KEL-VISTA

The economical universal CNC machine

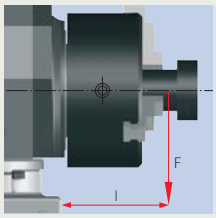
KELLENBERGER®

EXPECT MORE™

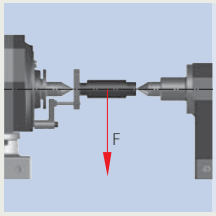
KEL-VISTA – The economical universal CNC machine

Workhead
- n8-800 min-1

Spindle nose
- size 5 DIN 55026
- morse taper 5



Load with chucked work
- 100 Nm



Load between centres
- 100 kg

Design
- separation of base and infrastructure
- no external influences on machining processes

KEL-VISTA - The machine offering an optimal view on the grinding process, economical, innovative in set-up and operation.

Designed for use in highly demanding tool- and mouldmaking, in machine and prototype construction, in maintenance workshops, laboratories, for economical small and medium batch production, or, in other words, wherever flexibility, precision and cost-effectiveness are indispensable.

The KEL-VISTA is designed to be a cost-effective CNC-alternative to hydraulically-controlled cylindrical grinding machines.

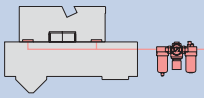
Programming knowledge is now no longer necessary, thanks to the simple, user-friendly Kellenberger menu-based programming. The KEL-VISTA has been very compactly designed with coolant tray which is separated from the machine base, an integrated transport system and swivelling upper table. The swivelling workhead is suitable for grinding between dead centres and for chucked work, is a further example of the machine's progressive design. The thermally-optimized bearings guarantee the highest roundness and dimensional accuracy.

Tailstock
- morse taper 4
- retraction of sleeve 48 mm

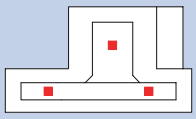
Micro-adjustment of tailstock
- adjustment range +/- 60 µm

Upper table swiveling

Upper table with air cushioning feature



Three-point set-up
- no special foundations required for installation

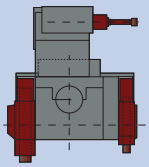


Also the wheelheads of the UR-, R- and RS-machine models exhibit thermal stability thanks to optimized spindle bearings and water-cooled motors.

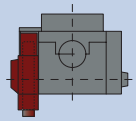
The Z-axis movement uses traditional guideways, which guarantees a high degree of damping, while the X-axis movement utilizes roller guideways, which in turn facilitates non-stick slip positioning.

The KEL-VISTA is the synonym for cost-optimized, 100% reproducible universal grinding thanks to its CNC-control system.

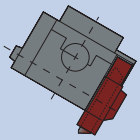
KEL-VISTA – Wheelheads



UR-wheelhead
for external, internal and face grinding
- v-constant for external grinding
- infinitely variable drive for external grinding



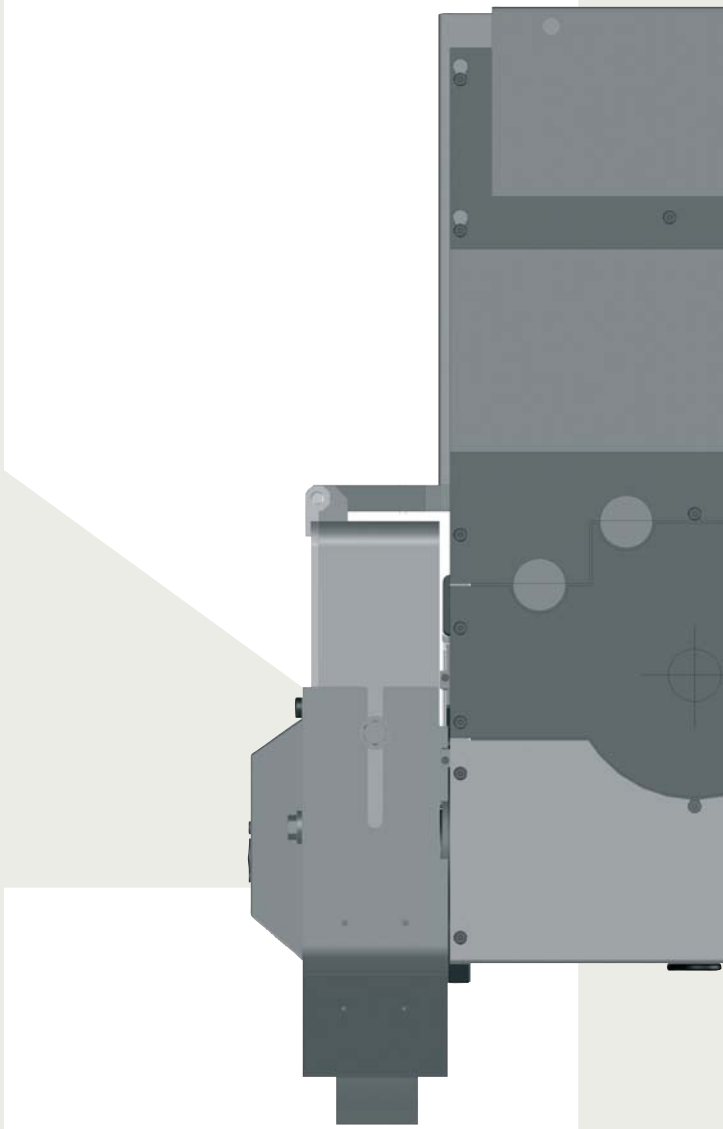
R-wheelhead
for external cylindrical grinding
- v-constant



RS-wheelhead
for Angular infeed grinding
- grinding lengths 400 / 800 mm
- v-constant

Water-cooled precision-balanced drive motors
- use of spindle bearings

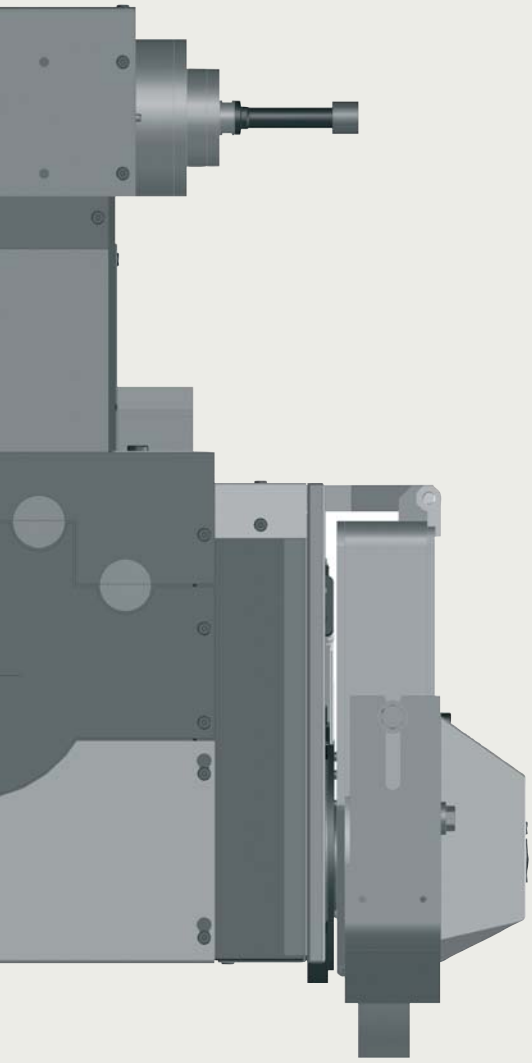
Hydrodynamic multi-surface spindle bearings
- high-accuracy spindle bearings, pre-stressed



UR-Wheelhead
- Wheelhead for external and internal cylindrical, and for face grinding
- Internal grinding with variable peripheral wheel speed
- Automatic swivelling of the wheelhead, 1° indexing
- Thermal stability, thanks to optimized spindle bearings and a water-cooled motor
- Motor output 5 kW
- Grinding wheel dimensions
  ø 400 x 63 x 127 mm or
  ø 450 x 80 x 203 mm

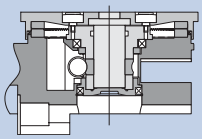
RS/R-Wheelhead
- Wheelhead for external cylindrical- or angular infeed grinding
- Thermal stability, thanks to optimized spindle bearings and a water-cooled motor
- Manual swivelling of the wheelhead, 2.5° indexing
- Motor outpout 5 kW
- Grinding wheel dimensions
  ø 450 x 80 x 203 mm

Internal Grinding / Swivelling system / Accessories

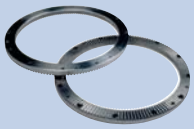


Internal grinding attachment
- Belt-driven internal grinding spindle
  828 = max. 28000 min^{-1}
  842 = max. 42000 min^{-1}
  860 = max. 60000 min^{-1}

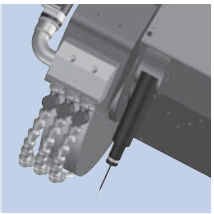
Indexing
- manual indexing 2.5°
- automatic indexing 1°



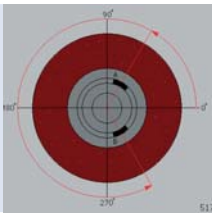
Hirth coupling



Active flagging device KEL-POS
- determines component position in Z-axis
- mounted on wheelhead



KEL-BALANCE
- semi-automatic balancing for 1 or 2 wheels



The advantages at a glance

Universal applications
The cost-effective alternative to hydraulically-operated cylindrical grinding machines

Simple operation
No programming knowledge necessary

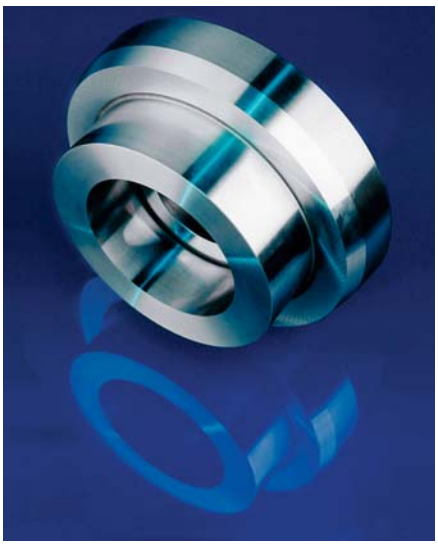
GE Fanuc 21i CNC control system
Super simple operation thanks to menu-prompting

Thermally stable wheelhead
Thanks to optimized spindle bearings and a water-cooled motor

Excellent visibility of the grinding process
Due to the ideal arrangement of the viewing windows and centre height

Optimized ergonomics
For manual loading and unloading on account of the low machine base height

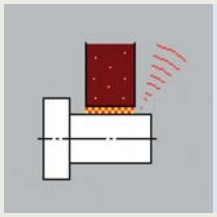
The CNC-alternative
At the price of a hydraulic machine
- The new definition of a universal cylindrical grinding machine
- Very short change-over times, thanks to a travelstick and a handwheel
- Comprehensive accessories for the most varied applications



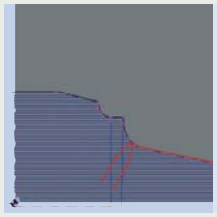
KEL-VISTA – GEFanuc 21i Control System

Monitor
- 10.4" TFT
- Softkeys

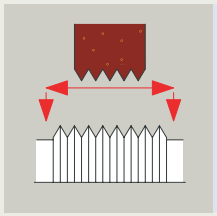
- travel stick for an easy an rapid set-up



GAP CONTROL
- operation and display integrated in the control system



KEL-ASSIST
- SW package for the preparation of contour-grinding or profile-dressing programmes
- DXF import, threads, clearing cycles



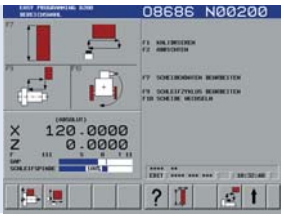
- thread grinding of external an internal threads
- KEL-THREAD for setting up dressing programs

Technical Data

Machine type			
Main specifications			
Distance between centres	mm	800	1000
Grinding length	mm	600	1000
Centre height	mm	175	
Weight of workpiece between centres	kg	100	
Load on chucked work	Nm	100	
Mains voltage required		3 x 400V / 50 Hz / 3 x 460V / 60 Hz	
Power consumption depending on equipment	A	25	
Space required / length x width	mm	2400 x 1700	3000 x 1700
Longitudinal / slide: Z-axis			
Travel	mm	750	1150
Rapid traverse speed	m/min	12	
Resolution	µm	0.1	
Swivelling range of upper table	degree	9	
Wheelslide: X-axis			
Travel	mm	320	
Rapid traverse speed	m/min	6	
Resolution	µm	0.1	
Swivel devices			
Autom. indexing / 1° Hirth coupling		option	
Man. indexing / 2 .5° Hirth coupling		yes	
Swivelling range	degree	+10 -210	
Wheelhead general			
Drive motor water-cooled	kW	5	
Peripheral grinding wheel speed	m/s	35 / 40	

KEL-EASY / KEL-ISO / Accessories

KEL-EASY



KEL-ISO

Additional panel

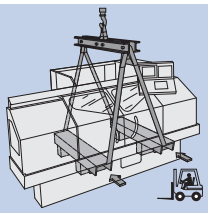
- for Movomatic in-process gauging systems
- for auxiliary units

Swivel angle display

- for manual swiveling of the workhead

Transportation

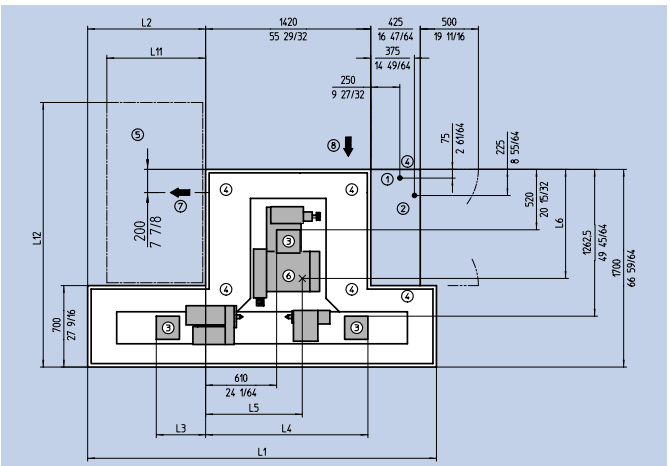
- hook machine
- rapid commissioning of machine



Wheelhead R / UR			
Grinding wheel dimensions, lefthand side		mm	400 x 63 x 127
	option		450 x 80 x 203
Grinding wheel dimensions, righthand side	option	mm	300 x 40 x 127
Wheelhead RS			
Grinding wheel dimensions, righthand side		mm	450 x 80 x 203
Internal grinding attachment only for UR			
Bore for spindles up to		mm	120
Rotational speed of spindle, motor infinitely variable		min-1	6 – 21'000
Motor output		kW	2.5
Workhead			
Rotational spindle speed		min-1	8 – 800
Driving torque spindle		Nm	15
Spindle nose / internal taper			DIN 55026 #5 MT5 / ASA 5
Swivelling range	option	degree	-10 +100
Tailstock			
Internal taper			MT4
Retraction of sleeve		mm	48
Micro-adjustment	option	µm	+ / -60
CNC control system			
GEFanuc			2li
Measuring systems			
Gap Control			Movomatic
Active longitudinal positioning			Movomatic
Passive longitudinal positioning			Movomatic
In-process gauging			Movomatic

All specifications and designs are subject to alterations without notice

Space-assignment plan



Distance between centres in mm

Type	L 1	L 2	L 3	L 4
600	2400	615	225	1395
1000	3000	1015	425	1395

Competence and a world-wide partnership

First-class sales and service organization for all the major international markets with local well-trained staff. KELLENBERGER guarantees expert advice and support for evaluation, purchase, installation and services of our high-quality grinding systems.

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