

OERLIKON SPIRAL BEVEL GEAR CUTTING MACHINE C 15

Today, modern production of spiral bevel gears takes place within an integrated process. This process interlinks design, calculation, production and quality inspection. The Oerlikon spiral bevel gear cutting machines are an important constituent of this production process. Their concept is, amongst other things, designed for the modern production technology of dry processing without the use of cooling lubricants.

The C 15 is especially designed for smaller gear sizes. The machine is equipped with direct drives for the workpiece and tool spindles. With a tool spindle speed of 2,000 revolutions per minute, the C 15 enables cutting speeds of over 300m/min with a 2" cutter head.

Even with a large number of cutter head starts and small numbers of workpiece teeth or with small cutter head diameters, cutting speeds can be achieved which, at 240 to 300 m/min, allow extremely economical dry processing.



AT A GLANCE

- 6-axis CNC machine for high efficient bevel gear cutting
- Tried-and-tested axis concept for compact design
- High-performance tools made of carbide
- Short retooling times thanks to ergonomic machine design
- Unrivalled gearing and surface quality
- Energy-efficient (e²)



RANGE OF APPLICATION

RANGE OF APPLICATION	C 15	
	CONTINUOUS INDEXING	SINGLE INDEXING
Workpiece data		
Workpiece diameter (max.)	Ø 150 mm	Ø 200 mm
Normal module range (min. – max.)	1 – 4 mm	1 – 5.5 mm
Tooth width (max.)	40 mm	
Smallest/largest spiral angle	0°/60°	
Smallest/largest number of teeth	6/180	
Smallest/largest gear ratio	1:1/1:10	
Tool data		
Cutter head radius/cutter head diameter	18 – 88 mm	1" – 7.5"
Cutter head spindle (A axis)		
Seating diameter: Gleason outer cone, No. 14; 1:24	Ø 58.227 mm	
Cutter head spindle speed (max.)	2,000 rpm	
Workpiece spindle (B axis)		
Seating diameter: Oerlikon outer cone 1:4	Ø 140.11 mm	
Seating diameter: Oerlikon inner cone No. 39; 1:19,764	Ø 99.258 mm	
Workpiece spindle opening	Ø 90 mm	
Workpiece spindle speed (max.)	1,500 rpm	
Total connected load	30 kVA	
Machine dimensions (L x W x H) approx.	3,670 x 2,025 x 2,050 mm	
Net weight approx.	11,200 kg	

The above-mentioned maximum values were determined for industry-typical gear units.
If necessary it has to be examined whether maximum values can be combined.

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