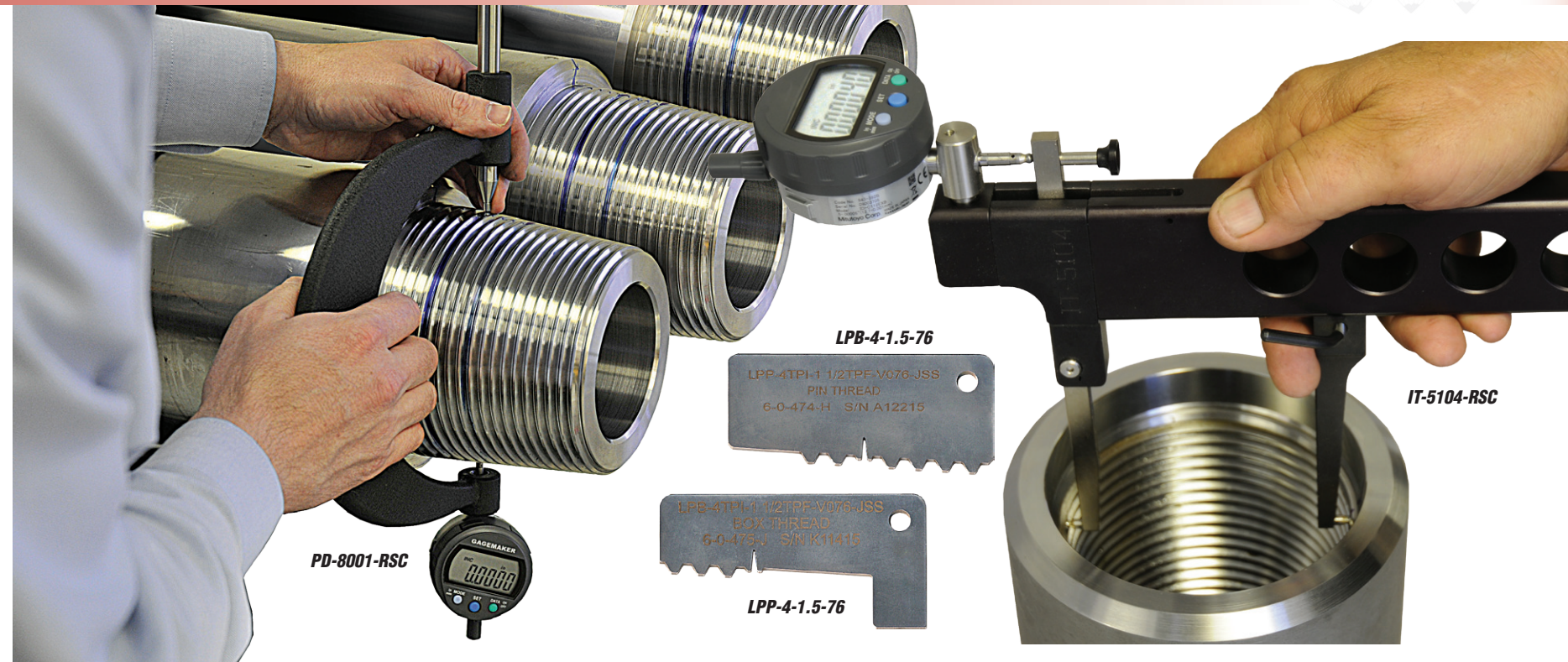




Thread Pitch Diameter Inspection

Now, operators are able to inspect both new and used pipe threads using precision Pitch Diameter Gages that allow them to pinpoint early signs of stress, perform preventative maintenance, and extend the life of their drill string connections. By measuring the pitch diameters, the operators can directly control the connection's size during manufacturing, as well as ensure that the thread cones go into interference properly when the connections are torqued together.

In the past, pitch diameter has been ignored as long as the ring or plug gage threaded to an acceptable standoff. Using a pin location profile (LPP) and a PD-8000-RSC Series gage(pin) or a box location profile (LPB) with an IT-5104-RSC (box) provides you plenty of control. The process of locating and measuring the pitch diameter takes less than a minute. This minute of inspection quickly decides the difference between good quality and bad quality.



Pitch Diameter Location Templates

Pitch diameter location templates locate the point on the connection where the pitch diameter is measured. When applied properly to the connection, the template's special layout mark indicates the proper thread to measure the pitch diameter. A simple mark with a felt tip marking pen allows the operator or inspector to accurately position the gage and read a diameter. Please specify the threads per inch (TPI), taper per foot (TPF), and thread form when ordering.

Box Pitch Diameter Location Templates

Model	Thread Form	Model	Thread Form
LPB-3-1.25-SLH9	3 TPI, 1.25 TPF, 90-V-0.084	LPB-4-3-50	4 TPI, 3 TPF, V-0.050
LPB-3.5-2-H9	3.5 TPI, 2 TPF, 90-V-0.050	LPB-4-3.375-A-0.094	4 TPI, 3.375 TPF, A-0.094
LPB-3.5-3-H9	3.5 TPI, 3 TPF, 90-V-0.050	LPB-5-3-40	5 TPI, 3 TPF, V-0.040
LPB-4-1.5-76	4 TPI, 1.50 TPF, V-0.076	LPB-6-1.0-55	6 TPI, 1.0 TPF, V-0.055
LPB-4-2-38	4 TPI, 2 TPF, V-0.038R	LPB-6-1.5-55	6 TPI, 1.50 TPF, V-0.055
LPB-4-2-50	4 TPI, 2 TPF, V-0.050	LPB-6-2-32	6 TPI, 2 TPF, V-0.032
LPB-4-3-38	4 TPI, 3 TPF, V-0.038		

Pin Pitch Diameter Location Templates

Model	Thread Form	Model	Thread Form
LPP-3-1.25-SLH9	3 TPI, 1.25 TPF, 90-V-0.084	LPP-4-3-50	4 TPI, 3 TPF, V-0.050
LPP-3.5-2-H9	3.5 TPI, 2 TPF, 90-V-0.050	LPP-4-3.375-A-0.094	4 TPI, 3.375 TPF, A-0.094
LPP-3.5-3-H9	3.5 TPI, 3 TPF, 90-V-0.050	LPP-5-3-40	5 TPI, 3 TPF, V-0.040
LPP-4-1.5-76	4 TPI, 1.50 TPF, V-0.076	LPP-6-1.0-55	6 TPI, 1.0 TPF, V-0.055
LPP-4-2-38	4 TPI, 2 TPF, V-0.038R	LPP-6-1.5-55	6 TPI, 1.50 TPF, V-0.055
LPP-4-2-50	4 TPI, 2 TPF, V-0.050	LPP-6-2-32	6 TPI, 2 TPF, V-0.032
LPP-4-3-38	4 TPI, 3 TPF, V-0.038		

Internal Pitch Diameter Gages

Gagemaker's internal pitch diameter gages measure variation in internal thread pitch diameters. Pitch diameter gages are shipped with one set of contact points, please see the chart below to request proper points. Setting dimensions for the pitch diameter gages are provided by the TDWIN TAPER software package. Gages require setting with either a standard or a MIC TRAC. **Software (page 42), MIC TRAC (pages 87-93), contact points, and standards (page 113) are sold separately.**

Model	Description	Range
IT-5104-RSC	Internal Pitch Diameter Gage	4" (101.6 mm) Depth, 1½" - 10" (38.1 mm - 254 mm) Diameter

External Pitch Diameter Inspection Gages

The ball pitch diameter gages indicate the pitch diameter size of the product's external thread. The gages are adjustable within a size range and use interchangeable contact points to measure different pitch threads. Gages ship with one set of contact points, please see the chart below to request proper points. Gages require setting with either a standard or a MIC TRAC. **Software (page 42), MIC TRAC (pages 87-93), contact points, and standards (page 113) are sold separately.**

Model	Description	Range
PD-8001-RSC	External Pitch Diameter Gage	0" - 6" (0 mm - 152.4 mm)
PD-8002-RSC	External Pitch Diameter Gage	6" - 12" (152.4 mm - 304.8 mm)

API Contact Points for Pitch Diameter Gages

Gagemaker's standard ball contact points are manufactured with carbide balls. All RSC inspection gages use threaded shank contact points. Threaded shanks are #4-48 UNF. Pitch diameter gages require two contact points. Sold individually.

Model	Point Diameter	Threads Per Inch	Connection Type
T235	0.235"	3	Hughes Slim Line H-90
T200	0.200"	3½	All Hughes H-90
T144	0.144"	4	API Rotary Shouldered Connections
T115	0.115"	5	API Rotary Shouldered Connections
T096	0.096"	6	API Rotary Shouldered Connections