



An Unlikely Partnership Uncovers Superior Masking Products

When Goodrich Engine Components was looking for a shot peening masking resource, they found an unlikely partner with Maxol Studios. Maxol Studios is known for its industry-leading silicone tooling and resin casting technologies but these processes had been focused on the Rapid Prototyping / Rapid Manufacturing industry. Working closely with Goodrich engineers, Maxol Studios applied their unique and effective tooling and molding talents to create durable shot peen masking from high performance polyurethane casting resins.

Maxol Studios applied a proprietary tooling process developed by owner Mark Schanze in the early nineties. "In 1991, I developed a process for copying surfaces precisely when I was designing respiratory research equipment for the medical industry" says Schanze, "The process starts with a complete understanding of what the engineers' need to be masked by developing a close working relationship with the customer." From there Maxol Studios designs and produces a rigid master with such intimate shut offs that only one metal part can be used for surface duplication. "Because we come from the Rapid Prototyping industry, we can apply all these proven time compression technologies. This means we can turn around some designs with first article delivery within a week." says Schanze. Once the rigid master is finished, Maxol Studios' talent for silicone molding duplicates the precise master tool.

Duplicating the high precision surfaces required to manufacture labor saving masking is one of Maxol Studios stronger points. "Very specific steps have to be followed to maintain close tolerances when dealing with the flexibility of silicone molding," says Schanze, "Fortunately we have been chasing close tolerances with resin cast parts from silicone molds for a long time." By applying proven and effective molding technology to a new market, Maxol Studios is making a name for itself in the masking industry. But the advantage of of precision silicone tooling doesn't stop there. "Our tooling is fast and ingenious, with it we can put masking anywhere and on anything and repeat it over and over" adds Schanze, "And of course the price of silicone molding makes the expense of

new tooling almost a non issue especially when spread over hundreds of cast urethane parts." Along with the precision and economics of Maxol Studios' tooling comes the unique ability to over mold and imbed various substrates and actions. "With the ability to imbed rigid substrates and sensitive parts, we can design masking to withstand the forces of shot peen blasting," comments Schanze. Maxol Studios uses its high performance silicone tooling to supply industry with the same high performance durable resin cast parts.

Resin casting technology delivers custom molding like qualities based on inexpensive and flexible tooling. Together with a wide range of resin types, Maxol Studios offers high performance masking with urethane and silicone elastomers, rigid urethanes and epoxies, and other ablative materials. Maxol Studios has tuned the urethane resin used for elastomer shot peening and grit blasting to be long lasting and highly accurate. "Maxol Studios masking technology looked very promising from the start" states Robert Horton, Goodrich Engine Components, "Since then they have continuously provided the most durable products we use."

Maxol Studios is currently expanding their masking technologies by providing masking for grit blasting and thermal spray part processing. "Due to the successful application of our tooling technology to the masking industry, we are focusing 100% on the market" says Schanze "By providing real solutions to difficult and economically sensitive masking requirements we will continue doing what Maxol Studios does best and that's helping industry to become more profitable...so we can too." ●



Exact surface duplication with proprietary modeling compound



Hand-crafted masters ready for silicone molding



Silicone mold pour



Urethane casting production

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Highly accurate & durable cast urethane masking