect ventilation pipe from odour source to the extraction fan inlet and connect extraction fan outlet to filtration unit inlet via DN150 - DN200 uPVC reducer and DN200 pipe. Ensure piping is installed and sealed as per pipe manufacturer specifications to prevent odour egress. Pipework to fall back to odour source for drainage purposes.
7. Secure extraction fan with 4 off M6 316 Stainless Steel DynaBolts supplied.
8. A certified and competent electrician to install electrical connection to extraction fan.
9. Fit extraction fan cover over extraction fan and secure with M8 316 Stainless Steel DynaBolts supplied.
10. Fix filtration unit using the M12 DynaBolts supplied via (filtration unit) mounting feet.
11. Load KOH Impregnated Activated Carbon supplied onto the internal bottom shelf, level off and overlay with supplied mesh (44 x 25kg bags).
12. Load McBems Combined Media (Bulk) supplied and level off (14 x 15kg bag).
13. Wipe the internal top shelf with a damp cloth where the media cartridges will be seated, to remove any dust or grit which will prevent achieving a sufficient seal around the base of the media cartridges.
14. Apply a bead of supplied sealant to the rubber seals located on the internal top shelf; not doing so will prevent a sufficient seal.
15. Remove the cartridge from the protective plastic bag.
16. Install cartridges on the top shelf within the designated cartridge locations.  
Cartridges are to be installed "THIS WAY UP ↑" as per instructions on cartridge.  
Slightly rotate cartridge to seat base to the rubber seal.
17. Re-secure top cover using M6 x 50mm 316 Stainless Steel bolts, nuts and washers supplied.
18. Install drain using ball valve assembly and fittings supplied, install DN20 uPVC schedule 80 pipework drain assembly connecting from approved drain location to ball valve assembly; ensure adequate fall from unit to drainage source is provided.
19. Operate inlet butterfly valve to allow odour emissions to flow through unit and check for leaks with a soapy water solution.
20. Set to specified flow rate using butterfly valve.

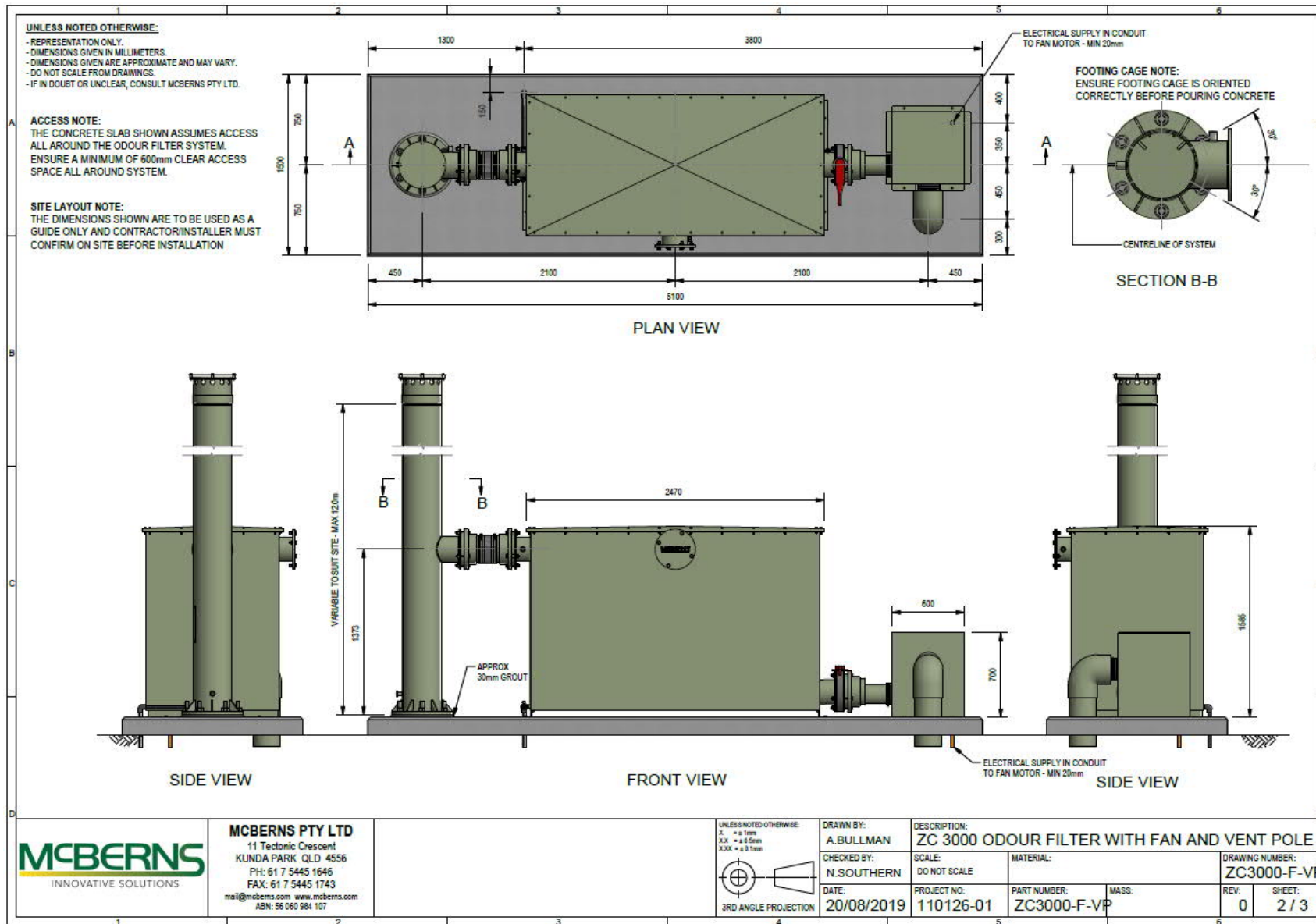
## 4.0 Bill of Materials

Item	Item No.	Description	Qty.
1	FLANGE200MM	DN200 uPVC Flange	2
2	FGASKET200MM	DN200 EPDM Gasket	1
3	FBOLTM16X70	M16 x 70mm 316 Stainless Steel Bolts	8
4	FM16HEXNUT	M16 316 Stainless Steel Nuts	16
5	FWASHERM16X30	M16 316 Stainless Steel Washers	32
6	DYNA1275	M12 316 Stainless Steel DynaBolts	4
7	FREDUCEOFF	DN200 – DN150 uPVC Reducer	1
8	FTAPDRAIN FELBOWDRAIN FDRAINADAPTOR	Drain Assembly	1
9	F50MESH	Layer Mesh	1
10	FVALVEBUT200	uPVC Butterfly Valve	1
11	ZCBOLTSSM16X140	M16 x 140mm 316 Stainless Steel Bolts	8
12	FCARBONK	Activated Carbon 25kg bags	44
13	FZEOLITE3/7	Combined Media (Bulk) 15kg bags	14
14	FC375MC	Combined Media (Cartridges)	10
15	SCREWM6X50HEX	M6 x 50mm 316 Stainless Steel Bolts	30
16	HEXNUTM6	M6 316 Stainless Steel Nuts	30
17	WASHERM6	M6 316 Stainless Steel Washers	60
18	FSTORM16	Extraction Fan	1
19	WWDBOLT6	M6 316 Stainless Steel DynaBolts	4
20	FSTORM16COVER	Extraction Fan Cover	1
21	DYNAM840	M8 316 Stainless Steel DynaBolts	4
22	ZC3000-S	Filter Unit Housing	1
23	N/A	ZC Installation Manual	1
24		Vent Pole	

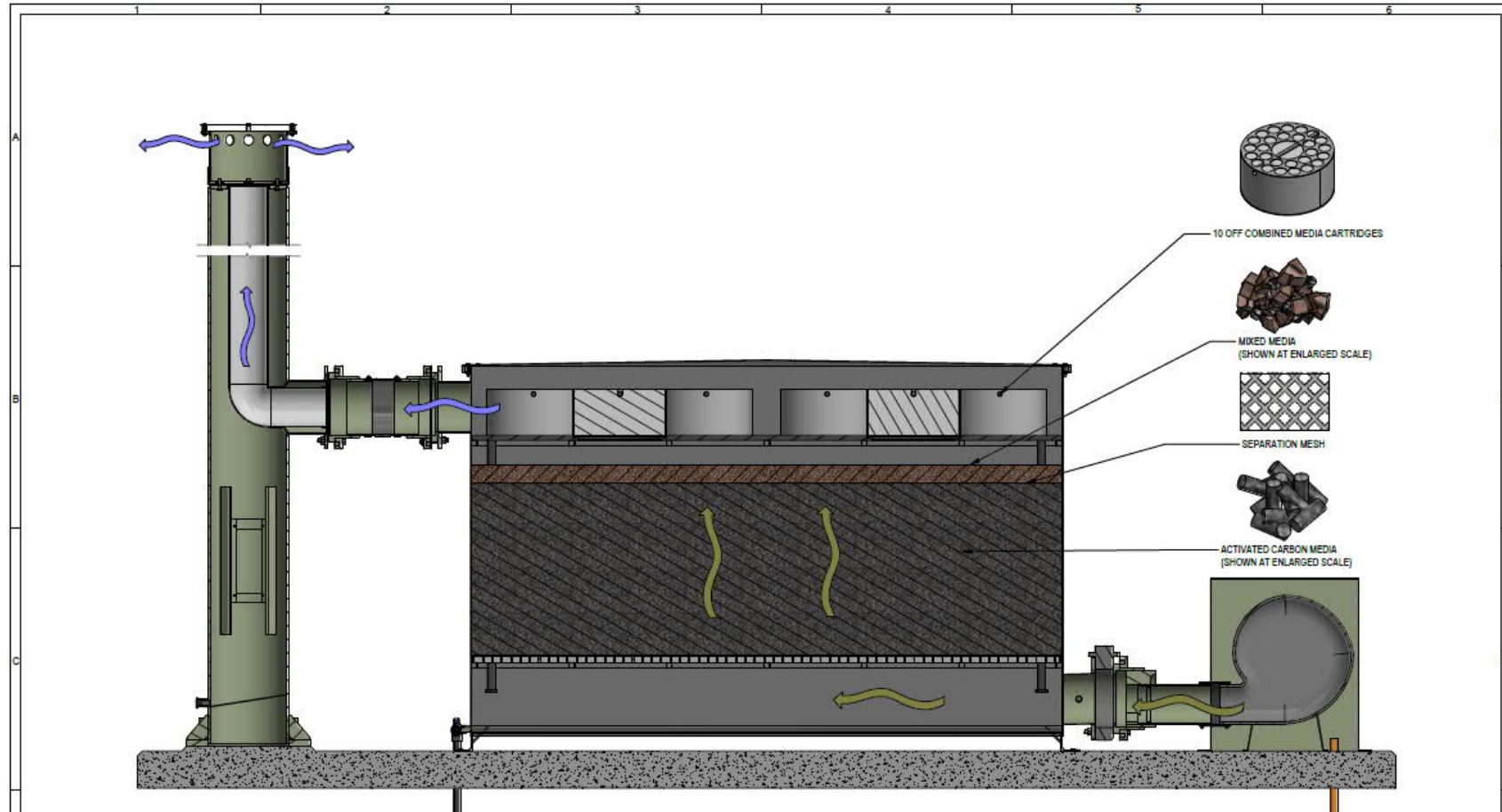
## 5.0 Appendix A – As Built Drawings



Responsibility:	Cathi Southern	Identification Number:	6398
Version:	1	Version Date:	29/04/2020



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SECTION A-A



**MCBERNS PTY LTD**  
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PH: 61 7 5445 1646  
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[mail@mcberns.com](mailto:mail@mcberns.com) [www.mcberns.com](http://www.mcberns.com)  
ABN: 56 060 984 107

UNLESS NOTED OTHERWISE:  
X<sub>1</sub> = ± 0.1mm  
X<sub>2</sub> = ± 0.25mm  
X<sub>3</sub> = ± 0.5mm  
 3RD ANGLE PROJECTION

DRAWN BY:  
**A.BULLMAN**  
CHECKED BY:  
**N.SOUTHERN**  
DATE:  
**20/08/2019**

DESCRIPTION: <b>ZC 3000 ODOUR FILTER WITH FAN AND VENT POLE</b>		DRAWING NUMBER: <b>ZC3000-F-VP</b>	
SCALE: DO NOT SCALE	MATERIAL:	REV: <b>0</b>	SHEET: <b>3 / 3</b>
PROJECT NO: <b>110126-01</b>	PART NUMBER: <b>ZC3000-F-VP</b>	MASS:	

Responsibility:	<i>Cathi Southern</i>	Identification Number:	6398
Version:	1	Version Date:	29/04/2020