

2.1.3 Drilling, counterboring – CYCLE82



Programming

CYCLE82 (RTP, RFP, SDIS, DP, DPR, DTB)



Parameters

RTP	real	Retraction plane (absolute)
RFP	real	Reference plane (absolute)
SDIS	real	Safety clearance (enter without sign)
DP	real	Final drilling depth (absolute)
DPR	real	Final drilling depth relative to reference plane (enter without sign)
DTB	real	Dwell time at final drilling depth (chip breaking)



Function

The tool drills at the programmed spindle speed and feedrate to the programmed final drilling depth. A dwell time can be allowed to elapse when the final drilling depth has been reached.



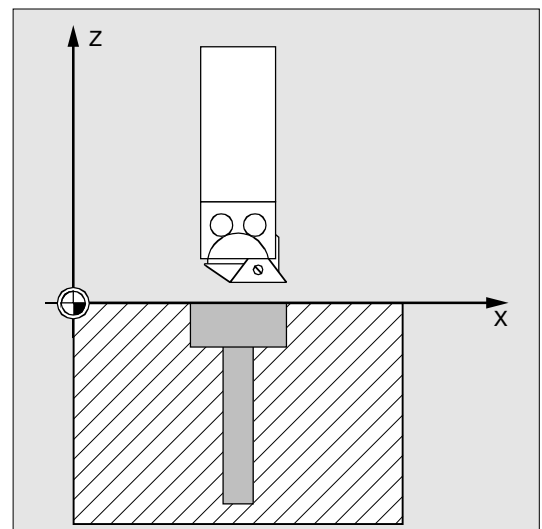
Sequence of operations

Position reached prior to cycle start:

The drilling position is the position in the two axes of the selected plane.

The cycle implements the following motion sequence:

- Approach of the reference plane brought forward by the safety clearance with G0
- Traverse to final drilling depth with the feedrate (G1) programmed in the calling program
- Dwell time at final drilling depth
- Retraction to retraction plane with G0





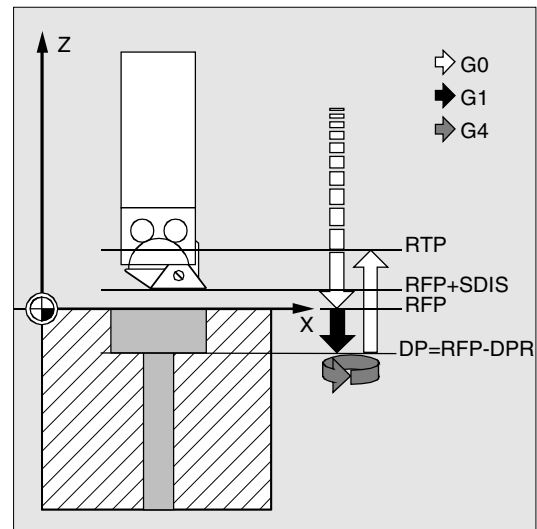
Description of parameters



See Section 2.1.2. (Drilling, Centering – CYCLE81) for a description of parameters RTP, RFP, SDIS, DP, DPR

DTB (dwell time)

Parameter DTB is the dwell time at the final drilling depth (chip breaking) in seconds.

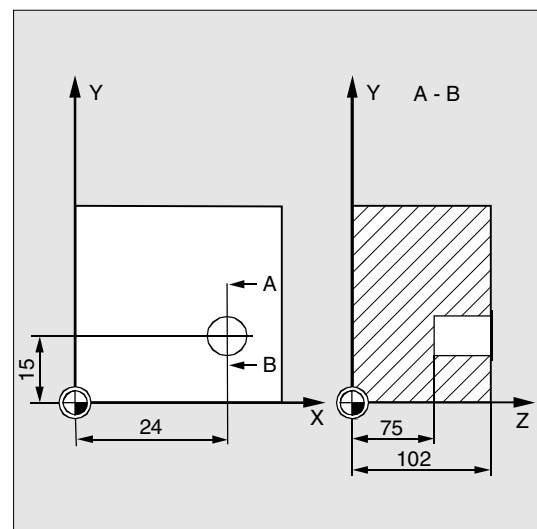


Programming example

Boring_counterboring

This program machines a single hole to a depth of 27 mm at position X24, Y15 in the XY plane with cycle CYCLE82.

The dwell time programmed is 2 s, the safety clearance in the drilling axis Z is 4 mm.



```
N10 G0 G90 F200 S300 M3
```

Specification of technology values

```
N20 D3 T3 Z110
```

Traverse to retraction plane

```
N30 X24 Y15
```

Traverse to drilling position

```
N40 CYCLE82 (110, 102, 4, 75, , 2)
```

Cycle call with absolute final drilling depth and safety clearance

```
N50 M30
```

End of program