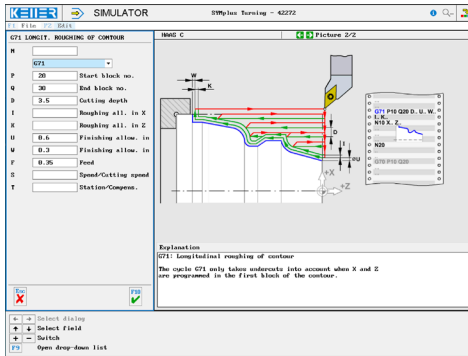**F3** Simulator

CONTROLS
Control simulator HAAS C (turning incl. C axis)
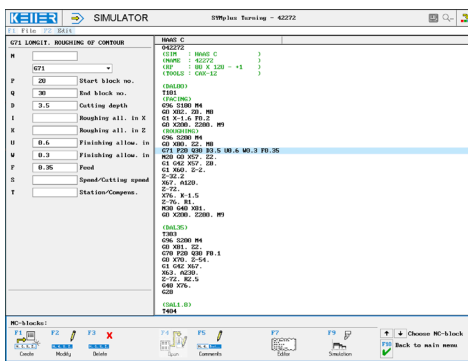
KELLER SOFTWARE

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.
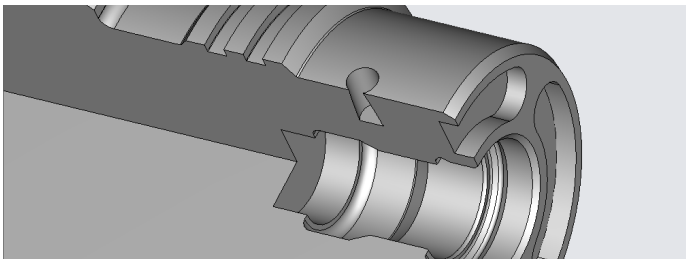
Help pictures and texts (for all input dialogues)

NC editor incl. input dialogue and syntax control

2D Simulation with position display (real time, fast mode, single block with path preview, cut, …); C axis as line graphics; 3D view

Interactive training section, e.g. for learning key sequences

COMMANDS/ FUNCTIONS/CYCLES

G0	Rapid traverse
G1	Line
G2	Arc, clockwise
G3	Arc, counter-clockwise
G4	Dwell time
G5	Spindle rotation
G17/G18/G19	Processing plane
G28	Approach reference point
G29	Retract from reference point
G32	Threading
G40/G41/G42	Tool radius compensation
G50 S	Speed limitation
G50 Z	Coordinate
G53	Set local coordinate system
G54-G59	Zero offset
G70	Finishing contour
G71	Longit. Roughing of contour
G72	Face roughing of contour
G73	Parallel rough. Of contour
G74	Face recessing
G75	Long. Recessing
G76	Threading
G80	Finish cycle
G81-G89	Drilling cycles (drilling, centering, tapping, …)
G90	Longitudinal roughing
G92	Threading cycle
G94	Face roughing
G95	Tapping (eccentrical)
G96	Constant cutting speed
G97	Constant speed
G98/G99	Feed per minute/revolution
G110-G129	Add zero offsets
G112/G113	XY to XC interpretation
G184	Tapping (LH)
G186	Tapping (eccentrical, LH)
G195/G196	Tapping (cylindar, RH/LH)
Comment	Explanations
T	Tool call
M19	Spindle orientation
M97	Local sub-program
M98	Program call
M133/M134/M135	Tool rotation direction CW, CCW, stop
M154/M155	C axis activation/de-activation
X/Z/F/S/M	Modal commands