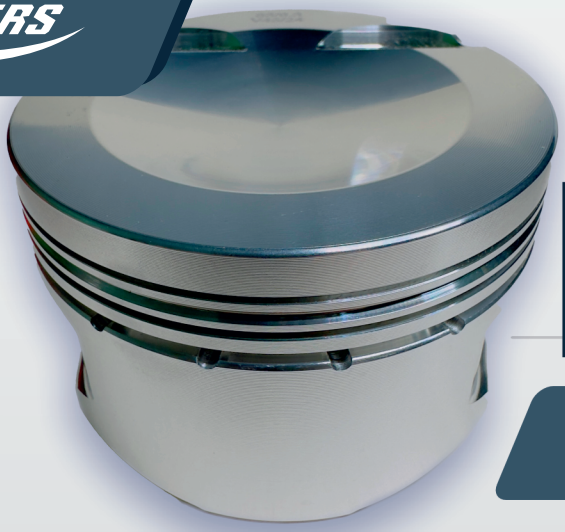


ETUNERS

FORGED PISTONS

Etuners Forged Pistons

Are engineered for maximum reliability and outstanding performance. Crafted from the premium 4032 aluminum alloy, these pistons offer high silicon content to minimize expansion under extreme temperatures. Whether for street use or competitive motorsport, Etuners pistons deliver strength, durability, and efficiency, making them the perfect choice for high-performance engines.

Key Advantages of Etuners Forged Pistons

Premium 4032 Alloy Composition: High silicon content reduces thermal expansion, ensuring tighter tolerances between the piston and cylinder wall. This improves performance and engine lifespan under extreme conditions.

Two Versions Available:

- Street Version: Designed for everyday comfort and light motorsport, these pistons maintain standard gaps for reduced cold-start noise and smooth operation in city driving.
- Race Version: Features full phosphate coating for enhanced oil adhesion, protecting the piston and cylinder wall during high temperatures and at engine speeds exceeding 8500 RPM. With excellent anti-knock properties, these pistons are capable of handling over 250 HP per cylinder.

High-Precision Manufacturing: CNC-machined to a tolerance of 0.0002, ensuring weight balance within ±1 gram and superior performance consistency.

Anti-Knock and High-RPM Resilience: Both versions provide excellent anti-knock properties, ensuring stable performance even under heavy loads and high engine speeds.

Customizable Clearance Settings: Recommended piston-to-cylinder wall and ring end gaps are optimized for different use cases, from street driving to high-performance turbocharged engines.

Technical Specifications

Material: 4032 Aluminum Alloy.

Weight Balance: ±1 gram.

Precision Manufacturing: CNC-machined with an accuracy of 0.0002.

Installation Guidelines

ETUNERS strongly recommends that engine assembly and piston installation be performed by certified professionals in specialized service centers. Proper expertise and tools, such as torque plates during honing, are essential to achieve correct clearances and maximum performance.

Clearance Recommendations

Piston-to-Cylinder Wall Clearance

Load Type	Clearance Range (mm)
Minimum Loads	0.04–0.05
Average Loads	0.05–0.08
High Loads	0.08–0.10

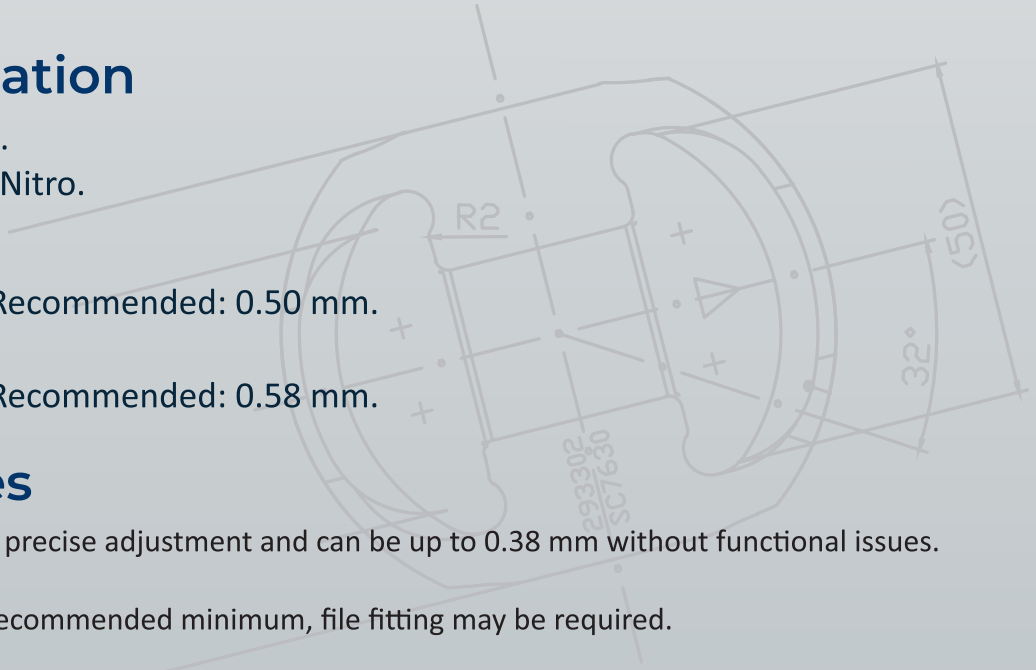
Ring End Gap Chart

Type of Operation	Top Ring	2nd Ring
Street	0.0040	0.0050
High Performance	0.0050	0.0055
Turbo/Supercharged	0.0055	0.0060
Racing/Nitro	0.0060	0.0070

Example Calculation

1. Piston Diameter: 83 mm.
2. Operation Type: Racing/Nitro.

- Top Ring:
  83 × 0.0060 = 0.498 mm. Recommended: 0.50 mm.
- Second Ring:
  83 × 0.0070 = 0.581 mm. Recommended: 0.58 mm.



Important Notes

Oil ring rail gaps do not require precise adjustment and can be up to 0.38 mm without functional issues.

If the ring gap is less than the recommended minimum, file fitting may be required.

Always use a torque plate when honing and measuring clearances for optimal results.

ETUNERS – PRECISION YOU CAN TRUST