



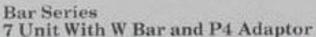
# INDICATOR COMPONENTS



Gage Units

4 Unit

Self Mastering Unit 7 Unit With SC Self Mastering Unit





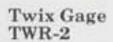
Bench Comparator Model 200B

Indicator Guard C Guard







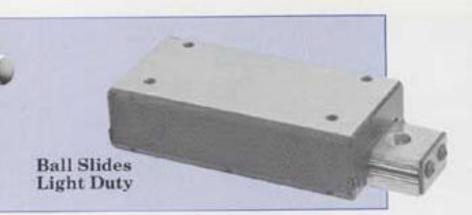




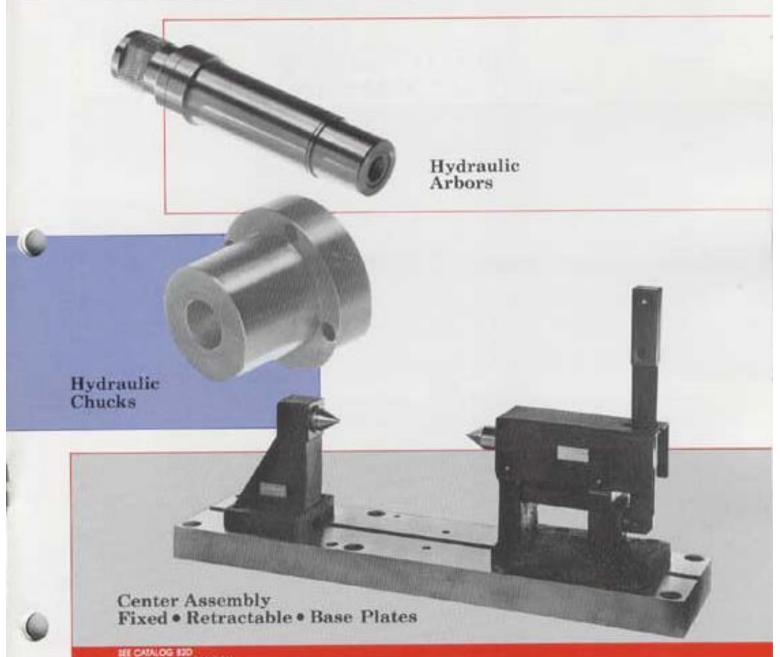
Hole Location Gages Model HM 2

The appropriate set-up for these gages is performed by Hanlo's experienced engineering department.

SEE CATALOG 82C FOR FURTHER INFORMATION



## FIXTURE GAGE COMPONENTS



## THE "ES"SERIES ELECTRONIC COLUMN

The Hanlo "ES" Series Electronic Column is the answer to the growing demand for a lighter, more compact column and will accomodate 95% of your gaging applications. It gives a visual display on the 10" linear bar graph readout, and the 100 Light Emitting Diodes (LEDs) are replaceable in one inch light blocks. The back of the unit has an Analog Signal Output Jack that allows usage of external equipment such as statistical analyzers, computers, recorders, etc. Two probe input sockets Channel A and Channel B on the back of the unit feature ± A and/or ± B probe action. The lower portion or Amplifier Oscillator (A.O.) Board is the signal conditioner. Furthermore, each electronic column can be used with an air to electronic converter. One compact, easily operated instrument makes it possible to gage parts with the utmost accuracy.

# THE "ET"SERIES ELECTRONIC COLUMN WITH MODULE OPTIONS

The Hanlo "ET" Series Electronic Column has the same features as the basic "ES" Series described above plus the additional feature of being able to incorporate one of three option modules into the column. These option modules make it even easier and faster for an operator to determine inspection results. These option modules include:

### Three Light Module

- · top red light/oversize reject
- · green light/measurement in tolerance
- · bottom red light/undersize reject

### Five Light Module

- \* same as the Three Light Module with the addition of two yellow lights
- · top yellow/approaching oversize
- · bottom yellow/approaching undersize

### T.I.R. (Total Indicator Run-out) Module

 reads and holds on the column display the maximum, minimum or the difference between the maximum and minimum value during a dynamic measurement. This value could represent squareness, parallelism, hole location, taper, roundness, etc.

## DIGITAL DISPLAY AMPLIFIER

Hanlo also offers a Digital Display Amplifier that incorporates all the features of the "ES" Series Electronic Column and can use any of the option modules of the "ET" Series. However, the gage readings are indicated on a five digit digital display with decimal point and +/- signs. In addition, the Digital Display Amplifier offers BCD output and analog input. The analog input is used for the digital display of analog signals from other equipment.



#### **ACCESSORIES**

Various accessories such as scales, sliding scales, bar graph light blocks (red, yellow and green), transducers, transducer mixers, air to electronic converters, etc. can help to develop the appropriate system for each gaging parameter.

## **ENGINEERING & MANUFACTURING**

Fixed Limit Gages
Indicator Gage Components
Indicator Gage Assemblies
Fixture Gage Components
Electronic Gages
Air Gages
Air to Electronic Conversion
Fixture Gage Systems
Automatic Gage Systems
Transfer Line Gages
Machining Center Gage Systems
Masters

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