



PRODUCT BULLETIN MODEL 830 BELLOW SEAL

American-Marsh Model 830 non-pusher bellow seals industrial purpose seals designed for the American-Marsh Pumps SST & SSU product lines. The seal utilizes an elastomeric bellow for positive sealing. The spring is manufactured of stainless steel and is of the non-clogging design.

Temperatures*: -40°C To 205°C / -40°F To 400°F
Pressures*: To 7 Bar / 100 PSI
Speeds: To 2200 RPM

*Depending on fluid pumped and materials of construction



Seal Designation Example

C₂₀/E₁ - X₇₄/E₁ - S₃₁₆
 Rotating Face
 Carbon
 Rotating Face Elastomer
 Viton
 Stationary Face
 Tungsten-Carbide
 Stationary Face Elastomer
 Viton
 Seal Metal Parts
 316 Stainless Steel
 Seal Gland and/or Sleeve Material
 N/A

Seal De-Rating Example

Fluid: Water
 Temperature: 100°F
 Seal Size: 2.000"
 Rotational Speed: 2200 RPM

100 PSI x 0.75 (Lubricity of Fluid) = 75 PSI
 75 PSI x 1.00 (Fluid Temperature) = 75 PSI
 75 PSI x 0.73 (Rotational Speed) = 54.8 PSI

MAX SEAL PRESSURE = 54.8 PSI

Material Specifications	
Part	Construction
	Standard
Rotary Face	Tungsten-Carbide (X ₇₄)
Stationary Face	Tungsten-Carbide (X ₇₄)
Elastomers	Fluoro-Elastomer (E ₁)
Hardware	18-8 Stainless (S ₁₈₋₈)
Spring	18-8 Stainless (S ₁₈₋₈)

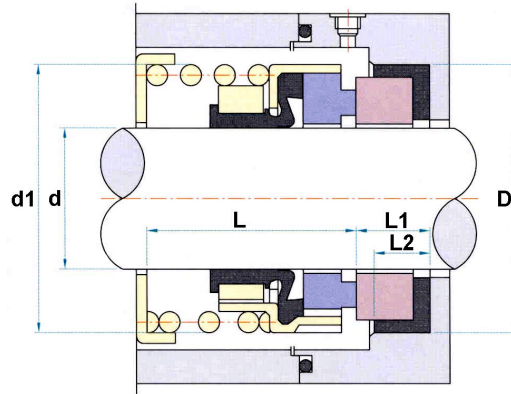
Seal De-Rating (Standard Materials)			
Lubricity of Fluid	Gasoline, Kerosene, Oil or Better	x 1.00	
	Aqueous, Water, etc.	x 0.75	
Fluid Temperature	Below 79°C/175°F	x 1.00	
	Above 79°C to 121°C/175°F to 250°F	x 0.90	
Seal Size and Rotational Speed	Seal Size	1800 RPM	2200 RPM
	0.250 to 1.500	x 1.00	x 1.00
	1.625 to 2.000	x 1.00	x 0.73
	2.125 to 2.500	x 1.00	x 0.53
	2.625 to 3.000	x 1.00	x 0.40

Elastomer Temperature Limits	
Material	Temperature Limits
Viton (E ₁)	-29°C To 205°C -20°F To 400°F

Installation Criteria	
Shaft/Sleeve	Limits
Surface Finish	≤ 3.125" – 63 Ra < 3.125" – 32 Ra
Concentricity	± 0.051mm/0.002"
End Play	± 0.13mm/0.005"

Centrifugal Pumps
Markets: Water, Waste Water, Industrial, Marine, Pulp & Paper, Automotive, Petrochemical

PRODUCT BULLETIN
MODEL 830 BELLOW SEAL



Approximate General Dimensions
(Do not use for construction purposes)

Series 810 Non-Pusher Elastomeric Bellows Mechanical Seals						
d	Min. Bore	d1	D	L	L1	L2
0.250	0.843	0.718	0.750	0.625	0.313	0.250
0.375	0.937	0.812	0.875	0.812	0.313	0.250
0.500	1.187	0.937	1.000	0.812	0.313	0.250
0.625	1.187	1.062	1.250	0.875	0.406	0.344
0.750	1.312	1.187	1.375	0.875	0.406	0.344
0.875	1.437	1.312	1.500	0.937	0.406	0.344
1.000	1.937	1.687	1.625	1.000	0.438	0.375
1.125	2.062	1.812	1.750	1.062	0.438	0.375
1.250	2.187	1.937	1.875	1.062	0.438	0.375
1.375	2.312	2.062	2.000	1.125	0.438	0.375
1.500	2.437	2.187	2.125	1.125	0.438	0.375
1.625	2.750	2.500	2.375	1.375	0.500	0.438
1.750	2.875	2.625	2.500	1.375	0.500	0.438
1.875	3.000	2.750	2.625	1.500	0.500	0.438
2.000	3.187	2.875	2.750	1.500	0.500	0.438
2.125	3.312	3.000	3.000	1.687	0.563	0.500
2.250	3.437	3.125	3.125	1.687	0.563	0.500
2.375	3.562	3.250	3.250	1.812	0.563	0.500
2.500	3.687	3.343	3.375	1.812	0.563	0.500
2.625	4.000	3.500	3.375	1.937	0.625	0.563
2.750	4.125	3.750	3.500	1.937	0.625	0.563
2.875	4.375	3.875	3.750	2.062	0.625	0.563
3.000	4.500	4.000	3.875	2.062	0.625	0.563
3.125	4.750	4.125	4.000	2.187	0.781	0.656
3.250	4.875	4.250	4.125	2.187	0.781	0.656
3.375	5.250	4.500	4.250	2.187	0.781	0.656
3.500	5.375	4.625	4.375	2.187	0.781	0.656
3.625	5.500	4.750	4.500	2.312	0.781	0.656
3.750	5.625	4.875	4.625	2.312	0.781	0.656
3.875	5.750	5.000	4.750	2.437	0.781	0.656
4.000	5.875	5.125	4.875	2.437	0.781	0.656

All dimensions are in inches.

- Your Local Authorized Distributor -



Sales & Marketing: 185 Progress Road • Collierville, Tennessee • 38017
Manufacturing: 185 Progress Road • Collierville, Tennessee • 38017
 Phone: (800) 888-7167
 Fax: (901) 860-2323