



# HEIDENHAIN



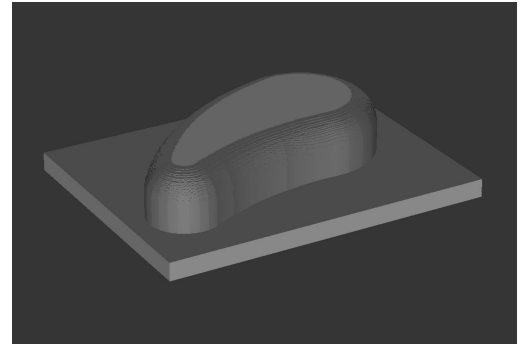
## NC Solutions

Description of NC program 3120

English (en)  
4/2017

## 1 Description of the NC program 3120\_de.h

NC program for creating a contour island with a radius on the top edge



### Description

With this NC program, the control produces a radius on the top edge of a contour. It does so through a series of contour lines with an end mill. You define the number of contour lines in a parameter. This enables you to influence the radius to be machined and the machining time.

In the first part of the NC program you define all parameters and the tool required for machining. Then you define the SL cycles 14, 20 and 22. For every contour, you create a subprogram at the program end.

In this example program, two contours are defined in Cycle 14. In the subprogram **LBL 1**, the contour is defined that the control machines as an island and later rounds with a radius. In the subprogram **LBL 2**, a contour is defined as a pocket that is to limit machining.

By calling the SL cycles, the control machines the material between the island and the pocket to the depth you defined.

After machining, the control makes some calculations. Then the SL cycles 14 and 25 are programmed. In this case, only the subprogram **LBL 1** is defined in Cycle 14. In a program section repeat, the control calculated the contour change for the individual contour lines. Then the control runs the SL cycle with the latest calculated contour change. When the radius has been completely machined, the control retracts the tool and ends the program.

Parameter	Name	Meaning
Q31	DEPTH OF CONTOUR	Distance between the top of the workpiece and the pocket floor
Q32	PLUNGING DEPTH FOR CONTOUR MILLING	Incremental downfeed during contour milling
Q33	FEED RATE OF CONTOUR MILLING	Traversing speed of the tool during contour milling
Q34	FEED RATE FOR PECKING	Traversing speed of the tool in the Z axis
Q41	ROUNDING RADIUS	Radius at the contour edge
Q42	PLUNGING DEPTH FOR MILLING A RADIUS	Incremental spacing of the contour lines during machining of the radius
Q48	FEED RATE FOR MILLING A RADIUS	Tool traversing speed when machining the radius

