Fowler-Bowers XT Application Gauging

THREADS

XT Sphericals

Deep-Bore Measurement Systems

Grooves

Int/Ext Splines

WILLRICH PRECISION INSTRUMENT
THINK MEASUREMENT... THINK WILLRICH
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The Fowler-Bowers Thread Gauging system for internal thread measurement is a comprehensive solution

Video XT Thread Gauging

We supply gauge sets for threads #8-UN to 12-UN and M4 to M300. Other thread systems for which we have supplied gauge sets include NPSF, ACME, Buttress, Trapezoidal, BSPP - and of course LH for all threads

We supply two types of XT Thread Gauging configurations.

1. XT Thread heads for a particular thread - many of these - with the required setting ring - are now available ex-stock
2. XT Thread Head Optimum Sets - we review the entire list of threads you plan to gauge, group them by pitch, and quote a few different heads, each of which can be used for a few threads in a range.
    - The Optimum Set approach helps configure a compact tool set. We recommend ordering a Setting Ring each, for every thread you are measuring.
3. The standard XT Thread Application Head is a Functional Dia head - it has anvils engaging multiple circuits and reads a PD average
    1. The other types are
        1. Pitch Dia heads - where the anvils engage a single circuit - used to measure pitch dia for a single circuit
        2. Major Dia heads - with anvils formed to engage the major dia or root
    2. The same thread master can be used to set Functional or PD heads. Maj Dia heads can be set with a standard setting ring
4. Highlights
    1. We have supplied Four Head Sets - to measure Functional, Pitch, Maj and Minor. For the Minor Dia a standard XT with parallel form will suffice
    2. M154.6 x 2.0 is among the largest M thread gauge sets we have supplied. Following this we supplied an optimum set consisting of an M125-M150x2 Optimum Head and M135x2 setting ring.
    3. We have supplied gauge sets for several large dia threads including, 7.65"-20 UNS, 7.3125”-8 UN & 11.25”-6 UN
    4. We have supplied a large M Thread Gauging Set order for over 12 different threads from M4 to M16
5. In all these cases we have supplied Thread Heads and Masters
6. We have supplied NITRON MC coated thread gauging heads for high volume inspection of nuts made of Inconel. The coating ensures gauge durability

Thread Gauging

Why a Fowler Thread Gauge?

- Gauges available to measure Effective (Functional), Pitch & Major diameters
- Speed, hugely reduces time wasted screwing gauges in/out.
- Actual Size, unlike hard gauges, the bowers system gives an actual size the machinist can use to avoid taking multiple cuts thus saving machining time.
- Negates the need for many different hard gauges to measure pre/post plate, pre/post H/T, which massively reduces the annual recalibration costs.
- Rapid data recording, Using the Bowers Bluetooth pistol grip holder or digital readout the customer can record the measured size with the push of a button.
- Dependant on the size the Bowers Thread heads can be ranged (e.g M27-M35 x1)
- Heads are interchangeable and can be used on customers existing pistol grip holders

Different types of threads

Metric: M4 – M300 with Various pitching

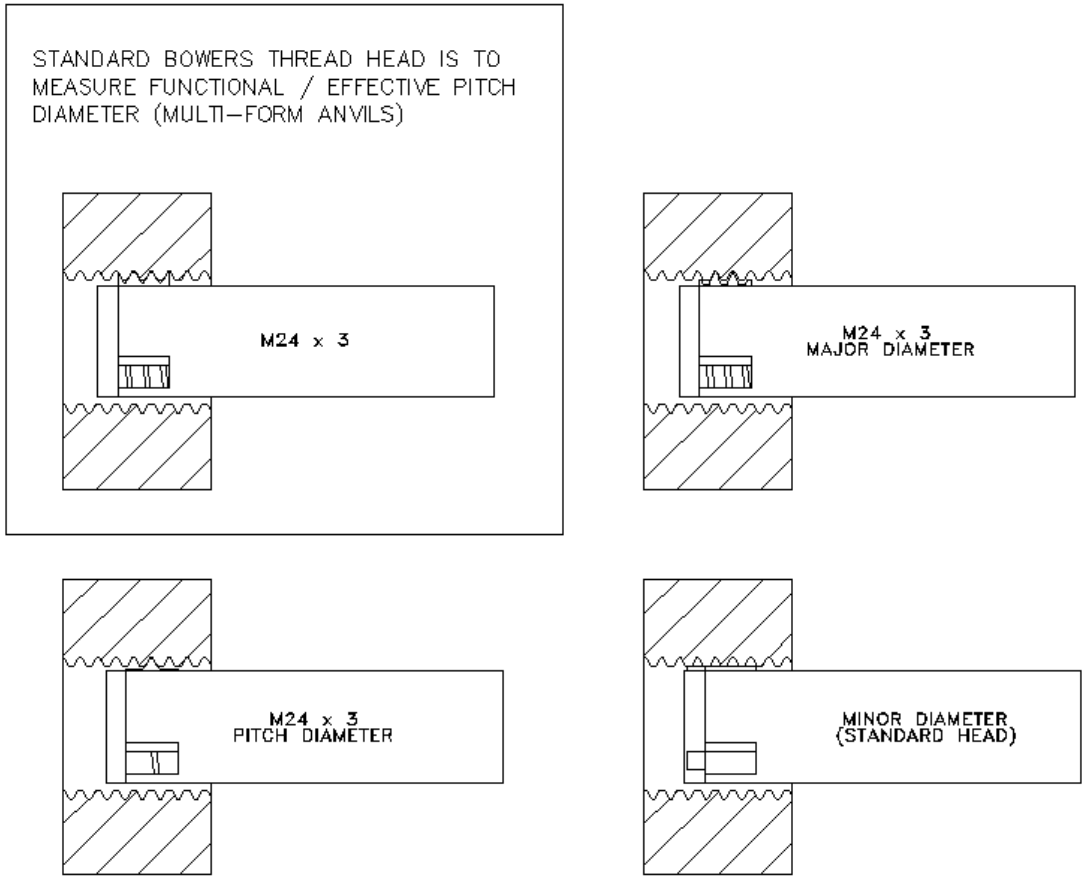
UN: Unified Threads #8 – 12” & STI

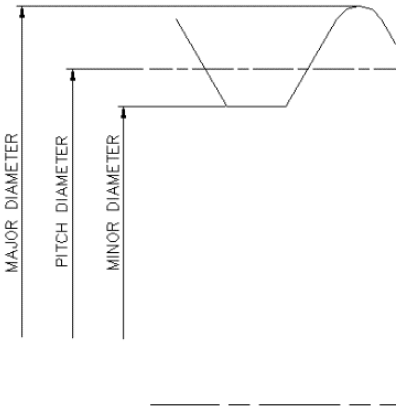
Buttress

ACME

Trapezoidal

Thread Head Types





Pitch diameter (single-form anvils), minor diameter & major diameter heads are quoted on request.


THREAD HEAD
M8 x 1.25

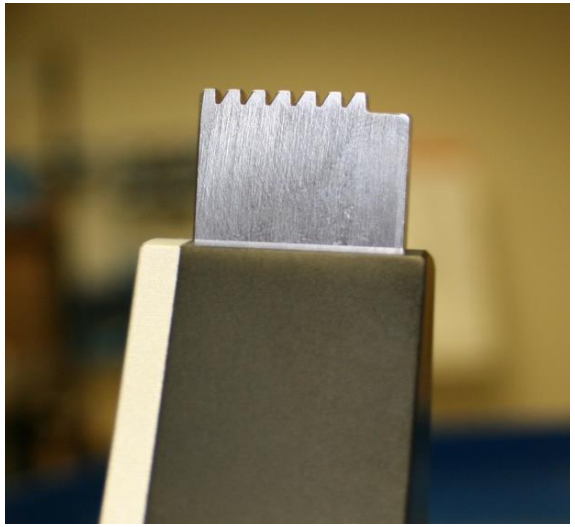

NPSF 1/8"-27


BOWERS
0.885" - 40 UNS


OG665483-1A


BOWERS
XTE
HOLEMATIC


M54.6 x 2




XTE
HOLEMATIC

UN THREADS

#8-32 UN
#10-32 UN
1/4"-28 UN
1/4"-20 UN
1/4"-28 UN
5/16"-18 MJ
5/16"-24 UN
5/16"-18 UN
5/16"-24 UN
3/8"-24 UN
3/8"-16 UN
3/8"-32 UN
3/8"-24 UN
3/8"-24 UN
16/41"-32 UN
7/16"-14 UN
7/16"-20 UN
7/16"-20 UN
7/16"-32 UN
7/16"-32 UN
1/2"-20
1/2"-13 UN
1/2"-28 UN
1/2"-20 UN
1/2"-20 UN
1/2"-8 UN
1/2"-13 UN
9/16"-18 UN
9/16"-12 UN
5/8"-18 UN
5/8"-11 UN
5/8"-32 UN
5/8"-32 UN

11/16"-24 UN
11/16"-32 UN
3/4"-10 UN
3/4"-16 UN
3/4"-20 UN
13/16"-20 UN
13/16"-32 UN
15/16"-16 UN
0.7813"-32 UN
7/8"-14 UN
7/8"-9 UN
7/8"-9 UN
0.885"-40 UN

15/16"-20 UN
1"-8 UN
1"-20 UN
1"-16 UN
1"-32 UN
1"-40 UN
1"-12 UN
1"-12 UN
1"-32 UN
1 1/16"-18 UN
1 1/16"-12 UN
1 1/8"-12 UN
1 1/8"-16 UN
1 1/8"-12 UN
1 3/20"-32 UN
1 1/4"-18 UN
1 1/4"-12 UN
1 1/4"-12 UN
1 5/16"-16 UN
1 3/8"-12 UN
1 7/16"-18 UN
1 7/16"-20 UN
1 1/2"-16 UN
1 1/2"-6 UN
1 1/2"-40 UN
1 5/8"-12 UN
1 5/8"-12 UN
1 11/16"-16 UN
1 3/4"-12 UN
1 3/4"-12 UN
1 13/16"-16 UN
1 15/16"-32 UN
2"-12 UN
2"-16 UN
2"-8 UN
2"-8 UN

2.012"-14 UN
2 1/8"-16 UN
2 1/8"-8 UN
2 3/16"-12 UN
2 1/4"-12 UN
2 16/33"-12 UN
2 1/2"-12 UN
2 1/2"-18 UN
2 1/2"-16 UN
2 1/2"-8 UN
2 1/2"-6 UN
2 14/25"-10 UN
2 5/8"-12 UN
2 11/16"-20 UN
2 3/4"-8 UN
3"-4 UN
3"-6 UN
3"-16 UN
3 1/14"-10 UN
3 1/8"-12 UN
3 7/16"-16 UN
3 1/2"-8 UN
3 1/2"-16 UN
3 5/8"-12 UN
3 5/8"-6 UN
3 3/4"-12 UN
3 3/4"-16 UN
3 7/8"-16 UN
3 7/8"-8 UN
3 7/8"-8 UN

4"-12 UN
4"-12 UN
4"-32 UN
4 1/4"-8 UN
4 3/8"-12 UN
4 1/2"-12 UN
4 1/2"-16 UN
5"-16 UN
6"-8 UN
6"-18 UN
6 1/4"-12 UN
6 5/8"-12 UN
6 5/8"-16 UN
6 7/8"-8 UN
6 9/10"-32 UN
7 5/16"-8 UN
7 5/8"-12 UN
7 13/20"-12 UN
7 13/20"-20 UN
7 7/8"-8 UN
8"-8 UN
8 3/20"-12 UN
8 5/8"-12 UN
9 1/8"-12 UN
11 1/4"-6 UN
1.760/1.970"-32 UN
2.420/2.453"-32 UN
2.812/3.160"-32 UN
4.270/4.980"-32 UN

M THREADS

M4 x 0.7
M5 x 0.8
M6 x 1
M6 x 0.5
M8 x 2.5
M8 x 0.5
M9 x 25
M10 x 1.5
M10 x 0.25
M10 x 1.1
M10 x 1
M11 x 1.5
M12 x 1
M12 x 1.5
M12 x 0.25
M12 x 0.75
M12 x 1.75-MJ
M12 x 0.5
M14 x 1.5

M14 x 2
M14 x 1
M16 x 1
M16 x 1.5
M16 x 0.25
M16 x 2
M16 x 1
M18 x 1.5
M20 x 1
M20 x 1.5
M20 x 2
M20 x 2.5
M21 x 1.5
M22 x 1.5
M22 x 1.5
M24 x 1.5
M27 x 1.5
M27 x 1.5
M27 x 2
M30 x 3.5

M30.5 x 0.5
M33 x 1
M33 x 1.5
M36 x 1.5
M36 x 4
M38 x 0.5
M41 x 0.5
M42 x 0.7
M42 x 2.5
M43 x 1
M43 x 0.7
M43 x 3
M45 x 2
M48 x 3
M52 x 1.5
M90 x 2
M27-M37 x 0.7
M28-M36 x 0.6
M30-M36 x 1.5
M38-M50 x 1.5
M52-M65 x 1.5
M70-M80 x 1.5
M154.6 x 2