ROBINS™ SINCE 1983

Signature brand

-0+ Exactly

GH8 SMART VALVE GUIDE HONING

- Automatic Guide Honing
- Core Drilling of Guide Bores
- Guide Reaming

"Unique revolutionary concept in valve guide honing."

Designing & Manufacturing Patented Technologies | US 7 726 919B | US 17879818 | US 17892165

Introducing New and most advanced designs by Robins - hone valve guides... the Rubi-Smart way

Rubi Hon

WORLD'S FIRST

Automatic Guide Honing with cross hatch & plateau honing features:

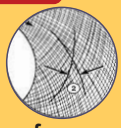
Core drilling | Reaming | Guide Honing

Rpk | Rk | Rvk

NEW

Cross Hatch & Plateau Honing Tools available to Control Rpk, Rk, Rvk

- To improve surface finish in guide bore.
- Less wear - reduced friction.
- Better Lubrication .
- Better sealing - more power for improved engine performance.
- Tighter clearance - near zero - valve seat concen.



SCAN TO WATCH
GH8 Smart Honing Video

Technical Tip

Valve Seat surface finish & concen depend on;
"How precise Valve Guide Bore is ?"

Inspection gauges to check taper, size & bore geometry

▪ Hone Valve Guides within 0.0001"

- One push button- auto cycle.
- Fixed dia diamond honing tools.
- Learn to operate RubiHon in less than 10 mins.
- Repeat guide bore accuracy automatically.

- **Automatic Honing Cycle**
  Stock removal from 0.00005" to 0.004" in one cycle
- **Automatic Ream & Hone cycle**
  Stock Removal in excess of 0.004"
- **Automatic Cross Hatch & Plateau**
  New Honing Tools to control Rk, Rpk & Rvk

EVERY CUSTOMER SINCE 1983 - HAS BEEN ROBINS-TESTIMONIAL !

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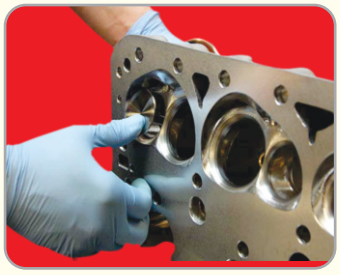
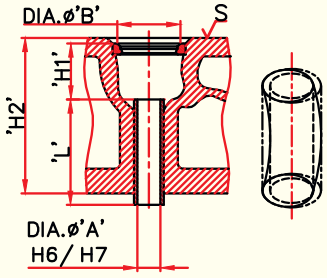
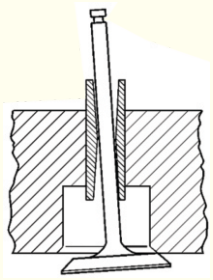
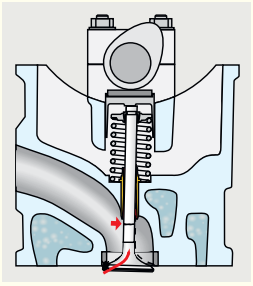
'UNDERSTANDING VALVE GUIDES & TOLERANCES'

(Specifications most O.E.M use)









Standard Valve Stem To Guide Clearance

Valve Stem Diameter	Intake Valves	Exhaust Valves
5 - 7mm	10 - 40 µm	25 - 55 µm
>7 - 9mm	20 - 50 µm	35 - 65 µm
>9 - 12mm	40 - 70 µm	55 - 85 µm

In case of air-cooled cylinder heads and high-performance engines, due to the higher thermal load - the upper range of the clearance tolerance is aimed for.

'Valve Guide Finish Machining Tolerances'

Dia. Ø 'A'	SURFACE FINISH	CIRCULARITY	CYLINDRICITY
GUIDE BORE TOLERANCE (Ø 6-10 mm) H6 Ø 'A'-0.000 +0.009 mm (0.00035") or H7 Ø 'A'-0.000 +0.015 mm (0.0006")	0.5 Ra µm • 20 Ra µ In • 0.5 CLA • 3.8 Rz ISO • 0.6 RMS	(Roundness) 0.006 mm (0.00025")	(Straightness & Roundness) 0.005 mm / 50 mm L (0.0002" / 2" L)

- Worn valve guides will damage valve stem and valve seat sealing.
- Valve seats- "accuracy & finish"- depend on valve guide precise tolerance.

Valve Seats achievable accuracy on Robins Seat & Guide Machines

Plateau honed guides

'Fixed-pilot' axis & guide axis remain same while cutting seats. 'Rotate pilot in guide to check concen'	Concentricity & total run out < 0.005 mm. (0.0002")	Roundness < 0.003 mm (0.0001")	Surface Finish < 0.4 Ra µm

GH8 Smart Specifications

Cylinder Head Size (In Roll fixture)	40" x 12" x 6"

Diamond Honing Tools for GH8 Smart Guide Honing Machine:-

- Rubi-One Cycle...World's First (Patent applied for) Fixed Dia. (non-adjustable) Diamond Honing Tools.
- Various diamond grit honing tools to achieve surface finish as low as 0.10 Ra µmm
- Plateau / Cross Hatch honing tools available to achieve desired Rk, Rpk, Rvk parameters
- Tool life - several thousand guide bores.

ROBINS SINCE 1983 -0+ Exactly

1983 40 2023 Years of Excellence

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