



Lighting

Lighting is critical to obtaining good images with the PG I 000. All new PG I 000 units include an adjustable LED spotlight and a light diffuser but other lighting accessories may benefit each user's unique inspection requirements.

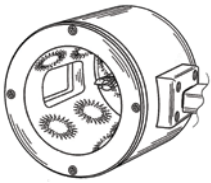
Illumination Tube

p/n 1000-648



The eight quadrant LED illumination tube supplies a controllable light environment for precise tool inspections. Highly magnified small tool images will benefit from the customizable lighting controls associated with the illumination tube.

The light intensity for each quadrant is controlled individually through the REACTION software. When used with the Scenes and Inspections feature in the REACTION software the exact lighting parameters you save can be recalled for future repeat tool inspections. The illumination tube assembly includes an adjustable articulating arm which connects to the base block for positioning.



Ring Light

p/n 1000-661-1 (PG I 000-400)

p/n 1000-661-2 (PG I 000-200)



The LED ring light is mounted to the camera/microscope assembly and provides shadow free illumination. The light intensity is easy to control through the REACTION software. When used with the Scenes and Inspections feature in the REACTION software the exact lighting parameters you save can be recalled for future repeat tool inspections.

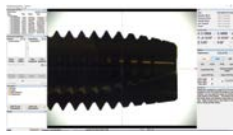


Backlight

p/n 1000-662



The 6" x 6" LED backlight panel is an ideal lighting accessory for capturing a profile image. By placing light behind the tool, the outline of the tool is very clear. The light intensity is controlled through the REACTION software. When used with the Scenes and Inspections feature in the REACTION software the exact lighting parameters you save can be recalled for future repeat tool inspections. The backlight assembly includes an adjustable articulating arm which connects to the base block for positioning.



Light Diffuser Tube

p/n 1000-515



The light diffuser tube is included with the PG I 000-400 and can be used with the LED spotlight to help reduce hotspots on the tool. The light diffuser tube assembly includes an adjustable articulating arm which connects to the base block for positioning.



Light Diffuser Plate

p/n 00495-00

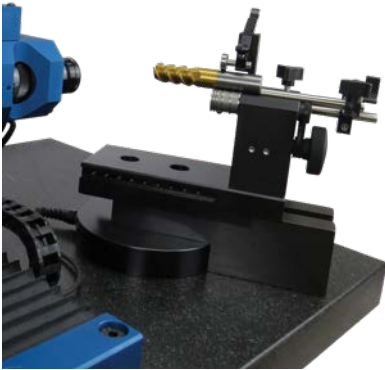


The light diffuser plate is included with the PG I 000-200 and can be used with the LED spotlight to help reduce hot spots on the tool. Besides diffusing light and reducing hot spots, the diffuser plate can also be used as a clean white background when capturing images. The diffuser plate includes a magnetic tape backing for mounting to the base block or V block.



Tool Holding

Concentricity Fixtures



The PG concentricity fixture, also known as a 3 roller, provides a constant smooth part rotation that allows for easy and accurate measurements of the tool. All precision concentricity fixture are certified to be accurate within 2μ over the rollers. Each

unit includes an adjustable multi-position top arm yoke (top roller), a manual drive timing belt pulley system and a steel base plate to mount the fixture to the PG1000 base block. The REACTION software includes 9 Edge Detection calculations which require the use of a concentricity fixture. This accessory is ideal for customers that want to measure diameter or radius using the Edge Detection feature in the REACTION software.

p/n 1000-570



Concentricity fixture with precision custom rollers, top roller and backstop. Most popular. Shank/tool size range: 0.125" - 1.0" (3 - 25mm).

p/n 1000-571



Concentricity fixture for small/micro tools. Includes precision rollers and top roller. Shank/tool size range: 0.010" - 0.250" (.25 - 6.5mm).

p/n 1000-572



Concentricity fixture for larger tools. Includes precision rollers, top roller and backstop. Shank/tool size range: 0.375" - 2.0" (9.5 - 50mm).

Center Fixtures

The PG center fixtures include hardened and precision ground male centers to minimize runout between centers.

p/n 1000-500-1 (PG1000-200)



Center fixture assembly for tools up to 12" long. The center fixture assembly mounts on the existing pivot plate in place of the base block.

p/n 1000-500-2 (PG1000-400)



Center fixture assembly for tools up to 12" long. Includes A Axis rotation encoder for tracking tool position in degrees via the REACTION software. The center fixture assembly mounts on the existing pivot plate in place of the base block.

p/n 1000-501



Mini center fixture assembly for tools up to 6" long. The mini center fixture assembly includes a steel base plate to mount the fixture to the PG1000 base block.

Gun Drill Fixture

p/n 1000-650



The PG gun drill fixture can accommodate gun drill lengths up to 24" and includes a steel base plate to mount the fixture to the PG1000 base block. Specify 1/2" (00372-1M), 3/4" (00372-2M), or 12mm (00372-3M) gun drill bushing holder at time of order. Gun drill bushing is not supplied.

V Blocks

All PG V blocks are manufactured with A2 tool steel hardened to Rc 60. The V block mounts to the PG1000 base block. A 5" V block is supplied with all PG1000-200 and PG1000-400 models however longer V blocks are available for special applications.

p/n 1000-209-1



10" V block for long tools.

p/n 1000-209-2



15" V block for extra long tools.

V Block Inserts

All PG V blocks inserts are manufactured with A2 tool steel hardened to Rc 60. The V block inserts mount in the V blocks are used when inspecting smaller tools. Models with and without a notch are available. The notch allows for easier tool rotation.



p/n 00030-1MA

V block insert with notch, 3.15" (80mm). Included with all PG I000-200 & 400 models.

p/n 00030-2MA

Matched set of (2) notched 00030-1MA V block inserts for inspecting longer tools, 3.15" (80 mm). Typically used with the 10" or 15" V block.



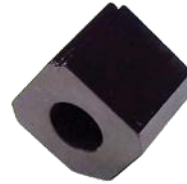
p/n 00030-3MA

Short V block insert for small/short tools, 1.5" (38mm).



p/n 00030-4MA

V block insert without notch, 3.15" (80 mm).



p/n 00257-1MB

Mini V block insert for micro tools (1 - 3mm shank).

Calibration Reticles

A precise calibration is the foundation for any accurate mechanical or optical inspection. Only after a proper calibration can accurate and repeatable inspection results be obtained. All PG I000's are delivered having been factory calibrated, using proprietary certified glass reticles and a calibration process that is integrated in our REACTION software. PG Inspection Technologies recommends recalibrating PG I000 systems once every two years for light use, annually for regular use and as often as monthly or quarterly for heavy or multishift use.

The PG I000 systems can be calibrated with either a standard or linear calibration reticle. Both reticles calibrate the system at each zoom magnification.

The standard 1000-443 reticle will also calibrate the scales on the X-axis (horizontal) and Y-axis (vertical) over a 50x50mm area. This reticle works well for applications that require a relatively small designated measuring area.

When a larger measuring area is routinely used, it is important to calibrate at more points along the X- and Y-axes. The larger 1000-645 linear calibration reticles calibrate the scales over the entire measuring range.

For both reticles, accurate distance compensation values are saved and applied during tool inspection for each axis, assuring accurate distance measurement.



p/n 1000-443

Standard calibration reticle supplied in mounting bracket and foam lined Pelican case. Includes secondary NIST certification valid for a minimum of 4 year from date of shipment. For screen calibration and scale calibration over a measuring range of: 50mm x 50mm.



p/n 1000-645-1

Linear segmented calibration reticle supplied in mounting bracket and foam lined Pelican case. Includes secondary NIST certification valid for a minimum of 9 years from date of shipment. For screen calibration and scale calibration over the full measuring range of the system. Calibrates 85mm vertical in 5mm segments and 200mm horizontal in 10mm segments.



p/n 1000-645-2 (PG I000-400LT only)

Linear segmented calibration reticle supplied in mounting bracket and foam lined Pelican case. Includes secondary NIST certification valid for a minimum of 9 years from date of shipment. For screen calibration and scale calibration over the full measuring range of the system. Calibrates 135mm vertical in 5mm segments and 350mm horizontal in 10mm segments.

NIST



For more information visit: www.pg1000.com

Other Options



Uninterruptible Power Supply(UPS)/ Surge Suppressor

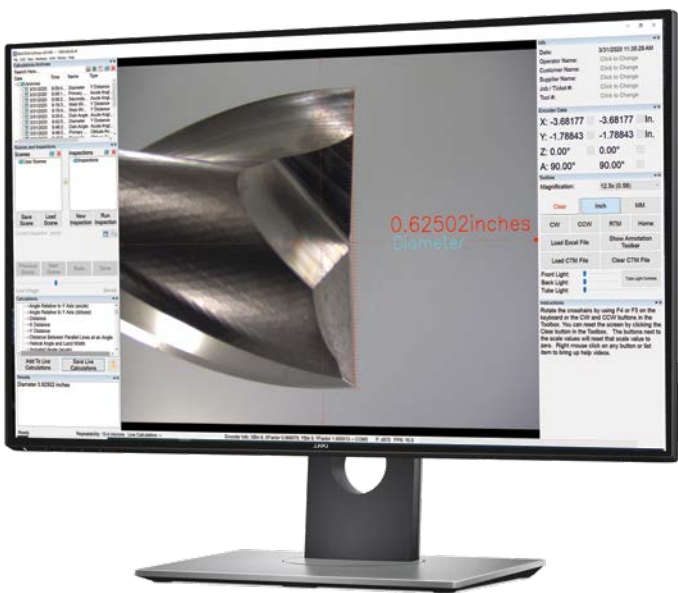
p/n 00087-3P

Battery backup units allow you to continue using your computer system during utility outages or when utility voltage fluctuates outside of safe levels. In these cases, the battery backup unit will instantly switch your computer and connected peripherals to battery power so you can continue to work without interruption. Another primary function of a battery backup is protecting your sensitive electronics from surges that travel along both utility and data lines. These surges can damage PG I000 hardware components and destroy your stored data in the REACTION software. The 600VA Uninterruptible Power Supply (UPS) / surge suppressor can be wall mounted or placed on or under your workbench/desk. It protects your networking equipment from damage or disruption.

27" Monitor Upgrade

p/n 00087-8P

27" 4K Ultra HD monitor upgrade. The standard monitor supplied with all PG I000 systems is 24". This high-quality monitor has 3840 x 2160 resolution with a high pixel density of 163ppi offering four times more details than Full HD. Includes adjustable monitor stand.



Custom PG I000 Workbench*

p/n 03048-xx

48"L x 30"D heavy duty, sit or stand workbench customized for your PG I000. All workbenches include adjustable height legs (30 – 37"H), 1 3/4" solid maple top with rounded front edge, and 14"D shelf on bottom (for PC and misc. storage). Bench legs can be bolted to floor.

Available Options:

- 1 Drawer, 18"Lx15"Dx8"H, mounts to underside of workbench. Includes mounting hardware and cam lock with 2 keys.
- 2 Storage cabinet, 18"Lx15"Dx17"H, mount to underside of workbench. Includes mounting hardware and cam lock with 2 keys.
- 3 Workbench mat – 48"Lx22"D, 1/8" thick, PVC, non-slip bottom.
- 4 Side and back ledges – 3"H, keep items from falling off benchtop, hardware included.
- 5 Castors (4) – lockable swivel casters, includes mounting hardware and crossbars for additional stability.
- 6 Leg outlet – Mounts directly to table leg cut-outs, 2 outlets on each side (4 total), 8ft cord, ETL/C-ETL Listed.

*Assembly required



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