

## SV-10... Total Tooling Versatility

From the company with over 30 years experience with metal bond stone technology and who brought diamond abrasive technology to the racing industry, Sunnen now introduces the perfect combination of machine, tooling and abrasives for precision automatic cylinder honing.

The SV-10 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 abrasives for the automotive industry ... and has the largest variety of diamond or Borazon® superabrasives and conventional vitrified abrasives to ensure the most exact and consistent surface finish in the industry. Or select PHT plateau honing brushes to easily achieve a plateau surface finish.

### DH-Series Diamond Honing System

I.D. Range: 2.75-5.5 inches (70-141 mm)

NEW Diamond Honing System with multi-point cutting action spreads out force for faster, rounder bores ... greatly improving productivity and engine performance. Three different tools cover the size range. An excellent choice for blind bores or ported cylinder heads.



### Sunnen CK-Type Tooling

I.D. Range: 2-8 inches (50,8-203 mm)

Industry standard CK-Type tools are the reason an SV-10 can do the same job as bigger machines costing two or three times as much. CK-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.



### FL6X Portable Tool Adapter

I.D. Range: 2.5-8 inches (63-203 mm)

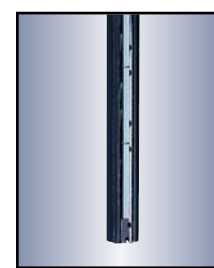
The FL6X Portable Tool Adapter with ANR tooling can be used on the SV-10 for expanded I.D. range versatility. Perfect for large diameter engines and general machine shop applications such as hydraulic cylinders, compressors, pumps, marine engines, etc.



### Sunnen Standard Mandrels

I.D. Range: 2-6 inches (50,8-150 mm)

For bores under 150 mm (6 inch) in diameter, use the industry-standard Sunnen mandrels to guarantee straightness and roundness with minimum stock removal. Standard mandrels can be supplied for blind hole honing, with multiple stones for honing long bores ... with keyway stones for honing keyway or splined bores.



## The SV-10 Turns Up Your Shop's Productivity

### Easy And Economical To Run

The Sunnen SV-10 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 microprocessor system 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 block to block. 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.

### Get The Finish You Need With Sunnen Honing Stones And Honing Oils and Coolants

Sunnen honing stones provide finishes as fine as one micro inch Ra (0,025 micrometers Ra) and are manufactured and precision graded by our own proprietary method. No matter how exacting your surface finish requirements, Sunnen can supply the abrasives to meet them.

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

## SV-10 Specifications

### Spindle

- 3 hp (2.25 kW).
- Variable speed: 90-350 RPM

### Stroker

- 1 hp (0,75 kW)
- Variable speed: 40-80 SPM

### Capacity – up to 42 in. (1067 mm) overall length

- V-blocks – both 90° and 60°.
- Overhead and L-head in-line blocks.

- Angle head blocks.

### Cylinder Length Range

- Up to 11 in. (279 mm) (18 in. with special tooling such as p-28 mandrels)

### Cylinder Diameter Range

- .750-8 inches (19-203 mm) depending on tooling option.

### General Requirements

- Dry Weight: 1900 lbs. (861 kg)

- Dimensions (approximately):

	inches	mm
Length	89.5	2280
Width	72.5	1842
Height	86.5	2172

### Honing Fluid/Filter System

- Honing Oil Reservoir: 55-gallon (206-liter) capacity.

- Removable settling tanks and screens for easy cleaning.

- 10-GPM @ 25 PSI (37.8 lpm @ 1.72 Bar) – two 3-1/2 gallon (13.25-liter) filter containers.

- Elements quickly and easily removed and installed.

### Voltages Available

- Electrical System:

230 volt, 60 Hz, 3-phase  
220 volt, 50 Hz, 3-phase

- Honing oil and filter pump motor: 1 HP (.75 kw).

### Accuracy

- Equal to or better than original manufacturer's specifications

Versions of the SV-10 Series are available worldwide. They are manufactured in accordance with safety directives enacted by the European Economic Community (EEC) and carry the "CE" mark. For more information contact Sunnen Customer Service –

U.S.A. Toll Free:  
1-800-772-2878  
Outside U.S.A.:  
314-781-2100

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P R E C I S I O N E N G I N E E R I N G E Q U I P M E N T

# SUNNEN SV-10 AUTOMATIC CYLINDER HONE

## Power Packed To Run Sunnen's Diamond Honing System

New







## Built For Precision And Performance.

The all new SV-10 is injected with power, precision, durability and advanced technology to deliver state-of-the-art performance to engine builders.

The SV-10 is power packed with two motors, one for the spindle and one for the stroker. This combination provides the SV-10 the muscle to run Sunnen's new DH-Series Diamond Honing System with multi-point cutting action, plus Sunnen's full array of CK tooling.

In addition, the easy-to-use, yet highly advanced touch screen control projects Sunnen's PATENTED 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.

Bottom line: We listened to the market and are proud to introduce the highly advanced SV-10 ... the next generation of Sunnen's industry-leading Automatic Cylinder Hones. Built to make your cylinder honing faster, easier, more precise, more productive and more profitable.

# The SV-10 Is Loaded With Advanced Features... Yet Priced To Match The Industry Standard CV-616!

**New**

1 Individual 1 HP (.75 kW) stroker and 3 HP (2.25 kW) spindle motors provide more horsepower than any competitive machine – now you can run Sunnen's NEW Diamond Honing System for faster production and rounder bores.

**New**

2 Variable speed independent spindle and stroke drives – allows an infinitely variable crosshatch angle for any bore diameter and cylinder length.

**New**

3 Variable speed control – significantly reduces number of mechanical parts for long, trouble-free service.

**New**

4 Sunnen precision hone heads – remove minimal stock, doubling or even tripling block life ... allow performance rebuilders to freshen up a cylinder by just removing the high spots.

5 Built-in filter system – catches dirt and grit, keeping oil clean to assure proper surface finish and longer coolant life.

6 Optional CK-1200 Clamp Kit – holds a wide variety of blocks from passenger car and high-performance engines to truck and industrial blocks up to 42 inches (1067 mm) – contact Sunnen for custom fixtures.

Optional Harley-Davidson® fixture – meets the ever increasing demand for performance Harley-Davidson® engine rebuilding.

7 Mechanical power stroking system – provides superior control and ensures consistent crosshatch angles and surface finish, cylinder after cylinder, block after block. This air-free mechanical system is superior to air-over-oil pneumatic systems which can leak and are affected by temperature... which can cause inconsistency in the bore due to "spongy" stroke.

8 Patented bore profile display – allows operator to hone cylinder round and straight without stopping to gage.

9 Hones aluminum, cast iron, any alloy (the only factory approved method for 390 or other high-silicon aluminum alloys) – eliminates distortion, even in precision cast thin-wall blocks.

**New**

10 Advanced stroking system – can dwell in any part of the bore – top, middle or bottom – selectively removing stock for the straightest, roundest bore possible.

11 Precise zero shut-off – ensures consistent size control bore after bore.

**New**

12 Operator-friendly, multi-language 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.

**New**

13 Sunnen Diamond Honing System with multi-point cutting action – spreads out force for faster, rounder bores, improved productivity ... and better engine performance.

**12**

Attractive, long-life, low-maintenance stainless steel front doors – ensure operator safety, provide for easy cleaning and improve the look of any shop.



## The Computerized SV-10 Puts You In Complete Control For Increased Precision, Consistency, Productivity and Quality.

1 PATENTED full bore profile display – projects a real-time display of the bore cross section (see screen shots at bottom of 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 – no one else has it.

2 Screen zoom feature – maximizes the bore view for easy use and viewing.

**New**

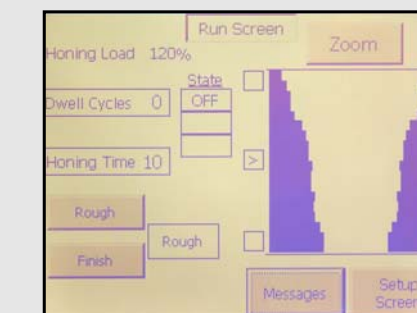
3 On-the-fly changing of spindle and stroke speeds.

4 Rugged, maintenance-free touch screen control – eliminates cumbersome buttons that collect oil, dirt and grime.

**New**

5 Advanced control – allows variable speed for a much wider range of control and consistent crosshatch pattern. Switch from rough to finish honing with one push of a button.

6 Built-in calculator system – figures crosshatch, stroke length, stroke speed and spindle speed calculations on the fly.



### Exclusive, Easy To Read And Use Bore Profile Display Takes The Guesswork Out Of Removing Taper.

The patented SV-10 bore profile display provides a real time graphical display of the bore cross section. Photos show bore as honing cycle "starts" (left) and just before the workpiece is to "size" (right).

