Introducing the ARNOLD In-Process Grinding Gage

A brief history of ARNOLD GAUGE

In 1918, Henry Ford asked one of his trusted quality engineers, Philip S. Arnold to improve the quality of his automotive parts. In the basement of his home, Philip invented and began building in-process grinding gages for Ford and other automotive companies. These gages became so popular that he founded the ARNOLD GAUGE Company in Flint, Michigan.

In 1973, the Bruns family brought ARNOLD GAUGE to Cincinnati, Ohio. With a tradition of nearly 100 years and over 75,000 ARNOLD gages, we proudly continue to provide the world's finest “in-process” grinding gage.

What is an ARNOLD GAUGE?

The ARNOLD In-Process Grinding Gage saves you time and money by measuring your workpiece at the same time it is being ground. Now, there is no need to stop your grinder to measure a part. Simply grind until the indicator reads “zero”. Higher productivity, and precision sizes every time.

Simple

After setting the gage on a known size, production grinding is a breeze! Simply grind until the indicator returns to zero. There is no need to stop the machine to check size, and all guesswork is eliminated. Installation is also fast and easy.

Rugged

The Arnold grinding gage stands up to any harsh grinding environment. Tungsten carbide contact points guarantee maximum wear resistance and longer life.

Proven

Each gage is hand fitted to insure accuracy and exceeding .0001” (.003mm).

Cost Effective

The Arnold grinding gage pays for itself in no time. Time savings + eliminated scrap = $$$

Great for crankshaft grinding!

 precision hubs for sensitive gaging accuracy

Hydraulic “dash-pot” mounting for controlled lift and sensitive gaging

Tungsten carbide gage contacts for long life

Removable bushings for easy caliper exchange

Dial indicator with dovetail back and cam for easy zeroing on your known workpiece

Strong tubular steel frame

Making grinding better since 1918.

ARNOLD GAUGE

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www.arnoldgauge.com
info@arnoldgauge.com

Order today, and start gaging tomorrow.

www.arnoldgauge.com
877-942-4943

GRINDING GAGES

at the SAME time

IN-PROCESS

GAGE and GRIND

Since 1918

ARNOLD GAUGES:
Standing the test of time.
Introducing the **ARNOLD**
In-Process Grinding Gage

**What is an **ARNOLD GAUGE**?**

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**In-Process Grinding Gage**

- **Dial indicator with dovetail back and cam for easy zeroing on your known workpiece**
- **Precision hubs for sensitive gaging accuracy**
- **Removable bushings for easy caliper exchange**
- **Dial indicator**
- **Tungsten carbide gage contacts for long life**
- **Great for crankshaft grinding!**
- **Strong tubular steel frame**
- **Hydraulic "dash-pot" mounting for controlled lift and sensitive gaging**
- **What is an **ARNOLD GAUGE?**

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**PROVEN**

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**PROVEN**

Since 1918, over 75,000 satisfied customers have been saving time and money using Arnold gages.

**COST EFFECTIVE**

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**Making grinding better since 1918.**
1. CHOOSE A GAGE FRAME...

- Single Diameter Caliper
- Adjustable Caliper
- Spine Caliper
- Large Caliper

2. CHOOSE AN INDICATOR...

- Adjustable indicator includes a special dovetail slot for securing to the gage frame. The following models are available:
  - #194002: 0.002mm (0.00008"
  - #194003: 0.005mm (0.0002"
  - #194701: 0.01mm (0.0004"
  - #194702: 0.015mm (0.0006"

3. CHOOSE A CALIPER...

- Our standard "LR" (large) model is perfect for most grinding jobs. Each has a graduated scale for easy reading. Each is adjustable to any new size with a hex wrench. Adjustable calipers can be set to runs or repeating jobs.

4. CHOOSE A GAGE HUB...

- Available for other caliper sizes.

5. CHOOSE A MOUNTING ARM...

- Use a 1/2" bolt and three set screws to secure your mounting. Offset swiveling arms available.

MOUNTING OPTIONS...

- An ARNOLD GAUGE can be mounted in a variety of ways...

- Mounted to Right Side of Wheel Cover
- Mounted to Top of Wheel Cover (uses a custom bracket)
- Mounted to Rear of Headstock
- Mounted to Front of Headstock (uses a custom bracket)

TRUNNION STORAGE RACK...

- The model TSS Trunnion Storage Rack mounts near the operator and holds up to 4 grinding gages equipped with trunnion style hubs (models HR-1, HR-2, HR-3, HR-4, HR-5). The operator simply takes a gage and steps it into place. This saves time when grinding parts with 2 or more diameters to gage.

MODEL LRWF (for diameters and widths)

- Provides continuous reading of diameters and widths. The Arnold model LRWF provides a continuous reading of diameters and widths. The model TRS Trunnion Storage Rack mounts near the operator and holds up to 4 grinding gages equipped with trunnion style hubs (models HR-1, HR-2, HR-3, HR-4, HR-5). The operator simply takes a gage and steps it into place. This saves time when grinding parts with 2 or more diameters to gage.

- Use if your mounting requirements exceed what is in the table above. Spine gages include hydraulic motion control for smooth, shock-free operation.

- The Arnold model LRWF provides a continuous reading of diameters and widths. The model TRS Trunnion Storage Rack mounts near the operator and holds up to 4 grinding gages equipped with trunnion style hubs (models HR-1, HR-2, HR-3, HR-4, HR-5). The operator simply takes a gage and steps it into place. This saves time when grinding parts with 2 or more diameters to gage.

- Use if required by mounting distance. Most common sizes include 20" (508mm), 16" (406mm), 14" (356mm), 12" (305mm), 10" (254mm), 8" (203mm), and 5" (127mm).
1. CHOOSE A GAGE FRAME...

Our standard "LR" Arnold Gage frame (11.75" long) is perfect for most grinding jobs.

Use this table to select the proper Gage frame for your application:

<table>
<thead>
<tr>
<th>Size</th>
<th>Name</th>
<th>Length (mm)</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>LR</td>
<td>11.75</td>
<td>298</td>
<td>Most common</td>
</tr>
<tr>
<td>LS</td>
<td>12.75</td>
<td>323</td>
<td>Slightly longer for larger workpieces</td>
</tr>
</tbody>
</table>
| LB  | 13.75 | 343 | Longer for workpieces longer than 12.75"

2. CHOOSE AN INDICATOR...

ARNOLD dial indicators include a special dovetail back for secure mounting to the gage frame: The following models are available:

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MDG</td>
<td>Dial gage</td>
</tr>
<tr>
<td>MDT</td>
<td>Dial gage with trigger stop</td>
</tr>
<tr>
<td>MDX</td>
<td>Dial gage with digital readout</td>
</tr>
</tbody>
</table>

3. CHOOSE A CALIPER...

AROUND CALIPER - Adjustable calipers can be used in a manual or automatic mode. Each has a graduated scale of .001".

Round (disc) carbide contacts are used for workpieces like crankshafts, camshafts, etc. Each contact can be used with flat or round contact faces.

Most ARROUND calipers can be used for all applications.

dsp-8 8-
sp-8 8-
s8-1 1-
s8-2 2-
s8-3 3-
s8-4 4-
s8-5 5-
s8-6 6-
s8-7 7-
s8-8 8-

4. CHOOSE A HUB...

Choose a hub that matches your gage requirements:

Brushless servo motor

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>TR-1</td>
<td>TRUNNION Style</td>
<td>Laterally fixed</td>
</tr>
<tr>
<td>TR-2</td>
<td>TRUNNION Style</td>
<td>Laterally fixed</td>
</tr>
<tr>
<td>TR-3</td>
<td>TRUNNION Style</td>
<td>Laterally fixed</td>
</tr>
<tr>
<td>TR-4</td>
<td>TRUNNION Style</td>
<td>Laterally fixed</td>
</tr>
<tr>
<td>TR-5</td>
<td>TRUNNION Style</td>
<td>Laterally fixed</td>
</tr>
</tbody>
</table>

5. CHOOSE A MOUNTING...

ARNOLD GAUGE mounting supports variable gage support while changing, and lifts the gage out of the way while grinding workpieces.

Armed ARROUND calipers and MOUNTING SYSTEMS allow sensitive diameter gaging to your workpiece.

Model LB is used for mounting to the grinding machine for workpieces with 1 or more diameters.

When using multiple gages in tight spaces, it is recommended to use the most common 2 or 3 diameters to gage.

NOTES

- Use with 2 or more diameters to avoid vibration.
- Use if required by mounting distance.
1. CHOOSE A GAGE FRAME...

Our standard 1/8" thick ARNOLD Gage frame (11.75" long) is perfect for most grinding jobs. Use this table to select the proper Gage frame for your application:

<table>
<thead>
<tr>
<th>Length</th>
<th>Length</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>8&quot;</td>
<td>10.75&quot;</td>
<td>Available from .187&quot; lapped to exact size, and marked. Each caliper is running or repeating jobs. SINGLE DIAMETER CALIPER available for other caliper sizes.</td>
</tr>
<tr>
<td>14.75&quot;</td>
<td>375mm</td>
<td>14.75&quot; (375mm) is perfect for most grinding jobs.</td>
</tr>
<tr>
<td>10.75&quot;</td>
<td>273mm</td>
<td>10.75&quot; (273mm) for crankshaft grinding. Flat contacts are especially for crankshaft grinding.</td>
</tr>
</tbody>
</table>

2. CHOOSE AN INDICATOR...

SINGLE DIAMETER CALIPER & SPLINE CALIPER

Available from .375" interrupted such as splines, custom made

3. CHOOSE A CALIPER...

SINGLE DIAMETER CALIPER

4. CHOOSE A HUB...

<table>
<thead>
<tr>
<th>MODEL</th>
<th>Style</th>
<th>Description</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>JR-1</td>
<td>HR-1</td>
<td>GM-100</td>
<td></td>
</tr>
<tr>
<td>JR-2</td>
<td>HR-2</td>
<td>GM-200</td>
<td></td>
</tr>
<tr>
<td>JR-3</td>
<td>HR-3</td>
<td>GM-300</td>
<td></td>
</tr>
<tr>
<td>JR-4</td>
<td>HR-4</td>
<td>GM-400</td>
<td></td>
</tr>
<tr>
<td>JR-5</td>
<td>HR-5</td>
<td>GM-500</td>
<td></td>
</tr>
</tbody>
</table>

5. CHOOSE A MOUNTING...

<table>
<thead>
<tr>
<th>STYLE</th>
<th>DUTY</th>
<th>MOUNTING OPTIONS...</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>JR</td>
<td>BB</td>
<td>Mounted to Top of Wheel Cover (uses a custom bracket)</td>
<td></td>
</tr>
<tr>
<td>JR</td>
<td>RB</td>
<td>Mounted to Rear of Headstock</td>
<td></td>
</tr>
<tr>
<td>JR</td>
<td>TR</td>
<td>Mounted to Front of Headstock (uses a custom bracket)</td>
<td></td>
</tr>
<tr>
<td>HR</td>
<td>BB</td>
<td>Mounted to Right Side of Wheel Cover</td>
<td></td>
</tr>
<tr>
<td>HR</td>
<td>RB</td>
<td>Trunnion Storage Rack</td>
<td></td>
</tr>
<tr>
<td>HR</td>
<td>TR</td>
<td>Trunnion Storage Rack</td>
<td></td>
</tr>
</tbody>
</table>

ARSHOLD GAGE Mounting ensures sensitive gage support while gaging, and lifts the gage out of the way with economical vibration. Models JR mountings include hydraulic motion control for smooth, shock-free operation. When mounting on the left side of grinder, when to use WF, LRWF, TR-1 in limited space.

6. CHOOSE A MOUNTING ARM...

<table>
<thead>
<tr>
<th>STYLE</th>
<th>DUTY</th>
<th>Range</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>JR</td>
<td>BB</td>
<td>Under 5&quot;</td>
<td></td>
</tr>
<tr>
<td>JR</td>
<td>RB</td>
<td>Up to 25-75</td>
<td></td>
</tr>
<tr>
<td>JR</td>
<td>TR</td>
<td>200-300</td>
<td></td>
</tr>
<tr>
<td>HR</td>
<td>BB</td>
<td>Under 5&quot;</td>
<td></td>
</tr>
<tr>
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