

Eliminate Patterns!

- their cost
- their time to manufacture
- and their storage



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
- and no patterns to store
- with the **Patternless® Process**



Believe it or not, 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.**

And 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.

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 $\pm 1.67\text{mm}$ 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.



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



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.



A 1¼ 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.

STOP PRESS! Major Breakthrough

The latest developments in the **Patternless® Process** have reduced mould machining times by a further 30%. The technology now enables 5 moulds or more to be machined **FASTER, CHEAPER** and to a **HIGHER QUALITY** than manufacturing a pattern and making the same number of moulds conventionally

Don't Believe It?

Then let your competitors waste their time evaluating this compellingly effective technology ...

Or, you could at least call us to find out *why* the world is beating a path to our door!



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