AUTO / SEMI-AUTO THREAD VERIFICATION SOLUTIONS

Auto / Semi-Auto Thread Verification Solutions

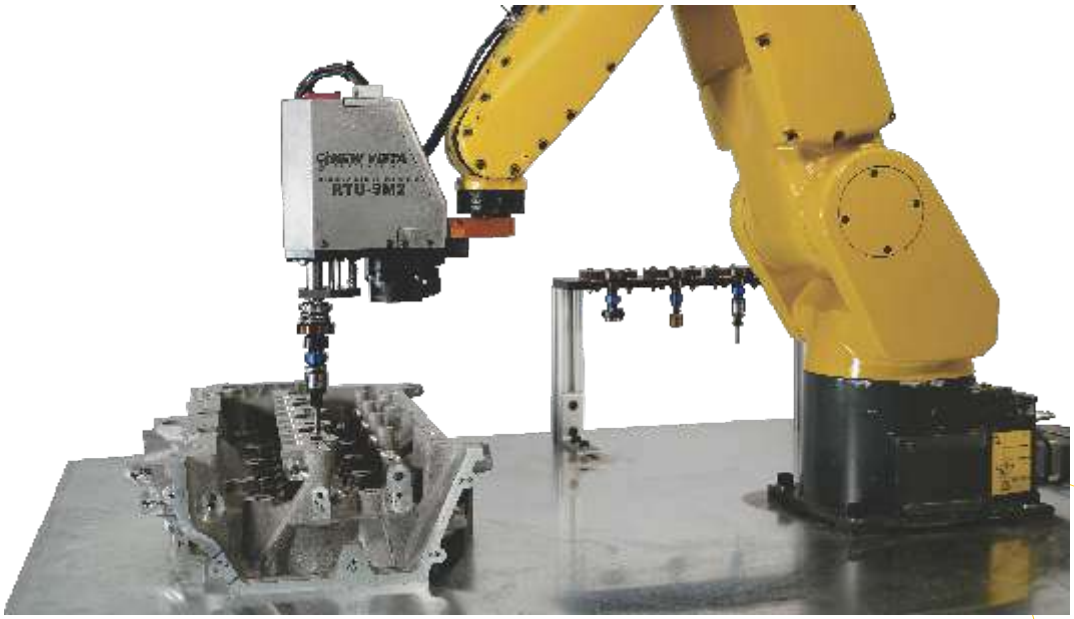
BAKER

NEW VISTA CORPORATION

"I just want to avoid spinning thread gauges all day"

As leaders in thread gauging technology, we hear this sentiment from many manufacturing professionals who machine large quantities of threaded parts. Their customers require them to verify the threads in every part.
Unfortunately, when operators are manually spinning thread gauges into parts for high-volume production, there is increased risk of operator error and repetitive motion injury. Automatic and semi-automatic thread gauging methods reduce or eliminate the burdens and risks of manual gauging.

At Baker Gauges, we are introducing thread verification solutions using New Vista Corporation's (USA) innovative technology.



INCLUDES

- Hand-Held Thread Verification Units
- Application Oriented Thread Verification & Sorting Machines
- Thread Verification Units for System Integration & Automation

BENEFITS

- Quick thread verification using a motorized power unit consists a low-inertia torque-limiting mechanism
- Work with both internal and external threaded features
- Thread depth verification is also possible
- Interchangeability of thread members with suitable quick change chucks
- Allows measurement cycle time in seconds
- Electric and air powered versions of hand held thread verification units are available
- Integration of thread verification units with auto-gauging systems or robotic automation cell
- Thread verification & sorting of small threaded components
- Compliance for out-of-position or angularly-dislocated threads
- The low-inertia torque limiter permits the thread gauge member to stall harmlessly when encountering wrong size, wrong-pitch, short, incomplete, damaged or missing threads
- More than 35 different models of New Vista Thread-Verification Units are available
- Robust design and build quality

Hand-Held Thread Verification Units

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RT HAND-HELD TVU

- Battery-powered verification (or remediation) of threaded holes (or external threads)
- Versatile. Powerful. Portable. Two-speed gear drive. Can be used anywhere
- Will process most threads in less than 3 seconds
- Sensitive patented clutch unit allows the thread tool to stop harmlessly in case of hopelessly obstructed threads
- Fast-change snap-in Type FP chuck enables tool changes in 4 seconds
- Tool Adapters will accommodate all the popular tool shanks: taper, straight, Type BH and full-threaded (reversible)
- Compliant feature prevents jamming. It will follow the existing thread, not fight it
- Forward (driving-in) torque settings are made with an external knob. Torque in reverse is always at maximum power

TG HAND-HELD TVU

- Ultra-fast thread verification or chasing without gouging or jamming
- Outperform "retappers" by 3X
- Pushbutton reverse-out
- Will verify most threads in 2-1/2 seconds (hole-to-hole time)
- Breakaway feature protects delicate tools from damage
- Sensitive patented high speed drive allows the spindle to stop in case of bad or short threads. Won't jam or damage threads at entry or if it "bottoms out"
- External graduated collar sets the going-in torque for any application
- Full motor torque is always applied in reverse
- Does not subject the operator to high torque levels
- Compliant Toolholders allow Chasing Tools (or Thread Gauge Members) to follow the hole if alignment is not perfect. See "VTG" videos on the New Vista website
- Toolholders available that accept all the standard tool shank configurations: taper, straight, all-threaded ("reversible") and Types BH and EXT

CRD HAND-HELD TVU

- Battery-powered verification (or remediation) of threaded holes (or external threads) with right angle adapter
- Versatile. Powerful. Portable. Two-speed gear drive. Can be used anywhere
- Will process most threads in less than 3 seconds
- Sensitive patented clutch unit allows the thread tool to stop harmlessly in case of hopelessly obstructed threads
- Fast-change snap-in Type FP chuck enables tool changes in 4 seconds
- Tool Adapters will accommodate all the popular tool shanks: taper, straight, Type BH and full-threaded (reversible)
- Compliant feature prevents jamming. It will follow the existing thread, not fight it
- Forward (driving-in) torque settings are made with an external knob. Torque in reverse is always at maximum power

Application Oriented Thread Verification Machines

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SC-TYPE THREAD VERIFICATION MACHINES

- Models available that will run a large variety of internal or external, straight or tapered threads.
- Utilizes production-proven, patented New Vista mechanisms and controls.
- Low maintenance and long thread tool life.
- Sensitive high-speed drive allows spindle to stop harmlessly if an obstruction is encountered.
- Will not subject the part or the tooling to damaging force or torque levels.
- Will not jam or stick in undersize or short threads.
- Outputs are available for integrated applications.

PPT-TYPE THREAD VERIFICATION MACHINES

- Supplied standard with New Vista 62020AC composite clutch and Type FP quick-change chuck
- Will follow existing thread. It won't cross thread (with the Squaring-up Plate)
- Tools won't jam in the threads (reverse-out is at higher torque than run-in)
- won't damage the thread at entry
- No programming required at all
- Tool Adapters available to run any gauge or remediation tool and any shank configuration: taper shank, straight shank, all-threaded and Type BH
- Variable speed settings: from 0 to 1,400 rpm
- Slow-start feature is available with the basic unit
- Green light illuminates when correct thread depth has been achieved (with the Thread Depth Option)

IND-TYPE THREAD VERIFICATION MACHINES

- Automatically inspects threaded features in parts. Rejects are automatically sorted out
- Indexing wheel transfers part from load-in to various inspection positions
- Checks threaded holes (or external threads) by powering a Thread Gauge Member into (or onto) the part. “GO” gauging, “NO GO” gauging, and combination gauging are all possible
- Sensitive high speed drive causes the spindles to stop in case of missing, short or improperly formed threads. This creates a “reject” signal
- Will check blind holes accurately for thread depth
- Will not jam or stick in undersize (reject) threads. Rejects are separated out without stopping the process
- Does not subject the part (or the spindle) to high force or torque levels… even with a reject
- Multispindle Stations are available for multiple parts or multiple centres work
- Automatic gauging of non-threaded features can be incorporated into one solutation

Thread Verification Units For System Integration

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STH SERIES

- Quickly and automatically verifies or reconditions (chases) threaded holes (or external threads) by powering a suitable tool into (or onto) and back out of (or off of) the part. Versions are capable of "GO" gauging, "NO GO" gauging, combination gauging or thread chasing
- Sensitive high speed drive allows the tool to stop in case of missing, short, or improperly formed threads. This creates a "reject" signal
- Spring-biased spindle nose prevents damage to end of thread at start of engagement
- Will verify blind holes (or male threads) accurately for thread depth (length). Will mount in any orientation
- Will not jam or stick in short or obstructed (reject) threads
- Does not subject the part (or the spindle) to high force or torque levels…even with a reject
- M2 to M100 thread size can be verified with 4 STH models

FLX THREAD STATIONS

- Available as single-spindle Modules, multiple-spindle Heads or complete Stations
- Used to form, verify or recondition threaded holes (or external threads) by engaging appropriate thread tools with various threaded features
- Will simultaneously form, verify or recondition threads of different sizes and pitches
- Spindles are set individually for different torques and thread depths
- Spindle Units supplied equipped with compliant tool holders - to accommodate out-of-position holes
- Not subject to damage from broken taps, missing or displaced holes, etc
- Will not jam or stick in undersize or short threads. Won't cross thread

RTU UNITS

- You can accommodate nearly any thread size between M1 and M75 with any new standard-issue RTU-SM2. Different models for different thread sizes (or different pitches) are no longer necessary. Any RTU-SM2 can now be used to gauge or remediate nearly any thread
- With the new tooling for RTUs, torques and rpms are selectable right off the screen
- Specialty tool shanks are no longer a necessity. New tooling options for the new RTU-SM2s accommodate straight shank, taper shank, all-threaded reversible or Type BH tools
- The weight of an RTU with a set of tooling is about 3.6 kg (8 lbs.)