

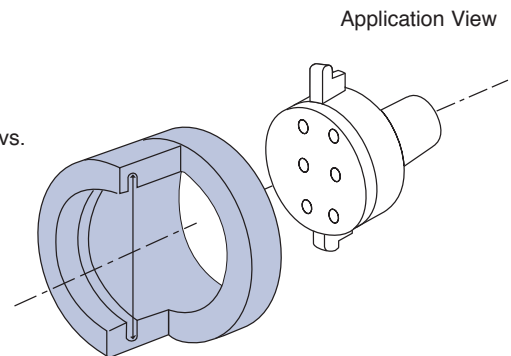
Bowers Special Applications

Heads available in all XT Styles and Ultima System

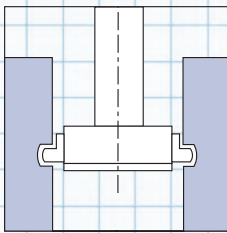
2 Point Special Measuring Heads

Groove Measuring Heads

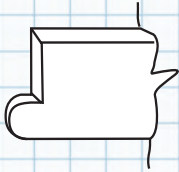
- Available as 2 point head.
- Various anvil forms available.
- Diameters from 1/4-12"/6-300mm.
- XT extended range for tight entry size vs. groove size.



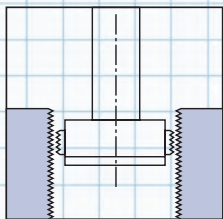
Plan View



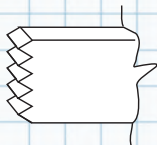
Sample Profile



Plan View

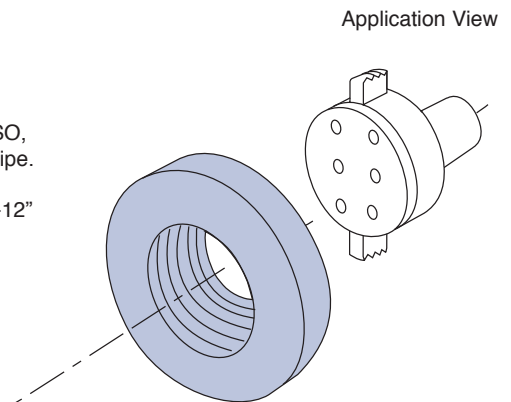


Sample Profile

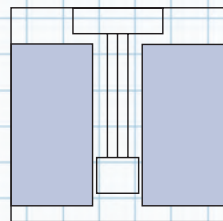


Thread Measuring Heads

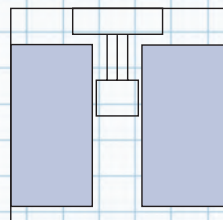
- Available as 2 or 3 point head.
- Any thread form can be made: Ansi, ISO, Whitworth, ACME, JIS, Buttress and Pipe.
- Various anvil forms available.
- Diameters from M4-300mm and 8 UN-12" diameter.



Plan View

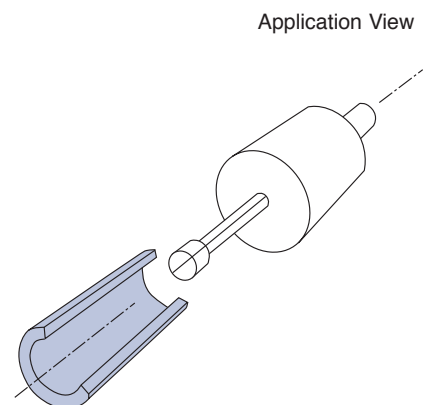


Shallow Bore



Special Length - Small Diameter

- Can be supplied in diameters from 2 – 6mm.
- Not available in 3 point.
- Depth dependent on diameter.
- Split cylinder or split ball form.
- Spherical contacts available.
- Excellent for small - deep bore applications.



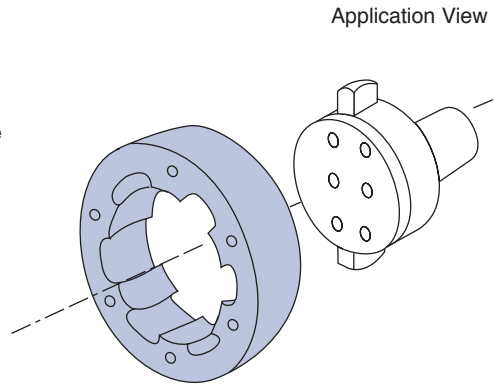
Contact the Fowler Technical Department for special head applications.

Bowers Special Applications

2 and 3 Point Special Measuring Heads

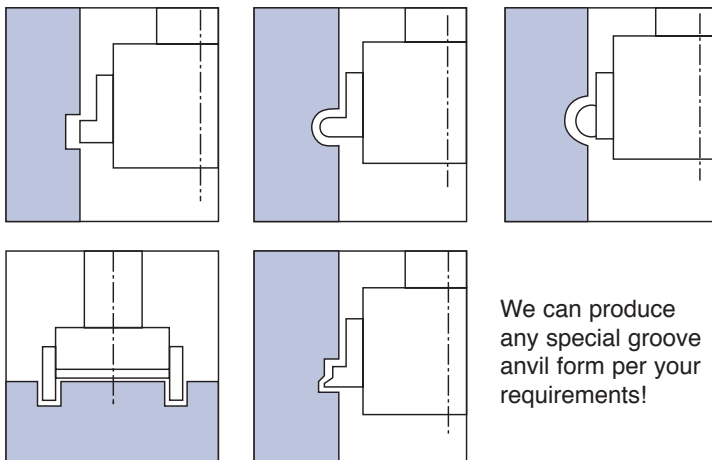
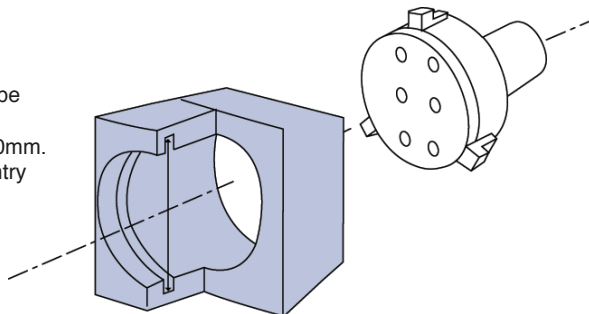
Spherical Radius

- Can be supplied as a 2 point for ovality or 3 point contact.
- Available from 1/4-12"/6-300mm.
- Spherical anvil radius provides repetitive measurements in deep bore and large bore measuring.
- No need to rock the anvils for TDC size or measuring within 12 degrees off center.



Groove measuring heads

- Available as 2 or 3 point head.
- Various anvil forms available.
- Nearly any shape or size can be accommodated
- Diameters from .080-12"/2-300mm.
- XT extended range for tight entry size vs groove size.

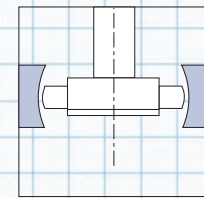


We can produce any special groove anvil form per your requirements!

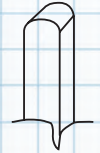
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Sample Profile

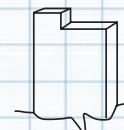
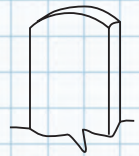
Plan View



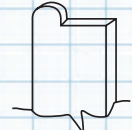
front



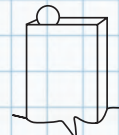
side



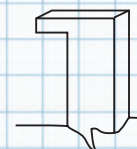
Oil Seal



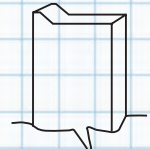
'O' Ring



Ball Race



Annular



Special Forms

Bowers Special Applications

Splines (odd and even number of teeth)

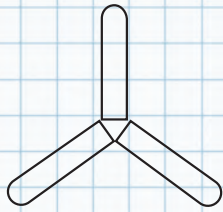
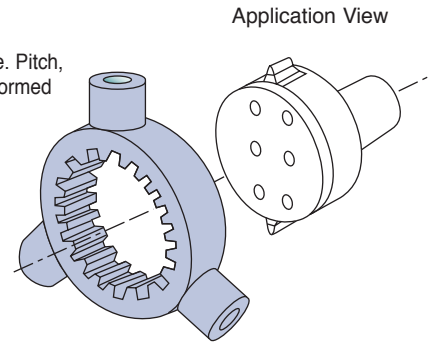
2 and 3 point Internal Spline heads

2 and 3 point heads machined to suit particular spline. Pitch, Major and Minor diameter heads fitted with 1 piece formed anvils.

Sizes available from 5/16-12" / 8-300mm diameter.

Particularly suited for measuring all types of internal splines. We can supply odd or even tooth, raked, offset, angled and vertical splines. We can supply heads in 2 and 3 point configuration, with ball style or pin style anvils. Specialty tapered spline heads, used in the automotive and aircraft industries can also be supplied.

API gaging and other oil industry specific gages can also be supplied upon request.

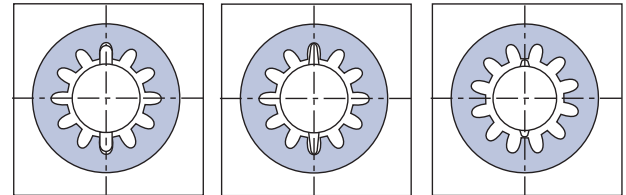


3 Point anvil position



2 Point anvil position

Plan View



Pitch Diameter

Major Diameter

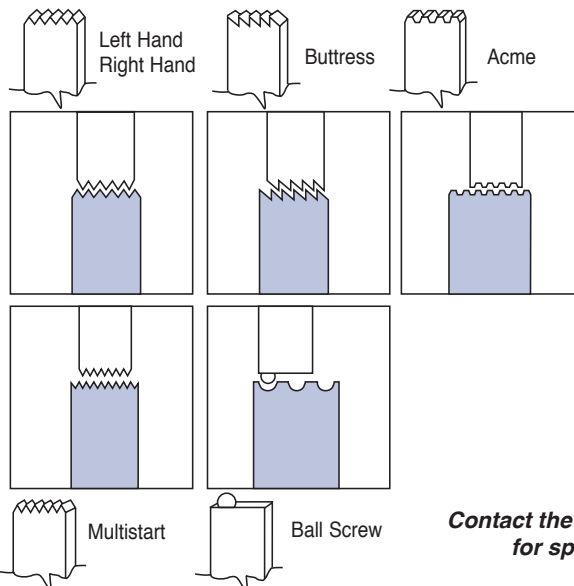
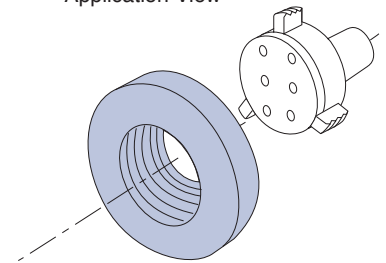
Minor Diameter

Screw Thread Measuring Heads

Internal Thread

- To measure effective (functional) diameter, pitch diameter, major diameter, between M4-300mm and 8 UN-12" diameter.
- Available for the following types of thread form: UN (UNF, UNC, UNJ, UNS) Metric, Acme, Whitworth, Buttress, BSP, BA, BSF, PG, Standard Pitches, LH.
- Other forms and sizes also available upon request.

Application View

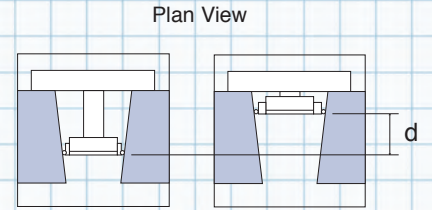
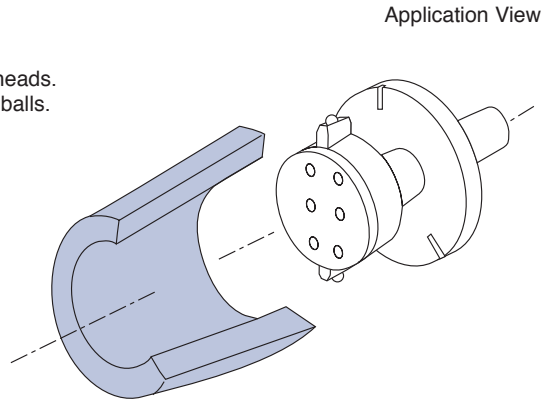


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Bowers Special Applications

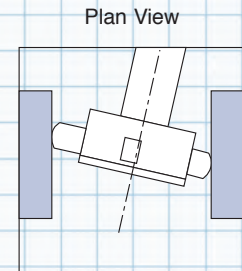
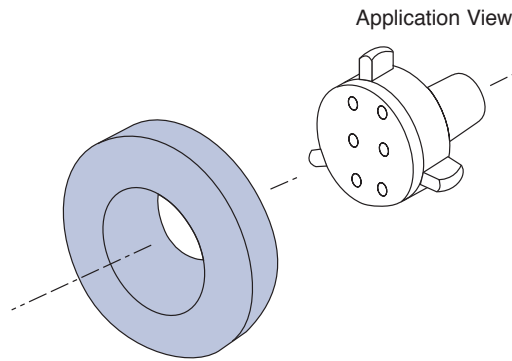
Taper

- Set using distance 'd' between two heads.
- Point contact on bore using carbide balls.
- 3 point also available.



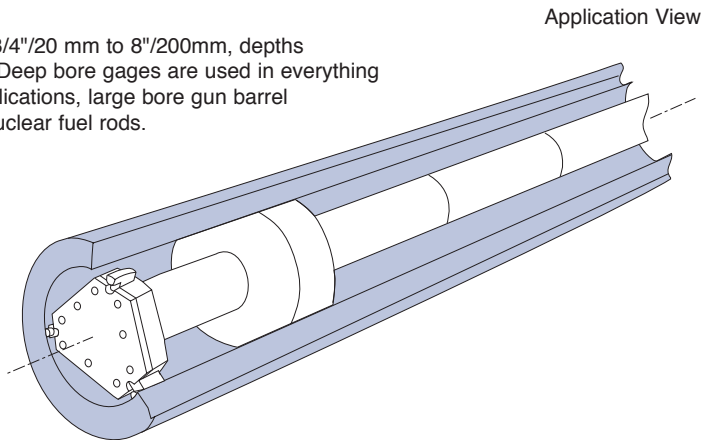
3 Point Spherical

- Gives good repeatability even when out of line with bore center. Available from .250-12"/6-300mm diameter on digital systems.
- The spherical anvil gives the gage operator chance to be off axial center by up to 15 degrees, and still have a correct reading on the display
- Normally used with a stop collar or depth stop device, the spherical anvils also allow minimum contact between the gage and workpiece.

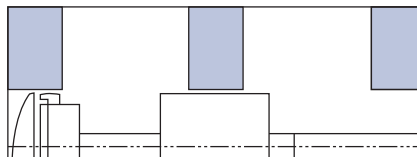


Deep Hole Gaging

For diameters from 3/4"/20 mm to 8"/200mm, depths 20"/500mm to 15m. Deep bore gages are used in everything from oil well drill applications, large bore gun barrel measurement and nuclear fuel rods.



Can be fitted with spacers to allow segments to be measured throughout the depth of the bore.



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