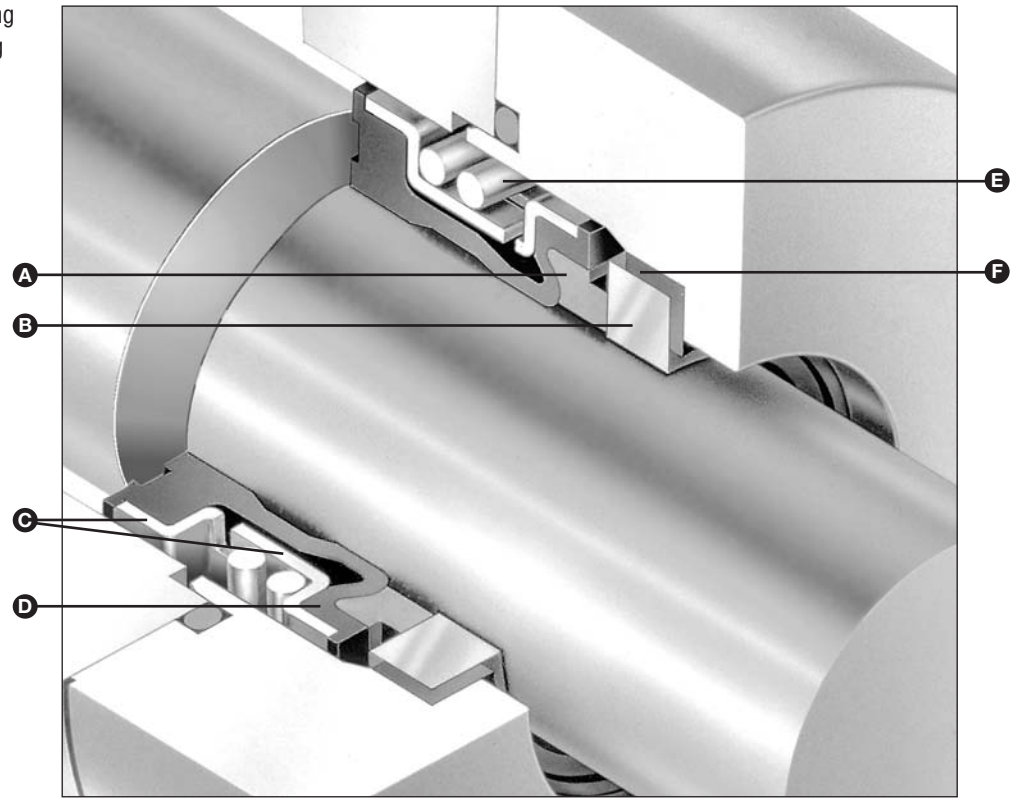
TYPE 2106

Elastomer Bellows Unitized Seal

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.

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

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.

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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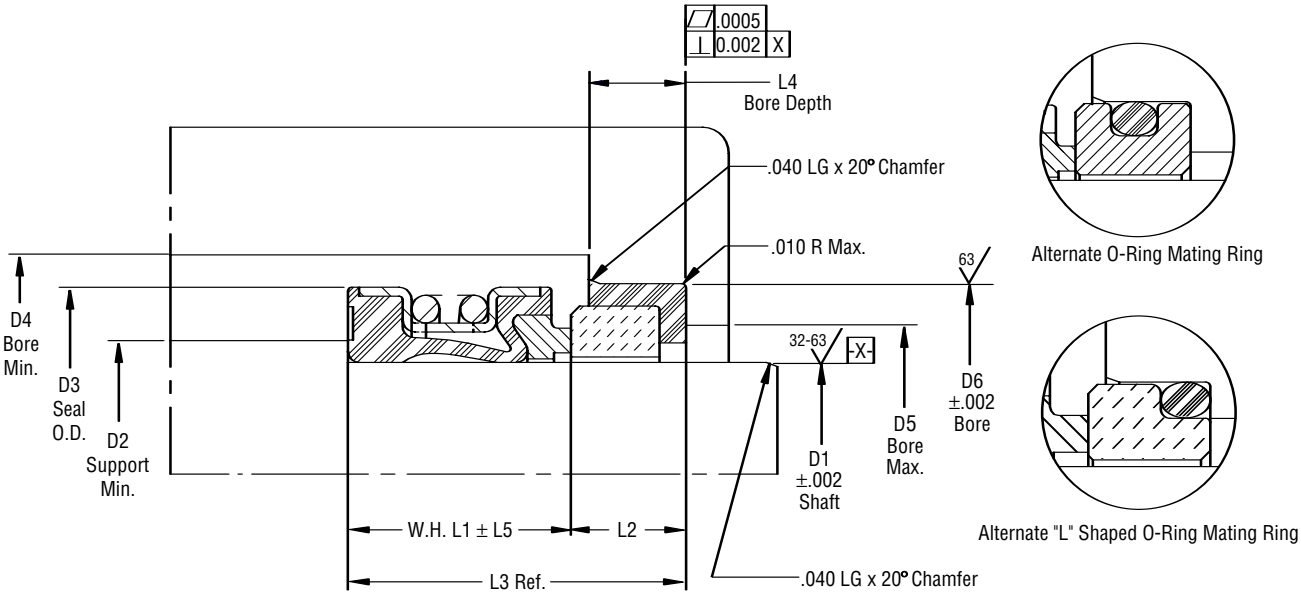
Type 2106 Typical Arrangement/Dimensional Data



Type 2106 Dimensional Data (inch sizes)

	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	0.562	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	$^{-0.030}/_{+0.060}$
	0.750	0.937	1.260	1.500	0.937	1.375	0.718	0.406	1.125	0.343	$^{-0.030}/_{+0.060}$
**	**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	0.787	0.406	1.193	0.343	0.060
	0.875	1.062	1.398	1.625	1.062	1.500	0.812	0.406	1.218	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
*	**1.000**	1.187	1.535	1.687	1.312	1.625	0.787	0.437	1.224	0.375	0.060
	1.000	1.187	1.535	1.687	1.312	1.625	0.812	0.437	1.250	0.375	0.060
	1.000	1.187	1.535	1.687	1.312	1.625	1.000	0.437	1.437	0.375	0.060

*Standard Lengths **Special Mating Ring Lengths

Custom Mating Ring Designs Can Be Accommodated.

Reference Drawings:
Seal Assembly for Carbon: TAB-1145
Seal Assembly for Silicon Carbide: TAB-1146
Typical Installation with Cup Mounted Mating Ring: TAB-1147
Typical Installation with "L" shape O-Ring Mating Ring: TAB-1191
Typical Installation with O-Ring Mating Ring: TAB-1148

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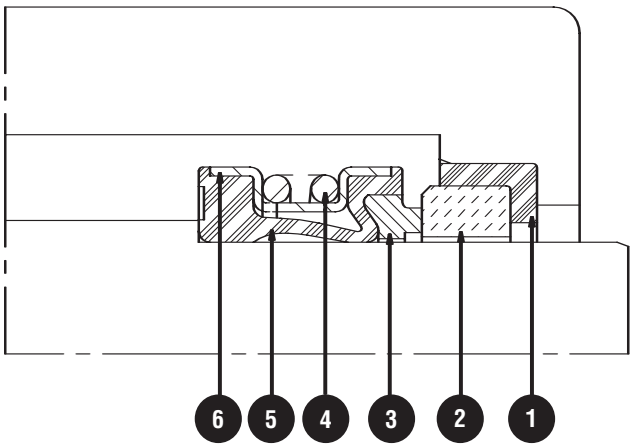
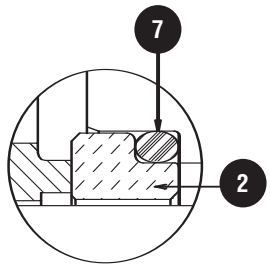
Materials of Construction

Item #

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



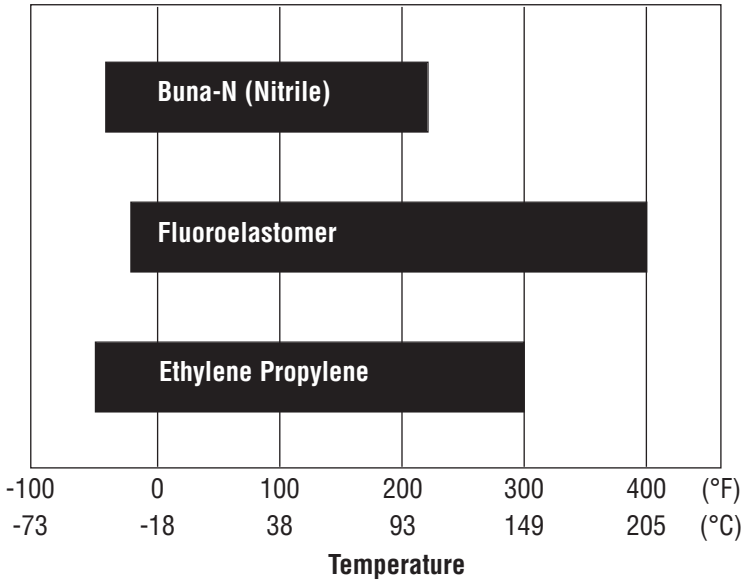


Alternate "L"-Shape
O-Ring Mating Ring

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

Sealide-C is a registered trademark of John Crane Inc.

Elastomer Temperature Limits



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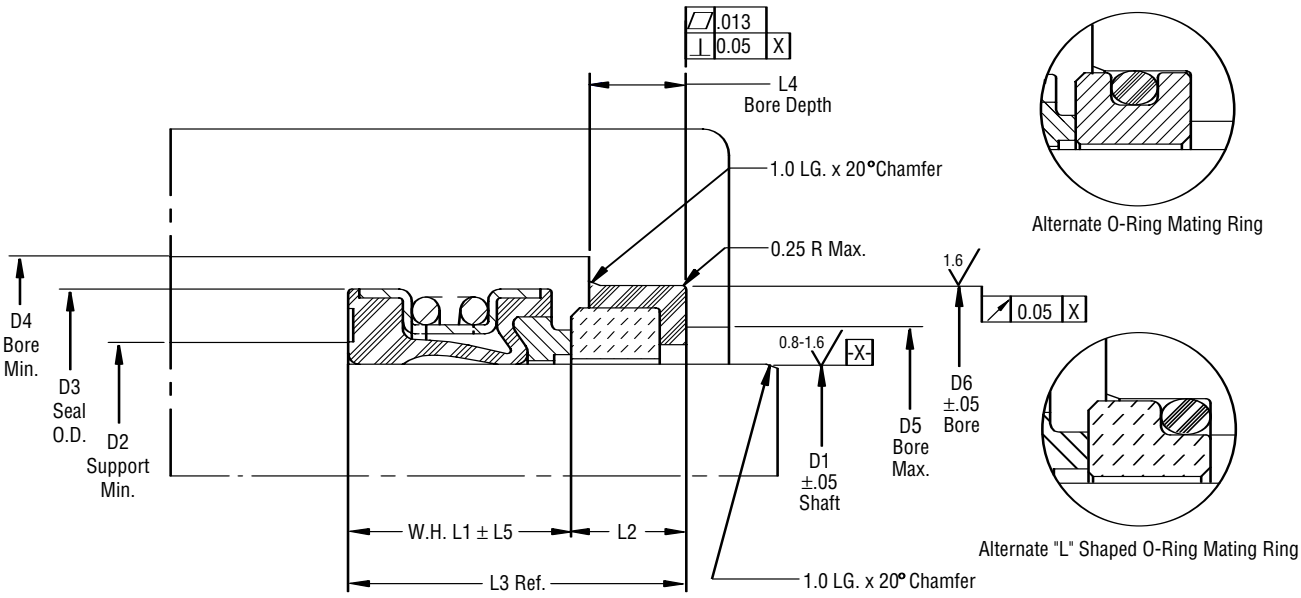
Type 2106 Typical Arrangement/Dimensional Data



Type 2106 Dimensional Data (metric sizes)

Seal Size D1	D2	D3	D4	D5	D6	W.H. L1	L2	L3	L4	L5
10.00	13.60	20.00	22.00	17.00	21.00	15.00	5.0	20.00	5.5	1.0
12.00	16.00	22.00	24.00	19.00	23.00	15.00	6.0	21.00	5.5	1.0
14.00	17.80	24.00	26.00	21.00	25.00	15.00	6.0	21.00	5.5	1.0
15.00	18.50	25.00	27.00	22.00	26.00	15.00	6.0	21.00	5.5	1.0
16.00	19.50	26.00	28.00	23.00	27.00	15.00	6.0	21.00	5.5	1.0
18.00	22.75	32.00	34.00	27.00	33.00	20.00	6.0	21.00	7.0	1.5
20.00	24.75	34.00	36.00	29.00	35.00	20.00	6.0	21.00	7.0	1.5
22.00	26.75	36.00	38.00	31.00	37.00	20.00	6.0	21.00	7.0	1.5
24.00	28.75	38.00	40.00	33.00	39.00	20.00	6.0	21.00	7.0	1.5
25.00	29.75	39.00	41.00	34.00	40.00	20.00	6.0	21.00	7.0	1.5

Custom Mating Ring Designs Can Be Accommodated.

Reference Drawings:
Typical Installation of Metric sizes with Cup Mounted Mating Rings: TAB-1423

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Slough, UK
Tel: 44-1753-224000
Fax: 44-1753-224224

Latin America
São Paulo, Brazil
Tel: 55-11-3371-2500
Fax: 55-11-3371-2599

Middle East, Africa, Asia
Dubai, United Arab Emirates
Tel: 971-4-3438940
Fax: 971-4-3438970

North America
Morton Grove, Illinois USA
1-800-SEALING
Tel: 1-847-967-2400
Fax: 1-847-967-3915

For your nearest John Crane facility, please contact one of the locations above.