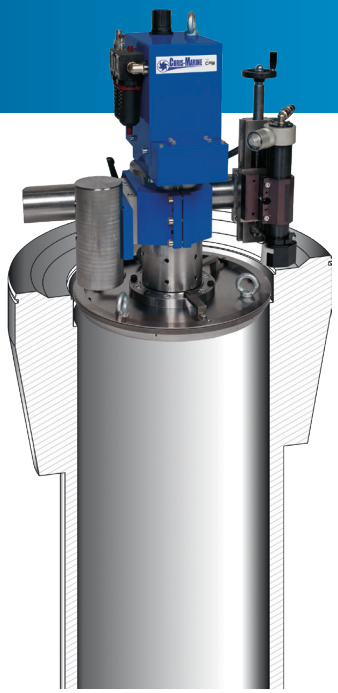
Grinding & Machining of sealing surfaces

Surface Grinding Machine



For workshops onboard and ashore

CHRIS-MARINE®

CPM

CPM is a versatile surface grinding machine ideal for workshops onboard and ashore. In less than 30 minutes it can be set up, mounted, aligned and run by one man. CPM efficiently eliminates and prevents water and gas leakages on small and medium bore diesel engines. Thanks to its high-precision grinding and milling functions as well as its many application areas, CPM provides substantial savings compared to when outsourcing grinding and milling jobs.







Application areas

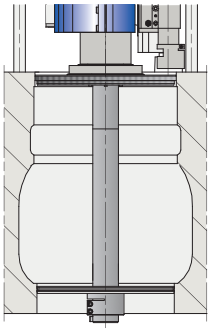
- Grinding of sealing surfaces between cylinder head and cylinder liner
- Grinding of sealing surfaces between cylinder liner and engine frame
- In-situ grinding and milling of cylinder heads, liners and engine blocks
- Grinding of sealing surface between piston crown and piston skirt.

Key benefits

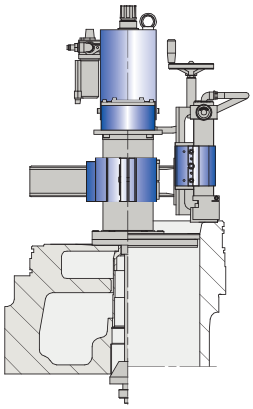
- Standard operating range diameter: 350-700 mm
- For workshops onboard and ashore
- In-situ grinding
- Quick and easy set-up
- Easily operated by one man
- Versatile
- Optional milling equipment
- Pneumatically operated
- Cost-efficient

Sustainable engine operation

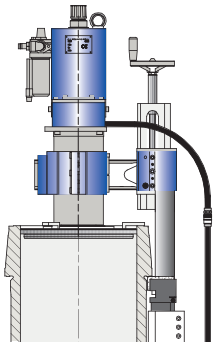
CPM is a versatile high-precision machine that can be operated by one single person. Its many application areas makes CPM a cost efficient choice in any workshop onboard or ashore. Owning a CPM means that the cost per job will be approximately a tenth of the cost associated with outsourcing the job. 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.



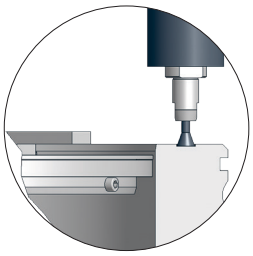
CPM mounted on engine frame
Standard application for grinding landing surface on engine frame.



CPM mounted on cylinder cover and on cylinder liner
A wide range of specific mounting adapters is available to fit various grinding applications on all medium 4-stroke engines.



CPM mounted on cylinder liner with accessories for under-up grinding
Frequently used application for eliminating water leakage due to corroded landing surfaces.



Milling
Milling groove in cylinder liner/cylinder cover with high-speed carbide tool.

CPM versus manual lapping

Manual lapping is a labour intensive and expensive method for restoring sealing surfaces. The method often results in an incorrect angle, and a concave or convex surface over time. This shortens the lifetime of the sealing surface as it allows hot exhaust gas to corrode and circulate on the sealing surface.
CPM on the other hand, will always keep the correct angle on the surface. It is faster and guarantees a good result, according to the engine maker's specification. In addition, the CPM can restore a previously lapped surface.

CPM	Technical data
• Machine capacity	Ø350 - Ø700 mm
• Air pressure	0.6 - 0.9 MPa (6 - 9 bar or 85 - 130 psi)
• Air consumption	1500 l/min
• Air hose connection	16 mm (5/8")
• Weight	Basic machine: 95 kg Aligning equipment: 5 - 85 kg
• Max dimensions	H: 642 mm



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