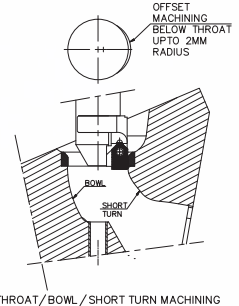
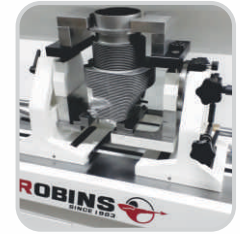
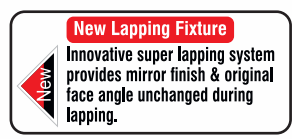
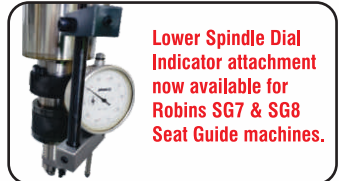


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 US 7.726.819B | US 2018/0074467A1

**CVS**<sup>TM</sup>  
 Constantly-Varying Speed  
 US Patent - for Chatter-Free Seats!

**RUBi-hard**<sup>TM</sup>  
 Premium 3-angle cutting inserts for:  
 • Powder Metal and hardened Valve Seats

Optional




**Inventors of Spring-Free Tooling**  
 (US Patent)



Valves, guides & valve seats "Plateau Honing" tools for perfect sealing, better circularity, concen and surface finish.



**RUBi-hard**<sup>TM</sup>  
 "chatter-free valve seats"

**INTRODUCING - Revolutionary RUBI-Hard Premium 3-Angle inserts.**  
 Get min. 50% more life compared to any other 3-angle inserts.

- Suitable for ; Powder Metal Valve seats and hard to cut valve seats having hardness around 60 HRC
- Withstands much higher cutting temperatures upto 1100 deg C and least friction during machining.
- Rubi-Hard Inserts- developed using Nano grade compact carbides.
- Rubi-hard inserts-cryogenic and Rvd heat treated, for superior machining.
- Rubi-Hard inserts can be re-lapped on our newly innovative "no-heat" super lap system.

- QUALITY
- SIMPLICITY
- RELIABILITY
- AFFORDABILITY

**ROBINS** the same company supplying high-end Seat & Guide Equipment and Valve Refacers since 2002, is now offering High Precision, Low Cost Seat & Guide Equipment with Patented Quick-Change spherical Spring-Free-Tooling, designed for cylinder heads up to 40" and featuring a simple foot-print.

**ROBINS** Seat & Guide, Valve Refacers, Combo Cylinder Boring & Surfacing, Mini Cylinder Boring & Honing and also Guide Honing machines are the perfect solution to get your business started.

- Precision, Perfection, Extra high accuracy -

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# SG8

FEATURES & FIXTURES

"Built ... forever"

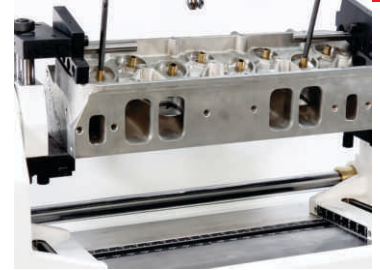


Patented technology vary spindle speed automatically while machining. Improved chatter-free surface finish & concen below 0.0003" in most cases, a revolutionary feature!



### 360° ROLL OVER FIXTURE

- Built-in degree wheel
- 90° positive lock for in-line cylinder heads
- Custom wedges for angled & canted heads



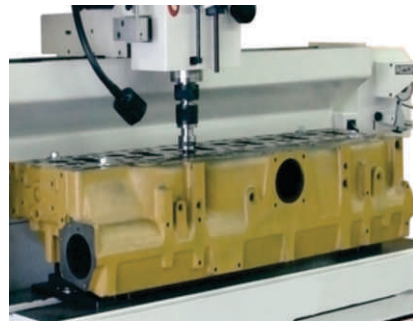
### EQUAL SEAT DEPTH

- Unique alignment device aligns all guides in reference to roll fixture center line
- Equal seat depth for angled & canted heads



### C-FRAME FIXTURE

- Overhead Cam & cylinder heads requiring extended clamping for difficult to mount cylinder heads



### IN-LINE DIESEL HEAD FIXTURE

- Fast setup of in-line large cylinder heads with adjustable center support



### EXTRA HEAVY-DUTY TOOLING

- 20mm diameter shank pilots & tooling for large seats.
- Up to 150mm diameter seat can be machined below 0.0005" concen



### AIR CRAFT CYL. HEAD CLAMP-KIT

- Air Craft Clamp-Kit with custom tooling & Concen Gage



### AIRCRAFT CYLINDER HEADS

- Valve seats easily machined with extended/custom tooling & clamping fixtures.



### DUAL HEAD FIXTURE

- V6, V8 & in-line heads can be machined in one setup

## EXPERIENCE THE ULTIMATE IN PRECISION

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Robins - get yours !

Designing & Manufacturing Patented Technologies

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### SPRING FREE TOOLING

Invented in 2003. Patented and in use world-wide!



### SG8-SUITABLE FOR ALL!

Seat diameter - 14mm to 150mm  
Average Concen below 0.0005"



### 3 - ANGLE CUTTING INSERTS

- Over 400 multi-angle profiles to choose from
- Standard & RUBi-hard
- Custom insert designs



### INSERT HOLDERS

- 3-Angle & Triangular
- Counter boring; old seat ring removal & single angle indexable holders.



### BALL HOLDERS

Complete range from 16mm-150mm seat diameter. Also extended spherical heads for aircraft cylinder heads.



### ADAPTORS & DRIVERS

Drill/Reamer drivers, 3-angle holders, collet chucks.



### NANO-PRECISION CARBIDE PILOTS

- Fixed & Live
- OD Honed for longer life
- Full range 6mm, 9.52mm & 20mm shank pilots
- Custom pilots in .0001" increments



### MEASURING DEVICES

- Concen Gages 6mm, 9.52mm & 20mm
- Counter boring micrometers
- Tool setting device
- Canted bar for canted heads



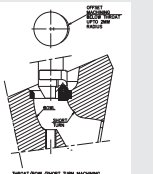
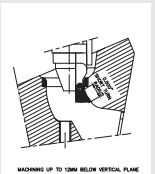
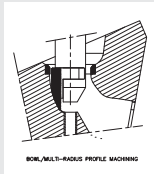
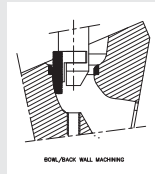
### ELECTRONIC & BUBBLE LEVELS

- Dual axis level (new) for canted heads
- Machine levels
- Electronic levels accuracy (0.02°)



### FIXED DIA MILLING CUTTERS

Standard & special designs  
2-step diameter cutters  
Custom carbide reamers/core drills



### OFF-SET INTAKE & EXHAUST PORTING TOOLS

- Better flow & horse power
- Blend & machine multi radius bowl & throat areas
- Offset throat machining up to 0.100" radius offset
- Short turn radius machining up to 12mm (0.500") below vertical plane



### Lapping & Sharpening Device (New)

- Easy to sharpen and lap Rubi Hard inserts to factory's original rake angle and mirror surface finish.

**ROBINS SEAT & GUIDE AND VALVE REFACEERS SOLD WORLD-WIDE SINCE 2002**

**SIMPLE • AFFORDABLE • HIGH PRECISION.**



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Only.. **ROBINS**

SG 5 | SG 7 | SG 8 | SG 8XL

**SEAT & GUIDE MACHINES**

*"Built ...forever"*





- Cylinder Head Size (In Roll Fixture)
- Spindle Tilt
- Spindle Stroke
- Spindle Speed
- Roundness
- Concentricity
- Surface Finish
- Micro Fine Feed
- Spring Free Adaptors
- Constant Varying Speed 

SG 5	SG 7	SG 8	SG 8XL
23 x 10 x 5" (585 x 254 x 127)	32 x 10 x 5" (815 x 254 x 127)	40 x 12 x 6" (1015 x 254 x 150)	47 x 15 x 10" (1200 x 380 x 254)
±10 Degrees	±15 Degrees		
5.750" (146 mm)	6.750" (172 mm)	8.500" (216 mm)	
80 - 500 RPM	35 - 500 RPM		
Achieve < 0.0002" (5 microns) after plateau honing valve seats			
0.0002" (5 microns) ... Honed Guides			
< 0.4 Ra μm			
No	Yes		Yes
Yes			
No	Yes		

....brief history since 1983

- \* Robin Chera & his company have been manufacturing premium machinery, related tooling & serving USA and World's Engine Re-building Industry since its inception in 1983 thru top renowned brands and machinery manufacturers.
- Served "Peterson / Kansas Instruments" from 1983-2003 (Portable Boring Bars PK447, 777-S, 944-S and Honing heads)
- Serving "Rottler Manufacturing" since 2002 (Seat Guide and Valve Refacers) (Invented unique hole to hole modular fully automated seat & guide machining systems and many new design concepts and patents.)
- Serving Goodson, since 1998 (Seat Guide Tooling).
- Serving Sunnen U.S.A. since 2001 (Seat Guide Tooling)
- Served DCM-Tech, RMC, Winona Van Norman, Guspro, K-Line, Serve-Equip, Kwik-Way (Seat Guide tooling / machines).
- Served AMC-Schou Denmark, Berco, AZ-spa, Comec, Serdi SRL, Peg-Rossi Cramer (Seat Guide tooling / machines).

**ROBINS** Inventions & Evolutionary concepts ..

<p><b>Spring-free</b></p>  <p>Inventors of Spring-Free Tooling (US Patent)</p>	<p><b>Chatter-free seats</b></p>  <p>Constantly-Varying Speed US Patent - for Chatter-Free Seats</p>	<p><b>3 angle inserts</b></p>  <p>Premium 3-angle cutting inserts</p>	<p><b>Valve seat-honing</b></p>  <p>Plateau-hone valve seats for perfect roundness and sealing.</p>	<p><b>Guide honing</b></p>  <p>Fixed-Dia Diamond Honing (within 0.0001")</p>	<p><b>Measuring devices</b></p> <ul style="list-style-type: none"> <li>• Guide dia / taper</li> <li>• Circularity</li> <li>• Cylindricity</li> <li>• Valve stem to valve guide</li> <li>• Perpendicularity</li> <li>• Surface finish</li> <li>• Air Gages</li> <li>• New One-Micron concentricity gage</li> </ul>
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 **ROBINS**  <sup>TM</sup>  
 SINCE 1983 Plug 'N' Play

www.RobinsMachines.com | info@robins1983.com

For further enquiries - please contact: "Robins" sales representative -

 **MEC CNC**  
 Anthony Usher

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"So Simple It's Genius"

"Perfection-Innovation-Leadership"