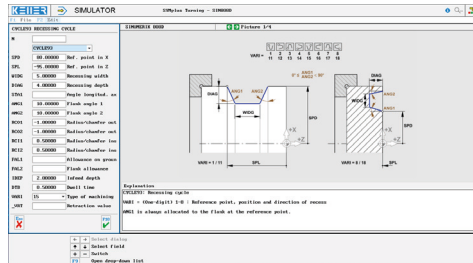


CONTROLS

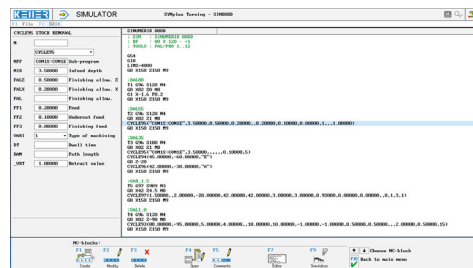
Control simulator SINUMERIK 808D (turning)

The control related simulator is an additional module for SYMplus™. This simulator is used to learn the control system programming. A program generated by a postprocessor can also be edited and simulated.

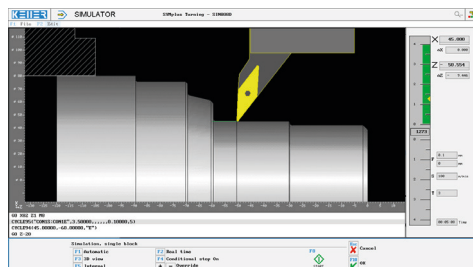
Help pictures and texts (for all input dialogues)



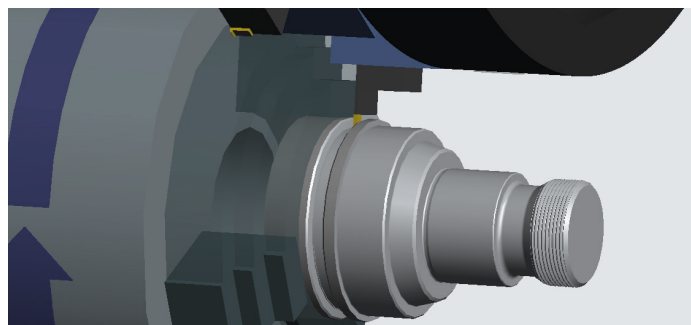
NC editor incl. input dialogue and syntax control



Perfect control due to simulation with position indicator (real time, fast mode, single block with path preview, measurement function, ...)



3D simulation with freely adjustable perspective



COMMANDS/ FUNCTIONS/CYCLES

G0	Rapid traverse
G1	Line
G2	Arc, clockwise
G3	Arc, counter-clockwise
G4	Dwell time
G17/G18	Plane
G26/LIMS	Speed limitation
G33	Threading
G40/G41/G42	Radius compensation
G53	Positioning in mcs
G54-G57	Zero offset
G60/G64	Exact posit./Smooth.Corners
G90/G91	Exact positioning
G95/G96/G97	Feed/spindle
M	Additional function
Comment	Explanations
MSG	Message
UP-Call	Sub-program call
LABEL	Set
REPEAT	Program part repetition
T	Tool call
SCALE	Scaling
TRANS/ATRANS	Zero offset absolute/incremental
DIAMON/DIAMOF	Diameter
CYCLE81	Drilling/centering
CYCLE82	Drilling/countersinking
CYCLE83	Deep-hole drilling
CYCLE84	Tapping without
CYCLE840	Tapping with
CYCLE85...89	Boring 1...5
CYCLE93	Recessing cycle
CYCLE94	Undercutting cycle
CYCLE95	Stock removal
CYCLE96	Thread undercutting cycle
CYCLE97	Thread cutting cycle
MCAL	Modal deselection
X/Y/Z/F/S/M	Modal commands



```

; SIM      : SINUMERIK 808D
; RP       : 80 X 120 - +1
; TOOLS    : PAL/PRO 1..12
G54
G18
LIMS=4000
G0 X150 Z150 M9
; DAL80
T1 G96 S120 M4
G0 X82 Z0 M8
G1 X-1.6 F0.2
G0 X150 Z150 M9
; DAL55
T2 G96 S120 M4
G0 X82 Z1 M8
CYCLE95(„CON1S:CON1E“,3.50000,0.50000,0.20000,,
0.20000,0.10000,0.08000,1,,,1.00000)
G0 X150 Z150 M9
; DAL35
T3 G96 S180 M4
G0 X82 Z1 M8
CYCLE95(„CON1S:CON1E“,3.50000,,,,,0.10000,5)
CYCLE94(45.00000,-60.00000,“E”)
G0 Z-20
CYCLE96(42.00000,-30.00000,“A”)
G0 X150 Z150 M9
; GAR_1.5
T5 G97 S909 M3
G0 X42 Z4.5 M8
CYCLE97(1.50000,,2.00000,-20.00000,42.00000,
42.00000,3.00000,3.00000,0.92000,
0.00000,0.00000,,8,1,3,1)
G0 X150 Z150 M9

; SAL1.8
T4 G96 S120 M4
G0 X82 Z-98 M8
CYCLE93(80.00000,-
95.00000,5.00000,4.00000,,10.00000,10.00000,-
1.00000,-
1.00000,0.50000,0.50000,,,2.00000,0.50000,15)
G0 X150 Z150 M9
; VBO20
T6 G97 S2000 M3
G0 X0 Z2 M8
F0.1
G17
CYCLE82(2.00000,0.00000,2.00000,-60.00000)
G18
G0 X150 Z150 M9
M30
; ---- CONTOUR ----
CON1S:
G0 X34 Z1
G1 Z0
X42 CHF=2.5
Z-30 RND=1
X45 CHF=0.5
Z-60
X60 CHF=1.5
X65 Z-70
X75 CHF=1
Z-90
X82
CON1E:

```