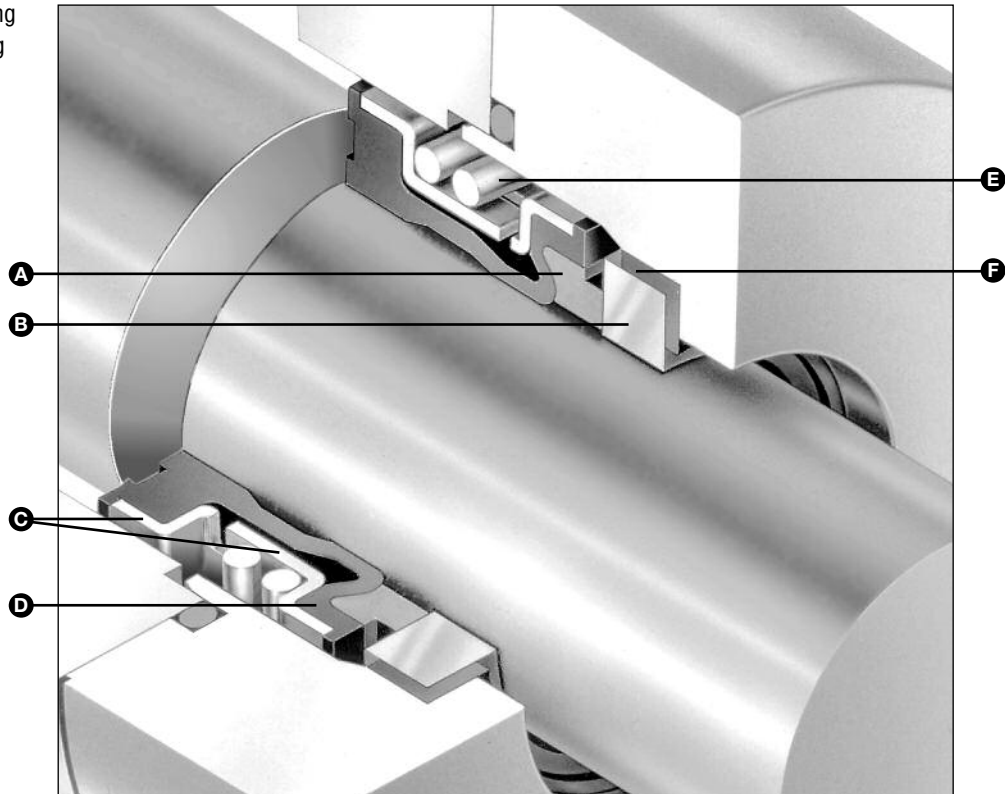


- A – Face/Primary Ring
- B – Seat/Mating Ring
- C – Drive Band (2)
- D – Bellows
- E – Spring
- F – Seat Cup



### Product Description

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

- Designed for use in small centrifugal water pumps, deep and shallow well jet pumps, swimming pool pumps and wastewater pumps

### Performance Capabilities

- Temperature: -20°F to 300°F/-30°C to 150°C (depending on materials used)
- Pressure: full vacuum up to 150 psi g/10 bar g
- Speed: up to 5000 rpm

### Design Features

- Unitized, easy-to-fit design
- Full convolution elastomer bellows provide maximum flexibility in compensating for shaft movement
- 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

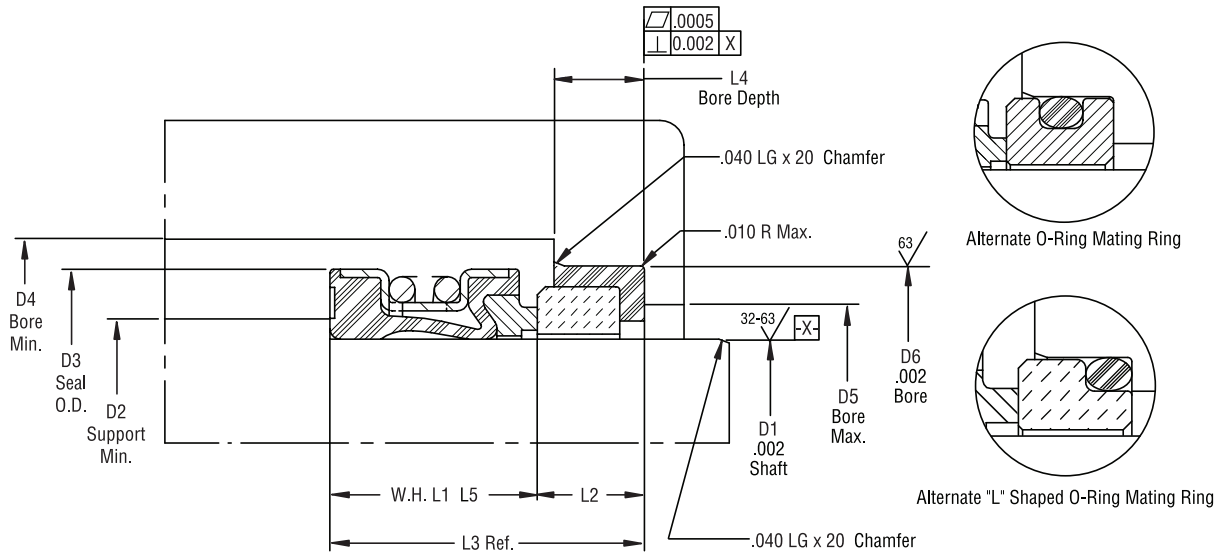
### Industries Served

- Pool and spa
- Industrial, commercial and residential water systems
- Heating and cooling

# TYPE 2106

## ELASTOMER BELLOWS UNITIZED SEAL

### Type 2106 Typical Arrangement



### 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	<sup>-0.030</sup> / <sub>0.060</sub>
	0.750	0.937	1.260	1.500	0.937	1.375	0.718	0.406	1.125	0.343	<sup>-0.030</sup> / <sub>0.060</sub>
**	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

# TYPE 2106

## ELASTOMER BELLOWS UNITIZED SEAL

### Type 2106 Dimensional Data (metric sizes)

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

### REFERENCE ONLY-Type 2106 Dimensional Data/3CU Style Mating Ring (inch sizes)

Seal Size	Size Code	D2	D3	D4	D5	D6	W.H. L1	L2	L3	L4	L5
<b>Type 2106 HV Range</b>											
0.500	0127	0.656	0.945	1.125	0.687*	1.000	0.656	0.312	0.968	0.281	0.040
0.625	0158	0.765	1.024	1.375	0.812	1.250	0.718	0.406	1.125	0.343	0.040
0.750	0190	0.937	1.260	1.500	0.937	1.375	0.718	0.406	1.125	0.343	0.060
0.875	0222	1.062	1.398	1.625	1.062	1.500	0.812	0.406	1.218	0.343	0.060
1.000	0254	1.187	1.535	1.687	1.312	1.625	0.812	0.437	1.250	0.375	0.060
<b>Type 2106 CU Range</b>											
0.500	0127	0.656	0.945	1.125	0.687*	1.000	0.812	0.312	1.125	0.281	0.040
0.625	0158	0.765	1.024	1.375	0.812	1.250	0.875	0.406	1.281	0.343	0.040
0.750	0190	0.937	1.260	1.500	0.937	1.375	0.875	0.406	1.281	0.343	0.060
0.875	0222	1.062	1.398	1.625	1.062	1.500	0.937	0.406	1.343	0.343	0.060
1.000	0254	1.187	1.535	1.687	1.312	1.625	1.000	0.437	1.437	0.375	0.060
<b>Type 2106 S Range</b>											
0.500	0127	0.656	0.945	1.125	0.687*	1.000	0.591	0.312	0.906	0.281	0.040
0.625	0158	0.765	1.024	1.375	0.812	1.250	0.591	0.406	1.000	0.343	0.040
0.750	0190	0.937	1.260	1.500	0.937	1.375	0.718	0.406	1.125	0.343	+0.060/-0.030
0.875	0222	1.062	1.398	1.625	1.062	1.500	0.787	0.406	1.193	0.343	0.060
1.000	0254	1.187	1.535	1.687	1.312	1.625	0.787	0.437	1.224	0.375	0.060

\*For L shaped/alternate mating ring D5 Max. is 0.562".

#### Drawing Matrix

Style	inch/mm	from	to	Dwg. Number and Mating Ring Style	
2106 BE	mm	10mm	25mm	TAB-1491	1BE Style
2106 CU	inch	0.500"	1.000"	TAB-1147	3CU Style
2106 DIN	mm	10mm	25mm	TAB-1423	M Style
2106 HV	inch	0.437"	1.000"	TAB-1147	3CU Style
2106 HV	mm	16mm	25mm	—	3CU Style
2106 K	mm	10mm	25mm	TAB-1423	M Style
2106 S	inch	0.500"	1.000"	TAB-1147	3CU Style
2106 S	mm	10mm	25mm	—	M Style
					TAB-1456 BS Style
					TAB-1456 BS Style
					BS Style

Detailed reference drawings available upon request.

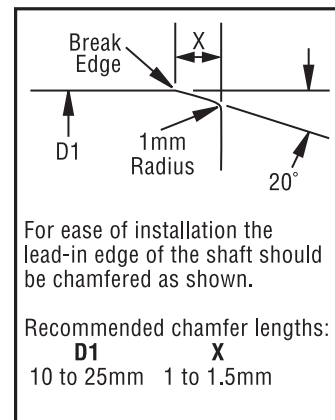
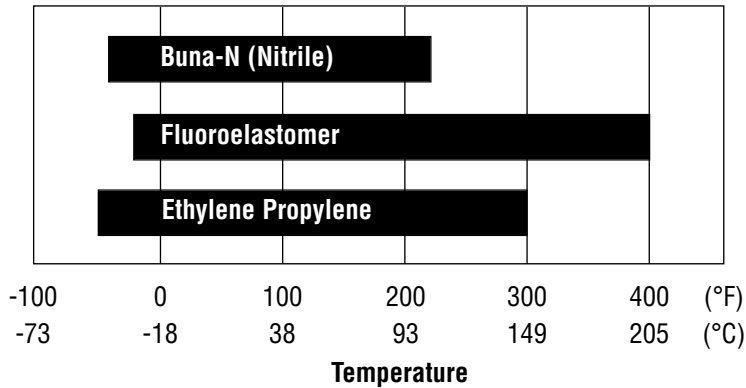
### Materials of Construction

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

### Criteria for Installation

Shaft/Sleeve	Limits
Surface Finish (Shaft or Sleeve)	0.8 to 1.6µm/32 to 63µ-inch Ra
Ovality/Out of Roundness (Shaft)	<0.05mm/0.002"
End Play/Axial Float Allowance	<0.08/0.003"FIM

### Elastomer Temperature Limits



**North America**  
 United States of America  
 Tel: 1-847-967-2400  
 Fax: 1-847-967-3915

**Europe**  
 United Kingdom  
 Tel: 44-1753-224000  
 Fax: 44-1753-224224

**Latin America**  
 Brazil  
 Tel: 55-11-3371-2500  
 Fax: 55-11-3371-2599

**Middle East & Africa**  
 United Arab Emirates  
 Tel: 971-481-27800  
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 Tel: 65-6518-1800  
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