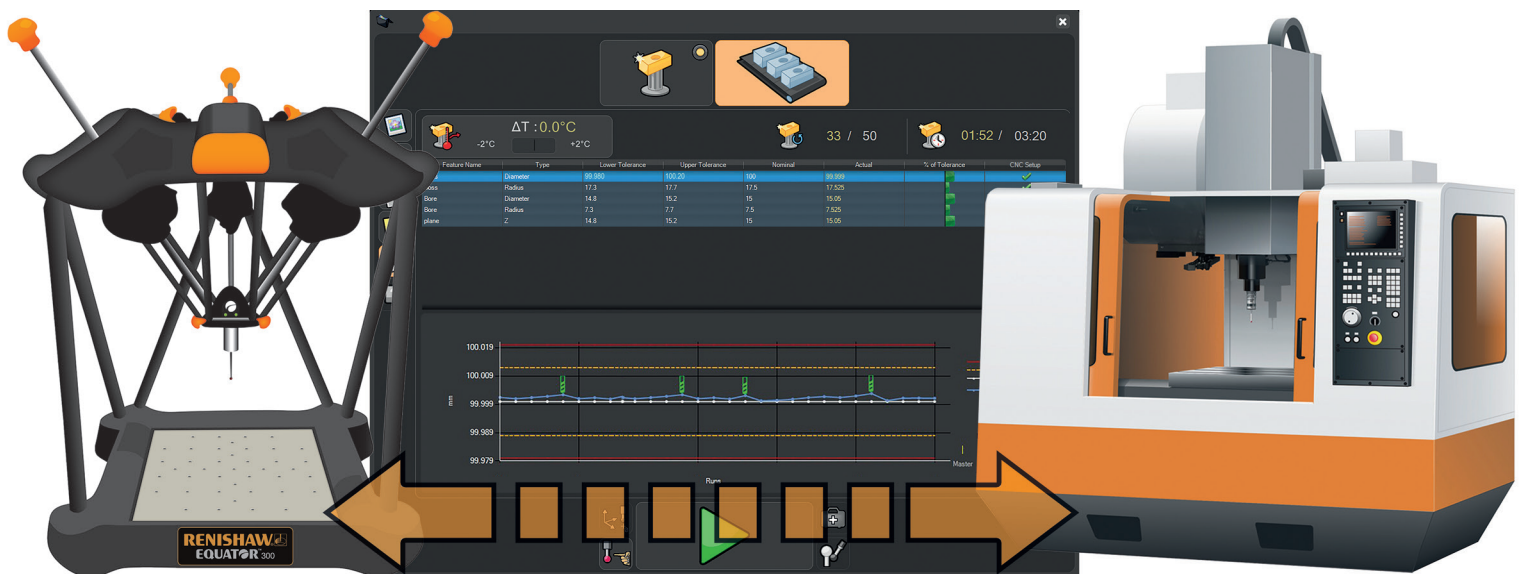


IPC software - Intelligent process control with Equator™ gauging systems



Control your process

Automatic feedback to manage process variation



Reduce scrap parts and increase yield

Correct process drift before reaching tolerance limits



Manage tool life

Adjust for tool wear throughout the process

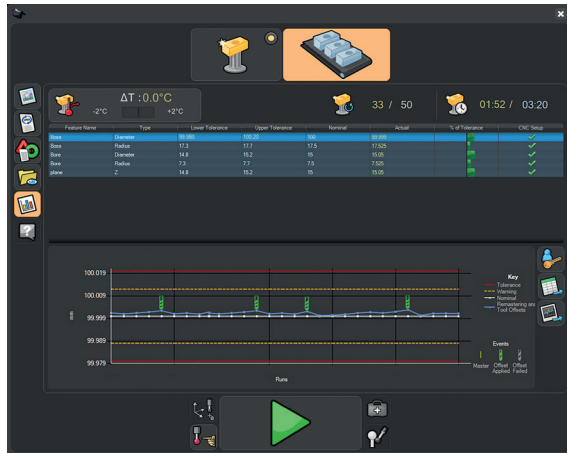
Control processes with frequent gauging

The Equator™ flexible gauge is now offered with IPC software for intelligent process control, providing the functionality to fully automate tool offset updates in CNC manufacturing processes. Users can now expect improved process capability in precision part machining, reduced setting and process adjustment time, and integration with automation systems.

The Equator gauge is unique in its design and method of operation, and has already changed the thinking of thousands of production engineers, making it their gauge of choice. The versatility and repeatability that Equator offers is re-defining the world of gauging and, now available with IPC software, it offers an even wider range of capabilities to manufacturers globally.

Fully integrated

IPC is integrated with the software on the Equator controller, using recent historical gauging data to determine process corrections. IPC can be licensed on new and existing Equator gauging systems.



CNC Setup

Feature Settings
Enabled: ☒ Feature: TOP_FACE Tolerance: Z
Nominal: 17 Upper Tolerance: 17.1 Lower Tolerance: 16.9
Feature Type: ☒ One-Sided ☐ Two-Sided

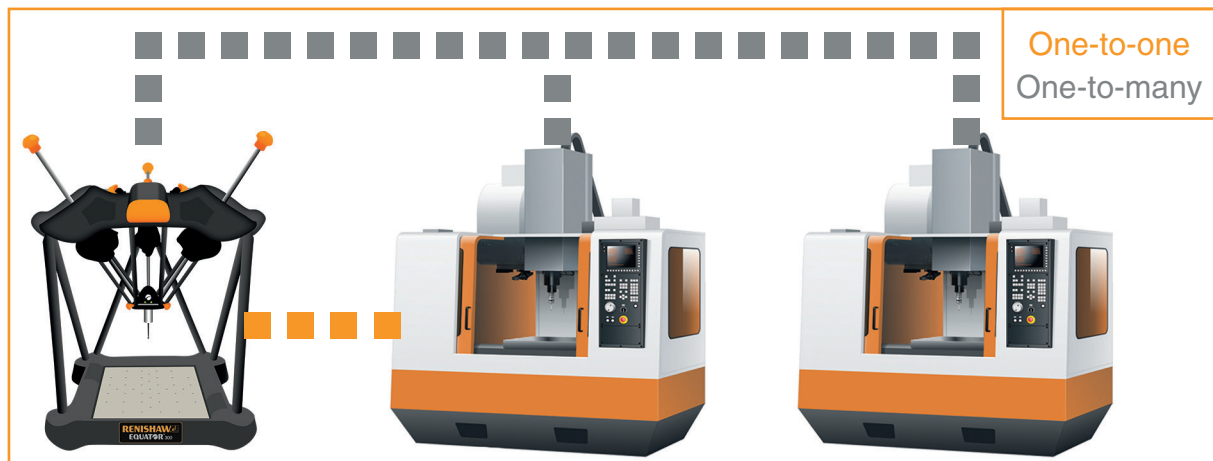
Control Limit
68 % Tolerance +/-0.1 => Control Limit +/-0.06
Control Limit Mode: ☒ % Tolerance ☐ Standard Deviation

Correction
Process Target Dimension: 17 Maximum Tool Update: 0.5 % Feedback Inside CL: 80
Measure Frequency: 1 Maximum Tool Offset: 0.5 % Feedback Outside CL: 100
Update Frequency: 1 Baseline Tool Offset: 0.0021 Null Band: 0.005
Skip: 0 Invert Offset: ☐ Experience Value: 0

Machine Tool
Machine/Operation: Offset Location: Z AXIS Offset Type: ☒ Geometry ☐ Wear
Tool Number: 8 Turret/Path ID: 0
Configure Machines Remove Offset

One-to-one or one-to-many – update multiple machines from one Equator

An Equator gauging system can be connected to one or multiple CNC machine tools, so that parts from different machines can be gauged on one Equator, with the offset updates being sent to the corresponding machine (part / machine identification is required). Connection to multiple machines requires an Ethernet hub or is via an existing factory network.



Reduce dependence on skilled operators

IPC software can be implemented in automated cells or for individual machines. This enables production to run autonomously and to use more complex control techniques. Correcting a process automatically with IPC prevents manual data entry errors, and removes the requirement for an expert to decipher traditional measurement reports into a process correction value at the CNC machine.

IPC compatibility

The first release of IPC allows connection to one or multiple machine tools, with direct Ethernet links from the Equator Controller to Fanuc, Mazak and Okuma CNC controls.

- Fanuc controls that have been tested and proven include the 0i, 30i, 31i and 32i, with the Focas2 option installed.
- Mazak controls currently supported are the Smooth X, Smooth G, Matrix2 and Matrix controls with the Mazak API installed.
- The Okuma OSP300L and OSP300M controls are supported, on machines with the Thinc API installed.

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