

# TECH TALK

VOLUME 20

News and Views From Hi-Tech Seals

SUMMER 2008

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Hi-Tech Seals has been providing 15+ years of the machining of rubber and plastics to multiple industries in multiple countries. We purchased our first lathe in 1991, and over the years our machining capabilities have grown from that single lathe to a full service machining facility. This addition to the services we provide has given our customers many advantages including less downtime, immediate prototypes, and sole sourcing.

### Machines:

- 3 CNC's - maximum diameter 30", with milling capabilities
- 2 NC's - for small to medium size production runs
- 2 Manual Lathes - for trims and short runs
- 4 Hydraulic Presses - primarily for braided packing die forming
- 3 Vulcanizers - for splicing and vulcanizing O-Rings, and extruded shapes
- 1 Micro Vu - for precise measuring



### Raw Materials:

- Stocked Elastomers - Viton, Nitrile, EPDM, and HNBR
- Stocked Plastics - Peek, Teflon, Nylon, POM, and Urethane
- Total number of skus stocked in rod and tube materials = 670+

### Customization and Flexibility:

- Can machine both standard and custom profiles
- Production can handle a wide range of jobs from small prototype runs to mid-size production runs
- We will stock raw material for customer's short notice runs

### Delivery and Quality:

- Our commitment is to customer service and this can be seen by our ability to meet our customer's expedited delivery needs.
- We utilize quality control throughout the entire machining process, not only at job completion.
- Our inspection equipment utilizes both sophisticated (Micro-Vu) and conventional measuring equipment.

Call for a quote or accept our invitation to come by for a complimentary tour of our machining department.

Troy Yohemas  
Purchasing Manager



## TECHNICALLY SPEAKING

Hi-Tech Seals is celebrating its 5 year anniversary as a recognized DuPont distributor of the Viton® Elastomer Program. During this period, we have had many opportunities to service unique and extreme field applications using the various Viton® polymers available. The excellent heat resistance (400°F/200°C), and the ability to withstand many aggressive fuels and chemicals has created a strong client base in automotive, chemical processing, and oilfield industries. With a continually growing range of sealing conditions being encountered, the demand for these specialty compounds is becoming much more prevalent. In order to meet the frigid temperatures of the Canadian winters, the Viton® GFLT will provide the chemical resistance we have come to expect, while functioning at sustained temperatures as low as -40°F/°C. And for those chemical applications where a standard material is just not sufficient, the recent development of Advanced Polymer Architecture (APA) has resulted in Viton® Extreme™ TBR-S and ETP-S compounds. As TFE/propylene copolymers, both versions have incredible resistance to acidic and basic media, while maintaining excellent compression set and high temperature capabilities.

Please contact any one of our experienced Technical Salesmen for further literature regarding the Viton® polymers and its family of compounds.

Dustin Jackson  
Inside Sales

### **Did you know...**

- *The original braided packing was rope dipped in tallow used to seal the hole where the rudder went through a ship's hull.*

### **Did you know...**

- *Hi-Tech Seals has over 338 years of combined experience to service your company.*

### **Did you know...**

- *When considering seals think "SLIM"; Shape, Lip, Improvers, Material.*

## OTC - WAVES OF CHANGE HOUSTON, TEXAS

Hi-Tech Seals was proud to be a part of the 2008 OTC show in Houston for the first time as an exhibitor. "Waves of Change" was the theme for the large global show. Over 60,000 people visited during the four days of exhibition. The show had nearly 2,400 companies from more than 30 countries participating. The show went well despite some early set backs of record rain fall for the Houston area.

## GLOBAL PETROLEUM SHOW CALGARY, ALBERTA

For the third straight time, Hi-Tech Seals was an exhibitor in the GPS show in Calgary. The GPS sees over 70,000 visitors and is held over three days. On display were numerous MWD, Wireline, and BOP parts for these growing market segments. Our booth had a fun twist as we featured a Guitar Hero® challenge on an Xbox system which was later raffled off. Congratulations to Charles Ng on winning the game and the system.

Dwayne Schmidt  
Sales Manager, Calgary

### **Did you know...**

- *Hi-Tech Seals has 395 product lines.*

## FLUOROSINT

Fluorosint is a material possessing chemical resistance similar to that of PTFE with the ability to be used at a continuous temperature of 500°F/260°C. Fluorosint grades offer an excellent combination of low frictional properties and dimensional stability. Compared to PTFE, it has higher load carrying capability, much lower deformation under load, and a lower coefficient of thermal expansion. Its unique properties are the result of a proprietary process in which synthetically manufactured mica is chemically linked to PTFE. This bonding results in properties not normally attainable in reinforced PTFE.

Fluorosint is commonly used for aggressive service bearings and bushings, as well as valve seats and sealing rigs.

Said Ammar, E.I.T.  
Application Engineer

## CASE STUDY #1

Working from application data provided by our customer on a newly designed Rotary Seal, Hi-Tech Seals was able to exceed all expectations and provide molded product to our customer within 5 weeks of design implementation. Upon delivery, it was discovered that the quantity our customer requested was not indicative of the actual number needed, and these seals were to be installed, and the fully assembled units were to be shipped overseas within a 2 week period. In conversations with the original manufacturer, lead-times for replacement parts were such that the entire project would have had to be pushed back. Having been involved at all stages of design, we were able to reverse engineer the seal, and produce it from rubber tube stock with our CNC/manufacturing division. We provided our customer with all seals required, and they were able to install and ship right on time!

## CASE STUDY #2

Having dealt with many low temperature applications, we were surprised to find that our standard Highly Saturated Nitrile was just not cutting it for our customer's application. He was in need of a cryogenically applicable O-Ring, capable of handling continuous temperatures of -58°F/-50°C, and he needed it sooner rather than later! In less than 1 week, we were able to source, locate, and ship to our customer a replacement rubber, with all of the chemical compatibilities expected of a Highly Saturated Nitrile, but with a low temperature capability extending below the -85°F/-65°C mark.

## CASE STUDY #3

We have worked with a particular oilfield customer for many years, becoming very familiar with their requirements, and carrying the necessary stock for all on-going kits in their inventory. We were surprised by a large rush order of newly developed kits that we had yet to identify and set up in our system. But, with the recent expansion of our warehouse, we had increased our inventory on many of the common components, and were able to assemble all kits required, from stock, and ship to our customer within a 48 hour period.

Dustin Jackson  
Inside Sales

### Did you know...

- ISO stands for the Organization of International Standardization.

## EMPLOYEE RECOGNITION

Hi-Tech Seals is pleased to announce that Travis Sturko has accepted a promotion to Regional Sales Manager. Travis has been an outstanding salesman and we expect he will utilize his well honed skills and positive attitude to continue to keep Edmonton's sales department a first class operation.

With the increase in manufacturing production and the increase in our customer service department, we have determined it is necessary to restructure the supervisory rolls within the two departments. In that regard, we are pleased to announce that Brian Benkendorf has accepted the position of Customer Service Manager. Kevin Bradshaw will remain as Machining Manager, with the added responsibility of overall company Maintenance.

### Did you know...

- Hi-Tech Seals has 10,614, 883 individual parts in stock.

## EMPLOYEE MILESTONES

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

### 5 years of service:

Brent Bortnick - IT Manager (Edmonton)  
John Dobbins - Inside Sales (Calgary)  
Jane Krause - Warehouse Manager (Edmonton)

### 15 years of service:

Graham Shaw - Quality Control Manager (Edmonton)

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

### Did you know...

- Hi-Tech Seals has 7,223,919 O-Rings in stock.

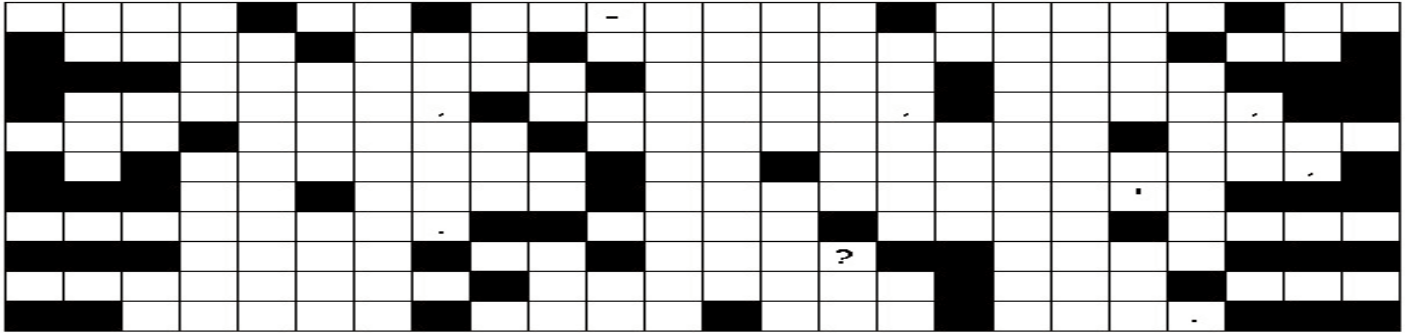
## KALREZ®

Hi-Tech Seals is proud to announce an agreement with Dupont Performance Elastomers to distribute the number one perfluoroelastomer in the world. As of June 1st, 2008 Hi-Tech Seals is now able to offer the full line of Kalrez® perfluoroelastomers. Not only is Kalrez® available in O-Rings, but also in U-Cups, Wipers, and many custom molded shapes for your application. We look forward to servicing you with your Kalrez® requirements in the future.

# Fallen Phrase

# WIN A DIGITAL PICTURE FRAME

Use the letters below the columns to form a phrase.



E L T H I P U L A  
 V E I I O E T R O E  
 P T A N O I A E C L I I O M S  
 N M P R L F H Y T L E P R P E S K  
 R S E O R H E R E C S U O N I M E S L M  
 E R O R O S H T R M F O T B O S E I E F R A  
 H H D M A E M R T M W Y F A T D O F R Y E S O T  
 S O U N E T D E E T A C T I H E O E R R S T H E  
 D A W V B A T U F O O A T S N S L F T L S T W M  
 A A A B A E S E C W E M A A H G A L E O T H O E

Please fax back your response no later than August 22, 2008.

Name \_\_\_\_\_

*Winner of the digital photo frame from our last Issue:*

**Quincey Deters**

**Edmonton, AB**



**ISO 9001**  
REGISTERED

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