

When It Comes To Honing Small Engines, Sunnen

- More Machines
- More Gaging
- More Tooling
- More Honing Oils
- More Abrasives
- More Precision
- More Automation
- More Choices

And it's all backed by the Sunnen worldwide team of domestic Sales & Applications Engineers and International Subsidiaries and Distributors.

For the industry's largest selection of horizontal or vertical, single or multi-spindle, automated or manual, standard or completely customized precision honing machines, Sunnen is the first place to stop before you start.



Custom, High-Production Vertical Honing Systems



Sunnen's precision SV-1010 and SV-310 systems are designed and engineered to be easily customized and/or automated to meet your specialized high-production, small engine honing requirements.

Just contact your Sunnen Sales & Applications Engineer for a FREE needs analysis or to get the design process started. We'll work with you to determine the exact number of spindles, style of tooling, fixturing, abrasives, in-process and/or post-process gaging, and method of parts loading and unloading required (including robotics), and provide a written proposal.

After the system is built, we'll set up a live run-off demonstration at our facility. Once we've met all specifications, we'll ship and install the system and train your staff. From start to finish, you have our commitment to Total Service & Quality Assurance.

SV-310 & SV-500 Vertical Honing Machines



The **SV-310** (see front cover) and **SV-500** (shown above) deliver mid-to high-volume manufacturers the lowest cost per honed part. The all-new, patent pending stroking system produces a true vertical stroke that can dwell in any part of the hole, selectively removing stock, and, delivering a consistent crosshatch pattern throughout the entire length of the hole. Both systems can be automated or otherwise customized to meet your exact requirements.

Bore Diameter Ranges (I.D.):

- SV-310: 19 mm – 200 mm (.75 inch – 8 inch)
- SV-500: 19 mm – 300 mm (.75 inch – 12 inch)

Applications include: engine cylinders, cylinder liners, miscellaneous parts in:

- Power Washers
- Motorcycles
- Push lawn mowers
- Tillers/Edgers
- Generators
- Lawn Tractors
- Personal Watercraft
- ATVs

SV-3 Vertical Honing Machine



The SV-3 is perfect for honing larger, heavier and odd-shaped parts. Automatic size control ensures extreme precision and consistent bore sizing results. And, the system's small footprint, vertical design saves valuable floor space compared to sprawling, horizontal equipment. Designed for small rebuild shops up to large production facilities.

Bore Diameter Range (I.D.):

12,7 mm – 203.2 mm (.500 inch – 8 inch)

Applications include: engine cylinders, cylinder liners, miscellaneous parts in:

- ATVs
- Personal Watercraft
- Motorcycles
- Riding Lawn Mowers
- Lawn Tractors
- Generators

SV-1010 Vertical Honing Machine



Power, precision and durability ... a perfect combination that allows the SV-1010 to deliver mid- to high-production manufacturers the lowest cost per honed part, while delivering tight bore tolerances. To meet your job requirements, the SV-1010 can be automated or otherwise customized to your exact specifications.

Bore Diameter Range (I.D.):

3 mm – 65 mm (.120 inch – 2.56 inch)

Applications include: engine cylinders, con rods, pistons, miscellaneous parts in:

- Chainsaws
- Hand-held lawn & garden equipment
- Line trimmers
- Leaf blowers
- Tillers
- Edgers

KGM-5000NT KROSS-GRINDING® System



No other mid- to high-production honing system on the market today delivers the precision roundness, straightness, bore size and finish as the KGM-5000NT. The system is capable of holding the industry's tightest production-environment tolerances – as fine as 0,00025 mm (0.00010 in.) – tolerances far superior to I.D. grinding.

Bore Diameter Ranges (I.D.):

- MMT Tooling: 5,46 mm – 32 mm (.215 inch – 1.260 inch)
- KROSSGRINDING® Tooling: 3,81 mm – 32 mm (.150 inch – 1.260 inch)

Applications include: engine cylinders, con rods, pistons, miscellaneous parts in:

- Chainsaws
- Leaf blowers
- Line trimmers
- Hand-held lawn & garden equipment

ML-5000 Automatic Honing Machine



The Sunnen ML-5000 horizontal power stroked honing machine is up to six times faster than I.D. grinding and can be set up in half the time. Delivers optimum bore geometry and produces a desirable oil-bearing crosshatch finish. Can be automated for mid- to high-production applications.

Diameter Ranges (I.D.):

- Manual stroking: 1,5 mm - 165,1 mm (.060 inch - 6.500 inch)
- Power stroking: 1,5 mm - 101,6 mm (.060 inch - 4.000 inch)

Applications include: engine cylinders, con rods, pistons, miscellaneous parts in:

- Chainsaws
- Leaf blowers
- Line trimmers
- Hedge trimmers
- Tillers
- Edgers

