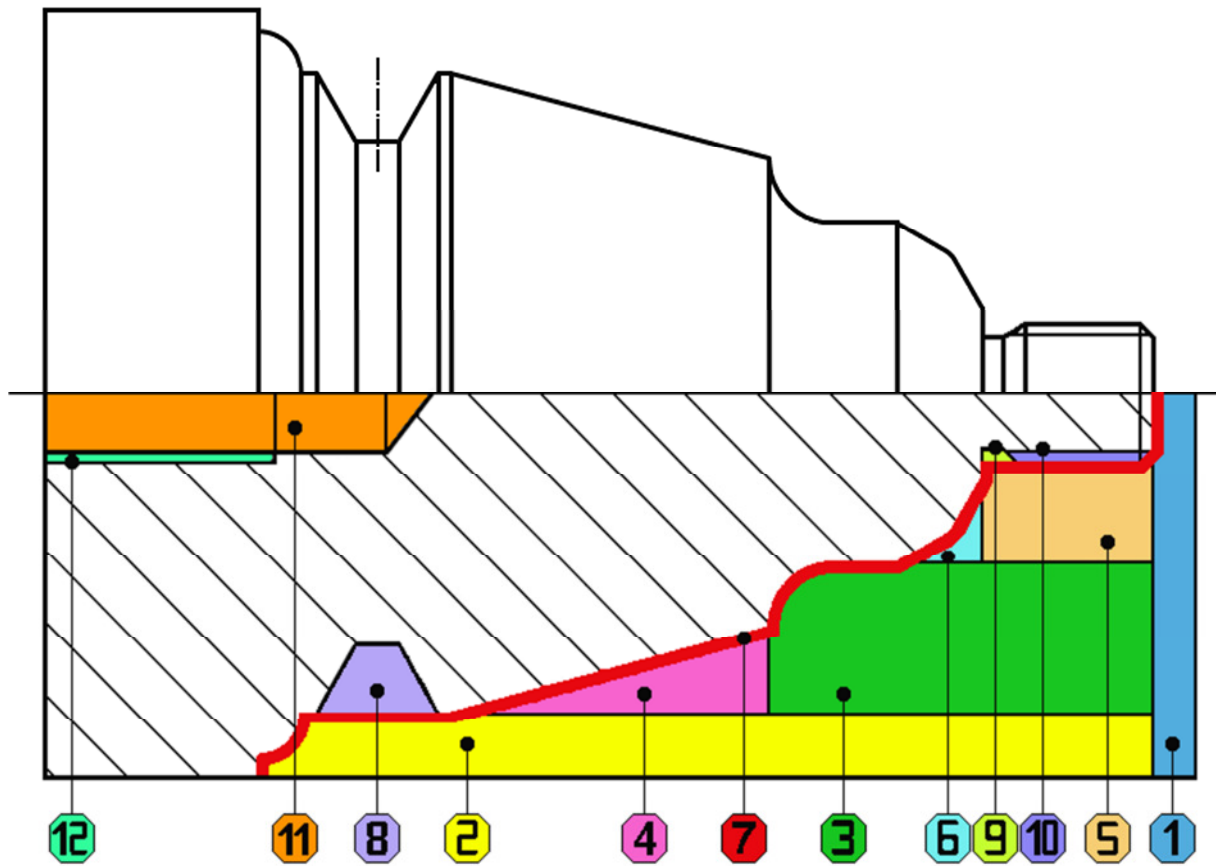


Cycle Description C3

for Servo-Conventional C-Series Lathes



- | | | |
|-----------|--|-----------------|
| 1 | Facing | Cutting Cycle |
| 2 | Longitudinal turning with circle convex | Cutting Cycle |
| 3 | Longitudinal turning with circle concave | Cutting Cycle |
| 4 | Taper turning | Cutting Cycle |
| 5 | Longitudinal turning | Cutting Cycle |
| 6 | Longitudinal turning 3-point movement | Cutting Cycle |
| 7 | Contour finishing | Cutting Cycle |
| 8 | Grooving symmetrical | Grooving Cycle |
| 9 | Grooving non-symmetrical | Grooving Cycle |
| 10 | Thread cutting | Threading Cycle |
| 11 | Concentric drilling | Drilling Cycle |
| 12 | Concentric tapping | Tapping Cycle |

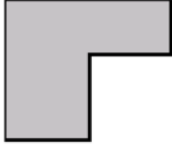

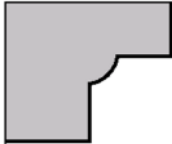





- **Clear operating screen**
- **TFT screen 8.4“**
- **Touch-sensitive membrane keyboard**

Performance characteristics

- Control and drives from one source (Siemens)
- **Workpiece zero position function**
This means that the tool only needs to be measured once
- **Compensation of backlash** along both axes allows precise machining
- **Manual operating screen for conventional machining**
 - Clearly arranged screen display for fast user comprehension of the relevant data
 - Constant cutting speed ensures a consistently smooth surface quality when facing
 - Orientated spindle „stop“ for chuck-key positioning
 - Taper turning function throughout the complete working area without complicated programming and resetting
 - Radius function saves grinding operations and special tooling
 - Stops function work area limiting stops do not need to be manually set
 - Thread cutting function with automatic retraction allows thread cutting with optimum cutting values (no cycle necessary)
- **Self-explanatory input screens** for adapting predetermined cycles to the corresponding machining assignment
- **Thread cutting cycles**
 - For longitudinal, transverse and tapered threads
 - Choice of constant chip cross section or constant infeed depth
 - Automatic calculation of thread depth
 - Additional conversion function for inch, modular and DP threads so that complicated calculations with a pocket calculator are no longer required
 - Cutting of multiplex threads (max. 99 turns)
 - Tracing of an already cut thread (thread repair) in the cycle mode as well as in manual turning operations
- **Grooving cycles**
 - For symmetrical or asymmetrical recesses
 - Selection of either with or without edge break respectively radii
 - For inner, outer and face machining
 - With repeat function for multiple recesses (max. 300 recesses)
 - Part-off cycle also for simple grooving operations (e.g. Seeger circlip ring recesses)

- **Cutting cycles**
 - For longitudinal and transverse machining
 - For inner and outer turning
 - Choice of cutting from right to left or left to right

	Right-angled recess	
	Recess with taper	
	Recess with convex radius	
	Recess with concave radius	
	Recess with 2 tapers <ul style="list-style-type: none"> • Point of intersection either <ul style="list-style-type: none"> X / Z X / angle Z / angle angle / angle • If desired, a radius or chamfer can be inserted at the point of intersection 	
	Contour machining (finishing)	

- **Drilling cycles**
 - For central machining
 - Choice of chip breaking or chip removal
 - Tapping

- **Flow list**
 - Incorporate all machining steps for a workpiece in a single program sequence
 - With machine-related tool changing point
 - Automatic program stop for the tool change
 - Clear display of the complete machining sequence
 - Simplified operation as the individual steps do not need to be manually called

- **Automatic cutting edge radius correction** guarantees radius and taper turning that is true to the contour

- **Problem-free restart after a program interruption** for checking a tool or changing a cutter

- **Simulation**
 - Way of the calculated tool tips in line graphic
 - Single and continuous stroke
 - Display of program running time

- **Tool administration**
 - 50 tools
 - Tool geometry (tool lengths in X and Z axis as well as cutting edge radius)
 - Tool fine correction
 - Graphical display of the tool cutting edge (cutting edge position)
 - Technology database for turning speeds / cutting speeds and feeds
 - Simple tool measuring through scratching

- **Memory capacity of the controller (180 cycles)**
 - 30 Cutting cycles
 - 30 Grooving cycles
 - 30 Cut-off cycles
 - 30 Thread cutting cycles
 - 30 Drilling cycles
 - 30 Contour cuts with 20 elements each (finishing)
 - Flow list

- **Interface**

In-/output via USB interface
(with assignment of program numbers – max. 12 digits)