



THE JOHNSON GAGE COMPANY
AN ISO 9001-2000 COMPANY

INTERNAL THREAD INSPECTION SYSTEM SERIES GP/GP



- Range-Adjustable and Fixed Size Configurations
- The Ideal Inspection System for High Volume or High Value Parts or Applications Demanding a Versatile and Economic Thread Inspection Solution
- Both Functional and Pitch Diameter Rolls Designed for the Inspection of Any Thread Size of Same TPI Regardless of Diameter
- Bench or Portable for In and Out-of-Machine Inspection
- New Extended Range Maximizes System Versatility and Eliminates Excess Inventory of Single Purpose or Special Thread Plugs
- Integral Alignment Guides Available to Simplify Use and Prevent Cross Threading
- Diameter Adjustable from 2.0000" through 9.0000" (M50 through M230)
- Multiple Setting Options: Solid Thread Ring, Progressive Step Cylindrical Ring, or Universal Setting Master
- Self-Centralizing and Self-Supporting
- Designed for In-Process Manufacturing Inspection, Receiving Inspection, or Part Verification

- GENERAL SYSTEMS BENEFITS -

Verifies Thread Conformance as Required by AS8879, MIL-S-8879, MIL-S-7742, GM X120, Ford Q101, and ASME Systems 21 and 22

Strict conformance to gage design requirements of FED-STD H/28 and ASME B1.2

Simple and Less Frequent Calibration than Alternative Inspection Methods

Superior Gage Life and Faster Inspection Time

Objective and Uniform Results Free from Operator Influence

Real-Time Process Control at Point of Manufacture

Available with a Wide Range of Analog and Digital Indicators

Compatible with most Process Control Software

Analysis of both Thread Size and Form: Isolates and Detects Angle Error, Lead Error, Non-Uniform Helix, Taper and Two Point Out-of-Round

Hardened Bearing and Adjustment Surfaces Assure Accuracy and Long-Life

Available for Inspection of UN, UNJ, Metric, Metric J, Acme, Buttress and other Thread Forms

Series CH/CH-S
External Adjustable



Series CH/CH-T
External Adjustable



Series GJ/GJ
Internal Adjustable



Series GH/GH
Internal Adjustable



UNDERSTANDING THE SCREW THREAD

Safe and reliable threaded connections depend on the dimensional conformance of both Pitch Diameter Size and Functional Size. Pitch Diameter, as the Minimum Material Limit of External and Internal Threads, is the primary datum for isolating size, form and profile variation. Functional Size, the Maximum Material Limit of External and Internal threads, includes variation in Size, Angle, Lead (including Uniformity of Helix), Taper, and Roundness. This differential inspection of Functional and Pitch Diameter Size assures dimension conformance, reveals the magnitude of thread form error in the manufacturing process, and is the key to both efficient production and ultimate performance. Combined with process targeting based in measured data, control of the differential will minimize process error, optimize initial set-up and production, and assure maximum flank-to-flank engagement in any threaded connection.

MUCH MORE THAN JUST INSPECTION SOLUTIONS

External Inspection Systems • Internal Inspection Systems • FIM/Thread Related Features
GO-NOT GO Attribute Gages • Solid Work Rings with Johnson Pro-Step Setting Plugs
Calibration and Certification Service • Complete Gage Rebuilding: All Makes and Models
Educational Seminars: Regional and In-House • Contract Part Inspection
Dimensional and Thread Manufacturing Consulting • Process Control Integration
Thread Dimensional Software