

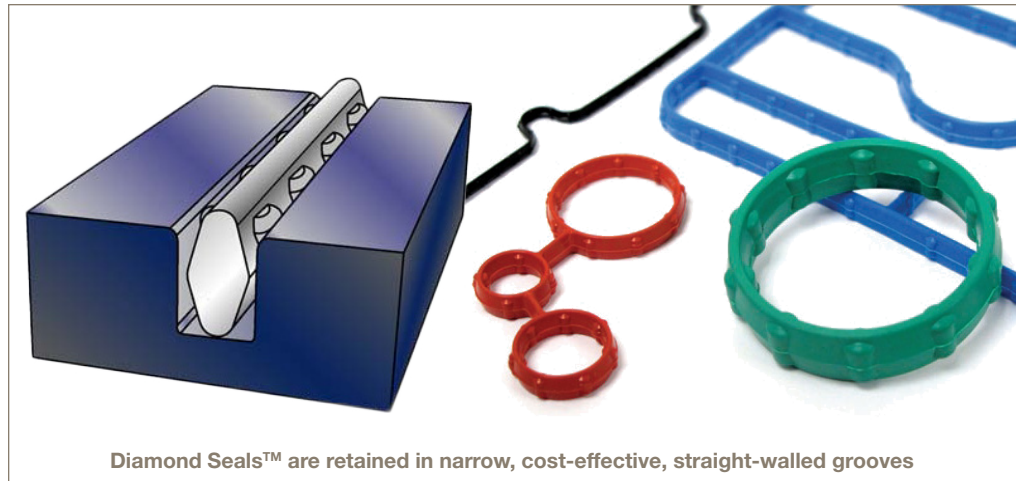
# Parker Diamond Seals™

Engineered Solutions  
Issue 10

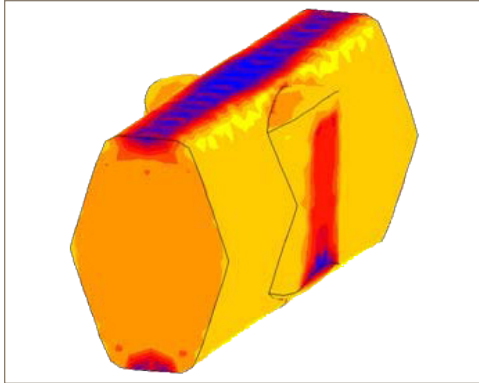


## Problem:

Gaskets require tightly controlled, flat parallel surfaces, and wide contact areas to form a robust seal. Tedious scraping and clean-up is frequently necessary when servicing a gasketed joint, risking damage to the mating components. Many seal alternatives have limited or no self-retention capabilities which can lead to rework, warranty, and customer dissatisfaction as a result of pinched or missing seals. Common seals and gaskets require wide grooves and flanges to ensure stable geometry and/or maintain adequate volume fill ratios. Wide flanges drive larger enclosures and reduce design flexibility.



Diamond Seals™ are retained in narrow, cost-effective, straight-walled grooves



## Solution:

Parker Engineered Seals Division proposed using Diamond Seals™ as they provide a high performance seal with superior compliance in narrow grooves to handle as-molded and as-cast tolerance variation. Optional integrated retaining ribs provide unmatched retention sufficient for the most demanding assembly line or shipping conditions. Diamond Seals™ function at much lower loads than gaskets for greatly reduced creep. Structural loads are carried through hard contact between mating components, preventing seal compression set from affecting bolt tension. For service, high-quality elastomeric seals come out quickly and cleanly. Diamond Seals™ can be molded in almost all Parker compounds and can be tailored to target the right balance of seal load, compliance, chemical resistance, and temperature range.

**Applications:** Parker ESD Diamond Seals™ have been used successfully for the last decade in hundreds of applications including motorcycle fuel systems, diesel engines, fuel cells, military handheld radios, RFID enclosures, portable dialysis equipment, and numerous other applications.

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Contact Parker Engineered Seals Division and ask for a product engineer to review your application and see what opportunities are waiting to be discovered!



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