

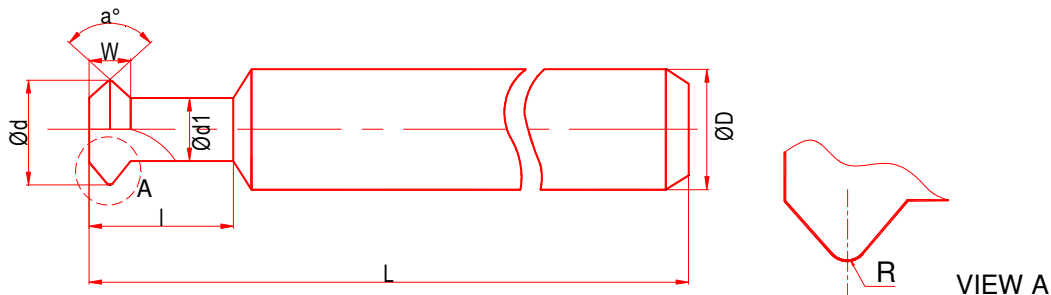


GCT thread mill type 1940 is recommended for producing ISO metric screw threads.

Requirement:

- producing of inner screw threads in IMS based on aluminium or copper
- use on routing machines for machining of PCB, ideally with wet process conditions/lubrication
- tools with shank-Ø 3.175 mm and 38.10 mm overall length

Realisation:



The GCT thread mill type 1940 with MicroSpeed diamond coating is available in the following versions:

metric thread	Ø d	Ø d1	l	Spindle speed aluminum 1.50 mm thick	Feed rate aluminum 1.50 mm thick	Spindle speed copper 1.0 mm thick	Feed rate copper 1.0 mm thick
M1.6 x 0.35 1940 1635 038 7	1.20	0.75	4.0	50-55000 rpm	0.4-0.6 m/min	40-45000 rpm	0.3-0.4 m/min
M2 x 0.4 1940 2040 038 7	1.53	0.90	4.0	43-48000 rpm	0.6-0.9 m/min	35-40000 rpm	0.4-0.6 m/min
M2.5 x 0.45 1940 2545 038 7	1.97	1.25	5.0	35-40000 rpm	0.8-1.2 m/min	29-33000 rpm	0.5-0.8 m/min
M3 x 0.5 1940 3050 038 7	2.41	1.50	6.0	30-35000 rpm	1.0-1.5 m/min	24-28000 rpm	0.6-1.0 m/min
M4 x 0.7 1940 4070 038 7	3.17	2.00	6.0	25-30000 rpm	1.0-1.5 m/min	19-23000 rpm	0.6-1.0 m/min
M5 x 0.8 1940 5080 038 7	4.04	2.50	6.0	20-25000 rpm	1.0-1.5 m/min	15-18000 rpm	0.6-1.0 m/min

Important:

Pre-drilling of the thread position with drill Ø with approx. 80-85% of thread size.
Countersink entry position with 90° ⇒ GCT tool type 1590.

The parameter were investigated on a Schmoll routing machine MX1-60S-DH CCD with wet process conditions/lubrication.

Johann Schmidt