

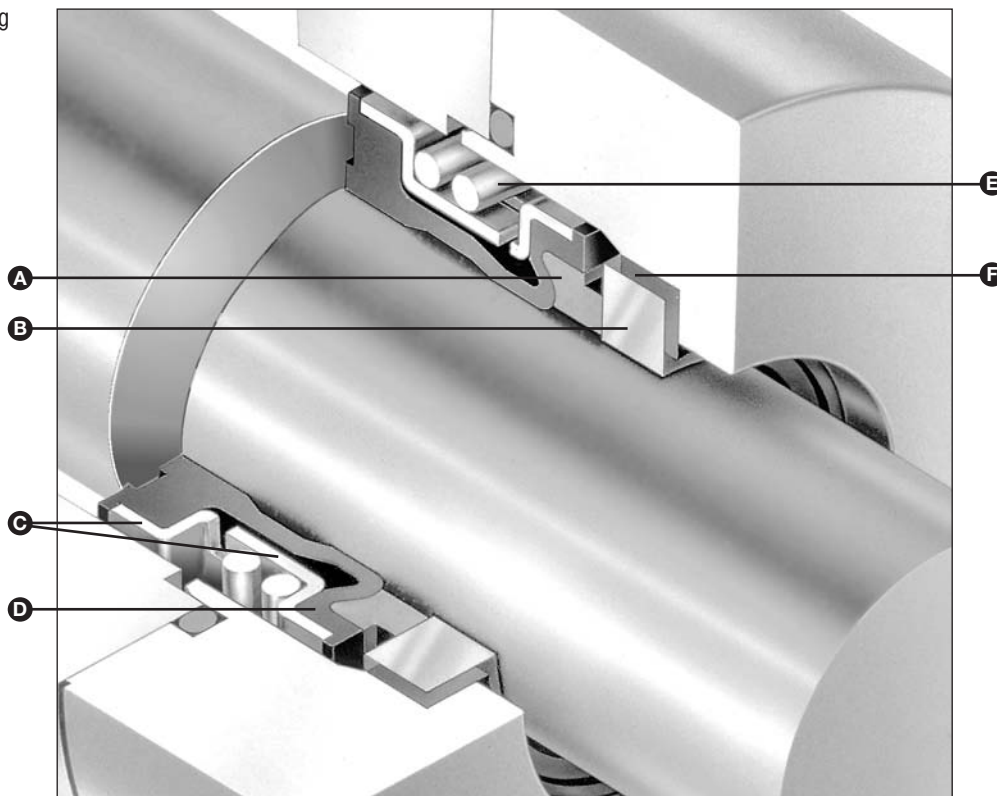


TYPE 2106

Elastomer Bellows Unitized Seal

2106

- A – Face/Primary Ring
- B – Seat/Mating Ring
- C – Drive Band (2)
- D – Bellows
- E – Spring
- F – Seat Cup



Product Description

The Type 2106 is a compact, unitized, single spring, elastomer bellows mechanical seal.

- Type 2106 seals are designed for use in small centrifugal water pumps, deep and shallow well jet pumps, swimming pool pumps and wastewater pumps.

Design Features

- Unitized, easy-to-fit design.
- Flexible Bellows:
Full convolution elastomer bellows provide maximum flexibility in compensating for shaft movement.
Elastomer is pre-loaded to provide positive drive and tight seal along the shaft.
- Interlocking drive bands provide positive drive.
- Interference fit of primary ring ensures positive drive, square seal face alignment and avoids high face distortions associated with crimped designs.
- Balanced design reduces seal face heat generation and torque.

Performance Capabilities

- Temperature:
-30°C to 150°C/-20°F to 300°F
depending on materials used
- Pressure:
Full Vacuum up to 10 bar g/150 psig
- Speed:
Up to 5000 rpm

Industries Served

- Pool and Spa
- Industrial, Commercial and Residential Water Systems
- Heating and Cooling

Material Certifications

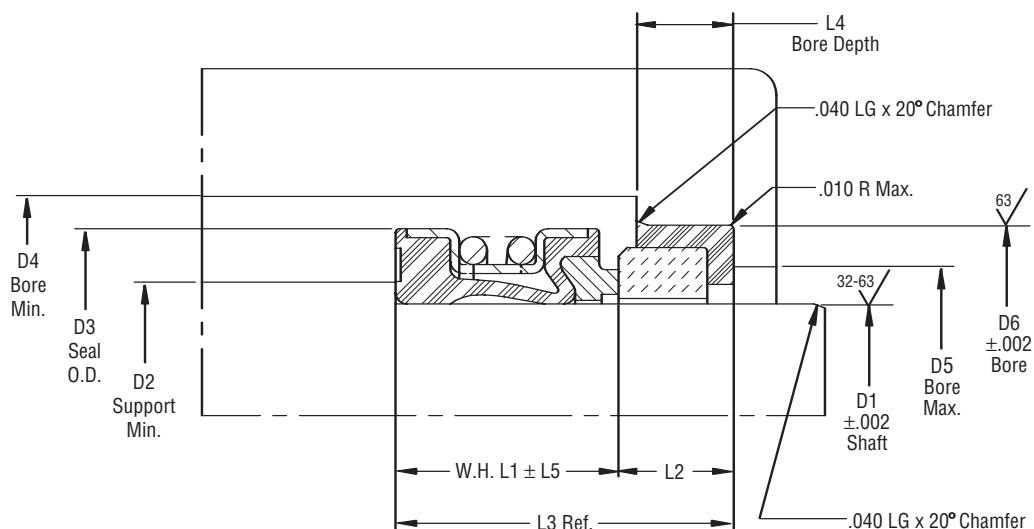
Type 2106 seal components meet Underwriters Laboratories (UL) 1081 requirements and are formally recognized by UL standards. In addition, these components meet the requirements of the National Sanitary Foundation (NSF), The Canadian Standard Association (CSA) (Standard CAN/CSA-22.2 No. 108-M89 Liquid Pumps), and the Food and Drug Administration (FDA).



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Type 2106 Typical Arrangement/Dimensional Data



Type 2106 Dimensional Data with Cup Mounted Mating Ring (inches)

Standard Length	Seal Size						W.H.				
	D1	D2	D3	D4	D5	D6	L1	L2	L3	L4	L5
*	0.437	0.580	0.866	1.181	0.562	1.181	0.769	0.281	1.050	0.281	0.040
	0.500	0.656	0.945	1.125	0.687	1.000	0.591	0.312	0.906	0.281	0.040
*	0.500	0.656	0.945	1.125	0.687	1.000	0.656	0.312	0.968	0.281	0.040
	0.500	0.656	0.945	1.125	0.687	1.000	0.812	0.312	1.125	0.281	0.040
*	0.625	0.765	1.024	1.375	0.812	1.250	0.591	0.406	1.000	0.343	0.040
	0.625	0.765	1.024	1.375	0.812	1.250	0.718	0.406	1.125	0.343	0.040
*	0.625	0.765	1.024	1.375	0.812	1.250	0.875	0.406	1.281	0.343	0.040
	0.750	0.937	1.260	1.500	0.937	1.375	0.718	0.406	1.125	0.343	0.030
*	0.750	0.937	1.260	1.500	0.937	1.375	0.787	0.406	1.193	0.343	0.060
	0.750	0.937	1.260	1.500	0.937	1.375	0.875	0.406	1.281	0.343	0.060

Reference Drawings:

Seal Assembly for Carbon: TAB-1145

Seal Assembly for Silicon Carbide: TAB-1146

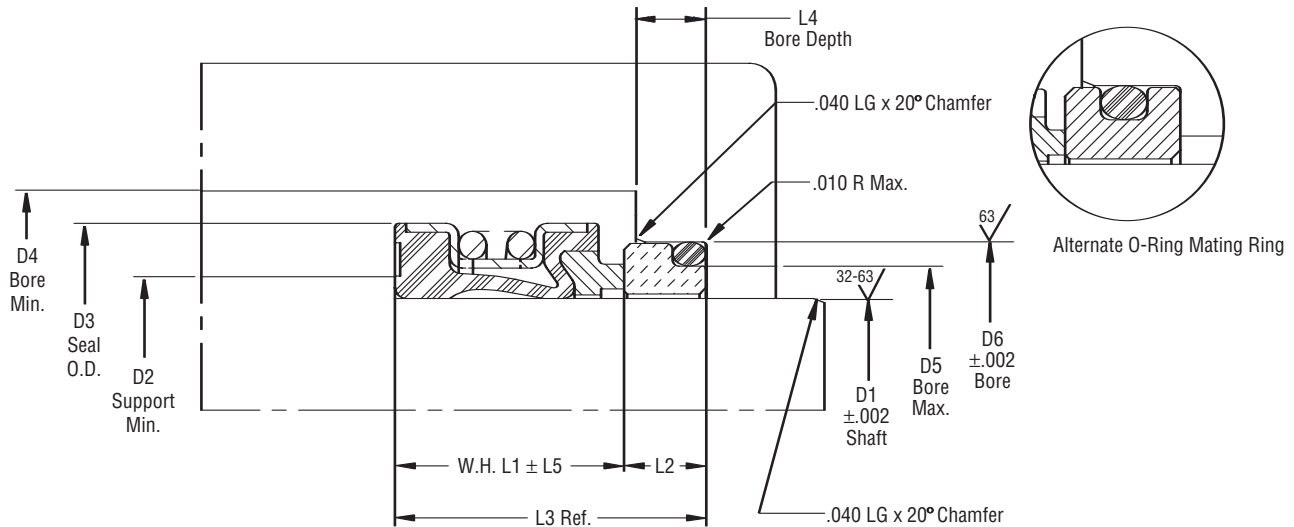
Typical Installation with Cup Mounted Mating Ring: TAB-1147



TYPE 2106

Elastomer Bellows Unitized Seal

Type 2106 Typical Arrangement/Dimensional Data



Type 2106 Dimensional Data with "L" Shape O-Ring Mating Ring (inches)

Standard Length	Seal Size						W.H.				
	D1	D2	D3	D4	D5	D6	L1	L2	L3	L4	L5
	0.437	0.580	0.866	N/A	N/A	N/A	0.769	N/A	N/A	N/A	0.040
*	0.500	0.656	0.945	1.125	0.562	1.000	0.591	0.312	0.906	0.281	0.040
	0.500	0.656	0.945	1.125	0.562	1.000	0.656	0.312	0.968	0.281	0.040
	0.500	0.656	0.945	1.125	0.562	1.000	0.812	0.312	1.125	0.281	0.040
	0.625	0.765	1.024	1.375	0.812	1.250	0.591	0.406	1.000	0.343	0.040
	0.625	0.765	1.024	1.375	0.812	1.187	0.591	0.343	0.937	0.343	0.040
*	0.625	0.765	1.024	1.375	0.812	1.250	0.718	0.406	1.125	0.343	0.040
	0.625	0.765	1.024	1.375	0.812	1.187	0.718	0.343	1.062	0.343	0.040
	0.625	0.765	1.024	1.375	0.812	1.250	0.875	0.406	1.281	0.343	0.040
	0.625	0.765	1.024	1.375	0.812	1.187	0.875	0.343	1.218	0.343	0.040
	0.750	0.937	1.260	1.500	0.937	1.375	0.718	0.338	1.062	0.343	0.030
	0.750	0.937	1.260	1.500	0.937	1.375	0.718	0.406	1.125	0.343	0.030
	0.750	0.937	1.260	1.500	0.937	1.375	0.787	0.338	1.125	0.343	0.060
*	0.750	0.937	1.260	1.500	0.937	1.375	0.787	0.406	1.193	0.343	0.060
	0.750	0.937	1.260	1.500	0.937	1.375	0.875	0.338	1.218	0.343	0.060
	0.750	0.937	1.260	1.500	0.937	1.375	0.875	0.406	1.281	0.343	0.060
	0.875	1.062	1.398	1.625	1.062	1.500	0.937	0.406	1.343	0.343	0.060

Reference Drawings:

Typical Installation with "L" shape O-Ring Mating Ring: TAB-1191

Typical Installation with O-Ring Mating Ring: TAB-1148



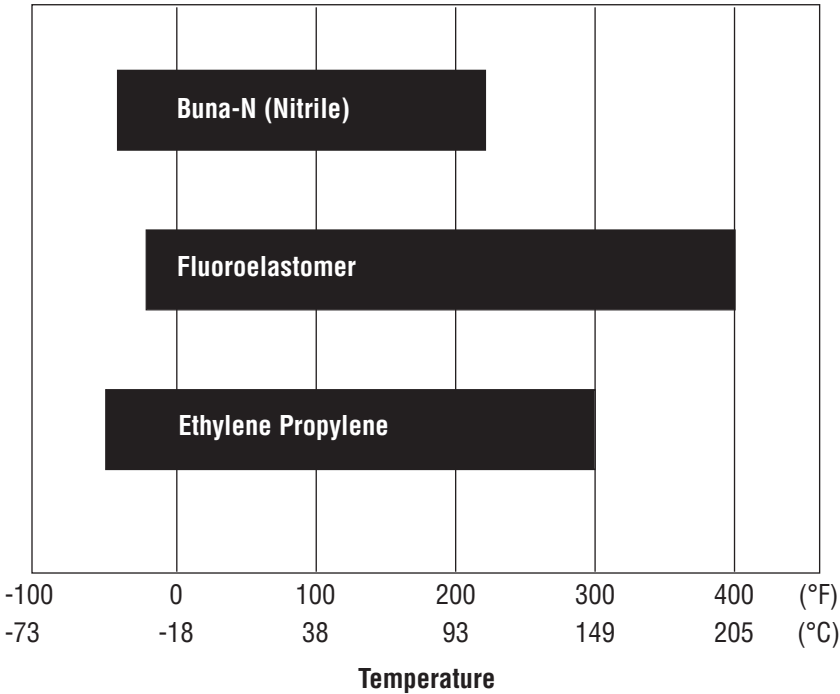
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Elastomer Bellows Unitized Seal

Criteria for Installation

Shaft/Sleeve	Limits
Surface Finish	32 to 63 Ra
Out of Roundness	0.051mm/.002"
Axial End Play	± 0.13mm/.005"

Elastomer Temperature Limits



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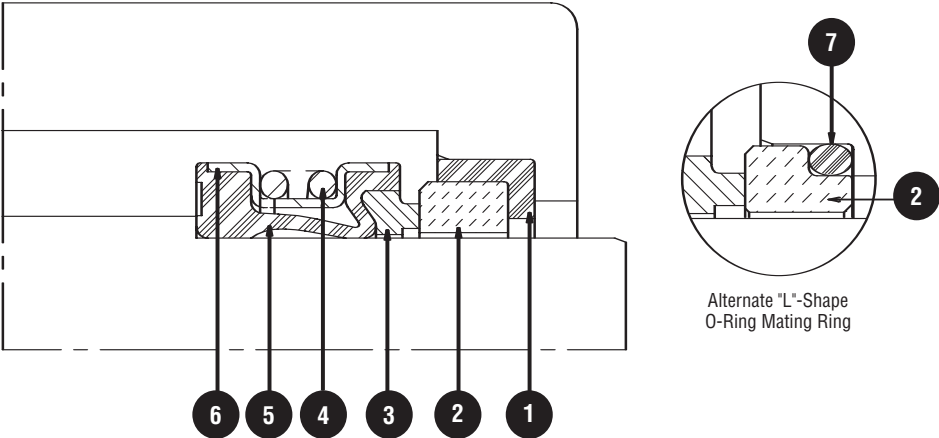
TYPE 2106

Elastomer Bellows Unitized Seal

Materials of Construction

Item #

- 1 – Seat Cup
- 2 – Mating Ring (Seat)
- 3 – Primary Ring
- 4 – Spring
- 5 – Bellows
- 6 – Drive Band (2)
- 7 – O-Ring



SEAL COMPONENTS	MATERIALS (Standard)	OPTIONS
Primary Ring	Carbon	Sealide-C™
Mating Ring	Ceramic	Sealide-C™
Drive Bands	Stainless Steel 304SS	316SS
Secondary Seals (Bellows, Seat Cup, or O-Ring)	Buna-N (Nitrile)	Ethylene Propylene Fluoroelastomer
Spring	Stainless Steel 304SS	316SS

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TYPE 2106

Elastomer Bellows Unitized Seal

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smiths

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