

Plating Effect on Pitch Diameter

Calculating Plating Allowance

Pitch diameter is increased in proportion to the plating thickness at a ratio determined by the angle of the thread form. See table below.

Thread Type	Included Angle	Allowance Ratio
Metric / Unified	60°	4.0 : 1
Whitworth	55°	4.3 : 1
Trapezoidal	30°	7.7 : 1
Acme	29°	8.0 : 1
P.G	80°	3.1 : 1

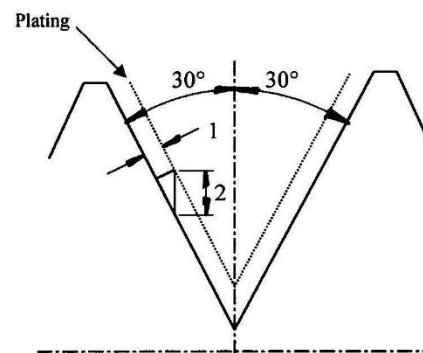


Fig 1.

Example:

Metric thread form (60°)

Fig. 1. shows that pitch diameter is increased 2 times the plating thickness per side, therefore a ratio of 4:1 is applied

Plating thickness = 0.005 mm

Allowance on pitch diameter for plating = 0.020 mm

Actual plating thickness may vary from the root of the thread to the crest of the thread. Accurate plating thickness can be determined for you with before and after measurements in our metrology laboratory. This service is readily available to you upon request.

Screw plug, screw ring and screw thread roller calliper gauges are also available to gauge your components before and after plating. All gauges can be certified in our N.A.T.A. accredited metrology laboratory.

Please telephone if you require any assistance with calculations or measurements regarding plating allowances, or any gauging requirements.