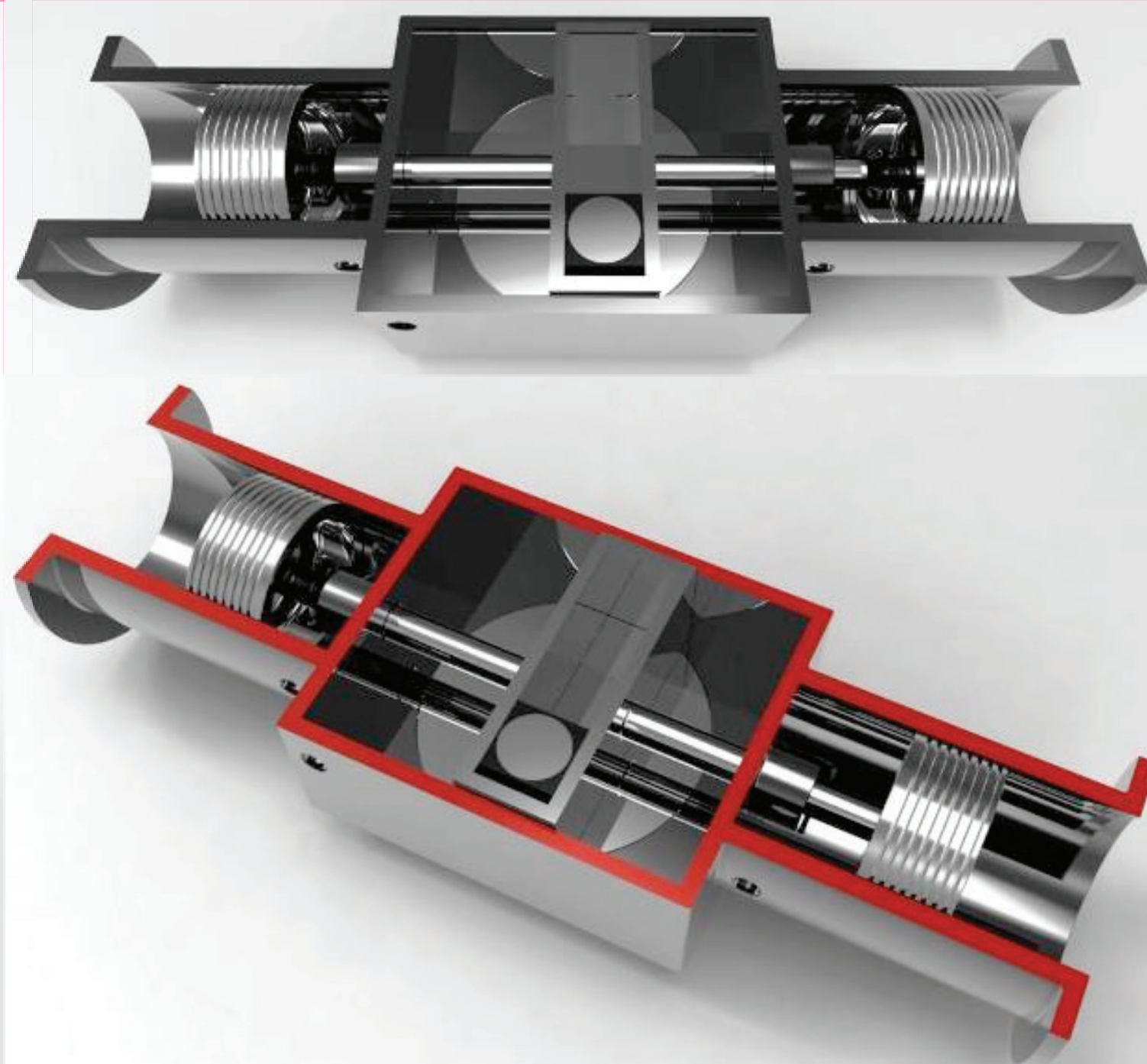
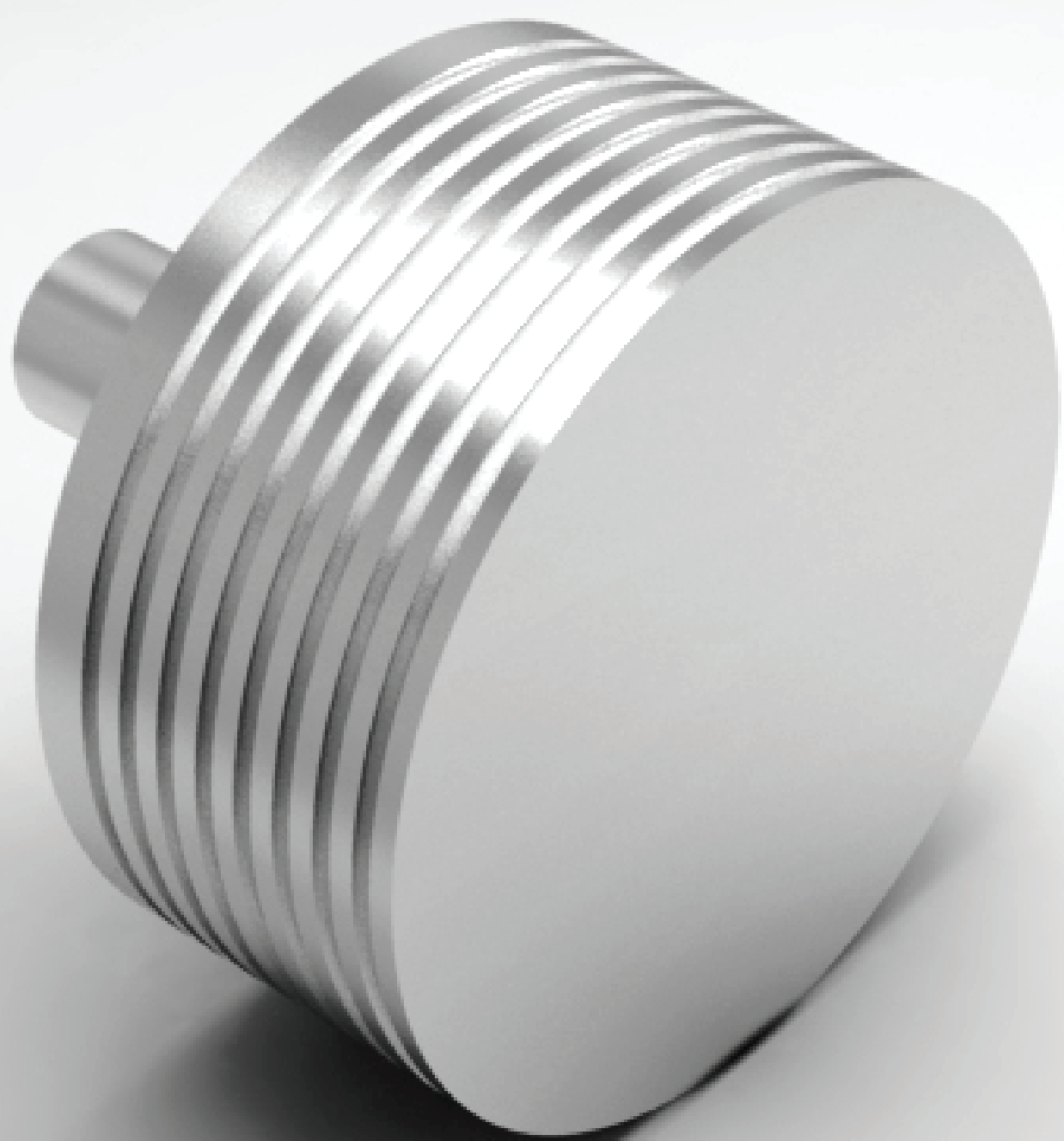


Future of Lightweighting Entry



Dynex International Pty Ltd Air sealing engine

The innovative automotive - and other - engine technology provides potential significant “GREEN”, technical and financial advantages. Using “air-sealing”, there is virtually no friction between the primary mating components, with no lubrication required, no wear, and ultra-long life. Higher efficiencies - mechanical, volumetric and thermal - permit lighter, lower-cost, more-compact, and longer-life engines.

This innovation provides improvements in internal-combustion engine technology. It is intended for engines where the pistons are positively located, such that they do not touch their mating cylinders. It completely or partially eliminates the need for conventional mechanical piston rings, and also completely eliminates the need for conventional lubrication. It also eliminates friction between, and subsequent wear of, these elements. While the technology is primarily for horizontally-opposed Scotch-Yoke piston engines, it is also ideally suited for oscillating and (true) rotary twin-wedge engines, where there are very small clearance gaps between the housing and the mating rotors. Previous attempts at designing these types of engines have not been successful, mainly due to major tribology problems.

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