Capto Tool Changer Alignment Instruction Manual

Polygonal-Shank Taper (PSK) Tool Changer Alignment Instructions

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440.C00M

The purpose of the tool changer alignment tool is to verify proper alignment between the automatic tool changer (ATC) and the spindle or clamping unit. Incorrect alignment will influence the repeatability of the Capto interface, and can result in abnormal wear on the tool interface, faulty clamping, dropped tools, personal injury, etc.

Recommended tolerances are as follows:





Capto®	X mm	Y mm
Size	±	±
C3	0.12	0.12
C4	0.15	0.15
C5	0.18	0.18
C6	0.23	0.23
C8/C8X	0.30	0.30

The alignment tool should be handled with care, as any dents or nicks may interfere with the ability to verify correct tool change position.



TAC Rockford Innovative products for machine tools

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Installing the Tool

Before starting, clean all interface surfaces. Insert and clamp the male polygon in the spindle/clamping unit. Next, insert the tool change gripper part into the ATC. Run the machine in steps until the ATC reaches the final tool change position in front of the spindle/clamping unit. Be sure the alignment lines on the two halves are in the same radial position.

Using the Gauge Pins

Begin by inserting the center line gauge pin into the center hole. If the larger OD of the pin passes through both halves of the tool, alignment is correct. If the pin cannot be inserted, adjust the ATC and/or the spindle/ clamping unit as necessary to correct the misalignment.

The center line gauge pin has two diameters: the smaller OD is equal to maximum out of centerline tolerance and the larger OD is equal to a perfect centerline.

With the center line gauge pin fully inserted, insert the angle gauge pin. If the angle gauge pin can be inserted through both halves of the tool, alignment is within tolerance. If the pin cannot be inserted, adjust the ATC and/or the spindle/clamping unit as necessary to correct the misalignment.

By using a feeler gauge in the measuring area shown, it is possible to determine which axis is not correctly aligned. To achieve the recommended alignment, the maximum allowable difference between the surfaces is shown in the table.



Capto® Size	Max. difference mm
C3	0.28
C4	0.35
C5	0.44
C6	0.55
C8	0.70
C8X	0.87



