Press Release

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Laser Marking Polypropylene Pipe

Polypropylene (PP) piping is used in diverse fluid-handling installations ranging from portable water and purified water systems to acid waste and chemical systems. PP pipe is ideal for high temperature applications where polyethylene (PE) and PVC pipe are not rated for use. Extruded PP pipe is seamless and chemically inert. When multiple sections or branches of pipe are fusion welded together, the assembly becomes a continuous piece with a zero percent leakage rate.

The requirement for this application was to mark manufacturing data on 2-inch nominal O.D. UV resistant polypropylene pipe. The marking setup consisted of a Synrad *Firestar t80* laser, *FH Flyer* marking head, and Synrad's *WinMark Pro* laser marking software. Because of the large mark required, a *Flyer* head was fitted with a 370 mm lens that provides a 540-micron (0.021") diameter spot over the extents of a mark field measuring 241 mm by 297 mm (9.5" x 11.7").

The mark file covers an area measuring 19.1 mm by 292.1 mm (0.75" x 11.5") and consists of manufacturing data including company name and location (using a custom TrueType® font), logo, and patent/part numbers. The company name/location text object measures 14.2 mm (0.56") high while the smallest part number text measures 6.1 mm (0.24") high. The logo measures 19.3 mm high by 19.8 mm wide (0.76" x 0.78").

At a power level of 80 watts, the engraved marks were achieved with good contrast at a *Velocity* of 305 millimetres per second (12 inches/second) in a cycle time of 8.69 seconds per mark.

Laser Lines Ltd offers the Synrad Firestar t80 lasers, FH Flyer marking heads and WinMark Pro laser marking Software. Please contact Gary Broadhead on 01295 672500 or email garyb@laserlines.co.uk for further information.

The contrasting, engraved marks were achieved on polypropylene pipe using 80 watts of power at a speed of 12 inches per second. This large- area mark consists of 64 TrueType font characters with a detailed logo and was created in 8.69 seconds.

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