E. Hawle Armaturenwerke GmbH

PRODUCT APPRAISAL REPORT 1627 Issue 2

Hawle Combi Valves DN 100 to DN 200

AS/NZS2638.2:2011 Gate valves for waterworks purposes – Resilient seated

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Document History

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Peer Reviewers

Name/Title	Organisation	Date
Product Appraisal Technical Advisory Group	WSAA	26 April 2017
WSAA Expert Panel	WSAA	26 April 2017
Peter Pittard, WSAA Consultant	WSAA	24 March 2017
Carl Radford, Product Appraisal Manager	WSAA	1 May 2017
Peter Pittard, WSAA Consultant	WSAA	3 May 2022
Carl Radford, Product Appraisal Manager	WSAA	3 May 2022

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

CONTENTS

1 EXECUTIVE SUMMARY

E. Hawle Armaturenwerke GmbH is a family-owned company based in Vöcklabruck, Austria and established in 1948. Hawle is a leading manufacturer of valves and pipeline fittings for the water and gas industries, with plants and subsidiary operations throughout Europe.

Hygrade Water (a member of the Hynds Group) is the exclusive agent for Hawle products within the Australasian region.

This appraisal is for a range of tees and crosses with integral Hawle E2 resilient seated gate valves on each branch. Hawle E2 resilient seated gate valves have previously been appraised against AS/NZS 2638.2:2011 *Gate valves for waterworks purposes – Resilient seated* in Product Appraisal No. 1123.

This Issue 2 is a replacement for the previous version of the appraisal which had reached its 5-year expiry date.

The range submitted for this Appraisal includes tees (E2 Combi-III) and crosses (E2 Combi-IV) in sizes DN 100, DN 150 and DN 200 with a gate valve on each branch. There is also an option for a DN 100 vertical flanged outlet on some configurations to enable the installation of a hydrant or air valve.

See Section 4 for details of the range.

Flanges incorporated on the fittings and valves comply with the physical dimensions of EN 1092-2 and are drilled for compatibility to AS/NZS 4087 Fig B5 (PN16).

The advantages of the Combi valves include a reduced number of components with fewer potential leak points, a smaller and tidier footprint and lower installation costs.

Hawle and Hygrade Water each hold an ISO 9001:2015 Quality Management System Licence.

The Combi valves are not specifically included on the AS/NZS 2638.2 StandardsMark product schedule, however the Hawle E2 resilient seated gate valves in DN 100, DN 150 and DN 200 sizes are included.

This Appraisal has determined that Hawle E2 Combi-III valves and E2 Combi-IV valves are considered as ‘fit for purpose’.

1.1 Recommendations

It is recommended that WSAA members and associates accept/authorise Hawle E2 Combi-III valves and E2 Combi-IV valves, as listed in Section 4, that are relevant to their pressure pipelines in water supply and sewer networks provided design, installation, acceptance testing and commissioning are in accordance with WSAA Codes and the manufacturer’s requirements.

2 THE APPLICANT

The Applicant is E. Hawle Armaturenwerke GmbH.

2.1 The Supplier

Hygrade Water Australia Limited Partnership, trading as Hygrade Water Australia, was established in 2007 to offer a range of specialist products to the Australian plumbing and civil market segments. Hygrade Water is wholly owned by the Hynds Group.

Established in 1973, Hynds Group, a privately owned and operated New Zealand company, has become a leading supplier of pipe systems and related products to civil contractors. The Company now employs more than 900 people across its following business units:

- Hynds Pipe Systems
- Hygrade Water Australia

- Hygrade Water New Zealand
- Gillies Metaltech Limited
- Waters & Farr Limited
- Interpipe Holdings

2.2 The Manufacturer

E. Hawle Armaturenwerke GmbH is a family-owned company based in Vöcklabruck, Austria. The Hawle Company (pronounced 'Havela') was founded by Engelbert Hawle in 1948.

Hawle has a history of innovation and was the manufacturer of the first resilient seated gate valve in the world. Hawle is a leading manufacturer of valves and pipeline fittings for the water and gas industries, with plants and subsidiary operations throughout Europe.

Hawle products from Austria are exported to more than 60 countries world-wide. In addition, nine licensees currently manufacture Hawle products on all continents. More information is available about Hawle on their web site at https://www.hawle.com

3 THE PRODUCT

This appraisal is for a range of tees and crosses with integral Hawle E2 resilient seated gate valves on each branch. The tee range (E2 Combi-III) and cross range (E2 Combi-IV) are available in sizes DN 100, DN 150 and DN 200. A cap can be fitted onto the valve body of any branch not requiring a valve outlet. There is also an option for a DN 100 vertical flanged outlet on some configurations to enable the installation of a hydrant or air valve.

The advantages of the Combi valves include a reduced number of components with fewer potential leak points, smaller and tidier footprint and lower installation costs.

The Combi valves are not specifically included on the AS/NZS 2638.2 StandardsMark product schedule, however the Hawle E2 resilient seated gate valves in DN 100, DN 150 and DN 200 sizes are included.

The Combi valves are fully coated with a fusion bonded epoxy in accordance with AS/NZS 4158.

Flanges comply with the physical dimensions of EN 1092-2 and are drilled for compatibility to AS/NZS 4087 Fig B5 (PN16).

4 SCOPE OF THE APPRAISAL

The scope of this appraisal includes the range of Combi valves summarised below in Tables 1 and 2. Combi-III valves have three integral valves arranged as a tee. Combi-IV valves have four integral valves arranged as a cross.

FIGURE 1
COMBI-III

FIGURE 2
COMBI-III WITH VERTICAL OUTLET

TABLE 1

E2 COMBI-III VALVES

DN	100		150		200	
	No vertical outlet	DN 100 vertical outlet	No vertical outlet	DN 100 Vertical outlet	No vertical outlet	DN 100 Vertical outlet
2 valve outlets	√	√	√	√	√	√
3 valve outlets	√	√	√	√	√	√

FIGURE 3

COMBI-IV

FIGURE 4

COMBI-IV WITH VERTICAL OUTLET

TABLE 2

E2 COMBI-IV VALVES

DN	100		150		200	
	No vertical outlet	DN100 vertical outlet	No vertical outlet	DN100 Vertical outlet	No vertical outlet	DN100 Vertical outlet
2 valve outlets	√		√		√	
3 valve outlets	√	√	√	√	√	
4 valve outlets	√	√	√	√	√	√

5 APPRAISAL CRITERIA

5.1 Quality Assurance Requirements

The WSAA Product Appraisal Technical Advisory Group accepts resilient seated gate valves manufactured in compliance with AS/NZS 2638.2 *Gate valves for water works purposes – Resilient seated* 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 Hawle range of Combi valves has been appraised for compliance to AS/NZS 2638.2 *Gate valves for water works purposes – Resilient seated.*

Appraisal criteria are 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 260 - *Gate Valves, Resilient Seated for Pressure Applications – Drinking Water, Non-Drinking Water Supply and Sewerage.*

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

https://www.wsaa.asn.au/shop/product/53481

6 COMPLIANCE WITH APPRAISAL CRITERIA

6.1 Compliance with Quality Assurance Requirements

Hawle has submitted the following quality certificates:

- ISO 9001:2015 Certificate of Registration No. Q1531395 issued to E Hawle Aarmaturenwerk GmbH by TUV SUD.
- ISO 9001:2015 Certificate of Registration No. 2641 issued to Hynds Ltd (including Hygrade Water Australia by Telarc.
- AS/NZS 2280.2:2011 StandardsMark ISO Type 5 Product Certification Licence No. SMKP20123 issued to E Hawle Aarmaturenwerk GmbH by SAI-Global.
- QS-W 501/1 - EN 1074 OVGW Certificate No. W1.166 and W1.167 issued to E Hawle Aarmaturenwerk GmbH by Austrian Association for Gas and Water (OVGW).

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

Copies of Quality Assurance certificates have also been supplied for the major component suppliers.

6.2 Compliance with Performance Requirements

6.2.1 Resilient seated gate valves

Hawle E2 resilient seated gate valves have been appraised in Product Appraisal No.1123. The E2 gate valves incorporated within the Combi valves are of the same design.

In addition, Hawle has submitted Quality Mark Certificates from the Austrian Association for Gas and Water (OVGW) for both Combi-III and Combi-IV valves. Supporting type test reports have also been submitted.

6.2.2 Polymeric coatings.

Hawle Combi valves are coated with Akzo Nobel Resicoat R4 epoxy powder coating, applied by the fluidised bed process in accordance with AS/NZS 4158:2003. The Resicoat R4 powder has a product certification StandardsMark licence issued by SAI Global. SAI Global also undertakes audits of the coating application system in accordance with the terms of the various StandardsMark licences held by Hawle.

6.2.3 Flanges

The flanges incorporated on the Combi valves comply with the physical dimensions of EN 1092-2 (PN16) and are drilled to match AS/NZS 4087 Fig B5 (PN16).

EN 1092-2 flanges have minor differences in outside diameter and raised face diameter compared to the AS/NZS 4087 flanges, however these differences do not prevent compatibility.

EN 1092-2 flanges generally incorporate additional or/and larger bolts than AS/NZS 4087 bolting configurations, which facilitates slightly thinner flanges for some sizes. The effect on the pressure rating of the thinner flanges cannot be quantified from a desktop analysis.

EN flanges drilled to AS/NZS configurations are known to have been commonly supplied within Australia for many years in sizes up to DN 200 without any adverse reports. It is also known that the thicknesses of AS/NZS 4087 Fig B5 PN16 flanges were originally determined on the basis of a PN20 rating and are therefore overdesigned.

A comparison of nominal flange thicknesses is provided in Table 3.

TABLE 3 COMPARISON OF EN AND AS/NZS NOMINAL FLANGE THICKNESSES

DN	EN1092-2 PN16	AS/NZS4087 PN16
100	19	20
150	19	23
200	20	23

The flanges proposed for this appraisal are deemed acceptable.

6.2.3 Contact with drinking water

AS/NZS 2638.2 requires compliance with AS/NZS 4020 *Testing of products for use in contact with drinking water*. A test report No.1819564 from Eurofins (NATA Accreditation No. 15773) dated September 2018 has been submitted to demonstrate compliance to AS/NZS 4020:2005.

7 FITTING INSTRUCTIONS, TRAINING AND INSTALLATION

Hawle maintains an extensive library of literature, covering all aspects of their product range which can be referenced at http://www.hawle.at/en/products/water.html

Fitting instructions are in accordance with normal installation procedures for gate valves. A copy of the Hawle Operators Manual is attached in Appendix A.

On-site training is also available by arrangement.

8 PRODUCT MARKING

The Combi valves have the following marking:

Manufacturers Name: HAWLE E2

COMBI-III or COMBI-IV

Ductile iron grade: GGG40

Nominal size: DN xxx

Pressure classification: PN 16

9 PACKAGING AND TRANSPORTATION

Hawle Combi valves are packed onto wooden pallets with cardboard liners separating each product from each other to prevent damage to coatings during transport. The pallets are then shrink wrapped.

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 Hawle's warranty is included in their terms and conditions of sale.

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

The combi valves have been approved for use by Logan Water, Coffs Harbour City Council, Central Highlands Regional Council and Townsville City Council

12 OUTCOMES OF EXPERT PANEL PRODUCT REVIEW

Question 1: Please provide details of access covers recommended for use with the Combi Valves.

Answer 1: There are various options available and preferences should be discussed with Hygrade Water. Individual valve covers can be installed above each valve spindle. Many users construct their own concrete chambers in the field. There are also specifically designed Combi covers available from Hygrade Water. See Figure 5 for an example.

FIGURE 5 COMBI VALVE COVER

Question 2: What maintenance action is recommended where one or more valves are inoperable.

Answer 2: The internal components of a particular gate valve can be replaced in situ, if necessary, using spare parts available from Hygrade Water. O-rings may be replaced under pressure for the valve sizes contained within this Appraisal.

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, 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.

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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.

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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

Technical Guide AWM09

Hawle E2 Combi III Gate Valve with Flanged Ends

A high quality flanged tee piece comprising of three flanged outlets **and integral E2 valves. Available with or without hydrant outlet.**

Scan for more information

Applications

- Water reticulation
- Potable water
- Irrigation

Product Attributes

- Replaces multiple products
- Fewer fittings required

Approvals/Standards

- Manufactured according to AS/NZS 2638.2
- Flanges Drilled to AS/NZS 4087 Fig. B5 PN16
- Complies with all quality and test requirements of RAL quality mark 662

Quality

- 10 year Quality Warranty
- ISO 9001:2008 Quality Management Standard

wwwhygradewater .com.au

HYGRADE WATER

A high quality flanged tee piece comprising of three flanged **outlets and integral E2 valves.**

The short style provides for space saving installation and lower material, labour, transport and stockholding costs. The compact design enables the valve chamber to be made from sectional concrete giving typical savings of 25 % in chamber construction.

Product Advantages

- Made in Europe from Quality European Raw materials
- Less leak points
- Smaller tidier footprint with special combi cover
- Considerable labour savings

Design Specifications

- Body, bonnet and wedge manufactured with ductile iron EN-GJS-400.
- Epoxy powder coated inside and out, according to AS/NZS 4158.
- Stem O-rings are made of EPDM; only wiper ring is made of NBR elastomer, embedded in non-corrosive material and replaceable under pressure. O-ring bush is made of brass.
- Wipe ring, back seal and bonnet gasket manufactured with EPDM elastomer.
- Duplex stainless steel spindle.
- Allen screws St 8.8 DIN 912 are absolutely corrosion-safe as they are sunk into the body, sealed, and by pass through the bonnet gasket.
- POM friction washers and protecting ring, guarantees smooth spindle guiding.
- PE edge protecting ring prevents damage during transport and storage.
- Wedge fully rubberized with vulcanized EPDM elastomer. inside and out, and wedge nut made of dezincification resistant brass.
- Generous oversizing of the required thread length in the wedge nut guarantees highest possible breaking torques.
- Wedge guide manufactured with wear-resistant plastic with high gliding features - optimally placed design guarantees lowest wear and tear and lowest closing torques.
- Flanges drilled to AS/NZS 4087 Fig B5, PN 16.
- Valve design is the same as the E2 approved to AS/NZS 2638.2.

Related Products

FIG. 1 Vario

FIG. 2 Haku

FIG. 3 System 2000 Flange Adaptor

FIG. 4 Synoflex Flange Adaptor

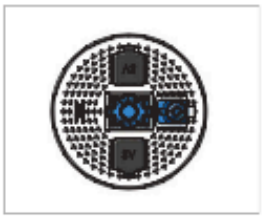

FIG. 5 Innovative Combi Cover

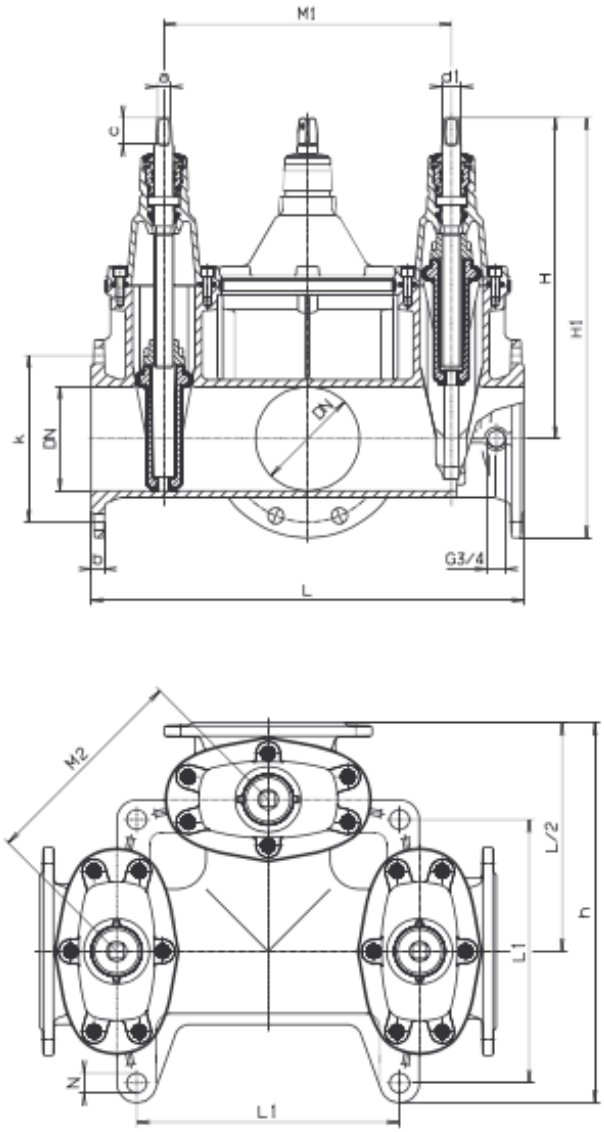

TABLE 1

DN	E2 Combi III without vertical centre outlet										Spindle			Weight (kg)	
	L	H	H1	ØK	C	M1	M2	L1	h	N	a	c	Ød1	2	3
100	555	373	483	180	19	365	258	212	411	27	19.3	38	25	68	74
150	625	462	605	240	19	415	293.5	360	520	27	19.3	38	28	105	115
200	695	563	733	295	20	465	329	445	602	32	24.3	48	32	167	183

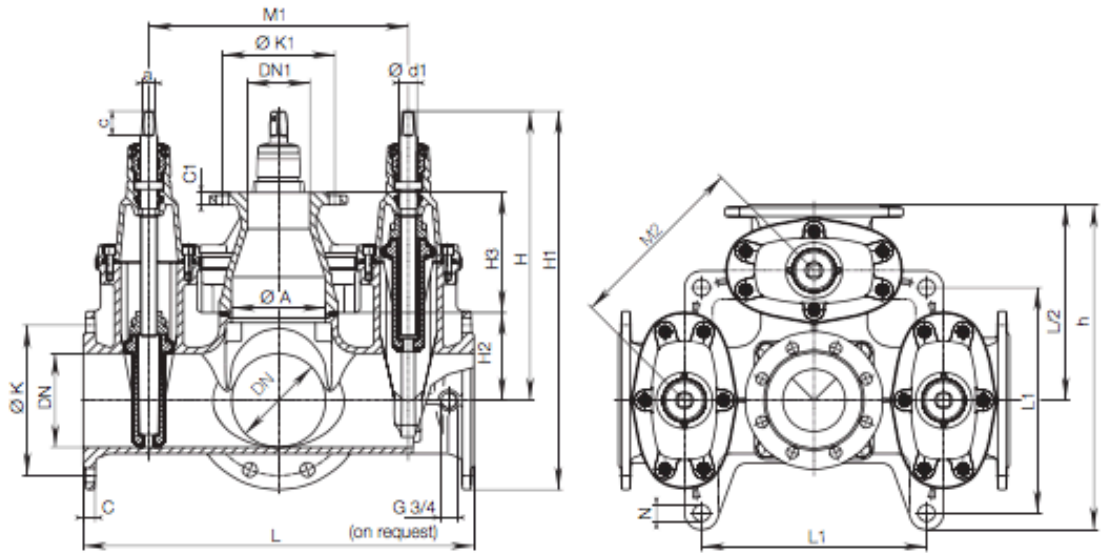

TABLE 2

DN	E2 Combi III without vertical centre outlet															Spindle			Weight (kg)	
	ØA	DN 1	L	L1	H	H1	H2	H3	C	C1	ØK	ØK1	M1	M2	h	N	a	c	Ød1	2	3
100	100	100	555	212	373	483	90	+	19	+	180	+	365	258	411	27	19,3	38	25	71	76
150	150	100	625	360	462	605	140	192	19	19	240	180	415	293.5	520	27	19,3	38	28	120	130
200	200	100	695	445	563	733	180	192	20	19	295	180	465	329	602	32	24,3	48	32	198	205

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SYDNEY
10 McPherson Road
Smeaton Grange, NSW 2567
P 02 4646 1747

OPERATOR'S **MANUAL**

Hawle E2 valve and Combi valve for potable water

Types: all E2 valves and Combi valves in the range supplied by Hawle

Dimensions: DN 50 to DN 600

Pressure stage: Operating pressure 0 - 25 bar – depending on the label on the product or mentioned in the specifications in the Hawle Water Catalogue. The valves may only be used for the relevant specified pressure rating.

The MOP data (maximum operating pressure) is equal to the maximum operating pressure.

Medium: Potable water

Medium temperature: from -0°C to 40°C

Product description

The two wedge settings for valves are either "open" or "closed". The valves are not intended to control flow rates. Actuation of the valve is by means of an extension spindle in underground buried situations or by an operating cap or a handwheel when suitable. Use only handwheels or operating equipment recommended by Hawle. Modifications and additional extensions to operating equipment is not permitted.

Instructions for transport, assembly, initial operation, use and maintenance

1. Care must be taken to ensure that the fittings are transported and load-secured in an orderly manner. If lifting equipment is used during loading, unloading and moving the pipeline connection attach only to flange or lifting ring. Valve spindles DN 50 and larger, are equipped with an inner thread for the reception of the lifting rings during transport. Using the handwheel for lifting is not permissible.
2. Check the valve for damage before assembly. Any damage to the coating must be repaired professionally, using Hawle repairs material no. 3442.
3. The pipelines must be thoroughly cleaned of all dirt and grime before assembling the pipeline fittings. The assembly of the pipeline fitting may only be carried out by specialists following local regulations and Hawle installation procedures.
4. When installing in the pipeline system care must be taken that the pipeline connection flanges that come into contact each other are flush in order to avoid any tensions and stress to the valve housing. Ensure an even pressure in between the flange seals, by crosswise tightening the connecting screws. When using galvanized steel screws St 4.8 (not lubricated) the following tightening torque must be observed:

Screw dimensions	Max. tightening torque per screw (Nm)
M 12	35
M 16	90
M 20	140
M 24	200
M 27	250
M 30	300

   For all other screw materials, use the tightening torque in line with the best accepted engineering standards.
5. Upon completion of assembly, a pressure testing according to the given operating pressure rating must be carried out in the open trench. According to EN 805 or other comparable national regulations: open the valve, fill the pipeline and carry out the pressure test prior to filling the trench.
   (see „Water Catalogue„ page 6)
6. In the event that the valve is installed above ground, a covering or a coating with UV resistant paint is required to assure protection from UV light (e.g. Hawle order no. 3441).
7. The valve may only be operated using extension spindles or handwheels from our product range. The operating and closure torques are in compliance with the Standard EN 1074-2 section 5.2.3b.
8. Hawle valves are designed for low maintenance operation. The valves should be activated at reasonable intervals, at least once every years.

02/2017

HAWLE. **MADE FOR GENERATIONS.**

APPENDIX B - QUALITY CERTIFICATIONS

Copies of the following quality certificates are available from WSAA.

TABLE B1
E. HAWLE ARMATURENWERKE GMBH- MANAGEMENT SYSTEMS

Wagrainer Strasse 13 Vocklabruck Austria	
Quality Systems Standard	ISO 9001:2015
Certification Licence No.	Q1531395
Certifying Agency	TUV SUD
First Date of Certification	21 August 1995
Current Date of Certification	-
Expiry Date of Certification	31 March 2024

TABLE B2
HYNDS LTD - MANAGEMENT SYSTEMS

Includes Hygrade Water Australia 42-44 Blue Eagle Drive Meadowbrook QLD	
Quality Systems Standard	ISO 9001:2015
Certification Licence No.	2641
Certifying Agency	Telarc
First Date of Certification	18 March 1994
Current Date of Certification	14 October 2019
Expiry Date of Certification	14 October 2022

TABLE B3
E. HAWLE ARMATURENWERKE GMBH-PRODUCT CERTIFICATION

Wagrainer Strasse 13 Vocklabruck Austria	
Product Standard/Spec.	AS/NZS 2638.2:2011
Certificate No.	SMKP20123
Issuing Certification Body	SAI-Global
First Date of Certification	17 March 2011
Current Date of Certification	5 August 2021
Expiry Date of Certification	31 March 2024

TABLE B4
E. HAWLE ARMATURENWERKE GMBHPRODUCT CERTIFICATION

Wagrainer Strasse 13 Vocklabruck Austria	
Product Standard/Spec	QS-W 501/1 - EN 1074
Certificate No	W 1.166 and W1.167
Issuing Certification Body	OVGW
Current Date of Certification	2 June 2021
Expiry Date of Certification	30 April 2024

ZERTIFIKAT ◆ CERTIFICATE ◆ 認証書 ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

TÜV SÜD
Landesgesellschaft Österreich

CERTIFICATE

The Certification Body
of TÜV SÜD Landesgesellschaft Österreich GmbH

certifies that

hawle

E. Hawle Armaturenwerk GmbH

Wagrainer Straße 13
A-4840 Vöcklabruck

Hawle Straße 1
A-4890 Frankenmarkt

has established and applies
a Management System for

Development, production and sales of valves and fittings

An audit was performed and proof has been furnished that the requirements according to

ISO 9001 : 2015

are fulfilled. The certificate is valid until **2024-03-31**

Certificate Registration No. **Q1531395**

Akkreditierung Austria A 0917 ISO/IEC 17021-1

Vienna, 2021-04-06

Certification Body
of TÜV SÜD Landesgesellschaft Österreich GmbH
Franz-Grill-Straße 1 · Arsenal, Objekt 207, 1030 Vienna, Austria

TÜV®

Telarc.
The Mark of Success

This is to certify that

Hynds Ltd

25 Arwen Place East Tamaki Auckland

having been assessed by Telarc Limited and having been found to operate a quality management system conforming to

ISO 9001:2015

is hereby designated

Telarc Registered No. 2641

for the following goods and services

The design, manufacture, and distribution of: spun concrete and plastic pipes, precast concrete products, steelware, pumps, and fittings, and the importation and distribution of associated products, for the management of water and water based waste.

Certificate Issued:	14 October 2019	Original Registration:	18 March 1994
Current Registration:	14 October 2019	Expiry Date:	14 October 2022

Chairperson
David Bone

Chief Executive
Philip Cryer

Telarc. Registered Quality ISO 9001

JAS-ANZ

MEMBER OF MULTILATERAL RECOGNITION ARRANGEMENT IAF

Registered by Telarc Limited 626 Great South Road, Ellerslie, Auckland 1051, Private Bag 28901, Remuera, Auckland 1541, Telephone: 64 9 525 0100 Facsimile: 64 9 525 1900 and subject to the Telarc Limited Terms and Conditions for Certification. While all due care and skill was exercised in carrying out this assessment, Telarc Limited accepts responsibility only for proven negligence. To verify that this certificate is current please refer to the JAS-ANZ register at www.jas-anz.org/register This certificate and its associated schedules remain the property of Telarc Limited and must be returned if registration is withdrawn.

STANDARDSMARK LICENCE

SAI Global hereby grants:

E. Hawle Armaturenwerke GmbH

Wagrainer Strabe 13, A-4840 Voecklabruck, Austria
Hawle Strasse 1, Frankenmarkt, Austria

StandardsMark Licence

Manufactured to:

AS/NZS 2638.2:2011 - Gate valves for waterworks purposes - Resilient seated

"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: SMKP20123

Issued : 5 August 2021
Expires : 31 March 2024

Originally Certified : 17 March 2011
Current Certification : 5 August 2021

Frank Camasta
Global Head of Technical Services
SAI Global Assurance

Certified Product
Australian Standard

JAS-ANZ
WWW.JAS-ANZ.ORG/REGISTER

** 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.

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SCHEDULE TO
STANDARDSMARK LICENCE

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And
Hawle Strasse 1, Frankenmarkt, Austria

StandardsMark Licence

Manufactured to:

AS/NZS 2638.2:2011 - Gate valves for waterworks purposes - Resilient seated

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

Model Identification	Model Name	Brand Name	Product Description	Product Type	Nominal Size (DN)	Valve Class (Allowable Operating Pressure)	Maximum Operating Temperature (°C)	Material Designation	Valve Coating Material	Valve Operating Method	Valve Direction of Closure	End Connection Designation	Date Endorsed
5002176/ACC	4040 E2	E.Hawle	System 2000	RSGV	125	PN16	40	Ductile Cast Iron	AKZO NOBEL	Key	ACC	AS/NZS4129 tested PE Restraint Socket 125OD	13 Mar 2018
5002222	4040 E2	E.Hawle	System 2000	RSGV	80	PN16	40	Ductile Cast Iron	AKZO NOBEL	Key	ACC	AS/NZS4129 tested PE Restraint Socket 90OD	17 Oct 2017
5002224	4040 E2	E.Hawle	System 2000	RSGV	100	PN16	40	Ductile Cast Iron	AKZO NOBEL	Key	ACC	AS/NZS4129 tested PE Restraint Socket 125OD	17 Oct 2017
5002225	4040 E2	E.Hawle	System 2000	RSGV	100	PN16	40	Ductile Cast Iron	AKZO NOBEL	Key	ACC	AS/NZS4129 tested PE Restraint Socket 110OD	17 Oct 2017
5002227	4040 E2	E.Hawle	System 2000	RSGV	150	PN16	40	Ductile Cast Iron	AKZO NOBEL	Key	ACC	AS/NZS4129 tested PE Restraint Socket 160OD	17 Oct 2017
5002229	4040 E2	E.Hawle	System 2000	RSGV	150	PN16	40	Ductile Cast Iron	AKZO NOBEL	Key	ACC	AS/NZS4129 tested PE Restraint Socket 180OD	17 Oct 2017
5002230	4040 E2	E.Hawle	System 2000	RSGV	200	PN16	40	Ductile Cast Iron	AKZO NOBEL	Key	ACC	AS/NZS4129 tested PE Restraint Socket 225OD	13 Mar 2018
5002231	4040 E2	E.Hawle	System 2000	RSGV	200	PN16	40	Ductile Cast Iron	AKZO NOBEL	Key	ACC	AS/NZS4129 tested PE Restraint Socket 200OD	12 Feb 2019
5002232	4040 E2	E.Hawle	System 2000	RSGV	200	PN16	40	Ductile Cast Iron	AKZO NOBEL	Key	ACC	AS/NZS4129 tested PE Restraint Socket 250OD	17 Oct 2017
5002242	4500E2			Resilient Seated Gate Valve for waterworks purposes	100	16	40	Ductile Cast Iron	AKZO NOBEL Resicoat R4 Blue	Key Operated	Clockwise Closing	Socket	17 Oct 2017
5002247	4500E2			Resilient Seated Gate Valve for waterworks purposes	150	16	40	Ductile Cast Iron	AKZO NOBEL Resicoat R4 Blue	Key Operated	Clockwise Closing	Socket	17 Oct 2017

Licence No: SMKP20123 **Issued Date:** 5 August 2021

This schedule supersedes all previously issued schedules

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SCHEDULE TO
STANDARDSMARK LICENCE

Model Identification	Model Name	Brand Name	Product Description	Product Type	Nominal Size (DN)	Valve Class (Allowable Operating Pressure)	Maximum Operating Temperature (°C)	Material Designation	Valve Coating Material	Valve Operating Method	Valve Direction of Closure	End Connection Designation	Date Endorsed
5002251	4500E2			Resilient Seated Gate Valve for waterworks purposes	200	16	40	Ductile Cast Iron	AKZO NOBEL Resicoat R4 Blue	Key Operated	Clockwise Closing	Socket	17 Oct 2017
5002268	4500E2			Resilient Seated Gate Valve for waterworks purposes	100	16	40	Ductile Cast Iron	AKZO NOBEL Resicoat R4 Blue	Key Operated	Anti Clockwise Closing	Socket	17 Oct 2017
5002269	4500E2			Resilient Seated Gate Valve for waterworks purposes	150	16	40	Ductile Cast Iron	AKZO NOBEL Resicoat R4 Blue	Key Operated	Anti Clockwise Closing	Socket	17 Oct 2017
5002270	4500E2			Resilient Seated Gate Valve for waterworks purposes	200	16	40	Ductile Cast Iron	AKZO NOBEL Resicoat R4 Blue	Key Operated	Anti Clockwise Closing	Socket	17 Oct 2017
5002312	4041E2	E.Hawle	System 2000	RSGV	80	PN16	40	Ductile Cast Iron	AKZO NOBEL	Key	ACC	AS/NZS4129 tested PE Restraint Socket 90OD / Flange	17 Oct 2017
5002313	4041E2	E.Hawle	System 2000	RSGV	100	PN16	40	Ductile Cast Iron	AKZO NOBEL	Key	ACC	AS/NZS4129 tested PE Restraint Socket 125OD / Flange	17 Oct 2017
5002314	4041E2	E.Hawle	System 2000	RSGV	150	PN16	40	Ductile Cast Iron	AKZO NOBEL	Key	ACC	AS/NZS4129 tested PE Restraint Socket 180OD / Flange	17 Oct 2017
5002535	4060E2			Resilient Seated Gate Valve for waterworks purposes	100	16	40	Ductile Cast Iron	AKZO NOBEL Resicoat R4 Blue	Key Operated	Clockwise Closing	Flanged Ends AS/NZS4087 Fig B5	17 Oct 2017
5002538	4060E2			Resilient Seated Gate Valve for waterworks purposes	150	16	40	Ductile Cast Iron	AKZO NOBEL Resicoat R4 Blue	Key Operated	Clockwise Closing	Flanged Ends AS/NZS4087 Fig B5	17 Oct 2017
5002540	4060E2			Resilient Seated Gate Valve for waterworks purposes	200	16	40	Ductile Cast Iron	AKZO NOBEL Resicoat R4 Blue	Key Operated	Clockwise Closing	Flanged Ends AS/NZS4087 Fig B5	17 Oct 2017
5002549	4060E2	E. Hawle		RSGV	80	PN16	40	Ductile Cast Iron	AKZO NOBEL Resicoat R4 Blue	Key	Anti Clockwise Closing	Flanged Ends AS/NZS4087 Fig B5	28 Mar 2019
5002550	4060E2			Resilient Seated Gate Valve for waterworks purposes	100	16	40	Ductile Cast Iron	AKZO NOBEL Resicoat R4 Blue	Key Operated	Anti Clockwise Closing	Flanged Ends AS/NZS4087 Fig B5	17 Oct 2017
5002552	4060E2			Resilient Seated Gate Valve for waterworks purposes	150	16	40	Ductile Cast Iron	AKZO NOBEL Resicoat R4 Blue	Key Operated	Anti Clockwise Closing	Flanged Ends AS/NZS4087 Fig B5	17 Oct 2017
5002554	4060E2			Resilient Seated Gate Valve for waterworks purposes	200	16	40	Ductile Cast Iron	AKZO NOBEL Resicoat R4 Blue	Key Operated	Anti Clockwise Closing	Flanged Ends AS/NZS4087 Fig B5	17 Oct 2017
5029680	4060E3	E. Hawle	E3 VALVES AS 2638.2	RSGV	80	PN 16	40	Ductile Cast Iron	AKZO NOBEL	Key	ACC	Flanged Ends AS/NZS4087 Fig B5	24 May 2021
5029681	4060E3	E. Hawle	E3 VALVES AS 2638.2	RSGV	100	PN 16	40	Ductile Cast Iron	AKZO NOBEL	Key	ACC	Flanged Ends AS/NZS4087 Fig B5	24 May 2021

Licence No: SMKP20123 **Issued Date:** 5 August 2021

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Model Identification	Model Name	Brand Name	Product Description	Product Type	Nominal Size (DN)	Valve Class (Allowable Operating Pressure)	Maximum Operating Temperature (°C)	Material Designation	Valve Coating Material	Valve Operating Method	Valve Direction of Closure	End Connection Designation	Date Endorsed
5029722	4060E3	E. Hawle	E3 VALVES AS 2638.2	RSGV	150	PN 16	40	Ductile Cast Iron	AKZO NOBEL	Key	ACC	Flanged Ends AS/NZS4087 Fig B5	24 May 2021
5029723	4060E3	E. Hawle	E3 VALVES AS 2638.2	RSGV	200	PN 16	40	Ductile Cast Iron	AKZO NOBEL	Key	ACC	Flanged Ends AS/NZS4087 Fig B5	24 May 2021
5029724	4060E3	E. Hawle	E3 VALVES AS 2638.2	RSGV	250	PN 16	40	Ductile Cast Iron	AKZO NOBEL	Key	ACC	Flanged Ends AS/NZS4087 Fig B5	24 May 2021
5029725	4060E3	E. Hawle	E3 VALVES AS 2638.2	RSGV	300	PN 16	40	Ductile Cast Iron	AKZO NOBEL	Key	ACC	Flanged Ends AS/NZS4087 Fig B5	24 May 2021
5030699	4060E3	E. Hawle	E3 VALVES AS 2638.2	RSGV	200	PN 16	40	Ductile Cast Iron	AKZO NOBEL	Key	CC	Flanged Ends AS/NZS4087 Fig B5	24 May 2021
5030700	4060E3	E. Hawle	E3 VALVES AS 2638.2	RSGV	100	PN 16	40	Ductile Cast Iron	AKZO NOBEL	Key	CC	Flanged Ends AS/NZS4087 Fig B5	24 May 2021
5030701	4060E3	E. Hawle	E3 VALVES AS 2638.2	RSGV	150	PN 16	40	Ductile Cast Iron	AKZO NOBEL	Key	CC	Flanged Ends AS/NZS4087 Fig B5	24 May 2021
5030890	4041E3	E. Hawle	System2000	RSGV	100	PN 16	40	Ductile Cast Iron	AKZO NOBEL	Key	ACC	Restraint Socket 125OD/Flange	24 May 2021
5030891	4040E3	E. Hawle	System2000	RSGV	300	PN 16	40	Ductile Cast Iron	AKZO NOBEL	Key	ACC	AS/NZS4129 tested PE Restraint Socket 315OD	24 May 2021
5030898	4041E3	E. Hawle	System2000	RSGV	150	PN 16	40	Ductile Cast Iron	AKZO NOBEL	Key	ACC	Restraint Socket 180OD/Flange	24 May 2021
5030902	4040E3	E. Hawle	System2000	RSGV	80	PN 16	40	Ductile Cast Iron	AKZO NOBEL	Key	ACC	AS/NZS4129 tested PE Restraint Socket 90OD	24 May 2021
5030903	4040E3	E. Hawle	System2000	RSGV	100	PN 16	40	Ductile Cast Iron	AKZO NOBEL	Key	ACC	AS/NZS4129 tested PE Restraint Socket 125OD	24 May 2021
5030904	4040E3	E. Hawle	System2000	RSGV	150	PN 16	40	Ductile Cast Iron	AKZO NOBEL	Key	ACC	AS/NZS4129 tested PERestraint Socket 180OD	24 May 2021
5030905	4040E3	E. Hawle	System2000	RSGV	200	PN 16	40	Ductile Cast Iron	AKZO NOBEL	Key	ACC	AS/NZS4129 tested PE Restraint Socket 200OD	24 May 2021
5030906	4040E3	E. Hawle	System2000	RSGV	200	PN 16	40	Ductile Cast Iron	AKZO NOBEL	Key	ACC	AS/NZS4129 tested PE Restraint Socket 250OD	24 May 2021
5030907	4041E3	E. Hawle	System2000	RSGV	80	PN 16	40	Ductile Cast Iron	AKZO NOBEL	Key	ACC	Restraint Socket 90OD/Flange	24 May 2021
A461004442/TD	4041E2	E.Hawle	System 2000	RSGV	100	PN16	40	Ductile Cast Iron	AKZO NOBEL	Key	ACC	AS/NZS4129 tested PE Restraint Socket 110OD / Flange	10 Dec 2014
A4610049/TD	4041E2	E.Hawle	System 2000	RSGV	150	PN16	40	Ductile Cast Iron	AKZO NOBEL	Key	ACC	AS/NZS4129 tested PE Restraint Socket 160OD / Flange	10 Dec 2014
A4610056/TD	4041E2	E.Hawle	System 2000	RSGV	200	PN16	40	Ductile Cast Iron	AKZO NOBEL	Key	ACC	AS/NZS4129 tested PE Restraint Socket 225OD / Flange	10 Dec 2014
A461005655/TD	4041E2	E.Hawle	System 2000	RSGV	200	PN16	40	Ductile Cast Iron	AKZO NOBEL	Key	ACC	AS/NZS4129 tested PE Restraint Socket 200OD / Flange	10 Dec 2014

End of Record

Licence No: SMKP20123 **Issued Date:** 5 August 2021

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ÖVGW
ÖSTERREICHISCHE VEREINIGUNG FÜR DAS GAS- UND WASSERFACH

Österreichische Vereinigung für das Gas- und Wasserfach
A-1010 Wien, Schubertring 14
Telefon: +43 / 1 / 513 15 88-0* / Telefax: +43 / 1 / 513 15 88-25
E-Mail: office@ovgw.at / Internet: www.ovgw.at
Accredited by the Federal Ministry
for Digital, Business and Enterprise of the Republic of Austria

ÖVGW GEPRÜFT

ÖVGW Certificate

of the conferment of the right to use
the ÖVGW Quality Mark for Water

Registration number
W 1.166

Period of validity
until the end of April 2024

Owner ◆ Distribution in Austria
E. Hawle Armaturenwerke GmbH
Wagrainerstraße 13
4840 Vöcklabruck

Manufacturer
E. Hawle Armaturenwerke GmbH / AT

Type of test
Renewal test

Test report
TGM – VA HL 8931 dated 2 June 2021

Quality standards / Testing directives
- QS-W 501/1 (version December 2014) in combination with ÖNORM Standards EN 1074-1 and EN 1074-2
- QS-W 100 (version May 2020)
- QS-W 200 (version May 2020)

Product
Combi – III

Flange T-piece with gate valve
(soft-sealing wedge gate valve)
with 2 or 3 gates

for feeding the drinking water supply system
with cold water, PN16

Type: 4450 E3
DN 80, 100, 125, 150, 200
without vertical connection

4460 E3
DN 100, 150, 200
with DN 100 vertical connection

with the following registration features:
- for underground and shaft installations
- manually or motor-operated

ZVR 818158001

The conferment is based on the General Terms and Conditions GW 30 ÖVGW Quality Mark for Gas & Water Products "Conditions for the award of the ÖVGW Quality Mark for gas and water supply products."

Vienna, 9 July 2021

Dipl.-Ing. (FH) Alexander Schwanzer
Head of the ÖVGW Certification Office

ÖVGW
ÖSTERREICHISCHE VEREINIGUNG FÜR DAS GAS- UND WASSERFACH

Österreichische Vereinigung für das Gas- und Wasserfach
A-1010 Wien, Schubertring 14
Telefon: +43 / 1 / 513 15 88-0* / Telefax: +43 / 1 / 513 15 88-25
E-Mail: office@ovgw.at / Internet: www.ovgw.at
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ÖVGW GEPRÜFT

ÖVGW Certificate

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Wagrainerstraße 13
4840 Vöcklabruck

Manufacturer

E. Hawle Armaturenwerke GmbH / AT

Type of test

Renewal test

Test report

TGM – VA HL 8937 dated 2 June 2021

Quality standards / Testing directives

- QS-W 501/1 (version December 2014) in combination with ÖNORM Standards EN 1074-1 and EN 1074-2
- QS-W 100 (version May 2020)
- QS-W 200 (version May 2020)

Product

Combi – IV

Flange crosspiece with gate valve
(soft-sealing wedge gate valve)

for feeding the drinking water supply system with cold water, PN16

Type: 4400 E3
DN 80, 100, 125, 150, 200
without vertical connection

4410 E3
DN 100, 150, 200
with DN 100 vertical connection

with the following registration features:
- for underground and shaft installations
- manually or motor-operated

ZVR 818158001

The conferment is based on the General Terms and Conditions GW 30 ÖVGW Quality Mark for Gas & Water Products "Conditions for the award of the ÖVGW Quality Mark for gas and water supply products."

Vienna, 9 July 2021

Dipl.-Ing. (FH) Alexander Schwanzer
Head of the ÖVGW Certification Office

APPENDIX C - SUPPLIER CONTACTS

Hygrade Water Australia

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Docklands VIC 3008

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