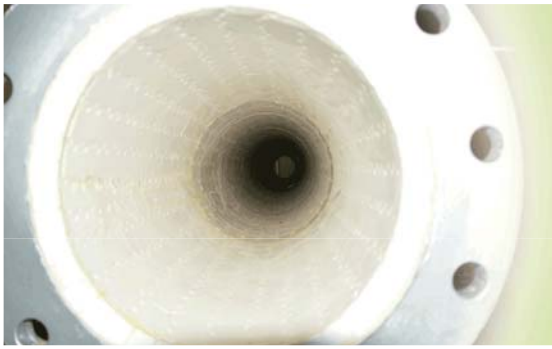
CERAMIC PIPE

TECHNOLOGY MANUFACTURER PRODUCTS

TMP

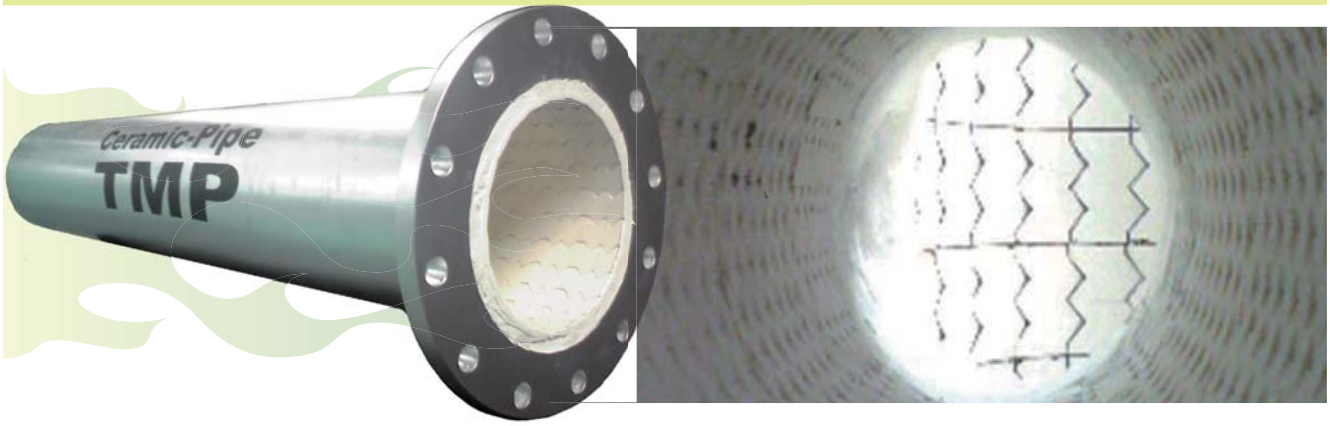
Technology Manufacturer Products



TECHNOLOGY MANUFACTURER PRODUCTS

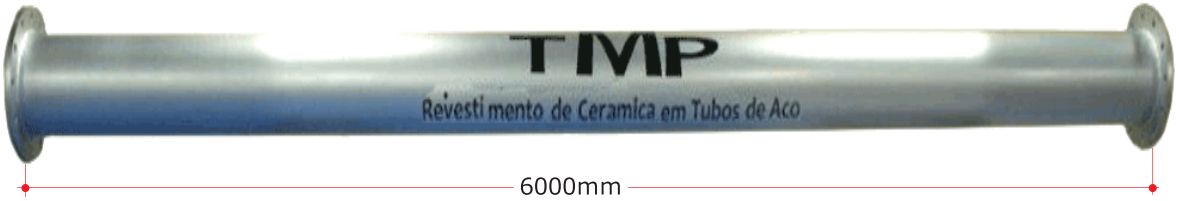
CERAMIC PIPE

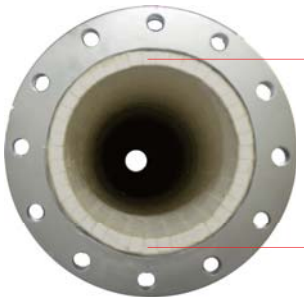
A New Ceramic Tip Shape for a Ceramic Pipe



The TMP ceramic pipe has a characteristic in its new shape of a ceramic tip for which we have applied for a patent. A conventional ceramic tip was arranged with a certain gap between tips in a steel pipe so that the pipe was damaged at the gap before the tip was worn out. The newly developed ceramic tip has a shape with no straight line portion parallel to the transport direction so that the steel pipe is protected until the tip is worn out.

A New Method for Installing A Liner in a Steel Pipe of 6 m Long!





A steel pipe is protected until a ceramic tip is worn out

With our new production method, it has become possible to install our unique shaped ceramic tip in a long and unreachable steel pipe. The abrasion resistance of the TMP ceramic pipe is approximately three times than that of the conventional products.
Also, a specially processed flange is used in the steel pipe to optimize the characteristics of the ceramic tip.

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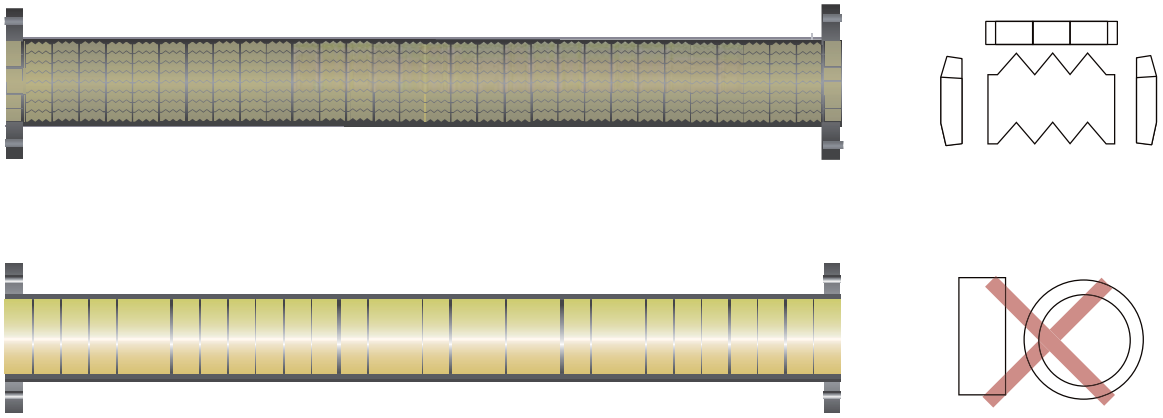
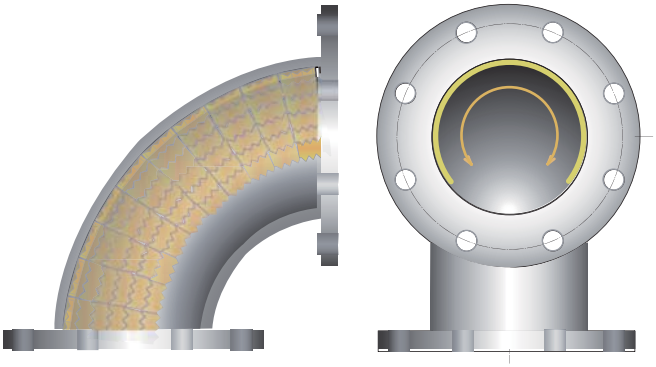
A Zigzag Shaped Ceramic Tip



Due to its zigzag shape, the ceramic tip does not produce a groove parallel to the transport direction so that the steel pipe is protected until the tip is worn out. The press molded ceramic tip has more than 4 times higher abrasion resistance than a cast-molded ceramic tip; however, it is quite high in price. The TMP ceramic pipe has been provided at a low price by performing all production processes internally.

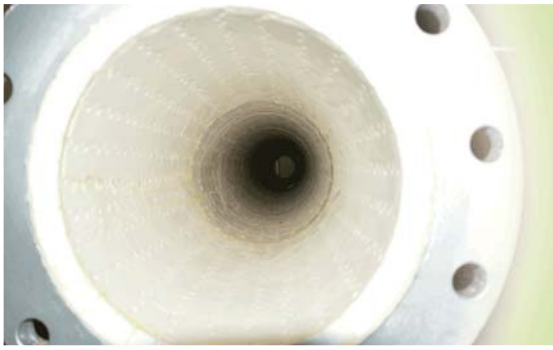
A Liner Installed in a Straight, Elbow, Branch, and Y pipes



A conventional ceramic pipe

A newly developed ceramic pipe

A liner can be installed over whole area in an elbow pipe. However, it is quite effective just by installing the liner to approximately 75% of internal surface of the steel pipe, especially around the outer corner of high abrasion. The required lining area is different depending on the transported object and rate.



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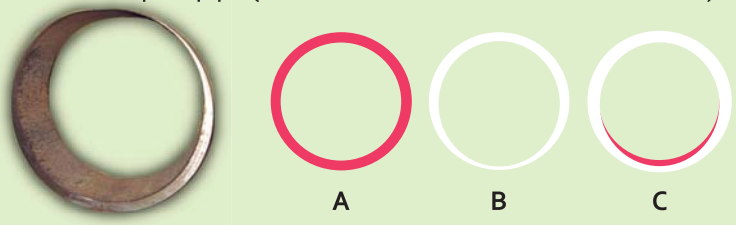
CERAMIC PIPE

A Cross Section of a Steel Pipe After 1 Year of Use

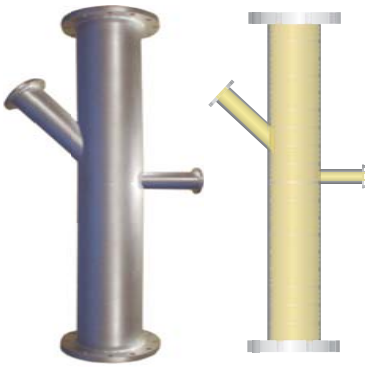
A clinker transport pipe (abrasion status in a cross sectional view)



If you check the cross sectional view of a transport pipe after 1 year of use, you will see that the wall thickness of the steel pipe is only 1 to 2 mm and the pipe is nearly destroyed. You should use a ceramic pipe for a long time without maintenance rather than using a steel pipe and replace it in a periodic cycle.

A - the new steel pie; B - the steel pipe after one year of use; C - A overlapped with B showing abrasion volume.

A liner installed to a special shaped steel pipe



B ranch pipe

Y pipe

An L-shape tip for a ceramic pipe

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