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CATALOG PUBLICATION

NEW VISTA STH THREAD UNITS

— FOR AUTOMATED INSTALLATIONS —
— FOR ROBOTIC APPLICATIONS —

…In use internationally, for thread verification and thread chasing.
The most popular Thread Units in the world!

SHOWN: Bank of servo-driven STHs for oil filter application.

- **"GO" verification (pitch diameter and thread length).**
- **"NO GO" verification (pitch diameter).**
- **"NO GO" verification (minor diameter).**
- **Rate: 90 filters per minute.**

U.S. PATENTS 7,059,055 and 7,513,720
CANADIAN PATENT 2,521,347
OTHER PATENTS PENDING

SERIES STH FEATURES:

- 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" gaging, "NO GO" gaging, combination gaging 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.
- A single STH Unit will work with a variety of threads. No leadscrew is employed.
- Proven out for your application before shipping.
- Shipped with complete installation instructions. Integration is simple.

MOTORS; VOLTAGES; GEARING:

A typical callout looks like this: STH-500-SM2-1X-12.7-R

- STH is the basic model designation.
- 500 = an 'L' torque unit.
- SM2 = Mitsubishi servomotor; SK = Kollmorgen servomotor; D = direct current motor.
- 1X = direct drive; 4X = 4:1 gear reduction; 7X = 7:1 gear reduction.
- 12.7 (or 16) is the output shaft diameter in millimeters.
- R or R1 = designed to be wielded by a robot.

Shown left: An STH-R mounted on a robot arm for verifying external threads.

Shown right: A standard STH-500 tooled to verify internal threads.

SPECIFICATIONS AND CAPACITIES FOR STH UNITS:

- Cycle times shown below are for "typical" thread verification applications, with servo-driven versions, and where the thread lengths are twice the thread diameter. For very short, small diameter threads, cycles down to 0.8 seconds are possible.
- The maximum thread lengths that can be gaged are 6mm (1/4") less than the maximum stroke figures shown. If more stroke is required, order an –ES version.

MODEL SERIES	TORQUE UNIT	WILL VERIFY THREAD SIZES	MAX. STROKE	TYPICAL CYCLE TIME
250-SM2-1X-12.5	S	M2 – M5 (#2 thru #10)	32mm (1.25 in.)	1.5 seconds
500-SM2-1X-12.5	L	M5 – M22 (#10 thru 7/8")	32mm (1.25 in.)	2.0 seconds
2000-SM2-4X-16	XL	M12 – M50 (1/2" thru 2")	32mm (1.25 in.)	4.0 seconds
2500-SM2-7X-16	XXL	M19 – M64 (3/4" thru 2-1/2")	32mm (1.25 in.)	6.0 seconds
3000-SM2-7X-16	XXXL	M50 – M100 (2" thru 4")	38mm (1.50 in.)	7.0 seconds (for M50 size)

- Additional dash-number designations:
  - Add **–FL** for flange-mount versions.
  - Add **–ES** suffix for extra stroke versions.
  - Add **–PD** suffix to mount the Programmable Thread Depth Option.
  - Add **–CMB** suffix for "GO / NO GO" (combination gaging) versions. Also for verifying high/low thread pitch diameter limits, as with pipe threads.

- Quoted as Options:
  - Slide to advance the Unit. For STH foot-mounted versions: a RAM-250 or RAM-350 Slide Unit from New Vista can be employed for this purpose. For –R and –R1 versions, your Robot provides this function.
  - Programmable Thread Depth Option.
  - Thread Gage Members, Thread Ring Gages, Chasing Tools and Toolholders: Please order separately.

APPLICATIONS ASSISTANCE:

- An Application Form is available from the New Vista website: https://www.newvistacorp.com/contact/. Fill in the blanks and send it to main@newvistacorp.com. Or you can get help by calling this U.S. telephone number: 410-342-3820, then 0, and then ask for Applications Assistance. We speak English and Spanish. A New Vista Applications Engineer will help you select the proper Thread Unit and Thread Gage or Chasing Members — and work with you if you need a special, or a system.