

## reaction injection (RIM) moulding for industry



“ ideal for  
short-run  
production ”

An alternative polyurethane resin casting system, RIM moulding, although slightly less versatile than vacuum casting, has considerable economic advantages for longer runs, and larger components, with fast turnaround times. Tooling may be rigid or flexible depending on requirements and component design. This process is ideal for short run productions.

**Process Applications**, as with vacuum casting, it is particularly suited in the development of injection mouldings. RIM moulding is especially suitable where production quantities are inadequate to offset the tooling costs of conventional injection moulding.

**Master Patterns** may be made from almost any stable non-porous material including SLA, tooling board, acrylics, waxes, cast resins etc. Little or no heat, and in most cases no pressure is involved in mould-making. Hand finishing techniques prepare master patterns to the required level. Finishes can range from grades of spark texture, smooth matt & satin to a high gloss finish. Alternatively, CNC machined or cast resin moulds are an option with this process, although rigid moulds place more constraints on the design geometry than the flexible silicone rubber.

**Materials used** are high-strength polyurethanes, including a high-temperature variant.

**Our Equipment** comprises of two gear-pump mixing machines, supported by full in-house facilities for silicone rubber, cast resin mould-making or CNC machining.

**Tolerances** from master pattern to moulding is in the range of 0.5%, and uniformity between mouldings remains excellent.

**Mould Sizes & Material Shot Weights** are limited only by physical handling considerations.

**Process Advantages** include low tooling costs, rapid turnaround (e.g. mouldings within days of receipt of masters) and a high rate of production, excellent mould life (typically 50 + shots in silicone rubber) and potential for longer runs in rigid tooling.

**Injection moulding with a fraction of the tooling costs!**

**Client base** in automotive, medical, electronic, aerospace, marine and film industry sectors.

For more information  
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