GIBBSCAM

GibbsCAM Probing

www.gibbscam.com

GibbsCAM Probing gives you access to state-of-the-art on-machine inspection technology, directly from the powerful, easy to use GibbsCAM programming environment

GIBBSCAM

Powerful

Programs all of your CNCs to machine simple and complex parts.

Easy

Consistent and intuitive shop-friendly graphical user interface for quick learning and fast navigation.

Flexible

Provides multiple ways for CNC programmers to approach machining operations.

Productive

Faster programming, faster machining, and higher throughput.

Grows with You

GibbsCAM stays current with the latest machine tool technology. You won't need another CAM system when you get new machines, and you can add options to increase functionality as you need them.

Lower Programming Cost

Beyond a flat interface that eliminates wasted menu-seeking user actions, GibbsCAM provides many automated features to streamline the CNC programming process.

Accuracy and Speed

GibbsCAM gets more programs done faster with higher accuracy, better reliability, and faster cycle times. You'll spend less time testing and proving programs on machine and get more parts out the door.

> *"GibbsCAM has all the tools we need. As we see challenges in the work ahead of us, we feel comfortable that GibbsCAM is going to be there for us. GibbsCAM handles it all."*
>
> — Rodney Babcock, President & CEO of Next Intent

Designed to Simplify

GibbsCAM is designed to simplify the complex. It has a modeless graphical user interface that lets the user perform any function at any time, without pursuing an endless hierarchy of menus. Users can quickly jump from toolpath verification to part design or tool definition and back. Icons that reflect shop procedures make operations easy to identify and fast to navigate. These features make learning fast and easy for the new user and highly efficient for the experienced.

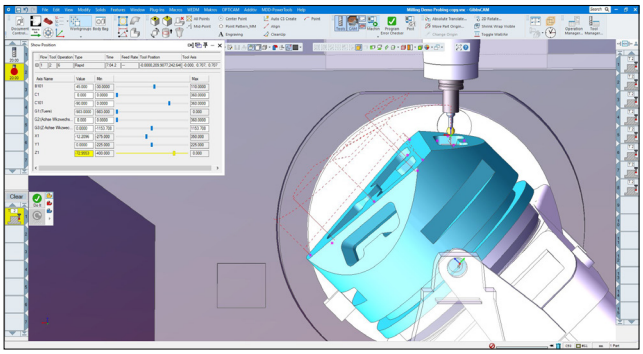
The user interface is consistent across the product line. This means that when you add capabilities for new machine types or machining processes, the look and navigation do not change. So, programmers and machinists get productive with new modules quickly.

Advanced Programming Made Easy

GibbsCAM's intuitive graphical user interface provides seamless access to both turning, milling, and wire EDM capabilities. GibbsCAM Probing lets you program setup and in-process inspection for a wide variety of machines, from simple mills and lathes to MTM and Swiss machines, and supports probing technologies from all major inspection vendors.

Why Probe?

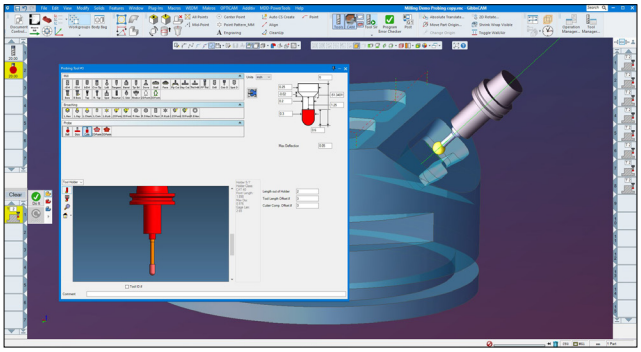
On-machine probing saves you time and money. Probing for workpiece starting positions enables improved automation and reduces human error by automatically establishing datums and setting work fixture offets (WFOs). In-process inspection identifies problems early, avoiding scrapped parts and reducing wasted machine time. Finished feature probing gives you confidence in your parts and documented conformance records.



Early problem identification with in-process inspection

Probing Tool Support

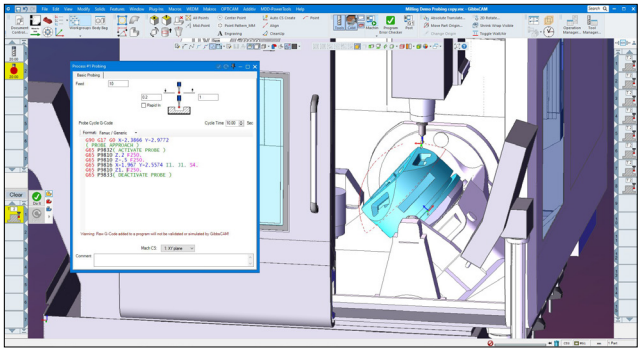
GibbsCAM Probing supports a wide variety of industry-standard probing modules and styluses, including ball, disc, cylinder, and user-defined form stylus tips. To prevent damage to your probes, maximum deflection can be specified, and any transition moves which deflect the probe by more than the maximum amount will be automatically detected as collisions.



Supported stylus types include ball, disc, cylinder, and user-defined shapes

Basic Probing

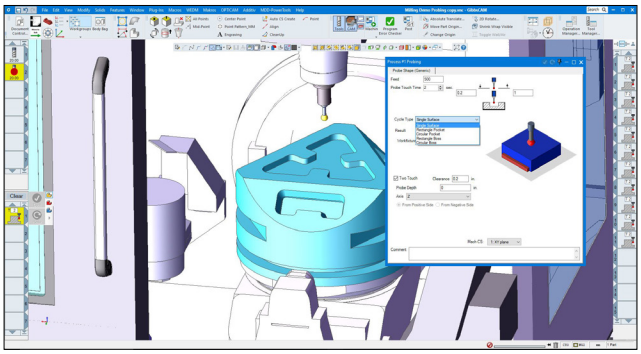
Basic Probing allows the user to specify a measurement cycle as G-Code, which will be inserted into the program at selected probing points. Basic Probing automatically handles the positioning and orientation of the probe, including safe traversals between probe points. As the program reaches each probe point, the user-defined measurement cycle will be output verbatim in the posted code. Basic Probing is compatible with all GibbsCAM postprocessors.



Measurement G-Code cycles are inserted into the CNC program

Generic Probing

Generic Probing includes a collection of industry-standard probing cycles and common parameters. These cycles are fully parameterized and can be completely simulated. Measurements can be used to setup machine workfixtures or workplanes, or checked against a nominal value. Over- or under-sized results can trigger re-machining, offset changes, or alarms. Generic Probing requires postprocessor customization to ensure that your machine's cycles are properly supported.



Probing includes industry-standard probing cycles which can be fully simulated

Supported Cycles:

Corners: Outside – locate the corner of a square feature in two dimensions (one probe point each, in X and Y)

Corners: Outside with Angle – locate the corner of a square feature, and detect its orientation (two probe points each, in X and Y)

Corners: Depth – locate the top surface of a part at a particular corner

Single Surface – measures a single point in any direction

Rectangle Pocket – measures two or four points around a slot or pocket

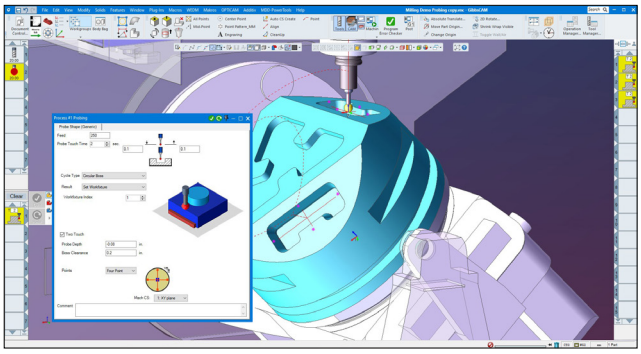
Circular Pocket – measures three or four points equidistant from the center of a hole or concave arc

Rectangle Boss – measures two or four points around a web or boss

Circular Boss – measures three or four points equidistant from the center of a round boss or convex arc

Custom Probing

If more advanced cycles are required, GibbsCAM Probing is highly extensible. Custom probing cycles may be defined as GibbsCAM macros, through third-party plug-ins, or as part of advanced custom postprocessors.



Custom probing cycles may be defined as GibbsCAM macros

Machine Support

GibbsCAM Probing is supported throughout the entire range of machines that can be programmed with GibbsCAM, including mills, lathes, mill/turn and multitask machines, and Swiss-type sliding headstock lathes. Probing operations are also supported for multipart milling and through the Tombstone Management System.

Let's Talk

Through its worldwide reseller network, GibbsCAM provides fast, personalized technical support to ensure your production is continuous and your productivity is uncompromised.