



Vulcan Comm/M.S.Presentation

GOOD DAY





Means Quality And Reliability Assured



**Vulcan: Committed to Excellence**





# Mechanical Seals Presentation

The Scale,

Experience,

Foot Print,

Desire And Ability

To Surpass Our Partner Expectations

**"Anywhere"**



# Vulcan Seals Presentation

**Vulcan are dedicated to being the;**

**“World’s Best Standard  
Mechanical and Encapsulated  
Seal Manufacturer and Supplier”**

**THIS PRESENTATION EXPLAINS HOW WE ACHIEVE THAT PLUS,  
MOST IMPORTANTLY AND FIRSTLY BY WAY OF INTRODUCTION;  
A SUMMARY OF WHAT THAT MEANS TO YOU.**





# Vulcan's Outstanding Distributor Services



**Vulcan Production and Service Centres; on Three Continents; ensure Total Support to our Distributor Partners.**



**The Widest Range, a Guaranteed Ex-Stock Policy and Electronically Assured Same Day Despatch; enables absolute reliance upon our stocks to support your sales.**



**Distributor Led Marketing Policy; backed by an industry leading marketing and Information/Support Package.**





# Industry Leading Vulcan Product



Advanced, Electronically Automated, Manufacturing, Inspection, Stock Holding And Distributor Focused, Web Portals and Supply Logistics, Systems.



Quality is Paramount Throughout Vulcan; Electronically Assured from Automated Systemisation of our Design, Production, Assembly, Inspection, Sales and Supply Logistics.



Undoubtedly the best Price, Quality and Service Package in the Global Seal Market; which has enabled our Distributor's World-Wide to drive our 20%+ p.a. sales growth.





# Mechanical Seals



Over 80,000 Lines  
Ex-Stock



320+ Mechanical  
Seal Design Types



Our Stock Codes  
of Potential M.S.  
Assemblies exceed  
one million



All Available for  
Build and Despatch  
within 24 Hours.



Quality

Range

Service

Price

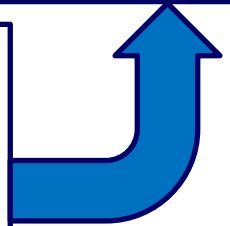
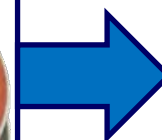
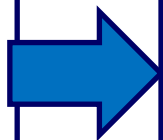
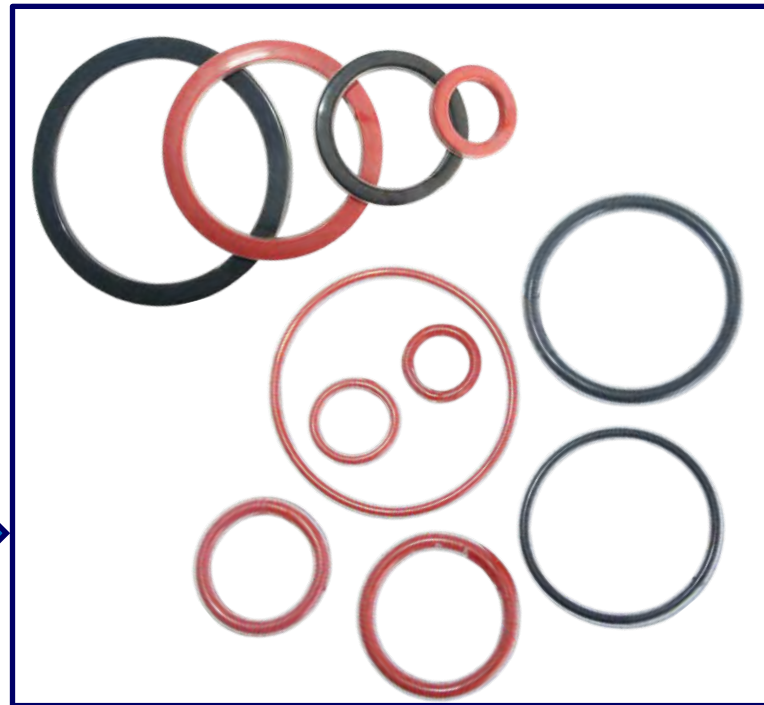
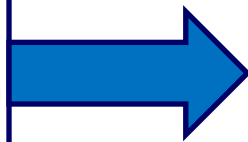
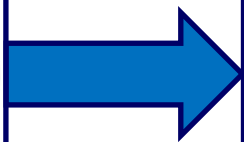


# FEP/PFA Encapsulated Chem-Rings

 **20,000+ Sizes Available from Stock.**

 **In Every I.D.**

 **Across 16 X-Sections.**







# Gland Packing



**Burgman**  
Araflon

**AES**  
210

**John Crane**  
2001

**Latty**  
4788



**James Walker**  
Duramid

**Vulcan Gland Packing Code**  
VK4B

**Depac**  
720

**Chesterton**  
1740

**Teadit**  
5000

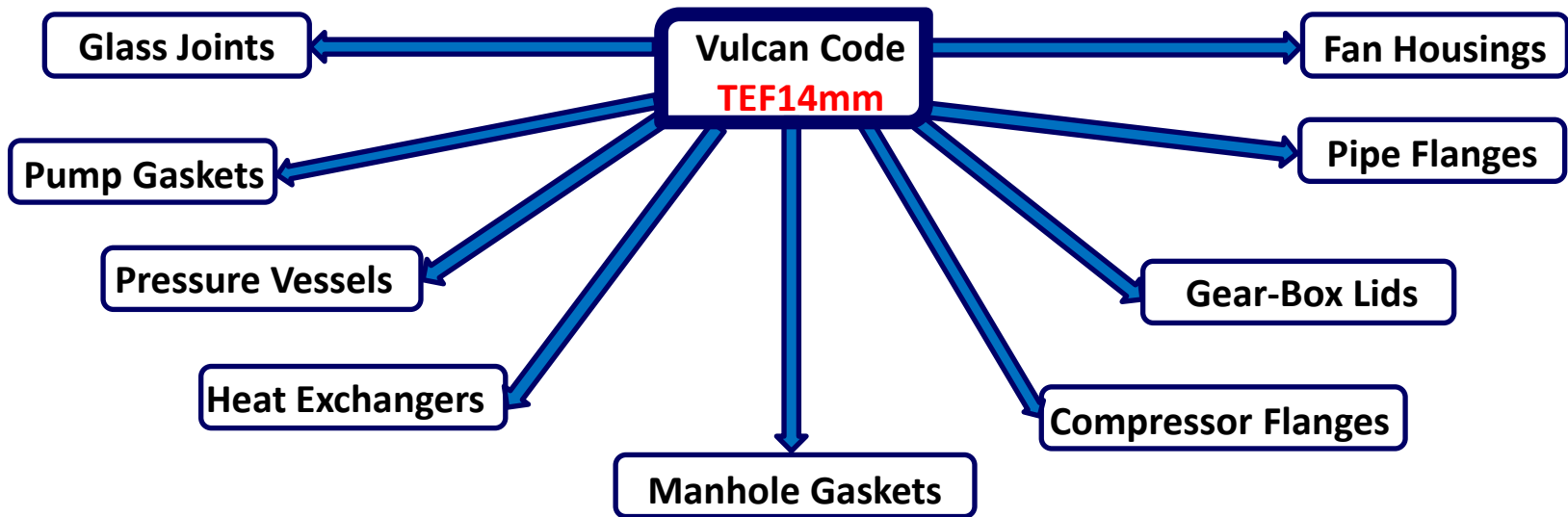


**20 STYLES - IN ALL STANDARD SIZES – GUARANTEED EX-STOCK**



# Tefcan Joint Sealant, Tape And Tefcan Sheet

TEFCAN is 100% PURE Expanded PTFE, available as Sheet, Gasket Tape and Joint Sealants, in a soft, flexible form that compresses to perform a gas tight seal.



**FULL RANGE OF STANDARD SIZES – IN ALL 3 PRODUCTS – GUARANTEED EX-STOCK**





# Vulcan Business Ethics Policy



**Ethics;** To always operate with the highest Integrity, at the forefront of our industry.



**Excellence;** Our only acceptable standard – even then, we still strive for continuous improvement.



**Effective;** Driven by a bias for Action.



**Efficient;** Seeking the simplest and most assured solutions, for all of our challenges.



**Ethical;** Have sound morals and believe in what we do.



**Empowerment;** Exceptional people and partners.



**20/20 Vision;** V.E.L. alone will be a £20 (€25/\$30) million T/O Company by 2020; as one of the Key Companies, within the overall Global Vulcan Group.



# Vulcan Company Introduction

With over four hundred employees, in our Production and Service Centres on 3 Continents, Vulcan specialise in the design automated manufacture and electronic distribution of;

-  Standard Mechanical Seals
-  FEP/PFA Encapsulated 'O'-Rings
-  Gland Packing's
-  Expanded PTFE Gasket Materials

Vulcan Primarily Focus On Being The World's Best

**"Standard Mechanical Seal"  
and "Encapsulated 'O'Ring"**

Manufacturer And Supplier.

In order to do this, we have a two part company strategy;





# Vulcan's Vision: Our Strategic Plan

**Part 1.** To be the Best Global "Standard Mechanical Seal" Company.  
We have achieved this by;

- 1= ADVANCED PRODUCTION** = Having the most advanced, most integrated, most efficient manufacturing facilities.
- 2= MATERIAL QUALITY** = Specifying and manufacturing only superior quality materials; primarily produced in-house.
- 3= ELECTRONIC AUTOMATED QUALITY** = Utilising extremely intensive and extensive Electronic Quality, Inspection and Work Documentation Systems.
- 4= DESIGN** = Producing Seal Replacement Designs that are superior to our competitors and to the original designs.
- 5= RANGE** = Having **the** widest range of Mechanical Seal Types, from any Supplier or Manufacturer, with replacements for all standard Seals, in every Global Market.

**In short, to be the best manufacturer**



# 1 = Advanced Manufacturing Facilities



**Vulcan's Main Factory: 17,000 Square Metres.**



**World Class Facilities and People:  
5 Production Centres on 3 Continents.**



**ISO 9001- 2008 Approved:  
Production and Distribution.**



**Modern, Advanced, CNC,  
Automated Production.**



**Electronic Production Control,  
Inspection and Systems.**





-  17,000 Square Metre Facility
-  Advanced, CNC, Automated Production
-  Electronic Inspection/Production Control
-  Quality and Reliability Assured

# Main Factory



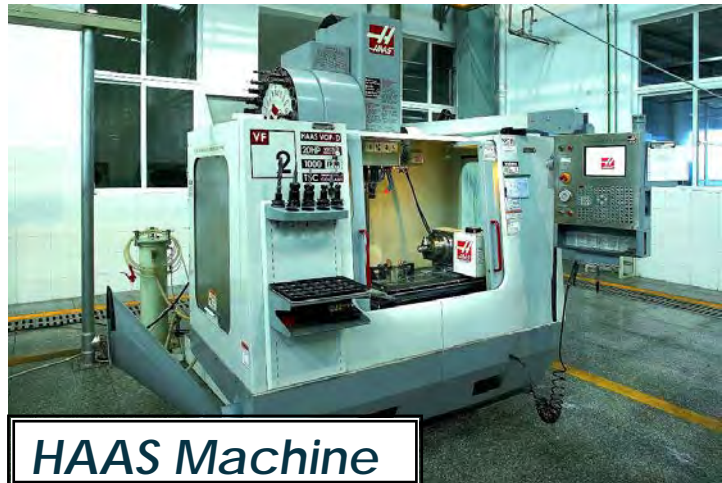




# Vulcan's Automated Machining



**CNC Machine Shop**



**HAAS Machine**



**Four Axis Machine**



**Two Axis Machine**





# Main Vulcan CNC Machine Shop







## **2=** Vulcan's Material Quality

-  **Most Vertically Integrated Seal Manufacturer**
-  **Materials and Components made In-House**
-  **Best Material Specification Standards**
-  **Absolute Cost and Quality Control**
-  **Carbide Materials; A Sales Opportunity.**
- Two Material Joint Ventures;**
-  **ATLAS – Silicon Carbide + Powder**
-  **HAIMI – Seal Parts and Springs**







# SIC Materials Production



*SIC Furnaces*



*SIC Powder Vortex*



*Powder Treatment*



*2 Of 36 CNC Grinders*





# ATLAS Silicon Carbide Factory







# HAIMI Materials: Factories







**3 = Quality and Reliability Assured**



**Comprehensive Inspection Documentation**



**Unique SKIS Assembly Inspection Control**



**Electronic Inspection/Production Control/  
Supply and Distribution**



**Quality is Paramount Ethos**

***THUS, A VULCAN SEAL  
MEANS QUALITY AND  
RELIABILITY ASSURED***







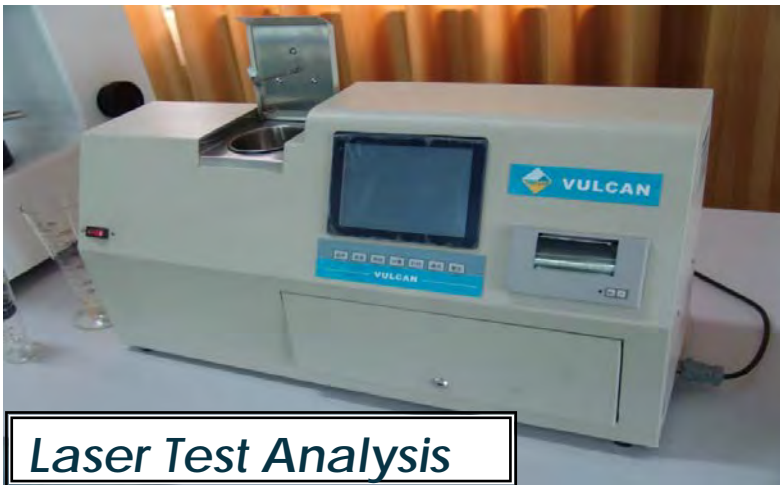
# Vulcan's Inspection Facilities



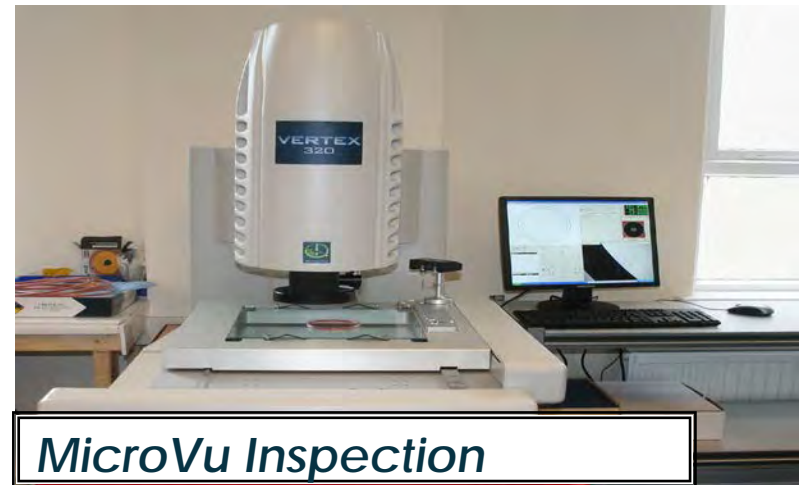
*Electronic Inspection*



*CMM Inspection*



*Laser Test Analysis*



*MicroVu Inspection*





# Vulcan's Test Facilities



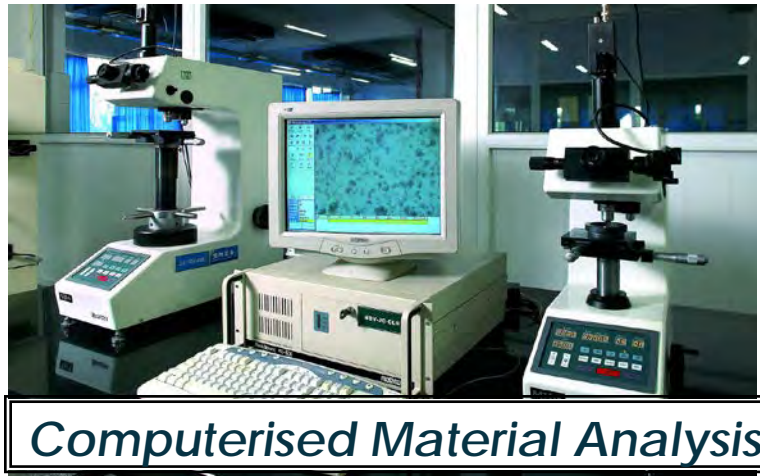
*Rotary Test Rig*



*Dedicated Test Room*



*Pressure Test Machine*



*Computerised Material Analysis*





# 4= Vulcan's Product Design



Comprehensive Engineering Standards



V.P.N. Electronic Drawing Management



Three Design Departments



Superior Design Policy



Quality Materials

**VULCAN Mechanical Seals**

**Seal Compatibility**  
Vulcan Type 3 - Burgmann® M2  
Vulcan Type 3 - Burgmann® M2  
Vulcan Type 3 - Burgmann® M2  
Vulcan Type 25 - Burgmann® M25

**Sectional Line Drawing**

**Design**  
A single conical spring, stainless steel... provides a strong and effective seal... suitable for many duties, including... media and hygienic...

**Reliable**  
Robust, non-clogging, self-adjusting and durable, giving highly effective performance.

**Adjustable**  
Can be specially produced to any working length and seal housing dimensions.

**Performance**  
With a... groove providing performance benefits, compared to competitor designs that use a separate drive ring.

**Resilient 'O'-Ring**  
... design results in a... and versatile... isolates both... and vibrations.





# Example Page from Vulcans Seal Design Improvements Presentation.



## Type A1 Description

Robust, long working length, highly accommodating and reliable, rubber diaphragm balanced seal, which provides enhanced seal capability, performance and life. Improved design features further enhance this popular seal. Suitable for common UK and Euro housing dimensions.

**Seal Compatibility**  
(European Based manufacturers)  
John Crane® Type 1A

### Balanced

The Vulcan A Series range seals are specially balanced to a recognised industry standard, to reduce heat and friction at the seal interface. This allows for higher operating parameters to be achieved and prolongs seal life. Our competitor's seals are not balanced as standard and therefore do not offer the full benefits of a balanced seal.

### Base Plate Retaining

Vulcan A1 to A5 seal types retain the base plates on the coil as standard, providing support during seal fitting.



### Cross Sectional Line Drawing



### Bellows Disk

The Vulcan A Series seal family includes a bellows disk, as a standard design feature. This component provides radial support to the bellows, ensuring no bellows/shaft contact, which could result in seal wear and possible hang-up. This component is routinely omitted in the Crane® USA designs but is included on UK/European Type 1A and 2. Without the disk, the bellows ID's are very close to the shaft and can be problematic, due to bellows extrusion and shaft contact/stiction.

### Seal Face Retaining

The Vulcan seal face is retained by inert grease and NOT glue. Some seal suppliers chose to utilise glue which can create a leakage path, and on chemical attack, the glue can migrate into seal components and product.

### Bellows Design

The flexible bellows compensates for primary seal face wear and machinery misalignment, such as shaft end float. The Vulcan A Series bellows contains an additional drive ring supporting lip, to ensure that the drive ring is held in a positive position, away from the bellows. This feature is not included in many alternative designs, which can result in possible bellows interference, affecting seal performance.

BALANCED DIAPHRAGM





# 5 = Vulcan's Seal Range



**The Widest and Most Assured Stock Range From Any Seal Manufacturer.**



**Guaranteed Ex-Stock Policy**



**140 page Mechanical Seal Manual, showing the Guaranteed Stock part of our range only.**







# Vulcan's Vision Our: Strategic Plan

**Part 2:** To be the Electronic Seal Warehouse to the Trade.

- 1=** Integrated, Electronic, Distribution and Logistics; with Service Centres on Three Continents.
- 2=** Distributor Specific Web Portal
- 3=** Distributor Led Marketing
- 4=** Unbeatable Product, Service & Prices
- 5=** O.E.M. Seal Development

To be the World's Premier Supplier, of the best Seal Product





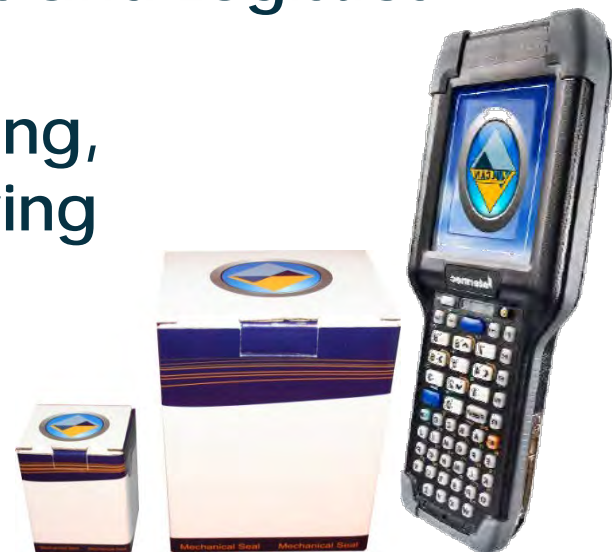
# 1 = Vulcan Electronic Distribution

 Complete, Integrated, Electronic Processes

 Bar-Coded, Branded or Unbranded, Product Packaging

 Computer Controlled Stock Carousels and Logistics

 The Electronic Seal Warehouse: Leading, The Mechanical Seal Industry. Supplying distributors in over 90 countries







# Vulcan's Service Centres



*Europe*



*America*



*ASIA*



*Automated Supply*





Vulcan Seals Inc.







# Vulcan Seals Inc. Service Team



**First of three planned Total Service Centres within the North American Continent.**



**8,000sq.ft. Service Facility with extensive stocks.**








**Extends Vulcan's Stock Guarantee and Local Service to the North American market.**





# 2 = V.E.B.; Vulcan Electronic Business

-  Unique, "Fast and Vast", Distributor Specific Web Portal.
-  Outstanding "Enquiry/Supply and Information" Site
-  Industry Leading, Company and Product, Data-Base
-  Instant Comprehensive Information: Whatever, Wherever and Whenever.
-  View Stock and Nett Price: Place Orders, Track Supply, etc. etc.







Search stock and price using dropdowns

Product Group:

Type:

Search stock and price by entering product code

Product Group:  Free Text:

Please specify a free text query to search the stock database...

Warnings

Warning	Clear

Favourite Products

Product	Description
0288.1688.E.P.	SEAL AND STAT
0200.20.N.C.	SEAL AND STAT
0200.10.N.C.SEAL	ROTARY ONLY
0200.20.N.C.	SEAL AND STAT
0200.20.N.C.	SEAL AND STAT
PFASS.26/0107Q	FEP SILICONE
VC51.1/8	1/8" X 8MTR
0120.120.R.E.B.	SEAL AND STAT

OEM Database Search

Manufacturer:  Pump Model:  Free Text:

OEM Part No	Manufacturer	Pump Model
843563	I.T.T. FLYGT	0250.CAB52.22.NIT

Invoicing And Statements

Invoice Number	Order ID	Our Order ID	Value	Payment Due Date
<input type="checkbox"/> include Closed Invoices.				

Show Invoices Between:  and

Outstanding Order Summary

Order ID	Our Order ID	Date Received	Status	Administrator

24/7 Tracking of your order progress keeps you in control.

Fep Database

Material:

Your shopping cart is currently empty. Please locate a product and add to cart to place an order...



# 3 = Vulcan Seal Marketing



Distributor Led Marketing; Any Brand Packaging.



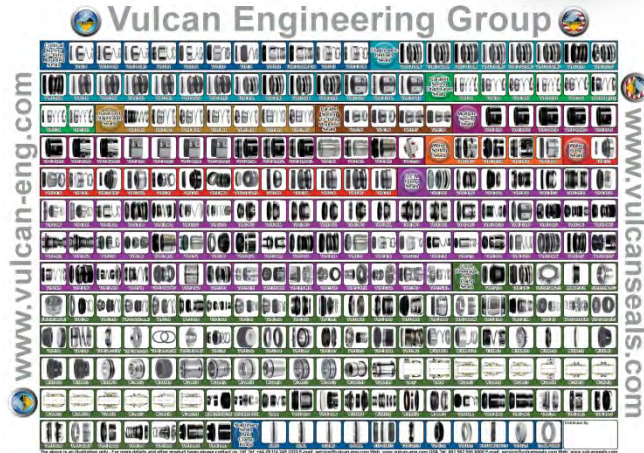
Electronic Inspection, Brochure, Design Product And Group Commercial; Presentations.



Brochures, Posters, Display Cases, Seal I.D. Suite.










Standard Distributor Packs.







## 4= Unbeatable Product, Service and Prices

-  Assured excellence in Product Quality Standards and Reliability, founded upon a Total Quality Ethos throughout every part of our business, an ethos that is paramount.
-  Reliability from design, electronic manufacture / inspection, logistics and constant innovation. We ensure that Quality endures long after the initial product cost is forgotten.
-  Vulcan Seals Generally Out-Perform and Out-Last the Original (and certainly copyist) Designs.
-  Our extra-ordinarily Extensive Range and Electronically Assured Ex-Stock Supply, ensure the seals are there; whenever you need them.
-  All Commercial Enquiries are Guaranteed to be Responded Within 2 Working Hours.
-  All Information and Pricing available instantly on your unique Web Portal.
-  Vulcan Price Guarantee: not just price. But we do Guarantee to be The Lowest True Cost Supplier. The Most Competitive, Lowest Total Cost, Provider of Quality Seals.





# The Vulcan Stock Guarantee



Unique, Industry Leading, Stock Assurance Guarantee.  
In fact, the only one.

Covering All Types, Sizes, 3 Elastomers  
and 3 Face Combinations of M.S.



Incorporating every I.D. and  
X-Section (1.78 to 7.00mm) of FEP.

All Standard Packing and Tefcan Sizes are;



**Guaranteed Ex-stock**













# 5 = Vulcan OEM Seal Supply

In addition to our standard range of stock seal types, Vulcan also manufactures and stock many thousands of individual seal designs, for specific pumps and applications.

We are leading providers of seals for O.E.M Manufacturers, due to the following principal advantages;

-  A Can-Do Philosophy linked to a commercial readiness to produce specials.
-  The best Designs, Quality, Service and Price available from any one Source.
-  In-house specification and production of practically all materials, components and even the tools/moulds for the same.
-  Ability to design and manufacture, almost any, seal to customer requirements.
-  Agreements to produce special designs/details, that are not made available for sale to anybody else. Unique commercial value to the OEM.
-  We offer O.E.M's their own unique seal, designed and optimised for their applications, branded as their own and protectable as their own.



# V.E.B.; The Very Best

## Vulcan Committed to Excellence



Product Design, Materials, Quality, Production, Range, Stock, Service And Electronic Supply



Supreme Central Position In World Market



Specials, O.E.M's, Niche Markets



Individually Tailored Pricing:  
Most Competitive Supply







The Way Forward



**The Seal of Excellence**



## Summary

**Vulcan are dedicated to being the;**

**“World’s Best Standard  
Mechanical and Encapsulated  
Seal Manufacturer”**

**THANK YOU**