EMPIRE
INFRASTRUCTURE

BRINGING THE WORLD'S MOST **SUCCESSFUL SUPPLIERS TO YOUR TEAM**

BOSSPIPE

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THE COMPANY

BOSSPIPE, a division of EMPIRE INFRASTRUCTRUE, is committed to being the best supplier of GRP pipe in Australia. We have some of the World's biggest, best and experienced manufacturers on our Team. Boss Pipe has multiple suppliers of GRP Pipe with more than one manufacturer representing each of the manufacturing methods, Centrifugally Cast, Continuous Wound, Filament Wound

The Boss Pipe staff has been working with GRP pipe systems for decades and are among the most technically competent in Australia. We are here to help.

THE PROCESS

BOSSPIPE GRP is a composite material consisting of three components and can be classified as a thermosetting plastic.

Base materials used for manufacture are unsaturated polyester resins as bonding agent, chopped glass fibres as reinforcement and quartz sand as aggregate.

During the process, components are fed into a mould or on to a mandrel using special programmes to electronically control the timing and dosing of the materials to produce the desired wall structure.

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This manufacturing technology assures the production of pipes with high density walls typically free of voids and evenly smooth surface all over their length.

Upon completion of the polymerization process, the finished pipe is extracted from the mould or mandrel. The surface of GRP pipe is smooth and the resulting pipe is both lightweight and offers the best hydraulic characteristics of any pipe material commercially available today.

FEATURES AND BENEFITS GRP PIPE SYSTEMS PROVIDE:

- Excellent chemical and corrosion resistance.
- High stiffness. Ability to resist high static and axial loads.
- Smooth surface. High hydraulic efficiency. High abrasive resistance.
- High durability 100-year design life.
- Resistant to UV light and frost.
- Constant outside diameter for CC pipe
- Constant inside diameter for wound pipe
- Choice of fittings.
- Light weight pipe with push-fit sleeve coupling.
- Couplings can accommodate angular deflection.

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APPLICATIONS

The unique qualities of high strength combined with flexibility and corrosion resistance, make GRP Pipe Systems very attractive for use in numerous applications, including water supply, sewerage, drainage, transport of slurries and in industrial processing plants.

AROUND THE WORLD BOSS PIPE GRP PIPES ARE BEING USED FOR THE FOLLOWING:

- Gravity Sewers
- Pressure / Force Main Sewers
- Potable Water Lines
- Relining
- Hydro-Electric Plants
- Industrial Pipelines
- Double Pipelines
- Water and Sewer Treatment Plants
- Pipe Jacking
- Bore Casting, Ventilation Shafts and Ducts
- Submarine Pipes and Outfalls
- where GRP pipes have been used for
- Special applications such as manholes and water / sewerage storage tanks

STANDARDS

Our company implements quality assurance systems in accordance with the requirements of ISO9001.

Bosspipe GRP pipes are manufactured and supplied to comply with several national and international standards.

ISO
ISO 10639:2004
ISO 10467:2004

BS
ISO 25780:2011

EN
BS EN 14364:2013

USA
AWWA C950
ASTM 03517
ASTM D3754
ASTM D3262

CHINA
GB/T 21238-2007
GB/T 21492-2008

Each pipe is manufactured in a computer controlled production process and is marked with a unique number that provides traceability throughout the production process.

THIS INCLUDES;
Origin of raw materials
Quality of the raw materials
Conditions of manufacture
Batch performance test results


FACTORY APPROVAL CERTIFICATE


BUREAU VERITAS
Certification

ZHEJIANG EASTERN HAOBO PIPES CO., LTD

ISO 9001:2008


WSAA PRODUCT APPRASIAL CERTIFICATE

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OPEN TRENCH PIPES

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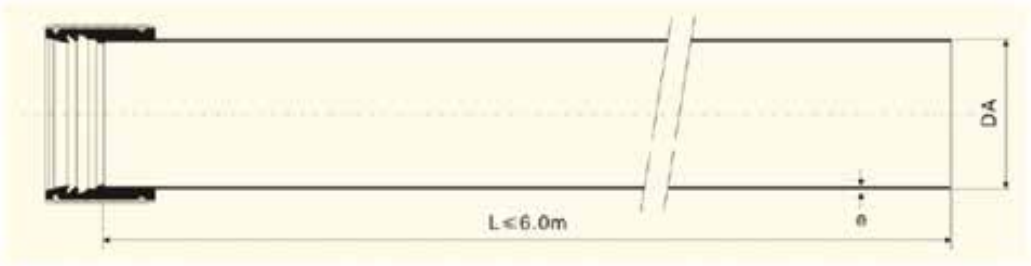
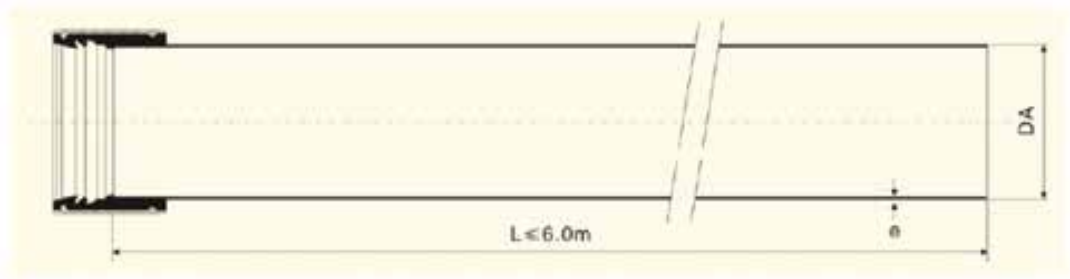


DN	DA	SN5000		SN10000		SN20000	
		e	kg/m	e	kg/m	e	kg/m
300	324	6.5	12.3	7.8	15.2	11.2	21.5
350	376	7.4	16.6	8.9	20.5	12.3	29.7
400	427	8.2	20.8	9.9	25.7	14.1	36.5
450	478	9.1	25.6	10.9	32.1	15.2	46.8
500	514	9.8	31.1	11.9	38.5	18.4	69.4
600	616	11.2	41.4	13.6	51.5	20.5	93.6
700	718	12.8	55.9	15.7	69.6	23.5	120.8
800	820	13.8	70.3	17.1	88.0	26.2	152.7
900	924	15.4	88.8	19.1	111.3	28.3	187.5
1000	1026	17.0	109.3	21.1	137.2	31.6	215.7
1100	1127	18.5	126.0	22.9	158.3	34.8	267.5
1200	1229	19.9	154.2	24.8	193.9	37.2	321.0
1350	1350	22.5	185.8	27.2	245.2	39.1	362.5
1400	1434	23.1	209.6	28.8	284.4	42.5	418.7
1500	1536	24.5	230.1	30.4	289.9	44.6	475.8
1600	1638	26.3	273.6	32.8	345.0	50.4	599.6
1800	1842	29.0	340.2	36.6	429.3	55.3	738.4
2000	2046	33.6	350.2	40.3	531.6	60.6	890.9
2200	2250	35.3	509.1	44.2	642.8		
2400	2400	37.7	579.4	47.1	735.6	64.9	1059.4

PRESSURE PIPES



DN	DA	PN8		PN10		PN12.5		PN16		PN20		PN25	
		SN10000		SN10000		SN10000		SN10000		SN10000		SN10000	
		e	kg/m	e	kg/m	e	kg/m	e	kg/m	e	kg/m	e	kg/m
300	324	7.7	14.1	7.9	15.4	8.0	15.0	9.7	18.2	11.2	21.2	13.3	24.8
350	376	8.8	18.8	9.1	20.7	9.1	20.5	11.0	24.5	12.5	27.8	14.9	33.4
400	427	9.7	23.9	10.1	26.0	10.0	25.2	12.2	30.5	13.7	34.4	16.4	40.4
450	478	10.6	29.5	11.2	32.8	11.2	31.8	12.8	35.8	14.9	42.2	17.7	49.8
500	514	11.4	34.3	12.1	39.1	12.0	37.8	13.2	41.1	15.8	49.7	18.7	57.7
600	616	13.3	48.8	13.8	52.1	13.7	50.6	14.5	53.7	18.1	68.3	21.2	75.9
700	718	15.5	65.9	15.6	69.1	15.8	68.2	16.2	70.6	20.7	88.7	23.9	101.6
800	820	17.4	85.6	17.0	87.3	17.1	86.1	17.3	87.5	22.5	110.8	26.6	127.9
900	924	19.4	108.2	19.2	111.1	19.2	108.5	21.1	116.2	25.6	142.0	31.0	169.0
1000	1026	21.3	132.7	21.2	136.9	21.2	133.5	23.1	141.6	28.1	173.0	33.8	204.6
1100	1127	23.4	160.1	23.0	158.2	22.9	153.9	24.0	159.2	29.9	197.6		
1200	1229	25.3	189.2	25.0	194.1	24.9	188.1	27.2	199.7	33.0	244.0		
1350	1350	27.5	226.2	27.5	233.2	27.0	222.5	30.7	246.9	35.8	288.5		
1400	1434	29.3	257.1	29.1	264.2	28.9	255.3	33.9	291.9	38.0	328.4		
1500	1536	31.4	295.0	30.6	289.9	30.4	280.4	35.4	318.8	39.9	360.1		
1600	1638	33.3	334.8	33.2	345.4	32.9	332.8	38.7	381.3	43.4	428.9		
1800	1842	37.3	422.3	36.7	430.5	36.3	413.8	42.9	476.0				
2000	2046	41.2	519.2	40.9	535.0	40.3	511.0						
2200	2250	45.1	625.9	44.9	644.9	44.2	617.2						
2400	2400	47.9	711.5	47.9	733.9	47.1	701.7						

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FWC COUPLING

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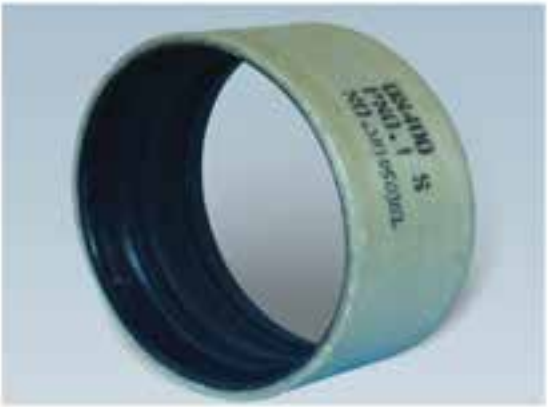
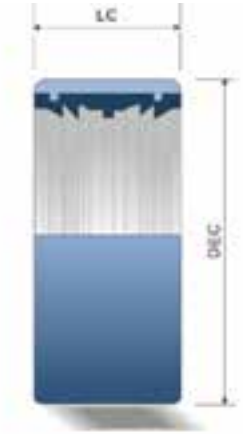
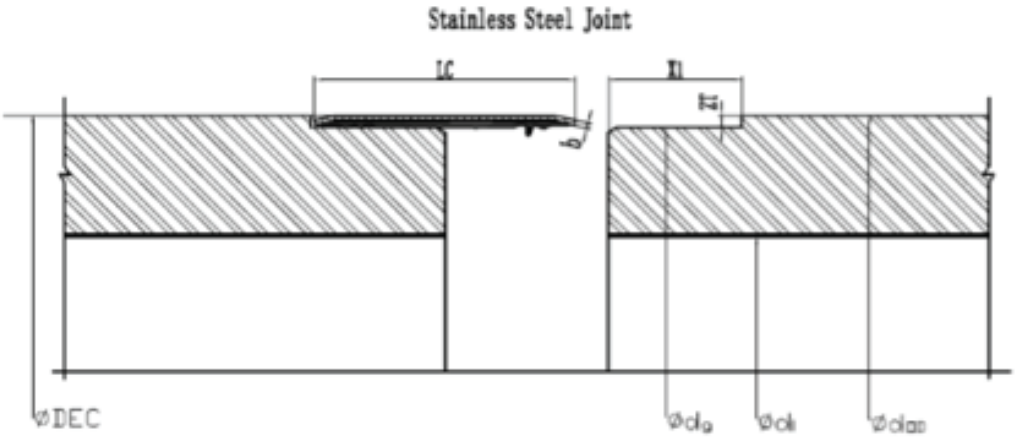




DN	PN1 - PN6			PN7 - PN10			PN11 - PN16		
	LC	DEC	M	LC	DEC	M	LC	DEC	M
	mm	mm	kg	mm	mm	kg	mm	mm	kg
300	200	360	5.0	200	360	5.0	200	360	5.0
350	200	412	5.5	200	412	5.5	200	412	5.5
400	200	463	6.0	200	463	7.0	200	470	7.0
450	200	514	6.5	200	514	7.5	200	514	8.0
500	200	550	7.0	200	550	7.0	200	556	9.0
600	200	652	8.0	200	652	8.0	200	660	10.0
700	200	770	13.0	200	770	13.0	200	770	20.0
800	250	870	17.0	250	870	19.0	250	880	24.0
900	250	970	20.0	250	970	23.0	250	990	28.0
1000	250	1080	22.0	250	1080	25.0	250	1100	33.0
1100	250	1150	24.0	250	1150	28.0	250	1170	36.0
1200	250	1275	26.0	250	1300	32.0	250	1320	42.0
1350	250	1397	29.0	250	1406	41.0	250	1420	54.0
1400	250	1480	31.0	250	1497	51.0	250	1505	66.0
1500	250	1585	33.0	290	1602	58.0	290	1610	72.0
1600	290	1690	49.0	290	1710	65.0	290	1730	89.0
1800	290	1900	60.0	290	1920	83.0	290	1940	115.0
2000	290	2110	69.0	290	2130	99.0			
2200	290	2309	98.0	290	2330	115.0			
2400	290	2475	114.0	290	2495	132.0			

STAINLESS STEEL JOINT



NO	DN	d_{OD}	ZT	X1	LC	DEC	b
1	350	376	9	67	129	376	3
2	400	427	9	67	129	427	3
3	450	478	9	67	129	478	3
4	500	515	9	67	129	515	3
5	600	616	9	67	129	616	3
6	700	718	9	67	129	718	3
7	800	820	9	67	129	820	3
8	900	924	9	67	129	924	3
9	1000	1026	9	80	154	1026	3
10	1100	1127	9	80	154	1127	3
11	1200	1229	9	80	154	1229	3
12	1350	1350	9	80	154	1350	3
13	1400	1434	9	80	154	1434	3

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GRP JACKING PIPES

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GRP Jacking Pipes

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 GRP Jacking Pipes

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 fibre reinforced polyester resin.

Primarily used for 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 fibre reinforced polyester resin with an integral width EPDM gasket.

This coupling is used as standard for the Various nominal pressure ratings of GRP Pressure Pipes.

Jacking pipes with this coupling can be operated As pressure pipes, right away.

FLUSH STAINLESS STEEL FWC 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.

GRP JACKING PIPES

DN (mm)	DE (mm)	e (mm)	Fmax (kN)
300	324	17-28	150-360
400	412	19-42	270-900
500	514	20-50	340-1300
600	616	23-60	410-2100
700	718	24-70	710-2950
800	820	24-78	710-3850
900	924	27-77	870-4350
1000	1026	30-69	1000-4280
1100	1127	33-75	1300-5200
1200	1229	35-82	1500-6300
1400	1434	40-76	1800-6700
1500	1536	43-82	2150-7850
1600	1638	46-81	2400-7900
1800	1842	52-86	3250-9650
2000	2046	57-82	4250-10000

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

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