



# Bilcon Industries Pte Ltd

## PRODUCT APPRAISAL REPORT 1804 Issue 2

Pre-cast Reinforced Concrete Pipes for Non-Pressure Drainage or Service Duct Applications

**AS/NZS 4058:2007 Precast concrete pipes (pressure and non-pressure)**

Issue 1 Published: 21 December 2018

Issue 2 Publication: 20 January 2024

## Document History

The following information indicates the changes made to this document.

| Date             | Version               |
|------------------|-----------------------|
| 20 December 2018 | Client Review         |
| 8 December 2018  | Peer Review           |
| 21 December 2018 | Publication           |
| 17 January 2024  | Issue 2 Client Review |
| 20 January 2024  | Issue 2 Publication   |

## Peer Reviewers

| Name/Title                                 | Organisation | Date             |
|--|--------------|------------------|
| Product Appraisal Technical Advisory Group | WSAA         | 8 December 2018  |
| WSAA Expert Panel                          | WSAA         | 8 December 2018  |
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| Peter Pittard, WSAA Consultant             | WSAA         | 13 November 2018 |
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| Peter Pittard, WSAA Consultant             | WSAA         | 19 January 2024  |
| Carl Radford, Product Appraisal Manager    | WSAA         | 19 January 2024  |

## 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

Bilcon Industries Pte Ltd is one of the leading manufacturers of precast concrete products in Singapore.

SN Berg Pty Ltd, trading as Bilcon Australia, is a privately-owned company and the appointed agent and distributor for a range of Bilcon reinforced concrete pipes and jacking pipes for non-pressure drainage and sewerage applications within the Oceania region.

This appraisal is for circular precast elastomeric seal jointed concrete pipes with circumferential steel reinforcement, manufactured in conformance with AS/NZS 4058 *Precast concrete pipes (pressure and non-pressure)*. They are intended for non-pressure drainage or service duct applications in open trench buried installations.

Sizes are from DN 300 to DN 1800. Dimensions are detailed in Table 2.

Pipes are available in strength Classes 2, 3, and 4 with higher class pipes up to Class 10 available upon request.

Bilcon Industries Pte Ltd and SN Berg both hold ISO 9001:2015 Quality Management System Licences.

Bilcon has provided a type test report for a DN 1200 x 3050 long pipe to demonstrate compliance with the requirements of AS/NZS 4058.

This Appraisal has determined that Bilcon pre-cast reinforced concrete pipes, as detailed in this report, meet the requirements of WSA PS-249 – *Reinforced Concrete (RC) Unlined Elastomeric Seal Jointed Pipes for Non-pressure Applications – Drainage in Open Trench Applications* 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 Bilcon pre-cast reinforced concrete pipes for non-pressure drainage or service duct applications in open trench buried installations, as detailed in this report, provided that design, installation and acceptance testing is undertaken in accordance with relevant WSAA Codes and the manufacturer’s requirements.

## 2 THE APPLICANT

The Applicant is Bilcon Industries Pte Ltd.

### 2.1 The Supplier

SN Berg Pty Ltd, established in 2016, is a privately-owned company trading as Bilcon Australia and supplies precast concrete pipe products to infrastructure projects throughout Australasia. Bilcon Australia is the appointed agent and distributor for a range of Bilcon reinforced concrete pipes and jacking pipes for non-pressure drainage and sewerage applications within the Oceania region.

For further information, see [www.snberg.com.au](http://www.snberg.com.au).

### 2.2 The Manufacturer

Bilcon Industries Pte Ltd is one of the leading manufacturers of precast concrete products in Singapore. The company has been involved in supplying high quality concrete products since 1963 to meet the demand for infrastructure precast unit products. As early as the 1970’s, Bilcon Industries established its reputation as a specialist in the manufacturing of spun reinforced concrete pipes.

Bilcon has developed production processes to manufacture jacking pipes for trenchless tunnelling. Their high strength jacking pipes are well accepted by leading contractors in Singapore and Internationally. Bilcon is now co-operating with firms such as

Schlüsselbauer Technology to increase their productivity through automation to introduce innovative precast civil products into the local market.

For further information, visit [www.bilcon.com](http://www.bilcon.com).

### 3 THE PRODUCT

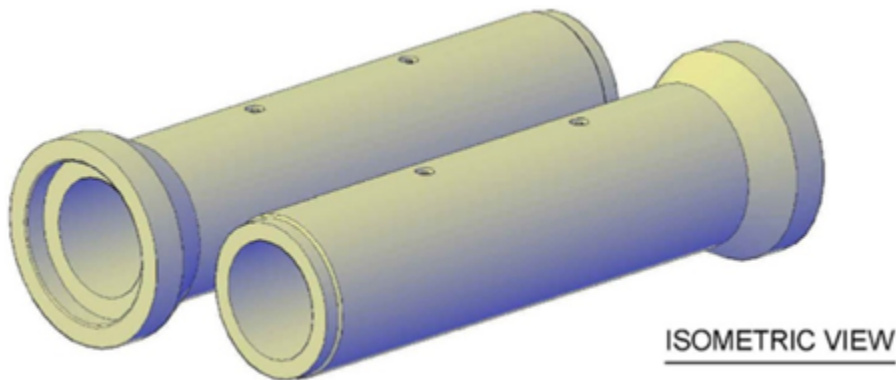
This appraisal is for circular precast elastomeric seal jointed concrete pipes with circumferential steel reinforcement, manufactured in conformance with AS/NZS 4058 *Precast concrete pipes (pressure and non-pressure)*. They are intended for non-pressure drainage or service duct applications in open trench buried installations.

Concrete pipes may be used for jacking applications however AS/NZS 4058 states that “This Standard does not provide data or criteria for the design of concrete pipes for jacking loads. An appropriate engineering method shall be used”. As WSAA does not have a specification in place for concrete jacking pipes they have not been included in the Scope of this Appraisal.

Sizes are from DN 300 to DN 1800. Dimensions are detailed in Table 2.

Pipes are available in strength Classes 2, 3, and 4 with higher class pipes up to Class 10 available upon request.

Please note Figure 1 shows lifting holes which are not permissible in AS/NZS 4058 as pipes are required to be watertight. For handling purposes lifting anchors are normally embedded in the wall of the pipe but may be omitted if not required.



**FIGURE 1 PRECAST REINFORCED CONCRETE ELASTOMERIC SEAL PIPES**

**TABLE 1  
ATTRIBUTES OF PRECAST NON-PRESSURE CONCRETE PIPES**

| Attribute       | Definition                       | Value  |
|-----------------|----------------------------------|--|
| Size            | DN                               | 300-1800   |
| Strength        | Load Class                       | Class 2-10, 13-470 kN/m (Proof)  |
| Pressure Rating | Watertightness                   | 90kPa  |
| Joints          | Elastomeric Seal - Spigot-Socket |  |
| Pipe Lengths    | Effective Laying Length          | Standard length 2000mm. Lengths may be customer specified to a maximum of 3050mm |
| Pipe Masses     | Lifting Mass                     | 230kg – 22,500kg   |

**TABLE 2  
DIMENSIONS OF PRECAST NON-PRESSURE CONCRETE PIPES**

| DN   | ID<br>mm | OD<br>mm | Socket OD<br>mm | Length<br>mm |
|------|----------|----------|-----------------|--------------|
| 300  | 300      | 430      | 525             | 2000-3050    |
| 375  | 375      | 515      | 660             | 2000-3050    |
| 450  | 450      | 590      | 730             | 2000-3050    |
| 525  | 525      | 685      | 850             | 2000-3050    |
| 600  | 600      | 780      | 960             | 2000-3050    |
| 675  | 675      | 865      | 1055            | 2000-3050    |
| 750  | 750      | 950      | 1155            | 2000-3050    |
| 825  | 825      | 1115     | 1340            | 2000-3050    |
| 900  | 900      | 1115     | 1340            | 2000-3050    |
| 1000 | 1000     | 1200     | 1410            | 2000-3050    |
| 1050 | 1050     | 1300     | 1560            | 2000-3050    |
| 1200 | 1200     | 1400     | 1660            | 2000-3050    |
| 1350 | 1350     | 1650     | 1950            | 2000-3050    |
| 1500 | 1500     | 1820     | 2140            | 2000-3050    |
| 1800 | 1800     | 2100     | 2360            | 2000-3050    |

### 3.1 Manufacturing Process

Bilcon pipes are manufactured either by horizontal centrifugal spinning or a vertical wet cast process. The horizontal centrifugal spinning process is used for the manufacture of thin-walled pipes. Pipes of substantial wall thickness are manufactured by the vertical wet cast process where the compaction of the concrete is achieved with either self-compacting concrete or external form vibrators.

### 3.2 Materials

#### 3.2.1 Concrete

Bilcon batches its own ready-mix concrete as part of the manufacturing process of reinforced concrete pipe. It can vary the concrete mix design details or proportions to achieve specification criteria such as compressive strength, permeability, density or slump.

Ordinary Portland Cement (OPC), Sulphate-Resisting Cement (SRC) or Calcium Aluminate Cement (CAC) are available options and should be specified by the purchaser to accommodate the environment and drain-water quality.

#### 3.2.2 Reinforcement

Bilcon concrete pipe reinforcement is in the form of circular cages concentric with the longitudinal axis of the pipe. A singular cage is used for DN 300 to DN 800 and a double cage is used for DN 900 to DN 1800.

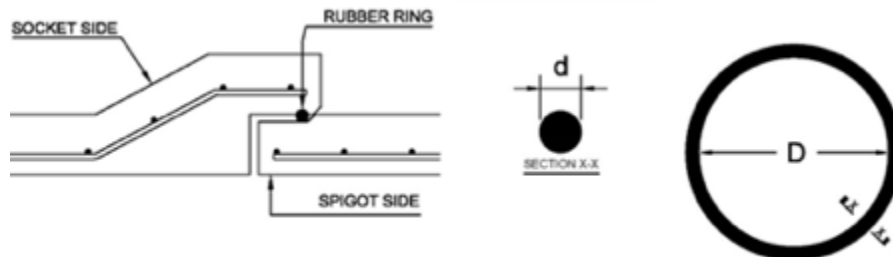
##### 3.2.2.1 Reinforcement cover

The minimum concrete cover to the steel reinforcement is nominated in AS 4058:2007 and varies depending on method of manufacture and wall thickness. Additional cover can be provided where the proposed drain will be subjected to corrosion by salt water or other

aggressive ground water. The type test report for DN 1200 pipes exceeded the 25mm requirement for that pipe.

### 3.2.3 Joints

Bilcon pipes incorporate a spigot and socket elastomeric seal joint. These joint types are referred to as watertight joints and are designed to be flexible to accommodate deflection and movement of the joint.



**FIGURE 2 SPIGOT AND SOCKET ELASTOMERIC SEAL JOINT**

### 3.2.4 Joint material

The elastomeric seal rings are manufactured from natural rubber (NR50) in compliance with AS 1646.

Seals are bagged, tagged and crated prior to storage at room temperature away from sunlight and sources of ozone, ready for despatch to site and installation.

### 3.2.5 Elastomeric joints

Where pressure or watertightness classes are specified, elastomeric seal joints are the default joint type.

### 3.2.6 Deflection

The pipeline can be deflected at the elastomeric seal joints. The deflection angle is up to 1.8° for sizes DN 300 up to DN 750 and up to 0.8° for sizes between DN 825 and DN 1800.

### 3.2.7 Fittings

Fittings are available in sizes DN 300, DN 375, DN 450, DN 525, DN 600, DN 675 and DN 750 however are not included in the scope of this appraisal.

The fittings are made from concrete pipe sections with the sections being formed by welding the steel reo and epoxy bonding the concrete. Cast-in ferrules are available for small diameter off-takes.

## 4 SCOPE OF THE APPRAISAL

This appraisal applies to circular precast elastomeric seal jointed concrete pipes with circumferential steel reinforcement intended for non-pressure drainage or service duct applications in open trench buried situations. See Tables 1 and 2 for details.

As WSAA does not have a specification in place for concrete jacking pipes they have not been included in the Scope of this Appraisal.



## **5 APPRAISAL CRITERIA**

### **5.1 Quality Assurance Requirements**

The WSAA Product Appraisal Technical Advisory Group accepts reinforced pre-cast concrete unlined elastomeric seal jointed pipes manufactured in compliance with AS/NZS 4058 *Precast concrete pipes (pressure and non-pressure)*.

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.

Bilcon pre-cast concrete pipes are not covered by ISO Type 5 product certification. This Appraisal report was based on the submission of type tests completed by Setsco Services Pte Ltd as described in Section 6.2.

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

### **5.2 Performance Requirements**

Bilcon reinforced pre-cast concrete pipes have been appraised for compliance with AS/NZS 4058:2007.

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-249 – *Reinforced Concrete (RC) Unlined Elastomeric Seal Jointed Pipes for Non-pressure Applications – Drainage in Open Trench Applications*

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**

Bilcon has submitted the following quality certificates:

- ISO 9001:2015 Certificate of Registration No. 97-2-0697 issued to Bilcon Industries Pte Ltd by TUV SUD.
- ISO 9001:2015 Certificate of Registration No. 97-2-0697-1 issued to Aliansa Sdn Bhd by TUV SUD.
- ISO 9001:2015 Certificate of Registration No. 97-2-0697-2 issued to Mei Gong Precast Industries Sdn Bhd by TUV SUD.
- ISO 9001:2015 Certificate of Registration No 105469 issued to SN Berg Pty Ltd by Global Mark.
- Type Test report issued by Setsco Services Pte Ltd (SAC Accreditation No. LA-1987-0001-B) for DN 1200 x 3050 long pipes to demonstrate conformance with AS/NZS 4058:2007 requirements.

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

### **6.2 Compliance with Performance Requirements**

This appraisal is based on AS/NZS 4058:2007.

### 6.2.1 Verification of Materials Compliance

Bilcon has an auditable system of control that verifies that the concrete pipe materials comply with AS/NZS 4058:2007. This system covers concrete, cement, supplementary cementitious materials, aggregates, water, admixtures and restriction on chemical content.

Bilcon utilises Setsco Services Pte Ltd, a Singapore Accreditation Council accredited laboratory, to carry out verification tests for materials. SAC is a member of the Mutual Recognition Arrangement (MRA) of the International Laboratory Accreditation Cooperation (ILAC).

A type test report undertaken by Malaysian Rubber Board (SAMM Accreditation No. 008) has been submitted to demonstrate that the natural rubber used in the manufacture of the elastomeric seals conforms to the requirements of EN 681.1.

### 6.2.2 Compliance with the performance requirements

Type test results completed by Setsco Services Pte Ltd for a DN 1200 x 3050 long pipe have demonstrated conformity to the type test requirements of AS 4058:2007 Table 5.1 for proof load, ultimate load, water absorption, joint assembly test, cover, dimensional accuracy and workmanship and finish performance.

## 7 FITTING INSTRUCTIONS, TRAINING AND INSTALLATION

Minimum standard requirements for handling, storage and transportation are given in Section 3.5 of AS/NZS 4058:2007. Design for installation requirements for buried concrete pipes are given in AS/NZS 3725 as supplemented by AS/NZS 3725 Supp. 1.

## 8 PRODUCT MARKING AND COLOUR CODING FOR LOAD CLASS

Bilcon precast concrete pipes are marked in accordance with AS/NZS 4058 as follows:

- (a) Manufacturers Name: Bilcon
- (b) Date of manufacture:
- (c) Nominal diameter, load class and watertight: e.g., DN 750/3/WT
- (d) For pipes manufactured for marine or other environments the internal cover and external cover to reinforcement: e.g., 10/20 or 20/10.
- (e) Mass:
- (f) The standard number: AS/NZS 4058

Pipes are indelibly marked within 300 mm from the face of the spigot end with a colour for the load class. i.e., red for Class 3, yellow for Class 4 and green for classes greater than Class 4.

## 9 PACKAGING AND TRANSPORTATION

Bilcon has established a specialised container packaging system incorporating custom made pipe supports and complementary pipe nesting procedures to ensure all pipe arrives undamaged. See Figure 3.



**FIGURE 3 EXAMPLE OF PACKAGING IN CONTAINER**

## **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 SN Berg's warranty are included in their terms and conditions of sale.

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

No current water agency approvals are in place for Bilcon pre-cast reinforced concrete pipe for drainage or service duct applications.

Greater Western Water has approved Bilcon concrete pipes for jacking pipe applications (with a modified jointing system) however WSAA does not have a product specification for pre-cast concrete jacking pipes.

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

There are no outstanding issues.

## **13 FUTURE WORKS**

There are no future works items.

## **14 DISCLAIMER**

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

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

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

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

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

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

### **14.1 Issue of Report**

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

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

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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.

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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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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

**ELEVATION**

**CROSS-SECTION**

**ISOMETRIC VIEW**

**JOINTING DETAIL**

**RUBBER RING DETAIL**

**NOTES:**  
 \*CONCRETE STRENGTH CLASS C30/37  
 \*MAXIMUM AGGREGATE SIZE = 20mm  
 \*HARD DRAWN WIRES SHALL BE IN ACCORDANCE WITH SS 500:2010  
 \*PIPE DESIGN COMPLY UNDER SS 183:1978  
 \*CONCRETE COVER: INNER 20mm  
 ENDS 30mm

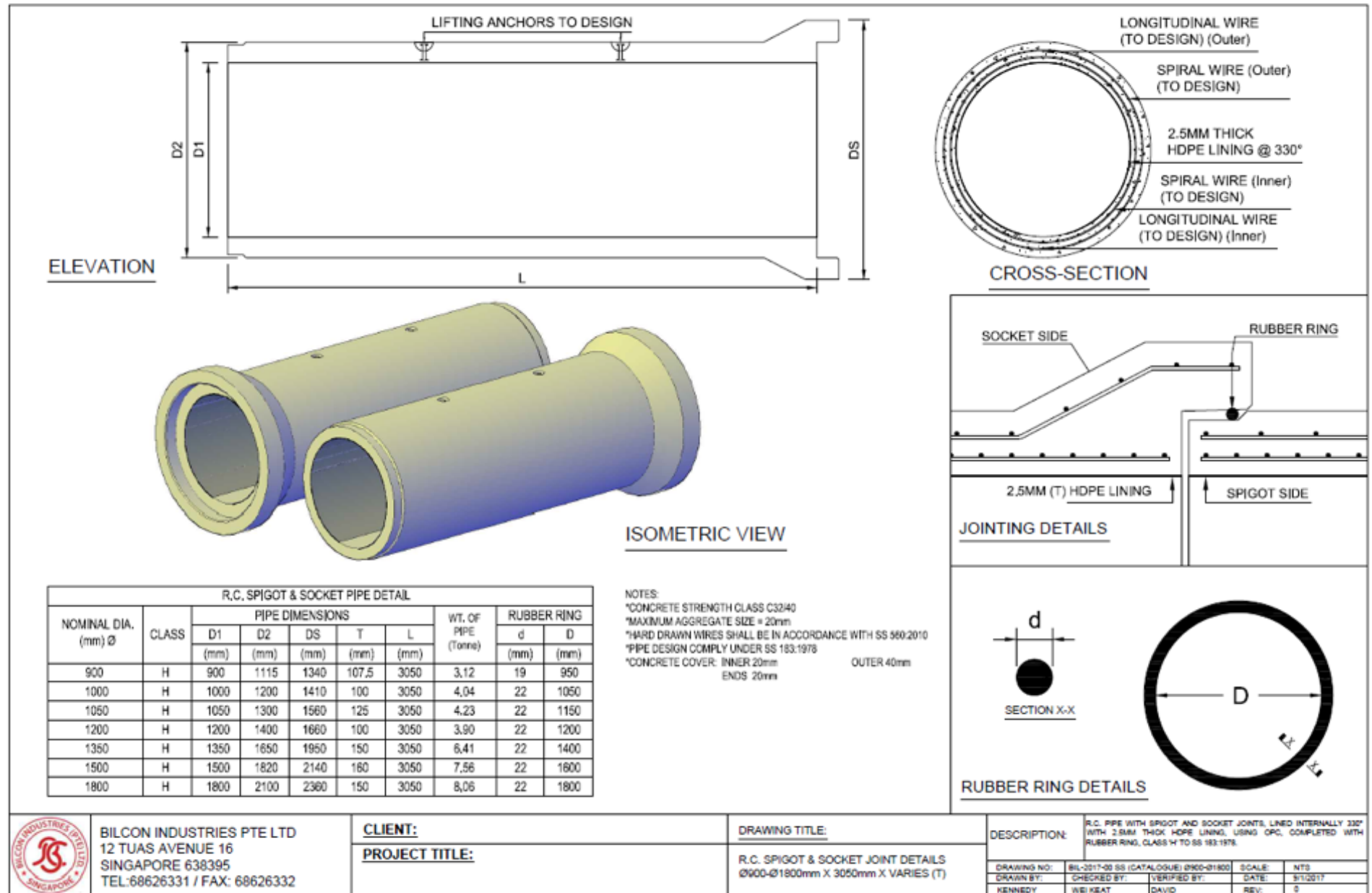
| NOMINAL DIA.<br>(mm) Ø | CLASS | PIPE DIMENSIONS |      |      |      |      | WT. OF<br>PIPE<br>(Tonnes) | RUBBER RING |      |
|------------------------|-------|-----------------|------|------|------|------|----------------------------|-------------|------|
|                        |       | D1              | D2   | DS   | T    | L    |                            | d           | D    |
|                        |       | (mm)            | (mm) | (mm) | (mm) | (mm) |                            | (mm)        | (mm) |
| 300                    | H     | 300             | 430  | 525  | 65   | 3050 | 0.65                       | 16          | 360  |
| 375                    | H     | 375             | 515  | 660  | 70   | 3050 | 0.91                       | 16          | 432  |
| 450                    | H     | 450             | 590  | 730  | 70   | 3050 | 1.05                       | 16          | 550  |
| 525                    | H     | 525             | 665  | 850  | 80   | 3050 | 1.34                       | 16          | 660  |
| 600                    | H     | 600             | 780  | 990  | 90   | 3050 | 1.79                       | 19          | 670  |
| 675                    | H     | 675             | 865  | 1065 | 95   | 3050 | 2.10                       | 19          | 735  |
| 750                    | H     | 750             | 950  | 1155 | 100  | 3050 | 2.45                       | 19          | 820  |
| 825                    | H     | 825             | 1115 | 1340 | 145  | 3050 | 3.87                       | 19          | 950  |

**CLIENT:**  
**PROJECT TITLE:**

**DRAWING TITLE:**  
 R.C. SPIGOT & SOCKET PIPE DETAILS  
 Ø300-Ø825mm X 3050mm X VARIES (T)

**DESCRIPTION:**  
 R.C. PIPE WITH SPIGOT & SOCKET JOINTS, USING OPC, COMPLETED WITH RUBBER RING, CLASS M TO SS 183:1978.

| DRAWING NO.                       | CHECKED BY | DATE      | SCALE | NTS      |
|-----------------------------------|------------|-----------|-------|----------|
| BL-2014-05 (CATALOGUE) (2000-020) | KENNEDY    | 1/10/2014 | 1:1   | AS SHOWN |



## APPENDIX B - QUALITY CERTIFICATIONS

Copies of the following Quality Certificates are available from WSAA

### TABLE B1 BILCON INDUSTRIES PTE LTD – MANAGEMENT SYSTEMS

| 1 Clementi Loop #04-05 Singapore |               |
|----------------------------------|---------------|
| Quality Systems Standard         | ISO 9001:2015 |
| Certification Licence No.        | 97-2-0697     |
| Certifying Agency                | TUV SUD       |
| First Date of Certification      | 27 March 2018 |
| Current Date of Certification    | 2 April 2021  |
| Expiry Date of Certification     | 2 April 2024  |

### TABLE B2 ALIANSA SDN BHD – MANAGEMENT SYSTEMS

| Jalan Kampong Maju Jaya Kempas Lama Johor Bahru Malaysia |               |
|--|---------------|
| Quality Systems Standard                                 | ISO 9001:2015 |
| Certification Licence No.                                | 97-2-0697-1   |
| Certifying Agency  | TUV SUD       |
| First Date of Certification                              | 27 March 2018 |
| Current Date of Certification                            | 2 April 2021  |
| Expiry Date of Certification                             | 2 April 2024  |

### TABLE B3 MEI GONG PRECAST INDUSTRIES PTE LTD– MANAGEMENT SYSTEMS

| Jalan Seelong Senai Malaysia  |               |
|-------------------------------|---------------|
| Quality Systems Standard      | ISO 9001:2015 |
| Certification Licence No.     | 97-2-0697-2   |
| Certifying Agency             | TUV SUD       |
| First Date of Certification   | 27 March 2018 |
| Current Date of Certification | 2 April 2021  |
| Expiry Date of Certification  | 2 April 2024  |



**TABLE B2 SN BERG PTY LTD– MANAGEMENT SYSTEMS**

| 100 Havelock Street West Perth WA 6005 |                                  |
|--|----------------------------------|
| Quality Systems Standard               | ISO 9001:2015                    |
| Certification Licence No.              | A9C16098B7982A4BCA2588D900029936 |
| Certifying Agency                      | Global Mark Pty Ltd              |
| First Date of Certification            | 26 November 2018                 |
| Current Date of Certification          | 12 October 2022                  |
| Expiry Date of Certification           | 26 October 2024                  |

CERTIFICAT

CERTIFICADO

СЕРТИФИКАТ

認證證書

CERTIFICATE

ZERTIFIKAT



PSB Singapore

# CERTIFICATE

The Certification Body  
of TÜV SÜD PSB Pte Ltd

certifies that

## BILCON INDUSTRIES PTE LTD

1 Clementi Loop

#04-05

Singapore 129808

has established and applies  
a Quality Management System for

1. Design and Manufacture of Spun and Vertical Cast Reinforced Concrete Cylindrical Pipes
2. Manufacture of Precast Concrete Products  
(See Appendix to Certificate for Details)

Proof has been furnished that the requirements  
according to

**ISO 9001 : 2015**

are fulfilled. The certificate is valid from **2021-04-02** to **2024-04-02**

Certificate Registration No. **97-2-0697**

Date of Print : **2021-04-05**



SIEW Kwai Heng, Tiffany  
Head of Certification Body  
Management Systems  
Business Assurance Division



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Please refer to [www.tuvsud.com/en-sg](http://www.tuvsud.com/en-sg) for current certificate status in the "Directory of Management System Certified Companies".

CERTIFICAT

CERTIFICADO

СЕРТИФИКАТ

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CERTIFICATE

ZERTIFIKAT



PSB Singapore

# APPENDIX

To Certificate Number: 97-2-0697

Issue Number : 13  
 Date of Print : 2021-04-05  
 Issued to : **BILCON INDUSTRIES PTE LTD**  
 1 Clementi Loop  
 #04-05  
 Singapore 129808

## Process or service in respect of which the company is Certified:

1. Design and Manufacture of Spun and Vertical Cast Reinforced Concrete Cylindrical Pipes
2. Manufacture of Precast Concrete Products

## Process Detail(s)/Location(s):

The head office at 1 Clementi Loop #04-05 covers the management, sales, design, purchasing & other administrative functions

The manufacturing activities are located at the following sites:

| Location   | Scope of Certification   |
|--|--|
| Aliansa Sdn Bhd<br>P.T.D. 7015, Jalan Kampong Maju,<br>Jaya Kempas Lama 81300<br>Johor Bahru, Malaysia | <ol style="list-style-type: none"> <li>1. Manufacture of Spun Reinforced Concrete Cylindrical Pipes</li> <li>2. Manufacture of Precast Concrete Products</li> </ol> <p><b>Certificate No. : 97-2-0697-1</b></p>          |
| Mei Gong Precast Industries Sdn. Bhd.<br>P.T.D. 93893, Jalan Seelong,<br>81400 Senai, Malaysia         | <ol style="list-style-type: none"> <li>1. Manufacture of Vertical Cast Reinforced Concrete Cylindrical Pipes</li> <li>2. Manufacture of Precast Concrete Products</li> </ol> <p><b>Certificate No. : 97-2-0697-2</b></p> |



SIEW Kwai Heng, Tiffany  
 Head of Certification Body  
 Management Systems  
 Business Assurance Division



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◆ CERTIFICATE

◆ ZERTIFIKAT



PSB Singapore

# CERTIFICATE

The Certification Body  
of TÜV SÜD PSB Pte Ltd

certifies that

**ALIANSA SDN BHD**  
P.T.D. 7015, Jalan Kampong Maju,  
Jaya Kempas Lama 81300  
Johor Bahru, Malaysia

has established and applies  
a Quality Management System for

- 1. **Manufacture of Spun Reinforced Concrete Cylindrical Pipes**
- 2. **Manufacture of Precast Concrete Products**

Proof has been furnished that the requirements  
according to

**ISO 9001 : 2015**

are fulfilled. The certificate is valid from **2021-04-02** to **2024-04-02**

Certificate Registration No. **97-2-0697-1**

Date of Print : **2021-04-05**



SIEW Kwai Heng, Tiffany  
Head of Certification Body  
Management Systems  
Business Assurance Division



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Please refer to [www.tuvsud.com/en-sg](http://www.tuvsud.com/en-sg) for current certificate status in the "Directory of Management System Certified Companies".

CERTIFICAT

CERTIFICADO

СЕРТИФИКАТ

認證證書

CERTIFICATE

ZERTIFIKAT



PSB Singapore

# CERTIFICATE

The Certification Body  
of TÜV SÜD PSB Pte Ltd

certifies that

## MEI GONG PRECAST INDUSTRIES SDN. BHD.

P.T.D. 93893, Jalan Seelong,  
81400 Senai  
Malaysia

has established and applies  
a Quality Management System for

1. Manufacture of Vertical Cast Reinforced Concrete Cylindrical Pipes
2. Manufacture of Precast Concrete Products

Proof has been furnished that the requirements  
according to

### ISO 9001 : 2015

are fulfilled. The certificate is valid from **2021-04-02** to **2024-04-02**

Certificate Registration No. **97-2-0697-2**

Date of Print : **2021-04-05**



SIEW Kwai Heng, Tiffany  
Head of Certification Body  
Management Systems  
Business Assurance Division



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Please refer to [www.tuvsud.com/en-sg](http://www.tuvsud.com/en-sg) for current certificate status in the "Directory of Management System Certified Companies".



# Certificate of Approval

This certificate confirms that the company below complies with the following standard:

|                        |   |        |                                   |
|------------------------|---|--------|-----------------------------------|
| Company Name           | SN Berg Pty Ltd   |        |                                   |
| Company Other Name     | Bilcon Australia Pty Ltd  |        |                                   |
| Client ID              | 105469  | Scheme | Quality Management Systems Scheme |
| Certification Standard | AS/NZS ISO 9001-2016: Quality management systems - Requirements                                     |        |                                   |
| Scope of Certification | Importation and distribution of concrete pipes (jacking and reinforced rubber ring) into Australia. |        |                                   |
| Type of Certification  | Management System   |        |                                   |

**CERTIFICATE DATES:**

|                                  |            |                         |            |
|----------------------------------|------------|-------------------------|------------|
| Original / Initial               | 26/11/2018 | Last Certificate update | 12/10/2022 |
| Certification / Re Certification | 7/10/2022  | Expiry                  | 26/10/2024 |
| Last Certification Decision      | 12/10/2022 |                         |            |

**APPROVED COMPANY/SITE ADDRESS(ES):**

Level 1, 100 Havelock Street West Perth WA 6005 Australia

The use of the Accreditation Mark indicates accreditation by the Joint Accreditation System of Australia and New Zealand in respect to those activities covered by JAS-ANZ accreditation. Refer to [www.jas-anz.org/register](http://www.jas-anz.org/register) for verification.

This certification remains valid until the above mentioned expiry date and subject to the organisation's continued compliance with the certification standard, and Global-Mark's Terms and Conditions.

This Certificate of Approval remains the property of Global-Mark Pty Ltd, Company Number: ACN.108-087-654



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JAS-ANZ



WWW.JAS-ANZ.ORG/REGISTER



**Certification Manager**

Unique Certificate Code: A9C16098B7982A4BCA2588D900029936

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## **APPENDIX C - SUPPLIER CONTACTS**

### **SN Berg Pty Ltd**

Level 1

100 Havelock Street

West Perth WA 6005

Telephone: 08 6160 5916

Email: [info@snberg.com.au](mailto:info@snberg.com.au)

Website: [www.snberg.com.au](http://www.snberg.com.au)

### **Bilcon Industries Pte Ltd**

1 Clementi Loop #04-05

Singapore



**Melbourne Office**

Wurundjeri Country  
Level 8, Suite 8.02  
401 Docklands Drive  
Docklands VIC 3008

**Sydney Office**

Gadigal Country  
Level 6 75 Elizabeth Street  
Sydney NSW 2000  
GPO Box 915  
Sydney NSW 2001

P +61 (0) 3 8605 7600  
email: [info@wsaa.asn.au](mailto:info@wsaa.asn.au)

[www.wsaa.asn.au](http://www.wsaa.asn.au)