

Dentex® Nylon Sleeve Series Flexible Couplings

The series is a standard coupling with two hubs, a nylon sleeve, and retaining rings depending on the model selected. The coupling has a precision molded nylon sleeve and powder metal hub with no bolts, pins, flanges, or protrusions that could have an effect on balance or operational safety. Since no lubrication is used, the couplings can readily be adapted to many applications including vertical and blind installations.

Features

- Compact in size
- Maintenance Free – No Lubrication required
- Can accommodate axial, angular, and parallel misalignment
- Easy to assemble
- Electrically insulating
- Can be used in temperature ranges from -25° to 80° C (optional 140° C)
- Nylon sleeve has high resistance to condensation and water, hydrocarbon based petroleum, and alcohols
- Not ideal for use with acids, benzyl based products, cresol, or glycols



Dentex® B - Series Performance Data

Size	Torque Capacity				Max Speed RPM	Misalignment				Weight¹		ID1 - ID2²				
	Nominal		Maximum			Angular Degrees	Axial		Parallel			Min Bore		Max Bore		
	in-lbs	Nm	in-lbs	Nm			in	mm	in	mm	kg	lbs	in	mm	in	mm
B 14	89	10	177	20	8,000	1° Per Hub	+/- .039	+/-1	0.012	0.3	0.2	0.4	0.25	6	0.56	14
B 19	142	16	283	32	8,000				0.012	0.3	0.3	0.7	0.38	9	0.75	19
B 24	177	20	354	40	8,000				0.016	0.4	0.3	0.7	0.44	10	0.94	24
B 28	398	45	797	90	8,000				0.016	0.4	0.7	1.6	0.44	10	1.13	28
B 32	531	60	1,062	120	7,000				0.016	0.4	1.0	2.1	0.50	12	1.25	32
B 38	708	80	1,416	160	6,000				0.016	0.4	1.2	2.7	0.56	14	1.38	38
B 42	885	100	1,770	200	5,400				0.016	0.4	1.5	3.3	0.81	20	1.56	42
B 48	1,239	140	2,478	280	5,000				0.016	0.4	1.8	4.0	0.81	20	1.75	48
B 55	2,213	250	4,425	500	4,000				0.016	0.4	3.5	7.6	1.00	25	2.06	55
B 65	3,452	390	6,903	780	3,800				0.024	0.6	5.2	11.4	1.25	32	2.38	65
B 80	6,195	700	12,390	1 400	3,000				0.028	0.7	11.5	25.3	1.19	30	3.00	80
B 100	11,063	1 250	22,125	2 500	2,400				0.031	0.8	20.5	45.2	1.62	40	3.75	100

Notes: ■ 1 indicates: Weight is calculated using maximum bore and no keyway.

■ 2 indicates: Minimum and maximum bore sizes are given for straight bores. For Taper bores and splines, contact Lovejoy Technical Support.

Dentex® B4R - Series Performance Data

Size	Torque Capacity				Max Speed RPM	Misalignment				Weight 1		ID1 - ID2 2				
	Nominal		Maximum			Angular Degrees	Axial		Parallel			Min Bore		Max Bore		
	in-lbs	Nm	in-lbs	Nm			in	mm	in	mm	kg	lbs	in	mm	in	mm
B4R 32	708	80	1,416	160	7,000	1° Per Hub	+/- .039	+/-1	0.016	0.4	1.1	2.4	0.50	12	1.25	32
B4R 45	1,239	140	2,478	280	5,000				0.016	0.4	1.5	3.3	0.81	20	1.56	42
B4R 65	3,452	390	6,903	780	3,800				0.024	0.6	5.4	11.9	1.00	25	2.38	65
B4R 80	6,195	700	12,390	1 400	3,000				0.028	0.7	11.7	25.8	1.19	30	3.00	80
B4R 100	11,063	1 250	22,125	2 400	2,400				0.031	0.8	20.8	45.9	1.62	40	3.75	100

Notes: ■ 1 indicates: Weight is calculated using maximum bore and no keyway.

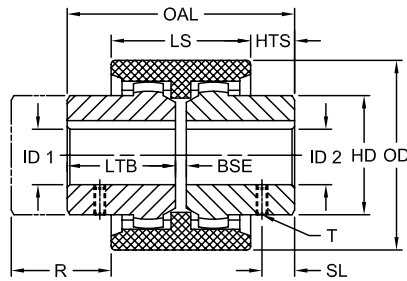
■ 2 indicates: Minimum and maximum bore sizes are given for straight bores. For Taper bores and splines, contact Lovejoy Technical Support.

Dentex® B3R - Series Performance Data

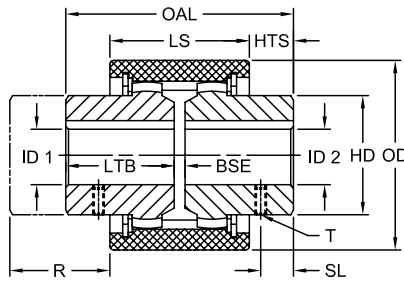
Size	Torque Capacity				Max Speed RPM	Misalignment				Weight 1		ID1 - ID2 2				
	Nominal		Maximum			Angular Degrees	Axial		Parallel			Min Bore		Max Bore		
	in-lbs	Nm	in-lbs	Nm				in	mm	in	mm	kg	lbs	in	mm	in
B3R 24	177	20	354	40	10,200	1° Per Hub	+/- .039	+/-1	0.016	0.4	0.3	0.7	0.44	10	0.94	24
B3R 28	398	45	797	90	8,300				0.016	0.4	0.8	1.8	0.44	10	1.13	28
B3R 32	708	80	1,416	160	7,000				0.016	0.4	1.1	2.4	0.50	12	1.25	32
B3R 45	1,239	140	2,478	280	5,000				0.016	0.4	1.5	3.3	0.81	20	1.56	42
B3R 65	3,452	390	6,903	780	3,800				0.024	0.6	5.4	11.9	1.25	32	2.38	65
B3R 80	6,195	700	12,390	1 400	3,000				0.028	0.7	11.6	25.6	1.19	30	3.00	80
B3R 100	11,063	1 250	22,125	2 400	2,400				0.031	0.8	20.7	45.6	1.62	40	3.75	100

Notes: ■ 1 indicates: Weight is calculated using maximum bore and no keyway.

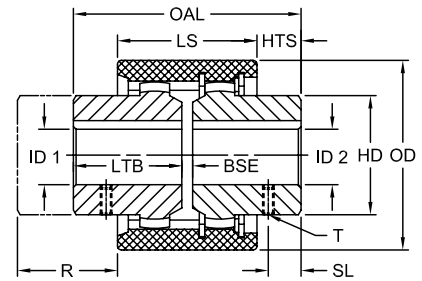
■ 2 indicates: Minimum and maximum bore sizes are given for straight bores. For Taper bores and splines, contact Lovejoy Technical Support.



B



B4R



B3R

Dentex® B - Series Dimensional Data

Size	OAL		LS		HTS		LTB		BSE		OD		HD		R (Clearance)		T - Metric Set Screw		T - Inch Set Screw	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	Size	SL (mm)	Size	SL (in)
B 14	1.97	50	1.46	37	0.26	6.5	0.91	23	0.16	4	1.57	40	0.98	25	0.65	16.5	M5	6	10-24	0.24
B 19	2.13	54	1.46	37	0.28	7.0	0.98	25	0.16	4	1.89	48	1.26	32	0.71	18.0	M5	6	10-24	0.24
B 24	2.20	56	1.61	41	0.30	7.5	1.02	26	0.16	4	2.05	52	1.42	36	0.73	18.5	M5	6	10-24	0.24
B 28	3.31	84	1.81	46	0.75	19.0	1.57	40	0.16	4	2.60	66	1.73	44	0.83	21.0	M8	10	5/16-18	0.39
B 32	3.31	84	1.89	48	0.71	18.0	1.57	40	0.16	4	2.99	76	1.97	50	0.87	22.0	M8	10	5/16-18	0.39
B 38	3.31	84	1.89	48	0.71	18.0	1.57	40	0.16	4	3.27	83	2.28	58	0.87	22.0	M8	10	5/16-18	0.39
B 42	3.46	88	1.97	50	0.75	19.0	1.65	42	0.16	4	3.62	92	2.56	65	0.91	23.0	M8	10	5/16-18	0.39
B 48	4.09	104	1.97	50	1.06	27.0	1.97	50	0.16	4	3.94	100	2.68	68	0.91	23.0	M8	10	5/16-18	0.39
B 55	4.88	124	2.56	65	1.16	29.5	2.36	60	0.16	4	4.92	125	3.27	83	1.20	30.5	M10	20	3/8-16	0.79
B 65	5.67	144	2.83	72	1.42	36.0	2.76	70	0.16	4	5.51	140	3.78	96	1.34	34.0	M10	20	3/8-16	0.79
B 80	7.32	186	3.66	93	1.83	46.5	3.54	90	0.24	6	6.89	175	4.88	124	1.71	43.5	M10	20	3/8-16	0.79
B 100	8.98	228	4.02	102	2.48	63.0	4.33	110	0.31	8	8.27	210	5.98	152	1.85	47.0	M12	30	3/8-16	1.18

Dentex® B4R - Series Dimensional Data

Size	OAL		LS		HTS		LTB		BSE		OD		HD		R (Clearance)		T - Metric Set Screw		T - Inch Set Screw	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	Size	SL (mm)	Size	SL (in)
B4R 32	3.31	84	2.28	58	0.51	13.0	1.57	40	0.16	4	3.31	84	1.97	50	1.06	27.0	M8	10	5/16-18	0.39
B4R 45	3.46	88	2.36	60	0.55	14.0	1.65	42	0.16	4	3.94	100	2.56	65	1.10	28.0	M8	10	5/16-18	0.39
B4R 65	5.67	144	3.31	84	1.18	30.0	2.76	70	0.16	4	5.51	140	3.78	96	1.57	40.0	M10	20	3/8-16	0.79
B4R 80	7.32	186	3.66	93	1.83	46.5	3.54	90	0.24	6	6.89	175	4.88	124	1.71	43.5	M10	20	3/8-16	0.79
B4R 100	8.98	228	4.02	102	2.48	63.0	4.33	110	0.31	8	8.27	210	5.98	152	1.85	47.0	M12	30	3/8-16	0.79

Dentex® B3R - Series Dimensional Data

Size	OAL		LS		HTS		LTB		BSE		OD		HD		R (Clearance)		T - Metric Set Screw		T - Inch Set Screw	
	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	Size	SL (mm)	Size	SL (in)
B3R 24	2.20	56	2.01	51	0.10	2.5	1.02	26	0.16	4	2.28	58	1.42	36	0.93	23.5	M5	6	10-24	0.24
B3R 28	3.31	84	2.20	56	0.55	14.0	1.57	40	0.16	4	2.76	70	1.73	44	1.02	26.0	M8	10	3/8-16	0.39
B3R 32	3.31	84	2.28	58	0.51	13.0	1.57	40	0.16	4	3.31	84	1.97	50	1.06	27.0	M8	10	3/8-16	0.39
B3R 45	3.46	88	2.36	60	0.55	14.0	1.65	42	0.16	4	3.94	100	2.56	65	1.10	28.0	M8	10	3/8-16	0.39
B3R 65	5.67	144	3.31	84	1.18	30.0	2.76	70	0.16	4	5.51	140	3.78	96	1.57	40.0	M10	20	3/8-16	0.39
B3R 80	7.32	186	3.66	93	1.83	46.5	3.54	90	0.24	6	6.89	175	4.88	124	1.71	43.5	M10	20	3/8-16	0.39
B3R 100	8.98	228	4.02	102	2.48	63.0	4.33	110	0.31	8	8.27	210	5.98	152	1.85	47.0	M12	30	3/8-16	0.39

Notes: ■ Inch bore and keyway tolerances conform to ANSI / AGMA 9002-B04.

■ Metric bores and keyway tolerances conform to ISO 286 and ANSI / AGMA 9112-A04.