



## Bearing Construction

The bearing consists of a self-lubricating woven Teflon fiber and polyester liner supported by a filament wound continuous fiberglass fiber and epoxy resin matrix.

## Configurations

801 Series – composite outer race and metallic ball

821 Series – composite ball and metallic loader slot outer race

831 Series – composite ball and split metallic outer race for static misalignment applications

838 Series – OD lined composite ball and split metallic outer race for dynamic misalignment applications

Consult with Rexnord engineers for the optimum annular bearing configuration for your application

## Size range

Standard and special inch and metric sizes are available from 1/4" to 6" inside diameter

## Load Capacity

Typical dynamic loads: 4,000 to 30,000 psi

Ultimate strength: 77,000 psi (for 1/8" wall section)

## Motion

The bearings work well in oscillatory, pivot, linear sliding and slow speed full rotation.

## Friction

Duralon® bearings offer low-friction operation. Friction decreases with increasing load. Friction coefficients vary from .16 @500 psi to .07 @ 20,000 psi.

## Self-lubricated

The bearing operates self-lubricated by Teflon® transfer to the shaft surface caused by relative movement between the shaft and bearing liner under load. Lubrication can be used if desired. Consult a Rexnord engineer for approved lubricants.

## Electrical Properties

The composite component filament wound back-up material is an electrical insulator. Its dielectric strength is about 300 volts per mil. Since the back-up material is electrically non-conducting, electrolytic or galvanic action will not take place.

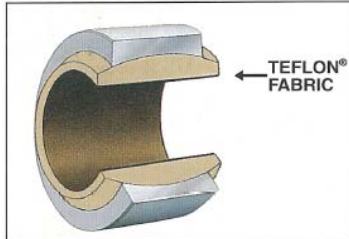
## Chemical Properties

Duralon® bearings are typically resistant to most chemicals. Due to the wide range of exposures, specific conditions must be checked. Consult a Duralon engineer for specific chemicals.

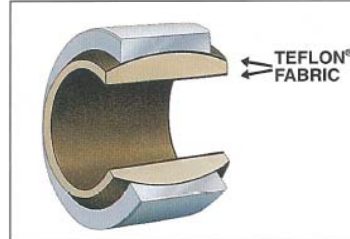
## Temperature Ranges

The temperature range depends on the type of housing being used. Please consult with Rexnord Engineers for specific values.

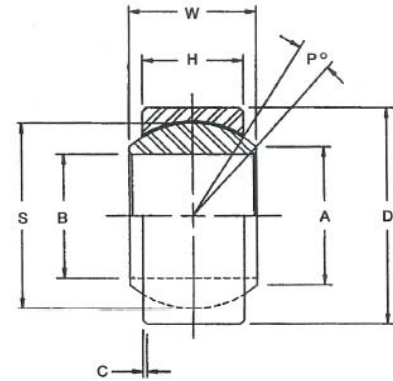
## Duralon® Composite Split Outer Race Annular Bearings



**MODEL "831"**



**MODEL "838"**



Model Number*	B max/min	D max/min	W +.000 -.005	H +.000 -.005	A (Ref)	C Housing Fillet Radius Max.	P Deg. Max.	S Ball O.D. (Ref)	Radial Limit Load Rating
831-08-14-01	0.5040/0.5030	0.8750/0.8745	0.4370	0.3750	0.5710	0.022	6	0.7190	3,750
831-12-20-01	0.7540/0.7530	1.2500/1.2495	0.6560	0.5620	0.8580	0.032	6	1.0800	8,430
831-14-23-01	0.8790/0.8780	1.4375/1.4370	0.7650	0.6560	0.9990	0.032	6	1.2580	11,480
831-16-26-01	1.0040/1.0030	1.6250/1.6245	0.8750	0.7500	1.1400	0.032	6	1.4370	15,000
831-20-32-01	1.2540/1.2530	2.0000/1.9995	1.0930	0.9370	1.4240	0.032	6	1.7950	23,425
831-22-35-01	1.3790/1.3780	2.1875/2.1869	1.1870	1.0310	1.5310	0.032	6	1.9370	28,350
831-24-39-01	1.5040/1.5030	2.4375/2.4369	1.3120	1.1250	1.7100	0.032	6	2.1550	33,750
831-28-45-01	1.7540/1.7530	2.8125/2.8119	1.5310	1.3120	1.9950	0.032	6	2.5150	45,925
831-32-51-01	2.0040/2.0030	3.1875/3.1869	1.7500	1.5000	2.2810	0.032	6	2.8750	60,000
831-36-57-01	2.2540/2.2530	3.5625/3.5617	1.9690	1.6870	2.5670	0.032	6	3.2350	75,900
831-40-63-01	2.5040/2.5030	3.9375/3.9367	2.1870	1.8750	2.8470	0.032	6	3.5900	93,750
831-48-76-01	3.0040/3.0030	4.7500/4.7492	2.6250	2.2500	3.4210	0.032	6	4.3120	135,000
831-64-100-01	4.0060/4.0030	6.2500/6.2490	3.5000	3.0000	4.5620	0.032	6	5.7500	240,000
831-80-124-01	5.0070/5.0020	7.7500/7.7488	4.3750	3.7500	5.7060	0.044	6	7.1900	375,000
831-96-140-01	6.0070/6.0030	8.7500/8.7488	4.7500	4.1250	6.6300	0.044	5	8.1560	495,000

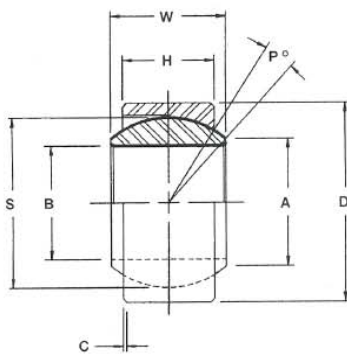
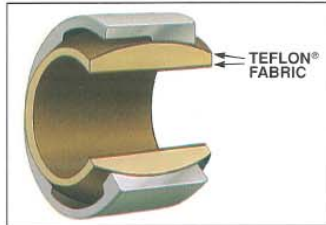
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For WEAR RATE CALCULATION refer to DURALON BEARING CATALOG

\* Model number "831" – Indicates no fabric on the Ball O.D.

Model number "838" – Indicates fabric on the Ball O.D.

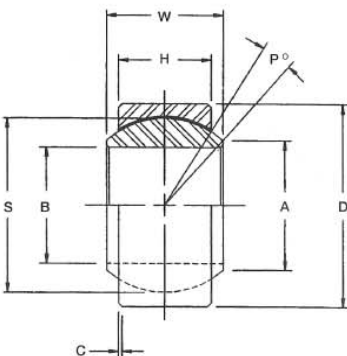
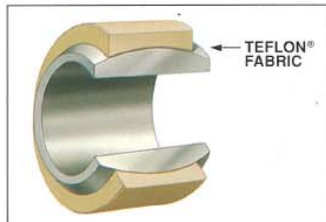
## SELF-LUBRICATION COMPOSITE BALL SPHERICAL ANNULAR



Model Number	B	D	W	H	A	C	P	S	Limit Load Rating-Lbs.
	+0.000 -0.001	+0.0000 -0.0005	+0.000 -0.010	+0.003 -0.003	(Ref)	+0.005 -0.005	Deg. Max.	Ball O.D.	
821-04-10-XX	0.252	0.6562	0.343	0.250	0.405	0.020	12	0.5300	6,300
821-05-12-XX	0.315	0.7500	0.375	0.281	0.419	0.020	11	0.5625	7,490
821-06-13-XX	0.377	0.8125	0.406	0.312	0.475	0.025	10	0.6250	9,060
821-07-14-XX	0.440	0.9062	0.437	0.343	0.529	0.025	9	0.6865	11,380
821-08-16-XX	0.502	1.0000	0.500	0.390	0.640	0.030	9	0.8125	15,750
821-09-18-XX	0.565	1.0937	0.562	0.437	0.671	0.030	10	0.8750	18,980
821-10-19-XX	0.627	1.1875	0.625	0.500	0.739	0.030	9	0.9680	24,180
821-12-23-XX	0.752	1.4375	0.750	0.593	0.920	0.030	9	1.1870	36,170
821-14-25-XX	0.877	1.5625	0.875	0.703	0.978	0.030	9	1.3120	48,160
821-16-28-XX	1.002	1.7500	1.000	0.797	1.118	0.030	9	1.5000	63,100

XX Consult with Rexnord for outer ring material suffix.

## DURALON® SELF-ALIGNING BEARINGS



Model Number	B	D	W	H	A	C	P	S	Limit Load Rating - Lbs.
	+0.000 -0.001	+0.001 -0.000	+0.000 -0.005	+0.000 -0.005	(Ref)	+0.010 -0.010	Deg. Max.	Ball O.D.	
801-08-14-*	0.500	0.8750	0.437	0.375	0.571	0.015	6	0.719	5,400
801-12-20-*	0.750	1.2500	0.656	0.562	0.858	0.015	6	1.080	12,140
801-14-23-*	0.875	1.4375	0.765	0.656	0.999	0.015	6	1.258	16,500
801-16-26-*	1.000	1.6250	0.875	0.750	1.140	0.015	6	1.437	21,560
801-20-32-*	1.250	2.0000	1.093	0.937	1.424	0.015	6	1.795	33,640
801-22-35-*	1.375	2.1875	1.187	1.031	1.531	0.015	6	1.937	40,000
801-24-39-*	1.500	2.4375	1.312	1.125	1.710	0.015	6	2.155	48,480
801-28-45-*	1.750	2.8125	1.531	1.312	1.995	0.015	6	2.515	66,000
801-32-51-*	2.000	3.1875	1.750	1.500	2.281	0.015	6	2.875	86,250
801-36-57-*	2.250	3.5625	1.969	1.687	2.567	0.015	6	3.235	109,150
801-40-63-*	2.500	3.9375	2.187	1.875	2.847	0.015	6	3.590	134,620
801-48-76-*	3.000	4.7500	2.625	2.250	3.421	0.015	6	4.312	194,040
801-64-100-*	4.000	6.2500	3.500	3.000	4.562	0.015	6	5.750	345,000
801-80-124-*	5.000	7.7500	4.375	3.750	5.706	0.015	6	7.190	539,250
801-96-140-*	6.000	8.7500	4.750	4.125	6.630	0.015	5	8.156	672,870

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 For WEAR RATE CALCULATION refer to DURALON BEARING CATALOG  
 \*Consult with REXNORD for Ball Material suffix