

Iron technology leader Saint-Gobain PAM UK joined forces with trenchless installation specialist Chiltern Thrust Bore for a special customer event demonstrating the ease of horizontal directional drilling with ductile iron pipes.

The recent event, held at Saint-Gobain PAM UK's headquarters at Stanton-by-Dale, near Ilkeston in Derbyshire, was attended by representatives of major water companies, contractors and consultants from across the country.

Leading up to the event, Chiltern Thrust Bore had predrilled and reamed the planned bore, of 45 metres in length at a depth of 1.8 metres at its centre point, using standard equipment and techniques, ready for the ductile iron pipe string to be pulled in on the day itself.

On the day, the customers were acquainted with the site and the activity of the previous two days and witnessed a demonstration of jointing *Directional* pipe. This was followed by the pulling in of the DN300 *Directional* pipe string.

PAM *Directional* differs from the more familiar PAM *Natural* pipe in two ways: the Universal Ve joint is a double chamber joint which provides high pressure anchorage capable of withstanding high tensile forces; the ZMU external coating is a highly robust and rigorously tested protective external coating of 200 g/m<sup>2</sup> zinc plus 5mm fibre reinforced cement, which is suitable for all drilling and soil conditions (e.g. rocks, aggressive soil, etc). In no circumstances is further protection required.

The pulling process took just 20 minutes – as against typically 1-2 hours for this tunnel length - with a maximum pulling force of just 3 tonnes, which was considerably lower than Chiltern Thrust Bore expected, based on their experience with other materials.

Paul Hancock, Product Manager – Water & Sewer at Saint-Gobain PAM UK, commented: “This event was extremely successful in demonstrating our ability to supply a competitively priced, high specification pipe for directional drilling applications. We even surprised ourselves with the speed of the pipe pull which was several times faster than alternative systems and required a far lower pulling force.

“We received many favourable comments from attendees including a jointing contractor who tried jointing PAM *Directional* ductile iron pipes for the first time and found it considerably easier and simpler than the plastic welding technique with which he was more familiar.”

Available in DN100-700 diameters, PAM *Directional* is a range of ductile iron directional drilling

and bursting pipes suitable for both water and sewer applications. Jointing is via self-anchored push fit joints with a high level of joint articulation. PAM Directional pipe has been used extensively throughout Europe with the longest pull carried out, so far, of 1500m