## Bore Gauges

## SERIES 511 - Small Hole Bore Gauge

- The interchangeable anvils used on this gauge are made of high-grade tool steel.
- Interchangeable washers 0.5 mm thick are supplied as standard accessories to enable setting the $10-18.5 \mathrm{~mm} / .4-.74$ " models in small steps.
- The dial indicator is fully protected by a rugged cover.
- An optional inside-length standard, such as a setting ring or Inside Micro Checker (see pages C-37 to C-38 or page C-24, respectively), is required for accurately setting the gauge before measurement.


Technical Data
Accuracy: $5 \mu \mathrm{~m} / .0002^{\prime \prime}$
Repeatability: $\quad 2 \mu \mathrm{~m} / .00008^{\prime \prime}$
Narrow-range accuracy: $2 \mu \mathrm{~m} / .00008$ "


A heatshield prevents accuracy degradation due to hand heat during prolonged use.

Specifications

| Metric |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Code No. | Range | Measuring force | Content of set |  |  | Probing depth |
|  |  |  | Bore gauge | Dial indicator | Anvils |  |
| Graduation 0.001 mm |  |  |  |  |  |  |
| 511-210 | 6.10 mm | 2 N or less | 511-209 | 2109SB-10 | 9 pcs . | 50 mm |
| 511-203 | $10-18.5 \mathrm{~mm}$ |  | 511-201 |  |  | 100 mm |
| Graduation 0.01 mm |  |  |  |  |  |  |
| 511-211 | 6.10 mm | 2 N or less | 511-209 | 2046SB | 9 pcs | 50 mm |
| 511-204 | $10-18.5 \mathrm{~mm}$ |  | 511-201 |  |  | 100 mm |
| Inch |  |  |  |  |  |  |
| Code No. | Range | Measuring force | Content of set |  |  | Probing depth |
|  |  |  | Bore gauge | Dial indicator | Anvils |  |
| Graduation .0001" |  |  |  |  |  |  |
| 511-212 | .24-.4" | 2 N or less | 511-214 | 2923SB-10 | 9 pcs . | 2 " |
| 511-206 | . $4-.74$ " |  | 511-205 |  |  | 4" |
| Graduation .0005" |  |  |  |  |  |  |
| 511-213 | . $24-.4$ " | 2 N or less | 511-214 | 2922SB | 9 pcs | 2 " |
| 511-207 | . $4-.74$ " |  | 511-205 |  |  | 4" |



| Measuring range | Anvil |  |  |
| :---: | :---: | :---: | :---: |
|  | Marked No. | Size | L |
| $\begin{aligned} & 6-10 \mathrm{~mm} / \\ & 24-4^{\prime \prime} \end{aligned}$ | 1 | 6.0 mm/.24" | $1.2 \mathrm{~mm} / .05{ }^{\text {" }}$ |
|  | 2 | $6.5 \mathrm{~mm} / .26{ }^{\prime \prime}$ | $1.7 \mathrm{~mm} / .07{ }^{\prime \prime}$ |
|  | 3 | $7.0 \mathrm{~mm} / .28{ }^{\prime \prime}$ | $2.2 \mathrm{~mm} / .09$ " |
|  | 4 | $7.5 \mathrm{~mm} / .30^{\prime \prime}$ | $2.7 \mathrm{~mm} / .11^{\prime \prime}$ |
|  | 5 | 8.0 mm/.32" | $3.2 \mathrm{~mm} / .13{ }^{\prime \prime}$ |
|  | 6 | $8.5 \mathrm{~mm} / .34{ }^{\prime \prime}$ | $3.7 \mathrm{~mm} / .15{ }^{\prime \prime}$ |
|  | 7 | 9.0 mm/.36" | $4.2 \mathrm{~mm} / .17^{\prime \prime}$ |
|  | 8 | 9.5 mm/.38" | $4.7 \mathrm{~mm} / .19{ }^{\prime \prime}$ |
|  | 9 | 10.0 mm/.40" | $5.2 \mathrm{~mm} / .21{ }^{\prime \prime}$ |
| $\begin{aligned} & 10-18.5 \mathrm{~mm} / \\ & .4-.74^{\prime \prime} \end{aligned}$ | 1 | $10 \mathrm{~mm} / .40{ }^{\prime \prime}$ | $2 \mathrm{~mm} / .08{ }^{\prime \prime}$ |
|  | 2 | $11 \mathrm{~mm} / .44$ " | $3 \mathrm{~mm} / .12$ " |
|  | 3 | $12 \mathrm{~mm} / .48{ }^{\prime \prime}$ | $4 \mathrm{~mm} / .16{ }^{\prime \prime}$ |
|  | 4 | $13 \mathrm{~mm} / .52{ }^{\prime \prime}$ | $5 \mathrm{~mm} / .20{ }^{\text {" }}$ |
|  | 5 | $14 \mathrm{~mm} / .56{ }^{\prime \prime}$ | $6 \mathrm{~mm} / .24{ }^{\prime \prime}$ |
|  | 6 | $15 \mathrm{~mm} / .60{ }^{\prime \prime}$ | $7 \mathrm{~mm} / .28{ }^{\prime \prime}$ |
|  | 7 | $16 \mathrm{~mm} / .64{ }^{\prime \prime}$ | $8 \mathrm{~mm} / .32{ }^{\prime \prime}$ |
|  | 8 | $17 \mathrm{~mm} / 68{ }^{\prime \prime}$ | $9 \mathrm{~mm} / .36{ }^{\prime \prime}$ |
|  | 9 | $18 \mathrm{~mm} / .72{ }^{\prime \prime}$ | $10 \mathrm{~mm} / .40 "$ |



How to measure a hole diameter
The 511 series provides a guide plate to align the hole or bore diameter with the measurement axis of the bore gauge.

