

WSAA PRODUCT APPRAISAL CERTIFICATE

Empire Infrastructure Pty Ltd - BOSSPIPE Centrifugally Cast Glass Reinforced Plastic Jacking Pipes for Non-Pressure Sewerage Applications.

This appraisal is for BOSSPIPE Centrifugally Cast (CC) Glass Reinforced Plastics (GRP) jacking pipe systems for non-pressure sewerage applications. BOSSPIPE jacking pipes are available in nominal sizes ranging from DN 350 (376mm OD) to DN 2400 (2453mm OD) with a nominal pressure classification of PN1 and stiffness ratings from SN 32,000 to SN 1,000,000.

BOSSPIPE jacking pipe is joined using flexible non-end-load-bearing couplings with elastomeric seals, suitable for installation using trenchless methods such as slip lining, micro-tunnelling and pipe jacking.

Details of Quality and Product Certification Certificates and products is included in the attached Schedules A and B.

Product Category	GRP Jacking Pipe
PA Number:	PA 1607 Issue 3
Supplier	Empire Infrastructure Pty Ltd
Brand	BOSSPIPE
Standards	ISO 25780 – <i>Plastic piping systems for pressure and non-pressure water supply, irrigation, drainage or sewer - Glass-reinforced thermosetting plastics (GRP) systems based on unsaturated polyester (UP) resin – Pipe with flexible joints intended to be installed using jacking techniques</i>
WSAA Product Specification	WSA PS – 205J - <i>Centrifugally Cast Glass Reinforced Plastics (CC-GRP) Pipes for Pressure and Non-Pressure Applications – Drinking Water, Non-Drinking Water Supply and Sewerage - Installed Using Trenchless Installation Methods</i>
Other Specifications	
Issue date	27 April 2022
Expiry date	26 April 2027
Recommendations	It is recommended that WSAA members, subject to any specific requirements of the member, accept or authorise the BOSSPIPE CC GRP jacking pipes and associated couplings and fittings as detailed in this report for use in non-pressure sewerage applications, provided the design, installation and commissioning are in accordance with applicable WSAA Codes and the manufacturer's requirements.
Disclaimer	The disclaimer on Page 2 explains a number of very important limits on your ability to rely on the information in this Product Appraisal Certificate and the assessment criteria used to underlay it. Please read it carefully and take it into account when considering the content in this Certificate.

1. Disclaimer

This Product Appraisal Certificate (Certificate) is issued by WSAA on the understanding that:

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

To maintain the recommendations of this Certificate any such changes shall be detailed and notified to the Product Appraisal Manager for consideration and review of the Certificate including the product appraisal criteria underlying it 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. Certificates will be reviewed and reissued at regular intervals not exceeding five (5) years.

WSAA reserves the right to withdraw this Certificate at any time in its sole and absolute discretion for any reason.

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

Any enquiries regarding this Certificate should be directed to the Product Appraisal Manager Phone: 03 8605 7601 email carl.radford@wsaa.asn.au.

1.1. Issue of Certificate

This Certificate has been published and/or prepared by WSAA and nominated Project Manager and peer group of technical specialists (the Publishers).

The Certificate and the underlying product appraisal criteria have been prepared for use within Australia only by technical specialists that have expertise in the function of products such as those appraised in the Certificate (the Recipients).

By accepting this Certificate, the Recipient acknowledges and represents to the Publisher(s) and each person involved in the preparation of the Certificate and product appraisal criteria underlying it that the Recipient has understood and accepted the terms of this Disclaimer.

1.2. Limits on Reliance on Information and Recommendations

1.2.1. Disclaimer of liability

Neither the Publisher(s) nor any person involved in the preparation of the Certificate and product appraisal criteria underlying it accept(s) any liability for any loss or damage suffered by any person however caused (including negligence or the omission by any person to do anything) relating in any way to the Certificate or the product appraisal criteria underlying it. This includes (without limitation) any liability for any recommendation or information in the Certificate or any errors or omissions.

1.2.2. Intellectual Property and other rights

WSAA does not undertake any assessment of whether the importation, manufacture, sale or use of the Product the subject of this Certificate infringes the intellectual property rights or proprietary rights of any person. Recipients of the Certificate should undertake their own assessment of whether (as relevant) the importation, manufacture, sale or use of the relevant Products infringe the intellectual property rights or other proprietary rights of any person. If the Product infringes intellectual property rights or other proprietary rights there is potential for the supply of the Products to be interrupted.

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1.2.3. Need for independent assessment

The information and any recommendation contained (expressly or by implication) in this Certificate are provided in good faith (and subject to the limitations noted in this Certificate). 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 Certificate does not contain all information that a person might require for the purposes of assessing any product discussed or appraised within it. The product appraisal criteria used in preparing this Certificate 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 Certificate, 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.

1.3. No Updating

Neither the Publisher(s) nor any person involved in the preparation of this Certificate or the product appraisal criteria underlying it [has] [have] any obligation to notify you of any change in the information contained in this Certificate or of any new information concerning the Publisher(s) or the Product or any other matter.

1.4. 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 Certificate, or the accuracy, completeness or reasonableness of any recommendation in this Certificate.

QUALITY AND PRODUCT CERTIFICATIONS

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

SCHEDULE A1 ZHEJIANG EASTERN DFHB PIPES CO LTD – MANAGEMENT SYSTEMS

No. 1 Qianjian Road Wenzhou Economic & Tech. Development Zone Wenzhou City Zhejiang China	
Quality Systems Standard	ISO 9001:2015
Certification Licence No.	CNBJ313440-UK
Certifying Agency	Bureau Veritas
First Date of Certification	22 December 2010
Current Date of Certification	22 December 2019
Expiry Date of Certification	21 December 2022

SCHEDULE A2 ZHEJIANG EASTERN DFHB PIPES CO LTD – PRODUCT CERTIFICATION

No. 1 Qianjian Road Wenzhou Economic & Tech. Development Zone Wenzhou City Zhejiang China	
Product Standard/Spec.	ISO 25780:2011
Certificate No.	FA-IPC/ER/IPCA-21/005-03
Issuing Certification Body	Bureau Veritas
Current Date of Certification	16 April 2021
Expiry Date of Certification	15 April 2024

DFHB

Range for DFHB GRP Jacking Pipes



DN (mm)	OD (mm)	e(mm)	Fmax (kN)
350	376	18~32	200~570
400	427	21~36	330~780
500	514	27~44	630~1240
600	616	29~53	800~1900
700	718	33~62	1130~2600
800	820	33~69	1250~3470
900	924	33~69	1420~3960
1000	1026	34~69	1660~4430
1100	1127	36~75	2000~5380
1200	1229	36~71	2000~5560
1300	1350	39~72	2510~6240
1400	1434	41~71	2890~6440
1500*	1499	43~73	3260~6970
1500	1536	43~76	3340~7490
1600	1638	46~81	3420~8090
1800	1842	52~80	4710~9030
2000	2046	57~83	5710~10380
2200	2250	63~87	7330~12130
2400	2453	68~88	8760~13470

Note: Pipe designs for higher or lower jacking loads are available upon request.



DFHB GRP Jacking Pipes

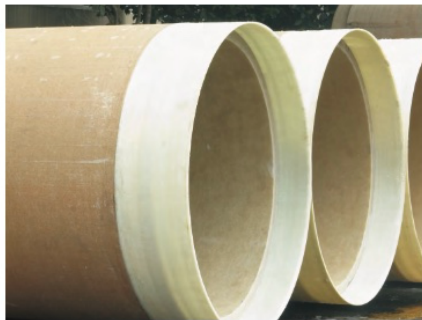
DFHB

DFHB GRP Jacking Pipes

DFHB GRP Jacking Pipes are produced in standard length of 1, 2, 3 and 6m(tolerances to company standards). Other pipe lengths can also be supplied on request.

Joints for DFHB GRP Jacking Pipes

DFHB GRP Jacking Pipes are flexible and leak tight when joined with the following couplings, depending on the environmental requirements:



Flush GRP Coupling

The GRP coupling is made of glass fiber reinforced polyester resin by filament winding.

Primarily used for medium and larger diameters, it features a sliding seal for leak tightness.



Flush GRP FWC Coupling for Pressure Jacking Pipes

The FWC coupling is made of glass fiber reinforced polyester resin with an integral full width EPDM gasket .

DFHB GRP Jacking pipes with this coupling can be operated as pressure pipes right away.



Flush Stainless Steel Coupling

The stainless steel coupling consists of a stainless steel ring with an EPDM seal firmly attached to it.

This coupling is used as standard for smaller and medium diameter pipes.



SUPPLIER CONTACTS

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