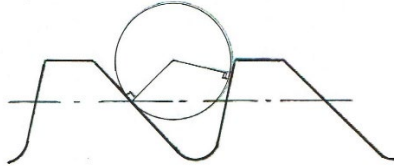


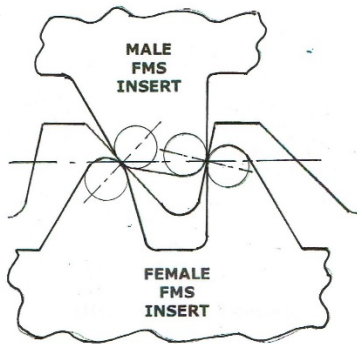
BUTTRESS & UNJ/MJ THREADS

Two thread types that have become common with FMS customers are Buttress and J threads. Buttress threads are common within aerospace and similar critical industries.

As Buttress thread have uneven flank angles measuring the pitch diameter can be complicated.

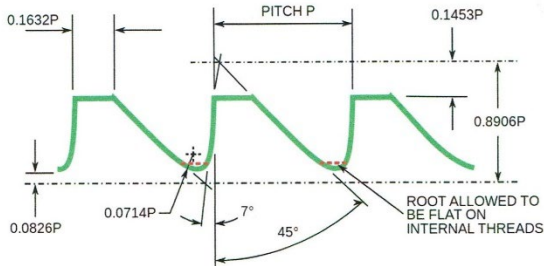


FMS Buttress measurement inserts have the correct contact at both flanks. With external after zeroing the digital caliper with mounted inserts the measurement result is the actual pitch diameter.

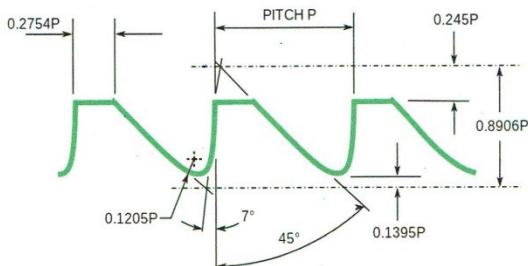


There are several Buttress thread types but the most common is 7° 45°. The ANSI is more common than the British.

ANSI 45° 7° Buttress

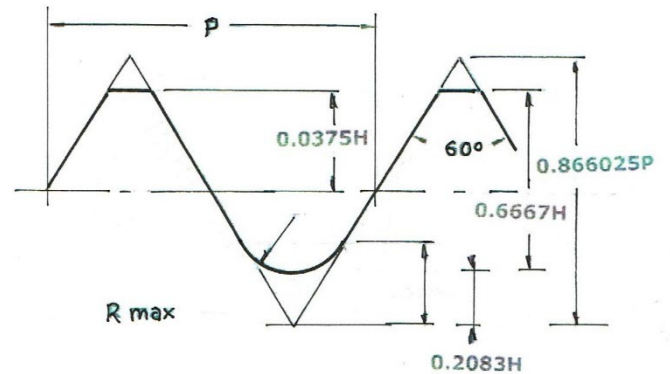


British 45° 7° Buttress

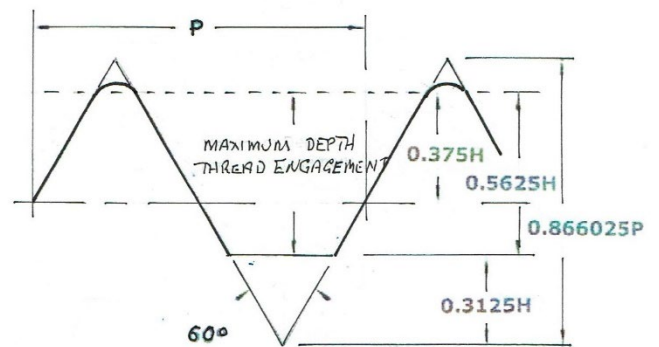


For internal pitch diameter measurement, a calibration plate is required for each pitch. These calibration plates are normally also supplied with external pitch diameter calibration possibility.

UNJ and MJ (the metric alternative) have larger radii on the external minor diameter than normal for strength. They also almost always have smaller than "standard" pitch diameter tolerances.



UNJ External Thread
Root radius 0.072P to 0.096P



UNJ Internal Thread

As measurement of the external minor diameter is often a requirement FMS makes thread measurement inserts for both external thread minor diameter and internal major thread diameter.