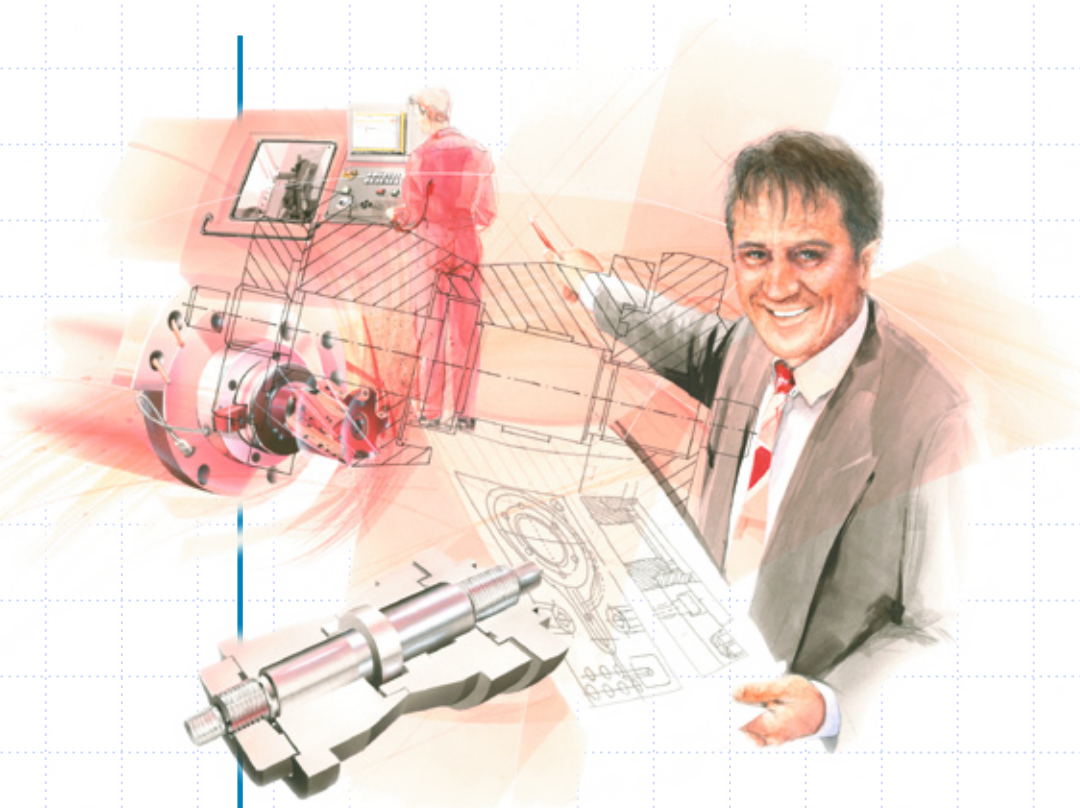


CNC *plus*

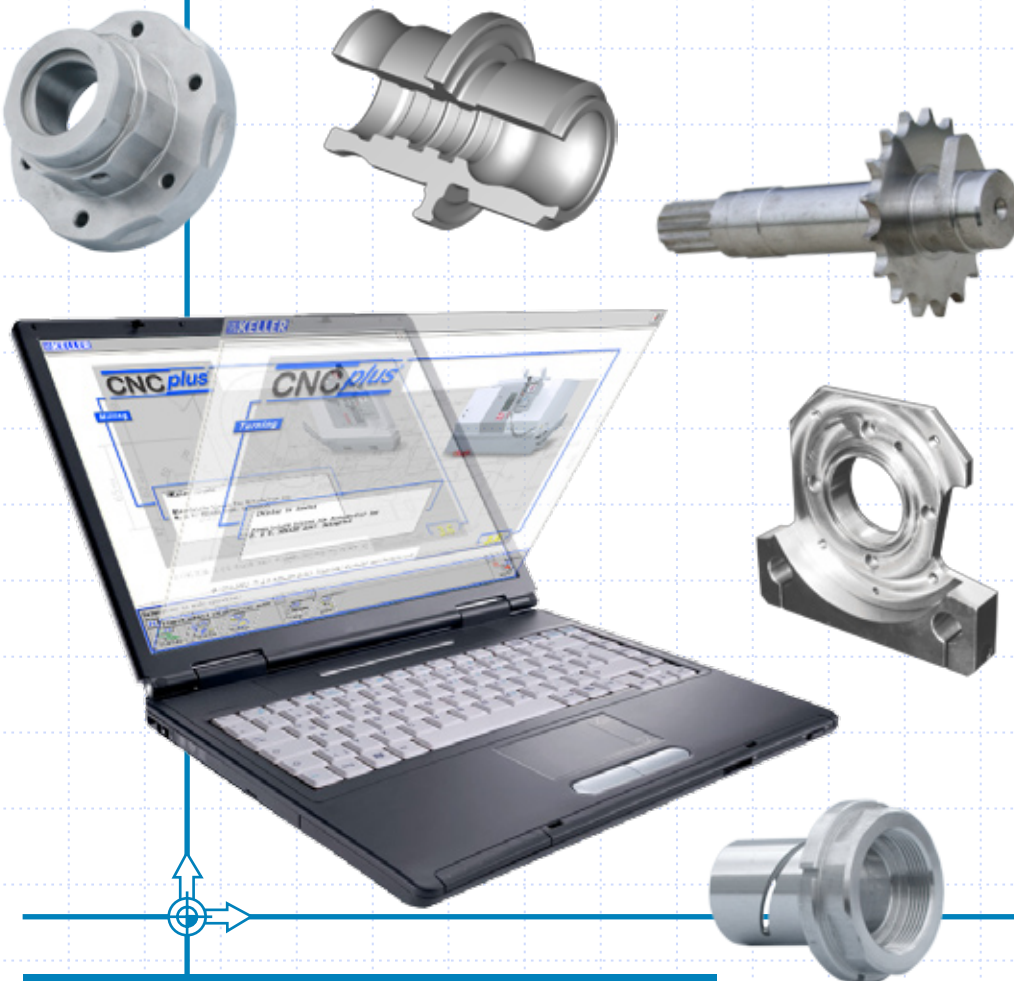
Graphical CNC programming system and CNC training



Exclusive for



www.HaasCNC.com



CNC*plus* adds more efficiency to your production, because the excellent graphic surface, high-performance contour calculator, as well as time saving manufacturing strategies, help you to easily and quickly create an optimum NC program.

The basis for this is our residual material detection: You select the tool and the strategy, the following tool automatically detects the residual material. The integrated crash monitoring function provides additional safety in production planning.

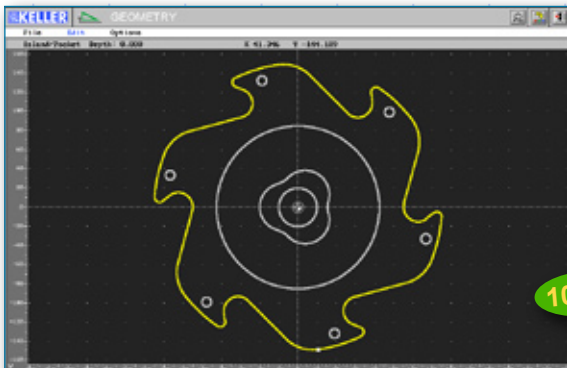
You do not need any training for CNC*plus*: You can teach yourself how to operate the CNC*plus* by reading the accompanying manual.

Reduce the costs – increase productivity

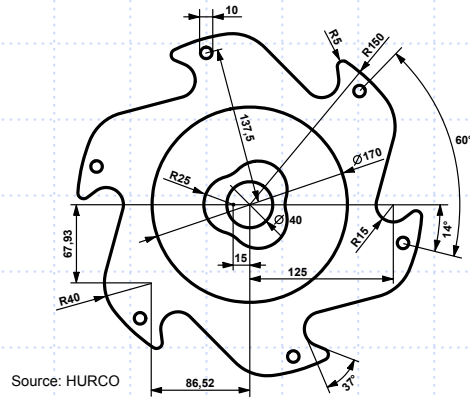
 **KELLER**
www.cnc-keller.com

Programming in the graphical dialog

Geometry entry



10 min

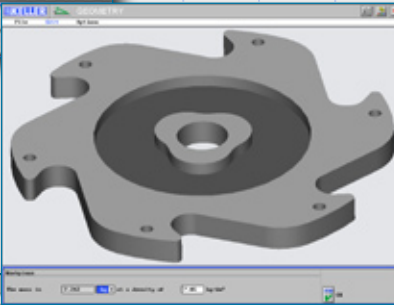


Source: HURCO

Post-processors used to generate programs are available for the following milling control systems:

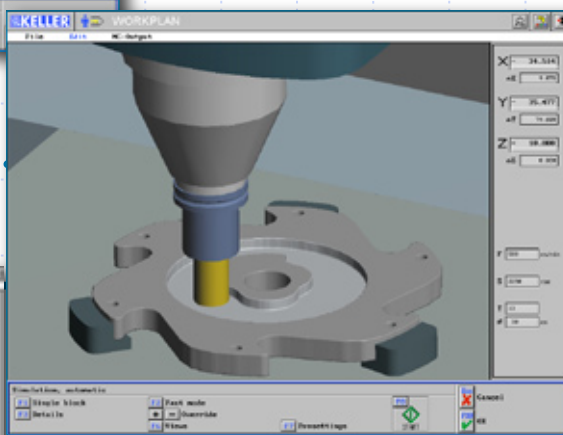
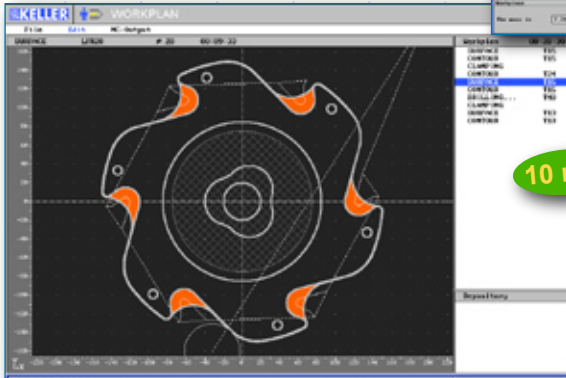
- BOSCH Alpha 3
- BOSCH CC 200 M
- DECKEL Contour 2
- DECKEL Dialog 3
- DECKEL Dialog 4
- DECKEL Dialog 11
- DECKEL Dialog 12
- EMCOtronic M1
- ENGELHARDT CNC 3300
- FAGOR 800M
- FANUC 0M
- FANUC 0-Mate
- FANUC 5M
- FANUC 6M
- FANUC 7M
- FANUC 13M
- FANUC 15M
- FANUC 16M
- FANUC 18M
- FANUC 21M
- FANUC 180i MB
- HAAS

Volume and mass for the calculation

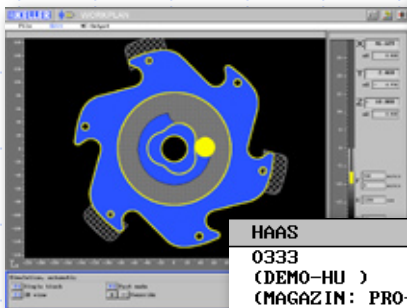


10 min

Work steps



Production control



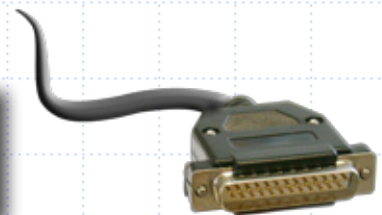
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HAAS
O333
(DEMO-HU )
(MAGAZIN: PRO-60 )
G54
(SURFACE )
(LFR20 )
G17 T15 M6
F400. S3500 M3
G0 G90 X0. Y9.5
G0 G43 Z1. H15 M8
G1 Z-.7. F200.
G3 X0. Y9.5 I0. J-9.5 F4
    
```

Program control in the HAAS simulator

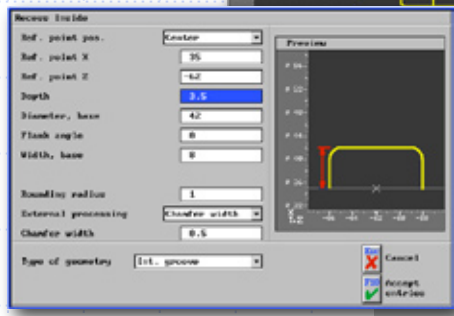
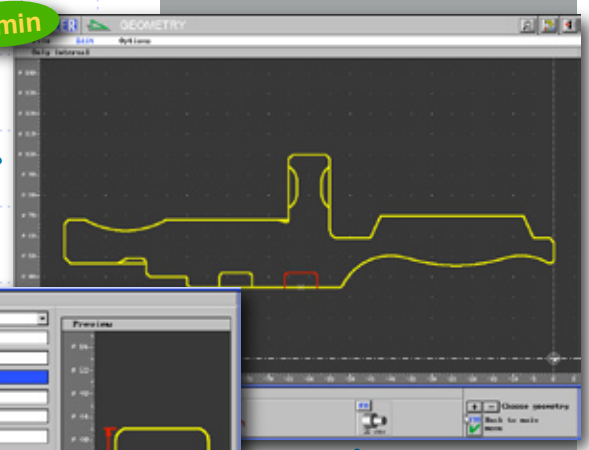
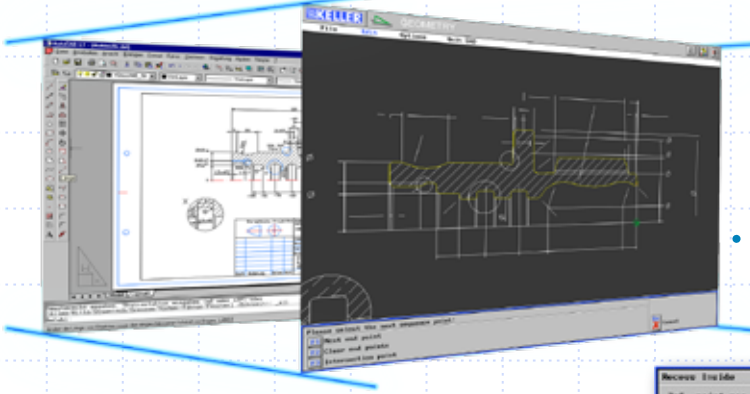


Bi-directional data transmission



CAD import

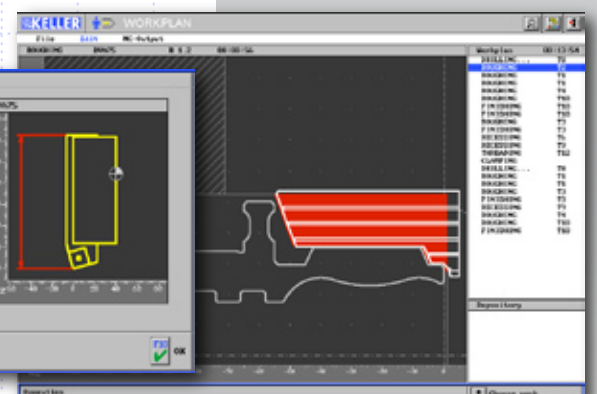
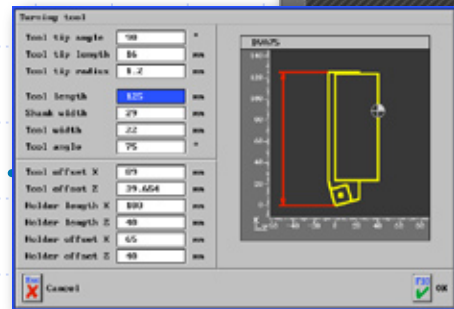
1 min



Post-processors used to generate programs are available for the following turning control systems:

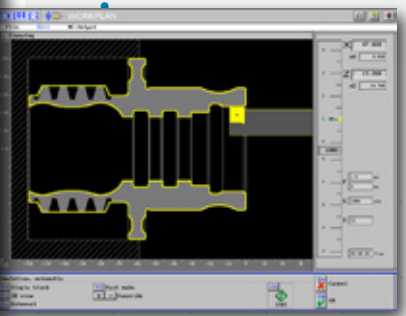
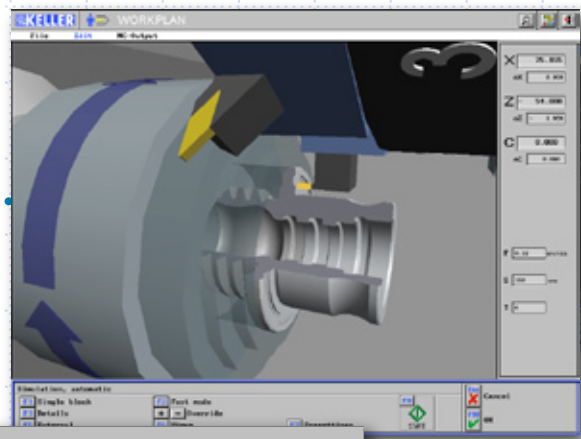
- BOSCH Alpha 2
- BOSCH CC 100 T
- BOSCH CC 200 T
- EMCOtronic T1
- FAGOR 800T
- FAGOR 8055T
- FANUC 0T
- FANUC 3T
- FANUC 6T
- FANUC 10T
- FANUC 15TF
- FANUC 16T
- FANUC 18T
- FANUC 21i
- FANUC 180i TB
- GILDEMEISTER EP
- GILDEMEISTER EPM
- GILDEMEISTER EPL1
- GILDEMEISTER EPL2
- GILDEMEISTER DINPLUS
- HAAS
- INDEX C200
- MAHO graziano CNC 432 T
- MAZAK Mazatrol T32 (ISO)
- NUM 760 T
- NUM 1060 T
- OKUMA 500L
- OKUMA 7000L
- PHILIPS 3000T
- PHILIPS 5000T
- PHILIPS-BOEHRINGER B1T
- PHILIPS-BOEHRINGER B2T
- PHILIPS-BOEHRINGER B3T
- PHILIPS-BOEHRINGER B32T
- SINUMERIK 3T
- SINUMERIK 7T
- SINUMERIK 8T
- SINUMERIK 805
- SINUMERIK 880
- SINUMERIK 810T
- SINUMERIK 820T
- SINUMERIK 840C
- SINUMERIK 802C
- SINUMERIK 802D
- SINUMERIK 810D
- SINUMERIK 840D
- SINUMERIK ShopTurn
- TRAUB TX8
- TRAUB TX8D
- TRAUB TX8F
- TRAUB TX8H

Supporting geometry macros



Tools and work steps

20 min



Production control

Program control in the HAAS simulator

```

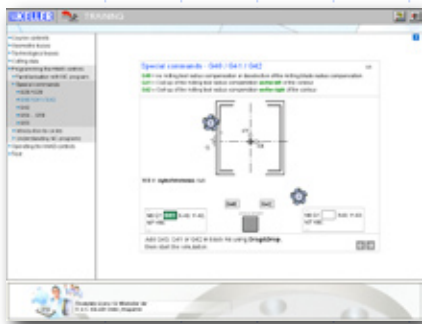
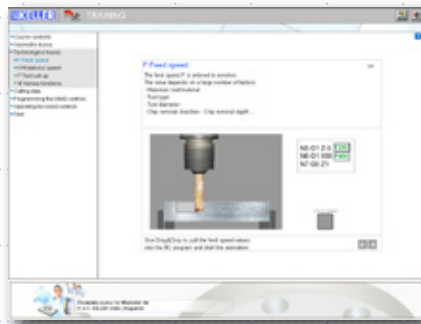
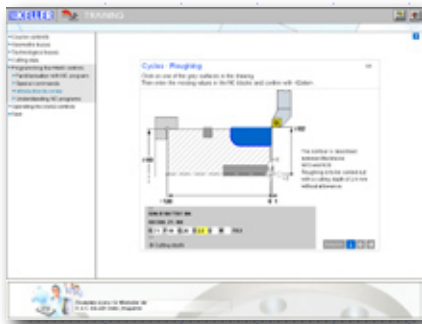
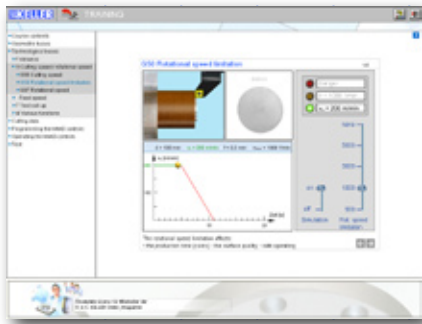
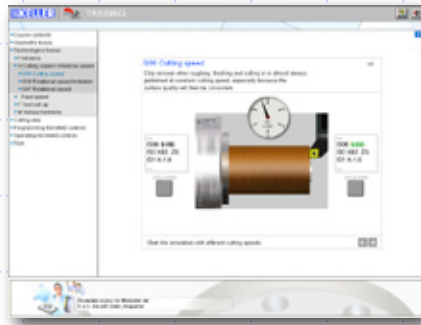
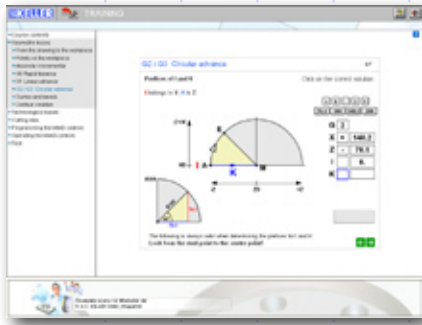
HAAS
O333
(3D-SIMULATION OK )
(DEMO-W2 )
(REVOLVER: PRO-12 )
G54
G50 S4500
(DRILLING... )
(VB020 )
G97 S2000 T808 M3
G0 Z2. M8
X0.
G1 Z-70. F0.1
    
```



Data transmission using mobile data carriers



Learning HAAS interactively and multimedially



This multimedial learning package requires no knowledge of CNC systems. Knowledge in conventional production, however, is a prerequisite. After an introduction, which shows the connection between drawing, NC program and manufacturing in 3D, geometrical and technical basics for the HAAS control system are interactively taught.

Even special, complex technological connections, e.g. the meaning of speed limitation and cutting data, can be experienced and understood by just „trying it out“. The basics of cycles and program details are also taught. Operating the HAAS control system through to the knowledge of keys and key combinations is also learned.

If you believe that you have gained sufficient knowledge on programming and operating the HAAS control system, this can be certified by a 1-hour test - and not only in grades but also with respective evaluation comments.

CNCplus is economical!

When you purchase a HAAS machine, you can buy this “Power Package” from your HAAS dealer for a reasonable price!

Keller North America Inc.
Mr. Kenneth R. Wright
18108 Blue Heron Pt. Dr.
Northville, MI 48168
Tel.: +1 734-756-5838
kellernorthamerica@hotmail.com

Test - Evaluation			
	Estimated time	Required time	Result in %
Geometric bases	21:00	10:43	83
Fuels on the rotation			100
GO Rapid traverse			100
G1 Linear advance			83
G02/G3 Circular advance			87
Circular precision			77
Technological bases	5:00	2:35	83
F Feed speed			100
G Functional speed			83
T Tool call-up			40
M Various functions			92
Cutting data	6:00	0:34	80
G Selection			100
M Selection			0
Programming the HAAS controls	15:00	7:51	78
G Functions			100
M Functions			100
M Accessories			78
Operating the HAAS controls	10:00	2:49	90
Individual keys			97
Key sequences			100
Overall result:	60:30	25:32	85



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