

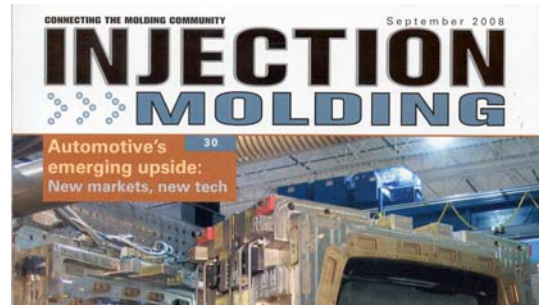
Integrated Sealing Systems Division

Nissan's first V8 engine produced in North America features ISS Intake Manifold Press-in-Place Seals

Featured in Injection Molding Magazine, September 2008

Integrated Sealing Systems Division Press-in-Place designs were featured in the "Ready... Set...Merge article found in the September issue of Injection Molding magazine. The article talked about the need to take automotive design to the next level to improve fuel efficiency. The Nissan V8 plastic intake manifold utilizing ISS Press-in-Place seals was just one of many designs shown as an example of the types of designs needed to improve engine efficiency today.

Parker ISS worked with its customer to develop a design that met the rigid Nissan design requirements. One such specification was the acidic soak test that was met with Parker FKM material.



tion and systems improvements."

Given the July sales figures, gasoline near \$4/gal, and the increases in steel, aluminum, and polymer prices, the automotive industry can't seem to catch a break. Dave Mitchell, global market manager of transportation for thermoplastic applications for Dow Elastomers, told IMM that innovation is the key.

"Clearly there are numerous forces that are exerting negative pressures on the automotive industry. Given the current increase in global demand for steel, aluminum, plastic, and hydrocarbon feedstocks, I do not anticipate that we will see a change in this trend in the near future. Therefore, it is going to become more and more imperative for the auto industry to innovate with new products designed to offset these current trends."

Trend watcher
While the global automotive industry has contracted, new ideas and trends continue to emerge unabated. In February, for example, Sabic Innovative Plastics delivered its annual Auto Trend Watch presentation to customers, complete with market insights, research, and design trends. Its choices this year for top technologies and styles included double-curved glazing, white and deep gloss black exteriors, and wraparound-style exterior body panels with more functions than previous versions.

The automotive design team at Sabic IP that makes the call says it draws on live research at key motor shows (Geneva, Tokyo, Detroit, etc.), hands-on design experience, dialogue with OEMs and designers, and "continuous monitoring of conferences, literature, and the media."

Geert Jan Schellekens, principal automotive designer at Sabic IP, says, "We also rely on

Five big differences in today's automotive industry

Did you ever have an "opposite day" at school or at home? Children often love this exercise because they can walk backwards, put their shoes on their hands, and say the opposite of what they mean. The automotive industry appears to be having an "opposite year," and they're not enjoying it half as much. Here are a few of the factors that have been rearranged:

1. In Q1 2008, Toyota eclipsed General Motors as the top auto manufacturer for the first time, selling 2.41 million cars and light trucks worldwide to GM's 2.26 million. As of the midyear mark, Toyota was still ahead of GM by 280,000 vehicles.
2. While auto suppliers and OEMs are diversifying in Michigan, Ohio, and Illinois, growth is burgeoning in southeastern states such as North and South Carolina, Kentucky, Mississippi, Alabama, and Georgia.
3. Emerging auto markets such as Brazil, Russia, China, and India are expected to grow by 50% over the next seven years. Mature markets such as the United States, Europe, and Japan are forecast to remain relatively flat.
4. It used to take months, if not years, to get a new material specified at one of the U.S. Big Three automakers. EconoMobi reports that this is no longer the case. Why? Because there is a "hunger for innovation" and costweight savings.
5. Thanks to \$4/gal gas, sport-utility vehicles and light trucks are no longer the consumer darlings they used to be, with sales down at every OEM except Nissan in July. Automakers are retrofitting to produce small sedans and subcompact cars that sip, rather than guzzle, gasoline.

our own knowledge, experience, and special 'antennae' for design trends. The challenges today's designers are facing include cost pressure, weight reduction, environmentally responsible design, and, of course, styling/engineering innovation. Thermoplastics offer a combination of design freedom and functional integration in the broadest sense. If executed well, the consolidation of several components into one will lead to weight savings as well as assembly cost reduction. With the right materials we can also imagine replacing painting operations with inmolded colors and

Forecast for emerging and mature automotive markets, number of vehicles

	2007	2008	2009	2010	2011	2012	2013	2014	2015
Emerging	24,662,953	28,670,572	32,056,337	34,905,985	37,694,786	39,138,343	38,977,166	40,731,564	41,554,420
Mature	44,301,957	42,883,952	43,206,193	43,433,860	43,979,231	44,635,562	44,453,388	44,171,441	43,948,293

Source: Autodata Global Automotive Outlook, Q3 2008, PricewaterhouseCoopers

Integrated Sealing Systems TSM of the Month

The Integrated Sealing Systems would like to recognize **Tod Walker as the ISS TSM** for the month of September. Tod was instrumental in obtaining a sealing package worth over \$600,000 per year this past month. Thanks again for all your hard work Tod.

Thanks again to all of the field sales for the efforts over this past year and we look forward to converting more of the Red Zone projects into new business awards in the near future.



Well Nut Connector

Over-molded Threaded Inserts

Sealing and Isolation against vibration.

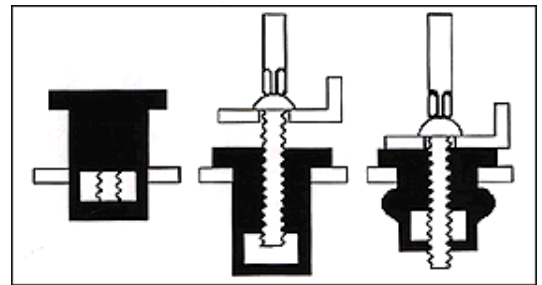
Integrated Sealing Systems Division is pleased to announce that we have reached a verbal agreement to be able to supply Well Nut threaded connectors through our distribution and Parker store network.

ISS currently produces the Well Nut product line for a private brand customer and felt that it would be a good fit into the markets we serve today.

ISS will launch the product offering in October along with technical bulletins and sample kits to our sales network to introduce to our distributors.

The Well Nut connector is a flat head round body polymer blind rivet that installs easily between components and is ideal for sealing and isolation against vibration, electrical conductivity and galvanic corrosion. We offer two standard polymer materials. Chloroprene (CR) rubber is recommended for standard applications and EPDM when exposed to extended sunlight and ultraviolet light.

ISS will offer a wide range of sizes in both standard and metric threads.



The internal threads are made of brass and molded into the polymer compound. Tightening a conventional machine screw into the Well Nut causes the insert to expand, making a secure joint.

Applications:

- Windshield wiper motors
- Electric panels
- Radiator mountings
- Heating fan motors
- Luggage carriers
- Sirens and horns
- Electronic sensors
- Inner door panels
- Solar panels
- Garage door openers
- Marine accessories
- Fiberglass building panels
- Skylights
- Transformers

Product Features:

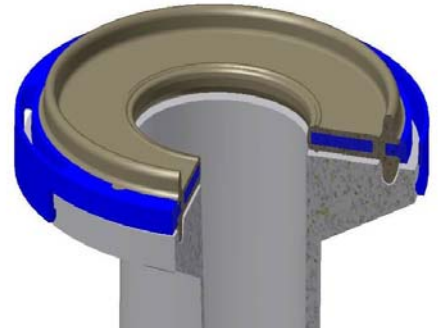
- Fastens in blind holes
- Removable
- Seals out ambient moisture
- Muffles noise
- Dampens vibrations and shock
- Isolates electrical conductivity
- Isolates galvanic corrosion between dissimilar assembled components
- Snap in version can be pre-attached to parent
- Optional rubber materials may be available upon request

New Sanitary Gasket Design Being Launched Improved Alignment & Seal Capability

Integrated Sealing Systems Division has developed an ASME hygienic clamp gasket design that eliminates extrusion and alignment problems found in existing products used throughout the pharmaceutical industry. ISS over-molding technology supports the seal bead design and eliminates the possibility of rubber extrusion into the drain throat.

The bead designs (shown below) provides a optimum seal where it is needed, increasing seal pressure and eliminating extrusion possibilities. The integrated outer clip takes the guess work out of where to align the seal by positioning the assembly perfectly every time.

Expected availability for the 1" diameter size is early November with additional sizes to follow. Technical bulletins will be issued with the official launch to sales for use in the field. For more information contact Bob Dubiel at (434) 522-2540 in Lynchburg.

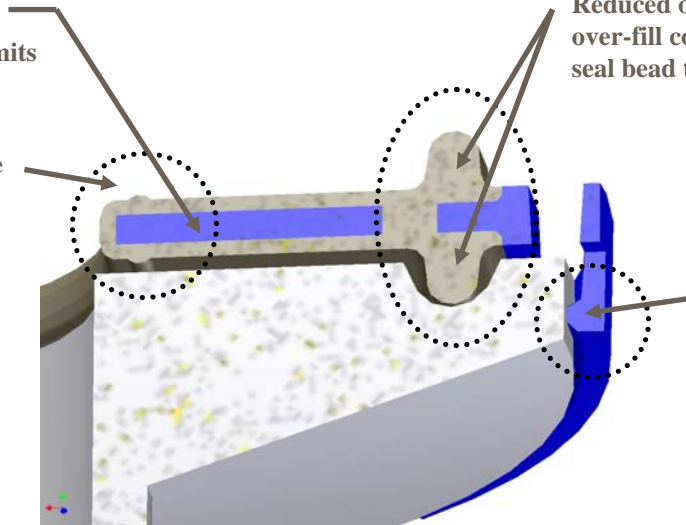


Extended plastic helps support seal beads and limits extrusion into the tube

Inner seal beads provide primary point of sealing (increased sealing pressure over existing designs)

Reduced outer bead size prevents over-fill condition that would cause seal bead to extrude into tube

Outer clips help align gasket with flange



ISS Technical Bulletins

(available through catalog services & POL)

Lip Seals	# ISS807
Research & Development	# ISS 5806
Material Selection	# ISS 5805
Drop-in-Place Seals	# ISS 5802

Carrier Gaskets	# ISS 5804
Bonded Pistons	# ISS 5803
ChemCast Piston Seals	# ISS 5801
Over-molded Filters	# ISS 5808
Closed Cell Carrier Seal	coming soon
Well Nut Connector	coming soon
Sanitary Gaskets	coming soon

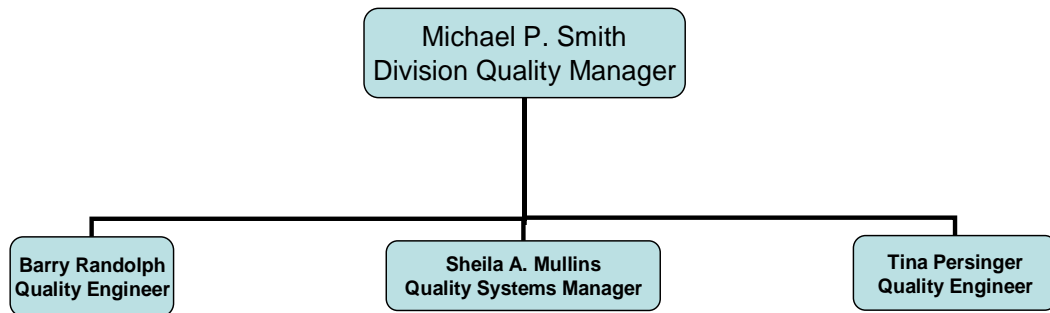


Lynchburg Quality Department gaining Momentum

With the recent addition of Division Quality Manager Mike Smith, strives are being made to put this department back on the map. According to Mike Smith, "I believe with the level of expertise in our department we are prepared to meet the Quality challenges for this facility, division and the Parker customer base."

Congratulations to Barry Randolph who has just been promoted to Quality Engineer. Barry recently earned his bachelor's degree and has been a team member of the Lynchburg facility for 15 years. Along with Tina Persinger (Quality Engineer) and Sheila Mullins (Quality Systems Manager) the department is ready to support the division's continuous improvement activities. Barry will support the PIP, Chemcast, and industrial product lines while Tina will support the composite and Transit product lines with continuing support of the Matamoros operations. Sheila will oversee Quality systems and PPAP submissions with continued support for Transit. Please feel to contact any of us to address your quality needs

Lynchburg Quality Department



Integrated Sealing System Division Product School Scheduled for January 20 through 22, 2009

The upcoming Integrated Product school **classes are beginning to fill up....**make sure to get the seats you need for yourselves and your customers reserved today!
Call Joan Cocke for reservations at 434- 846-6541