SUNNEN’S PGE-6000

Electronic Bore Gaging with Sunnen Reliability

Sunnen’s new electronically amplified comparative PGE-6000 Bore Gaging System beats old-style mechanical gages in every respect. Its simplified design, coupled with a sophisticated electronic package, makes it the most versatile bore gaging system on the market. This system measures in both inches and millimeters.

The new PGE-6000 features a menu-driven operator interface. Its potential is almost unlimited. You are free to “customize” its usage according to your own preference and choose what you want to display and how you want to display it.

The new PGE-6000 electronic gaging system knows no rival for accuracy, reliability, versatility, simplicity and economy. It is an excellent solution to ensure precision bore sizing in:

- Production lines
- Job and contract shops
- Quality Control departments
- Receiving inspection

THE SUNNEN SERVICE TEAM

Your Sunnen Technical Specialist will work with you to determine the best solution for your needs – it’s all part of the added value you get with Sunnen. Plus, our worldwide sales and service team provides comprehensive support for the installation and operation of every system we make. Whatever your need, we have the expertise and product range to create the right solution for you and the dedication to support you for the long run.

To find the Sunnen representative nearest you, visit our website at www.sunnen.com
The PGE-6000 Electronic Bore Gage: Bore Gaging Made Easy.

Regardless of the bore application, the new Sunnen PGE-6000 Electronic Bore Gage will make the job quick and easy. If you're processing or buying parts with precision bores where tolerances are critical, the PGE-6000 will make your gaging operations more accurate, and more economical too.

Typical uses for the new PGE-6000:

**“IN PROCESS” INSPECTION**
The new PGE-6000 Bore Gage makes it practical to monitor production piece by piece. You can control scrap and rejects right at the machine. You detect tool wear as it happens and know exactly when tool changes or machine adjustments are needed. For sampling or 100% inspection, the PGE-6000 can take day-in and day-out punishment on the production line.

**FOR HONING WORK**
The new PGE-6000 Bore Gage speeds up your honing operation. It eliminates all guesswork and unnecessary gaging. This gage has a 0.25 mm (0.010 in.) total measuring range in any particular application. This permits exact control of final bore size by the operator. With air spindles and plug gages, you must be almost “to size” before you can even check the bore. The PGE-6000 is as versatile as the Sunnen Honing Machine.

**RECEIVING INSPECTION**
The new PGE-6000 Bore Gage gives you full control over the quality of purchased or semi-finished goods. Wide diameter range gives you incredible accuracy in a wide variety of bore sizes. Instant readouts make it ideal for 100% inspection or fast sampling of large lots. You can catch faulty vendor parts when they arrive, before they cause production issues.

**LABORATORY ANALYSIS**
The PGE-6000 is a versatile measuring instrument for Quality Control Labs that check a variety of precision I.D. work. Set up for any size bore in minutes. And the PGE-6000 finds bore size inaccuracies and bore conditions such as out-of-round, taper, barrel, bellmouth – instantly.

**JOB AND CONTRACT SHOPS**
Now, even the smallest shop can have a complete I.D. Gaging System with a very small capital investment. No more costly ring gages, air probes or plug gages to buy. Take on a wider variety of work without investing part of the profits in additional gaging equipment.
**PGE-6000 FEATURES**

- Simple and quick calibration of gage.
- Easy to follow setup menu.
- Selectable between two scale settings, "Narrow" mode or "Wide" mode.
- Display in either millimeters or inches.
- Single or Multiple measurements.
- Batch or Serial number modes.
- Programmable operator-defined default settings.

**DISPLAY**

- The LCD display shows the measurement in both a numerical and graphical format.
- The operator can choose either Radial Arc or Linear display.
- The operator can choose either a Light and Dark theme.
- All pertinent information regarding the setup of the gage is entered using the SETUP menu tab.

**REVERSIBLE BASE**

- Both sides of base are equipped with measurement fingers with different ranges.
- Unit can be configured to either range depending on application:
  - Side 1 measures – 9.40 mm to 18.80 mm (.370 in. to .740 in.)
  - Side 2 measures – 18.80 mm to 38.10 mm (.740 in. to 1.500 in.)

**OPTIONS AND ACCESSORIES**

- Setting fixtures:
  - PG-400 range – 2.29 mm to 38.1 mm (.090 in. to 1.500 in.)
  - PG-500 range – 38.1 mm to 73.7 mm (1.500 in. to 2.900 in.)
- PGE-250E Extension Finger Set extends measuring range of PGE-6000 from 38.10 mm to 73.66 mm (1.5 in. to 2.90 in.)
- PGE-6540 programmed foot switch allows hands-free data entry.
- PGE-6545 gage tray adapter for Sunnen MB-2370, EC-7170 and SH-6680 gage stands.

The PGE-6000 combines the robust design of Sunnen’s legendary PG-Series mechanical bore gages with a computerized operating system. The result is a unique instrument that is equally at home on the shop floor or an environmentally controlled laboratory.

NO MORE MASTER RINGS OR PLUG GAGES TO BUY
The PGE-6000 is the result of a two-year development program in conjunction with customer input and field testing. When used with a Sunnen Setting Fixture, the PGE-6000 puts an end to the expense and clutter of a cabinet full of master rings. No more gage blocks, micrometers, air probes or plug gages. Just one simple, practical, reliable, accurate bore gaging system that ensures accuracy and precision on every part measured.

QUICK SETUP FOR ANY SIZE BORE
You can quickly set the PGE-6000 gage to measure any size bore in its range. You just dial the desired size on the Sunnen Setting Fixture and transfer the size to the gage. There are no “missing sizes” in the Sunnen Bore Gaging System.

STAYS SET AND REPEATS WITHIN +/- 0.00025 MM (+/- .000010 IN.)
Linearity and repeatability are built in and guaranteed to stay put by the exclusive system of floating reeds. Performance is consistent. The size is locked in. No drift or lag. It is as reliable in the shop as in the controlled atmosphere of the lab.

STAYS RELIABLE, YEAR AFTER YEAR
The floating reed system eliminates friction and wear in the PGE-6000. It is built without jewels, racks, gears or pulleys. No critical sliding or rotating parts to loosen, wear or warp.

CHECK I.D. ACCURATELY RIGHT UP TO THE VERY EDGE
The PGE-6000 will explore the entire bore and show variations in diameter, taper, barrel and bellmouth. It is accurate right up to the edge of ports, lands and ends.

A RUGGED WORKING TOOL
Both gage and setting fixture are built for everyday shop use, just like your machine tools.

EASY TO SET – EASY TO USE
Machine operators and quality control inspectors can use the Sunnen PGE-6000 and Setting Fixture with confidence after only a brief demonstration. No advanced skill, “feel” or opinion involved. You get the right size every time, no matter who sets or uses the Sunnen Gage.
**General Information and Specifications**

**GAGE MODEL**
PGE-6000

**SELECTABLE RESOLUTION**
0.01 / 0.001 / 0.0001 mm or 0.0001 / 0.00001 / 0.000001 inch

**STANDARD MEASURING RANGE**
9.40 mm to 38.10 mm (.370 in. to 1.500 in.)

**RANGE OF SMALL GAGE FINGERS**
9.40 mm to 18.80 mm (.370 in. to .740 in.)
Gaging depth: 24.6 mm (.989 in.)

**RANGE OF LARGE GAGE FINGERS**
18.80 mm to 38.10 mm (.740 in. to 1.500 in.)
Gaging depth: 42.06 mm (1.656 in.)

**OPTIONAL RANGE PG-250E EXTENSION FINGERS**
38.10 mm to 74.30 mm (1.500 in. to 3.000 in.)
Gaging depth: 41.27 mm (1.625 in.)

**POWER REQUIREMENTS**
120V/60 Hz single phase or 240V/50 Hz single phase

**OPERATING TEMPERATURE**
10 ~ 30 degrees C (50 ~ 86 degrees F)

**NET WEIGHT**
12.25 kg (27 lbs.)

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**PGE-6000**

**Fast and Easy SPC Data Collection**

The PGE-6000 is compatible with SPC software, allowing fast and easy data collection. The rear panel provides easy interface to a PC and includes two external probe ports.

A menu-driven operator interface allows the PGE-6000 user to select from a variety of screen displays depending on the application or the operator's preference, in both millimeters and inches. It also offers more capability and range of use with less hardware.

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**Try the Sunnen Bore Gaging System in Your Shop**

We welcome the opportunity to have you compare the Sunnen Gaging System with other systems – and evaluate it for the various gaging applications in your plant. Ask your Sunnen Representative for a demonstration.

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**Sunnen Gage Leasing Program**

Our unique lease plan puts the gage and setting fixture into your shop for less than you think. Your Sunnen Field Engineer will give you complete pricing information and help you select the equipment you'll need for your specific application. Of course, you may buy the Sunnen Bore Gaging System, if you wish.
A LEGACY OF EXCELLENCE SINCE 1924

Sunnen Worldwide

With world headquarters in St. Louis, Missouri, Sunnen is the largest fully integrated company in the world specializing in precision bore creation, sizing and finishing equipment. A Sunnen solution might include honing, lapping, skiving/roller burnishing or deep hole machining...or a combination of those processes.

Our 12 international affiliates and over 40 authorized distributors allow us to deliver top quality Sunnen machines, tools, service and training wherever they are needed around the globe.

SUNNEN PRODUCTS COMPANY
World Headquarters – St. Louis, USA
P: (314) 781-2100
F: (314) 781-2268
Toll Free: (800) 325-3670
sunnen@sunnen.com
www.sunnen.com

AUSTRIA
Sunnen Austria GmbH
+43 5576 74194
sales@sunnen.eu
www.sunnen.com

BELGIUM
Sunnen Benelux BVBA
+32 38 80 2800
info@sunnen.be
www.sunnen.com

BRAZIL
Sunnen do Brasil LTDA
+55 11 4368-4900
sunnen@sunnen.com.br
www.sunnen.com

CANADA
Sunnen Products Company
Toll Free: (844) 356-0006
canadasales@sunnen.com
www.sunnen.com

CHINA
Shanghai Sunnen Mechanical Co. Ltd.
P: +86 21 5813 3990
F: +86 21 5813 2299
sales@sunnensh.com
www.sunnen.com

CZECH REPUBLIC
Sunnen S.R.O.
+420 383 376 317
sunnen@sunnen.cz
www.sunnen.com

FRANCE
Sunnen SAS
+33 169 300 000
info@sunnen.fr
www.sunnen.com

INDIA
Sunnen India Pvt. Ltd.
P: +91 22 6139 2800
F: +91 22 3913 6056
sales@sunnen.in
www.sunnen.com

ITALY
Sunnen Italia S.r.l.
P: +39 02 383 417 1
F: +39 02 383 417 50
sunnen@sunnenitalia.com
www.sunnenitalia.com

POLAND
Sunnen Polska Sp. z o.o.
P: +48 22 814 34 29
F: +48 22 814 34 28
sunnen@sunnen.pl
www.sunnen.com

SWITZERLAND
Sunnen AG
+41 71 649 33 33
sales@sunnen.eu
www.sunnen.com

UNITED KINGDOM
UK – Sunnen Products Ltd.
+44 1442 39 39 39
hemel@sunnen.co.uk
www.sunnen.com

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