

NEWS

PLASTIC PIPE PROCESSING MACHINERY FIRM CELEBRATES 50 YEARS

Sica, a specialist in machinery and service for the plastic pipe extrusion industry, is celebrating its 50th anniversary at Plast 2012 in Milan in May.

The company will be exhibiting several solutions for plastic pipe processing at the exhibition, including its Duet 200 cutting machine, Multibell 75 bellling machine and Unibell 200JW plus bellling machine.

The Duet 200 is an automatic inline planetary cutting machine in the Duet series. It cuts and chamfers PP, HDPE and PVC-U pipes up to diameter DN 200, performing automatically double-cycles of simultaneous cutting at high extrusion speeds.

The Multibell75 is an automatic in-line

bellling machine that sockets by means of an oven with recirculated and thermoregulated hot air; it is designed for double-extrusion lines for PVC-U pipe 16 – 75 mm in diameter and 1 – 6 m in length. According to Sica, it can form solvent cement sockets in a multi-socketing process with external cooling by pre-cooled compressed air and internal cooling by water in the mandrel.

The Unibell2 200 JW Plus bellling machine represents Sica's new range of 'Unibell J' bellling machines for PVC-U pipes. These bellling machines are said to feature new processing technology for socket moulding in pipes, significantly increasing production capacity, taking up less space and reducing running costs, while offering operational simplicity and reliability.



Sica will showcase machinery for plastic pipe extrusion at Plast 2012

FURTHER INFORMATION:
WWW.SICA-ITALY.COM

TESTPEP ENTERS FINAL YEAR OF TESTS FOR NDE OF PLASTICS PIPES

Plastic pipes have many advantages over pipes made from metals or concrete, such as good chemical resistance, low weight, low cost, and longer predicted service life, and are already used extensively for the transport of gas, water and chemicals. However, their use in more safety-critical applications is limited by the fact that there is currently no validated inspection system available to evaluate the joints.

The TestPEP project is now in its third and final year of operation to identify and test an automated non-destructive evaluation (NDE) approach for testing welded joints in plastics pipes. The project team, involving 17 organisations from seven countries, is currently developing and validating inspection equipment and techniques for both butt fusion (BF) and electrofusion (EF) joints in polyethylene (PE) pipes.

For BF joints, the team has designed and manufactured angled water wedges, choosing water as the coupling medium due to its good acoustic properties in relation to the plastic material. The angle of the wedge is optimised to reduce the electronic steering with the probe elements while still covering the weld fusion zone.

The approach for inspecting BF joints covers four different techniques: sector

pulse-echo, tandem, creeping wave and time-of-flight diffraction (TOFD). The techniques are complementary both in terms of coverage area and types of defect that can be detected. The capabilities of the techniques were evaluated initially using pipe test samples containing holes and notches of known size and location.

For inspecting EF joints, the TestPEP project team is using 0° water wedges, with bespoke phased array probes and, as with BF joints, carrying out validation

procedures in PE pipe joints containing known flaws with diameters up to 710 mm. These joints are also being mechanically tested to determine critical flaw sizes.

TestPEP will complete early in 2013, when the team will specify a complete approach to the automated non-destructive evaluation of welded joints in plastic pipes.

FURTHER INFORMATION:
WWW.TWI.CO.UK

Phased array probe with an angled water wedge for inspection of BF joints

