

Plug Gauges

Involute, Parallel & Serration



Splined Plug Gauges are used to check circular space width on an internal splined component.

Spline specialises in the manufacturing of Splined Plug Gauges and is able to offer a wide range of internationally recognised standards and any bespoke designs to meet your gauging requirements. Some of the common standards include:

- DIN
- JIS
- ANSI/A
- SAE
- GMA
- NF E
- ISO
- NAS
- BS
- RVZ

Spline is also able to supply Tapered Plug Gauges, Plain Diameter Plug Gauges & Taper Plain Diameter Plug Gauges.

Spline also have the capabilities to produce Straight or Helical splined Plug Gauges.

Spline typically manufacture plug gauges in 01 tool steel which has a hardness rockwell (HRC) of 60-62 however we can also manufacture in other materials such as high speed steel which is more durable offering extended life. Other materials we offer are:-

- A2 (61-63 HRC)
- ASP23 (64-65 HRC)
- ASP30 (65-66 HRC)

Taper Master Plug Gauges

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Splined Taper Master Plug Gauges (TMP) are taper tooth master plugs with fit and wear lines. Taper Master Plug Gauges are used to monitor the wear of Ring Gauges during component manufacture.

Spline also have the capabilities to produce Straight or Helical splined Taper Master Plug Gauges.

Helical Master Gears



Helical master gears are used for the composite checking of components, this is generally achieved by putting the master and component gears in hard mesh on a machine that records the deviation of centre distance during rotation of the gears.

Spline specialise in the manufacture of helical master gears and pride ourselves

on our supreme quality. Spline is also able to offer a wide range of internationally recognised standards to meet any customer requirement. Some of the common standards include:

- DIN (Quality 3 & 4)
- AGMA (Quality 1,2,3 & 4)
- ISO (Quality 3 & 4)

Spline also have the capabilities to produce and supply bespoke helical master gears to suit customer requirements. Our manufacturing capabilities are:-

- Diameter (Min/Max) - 5mm – 400mm
- Pressure Angle (Min/Max) - 5° – 50°
- Module (Min/Max) - 0.12 – 10
- Helix Angle (Min/Max) - 0° – 50°

Spline typically manufacture helical master gears in 01 tool steel which has a hardness rockwell (HRC) of 60-62 however we can also manufacture in other materials such as high speed steel which is more durable offering extended life. Other materials we offer are:-

- A2 (61-63 HRC)
- ASP23 (64-65 HRC)
- ASP30 (65-66 HRC)

Helical Internal Master Component Replica



Helical Internal Master Component Replicas are used for setting dimension under balls. This product can also be used for setting up roll checking equipment.

Spline specialises in the manufacture of Helical Internal Master Component Replicas and pride ourselves on our supreme quality. Spline is also able to offer a wide range of internationally recognised standards to meet any customer requirement. Some of the common standards include:

- DIN (Quality 3 & 4)
- AGMA (Quality 1,2,3 & 4)
- ISO (Quality 3 & 4)

Spline also have the capabilities to produce and supply bespoke Helical Internal Master Component Replicas to suit customer requirements. Our manufacturing capabilities are:-

- Diameter (Min/Max) - 50mm – 250mm
- Pressure Angle (Min/Max) - 5° – 50°
- Module (Min/Max) - 0.5 – 4
- Helix Angle (Min/Max) - 0° – 45°

Ring Gauges

Involute, Parallel & Serration



Splined Ring Gauges are used to check tooth thickness on an external splined component. Ring Gauges can also be manufactured to fit new or existing taper master plug gauges (see taper master plug gauges for more information).

Spline specialises in the manufacturing of Splined Ring Gauges and is able to offer a wide range of internationally recognised standards and any bespoke designs to meet your gauging

requirements. Some of the common standards include:

- DIN
- JIS
- ANSI/A
- SAE
- GMA
- NF E
- ISO
- NAS
- BS
- RVZ

Spline are also able to supply Tapered Ring Gauges, Plain Diameter Ring Gauges & Taper Plain Diameter Ring Gauges.

Spline also have the capabilities to produce Straight or Helical splined Ring Gauges.

Spline typically manufacture ring gauges in 01 tool steel which has a hardness rockwell (HRC) of 60-62 however we can also manufacture in other materials such as high speed steel which is more durable offering extended life. Other materials we offer are:-

- A2 (61-63 HRC)
- ASP23 (64-65 HRC)
- ASP30 (65-66 HRC)

Spur Master Gears



Spur master gears are used for the composite checking of components, this is generally achieved by putting the master and component gears in hard mesh on a machine that records the deviation of centre distance during rotation of the gears.

Spline specialises in the manufacture of spur master gears and pride ourselves on our supreme quality. Spline is also able to offer a wide range of internationally recognised standards to meet any customer requirement.

Some of the common standards include:

- DIN (Quality 3 & 4)
- AGMA (Quality 1,2,3 & 4)
- ISO (Quality 3 & 4)

Spline also have the capabilities to produce and supply bespoke spur master gears to suit customer requirements. Our manufacturing capabilities are:-

- Diameter (Min/Max) - 5mm – 400mm
- Pressure Angle (Min/Max) - 5° – 50°
- Module (Min/Max) - 0.12 – 10

Spline typically manufacture spur master gears in 01 tool steel which has a hardness rockwell (HRC) of 60-62 however we can also manufacture in other materials such as high speed steel which is more durable offering extended life. Other materials we offer are:-

- A2 (61-63 HRC)
- ASP23 (64-65 HRC)
- ASP30 (65-66 HRC)



0015



ISO 9001:2000 FS 503702



ISO 14001:2004 EMS 525187



ENERGY



MARINE



AEROSPACE



DEFENSE



AUTOMOTIVE



INDUSTRIAL

Variable Spline Indicator Ring Type

Involute, Parallel & Serration



Ring Type Variable Spline Indicators are used to check effective & actual tooth thickness on an external splined component. These Spline indicators are typically supplied with digital Mitutoyo indicators which display a readout of the tooth thickness.

Functional Go and NoGo Ring Gauges are perfectly adequate for some manufacturers as they confirm if a component is within or outside the required tolerance band however for some manufacturers it is necessary

to actually measure and record the tooth thickness.

- DIN • ANSI/A • ISO • BS
- JIS • SAE • NF E • NAS • RVZ

Spline Gauges also have the capabilities to produce Straight or Helical Ring Type Versa Spline Gauges to suit customer requirements.

Variable Spline Indicator Plug Type

Involute, Parallel & Serration



Plug Type Variable Spline Indicators are used to check effective & actual circular spacewidth on an internal splined component. These Spline indicators are typically supplied with digital Mitutoyo indicators which display a readout of the circular spacewidth.

Functional Go and NoGo Plug Gauges are perfectly adequate for some manufacturers as they confirm if a component is within or outside the required tolerance band however for some manufacturers it is necessary

to actually measure and record the circular spacewidth.

Spline specialises in the manufacturing of Variable Spline Plug Type Indicators and is able to offer a wide range of internationally recognised standards and any bespoke designs to meet your gauging requirements. Some of the common standards include:

- DIN • ANSI/A • ISO • BS
- JIS • SAE • NF E • NAS • RVZ

Spline Gauges also have the capabilities to produce Straight or Helical Ring Type Versa Spline Gauges to suit customer requirements.

Versa Indicating Ring Type Gauges

Involute & Serration



Ring Type Versa Spline Gauges are mainly used to check dimension over pins on an external splined component, however Ring Type Versa Gauges can also be used to check the Major or Minor diameter on an external splined component. These Versa gauges are typically supplied with digital Mitutoyo indicators which display readout of the dimension over pins, major diameter or minor diameter.

Ring Type Versa Spline Gauges typically has two spring loaded balls locating on the feature they are checking.

Spline specialises in the manufacturing Ring Type Versa Spline Gauges and is able to offer a wide range of internationally recognised standards and any bespoke designs to meet your gauging requirements. Some of the common standards include:

- DIN • ANSI/A • ISO • BS

Spline Gauges also have the capabilities to produce Straight or Helical Ring Type Versa Spline Gauges to suit customer requirements.

Versa Indicating Plug Type Gauges

Involute & Serration



Plug Type Versa Spline Gauges are mainly used to check dimension under pins on an internal splined component, however Plug Type Versa Gauges can also be used to check the Major or Minor diameter on an internal splined component. These Versa gauges are typically supplied with digital Mitutoyo indicators which display readout of the dimension under pins, major diameter or minor diameter.

Plug Type Versa Spline Gauges typically has two spring loaded balls locating on the feature they are checking.

Spline specialises in the manufacturing Plug Type Versa Spline Gauges and is able to offer a wide range of internationally recognised standards and any bespoke designs to meet your gauging requirements. Some of the common standards include:

- DIN • ANSI/A • ISO • BS

Spline Gauges also have the capabilities to produce Straight or Helical Ring Type Versa Spline Gauges to suit customer requirements.

Rotalock Mandrels

Involute, Parallel & Serration



Spined Rotalock arbors have a rotating section of teeth for clamping on internal splined components and are used for machining and inspection purposes.

Spline also design and manufacture expanding key type arbors and expanding collets. Expanding key type arbors are generally used for clamping on major diameter fitting splines for machining

or grinding purposes. Expanding spline collets utilise a split collet with a spline on the outside mounted on a ground tapered diameter mandrel.

Spline specialises in the manufacturing of Rotalock Arbors, Expanding Key Type Arbors and Expanding Spline Collets to suit customer requirements.

Lock-Up Concentricity Ring Gauges

Involute, Parallel & Serration



Spined Lock-Up Concentricity Ring Gauges are used for inspecting the concentricity of a Spline relative to another feature on a component.

The Concentricity Ring has a moving section of Splined teeth which clamp onto the component and has a ground outside diameter which is concentric to the spline. A dial indicator is then applied

to the concentric outside diameter, the component is then rotated and the indicator provides a measurement of the concentricity of the component spline.

Spline specialises in the manufacturing of Lock-Up Concentricity Ring Gauges and is able to offer a wide range of internationally recognised standards and any bespoke designs to meet your gauging requirements. Some of the common standards include:

- DIN • ANSI/A • ISO • BS

Spline also have the capabilities to produce straight or helical Lock-Up Concentricity Ring Gauges.

Tapered Spline Mandrels

Involute, Parallel & Serration



Spined Tapered Mandrels are used for the inspection of the concentricity of an internal spline relative to another component feature such as a diameter. The mandrel has tapered teeth for side fits splines or tapered major diameter for major diameter fit splines.

Spline specialises in the manufacturing of Tapered Spline Mandrels and is able

to offer a wide range of internationally recognised standards and any bespoke designs to meet your gauging requirements. Some of the common standards include:

- DIN • ANSI/A • ISO • BS
- JIS • SAE • NF E • NAS • RVZ

Spline also have the capabilities to produce Straight or Helical Tapered Mandrels to suit customers exact requirements.

Lead and Involute Artefacts



Highly accurate lead and involute artefacts are used for the verification of gear testing machines.

Spline specialise in the manufacture of lead and involute artefacts and pride ourselves on our supreme quality. Spline is also able to offer a wide range of internationally recognised standards to meet any customer requirement. Some of the common standards include:

- DIN (Quality 3 & 4)
- AGMA (Quality 1,2,3 & 4)
- ISO (Quality 3 & 4)

Spline also have the capabilities to produce and supply bespoke lead and involute artefacts to suit customer requirements. Our manufacturing capabilities are:-

- Diameter (Min/Max) - 10mm – 375mm
- Module (Min/Max) - 0.2 – 10
- Pressure Angle (Min/Max) - 5° – 50°
- Helix Angle (Min/Max) - 0° – 50°