



Thread Lead

The lead gauge inspects thread lead using contact points that seat in the threads of a part. Thread lead is the distance between threads, measured on a plane parallel to the centerline of the threaded part. The pitch of the thread determines the diameter of the contact points required for taking measurements. API specification 7-2 requires thread inspection.

The LG-6001 and the LG-6002 use a two-point system to inspect thread lead for straight and tapered threads. The LG-6002 inspects both external and internal threads, while the LG-6001 inspects external threads. The two point system allows for a sweeping action to obtain the measurement. Both gauges are available with higher resolution indicators.

The LG-5003 uses the three-point system to inspect internal and external thread lead. Two fixed contact points at the rear of the gauge and one moveable contact point at the front of the gauge provide complete stability when taking thread lead measurements. This unique design does not require sweeping to obtain measurements.

Contact points can be easily changed to allow the gauge to be used on a variety of thread forms. Each gauge comes with a default set of contact points, but customers may specify another set.

Before inspecting parts, the lead gauge must be preset to a nominal predetermined dimension using a lead gauge setting standard. Lead standards are available for both straight and tapered threads. Our setting standards are manufactured according to ANSI and API specifications, respectively.

LEAD SETTING STANDARDS

Code No	Description	Thread Pitch
90-LS1001	Lead standard for all 8 Round casing, tubing & drill pipe; 10 Round tubing, 3/4" TPF	8 & 10
90-LS1002	Lead standard for straight threads, 4" length, .375" width	6-18
90-LS1003	Lead standard for 'V' threads, 3/4" TPF	11 1/2
90-LS1004	Lead standard for straight threads, NPS threads	11 1/2
90-LS1005	Lead standard for 3/4" Buttress, 3/4" TPF	5
90-LS1006	Lead standard for 1 Buttress, 1" TPF	5
90-LS1007	Lead standard for 6 TPI, V-0.032, 2" TPF	6
90-LS1007-01	Lead standard for 4 TPI, V-0.050 thread forms, 2" TPF	4
90-LS1008	Lead standard for 4 TPI, V-0.038R & V-0.050 thread forms, 3" TPF	4
90-LS1009	Lead standard for 5 TPI, V- 0.040 thread forms, 3" TPF	5
90-LS1010	Lead standard for 4 TPI, V-0.038R & V-0.050 thread forms, 1.5" TPF	6
90-LS1010-01	Lead standard for 4 TPI, V-0.076 thread forms, 1.5" TPF	4
90-LS1011	Lead standard for 3.5 TPI, 90-V-0.050 thread form, 2" TPF	3.5
90-LS1012	Lead standard for 3.5 TPI, 90-V-0.050 thread form, 3" TPF	3.5
90-LS1013	Lead standard for 3.5 TPI, 90-V-0.084 thread form, 1" TPF	3
90-LS-021	Lead standard for USS Buttress, 3/4" TPF	8
90-LS5001	Lead standard for straight threads, 4.5" length, .750" width	1-5
90-LS5002	Lead standard for straight threads, 4.5" length, .750" width	6-18
90-LS5003M	Lead standard for metric threads	1.25, 1.75 and 3.5mm
90-LS5004M	Lead standard for metric threads	1, 1.5, 2, 3 and 4mm
90-LS6MM	Lead standard for metric threads	6mm



90-LS1005



90-LG6001



90-LG6002

LEAD GAUGES

Code No	Description	Note	Range (mm)	Range (inch)	Indicator Range (mm)	Indicator Range (inch)	Resolution (mm)	Resolution (inch)
90-LG6001	2-point external lead gauge	No of Contacts - 2	12.7 - 50.8	1/2 - 2			.100	.0005
90-LG6001-1	2-point external lead gauge	No of Contacts - 2	12.7 - 50.8	1/2 - 2			.025	.0001
90-LG6002	2-point internal lead gauge	No of Contacts - 2	0 - 101.6	1/2 - 4			.100	.005
90-LG6002-1	2-point internal lead gauge	No of Contacts - 2	0 - 101.6	1/2 - 4			.025	.0001
90-LG6002-M	2-point internal lead gauge with metric indicator	No of Contacts - 2	0 - 101.6	1/2 - 4	5		.01	
90-LG5003	3-point external/internal lead gauge	No of Contacts - 3	0 - 101.6	1/2 - 4			.100	.0005
90-LG5003-1	3-point external/internal lead gauge	No of Contacts - 3	0 - 101.6	1/2 - 4			.025	.0001
90-LG5003-J	3-point external/internal lead gauge	No of Contacts - 3	0 - 101.6	1/2 - 4			.100	.0005
90-LG5003-1J	3-point external/internal lead gauge	No of Contacts - 3	0 - 101.6	1/2 - 4			.025	.0001
90-LG5003-M	3-point external/internal lead gauge with metric indicator	No of Contacts - 3	0 - 101.6	1/2 - 4	5		.01	
90-LG5003-L	Load to load 3-point external/internal lead gauge	No of Contacts - 3	0 - 101.6	1/2 - 4			.100	.0005
90-LG5003-S	Stab to stab 3-point external/internal lead gauge	No of Contacts - 3	0 - 101.6	1/2 - 4			.100	.0005

Thread Form

Gagemaker manufactures precision straight thread profile gauges for quick identification of a thread form. Please specify the thread pitch to be inspected when ordering. Special form profiles are available.

STRAIGHT THREAD FORM PROFILE GAUGES

Code No	Description
90-TP-UNVI-xxP	Internal UN series thread gauge
90-TP-UNVE-xxP	External UN series thread gauge
90-TP-GPA-xxP	Internal/external general purpose Acme thread profile gauge
90-TP-SA-xxP	Internal/external Stub Acme thread profile gauge
90-TP-SAM1-xxP	Modified 1 Stub Acme thread profile gauge
90-TP-SAM2-xxP	Modified 2 Stub Acme thread profile gauge
90-TP-MI-xxP	Internal ISO Metric series thread profile gauge
90-TP-ME-xxP	External ISO Metric series thread profile gauge
90-TP-745-xxP	Internal/external 7° X 45° Buttress thread profile gauge



90-TP-UNVI-xxP



90-TP-UNVE-xxP

Gagemaker manufactures precision tapered thread profile gauges for quick identification of a thread form. Please specify the connection to be inspected when ordering. Special profiles will be quoted upon request.

TAPERED THREAD FORM PROFILE GAUGES

Code No	Description	Note
90-TP-RTC-8R	API 8-Round Casing, Tubing & Drill Pipe	8 TPI, 3/4" TPF, 8 Round
90-TP-RTC-10R	API 10-Round Tubing	10 TPI, 3/4" TPF, 10 Round
90-TP-8V	8 V API Line Pipe	8 TPI, 3/4" TPF, 8 V Thread
90-TP-11.5V	11 1/2 V API Line Pipe	11 1/2 TPI, 3/4" TPF, 11 1/2 V Thread
90-TP-5BTC75-INT	API Buttress Casing, Internal, 4 1/2" - 13 3/8"	5 TPI, 3/4" TPF
90-TP-5BTC75-EXT	API Buttress Casing, External, 4 1/2" - 13 3/8"	5 TPI, 3/4" TPF
90-TP-5BTC1-INT	API Buttress Casing, Internal, 16" - 20"	5 TPI, 1" TPF
90-TP-5BTC1-EXT	API Buttress Casing, External, 16" - 20"	5 TPI, 1" TPF
90-TP-3-1.25-84	2 3/8" - 3 1/2" Hughes Slimline H-90	3 TPI, 1.25" TPF, 90-V-0.084
90-TP-3.5-2-50	3 1/2" - 6 5/8" Hughes H-90	3 TPI, 2" TPF, 90-V-0.050
90-TP-3.5-3-50	7" - 8 5/8" Hughes H-90	3 TPI, 3" TPF, 90-V-0.050
90-TP-4-1.5-76	2 3/8" - 3 1/2" PAC Connections 2 3/8" - 4 1/2" American Open Hole	4 TPI, 1.5" TPF, V-0.076
90-TP-4-2-50	6 5/8" API Regular 5 1/2" & 6 5/8" API Full Hole	4 TPI, 2" TPF, V-0.050
90-TP-4-2-38	4" API Full Hole, 2 7/8" - 5" Hughes Xtra Hole 2 3/8" - 4 1/2" Hughes Slim Hole 2 3/8" - 6 5/8" Internal Flush API Numbered Connections #23 - #50	4 TPI, 2" TPF, V-0.038R
90-TP-4-3-38	API Numbered Connections #56 - #77	4 TPI, 3" TPF, V-0.038R
90-TP-4-3-50	5 1/2", 7 5/8", & 8 5/8" API Regular	4 TPI, 3" TPF, V-0.050
90-TP-5-3-40	2 3/8" - 4 1/2" API Regular 2 7/8", 3 1/2", 4 1/2" API Full Hole	5 TPI, 3" TPF, V-0.040
90-TP-6-1.5-55	API Numbered Connections #10, #12, #13, #16 M.T. (Macaroni Tubing)	6 TPI, 1.5" TPF, V-0.055
90-TP-6-2-32	2 3/8" - 2 7/8" Hughes External Flush	6 TPI, 2" TPF, V-0.032
90-TP-9060LS	90° & 60° Threads	Tool Grinding & Setting Gauge
90-TP-NPT-8	NPT Threads	8 TPI, 3/4" TPF
90-TP-NPT-11.5	NPT Threads	11.5 TPI, 3/4" TPF
90-TP-NPT-14	NPT Threads	14 TPI, 3/4" TPF



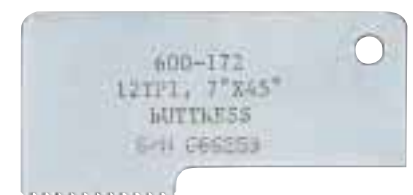
90-TP-GPA-xxP



90-TP-SA-xxP



90-TP-SAM1-xxP



90-TP-745-xxP



TDWIN TAPER Thread Disk for Tapered Threads

Gagemaker's TDWIN TAPER software program produces dimensional drawings and inspection data for API downhole tubular connectors based on the most current industry standards. Everything you need to machine, inspect, and document tubular connection threads is available in this convenient software program.

TDWIN TAPER provides easy access to information for both preferred and non-preferred Rotary Shouldered Connections, Tubing and Casing Connections, and any combination of Crossover. The program offers standard connection types and sizes. TDWIN TAPER displays connection drawings, inspection gauge information and setup and inspection reports.

The software displays printable drawings suitable for manufacturing that follow ASME Y14.5 standards for industry compatibility. Print gauge setup and inspection reports with your company logo and work order information. The program also offers the choice to save reports and jobs for future reference.

Features

- Follows API Specification 7.2, Dec. 2008, for Rotary Shouldered Connections
- Follows API Specification 5B, Oct. 2008, for Tubing and Casing Connections
- Presents "preferred" connections as well as interchangeable and obsolete connections
- Organises data compatible with API and industry knowledge offered by resources such as Smith, Joy, and Hughes
- Displays Gagemaker style thread gauges and gauge setting information
- Configures and prints reference drawings for manufacturing including; standard pin/box/coupling, pin/box blanking, pin/box
- Relief groove, box modified bore-back relief, special clearance couplings, and SR grooved couplings
- Produces gauge setup reports for tubing, casing, RSC, and crossover combinations
- Provides inspection reports for all connection configurations selected
- Customises reports with your company logo
- Saves reports to job files and recalls them for future reference
- Provides web links to locate and purchase necessary gauges and standards



Select from 3 connection categories or review previous jobs and reports



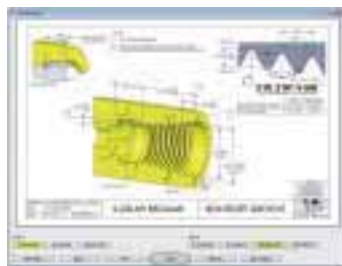
Select a Thread Type



Select a Thread Size



Select View Drawings



Select the desired drawing and view gauge requirements



Select the required gauging method and gauge



View gauge details and tolerances



Customise, preview and print desired reports

THREAD DISK FOR WINDOWS (Tapered Threads)

Code No

90-TDWIN-TPR



BOWERS GROUP



baty



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