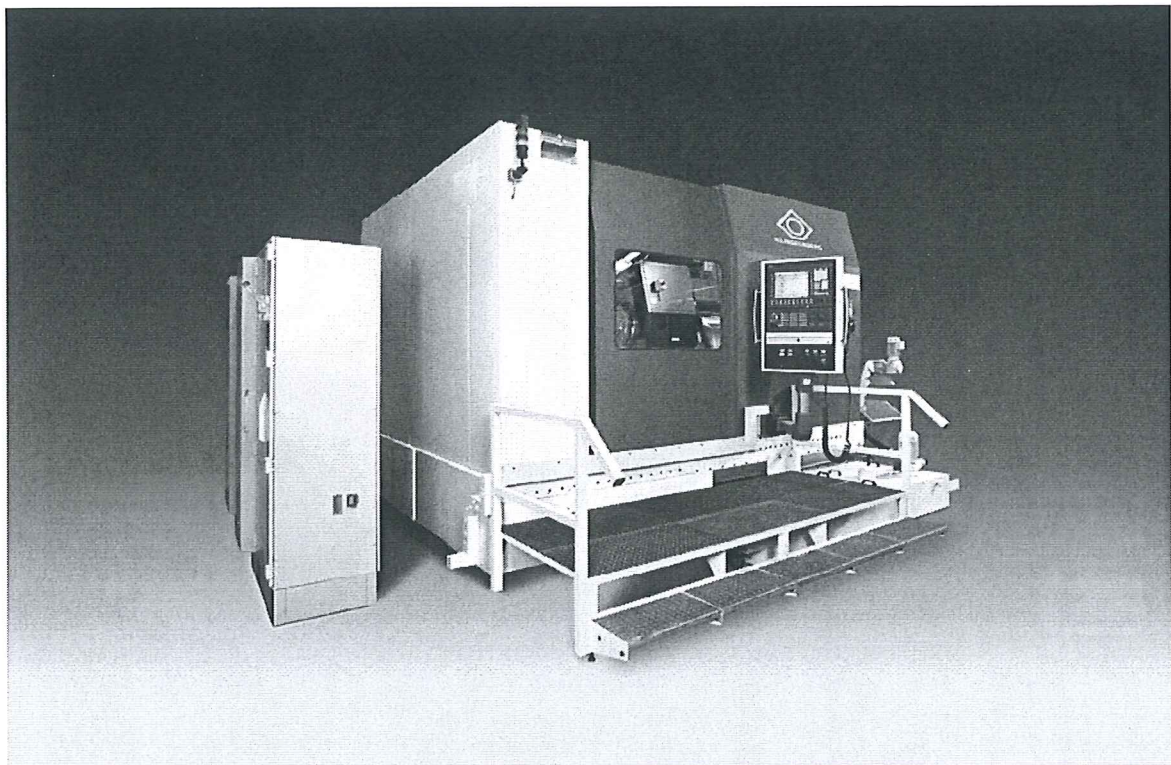


Technical Information

(Standard specification)

C100U



Universal spiral bevel gear cutting machine



KLINGELNBERG

2 Technical data

2.1 Dimensions and weights

Total surface requirements (L x W x H)	6165 x 3600 x 3200 mm
Net weight including regular accessories,	approx. 37400 kg

2.2 Performance and connection data

Total connection power	80 kVA
Voltage	3 x 400 V ± 10%
Voltage tolerance	+ 10%
Frequency	50 Hz
Frequency accuracy	± 1%
Fuse	250 A idle
Voltage interruption	max. 3 ms
Voltage dip	max. 20% of crest voltage during max. 20 ms
Voltage peaks	max. 200% of nominal voltage during 1.5 ms
Upper wave content	max. 10% of actual value
Power supply symmetry	Voltage difference between 2 phases max. 2% of nominal voltage
Grounding	voltage interference-free
Control voltage	24 V, DC
Special versions	upon request
Power supply versions	see Chapter 5

2.3 Werkstückdaten

Workpiece diameter max.	1000 (1150)* mm
Normal module	2 ... 13 (15,5)*
Largest millable tooth width	160 mm
Spiral angle	0 ... 60°
Tooth numbers, millable	6 ... 180
Largest transmission ratio	1 : 10
Smallest transmission ratio	1 : 1

* Expanded application field

2.4 Tool data

Cutter head radius / Blade group number	135 mm / 5
	170 mm / 5
	210 mm / 5
	260 mm / 5

2.5 Air (Option)

Pressure	min. 3.5 bar ... max. 10 bar
Quantity	50l / min
Moisture pressure dew point up to max.	10°C
Temperature	10°C ... 40°C
Solid particle sizes up to	40 µm

2.6 Axis data

Tool spindle (A axis)	
Mounting diameter	
External: short cone 1 : 5	285 mm
Internal: short cone 1 : 20	60 mm
Eccentricity	0 ... 15 mm
Spindle rotation (universal process)	75 min ⁻¹
Spindle rotation (single-piece cutter heads with adapter)	133 min ⁻¹
Transmission	1 : 30
Cutter head radius (universal process)	135 ... 260 mm
Cutter group numbers (universal process)	5
Nominal tool drive power	17 KW

Workpiece spindle (B axis)	
Mounting diameter:	Ø 360 mm
Workpiece spindle aperture	270 mm
Workpiece spindle rotation	40 min ⁻¹
max. permissible motor rotation	2100 min ⁻¹
Transmission	1 : 52.5
Workpiece drive nominal power	17 KW

Workpiece swivel axis (C axis)	E axis	V axis
Swivel range	0° ... 95°	±7.5°
Travel speed	1800°/min	1098°/min
max. permissible motor rotation	400 min ⁻¹	960 min ⁻¹
Transmission	80 : 1	1 : 1

Workpiece positioning axis (Y axis)	
Travel	1490 mm
max. travel speed	5 m/min
max. permissible motor rotation	2000 min ⁻¹
Transmission	3 : 1
Spindle stroke	10 mm

Tool positioning axis (Z axis)	
Travel	± 400 mm
max. travel speed	5 m/min
max. permissible motor rotation	2000 min ⁻¹
Transmission	3 : 1
Spindle stroke	10 mm

2.7 Supply

Hydraulic unit	
Fill quantity	90 l/90 l
Supply performance	35 l/min
Circular lubrication *	
Fill quantity	360 l
Delivery performance	20 l/min
Impulse lubrication *	
Delivery performance (impulse lubrication)	0.55 l/min
Delivery performance (cooling circuit)	11.9 l/min
Coolant (wet cutting)	
Fill quantity	850 l
Delivery performance	400 l/min

* Circular lubrication and impulse lubrication are supplied from the same reservoir.

2.8 Interfaces

Diskette drive: Parts program with diskette	1.44 MB
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2.9 Location and operation conditions

Room	closed, dry
Room temperature	10°C ... 40°C
Max. moisture	75%
Floor: positioning on foundation, floor level, dry and clean. Floor load capacity: floor must be free from external vibrations.	4000 daN/m ² = 820 lbs./sqft

2.10 Emissions

Average machine noise peak level, according to DIN 45635 < 75 dBA

3 Storage room

For the period between delivery of the testing machine and assembly / commissioning a suitable room for intermediate storage has to be provided.

This room must meet at least following requirements:

- Free of dripping water or rain
- Temperature range: +10 ... +40°C
- Atmospheric humidity: max. 75%