



Flow Solutions Division



PAC-SEAL
**Replacement
Seal Division
Catalog**

MADE IN USA
ISO 9002 Compliant
USE ONLY THE BEST

How do you choose the best replacement seal for your needs?

OEM acceptability of seals for inclusion in their product

The Pac Seal Group (as part of the Flowserve Corporation) is becoming the preferred Mechanical Seal in the OEM Elastomeric-Bellows Seal market. Look at the seal that was in the pump, more than likely, it's a Pac Seal.



Quality of the seal

Pac Seals incorporate a revolutionary design with high quality materials to produce the highest quality seals available on the market.

Seal performance and seal life

Pac Seals operate at higher pressures and faster shaft speeds than the competition. A Pac Seal is made so well that it may outlast your bearings.

Reducing down time and maintenance time

If your pump is not running, you are losing money. The more frequently a seal is replaced, the more money you lose and the greater the risk of damaging pump parts during replacement.

Trustworthy manufacturer

Pac Seal Group has been making seals since the 1970's. Pac Seal Group is ISO 9002 certified. Pac Seal Group manufactures Pac Seals in the US of US supplied material.

What is the revolutionary design of Pac Seal products?

- Mechanically crimped seal heads
- Hex-torque drive system
- High quality standard components

So what does this mean to you, how does the Mechanical Crimp affect the quality of the seal?

The mechanically crimped seal heads afford many benefits, the first of which is the seal face will not fall out during installation. That should be sufficiently beneficial enough to convince users that we make a superior product, but it does not stop there. The crimped head will prevent foreign material from lodging between the seal face and the bellows. The bellows wraps around the outer diameter of the seal face and prevents any contact between the metal outer shell and the seal face. Further, the crimped head withstands much higher pressure because pressure will not dislodge the bellows.

How does the hex-torque drive system improve the seal?

Pac Seal makes outer shells and drive bands that interact like a socket and nut connection. This distributes the drive load evenly around the outer shell. The drive system does not depend upon thin stampings to engage the drive band and transfer drive to the outer shell. This means that the breakaway torque required to get the rotary face moving against the stationary face will not cause a flimsy drive tang to snap on a Pac Seal. We just do not manufacture low quality seals.

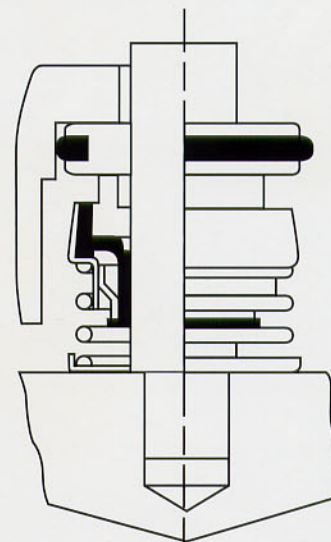
How does material selection impact the seal life?

Pac Seal standardizes on high quality US made and assembled materials to ensure the highest level of fluid compatibility. We utilize stainless steel for our metal components, hi-grade carbon and silicon carbide for our rotary faces and hi-grade ceramic and silicon carbide for our stationary faces. Stainless steel components are superior to brass and plated metal components, that the competition uses, in chemical compatibility. Our carbon and silicone carbide faces are standardized on high chemical and heat compatibility. Our ceramic and silicon carbide seats are standardized to withstand thermal shock and for optimum heat transfer to keep the seal running cool. We take the guesswork out of seal selection and consistently offer the best quality seal as our standard model.



The strength of the Pac Seal Family

Pac Seal sells through Distributors. This puts the Pac Seal product into the hands of a reseller in your local area. Their stock and seal knowledge are your best tools for getting the right seal for your application. We pride ourselves on the timeliness of orders shipping to our distributors and assisting the distributors in seal identification and application assistance.



Type 21

Exceeding the Customer's Expectation

When was the last time that you got more than you expected when you made a purchase? For those who have used Pac Seals before, you know what we are talking about. For those of you who have never tried yet, be prepared for a pleasant surprise. Our seals are superior to those expensive seals you were using.

HOW TO USE THIS BOOK

Step 1

If you have the original manufacturer's P/N, use the OEM cross reference section to locate the seal. If you do not have the P/N or it is not listed, it will be necessary to identify the seal type and measure the seal.

Step 2

Refer to Seal Type listing beginning on page 2. Identify the seal type, seat type and material code. For further information on necessary dimensions, refer to seal size guide on page 4.

Step 3

Refer to Dimensions & Materials Code section to identify the seal. Using information gathered in step 2, locate seal by shaft size, seal type, working length, seat style and dimensions and material code.

The Pac-Seal catalog lists the majority of popularly used seals. Many of these are supplied to the original pump or equipment manufacturer, assuring the material and dimensional listings are as specified by the original equipment manufacturer.

A number of other seals listed are manufactured, stocked and sold with either incomplete or no identification as to the pump manufacturer's or their part number. These seals have been developed from samples or from drawings and specifications provided by our distributors, their customers and our own investigations. Every effort has been made to verify the information developed. In those instances where variations do occur, Pac-Seal would appreciate being furnished with the information necessary to make the correction on future catalogs.

Listings can be developed from samples and all data listed on the pump nameplate. A copy of the pump components drawing is a further aid. If a seal requires special materials, as available in the material identification page, but is not listed, we would appreciate the opportunity to quote and to supply. Many of these components are carried in stock, offering a faster response to your needs.

Most replacement seal numbers are available utilizing any of the listed elastomers, with UL approved Buna being standard. To order, simply request the replacement seal number that meets your requirements as far as size, metallurgy and seal face requirements; and then add the appropriate elastomer identification letter at the end of the number that differs from UL approved Buna (B).

It is our intent to fill your seal requirements. With your help, we can do so.

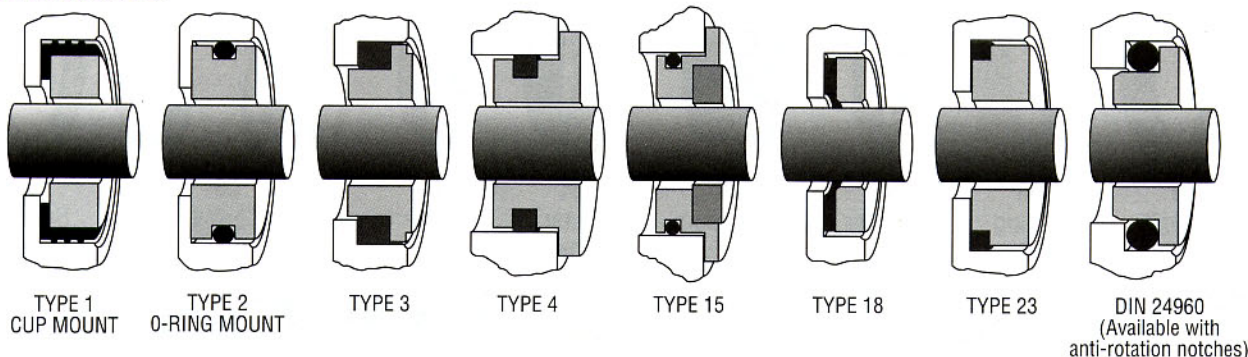
Contents

How to Use This Book	1
Product Range	2
Seat Styles	3
Material Codes	3
Seal Parts Description	4
Seal Size Guide	4
Pump Manufacturers Cross Reference Guide	5
Installation Instructions (English Version)	34
Pool and Spa Pump Manufacturers Cross Reference Guide	35
Dimensions and Material Codes	37
Recommended Seal Material	57

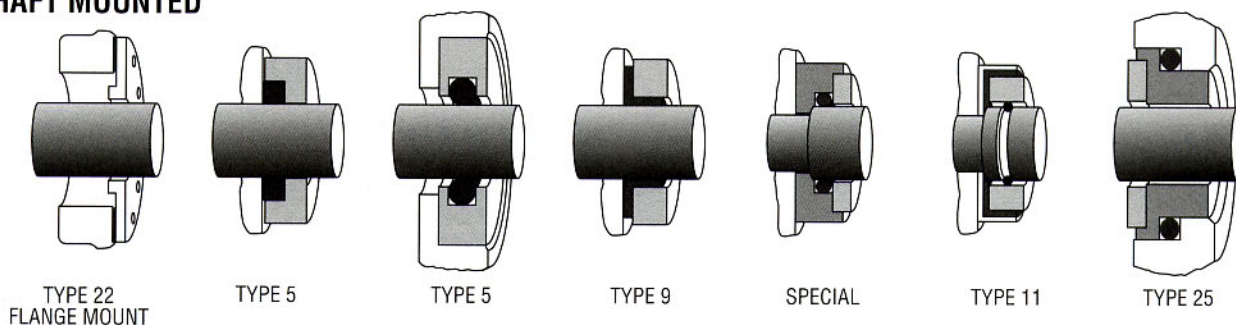
SEAL		SEAL ASSEMBLY	EQUIVALENT
21 (31)			US SEAL C CRANE 21 & 2 SEALOL 43 CU SHORT
51			US SEAL E CRANE 1 & 1A SEALOL 43 CE LONG
52			US SEAL D CRANE 2, SEALOL 43 CE SHORT & 43 BE BURGMANN M3, M377
16			US SEAL A CRANE 6 SEALOL 60L BURGMANN MG
68			US SEAL B CRANE 6A
29			US SEAL B CRANE 6A
37			BURGMANN M2 & M3
40			CRANE 11A
8			CRANE 8I & 8TI BURGMANN TF, M74, H74
9			CRANE 9I & 9TI BURGMANN TF, M74, H74

PAC-SEAL SEAT STYLES

BORE MOUNTED

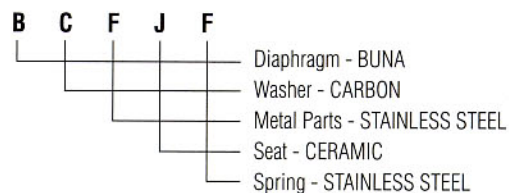
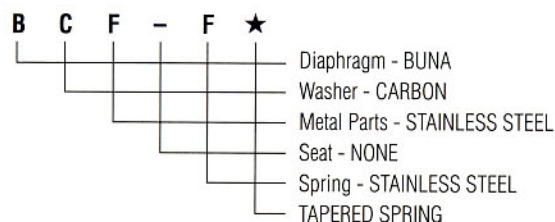


SHAFT MOUNTED



PAC-SEAL MATERIAL CODES

EXAMPLES



PAC-SEAL MATERIAL CODE

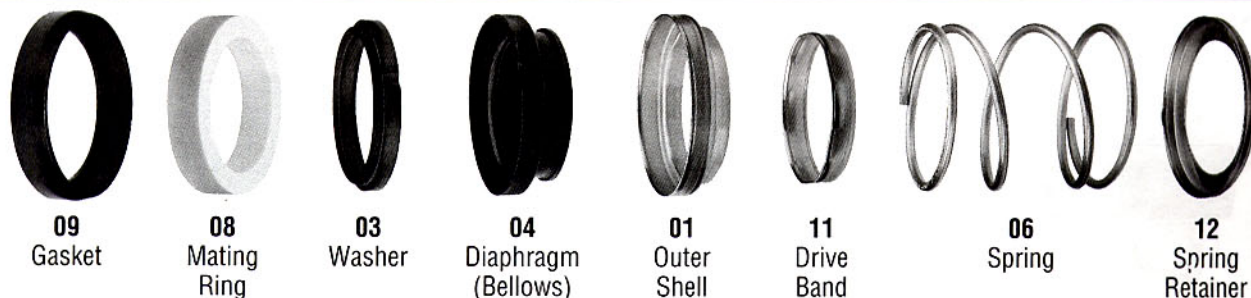
ELASTOMER	WASHERS	METAL PARTS	SEATS	SPRINGS
B. Buna, UL	C. Carbon	F. Stainless Steel	J. Ceramic	F. Stainless Steel
E. Ept.*	M. Phenolic	L. Monel	K. Ni-Resist	L. Monel
N. Neoprene**	X. Silicon Carbide	R. 316 Stainless Steel	X. Silicon Carbide	R. 316 Stainless Steel
U. Buna, FDA	Z. Tungsten Carbide		Z. Tungsten Carbide	
V. Viton***				

*White identification mark. **Red identification mark ***Green identification mark

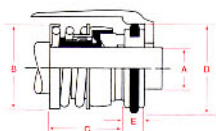
PRESSURE AND HEAT LIMITATIONS

SEAL	BUNA (°F)	VITON (°F)	NEOPRENE (°F)	EPT (°F)	PRESSURE (PSI)
21/51/52	212	400	175	300	250
16	212	400	175	300	150
68	212	400	175	300	75
29	212	212	175	212	75
37/40	212	400	175	300	Varies
8/9	212	400	175	300	350

SEAL PARTS DESCRIPTION



SEAL SIZE GUIDE



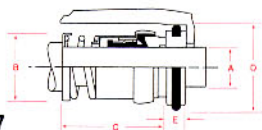
PAC-SEAL 21 & 52

SEAL HEAD

1. Shaft size: Measure the inside diameter of the diaphragm and add approximately .016" for rubber squeeze. (A)
2. Measure the seal O.D. (B)
3. Working length: Measure uncompressed length of rotary assembly and multiply by .34 and by .67. Within this range select common working length from catalog dimensional chart. (C)

SEAT AND GASKET

1. Measure O.D. of the gasket while assembled on mating ring and subtract approximately .016" for rubber squeeze to obtain counterbore dimension. (D)
2. Measure the combined seat and gasket thickness. (E)



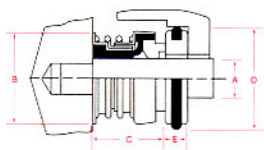
PAC-SEAL 51 & 37

SEAL HEAD

1. Shaft size: Measure the inside diameter of the diaphragm and add approximately .016" for rubber squeeze. (A)
2. Measure the seal O.D. (B)
3. Working length: Measure height of seal head without spring and add half the length of uncompressed spring. (C)

SEAT AND GASKET

1. Measure O.D. of the gasket while assembled on mating ring and subtract approximately .016" for rubber squeeze to obtain counterbore dimension. (D)
2. Measure the combined seat and gasket thickness. (E)



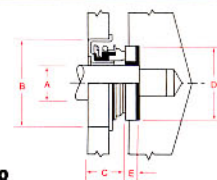
PAC-SEAL 16

SEAL HEAD

1. Shaft size: Slightly compress rotary portion of seal to relieve spring tension on diaphragm. Measure the inside diameter of the diaphragm and add approximately .016" for rubber squeeze. (A)
2. Measure the seal O.D. (B)
3. Working length: Measure uncompressed length of rotary assembly and subtract approximately .100" (C)

SEAT AND GASKET

1. Measure O.D. of the gasket while assembled on mating ring and subtract approximately .016" for rubber squeeze to obtain counterbore dimension. (D)
2. Measure the combined seat and gasket thickness. (E)



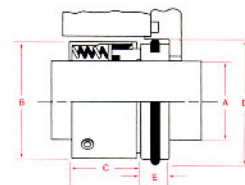
PAC-SEAL 29 & 68

SEAL HEAD

1. Determine the shaft size (A) by measuring the seal O.D. (B) There is only one seal O.D. per shaft size in this seal type.
2. Working length is generally the same for all type 68 seals of the same shaft size. (C)

SEAT AND GASKET

1. Measure O.D. of the gasket while assembled on mating ring and subtract approximately .016" for rubber squeeze to obtain counterbore dimension. (D)
2. Measure the combined seat and gasket thickness. (E)



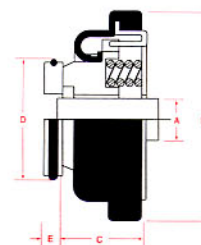
PAC-SEAL 8 & 9

SEAL HEAD

1. Determine the shaft size (A) by measuring the seal O.D. (B) There is only one seal O.D. per shaft size in this seal type.
2. Working length is generally the same for all type 68 seals of the same shaft size. (C)

SEAT AND GASKET

1. Measure O.D. of the gasket while assembled on mating ring and subtract approximately .016" for rubber squeeze to obtain counterbore dimension. (D)
2. Measure the combined seat and gasket thickness. (E)



PAC-SEAL 40

SEAL HEAD

1. Determine the shaft size (A) by measuring the seal O.D. (B) There is only one seal O.D. per shaft size in this seal type.
2. Working length is generally the same for all type 68 seals of the same shaft size. (C)

SEAT AND GASKET

1. Measure O.D. of the gasket while assembled on mating ring and subtract approximately .016" for rubber squeeze to obtain counterbore dimension. (D)
2. Measure the combined seat and gasket thickness. (E)

DIMENSIONS AND MATERIAL CODES

SEAL TYPE	SEAL O.D.	W.L.	SEAT STYLE	SEAT BORE	SEAT THICK	MAT'L CODE	SPEC. NO	RSD P/N
	3.230	2.500	2	3.250	0.562	BCFKF	12409	12409
	3.230	1.813	2	3.250	0.562	BCFKF	12410	12410
	3.230	1.813	-			BCF-F	12415	12415
	3.230	2.500	-			BCF-F	12416	12416
21D	3.230	2.375	2	3.250	0.562	BCFKF	12411	12411
	3.230	2.375	2	3.250	0.562	BCFKF	12412	12412
	3.230	3.500	2	3.250	0.562	BCFKF	12414	12414
	3.230	2.375	-			BCF-F	12417	12417
	3.230	3.500	-			BCF-F	12418	12418

2.500 Shaft Size

21	3.390	2.500	1	3.375	0.562	BCFKF	12508	12508
	3.390	2.500	1	3.375	0.562	NCFKF		12508N
	3.390	1.813	1	3.250	0.437	BCFKF	12509	12509
	3.390	1.813	1	3.375	0.562	BCFKF	12512	12512
	3.390	1.813	1	3.375	0.562	ECFKF		12512E
	3.390	2.500	2	3.375	0.562	BCFKF	12514	12514
	3.390	1.813	-			BCF-F	12517	12517
	3.390	1.813	-			VCF-F	12518	12517V
	3.390	2.500	-			BCF-F	12519	12519
	3.390	2.500	2	3.375	0.562	BCFJF	12520	12520
	3.390	1.813	2	3.375	0.562	BCFJF	12521	269
	3.390	2.500	2	3.375	0.562	BCFJF	12520	279-21
	3.390	2.500	2	3.375	0.562	BZFFZ	32517	32517
	3.390	1.250	2	3.375	0.562	NCFKF	12553	335N
	3.390	2.500	2	3.375	0.562	BCFKF	12514	349-21
	3.390	1.813	2	3.375	0.562	BCFKF	12515	463
	3.390	1.813	2	3.375	0.562	VCFKF	12557	463V
	3.625	1.813	2	3.250	0.437	BCFJF	12542	468
	3.390	1.813	2	3.250	0.437	BCFKF	12523	469
	3.390	1.813	2	3.375	0.562	BCFJF	12521	835
	3.390	1.813	2	3.375	0.562	BCFKF	12515	853
	3.390	2.500	2	3.375	0.562	BCFJF	12520	916-21
21D	3.390	2.562	2	3.375	0.531	NCFKF	12516	12516N
	3.390	2.375	-			BCF-F	12529	12529
	3.390	2.375	-			NCF-F		12529N
	3.390	3.500	-			BCF-F	12530	12530
	3.390	2.375	2	3.375	0.562	BCFJF	12532	12532
	3.390	2.375	2	3.375	0.562	BCFKF	12533	12533
	3.390	3.500	2	3.375	0.562	BCFJF	12534	12534
	3.390	2.375	1	3.375	0.562	BCFKF	12536	12536
	3.390	3.500	2	3.375	0.562	BCFKF	12537	12537
	3.390	2.187	2	3.375	0.531	NCFKF	12524	889N
37	3.500	0.625	5	Shaft mtd	0.562	BMDAF	72501	72501
	3.500	0.625	-			BMD-F	72502	72502
	3.500	0.625	-			BCD-F	72503	72503
51	3.062	2.500	2	3.375	0.562	BCRJF	52508	279
	3.062	2.500	2	3.375	0.562	BCRKR	52536	349
	3.062	2.500	2	3.375	0.562	VCRKR		349V
	3.062	2.500	2	3.375	0.562	BCRJF	52508	916

2.625 Shaft Size

21	3.390	1.937	-			BCF-F	12604	12604
	3.390	2.750	-			BCF-F	12605	12605

	3.390	1.937	2	3.375	0.625	BCFKF	12610	12610
	3.390	1.055	2	4.000	0.500	BCFKF	12612	12612
	3.390	2.750	2	3.375	0.625	BCFKF	12617	12617
	3.390	2.750	2	3.375	0.625	BCFJF	12620	12620
	3.390	1.937	2	3.375	0.625	BCFJF	12621	12621
	3.390	1.937	1	3.375	0.625	BCFKF	12630	12630
	3.390	2.750	1	3.375	0.625	BCFKF	12631	12631
	3.390	2.750	2	3.375	0.625	BCFJF	12620	328-21
	3.390	2.750	2	3.375	0.625	BCFKF	12617	542-21
	3.390	2.732	2	3.336	0.531	NCFKF	12616	571N

21D	3.390	2.562	1	3.643	0.562	BCFJF	12611	1106
	3.390	2.562	1	3.643	0.562	BCFKF	12618	12618
	3.390	2.500	-			BCF-F	12622	12622
	3.390	3.375	-			BCF-F	12623	12623
	3.390	2.500	2	3.375	0.625	BCFJF	12624	12624
	3.390	2.500	2	3.375	0.625	BCFKF	12625	12625
	3.390	3.375	2	3.375	0.625	BCFJF	12626	12626
	3.390	3.375	2	3.375	0.625	BCFKF	12627	12627
	3.390	2.500	1	3.375	0.625	BCFKF	12628	12628
	3.390	3.375	1	3.375	0.625	BCFKF	12629	12629
51	3.187	2.750	2	3.375	0.625	BCRJF	52608	328
	3.187	2.750	2	3.375	0.625	BCRKR	52636	542

2.750 Shaft Size

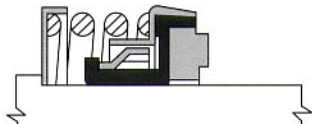
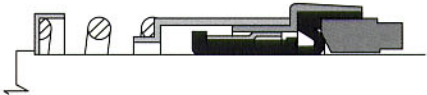
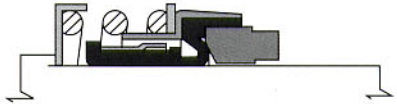
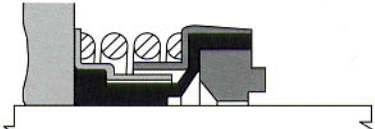
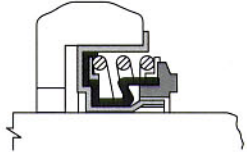
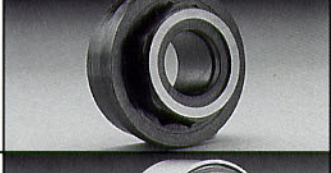
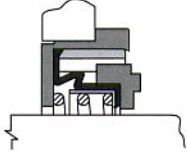
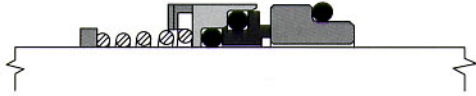
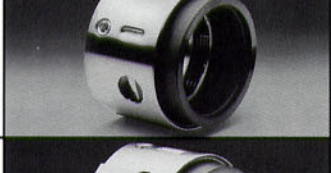
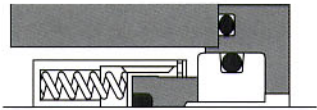
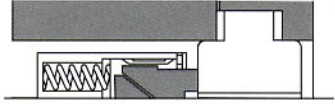
21	3.500	1.937	1	3.500	0.625	BCFKF	12704	12704
	3.500	1.937	-			BCF-F	12705	12705
	3.500	2.750	1	3.500	0.625	BCFKF	12709	12709
	3.500	1.687	3	4.390	0.812	VCFKF	12701	12710V
	3.500	2.750	-			BCF-F	12720	12720
	3.500	2.750	2	3.500	0.625	BCFKF	12711	321
	3.500	2.750	2	3.500	0.625	VCFKF		321V
	3.500	1.937	2	3.750	0.625	NCFKF	12722	337N
	3.500	1.937	2	3.500	0.625	BCFKF	12713	464
	3.500	1.937	2	3.500	0.625	BCFKF	12713	483
	3.500	1.937	2	3.500	0.625	BCFJF	12712	836
	3.500	1.937	2	3.500	0.625	BCFJF	12712	837
	3.500	2.750	2	3.500	0.625	BCFJF	12710	838

21D	3.500	3.750	1	3.500	0.625	BCFKF	12706	12706
	3.500	3.750	-			BCF-F	12707	12707
	3.500	2.500	2	3.500	0.625	BCFKF	12716	12716
	3.500	2.500	1	3.500	0.625	BCFKF	12717	12717
	3.500	3.750	1	3.500	0.625	BCFJF	12718	12718
	3.500	2.500	2	3.500	0.625	BCFJF	12719	12719
	3.500	2.500	-			BCF-F	12721	12721
	3.500	3.750	2	3.500	0.625	BCFKF	12715	322

2.875 Shaft Size

21	3.800	2.062	-			BCF-F	12802	12802
	3.800	2.062	1	3.750	0.625	BCFKF	12804	12804
	3.800	2.875	1	3.750	0.625	BCFKF	12805	12805
	3.800	2.875	-			BCF-F	12816	12816
	3.800	2.062	1	3.875	0.625	NCFKF	12819	12819N
	3.800	2.062	2	3.750	0.625	BCFJF	12809	270
	3.800	2.875	2	3.750	0.625	BCFKF	12806	329

SEAL TYPE	SEAL O.D.	W.L.	SEAT STYLE	SEAT BORE	SEAT THICK	MAT'L CODE	SPEC. NO	RSD P/N
2.875 Shaft Size (cont.)								
21	3.800	2.062	2	3.750	0.625	BCFKF	12808	839
	3.800	2.875	2	3.750	0.625	BCFKF	12806	841
21D	3.800	3.875	2	3.750	0.625	BCFKF	12810	12810
	3.800	3.875	2	3.750	0.625	BCFJF	12811	12811
	3.800	3.875	1	3.750	0.625	BCFKF	12812	12812
	3.800	2.750	2	3.750	0.625	BCFKF	12813	12813
	3.800	2.750	2	3.750	0.625	BCFJF	12814	12814
	3.800	2.750	1	3.750	0.625	BCFKF	12815	12815
	3.800	2.750	-			BCF-F	12817	12817
	3.800	3.875	-			BCF-F	12818	12818
3.000 Shaft Size								
21	3.800	2.062	-			BCF-F	13001	13001
	3.800	2.062	1	3.875	0.625	BCFKF	13014	13014
	3.800	2.813	-			BCF-F	13018	13018
	3.800	2.813	1	3.875	0.625	BCFKF	13019	13019
	3.800	2.062	2	3.875	0.625	BCFKF	13025	2115
	3.800	2.062	2	3.875	0.625	BCFJF	13024	2116
	3.800	2.813	2	3.875	0.625	BCFJF	13026	324
	3.800	2.062	2	3.875	0.625	BCFKF	13025	465
	3.800	2.813	2	3.875	0.625	BCFKF	13017	475
	3.800	2.813	2	3.875	0.625	VCFKF		475V
	3.800	2.062	2	3.875	0.625	BCFJF	13024	761
	3.800	3.375	2	3.875	0.625	BCFJF	13037	897
21D	3.800	2.750	1	4.250	0.562	BCFKF	13015	13015
	3.800	2.750	1	4.125	0.562	BCFKF	13020	13020
	3.800	2.750	-			BCF-F	13028	13028
	3.800	2.750	-			VCF-F	13077	13028V
	3.800	2.750	1	3.875	0.625	BCFKF	13029	13029
	3.800	2.750	2	3.875	0.625	BCFJF	13030	13030
	3.800	2.062	1	4.125	0.562	BCFJF	13031	13031
	3.800	3.875	-			BCF-F	13033	13033
	3.800	3.875	1	3.875	0.625	BCFKF	13034	13034
	3.800	3.875	2	3.875	0.625	BCFKF	13035	13035
	3.800	3.875	2	3.875	0.625	BCFJF	13036	13036
	3.800	2.750	2	3.875	0.625	BCFKF	13023	284
	3.800	2.750	1	4.250	0.562	BCFJF	13032	893
3.250 Shaft Size								
40	4.250	0.915	-			BMD-F	43201	43201
52	4.162	1.562	2	4.125	0.781	BCRKR	23281	23281

SEAL		SEAL ASSEMBLY	EQUIVALENT
21 (31)			US SEAL C CRANE 21 & 2 SEALOL 43 CU SHORT
51			US SEAL E CRANE 1 & 1A SEALOL 43 CE LONG
52			US SEAL D CRANE 2, SEALOL 43 CE SHORT & 43 BE BURGMANN M3, M377
16			US SEAL A CRANE 6 SEALOL 60L BURGMANN MG
68			US SEAL B CRANE 6A
29			US SEAL B CRANE 6A
37			BURGMANN M2 & M3
40			CRANE 11A
8			CRANE 8I & 8TI BURGMANN TF, M74, H74
9			CRANE 9I & 9TI BURGMANN TF, M74, H74

PAC-SEAL SEAT TYPES



TYPE 21



TYPE 51



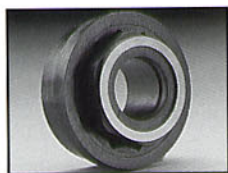
TYPE 52



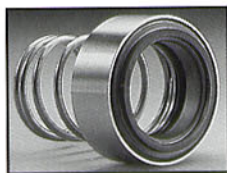
TYPE 16



TYPE 68



TYPE 29



TYPE 37



TYPE 40

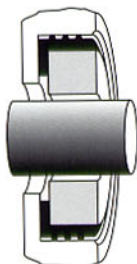


TYPE 8

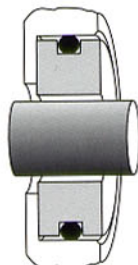


TYPE 9

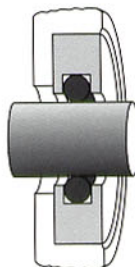
PAC-SEAL SEAT STYLES



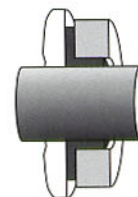
STYLE 1
CUP MOUNT



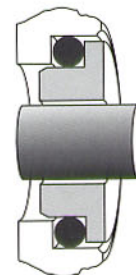
STYLE 2
O-RING MOUNT



STYLE 5



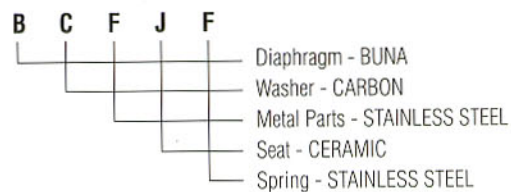
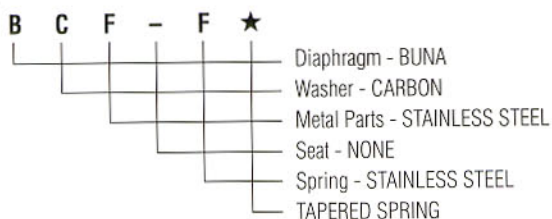
STYLE 9



DIN 24960
(Available with
anti-rotation notches)

PAC-SEAL MATERIAL CODES

EXAMPLES



PAC-SEAL MATERIAL CODE

ELASTOMER	WASHERS	METAL PARTS	SEATS	SPRINGS
B. Buna, UL	C. Carbon	F. Stainless Steel	J. Ceramic	F. Stainless Steel
E. Ept.*	M. Phenolic	L. Monel	K. Ni-Resist	L. Monel
N. Neoprene**	X. Silicon Carbide	R. 316 Stainless Steel	X. Silicon Carbide	R. 316 Stainless Steel
U. Buna, FDA	Z. Tungsten Carbide		Z. Tungsten Carbide	
V. Viton***				

*White identification mark. **Red identification mark. ***Green identification mark.

TROUBLE SHOOTING GUIDE

For an evaluation of seal failure, return entire seal with note of operating conditions to your local distributor.

TROUBLE	POSSIBLE CAUSE	REMEDY
Cracked or broken stationary seat (ceramic).*	Seal ran dry and heated up. When liquid reached seal faces it was cooler, causing thermal cracks.	Check to insure seal chamber is full of liquid before starting pump. On high temperature application insure proper flushing at seal faces.
Carbon washer scored and grooved.*	Dirty system.	Have system cleaned and flushed. Consider use of Tungsten Carbide or Silicon Carbide Rings.
Carbon washer worn unevenly.*	Seal improperly installed.	Check installation instructions for proper assembly.
Flexible Diaphragm broken.*	Coupling misalignment.	Realign pump and motor.
Short seal life in treated systems.	Treatment level and temperature higher than anticipated.	Advise factory of pump temperature and PPM Treatment Level, for alternate seal recommendation.
Buna Diaphragm hard and brittle. Rapid carbon wear.	Temperature too high.	Use Viton Elastomers, High Temperature Carbon, Ni Resist Tungsten Carbide or Silicon Carbide Seat.
Diaphragm soft and sticky; appears to be dissolving.	Bellows not compatible with material being pumped.	Consult factory for recommendation advising of pumpage and temperature.

*In all of the above cases of trouble, make sure the seal when fully compressed is not longer than the length of the seal cavity in which it is installed. Over compression is a major cause of failure.

WARRANTY

Pac-Seal warrants that the material and workmanship of our products will provide satisfactory service only if the buyer has selected the correct materials and the end user makes a proper installation. As it is beyond our means to assure the correct selection of material or correct installation, we assume no responsibility for any damage after our products have been put into service.

Any of our products found to be defective prior to being used will be replaced at no charge, or the purchase price refunded at our option. This shall be our maximum liability. the sale of Pac-Seal products under any other warranty or guarantee, expressed or implied, is not authorized by Flowserve corporation.

ELASTOMERS

Buna-N (Nitrile Rubber)

This copolymer of butadiene and acrylonitrile has good resistance to weak and strong acids as well as alkalis. It offers superior resistance to aliphatic hydrocarbons, petroleum, mineral and vegetable oils. It has excellent water swell resistance, and its mechanical properties actually improve at higher temperatures. Buna-N is not recommended for use with high polar solvents such as acetone, MEK and chlorinated hydrocarbons. Tear resistance is not the best.

Viton® (DuPont)

Viton is a synthetic elastomer with the best proven fluid resistant characteristics of any commercial rubber. It has excellent resistance to oils, fuels, lubricants and most mineral acids. This fluorelastomer resists many aliphatic and aromatic hydrocarbons that act as solvents in other rubbers. It is not recommended for low molecular weight esters and ethers, ketones, certain amines, hot and hydrous hydrofluoric acid, chlorosulfonic acids and caustics.

Ethylene Propylene (NORDEL®-DuPont) EPT/EPDM

EPDM is a synthetic elastomer which affords excellent low and high temperature characteristics. It resists attack by a wide range of acids and strong alkalis, detergents, phosphates, ketones, alcohol and glycols. EPDM does not tend to absorb fluid or swell.

It is not recommended for use with aromatic hydrocarbons. This material is frequently used in preference to Neoprene.

Neoprene

This is a synthetic elastomer with excellent resistance to dilute acids and weak and strong alkalis. It has good resistance to concentrated acids, oil and petroleum. It is not recommended for strong oxidizing acids, esters, ketones or chlorinated aromatic hydrocarbons. It has a tendency to absorb water.

DIMENSIONS AND MATERIAL CODES

SEAL TYPE	SEAL O.D.	W.L.	SEAT STYLE	SEAT BORE	SEAT THICK	MAT'L CODE	SPEC. NO	RSD P/N
	2.000	2.437	2	2.000	0.437	BCFJF	11389	11389
	2.000	2.437	2	2.000	0.437	BCFKF	11390	11390
	2.000	1.625	-			BCF-F	11306	143
	2.000	1.625	-			BCF-F	11306	173
	2.000	2.187	1	2.000	0.437	BCFJF	11352	178
	2.000	1.625	-			BCF-F	11306	209
	2.000	1.625	1	2.000	0.437	BCFJF	11350	495
	2.000	1.625	1	2.000	0.437	VCFJF		495V
	2.000	1.625	1	2.000	0.437	BCFKF	11334	540
	2.000	2.437	1	2.000	0.437	BCFJF	11337	725-21
	2.000	2.437	1	2.000	0.437	BCFKF	11338	726-21
51	1.820	1.687	-			BCR-R	51301	2104
	1.820	1.687	-			VCR-R	51302	2104V
	1.820	1.687	1	2.000	0.437	BCRJF	51304	212
	1.820	1.687	1	2.000	0.437	BCRJF	51304	307
	1.820	1.687	1	2.000	0.437	BCRJF	51304	313
	1.820	1.687	1	2.000	0.437	BCRJF	51304	354
	1.820	1.687	1	2.000	0.437	VCRJF	51305	354V
	1.820	2.125	2	2.000	0.500	BCRKR	513118	561
	1.820	1.687	1	2.000	0.437	BCRKR	51331	677
	1.820	1.687	1	2.000	0.437	BCRKR	51331	721
	1.820	1.687	2	2.000	0.437	BCRJF	51308	808
	1.820	1.687	2	2.000	0.437	BCRKR	51336	809
	1.820	2.000	1	2.000	0.437	BCRJF	513104	864
	1.820	2.000	2	2.000	0.437	BCRKR	513114	865
52	1.859	1.125	-			BCR-R	21301	172-52
	1.859	1.125	-			BCR-R	21301	172NX
	1.859	1.125	-			BCR-R	21301	213701
	1.859	1.187	2	2.000	0.437	BCRKR	21391	257
	1.859	1.125	2	2.000	0.437	BCRKR	21391	547
	1.859	1.125	2	2.000	0.437	ECRKR	21393	547E
	1.859	1.125	2	2.000	0.437	NCRKR		547N
	1.859	1.125	2	2.000	0.437	VCRKR	21392	547V
	1.859	1.125	2	2.000	0.437	BCRKR	21391	807
52D	1.859	2.437	1	2.000	0.437	BCRJF	21385	725
	1.859	2.437	1	2.000	0.437	BCRKR	21386	726

1.437 Shaft Size

21	2.125	1.125	-			BCF-F	11401	11401
	2.125	1.125	1	2.125	0.437	BCFJF	11404	11404
	2.125	1.125	23	2.700	0.687	VCFKF	11408	11408V
	2.125	1.516	2	2.312	0.359	BCFKF	11410	11410
	2.125	1.516	2	2.312	0.359	NCFKF		11410N
	2.125	1.516	2	2.312	0.359	VCFKF		11410V
	2.125	1.125	2	2.125	0.437	BCFKF	11420	11420
	2.125	1.125	2	2.125	0.437	BCFJF	11422	11422
	2.125	1.125	2	2.250	0.625	BCFKF	11424	11424
	2.125	1.125	2	2.250	0.625	VCFKF		11424V
	2.125	1.125	1	2.125	0.437	NCFKF	11426	11426N
	2.125	1.468	23	2.718	0.654	VCFKF*	11428	11428
	2.125	1.468	23	2.718	0.654	VCFKF	11428	11428V
	2.125	1.687	-			BCF-F	11430	11430
	2.125	1.125	1	2.250	0.437	BCFKF	11432	11432
	2.125	1.625	3	2.062	0.437	BCFKF	11423	334-21

	2.125	1.687	2	2.062	0.437	BCFKF	11417	705-21
	2.125	1.516	2	2.312	0.359	NCFKF	11421	943N-21
21D	2.125	2.125	2	2.187	0.375	NCFKF	11412	11412N
	2.125	2.062	2	2.062	0.437	BCFKF	11427	11427
	2.125	2.125	-			NCF-F	11431	11431N
51	1.949	1.625	3	2.062	0.437	BCRKR	514119	334
	1.949	1.687	2	2.062	0.437	BCRKR	51436	705
52	2.062	1.516	2	2.312	0.359	NCRKR	21483	943N

1.500 Shaft Size

21	2.125	1.187	3	2.145	0.562	NCFKF	11506	11506N
	2.125	1.094	2	2.125	0.437	BCFJF	11507	11507
	2.125	1.687	2	2.312	0.437	BCFKF	11529	11529
	2.125	1.687	2	2.312	0.437	VCFKF		11529V
	2.125	1.687	-			BCF-F	11531	11531
	2.125	1.687	-			NCF-F		11531N
	2.125	0.843	2	2.125	0.312	VCFKF	11538	11538V
	2.125	1.093	1	2.125	0.437	VCFJF*	11558	11558V
	2.125	1.687	2	2.312	0.437	BCFJF	11576	11576
	2.125	1.687	2	2.312	0.437	VCFJF	115141	11576V
	2.125	1.125	2	2.312	0.437	BCFKF	11577	11577
	2.125	1.125	2	2.312	0.437	VCFKF	115149	11577V
	2.125	1.125	1	2.156	0.437	BCFJF	11504	134
	2.125	1.437	2	2.125	0.437	NCFKF	11537	192N
	2.125	1.687	2	2.125	0.437	NCFKF	11537	224N-21
	2.125	1.125	1	2.156	0.437	BCFKF*	11550	247
	2.125	1.687	2	2.125	0.437	BCFKF	11567	258-21
	2.125	1.187	2	2.125	0.437	BCFKF	11505	259
	2.125	1.125	1	2.156	0.437	BCFJF	11594	283
	2.125	1.187	1	2.250	0.437	BCFJF	11552	292
	2.125	1.687	1	2.125	0.437	BCFJF	11508	305-21
	2.125	1.687	2	2.000	0.437	BCFKF	11555	316-21
	2.125	1.125	1	2.250	0.437	BCFJF	11552	320
	2.125	1.125	1	2.125	0.437	BCFJF*	11527	347
	2.125	1.125	1	2.125	0.437	BCFKF	11525	371
	2.125	1.125	1	2.125	0.437	ECFKF		371E
	2.125	1.125	1	2.125	0.437	VCFKF	11548	371V
	2.125	1.687	1	2.125	0.437	BCFKF	11513	374-21
	2.125	1.125	1	2.125	0.437	BCFKF*	11568	378
	2.125	1.125	1	2.125	0.437	VCFKF		378V
	2.125	1.125	1	2.125	0.437	BCFJF	11504	382
	2.125	1.125	1	2.156	0.437	VCFJF	11509	382V
	2.125	1.125	1	2.125	0.437	BCFKF	11525	385
	2.125	1.687	2	2.125	0.437	BCFJF	11560	395-21
	2.125	1.687	2	2.250	0.437	BCFJF	11556	515-21
	2.125	1.125	2	2.125	0.437	BCFKF	11505	534
	2.125	1.125	2	2.125	0.437	VCFKF	11549	534V
	2.125	1.125	2	2.125	0.437	BCFKF	11505	553
	2.125	1.125	2	2.125	0.437	ECFKF		553E
	2.125	1.125	2	2.125	0.437	NCFKF		553N
	2.125	1.125	2	2.125	0.437	VCFKF	11549	553V
	2.125	1.125	1	2.125	0.437	BCFKF	11525	592
	2.125	1.000	2	2.187	0.437	NCFKF	11581	599N
	2.125	2.062	2	2.312	0.437	BCFJF	11579	620-21

* Spring retainer not needed

SEAL TYPE	SEAL O.D.	W.L.	SEAT STYLE	SEAT BORE	SEAT THICK	MAT'L CODE	SPEC. NO	RSD P/N
1.500 Shaft Size (cont.)								
21	2.125	2.062	2	2.312	0.437	BCFKF	11580	629-21
	2.125	1.125	1	2.125	0.437	BCFKF	11525	659
	2.125	1.125	1	2.125	0.437	VCFKF	11548	659V
	2.125	1.125	1	2.156	0.437	BCFJF	11504	669
	2.125	1.125	1	2.156	0.437	BCFJF*	11551	682
	2.125	1.125	1	2.125	0.437	BCFKF	11525	757
	2.125	1.125	1	2.156	0.437	BCFJF	11504	758
	2.125	1.125	1	2.156	0.437	BZFZF		758TC
	2.125	1.125	1	2.156	0.437	VCFJF	11509	758V
	2.125	1.125	2	2.125	0.437	BCFJF	11520	816
	2.125	1.125	2	2.125	0.437	VCFJF		816V
	2.125	1.125	2	2.125	0.437	BCFJF	11520	817
	2.125	1.125	1	2.156	0.437	BCFJF	11504	881
	2.125	1.562	2	2.125	0.437	BCFJF	11560	899-21
	2.125	1.125	2	2.312	0.437	BCFJF	11578	926
	2.125	1.125	-			BCF-F	11501	939
	2.125	1.125	-			VCF-F	11511	939V
	2.125	2.062	2	2.312	0.437	BCFJF	11579	947-21
	2.125	2.062	2	2.312	0.437	BCFKF	11580	950-21
21D	2.125	1.875	2	2.125	0.437	BCFJF	115100	115100
	2.125	1.875	2	2.125	0.437	BCFKF	115101	115101
	2.125	2.437	2	2.125	0.437	BCFJF	115102	115102
	2.125	2.437	2	2.125	0.437	BCFKF	115103	115103
	2.125	1.565	1	2.250	0.437	BCFJF	11559	11559
	2.125	2.437	1	2.125	0.437	BCFKF	11586	11586
	2.125	1.875	-			BCF-F	11596	11596
	2.125	2.437	-			BCF-F	11597	11597
	2.125	1.625	2	2.125	0.437	BCFJF	11598	11598
	2.125	1.625	2	2.125	0.437	BCFKF	11599	11599
	2.125	1.625	-			BCF-F	11536	216
	2.125	1.875	1	2.125	0.437	BCFJF	11583	431
	2.125	1.875	1	2.125	0.437	BCFKF	11584	432
	2.125	1.625	1	2.125	0.437	BCFJF	11534	541
	2.125	2.437	1	2.125	0.437	BCFJF	11585	868-21
	2.125	1.625	1	2.125	0.437	BCFKF	11535	884
51	1.949	1.687	-			BCR-R	51501	2106
	1.949	1.687	-			VCR-R	51502	2106V
	1.949	1.687	2	2.125	0.437	NCRKR	51538	224N
	1.949	1.687	2	2.125	0.437	BCRKR	51536	258
	1.949	1.687	2	2.125	0.437	VCRKR		258V
	1.949	1.687	1	2.125	0.437	BCRJR	51504	305
	1.949	1.687	2	2.000	0.437	BCRKR	515114	316
	1.949	1.687	1	2.125	0.437	BCRKR	51531	374
	1.949	1.687	1	2.125	0.437	VCRKR		374V
	1.949	1.687	1	2.125	0.437	BCRJR	51504	379
	1.949	1.687	2	2.125	0.437	BCRJR	51508	395
	1.949	1.687	2	2.125	0.437	VCRJR		395V
	1.949	1.687	2	2.250	0.437	BCRJR	515108	515
	1.949	2.062	2	2.312	0.437	BCRJR	515109	620
	1.949	2.062	2	2.312	0.437	VCRJR		620V
	1.949	2.062	2	2.312	0.437	BCRKR	515118	629
	1.949	2.062	2	2.312	0.437	VCRKR		629V

	1.949	1.562	2	2.125	0.437	BCRJR	51508	899
	1.949	2.062	2	2.312	0.437	BCRJR	515109	947
	1.949	2.062	2	2.312	0.437	BCRKR	515118	950
	1.949	2.062	2	2.312	0.437	VCRKR		950V
52D	2.062	2.437	1	2.125	0.437	BCRJR	21585	868
	2.062	2.437	1	2.125	0.437	NCRJR		868N

1.562 Shaft Size

21	2.375	1.687	2	2.375	0.500	BCFKF	115601	115601
	2.375	1.687	2	2.375	0.500	BCFJF	115602	664-21
21D	2.375	2.125	1	2.375	0.500	BCFKF	115607	115607
	2.375	2.875	2	2.375	0.500	BCFKF	115608	115608
	2.375	2.875	2	2.375	0.500	BCFJF	115609	115609
	2.375	2.875	1	2.375	0.500	BCFKF	115610	115610
	2.375	2.875	1	2.375	0.500	BCFJF	115611	115611
51	2.125	1.687	2	2.375	0.500	BCRKR	515636	1193
	2.125	1.687	1	2.375	0.500	BCRKR	515631	1194
	2.125	1.687	2	2.375	0.500	BCRJR	515608	664

1.625 Shaft Size

21	2.375	1.375	-			BCF-F	11602	11602
	2.375	1.375	-			VCF-F	11635	11602V
	2.375	1.375	2	2.375	0.500	BCFKF*	11606	11606
	2.375	1.375	2	2.375	0.500	VCFKF		11606V
	2.375	1.375	2	2.375	0.375	BCFKF	11611	11611
	2.375	1.375	2	2.375	0.375	VCFKF		11611V
	2.375	1.375	2	2.625	0.500	BCFKF	11623	11623
	2.375	1.375	1	2.500	0.500	VCFKF	11624	11624V
	2.375	1.375	1	2.500	0.500	VCFKF	11624	1162V
	2.375	1.375	1	2.625	0.500	BCFJF	11638	11638
	2.375	1.375	15	2.500	0.750	BCFJ/KF	11647	11647
	2.375	2.000	-			BCF-F	11648	11648
	2.375	2.000	-			BCF-F	11664	11664
	2.375	1.375	1	2.375	0.500	BCFKF	11612	124
	2.375	1.375	1	2.375	0.500	BCFJF	11604	238
	2.375	1.375	1	2.375	0.500	VCFJF	11627	238V
	2.375	1.375	1	2.375	0.500	BCFKF	11612	239
	2.375	1.375	1	2.375	0.500	ECFKF		239E
	2.375	1.375	1	2.375	0.500	NCFKF		239N
	2.375	1.375	1	2.375	0.500	VCFKF	11626	239V
	2.375	1.125	2	2.437	0.500	NCFKF	11631	331
	2.375	1.125	2	2.437	0.500	NCFKF	11631	331N
	2.375	2.000	1	2.312	0.500	BCFJF	11636	346-21
	2.375	1.375	1	2.375	0.500	BCFJF	116102	433
	2.375	1.375	1	2.375	0.500	BCFKF	11612	461
	2.375	2.000	1	2.312	0.500	BCFKF	11615	484-21
	2.375	1.375	1	2.375	0.500	BCFJF*	116102	514
	2.375	1.375	1	2.375	0.500	VCFJF	116126	514V
	2.375	1.375	2	2.375	0.500	BCFKF	11603	544
	2.375	1.375	2	2.375	0.500	VCFKF		544V
	2.375	2.000	2	2.375	0.500	BCFJF	11629	595-21
	2.375	2.000	1	2.312	0.500	BCFJF	11636	609-21
	2.375	2.000	1	2.312	0.500	BCFKF	11615	610-21
	2.375	2.000	1	2.375	0.500	BCFKF	11632	744-21

DIMENSIONS AND MATERIAL CODES

SEAL TYPE	SEAL O.D.	W.L.	SEAT STYLE	SEAT BORE	SEAT THICK	MAT'L CODE	SPEC. NO	RSD P/N
	2.375	2.000	1	2.375	0.500	VCFKF	11654	744V-21
	2.375	2.000	1	2.375	0.500	BCFJF	11609	745-21
	2.375	2.000	1	2.375	0.500	BCFKF	11632	746-21
	2.375	2.000	1	2.375	0.500	BCFJF	11609	747-21
	2.375	1.375	2	2.375	0.500	BCFJF	11640	818
	2.375	1.375	2	2.375	0.500	VCFJF		818V
	2.375	1.375	2	2.375	0.500	BCFKF	11603	819
	2.375	1.375	2	2.375	0.500	VCFKF		819V
	2.375	1.375	2	2.375	0.500	BCFJF	11640	821
	2.375	2.000	2	2.375	0.500	BCFKF	11641	822-21
	2.375	1.375	1	2.375	0.500	BCFKF	11612	875
21D	2.375	2.125	-			BCF-F	11637	11637
	2.375	2.875	-			BCF-F	11649	11649
	2.375	2.125	2	2.375	0.500	BCFJF	11650	11650
	2.375	2.125	1	2.375	0.500	BCFJF	11651	11651
	2.375	2.125	2	2.375	0.500	BCFKF	11613	281
40	2.500	0.989	5	Shaft mtd	0.375	NMDAF	41601	41601
	2.500	0.989	5	Shaft mtd	0.375	NMDAF	41601	41601N
	2.500	0.988	-			NMD-F	41603	41603N
51	2.125	2.000	2	2.375	0.500	BCRJF	51608	1683
	2.125	2.000	2	2.375	0.500	BCRKR	51636	1699
	2.125	2.000	1	2.375	0.500	BCRJF	51604	2057
	2.125	2.000	1	2.375	0.500	BCRKR	51631	2058
	2.125	2.000	1	2.312	0.500	BCRJF	516101	346
	2.125	2.093	2	2.375	0.500	BCRKR	51636	458
	2.125	2.000	1	2.312	0.500	BCRKR	516111	484
	2.125	2.000	2	2.375	0.500	BCRJF	51608	595
	2.125	2.000	1	2.312	0.500	BCRJF	516101	609
	2.125	2.000	1	2.312	0.500	BCRKR	516111	610
	2.125	2.000	1	2.375	0.500	BCRKR	51631	744
	2.125	2.000	1	2.375	0.500	VCRKR		744V
	2.125	2.000	1	2.375	0.500	BCRJF	51604	745
	2.125	2.000	1	2.375	0.500	BCRKR	51631	746
	2.125	2.000	1	2.375	0.500	BCRJF	51604	747
	2.125	2.000	2	2.375	0.500	BCRKR	51636	822
1.653 Shaft Size								
21	2.375	1.250	2	2.375	0.500	VCFKF	116502	116502V
1.686 Shaft Size								
21	2.937	0.950	2	2.500	0.250	BCFKF*	116801	116801
	2.937	0.950	2	2.500	0.250	VCFKF		116801V
	2.937	0.950	2	2.500	0.250	BAFKF	116802	116802
1.750 Shaft Size								
21	2.375	2.000	-			BCF-F	11709	11709
	2.375	2.000	-			VCF-F	11789	11709V
	2.375	1.125	1	2.500	0.500	BCFJF	11710	11710
	2.375	1.437	2	2.500	0.625	NCFKF*	11711	11711
	2.375	1.437	2	2.500	0.625	NCFKF	11711	11711N
	2.375	1.000	2	2.500	0.500	BCFKF	11727	11727
	2.375	1.375	1	2.625	0.500	BCFKF	11770	11770
	2.375	1.375	1	2.625	0.500	ECFKF		11770E
	2.375	1.375	1	2.625	0.500	NCFKF		11770N
	2.375	1.375	1	2.625	0.500	VCFKF	11755	11770V

	2.375	2.500	1	2.500	0.500	BCFKF	11780	11780
	2.375	2.000	1	2.625	0.500	NCFKF	11799	11799N
	2.375	1.375	1	2.500	0.500	BCFKF	11712	125
	2.375	1.375	-			BCF-F	11701	147
	2.375	1.375	-			VCF-F	11703	147V
	2.375	2.000	1	2.500	0.500	BCFKF	11713	1674
	2.375	1.375	1	2.500	0.500	BCFJF	11706	187
	2.375	2.000	1	2.500	0.500	BCFJF	11708	205-21
	2.375	1.375	1	2.500	0.500	BCFJF	11706	2059
	2.375	1.375	1	2.500	0.500	BCFKF	11712	2060
	2.375	1.375	2	2.500	0.500	BCFJF	11784	2061
	2.375	1.375	2	2.500	0.500	BCFKF	11731	2062
	2.375	1.375	1	2.500	0.500	BCFJF	11706	237
	2.375	1.375	1	2.500	0.500	ECFJF	117146	237E
	2.375	1.375	1	2.500	0.500	NCFJF		237N
	2.375	1.375	1	2.500	0.500	BZFZF		237TC
	2.375	1.375	1	2.500	0.500	VCFJF	11707	237V
	2.375	2.000	2	2.500	0.500	BCFKF	11734	262-21
	2.375	1.375	1	2.500	0.500	BCFKF	11712	288
	2.375	1.375	1	2.500	0.500	NCFKF		288N
	2.375	1.375	1	2.500	0.500	VCFKF	117118	288V
	2.375	2.000	1	2.500	0.500	BCFKF	11713	366-21
	2.375	1.375	1	2.625	0.500	BCFJF	11704	387
	2.375	1.375	1	2.625	0.500	VCFJF	11702	387V
	2.375	1.375	1	2.625	0.500	VZFZF		387VTC
	2.375	1.046	15	2.500	0.750	BCFJF	11726	434
	2.375	1.375	2	2.500	0.500	BCFKF	11731	436
	2.375	1.375	2	2.500	0.500	NCFKF		436N
	2.375	1.375	2	2.500	0.500	VCFKF	117131	436V
	2.375	1.375	1	2.500	0.500	BCFJF	11706	446
	2.375	1.375	1	2.500	0.500	VCFJF	11707	446V
	2.375	1.375	1	2.500	0.500	BCFKF	11712	448
	2.375	1.375	1	2.500	0.500	NCFKF		448N
	2.375	2.500	2	2.500	0.500	BCFJF	11782	519-21
	2.375	2.000	2	2.500	0.500	BCFJF	11783	535-21
	2.375	2.000	2	2.500	0.500	VCFJF	117108	535V-21
	2.375	1.375	2	2.500	0.500	BCFJF	11784	550
	2.375	1.375	2	2.500	0.500	VCFJF		550V
	2.375	2.500	1	2.500	0.500	BCFKF	11780	555-21
	2.375	1.781	2	2.456	0.500	NCFKF	11785	568N
	2.375	1.375	2	2.500	0.500	BCFKF	11731	825
	2.375	1.375	2	2.500	0.500	BCFJF	11784	826
	2.375	2.312	2	2.500	0.500	BCFJF	11782	858-21
	2.375	2.312	2	2.500	0.500	BCFKF	11781	859-21
	2.375	2.437	2	2.500	0.500	BCFJF	11782	917-21
21D	2.375	1.750	2	2.625	0.375	BCFKF	11705	11705
	2.375	1.750	2	2.625	0.375	VCFKF		11705V
	2.375	1.550	1	2.625	0.500	VCFJF	11761	11761V
	2.375	2.125	2	2.500	0.500	BCFJF	11794	11794
	2.375	2.125	2	2.500	0.500	BCFKF	11795	11795
	2.375	2.875	2	2.500	0.500	BCFJF	11796	11796
	2.375	2.875	2	2.500	0.500	BCFKF	11797	11797
	2.379	2.875	-			BCF-F	11798	11798
	2.375	2.125	-			BCF-F	11756	213

* Spring retainer not needed

SEAL TYPE	SEAL O.D.	W.L.	SEAT STYLE	SEAT BORE	SEAT THICK	MAT'L CODE	SPEC. NO	RSD P/N
1.750 Shaft Size								
21D	2.375	2.125	1	2.500	0.500	BCFKF	11757	217
	2.375	2.125	1	2.500	0.500	BCFJF	11743	449
	2.375	2.875	1	2.500	0.500	BCFJF	11733	674-21
	2.375	2.875	1	2.500	0.500	BCFKF	11742	675-21
51	2.300	2.000	2	2.500	0.500	VCRKR	51709	1031
	2.300	2.000	1	2.500	0.500	BCRKR	51731	1032
	2.300	2.000	2	2.500	0.500	BCRKR	51736	1033
	2.300	2.500	1	2.500	0.500	BCRJR	517101	1042
	2.300	2.500	1	2.500	0.500	BCRJR	517101	1196
	2.300	2.500	2	2.500	0.500	BCRKR	517114	1199
	2.300	2.000	1	2.500	0.500	BCRJR	51704	205
	2.300	2.000	1	2.500	0.500	VCRJR	51705	205V
	2.300	2.000	1	2.500	0.500	BCRJR	51704	206
	2.300	2.000	-			BCR-R	51701	2109
	2.300	2.000	-			VCR-R	51702	2109V
	2.300	2.000	2	2.625	0.500	BCRJR	-	2130
	2.300	2.000	2	2.500	0.500	BCRKR	51736	262
	2.300	2.000	2	2.500	0.500	VCRKR		262V
	2.300	2.000	1	2.500	0.500	BCRKR	51731	366
	2.300	2.000	1	2.500	0.500	VCRKR		366V
	2.300	2.000	1	2.500	0.500	BCRJR	51704	367
	2.300	2.500	2	2.500	0.500	BCRJR	517104	519
	2.300	2.000	2	2.500	0.500	BCRJR	51708	535
	2.300	2.000	2	2.500	0.500	VCRJR		535V
	2.300	2.500	1	2.500	0.500	BCRKR	517111	555
	2.300	2.000	1	2.500	0.500	BCRKR	51731	656
	2.300	2.312	2	2.500	0.500	BCRJR	517109	858
	2.300	2.312	2	2.500	0.500	VCRJR		858V
	2.300	2.312	2	2.500	0.500	BCRKR	517127	859
	2.300	2.312	2	2.500	0.500	VCRKR		859V
	2.300	2.437	2	2.500	0.500	BCRJR	517104	917
52	2.359	1.375	-			BCF-F	21701	2108
	2.359	1.375	-			VCF-F	21702	2108V
52D	2.359	2.875	1	2.500	0.500	BCRJR	21786	674
	2.359	2.875	1	2.500	0.500	BCRKR	21787	675

1.771 Shaft Size

21	2.375	2.125	-			BCF-F	117701	117701
	2.375	2.125	1	2.625	0.500	BCFKF	117705	719-21
	2.375	2.125	1	2.625	0.500	BCFJF	117706	722-21
21D	2.375	3.000	1	2.625	0.500	BCFJF	117707	727
	2.375	3.000	1	2.625	0.500	BCFKF	117708	728
51	2.300	2.125	1	2.625	0.500	BCRKR	517731	719
	2.300	2.125	1	2.625	0.500	BCRJR	517704	722

1.875 Shaft Size

21	2.515	1.500	1	2.625	0.500	BCFKF	11807	1097
	2.515	1.500	2	2.625	0.500	BCFJF	11824	11824
	2.515	2.125	2	2.625	0.500	BCFJF	11827	11827
	2.515	2.125	2	2.625	0.500	VCFJF		11827V
	2.515	2.125	-			BCF-F	11835	11835
	2.515	2.125	-			VCF-F	11850	11835V
	2.515	2.125	2	2.687	0.500	BCFKF	11845	11845

	2.515	2.125	2	2.687	0.500	VCFKF		11845V
	2.515	2.125	2	2.687	0.500	BCFJF	11846	11846
	2.515	2.125	2	2.687	0.500	VCFJF		11846V
	2.515	1.500	1	2.640	0.406	BCFJF	11847	11847
	2.515	1.500	1	2.625	0.500	BCFKF	11807	1608
	2.515	1.500	2	2.625	0.500	BCFJF	11824	1620
	2.515	1.500	-			BCF-F	11801	191
	2.515	1.500	1	2.625	0.500	BCFJF	11814	2065
	2.515	1.500	1	2.625	0.500	BCFKF	11807	2066
	2.515	1.500	2	2.625	0.500	BCFJF	11824	2067
	2.515	1.500	2	2.625	0.500	BCFKF	11825	2068
	2.515	1.500	-			BCF-F	11801	223
	2.515	1.500	-			VCF-F	11803	223V
	2.515	1.500	2	2.625	0.500	BCFKF	11825	312
	2.515	1.500	1	2.625	0.500	BCFJF	11814	340
	2.515	1.500	1	2.625	0.500	VCFJF	11819	340V
	2.515	2.125	1	2.625	0.500	BCFKF	11816	513-21
	2.515	2.125	1	2.625	0.500	BCFJF	11823	523-21
	2.515	2.437	1	2.625	0.500	BCFJF	11832	538-21
	2.515	2.437	2	2.500	0.500	BCFKF	11836	554-21
	2.515	2.125	2	2.625	0.500	BCFKF	11826	586-21
	2.515	1.500	1	2.625	0.500	BCFKF	11807	593
	2.515	1.500	1	2.625	0.500	VCFKF	11859	593V
	2.515	1.500	2	2.625	0.500	BCFKF	11825	827
	2.515	1.500	1	2.625	0.500	BCFJF	11814	828
	2.515	2.437	2	2.687	0.500	BCFJF	11829	829-21
	2.515	2.437	2	2.687	0.500	BCFKF	11828	831-21
	2.515	2.437	2	2.687	0.500	BCFJF	11829	946-21
	2.515	2.437	2	2.687	0.500	BCFKF	11828	949-21
21D	2.515	2.000	1	2.640	0.406	BCFJF	11834	1105
	2.515	2.515	1	2.640	0.406	BCFKF	11813	11813
	2.515	3.000	1	2.625	0.500	VCFJF	11820	11820V
	2.515	2.125	-			BCF-F	11837	11837
	2.515	3.000	-			BCF-F	11838	11838
	2.515	2.125	1	2.625	0.500	BCFK	11840	11840
	2.515	2.125	2	2.625	0.500	BCFJF	11841	11841
	2.515	2.125	2	2.625	0.500	BCFKF	11842	11842
	2.515	3.000	2	2.625	0.500	BCFKF	11843	11843
	2.515	2.125	1	2.625	0.500	BCFJF	11809	318
	2.515	3.000	1	2.625	0.500	BCFJF	11830	742-21
	2.515	3.000	1	2.625	0.500	BCFKF	11831	743-21
51	2.437	2.125	2	2.625	0.500	BCRJR	51808	1654
	2.437	2.125	2	2.625	0.500	BCRJR	51808	1656
	2.437	2.125	2	2.625	0.500	BCRKR	51836	1657
	2.437	2.062	2	2.625	0.500	VCRJR	51809	1659
	2.437	2.062	2	2.625	0.500	VCRKR	51837	1660
	2.437	2.125	1	2.625	0.500	BCRJR	51804	2069
	2.437	2.125	1	2.625	0.500	BCRKR	51831	2070
	2.437	2.125	2	2.625	0.500	BCRJR	51808	2071
	2.437	2.125	2	2.625	0.500	BCRKR	51836	2072
	2.437	2.125	-			BCR-R	51801	2110
	2.437	2.125	1	2.625	0.500	BCRKR	51831	375
	2.437	2.125	1	2.625	0.500	BCRKR	51831	513
	2.437	2.125	1	2.625	0.500	BCRJR	51804	523

* Spring retainer not needed

DIMENSIONS AND MATERIAL CODES

SEAL TYPE	SEAL O.D.	W.L.	SEAT STYLE	SEAT BORE	SEAT THICK	MAT'L CODE	SPEC. NO	RSD P/N
	2.437	2.437	1	2.625	0.500	BCRJR	518101	538
	2.437	2.437	2	2.500	0.500	BCRKR	518118	554
	2.437	2.125	2	2.625	0.500	BCRKR	51836	586
	2.437	2.125	2	2.625	0.500	VCRKR		586V
	2.437	2.125	1	2.625	0.500	BCRJR	51804	697
	2.437	2.125	1	2.625	0.500	BCRJR	51804	741
	2.437	2.437	2	2.687	0.500	BCRJR	518109	829
	2.437	2.437	2	2.687	0.500	VCRJR		829V
	2.437	2.437	1	2.687	0.500	BCRKR	518119	831
	2.437	2.437	1	2.687	0.500	VCRKR		831V
	2.437	2.437	2	2.500	0.500	BCRJR	518110	898
	2.437	2.437	2	2.687	0.500	BCRJR	518109	946
	2.437	2.437	2	2.687	0.500	BCRKR	518119	949
52D	2.500	3.000	2	2.687	0.500	VCRJR	218184	1653
	2.500	3.000	2	2.687	0.500	VCRJR	218184	1653V
	2.500	3.000	1	2.625	0.500	BCRJR	21885	742
	2.500	3.000	1	2.625	0.500	BCRKR	21886	743
2.000 Shaft Size								
21	2.625	2.125	1	2.750	0.500	BCFKF	12006	1017
	2.625	1.500	2	3.000	0.500	BCFKF	12061	1020
	2.625	1.250	1	2.750	0.500	BCFKF	12062	1028
	2.625	1.500	2	2.750	0.500	NCFKF	12056	11056N
	2.625	1.500	2	2.750	0.562	BCFKF	12026	12026
	2.625	2.125	-			BCF-F	12039	12039
	2.625	2.125	-			NCF-F		12039N
	2.625	2.125	-			VCF-F	120100	12039V
	2.625	2.125	2	2.687	0.500	BCFKF	12047	12047
	2.625	1.500	2	3.000	0.500	BCFKF	12055	12055
	2.625	1.500	2	2.750	0.500	NCFKF	12056	12056N
	2.625	1.125	1	2.750	0.500	BCFJF	12063	12063
	2.625	1.500	2	2.750	0.500	NCFKF	12066	193N
	2.625	1.500	-			BCF-F	12001	196
	2.625	1.500	-			NCF-F		196N
	2.625	1.500	-			VCF-F	12071	196V
	2.625	1.500	1	2.750	0.500	BCFJF	12004	2073
	2.625	1.500	1	2.750	0.500	BCFKF	12007	2074
	2.625	1.500	2	2.750	0.500	BCFJF	12086	2075
	2.625	1.500	2	2.750	0.500	BCFKF	13032	2076
	2.265	1.500	1	2.750	0.500	BCFJF	12004	267
	2.265	1.500	1	2.750	0.500	VCFJF	12048	267V
	2.625	2.125	2	2.687	0.500	BCFKF	12079	319-21
	2.625	1.500	2	2.750	0.500	BCFKF	12032	332
	2.625	1.500	2	2.750	0.500	NCFKF	12066	332N
	2.625	1.500	2	2.750	0.500	VCFKF		332V
	2.625	1.125	2	2.812	0.500	NCFKF	12076	333N
	2.625	2.125	2	2.750	0.500	NCFKF	12034	342N-21
	2.625	2.500	2	2.750	0.500	BCFKF	12074	385A-21
	2.625	2.500	2	2.812	0.500	BCFKF	12077	386-21
	2.625	1.218	15	2.750	0.750	BCFJ/KF	12033	435
	2.625	1.500	1	2.750	0.500	BCFJF	12004	445
	2.625	2.218	2	2.750	0.500	BCFKF	12035	456-21
	2.625	1.500	1	2.750	0.500	BCFKF	12007	462
	2.625	2.125	2	2.750	0.500	BCFKF	12035	477-21

SEAL TYPE	SEAL O.D.	W.L.	SEAT STYLE	SEAT BORE	SEAT THICK	MAT'L CODE	SPEC. NO	RSD P/N
	2.625	2.125	2	2.750	0.500	NCFKF	12034	477N-21
	2.625	2.500	2	2.687	0.500	BCFKF	12078	478-21
	2.625	2.125	1	2.750	0.500	BCFJF	12036	479-21
	2.625	2.125	2	2.750	0.500	BCFJF	12085	530-21
	2.625	1.500	2	2.750	0.500	BCFJF	12086	532
	2.625	1.231	2	3.060	0.250	NCFKF	12081	576N
	2.625	1.125	2	3.000	0.500	BCFKF	12080	582
	2.625	1.500	1	2.750	0.500	BCFKF	12007	657
	2.625	1.500	2	2.750	0.500	BCFKF	12032	832
	2.625	1.500	2	2.750	0.500	BCFJF	12086	833
	2.625	1.500	1	2.750	0.500	BCFKF	12007	842
	2.625	2.125	1	2.750	0.500	BCFKF	12006	843-21
	2.625	1.500	2	2.625	0.500	BCFKF	12011	876
	2.625	2.437	2	2.625	0.500	BCFKF	12087	888-21
21D	2.625	2.125	2	2.750	0.500	BCFKF	12091	1040
	2.625	2.125	-			BCF-F	12088	12088
	2.625	3.000	-			BCF-F	12089	12089
	2.625	3.000	-			VCF-F	120148	12089V
	2.625	2.125	1	2.750	0.500	BCFJF	12090	12090
	2.625	2.125	2	2.750	0.500	BCFKF	12091	12091
	2.625	2.125	2	2.750	0.500	BCFJF	12092	12092
	2.625	3.000	1	2.750	0.500	BCFKF	12093	12093
	2.625	3.000	1	2.750	0.500	BCFJF	12094	12094
	2.625	3.000	2	2.750	0.500	BCFKF	12095	12095
	2.625	3.000	2	2.750	0.500	BCFJF	12096	12096
	2.625	2.125	1	2.750	0.500	BCFJF	12090	1610
	2.625	2.125	1	2.750	0.500	BCFKF	12075	658
51	2.562	2.125	1	2.750	0.500	BCRJR	52010	2077
	2.562	2.125	1	2.750	0.500	BCRKR	52031	2078
	2.562	2.125	2	2.750	0.500	BCRKR	52036	2079
	2.562	2.125	-			BCR-R	52001	2112
	2.562	2.125	2	2.687	0.500	BCRKR	520114	319
	2.562	2.125	2	2.750	0.500	NCRKR	52038	342N
	2.562	2.500	2	2.750	0.500	BCRKR	520127	385A
	2.562	2.500	2	2.812	0.500	BCRKR	520118	386
	2.562	2.218	2	2.750	0.500	BCRKR	52036	456
	2.562	2.125	2	2.750	0.500	BCRKR	52036	477
	2.562	2.125	2	2.750	0.500	NCRKR	52038	477N
	2.562	2.125	2	2.750	0.500	VCRKR		477V
	2.562	2.500	2	2.687	0.500	BCRKR	520132	478
	2.562	2.125	1	2.750	0.500	BCRJR	52004	479
	2.562	2.125	2	2.750	0.500	BCRJR	52008	530
	2.562	2.125	2	2.750	0.500	BCRKR	52036	686
	2.562	2.125	1	2.750	0.500	BCRKR	52031	843
	2.562	2.125	1	2.750	0.500	VCRKR		843V
	2.562	2.437	2	2.625	0.500	BCRKR	520134	888

2.125 Shaft Size

21	2.938	1.687	-			BCF-F	12101	12101
	2.938	1.687	-			VCF-F	12103	12101V
	2.938	2.375	-			BCF-F	12105	12105
	2.938	2.375	2	3.000	0.562	BCFJF	12132	327-21
	2.938	1.687	1	3.000	0.562	BCFKF	12114	336
	2.938	1.687	1	3.000	0.562	NCFKF		336N
	2.938	1.687	2	3.000	0.562	BCFJF	12131	338

* Spring retainer not needed

SEAL TYPE	SEAL O.D.	W.L.	SEAT STYLE	SEAT BORE	SEAT THICK	MAT'L CODE	SPEC. NO	RSD P/N
2.125 Shaft Size (cont.)								
21	2.938	2.375	2	3.000	0.562	BCFKF	12115	353-21
	2.938	2.375	1	3.000	0.625	BCFJF	12162	537-21
	2.938	1.687	1	3.000	0.625	BCFKF	12134	543
	2.938	2.375	1	3.000	0.562	BCFKF	12130	556-21
	2.938	2.693	2	2.844	0.468	NCFKF	12120	570N
	2.938	2.375	2	2.812	0.437	BCFJF	12128	611-21
	2.938	2.250	2	2.812	0.437	BCFKF	12129	612-21
	2.938	1.687	1	3.000	0.625	BCFJF	12104	844
	2.938	1.687	2	2.875	0.562	BCFJF	12135	854
	2.938	1.687	2	2.875	0.562	BCFKF	12136	855
	2.938	2.875	2	2.875	0.562	BCFJF	12126	856-21
	2.938	2.875	2	2.875	0.562	BCFKF	12127	857-21
21D	2.938	2.562	1	3.140	0.562	BCFJF	12142	1102
	2.938	2.250	1	3.187	0.562	BCFJF	12133	1107
	2.938	2.000	1	3.000	0.562	BCFKF	12113	12113
	2.938	2.562	1	3.140	0.562	BCFKF	12116	12116
	2.938	2.250	1	3.187	0.562	BCFKF	12117	12117
	2.938	2.000	2	3.000	0.562	BCFKF	12124	12124
	2.938	2.125	-			BCF-F	12137	12137
	2.938	2.375	-			BCF-F	12138	12138
	2.938	3.375	-			BCF-F	12139	12139
	2.938	2.125	1	3.000	0.625	BCFKF	12141	12141
	2.938	2.375	2	3.000	0.562	BCFJF	12143	12143
	2.938	2.375	2	3.000	0.562	BCFKF	12144	12144
	2.938	3.375	2	3.000	0.562	BCFJF	12145	12145
	2.938	3.375	2	3.000	0.562	BCFKF	12146	12146
	2.938	3.375	1	3.000	0.562	BCFKF	12147	12147
	2.938	2.125	1	3.000	0.625	BCFJF	12140	887
51	2.687	2.250	2	2.812	0.437	BCRKR	521118	1612
	2.687	2.375	2	3.000	0.562	BCRJR	52108	1617
	2.687	2.375	2	3.000	0.562	BCRKR	52136	1666
	2.687	2.375	1	3.000	0.562	BCFJF	52110	2084
	2.687	2.375	2	3.000	0.562	BCRJR	52108	327
	2.687	2.375	2	3.000	0.562	BCRKR	52136	353
	2.687	2.375	1	3.000	0.562	BCRJR	521101	537
	2.687	2.375	1	3.000	0.562	BCRKR	52131	556
	2.687	2.375	2	2.812	0.437	BCRJR	521104	611
	2.687	2.250	2	2.812	0.437	BCRKR	521118	612
	2.687	2.375	2	3.000	0.562	BCRKR	52136	698
	2.687	2.875	2	2.875	0.562	BCRJR	521109	856
	2.687	2.875	2	2.875	0.562	BCRKR	521132	857
	2.687	2.375	2	3.000	0.562	BCFKF	52131	1057
2.250 Shaft Size								
21	2.938	1.437	1	3.125	0.562	BCFJF	12245	1087
	2.938	1.312	2	3.125	0.562	BCFKF	12213	12213
	2.938	2.375	1	3.125	0.562	BCFKF	12218	12218
	2.938	2.375	2	3.125	0.562	BCFKF	12221	12221
	2.938	2.375	2	3.125	0.562	BCFJF	12230	12230
	2.938	2.375	-			BCF-F	12233	12233
	2.938	1.687	2	3.125	0.562	BCFKF	12207	1676
	2.938	1.687	2	3.125	0.562	BCFJF	12229	1678
	2.938	1.687	1	3.125	0.562	BCFJF	12204	1679

SEAL TYPE	SEAL O.D.	W.L.	SEAT STYLE	SEAT BORE	SEAT THICK	MAT'L CODE	SPEC. NO	RSD P/N
	2.938	1.687	1	3.125	0.562	BCFKF	12214	1680
	2.938	1.688	2	3.125	0.562	BCFKF	12207	2090
	2.938	2.375	2	3.125	0.562	BCFJF	12230	323-21
	2.938	2.375	1	3.125	0.562	BCFKF	12218	351-21
	2.938	1.687	2	3.125	0.562	BCFJF	12229	846
	2.938	1.687	2	3.125	0.562	BCFKF	12207	847
	2.938	1.687	2	3.125	0.562	VCFKF		847V
	2.938	2.375	2	3.125	0.562	BCFJF	12230	848-21
	2.938	2.375	2	3.125	0.562	BCFKF	12221	849-21
	2.938	1.687	1	3.125	0.562	BCFJF	12204	874
	2.938	1.687	1	3.125	0.562	BCFKF	12214	941
	2.938	1.687	1	3.125	0.562	BZFZF		941TC
	2.938	1.687	-			BCF-F	12201	942
21D	2.938	2.375	1	3.125	0.562	BCFKF	12225	12225
	2.938	2.375	-			BCF-F	12234	12234
	2.938	3.375	-			BCF-F	12235	12235
	2.938	2.375	2	3.125	0.562	BCFKF	12236	12236
	2.938	2.375	2	3.125	0.562	BCFJF	12237	12237
	2.938	2.375	2	3.125	0.562	NCFJF		12237N
	2.938	3.375	2	3.125	0.562	BCFKF	12238	12238
	2.938	3.375	2	3.125	0.562	BCFJF	12239	12239
	2.938	3.375	1	3.125	0.562	BCFKF	12241	12241
51	2.812	2.375	2	3.125	0.562	BCRJR	52208	1688
	2.812	2.375	1	3.125	0.562	BCRJR	52204	2091
	2.812	2.375	1	3.125	0.562	BCRKR	52231	2092
	2.812	2.375	2	3.125	0.562	BCRKR	52236	2094
	2.812	2.375	-			BCR-R	52201	2113
	2.812	2.375	2	3.125	0.562	BCRJR	52208	323
	2.812	2.375	1	3.125	0.562	BCRKR	52231	351
	2.812	2.375	2	3.125	0.562	BCRJR	52208	848
	2.812	2.375	2	3.125	0.562	BCRKR	52236	849
	2.812	2.375	2	3.125	0.562	VCRKR		849V

2.375 Shaft Size								
21	3.230	1.813	1	3.250	0.562	BCFKF	12301	12301
	3.230	1.813	-			BCF-F	12303	12303
	3.230	2.500	-			BCF-F	12306	12306
	3.230	2.500	1	3.250	0.562	BCFKF	12307	12307
	3.230	2.500	2	3.250	0.562	BCFKF	12311	12311
	3.230	1.813	2	3.250	0.562	BCFJF	12313	268
	3.230	2.500	2	3.250	0.562	BCFJF	12312	278-21
	3.230	2.500	2	3.250	0.562	BCFKF	12311	350-21
	3.230	1.813	2	3.250	0.562	BCFKF	12302	492
	3.230	1.813	2	3.250	0.562	BCFKF	12302	594
	3.230	1.813	2	3.250	0.562	BCFJF	12313	834
	3.230	1.813	2	3.250	0.562	BCFJF	12313	852
37	3.500	0.676	5	Shaft mtd	0.562	BCDRF	72504	72504
51	2.937	2.500	2	3.250	0.562	BCRJR	52308	278
	2.937	2.500	2	3.250	0.562	BCRKR	52336	350
	2.937	2.500	2	3.250	0.562	VCRKR		350V

2.437 Shaft Size								
21	3.230	1.813	1	3.250	0.562	BCFKF	12404	12404
	3.230	2.500	1	3.250	0.562	BCFKF	12408	12408

DIMENSIONS AND MATERIAL CODES

SEAL TYPE	SEAL O.D.	W.L.	SEAT STYLE	SEAT BORE	SEAT THICK	MAT'L CODE	SPEC. NO	RSD P/N
	1.300	0.875	1	1.375	0.406	BCFJF	10704	358
	1.300	0.875	1	1.375	0.406	NCFJF		358N
	1.300	0.875	1	1.375	0.406	VCFJF	10717	358V
	1.300	0.875	3	1.375	0.406	BCFKF	10714	362
	1.300	1.312	1	1.375	0.375	BCFKF	10765	373
	1.300	0.875	-			BCF-F	10701	399
	1.300	0.875	1	1.375	0.406	BCFJF	10704	427
	1.300	0.875	1	1.275	0.290	BCFJF	107135	437
	1.300	0.875	1	1.275	0.290	VCFJF	107145	437V
	1.300	0.875	1	1.275	0.290	BCFKF	107112	443
	1.300	0.875	2	1.437	0.375	NCFKF	107136	444N
	1.300	0.875	3	1.312	0.406	BCFAF	10710	502
	1.300	0.875	2	1.312	0.375	BCFKF	107108	505
	1.300	1.312	-			BCF-F	107113	564
	1.300	1.312	2	1.375	0.406	BCFKF	10763	565
	1.300	0.875	1	1.375	0.375	BCFKF	10724	590
	1.300	0.875	1	1.375	0.406	BCFJF	10704	641
	1.300	0.875	2	1.312	0.406	BCFKF	10751	649
	1.300	0.875	1	1.375	0.406	BCFJF	10704	650
	1.300	0.875	1	1.375	0.375	BCFKF	10724	667
	1.300	0.875	1	1.500	0.235	BCFJF	10795	683
	1.300	0.875	1	1.375	0.406	BCFJF	10704	684
	1.300	0.875	1	1.375	0.406	VCFJF		684V
	1.300	0.875	1	1.375	0.406	BCFJF	10704	750
	1.300	0.875	1	1.375	0.406	VCFJF	10717	750V
	1.300	0.875	1	1.375	0.375	BCFKF	10724	752
	1.300	0.875	2	1.375	0.406	BCFJF	10783	767
	1.300	0.875	2	1.375	0.406	BCFKF	10754	768
	1.300	0.875	2	1.375	0.406	ECFKF		768E
	1.300	0.875	2	1.375	0.406	NCFKF		768N
	1.300	0.875	2	1.375	0.406	VCFKF		768V
	1.300	0.875	2	1.375	0.406	BCFJF	10783	769
	1.300	1.312	2	1.375	0.406	BCFJF	10764	771
	1.300	0.875	1	1.375	0.406	BCFJF	10704	772
	1.300	1.312	2	1.375	0.406	BCFKF	10763	773
	1.300	0.875	1	1.375	0.406	BCFJF	10704	782
	1.300	0.844	1	1.375	0.406	BCFJF	10704	812
	1.300	0.875	1	1.625	0.437	NCFKF	10778	820N
	1.300	0.812	1	1.375	0.406	BCFJF	10707	877
	1.300	0.812	1	1.375	0.406	NCFJF		877N
	1.300	0.812	1	1.375	0.406	VCFJF	10712	877V
	1.300	0.875	2	1.187	0.375	BCFKF	10723	905
	1.300	0.875	1	1.375	0.406	BCFJF	10704	906
	1.300	0.875	3	1.375	0.406	BCFKF	10714	931
	1.300	0.718	1	1.375	0.265	BCFJF	107128	944
	1.300	0.875	1	1.375	0.406	BCFJF	10704	991
21D	1.300	1.625	1	1.375	0.406	BCFKF	107138	107138
	1.300	1.187	1	1.375	0.406	BCFJF	107139	107139
	1.300	1.187	1	1.375	0.406	VCFJF	107197	107139V
	1.300	1.187	1	1.375	0.406	BCFKF	107140	107140
	1.300	1.187	-			BCF-F	10775	10775
	1.300	1.625	1	1.375	0.406	BCFJF	10796	10796
	1.300	1.625	-			BCF-F	10770	145
	1.300	1.700	1	1.375	0.406	BCFJF	10796	1604

SEAL TYPE	SEAL O.D.	W.L.	SEAT STYLE	SEAT BORE	SEAT THICK	MAT'L CODE	SPEC. NO	RSD P/N
	1.300	1.185	1	1.500	0.235	BCFJF	10793	175
	1.300	1.625	1	1.375	0.406	BCFKF	107110	651
	1.300	1.625	-			BCF-F	10770	679
29	1.576	0.600	1	1.375	0.406	BMMJF	90710	90710
	1.576	0.600	1	1.375	0.406	BCMJF	90711	90711
	1.576	0.600	1	1.375	0.406	VCMJF	90708	90711V
68	1.575	0.615	-			BMD-F	80701	1009
	1.575	0.615	11 Shaft mtd	0.437		BMDJF	80712	261
	1.575	0.615	2	1.207	0.250	BMDKF	80714	369
	1.575	0.615	11 Shaft mtd	0.437		BMDJF	80712	440
	1.575	0.615	5 Shaft mtd	0.312		BMDKF	80708	441
	1.575	0.615	5 Shaft mtd	0.312		BMFKF	80721	441SS
	1.575	0.615	1	1.375	0.406	BMFJF	80703	601
	1.575	0.615	1	1.375	0.406	EMFJF		601E
	1.575	0.615	1	1.375	0.406	BMFJF	80720	601SS
	1.575	0.615	1	1.375	0.406	VMFJF	80717	601V
	1.575	0.615	1	1.375	0.375	BMDKF	80710	606
	1.575	0.615	-			BMD-F	80701	647
	1.575	0.615	2	1.375	0.406	BMDJF	80730	765
	1.575	0.615	2	1.375	0.406	BMDKF	80711	766
	1.575	0.615	-			BCF-F	80702	80702
	1.575	0.615	5 Shaft mtd	0.281		BMDKF	80709	902
	1.575	0.615	1	1.375	0.406	BMFJF	80703	907

0.787 Shaft Size

21	1.429	0.937	-			BCF-F*	107803	107803
	1.429	0.937	1	1.500	0.406	BCFJF*	107801	135
	1.429	0.937	1	1.500	0.406	VCFJF*	107802	135V
	1.429	0.937	1	1.500	0.406	BCFKF*	107804	614

0.875 Shaft Size

16	1.429	0.812	-			BCF-F	60802	60802
	1.429	0.812	1	1.500	0.406	BCFJF	60804	60804
	1.429	0.812	1	1.500	0.406	BCFKF	60805	60805
	1.429	0.812	2	1.437	0.265	VCFKF	60813	60813
	1.429	0.812	2	1.437	0.265	VCFKF	60813	60813V
21	1.429	0.937	1	1.500	0.406	BCFJF	10826	10826
	1.429	0.937	1	1.500	0.406	VCFJF		10826V
	1.429	1.031	2	1.500	0.406	VCLXL	10847	10847V
	1.429	0.937	2	1.437	0.265	BCFKF	10854	10854
	1.429	0.937	2	1.437	0.265	VCFKF	108134	10854V
	1.429	0.937	1	1.562	0.406	BCFJF*	10873	10873
	1.429	0.937	2	1.500	0.406	BCFJF	10874	10874
	1.429	0.937	1	1.500	0.406	BCFKF	10889	10889
	1.429	0.937	2	1.625	0.406	BCFKF	10858	144
	1.429	1.375	1	1.500	0.406	BCFJF	10844	188
	1.429	0.937	-			BCF-F	10801	208
	1.429	0.937	-			ECF-F		208E
	1.429	0.937	-			VCF-F	10803	208V
	1.429	1.375	2	1.500	0.406	BCFKF	10859	229
	1.429	1.375	2	1.500	0.406	VCFKF		229V
	1.429	0.937	2	1.500	0.406	BCFKF	10845	250
	1.429	0.937	2	1.500	0.406	ECFKF		250E
	1.429	0.937	2	1.500	0.406	NCFKF		250N

SEAL TYPE	SEAL O.D.	W.L.	SEAT STYLE	SEAT BORE	SEAT THICK	MAT'L CODE	SPEC. NO	RSD P/N
0.875 Shaft Size (cont.)								
21	1.429	0.937	2	1.500	0.406	VCFKF	10846	250V
	1.429	0.844	1	1.500	0.406	BCFJF	10877	287
	1.429	0.937	1	1.562	0.406	BCFKF	10815	294
	1.429	0.937	1	1.500	0.406	BCFKF	10810	303
	1.429	0.937	1	1.500	0.406	VCFKF	10870	303V
	1.429	0.937	1	1.500	0.406	BCFJF	10804	309
	1.429	0.937	1	1.500	0.406	VCFJF	10806	309V
	1.429	0.937	-			BCF-F	10801	578
	1.429	0.937	1	1.500	0.406	BCFKF	10810	579
	1.429	0.937	1	1.562	0.406	BCFJF	10814	602
	1.429	0.937	1	1.562	0.406	BCFKF	10815	603
	1.429	0.937	2	1.500	0.406	BCFKF	10845	617
	1.429	0.937	2	1.500	0.406	ECFKF		617E
	1.429	0.937	2	1.500	0.406	VCFKF	10846	617V
	1.429	0.937	1	1.500	0.406	BCFKF	10810	687
	1.429	0.937	1	1.500	0.406	VCFKF	10870	687V
	1.429	0.937	1	1.500	0.406	BCFJF	10804	703
	1.429	0.937	1	1.500	0.406	ECFJF	108111	703E
	1.429	0.937	1	1.500	0.406	VCFJF	10806	703V
	1.429	0.937	1	1.500	0.406	BCFJF	10804	753
	1.429	0.937	2	1.500	0.406	BCFJF	10878	774
	1.429	0.937	2	1.500	0.406	ECFJF		774E
	1.429	0.937	2	1.500	0.406	VCFJF	10872	774V
	1.429	0.937	2	1.500	0.406	BCFJF	10878	775
	1.429	0.937	2	1.500	0.406	ECFJF		775E
	1.429	0.937	2	1.500	0.406	VCFJF	10872	775V
	1.429	1.375	2	1.500	0.406	BCFJF	10882	776
	1.429	0.921	1	1.437	0.265	BCFKF	10817	790
	1.429	0.921	1	1.437	0.265	VCFKF	10880	790V
	1.429	1.375	1	1.500	0.406	BCFKF	10861	935
	1.429	1.375	-			BCF-F	10843	936
	1.429	1.375	2	1.625	0.406	BCFJF	10883	997
	1.429	1.375	2	1.625	0.406	BCFKF	10848	998
21D	1.429	1.437	2	1.500	0.468	VCFKF	10836	10836V
	1.429	1.250	2	1.500	0.406	BCFJF	10884	10884
	1.429	1.250	2	1.500	0.406	VCFJF	108118	10884V
	1.429	1.250	2	1.500	0.406	BCFKF	10885	10885
	1.429	1.625	2	1.500	0.406	BCFJF	10886	10886
	1.429	1.625	2	1.500	0.406	BCFKF	10887	10887
	1.429	1.625	-			BCF-F	10840	140
	1.429	1.250	-			BCF-F	10839	197
	1.429	1.250	-			BCF-F	10839	214
	1.429	1.625	1	1.500	0.406	BCFJF	10841	428
	1.429	1.625	1	1.500	0.406	VCFJF		428V
	1.429	1.625	1	1.500	0.406	BCFKF	10862	685
	1.429	1.625	1	1.500	0.406	ECFKF		685E
	1.429	1.250	1	1.500	0.406	BCFKF	10863	878
	1.429	1.250	1	1.500	0.406	BCFJF	10860	892
0.937 Shaft Size								
51	1.449	1.656	-			BCF-F	50901	10903
	1.449	1.656	1	1.562	0.406	BCFKF	509111	560
	1.449	1.656	1	1.562	0.406	VCFKF	509112	560V

SEAL TYPE	SEAL O.D.	W.L.	SEAT STYLE	SEAT BORE	SEAT THICK	MAT'L CODE	SPEC. NO	RSD P/N
	1.449	1.656	2	1.562	0.406	BCFKF	50936	823
	1.449	1.656	2	1.562	0.406	BCFKF	50936	845
1.000 Shaft Size								
16	1.552	0.812	1	1.625	0.437	BMFJF	61003	1006
	1.552	0.812	1	1.625	0.437	BMFJF	61003	360
	1.552	0.812	1	1.625	0.437	VMFJF	61009	360V
	1.552	0.812	1	1.625	0.437	BMFKF	61007	370
	1.552	0.812	1	1.625	0.437	VMFKF	61010	370V
	1.552	0.812	15	1.625	0.625	BMFJ/KF	61012	405
	1.552	0.812	1	1.625	0.437	BMFKF	61007	563
	1.552	0.812	-			BCF-F	61002	61002
	1.552	0.812	1	1.625	0.437	BCFJF	61004	61004
	1.552	0.812	1	1.625	0.437	BCFKF	61015	61015
	1.552	0.812	2	2.000	0.406	BMFJF	61023	6467
	1.552	0.812	2	2.000	0.406	VMFJF		6467V
	1.552	0.812	2	1.625	0.437	BMFJF	61013	777
	1.552	0.812	2	1.625	0.437	BCFKF	61011	778
	1.552	0.812	-			BMF-F	61001	975
21	1.552	1.000	-			BCF-F	11001	11001
	1.552	1.000	-			ECF-F		11001E
	1.552	1.000	-			NCF-F		11001N
	1.552	1.000	-			VCF-F	11003	11001V
	1.552	0.781	2	1.625	0.437	ECFKF	11006	11006E
	1.552	0.875	1	1.625	0.437	BCFJF	110104	110104
	1.552	0.843	1	1.625	0.437	BCFJF	11024	11024
	1.552	1.000	2	1.625	0.312	BCFKF*	11028	11028
	1.552	1.000	2	1.625	0.312	NCFKF*	11030	11028N
	1.552	1.000	2	1.625	0.312	VCFKF		11028V
	1.552	0.781	2	1.625	0.437	BCFJF	11052	11052
	1.552	0.781	2	1.625	0.437	VCFJF		11052V
	1.552	1.062	-			BCF-F	110100	115
	1.552	1.000	1	1.625	0.437	BCFJF	11004	120
	1.552	1.000	1	1.625	0.437	VCFJF	11010	120V
	1.552	1.000	1	1.625	0.437	BCFKF	11026	122
	1.552	1.000	2	1.625	0.437	NCFKF	11088	159N
	1.552	1.000	1	1.625	0.437	BCFJF	11004	184
	1.552	1.062	1	1.750	0.437	BCFKF	110130	227
	1.552	1.000	1	1.625	0.437	BCFJF	11004	235
	1.552	1.000	1	1.625	0.437	NCFJF		235N
	1.552	1.000	1	1.625	0.437	VCFJF	11010	235V
	1.552	1.562	1	1.625	0.437	BCFKF	11049	236-21
	1.552	1.625	1	1.625	0.437	VCFKF		236V-21
	1.552	1.000	1	1.625	0.437	BCFJF*	11050	245
	1.552	1.000	1	1.625	0.437	VCFJF	11009	245V
	1.552	1.000	1	1.625	0.437	BCFKF*	11059	248
	1.552	1.000	1	1.625	0.437	ECFKF	110264	248E
	1.552	1.000	1	1.625	0.437	NCFKF		248N
	1.552	1.000	1	1.625	0.437	VCFKF	110250	248V
	1.552	1.187	2	1.625	0.437	BCFKF	11047	251
	1.552	1.062	2	1.625	0.437	BCFKF	11047	252
	1.552	1.000	2	1.625	0.437	ECFKF		252E
	1.552	1.000	2	1.625	0.437	NCFKF		252N
	1.552	1.062	2	1.625	0.437	VCFKF		252V

DIMENSIONS AND MATERIAL CODES

SEAL TYPE	SEAL O.D.	W.L.	SEAT STYLE	SEAT BORE	SEAT THICK	MAT'L CODE	SPEC. NO	RSD P/N
	1.552	1.062	18	1.700	0.370	BCFKF*	11099	311
	1.552	1.000	1	1.750	0.437	BCFJF	110111	3440
	1.552	1.000	1	1.625	0.437	BCFKF	11026	357
	1.552	1.000	1	1.625	0.437	VCFKF	11008	357V
	1.552	1.062	1	1.625	0.437	BCFJF	11004	380
	1.552	1.000	1	1.625	0.437	VCFJF	11010	380V
	1.552	1.000	-			BCF-F*	110100	397
	1.552	1.062	-			BCF-F*	110100	398
	1.552	1.000	15	1.625	0.625	BCFJF	11048	413
	1.552	1.062	18	1.700	0.370	BCFKF*	11099	438
	1.552	1.062	1	1.625	0.437	BCFKF	11026	460
	1.552	1.000	2	1.625	0.437	BCFKF	11047	499
	1.552	1.000	2	1.625	0.437	ECFKF		499E
	1.552	1.000	2	1.625	0.437	NCFKF		499N
	1.552	1.000	2	1.625	0.437	VCFKF		499V
	1.552	1.625	1	1.625	0.437	BCFJF	110245	539
	1.552	1.000	2	1.625	0.437	BCFJF	11060	548
	1.552	1.000	2	1.625	0.437	VCFJF	110102	548V
	1.552	1.562	2	1.625	0.437	BCFJF	110121	557-21
	1.552	1.000	1	1.625	0.437	BCFKF	11026	652
	1.552	1.562	1	1.625	0.406	NCFKF	110122	695N-21
	1.552	1.562	1	1.625	0.437	BCFJF	11014	754-21
	1.552	1.000	1	1.625	0.437	BCFJF	11004	755
	1.552	1.000	1	1.625	0.437	BCFKF	11026	759
	1.552	1.625	1	1.625	0.437	BCFKF	11049	779
	1.552	1.625	1	1.625	0.437	VCFKF		779V
	1.552	1.000	1	1.625	0.437	BCFJF	11004	781
	1.552	1.062	2	1.625	0.437	BCFJF	11060	789
	1.552	1.562	2	1.625	0.437	BCFKF	11051	791-21
	1.552	0.938	1	1.625	0.437	BCFJF	11004	813
	1.552	1.000	1	1.625	0.437	BCFKF	11026	911
	1.552	1.562	1	1.500	0.375	BCFKF	11076	912-21
	1.552	1.562	-			BCF-F	11058	937-21
	1.552	1.062	2	1.875	0.375	BCFKF*	11072	987
	1.552	1.000	1	1.625	0.437	BCFJF	11004	992
	1.552	1.000	1	1.625	0.437	BCFJF		992
21D	1.552	1.500	-			BCF-F	110101	110101
	1.552	1.625	2	1.625	0.437	BCFJF	110123	110123
	1.552	1.625	2	1.625	0.437	BCFKF	110124	110124
	1.552	1.875	2	1.625	0.437	BCFJF	110125	110125
	1.552	1.875	2	1.625	0.437	BCFKF	110126	110126
	1.552	2.312	2	1.625	0.437	BCFJF	110127	110127
	1.552	2.312	2	1.625	0.437	BCFKF	110128	110128
	1.552	2.312	-			BCF-F	110129	110129
	1.552	1.938	2	1.625	0.313	NCFKF	11022	11022
	1.552	1.938	2	1.625	0.313	VCFKF		11022V
	1.552	1.625	-			BCF-F	11069	11069
	1.552	1.875	1	1.625	0.437	BC/ZFJ/ZF	11086	11086
	1.552	1.625	1	1.625	0.437	BCLZL	11090	11090
	1.552	1.875	-			BCF-F	11097	141
	1.552	1.875	-			NCF-F		141N
	1.552	2.312	1	1.625	0.437	BCFJF	11074	276-21
	1.552	2.312	1	1.625	0.437	BCFKF	11075	277-21
	1.552	1.875	1	1.625	0.437	BCFJF	11013	429

* Spring retainer not needed

SEAL TYPE	SEAL O.D.	W.L.	SEAT STYLE	SEAT BORE	SEAT THICK	MAT'L CODE	SPEC. NO	RSD P/N
	1.552	1.875	1	1.625	0.437	VCFJF	11035	429V
	1.552	1.875	1	1.625	0.437	BCFKF	11036	430
	1.552	1.625	1	1.625	0.437	BCFJF	11013	879
	1.552	1.625	1	1.625	0.437	BCFKF	11036	891
37	1.500	0.475	1	1.546	0.325	BCDJF	71002	71002
40	1.710	1.320	-			UC---	00-100041	00-100041
	1.906	0.465	-			BCD-F	41001	41001
	1.875	0.465	5	Shaft mtd	0.312	BMDAF	41002	41002
	1.625	0.806	5	Shaft mtd	0.312	NMDAF	41004	41004
	1.625	0.806	5	Shaft mtd	0.312	NMDAF	41004	41004N
	1.875	0.465	-			BMD-F	41012	41012
	1.906	0.465	3	1.760	0.182	BCDKF	41013	41013
	1.875	0.465	-			BCD-F	41019	41019
	1.906	0.465	1	1.750	0.160	BCDJF	41021	41021
	1.906	0.465	-			BMD-F	41032	41032
51	1.449	1.562	1	1.625	0.437	BCRKR	51031	236
	1.449	1.562	1	1.625	0.437	NCRKR	51033	236N
	1.449	1.562	2	1.625	0.437	BCRJF	51008	557
	1.449	1.562	1	1.625	0.406	NCRKR	51033	695N
	1.449	1.562	1	1.625	0.437	BCRJF	51004	754
	1.449	1.562	1	1.625	0.437	VCRJR	51005	754V
	1.449	1.562	2	1.625	0.437	BCRKR	51036	791
	1.449	1.562	2	1.625	0.437	VCRKR		791V
	1.449	1.562	1	1.500	0.375	BCRKR	510111	912
	1.449	1.562	-			BCR-R	51001	937
	1.449	1.562	1	1.625	0.437	BCRJF	51004	988
	1.449	1.562	1	1.625	0.437	BCRJF		988
52D	1.515	2.312	1	1.625	0.437	BCRJF	21085	276
	1.515	2.312	1	1.625	0.437	BZFFZ		276TC
	1.515	2.312	1	1.625	0.437	BCRKR	21086	277

1.062 Shaft Size

21	1.620	1.157	2	1.750	0.345	BCFKF	110608	110608
	1.620	1.157	2	1.750	0.345	VCFKF	110607	110608V
	1.620	1.000	1	1.750	0.375	BCFKF	110613	110613
	1.750	1.062	-			BCF-F	110615	110615
	1.750	1.593	-			BCF-F	110618	110618
	1.620	1.000	-			BCF-F	110619	110619
	1.620	1.593	-			BCF-F	110620	110620
	1.750	1.062	1	1.750	0.437	BCFKF	110611	127
	1.750	1.593	1	1.750	0.437	BCFKF	110612	498-21
	1.750	1.593	1	1.750	0.437	BCFJF	110609	710-21
	1.750	1.062	2	1.750	0.437	BCFKF	110603	796
	1.750	1.062	2	1.750	0.437	VCFKF		796V
	1.750	1.062	2	1.750	0.437	BCFJF	110616	797
	1.750	1.593	2	1.750	0.437	BCFJF	110617	798-21
	1.750	1.593	2	1.750	0.437	BCFKF	110610	799-21
51	1.562	1.593	1	1.750	0.437	BCRKR	510631	498
	1.562	1.593	1	1.750	0.437	BCRJF	510604	710
	1.562	1.593	2	1.750	0.437	BCRJF	510608	798
	1.562	1.593	2	1.750	0.437	BCRKR	510636	799

SEAL TYPE	SEAL O.D.	W.L.	SEAT STYLE	SEAT BORE	SEAT THICK	MAT'L CODE	SPEC. NO	RSD P/N
1.125 Shaft Size								
21	1.750	1.472	1	1.937	0.468	BCFJF	11106	11106
	1.750	1.593	3	1.687	0.562	BCFAF	11109	11109
	1.750	1.062	1	1.750	0.437	BCFJF*	11112	11112
	1.750	1.263	2	2.000	0.448	BCFKF	11113	11113
	1.750	1.263	2	2.000	0.448	VCFKF		11113V
	1.750	1.125	2	2.000	0.375	VCFKF	11116	11116V
	1.750	1.062	2	1.875	0.687	BCFKF	11121	11121
	1.750	1.062	2	1.875	0.687	VCFKF		11121V
	1.750	1.062	2	1.875	0.750	BCFKF	11131	11131
	1.750	1.093	2	1.750	0.437	VCLXL	11136	11136V
	1.750	1.625	2	1.812	0.437	BCFKF	11154	11154
	1.750	1.625	2	1.812	0.437	VCFKF		11154V
	1.750	1.625	2	1.812	0.437	BCFJF	11162	11162
	1.750	1.625	2	1.812	0.437	VCFJF		11162V
	1.750	1.062	1	1.750	0.437	VCRJR	11177	11177V
	1.750	1.625	-			BCF-F	11180	11180
	1.605	1.625	-			VCF-F	111102	11180V
	1.750	2.000	-			BCF-F	11181	11181
	1.750	1.062	-			BCF-F*	11193	11193
	1.750	1.062	1	1.750	0.437	BCFKF*	11194	11194
	1.750	1.250	-			BCF-F	11195	11195
	1.750	1.625	-			BCF-F	11180	11198
	1.605	1.625	-			VCF-F	111102	11198V
	1.750	1.062	1	1.750	0.437	BCFKF	11111	123
	1.750	1.062	1	1.750	0.437	BCFJF	11104	133
	1.750	1.625	1	1.750	0.437	BCFJF	11108	204-21
	1.750	1.062	1	1.750	0.437	BCFKF	11111	211
	1.750	1.187	2	1.750	0.437	BCFKF	11122	253
	1.750	1.062	2	1.750	0.437	BCFKF	11122	254
	1.620	1.687	2	1.750	0.437	BCFKF	11171	282-21
	1.750	1.062	1	1.750	0.437	BCFKF	11111	304
	1.750	1.062	1	1.750	0.437	BCFJF	11104	344
	1.750	1.062	1	1.750	0.437	VCFJF	11117	344V
	1.750	1.062	-			BCF-F	11101	348
	1.750	1.062	-			NCF-F		348N
	1.750	1.062	-			VCF-F	11159	348V
	1.750	1.062	1	1.750	0.437	BCFKF	11111	355
	1.750	1.062	1	1.750	0.437	VCFKF	11105	355V
	1.750	1.062	1	1.750	0.437	BCFJF	11104	356
	1.750	1.062	1	1.750	0.437	NCFJF		356N
	1.750	1.062	1	1.750	0.437	VCFJF	11117	356V
	1.750	1.062	1	1.750	0.437	BCFKF	11111	363
	1.750	1.625	1	1.750	0.437	BCFKF	11119	384-21
	1.750	1.062	3	1.875	0.562	BCFKF	11124	521
	1.750	1.062	3	1.875	0.562	NCFKF		521N
	1.750	1.062	2	1.750	0.437	BCFKF	11122	529
	1.750	1.062	2	1.750	0.437	NCFKF		529N
	1.750	1.062	2	1.750	0.437	VCFKF		529V
	1.750	1.062	2	1.750	0.437	BCFKF	11192	549
	1.750	1.625	2	1.750	0.437	BCFJF	11172	584-21
	1.750	1.062	2	1.750	0.437	BCFKF*	11147	588
	1.750	1.062	1	1.750	0.437	BCFJF	11104	604

SEAL TYPE	SEAL O.D.	W.L.	SEAT STYLE	SEAT BORE	SEAT THICK	MAT'L CODE	SPEC. NO	RSD P/N
	1.750	1.062	1	1.750	0.437	VCFJF	11117	604V
	1.750	1.062	1	1.750	0.437	BCFKF	11111	605
	1.620	1.625	2	1.687	0.437	BCFJF	111111	607-21
	1.620	1.625	2	1.687	0.437	BCFKF	11166	608-21
	1.750	1.062	1	1.750	0.437	BCFKF	11111	613
	1.750	2.000	2	1.812	0.437	BCFJF	11163	619-21
	1.750	1.406	2	1.750	0.437	BCFJF*	11173	627
	1.750	2.000	2	1.812	0.437	BCFKF	11164	636-21
	1.750	1.062	1	1.750	0.437	BCFKF	11111	653
	1.750	1.062	2	1.750	0.437	BCFJF	11161	801
	1.750	1.062	2	1.750	0.437	VCFJF		801V
	1.750	1.062	2	1.750	0.437	BCFJF	11161	802
	1.750	0.983	1	1.750	0.437	BCFJF	11104	814
	1.750	1.937	2	1.750	0.437	BCFJF	11178	866-21
	1.750	1.937	2	1.750	0.437	BCFKF	11179	867-21
	1.750	1.625	2	1.750	0.437	BCFKF	11128	885-21
	1.750	1.062	-			BCF-F	11101	938
	1.750	2.000	2	1.812	0.437	BCFJF	11163	945-21
	1.750	2.000	2	1.812	0.437	BCFKF	11164	948-21
21D	1.605	1.500	1	1.765	0.375	BCFJF	11190	1103
	1.750	1.625	1	1.750	0.437	BCFJF	11152	11152
	1.750	1.875	2	1.750	0.437	BCFKF	11158	11158
	1.750	2.375	1	1.750	0.437	BCFKF	11182	11182
	1.750	2.375	1	1.750	0.437	BCFJF	11183	11183
	1.750	1.625	1	1.750	0.437	BCFKF	11186	11186
	1.750	1.625	2	1.750	0.437	BCFJF	11187	11187
	1.750	1.625	2	1.750	0.437	BCFKF	11188	11188
	1.750	1.875	2	1.750	0.437	BCFJF	11189	11189
	1.750	1.500	1	1.765	0.375	BCFKF	11191	11191
	1.750	1.625	-			BCF-F	11134	215
	1.750	1.875	1	1.750	0.437	BCFKF	11153	654
	1.750	1.875	1	1.750	0.437	BCFJF	11135	676
	1.750	2.375	2	1.750	0.437	BCFJF	11184	886-21
	1.750	2.375	2	1.750	0.437	BCFKF	11185	918-21
51	1.562	1.625	1	1.750	0.437	BCRJR	51104	204
	1.562	1.625	1	1.750	0.437	ECRJR		204E
	1.562	1.625	1	1.750	0.437	VCRJR	51105	204V
	1.562	1.625	-			BCR-R	51101	2103
	1.562	1.625	-			VCR-R	51102	2103V
	1.562	1.625	1	1.750	0.437	BCRKR	51131	225
	1.562	1.625	1	1.750	0.437	BCRKR	51131	266
	1.562	1.688	2	1.750	0.437	BCRKR	51136	282
	1.562	1.625	1	1.750	0.437	BCRKR	51131	384
	1.562	1.625	1	1.750	0.437	NCRKR		384N
	1.562	1.625	2	1.750	0.437	BCRJR	51108	584
	1.562	1.625	2	1.687	0.437	BCRJR	511109	607
	1.562	1.625	2	1.687	0.437	BCRKR	51139	608
	1.562	2.000	2	1.812	0.437	BCRJR	511108	619
	1.562	2.000	2	1.812	0.437	VCRJR	511123	619V
	1.562	2.000	2	1.812	0.437	BCRKR	511118	636
	1.562	2.000	2	1.812	0.437	VCRKR		636V
	1.562	1.625	2	1.750	0.437	BCRJR	51108	803
	1.562	1.937	2	1.750	0.437	BCRJR	511101	866
	1.562	1.937	2	1.750	0.437	VCRJR		866V

* Spring retainer not needed

DIMENSIONS AND MATERIAL CODES

SEAL TYPE	SEAL O.D.	W.L.	SEAT STYLE	SEAT BORE	SEAT THICK	MAT'L CODE	SPEC. NO	RSD P/N
	1.562	1.937	2	1.750	0.437	BCRKR	511111	867
	1.562	1.625	2	1.750	0.437	BCRKR	511136	885
	1.562	2.000	2	1.812	0.437	BCRJR	511108	945
	1.562	2.000	2	1.812	0.437	VCRJR*	511123	945V
	1.562	2.000	2	1.812	0.437	BCRKR	511118	948
	1.562	1.625	1	1.750	0.437	BCRJR	511104	993
	1.562	1.625	1	1.750	0.437	BCRJR		993
	1.562	1.625	1	1.750	0.437	BCRKR	511131	996
	1.562	1.625	1	1.750	0.437	BCRKR		996
52D	1.656	2.375	2	1.750	0.437	BCRJR	21185	886
	1.656	2.375	2	1.750	0.437	BCRKR	21186	918

1.187 Shaft Size

21	1.875	1.000	-			BCF-F	111818	111818
	1.875	1.625	-			BCF-F	111823	111823
	1.875	1.187	2	1.875	0.437	BCFKF	111814	255
	1.875	1.000	1	1.875	0.437	NCFJF	111812	297
	1.875	1.000	1	1.875	0.437	NCFJF	111812	297N
	1.875	1.187	1	1.875	0.437	BCFJF	111811	306
	1.875	1.625	1	1.875	0.437	BCFJF	111817	310-21
	1.875	1.625	1	1.875	0.437	BCFKF	111821	343-21
	1.875	1.625	1	1.875	0.437	BCFJF	111817	345-21
	1.875	1.000	2	1.875	0.437	NCFKF	111822	589N
21D	1.875	2.375	2	1.875	0.437	BCFKF	111824	111824
	1.875	2.375	2	1.875	0.437	BCFJF	111825	111825
	1.875	2.375	-			BCF-F	111826	111826
	1.875	1.625	-			BCF-F	111827	111827
	1.875	1.625	1	1.875	0.437	BCFJF	111828	111828
	1.875	1.625	1	1.875	0.437	BCFKF	111829	111829
	1.875	2.375	1	1.875	0.437	BCFJF	111815	723-21
	1.875	2.375	1	1.875	0.437	BCFKF	111808	724-21
51	1.687	1.625	1	1.875	0.437	BCRJR	511804	310
	1.687	1.625	1	1.875	0.437	BCRKR	511831	343
	1.687	1.625	1	1.875	0.437	BCRJR	511804	345
52D	1.734	2.375	1	1.875	0.437	BCRJR	211885	723
	1.734	2.375	1	1.875	0.437	BCRKR	211886	724

1.240 Shaft Size

21	1.875	1.062	-			BCF-F	112403	112403
	1.875	1.062	1	1.875	0.437	BCFJF	112404	112404

1.250 Shaft Size

21	1.875	1.062	1	1.875	0.437	BCFJF	11211	1007
	1.875	1.062	1	1.875	0.437	BCFKF	11270	105
	1.875	1.542	1	1.875	0.437	NCFKF	11256	108N-21
	1.875	1.062	1	2.000	0.437	BCFKF	112111	112111
	1.875	0.850	2	1.875	0.250	VCFKF	112115	112115V
	1.875	1.062	2	1.875	0.437	ECFKF	11224	11224E
	1.875	1.000	2	1.875	0.375	BCFKF*	11235	11235
	1.875	1.000	2	1.875	0.375	VCFKF		11235V
	1.875	1.625	-			BCF-F	11246	11246
	1.875	1.625	-			ECF-F		11246E
	1.875	1.625	-			NCF-F		11246N
	1.875	1.625	-			VCF-F	112137	11246V
	1.875	1.062	2	2.000	0.437	BCFKF	11280	11280

	1.875	1.062	2	2.000	0.437	VCFKF		11280V
	1.875	1.625	1	1.875	0.437	BCFKF	11266	137-21
	1.875	1.062	-			BCF-F	11201	154
	1.875	1.062	-			ECF-F	11240	154E
	1.875	1.062	-			NCF-F		154N
	1.875	1.062	-			VCF-F	11242	154V
	1.875	1.062	1	1.875	0.437	BCFJF	11204	185
	1.875	1.062	1	1.875	0.437	ECFJF	11272	185E
	1.875	1.062	1	1.875	0.437	NCFJF		185N
	1.875	1.062	1	1.875	0.437	BZFFZ		185TC
	1.875	1.062	1	1.875	0.437	VCFJF	11206	185V
	1.875	1.062	1	1.875	0.437	BCFJF*	11211	246
	1.875	1.062	1	1.875	0.437	VCFJF	11217	246V
	1.875	1.062	1	1.875	0.437	BCFKF*	11216	249
	1.875	1.062	1	1.875	0.437	ECFKF	112300	249E
	1.875	1.062	1	1.875	0.437	VCFKF		249V
	1.875	1.062	2	1.875	0.437	BCFKF	11232	256
	1.875	1.062	2	1.875	0.437	ECFKF	11233	256E
	1.875	1.062	2	1.875	0.437	NCFKF		256N
	1.875	1.062	2	1.875	0.437	VCFKF		256V
	1.875	1.625	2	1.875	0.437	BCFKF	11257	264-21
	1.875	1.000	1	1.937	0.437	BCFKF	11281	326
	1.875	1.000	1	1.937	0.437	NCFKF		326N
	1.875	1.625	1	1.875	0.437	BCFJF	11213	361-21
	1.875	1.062	1	1.768	0.367	BCFJF*	112119	368
	1.875	1.062	1	1.875	0.437	BCFJF*	11211	381
	1.875	1.062	1	1.875	0.437	VCFJF	11217	381V
	1.875	1.062	1	1.875	0.437	BCFKF	11270	383
	1.875	1.062	1	1.875	0.437	ECFKF	112231	383E
	1.875	1.062	1	1.875	0.437	VCFKF	11251	383V
	1.875	1.625	2	1.875	0.437	BCFKF	11257	394-21
	1.875	1.062	1	1.768	0.367	BCFJF*	112119	402
	1.875	1.062	-			BCF-F*	112128	416
	1.875	1.062	25	2.250	0.625	BCFJF*	11255	416A
	1.875	1.062	25	2.250	0.625	BCFJF	11255	416A
	1.875	1.062	-			BCF-F	112128	417
	1.875	1.062	25	2.250	0.625	BCFJF	11255	417A
	1.875	1.062	18	1.687	0.360	BCFJF	112108	439
	1.875	1.062	1	2.000	0.437	BCFJF	11205	466
	1.875	1.062	1	2.000	0.437	ECFJF	112213	466E
	1.875	1.062	1	2.000	0.437	VCFJF	11210	466V
	1.875	1.062	1	1.875	0.437	BCFJF*	11211	472
	1.875	1.062	1	2.000	0.437	BCFJF	11205	510
	1.875	1.062	2	1.875	0.437	BCFKF	11232	517
	1.875	1.062	2	1.875	0.437	NCFKF		517N
	1.875	1.062	2	1.875	0.437	VCFKF		517V
	1.875	1.062	2	1.875	0.437	BCFKF*	11257	525-21
	1.875	1.625	2	1.875	0.437	BCFJF	11297	546-21
	1.875	1.062	1	1.768	0.367	BCFKF*	112120	597
	1.875	1.062	2	1.875	0.437	BCFKF	11232	598
	1.875	1.062	2	1.875	0.437	ECFKF	11233	598E
	1.875	1.062	2	1.875	0.437	VCFKF		598V
	1.875	1.062	2	1.875	0.437	BCFJF	11260	618
	1.875	1.062	2	1.875	0.437	VCFJF		618V

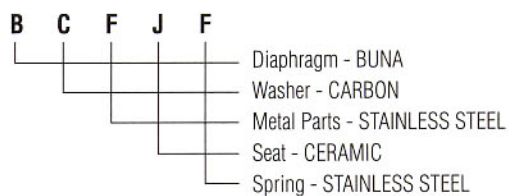
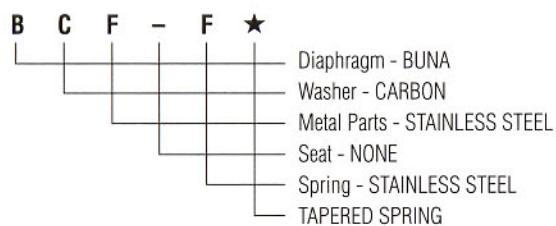
*Spring retainer not needed

SEAL TYPE	SEAL O.D.	W.L.	SEAT STYLE	SEAT BORE	SEAT THICK	MAT'L CODE	SPEC. NO	RSD P/N
1.250 Shaft Size (cont.)								
21	1.875	2.406	1	1.875	0.437	BCFJF	112156	681-21
	1.875	1.062	1	1.875	0.437	BCFKF	11270	756
	1.875	1.062	1	1.875	0.437	ECFKF	112231	756E
	1.875	1.062	1	1.875	0.437	VCFKF	11251	756V
	1.875	1.062	1	1.875	0.437	BCFJF	11204	786
	1.875	1.062	2	1.875	0.437	BCFJF	11260	804
	1.875	1.062	1	2.000	0.437	BCFJF	11205	815
	1.875	1.062	25	2.250	0.625	BCFJF*	11255	923
	1.875	1.062	1	1.768	0.367	BCFJF*	112119	976
	1.875	1.062	1	1.768	0.367	VCFJF	112133	976V
	1.875	1.062	1	1.768	0.367	BCFKF*	112120	977
	1.875	1.062	1	1.768	0.367	BCFJF*	112119	978
	1.875	1.062	1	1.768	0.367	VCFJF	112133	978V
	1.875	1.062	1	1.768	0.367	BCFKF*	112120	979
	1.875	1.031	2	2.125	0.375	BCFKF*	11292	995
21D	1.875	1.625	2	2.000	0.375	BCFKF	11209	11209
	1.875	1.625	2	2.000	0.375	VCFKF		11209V
	1.875	1.750	3	1.895	0.562	VCFKF	11212	11212V
	1.875	2.375	2	1.875	0.437	BCFKF	112135	112135
	1.875	1.750	3	1.875	0.562	BCFKF	11215	11215
	1.875	2.375	2	1.875	0.437	BCFJF	112155	112155
	1.875	1.625	2	1.875	0.437	BCFJF	11249	11249
	1.875	1.875	1	1.875	0.437	BCFKF	11250	11250
	1.875	1.875	2	1.875	0.437	BCFJF	11251	11251
	1.875	1.875	2	1.875	0.437	BCFKF	11252	11252
	1.875	2.375	1	1.875	0.437	BCFJF	11253	11253
	1.875	2.375	1	1.875	0.437	BCFKF	11254	11254
	1.875	1.625	-			BCF-F	11230	169
	1.875	1.600	1	1.875	0.200	BCFJF	112101	176
	1.875	1.625	2	1.875	0.437	BCFKF	11259	228
	1.875	1.625	2	1.875	0.437	VCFKF		228V
	1.875	2.375	2	1.875	0.437	NCFKF	112148	308N-21
	1.875	1.875	1	1.875	0.437	BCFJF	11231	426
	1.875	1.625	1	1.875	0.437	BCFJF	11298	883
	1.875	1.625	1	1.875	0.437	BCFKF	11261	890
51	1.687	1.625	-			BCR-R	51201	1015
	1.687	1.542	1	1.875	0.437	NCRKR	51233	108N
	1.687	1.625	1	1.875	0.437	BCRKR	51231	137
	1.687	1.625	1	1.875	0.437	NCRKR		137N
	1.687	1.625	1	1.875	0.437	VCRKR		137V
	1.687	1.625	2	1.875	0.437	BCRKR	51236	264
	1.687	1.625	2	1.875	0.437	VCRKR		264V
	1.687	1.625	1	1.875	0.437	BCRJR	51204	361
	1.687	1.625	1	1.875	0.437	NCRJR		361N
	1.687	1.625	1	1.875	0.437	VCRJR	51205	361V
	1.687	1.625	1	1.875	0.437	BCRJR	51204	391
	1.687	1.625	2	1.875	0.437	BCRKR	51236	394
	1.687	1.625	2	1.875	0.437	BCRJR	51208	546
	1.687	1.625	2	1.875	0.437	VCRJR		546V
	1.687	2.406	1	1.875	0.437	BCRJR	512101	681
52	1.734	1.062	-			BCR-R	212501	212501
	1.734	1.062	1	1.875	0.437	BCRKR	21246	383-52

SEAL TYPE	SEAL O.D.	W.L.	SEAT STYLE	SEAT BORE	SEAT THICK	MAT'L CODE	SPEC. NO	RSD P/N
52D	1.734	2.375	1	1.875	0.437	NCRJR	21286	1187
	1.734	2.375	2	1.875	0.437	NCRKR	21287	308N
1.375 Shaft Size								
21	2.000	0.875	-			BCF-F	11310	11310
	2.000	1.562	1	2.375	0.437	BCFJF	11314	11314
	2.000	1.687	-			BCF-F	11315	11315
	2.000	1.125	2	2.125	0.625	BCFKF	11332	11332
	2.000	1.125	2	2.125	0.625	VCFKF		11332V
	2.000	0.850	2	2.000	0.250	VCFKF	11349	11349V
	2.000	0.825	3	2.187	0.437	BCFKF	11356	11356
	2.000	0.825	3	2.187	0.375	BCFJF	11357	11357
	2.000	1.407	2	1.875	0.437	BCFKF	11377	11377
	2.000	1.125	-			BCF-F	11301	172
	2.000	1.125	-			VCF-F	11305	172V
	2.000	1.125	1	2.000	0.437	BCFJF	11304	177
	2.000	1.125	1	2.000	0.437	NCFJF		177N
	2.000	1.125	1	2.000	0.437	VCFJF	11307	177V
	2.000	1.125	1	2.000	0.437	BCFKF	11311	186
	2.000	1.125	1	2.000	0.437	VCFKF	11344	186V
	2.000	1.125	1	2.000	0.437	BCFKF	11311	210
	2.000	1.125	1	2.000	0.437	BCFKF	11311	289
	2.000	1.187	1	2.125	0.437	BCFJF	11335	291
	2.000	1.687	1	2.000	0.437	BCFJF	11312	354-21
	2.000	1.125	-			BCF-F	11301	376
	2.000	1.093	25	2.000	0.565	BCFJF	11326	404
	2.000	1.187	3	2.125	0.437	BCFKF	11325	467
	2.000	1.125	1	2.000	0.437	BCFJF	11304	491
	2.000	1.125	1	2.000	0.437	VCFJF	11307	491V
	2.000	2.125	1	2.000	0.437	BCFKF	11381	561-21
	2.000	1.125	1	2.000	0.437	BCFKF	11311	644
	2.000	1.687	1	2.000	0.437	BCFKF	11316	677-21
	2.000	1.125	2	2.000	0.437	BCFJF	11369	805
	2.000	1.125	2	2.000	0.437	ECFJF		805E
	2.000	1.125	2	2.000	0.437	VCFJF	113116	805V
	2.000	1.125	2	2.000	0.437	BCFJF	11369	806
	2.000	1.687	2	2.000	0.437	BCFJF	11370	808-21
	2.000	1.687	2	2.000	0.437	BCFKF	11371	809-21
	2.000	2.000	2	2.000	0.437	BCFJF	11372	864-21
	2.000	2.000	2	2.000	0.437	BCFKF	11373	865-21
	2.000	1.125	1	2.000	0.437	BCFKF*	11351	919
	2.000	0.900	25	2.000	0.565	BCFJF	11326	929
21D	2.000	1.875	1	2.140	0.437	BCFJF	11341	1104
	2.000	1.750	1	2.000	0.437	BCLZL	11309	11309
	2.000	1.625	1	2.140	0.437	BCFKF	11342	11342
	2.000	1.625	22	3.090	0.320	BCFKF	11360	11360
	2.000	2.437	-			BCF-F	11366	11366
	2.000	1.875	-			BCF-F	11382	11382
	2.000	1.625	2	2.000	0.437	BCFJF	11383	11383
	2.000	1.625	2	2.000	0.437	BCFKF	11384	11384
	2.000	1.875	1	2.000	0.437	BCFJF	11385	11385
	2.000	1.875	1	2.000	0.437	BCFKF	11386	11386
	2.000	1.875	1	2.000	0.437	BCFJF	11387	11387
	2.000	1.875	1	2.000	0.437	BCFKF	11388	11388



DIMENSIONS AND MATERIAL CODES



For Metric, Consult Our Factory

SEAL TYPE	SEAL O.D.	W.L.	SEAT STYLE	SEAT BORE	SEAT THICK	MAT'L CODE	SPEC. NO	RSD P/N
.250 Shaft Size								
21	0.687	0.562	1	0.750	0.270	BCFAF	10211	10211
	0.687	0.562	1	0.875	0.160	BCFJF	10212	10212
	0.687	0.562	1	0.750	0.270	BCFKF	10213	10213
	0.687	0.562	-	-	-	BCF-F	10214	10214

.312 Shaft Size								
21	0.690	0.640	-	-	-	BCF-F	103102	103102
	0.690	0.640	-	-	-	VCF-F		103102V
	0.690	0.640	1	0.750	0.250	BCFRF	103103	103103
	0.690	0.656	1	1.000	0.312	BCFJF	103113	114

.375 Shaft Size								
16	0.917	0.625	-	-	-	BMF-F	60309	377
	0.917	0.625	1	0.875	0.218	BMFKF	60306	511
	0.917	0.625	1	0.875	0.218	VMFKF	60336	511V
	0.917	0.625	-	-	-	BCF-F	60301	60301
	0.917	0.625	1	0.875	0.281	BMFJF	60303	60303
	0.917	0.625	1	0.875	0.281	BCFJF	60304	60304
	0.917	0.625	-	-	-	BMF-F	60309	60309
	0.917	0.656	1	1.000	0.312	BMFJF	60310	60310
21	0.917	0.750	-	-	-	BCF-F	10301	10301
	0.917	0.750	-	-	-	NCF-F	10302	10302N
	0.917	0.750	1	0.875	0.284	BCFJF	10304	10304
	0.917	0.750	1	1.000	0.250	BCFJF	10312	10312
	0.917	0.750	1	0.875	0.284	BCFKF	10318	10318
37	0.874	0.437	1	1.000	0.375	BMDJ-	70301	160
	0.874	0.437	1	1.000	0.375	BMDK-	70302	161
	0.874	0.437	1	1.000	0.375	BMDK-	70302	170
68	1.125	0.375	1	0.875	0.240	BCDRF	80309	671
	1.125	0.375	8	Shaft mtd	0.240	BCDKF	80307	718
	1.125	0.375	-	-	-	BMD-F	80301	80301
	1.125	0.375	-	-	-	BCD-F	80302	80302
	1.125	0.375	-	-	-	BCD-F	80303	80303
	1.125	0.375	1	0.875	0.160	BCDJF	80304	80304
	1.125	0.375	1	0.875	0.160	BCDJF	80308	80308
	1.125	0.375	1	0.875	0.240	BCDRF	80309	80309
	1.125	0.375	1	0.875	0.160	BMDJF	80310	80310

.437 Shaft Size								
16	0.917	0.656	-	-	-	BMF-F	60401	60401
	0.917	0.656	1	1.000	0.312	BMFJF	60403	60403
21	0.917	0.750	-	-	-	BCF-F	10401	10401
	0.917	0.750	-	-	-	NCF-F	10402	10402N
	0.917	0.750	1	1.181	0.254	NCFJF	10403	10403N
	0.917	0.750	1	1.000	0.312	BCFJF	10404	10404
	0.917	0.750	1	1.181	0.254	UCFJF	10409	10409
	0.917	0.750	1	1.181	0.254	ECFJF	10415	10409E
	0.917	0.750	1	1.181	0.254	VCFJF		10409V
	0.917	0.750	2	1.181	0.250	BCFKF	10410	10410
	0.917	0.750	2	1.181	0.250	ECFKF	10445	10410E
	0.917	0.750	2	1.181	0.250	NCFKF		10410N
	0.917	0.750	2	1.181	0.250	VCFKF	10420	10410V
	0.917	0.690	-	-	-	BCF-F	10411	10411

	0.917	0.750	1	1.181	0.254	ECFJF	10415	10415E
	0.917	0.750	2	1.181	0.250	NCFKF	10418	10418N
	0.917	0.750	2	1.000	0.312	BCFJF	10426	10426
	0.917	1.250	2	1.000	0.312	NCFJF	10419	117N
	0.917	1.250	1	1.175	0.265	BCFJF	10414	174
	0.917	0.750	2	1.000	0.312	BCFJF	10426	244
	0.917	0.750	2	1.000	0.312	NCFJF	10419	244N

.500 Shaft Size								
16	0.917	0.656	1	1.000	0.312	BMFJF	60503	162
	0.917	0.656	1	1.000	0.312	VMFJF		162V
	0.917	0.687	3	1.125	0.593	BMFAF	60514	280
	0.917	0.656	-	-	-	BMF-F	60501	298
	0.917	0.656	1	1.000	0.290	BMFKF	60505	506
	0.917	0.656	-	-	-	BCF-F	60502	60502
	0.917	0.656	1	1.000	0.312	BCFJF	60504	60504
	0.917	0.656	2	1.000	0.312	BCFJF	60523	60523
	0.917	0.656	2	0.875	0.218	BMFKF	60525	670
21	0.917	0.812	1	1.000	0.312	BCFJF	10504	1002
	0.917	0.812	1	1.000	0.312	VCFJF	10505	1002V
	0.917	0.812	1	1.000	0.290	BCFKF	10528	1011
	0.917	0.812	1	0.938	0.237	BCFJF	10543	1012
	0.917	0.718	1	1.000	0.237	BMFJF	10523	1043
	0.917	0.812	-	-	-	BCF-F	10593	1050
	0.917	0.625	1	1.000	0.312	BCFJF*	10506	10506
	0.917	0.718	2	1.000	0.312	BCFJF	10508	10508
	0.917	0.625	2	1.000	0.312	BCFKF	10517	10517
	0.917	1.095	25	1.250	0.576	BCFKF	10533	10533
	0.917	0.703	3	1.093	0.190	VCLXL	10536	10536V
	0.917	0.692	1	1.000	0.203	BCFKF	10539	10539
	0.917	0.812	2	1.000	0.312	BCFKF	10545	10545
	0.917	0.812	2	1.000	0.312	NCFKF		10545N
	0.917	0.812	2	1.000	0.312	VCFKF		10545V
	0.917	0.812	2	1.000	0.312	BCFJF	10553	10553
	0.917	0.812	1	1.000	0.312	BCFKF	10555	10555
	0.917	0.812	1	1.000	0.312	VCFKF		10555V
	0.917	1.187	-	-	-	BCF-F	10580	10580
	0.917	0.625	1	1.000	0.312	BCFKF*	10589	10589
	0.917	0.812	1	1.000	0.290	BCFKF	10528	106
	0.917	0.831	1	1.000	0.312	BCFJF	10504	168
	0.917	0.831	1	1.000	0.312	ECFJF	105118	168E
	0.917	0.812	1	1.000	0.312	VCFJF	10505	168V
	0.917	0.812	2	1.500	0.296	BCFKF	10588	190
	0.917	0.718	3	1.375	0.187	BMFKF	10591	221
	0.917	0.718	1	0.938	0.237	BCFJF	10543	392
	0.917	0.718	1	0.938	0.237	VCFJF	10570	392V
	0.917	0.718	1	0.938	0.237	BCFKF	10558	393
	0.917	0.718	-	-	-	BCF-F	10593	400
	0.917	0.718	-	-	-	VCF-F		400V
	0.917	0.812	-	-	-	BCF-F	10593	401
	0.917	0.812	1	0.938	0.237	BCFJF	10543	401A
	0.917	0.718	3	1.062	0.250	BMFAF	10542	420
	0.917	0.718	3	1.062	0.250	BMFAF	10542	504
	0.917	0.812	1	1.000	0.312	BMFJF	10552	631

DIMENSIONS AND MATERIAL CODES

SEAL TYPE	SEAL O.D.	W.L.	SEAT STYLE	SEAT BORE	SEAT THICK	MAT'L CODE	SPEC. NO	RSD P/N
	0.917	0.812	1	1.000	0.290	BCFKF	10581	632
	0.917	0.831	1	1.000	0.290	BCFKF	10581	666
	0.917	0.812	1	1.000	0.290	BCFKF	10528	903
	0.917	0.831	-	-	-	BCF-F	10501	930
21D	0.917	1.125	1	1.000	0.312	BCFJF	10582	10582
	0.917	1.125	1	1.000	0.312	BCFKF	10583	10583
	0.917	1.437	1	1.000	0.312	BCFJF	10584	10584
	0.917	1.437	1	1.000	0.312	BCFKF	10585	10585
	0.917	1.125	-	-	-	BCF-F	10586	10586
	0.917	1.437	-	-	-	BCF-F	10587	10587
40	1.125	0.390	-	-	-	BMD-F	40510	40510
	1.125	0.390	1	1.000	0.312	ECFJF	40517	40517E
	1.125	0.390	1	1.000	0.312	BMFJF	40514	663
	1.125	0.390	1	1.000	0.312	BMFJF	40514	673
68	1.125	0.537	-	-	-	BMD-F	80501	1008
	1.125	0.537	1	1.000	0.232	BMFAF	80531	142
	1.125	0.537	8	Shaft mtd	0.062	BMDRF	80521	149
	1.125	0.537	-	-	-	BMD-F	80501	150
	1.125	0.537	8	Shaft mtd	0.125	BMDKF	80535	155
	1.125	0.537	1	1.000	0.312	BMDJF	80503	163
	1.125	0.537	1	1.000	0.312	BMFJF	80527	163SS
	1.125	0.537	1	1.000	0.312	VMDJF	80584	163V
	1.125	0.537	5	Shaft mtd	0.312	BMDKF	80513	164
	1.125	0.537	5	Shaft mtd	0.312	BMDJF	80504	165
	1.125	0.537	5	Shaft mtd	0.312	VMDJF		165V
	1.125	0.537	5	Shaft mtd	0.312	BMDJF	80504	645
	1.125	0.537	5	Shaft mtd	0.312	BMDJF	80504	648
	1.125	0.537	5	Shaft mtd	0.312	BMDKF	80513	662
	1.125	0.537	1	1.000	0.290	BMDKF	80522	788
	1.125	0.537	-	-	-	BCD-F	80502	80502
	1.125	0.537	-	-	-	BCF-F	80506	80506
	1.125	0.537	-	-	-	VCF-F	80511	80506V
	1.125	0.537	5	Shaft mtd	0.312	BCDJF	80507	80507
	1.125	0.537	5	Shaft mtd	0.312	BCFJF	80516	80516
	1.125	0.537	1	1.000	0.312	BCFJF	80523	80523
	1.125	0.537	-	-	-	BMF-F	80526	80526
	1.125	0.537	1	1.000	0.312	BCFJF	80529	80529

.562 Shaft Size

21	1.110	0.812	1	1.187	0.343	BCFJF	105607	105607
	1.110	0.875	-	-	-	BCF-F	105610	105610
	1.110	0.812	3	1.031	0.312	NCFAF	105629	500N
	1.110	0.812	2	1.000	0.290	NCFKF	105630	558N
	1.110	0.812	-	-	-	NCF-F	105621	928N

.590 Shaft Size

21	1.185	0.875	-	-	-	BCF-F	105902	105902
	1.185	0.875	-	-	-	VCF-F	105903	105902V
	1.185	0.875	1	1.110	0.406	BCFKF*	105907	105907
	1.185	0.875	1	1.110	0.406	BCDJF*	105906	129

.625 Shaft Size

16	1.185	0.718	1	1.187	0.343	BMFJF	60611	100
	1.185	0.718	1	1.187	0.343	VMFJF	60628	100V
	1.185	0.718	1	1.187	0.343	BMFKF	606186	1150

	1.185	0.718	1	1.187	0.343	BMFJF	60611	126
	1.185	0.718	2	1.125	0.500	BMFKF	60626	148
	1.185	0.718	1	1.187	0.281	BCFJF	60670	152
	1.185	0.812	1	1.250	0.375	BMFKF	60624	153
	1.185	0.812	1	1.187	0.343	BMFJF	60622	166
	1.185	0.718	8	Shaft mtd	0.125	BMFKF	606105	198
	1.185	0.718	1	1.250	0.406	BMFJF	60603	200
	1.185	0.718	1	1.250	0.406	VMFJF	60615	200V
	1.185	0.718	1	1.187	0.281	BMFKF	60623	203
	1.185	0.718	-	-	-	BCF-F	60602	218
	1.185	0.718	1	1.250	0.406	BMFJF	60603	230
	1.185	0.718	2	1.207	0.250	BMFKF	60616	232
	1.187	0.718	Press Fit	1.125	0.312	BMFKF	606215	293
	1.185	0.718	-	-	-	BMF-F	60601	299
	1.185	0.718	1	1.250	0.406	BMFJF	60629	300
	1.185	0.718	1	1.250	0.406	VMFJF*	60632	300V
	1.185	0.718	1	1.250	0.406	BMFJF	60603	364
	1.185	0.718	1	1.250	0.406	BMFJF	60603	365
	1.185	0.718	1	1.250	0.250	BMFJF	60620	372
	1.185	0.812	1	1.250	0.406	BMFJF	60606	425
	1.185	0.718	1	1.250	0.406	BMFJF	60603	470
	1.185	0.718	1	1.250	0.375	BMFKF	60645	496
	1.185	0.812	1	1.250	0.406	BMFJF	60606	501
	1.185	0.812	1	1.250	0.406	VMFJF	60644	501V
	1.185	0.718	1	1.250	0.375	BMFKF	60645	507
	1.185	0.718	1	1.250	0.375	VMFKF	60669	507V
	1.185	0.718	1	1.250	0.406	BCFJF	60604	516
	1.185	0.718	1	1.250	0.406	ECFJF	60610	516E
	1.185	0.718	1	1.187	0.288	BCFKF	60680	518
	1.185	0.718	1	1.187	0.288	ECFKF	606191	518E
	1.185	0.718	2	1.125	0.500	BMFKF	60626	520
	1.185	0.718	1	1.250	0.375	BCFKF	60694	524
	1.185	0.718	1	1.187	0.281	BMFKF	60623	526
	1.185	0.718	1	1.375	0.562	BMFJF	60653	528
	1.185	0.718	1	1.375	0.562	VMFJF	606109	528V
	1.185	0.718	2	1.187	0.343	BMFJF	60627	533
	1.185	0.718	1	1.250	0.283	BMFJF	60695	551
	1.185	0.718	2	1.250	0.406	BCFKF	606100	606100
	1.185	0.718	1	1.250	0.406	BMFKF	606101	606101
	1.185	0.796	1	1.250	0.406	BMFJF	606104	606104
	1.185	0.812	-	-	-	BCF-F	60619	60619
	1.185	0.812	-	-	-	BMF-F	60630	60630
	1.185	0.718	Spec 1 [†]	1.000	0.312	BMFJF	60643	60643
	1.185	0.718	1	1.250	0.406	BCFKF	60650	60650
	1.185	0.718	1	1.250	0.406	VCFKF		60650V
	1.185	0.718	1	1.250	0.250	BMFKF	60658	6065
	1.185	0.718	1	1.250	0.406	BXFXF	60672	60672
	1.185	0.718	2	1.250	0.406	BMFJF	60678	60678
	1.185	0.718	1	1.320	0.343	BMFJF	60686	60686
	1.185	0.718	1	1.187	0.343	BXZFZ	60687	60687
	1.185	0.718	2	1.250	0.406	BMFKF	60699	60699
	1.185	0.718	2	1.250	0.375	BMFKF	606106	628
	1.185	0.718	2	1.250	0.406	BMFJF	60678	637
	1.185	0.718	2	1.250	0.375	BMFKF	606106	638

* Spring retainer not needed

† Special Seat

SEAL TYPE	SEAL O.D.	W.L.	SEAT STYLE	SEAT BORE	SEAT THICK	MAT'L CODE	SPEC. NO	RSD P/N	SEAL TYPE	SEAL O.D.	W.L.	SEAT STYLE	SEAT BORE	SEAT THICK	MAT'L CODE	SPEC. NO	RSD P/N
.625 Shaft Size (cont.)																	
16	1.185	0.718	1	1.187	0.281	BCFJF	60670	680		1.185	0.875	2	1.250	0.406	VCFKF		10693V
	1.185	0.718	1	1.187	0.281	VCFJF	60659	680V		1.185	0.875	1	1.250	0.406	BCFKF	10695	10695
	1.185	0.718	1	1.187	0.281	BCFJF	60670	680		1.185	0.875	1	1.250	0.406	VCFKF		10695V
	1.185	0.718	1	1.187	0.281	VCFJF	60659	680V		1.185	0.906	1	1.142	0.312	BCFJF	10696	10696
	1.185	0.718	1	1.187	0.281	BMFKF	60623	701		1.185	0.875	-			BCF-F	10601	109
	1.185	0.718	1	1.187	0.281	BMFJF	60607	702		1.185	0.875	2	1.125	0.500	BCFKF	10641	110
	1.185	0.718	1	1.187	0.281	VCFJF	60659	702V		1.185	0.875	1	1.187	0.343	BCFKF	10609	1154
	1.185	0.718	1	1.187	0.281	BCFJF	60670	704		1.185	0.875	1	1.187	0.343	VCFKF	106211	1154V
	1.185	0.718	2	1.187	0.343	BMFJF	60627	711		1.185	0.875	1	1.187	0.288	BCFJF	106121	1155
	1.185	0.718	1	1.250	0.406	BMFJF	60603	751		1.185	0.875	1	1.250	0.406	BCFKF	10695	1156
	1.185	0.718	1	1.250	0.406	BMFJF	60603	780		1.185	0.875	1	1.250	0.406	VCFKF		1156V
	1.185	0.718	1	1.187	0.281	BCFJF	60670	840		1.185	0.812	1	1.187	0.343	BCFJF	10609	118
	1.185	0.718	2	1.187	0.343	BMFJF	60627	896		1.185	0.812	1	1.187	0.343	VCFJF	106211	118V
	1.185	0.812	1	1.250	0.406	BMFJF	60606	909		1.185	0.718	1	1.250	0.406	BMFJF	10673	132
	1.185	0.718	1	1.187	0.343	BMFJF	60611	910		1.185	0.718	1	1.250	0.406	VMFJF	106107	132V
	1.185	0.718	1	1.141	0.312	BMFKF	60639	920		1.185	0.875	1	1.312	0.250	BCFJF	106159	1505
	1.185	0.812	1	1.250	0.406	BCFJF	60605	952		1.185	0.875	1	1.187	0.281	BCFKF	10644	1602
	1.185	0.812	1	1.250	0.406	VCFJF		952V		1.185	0.875	1	1.250	0.375	BCFKF	106108	167
	1.185	0.812	1	1.250	0.406	VCFJF		952V		1.185	0.875	2	1.125	0.500	BCFKF	10641	189
	1.185	0.812	1	1.187	0.343	BCFJF	60696	953		1.185	0.875	1	1.250	0.406	BCFJF	10604	220
	1.185	0.812	1	1.250	0.375	BCFKF	60697	954		1.185	0.875	2	1.125	0.500	BCFKF	106134	222
	1.185	0.812	1	1.187	0.281	BCFKF	60698	955		1.185	0.875	1	1.187	0.281	BCFKF	10644	226
	1.185	0.718	1	1.187	0.288	BCFKF	60680	956		1.185	0.875	1	1.250	0.406	BCFJF	10650	234
	1.185	0.718	1	1.187	0.288	BCFKF		956		1.185	0.875	1	1.250	0.406	VCFJF	10642	234V
	1.185	0.718	1	1.187	0.343	BCFJF	60612	957		1.185	0.875	1	1.187	0.343	BCFKF	106118	263
	1.185	0.718	1	1.250	0.406	BCFJF	60604	958		1.185	1.312	1	1.250	0.375	BCFKF	10686	273
	1.185	0.718	1	1.250	0.406	BCFJF		958		1.185	1.312	1	1.250	0.406	BCFJF	10685	274
	1.185	0.718	1	1.187	0.343	BCFJF	60612	959		1.110	0.875	1	1.250	0.406	BCFJF	106300	290
	1.185	0.718	1	1.187	0.343	BCFJF		959		1.110	0.875	1	1.250	0.406	ECFJF	106208	290E
	1.185	0.718	1	1.250	0.375	BCFKF	60694	960		1.110	0.875	1	1.250	0.406	VCFJF	106317	290V
	1.185	0.718	1	1.250	0.375	BCFKF		960		1.185	0.875	1	1.250	0.406	BCFJF	10604	359
21	1.185	0.875	1	1.250	0.375	BCFKF	106108	1010		1.185	0.875	1	1.250	0.406	ECFJF	106136	359E
	1.185	0.875	1	1.250	0.375	BCFKF*	106108	102		1.185	0.875	1	1.250	0.406	NCFJF		359N
	1.185	0.750	2	1.187	0.343	ECFKF	10606	10606E		1.185	0.875	1	1.250	0.375	VCFJF	10623	359V
	1.185	0.875	1	1.250	0.406	BCFJF	10611	10611		1.185	0.875	1	1.250	0.375	BCFKF	106108	450
	1.185	0.687	-			BCF-F*	106145	106145		1.185	0.875	1	1.250	0.406	BCFJF	10604	471
	1.185	0.875	1	1.375	0.406	BCFKF	106157	106157		1.185	0.875	1	1.250	0.375	BCFKF	106115	474
	1.185	1.312	2	1.250	0.406	BCFKF	106158	106158		1.185	1.312	1	1.187	0.343	BCFJF	106149	485
	1.185	1.312	2	1.250	0.406	BCFJF	106161	106161		1.185	1.312	1	1.187	0.288	BCFJF	106150	486
	1.185	1.312	2	1.250	0.406	BCFKF	106162	106162		1.185	1.312	1	1.250	0.375	BCFKF	10686	487
	1.185	1.312	-			BCF-F	106163	106163		1.185	1.312	1	1.250	0.375	NCFKF		487N
	1.185	0.765	-			NCF-F*	106164	106164		1.185	0.875	1	1.187	0.281	BCFKF	10644	493
	1.185	0.875	1	1.250	0.406	BCFKF*	106174	106174		1.185	0.875	1	1.250	0.406	BCFJF*	10650	508
	1.185	0.718	1	1.250	0.406	BCFJF	10619	10619		1.185	0.875	1	1.250	0.406	VCFJF	10642	508V
	1.185	0.718	1	1.250	0.406	VCFJF		10619V		1.185	0.875	1	1.187	0.288	BCFJF	106121	531
	1.185	0.672	2	1.250	0.343	BCFKF	10655	10655		1.185	0.875	2	1.187	0.343	BCFJF	106140	536
	1.185	0.672	2	1.250	0.343	VCFKF	106217	10655V		1.185	0.875	2	1.187	0.343	VCFJF	106366	536V
	1.185	0.875	1	1.250	0.406	BCFJF	10658	10658		1.185	0.875	1	1.250	0.406	BCFJF	10674	552
	1.185	0.875	1	1.250	0.406	VCFJF		10658V		1.185	0.875	1	1.250	0.406	ECFJF		552E
	1.185	0.875	2	1.250	0.312	VCFKF	10688	10688V		1.185	0.875	1	1.250	0.406	NCFJF		552N
	1.185	0.875	2	1.250	0.406	BCFKF	10693	10693		1.185	0.875	1	1.250	0.406	VCFJF		552V
	1.185	0.875	2	1.250	0.406	ECFKF	10691	10693E		1.185	0.875	1	1.375	0.406	VCFJF	106176	626V
										1.185	0.875	1	1.250	0.375	BCFKF	106115	633
										1.185	0.875	1	1.250	0.375	ECFKF	106319	633E

* Spring retainer not needed

DIMENSIONS AND MATERIAL CODES

SEAL TYPE	SEAL O.D.	W.L.	SEAT STYLE	SEAT BORE	SEAT THICK	MAT'L CODE	SPEC. NO	RSD P/N
	1.185	0.875	1	1.250	0.375	VCFKF	106243	633V
	1.185	0.875	1	1.250	0.406	BCFJF	10604	643
	1.185	0.875	2	1.250	0.375	BCFKF	106152	732
	1.185	0.875	1	1.187	0.288	BCFJF	106121	733
	1.185	0.875	2	1.250	0.375	BCFKF	106152	734
	1.185	0.875	2	1.250	0.375	ECFKF	106193	734E
	1.185	0.875	1	1.250	0.406	BCFJF	10627	735
	1.185	0.875	1	1.187	0.288	BCFJF	106121	736
	1.185	0.875	1	1.187	0.343	BCFJF	10683	737
	1.185	1.312	2	1.250	0.375	BCFKF	106154	738
	1.185	1.312	2	1.187	0.343	BCFJF	106153	748
	1.185	0.875	1	1.250	0.406	BCFJF	10604	787
	1.100	1.312	1	1.148	0.312	BCFJF	106175	800
	1.100	1.312	1	1.148	0.312	VCFJF	106178	800V
	1.185	0.765	1	1.250	0.406	NCFJF	106133	810N
	1.185	0.812	1	1.187	0.343	BCFJF	10609	811
	1.185	0.812	1	1.250	0.406	BCFJF	10627	850
	1.185	0.812	3	1.187	0.312	BCFAF	10629	900
	1.185	0.812	8	1.187	0.312	BCFAF	10646	901
	1.185	0.875	1	1.250	0.375	BCFKF	106108	904
	1.185	0.875	1	1.141	0.312	BCFKF	10665	922
	1.185	0.750	1	1.250	0.406	BCFJF	10627	924
	1.185	0.750	1	1.250	0.406	VCFJF		924V
	1.185	0.875	-			BCF-F	10601	933
	1.185	0.875	-			VCF-F	10605	933V
	1.185	0.875	1	1.250	0.375	BCFKF	106115	934
	1.185	0.875	1	1.250	0.406	BCFJF	10650	940
	1.185	0.875	2	1.375	0.406	VCFKF	106146	951V
	1.185	0.875	3	1.312	0.312	BCFAF	10687	970
	1.185	0.875	1	1.187	0.281	BCFJF	106121	971
	1.185	0.765	1	1.187	0.281	NCFJF*	106116	989N
	1.185	0.765	3	1.312	0.312	NCFAF*	106117	990N
21D	1.185	1.625	-			BCF-F	106165	106165
	1.185	1.187	1	1.250	0.406	BCFJF	106166	106166
	1.185	1.187	1	1.250	0.406	BCFKF	106167	106167
	1.185	1.187	2	1.250	0.406	BCFJF	106168	106168
	1.185	1.187	2	1.250	0.406	BCFKF	106169	106169
	1.185	1.625	1	1.250	0.406	BCFJF	106170	106170
	1.185	1.625	1	1.250	0.406	BCFKF	106171	106171
	1.185	1.625	2	1.250	0.406	BCFJF	106172	106172
	1.185	1.625	2	1.250	0.406	BCFKF	106173	106173
	1.185	1.187	-			BCF-F	106120	678
29	1.435	0.615	1	1.250	0.406	BMMJF	90607	90607
	1.435	0.615	1	1.250	0.406	BCMJF	90608	90608
	1.435	0.615	1	1.250	0.406	VCMJF	90648	90608V
	1.435	0.615	1	1.250	0.406	VCMJF	90636	90636
	1.435	0.615	1	1.250	0.406	VXMXF	90641	90641V
	1.435	0.615	1	1.250	0.406	VCMJF	90648	90648
	1.435	0.615	2	1.250	0.406	VCMJF	90649	90649
40	1.500	0.556	1	1.187	0.343	UCFJF	40604	40604
	1.500	0.556	-			UCF-F	40606	40606
68	1.437	0.615	1	1.250	0.406	BMFJF	806244	1000
	1.437	0.615	1	1.250	0.406	VMFJF		1000V
	1.437	0.615	1	1.375	0.181	BMFKF	80606	1005

SEAL TYPE	SEAL O.D.	W.L.	SEAT STYLE	SEAT BORE	SEAT THICK	MAT'L CODE	SPEC. NO	RSD P/N
	1.437	0.615	1	1.375	0.375	BMFKF	80605	1005A
	1.437	0.615	1	1.093	0.218	BMFKF	80634	113
	1.437	0.615	1	1.375	0.181	BMFKF	80606	151
	1.437	0.615	1	1.187	0.343	BMFJF	80608	156
	1.437	0.615	1	1.250	0.283	BMFJF	80673	200A
	1.437	0.615	11 Shaft mtd	0.375		BMFJ/RF	80692	202
	1.437	0.615	11 Shaft mtd	0.375		BMFJ/RF	80692	202SS
	1.437	0.615	11 Shaft mtd	0.375		VMFJ/RF		202V
	1.437	0.615	1	1.312	0.250	BMFKF	80638	233
	1.437	0.615	11 Shaft mtd	0.375		BMFJ/KF	80616	260
	1.437	0.615	-			BMF-F	80601	3022
	1.437	0.615	1	1.187	0.343	BMFJF	80608	389
	1.437	0.615	5 Shaft mtd	0.320		BMFKF	80619	390
	1.437	0.615	11 Shaft mtd	0.486		BMFJ/KF	80612	406
	1.437	0.615	11 Shaft mtd	0.486		BMFJ/KF	80612	407
	1.437	0.615	11 Shaft mtd	0.486		BMFJ/KF	80612	408
	1.437	0.615	5 Shaft mtd	0.187		BMFKF	80610	409
	1.437	0.615	8 Shaft mtd	0.187		BMFKF	806224	410
	1.437	0.615	11 Shaft mtd	0.486		BMFJ/KF	80612	411
	1.437	0.615	11 Shaft mtd	0.486		B/VMFJ/KF	80617	411P
	1.437	0.615	11 Shaft mtd	0.486		BMFJ/KF	80612	411SS
	1.437	0.615	11 Shaft mtd	0.486		VMFJ/KF*	806227	411V
	1.437	0.615	11 Shaft mtd	0.328		BMFKF	80633	414
	1.437	0.615	9 Shaft mtd	0.213		BCFJF	80687	447
	1.437	0.615	9 Shaft mtd	0.213		VCFJF	806112	447V
	1.437	0.615	5 Shaft mtd	0.320		BMFKF	80619	451
	1.437	0.615	5 Shaft mtd	0.215		BCFKF	80632	453
	1.437	0.615	11 Shaft mtd	0.486		BMFJ/KF	80642	488
	1.437	0.615	1	1.187	0.343	BMFJF	80608	497
	1.437	0.615	1	1.187	0.288	BCFKF	80645	522
	1.437	0.615	1	1.187	0.343	BMFJF	80608	600
	1.437	0.615	1	1.187	0.343	EMFJF		600E
	1.437	0.615	1	1.187	0.343	VMFJF	80644	600V
	1.437	0.615	1	1.187	0.288	BMFKF	80629	615
	1.437	0.615	1	1.187	0.288	BMFKF	80646	616
	1.437	0.615	-			BMF-F	80601	642
	1.437	0.615	-			BMF-F	80601	646
	1.437	0.615	1	1.250	0.406	BMFJF	80604	668
	1.437	0.615	1	1.187	0.288	BMFJF	80620	700
	1.437	0.615	2	1.250	0.375	BMFKF	80677	712
	1.437	0.615	2	1.250	0.375	BMFKF	80677	714
	1.437	0.615	2	1.187	0.343	BMFJF	80678	717
	1.437	0.615	5 Shaft mtd	0.343		BMFKF	80630	720
	1.437	0.615	2	1.187	0.343	BMFJF	80678	731
	1.437	0.615	1	1.078	0.210	BMFJF	80611	80611
	1.437	0.615	9 Shaft mtd	0.225		BMFRF	80613	80613
	1.437	0.615	9 Shaft mtd	0.225		VMFRF	80648	80613V
	1.437	0.615	-			BCF-F	80649	80649
	1.437	0.615	-			BMF-F	80601	880
	1.437	0.615	-			BCF-F	80649	882
	1.437	0.615	1	1.187	0.343	BMFJF	80608	894
	1.437	0.615	1	1.250	0.406	BCFJF	80680	961
	1.437	0.615	1	1.187	0.288	BCFKF	80645	962
	1.437	0.615	1	1.187	0.343	BCFJF	80663	963

* Spring retainer not needed

SEAL TYPE	SEAL O.D.	W.L.	SEAT STYLE	SEAT BORE	SEAT THICK	MAT'L CODE	SPEC. NO	RSD P/N
.625 Shaft Size (cont.)								
68	1.437	0.615	1	1.250	0.375	BCFKF	80681	964
	1.437	0.615	1	1.250	0.406	BCFJF	80682	965
	1.437	0.615	1	1.187	0.343	BCFJF	80683	966
	1.437	0.615	1	1.250	0.375	BCFKF	80684	967
.750 Shaft Size								
16	1.300	0.718	1	1.375	0.406	BMFJF	60703	1004
	1.300	0.812	1	1.437	0.406	BMFJF	60707	101
	1.300	0.812	1	1.437	0.406	BMFJF	60707	101A
	1.300	0.812	1	1.437	0.406	VMFJF	60717	101V
	1.300	0.718	-			BMF-F	60701	1522
	1.300	0.718	1	1.500	0.235	BCFJF	60777	1525
	1.300	0.718	8	Shaft mtd	0.125	BMFJF	60747	199
	1.300	0.718	1	1.375	0.406	BMFJF	60703	201
	1.300	0.718	1	1.375	0.406	EMFJF	60795	201E
	1.300	0.718	1	1.375	0.406	VMFJF	60710	201V
	1.300	0.718	1	1.375	0.406	BMFJF	60703	219
	1.300	0.718	2	1.312	0.406	BMFKF	60727	231
	1.300	0.978	1	1.375	0.270	BMFJF	60728	301
	1.300	0.718	1	1.312	0.250	BMFJF	60748	315
	1.300	0.718	15	1.375	0.375	BCFJ/KF	60770	403
	1.300	0.718	2	1.375	0.375	BCFKF	60738	412
	1.300	0.718	15	1.375	0.375	BCFJ/KF	60770	415
	1.300	0.718	15	1.375	0.375	BMFJ/KF	60716	419
	1.300	0.718	1	1.375	0.406	BMFJF	60703	473
	1.300	0.812	1	1.375	0.375	BCFKF	60773	494
	1.300	0.843	1	1.375	0.406	BMFJF	60715	509
	1.300	0.718	2	1.375	0.375	BMFKF	60722	512
	1.300	0.718	1	1.375	0.406	BMFJF	60703	562
	1.300	0.812	2	1.375	0.406	BMFKF	60733	596
	1.300	0.718	22	2.873	0.343	BCFKF	60740	60740
	1.300	0.718	1	1.355	0.406	BMFJF	60751	60751
	1.300	0.718	1	1.375	0.250	BCFJF	60757	60757
	1.300	0.718	2	1.375	0.406	BMFJF	60758	60758
	1.300	0.718	1	1.375	0.406	ECFKF	60765	60765E
	1.300	0.718	2	1.375	0.406	BCFKF	60778	60778
	1.300	0.718	2	1.250	0.343	BMFKF	60742	689
	1.300	0.718	1	1.437	0.406	BMFJF	60713	699
	1.300	0.812	2	1.375	0.406	BMFJF	60761	760
	1.300	0.812	2	1.375	0.406	BMFKF	60733	762
	1.300	0.812	2	1.375	0.406	BMFJF	60761	763
	1.300	0.812	1	1.375	0.250	BCFJF	60776	764
	1.300	0.718	1	1.375	0.406	BCFJF	60704	783
	1.300	0.718	1	1.375	0.406	BCFJF	60704	851
	1.300	0.718	1	1.375	0.406	ECFJF		851E
	1.300	0.718	1	1.375	0.406	VCFJF		851V
	1.300	0.658	1	1.375	0.406	BMFJF	60744	908
	1.300	0.718	1	1.375	0.375	BMFKF	60720	921
	1.300	0.718	1	1.437	0.406	BCFJF	60739	968
	1.300	0.718	1	1.437	0.406	BCFJF	60739	969
	1.300	0.718	1	1.375	0.406	BCFJF	60704	972
	1.300	0.718	1	1.375	0.406	BCFJF		972
	1.300	0.718	1	1.375	0.406	ECFJF		972E

SEAL TYPE	SEAL O.D.	W.L.	SEAT STYLE	SEAT BORE	SEAT THICK	MAT'L CODE	SPEC. NO	RSD P/N
	1.300	0.718	1	1.375	0.406	ECFJF		972E
	1.300	0.718	1	1.375	0.406	VCFJF		972V
	1.300	0.718	1	1.375	0.406	VCFJF		972V
	1.300	0.718	1	1.375	0.375	BCFKF	60763	973
	1.300	0.718	-			BCF-F	60702	974
	1.300	0.718	-			NCF-F	60769	974N
21	1.300	0.875	1	1.375	0.406	BCFJF	10704	1003
	1.300	0.875	3	1.375	0.406	BCFKF	10714	103
	1.300	0.875	3	1.375	0.406	BCFKF	10714	107
	1.300	0.875	2	1.375	0.250	BCFKF	10708	10708
	1.300	0.875	2	1.375	0.250	NCFKF	10732	10708N
	1.300	0.875	2	1.375	0.250	VCFKF	107185	10708V
	1.300	0.812	1	1.375	0.406	NCFJF	107100	107100N
	1.300	0.812	1	1.375	0.406	BCFKF	107118	107118
	1.300	0.812	1	1.375	0.406	ECFKF	107118E	
	1.300	0.875	1	1.375	0.406	UCFJF	107120	107120
	1.300	0.718	22	2.873	0.343	BCFKF	107125	107125
	1.300	0.812	1	1.375	0.235	BCFJF	107127	107127
	1.300	0.718	1	1.375	0.406	BCFJF	10713	10713
	1.300	0.718	1	1.375	0.406	VCFJF		10713V
	1.300	0.875	1	1.437	0.406	BCFJF	107141	107141
	1.300	0.593	3	1.125	0.406	BCFKF	107142	107142
	1.300	0.843	2	1.375	0.406	NCFKF*	107143	107143N
	1.300	0.750	4	1.250	0.406	BCFKF	10718	10718
	1.300	0.875	2	1.375	0.406	BCFJF	10759	10759
	1.300	0.906	2	1.375	0.406	VCLXL	10762	10762V
	1.300	0.875	1	1.375	0.406	BCFKF	10767	10767
	1.300	0.875	1	1.375	0.406	VCFKF		10767V
	1.300	0.812	1	1.375	0.406	VCRJR	10780	10780V
	1.300	0.688	1	1.287	0.250	BCFJF	10781	10781
	1.199	0.875	2	1.312	0.375	VCFKF	10794	10794V
	1.300	1.312	-			BCF-F	107113	111
	1.300	0.875	1	1.375	0.375	BCFKF	10724	112
	1.300	0.875	1	1.375	0.375	VCFKF	10756	112V
	1.300	0.875	2	1.312	0.375	BCFKF	107108	116
	1.300	0.875	1	1.375	0.406	BCFJF	10704	119
	1.300	0.875	2	1.250	0.343	BCFKF	10776	121
	1.300	0.843	1	1.375	0.406	BCFJF*	10753	128
	1.300	0.843	1	1.375	0.406	NCFJF		128N
	1.300	0.843	1	1.375	0.406	VCFJF		128V
	1.300	0.875	3	1.375	0.406	BCFKF	10714	130
	1.300	0.875	1	1.375	0.406	BCFJF	10704	131
	1.300	0.875	1	1.375	0.265	BCFJF	107132	1510
	1.300	0.875	1	1.312	0.406	BCFJF	10741	1514
	1.300	0.875	-			BCF-F	10701	157
	1.300	0.875	-			ECF-F		157E
	1.300	0.875	-			NCF-F		157N
	1.300	0.875	-			VCF-F	10703	157V
	1.300	0.875	1	1.375	0.406	BCFJF	10704	183
	1.300	0.875	2	1.312	0.375	BCFKF	107108	207
	1.300	0.875	2	1.375	0.406	BCFKF	10754	265
	1.300	0.875	3	1.375	0.406	BCFKF	10714	271
	1.300	1.312	1	1.375	0.406	BCFJF	10766	275
	1.300	1.312	1	1.375	0.406	BCFJF	10766	3430

*Spring retainer not needed

PUMP MANUFACTURERS
CROSS REFERENCE GUIDE

SEAL SHAFT OEM P/N

SIERRA ELECTRIC

80304 0.375 40-096001

SIMMONS

200 0.625 0.625

451 0.625 0.625

**SKIDMORE
WEBSTER ELECTRIC**

10507 0.500 37403

10658 0.625 50625-1

10658V 0.625 50625-6

100 0.625 51294

536 0.625 53497

10826 0.875 50625-2

10826V 0.875 50625-7

356 1.125 50625-3

356V 1.125 50625-8

205 1.750 50625-5

SMITH, AO

162 0.500 55831

64135

506 0.500 9708-1

9708-4

359 0.625 0.625

362 0.750 0.750

SMITH-LOVELESS

1103 1.125 1.125

1104 1.375 1.375

1105 1.875 28A100A
F60A119A

11847 1.875 H87A28A

1102 2.125 2.125

1107 2.125 28A101A
F60A120A

1106 2.625 2.625

13031 3.000 28A238A
F60A121A**SOUTHERN INDUSTRIES**

200 0.625 0.625

201 0.750 0.750

SEAL SHAFT OEM P/N

SPERRY VICKERS

12612 2.625 322897

**SPP PUMPS
STERLING**

356 1.125 1.125

529V 1.125 1.125

758 1.500 1.500

553V 1.500 1.500

267 2.000 2.000

332V 2.000 2.000

**STA-RITE INDUSTRIES
WICOR**

80301 0.375 U109-173

60310 0.375 U109-264

244N 0.437 U109-95

663 0.500 U109-100

60523 0.500 U109-103

10553 0.500 U109-181

80529 0.500 U109-214

80516 0.500 U109-321

80523 0.500 U109-333

80529 0.500 U109-68

163 0.500 U109-84

536V 0.625 U109-101

118 0.625 U109-102

957 0.625 U109-106SS

118 0.625 U109-118

1000 0.625 U109-136

U109-136SS

118 0.625 U109-308

118V 0.625 U109-326

U109-326SS

957 0.625 U109-48SS

100 0.625 U109-6A

896 0.625 U109-83SS

118V 0.625 U109-87

U109-91SS

896 0.625 U109-93SS

201 0.750 U109-122

877 0.750 U109-267

771 0.750 U109-81

128 0.750 U109-99

775 0.875 U109-170

774V 0.875 U109-222

235 1.000 U109-47

866 1.125 U109-305

866V 1.125 U109-307

866 1.125 U109-96

SEAL SHAFT OEM P/N

866 1.125 U109-96SS

381 1.250 U109-220

546 1.250 U109-329

546V 1.250 U109-330

535 1.750 U109-251

535V 1.750 U109-306

327 2.125 U109-252

838 2.750 U109-302

STERLING MACHINERY

863N 0.625 6696

145 0.750 0.750

175 0.750 0.750

201 0.750 0.750

564 0.750 0.750

358 0.750 1616

861N 1.125 6697

176 1.250 1.250

185 1.250 1636

178 1.375 1.375

209 1.375 1.375

177 1.375 1706

862N 1.437 7006

216 1.500 1.500

213 1.750 1.750

217 1.750 1.750

STERLING PUMP

60813V 0.875 081-00024

STEVENS PUMP

200 0.625 0.625

STOW

60758 0.750 7971-406

777 1.000 7971-407

STRANCO

60504 0.500 0.500

SUNDSTRAND

168 0.500 Logan Pump 385373

PUMP MANUFACTURERS
CROSS REFERENCE GUIDE

SEAL SHAFT OEM P/N

SIERRA ELECTRIC

80304 0.375 40-096001

SIMMONS

200 0.625 0.625

451 0.625 0.625

**SKIDMORE
WEBSTER ELECTRIC**

10507 0.500 37403

10658 0.625 50625-1

10658V 0.625 50625-6

100 0.625 51294

536 0.625 53497

10826 0.875 50625-2

10826V 0.875 50625-7

356 1.125 50625-3

356V 1.125 50625-8

205 1.750 50625-5

SMITH, AO

162 0.500 55831

64135

506 0.500 9708-1

9708-4

359 0.625 0.625

362 0.750 0.750

SMITH-LOVELESS

1103 1.125 1.125

1104 1.375 1.375

1105 1.875 28A100A
F60A119A

11847 1.875 H87A28A

1102 2.125 2.125

1107 2.125 28A101A
F60A120A

1106 2.625 2.625

13031 3.000 28A238A
F60A121A**SOUTHERN INDUSTRIES**

200 0.625 0.625

201 0.750 0.750

SEAL SHAFT OEM P/N

SPERRY VICKERS

12612 2.625 322897

**SPP PUMPS
STERLING**

356 1.125 1.125

529V 1.125 1.125

758 1.500 1.500

553V 1.500 1.500

267 2.000 2.000

332V 2.000 2.000

**STA-RITE INDUSTRIES
WICOR**

80301 0.375 U109-173

60310 0.375 U109-264

244N 0.437 U109-95

663 0.500 U109-100

60523 0.500 U109-103

10553 0.500 U109-181

80529 0.500 U109-214

80516 0.500 U109-321

80523 0.500 U109-333

80529 0.500 U109-68

163 0.500 U109-84

536V 0.625 U109-101

118 0.625 U109-102

957 0.625 U109-106SS

118 0.625 U109-118

1000 0.625 U109-136

U109-136SS

118 0.625 U109-308

118V 0.625 U109-326

U109-326SS

957 0.625 U109-48SS

100 0.625 U109-6A

896 0.625 U109-83SS

118V 0.625 U109-87

U109-91SS

896 0.625 U109-93SS

201 0.750 U109-122

877 0.750 U109-267

771 0.750 U109-81

128 0.750 U109-99

775 0.875 U109-170

774V 0.875 U109-222

235 1.000 U109-47

866 1.125 U109-305

866V 1.125 U109-307

866 1.125 U109-96

SEAL SHAFT OEM P/N

866 1.125 U109-96SS

381 1.250 U109-220

546 1.250 U109-329

546V 1.250 U109-330

535 1.750 U109-251

535V 1.750 U109-306

327 2.125 U109-252

838 2.750 U109-302

STERLING MACHINERY

863N 0.625 6696

145 0.750 0.750

175 0.750 0.750

201 0.750 0.750

564 0.750 0.750

358 0.750 1616

861N 1.125 6697

176 1.250 1.250

185 1.250 1636

178 1.375 1.375

209 1.375 1.375

177 1.375 1706

862N 1.437 7006

216 1.500 1.500

213 1.750 1.750

217 1.750 1.750

STERLING PUMP

60813V 0.875 081-00024

STEVENS PUMP

200 0.625 0.625

STOW

60758 0.750 7971-406

777 1.000 7971-407

STRANCO

60504 0.500 0.500

SUNDSTRAND

168 0.500 Logan Pump 385373

SEAL SHAFT OEM P/N

SUNSET EQUIPMENT

299 0.625 0.625

SUPERIOR EQUIPMENT

202V 0.625 0.625

SUPERIOR INDUSTRIES

60650 0.625 0.625

SWIMQUIP

201 0.750 37407-0019

TACO

170 0.375 120-029

160 0.375 120-125

163 0.500 106-031

168 0.500 121-008

106 0.500 131-013

633 0.625 170-102RP

200V 0.625 172-006

200 0.625 172-009

172-017

112 0.750 142-043

360 1.000 170-021

170-095

754 1.000 900-021

204 1.125 900-024

264 1.250 840-011

371 1.500 1.500

305 1.500 862-029

479 2.000 2.000

TAIT

162 0.500 W6476

200 0.625 0.625

516 0.625 1195A1

920 0.625 24722

922 0.625 24798

851 0.750 1195A2

10713 0.750 16519

921 0.750 24820

201 0.750 25062

703 0.875 24584

357 1.000 1.000

235 1.000 24963

SEAL SHAFT OEM P/N

256 1.250 W-16524

805 1.375 16538

267 2.000 2.000

TECUMSEH

350 2.375 K-509-9

TEEL

359 0.625 0.625

447 0.625 0.625

201 0.750 1P831

**TERRA PRODUCTS
(See Banjo)**
THERMO KING

522 0.625 TX-060-000

159N 1.000 22-203

22-378

517N 1.250 1210A02G01

244 0.437 TX-012000 w/TX-019000

**THRUSH
AMTROL INC**

244 0.437 w/AT-050000

106 0.500 0.500

163 0.500 0.500

10553 0.500 TX-018000 w/TX-019000

132 0.625 0.625

600 0.625 AA-190

600 0.625 AA-199

552V 0.625 TX-022000 w/TX-023000

10693V 0.625 TX-022000 w/TX-024000

303 0.875 0.875

774V 0.875 TX-026000 w/TX-027000

617V 0.875 TX-026000 w/TX-028000

355 1.125 1.125

801V 1.125 TX-030000 w/TX-031000

529V 1.125 TX-030000 w/TX-032000

618V 1.250 TX-052000 w/TX-053000

598V 1.250 TX-052000 w/TX-054000

186 1.375 1.375

805V 1.375 TX-034000 w/TX-035000

547V 1.375 TX-034000 w/TX-036000

816V 1.500 TX-038000 w/TX-039000

553V 1.500 TX-038000 w/TX-040000

818V 1.625 TX-056000 w/TX-057000

544V 1.625 TX-056000 w/TX-058000

550V 1.750 TX-048000 w/TX-049000

SEAL SHAFT OEM P/N

436V 1.750 TX-048000 w/TX-050000

TOLDEO

501 0.625 A14067

912 1.000 SA-18953

TRANE

190 0.500 100630

344N 1.250 X10060019

192N 1.500 100634-00

332 2.000 100635-00

**TRANSICOLD
CARRIER**

358V 0.750 0.750

548V 1.000 1.000

236 1.000 SF20-317

TRICLOVER

157 0.750 1S-400-25

11195 1.125 1.125

939 1.500 1.500

TRIPLEX HEATING

10301 0.375 0.375

165 0.500 0.500

504 0.500 0.500

260 0.625 0.625

TRI-ROTOR

10794V 0.750 GJ-6191

11280V 1.250 GJ-3997

**TRUPAR
DURO**

200 0.625 0.625

508 0.625 5485

102 0.625 B-170

451 0.625 B-2883

102 0.625 P-11048

507 0.625 P-1190

201 0.750 0.750

851E 0.750 0.750

TUTHILL

10410N 0.437 2LPF9-7010

PUMP MANUFACTURERS
CROSS REFERENCE GUIDE

SEAL	SHAFT	OEM P/N
552	0.625	2C1B9
552N	0.625	2C1B9-5
552V	0.625	2C1B9-7
552E	0.625	2C1B9-8
768	0.750	3C1B9
768N	0.750	3C1B9-5
768V	0.750	3C1B9-7
768E	0.750	3C1B9-8
252	1.000	5C1B9
499N	1.000	5C1B9-5
499V	1.000	5C1B9-7
499E	1.000	5C1B9-8

UNIFLOW

200	0.625	0.625
-----	-------	-------

UNIMAC INC

43201	3.250	3.250
-------	-------	-------

UNIVERSAL ELECTRIC

165	0.500	24P3-1
		24P3-2

US MOTOR

358	0.750	PUL-2112
549	1.125	1.125
320	1.500	1.500

VIC CLEANING MACHINE

162	0.500	22-907
701	0.625	42-607

**VICAN (VIKING CANADA)
IDEX**

168	0.500	0.500
1002V	0.500	0.500
1156	0.750	0.750
10695V	0.750	0.750
358	0.750	0.750
358V	0.750	0.750
10767	0.750	0.750
235	1.000	1.000
235V	1.000	1.000
357	1.000	1.000
357V	1.000	1.000
356	1.125	1.125
356V	1.125	1.125

SEAL	SHAFT	OEM P/N
355	1.125	1.125
355V	1.125	1.125
185	1.250	1.250
185V	1.250	1.250
381	1.250	1.250
381V	1.250	1.250
756	1.250	1.250
756V	1.250	1.250
249	1.250	1.250
249V	1.250	1.250
177	1.375	1.375
177V	1.375	1.375
186	1.375	1.375
186V	1.375	1.375
705-21	1.437	1.437
11427	1.437	1.437
237	1.750	1.750
288	1.750	1.750

VICO

360	1.000	1.000
-----	-------	-------

**VIKING PUMP (HOUDAILLE)
IDEX**

170	0.375	0.375
106	0.500	0.500
10533	0.500	2-471-006-999
164	0.500	2-471-008-999
164	0.500	F-566
633	0.625	0.625
10655	0.625	2-472-014-999
10655V	0.625	2-472-015-999
10708	0.750	2-473-008-999
10708N	0.750	2-473-009-999
10708V	0.750	2-473-018-999
112	0.750	H-865
11028	1.000	2-475-001-999
357	1.000	2-475-002-999
11022	1.000	2-475-004-999
11028N	1.000	2-475-005-999
11022V	1.000	2-475-009-999
11028V	1.000	2-475-010-999
11113	1.125	2-476-001-999
11113V	1.125	2-476-012-999
11116V	1.125	2-476-028-999
756	1.250	1.250
11235	1.250	2-477-015-999
11235V	1.250	2-477-020-999
11412N	1.437	2-477-006-999
11410	1.437	2-477-032-999
11410N	1.437	2-477-037-999

SEAL	SHAFT	OEM P/N
11410V	1.437	2-477-038-999
11606V	1.625	2-478-008-999
11606	1.625	2-478-011-999

VULCAN HART DISHWASHER

508	0.625	106410
236	1.000	94049
360	1.000	97505
356	1.125	97522

WACKER CORP

185	1.250	51757
-----	-------	-------

WATTS

680	0.625	0.625
1000	0.625	0.625

WAUKESHA MOTORS

642	0.625	120320
10767	0.750	0.750
112	0.750	0.750
201	0.750	152243-B
1522	0.750	810350
685	0.875	108025

WAYNE HOME EQUIPMENT

377	0.375	15668
165	0.500	15611 w/16712
162	0.500	15717
150	0.500	16712
298	0.500	16715
150	0.500	16722
162	0.500	56106
163	0.500	56108
163V	0.500	56111
500N	0.562	15288-15488
970	0.625	15301
971	0.625	15529
100	0.625	16723
1000	0.625	16727
642	0.625	16727
200	0.625	56104
1000	0.625	56109
1522	0.750	16725
201	0.750	56105
201V	0.750	56112

PUMP MANUFACTURERS
CROSS REFERENCE GUIDE

SEAL	SHAFT	OEM P/N
262V	1.750	Q26-179-Y6 Q26-179-Y7
205	1.750	Q26-217-Y2 Q26-217-Y3
366	1.750	Q26-217-Y34 Q26-217-Y35
366V	1.750	Q26-217-Y6 Q26-217-Y7
479	2.000	Q26-180-Y2 Q26-180-Y3
843	2.000	Q26-180-Y34 Q26-180-Y35
843V	2.000	Q26-180-Y6 Q26-180-Y7
278	2.375	Q26-181-Y2 Q26-181-Y3
350	2.375	Q26-181-Y34 Q26-181-Y35
350V	2.375	Q26-181-Y6 Q26-181-Y7
279	2.500	Q26-182-Y2 Q26-182-Y3
349	2.500	Q26-182-Y34 Q26-182-Y35
349V	2.500	Q26-182-Y6 Q26-182-Y7
324	3.000	Q26-199-Y2 Q26-199-Y3
475	3.000	Q26-199-Y34 Q26-199-Y35
475V	3.000	Q26-199-Y6 Q26-199-Y7

WELCH MFG

60751	0.750	0.750
-------	-------	-------

WESTINGHOUSE

663	0.500	69782
358V	0.750	65046

WET INSTITUTE

1000	0.625	0.625
------	-------	-------

WHEELER

218	0.625	0.625
680	0.625	0.625

SEAL	SHAFT	OEM P/N
WHITE PUMP		
200	0.625	0.625
701	0.625	0.625

SEAL	SHAFT	OEM P/N
WMC		
200	0.625	0.625
201	0.750	0.750

SEAL	SHAFT	OEM P/N
WORTHINGTON (IDP) INGERSOLL DRESSER PUMP		
558N	0.562	0.562
507	0.625	0.625

200	0.625	43008
359	0.625	50675
200V	0.625	55016
933	0.625	55955
528	0.625	PO-2098
157	0.750	0.750
201	0.750	0.750
564	0.750	24439
565	0.750	26493
208	0.875	0.875
936	0.875	24440
560	0.937	26456
		31446
370	1.000	1.000
282	1.125	51610
282	1.125	53129
867	1.125	PO-2869 w/PO-2893
866	1.125	PO-2869 w/PO-2897
529	1.125	PO-2885 w/PO-2893
801	1.125	PO-2885 w/PO-2897
529V	1.125	PO-2889 w/PO-2893
801V	1.125	PO-2889 w/PO-2897
264	1.250	31448
561	1.375	26457
		50498
865	1.375	PO-2870 w/PO-2894
864	1.375	PO-2870 w/PO-2898
547	1.375	PO-2886 w/PO-2894
805	1.375	PO-2886 w/PO-2898
547V	1.375	PO-2890 w/PO-2894
805V	1.375	PO-2890 w/PO-2898
258	1.500	51611 w/53130
395	1.500	51708 w/53130
822	1.625	51613
		516132
555	1.750	26458

SEAL	SHAFT	OEM P/N
		50499
859	1.750	PO-2871 w/PO-2895
858	1.750	PO-2871 w/PO-2899
436	1.750	PO-2887
550	1.750	PO-2887 w/PO-2899
436	1.750	PO-2895
568N	1.750	VR-3292B
743	1.875	1.875
513	1.875	31449
477	2.000	31450
		51614 w/53133
576N	2.000	SEL-105
582	2.000	SEL-157
556	2.125	26459
		50500
857	2.125	PO-2872 w/PO-2896
856	2.125	PO-2872 w/PO-2900
855	2.125	PO-2888 w/PO-2896
854	2.125	PO-2888 w/PO-2900
570N	2.125	VR-4292B
481N	2.500	32745
571N	2.625	VR-5292B
475	3.000	55426 w/55425

**YEOMANS PUMP (YCC)
YEOMANS CHICAGO CORP**

200	0.625	0.625
200V	0.625	0.625
60650V	0.625	0.625
529V	1.125	1.125
356	1.125	52-1-16
255	1.187	1.187
185	1.250	1.250
185V	1.250	1.250
466	1.250	1.250
466V	1.250	1.250
383V	1.250	C3-2-12
186	1.375	1.375
677	1.375	1.375
553V	1.500	1.500
758	1.500	52-2-16
449	1.750	1.750
332V	2.000	2.000
267	2.000	52-3-16
887	2.125	C3-2-44-121

ZOELLER

160	0.375	0.375
165	0.500	34-035

Installation Instructions: Mechanical Shaft Sleeves

Caution: *Protect Mechanical Seal Faces From Damage, Dirt and Finger Marks*

- Disassemble pump housing to expose old seal. This may include removing the suction cover, impeller, pump volute and back-plate of the pump. New gaskets and/or o-rings should be on hand to replace existing ones. Care must be taken to remember the correct manner pump is constructed for reassembly.

Note: the replacement seal must be installed in the same manner as the existing seal. Otherwise, the new seal will not function properly.

- Remove the old seal rotary and seat. Take care to prevent scratching the shaft or seat counter-bore during removal. It may be necessary to remove the seat housing to push the seat out of the seat counter-bore.
Clean the shaft and seat counter-bore, using a fine emery cloth to remove minor rust or burrs. If these components are damaged, replacement may be necessary.

Note: if Pac Ease is not available, use a solution of liquid dish soap in water as lubricant. Never use grease, oil, WD-40, silicone or other lubricant as these lubricants will cover the seal faces and/or damage the rubber portions of the seal causing improper function or premature failure

Type 16, 21, 31, 51 & 52

- Lubricate the seat-counter bore and seat outer diameter (OD) with Pac Ease, using care to keep lubricant off the seal faces. Use the cardboard spacer in the packaging to press the seat fully into the seat counter-bore. Clean any excess lubricant from the seat face.
- Lubricate the shaft and inner diameter (ID) of the rotary head. Slide the rotary head down the shaft, cleaning any excess lubricant from the seal face, until the seal face mates with the seat face. Use care to keep the drive band from dislodging during installation and avoid using any excessive force or hammering on the rotary head.
- Type 16: reinstallation of the impeller will compress seal to correct working length (WL).
- Type 21, 31, 51 & 52: install spring on rotary head, making sure to install shell adapter on the 51 and 52. Install spring retainer (if applicable) and ensure that the spring is installed parallel to the shaft axis and is not hung up on a shoulder in the shaft or the back of the impeller.

Type 68 & 29

- Lightly coat the seal counter-bore with a sealant such as Permatex (Pipe Dope is not recommended). Press seal head into counter-bore until fully seated, exerting pressure against the shell only. An assembly tool such as an arbor press is recommended to facilitate installation. Clean the seal face.
- Lubricate the shaft and inner diameter (ID) of the seal seat. Slide the seat down the shaft, cleaning any excess lubricant from the seat face, until the seat face mates with the seal face. Use care to keep the seat elastomer from dislodging during installation and avoid using any excessive force or hammering on the seat.
- If the seal is shaft mounted and the seat is installed in a stationary bore, follow the directions for the Type 16, 21, 31, 51 & 52 seals.

Type 8 & 9

- Install seat as with Type 16, 21, 31, 51 & 52 if seat is o-ring or cup mount. Otherwise, install as required by pump configuration (i.e., clamped in or other special configuration.) Clean any excess lubricant from the seat face.
- Lubricate the shaft and inner diameter (ID) of the rotary head. Slide the rotary head down the shaft, cleaning any excess lubricant from the seal face, until the seal face mates with the seat face.
- Compress seal to scribe line and tighten set screws.
- Type 9: remove the clips from the outside of the shell to allow the springs to apply pressure between the faces. Discard clips.

Note: do not remove the clips from a Type 9 until the rotary is set-screwed to the shaft. These clips keep the Teflon wedge from being compressed before the seal is installed.

- Reassemble pump, replacing gaskets and o-rings as necessary.

Note: Prime pump prior to restarting. Do not run the pump dry, as this will damage the seal.

PUMP MANUFACTURERS
CROSS REFERENCE GUIDE

SEAL	SHAFT	OEM P/N
248V	1.000	25460
356	1.125	1.125
758	1.500	1.500
347	1.500	14421
		14424
11558V	1.500	22361
		22362
237V	1.750	26685

MTH TOOL

775	0.875	12-1068-01-457 w/Ceramic Seat
250	0.875	12-1068-01-457 w/Niresist Seat
774E	0.875	12-1068-01-504 w/Ceramic Seat
617E	0.875	12-1068-01-504 w/Niresist Seat
774V	0.875	Viton Rotary w/Ceramic Seat
617V	0.875	Viton Rotary w/Niresist Seat
547	1.375	12B-1169-01-457 w/Ceramic Seat
547E	1.375	12B-1169-01-504 w/Ceramic Seat
805	1.375	12B-1169-02-457 w/Ceramic Seat
805E	1.375	12B-1169-02-504 w/Ceramic Seat
805V	1.375	Viton Rotary w/Ceramic Seat
547V	1.375	Viton Rotary w/Niresist Seat

MULTI-DUTY

1000	0.625	0.625
1000V	0.625	0.625

MURPHY DIESEL

358	0.750	MD-4090
208	0.875	MD-7980B1
163	0.500	0.500

MUSKIN
(See Lomart Pump)

SEAL	SHAFT	OEM P/N
MYERS, FE PENTAIR		
508	0.625	10840A1
200	0.625	14525A
		14525A10
		16275A
359	0.625	20285D200
101	0.750	11416A
		11416A10
		11416A2
		11416A3
703	0.875	11716A
703	0.875	21576A10
204	1.125	8824A-1
381	1.250	15218A
185	1.250	21181A16
758	1.500	22922A
237	1.750	22883A

NASH-JENNINGS

100	0.625	0.625
100V	0.625	MD 330-CSI
600	0.625	PK339
100V	0.625	PK389
944	0.750	0.750
764	0.750	PK10
		PK482
204	1.125	PK295
354	1.375	PK475
177	1.375	PK874
884	1.500	1.500
816	1.500	PK-0306
758	1.500	PK624
305	1.500	PK678
550	1.750	AT-94
		PK-900
523	1.875	PK334
340	1.875	PK893
874	2.250	PK479
761	3.000	AD-303

NATIONAL ELECTRIC REFRIGERATION

100	0.625	0.625
359	0.625	0.625
900	0.625	0.625

NELSON MFG

441	0.750	0.750
-----	-------	-------

SEAL	SHAFT	OEM P/N
236	1.000	60AY12
371	1.500	60BC11
593	1.875	60BC12

NEPTUNE

150	0.500	0.500
-----	-------	-------

NORDSON

162V	0.500	273718
------	-------	--------

NORTH AMERICAN MARINE JET

11507	1.500	1.500
-------	-------	-------

NORTH AMERICAN PHILLIPS

358V	0.750	0.750
------	-------	-------

OBERDORFER

80304	0.375	32373
10508	0.500	0.500
756	0.500	0.500
60523	0.500	A-32592
600	0.625	0.625
642	0.625	A-5377
359	0.625	A-5939
642	0.625	A-6019

OHLER

140	0.875	0.875
141	1.000	1.000
235	1.000	1.000
357	1.000	1.000
861N	1.125	1.125
185	1.250	1.250
209	1.375	1.375
186	1.375	1.375

ONAN

511	0.375	1310220
165	0.500	131A169

ONLY

601V	0.750	714.13
------	-------	--------

SEAL	SHAFT	OEM P/N
OSBORNE ENGINEERING		
162	0.500	0.500
OSCAR MAYER		
72504	2.375	2.375
PACER		
601	0.750	P00714-11
601E	0.750	P00714-12
601V	0.750	P00714-14
PACIFIC FABRICATION PAC-FAB		
200	0.625	0.625
201	0.750	35-002-354894
PACO PACIFIC PUMPING CO		
516	0.625	14009931 w/14008631
10693	0.625	14010237 w/14008629
359	0.625	14010237 w/14008631
508	0.625	SL-7100
200	0.625	SL-7101
		SL-7741
768	0.750	14003231 w/14008676
358	0.750	14009933 w/14008647
768	0.750	14009933 w/14008676
358	0.750	14009934 w/14008647
768	0.750	14009934 w/14008676
851	0.750	14009936 w/14008647
358	0.750	14032301 w/14008647
112	0.750	SL-7104
201	0.750	SL-7777
188	0.875	14009939 w/14008677
229	0.875	14009939 w/14008955
703	0.875	14009940 w/14008677
250	0.875	14009940 w/14008955
703	0.875	14009941 w/14008677
250	0.875	14009941 w/14008955
188	0.875	14009942 w/14008677
229	0.875	14009942 w/14008955
703	0.875	14032321 w/14008677
250	0.875	14032321 w/14008955
703	0.875	SL-7098
754	1.000	14009944 w/14009646
791	1.000	14009944 w/14010236
754	1.000	14009948 w/14009646
791	1.000	14009948 w/14010236

SEAL	SHAFT	OEM P/N
429	1.000	14011144
		w/(2) 14009646
110126	1.000	14011144
		w/(2) 14010236
791V	1.000	14014168 w/14015888
		14016579 w/14015888
754	1.000	14032302 w/14009646
791	1.000	14032302 w/14010236
429	1.000	14032323
		w/(2) 14009646
110124	1.000	14032323
		w/(2) 14010236
235	1.000	SL-7087
357	1.000	SL-7106
754	1.000	SL-7521
235	1.000	SL-7735
204	1.125	SL-7770
264	1.250	14009951 w/14008717
361	1.250	14009951 w/14008753
256	1.250	14009952 w/14008717
185	1.250	14009952 w/14008753
256	1.250	14009953 w/14008717
185	1.250	14009953 w/14008753
264	1.250	14009954 w/14008717
361	1.250	14009954 w/14008753
264	1.250	14011010 w/14008717
361	1.250	14011010 w/14008753
264V	1.250	14013207 w/14011672
		14014873 w/14011672
		14015432 w/14011672
256	1.250	14032143 w/14008717
185	1.250	14032143 w/14008753
598V	1.250	14032324 w/14011672
361	1.250	SL-7083
756	1.250	SL-7094
361	1.250	SL-7099
137	1.250	SL-8102
11377	1.375	14010214 w/14008717
		14010215 w/14008717
		14010246 w/14008717
		14032305 w/14008717
		14032316 w/14008717
758	1.500	14032144 w/14010218
553	1.500	14032144 w/14010243
553V	1.500	14032304
		w/Viton "O" Niresist Seat
758	1.500	14032307 w/14010218
553	1.500	14032307 w/14010243
371	1.500	SL-7107
758	1.500	SL-7107
305	1.500	SL-8223
262	1.750	14009965 w/14008650

SEAL	SHAFT	OEM P/N
205	1.750	14009965 w/14008651
262	1.750	14009966 w/14008650
205	1.750	14009966 w/14008651
11795	1.750	14011050 w/14008650
449	1.750	14011050 w/14008651
262V	1.750	14013208 w/14012004
		14015431 w/14012004
436	1.750	14032145 w/14008650
237	1.750	14032145 w/14008651
262V	1.750	14032308 w/14012004
262	1.750	14032309 w/14008650
205	1.750	14032309 w/14008651
11795	1.750	14032355 w/14008650
449	1.750	14032355 w/14008651
205	1.750	SL-7090
366	1.750	SL-8393
477	2.000	14010222 w/14015593
479	2.000	14010222 w/14032158
477V	2.000	14015293 w/14015296
477	2.000	14015299 w/14015593
479	2.000	14015299 w/14032158
477V	2.000	14015300 w/14015296
332	2.000	14032146 w/14015593
267	2.000	14032146 w/14032158
477	2.000	14032310 w/14015593
479	2.000	14032310 w/14032158
477V	2.000	14032521 w/14015296
323	2.250	1400-1709
		14009969 w/14009977
849	2.250	14009969 w/14015628
323	2.250	14009970 w/14009977
849	2.250	14009970 w/14015628
849V	2.250	14013450 w/14015274
849V	2.250	14015520 w/14015274
846	2.250	14032147 w/14009977
847	2.250	14032147 w/14015628
849V	2.250	14032311 w/14015274
323	2.250	14032520 w/14009977
849	2.250	14032520 w/14015628
12237	2.250	14032526 w/14009977
		14032526 w/14015628
323	2.250	SL-7709
321	2.750	14013495 w/14015625
838	2.750	14013602 w/14013180
321	2.750	14013602 w/14015625
838	2.750	14014285 w/14013180
321	2.750	14014285 w/14015625
321V	2.750	14015621 w/14015624
838	2.750	14015622 w/14013180
321	2.750	14015622 w/14015625
838	2.750	14032312 w/14013180
321	2.750	14032312 w/14015625

PUMP MANUFACTURERS
CROSS REFERENCE GUIDE

SEAL	SHAFT	OEM P/N
321V	2.750	14032522 w/14015624
12718	2.750	14032525 w/14013180
322	2.750	14032525 w/14015625
321V	2.750	4013451 w/14015624
838	2.750	4013495 w/14013180
475	3.000	14010908 w/14010913
324	3.000	14010908 w/14010914
475V	3.000	14015623 w/14015628
13035	3.000	14032356 w/14010913
13036	3.000	14032356 w/14010914
475	3.000	14032523 w/14010913
324	3.000	14032523 w/14010914
475V	3.000	14032524 w/14015628
475	3.000	4010916 w/14010913
324	3.000	4010916 w/14010914
475V	3.000	4013452 w/14015628

PAHLENS FABRIKER

200	0.625	0.625
1000	0.625	0.625
201	0.750	0.750
360	1.000	1.000
235	1.000	1.000

PAUL PUMP

102	0.625	0.625
1156	0.625	0.625

**PEABODY BARNES (CPS)
CRANE PUMPS & SYSTEMS**

163	0.500	0.500
150	0.500	0.500
163V	0.500	18189
165	0.500	29726
80516	0.500	61070
10553	0.500	68988
200	0.625	12703
359N	0.625	18873
359V	0.625	19076
552	0.625	23701
200	0.625	35582
10611	0.625	39018
359	0.625	5080
600E	0.625	69383
877N	0.750	15344
10759	0.750	63599
1604	0.750	63924
877	0.750	64118
358	0.750	67562
601E	0.750	71861

851	0.750	71893 (New)
201	0.750	71893 (Old)
201V	0.750	71893-D
703	0.875	10562
		67563
235N	1.000	18004
235V	1.000	19077
11024	1.000	53754
11090	1.000	59655
11052	1.000	62435
429	1.000	63206
429	1.000	64434
11086	1.000	64434H
		71796
235N	1.000	71877
11052V	1.000	G2435-X
110613	1.062	17205
		97403

356	1.125	70712
11299V	1.250	1.250
756	1.250	19146
185N	1.250	22197
598V	1.250	24635
11299	1.250	27898
426	1.250	39485
381V	1.250	68670
185	1.250	70713
185TC	1.250	71557
185	1.250	71562
177N	1.375	52601
177V	1.375	52601D
11309	1.375	57867
11422	1.437	68734C
758	1.500	24998
758	1.500	65963
758TC	1.500	65963
		71558
758	1.500	71563
674	1.750	57961
237	1.750	71556
237TC	1.750	71559
318	1.875	51938C
12063	2.000	36551
332	2.000	53626
276TC	2.000	66351
874	2.250	71220
941TC	2.250	71561

**PEERLESS
STERLING**

162	0.500	2665554
300	0.625	1181377

200	0.625	181377
300	0.625	2655294
200	0.625	2655924
508	0.625	2658090
100	0.625	2665171
300	0.625	2665624
102	0.625	2668219
508	0.625	266910
263	0.625	2675336
768	0.625	2675337
734	0.625	2680496
102	0.625	2680496
966	0.625	P-15195
200	0.625	V12271A
300	0.625	V1227A
301	0.750	1181383
358	0.750	1655888
358	0.750	2650131
301	0.750	2655293
358	0.750	2663071
303	0.875	2655239
188	0.875	2657110
		2663072
303	0.875	2664873
229	0.875	2675338
250	0.875	2675339
235	1.000	1181226
		1181386
		2613940
		2655887
252	1.000	2656324
235	1.000	2663073
		2663369
252	1.000	2675341
		2765340
356	1.125	2600518
529	1.125	2655131
356	1.125	2655240
		2658071
		2664885
		2664886
584	1.125	2675317
529	1.125	2675343
529	1.125	2675344
584	1.125	2687625
306	1.187	1181227
		2655886
		2663074
255	1.187	2675345
361	1.250	2653631
		2657093
		2663048

SEAL SHAFT OEM P/N
PEERLESS cont.

185	1.250	2664892 2664893
256	1.250	2675305
264	1.250	2675318
256	1.250	2675347
264	1.250	2687165 2687626 2687626
177	1.375	1181228 2655089 2655889
354	1.375	2659998
177	1.375	2663075
354	1.375	2663368
809	1.375	2675349
547	1.375	2675350
758	1.500	2606398 2653632 2656981
305	1.500	2663008
758	1.500	2664864 2664865
305	1.500	2675108
258	1.500	2675351
553	1.500	2687166
258	1.500	2691073
205	1.750	2653795 2657091 2663044
436	1.750	2675319
262	1.750	2675354 2675355
436	1.750	2675356
586	1.875	2676205
332	2.000	2675320

PELLERIN MILNOR

358N	0.750	245020
------	-------	--------

PENBERTHY

165	0.500	0.500
162	0.500	D-1104

PERFECTED PUMP

359	0.625	732015
356	1.125	732049
177	1.375	732057

SEAL SHAFT OEM P/N
PESCO

507	0.625	0.625
-----	-------	-------

PILOT PUMPS

601V	0.750	714.73
------	-------	--------

**PIONEER
(See Detroit Harvester Howell)**
PIONEER PUMP

200	0.625	0.625
-----	-------	-------

PLANET PRODUCTS

162	0.500	DRM-2
-----	-------	-------

**POOL SWEEP
(See Arneson Pool Sweep)**
**POWER PRODUCTS
(See Tecumseh)**
PRECISION SCIENTIFIC

10539	0.500	342005
734	0.625	342003
113	0.750	342027
252	1.000	342012

PREMIER PUMP

1000	0.625	P19-0
------	-------	-------

PRICE PUMP CO

1002V	0.500	0.500
359V	0.625	0.625
447	0.625	0.625
1000	0.625	0.625 31-813
201	0.750	0.750
601	0.750	0.750
758	1.500	1.500

PROCON

10409V	0.437	1034-A2
10409E	0.437	1034-A4
10409	0.437	1034-A7

SEAL SHAFT OEM P/N
PROSSER

359	0.625	2-31001
359V	0.625	2-31001-1
10658	0.625	9-50134-00
358	0.750	2-31007
358V	0.750	2-31007-1
703	0.875	2-31006
703V	0.875	2-31006-1
303	0.875	9-16034-1
756	1.250	2-31020
756V	1.250	2-31020-1
756	1.250	9-26032-3

PUREX

372	0.625	P28128
501	0.625	P28322
851	0.750	P28300
360	1.000	P28175
851	1.250	P28320

**QUEEN PRODUCTS
(See Scotsman Ice)**
QUINCY COMPRESSOR

436V	1.750	1.750
------	-------	-------

RALSTON PURINA

1162V	1.625	1.625
-------	-------	-------

**RAPID DAYTON
(See Tait)**
REARS MFG

200V	0.625	0.625
118V	0.625	0.625
877	0.750	0.750
361	1.250	1.250

RED JACKET

106	0.500	540
100	0.625	176-037-1
900	0.625	500
901	0.625	500A
102	0.625	530
701	0.625	C76-134

PUMP MANUFACTURERS
CROSS REFERENCE GUIDE

SEAL	SHAFT	OEM P/N
896	0.625	C76-182
518	0.625	C76-183
100	0.625	C76-78A C76-98A C76-98C
905	0.750	525
902	0.750	555
358	0.750	560
201	0.750	76-129 76-189
902	0.750	C76-99A
357	1.000	545
370	1.000	76-132

REDA PUMP

508	0.625	17197A
188	0.875	13131A
703	0.875	14011A
235	1.000	13977A
758	1.500	15114A

REECO

200	0.625	RCD4375A
-----	-------	----------

REINCO

177	1.375	1.375
541	1.500	1.500
758	1.500	1.500
12113	2.125	2.125
12124	2.125	2.125

PREMIER PUMP

185	1.250	64262-12-A
381	1.250	642628A
758	1.500	64262-12B 642628B
237	1.750	64262-12-C 642628C
267	2.000	64262-12-D
846	2.250	64262-12-E
761	3.000	64262-12-G

REXNORD CONS'T

102	0.625	X203414-2-9366
-----	-------	----------------

RICE

SEAL	SHAFT	OEM P/N
200	0.625	21-024
201	0.750	12-023
315	0.750	121-016
116	0.750	21-027 74-086
358	0.750	9330-9-6

**ROBBINS & MEYERS
MOYNO**

10312	0.375	32-05969
631	0.500	32-04215
168	0.500	32-04215-000
924	0.625	32-02423-000
359	0.625	32-02424
924	0.625	POD-2423
200	0.625	POD-3054
201	0.750	32-01625
358	0.750	32-03945-000
201	0.750	POD-1625
851	0.750	U8-56C
235	1.000	32-01750-000
360	1.000	EC-67

ROMAR FILTER

200	0.625	618-001
-----	-------	---------

**ROOTS BLOWER
(See Dresser Ind)****ROPER**

930	0.500	G14-222 G14-262 G14-263
400V	0.500	G14-32
10545	0.500	G4-57
933	0.625	G14-116
10693	0.625	G4-102
157	0.750	G14-117
768E	0.750	G14-173
768	0.750	G14-226
157	0.750	G14-428
157N	0.750	G14-441
157E	0.750	G14-443
768V	0.750	G14-471
157V	0.750	G14-506
10775	0.750	G3-30
936	0.875	G14-119
250	0.875	G14-227
208	0.875	G14-324
208E	0.875	G14-445

SEAL	SHAFT	OEM P/N
250V	0.875	G14-477
208V	0.875	G14-507
937	1.000	G14-120
252V	1.000	G14-172
937	1.000	G14-248
499E	1.000	G14-312
11001	1.000	G14-320
252	1.000	G14-338
11001E	1.000	G14-433
11001V	1.000	G14-51
11001N	1.000	G14-522
141	1.000	G3-38
796	1.062	G14-489
796V	1.062	G14-504
110608	1.062	G4-101
110608V	1.062	G4-140
348	1.125	G14-278
11131	1.125	G4-11
11121	1.125	G4-12
11121V	1.125	G4-16
154	1.250	G14-121
11246	1.250	G14-122
256	1.250	G14-229
598E	1.250	G14-399
154	1.250	G14-429
154E	1.250	G14-439
11246	1.250	G14-518
11246E	1.250	G14-543
348V	1.250	G3-10
598V	1.250	G4-1
547	1.375	G14-248
547V	1.375	G14-492
172V	1.375	G14-510
172	1.375	G14-512
11332	1.375	G14-579
11332V	1.375	G4-9
11424	1.437	G4-112
11424V	1.437	G4-142
11531	1.500	G14-123
553	1.500	G14-230
939	1.500	G14-430
553V	1.500	G14-475
939V	1.500	G14-511
939V	1.500	G3-19
553E	1.500	G4-2
11611V	1.625	G4-19
11611	1.625	G4-20
544	1.625	G4-43
819V	1.625	G4-45

SEAL	SHAFT	OEM P/N
ROPER cont.		
12026	2.000	G14-582
332	2.000	G4-42
12101	2.125	G3-14
12101V	2.125	G4-41
847	2.250	G14-233
847V	2.250	G14-33
849V	2.250	G14-421

ROTH PUMP		
168	0.500	F8A030VF w/F8A035VL
118	0.625	F8B015VL w/F8B086VL
1514	0.750	F8C001VF w/F8C002VL
649	0.750	FG1C081VA
703	0.875	F8C003VE w/F8C084VL
11106	1.125	F8E001VF w/F8E002VL
204	1.125	F8E001VF w/F8E263VL
361	1.250	F8E036VF w/F8G038VL
11314	1.375	F8G014VF

RS CORCORAN		
877	0.750	0.750
10780V	0.750	316SS & VITON
356	1.125	1.125
11177V	1.125	316SS & VITON
238	1.625	1.625
238V	1.625	1.625
237	1.750	1.750
237V	1.750	1.750

RUTH BERRY		
102	0.625	610
908	0.750	601
201	0.750	601A
358	0.750	620

RUTHMAN MACHINERY		
168	0.500	0.500
164	0.500	906
359	0.625	0.625
447	0.625	0.625
451	0.625	0.625
441	0.750	0.750
360	1.000	1.000
235	1.000	1.000

SALVAJOR CO		
41013	1.000	5008

SAN ANGELO CO, INC		
358	0.750	0.750

SCHAUB ENGINEERING MAGNETROL		
10606E	0.625	012-3113-001
11006E	1.000	012-3113-002
11224E	1.250	012-3113-003

SCHNACKE GRASSO		
332N	2.000	2105

SCHRAMM INC		
201	0.750	GOH2859-B/GOH2859-2

SCHWITZER		
298	0.500	354182
642	0.625	457805
647	0.750	0.750
		IN9117

SCOT PUMP		
359	0.625	0.625
552V	0.625	101.000.103
200	0.625	101.000.110
951V	0.625	101.000.120
1000	0.625	101.000.169
201	0.750	101.000.102
201V	0.750	101.000.115
768	0.750	101.000.158
768E	0.750	101.000.161
10884	0.875	101.000.156
360	1.000	101.000.159
185	1.250	101.000.104
185	1.250	101.000.122
618V	1.250	101.000.124
256	1.250	101.000.125
883	1.250	101.000.152
228V	1.250	101.000.164
758	1.500	101.000.168

553V	1.500	101.000.175
		101.000.184
758V	1.500	101.000.191
237	1.750	101.000.196
237V	1.750	101.000.216

SCOTSMAN ICE MACHINE QUEEN PRODUCTS		
41002	1.000	02-1300-00
235	1.000	2-383
72502	2.500	02-0776-00

SEARS (See Homart-Sears)		
-------------------------------------	--	--

SERFILCO		
358	0.750	0.750
358V	0.750	0.750
703	0.875	0.875
703V	0.875	0.875
185	1.250	1.250
185V	1.250	1.250
758	1.500	1.500
758V	1.500	1.500

SHERWOOD BRASS LEAR SIEGLER		
168	0.500	11367
1002V	0.500	14081
631	0.500	5789
200	0.625	10159
933	0.625	10523
447	0.625	12859
1000V	0.625	12966
		13263
1000	0.625	13265
447V	0.625	13286
208	0.875	8570
703	0.875	8578
188	0.875	9791

SHERWOOD SPECIALTIES		
359	0.625	0.625
358	0.750	0.750

SHETLER		
200	0.625	0.625

PUMP MANUFACTURERS
CROSS REFERENCE GUIDE

SEAL	SHAFT	OEM P/N
GEMI		
552	0.625	0.625
771	0.750	0.750
11052	1.000	1.000

GENERAL ELECTRIC		
508	0.625	121A605
204	1.125	1.125

GENERAL MOTORS CORP GMC		
642	0.625	5121751
933	0.625	5186571
112	0.750	5186113
192N	1.500	2399427

GENERAL PUMP		
200	0.625	0.625
359	0.625	0.625
810N	0.625	0.625
201	0.750	1188305

GEORGIA PACIFIC		
200	0.625	3112000

GILBERT BARKER		
1000	0.625	K81159X
756	1.250	K74050X
239	1.625	K76638X
514	1.625	K76638X

GOLD-MARC INDUS		
163	0.500	0.500

GORMAN RUPP		
788	0.500	0.500
150	0.500	S-8243-4
200V	0.625	15294-5
516	0.625	15295002
552E	0.625	25271-821
882	0.625	8243-12
200	0.625	S-1531
507	0.625	S-217
200	0.625	S-765

SEAL	SHAFT	OEM P/N
359	0.625	S-765
118	0.625	S-809
358V	0.750	25271-841
851	0.750	S-1190
357	0.750	S-1679
112	0.750	S-33
358	0.750	S-383
358	0.750	S-936
235	1.000	S-1906
360	1.000	S-2147
398	1.000	S-237
235	1.000	S-298
357	1.000	S-363
		S-364
235	1.000	SO-1415
357	1.000	SO-1832
517V	1.250	25271-192
256	1.250	25271-493
756V	1.250	25271-836
756	1.250	S-1621
185	1.250	S-321
256	1.250	S-321A
361	1.250	S-335
137	1.250	S-350
756	1.250	S-37
756	1.250	S-493
659V	1.500	25271-903
758	1.500	S-1150
374	1.500	S-239
371	1.500	S-283
		S-317
		S-774
553	1.500	SO1934

GOULDS ITT		
631	0.500	0.500
168	0.500	074207-0050
600	0.625	0.625
701	0.625	10K-1
680	0.625	10K-10
957	0.625	10K-10
518E	0.625	10K-18
680	0.625	10K-2
680V	0.625	10K-24
493	0.625	10K-3
900	0.625	10K-3
451	0.625	10K-5
518	0.625	10K-6
700	0.625	10K-7
701	0.625	72598-2062
358	0.750	10K-4

SEAL	SHAFT	OEM P/N
428V	0.875	10K-38
685E	0.875	10K-39
703	0.875	10K-8
303	0.875	70470-4087
236	1.000	69127-2100
754	1.000	70783-1100
588	1.125	1.125
356	1.125	10K-21
355	1.125	10K-9
361	1.250	1.250
185	1.250	10K-13
756E	1.250	10K-19
185V	1.250	10K-25
354	1.375	1.375
677	1.375	1.375
864	1.375	3196ST
865	1.375	3196ST
705	1.437	70783-3143
374	1.500	1.500
305	1.500	70781-1150
238	1.625	10K-16
239E	1.625	10K-20
238V	1.625	10K-26
858	1.750	3196MT
554	1.875	1.875

GRAYMILLS CORP		
165V	0.500	745-04245

GRISWALD		
758	1.500	10134807

GUSHER PUMP		
359	0.625	0.625
359N	0.625	0.625
359V	0.625	0.625
487	0.625	0.625
487N	0.625	0.625
185N	1.250	1.250
137N	1.250	1.250
361	1.250	1.250
361N	1.250	1.250
239	1.625	1.625
239N	1.625	1.625
237	1.750	1.750
237N	1.750	1.750

SEAL SHAFT OEM P/N
H&F MFG

1000 0.625 0.625

HAIGHT PUMP

10545V 0.500 E186MV

10545N 0.500 E18AM

10553 0.500 E18EM

10545 0.500 E18M

10693 0.625 F18AM

552 0.625 F18EM

552V 0.625 F18EMV

10693 0.625 F18M

10693V 0.625 F18MV

303 0.875 H18AM

303V 0.875 H18AMV

703 0.875 H18EM

703V 0.875 H18EMV

250 0.875 H18M

250N 0.875 H18MN

250V 0.875 H18MV

252 1.000 AP18AM

548 1.000 AP18EM

256 1.250 1.250

553 1.500 1.500

436 1.750 1.750

HALE FIRE PUMP CO

516 0.625 0.625

851 0.750 296-5040-00

201 0.750 296-5040-00-3

235 1.000 25D-G444

61004 1.000 296-5010-00

11052 1.000 296-5050-00

11024 1.000 296-5060-00-3

110104 1.000 296-5240-00-3

356 1.125 296-5220-00

495 1.375 296-5070-00

177 1.375 296-5250-99

378 1.500 296-5020-06

347 1.500 6D-58

267 2.000 296-5210-00

HALL SCOTT

200 0.625 0.625

358 0.750 0.750

SEAL SHAFT OEM P/N
HARMSCO

201 0.750 0.750

**HARTELL
MILTON ROY**

10409 0.437 0.437

162 0.500 900179

80507 0.500 900419

HARVEY SID, INC

400 0.500 0.500

HAYWARD

60678 0.625 SP-1250XZ2

372 0.625 SP-125Z2

369 0.750 0.750

60758 0.750 SP-1600KA

370 1.000 1.000

HEINECKS

699 0.750 0.750

HOBART MFG

40517E 0.500 C-115710

631 0.500 R-23682

508V 0.625 A-104329

754 1.000 1.000

754V 1.000 A-104330

235 1.000 R-79205

758 1.500 223422

HOFFMAN CONDENSATE

235 1.000 HCD 4030-17

HOMART-SEARS

162 0.500 259-043

162 0.500 W6476

447 0.625 0.625

100 0.625 42G2377W

508 0.625 759-31

405 1.000 20760

SEAL SHAFT OEM P/N
HOMELITE

10582 0.500 42375

200 0.625 62729

680 0.625 A62861-2

90711V 0.750 48299

60758 0.750 A-62694

201 0.750 A-75911

6467 1.000 62713-1

360 1.000 A-62403

6467 1.000 A-62713

6467V 1.000 A-62713-2

185 1.250 1.250

466 1.250 46150

HOT POINT

150 1.250 503416

HOWE ICE MACHINE

12819N 2.875 5L11

HOWELL ELECTRIC

10688V 0.625 91037A

**HUTSON
WHEELABRATOR**

768 0.750 SEL244

61004 1.000 1.000

12213 2.250 H000716 straight spring

HYDRA BATH

1000 0.625 SS

HYDRO

201 0.750 0.750

**HYDROMATIC
PENTAIR**

359 0.625 01556-000-1

100 0.625 10674-000-1

200 0.625 83-002-1

516 0.625 83R-003-1

902 0.750 0.750

358 0.750 100 100-000-1

201 0.750 17048

750V 0.750 744-000-1

PUMP MANUFACTURERS
CROSS REFERENCE GUIDE

SEAL	SHAFT	OEM P/N
235	1.000	300-000-1
185	1.250	4916-000-1
884	1.500	1.500
758	1.500	920-000-1
1087	2.250	8073-001-1

HYPRO PUMPS

10555	0.500	2120-0006
10555V	0.500	2120-0007
10688V	0.625	2120-0003
516	0.625	2120-0008
200V	0.625	2120-0009
201V	0.750	2120-001
851	0.750	9501-18

ICE-O-MATIC

41004N	1.000	100030-1 100030-2
41601N	1.625	100002-1 100002-2
72501	2.500	2.500

IDEAL PUMP CO

359	0.625	0.625
-----	-------	-------

IMECO

758	1.500	FE219R TAS VAO-C
-----	-------	------------------------

INDUSTRIAL COMBUSTION

358	0.750	925-65
-----	-------	--------

**INGERSOLL RAND (IDP)
INGERSOLL DRESSER PUMP**

164	0.500	W-49869
615	0.625	0.625
359	0.625	0.625
600	0.625	CPM-10015
616	0.625	CPM-10029
507V	0.625	CPM-625271
200	0.625	CPM-6252C1
507V	0.625	CPM-625871
200	0.625	CPM-6258C1
601	0.750	CPM-10034
606	0.750	CPM-10035
851	0.750	CPM-10600A

60765E	0.750	CPM-10603 CPM-10603A
201V	0.750	CPM-10606A
851	0.750	CPM-10607A
107118E	0.750	CPM-10610A
201	0.750	CPM-6252C1
602	0.875	CPM-10052
294	0.875	CPM-10053
303	0.875	W-11448 W-20168
987	1.000	W-11856
356	1.125	CPM-10026
608	1.125	CPM-10044
356	1.125	CPM-10054
355	1.125	CPM-10055
608	1.125	CPM-10087
945	1.125	CPM-10217A
636	1.125	CPM-10217B
945	1.125	CPM-10220A
636	1.125	CPM-10220B
619V	1.125	CPM-10223A
636V	1.125	CPM-10223B
11162V	1.125	CPM-10406A
11154V	1.125	CPM-10406B
521	1.125	W-31826
343	1.187	CPM-118S429X2
724	1.187	CPM-118S429X3
723	1.187	CPM-118S429X4
345	1.187	CPM-118S429X5
185	1.250	CPM-10601A
756E	1.250	CPM-10604A
185	1.250	CPM-10608A
756E	1.250	CPM-10611A
185V	1.250	CPM-10613A
416	1.250	W-32652
756	1.250	W-44104
677	1.375	CPM-137S429X2
726	1.375	CPM-137S429X3
725	1.375	CPM-137S429X4
354	1.375	CPM-137S429X5
467	1.375	W-21642 W-28861
224N	1.500	CPM-10129
305	1.500	CPM-10132
620	1.500	CPM-10218A
629	1.500	CPM-10218B
620	1.500	CPM-10221A
629	1.500	CPM-10221B
620V	1.500	CPM-10224A
950V	1.500	CPM-10224B
395	1.500	CPM-10368A
258	1.500	CPM-10368B

395V	1.500	CPM-10369A
258V	1.500	CPM-10369B
11576V	1.500	CPM-10466A
11529V	1.500	CPM-10466B
11576V	1.500	CPM-10471A
11529V	1.500	CPM-10471B
11576V	1.500	CPM-10473A
11529V	1.500	CPM-10473B
371E	1.500	CPM-10650
238V	1.625	1.625
609	1.625	CPM-10028
609	1.625	CPM-10045
610	1.625	CPM-10046
238	1.625	CPM-10602A
239E	1.625	CPM-10605A
238	1.625	CPM-10609A
239E	1.625	CPM-10612A
674	1.750	CPM-10024
366	1.750	CPM-10347
719	1.771	CPM-177S429X2
728	1.771	CPM-177S429X3
727	1.771	CPM-177S429X4
722	1.771	CPM-177S429X5
829	1.875	CPM-10219A
831	1.875	CPM-10219B
829	1.875	CPM-10222A
831	1.875	CPM-10222B
829V	1.875	CPM-10225A
831V	1.875	CPM-10225B
11827	1.875	CPM-10370A CPM-10371A
586	1.875	CPM-10371B
11827V	1.875	CPM-10372A
586V	1.875	CPM-10372B
11846V	1.875	CPM-10408A
11845V	1.875	CPM-10408B
477	2.000	CPM-10130
479	2.000	CPM-10133
477	2.000	CPM-200S429X1 CPM-200S429X2
611	2.125	CPM-10047
612	2.125	CPM-10048
279	2.500	CPM-10134
12512E	2.500	CPM-10662
349	2.500	CPM-250S429X2
321	2.750	CPM-10355
475	3.000	3.000

SEAL SHAFT OEM P/N

INSINGER

204E	1.125	B-15
356	1.125	SSUP-15 UP-15

INTERNATIONAL HARVESTER

882	0.625	687644C91 687645C91
-----	-------	------------------------

**JABSCO
ITT**

642	0.500	1/2" Motor Pump
10619	0.625	96080-6040
10619V	0.625	96080-6210
10713	0.750	96080-6280
10713V	0.750	96080-6290
71002	1.000	1.000
		1816407 1816408
00-100041	1.000	9023-6000
758	1.500	3200 3200-01 3200-21

JACKSON PRODUCTS

775V	0.875	5330-300-0627
------	-------	---------------

JACUZZI

168	0.500	10-1201-11 10-1201-29 10-1201-37
162	0.500	10-1207
60504	0.500	10-1414-06
504	0.500	10-49
162	0.500	10-563
631	0.500	10-564
924	0.625	10-1202-02 10-1202-10 10-1202-28 10-1202-36
200	0.625	10-1436-00 10-476
359	0.625	10-478
102	0.625	10-502
359	0.625	10-506
683	0.750	10-100
877	0.750	10-1203-01 10-1203-19

SEAL SHAFT OEM P/N

877	0.750	10-1203-27 10-1203-35 10-1213-17 0-1213-25
-----	-------	---

851	0.750	10-1390-04
201	0.750	10-477
358	0.750	10-479
201	0.750	10-486
358	0.750	10-503
235	1.000	10-1299-06 10-1299-30 10-504

204	1.125	10-505
185	1.250	10-0369-03
361	1.250	10-1434-02
11360	1.375	1.375
209	1.375	10-315 10-328

11507	1.500	10-1043-05
758	1.500	10-1348-07
11710	1.750	10-0349-06
205	1.750	10-0370-00 10-1402-00

213	1.750	10-323
205	1.750	10-330 10-370

267	2.000	10-1403-09
874	2.250	10-0365-07 10-1404-00 10-365

323	2.250	2.250
269	2.500	10-1405-07
836	2.750	10-1406-06
761	3.000	10-1407-05

JAEGER

162	0.500	0.500
201	0.750	0.750
360	1.000	1.000
239	1.625	66319-1
876	2.000	66435-1

**JAEGER SYKES (MP PUMPS)
TECUMSEH PRODUCTS**

851	0.750	59889-1
11106	1.125	80237-1
176	1.250	3790-1315 82784-1
177	1.375	81031-1

SEAL SHAFT OEM P/N

**JAMES CORP
VACUUM PUMP**

60504	0.500	0.500
-------	-------	-------

JEITO MFG

758	1.500	1.500
-----	-------	-------

JENNINGS

162	0.500	0.500
165	0.500	0.500
163	0.500	AE001A1
200	0.625	0.625
451	0.625	0.625
596	0.750	6A001A1

JENSON BROS

501	0.625	29304B
358	0.750	0.750

JET CRAFT

356	1.125	1.125
758	1.500	1.500
237	1.750	1.750
267	2.000	2.000

JET LINE

1000	0.625	0.625
------	-------	-------

JOHN BLUE CO

132V	0.625	S-3722
779V	1.000	S-3565-V
235V	1.000	S-3575-V
354V	1.375	S-3645-V

JOHNSON EXTRUDERS

10693V	0.625	HTC100 HTC200 JCP-75
10693	0.625	JCP-75T
756V	1.250	DSC200 DSC300 DSC500 HTC300 HTC500 HTC750

PUMP MANUFACTURERS
CROSS REFERENCE GUIDE

SEAL SHAFT OEM P/N

**JOY MFG
COMPRESSOR**

517V	1.250	519056-0008
112115V	1.250	519056-24
11349V	1.375	519056-25
553V	1.500	OA 222599
436V	1.750	519056-0006
147	1.750	519056-0018
475V	3.000	519056-15
		519056-2

KENCO

162	0.500	0.500
163	0.500	0.500
165	0.500	0.500
200	0.625	0.625
516	0.625	AE01481 w/A6015A1
851	0.750	AE020A1 w/A6022A2
107142	0.750	AE021A1 w/A6025A1

KINNEY VACUUM PUMP

358	0.750	C-5
		KC2.5-15
		KC-8 (491)
		KCS-13
651	0.750	VSM-556
197	0.875	SK-549
357	1.000	KS-27-47
215	1.125	1.125
676	1.125	1.125
355	1.125	KC-46
654	1.125	MB-230
371	1.500	KD-110
		KDH-130
366	1.750	KD-220
		KDH-220
462	2.000	2.000
658	2.000	KBM-1200
		MB-17

KOBE

11727	1.750	0-84349
-------	-------	---------

KRAISEL

150	0.500	0.500
-----	-------	-------

SEAL SHAFT OEM P/N

LANCASTER PUMP

155	0.500	0.500
168	0.500	1061
150	0.500	476-1
200	0.625	0.625
516	0.625	0.625
151	0.625	2461
1005A	0.625	2561
1000	0.625	523-6
493	0.625	525-6
900	0.625	525-6
358	0.750	1361
201	0.750	1661
703	0.875	429-7/8"
360V	1.000	1.000
360	1.000	7561
355	1.125	1.125
381	1.250	909-61
371	1.500	1.500

LECOURTENAY CO

584	1.125	1.125
546	1.250	11481
808	1.375	1.375
595	1.625	11485-8
535	1.750	11483-4
523	1.875	1.875
530	2.000	11393
327	2.125	15168-9
		23305
323	2.250	11479-80
323	2.250	23300
		23304
328	2.625	15165-7
328	2.625	23301
329	2.875	2.875
324	3.000	11489-93

LEHIGH

362	0.750	D-811
108N	1.250	D-854

LEROI DIV

299	0.625	125-101
467	1.375	12-188-2
436V	1.750	1.750

SEAL SHAFT OEM P/N

LINK BELT

121	0.750	WB-30
357	1.000	WB-35
355	1.125	WB-40
239	1.625	WB-60
288	1.750	WB-70

LITTLE GIANT

80304	0.375	926027 w/926028
165	0.500	108112
80507	0.500	926024
451	0.625	A-C009
601	0.750	0.750

LOCKWOOD PUMP

301	0.750	0.750
360	1.000	1.000

LOGANSPOUT

106	0.500	P-17251
930	0.500	P-9509
933	0.625	P-14883
110	0.625	P-17581
564	0.750	P-9518

LOMART PUMP

149	0.500	0.500
150	0.500	40-027 w/40-029
163SS	0.500	W-1531
142	0.500	W-1532
1000	0.625	0.625

LOUIS PUMP

370	1.000	1.000
-----	-------	-------

LUITWEILER PUMP

201	0.750	0.750
361	1.250	1.250

**MANITOWAC EQUIPMENT
ICE MACHINES**

360	1.000	3705011
-----	-------	---------

SEAL SHAFT OEM P/N

**MARLOW
ITT**

410	0.625	23702-00
409	0.625	23732-00
411	0.625	23736-00
		25353-00
414	0.625	25471-00
411	0.625	26467-00
		26469-00
		26661-00
411V	0.625	27678-00
		29-163-00
411	0.625	31389-00
412	0.750	20124-00
415	0.750	25354-00
		26470-00
419	0.750	26471-00
201	0.750	38592-00
413	1.000	20760-00
413	1.000	25355-00
405	1.000	26473-00
976	1.250	1.250
977	1.250	1.250
416-A	1.250	27223-00
		27224-00
		27225-00
		27452-00
416	1.250	27452-00
		278453-00
404	1.375	25356-00
		25481-00
		26477-00
11647	1.625	28146-00
434	1.750	25357-00
478	2.000	2.000
435	2.000	25358-00

MASSEY FERGUSON

646	0.625	0.625
647	0.750	0.750

McDONALD, A-Y

166	0.625	5MCD1
148	0.625	5MCD3
501	0.625	5MCD4
201	0.750	5MCD5
521	1.125	5MCD2

SEAL SHAFT OEM P/N

MECHANICAL EQUIPMENT

10536V	0.500	100864
10762V	0.750	100796
10847V	0.875	100653
11136V	1.125	100772
816V	1.500	100853

MEGATOR CORP

633	0.625	5079
362	0.750	5479
303	0.875	5679
355	1.125	5879
756	1.250	5779
371	1.500	5979

MEMPHIS PUMP

100	0.625	0.625
508	0.625	0.625
201	0.750	0.750

MEMPHIS RUBBER

118	0.625	0.625
118V	0.625	0.625
10767V	0.750	0.750
10713V	0.750	0.750
235V	1.000	1.000

METAL MASTER

160	0.375	6023
170	0.375	6025
150	0.500	12515
151	0.625	0.625
153	0.625	0.625
200	0.625	0.625
680	0.625	15110
		19023

MIDCO MFG

600	0.625	0.625
601	0.750	0.750

MIDLAND PUMP CO

201	0.750	6070-0
360	1.000	6007

SEAL SHAFT OEM P/N

177	1.375	6368
805	1.375	63680
550	1.750	64120

**MISSION
TRW**

32517	2.500	22451-1
		648414308

MODERN FLO TROL

160	0.375	0.375
170	0.375	0.375

MOKON

248V	1.000	034-008
------	-------	---------

MONARCH

200V	0.625	240136
200	0.625	240160
201	0.750	240170
851	0.750	240260
201V	0.750	240344
703	0.875	240030
756	1.250	240070
185	1.250	240080
185V	1.250	240359
758	1.500	240090

MONTGOMERY WARD

280	0.500	0.500
-----	-------	-------

**MP PUMPS
TECUMSEH PRODUCTS**

165	0.500	0.500
113	0.625	13385
447V	0.625	21580
924V	0.625	22510
112	0.750	15112
358	0.750	15151
107143N	0.750	22615
128V	0.750	22640
128N	0.750	24898
703	0.875	9524
235	1.000	1.000
245	1.000	14233
245V	1.000	22272
		22273
248N	1.000	24943

PUMP MANUFACTURERS
CROSS REFERENCE GUIDE

SEAL	SHAFT	OEM P/N
61015	1.000	1.000
360	1.000	2S-5050
		2S-5054
		2S-5089
		2S-5112
		2S-5119
627	1.125	1.125
529	1.125	2S-5149
681	1.250	1.250
756	1.250	2S-5116
256	1.250	3S-5239
186	1.375	2S-5119
919	1.375	3S-5259
		3S-5260
186	1.375	4S-5106
		4S-5151
553	1.500	4S-5215
822	1.625	1.625
237	1.750	1.750
147	1.750	4S-5052
288	1.750	5S-5029
366	1.750	6S-5202
843	2.000	6S-538
12610	2.625	6S-520
CARVER		
200	0.625	16-062-03
359	0.625	16-062-04
200V	0.625	16-062-15
201	0.750	16-075-03
358	0.750	21-075-114
360	1.000	16-100-03
356	1.125	21-112-04
466	1.250	090-125-01-0101
112111	1.250	090-125-01-0102
466V	1.250	090-125-01-0103
11209	1.250	090-125-01-0202
11251	1.250	090-125-01-1004
466	1.250	21-125-05
11209	1.250	21-125-09
466V	1.250	21-125-10
381	1.250	21-125-11
249	1.250	21-125-16
381V	1.250	21-125-17
11209V	1.250	21-125-19
186	1.375	21-137-11
387	1.750	090-175-01-0101
11770	1.750	090-175-01-0102
387V	1.750	090-175-01-0103
		21-175-02
387	1.750	21-175-04

SEAL	SHAFT	OEM P/N
11705	1.750	21-175-05
11705V	1.750	21-175-25
11770E	1.750	21-175-32
11770V	1.750	21-175-55
11761V	1.750	21-175-61
CATERPILLAR		
642	0.625	4S-7805
10781	0.750	2W2429 w/2W9101
		4N6556 w/2W9101
80702	0.750	IN-9177
CB TOOL		
150	0.500	4761
200	0.625	2661
201	0.750	1661
357	1.000	1.000
CENTRAL SCIENTIFIC CENCO		
451	0.625	P-35332
362	0.750	0.750
565	0.750	0.750
107141	0.750	0.750
441	0.750	P-35334
547N	1.375	P-29538
CENTREX CORP		
299	0.625	0.625
360	1.000	201-491
		201-493
CENTRI-FLOW		
276	1.000	A2500
CENTURY ELECTRIC		
10696	0.625	A-0381-01
		W-5887
235	1.000	A-0868-01
CH&E MFG		
863N	0.625	P2010
200	0.625	W105-7
358	0.750	HM100
201	0.750	W105-1
145	0.750	W105-8

SEAL	SHAFT	OEM P/N
110101	1.000	P1922B
235	1.000	W-105-10
360	1.000	W105-2
654	1.125	W105-5
11152	1.125	W105-5A
495	1.375	W105-12A
862N	1.437	P-2449
371	1.500	HR-920A
216	1.500	P-2271
11562	1.500	W105-6
432	1.500	W-105-6
541	1.500	W105-6A
213	1.750	1.750
11744	1.750	W105-11
449	1.750	W105-11A
CHAIN BELT REXNORD		
148	0.625	0.625
110	0.625	0.625
121	0.750	0.750
201	0.750	0.750
689	0.750	0.750
188	0.875	X203224
208	0.875	X203565
141	1.000	X6185
861N	1.125	X624
137	1.250	X203691
169	1.250	X6186
154	1.250	X7387
185	1.250	X8023
177	1.375	X2059-1
209	1.375	X6187
172	1.375	X7389
593	1.875	2U59-6
223	1.875	X7235
196	2.000	X7380
12529N	2.500	X626
CHALLENGE		
642	0.625	0.625
647	0.750	0.750
CHAMPION DISHWASHER		
10767	0.750	0.750

SEAL SHAFT OEM P/N

CHICAGO CONDENSATE

132 0.625 74-09095

CHICAGO PNEUMATIC

116502V 1.653 PS-4756

12039N 2.000 PS-351

CHICAGO PUMP (YCC) YEOMANS CHICAGO CORP

200 0.625 2658090

100 0.625 2665171

263 0.625 2666910

118 0.625 2666910

600 0.625 T-6A-NL1-1/4

358 0.750 2655888

358 0.750 2663071

768 0.750 2675337

188 0.875 2657110

188 0.875 2663072

229 0.875 2675338

250 0.875 2675339

235 1.000 2613940

754 1.000 2655887

235 1.000 2663369

252 1.000 2675340

2675341

355 1.125 2655131

356 1.125 2658071

529 1.125 2675343

2675344

306 1.187 2655886

255 1.187 2675345

361 1.250 2657093

2663048

264 1.250 2675318

256 1.250 2675347

786 1.250 C3-2-57

354 1.375 2655089

868 1.500 1.500

258 1.500 2675351

553 1.500 2675352

758 1.500 C3-2-58

262 1.750 2675354

449 1.750 C3-2-43

387VTC 1.750 C3-2-96

12092 2.000 04700050-00

267 2.000 C3-2-60

844 2.125 C3-2-83

874 2.250 C3-2-61

SEAL SHAFT OEM P/N

12532 2.500 C3-2-53

13030 3.000 C3-2-45

CLAYTON MARK

451 0.625 29304A

501 0.625 29304B

CLEVELAND WORM & GEAR

937 1.000 56-158801

357 1.000 Z-1028B

348N 1.125 1.125

355 1.125 Z-1028C

326 1.250 Z-1028D

599N 1.500 Z-1028E

331N 1.625 Z-1028F

196N 2.000 2.000

12063 2.000 Z-1028G

12508N 2.500 Z-1028H

337N 2.750 Z-1028N

CLEAVOR BROOKS INDUSTRIAL COMBUSTION

358 0.750 925-65

CLIMAX ENGINE

299 0.625 125-101

235 1.000 1.000

COKER

185 1.250 1.250

COLECO LTD (See Doughboy)

COLT-AUTOSPAN

754 1.000 97049

COLUMBUS PRODUCTS (See Westinghouse)

CONAIR/THERMOLATOR

10693E 0.625 921-003-12

359E 0.625 921-003-94

200 0.625 AE-Series 565

235 1.000 Vacuum Pump

SEAL SHAFT OEM P/N

553V 1.500 921-003-22

758 1.500 921-019-08

237 1.750 921-019-41

CONSTRUCTION MACHINE (See Enpo Pump)

CONTINENTAL MACHINE

10304 0.375 2930

COOPER ENERGY SERVICES COOPER BESSAMER

177 1.375 A-109-500

267 2.000 2-015-077-005

267 2.500 GD-9-4536-4

COOPER INDUSTRIES (See Gardner Denver)

CORNELL PUMP

546 1.250 1.250

595 1.625 1.625

818 1.625 1.625

530 2.000 2.000

833 2.000 2.000

279 2.500 2.500

269 2.500 2.500

761 3.000 3.000

CRANE-DEMME (CPS) CRANE PUMPS & SYSTEMS

504 0.500 0010615

168 0.500 0058125

106 0.500 0058216

504 0.500 006873

200 0.625 0.625

0000015

900 0.625 0006841

493 0.625 0006875

900 0.625 0006876

493 0.625 0020444

359 0.625 0034427

200 0.625 4357 & 4358

501 0.625 4910

200 0.625 4910-63

501 0.625 4911

4912

4913

4963

4966

PUMP MANUFACTURERS
CROSS REFERENCE GUIDE

SEAL	SHAFT	OEM P/N
501	0.625	4967
358	0.750	0.750
201	0.750	0000059
116	0.750	0006878
208	0.875	0006880
790	0.875	0006899
703	0.875	0030876
303	0.875	0030887
428	0.875	0030894
892	0.875	0030894
878	0.875	0030895
878	0.875	4001
141	1.000	0004113
235	1.000	0030878
357	1.000	0030879
429	1.000	0030896
430	1.000	0030897
357	1.000	1.000
384	1.125	0029177
608	1.125	4012
426	1.250	0006903
185	1.250	0030880
381	1.250	0030880
756	1.250	0030881
186	1.250	0030882
883	1.250	0030898
890	1.250	0030899
756	1.250	1.250
209	1.375	0006905
334	1.437	0036636
758	1.500	0030884
371	1.500	0030885
431	1.500	0030900
541	1.500	0030900
432	1.500	0030901
884	1.500	0030901
758	1.500	1.500
238	1.625	0030886
514	1.625	0030889
239	1.625	8030887
213	1.750	0006906
858	1.750	0078877
237	1.750	1.750
449	1.750	40650999
312	1.875	0046390
12145	2.125	0045937
353	2.125	2.125
336	2.125	425650999

SEAL	SHAFT	OEM P/N
CREPACO CREAMERY PACKAGING		
790	0.875	100-A-426
11246	1.250	01-52311-A
108N	1.250	02-9119-A
11246	1.250	100-A-639
326N	1.250	123-A-877
326	1.250	1-S-1924

CROWN (See Enpo Pump)		
----------------------------------	--	--

CURTIS MILRECO		
355	1.125	1.125
529N	1.125	1.125
371	1.500	1.500
553N	1.500	1.500
288	1.750	1.750
436N	1.750	1.750

CUSTOM VACUUM		
100	0.625	6-4599-001

DAIRY EQUIPMENT		
40604	0.625	8513776
10780V	0.750	4014039

DAKON		
150	0.500	0.500

DAMROW BROTHERS		
649	0.750	A6-72MB A6-72MR
521N	1.125	A6-70MB A6-70MR

DAVEY COMPRESSOR		
547	1.375	A-43398
436	1.750	M250-RPV

DEAN BROTHERS		
235V	1.000	SK1382 For PH201
859V	1.750	6764540 6765965

SEAL	SHAFT	OEM P/N
858V	1.750	SK1382 For PH231

DEAN HILL PUMP CO		
--------------------------	--	--

305	1.500	1.500
-----	-------	-------

DECATUR PUMP (See Burks)		
-------------------------------------	--	--

DEFCO		
--------------	--	--

359V	0.625	A-503V
429V	1.000	A-2517
495V	1.375	A-4524

DELAVAL IMO		
------------------------	--	--

112	0.750	PP-046DE PP-046DP
303	0.875	PP-046H
236	1.000	1.000
600	1.000	1.000
159N	1.000	21-100-58
236	1.000	PP-046AH
357	1.000	PP-046BH PP-046FBV PP-046JAZ

356	1.125	1.125
355	1.125	PP-046L
384N	1.125	PP-046L1
255	1.187	PP-046BR
11246N	1.250	PP-046AE
756	1.250	PP-046BL PP-046DD PP-046DDA

154N	1.250	PP-046M
756	1.250	SB-5322
467	1.375	046AL
186	1.375	S-1146C S-1146CB S-1446B

371	1.500	PP-046DAA
371	1.500	PP-046DAB
11531N	1.500	PP-046GB
371	1.500	PP-046JBK
239	1.625	PP-046DR SA-5409
436N	1.750	1.750
288	1.750	PP-046BM PP-046JAY
11799N	1.750	PP-046P
11770N	1.750	PP-046P1

SEAL SHAFT OEM P/N

DELVAL cont.

448N	1.750	SB-5328
593	1.875	PP-046DB
12039N	2.000	PP-046AD
462	2.000	PP-046BP
		PP-046DC
		PP-046DCA
		PP-046JBB
12039N	2.000	S-2446-J
353	2.125	PP-0467
336N	2.125	PP-046T1
492	2.375	PP-046BN
		S-2375
		SB-5339

**DEMING CRANE CO
(See Crane Demming)**
DEMPSTER

162	0.500	0.500
260	0.625	68-062-16
200	0.625	907-06030
441	0.750	907-06001
440	0.750	907-06006
358	0.750	907-06043
250	0.875	907-06033
703	0.875	907-06033
250V	0.875	907-06034
703V	0.875	907-06034
252	1.000	907-06037
256	1.250	907-06035
598V	1.250	907-06046

**DENISON
ABEX**

201	0.750	622-03102
294	0.875	0.875
297N	1.187	622-03101
467	1.375	1.375
11356	1.375	623-00006
11357	1.375	623-00013
		623-11038
11357	1.625	623-10791
116801	1.687	623-12260
116801V	1.687	623-12263
353	2.125	623-10793
		M-800
351	2.250	2.250

SEAL SHAFT OEM P/N

DENTAL-EZE

100	0.625	6-4599-001
-----	-------	------------

DETROIT DIESEL

106145	0.625	5186751
71002	1.000	5198419

DETROIT HARVESTER HOWELL

298	0.500	3-6
100	0.625	0.625
299	0.625	4-6

DEVILBISS

168	0.500	0.500
10676T	0.625	0.625
508	0.625	QM-4507
10752T	0.750	0.750
358	0.750	QM-4509
112	0.750	QMW-4509

DIACLEAR

142	0.500	35100W35101
-----	-------	-------------

DIXIE PUMP

200	0.625	0.625
201	0.750	0.750

DOERR

359	0.625	0.625
924	0.625	0.625

DOMESTIC AMES VACUUM PUMP

358	0.750	50-VCD4
		AM903

**DOMESTIC PUMP
ITT**

516	0.625	0.625
200	0.625	712-02250-00
924	0.625	712-02251-00
201	0.750	0.750
877	0.750	717-02253-00
703	0.875	717-02255-00

SEAL SHAFT OEM P/N

360	1.000	1.000
110104	1.000	717-02257-00
356	1.125	717-02259-00
177	1.375	717-02261-00

DOUGHBOY

80304	0.375	306-1003W306-1004
260	0.625	306-1001
1000	0.625	306-1002W306-1005
60678	0.625	306-1006W306-1007
606104	0.625	R32546WR86560

DOUGLAS MOTOR CORP

201	0.750	47406
186	1.375	46154

**DOWDELL CO, JR
DOWCO PUMP**

260	0.625	D1101S-5/8
440	0.750	D1101S-3/4

**DRESSER IND (ROOTS BLOWER)
(IDP) INGERSOLL DRESSER PUMP**

200	0.625	0.625
		125-101 113-100
10836V	0.875	106282 (Old)
		810-628-002 (New)
11212V	1.250	10859-1 (Old)
		810-859-001 (New)
618	1.250	H125-775
11332V	1.375	125-188-2
436V	1.750	125-693-1

DUNHAM, BUSH

106	0.500	996 (New)
		996 (Old)
118	0.625	0.625
487	0.625	0.625
633	0.625	472
508	0.625	614
107125	0.750	124820 (New)
60740	0.750	124820 (Old)
236	1.000	1.000
236-21	1.000	860
159N	1.000	GA-1781-1
252	1.000	GA-1781-4
355	1.125	861
384-21	1.125	861
756	1.250	3179

PUMP MANUFACTURERS
CROSS REFERENCE GUIDE

SEAL SHAFT OEM P/N

DUNHAM, CA

508 0.625 614

**DURIRON
FLOWERVE**

584 1.125 1.125
282 1.125 1.125
886 1.125 1.125
918 1.125 1.125
523 1.875 1.875
586 1.875 1.875
742 1.875 1.875
743 1.875 1.875

DURO (See TruPar)**EAST SIDE MFG**

100 0.625 0.625
200 0.625 0.625
359 0.625 0.625
508 0.625 0.625
1000 0.625 BTH
411 0.625 LH-30 Serial #48
358 0.750 0.750
201 0.750 LHK-50 Serial #QJ40
358 0.750 MF-1
360 1.000 D-28175

**ECONO
VIKING INSTRUMENT**

170 0.375 0.375

ECONOMY PUMP

100 0.625 0.625
360 1.000 1.000

EDWARDS ENGINEERING

511 0.375 0.375
174 0.437 C-316

ELECTROMOTIVE

106 0.500 822832
602 0.875 5876888

SEAL SHAFT OEM P/N

ELKINGTON DISHWASHER

3440 1.000 1.000

ENPAC CHILLER

200 0.625 A.E. Series

ENPO PUMP

447 0.625 0.625
965 0.625 0.625
201 0.750 0.750
197 0.875 M-3046
703 0.875 M-3824B
360 1.000 1.000
357 1.000 M-4292C
235 1.000 M-4292V
521 1.125 1.125
356 1.125 M-4274C
466 1.250 M-3957C
467 1.375 M-3983C
291 1.375 M-3983F
758 1.500 1.500
449 1.750 001-03044
213 1.750 M-2653
237 1.750 M-3842C
1040 2.000 2.000
462 2.000 M4414C

ESSICK MFG CO

358 0.750 9014009
175 0.750 9014225
141N 1.000 91401
185 1.250 9014025
176 1.250 9014029
177 1.375 9014027
495 1.375 9014149

ESSICK WATER PUMP

175 0.750 2A10S/N54649

EVAPCO

200 0.625 51
758 1.500 10-11P
KRE2561

SEAL SHAFT OEM P/N

EVERITE

150 0.500 1205
221 0.500 3327
501 0.625 0.625
200 0.625 2544
359 0.625 2584

**FAIR BANKS MORSE (F-M)
PENTAIR**

511 0.375 8227760
82716
504 0.500 82492
506 0.500 91352
500N 0.562 40092269
500N 0.562 82467
500N 0.562 91339
359 0.625 0.625
507 0.625 8248060
508 0.625 8248075
200 0.625 8248075
501 0.625 8263560
102 0.625 82698
501 0.625 8270275
200 0.625 82723
507 0.625 8276460
501 0.625 S625
201 0.750 40071108
358 0.750 40088878
116 0.750 8245960
502 0.750 82468
509 0.750 8273860
201 0.750 82738B
509 0.750 851
188 0.875 HYD1Q1
987 1.000 1726B1
235 1.000 1726C
235 1.000 CND1726D
987 1.000 ND1726A
356 1.125 HYD1AC
204 1.125 HYD1Q2
1103 1.125 HYD1S2
883 1.250 HYD1AD2
466 1.250 HYD1E3
381 1.250 Westco 2G
354 1.375 HYD1Q3
1104 1.375 HYD1S3
515 1.500 HYD1A2
395 1.500 HYD1AA1
305 1.500 ND2502A1
595 1.625 HYD1BG1

SEAL SHAFT OEM P/N

FAIR BANKS MORSE cont.

514	1.625	ND1246A4
858	1.750	1.750
858	1.750	HYD1A4
237	1.750	HYD1AC3
449	1.750	HYD1AD1
523	1.875	HD1E4
554	1.875	HYD1AAY
513	1.875	HYD1Q4
523	1.875	HYD1Q4
1105	1.875	HYD1S4
888	2.000	HYD1AA5
1610	2.000	HYD-1AD8
338	2.125	HYD1AC4
887	2.125	HYD1AD3
353	2.125	HYD1E4
327	2.125	HYD1Q5
1107	2.125	HYD1S
1102	2.125	HYD1S5
279	2.500	HYD1AA6
328	2.625	HYD1Q6
1106	2.625	HYD1S6
329	2.875	HYD1Q7
897	3.000	HYD1AA7
893	3.000	HYD1S7
23281	3.250	HYD1CE4

FEDERAL PUMP

198	0.625	0.625
293	0.625	PRESS FIT STATOR
245	1.000	1.000
248	1.000	1.000
235	1.000	1.000
381	1.250	1.250
249	1.250	1.250
547	1.375	1.375
247	1.500	1.500
682	1.500	1.500
758	1.500	1.500
237	1.750	1.750
205	1.750	1.750

FLINT & WALLING

165	0.500	132891
		132892
800	0.625	131100
		132377
		AC-16

SEAL SHAFT OEM P/N

201	0.750	126544
		126545
303	0.875	121224
357	1.000	129868
204	1.125	125056

FLOTEC

1002V	0.500	V20-4
359V	0.625	V20-5

FOLLETT

41019	1.000	202299
-------	-------	--------

FOOTE BROTHERS

756	1.250	1.250
186	1.375	1.375
371	1.500	1.500
462	2.000	2.000

FORCE INDUSTRIES

100V	0.625	FV1-302
------	-------	---------

FRANKLIN ELECTRC

447	0.625	292456101
-----	-------	-----------

FREDRICK PUMP & ENGINE

952	0.625	0.625
61004	1.000	1.000
61004	1.250	1.250

FRICK

12237N	2.250	1RR-131
337N	2.750	2.750

FULTZ ENTERPRISES

103102V	0.312	0.312
---------	-------	-------

G&W ELECTRIC

235	1.000	A1340685000
235V	1.000	A1340759000

SEAL SHAFT OEM P/N

GALION

157	0.750	0.750
398	1.000	1.000

GARDNER DENVER

441	0.750	60BN-1
236	1.000	60AY-16
236	1.000	60AY-18
		60AY-2
370	1.000	60BT-1
384	1.125	60AY-11
		60AY-13
355	1.125	60BC-10
756	1.250	60BC-3
354	1.375	60AY-14
186	1.375	60BC-14
11408V	1.437	60DD52
374	1.500	60AY-21
371	1.500	60BC-1
758	1.500	60BC-1
371	1.500	60BC-11
758	1.500	60BC-11
371	1.500	60BC-18
758	1.500	60BC-18
371	1.500	60BC-6
758	1.500	60BC-6
371	1.500	60BC-7
758	1.500	60BC-7
239	1.625	60BC-2
		60BC-5
513	1.875	60AY-20
593	1.875	60BC-12
		60BC-9
351	2.250	60AY-15
463	2.500	60BC-8
12710V	2.750	60DD54

GARWOOD INDUSTRIES

303	0.875	206556
227	1.000	1.000
110615	1.062	2039064
172	1.375	2039056
186	1.750	2016264

GEAR MASTER

10539	0.500	034-03970A000
-------	-------	---------------



PUMP MANUFACTURERS CROSS REFERENCE GUIDE

SEAL SHAFT OEM P/N

**ACE ENGINEERING
(ACE)**

633	0.625	0.625
104	0.625	1443
362	0.750	0.750

ACE PUMP

102	0.625	2C
100V	0.625	30210F
100	0.625	ACH-100
		ACH-25
		ACH-33
		ACH-50
		ACH-75
		ACL-75
		ACO-100
		ACO-25
		ACO-33
		ACO-50
		ACO-75
202SS	0.625	BAC-7B
202V	0.625	BAC-7V T-40150
100	0.625	BCH-25
		BCH-33
		BCH-50
		BCH-75
362	0.750	3C
201	0.750	ACH-150
		ACH-200
		ACH-300
		ACH-500
		ACXH-150
		BCH-100
		BCH-200
		BCH-300
360	1.000	1.000

ADVANCE PUMP CO

198	0.625	0.625
200	0.625	6C Series
199	0.750	0.750
201	0.750	6C Series
466	1.250	6J Series
237	1.750	6J Series

**ADVANTAGE ENGINEERING CORP
AEI**

200	0.625	NC-10WJ-425RX-FBS
10693	0.625	TM420

SEAL SHAFT OEM P/N

AEROMOTER

487	0.625	0.625
100	0.625	0.625
274	0.625	0.625
200	0.625	17038
		SJ-45
275	0.750	0.750
201	0.750	17039
		SJ-46

AG-RAIN

10304	0.375	465-4868
118	0.625	465-3435

AGRO-CHEM

235	1.000	BM-7274
235V	1.000	BM-7274X
360V	1.000	GL-7V
756V	1.250	101-000-124
466	1.250	BM-7275
466V	1.250	BM-7275X

AIR INJECTOR

200	0.625	0.625
-----	-------	-------

ALCO

332N	2.000	2250033-2
------	-------	-----------

ALL POWER MACHINE

163	0.500	0.500
-----	-------	-------

ALLEN SHERMAN HOFF

11506N	1.500	600-28-267
11711	1.750	6000-28-284

**ALLIS CHALMERS (AC)
ITT**

150	0.500	45059207
118	0.625	0618834
359	0.625	52-104-945-00-804
200	0.625	52-104-969-00-803
		52-104-969-00-813
		52-104-969-00-823
642	0.625	52-105-071-01-801

SEAL SHAFT OEM P/N

358	0.750	0618321
647	0.750	4386862
358	0.750	607986
703	0.875	4369006
235	1.000	4367128
227	1.000	52-102-530-00-802
791	1.000	52-104-870-00-809
360	1.000	52-104-969-00-806
		52-104-969-00-816
277	1.000	52-105-275-01-858
276	1.000	52-105-275-05-808
754	1.000	52-110-870-01-809
357	1.000	52-113-094-00-802
204	1.125	08-216-526-02-001
356	1.125	4314565
356	1.125	52-104-945-00-806
355	1.125	52-104-945-06-803
		52-104-946-00-803
348	1.125	71725
756	1.250	1.250
466	1.250	181815
361	1.250	2-52-024-867-001-8
		52-104-609-03-817
		52-104-870-00-807
		52-105-382-00-807
		52-105-609-03-813
137	1.250	52-106-609-03-81
		52-106-609-03-817
185	1.250	52-113-592-01-801
361	1.250	52-114-605-805
		52-114-605-807
		52-114-890-807
11280	1.250	52-118-510-801
354	1.375	52-104-870-806
		52-111-322-801
186	1.375	52-114-713-1-801
177	1.375	52-115-605-801
11315	1.375	52-117-037-801
354	1.375	54-104-870
316	1.500	08-303-611-07-001
320	1.500	177994-178243
371	1.500	52-101-8748-082
758	1.500	52-104-945-06-801
371	1.500	52-104-946-00-801
758	1.500	52-112-870-2-801
609	1.625	08-303-611-07-001
		08-306-539-015-03
281	1.625	1.625
238	1.625	52-110-870-811
		52-114-043-805
11623	1.625	52-118-570-802
205	1.750	08-212-616-001

PUMP MANUFACTURERS
CROSS REFERENCE GUIDE

SEAL	SHAFT	OEM P/N
205	1.750	52-104-870-802
366	1.750	52-104-870-802
11709	1.750	52-110-870-802
366	1.750	52-110-871-802
147	1.750	52-111-322-802
205	1.750	52-114-890-802
		52-114-901-801
		52-115-315-802
237	1.750	52-115-605-802
11709	1.750	52-117-037-802
513	1.875	08-301-766-02-065
11813	1.875	1.875
523	1.875	1.875
318	1.875	52-109-606
		52-110-280-03-801
593	1.875	52-114-713-805
319	2.000	08-212-617-001
477	2.000	2.000
478	2.000	52-110-871-803
12055	2.000	52-118-510-803
12056N	2.000	618834
323	2.250	08-216-036-001
351	2.250	52-104-870-804
349	2.500	2.500
279	2.500	2.500
319	2.500	52-104-870-805
12508	2.500	52-104-870-805
838	2.750	08-210-902-045
321	2.750	08-216-035-001
322	2.750	52-109-719-05-802
324	3.000	08-210-902-04-037
284	3.000	3.000

AMERICAN ARTOS

371V	1.500	1.500
------	-------	-------

AMERICAN DISH SERVICE

162	0.500	0.500
359V	0.625	104-C

AMERICAN MACHINE & TOOL

200	0.625	0.625
642	0.625	0.625
1000	0.625	397012
201	0.750	395005
201V	0.750	MS75V
356	1.125	287-15 B

SEAL	SHAFT	OEM P/N
AMPCO METAL		
235	1.000	511-001
185	1.250	511-002
238	1.625	511-003

AMPRO POOL

163	0.500	504
60678	0.625	0.625
1000	0.625	304

**AMTROL
(See Thrush)****APPLICATION ENGINEERING
AEC**

200	0.625	0101582
10693V	0.625	0103055
10693	0.625	1007-HOSA
359V	0.625	101-103
758	1.500	0100581
553V	1.500	0103056
237	1.750	0104591

AQUA FLO

200	0.625	0.625
1000	0.625	0.625

AQUA MASTER

851V	0.750	261950
601	0.750	299122

ARBEE CORP

235	1.000	1.000
351	2.250	2.250

ARMSTRONG

392	0.500	816706-001
358	0.750	16707-1
112	0.750	Niresist Seat
977	1.250	1.250
976	1.250	1.250
		825458-001
439	1.250	Niresist Seat
514	1.625	Ceramic Seat
239	1.625	Niresist Seat

SEAL	SHAFT	OEM P/N
ARNESON POOL SWEEP		
60643	0.625	A08H
299	0.625	A08H
200	0.625	A8

**ASM
(See Pacer)****ATLANTIC FLUIDICS**

1000	0.625	0.625
601	0.750	0.750
185	1.250	1.250
177	1.375	1.375

ATLAS

642	0.625	X-8
358	0.750	0.750

ATLAS PUMP

877	0.750	0.750
10780V	0.750	316SS & VITON
356	1.125	1.125
11177V	1.125	316SS & VITON
237	1.750	1.750
237V	1.750	1.750

**AURORA
PENTAIR**

10318	0.375	712-0901-749
10304	0.375	712-0901-753
10318	0.375	712-0931-749
10304	0.375	712-0931-753
10318	0.375	712-1001-749
10304	0.375	712-1001-753
10589	0.500	712-0702-749
10506	0.500	712-0702-753
		712-0702-754
10589	0.500	712-0702-755
10555	0.500	712-0902-749
168	0.500	712-0902-753
10555	0.500	712-0932-749
168	0.500	712-0932-753
10555	0.500	712-1002-749
168	0.500	712-1002-753
129	0.590	712-0703-753
129	0.590	712-0703-754
106174	0.625	712-0704-749

SEAL SHAFT OEM P/N

AURORA cont.

508	0.625	712-0704-753
		712-0704-754
106174	0.625	712-0704-755
1156	0.625	712-0903-749
359	0.625	712-0903-753
1156	0.625	712-0933-749
359	0.625	712-0933-753
1156	0.625	712-1003-749
132	0.625	712-1003-750
359	0.625	712-1003-753
100	0.625	712-7042-750
362	0.750	2JT3-LK53
112	0.750	712-0705-755
10767	0.750	712-0904-749
358	0.750	712-0904-753
10767	0.750	712-0934-749
358	0.750	712-0934-753
112	0.750	712-1004-749
10767	0.750	712-1004-749
358	0.750	712-1004-753
135	0.787	712-0707-753
135	0.787	712-0707-754
614	0.787	712-0707-755
10889	0.875	712-0708-749
10873	0.875	712-0708-753
10873	0.875	712-0708-754
10889	0.875	712-0708-755
303	0.875	712-0905-749
703	0.875	712-0905-753
303	0.875	712-0935-749
703	0.875	712-0935-753
303	0.875	712-1005-749
703	0.875	712-1005-753
248	1.000	712-0709-749
245	1.000	712-0709-753
		712-0709-754
357	1.000	712-0709-755
248	1.000	712-0709-755
		712-0711-749
245	1.000	712-0711-753
		712-0711-754
248	1.000	712-0711-755
357	1.000	712-0906-749
235	1.000	712-0906-753
357	1.000	712-0936-749
235	1.000	712-0936-753
357	1.000	712-1006-749
235	1.000	712-1006-753
11194	1.125	712-0712-749
11112	1.125	712-0712-753

SEAL SHAFT OEM P/N

11112	1.125	712-0712-754
11194	1.125	712-0712-755
355	1.125	712-0907-749
356	1.125	712-0907-753
355	1.125	712-0937-749
356	1.125	712-0937-753
355	1.125	712-1007-749
356	1.125	712-1007-753
345	1.187	712-0305-753
		712-0305-754
306	1.187	712-0713-753
		712-0713-754
137	1.250	712-0306-755
249	1.250	712-0715-749
381	1.250	712-0715-753
		712-0715-754
249	1.250	712-0715-755
756	1.250	712-0908-749
185	1.250	712-0908-753
756	1.250	712-0938-749
185	1.250	712-0938-753
756	1.250	712-1008-749
185	1.250	712-1008-753
186	1.375	712-0909-749
177	1.375	712-0909-753
186	1.375	712-0939-749
177	1.375	712-0939-753
186	1.375	712-1009-749
177	1.375	712-1009-753
371	1.500	712-0910-749
758	1.500	712-0910-753
758V	1.500	712-0910-764
371	1.500	712-0940-749
758	1.500	712-0940-753
371	1.500	712-1010-749
758	1.500	712-1010-753
664	1.562	712-0310-753
664	1.562	712-0719-753
664	1.562	712-0719-754
239	1.625	712-0911-749
238	1.625	712-0911-753
239	1.625	712-0941-749
238	1.625	712-0941-753
239	1.625	712-1011-749
238	1.625	712-1011-753
288	1.750	712-0912-749
237	1.750	712-0912-753
288	1.750	712-0942-749
237	1.750	712-0942-753
288	1.750	712-1012-749
237	1.750	712-1012-753
593	1.875	712-0913-749

SEAL SHAFT OEM P/N

340	1.875	712-0913-753
593	1.875	712-0943-749
340	1.875	712-0943-753
593	1.875	712-1013-749
340	1.875	712-1013-753
462	2.000	712-0914-749
267	2.000	712-0914-753
462	2.000	712-0944-749
267	2.000	712-0944-753
462	2.000	712-1014-749
267	2.000	712-1014-753
332	2.000	712-1044-749
477	2.000	OJ617
336	2.125	712-0915-749
338	2.125	712-0915-753
336	2.125	712-0945-749
338	2.125	712-0945-753
336	2.125	712-1015-749
338	2.125	712-1015-753
941	2.250	712-0916-749
846	2.250	712-0916-753
941	2.250	712-0946-749
846	2.250	712-0946-753
941	2.250	712-1016-749
846	2.250	712-1016-753
492	2.375	712-0917-749
268	2.375	712-0917-753
		712-0947-753
492	2.375	712-0947-753
492	2.375	712-1017-749
268	2.375	712-1017-753
463	2.500	712-0918-749
269	2.500	712-0918-753
463	2.500	712-0948-749
269	2.500	712-0948-753
463	2.500	712-1018-749
269	2.500	712-1018-753
12610	2.625	712-0919-749
		712-0949-749
		712-1019-749
483	2.750	712-0920-749
836	2.750	712-0920-753
483	2.750	712-0950-749
836	2.750	712-0950-753
483	2.750	712-1020-749
836	2.750	712-1020-753
839	2.875	712-0921-749
270	2.875	712-0921-753
839	2.875	712-0951-749
270	2.875	712-0951-753
839	2.875	712-1021-749
270	2.875	712-1021-753

PUMP MANUFACTURERS
CROSS REFERENCE GUIDE

SEAL	SHAFT	OEM P/N
465	3.000	712-0922-749
761	3.000	712-0922-753
465	3.000	712-0952-749
761	3.000	712-0952-753
465	3.000	712-1022-749
761	3.000	712-1022-753

BABSON BROS

107120	0.750	81575 & 81576
--------	-------	---------------

BAKER

100	0.625	M1-29-3
-----	-------	---------

BALDWIN-LIMA-HAMILTON

371	1.500	600-28-079 600-28-267
288	1.750	600-28-069 600-28-284

BANBURY MIXER

758	1.500	BB270
-----	-------	-------

BANJO

601	0.750	0.750
601V	0.750	0.750
245V	1.000	17028-VITON

**BARNES MFG
(See Peabody Barnes)****BARNES, JOHN S**

930	0.500	PA-4947
933	0.625	PA-2408
222	0.625	Y-1003
208	0.875	PA-2421
398	1.000	PA-1525
348	1.125	PA-4386
756	1.250	Y-42
239	1.625	Y-45
223	1.875	PA-3684
332	2.000	Y-44B

BEACH RUSH		
10301	0.375	0.375
930	0.500	0.500
678	0.625	0.625
564	0.750	0.750
145	0.750	0.750
141	1.000	1.000
169	1.250	1.250
185	1.250	1.250

BEATTY BROTHERS

60686	0.625	46761
-------	-------	-------

BECKETT CO

10506	0.500	ZT058
-------	-------	-------

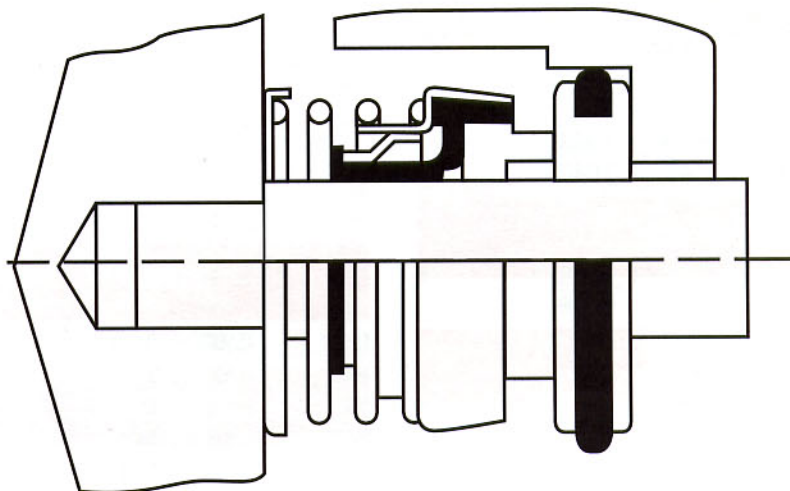
BERG

200	0.625	Small Chiller Unit
758	1.500	Chiller Units up to 15 HP
237	1.750	Chiller Units 15 HP & Larger

BERKELEY

202SS	0.625	S-16488
-------	-------	---------

516	0.625	S-20788
202SS	0.625	S-20789
200	0.625	S-20790
516	0.625	S-20994
202SS	0.625	S-5053 S-5645
200	0.625	S-8019
851V	0.750	S-18662
362	0.750	S-20780
201	0.750	S-20791
851	0.750	S-20791
201	0.750	S-20792
921	0.750	S-20793
851	0.750	S-20794
201	0.750	S-21961
851	0.750	S-21961
201	0.750	S-5646
358	0.750	S-5647
902	0.750	S-6405
754	1.000	S-14867 S-20763
236	1.000	S-20763 S-20764
357	1.000	S-20781 S-20782
360	1.000	S-8742 S-9583
356	1.125	S-16812
866	1.125	S-20766
355	1.125	S-20783
384	1.125	S-20995



Type 21

SEAL SHAFT OEM P/N

BERKELEY cont.

204	1.125	S-7216
137	1.250	S-15368
137	1.250	S-20769
361	1.250	S-20770
381	1.250	S-20784
		S-20785
756	1.250	S-20786
361	1.250	S-5648
		S-5649
374	1.500	S-15385
258V	1.500	S-15538
258	1.500	S-20773
		S-20775
305	1.500	S-5650
818	1.625	S-16656
366	1.750	1.750
288	1.750	S-16768
205	1.750	S-20777
		S-7277
523	1.875	S-15213
		S-20778
593	1.875	S-20787
		S-20993
340	1.875	S-22310
479	2.000	S-13481
537	2.125	S-15894
		S-15950
353	2.125	S-16076
323	2.250	S-11802
269	2.500	S-18337

BLACKMER

144	0.875	333005
		333015
303	0.875	333030
11432	1.437	331825

BLAKESLEE

235V	1.000	32-036
------	-------	--------

**BORG-WARNER
FLOWSERVE**

200	0.625	05-11395-6
-----	-------	------------

BOWSER

564	0.750	27A09
466	1.250	28A09

SEAL SHAFT OEM P/N

BRADEN WINCH

201	0.750	0.750
-----	-------	-------

BRIDGEPORT MACHINE

360V	1.000	1-63-5206
------	-------	-----------

BROWN & SHARPE

358	0.750	466-142-1
235	1.000	466-137-1
185	1.250	213-744-274
186	1.375	466-143-1
237	1.750	213-752-274

BUCYRUS-ERIE

200	0.625	BE640/8053
-----	-------	------------

BUFFALO PUMP

132	0.625	CC-10900
		Models BP/L/M/O
820N	0.750	180384
235	1.000	CC-10901
		Models BP/L/M/O
384	1.125	421788
137	1.250	1.250
354	1.375	1.375
677	1.375	1.375
374	1.500	1.500
744	1.625	4S
		5SL
593	1.875	256145
350	2.375	6S
		6SU
		Model D2
349	2.500	8SL

BURKS

1002V	0.500	0.500
168	0.500	21727
290	0.625	8514
290V	0.625	9696
768V	0.750	20499
358	0.750	8991
358V	0.750	9813
287	0.875	8797
703	0.875	8797

SEAL SHAFT OEM P/N

703V	0.875	9837
356	1.125	9346
356V	1.125	9843
381	1.250	9917

BURWITH PUMP

674	1.750	1.750
-----	-------	-------

**BYRON JACKSON
FLOWSERVE**

200	0.625	0.625
512	0.750	0.750
775	0.875	D-30903
428	0.875	D-30904
987	1.000	1.000
548	1.000	D-30433
110125	1.000	D-30434
467	1.375	1.375
758	1.500	1.500

CAMPBELL, SUPERIOR

202V	0.625	917513
------	-------	--------

CAPITOL TEMPTROL CORP

200	0.625	CAP101A
10693V	0.625	CAP101B
200	0.625	CAP101C
		CAP102A
10693V	0.625	CAP102B
359V	0.625	CPCX-400

CARRIER

236N	1.000	5F20-317
159N	1.000	KT95PZ121
725	1.375	KK-75XA802
868N	1.500	KK-75XA804

CARTER, RALPH B

718	0.375	0.375
200V	0.625	0.625
290	0.625	1S-5023
290	0.625	1S-5035
200	0.625	1S-5054
		2S-5119
		IS-5005A
100	0.625	IS-5010
201	0.750	1S-5039