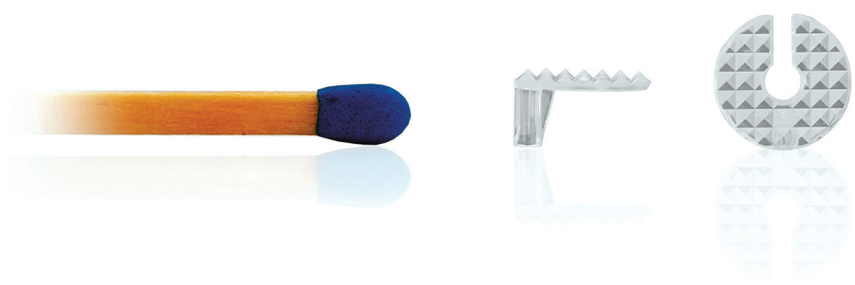
Back to life

Tegra Medical is known as the company where medical devices come to life. Darren Vine, sales and marketing director for Europe, explains how it manufactures complex components, assemblies and finished devices for areas such as cardiovascular, drug delivery, orthopedics and spine.

Tegra Medical brings its original equipment manufacturer (OEM) customers' designs to life by creating them, but also by bringing devices to the lives of the patients who end up benefiting from them.

Tegra Medical has a reputation of fearlessness in the medical device world. It often tackles complicated projects that other contract manufacturers cannot handle. For example, it micro moulds a tiny template used to guide a surgeon to the exact place where they need to insert a trocar in a patient's eye. The surface of the template requires a special pyramid-shaped surface that is very complicated to manufacture.



Tegra Medical manufactures complex devices such as these tiny eye surgery templates.

"Tegra Medical's product development engineers work closely with OEMs' design engineers to refine product designs in ways that allow devices to be manufactured efficiently – something especially important for products manufactured in volume."

Intermedullary (IM) nails, which are inserted inside broken bones are another example of manufacturing that needs to be highly accurate and precise. They require perfect anatomical bends, which can be too challenging for some manufacturers. The bend is where the nail changes its diameter and includes holes and slots for screws. Traditional methods of bending metal often damage those areas, so Tegra Medical harnessed decades of implant-making experience and created a proprietary way of bending the nails that does not damage its special features.

Creative solutions for difficult problems

Although the company doesn't design products, creativity is a key element of its services. Making medical devices with consistently sharp tips – an important requirement – takes creativity. Many manufacturers cannot figure out how to keep tips sharp all the way through moulding, assembly, and packaging. This was a challenge the creative minds at Tegra Medical met head-on. The team devised several proprietary processes that ensure sharp tips remain sharp throughout the entire manufacturing process. The company is now renowned for its expertise in doing so, whether it's a tiny component, a needle with an insert-moulded hub, or a complete, finished meniscus suturing device.

Persistence in achieving customer goals

While manufacturing any medical device can be a challenge, manufacturing it efficiently can be an even bigger one.

Tegra Medical's product development engineers work closely with OEMs' design engineers to refine product designs in ways that allow devices to be manufactured carefully and efficiently – something especially important for products manufactured in such large volumes.

Tegra Medical was asked to make an assembly for an instrument that a customer thought should be machined from a solid block of metal. The company's engineers suspected there was a more efficient way. They persisted with the design and showed the customer that a different approach requiring multiple steps, including cutting the blanks, cleaning, and grinding, was far more efficient and less expensive for creating the device in high volumes.

The end-to-end difference

Tegra Medical is vertically integrated, with expertise in both metal and plastics. It supports customers beginning with the GENESIS Tech Centre product development services and extending all the way through manufacturing, finished devices, packaging, and sterilisation management. This breadth of services is helpful in today's environment where regulatory processes are increasingly more stringent.

What's more, it allows the company to be under a single quality management system for an entire project. Tegra Medical is therefore a single supplier with the synergies – and the creativity and persistence – to offer true end-to-end contract manufacturing. ●

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