

Emperor Glass, based in Dagenham, UK, specialises in toughened and laminated glass and has installed a computer numerically controlled (CNC) water jet cutting machine powered by a KMT Neoline pump.

Operation

The machine has been in operation since February 2012, processing glass sheets measuring up to 6.4 x 3.2m. According to the company, it has resulted in a threefold reduction in the time taken to profile glass compared with using CNC routing, drilling and polishing centres on site.

With CNC routing, the route involves trimming a sheet to size plus 10mm all round on a separate cutting table; transferring it to the router and downloading the programme; removing 8mm from the periphery in a first pass and 1.5mm in a second; completing any drilling and profiling according to the design; and polishing the edges in three or four operations using successively finer abrasive. Floor-to-floor time is 30 to 45 minutes.

On the water jet machine, multiple components are nested in a programme



◀ Water jet cutting of 12mm thick glass in progress.

Water jet: Cutting corners

so that they can be cut from one large sheet to save glass. Up to nine glass doors can be produced from a single sheet and no prior cutting to size is necessary. Each door is cut with a 3mm allowance for polishing and perhaps also bevelling the edges. The time to produce one door using this method and then finish the edges on a separate machine is between 10 and 15 minutes.

A further benefit of water jet cutting is the ability to incorporate clients' logos easily, even intricate designs, into the glass. Processing of thick material up to 200mm is also possible. ■

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