Grinding & Machining of cylinder heads

Valve Seat and Recess Lathe

CHRIS-MARINE®

VRL

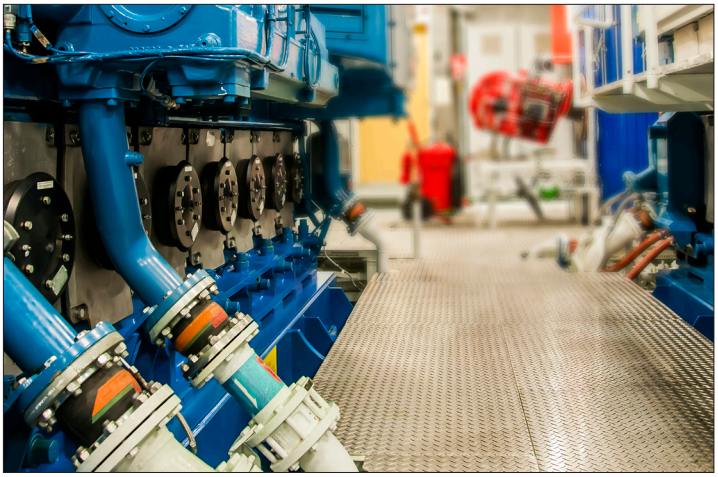


VRL is a miltipurpose high-precision machine for in-situ machining of valve seats and seat recesses on 4-stroke medium-speed diesel engines. With the help of VRL, valve seats and cage valve seats can be restored to their original contact angle, surface geometry and surface roughness.
The VRL can also be used for renovation of cylinder heads, when seat pockets have been exposed to corrosion, or have been scratched in connection with change of valve seat.

For in-situ machining of valve seats and seat recesses







Application areas

- In-situ valve seat recess machining
  - Seat recess diameter from 74 to 200 mm
  - Length of cut: 17 mm horizontally and 60 mm vertically
- In-situ valve seat angle machining
  - Valve seat diameter from 55 to 230 mm
  - Length of cut: 30 mm

Key benefits

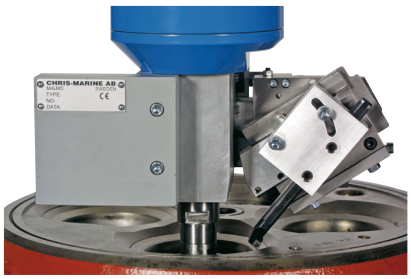
- High-precision machine
- High reliability and proven efficiency
- Machining horizontally and vertically as well as chamfering
- Low power consumption
- Low noise level
- Easily operated by one man
- Cost-efficient
- Superior to grinding alternatives

Sustainable engine operation

VRL is a robust and versatile high-precision machine that can be operated by one single person. Its many application areas makes VRL a cost efficient choice. Owning a VRL means that the cost per job will be approximately a tenth of the cost associated with outsourcing the job. In addition, as service is performed in-house, logistics costs decrease, thus the carbon footprint will be much lower. When performing the service by yourself you can avoid unnecessary waiting time and keep your engines in top condition at all times. By maintining engine parts in good condition, fewer investments in new engine parts have to be made, which in turn creates less waste. Last but not least, a healthy engine runs more efficiently and realeases fewer emissions.



Easy angle setting for valve seat machining
For absolute accuracy and quickest change between inlet and exhaust seat angles, each unit is customized with pre-set angles for desired engine types.



Valve seat machining
Easy replacement of adaptor for valve seat machining.



VRL measurement kit (optional)
Unique diameter measurement tool for measuring of machining result with VRL in place. No need to remove any parts before job is done.



Next-generation spindle with recess measurement slot
Unique auto-centering spindles with cut-out.

VRL	Technical data
• Electric power supply	1-phase 180-252 V, 48-62 Hz, 0,37 kW
• Power requirements	0.37 kW
• Weight	Base machine: 15 kg
• Max dimensions	H: Machine 472 mm + Spindle 185 to 1100 mm W: 250 x 192 mm
Valve seat recess machining	
• Range	Seat recess diameter: 74 to 200 mm
• Length of cut	Vertical: 60 mm Horizontal: 17 mm
Valve seat angle machining	
• Range	Valve seat diameter: 54 to 200 mm
• Length of cut	30 mm



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