

Tech Talk April 2012



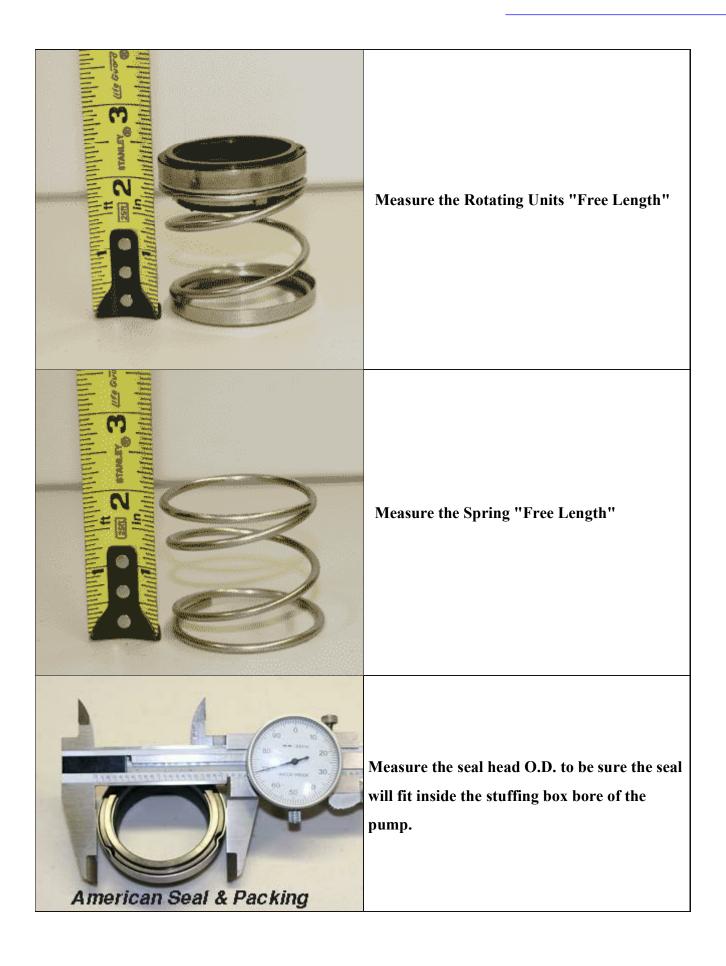
Sizing Single Spring Mechanical Seals for Identification

Finding a replacement seal for your existing single spring seal is not as difficult as you may think. As much as every seal manufacturer will tell you their seal is by far the best, the truth is they are all pretty much the same, design wise. The key is getting one that fits onto your shaft and into your pump. To accomplish that you are going to need to know some critical dimensions:

- 1) Shaft Size (or sleeve size) of your pump
- 2) Seal Head O.D.
- 3) Working Length of Rotating portion of the Seal
- 4) O.D. of the Stationary (or the bore dimension where the stationary press fits into).
- 5) Thickness of the Seat.



Measure the Seal Head I.D. Add approximately .016" to account for the squeeze the bellows must have to seal the shaft.



Determine the "Working length" of the seal.

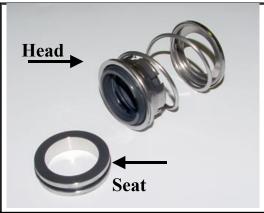
Spring "Free Length" / 2 = Spring compressed length

Rotating Units "Free Length" - Spring compressed length = Rotating Units "Working Length".

Because the seal you are measuring may be used, or from another manufacturer the working length is considered an approximation.



Measure the O.D. of the seat or measure the Bore the seat will press into. If measuring the Outside Dimension of the seat (as pictured) SUBTRACT approximately .016" to account for the rubber squeeze required for the interference fit of the seat.



Once these measurements are known, the next thing is to identify

the **Head Type** and **Seat Type**

Head Types





















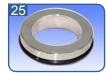


Seat Types





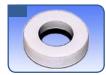


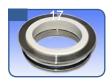








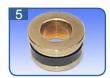












Mechanical Seal Material Codes

Elastomers

B. Buna

E. EPR N. Neoprene

V. Viton®

Washers

A. Bronze

C. Carbon M. Phenolic

S. Tool Steel

X. Silicon Carbide

Z. Tungsten

Metal Parts

D. Brass

E. Monel

F. Stainless Steel

P. Plated Steel

R. 316 Stainless

Seats

A. Bronze

G. Cast Iron

J. Ceramic

R. 316 Stainless Steel

S. Tool Steel

X. Silicon Carbide

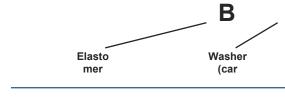
Springs

E. Monel F. Stainless Steel

P. Plated Steel

R. 316 Stainless

Viton® is a registered trade name of



Metal Part (stainless

Seat (316 stainless

Spring (stainless

Elastomer Temperature Limits

225°F Buna

300°F **EPR**

Neoprene

175°F

400°F Viton

Pressure Limitations

Type A & B Seals

75 P.S.I.

Type C, D & E Seals

200 P.S.I.

Holland Industrial, 518 West Montgomery Street, Henderson, NC., 27536 Tel: 1-800-232-7541,Fax 1-252-492-2444, E-Mail: sales @ hollandindustrial.com