



# Vulcan Stock O.E.M. Pump Seals



## Section 11a



# VULCAN® O.E.M. SEALS

**We are the seal manufacturer most likely to have what you need direct from our stock**

Vulcan are renowned for our complete range of Seal designs and guaranteed stocks. We can supply the vast majority of global seal requirements from stock. The following Section 11 gives an indication of the most commonly requested special dimension seals supplied ex-stock by Vulcan. Section 11A covers general industrial seals, Section 11b focuses on food, beverage and dairy industry seals. Seal identification is simplified by the images, dimension table, pertinent O.E.M. information and alphabetical listing by O.E.M. marque. In addition, extensive further information is readily available on our O.E.M. section price list and in the massive O.E.M data-base within our Web Portal.

Therefore, if you cannot see what you require, or are unsure of your requirement, please contact us, or your supplier.

The Vulcan range of O.E.M. specific seals is constantly expanding and this brochure section is thus dated and particularly, it only covers the "Guaranteed Stock" portion of our wider existing, tooled, designed and produced previously, range, (or those in future development).

Vulcan are leading providers of seals for O.E.M. Equipment due to the following principal advantages;

-  Ability to design and manufacture, almost any, seal style to customer requirements.
-  In-house production of practically all materials, components and the tools/moulds for the same.
-  Vertically integrated, in-house design, production and quality control, allows small runs and fast turn-around.
-  A Can-Do Philosophy linked to a commercial readiness to produce specials.
-  Agreements to produce a specific design/detail, that are then not made available for sale to anybody else.
-  The best Range, Quality, Service and Price available from any one manufacturer.

O.E.M. Index For Section 11—This section is in O.E.M. Alphabetical order

O.E.M.	PAGE	O.E.M.	PAGE	O.E.M.	PAGE
A.B.S. ®	93	Fristam ®	119	Osbourne Craig ®	116
A.P.V. ®	114	G.E.A. Tuchenhausen ®	127	Puma ®	115
Alfa Laval ®	110	Godwin ®	98	Rosista ®	116
Allweiler ®	94	Grundfos ®	99	Sarlin ®	99
Andritz ®	94	Haigh ®	101	S.P.P. ®	105
C.S.F. Inox ®	113	Hidrostal ®	102	Sterling Sihi ®	105
D.D.M.M. ®	117	Hilge ®	124	Tetra-Pak ®	110
Ebara ®	95	I.M.O. ®	101	Thune-Eureka ®	95
E.M.U. ® (Wilo ®)	106	Inoxpa ®	125	Tri-Clover ®	112
Eureka ®	95	Johnson S.P.X. ®	126	Tsurumi ®	105
I.T.T. Flygt ®	97	Kolmeks ®	101	Viking ®	106
I.T.T. Jabsco ®	125	K.S.B. ®	104	Wild Indag ®	117
I.T.T. Lowara ®	103	National Oilwell ®	105	Wilo ®	106

## GUARANTEED STOCK MATERIALS KEY

The guaranteed stock materials for the O.E.M. and food sections are shown utilising a key system; for example;   304. All letters shown are the Vulcan standard elastomer and face combination codes, please refer to Pages 18 / 19 for more information.

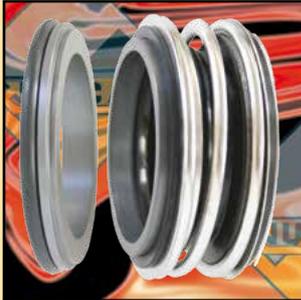
KEY ICON	WHAT THE KEY ICON REPRESENTS
	Circular icons indicate which elastomers are guaranteed in stock, i.e. "V" for Viton, "N" for Nitrile and "E" for E.P.
	If more than one elastomer is guaranteed, all the relevant code letters are shown.
	Hexagonal icons indicate the rotary and stationary face combination codes which are guaranteed in stock, i.e.; "C" for Carbon vs Ceramic.
	Seals with multiple guaranteed stock face materials are shown with two or more hexagonal icons.
	Rectangular icons indicates the metallurgy utilised within the guaranteed stock seals.

The materials codes shown, on each page in this Section 11a following, are solely for our equivalents to the most popular known O.E.M. original seal specifications. Other materials are usually, also in stock or, are readily available.



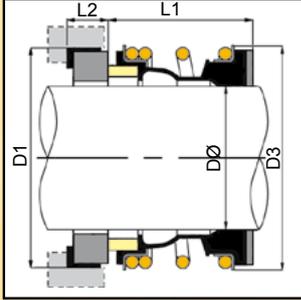
# VULCAN® SEALS TO SUIT A.B.S.® PUMPS

## TYPE 195 TO SUIT AFP- SERIES PUMPS N SS 304



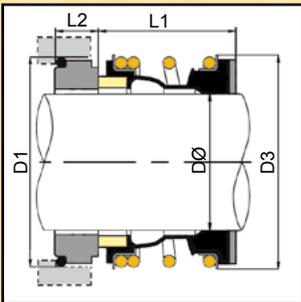
Elastomeric bellows seals for lower position in many common submersible pumps, including "AFP"-ranges. Each is supplied with a back-washer, unless stated. Commonly paired with either Type 282, Type 1577 or Type 1632 upper seals, details of which are below. For identification purposes, please cross-reference the O.E.M. part number shown below, or enquire.

The first table shows those size assemblies stocked and supplied with a Boot Mounted Stationary. Whilst the second table shown is for those with an 'O'-Ring Mounted Stationary.



### VULCAN STANDARD SIZES

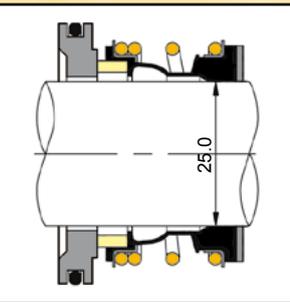
SHAFT SIZE DØ	SIZE CODE	D1	D3	L1	L2	O.E.M. PART NUMBER
15.00	0150	35.00	28.00	17.00	4.00	11110172
20.00	0200	35.00	36.00	21.50	7.50	11110001
25.00	0250	40.50	41.00	22.50	8.50	11110095
30.00	0300	50.80	47.00	24.00	9.50	11110096
40.00*	0400.B	58.00	60.00	33.50	11.00	11110144
45.00	0450	65.50	64.30	30.50	12.50	11110093
55.00*	0550	76.20	78.00	37.50	13.50	11110135
80.00	0800	104.00	106.50	40.00	15.00	11110051



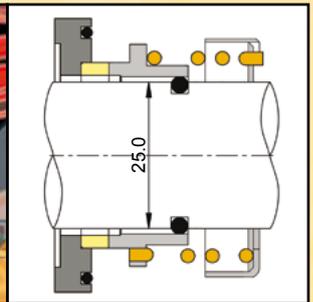
### VULCAN STANDARD SIZES

SHAFT SIZE DØ	SIZE CODE	D1	D3	L1	L2	O.E.M. PART NUMBER
40.00	0400	58.00	60.00	33.50	11.00	11110055
48.00	0480	67.00	69.00	30.50	10.00	11110003
65.00	0650	86.00	90.00	39.00	12.00	11110050
90.00	0900	114.00	125.00	46.30	13.00	11110052
100.00	1000	123.30	130.00	46.00	13.30	11110053

## TYPE 195P (UPPER SEAL) N Q 304

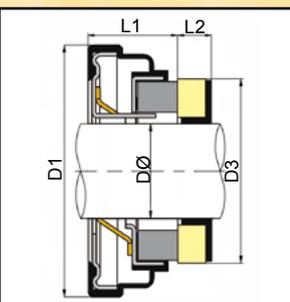


## TYPE 820 (LOWER SEAL) VN S 304



Upper and lower 25 mm shaft size seals for use together, but available separately, to suit various A.B.S.® submersible pumps, including certain "JUMBO", "SP" and "RP" series, which were previously supplied as the "Pumpex®" brand.

## TYPE 282 TO SUIT AF- AND PIRANHA SERIES PUMPS N P 304



Rubber-encased upper seals primarily for "Piranha-M or -S" range submersible pumps. The lower seal is normally 25mm or 30mm Type 195 seal, detailed above. For identification purposes, please cross-reference the O.E.M. part number, or enquire.

SHAFT SIZE DØ	SIZE CODE	D1	D3	L1	L2	O.E.M. PART NUMBER
25.00	0250	52.00	41.30	12.00	5.00	11100027 & 28
30.00	0300	57.00	41.30	12.00	5.50	11100029

Advice on our Material Codes shown above and our standard coding system are on Pages 91 & 18 of this brochure. For ease, please refer to our O.E.M. Price List where you will find a clear list, filterable by either the O.E.M.'s name or Vulcan Seal Type number, showing all common materials and stock codes, pricing and Stock Guarantee.

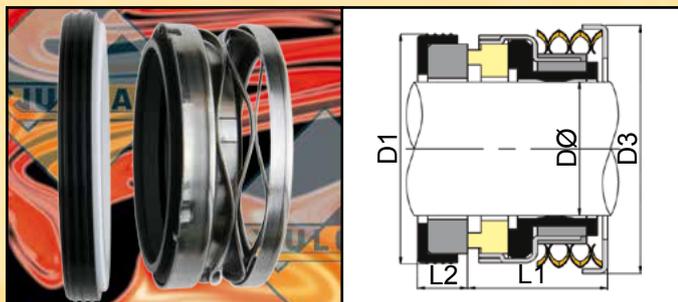
All seals / sizes / materials detailed above are guaranteed ex-stock, unless asterisked. For any other sizes, or identification by X-reference, please refer to the on-line O.E.M. database, or contact us with your requirements.



# VULCAN® SEALS TO SUIT A.B.S.® PUMPS

Vulcan offer a wide range of seals to suit A.B.S.® pumps and mixers, especially submersible pumps.

## TYPE 1577 TO SUIT AFP SERIES PUMPS

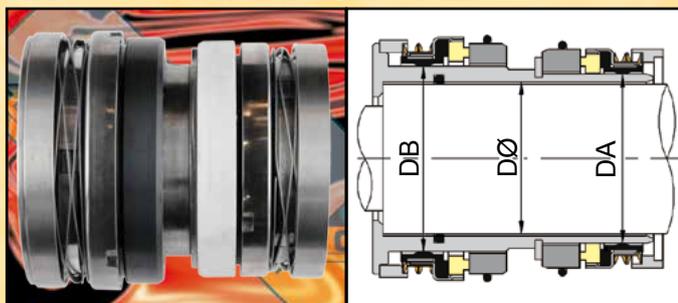


Elastomer diaphragm seals with sinusoidal wave-springs. 50mm size is routinely used as upper seal in certain "AFP" range submersible pumps, with 45mm Type 195 as the lower seal.

The 65mm Type 1577 is a lower seal, and is normally paired with the 55mm Type 195. For identification purposes, please cross-reference the O.E.M. part number shown below, or enquire.

SHAFT SIZE DØ	SIZE CODE	D1	D3	L1	L2	O.E.M.	GUARANTEED STOCK MATERIALS
50.00	0500	72.00	66.10	19.00	10.00	11100083	N A 304
65.00	0650	85.00	86.50	27.00	13.00	11110173	N S 304

## TYPE 1578 TO SUIT K-SERIES PUMPS

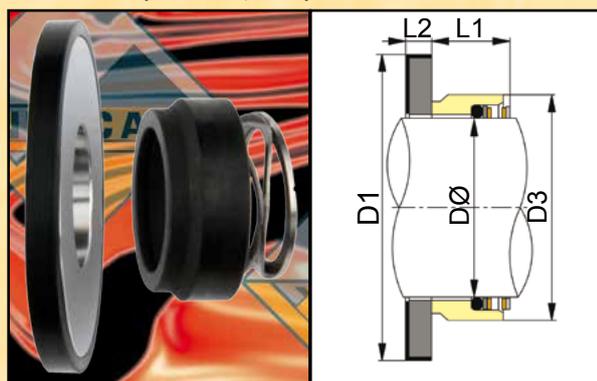
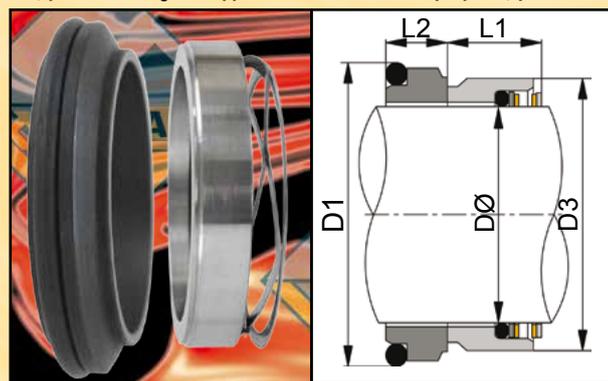


Elastomer diaphragm seals with sinusoidal wave-springs, supplied as upper and lower seals, ready mounted on a shaft sleeve, for installation directly into the bell-chamber style housing of A.B.S.® / Pumpex® "K" series pumps. For 25mm, 32mm or 35mm shaft sizes, please enquire.

SHAFT SIZE DØ	SIZE CODE	DA	DB
50.00	0500	55.00	60.00

## TYPE 1632 TO SUIT AFP- SERIES PUMPS

'O'-Ring mounted wave-spring seals, routinely utilised in the upper-position of "AFP" series submersible pumps. The lower seal will normally be of Type 195, please see Page 92 opposite. For identification purposes, please cross-reference the O.E.M. part number, or enquire.



NB:- SHAFT SIZE 20mm (image above) HAS BOOT MOUNTED STATIONARY

SHAFT SIZE DØ	SIZE CODE	D1	D3	L1	L2	O.E.M.	GUARANTEED STOCK MATERIALS
20.00	0200	52.00	31.00	13.50	6.00	11100066	N Q 304
48.00	0480	67.00	62.00	15.80	14.50	11100058	N P 304
65.00	0650	86.00	79.00	17.80	15.30	11100059	N P 304
80.00	0800	104.00	98.00	19.50	16.30	11100053	N P 304
90.00	0900	114.00	105.00	19.50	16.30	11100055	N P 304
100.00	1000	123.00	116.00	21.00	17.10	11100052	N P 304

Advice on our Material Codes shown above and our standard coding system are on Pages 91 & 18 of this brochure. For ease, please refer to our O.E.M. Price List where you will find a clear list, filterable by either the O.E.M.'s name or Vulcan Seal Type number, showing all common materials and stock codes, pricing and Stock Guarantee.

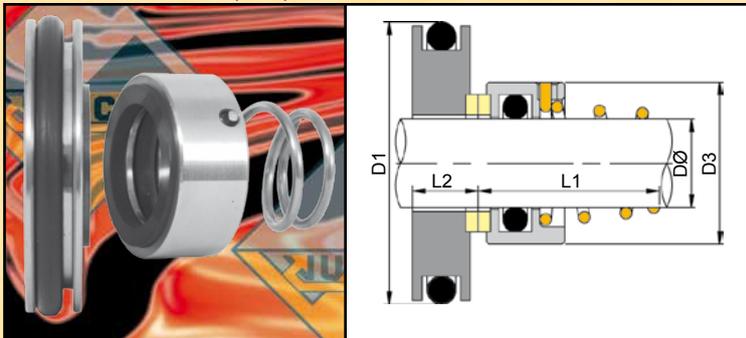
All seals / sizes / materials detailed above are guaranteed ex-stock, unless asterisked. For any other sizes, or identification by X-reference, please refer to the on-line O.E.M. database, or contact us with your requirements.



# VULCAN® SEALS FOR ALLWEILER® PUMPS

Vulcan manufacture and stock a wide range of seals to suit Allweiler® pumps, including many standard range seals, such as the Type 8DIN and 8DINS, Type 24 and Type 1677M seals. The following are examples of specific dimensions seals designed to suit the internal dimensions of certain Allweiler® pumps only.

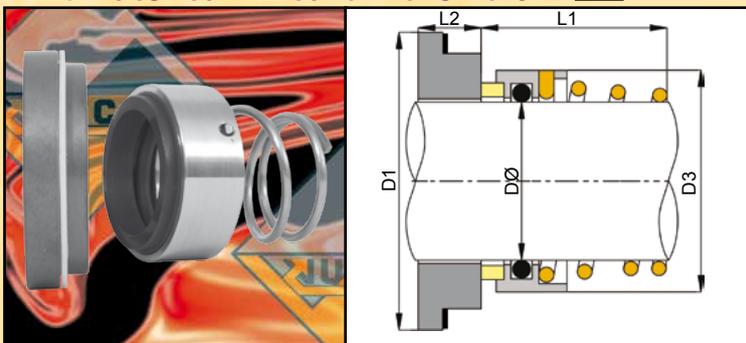
## TYPE 8W TO SUIT BAS, SPF, ZAS AND ZASV SERIES PUMPS (V) (H) (D) 304



'O'-Ring mounted conical spring seals with distinctive stationaries, to suit the seal chambers of "BAS, SPF, ZAS and ZASV" series spindle or screw pumps, commonly found in ship's engine rooms on oil and fuel duties. Clockwise rotation springs are standard.

SHAFT SIZE DØ	SIZE CODE	D1	D3	L1	L2
15.00	0150	38.00	24.00	15.00	8.00
20.00	0200	45.00	31.00	19.50	8.50

## TYPE 8X TO SUIT SOB AND SOH SERIES PUMPS (V) (D) 304

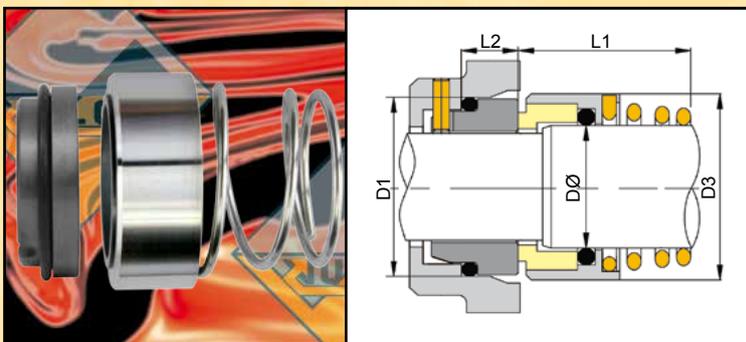


'O'-Ring mounted conical spring 22mm seals with distinctive gasket mounted seat rings, to suit "SOB" and "SOH" series pumps, commonly found in ship's engine rooms.

Clockwise rotation springs are standard.

SHAFT SIZE DØ	SIZE CODE	D1	D3	L1	L2
22.00*	0220	44.00	33.00	21.50	11.25

## TYPE 82A TO SUIT L- AND LV- SERIES PUMPS (E) (D) 304

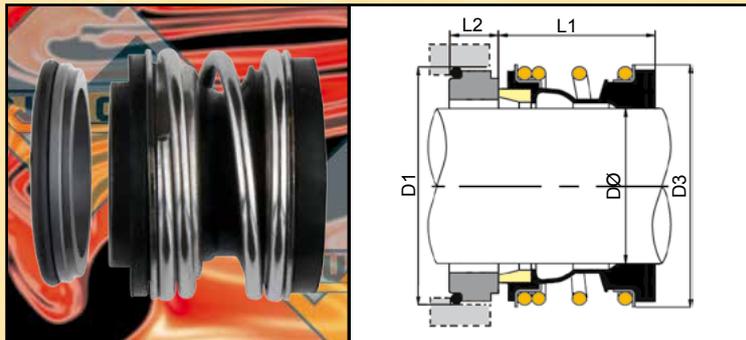


'O'-Ring mounted conical spring, stepped shaft, balanced seals with 'O'-Ring mounted stationaries, to suit specific dimensions of commonly marine-application "L and LV" series pumps. "LV" pumps have vertical shafts and only require one clockwise rotation seal, but "L-" series are horizontal, double-ended pumps and require one clockwise and one anti-clockwise seal per pump.

Many Allweiler pumps accept Vulcan standard range seals, such as types 8DIN and 8DINS. Some of the seals, are detailed here or in earlier sections of the catalogue, if you can not find what you require, please contact us with the O.E.M. details for cross-reference on our database.

SHAFT SIZE DØ	SIZE CODE	D1	D3	L1	L2
28.00*	0330	43.00	46.00	39.50	8.5
30.00*	0350	45.00	49.00	39.50	9.0
45.00*	0500	63.00	66.00	55.00	9.0

## VULCAN® TYPE 198 SEALS TO SUIT ANDRITZ® PUMPS (EV) (AS) (SS) 304



'O'-Ring mounted rubber bellows seals to DIN24960 / EN12756 dimensions, but with a balanced rotary face profile and special stationary profiles, to suit service in Andritz® "S-" series centrifugal pumps, commonly found in paper and cellulose processing.

SHAFT SIZE DØ	SIZE CODE	D1	D3	L1	L2
38.00	0380	56.00	57.30	36.00	9.00
48.00	0480	66.00	69.00	36.00	9.00
53.00	0530	73.00	76.00	36.50	11.00
65.00*	0650	85.00	90.00	41.50	11.00
90.00*	0900	115.00	126.00	51.00	14.00

Advice on our Material Codes shown above and our standard coding system are on Pages 91 & 18 of this brochure. For ease, please refer to our O.E.M. Price List where you will find a clear list, filterable by either the O.E.M.'s name or Vulcan Seal Type number, showing all common materials and stock codes, pricing and Stock Guarantee.

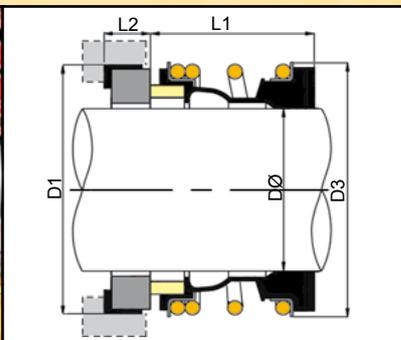
All seals / sizes / materials detailed above are guaranteed ex-stock, unless asterisked. For any other sizes, or identification by X-reference, please refer to the on-line O.E.M. database, or contact us with your requirements.



# VULCAN® SEALS FOR EBARA® PUMPS

Vulcan offer a wide range of seals to suit Ebara® pumps, especially European models, including many standard range seals such as the Type 13, 13DIN and Type 126 seals. The following are specific dimension seals designed to suit the internal dimensions of certain Ebara® pumps.

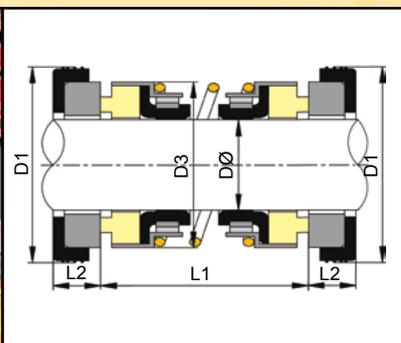
## TYPE 198 TO SUIT EVM- AND EVMW- SERIES PUMPS V SS D 316



Rubber-bellows seals with boot mounted stationaries and Stainless Steel spacer-rings, to suit internal dimensions of Ebara® "EVM" and "EVMW" vertical multi-stage pumps.

SHAFT SIZE DØ	SIZE CODE	D1	D3	L1	L2
0.500	0127	23.00	24.00	15.00	8.60
16.00	0160	26.00	27.10	17.00	10.00
20.00	0200	35.00	36.00	21.50	11.50
28.00*	0280	43.00	47.00	26.50	10.00

## TYPE 260A TO SUIT BEST-, RIGHT- AND DW- SERIES PUMPS V WA 304

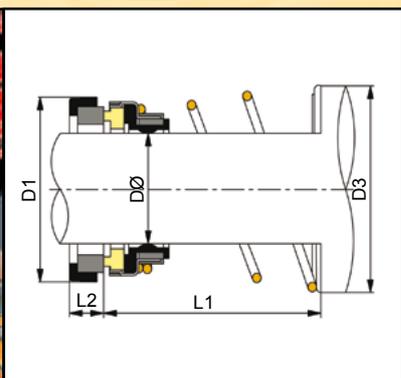


Rubber diaphragm double-ended seals with boot mounted stationaries, to suit the internal dimensions of Ebara® "Best-", "Right-" and "DW-" series, small submersible pumps. This common seal type is also utilised by other pump manufacturers for small portable submersible pumps.

SHAFT SIZE DØ	SIZE CODE	D1	D3	L1	L2
14.00	0140	30.00	20.00	26.00	5.00
15.00	0150	30.00	20.00	26.00	5.00
16.00	0160	30.00	20.00	26.00	5.00

# VULCAN® SEALS TO SUIT EUREKA® PUMPS

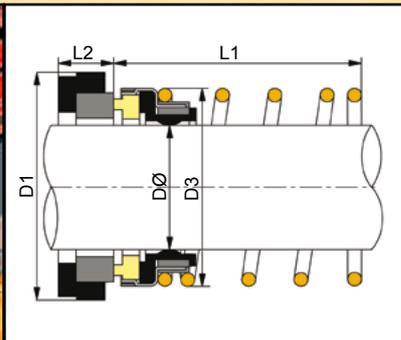
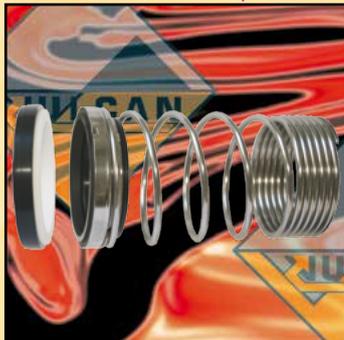
## TYPE 277 TO SUIT CG- SERIES PUMPS N G 304



Vulcan manufacture and stock a variety of standard range seals to suit various Eureka® pumps (now part of Hamworthy®, formerly Thune-Eureka®). Type 277 is an elastomer diaphragm seal, with reverse taper seal to specifically suit the "CG-" series centrifugal pumps, widely used in marine applications.

SHAFT SIZE DØ	SIZE CODE	D1	D3	L1	L2	O.E.M. REF.
29.00	0290	47.63	46.00	32.00	11.99	CGA
35.00	0350	53.98	53.00	31.50	11.99	CGB
41.00	0410	60.35	59.30	32.50	11.99	CGC
48.00	0480	66.70	66.00	38.50	11.99	CGD
54.00	0540	73.05	70.00	41.00	13.50	CGE

## TYPE 278 TO SUIT CAC, CAV AND CAX SERIES PUMPS N G 304



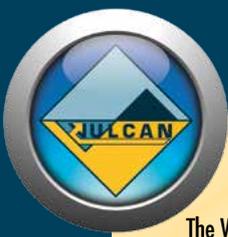
Elastomer diaphragm seals to 2.3/8" shaft size, with extended taper coil, to suit internal dimensions of Eureka® "CAC, CAV and CAX-" series centrifugal pumps, widely used in marine applications.

SHAFT SIZE DØ	SIZE CODE	D1	D3	L1	L2
2.375	0603	79.40	82.00	82.60	13.50

Advice on our Material Codes shown above and our standard coding system are on Pages 91 & 18 of this brochure. For ease, please refer to our O.E.M. Price List where you will find a clear list, filterable by either the O.E.M.'s name or Vulcan Seal Type number, showing all common materials and stock codes, pricing and Stock Guarantee.

All seals / sizes / materials detailed above are guaranteed ex-stock, unless asterisked. For any other sizes, or identification by X-reference, please refer to the on-line O.E.M. database, or contact us with your requirements.

11  
a



# TYPE 06 RANGE FOR FLYGT® PUMPS

The Vulcan range of Type 06 seals are designed as superior replacement seals for Flygt® and Grindex® submersible pumps and mixers, with no pump modifications necessary. The Type 06 designs require no additional fitting tool and most types have pre-set working lengths, operated by a removable setting clip for easy installation. All Vulcan Type 06 seals are stocked and fitted with optimal Nitrile elastomers and Carbon vs. T.C or SiC faces for Upper Seals and optimum Viton® elastomers with T.C vs. T.C or SiC vs. SiC faces for the lower seals. The stock codes tabulated below are for a complete seal and stationary.

Vulcan also stock Lip Seals and sets of 'O'-Rings for Flygt® pumps to complement our Type 06 range. The contents of each set is dependent upon pump model. The Vulcan code is constructed from the shaft size of the upper seal, our type code "06", and the Flygt® pump model preceded by a "V", and the material letter for the 'O'-rings, either "N" or "V". e.g; To order Vulcan 'O'-Ring set for pump model "2102-040", use Vulcan code "0220.06.N.V2102-000".

## EXAMPLE UPPER SEAL DESIGNS AND CODES



0200.06G.U.N.E.



0350.06M.U.N.E.



0450.06O.U.N.E.



0600.06Q.U.N.E.

Flygt® Pump Model Series	Seal Shaft Sizes	Vulcan Upper Seal Stock Code	Vulcan Lower Seal Stock Code	Vulcan 'O'-Ring Set Code	Vulcan Additional Parts Code
2004, 2008, 2012, 2016	15mm	Lower Seal Only	0150.06D.N.Z.		
2024	20mm	0200.06A.U.N.E.	0200.06A.L.V.H.		
2050, 2052	15mm	Lower Seal Only	0150.06D.N.Z.		
2060	20mm	0200.06G.U.N.E.	0200.06G.L.V.H.		
2066	20mm	0200.06A.U.N.E.	0200.06A.L.V.H.	0200.06.N.V2066-000	
2070	22mm	0220.06E.U.N.E.	0220.06E.L.V.H.	0220.06.V.V2070-000	
2071	22mm	0220.06F.U.N.E.	0220.06F.L.V.H.	0220.06.V.V2070-000	
2075	20mm	0200.06A.U.N.E.	0200.06A.L.V.H.	0200.06.N.V2075-000	
2082 330	28mm	0280.06I.U.N.E.	0280.06I.L.V.H.	0280.06.N.V2082-330	
2084	35mm	0350.06K.U.N.E.	0350.06L.L.V.H.	0280.06.N.V2084-000	
2090, 2125, 2140	28mm	0280.06I.U.N.E.	0280.06I.L.V.H.	0280.06.N.V2125-000	
2135	35mm	0350.06K.U.N.E.	0350.06L.L.V.H.	0280.06.N.V2135-000	
2101	20mm	0200.06A.U.N.E.	0200.06A.L.V.H.		
2102	22mm	0220.06C.U.N.E.	0220.06C.L.V.H.	0220.06.V.V2102-000	
2151-010, -011, -050	35mm	0350.06K.U.N.E.	0350.06L.L.V.H.	0350.06.N.V2151-000	0350.06.LIP
2201-010	45/35mm	0450.06O.U.N.E.	0350.06K.L.V.H.	0450.06.V.V2201-000	
2201-011 HT or MT	45/35mm	0450.06O.U.N.E.	0350.06N.L.V.H.	0450.06.V.V2201-000	0450.06.LIP
2201-011 LT	45/35mm	0450.06O.U.N.E.	0450.06O.L.V.H.	0450.06.V.V2201-000	
2201-080, -320, -430, -480, -590, -690	45/35mm	0450.06O.U.N.E.	0350.06N.L.V.H.	0450.06.V.V2201-000	
2250, 2290	60mm	0600.06P.U.N.E.	0600.06P.L.V.H.		
2400	60mm	0600.06R.U.N.E.	0600.06R.L.V.H.	0600.06.N.V2400-000	0600.06.LIP
3041 (NOT -250 SIZE)	20mm	0200.06G.U.N.E.	0200.06G.L.V.H. OR 0200.06H.L.V.H.		
3057	20mm	0200.06G.U.N.E.	0200.06G.L.V.H. OR 0200.06H.L.V.H.	0200.06.N.V3057-000	
3065	20mm	0200.06A.U.N.E.	0200.06A.L.V.H.		
3067	20mm	0200.06G.U.N.E.	0200.06G.L.V.H. OR 0200.06H.L.V.H.	0200.06.V.V3067-000	
3068	20mm	0200.06G.U.N.E.	0200.06G.L.V.H. OR 0200.06H.L.V.H.	0200.06.V.V3068-000	
3080 (NOT -330 SIZE)	20mm	0200.06A.U.N.E.	0200.06A.L.V.H.	0200.06.V.V3080-000	
3080-330	35mm	0350.06K.U.N.E.	0350.06K.U.N.E.		
3082	22mm	0220.06E.U.N.E.	0220.06E.L.V.H.	0220.06.N.V3082-000	
3085	20mm	0200.06G.U.N.E.	0200.06G.L.V.H. OR 0200.06H.L.V.H.	0200.06.N.V3085-000	
3101	28mm	0280.06B.U.N.E.	0280.06B.L.V.H.	0280.06.N.V3101-000	
3102	25mm	0250.06J.U.N.E.	0250.06J.L.V.H.	0250.06.N.V3102-000	
3126-090, 3126-180	35mm	0350.06K.U.N.E.	0350.06K.L.V.H.	0350.06.N.V3126-000	0350.06.LIP
3126-091, -180, -280, -290, -998	35mm	0350.06K.U.N.E.	0350.06M.L.V.H.	0350.06.N.V3126-000	
3126-181	35mm	0350.06M.U.N.E.	0350.06M.L.V.H.	0350.06.N.V3126-000	
3127	35mm	0350.06M.U.N.E.	0350.06M.L.V.H.	0350.06.N.V3126-000	
3140 (NOT -980 SIZE)	45mm	0450.06O.U.N.E.	0450.06O.L.V.H.		0450.06.LIP
3152	45mm	0450.06O.U.N.E.	0450.06O.L.V.H.	0450.06.N.V3152-000	0450.06.LIP
3170	60mm	0600.06Q.U.N.E.	0600.06Q.L.V.H.	0600.06.N.V3170-000	0600.06.LIP
3200	60mm	0600.06P.U.N.E.	0600.06P.L.V.H.		
3201	60mm	0600.06Q.U.N.E.	0600.06Q.L.V.H.	0600.06.N.V3170-000	0600.06.LIP
3230, 3305, 3357	90/80mm	0900.06S.U.N.H.	0800.06S.L.V.H.		
3231, 3306, 3356	90/80mm	0900.06S.U.N.H.	0800.06S.L.V.H.	0900.06.N.V3231-000	
3170	60mm	0600.06Q.U.N.E.	0600.06Q.L.V.H.	0600.06.N.V3170-000	0600.06.LIP
3171	45mm	N/A	NOT AVAILABLE	0450.06.N.V3171-000	

All seal assemblies in the materials coded above are guaranteed ex-stock. For any other seals, or identification by X-reference, please refer to the on-line O.E.M. database, or contact us with your requirements.

For ease, please refer to our O.E.M. Price List where you will find a clear list, filterable by either the O.E.M.'s name or Vulcan Seal Type number, showing all common materials and stock codes, pricing and Stock Guarantee.



# TYPE 06 RANGE FOR FLYGT® PUMPS

Robust, superior replacement mechanical seal designs, with Stainless Steel parts and Monolithic Carbide faces, provide higher seal capability, performance, reliability and pro-longed operating life. Pre-set, easy to install, with no pump modifications necessary.

No plastic working seal parts, no brazed nor inserted faces, no wave-springs nor any other design features or material which are prone to wear and failure, particularly in such arduous applications. Highly successful, proven designs, with over a decade of service, have now been even further developed with the enhancements of improved setting clips, change to cup-ended grub-screws mounted at 90 degrees to the shaft and with the option of SiC faces.

The Vulcan Type 06 Flygt Seal® design and material improvements reduces the costs of purchase and installation and most especially, provides increased seal performance, reliability and service life.

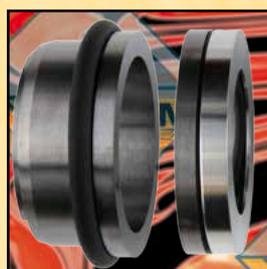
## EXAMPLE LOWER SEAL DESIGNS AND CODES



0200.06H.L.V.H.



0350.06M.L.V.H.



0450.06O.L.V.H.



0600.06Q.L.V.H.

Flygt® Pump Model Series	Seal Shaft Sizes	Vulcan Upper Seal Stock Code	Vulcan Lower Seal Stock Code	Vulcan 'O'-Ring Set Code	Vulcan Additional Parts Code
3200	60mm	0600.06P.U.N.E.	0600.06P.L.V.H.		
3201	60mm	0600.06Q.U.N.E.	0600.06Q.L.V.H.	0600.06.N.V3170-000	0600.06.LIP
3202	60mm	N/A	NOT AVAILABLE	0600.06.V.V3202-000	
3230, 3305, 3357	90/80mm	0900.06S.U.N.H.*	0800.06S.L.V.H.		
3231, 3306, 3356	90/80mm	0900.06S.U.N.H.*	0800.06S.L.V.H.	0900.06.N.V3231-000	
3300	90/80mm	0900.06S.U.N.H.	0800.06S.L.V.H.	0900.06.N.V3300-000	
3310, 3350	90/120mm	0900.06S.U.N.H.*	1200.06T.L.V.H.		
3311, 3312	90/120mm	0900.06S.U.N.H.*	1200.06T.L.V.H.	1200.06.N.V3311-000	
3351	90/120mm	0900.06S.U.N.H.*	1200.06T.L.V.H.	0900.06.N.V3400-000	
3355	90/80mm	0900.06S.U.N.H.*	0800.06S.L.V.H.	1200.06.N.V3311-000	
3400, 3501, 3531, 3602	90mm	0900.06S.U.N.H.*	0900.06U.L.V.H.*	0900.06.N.V3400-000	
3500, 3530, 3600, 3601	90/120mm	0900.06S.U.N.H.*	1200.06T.L.V.H.	1200.06.N.V3500-000	
3800	90/120mm	0900.06S.U.N.H.*	1200.06T.L.V.H.	1200.06.N.V3800-000	
4351, 4352, 4400	20mm	0200.06G.U.N.E.	0200.06H.L.V.H.		
4410, 4430, 4460	60mm	Lower Seal Only	0600.06Q.L.V.H.	0600.06.N.V4410-000	0600.06.LIP
4450	35mm	Lower Seal Only	0350.06M.L.V.H.		
4650, 4660	60mm	Lower Seal Only	0600.06Q.L.V.H.		0600.06.LIP
4670, 4680	60mm	0600.06Q.U.N.E.	0600.06Q.L.V.H.		0600.06.LIP
5530	35mm	0350.06M.U.N.E.	0350.06M.L.V.H.		
5540	45mm	0450.06O.U.N.E.	0450.06O.L.V.H.		
7045	60mm	0600.06Q.U.N.E.*	0600.06Q.L.V.H.	0800.06.N.V7045-000	
7050, 7051	90/80mm	0900.06S.U.N.H.*	0800.06S.L.V.H.	0800.06.N.V7045-000	
7060, 7076	90/80mm	0900.06S.U.N.H.*	0800.06S.L.V.H.	0800.06.N.V7045-000	
7055, 7061	90/80mm	0900.06S.U.N.H.*	0800.06S.L.V.H.	0800.06.N.V7045-000	
7080	90/80mm	0900.06S.U.N.H.*	0800.06S.L.V.H.		
7081, 7101, 7121	90mm	0900.06S.U.N.H.*	0900.06U.L.V.H.	0900.06.N.V7081-000	
7100, 7115, 7120, 7140	90/120mm	0900.06S.U.N.H.*	1200.06T.L.V.H.		
7570, 7585	90/120mm	0900.06S.U.N.H.*	1200.06T.L.V.H.		
600-SERIES MOTORS, NOT 600 OR 680 SIZES	90mm	0900.06S.U.N.H.*	N/A	0900.06.N.V605-000	
700-SERIES MOTORS	90mm	0900.06S.U.N.H.*	N/A	0900.06.N.V705-000	
800-SERIES MOTORS	105mm	CONTACT US	N/A	1050.06.N.V805-000	
900-SERIES MOTORS	105mm	CONTACT US	N/A	1050.06.N.V905-001	
<b>I.T.T. GRINDEX® MODELS</b>					
MAJOR 8116	25/24mm	0250.06Z.U.N.E.*	0240.06Z.L.V.H.		
MASTER 8105 180	25/24mm	0250.06Z.U.N.E.*	0240.06Z.L.V.H.		
MATADOR	25/24mm	0250.06Z.U.N.E.*	0240.06Z.L.V.H.		
MAXI 5154, 8107 H & N	45/35mm	0450.06O.U.N.E.	0350.06N.L.V.H.		
MAXI 8107 LOW	45mm	0450.06O.U.N.E.	0450.06O.L.V.H.		
MIDI, MINEX, MINI	25/24mm	0250.06Z.U.N.E.*	0240.06Z.L.V.H.		
MINETTE 8115	25/24mm	0250.06Z.U.N.E.*	0240.06Z.L.V.H.		
MINOR 2501	25/24mm	0250.06Z.U.N.E.*	0240.06Z.L.V.H.		
SALVADOR 7121, 8118 280	25/24mm	0250.06Z.U.N.E.*	0240.06Z.L.V.H.		
SANDY 8120 280	25/24mm	0250.06Z.U.N.E.*	0240.06Z.L.V.H.		
SENIOR 8119 280	25/24mm	0250.06Z.U.N.E.*	0240.06Z.L.V.H.		
READY 4, 8, 12, 16	15mm	Lower Seal Only	0150.06D.N.Z.		
READY 24	20mm	0200.06A.U.N.E.	0200.06A.L.V.H.		
READY 90	28mm	0280.06I.U.N.E.	0280.06I.L.V.H.		
STEADY 7	20mm	0200.06G.U.N.E.	0200.06G.L.V.H.		

FOR ANY PUMP MODELS NOT LISTED ABOVE; PLEASE CONTACT US; AS MODELS CONTINUALLY EVOLVE.

FOR ALL SEAL CODES ANNOTATED WITH "\*", THE STOCK CODES STATED FOR THIS MODEL ARE AS SHOWN IN THE VERY LARGE MAJORITY OF INSTANCES. HOWEVER, SOME ALTERNATIVES DO EXIST; PLEASE CHECK THE PART NUMBERS FOUND ON THE O.E.M SEAL WITHIN OUR O.E.M. DATABASE.

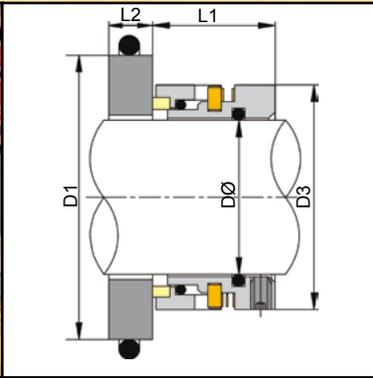
All seal assemblies in the materials coded above are guaranteed ex-stock. For any other seals, or identification by X-reference, please refer to the on-line O.E.M. database, or contact us with your requirements.

For ease, please refer to our O.E.M. Price List where you will find a clear list, filterable by either the O.E.M.'s name or Vulcan Seal Type number, showing the seal's materials and stock codes, pricing and our Stock Guarantee.



# VULCAN® SEALS FOR GODWIN® PUMPS

## TYPE 1653 TO SUIT DRI-PRIME® SERIES PUMPS NV S 304



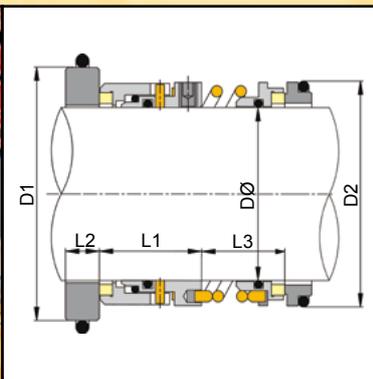
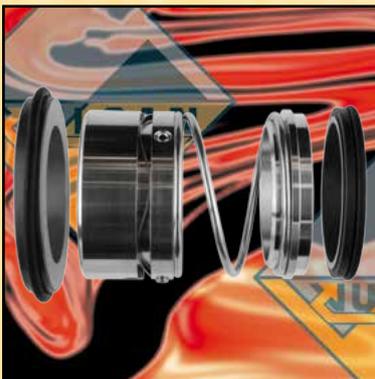
Vulcan manufacture and stock a range of specific seal types to suit Godwin® "Dri-Prime®" pumps, in materials suitable for all clean and dirty water transfer duties.

40mm and 50mm sizes normally operate as single seals. Please contact us if you require 60mm size seals.

The Type 1653 is a robust heavy-duty design for more abrasive medias, for lower solid content fluids, the Type 1724P can be used, please see details below.

SHAFT SIZE DØ	SIZE CODE	D1	D3	L1	L2
40.00	0400	69.90	56.00	32.00	7.50
50.00	0500	89.90	71.00	34.00	13.00

## TYPE 1653D TO SUIT DRI-PRIME® SERIES PUMPS NV Z 304

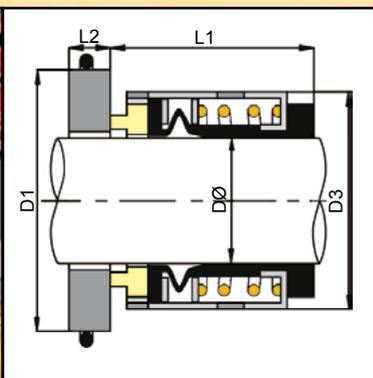


For larger "Dri-Prime®" pumps with 75mm shaft sizes, a double seal is required. The most common arrangement is directly replaced by the Vulcan Type 1653D, which shares a similar construction to the Type 1653 but with an additional single-spring component seal assembly to seal the oil-bath.

For all Godwin® pumps, please contact us with the O.E.M. details for cross-reference and identification.

SHAFT SIZE DØ	SIZE CODE	D1	D2	L1	L2	L3
75.00	0750	109.90	98.00	45.50	14.90	37.00

## TYPES 1724P AND 1725P TO SUIT DRI-PRIME® SERIES PUMPS N S 304



Vulcan Types 1724P and 1725P are designed to suit smaller models of "Dri-Prime®" pumps, and offer an easy to install elastomer bellows seal that is designed to suit the length of the seal chamber, removing the need to set the seal on the shaft with set screws. Type 1724 uses a standard Vulcan rotary, Type 1725 has the same design but with a reduced working length.

For a heavy-duty alternative design, please see the Type 1653 detailed at the top of the page.

SHAFT SIZE DØ	SIZE CODE	D1	D3	L1	L2	VULCAN TYPE
40.00	0400	69.90	56.00	32.00	7.35	1725P
50.00	0500	64.50	66.00	34.50	10.30	1724P

Advice on our Material Codes shown above and our standard coding system are on Pages 91 & 18 of this brochure. For ease, please refer to our O.E.M. Price List where you will find a clear list, filterable by either the O.E.M.'s name or Vulcan Seal Type number, showing all common materials and stock codes, pricing and Stock Guarantee.

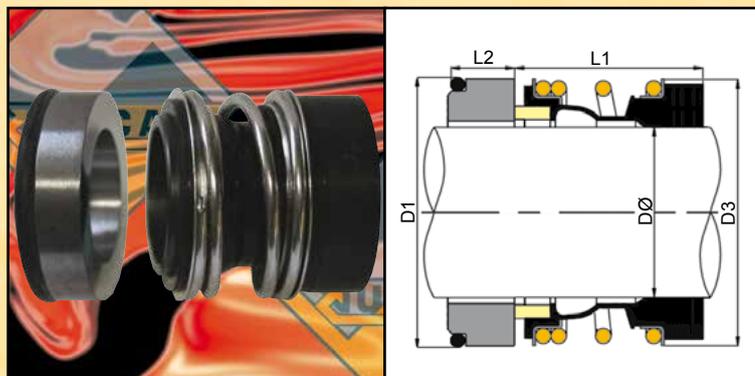
All seals / sizes / materials detailed above are guaranteed ex-stock, unless asterisked. For any other sizes, or identification by X-reference, please refer to the on-line O.E.M. database, or contact us with your requirements.



# VULCAN® SEALS FOR GRUNDFOS® PUMPS

Vulcan manufacture and stock a wide range of standard range and specific seal types to suit all types of Grundfos® pumps, including former Sarlin® submersible pumps and Hilge® sanitary pumps. Vulcan seals for Grundfos® Hilge® sanitary pumps are dealt with in the following Food and Dairy Seals section. Please contact us with the O.E.M. details and part numbers for cross-reference and identification, if your requirement is not shown.

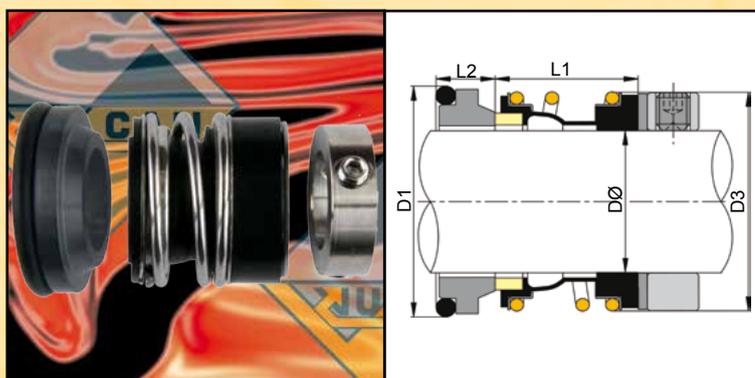
## TYPE 192G SEALS TO SUIT GRUNDFOS® PUMP RANGES EV E H 304



Vulcan manufacture and stock Type 192G elastomer bellows seals designed to replace the Grundfos® seal styles "A-" and "B-" with a single, superior performing and easier to install seal design, in the majority of their centrifugal pump ranges.

SHAFT SIZE DØ	SIZE CODE	D1	D3	L1	L2
12.00	0120	23.00	24.00	25.90	15.00
16.00	0160	27.00	28.00	28.40	12.30
22.00	0220	37.00	36.50	30.00	11.10
33.00	0330	48.00	51.00	35.00	7.50

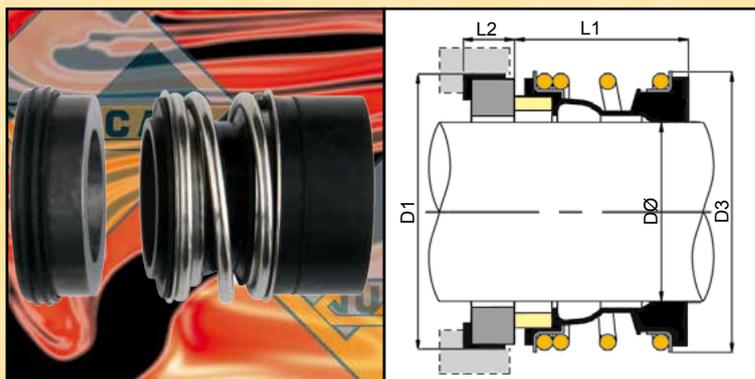
## TYPE 196 16MM SEALS TO SUIT CP-SERIES PUMPS E D 304



Vulcan manufacture and stock 16mm elastomer bellows seals with spacer and damp ring to suit the Grundfos® "CP" series pumps. Widely utilised in building service applications.

SHAFT SIZE DØ	SIZE CODE	D1	D3	L1	L2
16.00	0160	31.50	28.50	21.50	10.50

## TYPE 196 22MM SEALS TO SUIT LP-SERIES PUMPS E E H 304



Vulcan manufacture and stock 22mm elastomer bellows seals with special profile boot mounted seats to suit Grundfos® "LM", "LP, LPD and LPE" series pumps. Widely utilised in building service applications.

SHAFT SIZE DØ	SIZE CODE	D1	D3	L1	L2
22.00	0220	37.00	36.00	33.00	12.00

## TYPES 953 AND 954 SEALS TO SUIT CR-SERIES PUMPS EV U H 316



Vulcan manufacture and stock 12mm and 16mm Type 953 screw-fit semi-cartridge seals and 22mm Type 954 push-fit semi-cartridge seals to replace Grundfos® "H-" code seals installed in CR, CRI, CRIE series vertical multi-stage pumps. Type 953 and 954 are intended for all standard clockwise rotation pumps. 16mm Type 953 is also available in "953L" format specifically for "CRI5SF" models with anti-dockwise rotation shafts.



Advice on our Material Codes shown above and our standard coding system are on Pages 91 & 18 of this brochure. For ease, please refer to our O.E.M. Price List where you will find a clear list, filterable by either the O.E.M.'s name or Vulcan Seal Type number, showing all common materials and stock codes, pricing and Stock Guarantee.

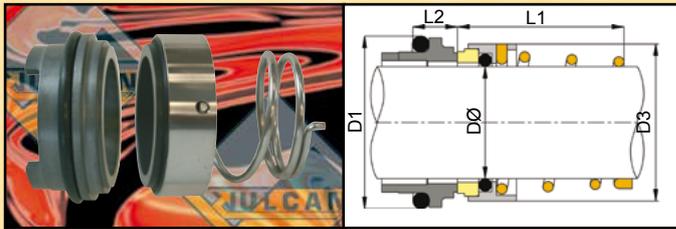
All seals / sizes / materials detailed above are guaranteed ex-stock, unless asterisked. For any other sizes, or identification by X-reference, please refer to the on-line O.E.M. database, or contact us with your requirements.



# VULCAN® SEALS FOR GRUNDFOS® PUMPS

The following Types are designed for Grundfos® submersible pump ranges formerly branded as Sarlin®.

## TYPE 81 SEALS TO SUIT S-SERIES SUBMERSIBLE PUMPS V S D 304



Vulcan manufacture and stock 'O'-Ring mounted conical spring seals with positive drive, specifically designed to suit Grundfos® "S-" series pumps, with the older generation seal style installed. The O.E.M. older style seal is a conical single spring seal. For newer style seals, being multiple-spring, please see Types 40S8 and 42, at the foot of this page.

SHAFZT SIZE DØ	SIZE CODE	D1	D3	L1	L2
25.00	0250	38.00	36.00	26.50	10.00
32.00	0320	48.00	46.00	28.50	11.00
38.00	0380	55.00	53.00	33.50	11.50

## TYPE 86 SEALS TO SUIT SE- AND SV-SERIES PUMPS V Z N/A

Vulcan manufacture and stock 'O'-Ring mounted double seals with varying face profiles, specifically designed for Grundfos® "SE-" and "SV-" series submersible pumps. Each size has a unique face profile, particularly relating to the central rotary face. Inboard seal and stationary faces are Monolithic Silicon Carbide, whilst the oil-bath side stationary is Monolithic Carbon.

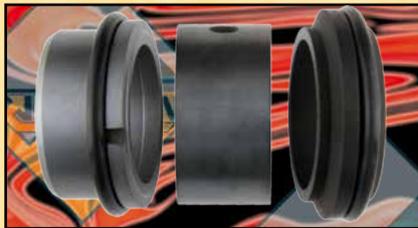
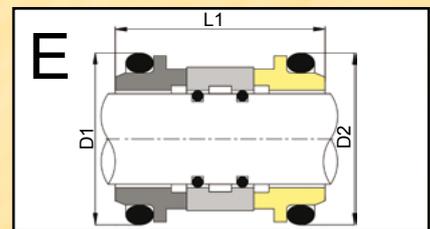
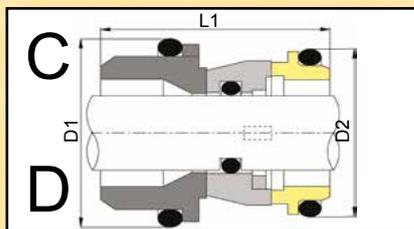
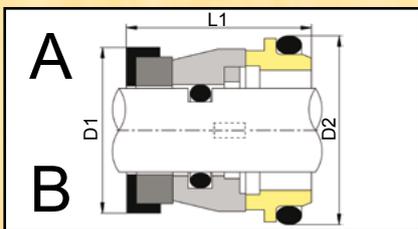


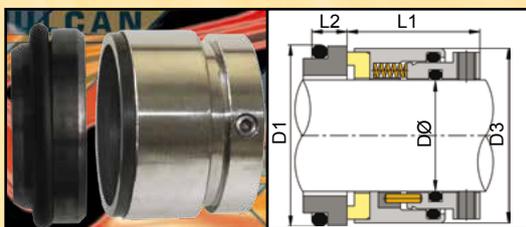
DIAGRAM	SHAFT SIZE DØ	SIZE CODE	TYPE CODE	D1	D2	L1
A	16.00	0160	86B	28.00	35.00	30.00
B	16.00	0160	86	28.00	35.00	30.00
C	24.00	0240	86	48.00	45.00	50.00
D	24.00	0300	86	48.00	45.00	50.00
E	38.00	0380	86	53.00	56.00	65.50



## TYPES 40S8 AND 42 SEALS TO SUIT S-SERIES PUMPS

Vulcan manufacture and stock 'O'-Ring mounted multi-spring, balanced seals, specifically designed for Grundfos® "S-" series submersible pumps; upper and lower positions. Type 40S8 is for the upper, oil bath position, and Type 42 with the distinctive stationary profile, is for the lower, impeller position. 65mm Size Type 42 lower seal has a distinctive extended barrel with two 'O'-Rings to seal inside impeller recess, as per the original O.E.M. seal.

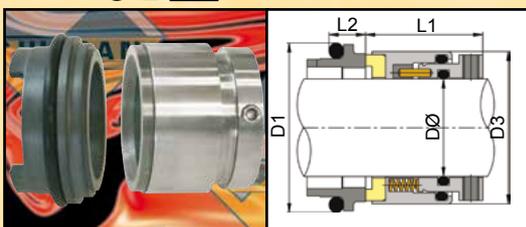
### TYPE 40S8 V DS 316



SHAFT SIZE DØ	SIZE CODE	TYPE CODE	D1	D3	L1	L2
38.00	0380	40S	56.00	53.00	34.00	11.00
50.00	0500	40S8	70.00	65.60	34.50	9.50
65.00	0650	40S8	85.00	84.20	36.50	11.00

Please refer to our extensive O.E.M. Database in our Web Portal or contact us with the O.E.M. details or part numbers for cross-reference and identification.

### TYPE 42 V S 304



SHAFT SIZE DØ	SIZE CODE	D1	D3	L1	L2
32.00	0320	48.00	46.00	34.00	11.00
38.00	0380	55.00	53.00	34.00	11.50
50.00	0500	70.00	65.60	34.50	14.00
65.00	0650	85.00	84.20	66.00	15.00

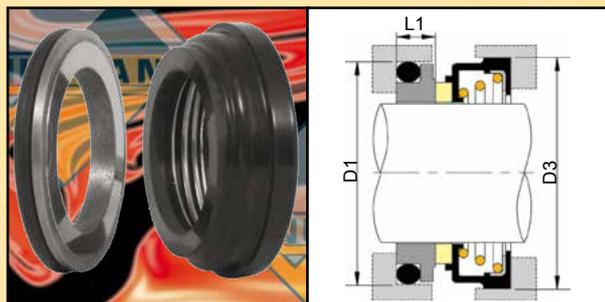
Advice on our Material Codes shown above and our standard coding system are on Pages 91 & 18 of this brochure. For ease, please refer to our O.E.M. Price List where you will find a clear list, filterable by either the O.E.M.'s name or Vulcan Seal Type number, showing all common materials and stock codes, pricing and Stock Guarantee.

All seals / sizes / materials detailed above are guaranteed ex-stock, unless asterisked. For any other sizes, or identification by X-reference, please refer to the on-line O.E.M. database, or contact us with your requirements.



# VULCAN® SEALS TO SUIT HAIGH® / I.M.O.®

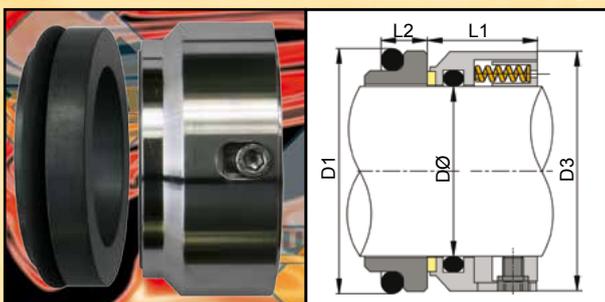
## VULCAN® TYPE 28 TO SUIT HAIGH® MACERATORS (N) (F) 304



Vulcan manufacture and stock 1.1/4" rotaries, and 1.3/4" complete seals, to suit Haigh® macerators. Rotaries have Carbon faces with Nitrile elastomers, complete seals have a Ni-Resist cast iron stationary with a Nitrile 'O'-Ring.

SHAFT SIZE DØ	SIZE CODE	D1	D3	L1
1.500	0317	N/A	57.50	N/A
1.750	0444	67.00	70.00	7.50

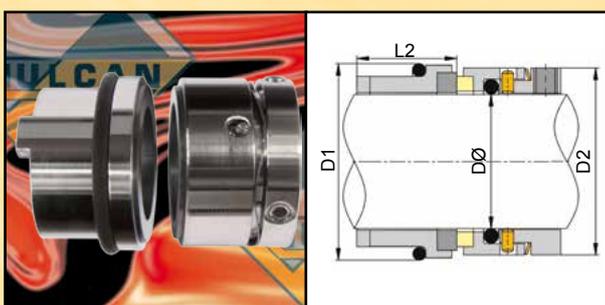
## VULCAN® TYPE 1620 TO SUIT HAIGH® MACERATORS (V) (S) 304



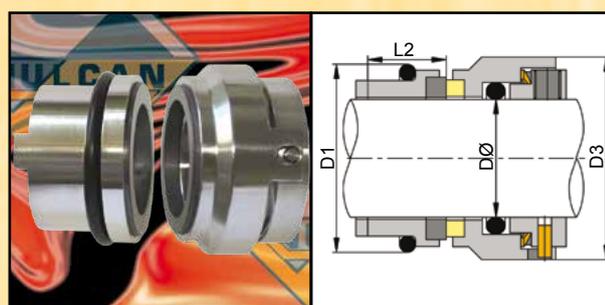
Vulcan manufacture and stock 42mm complete multi-spring 'O'-Ring mounted seals with 'O'-Ring mounted seats to suit Haigh® macerators.

SHAFT SIZE DØ	SIZE CODE	D1	D3	L1	L2
42.00	0420	62.00	65.00	30.15	14.10

## VULCAN® TYPE 1689 TO SUIT I.M.O.® PUMPS (V) (S) 304



## VULCAN® TYPE 1690 TO SUIT I.M.O.® PUMPS (V) (S) 304



## VULCAN® SEALS TO SUIT I.M.O.® PUMPS

Vulcan manufacture and stock a wide range of standard dimension seals to suit I.M.O.® pumps, commonly found in marine applications.

To replace the five-part O.E.M. seal supplied for ACE series pumps, generations 3 and above, Vulcan have designed the following seals, which offer a standard configuration seal with a rotary and a stationary, which is far easier to install than the original O.E.M. seal.

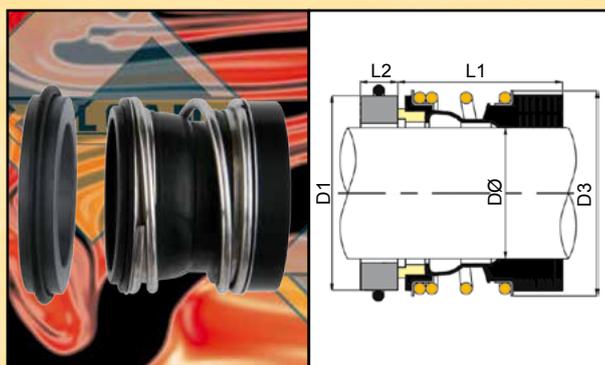
To replace O.E.M. seal types "T" and "Q" please use Vulcan Type 1689.

To replace O.E.M. seal types "U" and "V" please use Vulcan Type 1690.

For other I.M.O.® requirements, please contact us with details.

SHAFT SIZE DØ	SIZE CODE	D1	D2	D3	L2
22.00	0220	35.00	33.00	38.00	23.50

## VULCAN® TYPE 144 TO SUIT KOLMEKS® PUMPS (E) (D) 304



Vulcan manufacture and stock a range of rubber bellows seals with distinctive 'O'-Ring mounted stationaries, to suit Kolmek's® A-, L-, N- and T- series circulating pumps. These pumps are also seen with other brand names, such as Armstrong®, Pullen® and I.T.T. Flygt®.

SHAFT SIZE DØ	SIZE CODE	D1	D3	L1	L2
12.00	0120	22.22	22.00	25.40	5.50
18.00	0180	30.15	32.00	24.50	8.00
25.00	0250	36.73	39.00	25.40	8.00
32.00	0320	46.00	46.00	30.15	8.50
40.00	0400	58.00	56.00	36.00	9.00

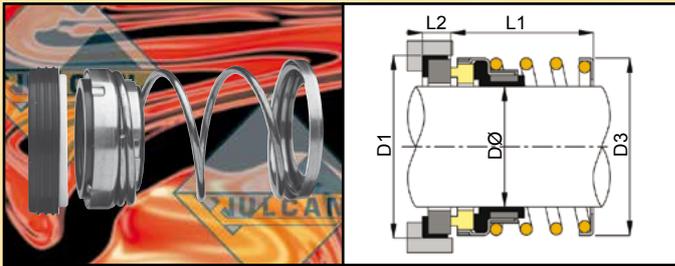
Advice on our Material Codes shown above and our standard coding system are on Pages 91 & 18 of this brochure. For ease, please refer to our O.E.M. Price List where you will find a clear list, filterable by either the O.E.M.'s name or Vulcan Seal Type number, showing all common materials and stock codes, pricing and Stock Guarantee.

All seals / sizes / materials detailed above are guaranteed ex-stock, unless asterisked. For any other sizes, or identification by X-reference, please refer to the on-line O.E.M. database, or contact us with your requirements.



# VULCAN® SEALS FOR HIDROSTAL® PUMPS

## TYPE 11 NV G 304

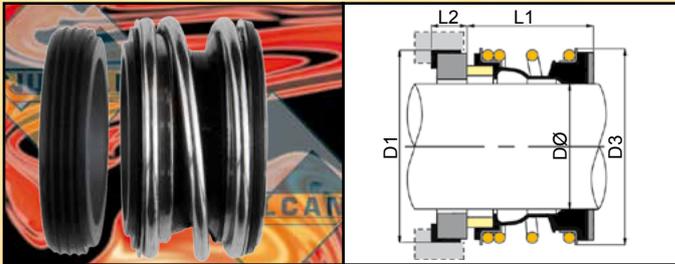


Vulcan standard Type 11 diaphragm seals to replace O.E.M. "C-" and "V-" type seals. NB:- Size code 0250 is a Type 20 not our Type 11. These seals are fitted in the inner oil bath position.

Product side seals are either a rubber bellows type seal, as per our Type 194, shown below. Or rubber encased seals which can be replaced by our Type 41, as detailed below.

SHAFT SIZE DØ		SIZE CODE	D1		D3		L1		L2		O.E.M. SEAL CODE
IMPERIAL	METRIC		IMPERIAL	METRIC	IMPERIAL	METRIC	IMPERIAL	METRIC	IMPERIAL	METRIC	
0.875	22.23	0222	1.500	38.10	1.315	33.400	0.937	23.80	0.405	10.28	C0.6 , V0.6
0.984	25.00	0250	1.594	40.50	1.543	39.200	1.000	25.40	0.406	10.32	C025
1.125	28.58	0286	1.750	44.44	1.823	46.300	1.062	26.97	0.437	11.10	C1.1 , V1.1
1.375	34.93	0349	2.000	50.80	2.071	52.600	1.125	28.58	0.437	11.10	C1.3
1.500	38.10	0381	2.125	53.98	2.197	55.800	1.125	28.58	0.437	11.10	C1.5
2.000	50.80	0508	2.750	69.85	2.874	73.000	1.500	38.10	0.500	12.70	C2.0
2.500	63.50	0635	3.375	85.73	3.343	84.900	1.812	46.02	0.562	14.28	C2.5
3.000	76.20	0762	3.875	98.43	4.043	102.700	2.062	52.37	0.625	15.88	C3.0

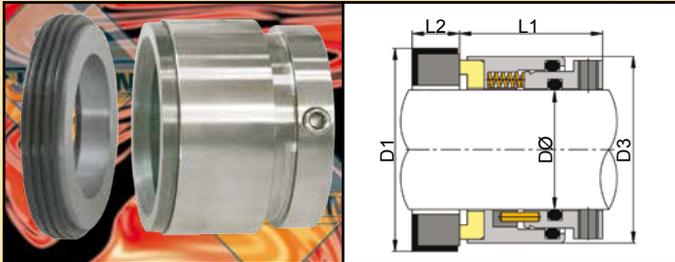
## TYPE 194 V SS 304



Vulcan Type 194 robust rubber bellows seals to replace O.E.M. "G-" type seals. Seal sizes from 0286 and up are supplied with steel back-washer, to separate the seal bellows from the shaft circlip. Size code 0200 to replace O.E.M. "G020K" is standard Vulcan Type 19B seal. Usually fitted in tandem with our Type 11 seals, detailed above, or our Type 41 seals, shown below.

SHAFT SIZE DØ		SIZE CODE	D1		D3		L1		L2		O.E.M. SEAL CODE
IMPERIAL	METRIC		IMPERIAL	METRIC	IMPERIAL	METRIC	IMPERIAL	METRIC	IMPERIAL	METRIC	
0.625	15.88	0158	1.187	30.14	1.102	28.00	0.875	22.23	0.405	10.28	G016 , M0.6
0.787	20.00	0200	1.500	38.10	1.417	36.00	1.181	30.00	0.394	10.00	G020
0.787	20.00	0200	1.378	35.00	1.594	40.50	0.846	21.50	0.295	7.50	G020K
1.125	28.58	0286	1.750	44.44	1.850	47.00	1.062	26.97	0.437	11.10	G1.1
1.500	38.10	0381	2.125	53.98	2.283	58.00	1.125	28.58	0.437	11.10	G1.5
2.000	50.80	0508	2.750	69.85	2.795	71.00	1.500	38.10	0.500	12.70	G2.0
2.500	63.50	0635	3.375	85.73	3.543	90.00	1.812	46.02	0.562	14.28	G2.5
3.000	76.20	0762	3.875	98.43	4.016	102.00	2.062	52.37	0.625	15.88	G3.0
3.740	95.00	0950	4.876	123.85	5.157	131.00	2.375	60.33	0.752	19.10	G095
3.937*	100.00	1000	4.876	123.85	5.157	131.00	2.375	60.33	0.752	19.10	G100

## TYPE 41



Vulcan Type 41 is a unitised, highly robust, balanced multi-spring seal to replace O.E.M. "M-" and "X-" type seals. Type 41 is designed to replace the single-spring rubber-encased O.E.M. seals, that can often fail when the rubber loses its bond with the seal faces and metal parts. Seal size 0950 has an 'O'-Ring type stationary, not boot mount. Usually fitted in tandem with either our Type 11 or Type 194 seals, shown above.

SHAFT SIZE DØ		SIZE CODE	D1		D3		L1		L2		O.E.M. SEAL CODE	GUARANTEED STOCK MATERIALS
IMPERIAL	METRIC		IMPERIAL	METRIC	IMPERIAL	METRIC	IMPERIAL	METRIC	IMPERIAL	METRIC		
1.125	25.58	0286	1.750	44.44	1.732	44.00	1.181	30.00	0.319	8.10	M1.1	<span style="border: 1px solid black; border-radius: 50%; padding: 2px;">V</span> <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">I</span> <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">316</span>
1.500	38.10	0381	2.125	53.98	2.157	54.80	1.244	31.60	0.319	8.10	M1.5	<span style="border: 1px solid black; border-radius: 50%; padding: 2px;">V</span> <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">I</span> <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">316</span>
2.000	50.80	0508	2.750	69.85	2.661	67.60	1.500	38.10	0.500	12.70	M2.0 , X2.0	<span style="border: 1px solid black; border-radius: 50%; padding: 2px;">V</span> <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">S</span> <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">316</span>
2.500	63.50	0635	3.375	85.73	3.082	78.30	1.812	46.20	0.562	14.28	M2.5 , X2.5	<span style="border: 1px solid black; border-radius: 50%; padding: 2px;">V</span> <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">S</span> <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">316</span>
3.000*	76.20	0762	3.875	98.43	3.689	93.70	2.063	52.40	0.625	15.88	M3.0 , X3.0	<span style="border: 1px solid black; border-radius: 50%; padding: 2px;">V</span> <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">S</span> <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">316</span>
3.740	95.00	0950	4.876	123.85	5.039	128.00	2.477	62.90	0.649	16.50	X095	<span style="border: 1px solid black; border-radius: 50%; padding: 2px;">V</span> <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">S</span> <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">316</span>

Advice on our Material Codes shown above and our standard coding system are on Pages 91 & 18 of this brochure. For ease, please refer to our O.E.M. Price List where you will find a clear list, filterable by either the O.E.M.'s name or Vulcan Seal Type number, showing all common materials and stock codes, pricing and Stock Guarantee.

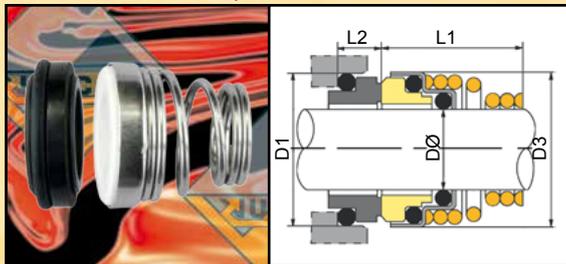
All seals / sizes / materials detailed above are guaranteed ex-stock, unless asterisked. For any other sizes, or identification by X-reference, please refer to the on-line O.E.M. database, or contact us with your requirements.



# VULCAN® SEALS FOR LOWARA® PUMPS

Vulcan offer a wide range of seals to suit I.T.T. Lowara® pumps, especially centrifugal circulation pumps. Many I.T.T. Lowara® pumps use standard range seals, especially Type 13 and Type 13DIN, the following Types are specific dimension seals to suit certain ranges where a standard seal cannot be installed. For other I.T.T. Lowara® requirements, please contact us with details.

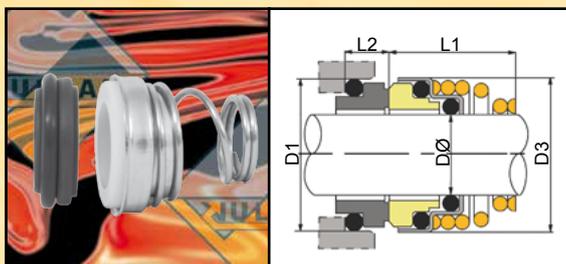
## TYPE 130 TO SUIT FC-, FH- AND SH- SERIES PUMPS (EV) (B) (304)



Vulcan manufactures a range of 'O'-Ring mounted conical spring seals to EN12756/DIN24960 "L1K" dimensions, to suit "FC-, FH-, SH-" series pumps.

SHAFT SIZE DØ	SIZE CODE	D1	D3	L1	L2
14.00	0140	25.00	24.00	22.20	7.00
22.00	0220	37.00	36.00	27.50	10.00
28.00	0280	43.00	42.00	32.50	10.00
33.00*	0330	48.00	46.50	32.50	10.00

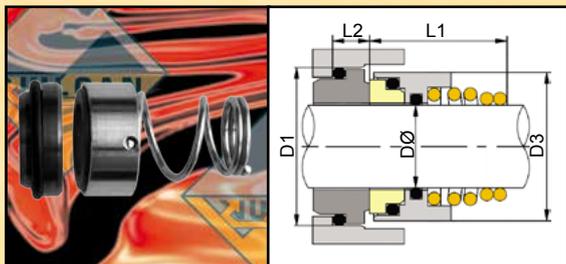
## TYPE 131 TO SUIT CE- AND CO- SERIES PUMPS (NEV) (B) (I) (H) (304)



Vulcan manufacture and stock a 14mm Type 131 seal to suit the reduced length seal chamber of various circulating pumps, such as "CE-" and "CO-" ranges with newer "A" suffix motors. The Type 131 is the same dimensions to Vulcan Type 13, except for the reduced rotary working length.

SHAFT SIZE DØ	SIZE CODE	D1	D3	L1	L2
14.00	0140	23.10	24.00	16.60	6.00

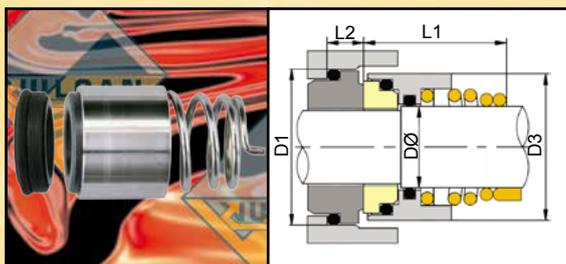
## TYPE 135 TO SUIT SV- AND SVI- SERIES PUMPS (EV) (I) (304)



Vulcan manufacture and stock a range of 'O'-Ring mounted, robust conical spring seals to EN12756 / DIN24960 "L1K" dimensions, to suit "SV- and SVI-" series pumps. 12mm and 16mm also suit certain "e-SV-" series models

SHAFT SIZE DØ	SIZE CODE	D1	D3	L1	L2
12.00	0120	23.00	21.00	25.50	7.00
16.00	0160	27.00	26.00	28.00	7.00
25.00	0250	40.00	36.00	30.00	10.00

## TYPE 139 TO SUIT e-SV SERIES PUMPS (V) (R) (SC) (316)

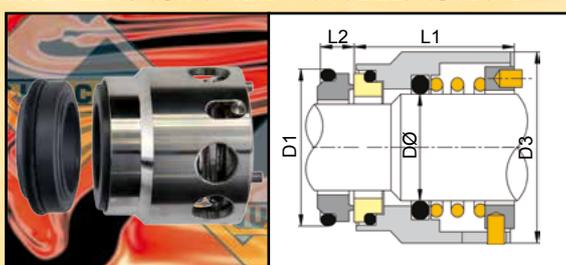


Vulcan manufacture and stock a 20 / 18mm step-balanced, 'O'-Ring mounted, robust conical spring seal with positive drive from the coil, to suit certain models of "e-SV-" series pumps.

Vulcan Stock Codes; W-0200.139.R.V.R. - SiC vs SiC  
W-0200.139.R.V.SC. - SiC vs Carbon

SHAFT SIZE DØ	SIZE CODE	D1	D3	L1	L2
16.00	0200	26.90	29.50	34.00	7.00

## TYPE 822 TO SUIT SV AND e-SV SERIES PUMPS (E) (S) (316)



Vulcan manufacture and stock a 22/26mm step-balanced, 'O'-Ring mounted, robust single spring seal with positive drive from three drive studs on the coil base, to suit larger models of "SV- and e-SV-" series pumps.

Vulcan Stock Code; W-0220.822.E.S. - SiC vs SiC

SHAFT SIZE DØ	SIZE CODE	D1	D3	L1	L2
26.00	0220	37.00	43.00	38.00	7.00

Advice on our Material Codes shown above and our standard coding system are on Pages 91 & 18 of this brochure. For ease, please refer to our O.E.M. Price List where you will find a clear list, filterable by either the O.E.M.'s name or Vulcan Seal Type number, showing all common materials and stock codes, pricing and Stock Guarantee.

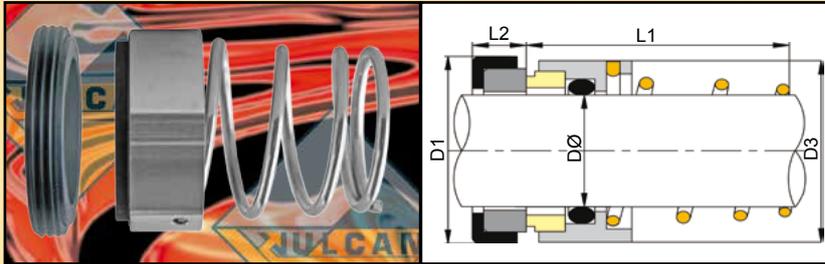
All seals / sizes / materials detailed above are guaranteed ex-stock, unless asterisked. For any other sizes, or identification by X-reference, please refer to the on-line O.E.M. database, or contact us with your requirements.



# VULCAN® SEALS FOR K.S.B.® PUMPS

Vulcan offer a wide range of seals from stock and to special order, to suit K.S.B.® equipment, especially centrifugal and waste-water pumps. Please contact us with O.E.M. details for cross reference and identification.

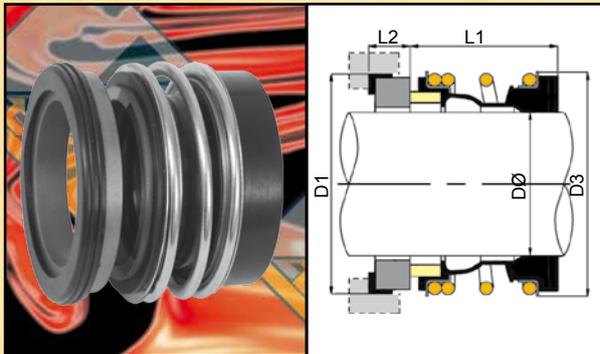
## TYPE 127B TO SUIT ETA- AND SY- SERIES PUMPS E AS 316



Vulcan manufacture and stock 'O'-Ring mounted conical spring rotaries with Type 19B boot mounted stationaries, to give operating dimensions to EN12756/DIN24960 L1N, for "ETA-" series pumps with "SY-, SYA-, SYN-, or SYT-" designations. These seals are available from stock in materials especially suitable for hot water duties.

SHAFT SIZE DØ	SIZE CODE	D1	D3	L1	L2
28.00	0280	43.00	40.00	42.50	7.50
38.00	0380	56.00	53.00	46.00	9.00
48.00	0480	66.00	64.00	51.00	9.00

## TYPE 192K TO SUIT ETA- SERIES PUMPS EV D SS 304

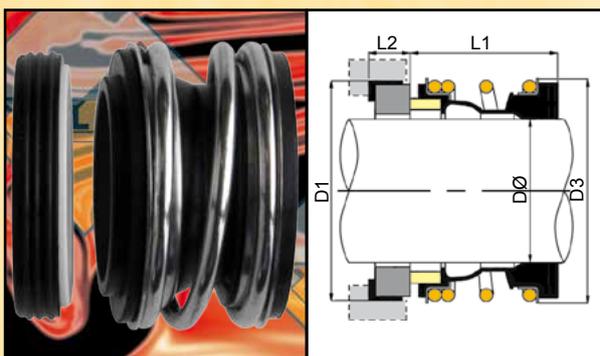


Vulcan manufacture and stock a range of elastomer bellows seals to suit the common types of K.S.B.® "ETA-" series centrifugal pumps commonly found throughout the fluid industry.

Contact us with O.E.M. details for cross reference and identification.

SHAFT SIZE DØ	SIZE CODE	D1	D3	L1	L2
16.00*	0160	27.00	26.00	22.20	12.10
22.00	0220	37.00	36.00	25.50	12.10
28.00	0280	43.00	47.00	36.50	14.40
38.00	0380	56.00	58.00	42.00	13.20
48.00	0480	66.00	69.00	50.50	9.60

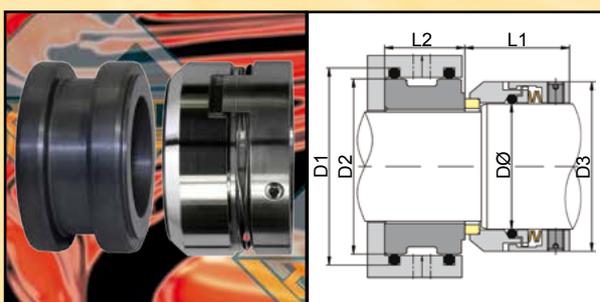
## TYPE 197 TO SUIT AMA-, KRT-, AND SEWA- SERIES PUMPS



Vulcan manufacture and stock a range of elastomer bellows seals to suit the specific dimensions of K.S.B.® "AMA-", "KRT-" and "SEWA-" series waste-water pumps with "SU-" prefix seals installed. 25mm size is commonly used in the 'oil bath' position, with 22mm Type 19B found on page 45 in the 'outer' position, 33mm sizes are used in pairs in the same pump series. 28mm is commonly used in "Vitachrom" pumps in tandem with Type 127B.

SHAFT SIZE DØ	SIZE CODE	D1	D3	L1	L2	GUARANTEED STOCK MATERIALS
25.00	0250	38.00	41.00	23.00	7.50	<span style="border: 1px solid black; border-radius: 50%; padding: 2px;">V</span> <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">C</span> 304
28.00*	0280	43.00	47.00	26.50	9.00	<span style="border: 1px solid black; border-radius: 50%; padding: 2px;">V</span> <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">SS</span> 304
33.00	0330	48.00	51.00	27.50	11.00	<span style="border: 1px solid black; border-radius: 50%; padding: 2px;">V</span> <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">SS</span> 304

## TYPE 1678Y TO SUIT VARIOUS K.S.B.® PUMPS E AD 304



Vulcan manufacture and stock two sizes of step-balanced, 'O'-Ring mounted wave-spring seals, with specific stationary design to replace O.E.M. seal type "H75G115". These seals are available from stock in materials especially suitable for hot water duties.

SHAFT SIZE DØ	SIZE CODE	D1	D2	D3	L1	L2
28.00	0330	55.20	48.80	47.00	38.50	25.00
33.00	0380	59.20	52.80	54.00	38.50	29.00

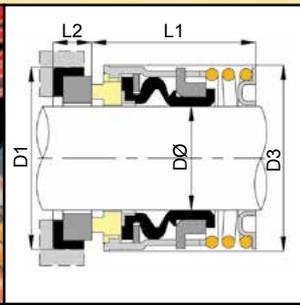
Advice on our Material Codes shown above and our standard coding system are on Pages 91 & 18 of this brochure. For ease, please refer to our O.E.M. Price List where you will find a clear list, filterable by either the O.E.M.'s name or Vulcan Seal Type number, showing all common materials and stock codes, pricing and Stock Guarantee.

All seals / sizes / materials detailed above are guaranteed ex-stock, unless asterisked. For any other sizes, or identification by X-reference, please refer to the on-line O.E.M. database, or contact us with your requirements.



# VULCAN® SEALS FOR VARIOUS PUMPS

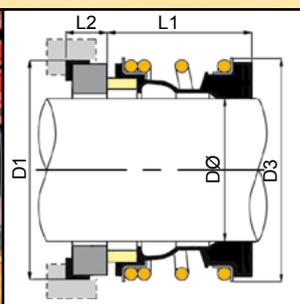
VULCAN® TYPE N5 TO SUIT NATIONAL OILWELL® MISSION MAGNUM® PUMPS. (V) (H) 316



Vulcan hydraulically balanced elastomer diaphragm seals of 2.500" shaft size, with improved design to suit the adverse conditions associated with "mud" pumps, commonly found in oil extraction applications, such as drilling rigs. Vulcan's design, specifically created for these applications provides the seal performance benefits of a machined head retainer, hydraulic balance and a full boot mounted seat. As 'O'-Ring mounted seats are less able to seal the frequently pitted, corroded housings. Vulcan also supplies the replacement shaft sleeves to suit these pumps, on stock code 0635.N5.V.X.SLEE.

SHAFT SIZE DØ		SIZE CODE	D1		D3		L1		L2	
IMPERIAL	METRIC		IMPERIAL	METRIC	IMPERIAL	METRIC	IMPERIAL	METRIC	IMPERIAL	METRIC
2.500	63.50	0635	3.375	85.73	3.210	81.54	2.500	63.50	0.567	14.40

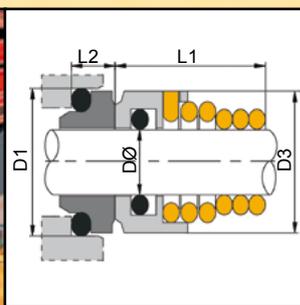
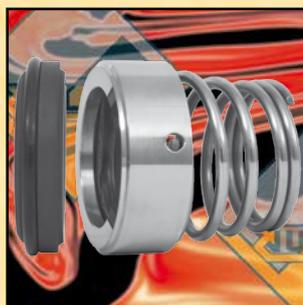
VULCAN® TYPE 196 32MM TO SUIT S.P.P.® PUMPS. (E) (D) 304



Vulcan manufacture and stock 32mm elastomer bellows seals with smooth-boot stationaries, to suit the extended seal chamber of S.P.P.® Eurostream® centrifugal pumps, commonly associated with large building service applications, such as heating and fire systems.

SHAFT SIZE DØ	SIZE CODE	D1	D3	L1	L2
32.00	0320	48.00	46.00	40.00	7.50

VULCAN® TYPE 121 TO SUIT STERLING SIHI® PUMPS. (NEV) (P) 304



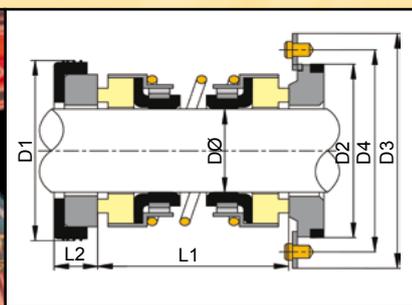
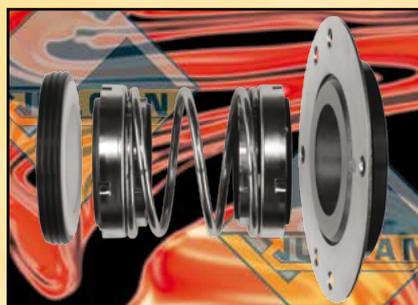
Vulcan manufacture and stock 38mm 'O'-Ring mounted conical spring seals, in clockwise and anti-clockwise rotation, to suit the housing dimensions of common Sterling Sihi® pumps.

SHAFT SIZE DØ	SIZE CODE	D1	D3	L1	L2
38.00	0380	53.50	53.00	42.00	9.50

Vulcan stocks many standard range seals to suit Sterling Sihi® pumps, such as Type 12, Type 12DIN, Type 192S, Type 40L and Type 1677M.

Please contact us with the O.E.M. details for cross reference and identification.

VULCAN® TYPE 260B TO SUIT TSURUMI® PUMPS. (V) (WA) 304



Vulcan manufacture and stock a range of elastomer diaphragm double-ended seals, with boot stationaries at oil side and bezel seats at impeller side, to suit the seal chamber of various Tsurumi® submersible pumps.

Type 260B seals are supplied complete with bezel plates for the inboard seat.

SHAFT SIZE DØ	SIZE CODE	D1	D2	D3	D4 P.C.D.	L1	L2
20.00	0200	38.00	44.00	72.00	60.00	34.00	8.00
25.00	0250	44.00	50.00	72.00	60.00	34.00	8.00
30.00	0300	50.00	57.00	82.00	70.00	42.00	8.00
35.00	0350	58.00	65.00	94.00	80.00	42.00	9.00
40.00	0400	64.00	70.00	100.00	85.00	44.50	9.00
45.00	0450	66.00	70.00	105.00	90.00	45.00	9.00
50.00	0500	72.00	80.00	109.00	95.00	49.50	9.00

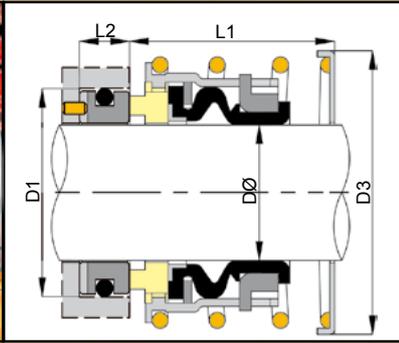
Advice on our Material Codes shown above and our standard coding system are on Pages 91 & 18 of this brochure. For ease, please refer to our O.E.M. Price List where you will find a clear list, filterable by either the O.E.M.'s name or Vulcan Seal Type number, showing all common materials and stock codes, pricing and Stock Guarantee.

All seals / sizes / materials detailed above are guaranteed ex-stock, unless asterisked. For any other sizes, or identification by X-reference, please refer to the on-line O.E.M. database, or contact us with your requirements.



# VULCAN® VIKING® / WILO® PUMPS SEALS

## VULCAN® TYPE V4 TO SUIT VIKING® PUMPS. 304

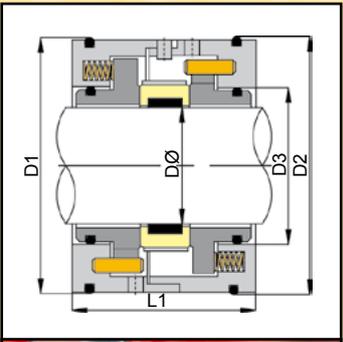


Vulcan manufacture a wide range of differing elastomer diaphragm seals with 'O'-Ring or boot mounted stationaries, to suit the specific dimensions required by various IDEX® Viking® pumps, of which the Vulcan Type V4 1.1/4" shaft size is a common example. Please contact us with O.E.M. details for cross reference and identification, for any other seal assembly required for this popular brand of pumps.

SHAFT SIZE DØ		SIZE CODE	D1		D3		L1		L2	
IMPERIAL	METRIC		IMPERIAL	METRIC	IMPERIAL	METRIC	IMPERIAL	METRIC	IMPERIAL	METRIC
1.250	31.70	0317	1.875	47.50	2.027	51.50	1.000	25.40	0.381	9.65

## VULCAN® TYPE 1640 AND 1642 TO SUIT WILO® E.M.U. SUBMERSIBLE PUMPS. 304

Vulcan manufacture and stock several standard range seals to suit Wilo® E.M.U. Submersible pumps, as well as Type 1640 and 1642 seals to replace the O.E.M. "EBU" enclosed-block seals.



The Vulcan Type 1640 is a direct replacement for the older-generation "EBS" O.E.M. seals. Newer pumps have a slightly modified seal installed, which is directly replaced by the Vulcan Type 1642. Please check the outer dimensions of the seat housing for correct identification, utilising the table below, D3 dimension.

Type 1640 is available as complete mechanical seal assemblies or in repair kit form. The kits comprise both stationary faces, with 'O'-Rings, central rotary with elastomer diaphragm, anti-rotation pins and springs for stationaries, and retaining pins for the collets. Specify .KIT as a suffix on the stock code.

### Type 1640 Dimensions 304

SHAFT SIZE DØ	SIZE CODE	D1	D2	D3	L1
35.00	0350	72.00	72.00	47.00	47.50
50.00	0500	92.00	90.00	63.00	52.00
75.00	0750	130.00	128.00	95.50	75.00

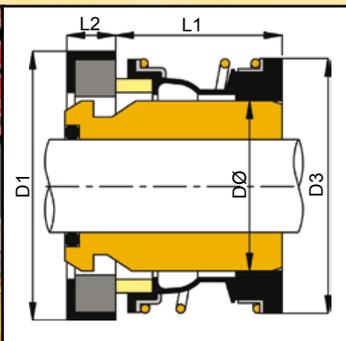


### Type 1642 Dimensions 304

SHAFT SIZE DØ	SIZE CODE	D1	D2	D3	L1
35.00	0350	72.00	72.00	49.00	47.00
50.00	0500	92.00	90.00	65.00	52.00

## VULCAN® TYPE 191 TO SUIT WILO® CENTRIFUGAL PUMPS. 304

Vulcan manufacture and stock two sizes of Type 191 elastomer bellows seals to suit common Wilo® centrifugal pumps, commonly utilised in heating pumps applications. Vulcan stocks the brass shaft sleeves the seals are mounted onto. Vulcan also offers other standard range seals, such as 17mm Type 19B, and 18mm, 24mm or 32mm Type 192B seals, to suit Wilo® pumps.



SHAFT SIZE DØ	SIZE CODE	D1	D3	L1	L2
32.00	0320	50.80	51.00	33.34	11.99
55.00	0550	76.20	78.00	41.00	13.50



Brass Shaft Sleeves.  
Please use codes;  
0320.191.E.X.SLEE  
0550.191.E.X.SLEE  
For ordering relevant  
Shaft Sleeves

Advice on our Material Codes shown above and our standard coding system are on Pages 91 & 18 of this brochure. For ease, please refer to our O.E.M. Price List where you will find a clear list, filterable by either the O.E.M.'s name or Vulcan Seal Type number, showing all common materials and stock codes, pricing and Stock Guarantee.

All seals / sizes / materials detailed above are guaranteed ex-stock, unless asterisked. For any other sizes, or identification by X-reference, please refer to the on-line O.E.M. database, or contact us with your requirements.



# VULCAN® SEALS FOR COMPRESSORS

## VULCAN® MECHANICAL SEALS TO SUIT REFRIGERATION O.E.M. APPLICATIONS

Vulcan have extensive sealing experience within the refrigeration industry, and have developed a wide range of seals, with the specific elastomers and advanced face materials required to suit the refrigerants and synthetic lubricating oils the mechanical seals are routinely exposed to.

As there are a wide range of compressor models, and generally each compressor has model specific seal arrangements, Vulcan have developed many seal designs to suit compressor applications. The following list merely illustrates our main guaranteed stock lines. Please enquire with any other requirement.

Furthermore, these seals can be installed in the equipment without any amendment to the existing housings or shafts. The Vulcan designs, excellent materials, wide stock range and the ability to manufacture to any industry design or requirement, complement the Vulcan Refrigeration Seal range.

## VULCAN® GUARANTEED EX-STOCK SEAL RANGE



J & E Hall® HS18-20 Screw



Howden® WRV205



Howden® WRV225 Mk1



Sabroe® TCM028

A.P.V. Hall® HS18-20 Screw  
 A.P.V. Hall® V54 6 And 8 Cylinder  
 A.P.V. Hall® V92 Range  
 A.P.V. Hall® V127 Range  
 Bitzer® 4F, 6F And 6G  
 Bitzer® 4N, 4P, 4T And 4U  
 Bock® AM And BFO Ranges  
 Bock® F And FK Ranges

Carrier® 05K  
 Carrier® 05G  
 Carrier® 05G Emergency Clutch  
 Carrier® 05H  
 Carrier® V60  
 Copeland® 2, 4 And 6 Cylinder  
 Copeland® 8 Cylinder  
 Daikin® C55 4, 6 And 8 Cylinder  
 Daikin® C75 4, 6 And 8 Cylinder

Dunham Bush® Big 4  
 Frick® RDB Range  
 Frick® RWB Range  
 Frick® TDSH/GDSH Range  
 Gram® HC075  
 Gram® HC100  
 Grasso® RC9 Non-bellows  
 Grasso® RC11 Non-bellows  
 Howden® WRV163 And XRV163  
 Howden® WRV204 Mk4  
 Howden® WRV204 Mk5  
 Howden® WRV204 Mk6  
 Howden® WRV205  
 Howden® WRV255 Mk1 To 4F

Howden® WRV255 Mk5  
 Howden® WRV321  
 Sabroe® CM018  
 Sabroe® CM024, 026 And 028  
 Sabroe® SAB 128 Non-bellows  
 Sabroe® SAB 163 Non-bellows  
 Sabroe® SMC100 To 104  
 Sabroe® TCM024, 026 And 028

Sabroe® TSMC108 To 165  
 Sabroe® VMY225  
 Sabroe® VMY236  
 Sabroe® VMY325  
 Sabroe® VMY336  
 Sabroe® VMY447  
 Sabroe® VMY525  
 Sabroe® VMY536  
 Stal® P24 And PK24

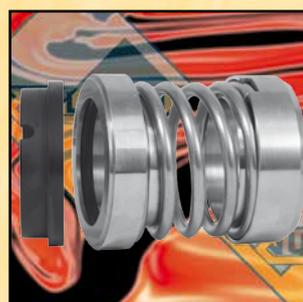
Stal® P42  
 Stal® PK6, PK8  
 Stal® S50, S51, S56 And S57  
 Stal® S70, S71, S73 And S75  
 Thermo-King® "22-0777" Seal  
 Thermo-King® "22-0778" Seal  
 Thermo-King® "22-0899" Seal  
 Thermo-King® "22-1100" Seal  
 Thermo-King® "22-1101" Seal  
 Vilter® 320VMC to 350VMC  
 Vilter® 440 With 2.500" Crank  
 Vilter® 450 With 2.500" Crank  
 Witt® GP42 Pump  
 Witt® GP51 Pump



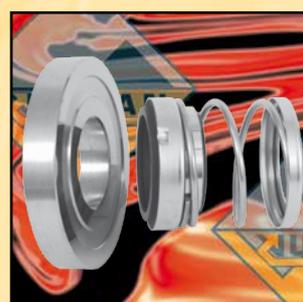
Copeland® 4CC



Carrier® 05G



J & E Hall® V54



Stal® P24

Vulcan Seals for all of the above Compressor Models shown are Guaranteed Ex-Stock. For further information and any other types, please view our Web Portal and / or our Compressor Seal Price List, or enquire.

Advice on our Material Codes shown above and our standard coding system are on Pages 91 & 18 of this brochure. For ease, please refer to our O.E.M. Price List where you will find a clear list, filterable by either the O.E.M.'s name or Vulcan Seal Type number, showing all common materials and stock codes, pricing and Stock Guarantee.

All seals / sizes / materials detailed above are guaranteed ex-stock, unless asterisked. For any other sizes, or identification by X-reference, please refer to the on-line O.E.M. database, or contact us with your requirements.

11 a