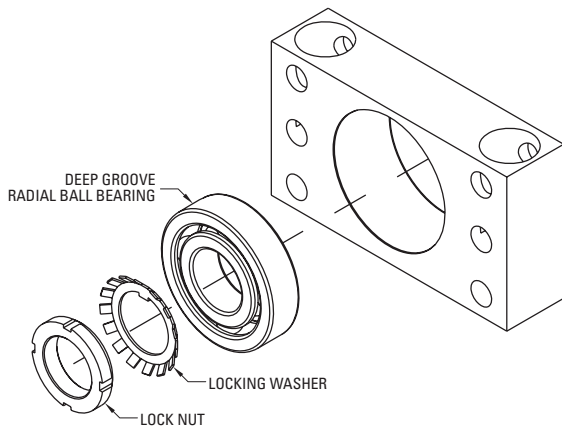


Bearing Supports/End Machining Product Overview

Thomson Bearing Supports — a unitized package for simple mounting of Thomson ball screw and ball spline assemblies. Both “Floating” and “Quick Mount” style bearing supports are available.

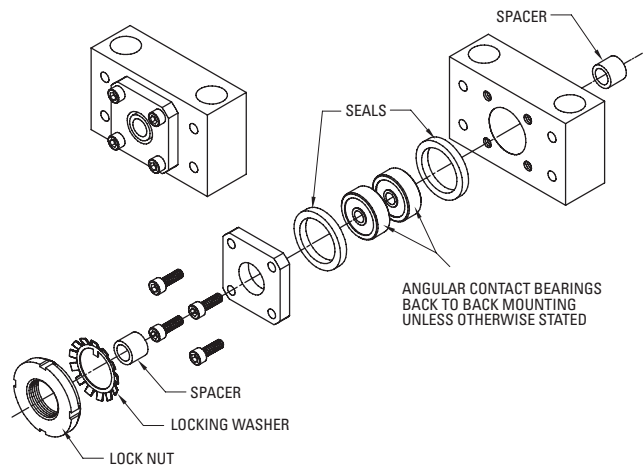
- Rugged steel construction
- Low profile, compact design
- Foot or face mounting
- Pre-assembled and ready for installation
- Available off-the-shelf for quick building convenience

Floating Bearing Support⁽¹⁾⁽²⁾



The Floating Bearing Support provides a single deep groove radial ball bearing. Design dimensions fit standard Type 1A or 1A1 end machining (see page 146 for details).

Quick Mount Bearing Support⁽¹⁾⁽²⁾



The Quick Mount Bearing Support contains high angular contact bearings arranged in a back-to-back (DB) configuration for high stiffness. Design dimensions fit standard Type 3C or 3C1 end machining (see page 146 for details)

(1) Both Floating and Quick Mount Bearings Supports are classified as “simple” for purposes of critical speed and column strength calculations.

(2) Installation accessories (locknut and washer) included for complete assembly.

Bearing Supports/End Machining Product Overview

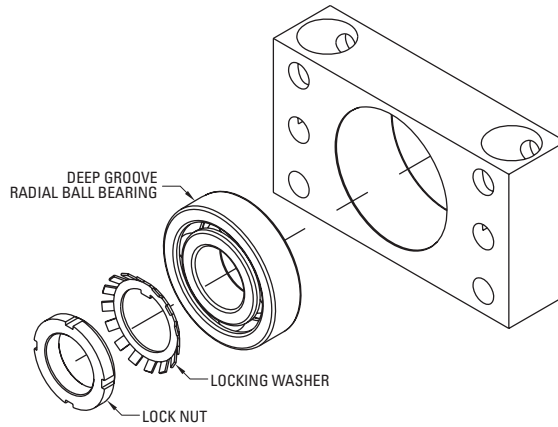
Inch Series Ball Screws		
Dia. x Lead	Floating Support	Quick Mount
0.500 x 0.200	7833291	7828282
0.500 x 0.500		
0.631 x 0.200	7833256	7824154
0.631 x 1.000		
0.750 x 0.200	7833259	7824155
0.750 x 0.500		
0.875 x 0.200	7833262	7824156
1.000 x 0.200	7833265	7824157
1.000 x 0.250		
1.000 x 0.500		
1.000 x 1.000		
1.171 x 0.413		
1.150 x 0.200	7833268	7824158
1.250 x 0.200		
1.250 x 0.250		
1.250 x 0.500		
1.500 x 0.200	7833270	7824159
1.500 x 0.250		
1.500 x 0.473	7833268	7824158
1.500 x 0.500	7833270	7824159
1.500 x 1.000	7833268	7824158
1.500 x 1.875	7833270	7824159
1.750 x 0.200	7833273	7829544
2.000 x 0.200	7833276	7824160
2.000 x 0.500		
2.000 x 1.000		
2.250 x 0.500		
2.250 x 1.000	7833279	7824161
2.500 x 0.250		
2.500 x 0.500		

Metric Series Ball Screws		
Dia. x Lead	Floating Support	Quick Mount
12 x 10	7833292	7829546
16 x 5	7833282	7829547
16 x 10		
16 x 16		
20 x 5	7833283	7829548
20 x 10		
20 x 20		
25 x 5	7833284	7829549
25 x 10		
25 x 25		
32 x 5	7833285	7829550
32 x 10		
32 x 32		
40 x 5	7833286	7829551
40 x 10		
40 x 20		
40 x 32		
40 x 40		
40 x 50		
50 x 10	7833287	7829552
50 x 20		
63 x 10	7833288	7829553
63 x 20		

Ball Splines		
Nominal Size	Floating Support	Quick Mount
0.625	7833291	7828282
1.000	7833265	7824157
1.500	7833268	7824158
2.000	7833273	7829554
2.500	7833279	7824161

Bearing Supports/End Machining — Inch Series Ball Screws

Floating Bearing Support Blocks

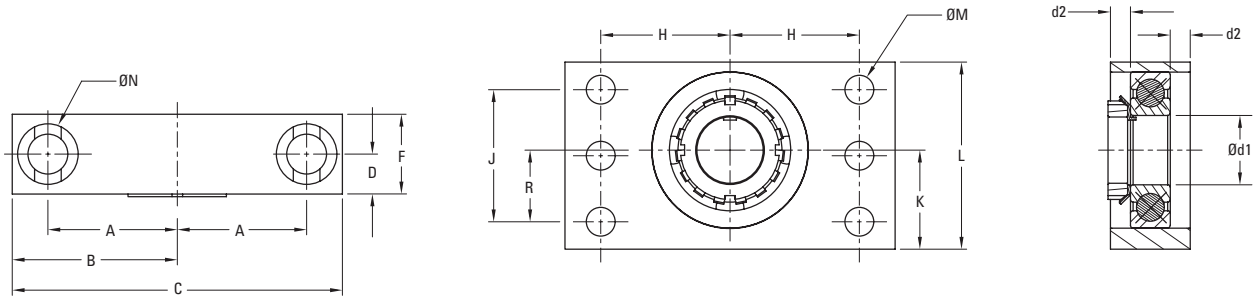


Standard P/N	Dia. x Lead (inch)	Bearing Rating				Lock Nut Type	Bearing Block Weight lbs
		Static Rating C_0		Dynamic Rating C_{am}			
		lbs	N	lbs	N		
7833291	0.500 x 0.200	366	1630	821	3650	5/16-24	0.8
7833256	0.631 x 0.200 0.631 x 1.000	674	3000	1708	7600	N-01	1.3
7833259	0.750 x 0.200 0.750 x 0.500	780	3470	1945	8650	N-02	1.6
7833262	0.875 x 0.200	1057	4700	2450	10900	N-03	2.3
7833265	1.000 x 0.200 & 0.250 1.000 x 0.500 & 1.000 1.171 x 0.413	1461	6500	3237	14400	N-04	5.8
7833268	1.150 x 0.200 1.250 x 0.200 & 0.250 & 0.500 1.500 x 0.473 & 1.000	1753	7800	3597	16000	N-05	6.8
7833270	1.500 x 0.200 & 0.250 1.500 x 0.500 & 1.875	2540	11300	4991	22200	N-06	8.7
7833273	1.750 x 0.200	5822	25900	11375	50600	N-08	9.7
7823276	2.000 x 0.200 & 0.500 & 1.000 2.250 x 0.500 & 1.000	7081	31500	13376	59500	N-09	16.2
7833279	2.500 x 0.250 & 0.500	8475	37700	15579	69300	N-10	18.5

Note: Design dimensions fit standard Type 1A or 1A1 end machining. See page 146 for details.

Bearing Supports/End Machining — Inch Series Ball Screws

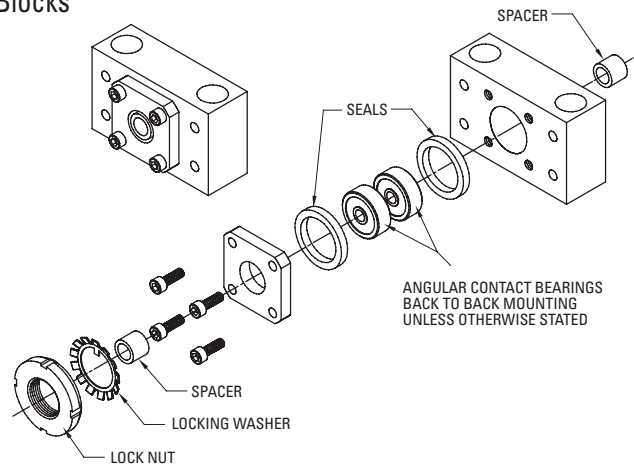
Floating Bearing Support Blocks



Standard P/N	Bearing Block Dimensions (inch)													
	d1 (mm)	d2	A & H	B	C	D	F	J	K	L	M	N	Q	R
7833291	9.0	0.138	1.000	1.380	2.750	0.276	0.551	1.375	1.000	2.000	4 Holes 0.281 dia.	2 Holes 0.281 dia. Thru 0.50 C-Bore x 0.56 DP	0.757	0.688
7833256	12.0	0.197	1.125	1.500	3.000	0.394	0.787	1.125	1.000	1.875	4 Holes 0.281 dia.	2 Holes 0.406 dia. Thru 0.625 C-Bore x 0.875 DP	0.960	0.625
7833259	15.0	0.217	1.250	1.750	3.500	0.433	0.866	1.375	1.125	2.125	4 Holes 0.281 dia.	2 Holes 0.406 dia. Thru 0.625 C-Bore x 0.875 DP	1.019	0.750
7833262	17.0	0.236	1.437	2.000	4.000	0.473	0.945	1.375	1.250	2.375	4 Holes 0.406 dia.	2 Holes 0.531 dia. Thru 0.812 C-Bore x 1.125 DP	1.109	0.750
7833265	20.0	0.276	1.625	2.250	4.500	0.551	1.102	1.750	1.438	2.750	4 Holes 0.469 dia.	2 Holes 0.656 dia. Thru 1.000 C-Bore x 1.312 DP	1.258	0.938
7833268	25.0	0.531	2.125	3.000	6.000	0.827	1.654	2.000	1.750	3.375	4 Holes 0.656 dia.	2 Holes 0.906 dia. Thru 1.375 C-Bore x 2.000 DP	1.654	1.000
7833270	30.0	0.512	2.375	3.250	6.500	0.827	1.654	2.000	1.875	3.625	4 Holes 0.656 dia.	2 Holes 0.906 dia. Thru 1.375 C-Bore x 2.062 DP	1.654	1.000
7833273	40.0	0.453	2.937	3.750	7.500	0.906	1.811	3.000	2.250	4.250	6 Holes 0.656 dia.	2 Holes 0.906 dia. Thru 1.375 C-Bore x 2.250 DP	1.869	1.625
7833276	45.0	0.492	3.313	4.250	8.500	0.985	1.969	3.625	2.813	5.625	6 Holes 0.812 dia.	2 Holes 1.031 dia. Thru 1.625 C-Bore x 3.500 DP	1.987	1.813
7833279	50.0	0.531	3.563	4.500	9.000	1.063	2.126	3.625	2.813	5.625	6 Holes 0.812 dia.	2 Holes 1.031 dia. Thru 1.625 C-Bore x 3.500 DP	2.167	1.813

Bearing Supports/End Machining — Inch Series Ball Screws

Quick Mount Bearing Support Blocks



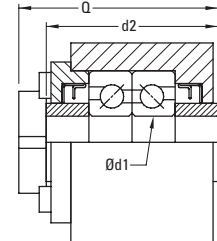
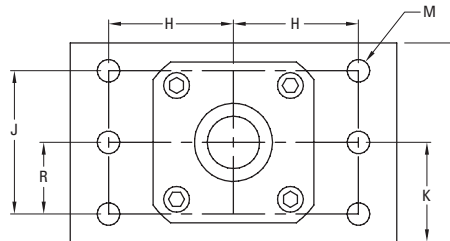
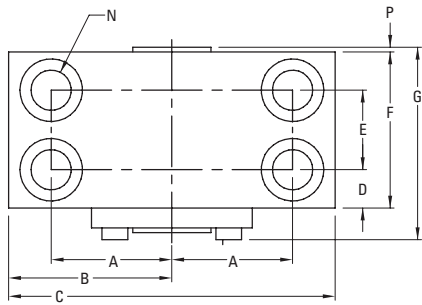
Standard P/N	Dia. x Lead (inch)	Bearing Rating				Lock Nut Type	Bearing Block Weight lbs
		Static Rating C_0		Dynamic Rating C_{am}			
		lbs	N	lbs	N		
7828282	0.500 x 0.200 0.500 x 0.500	320 ⁽¹⁾	1450 ⁽¹⁾	930 ⁽¹⁾	4400 ⁽¹⁾	5/16-24	2.0
7824154	0.631 x 0.200 0.631 x 1.000	630	2790	1600	7100	N-01	1.5
7824155	0.750 x 0.200 0.750 x 0.500	1060	4700	2320	10300	N-02	3.5
7824156	0.875 x 0.200	1560	6930	3200	14200	N-03	3.5
7824157	1.000 x 0.200 1.000 x 0.250 1.000 x 0.500 1.000 x 1.000 1.171 x 0.413	1838	8150	3225	14300	N-04	5.5
7824158	1.150 x 0.200 1.250 x 0.200 & 0.250 & 0.500 1.500 x 0.473 1.500 x 1.000	2120	9400	3750	16600	N-05	9.5
7824159	1.500 x 0.200 1.500 x 0.250 1.500 x 0.500 1.500 x 1.875	3050	13500	5200	23000	N-06	11.5
7829554	1.750 x 0.200	6800	30200	11400	50600	N-08	21.5
7824160	2.000 x 0.200 & 0.500 & 1.000 2.250 x 0.500 2.250 x 1.000	9000	39900	15000	66600	N-09	35.0
7824161	2.500 x 0.250 2.500 x 0.500	10800	47900	17300	76800	N-10	39.0

(1) Deep groove radial bearing.

Note: Design dimensions fit standard Type 3C or 3C1 end machining. See page 146 for details.

Bearing Supports/End Machining - Inch Series Ball Screws

Quick Mount Bearing Support Blocks



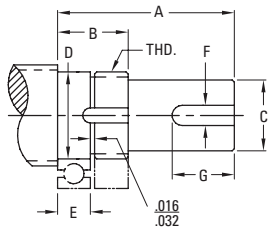
Standard P/N	Bearing Block Dimensions (inch)																
	d1 (mm)	d2	A & H	B	C	D	E	F	G	J	K	L	M	N	P	Q	R
7828282	9	1.44	1.000	1.38	2.75	0.63	—	1.19	1.4	1.375	1.000	2.00	4 Holes 0.281 dia.	2 Holes 0.281 dia. Thru 0.50 C-Bore x 0.56 DP	—	1.8	0.688
7824154	12	1.26	1.125	1.50	3.00	0.67	—	1.34	1.7	1.125	1.000	1.88	4 Holes 0.281 dia.	2 Holes 0.406 dia. Thru 0.625 C-Bore x 0.875 DP	0.02	1.6	0.625
7824155	15	1.73	1.250	1.75	3.50	0.67	—	1.50	1.9	1.375	1.125	2.13	4 Holes 0.281 dia.	2 Holes 0.406 dia. Thru 0.625 C-Bore x 1.00 DP	0.02	2.1	0.750
7824156	17	1.89	1.437	2.00	4.00	0.75	—	1.66	2.0	1.375	1.25	2.38	4 Holes 0.406 dia.	2 Holes 0.531 dia. Thru 0.812 C-Bore x 1.125 DP	0.02	2.3	0.750
7824157	20	2.20	1.625	2.25	4.50	0.83	—	1.87	2.4	1.750	1.438	2.75	4 Holes 0.469 dia.	2 Holes 0.656 dia. Thru 1.00 C-Bore x 1.312 DP	0.04	2.7	0.938
7824158	25	2.36	2.125	3.00	6.00	0.94	—	1.94	2.6	2.000	1.750	3.38	4 Holes 0.656 dia.	2 Holes 0.906 dia. Thru 1.375 C-Bore x 2.00 DP	0.03	2.9	1.000
7824159	30	2.52	2.375	3.25	6.50	1.03	—	2.06	2.7	2.000	1.875	3.63	4 Holes 0.656 dia.	2 Holes 0.906 dia. Thru 1.375 C-Bore x 2.062 DP	0.05	3.0	1.000
7829554	40	3.62	2.937	3.75	7.50	0.76	1.63	3.15	3.8	3.000	2.250	4.25	6 Holes 0.656 dia.	4 Holes 0.906 dia. Thru 1.375 C-Bore x 2.25 DP	0.05	4.2	1.500
7824160	45	3.94	3.313	4.25	8.50	0.87	1.72	3.47	4.2	3.625	2.813	5.63	6 Holes 0.812 dia.	4 Holes 1.031 dia. Thr 1.625 C-Bore x 3.500 DP	0.05	4.5	1.813
7824161	50	4.25	3.563	4.50	9.00	0.92	1.72	3.56	4.5	3.625	2.813	5.63	6 Holes 0.812 dia.	4 Holes 1.031 dia. Thru 1.625 C-Bore x 3.500 DP	0.05	4.9	1.813

Bearing Supports/End Machining — Inch Series Ball Screws

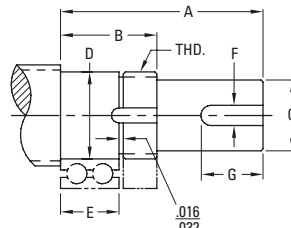
Standard End Machining

The typical ends shown below can be machined on all ball screws. Specific dimensional data is provided in the table.

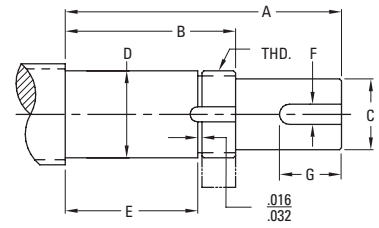
TYPE 1A, REQUIRED FOR FLOATING BEARING



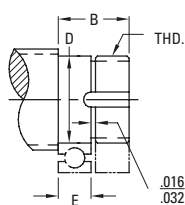
TYPE 2B



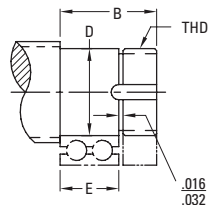
TYPE 3C, REQUIRED FOR QUICK MOUNT BEARING



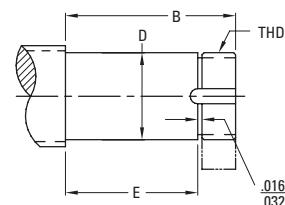
TYPE 1A1, REQUIRED FOR FLOATING BEARING



TYPE 2B1



TYPE 3C1, REQUIRED FOR QUICK MOUNT BEARING



Screw Size		Type 1A Type 1A1					Type 2B Type 2B1			Type 3C Type 3C1				Common Dimensions						
B.C.D.	Lead	A	B	E	Floating Bearing	Bearing Trade No.	A	B	E	A	B	E	Quick Mount Bearing	Bearing Trade No.	C	D	F	G	Lock Nut	Lock Washer
0.187	0.062	1.360	0.360	0.156	—	R2	1.516	0.516	0.312	1.828	0.828	0.624	—	R2	0.093/0.092	0.1251/0.1248	N/A	N/A	#5-40	N/A
0.375	0.125, 0.062	1.900	0.650	0.276	—	627	2.176	0.926	0.552	2.728	1.478	1.104	—	627	0.187/0.186	0.2757/0.2754	1/16	1.000	1/4-20	N/A
0.500	0.200, 0.500	1.970	0.720	0.315	7833291	609	2.285	1.035	0.630	2.915	1.665	1.260	7828282	609	0.250/0.249	0.3544/0.3541	3/32	1.000	5/16-24	N/A
0.631	0.200, 1.000	2.110	0.810	0.394	7833256	6201	2.504	1.204	0.788	3.292	1.992	1.576	7824154	7201	0.406/0.405	0.4726/0.4723	1/8	1.250	N-01	W-01
0.750	0.200, 0.500	1.870	0.870	0.433	7833259	6202	2.310	1.310	0.866	3.180	2.180	1.732	7824155	7202	0.500/0.499	0.5908/0.5905	1/8	0.875	N-02	W-02
0.875	0.200	2.233	0.918	0.472	7833262	6203	2.705	1.390	0.944	3.649	2.334	1.888	7824156	7203	0.562/0.561	0.6695/0.6692	1/8	1.250	N-03	W-03
1.000	0.200, 0.250, 0.500, 1.000	2.375	1.060	0.551	7833265	6204	2.926	1.611	1.102	4.028	2.713	2.204	7824157	7204	0.625/0.624	0.7877/0.7873	3/16	1.250	N-04	W-04
1.150	0.200	2.680	1.120	0.591	7833268	6205	3.271	1.711	1.182	4.453	2.893	2.364	7824158	7205	0.750/0.749	0.9846/0.9842	3/16	1.250	N-05	W-05
1.171	0.413	2.375	1.060	0.551	7833265	6204	2.926	1.611	1.102	4.028	2.713	2.204	7824157	7204	0.625/0.624	0.7877/0.7873	3/16	1.250	N-04	W-04
1.250	0.200, 0.500	2.680	1.120	0.591	7833268	6205	3.280	1.710	1.181	4.440	2.880	2.362	7824158	7205	0.750/0.749	0.9846/0.9842	3/16	1.250	N-05	W-05
1.500	0.200, 0.250, 0.500	2.970	1.160	0.630	7833270	6206	3.600	1.790	1.260	4.860	3.050	2.520	7824159	7206	1.000/0.999	1.1814/1.1810	1/4	1.250	N-06	W-06
1.500	0.473, 1.000	2.860	1.120	0.591	7833268	6205	3.271	1.711	1.182	4.453	2.893	2.364	7824158	7205	0.750/0.749	0.9846/0.9842	3/16	1.250	N-05	W-05
1.500	1.875	2.970	1.160	0.630	7833270	6206	3.600	1.790	1.260	4.860	3.050	2.520	7824159	7206	1.000/0.999	1.1814/1.1810	1/4	1.250	N-06	W-06
1.750	0.200	3.650	1.460	0.906	7833273	6308	4.556	2.366	1.812	6.368	4.178	3.624	7829554	7308	1.375/1.374	1.5752/1.5747	5/16	1.875	N-08	W-08
2.000, 2.250, 2.250	0.200, 0.500, 1.000	3.730	1.540	0.984	7833276	6309	4.714	2.524	1.968	6.682	4.492	3.936	7824160	7309	1.375/1.374	1.7721/1.7716	5/16	1.875	N-09	W-09
2.500	0.250, 0.500	4.560	1.680	1.063	7833279	6310	5.623	2.746	2.126	7.749	4.872	4.252	7824161	7310	1.750/1.749	1.9689/1.9684	3/8	2.750	N-10	W-10
3.000	0.600, 1.500	5.560	1.875	1.221	—	6312	6.781	3.096	2.442	9.223	5.538	4.884	—	7312	2.250/2.249	2.3627/2.3621	1/2	3.375	N-12	W-12
4.000	1.000	6.950	2.260	1.535	—	6316	8.485	3.795	3.070	11.555	6.865	6.140	—	7316	3.000/2.998	3.1501/3.1495	3/4	4.375	N-16	W-16