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## **HOW NEW VISTA THREAD UNITS WORK IN THREAD REMEDIATION**

New Vista is the world's foremost manufacturer of thread remediation products for production applications. New Vista Thread Units are employed worldwide for these purposes, in automotive parts plants, and at many other types of production facilities.

Each Thread Unit features a motorized power unit that, through a low-inertia torque-limiting mechanism, runs a chasing tool (similar in appearance, for internal threads, to a tap) into, through, or onto a threaded feature; and then it reverses the tool back out. The New Vista Thread Units will work with both internal and external threaded features.

A quick-response motor provides the power. A low-inertia torque limiter permits the chasing tool to remove most obstructions, but, if a massive obstruction is encountered, the Unit's preset (and adjustable) torque limit will be exceeded, and the spindle will stall harmlessly. It is important that the torque applied should be limited, because if excessive torque were to be provided, the result could be, in unusual cases, inadvertent out-of-phase rethreading.

Also in the drive is a compression-compensating mechanism, which allows the spindle to stop advancing in case the thread is entirely missing, or if a threaded hole has a broken tap or other serious obstruction in it. Any of these events will cause built-in sensors to signal an incomplete cycle. These features prevent damage to the Thread Unit, the toolholder, the chasing tool and the production part.

To back the tool out of the hole (or off an external thread), the Thread Unit's drive, when reversed, automatically bypasses the torque control device and reverses out at full motor torque. This capability ensures that the chasing tool will always exit the part, even if it has just jammed in a short thread.

For applications where a part is rigidly secured, or where for other reasons a large amount of positional error must be accommodated (such as welded nuts on car frames), New Vista supplies a variety of compliant toolholders that allow the chasing tool to freely enter and easily pass through threads even though they are significantly mis-positioned. The most popular of these Toolholders are featured in New Vista Catalog Publications 208-028, 208-029 and 208-031, available by request from New Vista. Your New Vista applications engineer will help you select the best Toolholder to fit your particular requirement.

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