



Derwent Industries Pty Ltd

PRODUCT APPRAISAL REPORT PA 2060

Derwent Hydrant and Air Valve Isolators and NZ Underground Fire Hydrants

NZS 4522:2010 Underground fire hydrants

Published: 19 August 2021

Document History

The following information indicates the changes made to this document.

Date	Version
27 July 2021	Client Review
5 August 2021	Peer Review
19 August 2021	Published

Peer Reviewers

Name/Title	Organisation	Date
Product Appraisal Technical Advisory Group	WSAA	19 August 2021
WSAA Expert Panel	WSAA	19 August 2021
Peter Pittard, WSAA Consultant	WSAA	5 August 2021
Carl Radford, Product Appraisal Manager	WSAA	19 August 2021

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.

Copyright

This document is copyrighted. Apart from any use as permitted under the Copyright Act 1968, no part of this document may be reproduced or transmitted in any form or by any means, electronically or mechanical, for any purpose, without the express written permission of Water Services Association of Australia Limited.

© Copyright 2021 by WATER SERVICES ASSOCIATION of Australia Limited **All rights reserved.**

CONTENTS

1 EXECUTIVE SUMMARY	5
1.1 Recommendations	5
2 THE APPLICANT	5
2.1 The Supplier	5
2.2 The Manufacturer	6
3 THE PRODUCT	6
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 Component materials	8
6.2.2 Flanged inlet	9
6.2.3 Outlets	9
6.2.4 Polymeric thermal bonded coatings	9
6.2.5 Type tests	9
6.2.6 Contact with drinking water	9
7 FITTING INSTRUCTIONS, TRAINING AND INSTALLATION	10
8 PRODUCT MARKING	10
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	11
14.3 No Updating	12
14.4 No Warranty	12
APPENDIX A - PRODUCT LITERATURE	13
APPENDIX B - QUALITY CERTIFICATIONS	17
APPENDIX C - SUPPLIER CONTACTS	22

1 EXECUTIVE SUMMARY

Derwent Industries Pty Ltd is a wholly owned operating unit of the Evans Group of Companies, a private family-owned business originally established in 1963. Other members of the Evans Group include Derwent International Pty Ltd, Desal Systems Pty Ltd and Advanced Water Group Pty Ltd.

Derwent Foundry and Derwent Pipelines are trading names of Derwent Industries Pty Ltd.

Alpine Flow Control (Suzhou) Co Limited (AFC) in Suzhou, China, manufactures the Derwent hydrant and air valve isolators and NZ underground fire hydrants.

This appraisal is for Derwent resilient seated PN 16 hydrant and air valve isolators and NZ underground screw-down fire hydrants manufactured in compliance with the material and performance requirements of NZS 4522:2010 *Underground fire hydrants*. The two product configurations included in the scope of this Appraisal are:

- Hydrant and air valve isolators with a studded outlet suitable for attaching AS/NZS 4087 Fig B5 DN 100 flanged fittings including spring hydrants, air valves or threaded outlets. The flanged inlet is slotted to accommodate attachment to either AS/NZS 4087 Figure B5 DN 80 or DN 100 flanges.
- NZ underground fire hydrants in squat and tall versions. The outlet is a 2 TPI threaded outlet and the flanged inlet incorporates slotted holes to accommodate both AS/NZS 4087 Figure B5 DN 80 (146 PCD) and AS 2129 Table D DN 90 (165 PCD), as specified in NZS 4522.

The NZ underground fire hydrants are intended exclusively for the New Zealand market.

The valves are manufactured from polymeric coated ductile iron.

The threaded outlet on the NZ underground hydrant is manufactured from Grade 316 stainless steel.

Both AFC and Derwent hold ISO 9001:2015 Quality Management System Licences.

The NZ underground fire hydrants have ISO Type 5 StandardsMark product certification to NZS 4522:2010, however due to the inclusion in the Standard of some prescriptive requirements relating solely to NZ underground fire hydrants the hydrant and isolator valves cannot be product certified to that Standard. Test reports have been submitted to demonstrate compliance with the material and performance requirements of NZS 4522:2010.

This Appraisal has determined that the Derwent hydrant and air valve isolators and NZ underground fire hydrants detailed in this appraisal report meet the requirements of WSA PS-282 –*Hydrant and Air Valve Isolator Valves – Drinking Water and Non-Drinking Water Supply* and have therefore been deemed as ‘fit-for-purpose’.

1.1 Recommendations

It is recommended that WSAA members, subject to specific requirements of the member, accept or authorise the Derwent hydrant and air valve isolators and NZ underground fire hydrants, as detailed in this report, for use in water supply pressure pipelines provided they are installed in accordance with applicable WSAA codes and manufacturers requirements, where specified.

2 THE APPLICANT

The Applicant is Derwent Industries Pty Ltd.

2.1 The Supplier

Derwent Industries Pty Ltd is a wholly owned operating unit of the Evans Group of Companies, a private family-owned business originally established in 1963. Other members

of the Evans Group include Derwent International Pty Ltd, Desal Systems Pty Ltd and Advanced Water Group Pty Ltd. Derwent Foundry and Derwent Pipelines are trading names of Derwent Industries Pty Ltd.

E.D Evans Holdings Pty Ltd has a long history of involvement in manufacturing and marketing products for the Australian water industry. In 1981 Wang Industries Pty Ltd, a member of the Evans Group, began the manufacture of the first Australian made stainless steel repair clamp range, branded as Kawandah. In the 1990's a range of Varigib repair couplings was introduced to the market. Wang Industries acquired Derwent Foundry, located in Hobart Tasmania, in 1997, which provided manufacturing capability for a complete range of ductile iron fittings.

In 2001 Tyco International acquired Wang Industries, however the Evans Group retained Derwent Foundry.

Derwent International is a logistics business, importing pipeline component products for Derwent Industries, to complement their manufactured products.

For more information see: www.derwentindustries.com.au

2.2 The Manufacturer

Alpine Flow Control (Suzhou) Co Ltd is located in Suzhou, Jiangsu Province, Peoples Republic of China. David Liang, the President of the Company, has over 35 years of experience in the valve manufacturing industry and has previously worked with Karon, AVK, Quick-Tech and Tyco. Many of the AFC staff members are ex Tyco R & D employees.

The company designs and manufactures a wide range of valves for the building services, fire protection, industrial and water market segments. Their valve range includes gate valves, butterfly valves, air release valves, control valves, check valves, pressure reducing valves, Y strainers and other specialist valves. The company employs some 38 personnel, of which more than 40% are technical staff.

The hydrants are assembled and tested at the AFC manufacturing facility in Suzhou. Components are sourced locally in accordance with AFC specifications. Polymeric coatings are applied in-house utilising an electrostatic spray technique.

3 THE PRODUCT

This appraisal is for Derwent resilient seated PN 16 hydrant and air valve isolators and NZ underground screw-down fire hydrants manufactured in compliance with the performance requirements of NZS 4522:2010 *Underground fire hydrants*. The valves are manufactured from polymeric coated ductile iron.

The two product configurations included in the scope of this Appraisal are:

- Hydrant and air valve isolators with a studded outlet suitable for attaching AS/NZS 4087 Fig B5 DN 100 flanged fittings including spring hydrants, air valves or threaded outlets. AS 3952 hydrant yokes specifically manufactured with 4 holes to accommodate the DN 100 studded outlet can also be provided. The flanged inlet is slotted to accommodate attachment to AS/NZS 4087 Figure B5 DN 80 or DN 100 flanges.
- NZ underground fire hydrants in squat and tall versions. The outlet is a 2 TPI threaded outlet and the flanged inlet incorporates slotted holes to accommodate both AS/NZS 4087 Figure B5 DN 80 (146 PCD) and AS 2129 Table D DN 90 (165 PCD), as specified in NZS 4522. An optional auto drain plug can be provided which will automatically drain the body of the hydrant to avoid the risk of water freezing in the body of the hydrant.

The underground fire hydrants are intended for the New Zealand market.

The isolators are rated as PN 16 with clockwise closing operation. A stem cap is fitted that complies with NZS 4522 and AS/NZS 2638.2 *Gate valves for waterworks applications-Part 2: Resilient seated* to facilitate key operation.

Polymeric coatings comply with AS/NZS 4158 *Thermal bonded polymeric coating on valves and fittings for water industry purposes*.



FIGURE 1
HYDRANT AND AIR VALVE ISOLATORS



FIGURE 2
NZ SQUAT AND TALL UNDERGROUND FIRE HYDRANTS

4 SCOPE OF THE APPRAISAL

The scope of this appraisal covers PN16 DN 80 / DN 100 resilient seated hydrant and air valve isolators and New Zealand DN 80 squat and tall underground fire hydrants.

5 APPRAISAL CRITERIA

5.1 Quality Assurance Requirements

The WSAA Product Appraisal Technical Advisory Group accepts hydrant and air valve isolator valves and NZ underground fire hydrants manufactured in compliance with NZS 4522:2010 *Underground fire hydrants* 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.

NZS 4522 includes some prescriptive requirements relating solely to NZ underground fire hydrants which means that the hydrant and isolators cannot be product certified to that Standard.

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

Derwent hydrant and air valve isolators and NZ underground fire hydrants have been appraised for compliance with NZS 4522:2010 *Underground fire hydrants*.

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 relevant to this application:

WSA PS-282 –*Hydrant and Air Valve Isolator Valves – Drinking Water and Non-Drinking Water Supply*

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

<https://www.wsaa.asn.au/shop/product/35716>

6 COMPLIANCE WITH APPRAISAL CRITERIA

6.1 Compliance with Quality Assurance Requirements

Derwent has submitted the following quality certificates:

- ISO 9001:2015 Certificate of Registration No. QEC2004 issued to Derwent Industries Pty Ltd by SAI-Global.
- ISO 9001:2015 Certificate of Registration No. ZZW18Q16138R0S issued to Suzhou Alpine Flow Control Co Ltd by Shanghai Zhongzhiwei Certification Co Ltd.
- NZS 4522:2010 *Underground fire hydrants* StandardsMark ISO Type 5 Product Certification Licence No. SMK41119 issued to Derwent Industries Pty Ltd by SAI-Global.

Derwent has also submitted copies of relevant ISO 9001 Quality Assurance licenses appropriate to their component suppliers.

Copies of the Quality Assurance and Product Certification licences have been included in Appendix B and are also available from WSAA.

6.2 Compliance with Performance Requirements

6.2.1 Component materials

The component materials are detailed in Table 1. Derwent has submitted copies of typical material test reports to demonstrate conformance with the minimum requirements of NZS 4522.

TABLE 1
COMPONENT MATERIALS

Item	Material	Standard	Grade
Body	Ductile Iron	AS 1831	GJS/500-7
Bonnet	Ductile Iron	AS 1831	GJS/500-7
Spindle Seal Retainer	Copper Alloy	AS 1567	C62300
Seal Retainer Housing	Ductile Iron	AS 1831	GJS/500-7

Stopper Core	Ductile Iron	AS 1831	GJS/500-7
Stopper Encapsulation	Synthetic Rubber	AS 1646	EPDM
Stem Nut	Copper Alloy	AS 1567	C62300
Spindle Stem	Stainless Steel	ASTM A276	431
Spindle Cap	Ductile Iron	AS 1831	GJS/500-7
Fasteners	Stainless Steel	ASTM A276	316
Sealing O-rings	Synthetic Rubber	AS 1646	65-75 IRHD NBR
Threaded outlet	Stainless Steel	ASTM A276	316

6.2.2 Flanged inlet

The inlet flanges are as follows:

Hydrant and air valve isolators: slotted holes to accommodate attachment to AS/NZS 4087 Figure B5 DN 80 or DN 100 flanges.

NZ underground fire hydrant: slotted holes to accommodate both AS/NZS 4087 Figure B5 DN 80 (146 PCD) and AS 2129 Table D DN 90 (165 PCD).

6.2.3 Outlets

The outlets are as follows:

Hydrant and air valve isolators: Studded to suit attachment to AS/NZS 4087 Fig B5 DN 100 flanges. DN 80 studded outlets can also be provided where required.

NZ underground fire hydrants: 2 TPI threaded outlet.

6.2.4 Polymeric thermal bonded coatings

NZS 4522 requires thermal bonded polymeric coating to comply with AS/NZS 4158 - *Thermal-bonded polymeric coatings on valves and fittings for water industry purposes*.

The ductile iron components are coated internally and externally at the AFC factory using Akzo Nobel Resicoat R4 fusion bonded epoxy powder coloured blue.

Resicoat R4 has ISO Type 5 StandardsMark product certification to AS/NZS 4158:2003 *Thermal-bonded polymeric coatings on valves and fittings for water industry purposes*. A copy of the certificate is retained on file by WSAA.

SAI-Global audits application procedures and testing in conjunction with regular ISO Type 5 certification audits.

6.2.5 Type tests

Derwent has submitted copies of Type Test reports for both the hydrant and air valve isolators and NZ underground fire hydrants to demonstrate compliance with the performance requirements of NZS 4522.

Queensland Testing Laboratory Pty Ltd (NATA Accreditation No.14783) carried out the testing.

The required performance testing includes tests for minimum required strength of components, body pressure test, maximum closing and operating torques, spindle seal replacement, stopper encapsulation de-bonding, minimum flow and maximum head loss and cyclic endurance.

6.2.6 Contact with drinking water

A test report from AWQC dated July 30 2020 has been submitted to demonstrate that the hydrants comply with AS/NZS 4020: 2018 – *Product for use in contact with drinking water*. The tests were undertaken on a DN 80 Derwent resilient seated gate valve and were accepted by SAI-Global on the basis that the component materials were the same in both

products, were sourced from the same suppliers and that the surface area to volume ratios of the materials in the hydrant were less than in the gate valve.

Notwithstanding acknowledgement of the CAB's decision, WSAA has requested that Derwent undertake a AS/NZS 4020 test specifically on the isolators and has added that requirement as a future work item.

7 FITTING INSTRUCTIONS, TRAINING AND INSTALLATION

Installation, operation and maintenance are well understood by experienced installers and operators.

8 PRODUCT MARKING

The isolators have the following markings conforming to NZS 4522:

- (a) Name of Manufacturer: Derwent / AFC
- (b) Nominal size: DN 80
- (c) Year of manufacture: XXXX
- (d) Pressure rating: PN 16
- (e) Standard No: NZS 4522-2010
- (f) Product Certification Mark: StandardsMark

9 PACKAGING AND TRANSPORTATION

Products are individually bubble wrapped and packed on a pallet prior to shipment.

10 PRODUCT WARRANTY

The products are covered by the normal commercial and legal requirements of the *Competition and Consumer Act 2010 (Cth)*, which covers manufacture to the relevant standard, and details of Derwent's warranty is included in their terms and conditions of sale.

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

A field test report has not been undertaken.

12 OUTCOMES OF EXPERT PANEL PRODUCT REVIEW

No issues were raised.

13 FUTURE WORKS

Derwent is required to undertake NZS 4020:2018 testing specifically on a hydrant and air valve isolator or NZ underground fire hydrant using a scaling factor of 1. Submission is required within 3 months of publication of this report.

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, Phone: 03 8605 7601 email 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.

14.2.2 Intellectual Property and other rights

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.

From time to time the Water Services Association of Australia Limited and the other Publishers may receive notice of allegations that the importation, manufacture, sale or use of the Product infringes intellectual property rights or other proprietary rights. The Water Services Association of Australia Limited's policy is to not refer to such allegations in its reports or take any other steps to put Recipients on notice of such allegations, unless and until it is aware that the allegations have been admitted or proved in Court. As such, Recipients acknowledge, agree and accept that the Water Services Association of Australia Limited may have information in its possession about intellectual property rights infringement allegations or other infringement allegations in relation to the Product which 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 (Product). 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 indemnify 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

Hydrant - Isolation Valve



Hydrant & Air- Isolation Valve - PN16

Derwent Industries Isolation Valves are designed for the fire industry. The screw down hydrant for fire applications is available in both ACC and CC configuration, providing an Table D outlet flange, rated to PN16. The base of the Hydrant is slotted to allow for both DN 80 and DN 100.

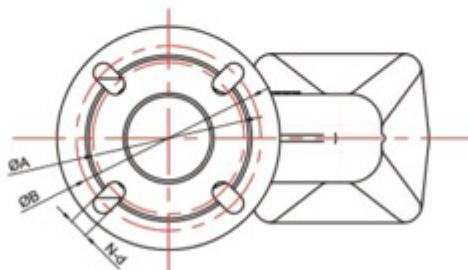
Features & Configurations:

- Material: Ductile Iron Body and top to AS 1831
- Coating: Fusion Bonded Epoxy (FBE)
(Or approved equivalent)
Standard: AS/NZS 4158
- Clamping Plate 316 Stainless Steel
- Bolts, Nuts and Washers: 316 Stainless Steel
(Anti galling coating)
- Outlet Flange: AS 4087 - Table D
- Sizes: DN 80
- Code: ISOLATION80
- Pressure Rating: PN16 Only
- Test Pressure: Body 2.4 MPa
(AS2638.2) Seat 1.76 MPa



Application:

The Derwent Industries Isolation Valves are for use with either Potable Water or Reuse Water for fire protection.

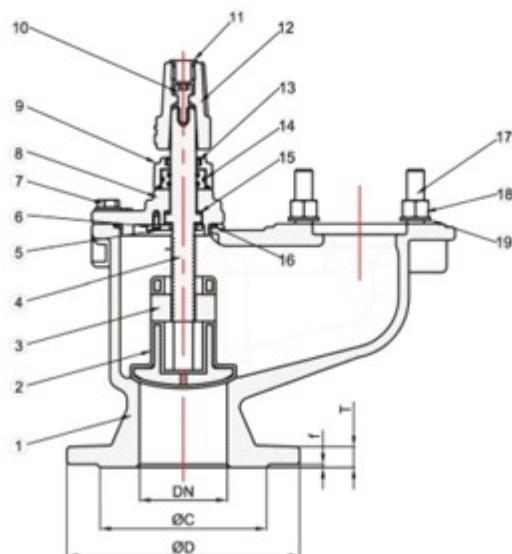
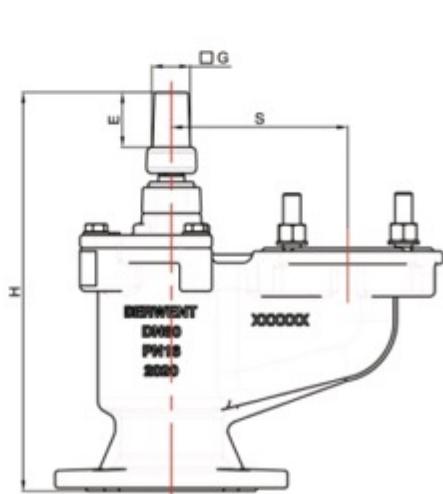




Hydrant - Isolation Valve

Part List

No	Part	Material	Material Grade	Standard
1	Body	Ductile Iron	GJS 500-7	AS 1831
2	Wedge	Ductile Iron + Vulcanized Rubber	GJS 500-7 + EPDM	AS 1831 + AS 1646 and AS 681.1
3	Wedge Nut	Bronze	C62300	AS/NZS 1568
4	Stem	Stainless Steel	SS 431	ASTM A276
5	In Hex Bolt	Stainless Steel	SS 316	ASTM A276
6	Clamping Plate	Stainless Steel	SS 316	ASTM A276
7	In Hex Bolt	Stainless Steel	SS 316	ASTM A276
8	Bonnet	Ductile Iron	GJS 500-7	AS 1831
9	Gland	Ductile Iron	GJS 500-7	AS 1831
10	In Hex Bolt	Stainless Steel	SS 316	ASTM A276
11	Cap Cover	Plastic		
12	Cap	Ductile Iron	GJS 500-7	AS 1831
13	Dust Wiper	Rubber	NBR	AS 1646 and AS 681.1
14	O-Ring	Rubber	NBR	AS 1646 and AS 681.1
15	Bushing	Bronze	C62300	AS/NZS 1567
16	O-Ring	Rubber	NBR	AS 1646 and AS 681.1
17	Bolt	Stainless Steel	SS 316	ASTM A276
18	Nut	Stainless Steel	SS 316	ASTM A276
19	Washer	Stainless Steel	SS 316	ASTM A276



Dimensions:

DN	S	H	Ø A	Ø C	Ø D	N-d	T	E	f	G
80	163	376	146	154	215	4-18	19	50	3	35

Hydrant - New Zealand



New Zealand Fire Hydrants - Tall & Squat - PN16

Derwent Industries supplies both Tall and Squat New Zealand Hydrants. The Hydrants are manufactured to NZS 4522:2010. The Underground Fire Hydrants are available in both Tall and Squat version.

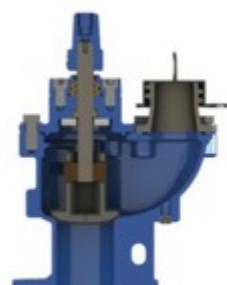
Features & Configurations:

- Material: Ductile Iron Body and top to AS 1831
- Coating: Fusion Bonded Epoxy (FBE)
(Or approved equivalent)
Standard: AS/NZS 4158
- Clamping Plate 316 Stainless Steel
- Bolts, Nuts and Washers: 316 Stainless Steel
(Anti galling coating)
- Configuration: Tall and Squat Versions
(Frost Plug optional)
- Flange: AS 4087 - Table D
- Sizes: Slotted DN 80 / 90
- Code: NZHTALL - Tall Hydrant
- NZHTALL15 (Frost Plug)

NZHSQUAT - Squat Hydrant
- NZHSQUAT15 (Frost Plug)
- Pressure Rating: PN16 Only
- Test Pressure: Body 2.4 MPa
(AS2638.2) Seat 1.76 MPa
- Approval: StandardsMark License No: SMK41119

Application:

The Derwent Industries Fire Hydrants are for use with either Potable Water or Reuse Water for fire protection.

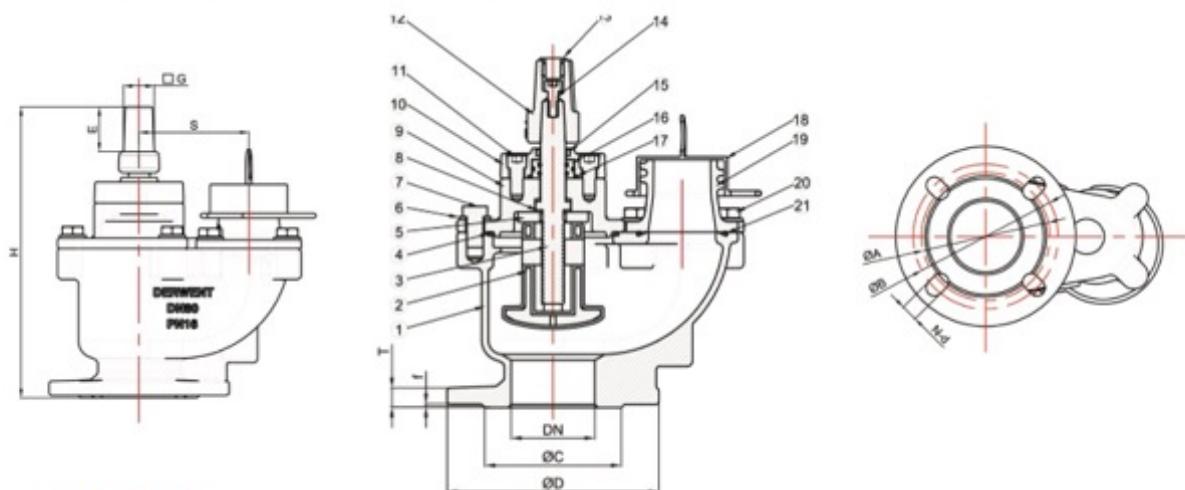




Hydrant - New Zealand

Part List

No	Part	Material	Material Grade	Standard
1	Body	Ductile Iron	GJS 500-7	AS 1831
2	Wedge	Ductile Iron + Vulcanized Rubber	GJS 500-7 + EPDM	AS 1831 + AS 1646 and AS 681.1
3	Stem	Stainless Steel	SS 431	ASTM A276
4	O-Ring	Rubber	NBR	AS 1646 and AS 681.1
5	Clamping Plate	Stainless Steel	SS 316	ASTM A276
6	Washer	Stainless Steel	SS 316	ASTM A276
7	In Hex Bolt	Stainless Steel	SS 316	ASTM A276
8	Bushing	Bronze	C62300	AS/NZS 1567
9	Bonnet	Ductile Iron	GJS 500-7	AS 1831
10	Gland	Ductile Iron	GJS 500-7	AS 1831
11	In Hex Bolt	Stainless Steel	SS 316	ASTM A276
12	Cap	Ductile Iron	GJS 500-7	AS 1831
13	Cap Cover	Ductile Iron	GJS 500-7	AS 1831
14	In Hex Bolt	Stainless Steel	SS 316	ASTM A276
15	Dust Wiper	Rubber	NBR	AS 1646 and AS 681.1
16	Retainer	Bronze	C62300	AS/NZS 1567
17	O-Ring	Rubber	NBR	AS 1646 and AS 681.1
18	Dust Cap	PE		
19	Outlet	Stainless Steel	SS 316	ASTM A276
20	In Hex Bolt	Stainless Steel	SS 316	ASTM A276
21	O-Ring	Rubber	NBR	AS 1646 and AS 681.1



Dimensions:

Type	DN	S	ØH	ØA	ØB	ØC	D	N-d	T	E	f	G
Squat	80	125	339	146	165	132	205	4-18	19	50	3	35
Tall	80	125	394	146	165	132	205	4-18	19	50	3	35

APPENDIX B - QUALITY CERTIFICATIONS

Copies of the following Quality Certification Certificates are also available from WSAA.

TABLE B1

DERWENT INDUSTRIES PTY LTD– MANAGEMENT SYSTEMS

102-104 Sunderland Street, Derwent Park, TAS 8 Stead Street Wodonga VIC	
Quality Systems Standard	ISO 9001:2015
Certification Licence No.	QEC 2004
Certifying Agency	SAI-Global
First Date of Certification	8 August 1994
Current Date of Certification	6 August 2018
Expiry Date of Certification	4 July 2021

TABLE B2

ALPINE FLOW CONTROL (SUZHOU) CO LTD – MANAGEMENT SYSTEMS

B5 Chaoyang Factor, Cachu Industrial Park, Xiangcheng Economic Development Zone, Suzhou City. Jiangsu Province.PRC	
Quality Systems Standard	ISO 9001:2015
Certification Licence No.	ZZW18Q16138R0S
Certifying Agency	Shanghai Zhongzhiwei Certification Co Ltd
Current Date of Certification	21 August 2018
Expiry Date of Certification	20 August 2021

TABLE B3

DERWENT INTERNATIONAL PTY LTD – PRODUCT CERTIFICATION

17 Metcalf Drive Dandenong South VIC	
Product Standard/Spec.	NZS 4522:2010
Certificate No.	SMK41119
Issuing Certification Body	SAI-Global
First Date of Certification	16 October 2020
Current Date of Certification	16 October 2020
Expiry Date of Certification	15 October 2025



CERTIFICATE OF REGISTRATION

This is to certify that:

Derwent Industries Pty Ltd

ABN 48 096 997 152

102 - 104 Sunderland Street Derwent Park TAS 7009 AUSTRALIA
8 Stead Street Wodonga VIC 3690 AUSTRALIA

operates a

QUALITY MANAGEMENT SYSTEM

which complies with the requirements of

ISO 9001:2015

for the following scope

Design, manufacturing, sourcing and distribution of pipeline fittings and accessories for the water, waste treatment, gas and irrigation industries as well as castings made to clients specifications and other merchandise which has been bought in to complement our own ranges.

Certificate No: QEC2004

Issued: 6 August 2018

Originally Certified: 8 August 1994

Expires: 4 July 2021

Current Certification: 27 July 2018

Kevin Goodwin
General Manager Technical Services
SAI Global Assurance



WWW.JAS-ANZ.ORG/REGISTER

Registered by:
SAI Global Certification Services Pty Ltd (ACN 108 716 669) 680 George Street Sydney NSW 2000 Australia with SAI Global Pty Limited 680 George Street Sydney NSW 2000 Australia ("SAI Global") and subject to the SAI Global Terms and Conditions for Certification. While all due care and skill was exercised in carrying out this assessment, SAI Global accepts responsibility only for proven negligence. This certificate remains the property of SAI Global and must be returned to SAI Global upon its request. To verify that this certificate is current please refer to SAI Global On-Line Certification register at <http://register.saiglobal.com/>

 **SAI GLOBAL**



Certificate of Registration

This is to certify that

Suzhou Alpine Flow Control Co., Ltd.

Unified social credit code: 9132050069131047XX

- Registered address: Plant B5, Chaoyang Industrial Workshop, Caohu Industrial Park, Xiangcheng Economic and Development District, Suzhou City, Jiangsu Province, P.R.China
- Audited address: Plant B5, Chaoyang Industrial Workshop, Caohu Industrial Park, Xiangcheng Economic and Development District, Suzhou City, Jiangsu Province, P.R.China

Has been assessed as conforming to meet the requirements of

GB/T19001-2016 / ISO9001:2015

for the scope of activities

Design, manufacture and sale of waterway valves within the qualification scope

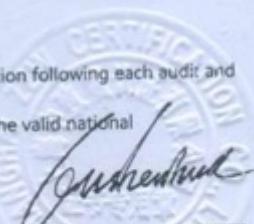
Certificate No: ZZW18Q16138R05

Issue Date: 21 August 2018 Valid until: 20 August 2021

Attention: Subject to adherence to the agreed ongoing audit programme, successful endorsement of certification following each audit and compliance with CI Regulations

Certification Range of product service excludes the relevant administrative verification that are not acquired the valid national rule, certification permission, 3C certification

Signed for and on behalf of


General Manager

Annual surveillance audit for the first time

Annual surveillance audit for the second time

Annual surveillance audit for the third time

Note: According to the certification requirements, the interval between the annual surveillance audit and the last spot audit cannot exceed twelve months.



STANDARDSMARK LICENCE

SAI Global hereby grants:

Derwent Industries Pty Ltd

ABN 48 096 997 152

17 Metcalf Street, Dandenong, VIC 3175, Australia

StandardsMark Licence

Manufactured to:

NZS 4522:2010 - Underground fire hydrants

"the StandardsMark Licensee" the right to use the STANDARDSMARK as shown below only in respect of the goods described and detailed in the Schedule which are produced by the Licensee or on behalf of the Licensee* and which comply with the appropriate Standard referred to above as from time to time amended. The Licence is granted subject to the rules governing the use of the STANDARDSMARK and the Terms and Conditions for certification and licence. The Licensee covenants to comply with all the Rules and Terms and Conditions.

Licence No: SMK41119

Issued : 17 October 2020

Expires : 15 October 2025

Originally Certified : 16 October 2020

Current Certification : 16 October 2020

Heather Mahon
General Manager Technical Services
SAI Global Assurance



* For details of manufacture, refer to the licensee

The STANDARDSMARK is a registered certification trademark of SAI Global Pty Limited (A.C.N. 050 644 642) and is issued under licence by SAI Global Certification Services Pty Limited (ACN 108 716 669) ("SAI Global") 680 George Street, Sydney NSW 2000, GPO Box 5420 Sydney NSW 2001. This certificate remains the property of SAI Global and must be returned to SAI Global upon its request. Refer to www.saiglobal.com, for the list of product models.



SCHEDULE TO STANDARDSMARK LICENCE

SAI Global hereby grants:

Derwent Industries Pty Ltd

17 Metcalf Street, Dandenong, VIC 3175, Australia

StandardsMark Licence

Manufactured to:

NZS 4522:2010 - Underground fire hydrants

Model identification of the goods on which the STANDARDSMARK may be used:

Model Identification	Model Name	Brand Name	Product Description	Nominal Size (DN)	Nominal Pressure (PN)	Date Endorsed
SE-AFC-AS-FGTN-0080-16	AS-80-NZ	Derwent	Inline Screw down Underground Fire Hydrant	DN80	PN16	9 Oct 2020
SE-AFC-AS-FGTZ-0080-16	AS-80-NZ	Derwent	Inline Screw down Underground Fire Hydrant	DN80	PN16	9 Oct 2020

End of Record

Licence No: SMK41119

Issued Date: 17 October 2020

This schedule supersedes all previously issued schedules



* For details of manufacture, refer to the licensee

The STANDARDSMARK is a registered certification trademark of SAI Global Pty Limited (A.C.N. 050 644 642) and is issued under licence by SAI Global Certification Services Pty Limited (ACN 108 716 669) ("SAI Global") 680 George Street, Sydney NSW 2000, GPO Box 5420 Sydney NSW 2001. This certificate remains the property of SAI Global and must be returned to SAI Global upon its request. Refer to the Schedule for the list of product models.

APPENDIX C - SUPPLIER CONTACTS

Derwent Industries Pty Ltd

17 Metcalf Drive
Dandenong South Vic 3175

Contact: Stuart Evans

Phone: 03 9792 1509

Mobile: 0409 532 154

Email: stuart@derwentindustries.com.au

Web: www.derwentindustries.com.au



Melbourne Office

Level 8, Suite 8.02
401 Docklands Drive
Docklands VIC 3008

Sydney Office

Level 9 420 George Street
Sydney NSW 2000
GPO Box 915
Sydney NSW 2001

P +61 (0) 3 8605 7666
email: info@wsaa.asn.au

www.wsaa.asn.au