XT Thread Heads

https://www.bowersgroup.co.uk//product-range/application-gauging/thread-gauging.html

- Use with all Digital systems
- Metric, UN, Buttress, Acme, Trapezoidal, Ball screw and non-standard forms available.
- LH and RH
- 2 Point or 3 Point available
- Effective (Functional), Pitch & Major measurement
- Calibrate from thread rings (Plain ring for Major Diameter)
- Rings marked with actual PD
- Very rapid measurement of threads
- XT & Ultima systems available

https://vimeo.com/519982430

Thread Gauging

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Why a Bowers 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 customer's existing pistol grip holders.
- Common sizes stocked for quick delivery.

https://vimeo.com/519982430

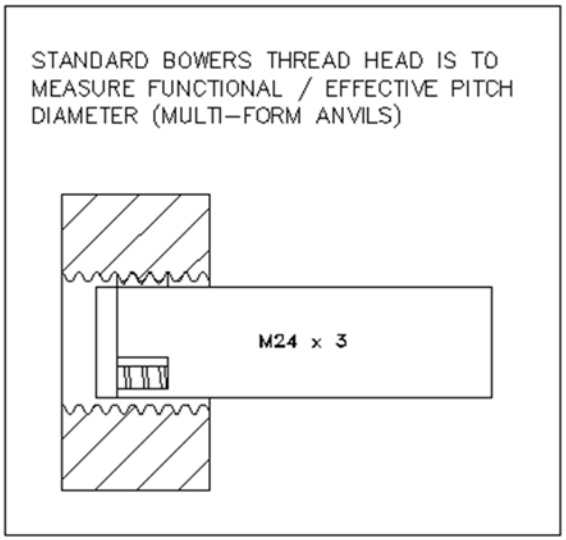
Thread Size	THREAD HEAD PART. NO.	THREAD RING PART. NO.
M5X0.8	THRH-M5X0.8	THRR-M5X0.8
M6X1.0	THRH-M6X1.0	THRR-M6X1.0
M8X1.25	THRH-M8X1.25	THRR-M8X1.25
M10X1.0	THRH-M10X1.0	THRR-M10X1.0
M10X1.25	THRH-M10X1.25	THRR-M10X1.25
M10X1.5	THRH-M10X1.5	THRR-M10X1.5
M12X1.0	THRH-M12X1.0	THRR-M12X1.0
M12X1.25	THRH-M12X1.25	THRR-M12X1.25
M12X1.5	THRH-M12X1.5	THRR-M12X1.5
M12X1.75	THRH-M12X1.75	THRR-M12X1.75
M14X1.5	THRH-M14X1.5	THRR-M14X1.5
M16X1.0	THRH-M16X1.0	THRR-M16X1.0
M16X1.5	THRH-M16X1.5	THRR-M16X1.5
M16X2.0	THRH-M16X2.0	THRR-M16X2.0
M18X1.25	THRH-M18X1.25	THRR-M18X1.25
M18X1.5	THRH-M18X1.5	THRR-M18X1.5
M20X1.0	THRH-M20X1.0	THRR-M20X1.0
M20X1.5	THRH-M20X1.5	THRR-M20X1.5
M20X2.5	THRH-M20X2.5	THRR-M20X2.5
1"-12UN	THRH-1-12	THRR-1-12
3/4"-16UN	THRH-3/4-16	THRR-3/4-16
5/8"-11UN	THRH-5/8-11	THRR-5/8-11
5/8"-18UN	THRH-5/8-18	THRR-5/8-18
7/16"-20UN	THRH-7/16-20	THRR-7/16-20
9/16"-18UN	THRH-9/16-18	THRR-9/16-18
5/16"-24UN	THRH-5/16-24	THRR-5/16-24
1/4"-20UN	THRH-1/4-20	THRR-1/4-20

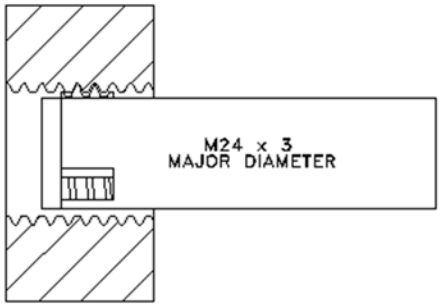
BOWERS GROUP

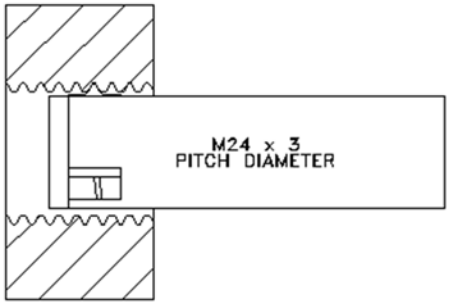
Thread Gauging Stock

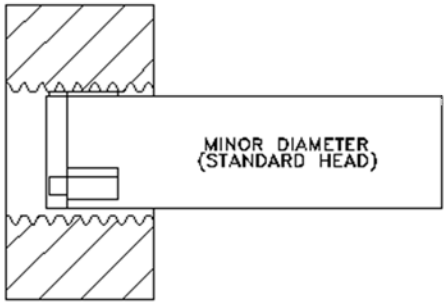
- **Common Metric Thread Sizes M5 – M20**
  Despatched in 5 Working Days
- **Common Imperial Thread Sizes 1/4” – 1” UN**
  Despatched in 5 Working Days

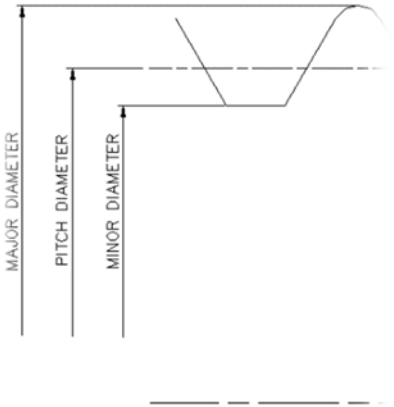
Types of Thread Head











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

Different Types of Threads

Metric: The ISO metric thread is the most commonly used general
Screw thread in the world. We offer threads M4 – M300 with various pitching.

Standard Thread

UN: Unified Threads are more commonly used in the USA/Canada. They have
the same 60° form as the Metric version.

Buttress: Buttress thread form is designed to handle extremely high axial
thrust in one direction. The load-bearing thread face is perpendicular to the
screw axis.

Buttress Thread

Different Types of Threads

ACME: The Acme thread form has a 29° thread angle with a thread height half of the pitch; the apex (or *crest*) and valley (or *root*) are flat. This shape is easier to machine (faster cutting, longer tool life) than a square thread.
The tooth shape also has a wider base which means it is stronger (thus, the screw can carry a greater load) than a similarly sized square thread.
This thread form also allows for the use of a split nut, which can compensate for nut wear.

ACME Thread

Trapezoidal: They are the most common forms used for leadscrews (power screws). They offer high strength and ease of manufacture. They are typically found where large loads are required (e.g. leadscrew of a lathe).

Ball-Screw: Ball screws are used in aircraft and missiles to move control surfaces, and in automobile power steering racks to translate rotary motion from an electric motor to axial motion of the steering rack. They are also used in machine tools, robots and precision assembly equipment.

Automated Ball-Screw System

These images illustrate all-screws system mounted onto an automated machine. Bowers supplied the pneumatic actuating unit & interchangeable heads, with each head timed on the first ball. Please note that Bowers was not involved in the PLC or programing for the machine.