SUNNEN®

*ABOVE AND BEYOND **HONING***

SV-15

VERTICAL HONING MACHINE

SUNNEN'S SV-15 VERTICAL HONING MACHINE
BUILT FOR PRECISION AND PERFORMANCE

MADE IN ★ THE USA

The Sunnen® SV-15 is designed with power, precision, durability and advanced technology to deliver state-of-the-art performance ... perfect for honing big, heavy or odd shaped workpieces.

The SV-15 is power packed with two motors, one for the spindle and one for the stroker. This combination provides the SV-15 the muscle to run the DH-Series Diamond Honing System with multi-point cutting action, plus Sunnen's full array of industrial tooling.

In addition, the easy-to-use, yet highly advanced touch screen control includes a full bore profile display. This real time graphical display of the bore cross section allows the operator to dwell in the exact position where the bore is visually smaller ... there's no need for guesswork.

SUNNEN®

We are proud to introduce the next generation of Sunnen's industry-leading Automatic Cylinder Hones, the SV-15. Built to make your vertical honing faster, easier, more precise, more productive and more profitable.

• New larger 229 mm (9 inch) touch screen with easy-to-use controls.

• Precision control – corrects taper and out-of-round, producing surface finish, size, roundness and straightness tolerances to meet OEM specifications.

• One easy setup – handles complete resizing and finishing of all cylinders, replacing both boring and hand honing.

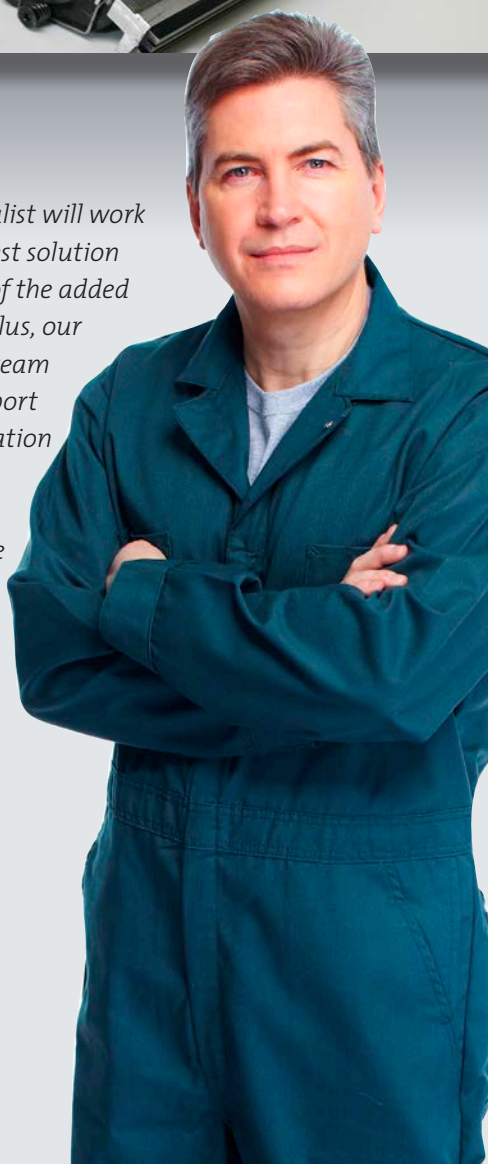
• Save setup capability - up to 100 setups can be stored with USB backup.

• Built and backed by Sunnen – the leader in engine block honing since 1964 with more than 8,000 machines sold.

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:
www.sunnen.com



The SV-15 is loaded with advanced features

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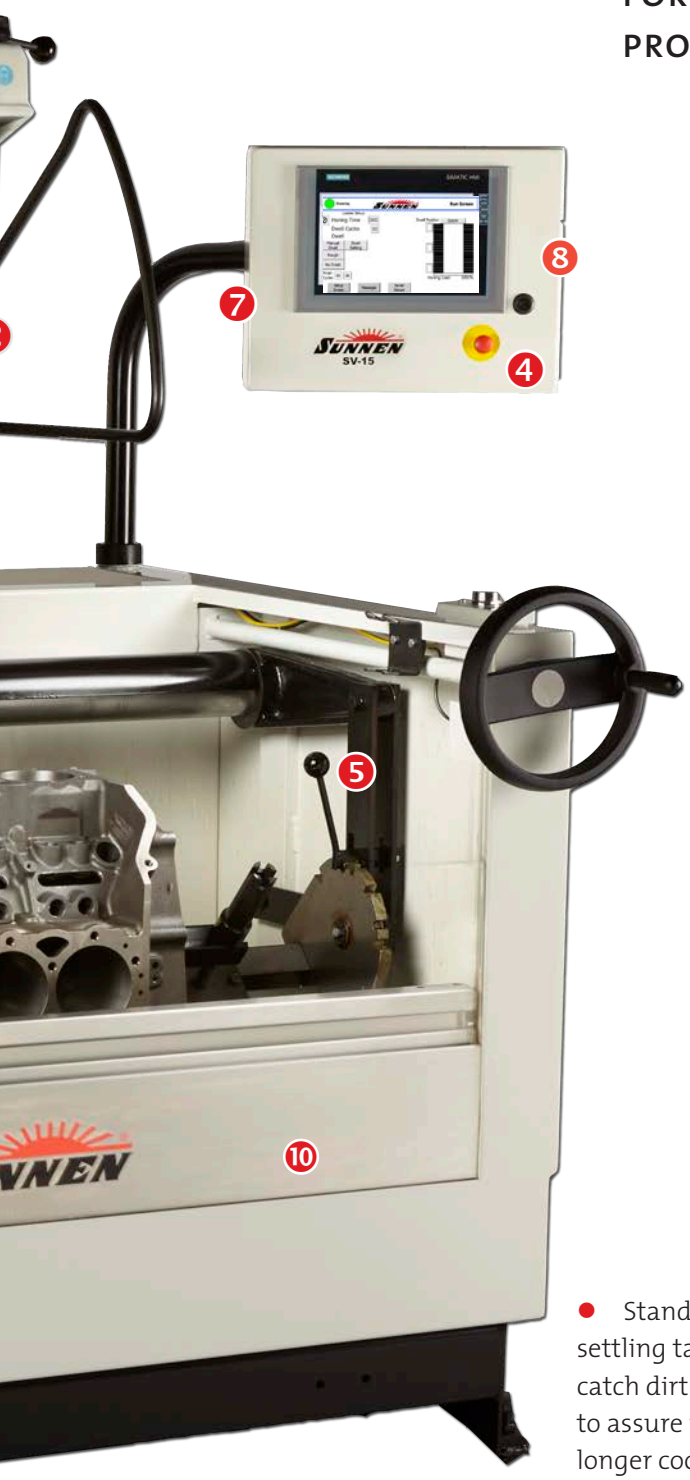
Standard & Optional Features

1. Individual .75 kW (1 HP) stroker and 225 kW (3 HP) spindle motors provides power to run Sunnen's Diamond Honing System for faster production and rounder bores.
2. Variable speed control – significantly reduces number of mechanical parts for long, trouble-free service.
3. Mechanical power stroking system – provides superior control and ensures consistent crosshatch angles and surface finish, cylinder after cylinder
4. Bore profile display – allows operator to hone cylinder round and straight without stopping to gage.
5. Standard multi-position rollover fixture accommodates most automotive blocks. Optional CK-6200 clamp kit holds a wide variety of engine blocks.
6. Precise zero shut-off – ensures consistent size control bore after bore.
7. Advanced stroking system – can automatically dwell in any part of the bore – top, middle or bottom – selectively removing stock for the straightest, roundest bore possible. Encoder controlled for increased precision.
8. Large operator-friendly, multi-language 9 in, (229 mm) touch screen control panel – allows easy setup and easy speed adjustment ... no more belts and pulleys to adjust or buttons to push. Convenient, upfront touch-screen control – allows the operator to safely and easily see and operate ... no need to reach across the machine to make adjustments. Control includes new save setup capability which stores up to 100 setups.
9. Sunnen Diamond Honing System with multi-point cutting action – spreads out force for faster, rounder bores and improved productivity.
10. Attractive, long-life, low-maintenance stainless steel front doors – ensure operator safety, provide for easy cleaning and improve the look of any shop.

The SV-15 puts you in complete control for increased precision, consistency, productivity and quality

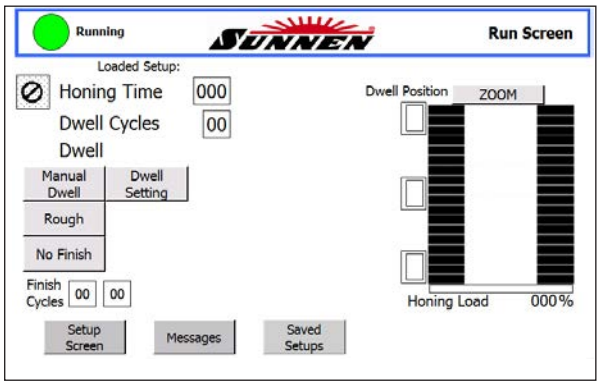


- **Siemens PLC Control**
- **Full bore profile display** – projects a real-time display of the bore cross section (see screen shot on next page) that simplifies removing taper from the bore ... allows user to dwell in the exact position and as long as necessary where bore is visually smaller.
- **Save Setup** capability reduces setup time. Saved setups may be backed up with a USB flash drive.
- **Inch/Metric** selectable.
- **Rough and finish cycles** - rough cycle removes stock fast and automatically switches to finish cycle for optimum bore geometry an for the desired crosshatch angle.
- **Standard Programmable Auto Dwell for unattended operation** - the machine automatically dwells in the tightest part of the bore – top, middle or bottom.
- **On-the-fly changing of spindle and stroke speeds**.
- **Advanced control** – allows variable speed for a much wider range of control and consistent crosshatch pattern.

- Standard built-in filter system – settling tank and two filter cartridges catch dirt and grit, keeping oil clean to assure proper surface finish and longer coolant life.

- Standard safety features include interlocked sliding front door and right/left spindle drive tube guards in addition to control panel E-stop and convenient cabinet mounted coolant control valve.

Easy-to-use bore profile display



Easy-to-read and use bore profile display takes the guesswork out of removing taper.

The bore profile display provides a real time graphical display of the bore cross section.

Easy and economical to run

The Sunnen SV-15 is simple to operate. Even the newest operator can learn to run it in a few hours. Setup is quick and easy using the menu-driven PLC control. Stock removal is preset and the machine shuts off automatically when the honing cycle is completed. Stroke and spindle operation are computer controlled for consistent geometry and finish from bore to bore. No continual adjusting to maintain accuracy. All controls are easy to reach, out front, and at eye level. And, you can change stones in seconds.

Specifications:

Spindle:
2.25 kW (3 HP)
Variable speed: 90-350 RPM
Stroke length: 0 to 225 mm (0-9 inches)

Stroker:
0,75 kW (1 HP)
Variable speed: 40-80 SPM
Stroke length: 0 to 225 mm (0 to 9 inches)

Carriage Travel:
889 mm (35 in.) left/right travel available (X axis)

Cylinder Length Range:
Up to 279 mm (11 in.)
(18 in. with special tooling such as P-28 mandrels)

Bore Diameter Range:
19-203 mm (0.750-8 inches) depending on tooling option.

Maximum Workpiece Weight:
(including fixture) 680 kg (1496 lbs)

Maximum Workpiece Size:
1168 x 558 x 673 mm
(46 in. L x 22 in. W x 26.5 in. H)

General Requirements:
Dry Weight: 861 kg (1900 lbs.)
Shipping Weight: 1134 kg (2500 lbs.)
Dimensions (approximately):

	mm	inches
Length	2280	89.5
Width	1842	72.5
Height	2198	86.5

Honing Fluid/Filter System:
Honing Oil Reservoir: 206-liter (55-gallon) capacity.
Removable settling tanks and screens for easy cleaning.
37.8 lpm @ 1.72 Bar (10-GPM @ 25 PSI) – two 13.25-liter (3.5 gallon) filter containers.
Filter cartridges quickly and easily removed and installed.

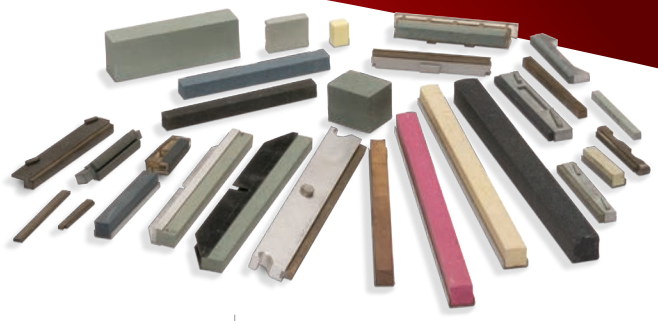
Voltages Available
Electrical System:
SV-15CD - 230 volt, 60 Hz, 3-phase
SV-15CFM - 220 volt, 50 Hz, 3-phase
All Models CE Compliant

** Diameter range, length range and workpiece weight are contingent on workpiece and application.*

SV-15 Tooling, Abrasives and Lubricants

From the company with more than 40 years experience with metal bond stone technology and diamond abrasive, Sunnen offers the perfect combination of machine, tooling and abrasives for precision automatic cylinder honing.

The SV-15 allows you to choose the exact tooling and abrasive to meet your specific production requirements. Sunnen is the only full-line company that produces its own precision honing abrasives plus has the largest variety of diamond or Borazon® superabrasives and conventional vitrified abrasives to ensure the most exact and consistent surface finish possible. Or select PHT plateau honing brushes to easily achieve a plateau surface finish.



DH-Series Diamond Honing System

Sunnen's Diamond Honing System features multi-point cutting action that spreads out force for faster, rounder bores and greatly improves productivity and performance. Three different tools cover the size range. An excellent choice for blind bores or ported cylinder heads.

Bore Diameter Range:*
70 - 141 mm (2.75 - 5.5 in.)

Sunnen CV-Type Tooling

Industry standard CV-Type tools are the reason an SV-15 can do the same job as bigger machines costing two or three times as much. CV-Type tools cut fast. They're rugged, economical and easy to use. They have a large range, and the stones can be changed in seconds. Bores are finished faster and more accurately with minimum stock removal.

Bore Diameter Range:
50, 8 - 203 mm (2-8 inches)

FL6X -20 Portable Tool Adapter

The FL6X Portable Tool Adapter with ANR tooling can be used on the SV-15 for expanded I.D. range versatility. Perfect for large diameter engines and general machine shop applications such as hydraulic cylinders, compressors, pumps, marine engines, etc.

Bore Diameter Range:
63-203 mm (2.5 - 8 inches)

Sunnen Standard Mandrels

These versatile tools perform both rough and fine honing operations (stone or brush) within the same honing tool – without changing stones – to reduce your bore sizing costs.

Bore Diameter Range:
50,9 - 150 mm (2-6 inches)

Sunnen Abrasives & Lubricants

From aluminum oxide to silicon carbide to diamond and CBN, Sunnen offers the industry's largest variety of mounted or un-mounted stick abrasives, bond types, grain sizes and stone configurations.

Before any stone is shipped, it is graded and qualified, maintaining the most exacting quality control standards in the industry to assure you of the most precise honing performance available.

Sunnen's premium honing oils and coolants provide extreme lubricity for higher honing pressure and harder abrasives, delivering faster, lower cost-per-part and ultimately more profitable cutting rates.

SUNNEN®

A LEGACY OF EXCELLENCE SINCE 1924.

WORLDWIDE

Our global manufacturing, distribution, and sales and service network allows us to deliver quality Sunnen solutions worldwide.

And our state-of-the-art Technical Services Centers allow our technical experts to develop innovative solutions to customer application challenges. The Centers also provide answers for customer questions and training for Sunnen representatives around the world.

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