NEW PISTON LINE

HIGH PERFORMANCE

2 & 4 STROKE – CAST-LITE / FORGED

For over 10 years, **Athena** has designed and manufactured cylinder kits for off-road 2&4 Stroke bikes. Working with the world's best Motocross Race Teams, **Athena** has engineered a new line of racing pistons - HIGH PERFORMANCE. **Athena** offers a full range of racing pistons, specifically designed for all off-road bikes (MX and ATV) available in Cast-lite or forged for 2 & 4 Stroke engines.

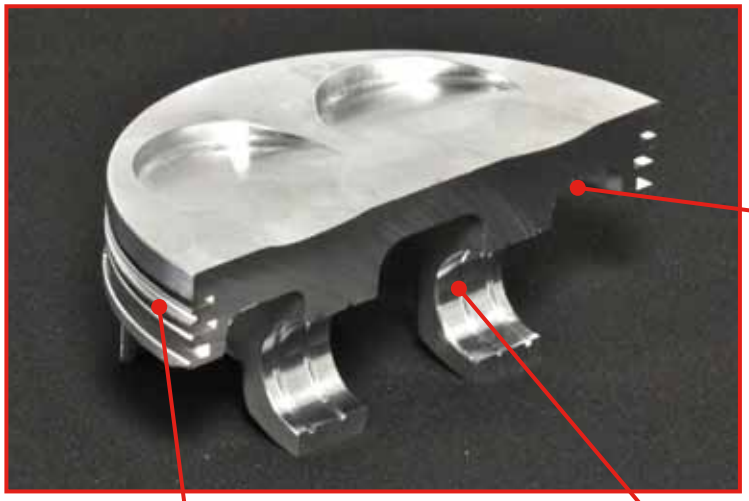
Athena's new HIGH PERFORMANCE pistons are engineered and produced with the latest technologies and hold the industries tightest tolerances. The unique "Smart can" packaging, features a reusable metal canister which can be recycled or can be used for storage.

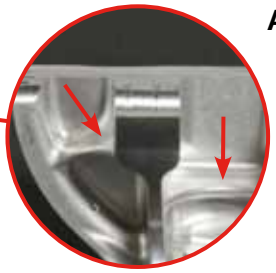
All Cast-lite and forged piston are produced using aluminum alloys that have the perfect balance of nickel, copper and silicon. The best choice of premium raw material combined with advanced engineering and production methods results in **Athena**'s HIGH PERFORMANCE pistons offering exceptional characteristics of lightness and endurance. The result is better engine performance and durability.

5-time MX World Champion, ***Tony Cairoli***
RED BULL KTM FACTORY RACING TEAM

4-STROKE HIGH PERFORMANCE FORGED PISTONS

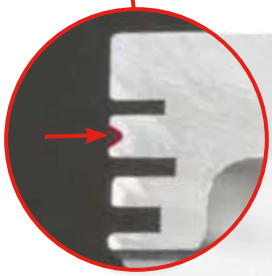
The 4 Stroke HIGH PERFORMANCE **Forged Pistons** are entirely engineered, developed and produced in our facilities. Engineered designs are initially tested on the test bench and then on the track to guarantee higher performance, according to our strict parameters of reliability and durability.
Special attention is given to the choice of compression segments and oil-scrapers. These are selected based on their tangential loads and shape to guarantee excellent sealing, avoiding the blow-by effect, but without compromising the sliding. The result is a respectable power increase combined with longer durability of the piston and cylinder.





Hardened Bridges

ATHENA's HIGH PERFORMANCE **pistons** feature hardened bridges that have close tolerances and obtain maximum rigidity. The result is a stronger piston to handle the increase power with minimal weight increase.

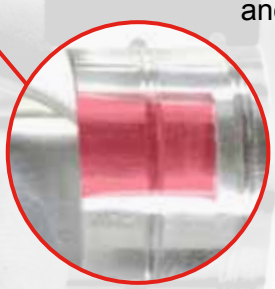


Accumulation groove

ATHENA's HIGH PERFORMANCE pistons feature an oil accumulation groove, located between the first and second sealing ring. This groove allows for the accumulation of oil, stabilizes the pressure between the rings, and helps prevent compression blow-by. The increase in lubrication improves efficiency, prevents pressure losses, and ensures consistent engine performance.

Piston pin lubrication

To increase the lubrication of the piston pin, we incorporate a groove that allows for the accumulation of oil inside the pin bore. The result is reduced friction, lower temperatures and reduction of overheating and/or seizing.



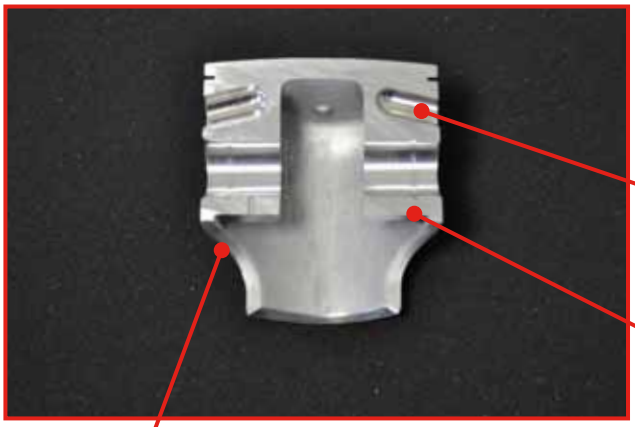
2-STROKE HIGH PERFORMANCE CAST-LITE & FORGED PISTONS

CAST-LITE PISTONS

ATHENA's **Cast-Lite HIGH PERFORMANCE Pistons** are lighter then original OEM design. Tight tolerances and piston ring design reduce friction while maintaining durability. They are the right choice for small displacement 2-stroke engines where weight is the key factor for performance.

FORGED PISTONS

ATHENA's **Forged HIGH PERFORMANCE Pistons** are designed for larger displacement engines and small displacement engines with higher compression ratios. They are the right choice when very tight tolerances, minimized friction loss and predictable expansion are desired.



Lightening and balancing hole

These holes, bored during milling or obtained during casting (only for the cast-lite pistons), enable to reduce the friction between cylinder and piston.

Surface treatments

Athena HIGH PERFORMANCE Pistons are subjected to special surface treatments when appropriate. This includes tin plating or PTFE (Polytetrafluoroethylene) coating. The result is less friction, improved sealing, and faster break in.

Lubrication ports

Both Cast-lite and Forged HIGH PERFORMANCE Pistons incorporate additional oil passages in the bottom of the piston over the OEM design. The result is improved lubrication and cooling for both the piston and the piston pin.