

OERLIKON BEVEL GEAR CUTTING MACHINE C 27

Today, modern production of bevel gears takes place within an integrated process. This process interlinks design, calculation, production and quality inspection. The Oerlikon 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.

Like all Oerlikon bevel gear cutting machines, the C 27 also forms a constituent of a standard modular system and extends the Klingelberg modular machine concept. The application range of the C 27 is designed for gear sizes used in passenger cars or small trucks. The machine, which uses direct drives, is able to cut bevel gears up to a workpiece diameter of 270 mm.

The C 27 sets due to the high speed of its workpiece and cutter head spindle new standards. The combination of a high number of blade groups and high spindle speeds allows most economical cutting speeds even for gears with small number of teeth.



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
- Unrivaled gearing and surface quality
- Energy-efficient (e²)



RANGE OF APPLICATION

	C 27	
	CONTINUOUS INDEXING	SINGLE INDEXING
Workpiece data		
Workpiece diameter (max.)	Ø 270 mm	
Normal module range (min. – max.)	1.5 – 6.5 mm	
Tooth width (max.)	58 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	39 – 105 mm	3.25" – 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.)	1,500 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	40 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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