

# MILLPWR<sup>G2</sup>

2 or 3 Axes Control / 3 Axes Readout



**Powerful conversational  
CNC retrofit system  
for knee and bed mills**

**ACU-RITE<sup>®</sup>**  
[www.acu-rite.com](http://www.acu-rite.com)

# Boosting productivity is now "POWERFUL EASY"

## Make the MILLPWR<sup>G2</sup> your go-to choice for CNC retrofits.

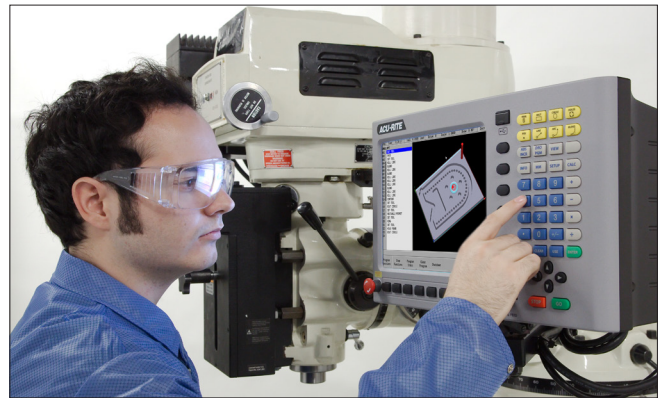
Faster set-ups, shorter run times and a major boost in productivity are just one "powerful easy" retrofit away. The new ACU-RITE MILLPWR<sup>G2</sup> control and retrofit kits can turn just about any knee mill into a powerhouse money-maker.

USB and Ethernet compatible, the new G2 features a bright 12.1" high resolution display, 1 GHz processor and plenty of programming capabilities – estimated runtimes, expanded tool/datum offsets, enhanced tool paths, a dxf converter – plus much, much more.

The MILLPWR<sup>G2</sup> is a contouring control that enables you to program conventional machining operations right at the machine in an easy-to-use conversational programming language. It is designed for both knee mills and bed mills with up to 3 axes.

MILLPWR<sup>G2</sup> was developed specifically for machinists where manual and automated operation are both useful and needed. It's designed to maximize throughput by significantly reducing set-up time, scrap, and other non-productive operations, thereby increasing your efficiency, productivity and profitability.

A closed-looped system with positioning feedback provided by ACU-RITE precision linear encoders (1µm/0.00005" resolution), MILLPWR<sup>G2</sup> also includes Position-Trac™, an advanced, unique feature that enables you to easily, quickly and accurately re-establish work piece zero after shutting down, or power loss.



***"The bright display and 3D graphics make it very easy to use. Production has increased due to the streamlined navigation and faster set-ups, thanks to user-friendly programming and expanded tool/datum offsets."***  
***– John Reynolds, Plant Manager***

# MILLPWR<sup>G2</sup> Retrofit Kit

**CNC system for knee mills  
and bed mills.**



## Kit Includes:

- Remote stop/go switch
- Ball screws
- (1 $\mu$ m/0.00005" resolution) precision linear encoders
- Servo drives and motors
- Motor mounting castings and hardware
- Handwheels
- Console and encoder mounting hardware
- Machine specific bracketry

**Plus the G2 CNC control itself.**



# Easy-to-master programming improves efficiency, profitability

Standardized menus make it easy to program common features like lines, arcs, custom pockets, bolt hole patterns, and islands. To add a feature to your program, simply press a function key and then follow the prompts. MILLPWR<sup>G2</sup> also includes an “engrave” option for engraving alphanumeric characters vertically, horizontally, diagonally or along an arc.

**Common machining features are now as simple as press and go.**



**TOOL** - Program tools by diameter, length offset, type direction and speed



**POSITION/DRILL** - Drill, bore and position



**RECTANGLES** - Pocket, frame, face, and slot



**LINES/DIAGONALS** - Defined by from and to points or by angles



**CIRCLES** - Pocket, frame, ring and helix



**ARCS** - Defined by from and to points, or by sweep, center and 3-point arcs



**HOLE PATTERNS** - Bolt hole patterns; full & partial circles, linear row/column, rectangular frame and array



**BLEND** - Insert a corner radius between two lines, two arcs, or a line and an arc



## **USB CONNECTIVITY - FRONT & BACK**

Loading and off-loading programs, importing data via USB is now a plug-and-play convenience, with USB ports located on both the front and the back of the new G2 control.

# MILLPWR<sup>G2</sup> – Specifications

## DRO Mode

Multiple Datums (Fixture Offset)	99
Skew	Yes
Zero Reset	Yes
Near Zero Warning	Yes

## PGM Mode

Estimated Machining Time	Yes
Graphic View	2D Line / 3D Line / 3D Solid
Block Form	Yes, w/ User Override
Custom Pocket & Islands	Yes, Ramp Feed & Optimized Path
Replication (Repeat, Rotate, Mirror)	Yes
Engrave (Line / Arc)	Yes
Program Manager Navigation	Tree w/ Program Type Filter
Long Program Names	Yes
Program Preview	Listing & Graphic w/ Estimated Machining Time
Internal Storage	2.5 GB Flash (User)
Explode Step	Hole Patterns & Repeat / Rotate / Mirror
Reverse (Step / Path)	Yes
Shift Steps	Yes
Auto Save (Program)	Yes
Program Size Limit (MPT only)	9999 Steps
DXF File Import	Yes
G-code Program	Yes, w/ Graphics Support
On-Screen Help	User Manual Viewer (Text & Graphics)
Parts Counter & Clock	Yes
Manual / Auto Z Control	Yes, 3 Axes
Optional Stop (G-code Only)	Yes
Feed Override	Potentiometer
Error Compensation	Linear & Bidirectional Non-linear

## Hardware

Processor	1 GHz Celeron <sup>®</sup> M
Display	12.1" 1024 x 768 LFT LCD
Remote Pendant (Stop / Go)	Yes
Housing	Die Cast Metal (Bezel & Back)
Connections	Ethernet, USB (x2), RS-232

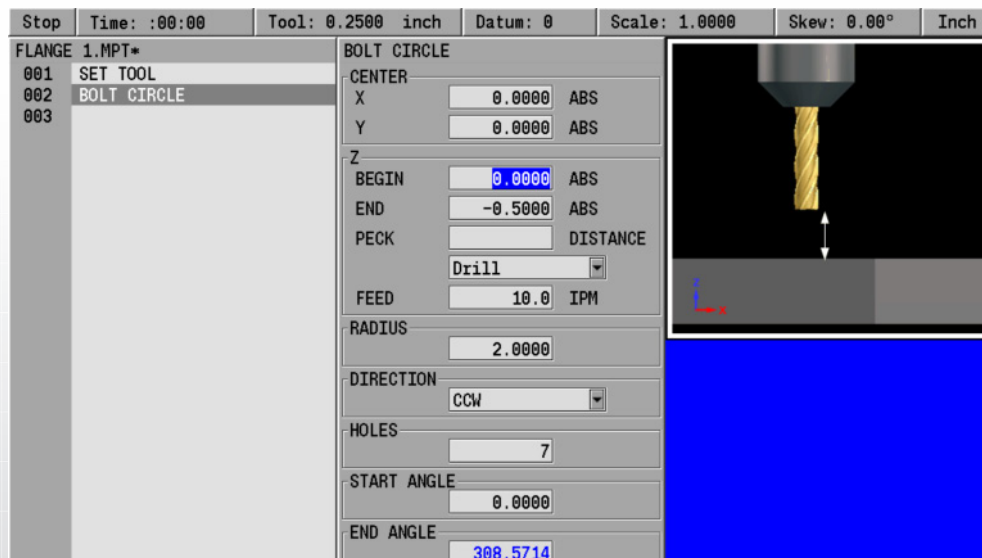
# 3D graphics system improves programming efficiency and accuracy

Programming cycles use a simple, easy-to-understand set of machinist language prompts, accompanied by content-specific “help” graphics. Here is a step-by-step look at the new G2 graphical interface, as a simple bolt hole circle and pocket are entered:

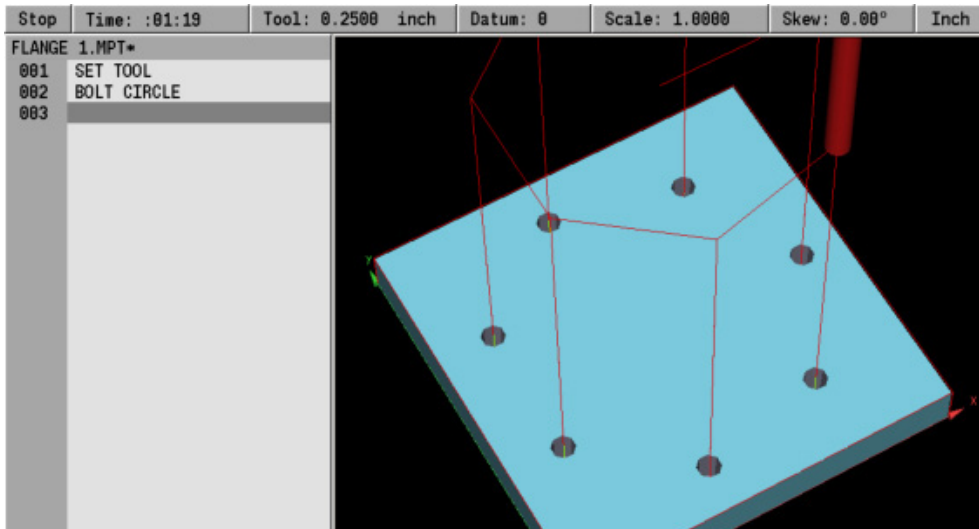
**Intuitive navigation menus eliminate the need for multiple screens.**



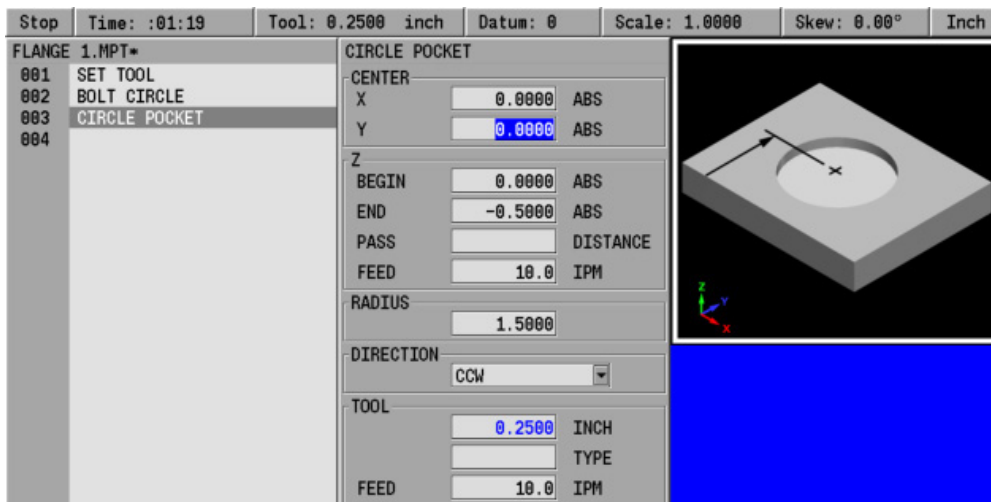
**STEP 1** – All programs begin with the tool. Parameters are entered in the middle column and are graphically supported in the right column for each field.



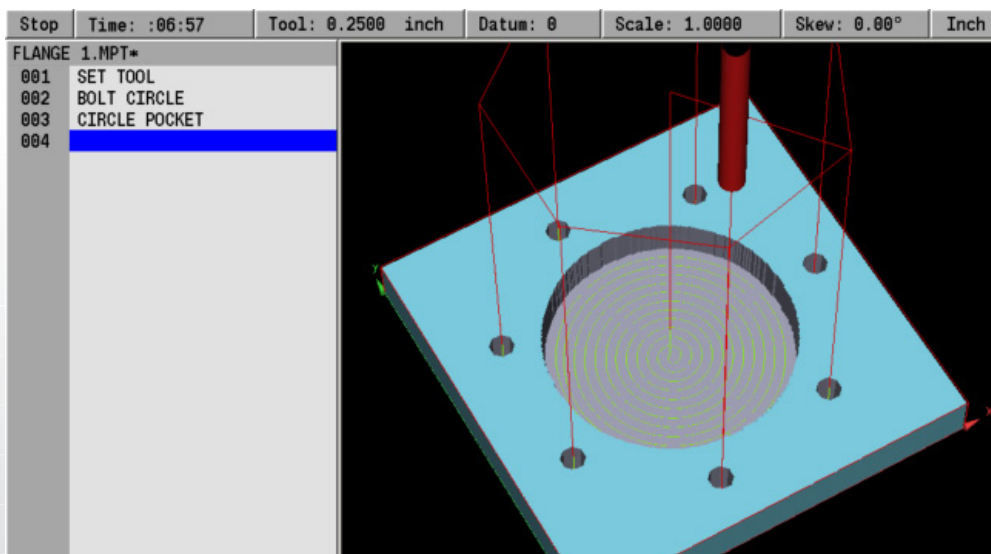
**STEP 2** – Select a cycle to be created. In this case, a circular bolt hole pattern.



**STEP 3** – Once the circular bolt hole pattern data has been entered into the form press the USE hard key and a graphic of the program is displayed.



**STEP 4** – Create a second cycle. Adding a circular pocket that is mapped in real time within the help graphic screen.



**STEP 5** – Tool paths are also displayed in 3D graphics that can be rotated and manipulated. The program is ready to run. Simply press "GO."

# Options

## Offline Software

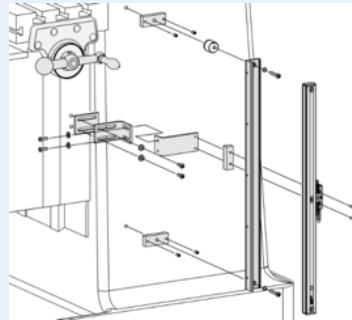
This allows you to create programs on a Windows compatible PC and permits those programs to be loaded into the MILLPWR<sup>G2</sup> via USB or ethernet.

## Upgrade

Upgrading from an old MILLPWR<sup>II</sup> to MILLPWR<sup>G2</sup> only requires the new G2 console and mounting arm.

# Accessories

## Knee Scale for Coupling Z (Quill) and W (Knee) G2



This option provides the machine operator positional feedback on the control when the knee is manual moved.

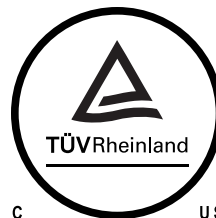
## Electronic Edge Finder or Touch Probe



The stylus is deflected when it contacts the workpiece, and the edge finder sends a triggering signal over the connecting cable.

The edge finder allows you to set datums quickly and easily, without leaving marks on the workpiece.

MILLPWR<sup>G2</sup> is backed by a comprehensive 2-year warranty and supported by a nationwide network of factory trained and certified distributors. Our distribution network is readily available to provide you with prompt delivery, product training and skilled technical service installation and support.



**877-920-2703**  
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