



# Odour Technologies Pty Ltd

## PRODUCT APPRAISAL REPORT 2038

VS-4 Smartvalve Air Valves for Sewerage

**AS 4883:2017 Air valves for sewerage**

Published: 11 December 2023

## Document History

The following information indicates the changes made to this document.

Date	Version
8 November 2023	Client Review
9 November 2023	Peer Review
11 December 2023	Publication

## Peer Reviewers

Name/Title	Organisation	Date
Product Appraisal Technical Advisory Group	WSAA	23 November 2023
WSAA Expert Panel	WSAA	23 November 2023
Peter Pittard, WSAA Consultant	WSAA	8 November 2023
Carl Radford, Product Appraisal Manager	WSAA	11 December 2023

## Overview of WSAA

The Water Services Association of Australia (WSAA) is the peak industry body representing the urban water industry. Our members provide water and sewerage services to over 20 million customers in Australia and New Zealand and many of Australia's largest industrial and commercial enterprises.

Based around our vision of 'customer driven, enriching life', WSAA facilitates collaboration, knowledge sharing, networking and cooperation within the urban water industry. We are proud of the collegiate attitude of our members which has led to industry-wide approaches to national water issues.

WSAA can demonstrate success in the standardisation of industry performance monitoring and benchmarking, as well as many research outcomes of national significance. The WSAA Executive retains strong links with policy makers and legislative bodies and their influencers, to monitor emerging issues of importance to the urban water industry.

WSAA was formed in 1995 as a non-profit organisation to foster the exchange of information between industry, government and the community, and to promote sustainable water resource management.

The urban water industry is committed to anchoring its services to customers' values, and to enrich communities where water services have broad economic, environmental and social values. In line with this our main activities focus on four areas:

1. influencing national and state policies on the provision of urban water services and sustainable water resource management
2. promoting debate on environmentally sustainable development and management of water resources and the community health requirements of public water supplies
3. improving industry performance and establishing benchmarks and industry leading practices for water service processes; and
4. fostering the exchange of information on education, training, research, water and wastewater management and treatment and other matters of common interest.

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**CONTENTS**

1 EXECUTIVE SUMMARY .....	5
1.1 Recommendations .....	5
2 THE APPLICANT.....	5
2.1 The Manufacturer.....	5
3 THE PRODUCT.....	5
4 SCOPE OF THE APPRAISAL.....	7
5 APPRAISAL CRITERIA.....	7
5.1 Quality Assurance Requirements .....	7
5.2 Performance Requirements .....	8
6 COMPLIANCE WITH APPRAISAL CRITERIA.....	8
6.1 Compliance with Quality Assurance Requirements .....	8
6.2 Compliance with Performance Requirements.....	8
6.2.1 Components material list.....	8
6.2.2 Inlet connections .....	9
6.2.3 Welding.....	9
6.2.4 Type tests.....	9
7 FITTING INSTRUCTIONS, TRAINING AND INSTALLATION .....	9
8 PRODUCT MARKING .....	9
9 PACKAGING AND TRANSPORTATION.....	10
10 PRODUCT WARRANTY .....	10
11 WATER AGENCY EXPERIENCE WITH THE PRODUCT OR FIELD-TESTING REPORT.....	10
12 OUTCOMES OF EXPERT PANEL PRODUCT REVIEW.....	10
13 FUTURE WORKS.....	10
14 DISCLAIMER.....	10
14.1 Issue of Report.....	11
14.2 Limits on Reliance on Information and Recommendations.....	11
14.2.1 Disclaimer of liability.....	11
14.2.2 Intellectual Property and other rights.....	11
14.2.3 Need for independent assessment.....	12
14.3 No Updating .....	12
14.4 No Warranty.....	12
APPENDIX A - PRODUCT LITERATURE.....	13
APPENDIX B - QUALITY CERTIFICATIONS.....	20
APPENDIX C – WATER AGENCY FEEDBACK REPORTS.....	23
APPENDIX D - SUPPLIER CONTACTS .....	24

## 1 EXECUTIVE SUMMARY

Odour Technologies Pty Ltd is a family business established in 1997, near Brisbane Queensland, to eliminate industrial waste odour. The company is the designer and manufacturer of a range of twin chamber combination air valves for sewerage applications.

This Appraisal is for a range of PN16 VS-4 Smartvalve twin chamber combination (double orifice) air valves in sizes DN 50 to DN 150, manufactured in conformance with AS 4883:2017 *Air valves for sewerage*.

The VS-4 Smartvalve air valves are suitable for sewage and wastewater applications in pump stations, pipelines and treatment plants and may be utilised on pipelines up to DN 900.

The air valves are fully constructed from Grade 316 stainless steel with Nitrile seals and a polycarbonate obturator.

The primary chamber of the VS-4 is fitted with a tubular removable vertical screen to prevent solids larger than 2mm from entering the secondary chamber that contains the float and seal mechanisms. The innovative twin chamber design with a tubular filter overcomes problems of blockage and leakage commonly encountered in many single chamber air valves. Odour Technologies claims 99%+ reliability.

The range of VS-4 air valves includes a standard version and a high flow version. The standard air valve is also available with low-profile and extra low-profile dimensions.

The PN16 valves are flanged to AS/NZS 4087 Figure B7 (PN16) or with a BSP threaded connection. Other flange specifications may be supplied to customer requirements.

Patents for the valve have been granted in Australia, USA and Canada. Patents are pending in 45 European countries.

The VS-4 Smartvalve air valves have ISO Type 5 ApprovalMark Product Certification to AS 4883:2017.

This Appraisal has determined that the range of VS-4 Smartvalve air valves, as detailed in this report, meet the requirements of WSA PS-275 *Air Valves for Pressure Applications – Sewerage* and are considered as 'fit-for-purpose'.

### 1.1 Recommendations

It is recommended that WSAA members, subject to any specific requirements of the member accept or authorise the VS-4 Smartvalve air valves, as detailed in this report, for use in sewerage applications, provided they are installed in accordance with applicable WSAA codes and manufacturers' requirements, where specified.

## 2 THE APPLICANT

The Applicant is Odour Technologies Pty Ltd.

### 2.1 The Manufacturer

Odour Technologies Pty Ltd is a family business, established in 1997, near Brisbane Queensland, to eliminate industrial waste odour. The company is the designer and manufacturer of a range of twin chamber combination air valves for sewerage applications.

For more information see: <https://odourtechnologies.com.au/>

## 3 THE PRODUCT

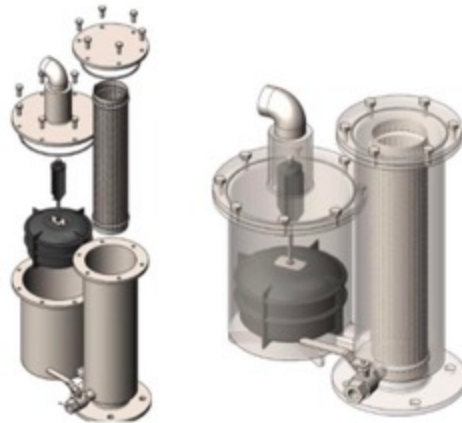
This Appraisal is for a range of PN16 VS-4 Smartvalve twin chamber combination (double orifice) air valves in sizes DN 50 to DN 150, manufactured in conformance with AS 4883:2017 *Air valves for sewerage*.

The VS-4 air valves are suitable for sewage and wastewater applications in pump stations, pipelines and treatment plants and may be utilised on pipelines up to DN 900.

The valve evacuates air during pipeline filling, allows release of air pockets from pressurized pipes and enables large volumes of air intake in the event of network draining.

The air valves are fully constructed from Grade 316 stainless steel with Nitrile seals and a polycarbonate obturator.

The primary (filter) chamber of the VS-4 Smartvalve is fitted with a 100mm diameter removable tubular vertical screen with a 2mm mesh to prevent solids larger than 2mm from entering the secondary chamber that contains the float and seal mechanisms. The innovative twin chamber design with the tubular filter overcomes problems of blockage and leakage commonly encountered in many single chamber air valves. Odour Technologies claims 99%+ reliability. See Figure 1 for configuration of the VS-4 Smartvalve.



**FIGURE 1 VS-4 SMARTVALVE**

The range of VS-4 air valves includes a standard version and a high flow version. The standard air valve is also available with low-profile and extra low-profile dimensions.

The inlets of the PN16 valve may be flanged to AS/NZS 4087 Figure B7 (PN16) or provided with a BSP threaded connection. Other flange specifications may be supplied to customer requirements.



Standard

High Flow

Low Profile

Extra Low Profile

**FIGURE 2 VS-4 SMARTVALVE COMBINATION AIR VALVES FOR SEWAGE**

Patents for the valve have been granted in Australia, USA and Canada. Patents are pending in 45 European countries.

Details of the air valve range is provided in Table 1.

**TABLE 1 VS-4 SMARTVALVE AIR VALVE RANGE**

Model Number	Type	Inlet Flange or BSP Thread, DN	Diameter mm / Flow mm <sup>2</sup>		Height mm	
			Large Orifice	Small Orifice	Filter Chamber	Float Chamber
VS-4-S	Standard	50, 80, 100, 150	38 / 1160	7 / 38	510	485
VS-4-HF	High Flow		60 / 2826	7.5 / 44	540	500
VS-4-LP	Low Profile		38 / 1160	7 / 38	460	455
VS-4-XLP	Extra Low Profile		38 / 1160	7 / 38	300	300

Features of the valve include:

- Reduced blockages and leaks

The innovative twin chamber design with a tubular filter overcomes problems of blockage and leakage commonly encountered in many single chamber air valves.

- Anti-hammer

Anti-hammer is provided by the filter chamber always containing compressed air. This is an automatic feature determined by the pressure in the main. For example, with 200 kPa pressure in the main the filter chamber of the VS-4 can hold up to 14 litres of free air under compression and at 300 kPa mains pressure the filter chamber can hold up to 21 litres of free air under compression.

- Anti-surge

Anti-surge is covered firstly by the horizontal air flow between the twin chambers where the crossover tube is designed to be smaller than the main outlet orifice. This horizontal air flow does not directly impact on the bottom of the float and therefore avoids excessive air velocity in a vertical motion. Additionally, if surge through the valve is strong enough to close the main orifice, the secondary orifice automatically allows a lesser release air flow thus slowing the water column in the main.

- Reduced maintenance

Routine servicing is recommended on an annual basis.

- Ease of maintenance

Maintenance is easily achieved by the on-site removal of the two top covers, from above, with just one 17mm crank spanner. Each VS-4 is supplied with a spare exchange filter screen.

Additional information is included in in Appendix A.

#### **4 SCOPE OF THE APPRAISAL**

The scope of this appraisal includes twin chamber combination (double orifice) air valves in sizes DN 50 to DN 150 for sewerage applications, as detailed in Section 3 and included in the ISO Type 5 ApprovalMark product certification included in Appendix B.

#### **5 APPRAISAL CRITERIA**

##### **5.1 Quality Assurance Requirements**

The WSAA Product Appraisal Technical Advisory Group accepts air valves manufactured in compliance with AS 4883:2017 *Air valves for sewerage* and duly certified by means of an ISO Type 5 product certification scheme undertaken by a JAS-ANZ accredited

Conformity Assessment Body (CAB) or by an international accreditation system recognised by JAS-ANZ.

The manufacturer is generally expected to have a production management and control system that has been duly accredited in accordance with AS/NZS ISO 9001 as a prerequisite to undergoing a product certification audit.

The ISO Type 5 Product Certification Scheme shall meet the criteria described in WSA TN-08.

## 5.2 Performance Requirements

The VS-4 Smartvalve air valves have been appraised for compliance with the material and performance requirements of AS 4883:2017 *Air valves for sewerage*.

Appraisal criteria are also determined by the WSAA Product Appraisal Technical Advisory Group and regularly reviewed to ensure that the criteria reflect the requirements of WSAA members.

The following Product Specification is also relevant to this application:

WSA PS-275 Air Valves for Pressure Applications – Sewerage

A copy of the Product Specification is available at the following link:

<https://www.wsaa.asn.au/shop/product/60961>

## 6 COMPLIANCE WITH APPRAISAL CRITERIA

### 6.1 Compliance with Quality Assurance Requirements

Odour Technologies has submitted the following quality certificates:

- AS 4883:2017 ISO Type 5 ApprovalMark Product Certification Licence No. AMI 74863 issued to Odour Technologies Pty Ltd by ApprovalMark International.

A copy of the Quality Assurance licence has been included in Appendix B and is also available from WSAA.

### 6.2 Compliance with Performance Requirements

#### 6.2.1 Components material list

The VS-4 Smartvalve air valve material specifications for the components are detailed below and are deemed to meet the minimum requirements specified in AS 4883. Material test certificates have been submitted for the critical components to demonstrate compliance.

**TABLE 2 VS-4 SMARTVALVE COMPONENT MATERIAL LIST**

Component	Material	Standard	Grade	C50 and C80 Air Valves
Body and cover	Stainless steel	Relevant standard	PREN $\geq$ 22	Grade 316 SS
Obturator	Plastics	Relevant standard		Polycarbonate
Resilient seal	Elastomer	AS1646	EPDM or NBR	NBR
Seat	Stainless steel or plastics	Relevant standard	PREN $\geq$ 22	Grade 316 SS
Levers, linkages and pins	Stainless steel or plastics	Relevant standard	PREN $\geq$ 22	Grade 316 SS
Spring	Stainless steel	Relevant standard	NA	NA
O-rings	Elastomer	AS 1646, AS 681.1	EPDM or NBR	NBR



Fasteners	Stainless steel	Relevant standard	PREN $\geq$ 22	Grade 316 SS
Drain valve	Stainless steel	Relevant standard	PREN $\geq$ 22	Grade 316 SS
Mesh screen	NA			Grade 316 SS

### 6.2.2 Inlet connections

The flange inlets on the valves comply with AS/NZS 4087 Figure B7 (PN16). Other flange specifications may be supplied to customer requirements.

The BSP tapered male threaded inlets comply with AS ISO 7.1 Series R.

### 6.2.3 Welding

Welding of the stainless steel is undertaken by H & K Engineering in Loganholme Queensland using WTIA certified welders. A typical Inspection report and radiographic examination report has been submitted to demonstrate compliance with required welding specifications.

### 6.2.4 Type tests

AS 4883 specifies a suite of performance type tests to be undertaken for each DN and PN valve in order to demonstrate compliance with the standard.

Tests specified are:

- Static
  - Body strength
  - Seat leakage at high pressure
  - Seat sensitivity at low pressure
  - Endurance
  - Unseating
- Dynamic
  - Air discharge
  - Air intake

Specialist testing equipment is required to undertake performance testing of air valves in accordance with AS 4883. Testing of a VS-4-S valve was completed at the premises of Odour Technologies facilities in Queensland and Australian Pipes and Fittings Testing Centre in NSW. The tests were witnessed by ApprovalMark in conjunction with the ISO Type 5 product certification process and are deemed acceptable.

## 7 FITTING INSTRUCTIONS, TRAINING AND INSTALLATION

Literature and product training videos including Installation, Operation and Maintenance Manuals are available from Odour Technologies or at [www.vs-4.com](http://www.vs-4.com).

## 8 PRODUCT MARKING

The VS-4 air valves are marked in accordance with AS 4883:2017 using a name plate attached to the valve.

- Manufacturers Name: Odour Technologies Pty Ltd
- Serial Number: e.g., S# HF1619
- Nominal Size: e.g., DN 100
- Year of manufacture: e.g., 2023

- Pressure class: PN 16
- Standard number: AS 4883
- ApprovalMark logo:

See Figure 3 for marking details.



**FIGURE 3 MARKING DETAILS**

## **9 PACKAGING AND TRANSPORTATION**

The valves are packed in heavy duty cardboard boxes with appropriate cardboard inserts to prevent damage during handling, transportation and storage.

## **10 PRODUCT WARRANTY**

The products are covered by the normal commercial and legal requirements of the *Competition and Consumer Act 2010 (Cth)* and details of Odour Technology's warranty is included in their Standard Conditions of Sale.

## **11 WATER AGENCY EXPERIENCE WITH THE PRODUCT OR FIELD-TESTING REPORT**

The original design and development of the VS-4 Smartvalve was undertaken with the support of Gold Coast Water during the period from 2000 to 2005. Since its market launch the VS-4 valves have been utilised by many water agencies including Gold Coast Water, Unity Water, QUU, Logan CC, Mid Coast Water, Sydney Water, Yarra Valley Water, South East Water, Greater Western Water, Gippsland Water, Barwon Water, Wannon Water, Mackay Regional Council, Cairns Regional Council, Gladstone City Council and Eurobodalla Shire Council.

Copies of feedback reports from Logan City Council and Mackay Regional Council are attached in Appendix C. Odour Technologies can provide addition reports on request.

The valves are also exported to the UK, Europe, USA, Canada and New Zealand. Details of specific installations are available from Odour Technologies.

## **12 OUTCOMES OF EXPERT PANEL PRODUCT REVIEW**

No issues were raised.

## **13 FUTURE WORKS**

No future works have been identified.

## **14 DISCLAIMER**

This Product Appraisal Report (Report) is issued by the Water Services Association of Australia Limited on the understanding that:

This Report applies to the product(s) as submitted. Any changes to the product(s) either minor or major shall void this Report.

To maintain the recommendations of this Report any such changes shall be detailed and notified to the Product Appraisal Manager for consideration and review of the Report and appropriate action. Appraisals and their recommendations will be the subject of continuous review dependent upon the satisfactory performance of products.

WSAA reserves the right to undertake random audits of product manufacture and installation. Where products fail to maintain appraised performance requirements the appraisal and its recommendations may be modified and reissued. Appraisal reports will be reviewed and reissued at regular intervals not exceeding five (5) years.

The following information explains a number of very important limits on your ability to rely on the information in this Report. Please read it carefully and take it into account when considering the contents of this Report.

Any enquiries regarding this report should be directed to the Program Manager, Carl Radford, email [carl.radford@wsaa.asn.au](mailto:carl.radford@wsaa.asn.au).

#### **14.1 Issue of Report**

This Report has been published and/or prepared by the Water Services Association of Australia Limited and nominated Project Manager and peer group of technical specialists (the Publishers).

The Report has been prepared for use within Australia only by technical specialists that have expertise in the function of products such as those appraised in the Report (the Recipients).

By accepting this Report, the Recipient acknowledges and represents to the Publisher(s) and each person involved in the preparation of the Report that the Recipient has understood and accepted the terms of this Disclaimer.

#### **14.2 Limits on Reliance on Information and Recommendations**

##### **14.2.1 Disclaimer of liability**

Neither the Publisher(s) nor any person involved in the preparation of the Report accept(s) any liability for any loss or damage suffered by any person however caused (including negligence or the omission by any person to do anything) relating in any way to the Report or the product appraisal criteria underlying it. This includes (without limitation) any liability for any recommendation or information in the Report or any errors or omissions.

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The Water Services Association of Australia Limited does not undertake any assessment of whether the importation, manufacture, sale or use of the Product the subject of this Report infringes the intellectual property rights or proprietary rights of any person. Recipients of the report should undertake their own assessment of whether (as relevant) the importation, manufacture, sale or use of the relevant Products infringe the intellectual property rights or other proprietary rights of any person. If the Product infringes intellectual property rights or other proprietary rights there is potential for the supply of the Products to be interrupted.

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are not referred to or disclosed in this Report and which are not otherwise communicated to Recipients.

#### **14.2.3 Need for independent assessment**

The information and any recommendation contained (expressly or by implication) in this Report are provided in good faith (and subject to the limitations noted in this Report). However, you should treat the information as indicative only. You should not rely on that information or any such recommendation except to the extent that you reach an agreement to the contrary with the Publisher(s).

This Report does not contain all information that a person might require for the purposes of assessing any product discussed or appraised within it. The product appraisal criteria used in preparing this Report may not address all relevant aspects of the Product.

Recipients should seek independent evidence of any matter which is material to their decisions in connection with an assessment of the Product and consult their own advisers for any technical information required. Any decision to use the Product should take into account the reliability of that independent evidence obtained by the Recipient regarding the Product.

Recipients should also independently verify and assess the appropriateness of any recommendation in the Report, especially given that any recommendation will not take into account a Recipient's particular needs or circumstances.

WSAA has not evaluated the extent of the product liability and professional indemnity insurance that the provider of the product maintains. Recipients should ensure that they evaluate the allocation of liability for product defects and any professional advice obtained in relation to the product or its specification including the requirements for product liability and professional indemnity insurance.

#### **14.3 No Updating**

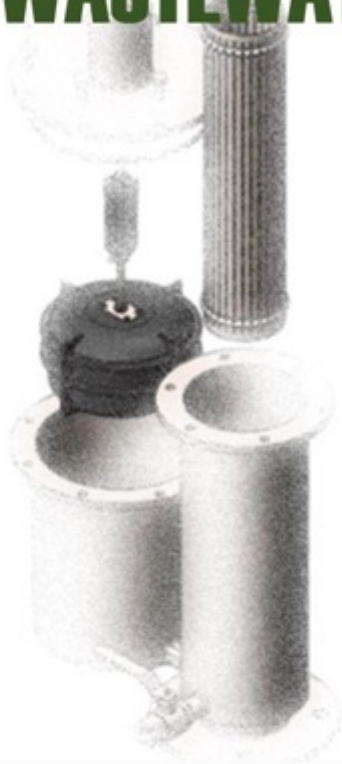
Neither the Publisher(s) nor any person involved in the preparation of this Report [has] [have] any obligation to notify you of any change in the information contained in this Report or of any new information concerning the Publisher(s) or the Product or any other matter.

#### **14.4 No Warranty**

The Publisher(s) do[es] not, in any way, warrant that steps have been taken to verify or audit the accuracy or completeness of the information in this Report, or the accuracy, completeness or reasonableness of any recommendation in this Report.

APPENDIX A - PRODUCT LITERATURE

# A TOTAL REVOLUTION IN WASTEWATER ARV DESIGN



FROM

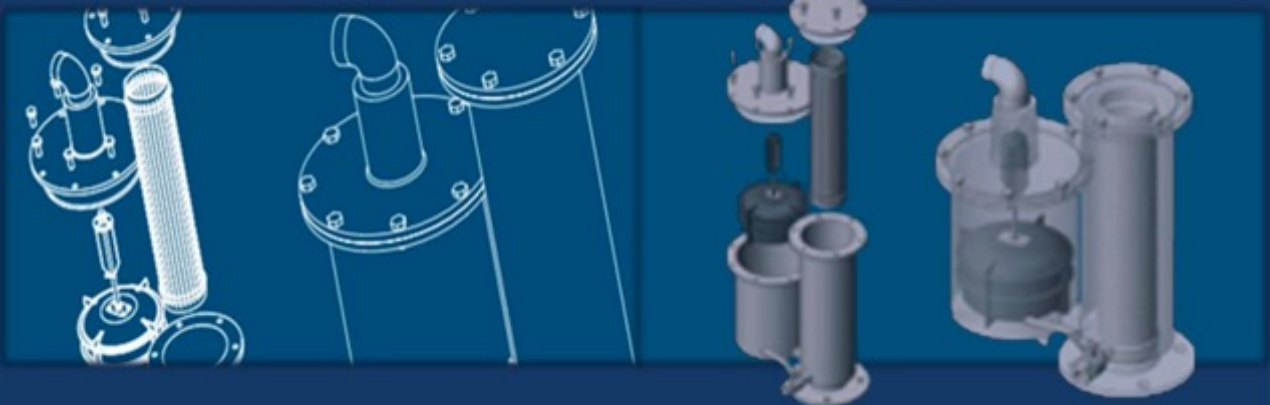


## VALVE DIVISION



# VS-4 SMARTVALVE

Combination Air Release Valves for all  
Sewage and Potable Water Mains



**VISIT: [www.VS-4.com](http://www.VS-4.com)**



# Contents

**VS-4 Smartvalve VS Single Chamber Valve Comparison.....Page 1**



**VS-4-S Smartvalve (STANDARD).....Page 2**



**VS-4-LP Smartvalve (LOW PROFILE) ..... Page 3**



**VS-4-HF Smartvalve (HIGH FLOW) ..... Page 4**



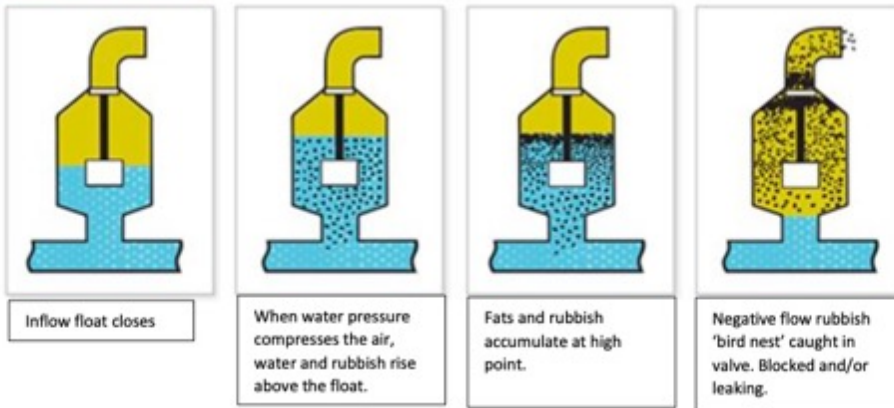
**VS-4-XLP Smartvalve (EXTRA LOW PROFILE) ... Page 5**



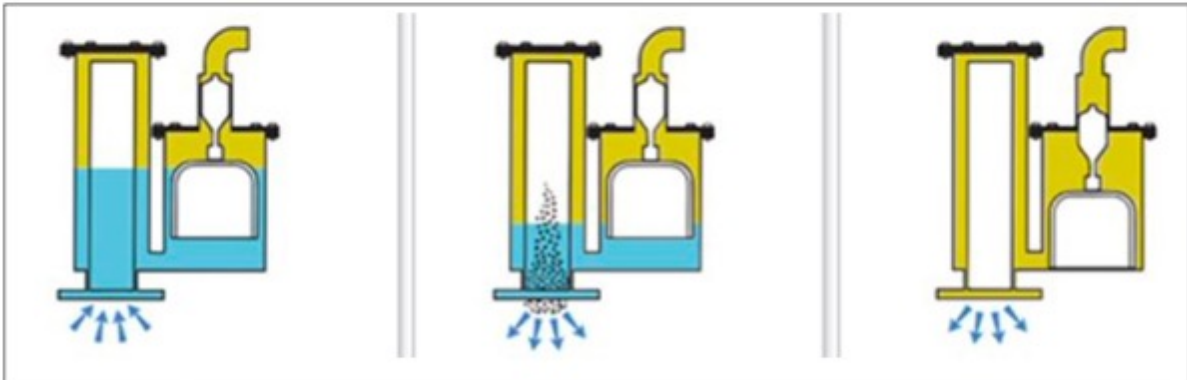
**VS-4-PW Smartvalve (POTABLE WATER) ..... Page 5**

# Comparison

## Single chamber valve



## VS-4 Smartvalve



**Save \$\$\$ on maintenance**

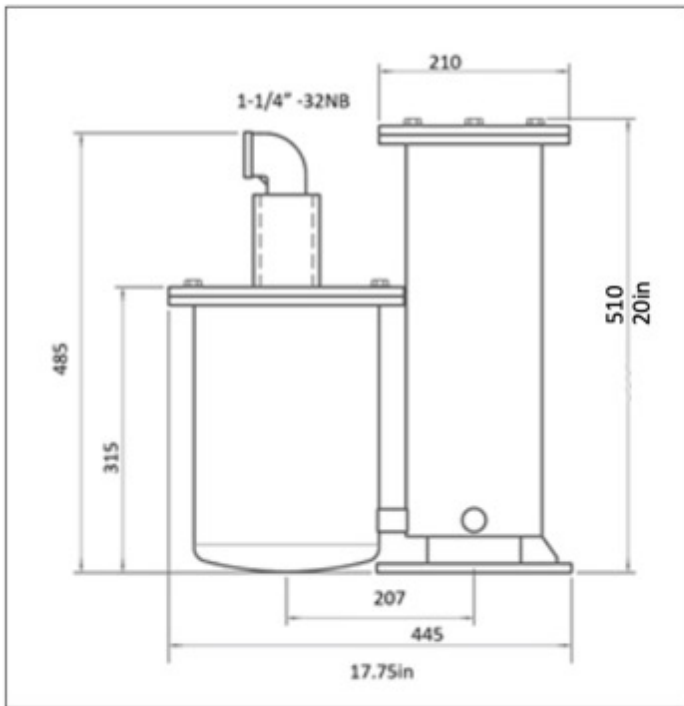
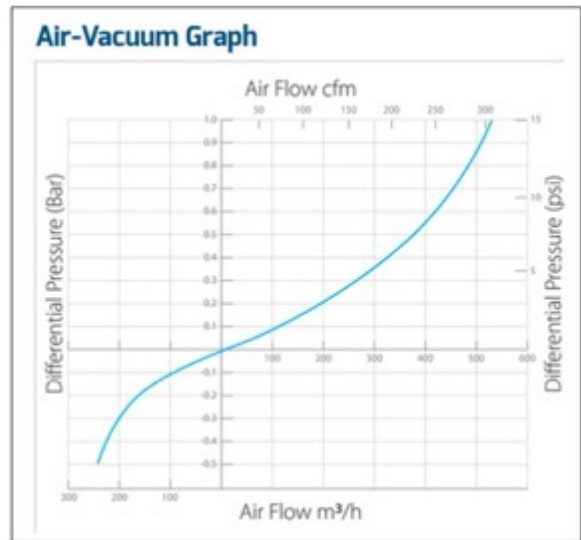
Comparison	Other valves	VS-4 <u>Smartvalve</u>
Float and Seals protected from solids	NO	YES
Seals at Atmospheric Pressure	NO	YES
316 Stainless steel construction	SOME	YES
Extra-long service intervals	NO	YES



# VS-4-S Standard



VS-4- S Standard		
Weight	23 Kg.	50lb
Main Orifice	1160mm <sup>2</sup>	1.75 in <sup>2</sup>
Vac. Break Orifice	38mm <sup>2</sup>	0.06in <sup>2</sup>



**Patented**







# VS-4-LP Low Profile

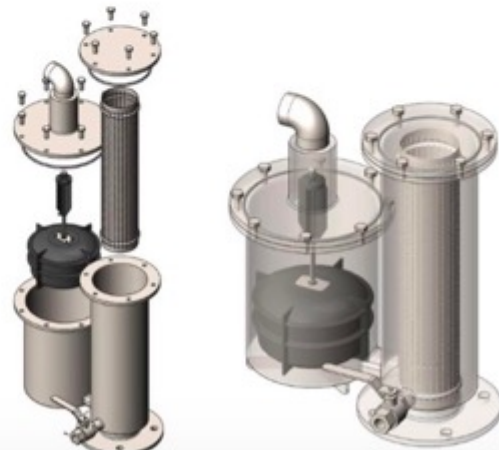
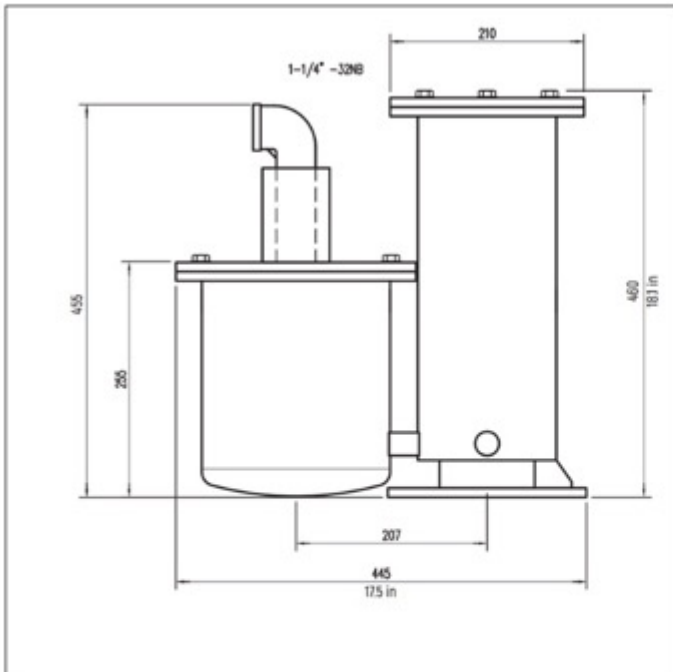
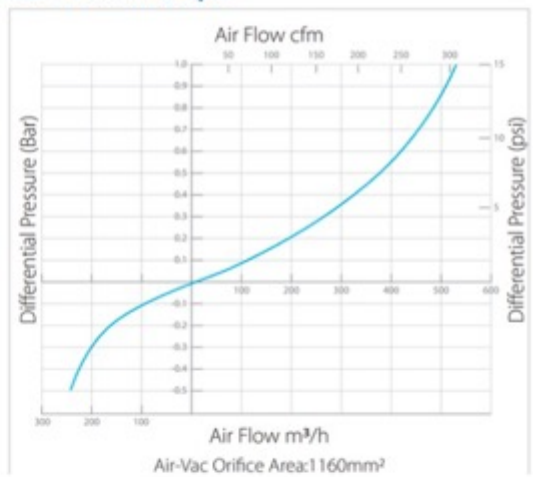


## VS-4-LP Low Profile

Weight	23 Kg.	50lb
Main Orifice	1160mm <sup>2</sup>	1.75 in <sup>2</sup>
Vac. Break Orifice	38mm <sup>2</sup>	0.06in <sup>2</sup>

**Patented**

### Air-Vacuum Graph





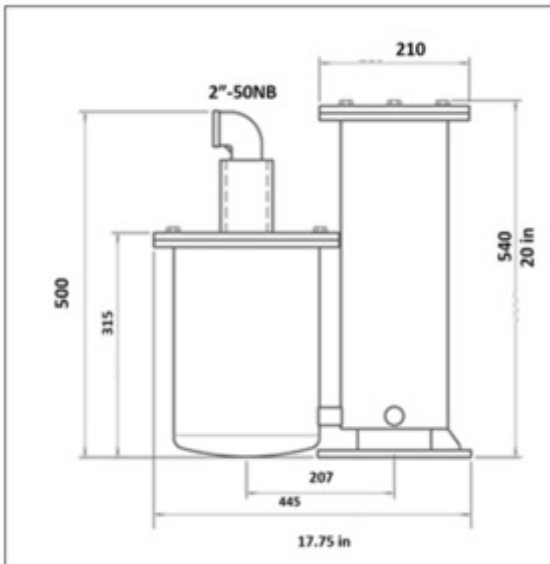
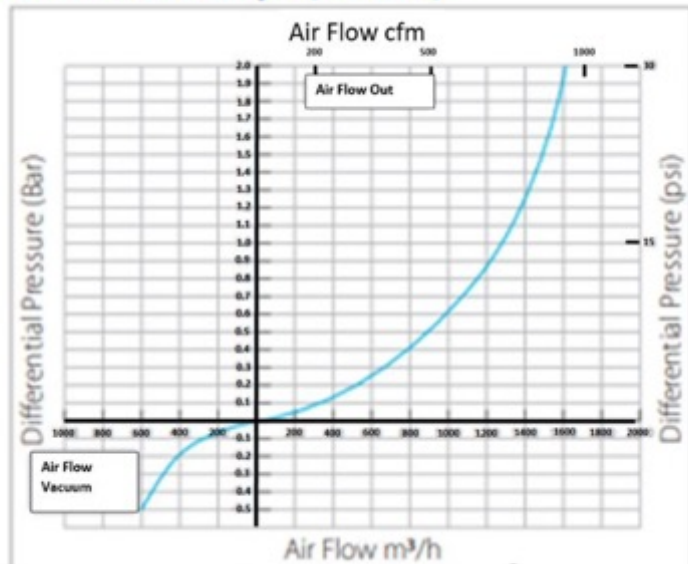
# VS-4-HF High Flow



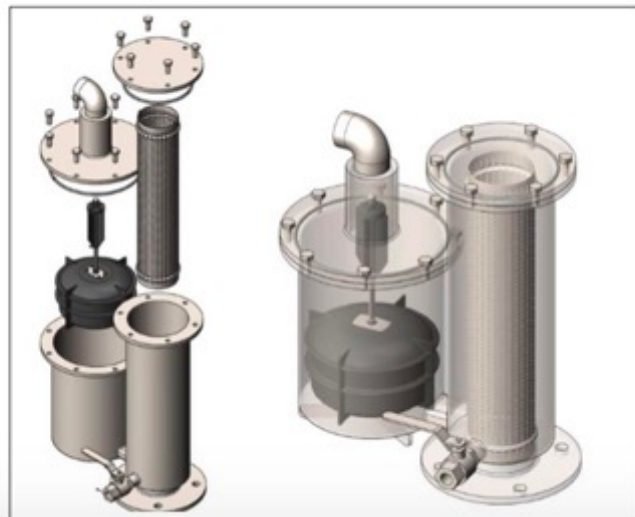
## VS-4-HF High Flow

Weight	24 Kg.	53lb
Main Orifice	2826mm <sup>2</sup>	4.2 in <sup>2</sup>
Vac. Break Orifice	38mm <sup>2</sup>	0.06in <sup>2</sup>

## Air-Vacuum Graph (Hi Flow)



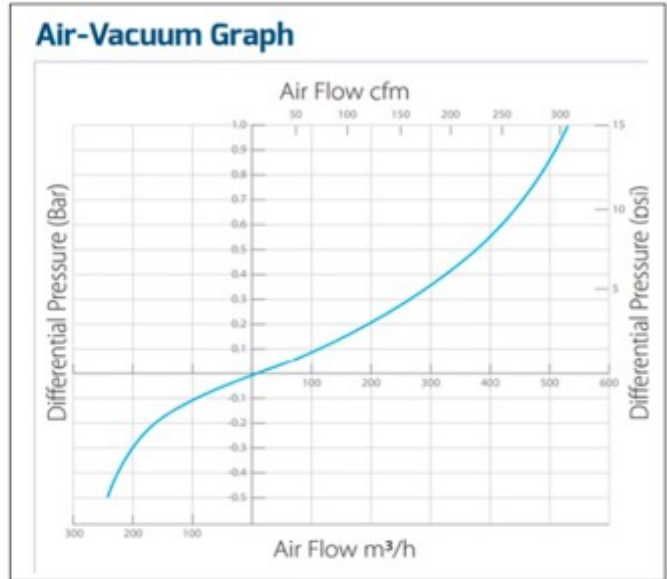
**Patented**





# VS-4-XLP Extra Low Profile VS-4-PW Potable Water

VS-4-XLP Extra Low Profile		
Weight	18 Kg.	40lb
Main Orifice	1160mm <sup>2</sup>	1.75 in <sup>2</sup>
Vac. Break Orifice	38mm <sup>2</sup>	0.06in <sup>2</sup>



**Patented**

VS-4-PW Potable Water		
Weight	11 Kg.	24lb
Main Orifice	1160mm <sup>2</sup>	1.75 in <sup>2</sup>
Vac. Break Orifice	38mm <sup>2</sup>	0.06in <sup>2</sup>



VS-4-PW for potable and non solids contaminated waters.  
 316 stainless steel, PN 16. All VS-4 models are CE certified. Spin on or flanged to suit customer requirements. Seals at atmospheric pressure and rated to 16 Bar. This is a combination air valve with built-in anti-slam and anti hammer. All parts are rated food safe. The Standard orifice is 1160mm<sup>2</sup> and a super high flow model is available to order with a 2826mm<sup>2</sup> orifice. Water and air flow are horizontal to the float base to stop premature closing. There is also a screen to stop fish, frogs, eels etc from entering the valve chamber. This potable water valve is bred from the extremely reliable VS-4 range of sewer trunk main valves.  
 The VS-4-PW air valve is not suitable for sewer mains as it is liable to clog with solids as happens to other single chamber air valves. For contaminated mains please refer to the 'Double Chamber' VS-4 range.

**APPENDIX B - QUALITY CERTIFICATIONS**

Copies of the following Quality Certificates are available from WSAA.

**TABLE B1 ODOUR TECHNOLOGIES PTY LTD – PRODUCT CERTIFICATION**

---

25 Carbrook Road Cornubia Qld 4130

---

Product Standard/Spec.	AS 4883:2017
Certificate No.	AMI 74863
Issuing Certification Body	ApprovalMark International
First Date of Certification	16 October 2023
Current Date of Certification	16 October 2023
Expiry Date of Certification	16 October 2024

---

ISO TYPE 5

# CERTIFICATE OF CONFORMITY



*ApprovalMark International* hereby grants:

## Odour Technologies P/L

25 Carbrook Road  
Cornubia, QLD 4130  
Australia

### ISO Type 5 Certificate of Conformity

Evaluated to:

### AS 4883:2017– Air valves for sewerage

The ISO Type 5 License shall comply with all the terms and conditions as stipulated by the governance of the operating rules of the ISO Type 5 Scheme and shall comply with the standard requirements at all times including when the standard is amended. The ISO Type 5 License only covers the product which is identified in the attached product schedule.

### Certificate No. AMI 74863

Issued: 16<sup>th</sup> October 2023

Original Issue: 16<sup>th</sup> October 2023

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**John PRASAD**

Director

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# Product Schedule

## Odour Technologies P/L

25 Carbrook Road  
Cornubia, QLD 4130  
Australia

### ISO Type 5 Certificate of Conformity

Evaluated to:

### AS 4883:2017 – Air valves for sewerage

Model Id	Model Name	Brand Name	Product Description	Endorsement Date
VS-4-S	Smartvalve	Odour Technologies	A double chamber air release valve for wastewater mains	16 <sup>th</sup> October 2023
VS-4-HF	Smartvalve	Odour Technologies	A double chamber air release valve for wastewater mains - High flow	16 <sup>th</sup> October 2023
VS-4-LP	Smartvalve	Odour Technologies	A double chamber air release valve for wastewater mains - Low Profile	16 <sup>th</sup> October 2023
VS-4-XLP	Smartvalve	Odour Technologies	A double chamber air release valve for wastewater mains - Extra Low Profile	16 <sup>th</sup> October 2023

*End of record*

### Certificate No. AMI 74863

*The models identified above in the schedule are endorsed for ISO Type 5 application only.*

## APPENDIX C – WATER AGENCY FEEDBACK REPORTS

Your Ref:  
**Enquiry Phone:** L. Bridgham +617 3412 5520  
**File No:** 237114-1  
**Document Reference:** 11139159/HilleaR:HilleaR

30 June 2017

**To Whom It May Concern**

Dear Sir/Madam

**ODOUR TECHNOLOGIES**

Logan City Council, has had the privilege of using the product VS-4 Smartvalves by Odour Technologies in our sewerage network which is able to fulfil all our expectations and best serve our needs. Council's Water Operations staff trialled single chamber air valves for sewerage applications from four (4) other manufacturers in the past who have experienced substantial maintenance costs and unsatisfactory operational outcomes. With the introduction of the VS-4 Smartvalves, our maintenance frequency reduced from 4 times a year for other valves to once a year for this quality product.

Odour Technologies VS-4 Smartvalves are manufactured in stainless steel which we believe, has helped to increase its durability and reliability of the product thus reducing on-going servicing costs and replacement costs on parts. Logan City Council has currently installed ten (10) of these valves in various sites with satisfactory outcomes and we intend to replace all our existing single chamber valves with VS-4 Smartvalves during the next few years. Considering the results of our trials and researching of various products, we highly recommend VS-4 Smartvalves for sewerage system air-valve applications.

If potential buyers would like to obtain any further information on our experience, please contact Council's Water Operations Supervisor, Lester Bridgham by Email [lesterbridgham@logan.qld.gov.au](mailto:lesterbridgham@logan.qld.gov.au) or on +617 34125520 during business hours (From 8.00 am to 5.00pm AEST). Please note that Lester has no connection to Odour Technologies and his recommendations of this product are solely on its merit.

Yours faithfully



Palith Siriwardana  
 Water Operations Manager



LOGAN  
CITY COUNCIL

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BUILDING OUR COMMUNITIES  
BUSINESSES AND PRIDE

### Peter Beetham

**From:** Ronald Bailey <[ronald.bailey@mackay.qld.gov.au](mailto:ronald.bailey@mackay.qld.gov.au)>  
**Sent:** Friday, 23 June 2017 2:20 PM  
**To:** Peter Beetham ([pcbeetham@bigpond.com](mailto:pcbeetham@bigpond.com))

Peter, in relation to Mackay Regional Council's use of the VS-4 Dual chambered air valve after three and a half years of testing the installations on main arterial effluent rising mains with minimum need and requirement for service other than annual maintenance checks we have found the valve to be extremely efficient and reliable while the majority of other vales require bi-annual servicing and random repairs.

## **APPENDIX D - SUPPLIER CONTACTS**

### **Odour Technologies Pty Ltd**

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Cornubia Qld 4130

Phone: 0412 990 554

Email: [enquiries@odourtechnologies.com.au](mailto:enquiries@odourtechnologies.com.au)

Websites: [www.odourtechnologies.com.au](http://www.odourtechnologies.com.au) and [www.vs-4.com](http://www.vs-4.com)





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