



Eliminate Patterns –

their cost, their time to manufacture and their storage,
with the Patternless[®] Process.

If you produce or use...

- Prototype castings
- One-off castings
- Small batches of castings

...then we can help you meet your needs

- Much faster
- At lower cost
- With more accurate castings
- No patterns to store

We can precision machine blocks of sand to produce
moulds and cores for castings from 1 kg to 1 tonne
or more without patterns and core boxes.

We can demonstrate this to you on products relevant to your business.

- We can melt up to 2000 kg of steel, iron, copper-based alloys and up to 300 kg of aluminium alloys
- We can supply either moulds or castings to you for evaluation
- We can make our facilities available to you for proving the technology on your products and for training



To find out how your company could benefit, contact:

T: +44 (0)114 254 1144

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Our machining system

- Can accommodate mould halves measuring 2.6 x 2.6 x 1.2 m (9' x 9' x 4')
- Can rough-machine a mould cavity equivalent to a 1 tonne casting in 30 mins
- Uses specially developed cutters (tools) with minimal wear
- Does not create any dust hazard - to personnel or machinery
- Uses blocks of sand (up to 10,000 kg) readily made in any foundry from new or reclaimed sand
- Can machine to an accuracy of ± 0.01 mm!



The mould for this 1.1m diameter, 650 kg (cast weight) aluminium-bronze propeller was machined in just 10 hours. Radiographically sound and free from inclusions, the casting was accurate to +1.67mm and with a surface finish better than, or equivalent to, conventionally produced castings.



The mould for this 75 kg aluminium-bronze controllable-pitch propeller was produced in just 5 hours. Sixteen blades (left and right hand) were manufactured to an accuracy and consistency unachievable with a pattern - and all were manufactured in less time than it would take to make the pattern.



A11/4 tonne cast weight, 12" Angle Globe Valve casting produced by the Patternless® Process, achieved all the quality and dimensional specifications 'right first time' - and to a delivery schedule impossible to achieve if a pattern had to be made. The surface finish and lettering definition is clearly superior to a traditional steel casting.



This grey iron 45 kg pump body casting was produced even faster than Rapid Prototyping technology could achieve. The mould was produced in 5 hours.



Sand blocks were machined to produce the mould for this 1000 kg ductile iron pump casing in just 6 hours.

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