



COMPANY PROFILE

Ban Soong Heng Sdn. Bhd. (BSHSB) has involved in the manufacturing of clay pipes & clay products since 1979.

The company has a wealth of experience in clay products manufacturing with reputation for quality, services and value for money. We develop, manufacture and sell vitrified clay pipes, fittings and accessories used in sewerage and drainage systems.

Our Vitrified Clay Pipes (VCP) are produced in accordance with the Malaysian Standard MS 1061:1999. Audits by independent third party quality assessors are carried out in regular intervals to ensure compliance with the requirements of MS 1061:1999 under a quality management system.

The Pipes are approved by National Water Services Commission (SPAN) to be installed in the sewerage systems nationwide. BSH VCP is complies to most technical product standard.

Our company has been awarded "INDUSTRY EXCELLENCE AWARD 2001, CATEGORY OF PRODUCT EXCELLENCE AWARD " organized by Ministry of International Trade and Industry (MITI) Malaysia due to our commitment to provide consistent quality product, comprehensive customer services, and prompt delivery.

BSH VCP is carbon footprinted by SIRIM QAS in collaboration with The Carbon Trust UK. All the pipes are eco-friendly and no waste is produced in the manufacturing process.

BSH Vitrified Clay Pipes utilizes the latest clay blending and controlled firing technology, and our pipes are precisely engineered to meet the demand of quality standards.

QUALITY POLICY

BSH will ensure its customers service reliability, cost effective and high quality pipes in accordance to our company's motto:

**“ SERVICING CUSTOMERS WITH EXCELLENT
PRODUCT QUALITY AND COMPREHENSIVE
AFTER SALES SERVICES ”**

It is the aspiration of the company to be innovative and receptive to customers' needs.



OUR COMMITMENT

Being a manufacturer that is working towards continuous improvement and customer satisfaction, BSH always put priority on the following :

- **Product Quality**

Our pipes are complied with the stringent requirement of Malaysian Standard MS1061 : PT.1 : 1999 - Specification For Vitrified Clay Pipes And Fittings for Drains and performance. These included :-

- Crushing Strength
- Watertightness of pipes
- Chemical resistance
- Shear resistance
- Deflection, etc.

- **Delivery**

BSH always do the best to fulfill customers' order in the shortest lead-time and promise time delivery to project site.

- **After Sales Services**

With our experienced technical support team, we are ready to provide technical solution and advice whenever customer encounter problems at project site.



PRODUCT FEATURES AND BENEFITS

Major advantages of BSH Vitrified Clay Pipes are:

- Fully certified to MS1061: PT. 1: 1999
- Easy and fast to install
- High structure strength
- Smooth wall surface with every minimal frictional resistance
- Excellent chemical and heat resistance
- Proven durability

Superior Pipe and Joint System Easy Ring Pipe Seal that conforms to MS 1061

Easy ring is designed for fast, tight and hassle-free installation.

The jointing system consists of a socket section fitted with an Easy Ring held in place by an epoxy sealant. The ring is made of natural rubber and resist to heat, ozone and ultra violet light.



EASY Installation

Easy-Joint are specially made for fast and tight installation.

Step 1:

Clean the socket end with a damp cloth.

Step 2:

Simply lubricate the rubber Easy-Joint ring.

Step 3:

Bring the spigot end to socket.

Step 4:

Position, fit and push home from spigot end.

Step 1: Clean



Step 2: Lubricate



Step 3: Align



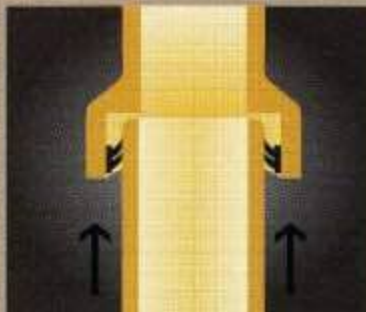
Step 4: Push In



Advantages of Easy-Joint Pipes

Easy-Joint clay pipes can accommodate ground movement via the flexible design of the joint.

Easy-Joint pipes are user friendly.



PRODUCT RANGE

PRODUCT DESCRIPTION (Type / Model)	SIZE		CRUSHING STRENGTH	
<div>STRAIGHT PIPE</div> <div></div>	(D) Diameter DN (mm)	(L) Length (mm)		<div>FN 34 KN/m</div> <div>FN 28 KN/m</div> <div>FN 36 KN/m or Class 160</div> <div>FN 36 KN/m or Class 120</div>
	100	915		
	150	1000	1500	
	225	1000	1750	
	300	1000	1750	
<div>T JUNCTION</div> <div></div> <div>Y JUNCTION</div> <div></div>	Normal Size (mm)		Length (mm)	
	(D) (d)			
	100 x 100		460	
	150 x 100		460	
	225 x 100		460	
	150 x 150		460	
	225 x 150		460	
	300 x 150		560	
	225 x 225		560	
	300 x 225		560	
300 x 300		560		
<div>BEND 90" / 45"</div> <div></div>	Normal Size (mm)			
	100			
	150			
	225			
	300			

Remarks:

- 1) Other lengths are available upon request.
- 2) Dimensions on the product may vary due to manufacturing process.
- 3) Joint availability: O Ring or Easy Ring.

WHY VITRIFIED CLAY PIPES?

The durability of clay with its acknowledged resistance to corrosion, high inherent strength, long term resistance to abrasion and proven record of longevity, make it the ideal solution for all sewerage and drainage needs.

Environmentally Friendly

BSH manufacturing process is environmentally friendly. Renewable green energy is used to fire the pipe to the vitrification state for minimum water absorption.

The raw materials for manufacturing vitrified clay pipe are clays and recycled materials from our own rejected pipes. Vitrified clay is never wasted.

Energy Efficiency

Recycling kiln heat for drying reduces energy usage.

Lower lifetime carbon impact

The high strength and long life cycle of vitrified clay lowers both its life-cycle cost and its lifetime carbon impact. It doesn't pollute and it doesn't degrade.

Chemical Resistance

Clay is the only material that is consistently resistant to the kinds of corrosive compounds that critically degrade other pipe. Because its inert, clay has a natural resistance to chemicals from hydrogen sulfide to solvents such as ammonia, acetone and turpentine.

Corrosion Resistance

Vitrified clay materials is resistant to all types of chemicals over the entire wall thickness. The resistance of the vitrified clay material and seals is tested using chemicals, including sulphuric acid at pH2 and caustic soda (NaOH) at pH12.

Ability to withstand high static & dynamic loads

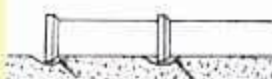
The flexible joints ensure that the pipeline will accommodate minor settlement and ground movement without failure. Vitrified clay pipes and fittings are rigid and do not distort under loading. Their high inherent strength ensures stability under even the highest loadings. The pipes and natural rubber ring joints are unaffected by chemicals and bacteria normally found in sewerage and have high resistance to attack from aggressive soils. For design purposes, a vitrified clay pipeline can be considered to have unlimited life. The pipes and joints will not distort soften or embrittle, even when subject to extremes of temperature likely to be experienced in service.

Pipe Laying & Installation

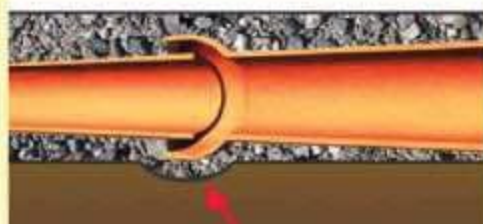
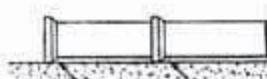
Proper installation is fundamental to ensure the performance of all pipe products. The type of bedding required is determined by a structural analysis, including type of soil; trench design; loads; life loads; additional loads, etc. As a general guideline, the pipe support design provided by Sewerage Service Department or National Water Services Commissions (SPAN) are recommended for BSH pipes. However, depending on prevailing site condition, other combination of static parameters apply.

It is important to ensure that the soil around the base of the pipe is firm. Loose soil should be well compacted mechanically. Soft soil should be removed and replaced by non-cohesive soil. The bed at the base of the trench should be prepared in such a way that the pipe, when laid, is supported along the length of its barrel. Recesses should be formed to accommodate the sockets. In order to avoid point or linear loading, vitrified clay pipes should not be laid on stony soil or directly on rock.

Correct



Wrong



Socket hole is dug so that the socket does not laid on a compacted bottom, thus avoid concentrate or point loading.

Crushing Strength

Pipes	BS EN 295				MS 1061 : 1999			
	Crushing Strength (kN/m)				Crushing Strength (kN/m)			
	Class Number				Class Number			
Diameter DN (mm)	95	120	160	200	95	120	160	200
150	34				34			
200		24	32	40		24	32	40
225		28	36	45		28	36	45
250		30	40	50		30	40	50
300		36	48	60		36	48	60
375		45	60			45	60	
400	38	48	64	80	38	48	64	80
450	43	54	72		43	54	72	
500	48	60	80		48	60	80	
600	57	72	96		57	72	96	
700	67	84			67	84		
800	76	96			76	96		



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