

TAPER PIPE THREAD GAGES

METHOD OF GAGING PRODUCT – NPT



Internal Taper Pipe Threads: The plug gage is screwed up tight by hand into the internal thread of the product. The thread is within the permissible tolerance when the gaging notch of the working plug is not more than plus or minus one turn from being flush with the end of the thread. Fig. 1.

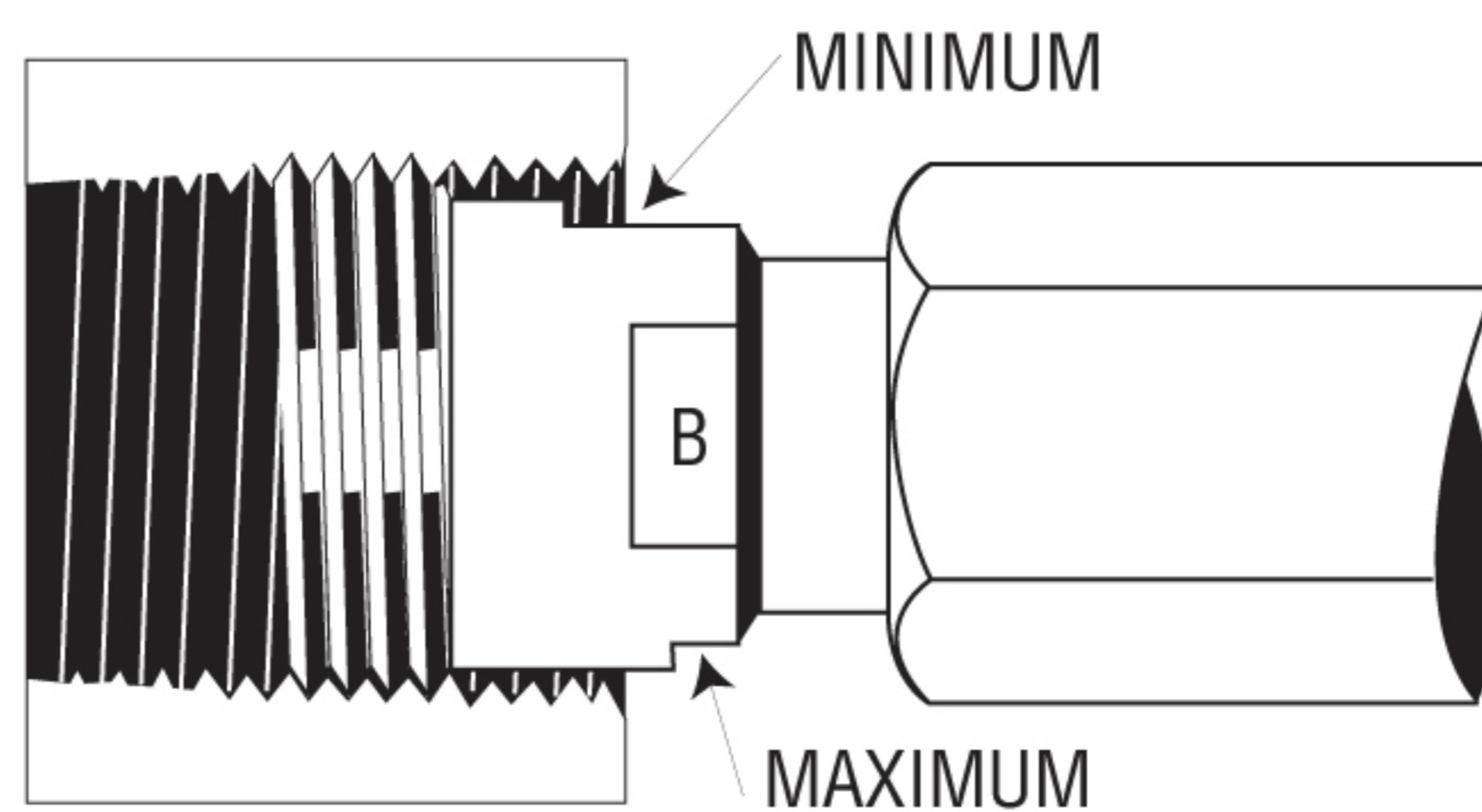


Fig. 1 Gaging internal American National Taper pipe threads with working gage. When the internal thread is chambered, the gaging point shall be the intersection of the chamber and the pitch cone of the thread.

External Taper Pipe Threads: In gaging external taper threads, the ring gage is screwed up tight by hand on the external thread of the product. The thread is within the permissible tolerance when the gaging face of the working ring is plus or minus one turn from being flush with the end of the thread. Figure 2.

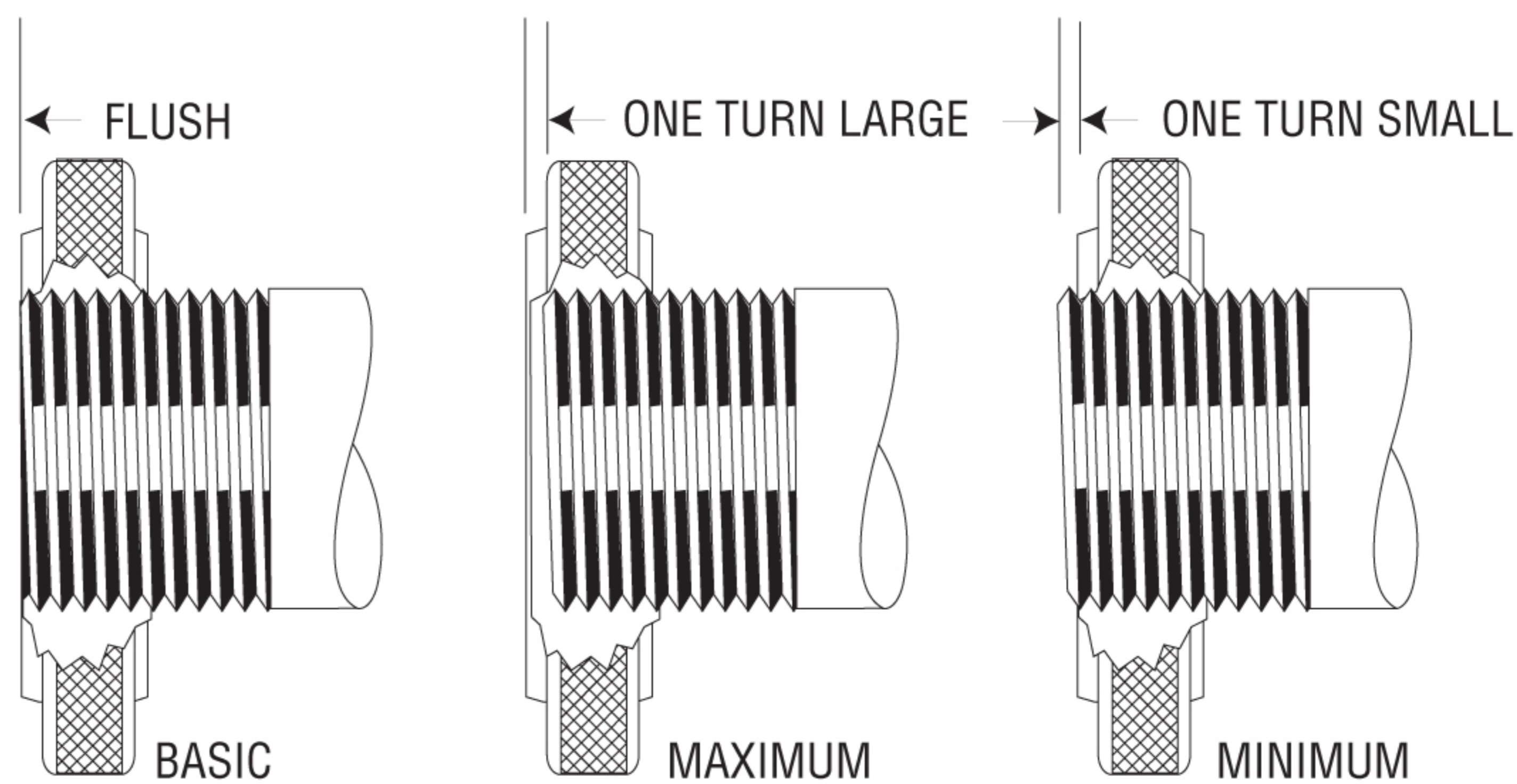


Fig. 2 Gaging external NPT threads.

Limit Type Plug and Ring Gages

The limit type gage is used to eliminate counting turns by which the gage over or under travels to the basic surface.

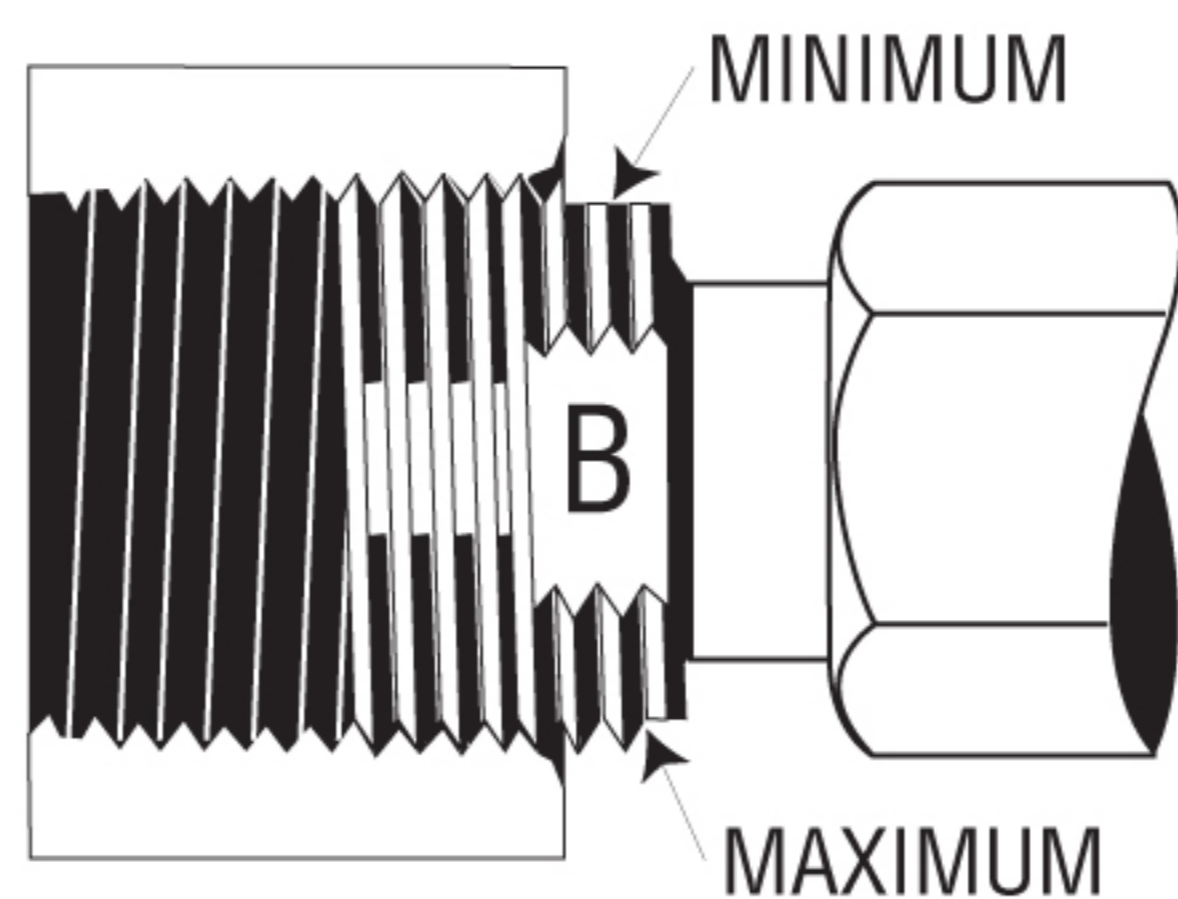


Fig. 3
L1 limit type Plug Gage

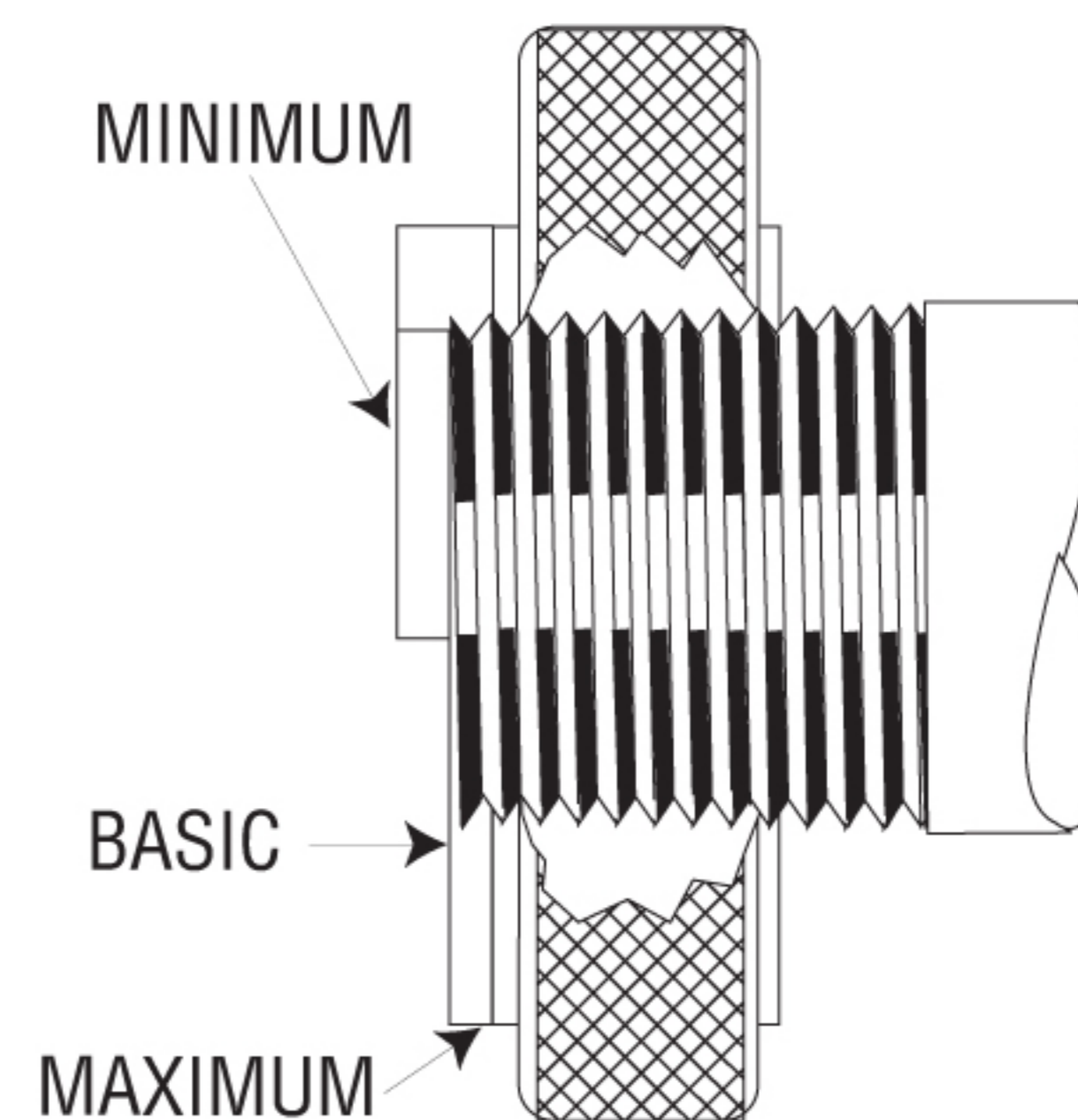


Fig. 4
L2 limit type Ring Gage

The gages include the basic notch on the plug and the basic surface on the ring and in addition include two notches, or steps, on both plug and ring. One notch is considered the maximum and the other the minimum. The retention of the basic step, or notch, facilitates checking against master and reference gages and provides a means of checking the maximum and minimum steps.