

Test report

1. Document Control

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Report Number: STU-13-1-REP-Maxi Filtra-3



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PROVE Authorised Signatory

Date: 22/08/2014



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PROVE Authorised Signatory

Date: 22/08/2014

Issue Date	Release Number	Description
01/11/2013	1	Initial issue
01/11/2013	2	Release 2 supersedes initial report. Amended typographical errors.
22/08/2014	3	Release 3 supersedes previous releases.

2. General

Test Item:	Odour control filter
Standard tested to:	ATS 5200.483:2012
Sample(s) selected by:	Studor Ltd
Sample(s) delivered by:	Courier
Mode of delivery:	Courier
Date Received:	25/09/2013

3. Referenced documents

The following documents have been referenced for testing and reporting.

Standard	Standard Name
ATS 5200.483:2012	Technical Specification for plumbing and drainage products. Part 483: Odour control filter

4. Specimens Description

Sample ID	Sample description	Specifications
PROVE Sample ID: Maxi-Filtra	Brand: Studor Model: Maxi-Filtra odour control filter Code: Maxi-Filtra	Material: ABS with rubber connection Activated carbon filter Size: DN80 / DN100 Inlet connection: DN80 or DN100 DWV pipe to AS/NZS 1260

Three samples of filter cartridges were supplied, labelled by Studor as, 2001, 2013 and 2016



Figure 4.1 – Maxi-Filtra assembly



Figure 4.2 – Maxi-Filtra assembly (cap removed)



Figure 4.3 – Activated carbon filter

All results of testing in this report relate only to the items tested, and listed above.

5. Performance Requirements – ATS 5200.483:2012

Section 9 of ATS 5200.483:2012 – Performance requirements and test methods

Test Reference Standard:	Clause 9.1 of ATS 5200.483:2012 – Airflow capacity		
Test Method Standard:	Appendix B of ATS 5200.483:2012		
Date of Test:	30/09/2013		
Test Officer:	Terry Nguyen		
Sample ID	Requirement	Result	Conformity to Clause 9.1 of ATS 5200.483:2012
Sample 2016	When tested in accordance with Appendix B, the airflow capacity of the vent filter shall not deviate from the manufacturer’s data by more than ±10%	Measured flow rate is within 10% of manufacturer’s claimed data Refer to Figures 5.1, 5.2 and 5.3 below	Conforms

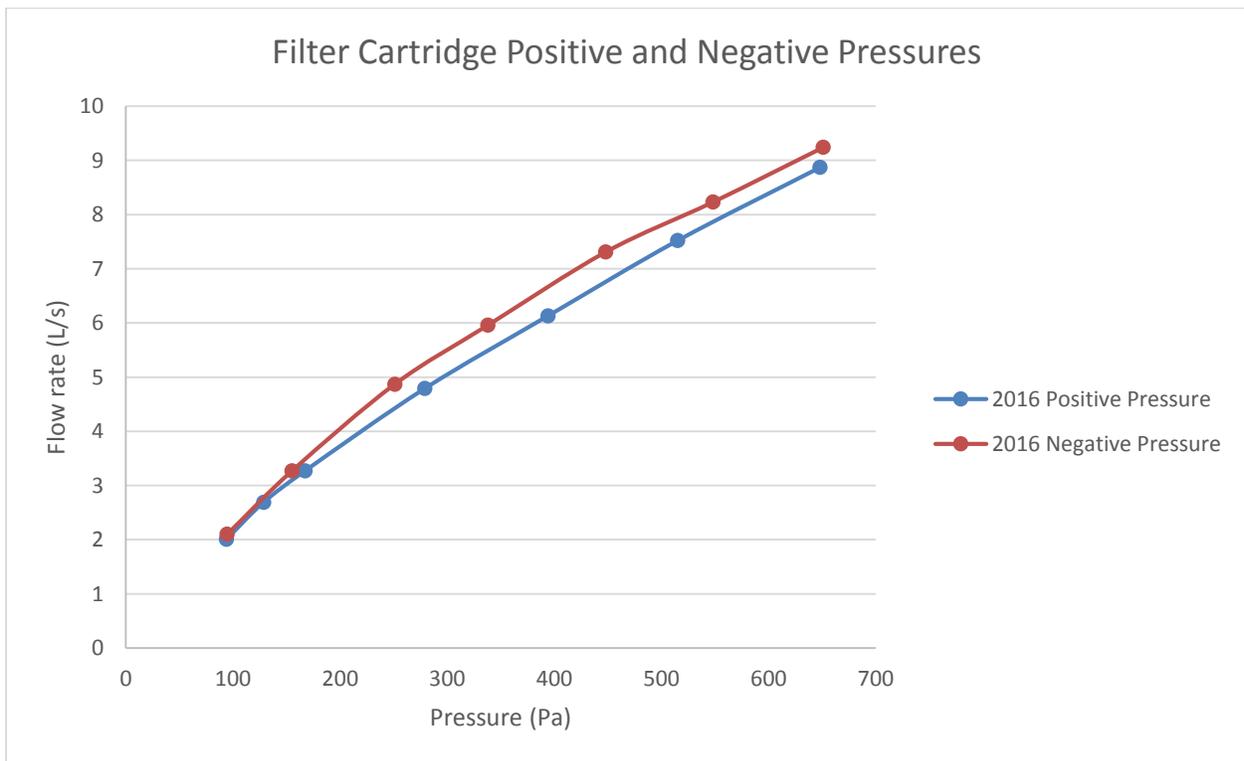


Figure 5.1 – Performance curve of filter (Raw data from positive and negative pressures tests)

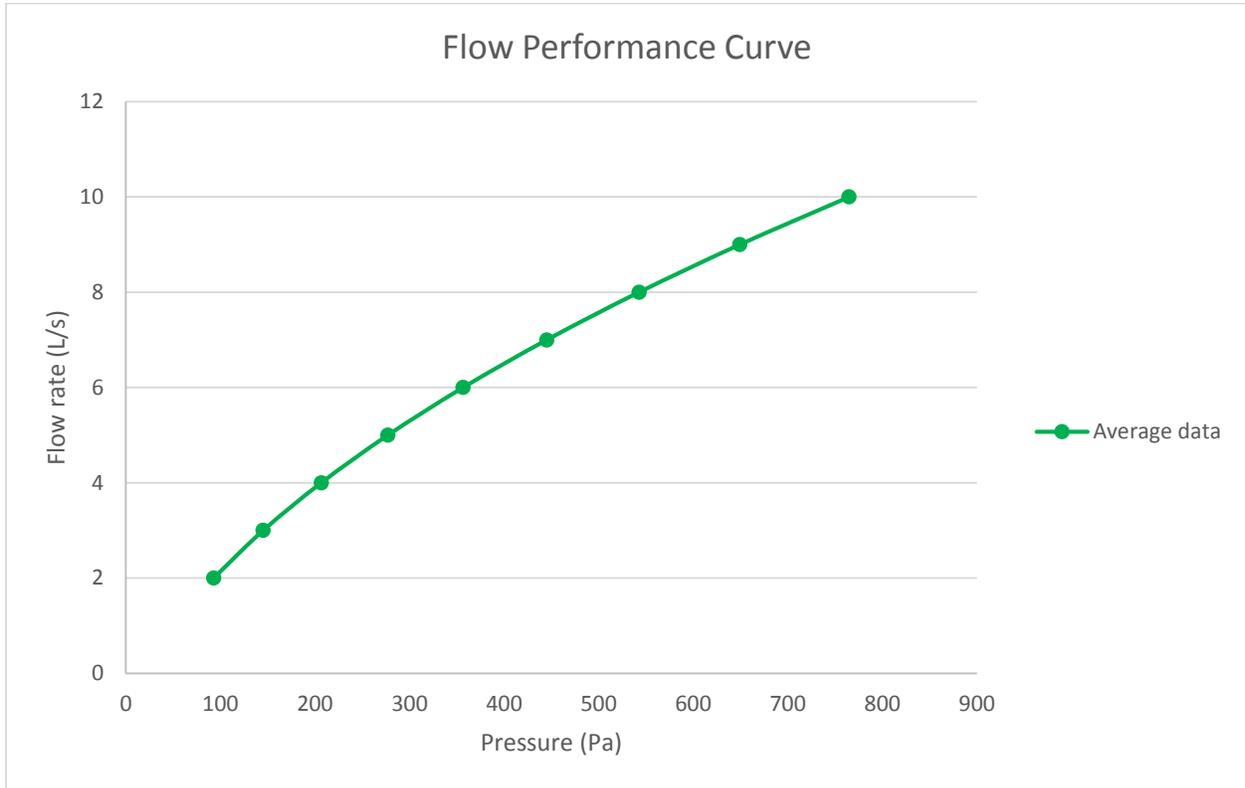


Figure 5.2 – Performance curve of filter (Average)

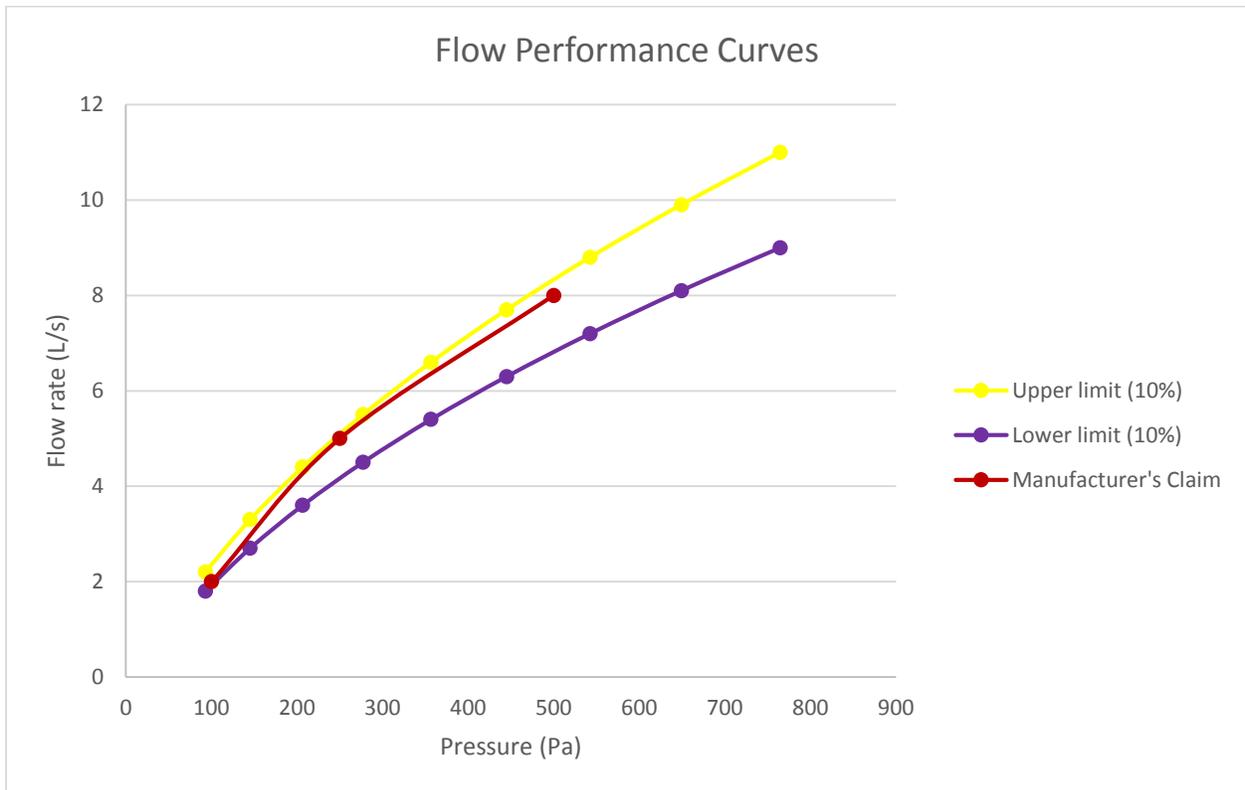


Figure 5.3 – Performance curve of filter (Comparison against manufacturer's claim)

Test Reference Standard:	Clause 9.2 of ATS 5200.483:2012 – Odour reduction (H ₂ S removal)			
Test Method Standard:	Appendix C of ATS 5200.483:2012			
Date of Test:	18/10/2013 – 20/10/2013			
Test Officer:	Terry Nguyen			
Sample ID	Requirement	Result		Conformity to Clause 9.2 of ATS 5200.483:2012
Sample 2013	When tested in accordance with Appendix C, the filter assembly shall demonstrate a reduction of at least 75% in hydrogen sulphide gas.	Hydrogen sulphide gas measured with filter in place		Conforms
	The concentration of gas is measured both with and without the filter media present to determine the reduction of odorous gas.			
	Samples are taken at intervals of; 5, 10, 15, 60,120 and 180 minutes from the commencement of the test.	5 minutes:	0.0 ppm	
	Hydrogen sulphide gas measured without filter media present = 10.0 ±0.2 ppm at 1.0 L/m constant throughout duration of all test samples (refer to note 1)	10 minutes	0.0 ppm	
		15 minutes	0.0 ppm	
		60 minutes	0.0 ppm	
		120 minutes	0.0 ppm	
Inlet gas concentrations during testing phase were continually checked to ensure no deviations occurred.	180 minutes	0.0 ppm		
Note 1	The concentration of hydrogen sulphide gas to be used for the test given in method given in Appendix C of ATS 5200.483:2012 is undefined. PROVE used hydrogen sulphide gas at a concentration of 10 ppm throughout the test to represent likely field conditions as advised by IAPMO Oceana.			

Test Reference Standard:	Clause 9.2 of ATS 5200.483:2012 – Odour reduction (Ammonia removal)				
Test Method Standard:	Appendix C of ATS 5200.483:2012				
Date of Test:	18/10/2013 – 20/10/2013				
Test Officer:	Terry Nguyen				
Sample ID	Requirement	Result		Conformity to Clause 9.2 of ATS 5200.483:2012	
Sample 2001	When tested in accordance with Appendix C, the filter assembly shall demonstrate a reduction of ammonia.	Ammonia gas measured with filter in place		Conforms	
	The concentration of gas is measured both with and without the filter media present to determine the reduction of odorous gas.				
	Samples are taken at intervals of; 5, 10, 15, 60,120 and 180 minutes from the commencement of the test.	5 minutes:	0.0 ppm		
		10 minutes	0.0 ppm		
		15 minutes	0.0 ppm		
		60 minutes	0.0 ppm		
		120 minutes	0.0 ppm		
Ammonia gas measured without filter media present = 25.0 ppm ± 5% at flow rate of 1,0 L/m constant throughout duration of all test samples. (refer to note 2)	180 minutes	0.0 ppm			
Inlet gas concentrations during testing phase were continually checked to ensure no deviations occurred.					
Note 2	The concentration of ammonia gas to be used for the test given in method given in Appendix C of ATS 5200.483:2012 is undefined. PROVE used ammonia gas at a concentration of 25 ppm throughout the test to represent likely field conditions as advised by IAPMO Oceana.				