



Nepean Building and Infrastructure Pty Ltd

PRODUCT APPRAISAL REPORT 2046 Issue 4

Weldlok Ductile Iron Access Covers

AS 3996:2019 Access covers and grates

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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

Nepean Building and Infrastructure Pty Ltd is a privately-owned engineering mining and industrial manufacturing organisation. Weldlok Industries Pty Ltd an operating entity of Nepean. WELDLOK® is a brand that services the infrastructure, mining, industrial, civil and fabrication industries with products that include grating, handrail, steel flooring, metal mesh and drainage products including covers and grates.

This Appraisal is for a range of Class B and Class D solid top and concrete infill cast ductile iron circular access covers and frames for utilisation in sewer and storm water systems. A range of covers and frames to QUU specifications and two Water Corporation WA rectangular covers and frames are also included. See Section 4 for details.

This Issue 4 is to include solid top and concrete infill WAWC rectangular Class D access covers and frames.

Weldlok access covers and frames are manufactured in accordance with AS 3996:2019 *Access covers and grates*.

The solid top access covers have a skid resistant raised pattern on the lid and incorporate Grade 316 A4-70 stainless steel M12 hexagon head hold down bolts.

The keyholes provided on each cover are compatible with the industry standard key lifter.

Weldlok Industries Pty Ltd holds an ISO 9001:2015 Quality Management System Licence.

The Weldlok access covers, except the QUU specified concrete infill version, have ISO Type 5 StandardsMark product certification to AS 3996:2019.

This Appraisal has determined that Weldlok Access Covers and Frames as detailed in Section 4, comply with the requirements of WSA PS 290 *Ductile Iron Access Covers and Frames for Drinking Water, Non-drinking Water Supply and Sewerage to AS 3996 or QUU specifications and are considered as 'fit for purpose'*.

1.1 Recommendations

It is recommended that WSAA members, subject to any specific requirements of the member, accept or authorise the Weldlok Access Covers and Frames, detailed in this report, for use in sewerage and storm water systems provided they are installed in accordance with WSAA Codes and manufacturer's requirements, where specified.

2 THE APPLICANT

The Applicant is Nepean Building and Infrastructure Pty Ltd.

2.1 The Supplier

Nepean Building and Infrastructure Pty Ltd is a privately-owned engineering mining and industrial manufacturing organisation. Weldlok Industries Pty Ltd an operating entity of Nepean. WELDLOK® is a brand that services the infrastructure, mining, industrial, civil and fabrication industries with products that include grating, handrail, steel flooring, metal mesh and drainage products including covers and grates.

More information is available at: <http://www.nepean.com/building>

2.2 The Manufacturer

The access covers are manufactured on behalf of Weldlok by Hong Guang Handan Foundry Co Ltd located near Handan, Hebei Province, China.

Hong Guang was founded in 1998 and specialises in the manufacture of grey and ductile iron covers and grates. The company employs approximately 120 people and exports to Europe, North America and the Middle East as well as servicing the domestic Chinese market.

3 THE PRODUCT

This Appraisal is for a range of Weldlok Class B and Class D cast ductile iron circular access covers and frames manufactured in accordance with AS 3996:2019 *Access covers and grates* and intended for utilisation in sewer and storm water systems.

A range of covers to QUU specifications are also considered, including one concrete infill version.

A Class D solid top cover and frame branded Bianco Precast, identical to the QUU bolt down version, is also included.

Two rectangular covers and frames are also included in accordance with Water Corporation WA specifications; one solid top and one concrete infill version.

Both sewer and storm water marking options are available. See Table 1.

All access covers and frames are cast, assembled, tested and painted at the Hong Guang Handan Foundry in accordance with Weldlok designs and drawings.

All access covers have the lid bolted to the frame with a minimum of two Grade 316 A4-70 M12 hexagon head bolts in compliance with AS 3996 to prevent dislodgement by traffic or uplift from internal pressure or flood, except the QUU version. A vee mark is cast into both the cover and frame near the keyholes to provide a visual alignment for bolt insertion.

Weldlok access covers have two keyholes with dimensions in accordance with AS 3996 to ensure compatibility with industry standard key lifters. The WCWA covers have 4 keyholes.

Plastic bolthole and keyhole covers are fitted to all access covers. All solid top covers have a skid resistant raised pattern cast into the cover surface and coated with bituminous paint.

See Section 4 for details of the Weldlok covers and frames included in this Appraisal.

4 SCOPE OF THE APPRAISAL

This appraisal applies to the access cover and frames shown in Table 1 and included in the StandardsMark ISO Type 5 product certification schedule in Appendix B.

TABLE 1 WELDLOK DI ACCESS COVERS

Part Number	Shape	Clear Opening mm	Application	Class	Fasteners
STDCS0600-2B	Circular	600	SEWER	B	2 x M12
STDCSW0600-2B	Circular	600	STORM WATER	B	2 x M12
STDCS0600-2D	Circular	600	SEWER	D	2 x M12
STDCSSR0600-2D [†]	Circular	600	SEWER	D	2 x M12
STDCSW0600-2D	Circular	600	STORM WATER	D	2 x M12
CIDCS0600-2B	Circular	600	SEWER	B	2 x M12 plus concrete infill
CIDCS0600-2D	Circular	600	SEWER	D	2 x M12 plus concrete infill
QUU-CIDC6SB*	Circular	600	SEWER	B	Concrete Infill
QUU-STDC0600S-4B*	Circular	600	SEWER	B	4 x M12
QUU-STDC0600S-4D*	Circular	600	SEWER	D	4 x M8

BPSTDCS0600-4D*	Circular	600	SEWER	D	4 x M8
BPSTDCSW0600-4D*	Circular	600	STORM WATER	D	4 x M8
STDCS0432D	Circular	432	SEWER	D	2 x M12
STDCS0375B	Circular	375	SEWER	B	2 x M12
STDCS0367B	Circular	367	SEWER	B	2 x M12
STDCS0367D	Circular	367	SEWER	D	2 x M12
CID2PWC0900X0600	Rectangular	900 x 600	None	D	8 x M12 plus concrete infill
STD2PWC0900X0600	Rectangular	900 x 600	None	D	8 x M12

[†]This cover incorporates a safety ring in the frame to prevent access.

*These covers are manufactured to QUU specifications.

5 APPRAISAL CRITERIA

5.1 Quality Assurance Requirements

The WSAA Product Appraisal Technical Advisory Group accepts Class B and Class D solid top cast ductile iron circular access covers and frames manufactured in compliance with AS 3996:2019 *Access covers and grates* 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 Weldlok access covers and frames have been appraised for compliance with AS 3996:2019 *Access covers and grates*

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 290 *Ductile Iron Access Covers and Frames for Drinking Water, Non-drinking Water Supply and Sewerage to AS 3996*

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

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

6 COMPLIANCE WITH APPRAISAL CRITERIA

6.1 Compliance with Quality Assurance Requirements

Weldlok has submitted the following quality certificates:

- ISO 9001:2015 Certificate of Registration No. QEC1976 issued to Weldlok Industries Pty Ltd by SAI-Global.
- ISO 9001:2015 Certificate of Registration No. FM 510540 issued to Hong Guang Handan Foundry Co Ltd by BSI.

- AS 3996:2019 ISO Type 5 StandardsMark Product Certification Licence No. SMK40898 issued to Weldlok Industries Pty Ltd by SAI-Global.

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 Load resistance

Type Test reports completed by Nepean Building and Infrastructure Pty Ltd in Sydney (NATA Accreditation No 12043) have been submitted by Weldlok to demonstrate compliance with the load performance requirements of Appendix C of AS 3996:2019 for Class B and Class D access covers.

The type test requirements are to ensure the cover and frame:

- a) Exhibits acceptable elastic deflection after application of the serviceability design load.
- b) Exhibits acceptable permanent set of the cover or grate, after five applications of the serviceability design load.
- c) Sustains the ultimate limit state design load for 30 seconds without structural failure.

All access covers successfully passed the type tests.

6.2.2 Sealing

Type test reports completed by ALS Industrial Pty Ltd (NATA Accreditation No 218) demonstrated cover and frame compliance with the water tightness and gas tightness requirements of AS 3996:2019.

6.2.3 Slip resistance

A test was undertaken on a cover STDC6S-2D by Safe Environments Pty Ltd (NATA Accreditation No. 17139) to demonstrate a Class P5 rating in accordance with AS 4586, which complies with the requirements of AS 3996:2019. The lid design for the WCWA covers is in accordance with WCWA specifications and have not been tested for slip resistance.

6.2.4 Uplift resistance to pressure, flood or dislodgement by traffic

Where covers have a minimum depth of insertion of 50mm and are held down with two or more Grade 8.8, A4-70 or equivalent M12 bolts, a pull-out test is not required. A pull-out test report has been submitted for the two covers within the scope of this appraisal that have less than 50mm depth of insertion: QUU-STDC0600S-4D and STDCS0367D.

The QUU Class B access covers with concrete infill do not meet the uplift resistance requirements of AS3996 due to internal pressure or flood, however the Weldlok products meet the dimensional requirements of the QUU drawing and are therefore deemed as compliant.

6.2.5 Dimensional

A dimensional inspection report has been supplied by Weldlok to demonstrate dimensional compliance with the drawings, AS 3996:2019 and WSA PS 290.

AS 3996:2019 requires the minimum depth of insertion for covers and frames in trafficable areas (Class D) to be 50mm. Whilst the depth of insertion for QUU-STDC0600S-4D is 40mm and STDCS0367D is 43mm pull-out tests have been supplied to meet the requirements of AS 3996.

WSA PS 290 requires that depth of insertion for Class B covers shall not be less than 35mm or 25mm with a fixing device.

WSA PS 290 specifies that the maximum gap between adjacent parts of multi-part covers and frames shall be 3mm.

The dimensions for Weldlok covers and frames are shown in Table 2 and demonstrate compliance with the requirements as detailed above.

TABLE 2 COVER INSERTION DEPTH AND FRAME DEPTH

Part number	Clear opening mm	Class	Cover insertion depth mm	Frame depth mm	Maximum gap between cover and frame mm
STDCS0600-2B	600	B	55	72	0.5
STDCSW0600-2B	600	B	55	72	2
STDCS0600-2D	600	D	55	72	1
STDCSSR0600-2D [†]	600	D	55	72	1.5
STDCSW0600-2D	600	D	55	72	2
CIDCS0600-2B	600	B	55	72	0.5
CIDCS0600-2D	600	D	55	72	1
QUU-CIDC6SB*	600	B	38	60	2
QUU-STDC0600S-4B *	600	B	25	60	2
QUU-STDC0600S-4D *	600	D	40	110	1
BPSTDCS0600-4D*	600	D	40	110	1
BPSTDCSW0600-4D*	600	D	40	110	1
STDCS0432D	432	D	65	325	< 0.5
STDCS0375B	375	B	45	325	< 0.5
STDCS0367B	367	B	43	84	< 0.5
STDCS0367D	367	D	43	84	< 0.5
CID2PWC0900x0600	900 x 600	D	50	84	1
STD2PWC0900x0600	900 x 600	D	50	84	1

[†]This cover incorporates a safety ring in the frame to prevent access.

*These covers are manufactured to QUU specifications.

6.2.6 Ductile iron

Weldlok has submitted a material test report from Qingdao Standard Testing Co Ltd (CNAS Accreditation No. L9582) to verify compliance with the minimum ductile iron material requirements of Grade 500/10.

6.2.7 Sealing

The mating surfaces of the cover and frame are machined to reduce the possibility of rocking. Grease or a Denso paste is applied to both surfaces to facilitate a water tight seal.

6.2.8 Coating

The solid top covers and frames are coated with a standard black coloured bituminous paint, Cutback 100, supplied by Bituminous Products Pty Ltd to a minimum thickness of 100µm. A Safety Data Sheet has been supplied and is available from Weldlok or WSAA.

6.2.9 Fasteners

Weldlok access covers incorporate a minimum of two M12 Grade 316 A4-70 stainless steel hexagon head bolts to secure the cover to the frame, except for the QUU concrete in-fill product.

Each hold down bolt is fitted with a removable plastic plug to prevent ingress of foreign debris.

6.2.10 Cover lifting systems

Weldlok access covers have two lifting keyholes in accordance with AS 3996:2019 to ensure compatibility with the industry standard key lifter. The WCWA access covers have 4 lifting keyholes.

Each keyhole is fitted with a removable plastic plug to prevent ingress of foreign debris.

6.2.11 Cover mass

The mass for each Weldlok access cover is shown in Table 3.

TABLE 3 COVER MASS

Part number	Clear opening mm	Class	Mass of Cover kg
STDCS0600-2B	600	B	28
STDCSW0600-2B	600	B	28
STDCS0600-2D	600	D	34
STDCSSR0600-2D [†]	600	D	34
STDCSW0600-2D	600	D	34
CIDCS0600-2B	600	B	39 + infill
CIDCS0600-2D	600	D	48 + infill
QUU-CIDC6SB*	600	B	25 + infill
QUU-STDC0600S-4B *	600	B	39
QUU-STDC0600S-4D *	600	D	49
BPSTDCS0600-4D*	600	D	49
BPSTDCSW0600-4D*	600	D	49
STDCS0432D	432	D	31
STDCS0375B	375	B	14
STDCS0367B	367	B	14
STDCS0367D	367	D	26
CID2PWC0900x0600	600	D	52
STD2PWC0900x0600	600	D	52

[†]This cover incorporates a safety ring in the frame to prevent access.

*These covers are manufactured to QUU specifications

7 FITTING INSTRUCTIONS, TRAINING AND INSTALLATION

Access covers and frames are commonly used industry items. Training requirements for their installation, application, repair and maintenance are therefore expected to be part of industry practice.

A copy of the Weldlok Installation Instructions is attached in Appendix A.

8 PRODUCT MARKING

Weldlok access covers have the following permanent marking on the surface of the cover which satisfies the requirements of AS 3996:2019:

- Manufacturers name: Weldlok
- Date of manufacture: e.g.dd-mm-yyyy
- Number of the Standard: AS 3996:2019
- Load classification: Class B or Class D
- Mass of cover: xx kg
- DUCTILE
- SEALED
- SEWER or STORMWATER
- Internal dislodgement testing: IPD
- StandardsMark logo and licence number: SMK40898
- Product code:

9 PACKAGING AND TRANSPORTATION

Access covers and frame assemblies are typically delivered shrink wrapped on pallets in numbers appropriate to transport requirements and constraints.

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 Nepean's warranty are included in their terms and conditions of sale.

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

These types of products are in common use within Australia.

12 OUTCOMES OF EXPERT PANEL PRODUCT REVIEW

No issues have been raised.

13 FUTURE WORKS

No future works have been identified.

14 DISCLAIMER

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

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

To maintain the recommendations of this Report any such changes shall be detailed and notified to the Product Appraisal Manager for consideration and review of the Report and

appropriate action. Appraisals and their recommendations will be the subject of continuous review dependent upon the satisfactory performance of products.

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

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

Any enquiries regarding this report should be directed to the Program Manager, Carl Radford, 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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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 indemnity insurance that the provider of the product maintains. Recipients should ensure that they evaluate the allocation of liability for product defects and any professional advice obtained in relation to the product or its specification including the requirements for product liability and professional indemnity insurance.

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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

02 PRODUCTS

Weldlok® Civil Products

DUCTILE RANGE

STDC
Solid Top Ductile
Circular

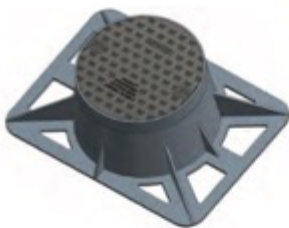


Product Code	AS3996-2019 Load Class	Product Description	Clear Opening mm	Cover Weight kg	Frame Depth mm
STDCS0600-2B-C	B	Solid Top Ductile Circular 600 C/O Sewer C&F Class B & 2 Bolt-downs	600	28	72
STDCSW0600-2B-C	B	Solid Top Ductile Circular 600 C/O Stormwater C&F Class B & 2 Bolt-downs	600	28	72
STDCP0600-2B	B	Solid Top Ductile Circular 600 C/O Plain C&F Class B & 2 Bolt-downs	600	28	72
STDCS0600-2D-C	D	Solid Top Ductile Circular 600 C/O Sewer C&F Class D & 2 Bolt-downs	600	34	72
STDCSW0600-2D-C	D	Solid Top Ductile Circular 600 C/O Stormwater C&F Class D & 2 Bolt-downs	600	34	72
STDCP0600-2D	D	Solid Top Ductile Circular 600 C/O Plain C&F Class D & 2 Bolt-downs	600	34	72
STDCCES0600-2B-B	B	Conc.Encased Solid Top Ductile Circular 600 C/O Sewer C&F Class B & 2 Bolt-downs	600	28	150*
STDCCES0600-2D-B	D	Conc.Encased Solid Top Ductile Circular 600 C/O Sewer C&F Class D & 2 Bolt-downs	600	34	150*
STDCCESW0600-2B-B	B	Conc.Encased Solid Top Ductile Circular 600 C/O Stormwater C&F Class B & 2 Bolt-downs	600	28	150*
STDCCESW0600-2D-B	D	Conc.Encased Solid Top Ductile Circular 600 C/O Stormwater C&F Class D & 2 Bolt-downs	600	34	150*

Features

- > Non Skid Surface
- > Gas & Water tight
- > Light Weight Cover
- > Bolt-down security
- > * Depth of concrete
- > Two Covered Lifting Points
- > Class B & D available in Sewer or Stormwater
- > Class B and D to AS3996-2019

STDCM
Solid Top Ductile
Circular Maintenance

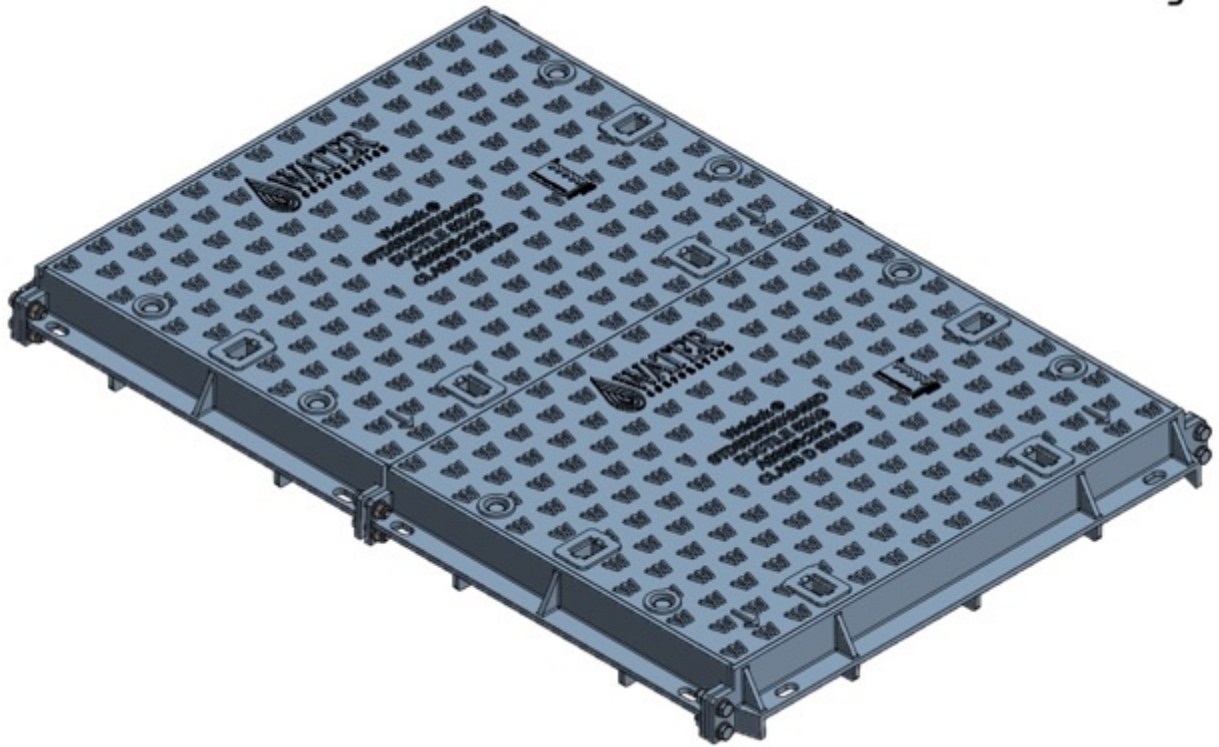


Product Code	AS3996-2019 Load Class	Product Description	Clear Opening mm	Cover Weight kg	Frame Depth mm
STDCS0367B-C	B	Duct Circ ST 367 CI B Maintenance Shaft Sewer C&F Class B	367	14	84
STDCS0367D-C	D	Duct Circ ST 367 CI B Maintenance Shaft Sewer C&F Class D	367	26	84
STDCCES0367B-B	B	Conc.Encased Duct Circ ST 367 Maintenance Shaft Sewer C&F Class B	367	14	125*
STDCCES0367D-B	D	Conc.Encased Duct Circ ST 367 Maintenance Shaft Sewer C&F Class D	367	26	125*
STDCS0375B-C	B	Duct Circ ST 370 Class B Maintenance Shaft Sewer C&F	370	14	325
STDCS0432D-C	D	Duct Circ ST 432 Class D Maintenance Shaft Sewer C&F	432	31	325

Features

- > Non Skid Surface
- > Gas & Water tight
- > Light Weight Cover
- > Two Covered Lifting Points
- > Class B and D to AS3996-2019

Water Corporation Western Australia Solid Top Access Cover and Frame



Weldlok®



WELDLOK CIVIL PRODUCTS DIVISION

INSTALLATION OF WELDLOK CAST IRON COVERS & FRAMES

GENERAL REQUIREMENTS

1. Correct installation of Weldlok Covers and Frames is essential for the installed cover to operate satisfactorily and give the long service life that it has been designed for.
2. **Failure to install the frame correctly may result in movement or rocking under load, excessive wear and therefore reduced life, damage or failure under load. It will also affect the seating between cover and frame.**
3. Generally the side that has two keyholes indicates the side that the cover should be removed from the frame.

INSTALLATION PROCEDURE

Form a rebate in the pit opening

Remove the cover from the frame

- Mark or tag the frame to ensure the cover can be fitted in the same orientation as it was received after the frame has been concreted in place.
- Locate and level the frame in the rebate. Ensure that the frame is correctly oriented for the required direction of cover removal. Pack under each corner joint of the frame to raise and level the frame top with the rebate top. Ensure that the packing and frame do not protrude into the pit opening.
- Check for any rocking motion between diagonally opposite frame corners. Adjust packing to eliminate rocking of frame.

Set up the Internal Formwork.

- Ensure that the formwork does not project above the horizontal-seating surface of the frame. (Otherwise the cover cannot be seated.)

Clean the cover and frame seating's

- All cover and frame seating surfaces must be free of dirt or dust to ensure the correct seating of the cover in the frame.

Place the cover in the frame

- Ensure that the cover is correctly oriented in the frame according to the mark or tag.
- Ensure that the keyhole plugs are fitted.
- Check for any diagonal rocking movement between the cover and the frame and adjust the frame packing if necessary.
- Run a finger along the top edges of the cover and the frame and check that the edges are level over the whole perimeter of the unit. (If not level, dirt may be present in the seating surfaces or the frame may be distorted due to rough handling).

Pour the cement/concrete

- Pour cement/concrete to fill the void between the frame and the rebate.
- Ensure cement/concrete is worked under the frame seating and is flush with the top of the frame and the rebate edge.

Seal the unit for operation

- Remove the cover and internal formwork.
- Clean all cover and frame seating surfaces.
- Apply sealing compound liberally to all vertical and horizontal seating surfaces of frame.
- Install the cover in the frame, ensuring the cover is level with the top edge of the frame.
- Ensure bolts and plastic plugs are replaced

APPENDIX B - QUALITY CERTIFICATIONS

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

**TABLE B1
WELDLOK INDUSTRIES PTY LTD – MANAGEMENT SYSTEM**

117-153 Rookwood Road Yagoona NSW	
Quality Systems Standard	ISO 9001:2015
Certification Licence No.	QEC1976
Certifying Agency	SAI-Global
First Date of Certification	19 October 1994
Current Date of Certification	19 July 2021
Expiry Date of Certification	14 September 2024

**TABLE B2
HONG GUANG HANDAN FOUNDRY CO LTD – MANAGEMENT SYSTEM**

Xiaozhai Town, Jize County, Nankai District, Hebei, China	
Quality Systems Standard	ISO 9001:2015
Certification Licence No.	FM 510540
Certifying Agency	BSI
First Date of Certification	11 September 2006
Current Date of Certification	31 August 2021
Expiry Date of Certification	30 August 2024

**TABLE B2
WELDLOK INDUSTRIES PTY LTD – PRODUCT CERTIFICATION**

117-153 Rookwood Road Yagoona NSW	
Product Standard/Spec.	AS 3996-2019
Certificate No.	SMK40898
Issuing Certification Body	SAI-Global
First Date of Certification	11 April 2019
Current Date of Certification	26 June 2023
Expiry Date of Certification	10 April 2024



CERTIFICATE OF REGISTRATION

This is to certify that:

Nepean Building and Infrastructure Pty Ltd

ABN 54 125 224 302

and its subsidiary

Ronald E Graham (Holdings) PTY LTD

ABN 11 000 363 477

117-153 Rookwood Road Yagoona NSW 2199 AUSTRALIA
(Refer to Attachment to Certificate of Registration dated 21 July 2021 for additional certified sites)

operates a

QUALITY MANAGEMENT SYSTEM

which complies with the requirements of

ISO 9001:2015

for the following scope

Hot Dip Galvanising, Bitumen Dipping, Fabrication, Project Management, Design, Manufacturing, Warehousing and Distribution of Metal, Polymer and Plastic Composite products for the Building and Infrastructure market

Certificate No: QEC1976

Issued: 21 July 2021

Originally Certified: 19 October 1994

Expires: 14 September 2024

Current Certification: 19 July 2021

Frank Camasta
Global Head of Technical Services
SAI Global Assurance



ISO 9001

JAS-ANZ



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/>





ATTACHMENT TO CERTIFICATE OF REGISTRATION

These sites are registered under certificate No: QEC1976 issued on 21 July 2021.

Nepean Building and Infrastructure Pty Ltd

Ronald E Graham (Holdings) PTY LTD

ABN 11 000 363 477

and its subsidiaries and the sites nominated

Galintel Pty Ltd

ABN 27 000 159 866

45-47 Wingara Drive Coffs Harbour NSW 2450 AUSTRALIA

Galintel (WA) Pty Ltd

ABN 51 000 265 636

98 Campbell Street Belmont WA 6104 AUSTRALIA

Galvanising Services Pty Ltd

ABN 11 000 296 631

117-153 Rookwood Road Yagoona NSW 2199 AUSTRALIA

Galvanising Services (Coffs Harbour) Pty Ltd

ABN 11 000 296 631

45-47 Wingara Drive Coffs Harbour NSW 2450 AUSTRALIA

Weldlok Industries Pty Ltd

ABN 58 000 175 379

117-153 Rookwood Road Yagoona NSW 2199 AUSTRALIA

967 Nudgee Road Banyo QLD 4014 AUSTRALIA

171 Derrimut Drive Derrimut VIC 3030 AUSTRALIA

98 Campbell Street Belmont WA 6104 AUSTRALIA

These registrations are dependent on Nepean Building and Infrastructure Pty Ltd maintaining their scope of registration to ISO 9001:2015.

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/>





Certificate of Registration

QUALITY MANAGEMENT SYSTEM - ISO 9001:2015

This is to certify that: **Hong Guang Handan Cast Foundry Co., Ltd.**
 Nankai District
 Xiaozhai Town
 Jize County
 Handan
 Hebei
 057351
 China

邯郸市虹光铸造有限公司
 91130431750277834W
 中国
 河北省
 邯郸市
 鸡泽县
 小寨镇
 南开区
 邮编: 057351

Holds Certificate No: **FM 510540**

and operates a Quality Management System which complies with the requirements of ISO 9001:2015 for the following scope:

The manufacture of grey iron and ductile iron castings, including manhole covers, grates, channel grates, pipes and fittings, valve bodies and covers, hydrant housings, water boxes.
 灰口铸铁和球墨铸铁材质铸件的制造, 包括井盖、篦子、水沟篦子、管件、阀体/盖、消防栓盖、水表盖。

For and on behalf of BSI:

Chris Cheung, Head of Compliance & Risk - Asia Pacific

Original Registration Date: 2006-09-11

Latest Revision Date: 2021-07-14

Effective Date: 2021-08-31

Expiry Date: 2024-08-30



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...making excellence a habit.™

This certificate was issued electronically and remains the property of BSI and is bound by the conditions of contract.

An electronic certificate can be authenticated [online](#).

Printed copies can be validated at www.bsi-global.com/ClientDirectory or telephone +86 10 8507 3000, as well as at www.cnca.gov.cn, the official website of CNCA – Certification and Accreditation Administration of the People's Republic of China.

Further clarifications regarding the scope of this certificate and the applicability of ISO 9001:2015 requirements may be obtained by consulting the organization. The certified organization shall be subject to surveillance audit periodically with acceptable results for maintaining the validity of this certificate. This certificate is valid only if provided original copies are in complete set.

Information and Contact: BSI, Kitemark Court, Davy Avenue, Knowlhill, Milton Keynes MK5 8PP. Tel: + 44 345 080 9000
 BSI Assurance UK Limited, registered in England under number 7805321 at 389 Chiswick High Road, London W4 4AL, UK.
 BSI Management Systems Certificates (Beijing) Co., Ltd.
 Rm. 2008 East Ocean Center, No. 24A Jianguomenwai Street, Beijing 100004, P. R. China Tel: +86 10 8507 3000



STANDARDSMARK LICENCE

SAI Global hereby grants:

Weldlok Industries Pty. Ltd.

ABN 58 000 175 379

117-153 Rookwood Road, Yagoona, NSW 2199, Australia

StandardsMark Licence

Manufactured to:

AS 3996:2019 - Access covers and grates

"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: SMK40898

Issued : 28 June 2023

Expires : 10 April 2024

Originally Certified : 11 April 2019

Current Certification : 26 June 2023

Calin Moldovean
President, Business Assurance
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") 650 Lorimer Street, Port Melbourne VIC 3207, 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:

Weldlok Industries Pty. Ltd.

117-153 Rookwood Road, Yagoona, NSW 2199, Australia

StandardsMark Licence

Manufactured to:

AS 3996:2019 - Access covers and grates

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

Model Identification	Model Name	Brand Name	Product Description	Product Type	Nominal size	Material Designation	Load Classification	Opening Type	Ventilation / Sealing Type Classification	Date Endorsed
CIDC	CIDCS0600-2B	Weldlok	Concrete Infill Ductile 600Dia C/O Sewer Cover & Frame with 2 Bolt downs Class B	Access Cover	659 dia	Ductile Iron	Class B	Bolt Down	Sealed	5 Apr 2022
CIDC	CIDCS0600-2D	Weldlok	Concrete Infill Ductile 600Dia C/O Sewer Cover & Frame with 2 Bolt downs Class D	Access Cover	659 dia	Ductile Iron	Class D	Bolt Down	Sealed	15 Dec 2021
CIDSR (Concrete Infill Ductile Square or Rectangular)	CID2PWC0900X0600D	Weldlok	Infill Cover Ductile 2 part 900x600mm Water Corp C&F Class D	Access Cover	774 x 1161	Ductile Iron Cover	Class D	Bolt Down	As per AS3996	23 Jun 2023
OUU	OUU-STDC0600S4B	Weldlok	Solid Top Ductile 600Dia C/O Sewer Cover & Frame with 4 Bolt downs Class B	Access Cover	600 dia	Ductile Iron	Class B	Bolt Down	Sealed	9 Sep 2020
OUU	OUU-STDC0600S4D	Weldlok	Solid Top Ductile 600Dia C/O Sewer Cover & Frame with 4 Bolt downs Class D	Access Cover	600 dia	Ductile Iron	Class D	Bolt Down	Sealed	9 Sep 2020

Licence No: SMK40898

Issued Date: 28 June 2023

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") 650 Lorimer Street, Port Melbourne VIC 3207, 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.

SCHEDULE TO STANDARDSMARK LICENCE

Model Identification	Model Name	Brand Name	Product Description	Product Type	Nominal size	Material Designation	Load Classification	Opening Type	Ventilation / Sealing Type Classification	Date Endorsed
STDC	STDCS0600-2B	Weldlok	Solid Top Ductile 600Dia C/O Sewer Cover & Frame with 2 Bolt downs Class B	Access Cover	659 dia	Ductile Iron	Class B	Bolt Down	Sealed	9 Sep 2020
STDC	STDCS0600-2D	Weldlok	Solid Top Ductile 600Dia C/O Sewer Cover & Frame with 2 Bolt downs Class D	Access Cover	659 dia	Ductile Iron	Class D	Bolt Down	Sealed	9 Sep 2020
STDC	STDCSSR0600-2D	Weldlok	Solid Top Ductile 600Dia C/O Sewer Cover & Frame with 2 Bolt downs Class D	Access Cover	659 dia	Ductile Iron	Class D	Bolt Down	Sealed	10 Nov 2020
STDC	STDCSW0600-2B	Weldlok	Solid Top Ductile 600Dia C/O Storm Water Cover & Frame with 2 Bolt downs Class B	Access Cover	659 dia	Ductile Iron	Class B	Bolt Down	Sealed	9 Sep 2020
STDC	STDCSW0600-2D	Weldlok	Solid Top Ductile 600Dia C/O Storm Water Cover & Frame with 2 Bolt downs Class D	Access Cover	659 dia	Ductile Iron	Class D	Bolt Down	Sealed	9 Sep 2020
STDC (Solid Top Ductile Circular)	BPSTDCS0600-4D	Weldlok	Solid Top Ductile 600Dia C/O Sewer Cover & Frame with 4 Bolt downs Class D	Access Cover	698 dia	Ductile Iron	Class D	Bolt Down	As per AS3996	30 Jun 2022
STDC (Solid Top Ductile Circular)	BPSTDCWS0600-4D	Weldlok	Solid Top Ductile 600Dia C/O Storm Water Cover & Frame with 4 Bolt downs Class D	Access Cover	698 dia	Ductile Iron	Class D	Bolt Down	As per AS3996	30 Jun 2022

Licence No: SMK40898

Issued Date: 28 June 2023

This schedule supersedes all previously issued schedules



* For details of manufacture, refer to the licensee

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SCHEDULE TO STANDARDSMARK LICENCE

Model Identification	Model Name	Brand Name	Product Description	Product Type	Nominal size	Material Designation	Load Classification	Opening Type	Ventilation / Sealing Type Classification	Date Endorsed
STDCM	STDC50367B	Weidlok	Solid Top Ductile 367Dia C/O Sewer Cover & Frame with 2 Bolt downs Class B	Access Cover	443 dia	Ductile Iron	Class B	Bolt Down	Sealed	10 Nov 2020
STDCM	STDC50367D	Weidlok	Solid Top Ductile 367Dia C/O Sewer Cover & Frame with 2 Bolt downs Class D	Access Cover	443 dia	Ductile Iron	Class D	Bolt Down	Sealed	10 Nov 2020
STDCM	STDC50375B	Weidlok	Solid Top Ductile 375Dia C/O Sewer Cover & Frame with 2 Bolt downs Class B	Access Cover	443 dia	Ductile Iron	Class B	Bolt Down	Sealed	10 Nov 2020
STDCM	STDC50432D	Weidlok	Solid Top Ductile 432Dia C/O Sewer Cover & Frame with 2 Bolt downs Class D	Access Cover	498 dia	Ductile Iron	Class D	Bolt Down	Sealed	10 Nov 2020
STDSR (Solid Top Ductile Square or Rectangular)	STD2PWC0900X0600D	Weidlok	Solid Top Ductile 2 part 900x600mm Water Corp C&F Class D	Access Cover	774 x 1161	Ductile Iron Cover	Class D	Bolt Down	As per AS3996	23 Jun 2023

End of Record

Licence No: SMK40898

Issued Date: 28 June 2023

This schedule supersedes all previously issued schedules



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APPENDIX C - SUPPLIER CONTACTS

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Derrimut. VIC 2030

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www.wsaa.asn.au