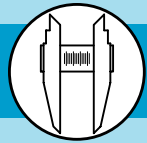


TECH TALK



Volume 23

News and Views From Hi-Tech Seals

WINTER 2009

Edmonton

9211-41 Ave
Edmonton, AB T6E 6R5
Phone: (780)438-6055

Calgary

Bay 3, 5940-30 Street SE
Calgary, AB T2C 1X8
Phone: (403) 720-2856

Newmarket

1180 Kerrisdale Blvd, Unit 8
Newmarket, ON L3Y 8Z9
Phone: (905)953-9666

Boucherville

1450 Rue Nobel, Suite #20
Boucherville, QC. J4B 5H3
Phone: (450)655-7325



New WEBSITE! : More HI-TECH!

Hi-Tech Seals is pleased to announce the launch of our new website, located at www.hitechseals.com. Our Marketing and IT departments have been dedicated to producing a website that will better serve our current and potential customers. Customers are encouraged to visit the website and explore the vastly increased and updated content. When visiting our site you will find an expanded product listing, service listing, increased technical resources and internal search capabilities.

As an added incentive to visit the new site, we have posted a quick and easy Hi-Tech Seals trivia contest. Participants are encouraged to explore our website to find the answers. If you get a score of 60% or greater will be entered to win an iPod Shuffle. The contest is designed to help visitors learn the new menu structure and tools.

While writing the contest you will likely notice the newly improved products section. Our products can be sorted by product category or by popular industry. In addition, each product now lists common materials, part styles, related products and literature. Although our product section has been expanded to add new product categories we would like to inform you that Hi-Tech Seals has many less common specific components. (article continues on page 2)

(Continuation from page 1)

For visitors who need technical information, we have expanded our technical resource section. Customers can find all our old great content reproduced in higher quality. In addition, Hi-Tech Seals has worked with suppliers to increase our offering of brochures and material information. We hope customers think of Hi-Tech as the first stop for technical information.

Come check out the new www.hitechseals.com.

Graham Necyk, B.Mgt
Marketing Representative
Hi-Tech Seals Inc.



A Recipe for Results: A Word from the Drafting Department

Precision manufacturing and technical drawings (commonly referred to as blueprints) go hand in hand. Just as a well written recipe can produce a fantastic meal; properly rendered and dimensioned drawings can produce accurate, reliable, and repeatable manufactured parts. Their hand in the process is invaluable, as they can provide a clear representation of the item in a universal language that can be understood by: customers, engineers, manufacturers, buyers, and quality inspectors alike.

Hi-Tech Seals Inc. employs a state of the art video measurement system, combined with CAD (computer aided design/drafting), to produce a concise visual representation of your part or application. With in-house industry professionals, we can even produce parts based off of broken, used, or otherwise inoperable sample pieces.

From plan—to production—to end user, Draftsmen and Engineers work side by side with quality assurance and manufacturers to solve problems of varying severity. Detailed drawings, and accurate interpretation, are just a couple of ingredients in our recipe for providing the best quality products.

Adrian Wawruck
Drafting Department
Hi-Tech Seals Inc.



The Battle with Seal Failure: a Look at Compression Set

Compression set is the percent of deflection by which an elastomer fails to recover after a fixed time, under a specified squeeze and temperature. It is a term used in the elastomer industry to measure the recovery of a material after it has been compressed and heated.

The most common cause of O-ring failure is compression set. Upon compression, if an O-ring fails to return to its regular size or maintain enough squeeze on the sealing (or mating) surfaces then it will significantly reduce that O-ring's ability to seal in the application.

For example, if an O-ring is compressed 5 mm and when the seal is removed it recovers 4 mm, there is 1 mm of unrecovered thickness. Therefore, the compression set is 0.2 or 20 %. If an O-ring had 0 % set then that means that the seal has totally recovered to the original dimension and 100 % set means that there is no recovery and the seal remains at the compressed dimensions.

The most common compression set test we are concerned with is the ASTM D395 Method B standard. The majority of Hi-Tech Seals specification sheets will have a test done to this standard at different temperatures and lengths of time.

Identification of compression set failure is relatively simple. The O-ring ceases to be "O" shaped and is permanently deformed into a flat sided oval, the flat sides of which were the original seal interface under compression before failure. On a side note, sometimes swelling due to media can compensate for compression set. Also, the condition that should be most feared is the combination of high compression set and shrinkage. This will always lead to seal failure unless exceptionally high squeeze is employed.

For more information on compression set properties please contact Hi-Tech Seals Inc.

Sid Ammar, E.I.T.
Application Engineer
Hi-Tech Seals Inc.



Get a One-on-One Experience with Counter Service

One of the many ways we at Hi-Tech Seals exhibit dedication to customer service is with our walk-in counter service. Our warehouse locations feature customer service departments that provide sizing and matching support, as well as, the technical know-how to select the correct part for the job. In many circumstances this means that you walk away with the part required to get your equipment up and running that day. Our counter service is available during regular business hours at our Edmonton, Calgary, Boucherville and Newmarket locations.

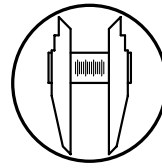
At Hi-Tech Seals we appreciate our customer's time and the cost involved with lost production. Company wide our warehouses stock over 23,000 unique parts; if we do not have your specific part in inventory we are capable of either machining or sourcing a quality part. To find the correct component you can bring in new/used parts to be matched or bring in the cylinder and we will identify the best parts for your application. Further more, to accommodate customer's hectic schedules, they have the option of leaving components with our customer service representative.

To compensate for growing demand on our customers service counter, our main branch in Edmonton has recently done some renovations. The renovations to the Edmonton service counter have doubled the available service space; customers now receive a more comfortable purchasing experience. An added benefit to the customer service expansion is the increased space to display literature, samples and technical data sheets. These resources help our staff and customers identify the correct component for the job.

With all of these available features we encourage you to bring your leaky problems to Hi-Tech Seals service counters.

Terrie Beastall
Counter Service Rep.
Hi-Tech Seals Inc.

H-Caliper Brand on New Custom Parts



Hi-Tech Seals Inc. is now placing our H-Caliper Brand (seen here) on custom parts. The H Logo is used to help customers identify parts created by Hi-Tech Seals.

New High Temperature Polymers Available

Parts can now be created in high temperature compounds Victrex® ST™ (PEEK) and Quadrant's Nylatron® 4.6.

The Victrex® ST™ high temperature PEEK compound allows parts to reach up to 300°C. This compound retains PEEK's chemical resistance, electrical resistance, mechanical performance and dimensional stability, but at a much higher temperature.

Quadrant has made further strides in the performance of Nylatron®. Other Nylatron® compounds have a top end temperature of around 93°C; with Nylatron 4.6 you can experience sustained performance at 150°C.

Please contact a Hi-Tech Seals sales staff member if you would like in-depth compound information.

Milestones

We are pleased to share with you employees achieving milestones in the recent and upcoming months.

Five years of service:

Adelza Bautista
Eric Couture
Judy Cross
Kevin Howard
Lisa Patterson
Kyle Sturko
Bryan Klassen

Ten years of service:

Joy Wales
Art Stangle

From all of the staff at Hi-Tech Seals, we thank you for your hard work and dedication over the years.

Hi-Tech Seals Word Search

Complete the word find and be entered to win a digital picture frame.



CALGARY
EDMONTON
MONTREAL
NEWMARKET
SPECTRASEALS

DRAFTING
HCALIPERLOGO
ORINGS
WEBSITE
MANUFACTURING

COMPRESSIONSET
ENGINEERING
JIMBOND
NYLON
URETHANE
NITRILE

Please fax your responses to 780.434.5866 by February 1st, 2010.

Name: _____

Day Time Phone #: _____



ISO 9001
REGISTERED QMS

9211-41 Avenue NW, Edmonton, AB T6E 6R5
Bus: 780.438.6055 Fax: 780.434.5866
Toll Free Tel: 1.800.661.6055 Fax: 1.800.465.5866
www.hitechseals.com