Portable Hones and Accessories CATALOG

for Engine Rebuilding

*SUNNEN, THE SUNNEN LOGO, GENERAL HONE AND THE GENERAL HONE LOGO ARE REGISTERED TRADEMARKS OF SUNNEN PRODUCTS COMPANY*
Sunnen Portable Cylinder Hones

For complete or partial honing, or following boring bar:
Select stone sets desired from chart below or on page 3.
• The fastest and most accurate (to one-half thousandth) portable hone for cylinder reconditioning in cars, trucks, motorcycles, tractors, stationary engines.
• The only method that maintains alignment of the original bore.
• Reconditions cylinder bore with less stock removal than other methods – maintains uniform wall thickness – assures longer block life.
• Produces any finish specified by engine and ring manufacturers.
• Recommended for fast seating of any type of rings.
• Correct stone length.
• Fast stock removal – up to five thousandths (0,13 mm) per minute.
• Can be set up in a few minutes – no studs to remove.
• All cylinder hones include AN-1105A molded storage box.

SNJ-10 Portable Hone
Range: 1.250-1.770 in. (31,5-45,0 mm)
The SNJ-10 Portable Hone is recommended for sizing and finishing small holes in parts too heavy or awkward to stroke on a honing machine.
Includes a 2 in. (50,88 mm) drive shank and 12 in. (304,8 mm) extension.
Note: All stone sets must be ordered separately. See chart below.
Shipping Weight: Approx. 5 lbs (2,3 kg)

Recommended Stone Sets for Sunnen SNJ-10 Portable Hone

<table>
<thead>
<tr>
<th>DIAMETER RANGE</th>
<th>STONE SETS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.250-1.437 in.</td>
<td>SNJ1-A47</td>
</tr>
<tr>
<td>1.418-1.604 in.</td>
<td>SNJ2-A47</td>
</tr>
<tr>
<td>1.580-1.770 in.</td>
<td>SNJ3-A47</td>
</tr>
</tbody>
</table>

Deburring in Rough Bored in the following materials:
All Materials SNJ1-J46 SNJ2-J46 SNJ3-J46

Fast Stock Removal in Bored, Ground or Deburred Holes in the following materials:
Aluminum or Bronze SNJ1-J45 SNJ2-J45 SNJ3-J45
Soft Brass SNJ1-J63 SNJ2-J63 SNJ3-J63
Cast Iron SNJ1-J45 SNJ2-J45 SNJ3-J45
Soft Steel SNJ1-A45 SNJ2-A45 SNJ3-A45
Hard Steel (First Choice) SNJ1-A45 SNJ2-A45 SNJ3-A45
Hard Steel (If A45 does not cut) SNJ1-A43 SNJ2-A43 SNJ3-A43
Very Hard Steel (If A45 does not cut) SNJ1-J63 SNJ2-J63 SNJ3-J63

Fine Finishing in the following materials:
Aluminum or Bronze SNJ1-J87 SNJ2-J87 SNJ3-J87
Soft Brass SNJ1-J85 SNJ2-J85 SNJ3-J85
Cast Iron SNJ1-J87 SNJ2-J87 SNJ3-J87
Soft Steel SNJ1-J87 SNJ2-J87 SNJ3-J87
Hard Steel SNJ1-J85 SNJ2-J85 SNJ3-J85

SN-75 Midget Portable Cylinder Hone
Range: 1.75-2.0 in. (44,0-51,0 mm)
Recommended for small compressors, outboard motors and similar small bore engines.
Includes a 2 in. (50,88 mm) drive shank and 12 in. (304,8 mm) extension.
Note: All stone sets must be ordered separately. See chart on page 3.
Shipping Weight: Approx. 5 lbs (2,3 kg)

JN-95 Junior Portable Cylinder Hone
Range: 2.0-2.6 in. (50,8-66,0 mm)
Ideal for outboard motors, motorcycles and similar small bore engines within its range.
Includes a 2 in. (50,88 mm) drive shank and 12 in. (304,8 mm) extension.
Note: All stone sets must be ordered separately. See chart on page 3.
Shipping Weight: Approx. 5 lbs (2,3 kg)

AN-111 Standard Portable Cylinder Hone
Range: 2.5-7.0 in. (63,0-178 mm)
Shipped with roughing and medium finishing stone sets (AN-100, AN-300), for 2.7-4.1 in. (69,0-104 mm) range. Stone sets available for complete range 2.5-7.0 in. (63-178 mm). See chart on back page. Includes a 12 in. (304,8 mm) drive shank.
Note: To order additional stone sets see chart on page 3.
Shipping Weight: Approx. 9 lbs (4,1 kg)

AN-112 Standard Portable Cylinder Hone
Same as AN-111 except does not include any stone sets.
Includes a 2 in. (50,88 mm) drive shank and 12 in. (304,8 mm) extension.
Note: All stone sets must be ordered separately. See chart on page 3.
Shipping Weight: Approx. 7 lbs (3,2 kg)

AN-815 Heavy-Duty Cylinder Hone
Range: 2.5-15.0 in. (63,0-381 mm)
Recommended for truck and stationary engines with cylinder bores within its range.
Equipped with heavy duty universal joint, 6 in. (152 mm) drive shank and 12 in. (304,8 mm) extension.
Note: Order stone sets, master holders and stone supports separately. See chart on page 3.
Shipping Weight: Approx. 9 lbs (4,1 kg)
Sunnen Portable Hones and Accessories

### Stone Sets for Sunnen Portable Cylinder Hones

<table>
<thead>
<tr>
<th>For Use In</th>
<th>Diameter Range</th>
<th>WHEN USED IN</th>
<th>ROUGHING STONE SET</th>
<th>FINISHING STONE SET</th>
<th>MED. FINISH STONE SET</th>
<th>FINE FINISH STONE SET</th>
<th>EXTRA FINE FINISH STONE SET</th>
<th>POLISHING STONE SET</th>
<th>STONE LENGTH</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SN Midget</strong></td>
<td>1.75-2.0</td>
<td>44-51</td>
<td>Cast Iron</td>
<td>SN-100</td>
<td>SN-200</td>
<td>SN-300</td>
<td>SN-500</td>
<td>S18-J87</td>
<td>S18-COS†</td>
</tr>
<tr>
<td><strong>JN Junior</strong></td>
<td>2.0-2.2</td>
<td>51-56</td>
<td>Hardened Sleeves</td>
<td>SN-100</td>
<td>SN-200</td>
<td>SN-300</td>
<td>SN-500</td>
<td>T20-J87</td>
<td>T20-COS†</td>
</tr>
<tr>
<td></td>
<td>2.2-2.4</td>
<td>56-61</td>
<td>Hardened Sleeves</td>
<td>SN-101</td>
<td>SN-201</td>
<td>SN-301</td>
<td>SN-501</td>
<td>T20-J87</td>
<td>T20-COS†</td>
</tr>
<tr>
<td></td>
<td>2.4-2.6</td>
<td>61-66</td>
<td>Hardened Sleeves</td>
<td>SN-102</td>
<td>SN-202</td>
<td>SN-302</td>
<td>SN-502</td>
<td>T20-J87</td>
<td>T20-COS†</td>
</tr>
<tr>
<td></td>
<td>2.5-2.7</td>
<td>63-70</td>
<td>Cast Iron</td>
<td>AN-115</td>
<td>AN-215</td>
<td>G25-J55*</td>
<td>G25-J87</td>
<td>G25-COS†</td>
<td>4</td>
</tr>
<tr>
<td><strong>AN Standard and Heavy Duty</strong></td>
<td>2.7-4.1</td>
<td>69-104</td>
<td>Cast Iron</td>
<td>SN-100</td>
<td>SN-200</td>
<td>AN-300</td>
<td>AN-500</td>
<td>M27-J87</td>
<td>MM33-COST†</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Short Cast Iron Cyls.</td>
<td>AN-100</td>
<td>AN-200</td>
<td>AN-300</td>
<td>AN-500</td>
<td>M27-J87</td>
<td>MM33-COST†</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Deutsch Diesel Cyls.</td>
<td>AN-100-F</td>
<td>AN-200-F</td>
<td>AN-300-F</td>
<td>AN-500-F</td>
<td>M27-J87</td>
<td>MM33-COST†</td>
</tr>
<tr>
<td></td>
<td>3.5-5.5</td>
<td>89-139</td>
<td>Hardened Sleeves</td>
<td>AN-130</td>
<td>AN-230</td>
<td>AN-530</td>
<td>AN-530</td>
<td>M27-J87</td>
<td>MM33-COST†</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Cast Iron</td>
<td>AN-101</td>
<td>AN-201</td>
<td>AN-301</td>
<td>AN-501</td>
<td>N37-J87</td>
<td>NN40-COST†</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Short Cast Iron Cyls.</td>
<td>AN-101</td>
<td>AN-201</td>
<td>AN-301</td>
<td>AN-501</td>
<td>N37-J87</td>
<td>NN40-COST†</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Cast Iron</td>
<td>AN-131</td>
<td>AN-231</td>
<td>AN-531</td>
<td>AN-531</td>
<td>N37-J87</td>
<td>NN40-COST†</td>
</tr>
<tr>
<td></td>
<td>4.7-15.0</td>
<td>119-381</td>
<td>Hardened Sleeves</td>
<td>AN-106</td>
<td>AN-206</td>
<td>AN-306</td>
<td>AN-506</td>
<td>W47-J87</td>
<td>WW51-COST†</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Cast Iron</td>
<td>AN-116</td>
<td>AN-216</td>
<td>AN-316</td>
<td>AN-516</td>
<td>W47-J87</td>
<td>WW51-COST†</td>
</tr>
</tbody>
</table>

#### Approx. Surface Finish
- **Cast Iron:** 120, 45, 32, 20, 8, 3, -
- **Hardened Sleeves:** 55, 20, 12, 5, 2, -
- **Microinches (Ra):** Steel: 32, 20, 15, 7, 3, -

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**PHT Plateau Honing Tools**

<table>
<thead>
<tr>
<th>HONE BODY</th>
<th>FOR DIAMETER RANGE</th>
<th>ABRASIVE SETS (200 GRIT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SNJ</td>
<td>1.50 - 1.69 in.</td>
<td>SNJ1-PHT-732</td>
</tr>
<tr>
<td></td>
<td>1.67 - 1.86 in.</td>
<td>SNJ2-PHT-732</td>
</tr>
<tr>
<td></td>
<td>1.75 - 1.94 in.</td>
<td>SNJ3-PHT-732</td>
</tr>
<tr>
<td></td>
<td>1.91 - 2.10 in.</td>
<td>SNJ4-PHT-732</td>
</tr>
<tr>
<td></td>
<td>2.08 - 2.27 in.</td>
<td>SNJ5-PHT-732</td>
</tr>
<tr>
<td>SN</td>
<td>2.15 - 2.40 in.</td>
<td>SN-PHT-732</td>
</tr>
<tr>
<td></td>
<td>2.40 - 2.60 in.</td>
<td>JN-PHT-732</td>
</tr>
<tr>
<td></td>
<td>2.60 - 2.80 in.</td>
<td>JN-PHT-731</td>
</tr>
<tr>
<td>AN</td>
<td>2.98 - 3.75 in.</td>
<td>MM-PHT-731</td>
</tr>
<tr>
<td></td>
<td>3.78 - 4.68 in.</td>
<td>GG-PHT-732</td>
</tr>
<tr>
<td></td>
<td>4.48 - 6.08 in.</td>
<td>NN-PHT-731</td>
</tr>
<tr>
<td>Heavy Duty</td>
<td>4.98 - 9.68 in.</td>
<td>WW-PHT-731</td>
</tr>
</tbody>
</table>

Sunnen’s PHT tools are used as a final finishing step, after initial honing, to provide a plateau surface on cylinder walls. Made from special abrasive impregnated filaments, these long lasting honing tools are available for portable hone. For additional information contact your local Sunnen Field Engineer or call Customer Service toll-free in St. Louis.

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**Stone Supports and Master Holder Sets**

**For Use in All AN Model Cylinder Hones**

<table>
<thead>
<tr>
<th>SINGLE LENGTH MASTER HOLDER SETS</th>
<th>STONE SUPPORTS</th>
<th>DOUBLE LENGTH MASTER HOLDER SETS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Range in.</td>
<td>Part Number</td>
<td>Part Number</td>
</tr>
<tr>
<td>4.7-7.0</td>
<td>119-178</td>
<td>AN-355</td>
</tr>
<tr>
<td>6.0-9.0</td>
<td>152-229</td>
<td>AN-365</td>
</tr>
<tr>
<td>8.0-12.0</td>
<td>203-305</td>
<td>AN-375</td>
</tr>
<tr>
<td>11.0-15.0</td>
<td>279-381</td>
<td>AN-385</td>
</tr>
</tbody>
</table>

For range 4.7-15.0 in. (119-381 mm), use two sets of stones in line for 8.0 in. (203 mm) stone length. One required for each range shown. Order stone sets separately.

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*Special, one week after receipt of order.
†Range on these sets as follows: MM33: 3.3-4.1 in. (84-107 mm) NN40: 4.0-5.6 in. (102-142 mm) WW51: 4.5-9.2 in. (114-234 mm)
Fits this series of Stone Sets with Master Holder Sets and Stone Support (order below).

Note: For special high performance finishes when honing outboard or two cycle engines, call Customer Service for details. Shipping Weight of all Stone Sets approximately 1.25 lbs (0.5 kg) per Set.
Sunnen Portable Hones and Accessories

Repair Parts for Hand Feed Portable Hones

**SN-75 Hone**

- AN-26A - 1/2 in. (12.7 mm) Chuck Required
- AN-241

**AN-111 and AN-112 Hones**

- AN-26A - 1/2 in. (12.7 mm) Chuck Required
- AN-241

**AN-28 Drive Shaft**

- AN-4
- AN-3A
- AN-50
- AN-16

This is an economically priced replacement drive shaft for use with the SN-75, JN-95, AN-111 and AN-112 portable hones. Supplied as standard equipment with the AN-111. Requires 1/2 in. (12.7 mm) chuck.

Shipping Weight: 3/4 lb (0.34 kg)

**SN-11**
- Hone Body

**JN-30**
- Universal Joint Complete

**JN-23A**
- Adjusting Nut and Washer

**AN-26A**
- 3 in. (76,2 mm) Drive Shaft

**AN-241**
- 12 in. (304,8 mm) Extension Assembly

**JN-11**
- Hone Body

**JN-30**
- Universal Joint Complete

**JN-23A**
- Adjusting Nut and Washer

**AN-26A**
- 3 in. (76,2 mm) Drive Shaft

**AN-241**
- 12 in. (304,8 mm) Extension Assembly

**AN-815 Hone**

- AN-618A - 5/8 in. (15,9 mm) Chuck Required
- AN-841

**AN Extension Couplers**

Allows assembly of two or more AN-241 or AN-841 extensions for a longer reach with SN, JN, and AN portable hones.

**AN-604**
- Hone Body

**AN-650**
- Universal Joint Complete

**AN-16**
- Center Pinion Adjustment

**AN-3A**
- Body Gear Set

**AN-26A**
- 3 in. (76,2 mm) Drive Shaft

**AN-241**
- 12 in. (304,8 mm) Extension Assembly

**AN-618A**
- 6 in. (152,4 mm) Drive Shaft

**AN-841**
- 12 in. (304,8 mm) Extension Assembly

**AN-630A**
- 7/16-14 Thd., for SN, JN, AN-111 and AN-112 portable hones.

Shipping Weight: 1/4 lb (0.11 kg)

**AN-640A**
- 5/8-11 Thd., for the AN-815.

Shipping Weight: 1/4 lb (0.11 kg)
### ANR-275 Remote Feed Heavy-Duty Cylinder Hone

**Range:** 2.5-15 in. (63,0-381,0 mm)

Must be used in a machine or honing rig. Illustration shows the ANR-275 Portable hone assembled with Stone Support, Single Length Master Holder Set, Stone Set and 3 in. (76 mm) Drive Shank. 4 in. (102 mm) stone length or 8 in. (203 mm) stone length when two sets of stones are used with Double Length Master Holder Set.

Shipping Weight: 13 lbs (5,9 kg)

Order stone sets, master holder sets and stone supports separately. See chart on page 3.

### Drive Shanks and Shaft Extensions for ANR-275 Hone

Furnished with 3 in. (76 mm) Drive Shank. Other Shanks or extensions may be selected from the table below to make up any practical length (either drive shank can be used with any combination of extensions).

<table>
<thead>
<tr>
<th>LENGTH</th>
<th>REPLACEMENT DRIVE SHANKS</th>
<th>SHAFT EXTENSIONS</th>
<th>SHIPPING WEIGHT</th>
</tr>
</thead>
<tbody>
<tr>
<td>in.</td>
<td>mm</td>
<td></td>
<td>lbs</td>
</tr>
<tr>
<td>3</td>
<td>76</td>
<td>None</td>
<td>.30</td>
</tr>
<tr>
<td>6</td>
<td>152</td>
<td>None</td>
<td>.60</td>
</tr>
<tr>
<td>9.25</td>
<td>235</td>
<td>ANR-741</td>
<td>2.0</td>
</tr>
<tr>
<td>19</td>
<td>483</td>
<td>ANR-742</td>
<td>4.0</td>
</tr>
<tr>
<td>42.75</td>
<td>1086</td>
<td>ANR-744</td>
<td>8.0</td>
</tr>
<tr>
<td>72.25</td>
<td>1835</td>
<td>ANR-746</td>
<td>13.0</td>
</tr>
</tbody>
</table>

### GGN-150 Mandrel Driver

For portable honing applications such as spindle bushings mounted on axles, and other jobs that cannot be taken to honing machine. Recommended for use with Lifetime Honing Units. For holes 3/4 in. (19,1 mm) I.D. and larger, where length is at least 4 times the diameter. Graduated adjustment knob advances and retracts honing stones. Use with any half-inch drill (12,7 mm) or larger, 450 rpm or less.

Shipping Weight: 3 lbs (1,36 kg)

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### AN-1060 Heavy-Duty Drill Motor Kit

The AN-1060 Drill Motor has a speed torque relationship that is not found in ordinary electric drills. The power unit operates at 115V, has no-load speed of 250 rpm and a full-load speed of 165 rpm. Has a full-load amp draw of 11 amps. Supplied with quick coupler, and AN-97 and AN-87 yoke adapters.

Shipping Weight: 23 lbs (10,4 kg)

### Quick-Coupler

Includes Yoke Adapter

Shipping Weight: 1 lb (0,45 kg)

Two models fit all Sunnen Cylinder Hones – make cylinder honing an easier, faster operation.

Permits drill (electric or air) to be quickly coupled or uncoupled from cylinder hone. Allows operator to have both hands free for removing hone from cylinder or for stone changing operations.

**AN-80 Quick-Coupler.** Used with all SN, JN and standard AN model Cylinder Hones.

**AN-85 Quick-Coupler.** Used with AN-815 and ANR-275 Heavy-Duty Cylinder Hones.

### Extra Yoke Adapters

**AN-87 For use with AN-80 Quick-Coupler.**

**AN-97 For use with AN-85 Quick-Coupler.**

Shipping Weight: 1/2 lb (0,23 kg)

### Universal Joint

Designed for using the Portable Hones in a drill press or other rigid stroking device.

**AN-70 Universal Joint.** Use in place of Drive Shank AN-26A.

**AN 670 Universal Joint.** Use in place of Drive Shank AN-618A.

Shipping Weight: .75 lb (0,34 kg)
Regular Aluminum
For Roughing use the 150 grit stone set, the same type as for cast iron cylinders.
For Finishing use the 280 grit stone set, the same type as for cast iron cylinders.

High-Silicon Aluminum Alloys
Such as Porsche, Mercedes, Honda and Vega.
One of the most significant features of these engines is the use of an aluminum die-cast engine block that does not require a steel or cast iron liner in the cylinder bore. Pure particles of silicon, averaging about .001 in. (0.03 mm) in diameter, are dispersed in the aluminum alloy throughout the engine block. To achieve the proper surface for ring and piston compatibility, the cylinders should be prepared in such a manner that the silicon particles protrude from the aluminum so the piston and rings contact only silicon. Because silicon is very hard, there will be very little wear in the cylinder bore. In fact, as far as the piston and rings are concerned, the cylinder wall is a silicon wall, and the aluminum's function is merely to "hold" the silicon particles.
If the cylinders become excessively scored or worn, they can be reconditioned with either automatic or manual honing equipment to accept oversize pistons. However, the usual sizing and finishing operation leaves a cylinder wall of silicon and aluminum... the silicon does not protrude. Therefore, a special conditioning operation is needed to remove aluminum from and between the silicon particles so the silicon will protrude. This is the reason for the conditioning operation which follows the honing operation.
For detailed information on the conditioning operation, contact Sunnen Customer Service.

Tooling Required When Honing High Silicon Aluminum Blocks
• AN-111, AN-112 or AN-815 Cylinder Hone
• AN-80 Quick-Coupler
• AN-1080 Heavy Duty Drill Motor
• UN-60 Universal Honing Stand
• MM33-J63 Roughing Stone Set
• MM33-J85 Finishing Stone Set
• MM33-C05 Polishing Stone Set
• MM33-F05 Felt Set
• AN-30 Sunnen Silicon Compound
• AN-35 Storage Box
• GA-2125 or GR-2125 Dial Bore Gage
• MAN-845 Honing Oil
Note: Sunnen MAN-845 or MB-30® is MANDATORY when honing All aluminum.

Sunnen Honing Oil
Finest quality honing oil. Not just a coolant, but carefully compounded oil developed especially for honing. Keeps honing stones clean and free cutting, reduces honing time, gives longer life to stones and mandrels, produces a controlled surface finish.
Do not use substitutes such as kerosene, water-soluble oils and other imitations.

MAN-845-5 Oil
One 5-gallon (18.9 liter) Pail
For cylinder honing and other honing jobs.
Shipping Weight: 39 lbs (17.7 kg)

UN-60 Universal Honing Stand
Convenient, easy-to-use, will not damage cylinder wall. Supports weight of drill and cylinder hone. Has adjustable stroking stop.
Shipping Weight: 20 lbs (9.1 kg)
Replacement strap and buckle, order p/n UN-36.

AN-980 Chamfering Cone
Chamfers the sharp edges of cylinders for safe piston and ring installation. Handles all diameter cylinders or sleeves. Unit consists of tapered neoprene cone covered by long-lasting replaceable abrasive cone (plus a spare). Easy to use with 1/4 in. (6.3 mm) or larger drill.
Shipping Weight: 1-1/2 lbs (0.68 kg)

AN-980 Replacement Parts

<table>
<thead>
<tr>
<th>PART NO.</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>AN-991A</td>
<td>Extension</td>
</tr>
<tr>
<td>AN-986A</td>
<td>Rubber Cone</td>
</tr>
</tbody>
</table>

Sunnen Portable Hones and Accessories
Valve Guide Sizing

P-190 Valve Guide Hone Set
Convenient set includes tooling and abrasives for the most popular valve guide diameters for automotive cylinder heads. See chart and information below for a complete listing of available tooling and items included in P-190 set. A slow speed drill (approximately 200 rpm) is recommended for driving power.

P-195 Valve Guide Hone Set
(For Harley-Davidson® Heads)
Designed for the needs of Harley-Davidson® engine builders. Set includes tooling and abrasives for the most popular Harley-Davidson® valve guide diameters. See chart and information below for a complete listing of available tooling and items included in P-195 set. A slow speed drill (approximately 200 rpm) is recommended for driving power.

Ordering Information
The head and driver are interchangeable with the adapters. Only one head and driver is required. Mandrels are available to cover all popular sizes. Please select the parts desired from photograph and order from chart for the range desired. We recommend that an adapter be purchased for each mandrel. This saves change-over time going from one mandrel to another.

Additional Mandrel Sizes Available – Call Sunnen Customer Service Department.

P-180 Valve Guide Hone Set
*P-190 Valve Guide Honing Set consists of 1 each mandrel and sleeve for the popular 5/16", 11/32", 3/8", and 7/16" sizes; also includes PK10-A, PK12-A, P-180, AN-1105A Storage Box, and 6 each LG-13 and LH-13 Stones. Shipping Weight: 8 lbs.

P-195 Valve Guide Honing Set
(For Harley-Davidson® Heads)
*P-195 Valve Guide Hone Set consists of 1 each mandrel and sleeve for the popular 5/16", 11/32", 3/8" sizes; also includes PK10-A, PK12-A, P-180, AN-1105A Storage Box, and 6 each LG-13 and LH-13 Stones. Shipping Weight: 8 lbs.

AN-1075 Speed Control Unit
Furnished with on/off switch, fuse, AC cord and grounded AC outlet plug. Reduces rpm when used with AC/DC drill motors and motors (brush-type only) where ampere rating is 15 amps or less.

AN-1105A Storage Box
Available for convenient storage of tooling.

*Replaceable shoe type mandrel. Replacement shoe Part No. LA-C (2 required).
†Remove the LN-3087A stone retainer (standard part supplied with the PSK6-A adapter) and replace with LN-3087C. The LN-3087C must be ordered separately.

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<table>
<thead>
<tr>
<th>NOMINAL FRACTIONAL SIZE (inches)</th>
<th>RANGE</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5 HEAD &amp; DRIVER</th>
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<tr>
<td>3/16</td>
<td>.185-.190</td>
<td>4.7-.48</td>
<td>BL6-185CS</td>
<td>S-185</td>
<td>L6-J67</td>
<td>PSK6-A</td>
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<td>7/32</td>
<td>.215-.220</td>
<td>5.5-.56</td>
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<td>L6-J67</td>
<td>LN-3087C</td>
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<td>.235-.240</td>
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</table>

*P-180 200 rpm max.

AN-1105A Storage Box available for convenient storage of tooling.
Camshaft Bore Honing on Overhead Cam Cylinder Heads

Ideally, camshaft housing bores are reconditioned on a CB-2400 Line Boring Machine designed for the purpose. However, for the small shop with limited requirements, mandrels may be special ordered to allow honing various O.H.C. cylinder heads. Call Customer Service, Sunnen Products Co. for details and delivery information.

**GA-2125 & GR-2125 Gage**

For cylinders, sleeves, large con-rods . . . many other gaging jobs
- Diameter Range: 2-8 in. (50,8-203,0 mm)
- Gage holes up to 12 in. (304 mm) long

The GA-2125 is self-aligning in the bore, requires no centering. Let you explore the entire cylinder from top to bottom . . . in seconds.

The retractable self-centering mechanism in the gaging head of the GR-2125 makes it easy to gage interrupted bores typical of 2-cycle motorcycle and marine engine applications without "hanging up". The retraction feature allows precise exploration of a high performance cylinder without leaving telltale gaging marks.

For metric models, order GAM-2125 or GRM-2125.
- Range: 50-203 mm. Dial marked in 0,01 mm increments.

**Note:** Special length gages are available on a special order basis. Write for Product Bulletin No. P-4206 or call Customer Service, Sunnen Products Co. for information.

The GA-2125 & GR-2125 can be set using Sunnen’s CF-1126 Setting Fixture . . . making gage setting fast and easy. Micrometer adjustment allows “dialing in” sizes. A precision tool, shipped with convenient storage case.

For other applications, call Customer Service, Sunnen Products Co.

*Shipment: Items marked with an asterisk (*) are shipped from finished goods. Items not marked with an asterisk (*) are special and are not shipped from stock. (If needed immediately call Customer Service, Sunnen Products Co. to check Special Products stock.

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