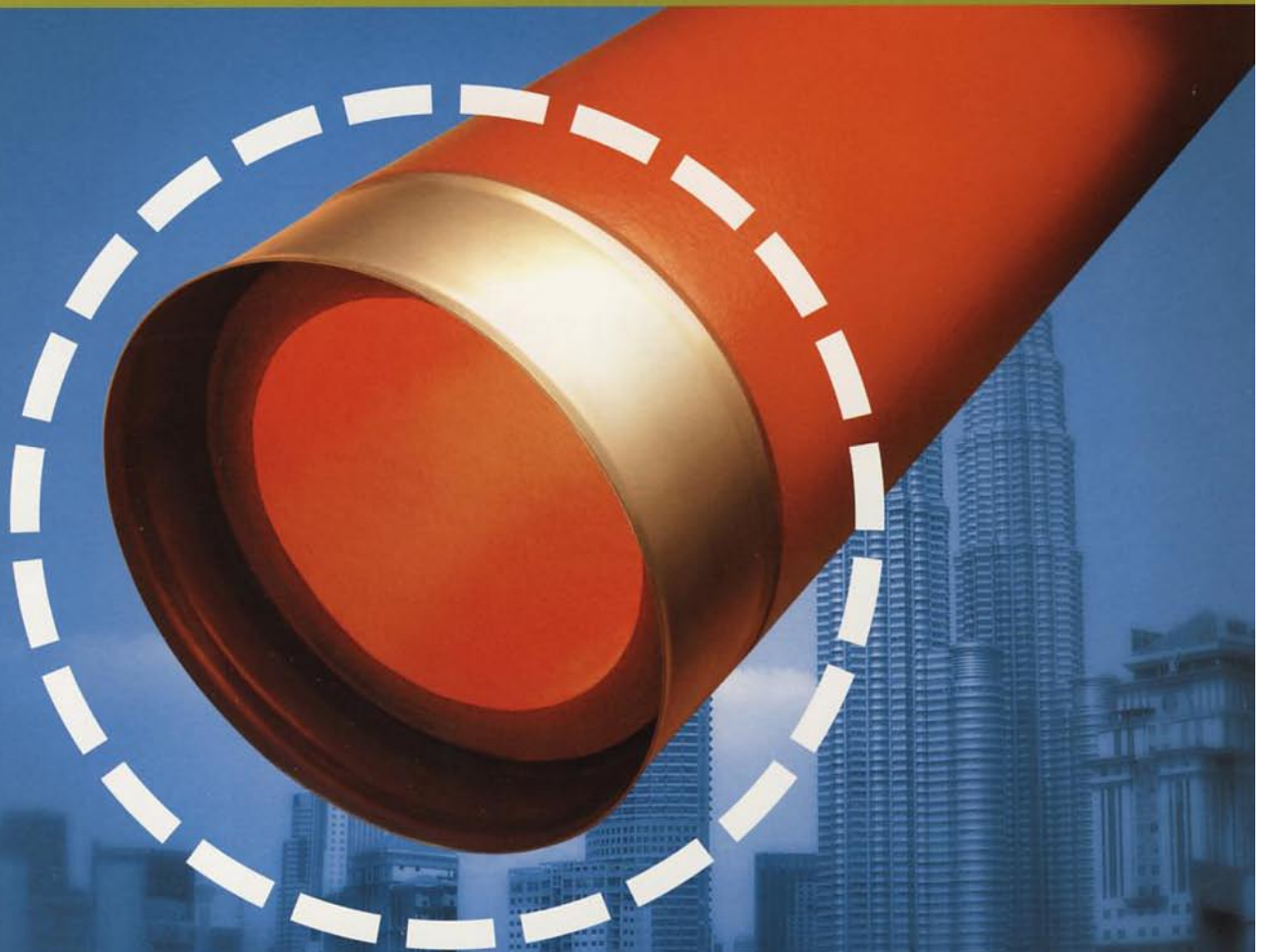


Super-Ram

Vitrified Clay Jacking Pipes



SUPER-RAM

GBH

www.gbhgroup.com.my



One of the World's Leading Manufacturers of Clay Jacking Pipes



GBH is one of the world's top producers of vitrified clay pipes (VCP). Its modern manufacturing network includes two state-of-the-art facilities in Segambut, Kuala Lumpur, Malaysia.

The resulting economies of scale give GBH one of the world's largest manufacturing capabilities, allowing us to capitalise on growth in Southeast Asia, and to distribute our products world-wide.

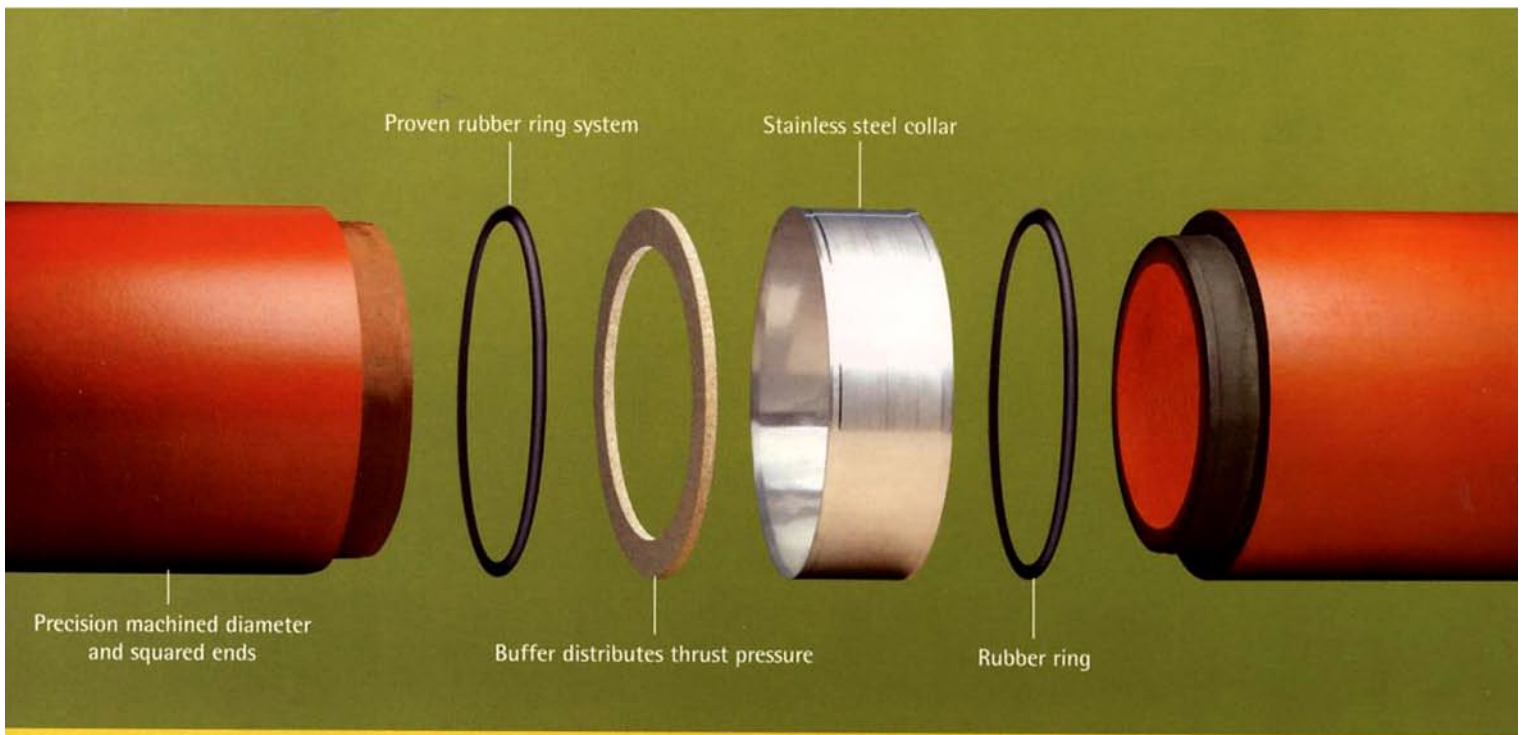
GBH produces Clay Jacking pipes and fittings ranging from 225mm to 600mm internal diameter to meet the design requirements of various countries globally. GBH also produces longer pipes up to 2 meters in length.

GBH Clay Jacking pipes are the result of the very latest technology in VCP production. We manufacture pipes that are precisely engineered and meet the most demanding quality standards.

GBH was awarded International Quality System MS ISO 9002. Its Clay Jacking pipes comply with BS EN 295-7:1991 and most technical product standards.

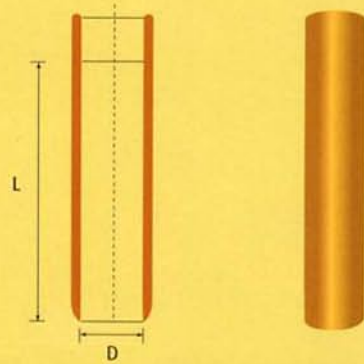
MS ISO 9002





Specifications

– Straight pipe

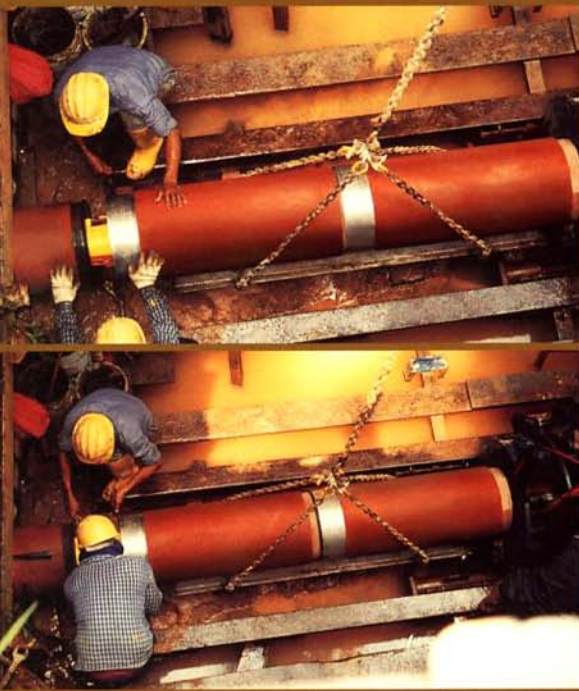


Nominal Pipe Size	Internal Diameter (mm)	Standard Pipe Length (m)
DN 225	225 $\pm \frac{5}{5}$	1
DN 250	250 $\pm \frac{5}{5}$	1
DN 300	300 $\pm \frac{5}{5}$	1
DN 375	375 $\pm \frac{6}{6}$	1
DN 400	400 $\pm \frac{6}{6}$	1
DN 450	450 $\pm \frac{6}{6}$	1
DN 500	500 $\pm \frac{7}{5}$	1
DN 600	600 $\pm \frac{9}{9}$	1

SUPER-RAM

Super-Ram

Sitework and Installation

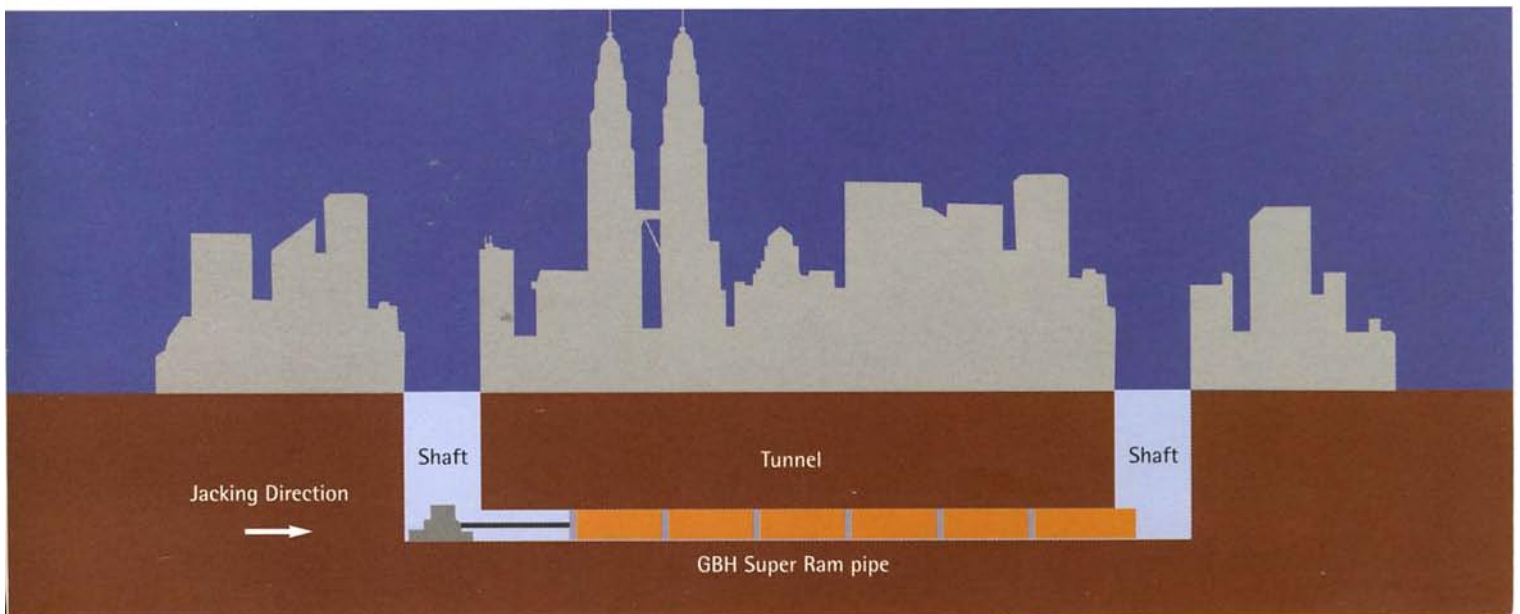


Super-Ram pipes are especially suited to installation by micro-tunneling methods. Each pipe is fitted with a suitable packing ring between the joint faces to ensure even distribution of jacking loads. To avoid edge spalling, packing should not extend to the full width of the end face, and loads should be concentrated in the centre of the wall.

Thrust forces should be uniformly applied to the end of the pipe through a thrust ring or plate and transferred evenly around the joints. If the applied jacking loads are not applied uniformly, through deflection for example, the stress on the end face will locally increase significantly, which may result in crushing or splitting.

This type of failure is most often brought about by displacement of the line or jacking off the axis of the pipes. Generally, the greater the eccentricity of the load, or concentration onto a small part of the end face, the more the magnitude of the jacking force must be reduced.

Typically, deflections of up to one degree can be accommodated, although this depends on the ability of the packing material to distribute the load. Any departure from uniform jacking conditions reduces the acceptable thrusting force. Only experienced jacking contractors should make a judgement on the merits of each case.



Meeting the Latest Requirements in Trenchless Technology

Super-Ram vitrified clay jacking pipes from GBH have been designed to meet the requirements of trenchless installation. Super-Ram's thick-walled pipes are rigid enough to withstand high applied jacking loads. They are abrasion-resistant, and unaffected by a broad spectrum of chemicals and effluents in the ground.

The Super-Ram joint's smooth, seamless design provides a constant exterior profile which significantly reduces drag during installation. Joints are flexible and incorporate synthetic rubber sealing rings housed between the pipe and sleeve. The sealing rings are confined in a restraining groove in order to maintain their position and avoid movement along the barrel during installation.

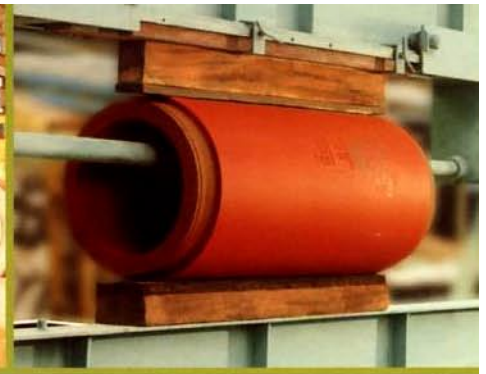
Product Data

Super-Ram vitrified clay jacking pipes are available in a range of sizes from 225mm to 600mm in diameter, and in a variety of lengths to suit different types of installation and linking equipment. All pipes are fitted with sleeves and double seals in a variety of corrosion-resistant materials. Factory-fitted packing rings ensure even distribution of jacking forces across pipe ends.

Performance Data

Vitrified clay: Conforms to [BS EN 295-7:1991] with respect to fatigue strength, chemical resistance, hydraulic roughness and abrasion resistance.





www.gbhgroup.com.my

GBH

GBH CERAMICS SDN BHD

238 Jalan Segambut, 51200 Kuala Lumpur.

TEL • 03 6258 1055/1171 FAX • 03 6253 4911/6257 7752

E-mail • enquiry@gbhgroup.com.my