NPT PIPE THREADS

NPT L1 PLUG GAGE

Tolerance: + or - one Turn from the notch.

NPT L1 RING GAGE

Tolerance: + or - one Turn from the Small End Face of the Ring.

- ***NPT Gages are Made to: ANSI/ASME B1.20.1***

Vermont Gage

Catalog pg.# 88 - 91

NPT PIPE THREADS

- *NPT Threads are Considered "General Purpose" Pipe Threads.*
- *NPT Threads Are Intend to be Sealed at the Crest & Root with Teflon Tape, Pipe Dope or Other Types of Sealant.*
- *NPT Threads Do Not Require "Crest Check", L3, or L2 Gages.*
- *NPT Gages are Made to: ANSI/ASME B1.20.1*

Vermont Gage

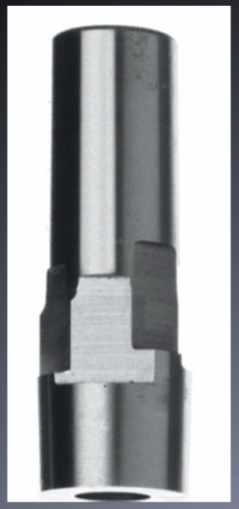
NPTF PIPE PLUGS

NPTF L1
PLUG GAGE

The L-1 Plug Inspects the Pitch Diameter of the Hand Tight (L-1) Length of Engagement.

NPTF L3
PLUG GAGE

The L-3 Plug Inspects the Taper and Wrench Tight (L-3) Length of Engagement.



CREST CHECK
PLUG (6 Step) GAGE

The Crest Check Plug Inspects the Truncation Limits & Taper of the Minor Diameter.

•NPTF Gages are Made to: ANSI/ASME B1.20.5

Vermont Gage

Catalog pg.# 88 & 91

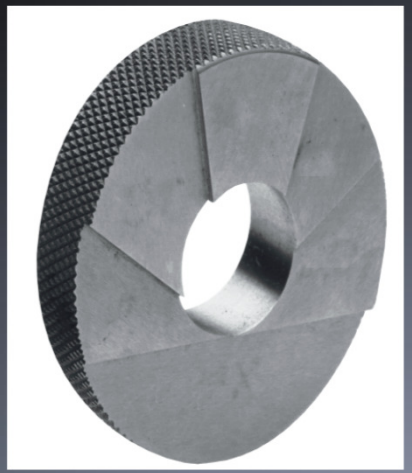
NPTF PIPE RINGS

NPTF L1
RING GAGE

The L1 Ring Inspects the Pitch Diameter of the Hand Tight (L1) Length of Engagement.

NPTF L2
RING GAGE

The L2 Ring Inspects the Taper and Wrench Tight (L2) Length of Engagement.



CREST CHECK
RING (6 Step) GAGE

The Crest Check Ring Inspect the Truncation Limits & Taper of the Major Diameter.

•NPTF Gages are Made to: ANSI/ASME B1.20.5

Vermont Gage

Catalog pg.# 88-89

NPTF PIPE GAGES

- *NPTF Gages are Considered "Dry Seal" Pipe Threads.*
- *NPTF Gages are Relationship Gages.*
- *NPTF L1 Tolerance is + or - One Turn from the, (Notch on the Plug or Small End Face of the Ring).*
- *NPTF L2 Ring, L3 Plug Tolerance is + or - One Half Turn from the Location of the L1 Gage.*
- *NPTF Crest Check Gage will be Between one of these Sets of Notches, (MN & MN_t ,B & B_t ,MX & MX_t). These Notches are in Relation to Where the L1 & (L3 or L2) Gages Measured.*

Vermont Gage

NPTF Classes of Product Threads

Class 1 Threads *- "Acceptability is determined by coordinated use of L1 & L2 gages for external product threads and L1 & L3 internal product threads. Crest and root truncation is generally considered to be controlled by tooling or other means".*
ANSI/ASME B1.20.5

Class 2 Threads *- Same as above, "however, inspection of root and crest truncation is required.", (**ANSI/ASME B1.20.3**). This means that 6-step root & crest check gages or other methods are required to inspect product root & crest truncation.*

Vermont Gage

Dryseal Gage Selection Chart

ASME B1.20.5 - 1991

TABLE 1 Gages and Tolerances

Thread to be Gaged	Gaged With	Product Thread Tolerance Applied to Basic Size [Note (1)]		Limits Method of Gaging [Note (1)] Tolerance
NPTF, External	L_1 or L_1 Short and [Note (2)] L_2 or L_2 short ring gages	Plus (small) 1 turn	Minus (large) 1 turn	Threads are within the allowable tolerance when the product reference point is on or between the maximum and minimum step of the L_1 gage.
PTF-SAE SHORT, External		Plus (small) 0 turn	Minus (large) 1.5 turn	
NPTF, Internal	L_1 or L_1 Short and [Note (3)] L_3 or L_3 short plug gages	Plus (large) 1 turn	Minus (small) 1 turn	
PTF-SAE SHORT, Internal		Plus (large) 0 turn	Minus (small) 1.5 turn	
NPSF, Internal	L_1 or L_1 Short plug gage	Plus (large) 0 turn	Minus (small) 1.5 turn	
NPSI, Internal		Plus (large) 1 turn	Minus (small) 0.5 turn	

Notes:

(1) Step limit gages with 4 (or 3) steps should be used.

(2) The difference in engagement of the L_1 versus the L_2 ring gages shall not exceed 0.5 turn. See para. 1.8.4.

(3) The difference in engagement of the L_1 versus the L_3 plug gages shall not exceed 0.5 turn. See para. 1.8.4.

Note: Customers usually prefer to measure Dryseal Straight Pipe Threads (NPSF, NPSI, …) with Go & No Go Plug gages. Go & No Go Plug gages may be used but, the parts must pass the NPTF L_1 Plug gage.

Vermont Gage