



“the world’s best spline gauges
and master gears”

FRENCO

International






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Frenco International are world leaders in the manufacture of spline plug and ring gauges, for involute, serration and straight sided splines, also master gears spur and helical.

The same high standards are employed to produce low volume (splined and geared) components for precision applications, many to an accuracy of three microns.

To facilitate a rapid response while maintaining high precision, regardless of challenging lead times our design office is fully equipped with the latest CAD based technology enabling technical data in most formats to be easily shared.

Frenco design spline gauges and master gears to meet with the customer's requirements in various materials and coatings all of which can be supplied with UKAS certification from our new state of the art Wenzel CNC - WGT 350 gear analyser.

With a global customer base, including world class motor racing teams, aerospace, defence, automotive, and many other industries. – More than 80% of production is exported through a network of selected international agents offering expert advice to customers.

With the stability and strength of this truly international service, no-one is better equipped to deliver world class measuring solutions for transmission manufacturers.



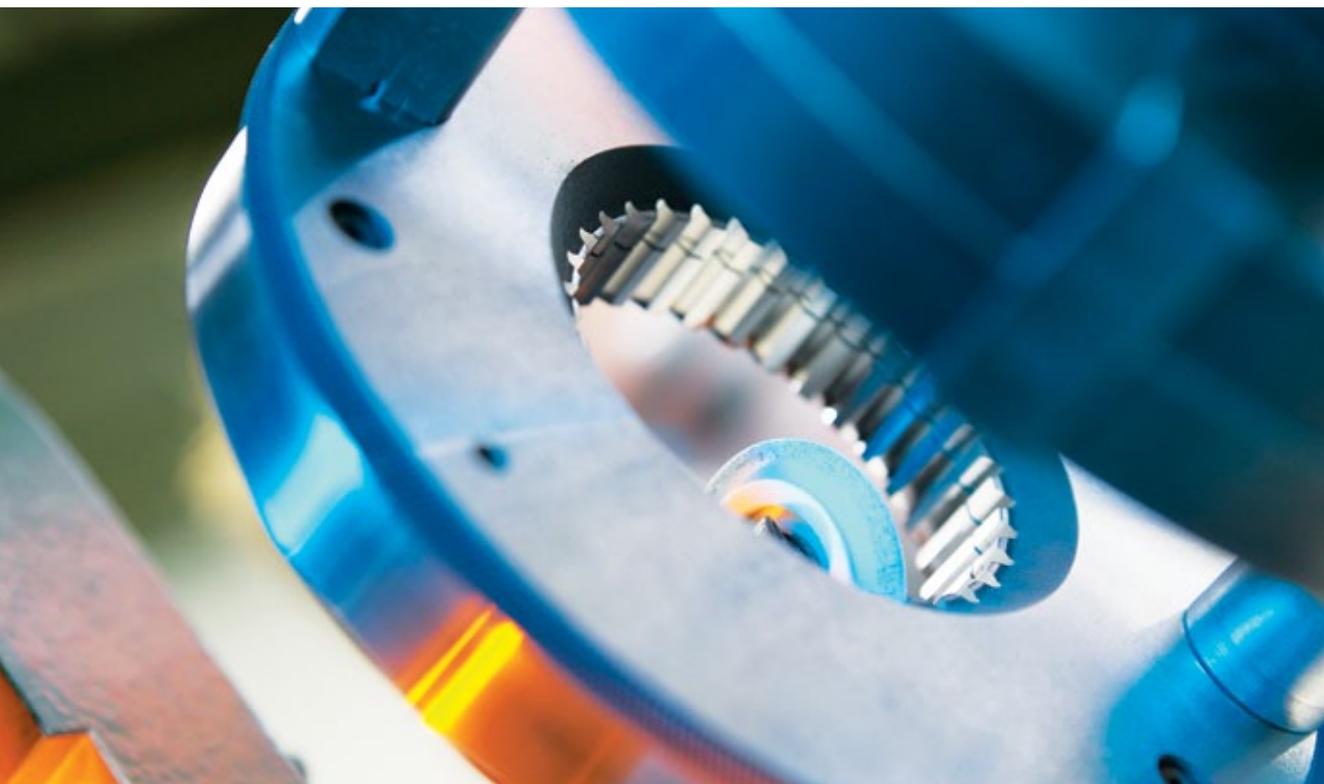
Spline Gauges

Frenco, a proven leader in the meticulous discipline of gauge manufacture, offer a variety of spline gauge designs for the measurement of the “Go” and “No-Go” condition of internal and external splines, with involute, serration or straight sided profiles.

The product range includes attribute based gauges and indicating gauges that can be designed according to the measurement application and the data required.

Using component data and drawings, our team of experienced engineers will design spline gauges appropriate to the specific requirement of the customer and recommend the most suitable materials.

The gauges are manufactured complete at Frenco, the final production being produced to the highest technical standards.



Master Gear

The manufacture of master gears is the ultimate combination of the expertise of the design team and the production skills that are essential to achieve the exceptional level of quality that a modern transmission plant demands for the measurement of precision component gears.

Frengo design and manufacture a wide range of spur and helical master gears complying with all major international standards including BS, AGMA and DIN and backed by their UKAS laboratory. The master gears can be designed to follow basic gear proportions or to suit specific applications using the customer component data.

Master gears are produced in a wide range of materials from hardened tool steels for inspection purposes, through to High Speed Steel for higher frequency use and superior wear resistance. Specialist coatings can also be applied to further increase resistance to wear and corrosion.

Performance

CAPABILITIES	SPUR	HELICAL
Maximum Pitch Diameter	250mm (10")	150mm (6")
Maximum Pitch	6 MOD (4 DP)	6 MOD (4 DP)
Minimum Pitch	0.2 MOD (127 DP)	0.3 Mod (85 DP)
Maximum Face Width	150 mm (6")	38 mm (1.5")
Maximum Helix Angle	N/A	45° (R & L Hand)

Precision Wire Erosion

Frenco are constantly investigating ways to improve production whilst maintaining the highest quality standards, resulting in improved lead time and cost savings for the customer. Off-line precision wire erosion programs developed at Frenco are unique and offer advanced accuracy for fine tolerance profiling.

A sophisticated facility including the Robofil 4020 Precision Wire Erosion Machine and two Fanuc Wire Erosion Machines enable Frenco to achieve customer satisfaction for quality, on time (and express) delivery at competitive prices.

The Robofil 4020 has a Surface Integrity enhancement (SI) for virtual elimination of any re-cast layer, with profile errors less than 0.003 mm. For gauges with standard blanks suitable for a nesting fixture, multiple items can be produced with "lights out" running to give even greater economies of scale.



UKAS Inspection

The metrology laboratory at Frenco is certified to ISO/IEC 17025 through the United Kingdom Accreditation Service. UKAS is the sole national accreditation body recognised to assess against international agreed standards for organisations that provide certification, testing, inspection and calibration services. Accreditation by UKAS ensures the competence, impartiality and performance capability of the Frenco laboratory and its systems.

The laboratory is temperature controlled to 20° C (+/- 1° C) ensuring total accuracy with gauges and gears stabilised for 24 hours before measurement takes place on a range of metrology equipment including the new Wenzel CNC - WGT 350 gear analyser.

The service primarily supports in-house manufacture but is also available to investigate customer issues concerning 'fit and wear' and recalibration / certification of existing gauges and master gears.



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