



PRECISION PERFORMANCE
SINCE 2008

LN Engineering

Cylinder Head Program

**Cylinder Head Solutions for
Aircooled and Watercooled Porsche Engines**



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About

**Werner
Machine was
founded by
Waldemar
Werner in
1984 and
joined the LN
Engineering
family in 2024.**



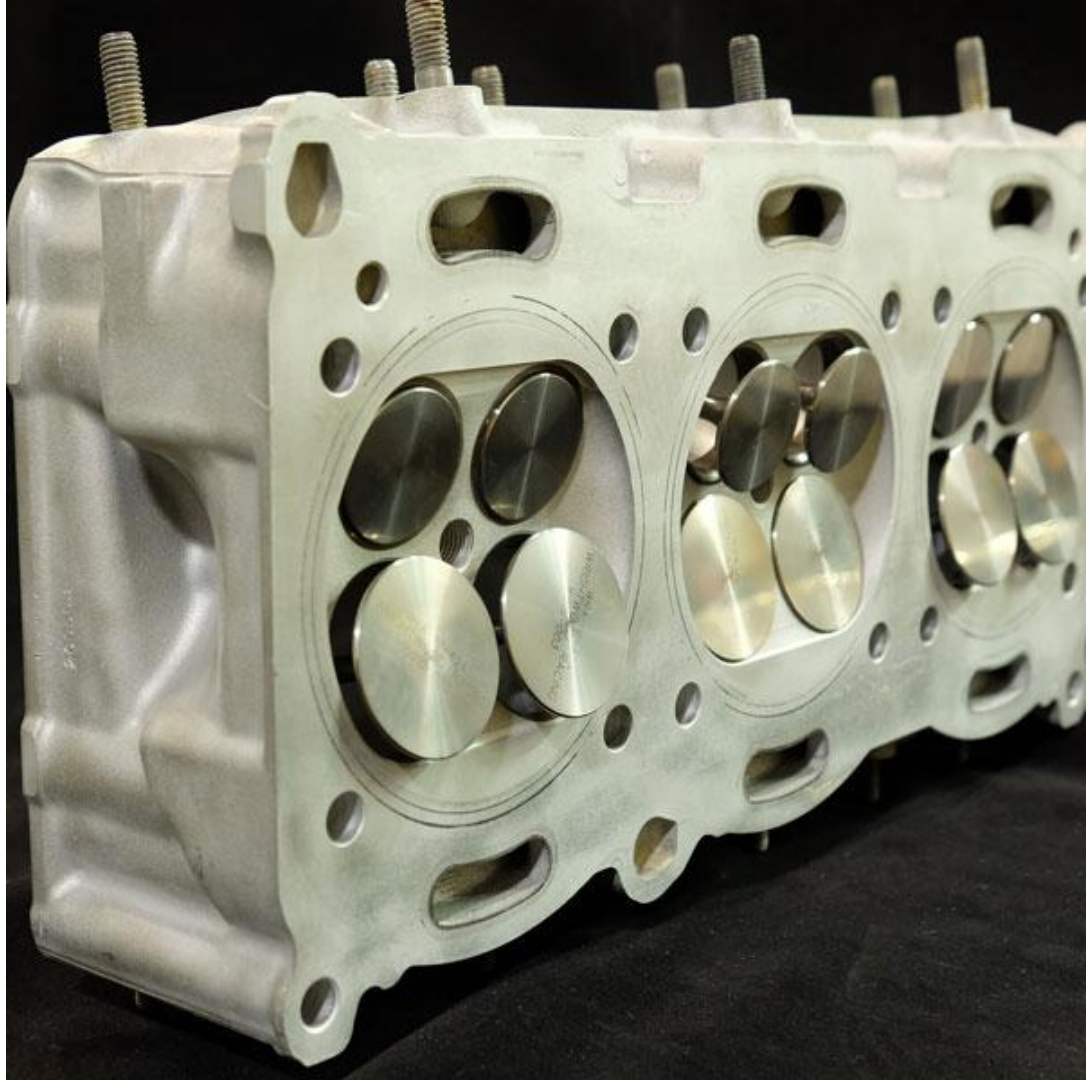
**Serving Chicagoland
Since 1984.**



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Mission

Werner Machine's goal has been to provide quality cylinder head remanufacturing services using the latest technologies and techniques, specializing in Porsche cylinder heads exclusively.





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Facility

We do all our cylinder head reconditioning and new head manufacturing in the USA in our 18,000 sq/ft facility, located one hour south of Chicago, IL.





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Quality

Every component rebuilt or made by LN Engineering undergoes stringent quality control inspections at multiple points during the manufacturing or reconditioning process to ensure the best possible outcome for our customer.

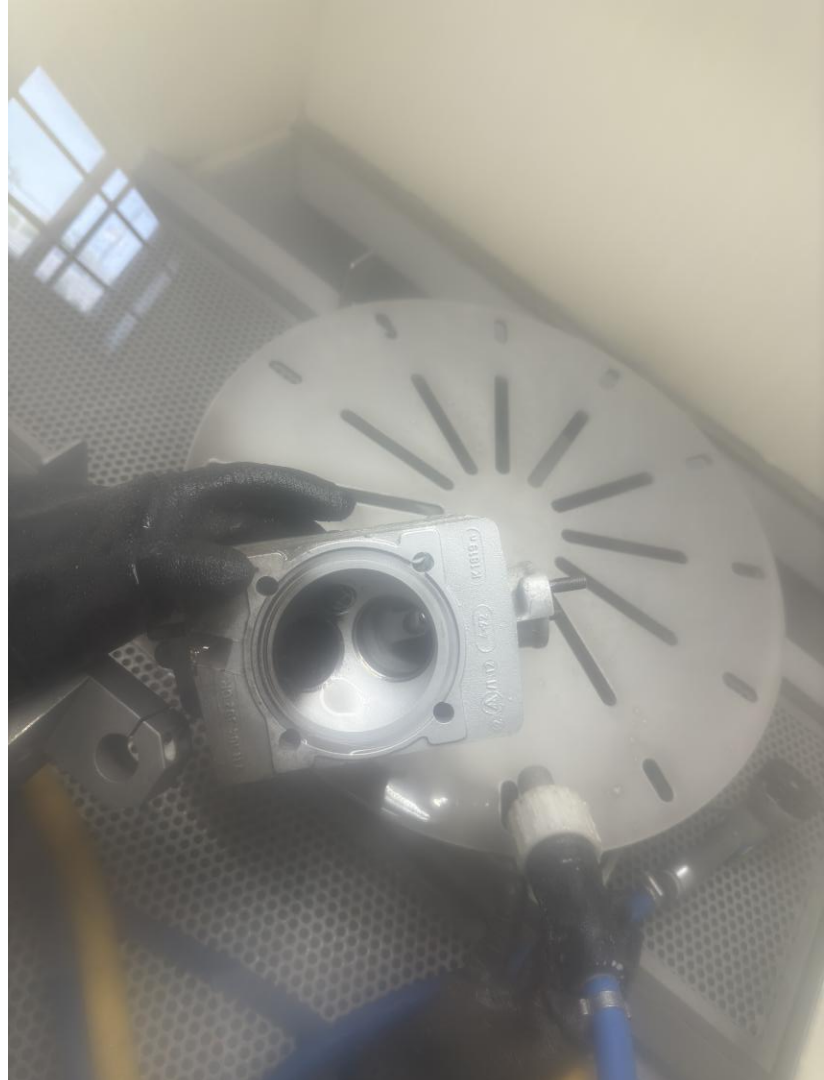




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Cleaning

Every component undergoes extensive cleaning. This includes hot tank, ultrasonic, vapor and soda blasting.

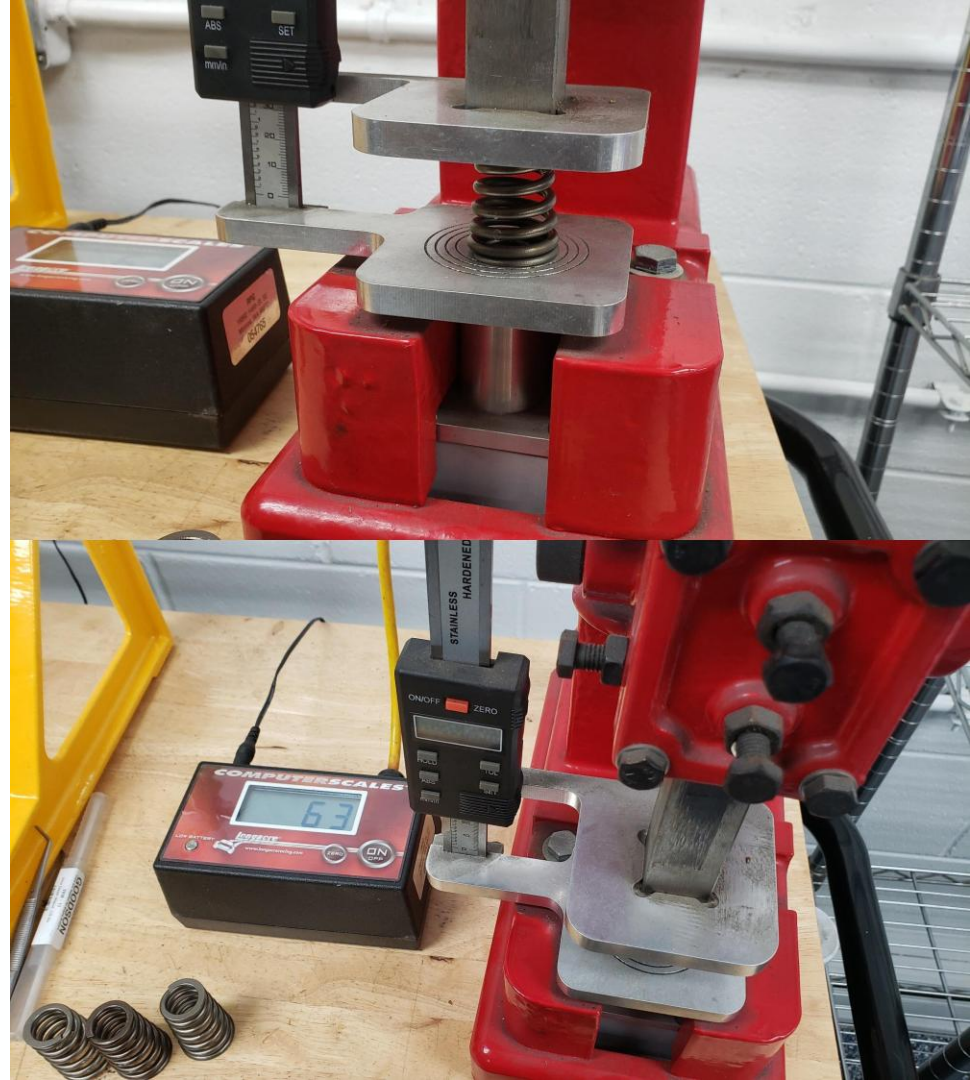




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Testing

All components are inspected and tested before they are considered for re-use.

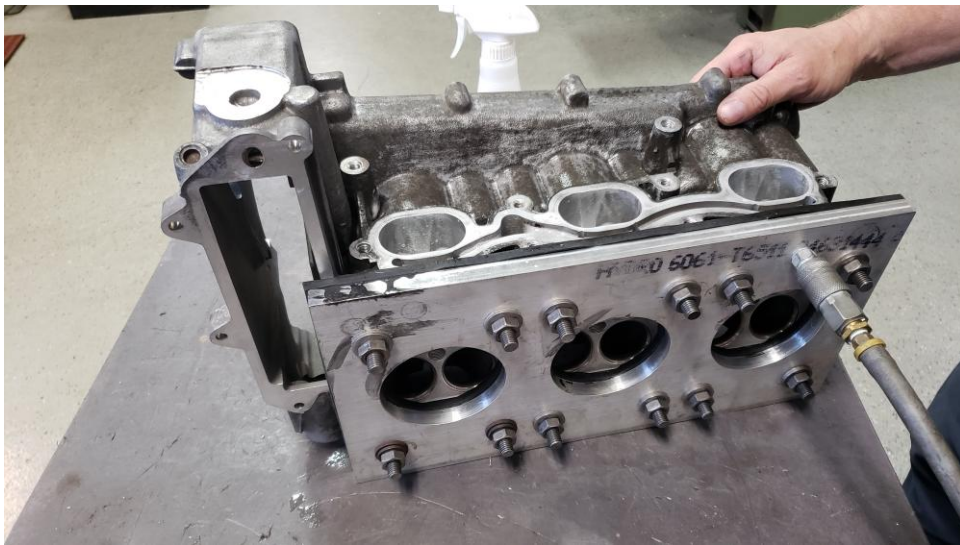




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Pressure Testing

Water-cooled M96 cylinder heads, known for cracking, are both pressure tested and visually inspected for defects.



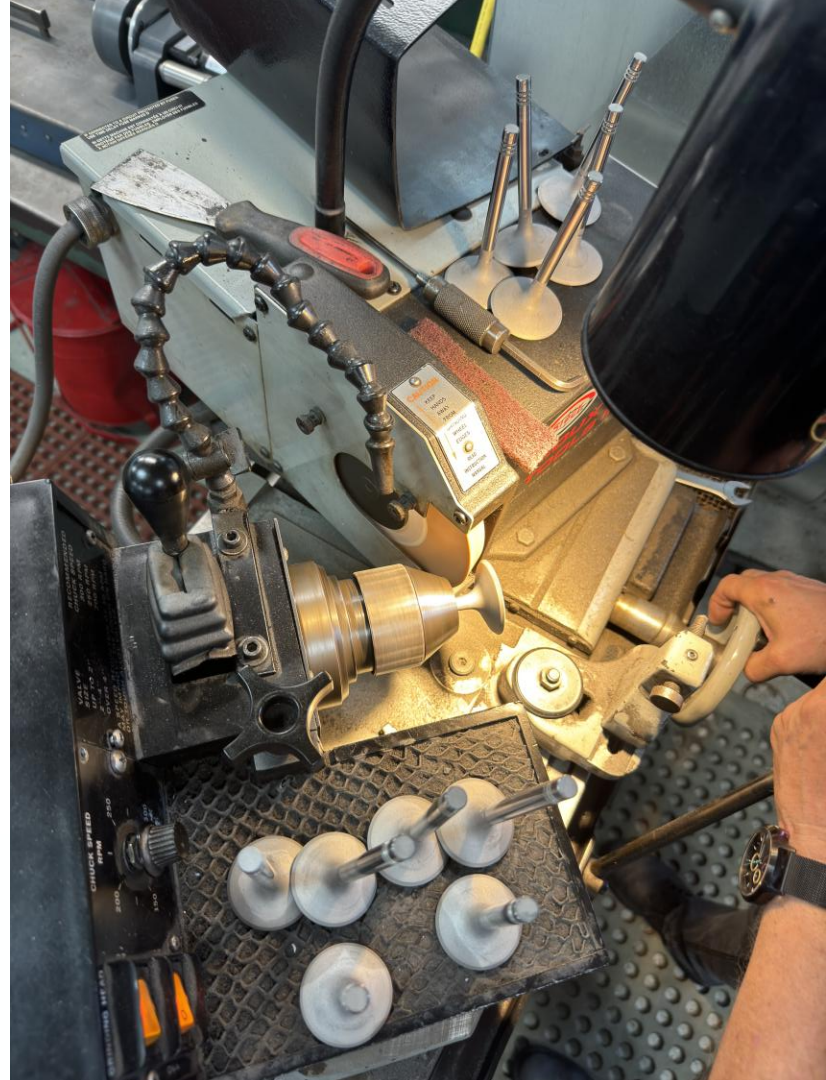


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Grinding

Valves are inspected, precision ground, and stems polished.

New Genuine or OEM valves and other performance valvetrain components can be supplied.





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Serdi

Using a Serdi machine for valve jobs ensures precision, efficiency, and consistent results, enhancing engine performance by creating a perfect seal between valves and seats. Its advanced centering system reduces setup time and operator variability, providing unmatched accuracy for multi-angle cuts and ensuring optimal airflow for improved engine power and longevity.

A Serdi machine delivers high-quality, repeatable results, making it the preferred choice.





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Vacuum Testing

A stable vacuum reading indicates a tight, secure seal, ensuring optimal compression, improved combustion efficiency, and reliable engine performance. This test is crucial for quality control, as it helps detect any issues early on, preventing performance loss and potential engine damage when the head is reinstalled.





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Resurfacing

Whether it's an air-cooled or water-cooled head, we have the proper tools to resurface Porsche cylinder heads.

Our CBN ensures the proper surface finishes for MLS head gaskets.





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Porting

Decades of experience porting Porsche cylinder heads ensures measurable improvements in performance.

We offer hand porting as well as CNC porting in our Haas UMC 1000.

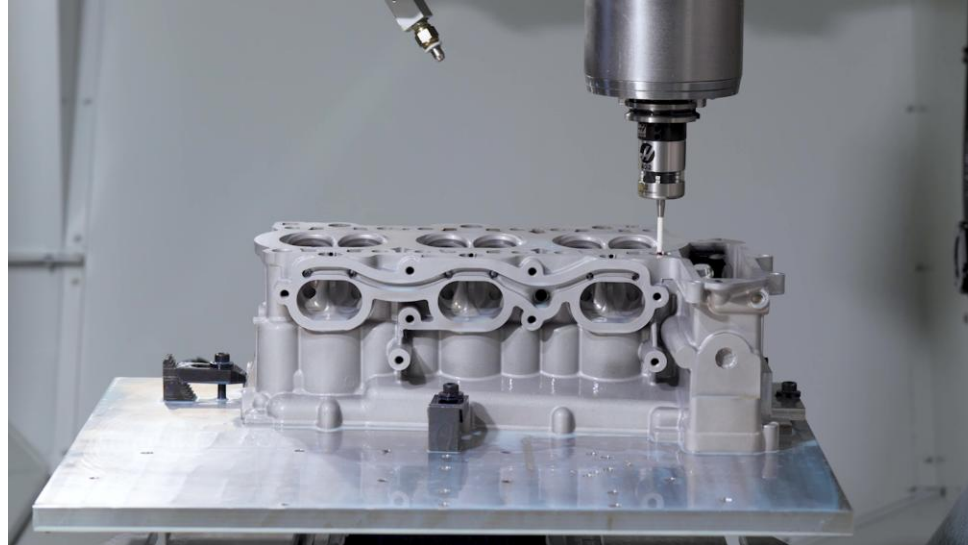




Porting

In collaboration with Hoffman Automotive Machine, we have developed CNC port profiles for M96 and M97 3.4, 3.6, and 3.8 cylinder heads.

CNC porting is carried out in our Haas UMC 1000.





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Cryogenic Treatment

The advanced process of Deep Cryogenic Processing involves bringing the temperature of materials down to temperatures below -300°F slowly.

Optional Cryogenic Processing alters the crystalline structure, transforming it into a more uniform and durable construct.

These changes become permanent as the temperature of the material is gradually brought back up to room temperature or beyond.





WPC Treatment

WPC is an anti-friction micro shot-peening treatment to the surface of the (any) part.

The peaks and valleys scoop up oil and increase the surface hardness of the material.

Due to the fact there is virtually no dimension change, we can add the treatment to already finished parts.

Valvetrain components can receive WPC Treatment for reduced friction and wear.





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Thermal Coatings

Coating chambers, ports, and even the exterior of the cylinder head with corresponding thermal barrier and thermal dispersant coatings has been proven to help retain valve jobs longer and extend the life of an aircooled cylinder head significantly.

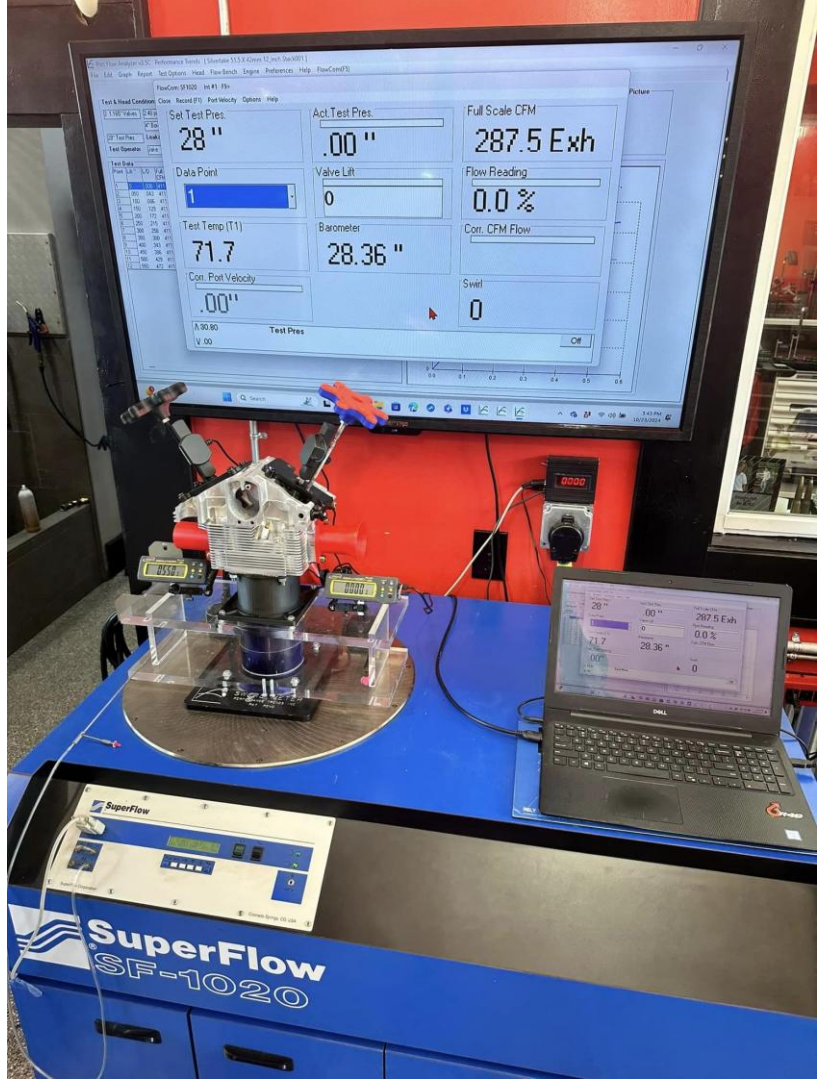




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Flow Testing

Working together with our technical director, Jake Raby, countless hours have been spent on our SuperFlow SF-1020 to validate port designs before they go into production.





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Ferrea

LN Engineering can supply premium valves, springs, retainers, locks, guides, seals, and related valvetrain components for Porsche cylinder head builds.

Ferrea components are engineered for high-RPM durability, improved valvetrain stability, and long-term reliability in performance and racing applications.





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Ni-Resist Flame Rings

Nickies can be special ordered with Ni-Resist sealing ring grooves.

Heads must also be machined to accept these flame rings.

Available for 95-98mm 3.0/3.2/3.3 and 100-102mm 3.6 engines.





Billet Cylinder Heads

Precision machined on our Haas UMC-1000, these billet Porsche cylinder heads provide increased strength, cooling, and performance:

2.7 RS

3.0/3.2/3.3 Performance

3.8 RS





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Services and Pricing

For the most up to date pricing and list of cylinder head services offered, please visit:

<https://lnengineering.com/porsche-cylinder-head-rebuilding.html>



Scan QR code for the most up to date list of machine shop services offered





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Shipping

Easy and secure shipping with trusted UPS and other freight partners minimizes time in transit which means less time waiting for your shipment with discounted rates that save you money.





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Technical Resources for Porsche Owners

Guides, videos, downloads, AI-powered tools, and **enhanced 24/7 support.**

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lnengineering.com/knowledge/



AI-Powered Tools



ENHANCED 24/7 SUPPORT
Porsche experts, always here.



SOLUTIONS ▾

KNOWLEDGE

SUPPORT 24/7



Knowledge

Technical Resources for Porsche Owners

LN Engineering provides educational resources, training, and guidelines to help you get the most from your aircooled Porsche. Our resources are built by engineers, for enthusiasts—plus, enjoy **enhanced 24/7 support.**



[What is the best oil for my Porsche?](#)



[Porsche Engine Technical Videos](#)



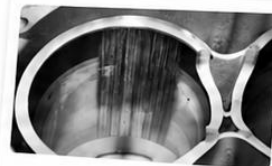
[Technical Downloads for Porsche Owners](#)



[The Definitive Guide to the Porsche IMS Bearing](#)



[The Ultimate Guide to Nikasil and NSC Cylinder Platings](#)



[The Porsche Cylinder Bore Scoring Problem](#)



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