

Strongcast Pty Ltd

PRODUCT APPRAISAL REPORT 2024 Issue 4

Metal Bodied Ball Valves for Property Service Applications

AS 4796:2016 Water supply – Metal bodied and plastic - bodied ball valves for property service connection

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Peer Reviewers

Name/Title	Organisation	Date
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WSAA Expert Panel	WSAA	10 June 2020
Peter Pittard, WSAA Consultant	WSAA	25 May 2020
Carl Radford, Product Appraisal Manager	WSAA	10 June 2020
Peter Pittard, WSAA Consultant	WSAA	4 December 2020
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Carl Radford, Product Appraisal Manager	WSAA	26 May 2021
Peter Pittard, WSAA Consultant	WSAA	1 June 2022
Carl Radford, Product Appraisal Manager	WSAA	2 June 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.

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1 EXECUTIVE SUMMARY

Strongcast Pty Ltd is an Australian company focussed on design, development and supply of innovative products aimed specifically at improving infrastructure surrounding water meters and reducing water loss in the water industry. The company, established in 2011 and located in Brisbane, Queensland, is a specialist supplier of meter boxes, valves, fittings ancillary products and services for the water metering sector.

This appraisal is for a range of DN 15, DN 20 and DN 25 metal-bodied meter assembly ball valves and DN 20 ball valve tapping ferrules for property service applications. The valves are manufactured in conformance with AS 4796:2016 *Water supply – Metal bodied and plastic bodied ball valves for property service connection*.

The ball valves are rated as PN 16.

This Issue 4 is to include DN 20 ball valve tapping ferrules, with and without non-return functions.

Issue 3 was to include additions to the ball valve range including right angle ball valves.

Issue 2 included ball valves that incorporate a "sleeve" to allow a certified Dual Check Valve to be inserted as an integrated component of the ball valve.

The meter assembly ball valves are operated using a tamper-proof lockable lever handle.

The end configurations for the meter assembly ball valves incorporate various combinations including:

- (a) ³/₄" BSP Male
- (b) 1" BSP Male
- (c) 3/4" BSP Female
- (d) 1" BSP Female
- (e) 1" meter female nut
- (f) DN 25 PE compression joint
- (g) DN 32 PE compression joint

The 1" meter female nuts are suitable for joining to the male threads on a standard DN 20 domestic water meter, a DN 20 NSW/ACT domestic water meter (which is different to other states) or a 1" BSP thread on a DN 20 domestic water meter for non-drinking water.

The ball valve tapping ferrules incorporate a ¾" BSP male thread inlet with the following outlets:

- (a) Combination 1" BSP Male to suit a ferrule bend and 34" BSP Female to suit alternative connections.
- (b) DN 25 PE compression joint

The tapping ferrules incorporate a bonnet with a jumper valve or may be capped where the non-return function is not required.

See Tables 1, 2 and 3 and Figures 1, 2 and 3 for complete product details.

The ball valves are manufactured from dezincification resistant copper alloy and incorporate a Grade 316 stainless steel ball.

Strongcast offers a variety of Complete Meter Assembly Kits which incorporate the ball valves included in this appraisal together with PE compatible fittings that are the subject of Product Appraisal No. 2023. See Appendix A for details of the kits.

Both Strongcast and the manufacturer of the ball valves have ISO 9001:2015 certification.

The valves included in the scope of this appraisal have ISO Type 5 ApprovalMark product certification to AS 4796. The bonneted tapping ferrules are also covered by ISO Type 5 ApprovalMark product certification to AS 3718.

The Strongcast ball valves described within this appraisal meet the requirements of WSA PS - 274 Ball Valves for Pressure Applications – Water Supply and are therefore deemed as 'fit for purpose'.

1.2 Recommendations

It is recommended that WSAA members, subject to any specific requirements of the member, accept or authorise Strongcast DN 15, DN 20 and DN 25 metal bodied ball valves for house service applications, as detailed in this report, for use in water supply applications, provided they are installed in accordance with WSAA Codes and the manufacturer's requirements, where specified.

2 THE APPLICANT

The applicant is Strongcast Pty Ltd.

2.1 The Supplier

Strongcast Pty Ltd is an Australian company focussed on design, development and supply of innovative products aimed specifically at improving infrastructure surrounding water meters and reducing water loss in the water industry. The company, established in 2011 and located in Brisbane, Queensland, is a specialist supplier of meter boxes, valves, fittings ancillary products and services for the water metering sector. The Strongcast ball valves are covered by an Australian Registered Design and the company received a Good Design Award for their Complete Meter Assembly Kit awarded by Good Design Australia in 2017. See the following link for further details: https://good-design.org/projects/strongcast-meter-assembly-kit/

More information about Strongcast is available at: https://strongcast.com.au/

2.2 The Manufacturer

Strongcast has requested that the identity of the manufacturer of their ball valves remains commercial-in-confidence. The manufacturer's details including their ISO 9001:2015 licence is retained on file by WSAA.

3 THE PRODUCT

This appraisal is for a range of DN 15, DN 20 and DN 25 metal-bodied meter assembly ball valves and DN 20 ball valve tapping ferrules for property service applications. The valves are manufactured in conformance with AS 4796:2016 *Water supply – Metal bodied and plastic bodied ball valves for property service connection*.

The ball valves are rated as PN 16.

The meter assembly ball valves are operated using a tamper-proof lockable lever handle.

Some ball valves are available with a "sleeve" to allow a certified Dual Check Valve to be inserted as an integrated component of the ball valve. The relevant product code is appended with DCV.

The end configurations for the ball valves incorporate various combinations including:

- (a) ³/₄" BSP Male
- (b) 1" BSP Male
- (c) 3/4" BSP Female
- (d) 1" BSP Female
- (e) 1" meter female nut
- (f) DN 25 PE compression joint

(g) DN 32 PE compression joint

See Tables 1 and 2 and Figures 1 and 2 for details.

The 1" meter female nuts are suitable for joining to the male threads on a standard DN 20 domestic water meter, a DN 20 NSW/ACT domestic water meter (which is different to other states) or a 1" BSP thread on a DN 20 domestic water meter for non-drinking water.

The PE compression joints are designed and tested to suit DN 25 and DN 32 PN16 polyethylene pipe.

The ball valves are manufactured from dezincification resistant copper alloy and incorporate a Grade 316 stainless steel ball with a minimum clear bore of 13.5mm for DN 15, 19mm for DN 20 and 24mm for DN 25 valves.

Strongcast offers a variety of Complete Meter Assembly Kits which incorporate ball valves included in this appraisal together with PE compatible fittings that are the subject of Product Appraisal No. 2023. See Appendix A for details of the kits.

The ball valves are generally utilised as part of the water meter kits; however, the valves may also be purchased individually or in conjunction with associated brass fittings.

The DN 20 ball valve tapping ferrules incorporate a ball valve shut off mechanism in lieu of a traditional tapered plastic plug. The tapping ferrules incorporate a ¾" BSP male thread inlet with the following outlets:

- (c) Combination 1" BSP Male to suit a ferrule bend and ¾" BSP Female to suit alternative connections.
- (d) DN 25 PE compression joint

The tapping ferrules incorporate a bonnet with a jumper valve or may be capped where the non-return function is not required.

4 SCOPE OF THE APPRAISAL

The ball valves included in this appraisal are detailed in Tables 1, 2 and 3 and Figures 1, 2 and 3 and also included in the ISO Type 5 ApprovalMark product schedule attached in Appendix B.

TABLE 1 STRONGCAST METER ASSEMBLY BALL VALVES (STRAIGHT)

Product Code	DN	End Connections	Available with Sleeve
C9745	15	1" BSP Male - ¾" BSP female nut	√
C7093	15	DN 25 PE compression joint - 3/4" BSP female nut	✓
QC9746	20	1" BSP Male – 1" female nut to suit DN 20 standard domestic water meter	√
NC9746	20	1" BSP Male – 1" female nut to suit DN 20 NSW domestic water meter	√
ZC9746	20	1" BSP Male – 1" BSP female nut for DN 20 domestic water meter for non-drinking water	√
QC7094	20	DN 25 PE compression joint - 1" female nut to suit DN 20 standard domestic water meter	√
NC7094	20	DN 25 PE compression joint - 1" female nut to suit DN 20 NSW domestic water meter	✓

ZC7094	20	DN 25 PE compression joint - 1" BSP female nut for DN 20 domestic water meter for non-drinking water	√
C8422	20	DN 25 PE compression joint – ¾" female thread	
C8423	20	DN 25 PE compression joint – ¾" male thread	
QC7095	20	DN 32 PE compression joint - 1" female nut to suit DN 20 standard domestic water meter	
NC7095	20	DN 32 PE compression joint - 1" female nut to suit DN 20 NSW domestic water meter	
ZC7095	20	DN 32 PE compression joint - 1" BSP female nut for DN 20 domestic water meter for non-drinking water	
C2532	20	DN 32 PE compression joint - DN 25 PE compression joint	
QC9747	25	1" BSP Male – 1" female nut to suit DN 20 standard domestic water meter	
NC9747	25	1" BSP Male – 1" female nut to suit DN 20 NSW domestic water meter	
ZC9747	25	1" BSP Male – 1" BSP female nut for DN 20 domestic water meter for non-drinking water	
C8424	25	1" BSP Male - 1" BSP Male	
C8425	25	1" BSP Male - ¾" BSP Male	











C9745

C7093

xC9746

xC7094

C8422











C8423

xC7095

C2532

xC9747

C8425





Example of ball valve with sleeve to allow incorporation of Dual Check Valve FIGURE 1 STRONGCAST METER ASSEMBLY BALL VALVES (STRAIGHT)

TABLE 2 STRONGCAST METER ASSEMBLY BALL VALVES (RIGHT ANGLE)

Product Code	DN	End Connections	Available with Sleeve
R9745	15	1" BSP Male - ¾" BSP female nut	✓
R7093	15	DN 25 PE compression joint - ¾" BSP female nut	✓
QR9746	20	1" BSP Male – 1" female nut to suit DN 20 standard domestic water meter	√
NR9746	20	1" BSP Male – 1" female nut to suit DN 20 NSW domestic water meter	
ZR9746	20	1" BSP Male – 1" BSP female nut for DN 20 domestic water meter for non-drinking water	✓
QR7094	20	DN 25 PE compression joint - 1" female nut to suit DN 20 standard domestic water meter	✓
NR7094	20	DN 25 PE compression joint - 1" female nut to suit DN 20 NSW domestic water meter	
ZR7094	20	DN 25 PE compression joint - 1" BSP female nut for DN 20 domestic water meter for non-drinking water	









R9745

R7093

xR9746

xR7094

FIGURE 2 STRONGCAST METER ASSEMBLY BALL VALVES (RIGHT ANGLE)

TABLE 3 STRONGCAST BALL VALVE TAPPING FERRULES

Product Code	DN	End Connections
TCB20	20	3/4" BSP male - combination 1" BSP Male / 3/4" female with jumper valve
CB20	20	3/4" BSP male - combination 1" BSP Male / 3/4" female with cap
TCB25PE	20	3/4" BSP male - DN 25 PE compression joint with jumper valve
CB25PE	20	3/4" BSP male - DN 25 PE compression joint with cap









FIGURE 2 STRONGCAST BALL VALVE TAPPING FERRULES

5 APPRAISAL CRITERIA

5.1 Quality Assurance Requirements

The WSAA Product Appraisal Technical Advisory Group accepts ball valves manufactured in compliance with AS 4796:2016 *Water supply – Metal bodied and plastic bodied ball valves for property service connection* 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 bonneted tapping ferrules are also covered by ISO Type 5 ApprovalMark product certification to AS 3718:2021 *Water supply – Tap ware* .

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

Strongcast ball valves have been appraised for compliance with AS 4796:2016 *Water supply – Metal bodied and plastic bodied ball valves for property service connection.*

The following Product Specification is relevant to this application:

WSA PS- 274 Ball Valves for Pressure Applications – 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

Strongcast has submitted the following quality certificates:

- ISO 9001:2015 Certificate of Registration No. 99152334453Q issued to Strongcast Pty Ltd by Best Practice Certification.
- ISO 9001:2015 Certificate of Registration for the ball valve manufacturer. (Retained on file as Commercial in Confidence)
- AS 4796:2016 ISO Type 5 ApprovalMark Product Certification Licence No. AMI 74823 issued to Strongcast Pty Ltd by ApprovalMark International.

AS 3718:2021 ISO Type 5 ApprovalMark Product Certification Licence No. AMI 74938 issued to Strongcast Pty Ltd by ApprovalMark International.

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

6.2 Compliance with Performance Requirements

6.2.1 Type testing

Strongcast has provided type test results for a DN 15, DN 20 and DN 25 ball valve to demonstrate compliance to the performance requirements of AS 4796. National Centre for Supervision and Inspection of Drainage Irrigation and Water-Saving Equipment Products Quality in Anhui China, CNAS Accredited Laboratory No. L0606, conducted the tests.

The performance tests successfully completed for the ball valves were: watertightness, strength, torque test for connector nuts and body assemblies and torque test for valve operation. The minimum required bore diameter was also verified.

Type test results were also submitted for assembled joints to demonstrate AS/NZS 4129:2008 compliance of the DN 25 PE compatible compression joints to PN16 rating. Tests successfully conducted were: hydrostatic pressure, liquid infiltration, leak-tightness when subjected to bending and pull-out.

6.2.2 End connections

The Strongcast ball valves are offered with end connections as described below:

- Female nuts for meter connections

The threads on these nuts are parallel and suitable for joining to the male threads on a standard DN 20 domestic water meter, a DN 20 NSW/ACT water meter (which is different to other states) or a 1" BSP thread on a DN 20 domestic water meter for non-drinking water.

- PE compatible mechanical compression joints

These joints comply with AS/NZS 4129:2008 *Fittings for polyethylene (PE) pipes* and have been type tested for compliance. The joint design is suitable for PN 16 PE 100 pipe to AS/NZS 4130.

- Female threads

These threads are parallel complying with AS ISO 7.1 Series R_p

- Male threads

These threads are tapered, complying with AS ISO 7.1 Series R.

6.2.3 Suitability for contact with drinking water

Strongcast has submitted a complying Test Report from National Centre for Supervision and Inspection of Drainage Irrigation and Water-Saving Equipment Products Quality in Anhui China (CNAS Accredited Laboratory No. L0606) dated 9 January 2020, for a Strongcast C7093 DN 15 ball valve to demonstrate compliance with AS/NZS 4020:2018 *Testing of products for use in contact with drinking water*, using a scaling factor of 0.01.

6.2.4 Components material list

The material specifications for the components used for Strongcast metal bodied ball valves are given in Table 2.

All copper alloy components are manufactured from EN 12165 Grade CW602N, also known as CZ132 and is approximately equivalent to Grade C35200 of AS/NZS1567. This alloy is a leaded arsenical brass (CuZn36Pb2As). A test report from SGS (CNAS Accredited laboratory L0599) has been submitted to demonstrate compliance with the material composition and a report from National Centre for Supervision and Inspection of Drainage

Irrigation and Water-Saving Equipment Products Quality has been submitted to demonstrate compliance with AS2345 *Dezincification of copper alloys*.

A test report from SGS has been submitted to demonstrate compliance of the ball material to Grade 316 stainless steel

TABLE 2
STRONGCAST COMPONENTS MATERIAL LIST

Component	Material	Standard	Grade
Body	Copper Alloy	EN 12165	CW602N
Seat	PTFE	-	-
Ball	Stainless Steel	ASTM A276	316
Spindle	Copper Alloy	EN 12164	CW602N
Handle	Copper Alloy	EN 12164	CW602N
O-Rings	EPDM	ASTM D2000	IRHD 70
Nuts	Copper Alloy	EN 12164	CW602N
Jumper valve	Copper Alloy /EPDM	EN 12164	CW602N

7 FITTING INSTRUCTIONS, TRAINING AND INSTALLATION

Ball valves are standard water industry products. Installation instructions are available directly from Strongcast if required.

8 PRODUCT MARKING

The Strongcast ball valves have the following markings in compliance with AS 4796:

Manufacturer's name or trademark: Strongcast

Nominal size: e.g. DN 20

Pressure classification: PN16

The number of this standard: AS 4796
ApprovalMark and licence No: AMI74823

Batch marking: mm/yyyy

The valves are also marked with on/off indications and the maximum operating temperature.

9 PACKAGING AND TRANSPORTATION

The ball valves are generally provided within a complete meter assembly kit but may be provided separately if required. The valves are packed into cardboard cartons with suitable partitions. In line with environmental concerns no plastic materials are used in the packaging.

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

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

Ball valves are considered standard products. Installation trials were not required as part of this Appraisal.

12 OUTCOMES OF EXPERT PANEL PRODUCT REVIEW

There are no outstanding issues.

13 FUTURE WORKS

There are no future works requirements.

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

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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







APPENDIX B - QUALITY CERTIFICATIONS

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

TABLE B1 STRONGCAST PTY LTD – MANAGEMENT SYSTEMS

-			
17/1440 New Cleveland Road Chandler Queensland			
Quality Systems Standard	ISO 9001:2015		
Certification Licence No.	99152334453Q		
Certifying Agency	Best Practice Certification		
First Date of Certification	18 July 2019		
Current Date of Certification	15 April 2020		
Expiry Date of Certification	17 July 2022		

TABLE B2 STRONGCAST PTY LTD – PRODUCT CERTIFICATION

17/1440 New Cleveland Road Chandler Queensland			
Product Standard/Spec.	AS 4796:2016		
Certificate No.	AMI 74823		
Issuing Certification Body	ApprovalMark International		
First Date of Certification	6 May 2020		
Current Date of Certification	11 May 2022		
Expiry Date of Certification	6 May 2023		

TABLE B3 STRONGCAST PTY LTD – PRODUCT CERTIFICATION

17/1440 New Cleveland Road Chandler Queensland			
Product Standard/Spec.	AS 3718:2021		
Certificate No.	AMI 74938		
Issuing Certification Body	ApprovalMark International		
First Date of Certification	14 February 2022		
Current Date of Certification	14 February 2022		
Expiry Date of Certification	14 February 2024		



Strongcast Pty Ltd

Best Practice Certification Pty Ltd has assessed the above company as complying with the following management system standard requirements at the address shown.

Standard: ISO 9001:2015 Quality Management System Requirements

Scope of Certification: Provision of design, manufacture, distribution, and supply of ancillary water

meter components in Australasia, including consultation and turnkey services.

Head Office Address: 59 Luke Street, Hemmant QLD 4174 Australia

Initial Certification Date: 18/07/2019

 Issue Date:
 Expiry Date:
 Certificate Number:

 15/04/2020
 17/07/2022*
 99152334453Q

Additional Sites & Activities: See Certificate Schedule # 99152334453Q

Additional Registered Entities Covered Strongcast NZ LP

By This Certification: Strongcast Limited

Strongcast Innovations Pty Ltd

Certified

CERTIFICATION APPROVED:

Kobi Simmat
Managing Director

Best Practice Certification Pty Ltd

Suite 2, Level 2, Building B 122-126 Old Pittwater Road Brookvale NSW 2100

p» 1300 402 602

https://bestpracticecertification.com.au

JAS-ANZ

WWW.JAS-ANZ.ORG/REGISTER



* Subject to regular surveillance audits



CERTIFICATE OF CONFORMITY



ApprovalMark International hereby grants:

Strongcast Pty Ltd

17/1440 New Cleveland Road Chandler QLD, 4155 Australia

ISO Type 5 Certificate of Conformity

Evaluated to:

AS/NZS 4796:2016 – Water supply – Metal bodies and plastic-bodied ball valves for property service connection

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 74823

Issued: 11th May 2022 Expires: 6th May 2023

John Menny

John PRASAD

Director

ApprovalMark International Pty Ltd 18/33 Holbeche Road, Arndell Park 2148, Australia www.approvalmark.com





Original Issue: 6th May 2020

Registered by: ApprovalMark International Pty Ltd (ABN 69 143 259 974) Unit 18, 33 Holbeche Road, Arndell Park NSW 2148 Australia. The assessment was carried with appropriate skill and assessment by ApprovalMark International Pty Ltd, however it will only accept its responsibility for proven negligence. The certificate remains the property of ApprovalMark International Pty Ltd.



STRONGCAST PTY LTD

59 Luke Street Hemmant 4174 AUSTRALIA

WaterMark Certificate of Conformity - WMCS 2016

Evaluated to:

AS 4796:2016 – Water supply—Metal-bodied and plastic-bodied ball valves for property service connection

Model Id	Model Name	Brand Name	Product Description	Endorsement Date
QC9746	20mm Water Meter Ball Valve	Strongcast	G1"MaleXDN20X32.5*14T	9th April 2020
NC9746	20mm Water Meter Ball Valve	Strongcast	G1"MaleXDN20X36.6*14T PI	9 th April 2020
QC7094	20mm Water Meter Ball Valve – PE	Strongcast	PE25XDN20*32.5*14TPI (WM74822)	9 th April 2020
NC7095	20mm Water Meter Ball Valve – PE	Strongcast	PE32XDN20*36.6*14TPI (WM 74822)	9 th April 2020
NC7094	20mm Water Meter Ball Valve – PE	Strongcast	PE25XDN20*36.6*14TPI (WM 74822)	9 th April 2020
QC7095	20mm Water Meter Ball Valve – PE	Strongcast	PE32XDN20*32.5*14TPI (WM 74822)	9 th April 2020
ZC9746	20mm Water Meter Ball Valve	Strongcast	G1"MaleXDN20X32,5*BSP	9 th April 2020
ZC7094	20mm Water Meter Ball Valve – PE	Strongcast	PE25XDN20*32.5*BSPP (WM 74822)	9 th April 2020
ZC7095	20mm Water Meter Ball Valve – PE	Strongcast	PE32XDN20*32.5*BSPP (WM 74822)	9 th April 2020
C9745	15mm Water Meter Ball Valve	Strongcast	G3/4"M(Rp1/2")XDN15XG 3/4"Nut	9 th April 2020
C7093	15mm Water Meter Ball Valve – PE	Strongcast	PE25XDN15*G3/4"Nut (WM 74822)	9 th April 2020
C2532	20mm Ball Valve PE – PE	Strongcast	PE32XDN20XPE25 (WM 74822)	9 th April 2020
C8423_	DN20 PE25 Ball Valve x 3/4" Mi	Strongcast	DN20 PE25 Ball Valve x 3/4" Male (WM 74822 – PE25*DN20*Rp3/4")	24 th September 2020
QC9746DCV_	DN20 Ball Valve with Sleeve	Strongcast	DN20 Ball Valve - G1" x 3/4" x 32.5mm 14TPI with DCV Sleeve	27 th October 2020
ZC9746DCV_	DN20 Ball Valve with Sleeve	Strongcast	DN20 Ball Valve - G1" x 3/4" x 32.5mm G1" with DCV Sleeve	27 th October 2020

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Model Id	Model Name	Brand Name	Product Description	Endorsement Date
NC9746DCV_	DN20 Ball Valve with Sleeve	Strongcast	DN20 Ball Valve - G1" x 3/4" x 36.6mm 14TPI with DCV Sleeve	27 th October 2020
QC7094DCV_	DN20 Ball Valve with Sleeve PE25	Strongcast	DN20 Ball Valve - PE25 x 32.5mm 14TPI with DCV Sleeve	27 th October 2020
ZC7094DCV_	DN20 Ball Valve with Sleeve PE25	Strongcast	DN20 Ball Valve - PE25 x G1" with DCV Sleeve	27 th October 2020
NC7094DCV	DN20 Ball Valve with Sleeve PE25	Strongcast	DN20 Ball Valve - PE25 x 36.6mm 14TPI with DCV Sleeve	27 th October 2020
C9745DCV_	DN20 Ball Valve with Sleeve	Strongcast	DN20 Ball Valve - PE25 x G3/4" with DCV Sleeve	27th October 2020
C7093DCV_	DN20 Ball Valve with Sleeve PE25	Strongcast	DN20 Ball Valve - PE25 x G3/4" with DCV Sleeve	27th October 2020
QR9746	G1" / 3/4" x DN20 x 32.5mm 14TPI (Right Angle Ball Valve)	Strongcast	DN20 Ball Valve Right Angle	8 th March 2021
QR9746DCV	G1" / 3/4" x DN20 x 32.5mm 14TPI (Right Angle Ball Valve/Sleeve)	Strongcast	DN20 Ball Valve Right Angle / Sleeve	8 th March 2021
ZR9746	G1" / 3/4" x DN20 x G1" (Right Angle Ball Valve)	Strongcast	DN20 Ball Valve Right Angle	8 th March 2021
ZR9746DCV	G1" / 3/4" x DN20 x G1" (Right Angle Ball Valve/Sleeve)	Strongcast	DN20 Ball Valve Right Angle / Sleeve	8 th March 2021
NR9746	G1" / 3/4" x DN20 x 36.6mm 14TPI (Right Angle Ball Valve)	Strongcast	DN20 Ball Valve Right Angle	8 th March 2021
QR7094	PE25 x DN20 x 32.5mm 14TPI (Right Angle Ball Valve)	Strongcast	DN20 Ball Valve Right Angle PE25	8 th March 2021
QR7094DCV	PE25 x DN20 x 32.5mm 14TPI (Right Angle Ball Valve/Sleeve)	Strongcast	DN20 Ball Valve Right Angle / Sleeve PE25	8 th March 2021
ZR7094	PE25 x DN20 x G1" (Right Angle Ball Valve)	Strongcast	DN20 Ball Valve Right Angle PE25	8 th March 2021
ZR7094DCV	PE25 x DN20 x G1" (Right Angle Ball Valve/Sleeve)	Strongcast	DN20 Ball Valve Right Angle / Sleeve PE25	8 th March 2021
NR7094	PE25 x DN20 x 36.6mm 14TPI (Ball Valve Right Angle)	Strongcast	DN20 Ball Valve Right Angle PE25	8 th March 2021

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Model Id	Model Name	Brand Name	Product Description	Endorsement Date
R7093	PE25 x DN20 x G3/4" (Right Angle Ball Valve)	Strongcast	DN15 Ball Valve Right Angle	8 th March 2021
QC9747	R1 1/4" / Rp1" x DN25 x 39.5mm x 14TPI (Straight Valve)	Strongcast	DN25 Ball Valve Straight w/Coupling	8 th March 2021
ZC9747	R1 1/4" / Rp1" x DN25 x G1 1/4" (Straight Valve)	Strongcast	DN25 Ball Valve Straight w/Coupling	8 th March 2021
NC9747	R1 1/4" / Rp1" x DN25 x 41.5mm x 14TPI (Straight Valve)	Strongcast	DN25 Ball Valve Straight w/Coupling	8 th March 2021
C8424	R1 1/4" / Rp1" x DN25 x R1 1/4" / Rp1" (Straight Valve)	Strongcast	DN25 Ball Valve Straight	8 th March 2021
C8425	R1 1/4" / Rp1" x DN25 x R1" / Rp3/4" (Straight Valve)	Strongcast	DN25 Ball Valve Straight Reducer	8 th March 2021
C8422	PE25 x DN20 x 3/4" R Female	Strongcast	DN20 Ball Valve PE25 / 3/4" F	8 th March 2021
CB20	DN20 TAPPING BALL VALVE BSP CONNECTIONS WITH CAP	Strongcast	R3/4" Male x DN20 x R1" Male/Rp3/4" Female with cap	11th May 2022
CB25PE	DN20 TAPPING BALL VALVE PE25 CONNECTIONS WITH CAP	Strongcast	R3/4" Male x DN20 x PE25 with cap	11th May 2022
TCB20	DN20 TAPPING BALL VALVE BSP CONNECTIONS WITH STOP COCK	Strongcast	R3/4" Male x DN20 x R1" Male/Rp3/4" Female with stop cock	11th May 2022
TCB25PE	DN20 TAPPING BALL VALVE PE25 CONNECTIONS WITH STOP COCK	Strongcast	R3/4" Male x DN20 x PE25 with stop cock	11th May 2022

End of record

Certificate No. AMI 74823

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

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CERTIFICATE OF CONFORMITY



ApprovalMark International hereby grants:

STRONGCAST PTY LTD

17/1440 New Cleveland Road Chandler, QLD 4155 AUSTRALIA

ISO Type 5 Certificate of Conformity

Evaluated to:

AS/NZS 3718:2021 - Water supply - Tap ware

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 74938

Issued: 14th February 2022

Expires: 14th February 2024

John PRASAD

Director

ApprovalMark International Pty Ltd 18/33 Holbeche Road, Arndell Park 2148, Australia

www.approvalmark.com





Original Issue: 14th February 2022

Registered by: ApprovalMark International Pty Ltd (ABN 69 143 259 974) Unit 18, 33 Holbeche Road, Arndell Park NSW 2148 Australia. The assessment was carried with appropriate skill and assessment by ApprovalMark International Pty Ltd, however it will only accept its responsibility for proven negligence. The certificate remains the property of ApprovalMark International Pty Ltd.



STRONGCAST PTY LTD

17/1440 New Cleveland Road Chandler, QLD 4155 AUSTRALIA

ISO Type 5 Certificate of Conformity

Evaluated to:

AS 3718:2021 - Water supply - Tap ware

Model Id	Model Name	Brand Name	Product Description	Endorsement Date
TCB/DCV20	DN20 TAPPING BALL VALVE BSP CONNECTIONS WITH SWIVEL NUT/SLEEVE AND STOP COCK	Strongcast	R3/4" Male x DN20 x 1" Swivel Nut/Sleeve with stop cock	14 th February 2022
тсв20	DN20 TAPPING BALL VALVE BSP CONNECTIONS WITH STOP COCK	Strongcast	R3/4" Male x DN20 x R1" Male/Rp3/4" Female with stop cock	14 th February 2022
TCB25PE	DN20 TAPPING BALL VALVE PE25 CONNECTIONS WITH STOP COCK	Strongcast	R3/4" Male x DN20 x PE25 with stop cock	14 th February 2022

End of record

Certificate No. AMI 74938

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

Appl

APPENDIX C - SUPPLIER CONTACTS

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