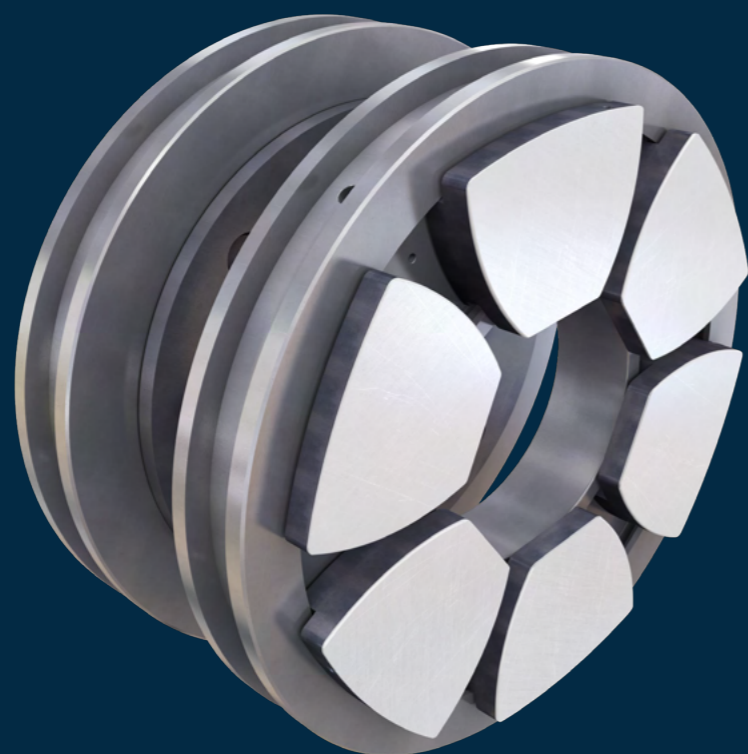


6 Pad Ring



Thrust Bearings Reference Codes

Example: 08136 NFR/HB1

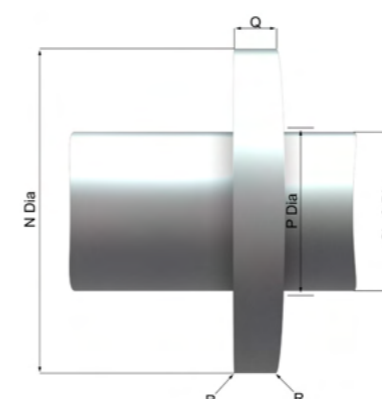
1	2		3	4	5	6	7					
Number of Thrust Pads in Full Ring	Thrust Pad Size (approx. width in mm)		Retaining Ring Form	Lubrication Arrangement	Pad Handing/Pivot Position	Retaining Ring	With or Without Adjusting Liners					
06	012	052	N Normal or standard form (all bearings in this catalogue)	F Flooded lubrication	L Left hand (anti-clockwise)	H Split (in halves)	A Without liners					
	014	057										
	017	061										
08	020	068					E Equalising segments fitted (not shown in this catalogue)	D Directed or "Low Loss" Lubrication	R Right hand (clockwise) C Centre pivoted	W Left whole	B With liners or spaces	
	023	074									B ₁ With steel liner left thick for finish machining by customer during installation	
	026	081									B ₂ As "B" including shims for adjusting	
11	028	089									B ₃ With steel liner finished machined to size	
	031	097										B ₄ As "B ₃ " including shims for adjusting
	034	105										
14	037	115										
	040	125										
	18	044	136									
048												

Key features

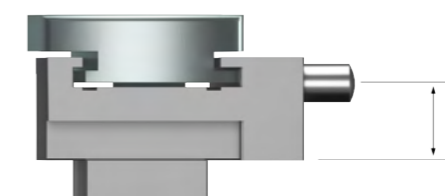
- Axial adjustment using a combination of shims and liners, finished to required thickness
- Specialist pad handing of either offset or centre pivots to suit direction of rotation
- Instrumentation to provide remote monitoring of bearing performance
- Flooded or directed 'low loss' lubrication alternatives
- 8 pad and 11 pad quantity sets can be equalised to accommodate shaft misalignment



Thrust pad stop



Detail of combined collar and shaft

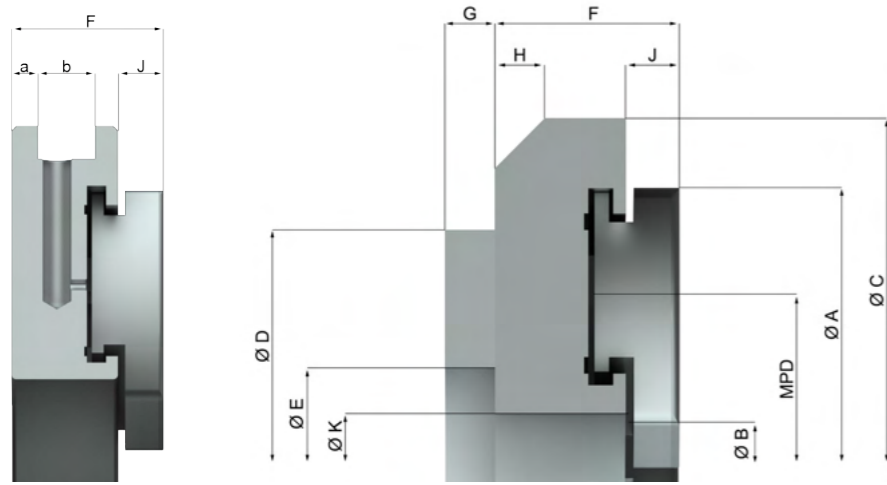


Stop pin in small thrust rings



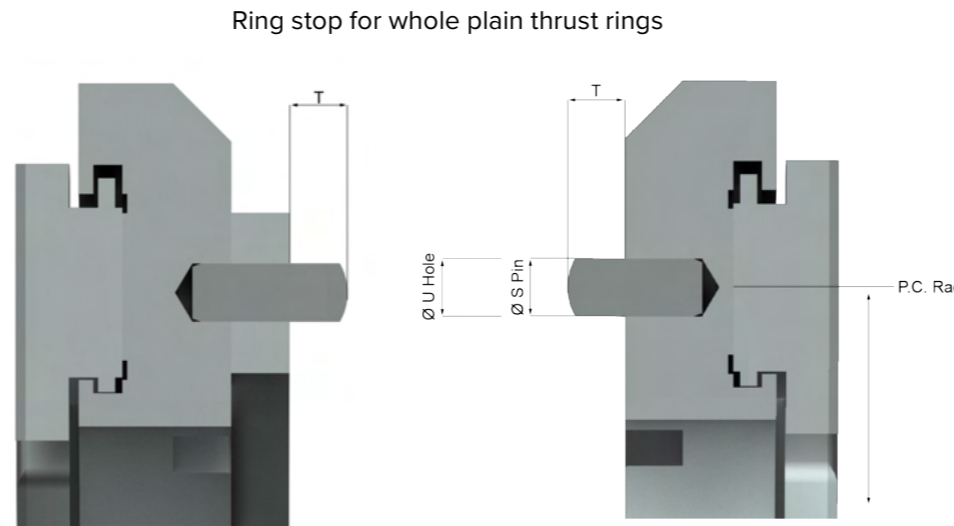
Stop key in large thrust rings

Technical information



Thrust ring for "low-loss" application

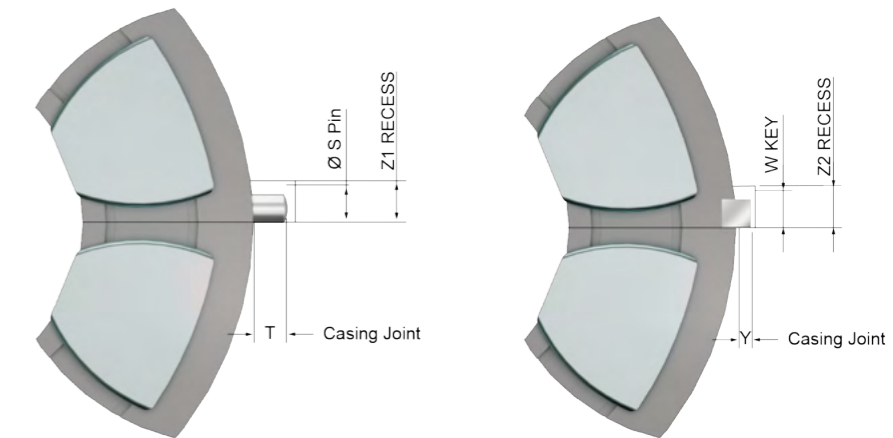
Plain thrust ring with liner



With liner

Without liner

Ring stop for split and plain rings



Pin

Key

Pad ring ref	Max shaft DIA mm	Thrust surface mm ²	Max thrust load		MPD (approx)	Total axial clearance	A	B	C	D	E	F	G	H	J	K	N	P	Q	R	Ring stop for 'whole' and 'plain' thrust rings or 'low loss' thrust rings				Ring stop for 'split' and 'plain' thrust rings														
			Offset kN	Centre kN																	S	T	U	P.C rad	Pin or key	S	T	Z1	V	W	X	Y	Z2	a	b				
06017	20	1,692	4.9	4.6	44.7	0.20	59	22.8	71.44	54	32	15.88	3.2	4	4	24	62	21.5	11	0.4	3.2	3.5	4	21.4	PIN	3.2	3.5	3.5	8									3.0	6.5
06020	24	2,424	7.5	7.1	54.1	0.25	71	28.5	82.55	62	38	17.46	3.2	5	4	31	74	27	13	0.4	4.0	4	5	26.2	PIN	4.0	4	4.8	8									4.0	7.0
06023	28	3,510	11.9	11.1	64.4	0.25	84	35.2	98.43	75	44	19.05	3.2	5	5.5	38	88	32	16	0.4	4.8	5	5.8	30.2	PIN	4.8	5	5.3	10									4.0	7.0
06026	31	4,140	14.9	13.9	70.1	0.30	92	36.9	107.95	83	51	20.64	4.8	6	5.5	40	95	35	17	0.4	4.8	5	5.8	33.3	PIN	4.8	5	5.3	11									4.0	8.0
06028	34	4,920	17.8	16.7	76.4	0.30	100	40.9	115.89	92	54	22.23	4.8	6	6.5	45	105	38	19	0.4	5.6	6	6.5	36.6	PIN	5.6	6	6.4	12									4.0	8.5
06031	36	5,820	21.5	20.0	84.2	0.30	110	45.7	127.00	98	60	23.81	4.8	6	6.5	50	113	43	21	0.8	5.6	6	6.5	39.7	PIN	5.6	6	6.4	12									4.5	9.0
06034	40	6,960	26.4	24.6	90.9	0.35	119	48.5	139.70	105	67	25.40	4.8	6	7.5	54	122	46	22	0.8	6.4	7	7.5	42.9	PIN	6.4	7	7.2	13									4.5	9.5
06037	44	8,436	32.6	30.5	99.3	0.35	130	53.0	147.64	114	67	26.99	4.8	6	7.5	58	134	51	25	0.8	7.9	8	9	46.0	PIN	7.9	8	9	13									5.5	9.5
06040	48	10,020	39.4	36.9	109.3	0.35	143	58.8	165.10	124	79	28.58	4.8	7	9.5	65	146	56	27	0.8	7.9	8	9	50.8	PIN	7.9	8	9	14									5.5	9.5
06044	52	12,120	48.8	45.0	118.2	0.40	155	62.4	179.39	137	89	31.75	4.8	7	9.5	70	159	61	30	0.8	9.5	8	10.5	55.6	PIN	9.5	8	10.3	16									5.5	12.0
06048	57	14,280	59.1	53.0	128.0	0.40	168	67.3	193.68	146	95	34.93	6.4	8	9.5	75	171	66	32	0.8	9.5	8	10.5	60.3	PIN	9.5	8	10.3	16									5.5	15.0
06052	62	16,920	71.1	63.0	140.5	0.40	184	74.9	209.55	159	105	38.10	6.4	10	11.5	84	189	72	37	0.8	11.1	8	12.5	66.7	PIN	11.1	8	12	19									6	15.0
06057	67	20,100	84.4	76.0	152.7	0.50	200	81.5	228.60	175	111	41.28	6.4	10	11.5	90	203	79	38	0.8	11.1	8	12.5	71.4	PIN	11.1	8	12	19									6	17.5
06061	74	24,000	100.8	92.0	167.7	0.50	219	90.9	247.65	194	124	44.45	6.4	11	13.5	100	224	87	43	0.8	12.7	10	14	79.4	PIN	12.7	10	13.5	22									7	17.5
06068	80	28,980	121.7	112.0	183.4	0.50	240	98.4	266.70	213	137	47.63	6.4	11	13.5	110	243	97	48	0.8	12.7	10	14	87.3	PIN	12.7	10	13.5	22									7	20.0
06074	88	34,620	145.4	134.0	199.2	0.50	261	106.0	292.10	232	149	50.8	6.4	11	13.5	118	265	104	53	0.8	12.7	10	14	95.3	KEY							15.9	28.6	5.6	17	8	21.0		
06081	95	41,220	173.0	160.0	218.6	0.60	286	117.5	317.50	251	162	57.15	6.4	13	15	130	289	116	56	0.8	15.9	13	17.5	103.2	KEY							15.9	31.8	5.6	17	9	24.0		
06089	105	48,600	204.0	190.0	236.3	0.60	310	124.8	342.90	270	178	60.33	6.4	13	15	140	315	123	64	0.8	19.1	13	21	112.7	KEY							19.1	31.8	6.4	20	9	27.0		
06097	112	59,400	250.0	232.0	259.5	0.60	340	138.2	371.48	295	194	66.68	9.5	14	17	153	343	136	67	0.8	19.1	13	21	122.2	KEY							19.1	38.1	6.4	20	9	31.0		
06105	127	69,600	292.0	270.0	281.5	0.60	369	149.5	406.40	314	222	73.03	9.5	16	18	165	375	147	76	0.8	19.1	13	21	133.4	KEY							19.1	38.1	6.4	20	10	35.0		
06115	135	83,400	350.0	325.0	307.5	0.70	403	163.5	441.33	356	229	79.38	9.5	16	19	180	410	160	79	1.5	22.2	16	24	146.1	KEY							19.1	44.5	6.4	20	10	40.0		
06125	150	98,040	412.0	382.0	334.9	0.70	439	177.6	482.60	387	251	85.73	12.7	17	22	195	447	174	92	1.5	25.4	16	27	158.8	KEY							22.2	44.5	8	23	10	43.0		
06136	160	118,200	496.0	460.0	365.5	0.70	479	194.4	523.88	419	267	92.00	12.7	19	27	213	486	190	95	1.5	25.4	16	27	171.5	KEY							22.2	50.8	8	23	10	45.0		

OVER	13	22	41	65
"F" UP TO AND INC.	22	41	65	92
TOLERANCE	+0.010 -0.030	+0.013 -0.043	+0.020 -0.071	+0.020 -0.071

Dimensions are in millimetres. Please contact us for additional details if required.
Michell Bearings reserve the right to change the design without notice.

8 Pad Ring



Thrust Bearings Reference Codes

Example: 08136 NFR/HB1

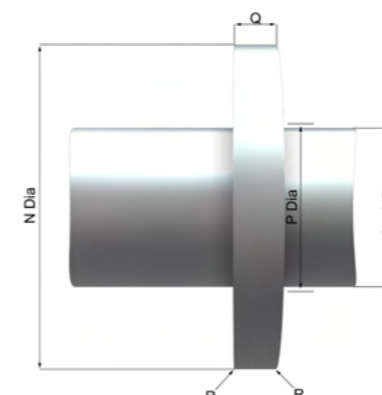
1	2		3	4	5	6	7				
Number of Thrust Pads in Full Ring	Thrust Pad Size (approx. width in mm)		Retaining Ring Form	Lubrication Arrangement	Pad Handing/Pivot Position	Retaining Ring	With or Without Adjusting Liners				
06	012	052	N Normal or standard form (all bearings in this catalogue)	F Flooded lubrication	L Left hand (anti-clockwise)	H Split (in halves)	A Without liners				
	014	057									
	017	061									
08	020	068					E Equalising segments fitted (not shown in this catalogue)	D Directed or "Low Loss" Lubrication	R Right hand (clockwise) C Centre pivoted	W Left whole	B With liners or spaces
	023	074									
	026	081									
11	028	089	B ₁ With steel liner left thick for finish machining by customer during installation								
	031	097									
	034	105									
14	037	115		B ₂ As "B" including shims for adjusting							
	040	125									
	044	136									
18	044	136	B ₃ With steel liner finished machined to size								
	048										
			B ₄ As "B ₃ " including shims for adjusting								

Key features

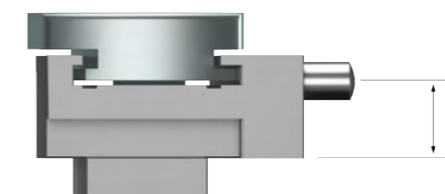
- Axial adjustment using a combination of shims and liners, finished to required thickness
- Specialist pad handing of either offset or centre pivots to suit direction of rotation
- Instrumentation to provide remote monitoring of bearing performance
- Flooded or directed 'low loss' lubrication alternatives
- 8 pad and 11 pad quantity sets can be equalised to accommodate shaft misalignment



Thrust pad stop



Detail of combined collar and shaft

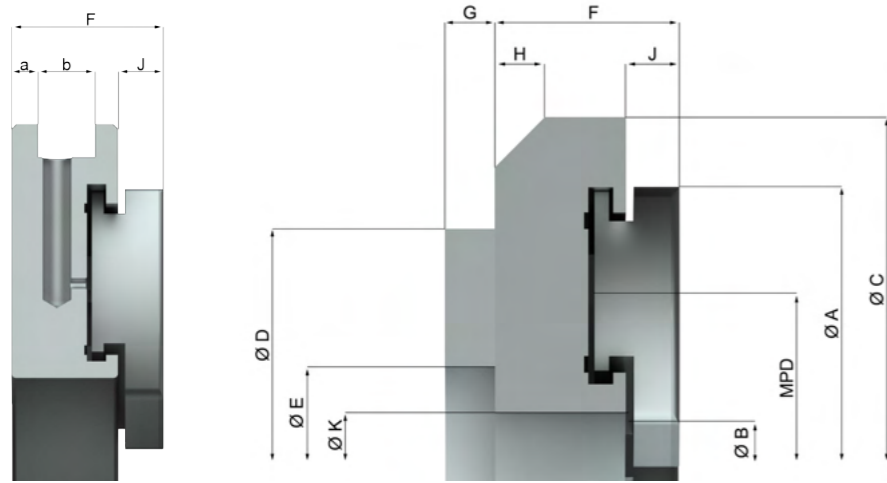


Stop pin in small thrust rings

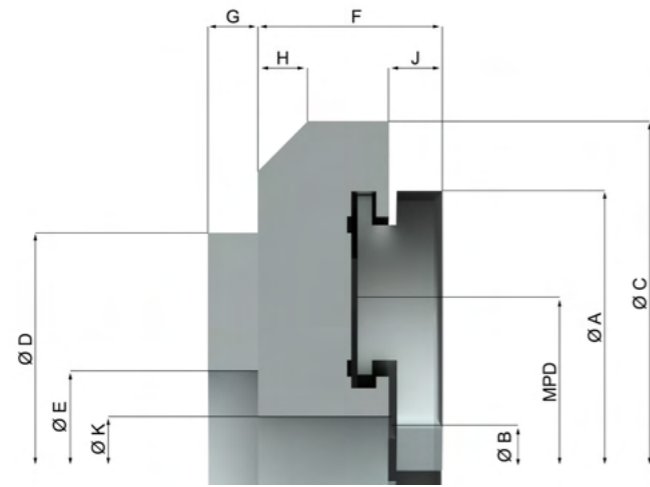


Stop key in large thrust rings

Technical information

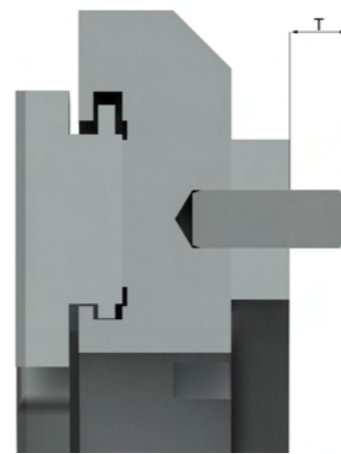


Thrust ring for "low-loss" application

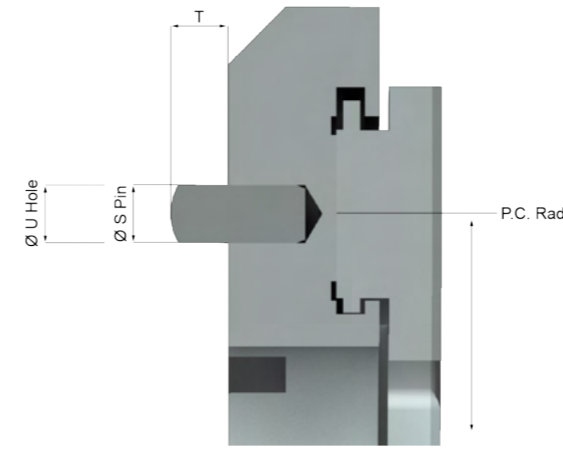


Plain thrust ring with liner

Ring stop for whole plain thrust rings

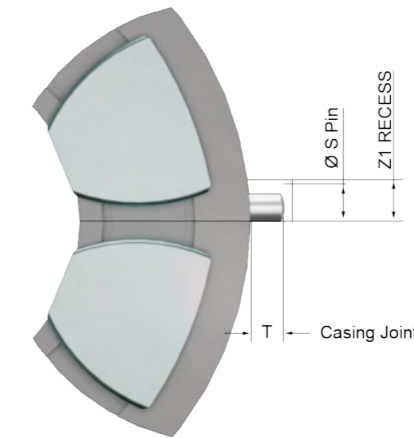


With liner

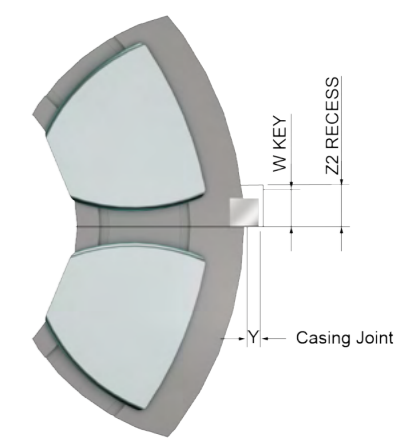


Without liner

Ring stop for split and plain rings



Pin



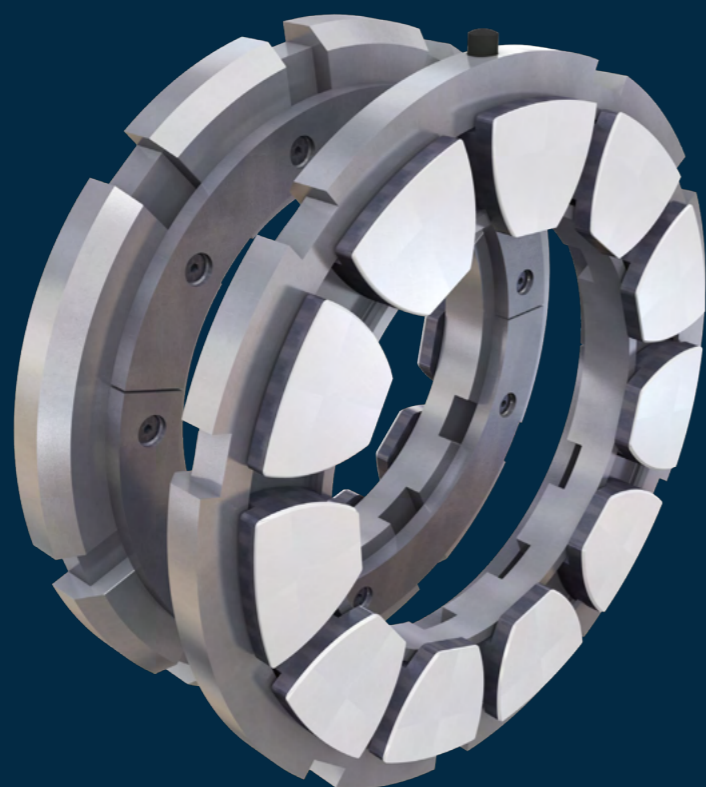
Key

Pad ring ref	Max shaft DIA mm	Thrust surface mm ²	Max thrust load		MPD (approx)	Total axial clearance	A	B	C	D	E	F	G	H	I	K	N	P	Q	R	Ring stop for 'whole' and 'plain' thrust rings or 'low loss' thrust rings				Ring stop for 'split' and 'plain' thrust rings												
			Offset kN	Centre kN																	S	T	U	P.C. rad	Pin or key	S	T	Z1	V	w	X	Y	Z2	a	b		
08012	25	1,120	2.78	2.43	41.9	0.20	52.5	27.6	63.50	51	32	12.70	3.2	3	2.5	28	54	26.5	7	0.4	3.2	3.5	4	20.6	PIN	3.2	3.5	3.8	6							3.0	5.0
08014	29	1,568	4.16	3.78	49.7	0.20	62	33	73.03	60	38	14.29	3.2	4	2.5	34	64	32	9	0.4	4.0	4	5	24.6	PIN	4.0	4	4.8	7							3.0	6.5
08017	35	2,256	6.5	6.1	59.5	0.20	74.5	39	85.73	70	48	15.88	3.2	4	4	40.5	76	38	10	0.4	4.8	5	5.8	29.4	PIN	4.8	5	5.3	8							3.0	6.5
08020	41	3,232	10.0	9.4	69.4	0.25	87.5	45.8	101.60	81	56	17.46	3.2	5	4	48	90	43	13	0.8	4.8	5	5.8	34.1	PIN	4.8	5	5.3	9							4.0	7.0
08023	49	4,680	15.8	14.7	84.6	0.25	105	57.2	120.56	95	70	19.05	3.2	5	5.5	59	108	54	16	0.8	5.6	6	6.5	41.3	PIN	4.8	6	6.4	9.5							4.0	8.5
08026	54	5,520	19.8	18.5	91.1	0.30	114	60	130.18	105	73	20.64	4.8	6	5.5	63	117	58	17	0.8	6.4	7	7.5	44.5	PIN	6.4	7	7.2	10							4.0	9.5
08028	58	6,560	23.8	22.3	99.3	0.30	124	66	139.70	113	81	22.23	4.8	6	6.5	69	127	64	19	0.8	6.4	7	7.5	48.4	PIN	6.4	7	7.2	10							4.0	10.0
08031	64	7,760	28.6	26.7	110.1	0.30	137	74	152.40	125	87	23.81	4.8	6	6.5	78	140	70	21	0.8	6.4	7	7.5	53.2	PIN	6.4	7	7.2	11							4.5	10.5
08034	70	9,280	35.2	32.9	119.6	0.35	149	79.9	168.28	135	97	25.40	4.8	6	7.5	85	152	76	22	0.8	7.9	8	9	57.9	PIN	7.9	8	9	13							4.5	11.0
08037	76	11,248	43.4	40.7	129.9	0.35	162	86.6	180.96	149	105	26.99	4.8	6	7.5	92	165	84	25	0.8	7.9	8	9	63.5	PIN	7.9	8	9	13							5.5	11.0
08040	82	13,360	52.5	49.3	140.9	0.35	176	93.4	196.85	162	117	28.58	4.8	6	9.5	100	179	92	27	0.8	7.9	8	9	69.9	PIN	7.9	8	9	13							5.5	11.0
08044	90	16,160	65.1	60.0	153.5	0.40	192	101.3	215.90	178	127	31.75	4.8	7	9.5	109	195	100	30	0.8	9.5	8	10.5	76.2	PIN	9.5	8	10.3	14							5.5	12.0
08048	98	19,040	78.8	70.8	168.1	0.40	210	111.3	234.95	191	140	34.92	6.4	8	9.5	119	213	110	32	0.8	9.5	8	10.5	82.6	PIN	9.5	8	10.3	17							5.5	15.0
08052	107	22,560	94.8	84.0	183.5	0.40	229	122.1	254.00	206	149	38.10	6.4	10	11.5	130	232	119	35	0.8	11.1	8	12.5	88.9	PIN	11.1	8	12	17							6	15.0
08057	118	26,800	112.6	102.0	201.5	0.50	251	134.9	279.40	229	165	41.28	6.4	10	11.5	144	254	132	38	0.8	12.7	10	14	98.4	PIN	12.7	10	13.5	19							6	17.5
08061	128	32,000	134.4	122.5	219.5	0.50	273	147.6	301.63	244	181	44.45	6.4	11	13.5	157	276	141	43	0.8	12.7	10	14	106.4	KEY					15.9	25.4	5.6	17	7		17.5	
08068	138	38,640	162.3	149.0	238.0	0.50	297	158.3	323.85	270	194	47.63	6.4	11	13.5	169	300	156	48	0.8	15.9	13	17.5	115.9	KEY					15.9	28.6	5.6	17	7		20.0	
08074	152	46,160	193.9	179.0	259.4	0.50	324	172.1	355.60	292	216	50.80	9.5	11	13.5	182	327	170	51	0.8	15.9	13	17.5	127.0	KEY					15.9	28.6	5.6	17	8		21.0	
08061	166	54,960	231.0	213.0	283.7	0.60	354	188.9	384.18	321	232	57.15	9.5	13	15	202	357	187	56	0.8	19.1	13	21	138.1	KEY					15.9	31.8	5.6	17	9		24.0	
08089	180	64,800	272.0	253.0	307.0	0.60	384	202.6	415.93	346	257	60.33	9.5	13	15	216	391	200	60	1.5	19.1	13	21	150.8	KEY					19.1	31.8	6.4	20	9		27.0	
08097	196	79,200	333.0	309.0	335.0	0.60	419	221.2	454.03	378	276	66.68	9.5	14	17	236	425	219	67	1.5	22.2	16	24	163.5	KEY					19.1	38.1	6.4	20	9		31.0	
08105	215	92,800	390.0	362.0	365.6	0.60	457	241.9	495.30	416	302	73.03	9.5	16	18	258	464	240	73	1.5	22.2	16	24	179.4	KEY					19.1	38.1	6.4	20	10		35.0	
08115	235	111,200	467.0	434.0	402.3	0.70	502	267.6	539.75	448	333	79.38	12.7	17	19	285	508	264	79	1.5	25.4	16	27	195.3	KEY					22.2	44.5	8	23	10		40.0	
08125	252	130,720	549.0	510.0	437.2	0.70	546	290.1	584.20	489	362	85.73	12.7	17	22	308	552	287	86	1.5	25.4	16	27	212.7	KEY					22.2	44.5	8	23	10		43.0	
08136	280	157,600	662.0	615.0	478.5	0.70	597	318.6	641.35	533	394	92.08	12.7	19	27	338	603	314	95	1.5	28.6	19	31	231.8	KEY					22.2	50.8	8	23	10		45.0	

OVER	13	22	41	65
"F" UP TO AND INC.	22	41	65	92
TOLERANCE	+0.010	+0.013	+0.015	+0.020
	-0.030	-0.043	-0.056	-0.071

Dimensions are in millimetres. Please contact us for additional details if required. Michell Bearings reserve the right to change the design without notice.

11 Pad Ring



Thrust Bearings Reference Codes

Example: 08136 NFR/HB1

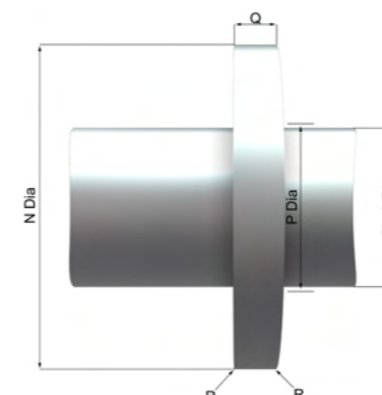
1	2		3	4	5	6	7																
Number of Thrust Pads in Full Ring	Thrust Pad Size (approx. width in mm)		Retaining Ring Form	Lubrication Arrangement	Pad Handing/Pivot Position	Retaining Ring	With or Without Adjusting Liners																
06	012	052	N Normal or standard form (all bearings in this catalogue)	F Flooded lubrication	L Left hand (anti-clockwise)	H Split (in halves)	A Without liners																
	014	057																					
	017	061																					
08	020	068					E Equalising segments fitted (not shown in this catalogue)	D Directed or "Low Loss" Lubrication	R Right hand (clockwise)	W Left whole	B With liners or spaces												
	023	074																					
	026	081																					
11	028	089	E Equalising segments fitted (not shown in this catalogue)	D Directed or "Low Loss" Lubrication	R Right hand (clockwise)	W Left whole					B ₁ With steel liner left thick for finish machining by customer during installation												
	031	097																					
14	034	105									E Equalising segments fitted (not shown in this catalogue)	D Directed or "Low Loss" Lubrication	R Right hand (clockwise)	W Left whole	B ₂ As "B" including shims for adjusting								
	037	115																					
	040	125																					
18	044	136													E Equalising segments fitted (not shown in this catalogue)	D Directed or "Low Loss" Lubrication	R Right hand (clockwise)	W Left whole	B ₃ With steel liner finished machined to size				
	048																						
	044	136																	E Equalising segments fitted (not shown in this catalogue)	D Directed or "Low Loss" Lubrication	R Right hand (clockwise)	W Left whole	B ₄ As "B ₃ " including shims for adjusting
	048																						

Key features

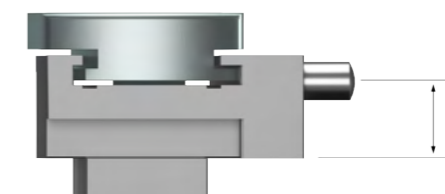
- Axial adjustment using a combination of shims and liners, finished to required thickness
- Specialist pad handing of either offset or centre pivots to suit direction of rotation
- Instrumentation to provide remote monitoring of bearing performance
- Flooded or directed 'low loss' lubrication alternatives
- 8 pad and 11 pad quantity sets can be equalised to accommodate shaft misalignment



Thrust pad stop



Detail of combined collar and shaft

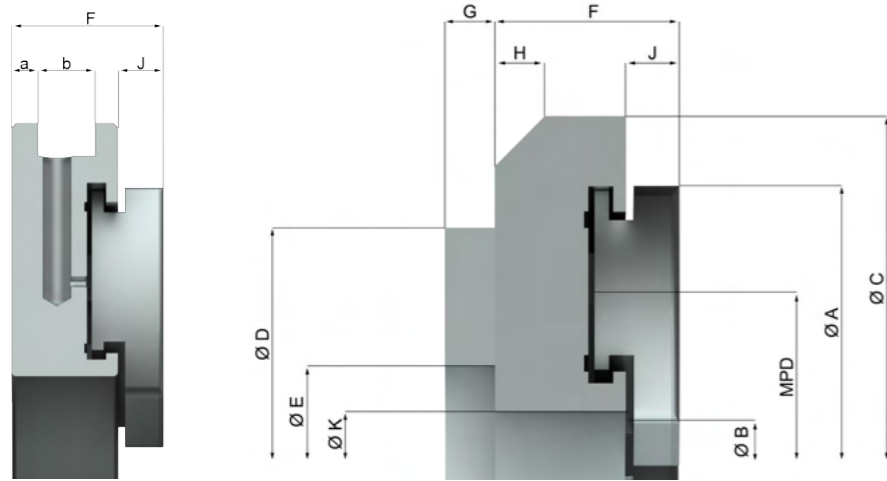


Stop pin in small thrust rings



Stop key in large thrust rings

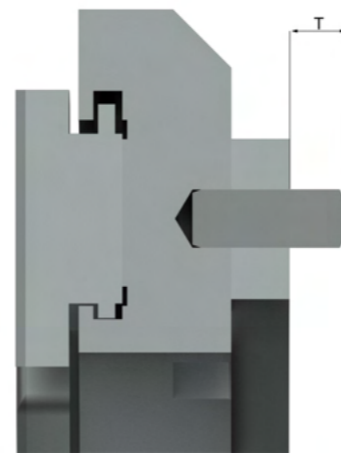
Technical information



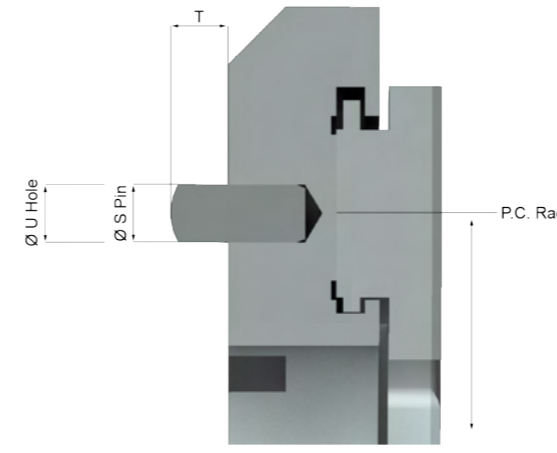
Thrust ring for "low-loss" application

Plain thrust ring with liner

Ring stop for whole plain thrust rings

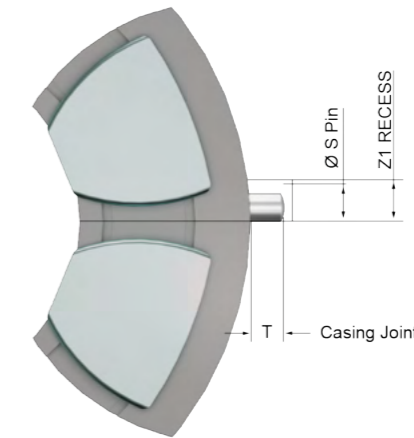


With liner

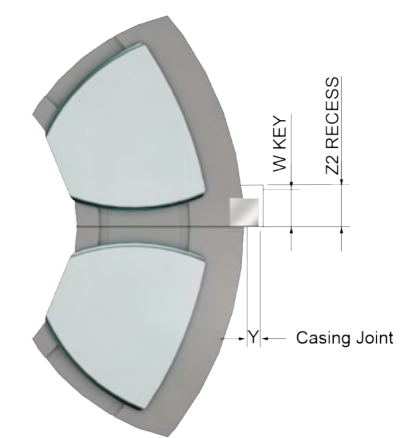


Without liner

Ring stop for split and plain rings



Pin



Key

Pad ring ref	Max shaft DIA mm	Thrust surface mm ²	Max thrust load		MPD (approx)	Total axial clearance	A	B	C	D	E	F	G	H	J	K	N	P	Q	R	Ring stop for 'whole' and 'plain' thrust rings or 'low loss' thrust rings				Ring stop for 'split' and 'plain' thrust rings												
			Offset kN	Centre kN																	S	T	U	P.C. Rad	Pin or key	S	T	Z1	V	w	X	Y	Z2	a	b		
11012	40	1,540	3.82	3.34	57.6	0.20	68.5	44	77.79	67	48	12.70	3.2	3	2.5	44.5	70	41	7	0.4	3.2	3.5	4	28.6	PIN	3.2	3.5	3.8	6							3.0	5.0
11014	48	2,156	5.71	5.2	66.8	0.20	79.5	51	92.08	78	56	14.29	3.2	4	2.5	52	83	48	9	0.4	4.0	4	5	33.3	PIN	4.0	4	4.8	7							3.0	6.5
11017	56	3,102	8.98	8.4	79.9	0.20	95.5	60.5	111.13	90	68	15.88	3.2	4	4	62	97	57	10	0.4	4.8	5	5.8	39.7	PIN	4.8	5	5.3	8							3.0	6.5
11020	68	4,444	13.8	13.0	95.7	0.25	114	73	130.18	108	83	17.46	3.2	5	4	75	117	70	13	0.8	4.8	5	5.8	47.6	PIN	4.8	5	5.3	9							4.0	7.0
11023	80	6,435	21.8	20.3	114.0	0.25	135	88	152.40	129	97	20.64	4.8	6	5.5	91	138	84	16	0.8	5.6	6	6.5	56.4	PIN	5.6	6	6.4	11							4.0	8.5
11026	87	7,590	27.25	25.4	124.4	0.30	148	95	168.28	138	106	22.23	4.8	6	5.5	98	151	92	17	0.8	6.4	7	7.5	61	PIN	6.4	7	7.2	11							4.0	9.5
11028	96	9,020	32.7	30.7	136.5	0.30	162	105	180.98	154	116	23.81	4.8	6	6.5	109	165	102	19	0.8	6.4	7	7.5	67	PIN	6.4	7	7.2	13							4.0	10.0
11031	105	10,670	39.4	36.7	147.3	0.30	175	113	196.85	164	125	25.40	4.8	6	6.5	117	178	110	21	0.8	7.9	8	9	72	PIN	7.9	8	9	13							4.5	10.5
11034	115	12,760	48.4	45.2	160.6	0.35	191	123	212.73	178	140	26.99	4.8	7	7.5	128	194	119	22	0.8	7.9	8	9	79	PIN	7.9	8	9	13							4.5	11.0
11037	125	15,466	59.7	56.0	176.9	0.35	210	136	234.95	197	152	28.58	6.4	7	7.5	141	213	132	25	0.8	9.5	8	10.5	87	PIN	9.5	8	10.3	13							5.5	11.0
11040	135	18,370	72.2	67.8	192.8	0.35	229	148	254.00	216	165	30.16	6.4	7	9.5	155	232	144	27	0.8	9.5	8	10.5	95	PIN	9.5	8	10.3	14							5.5	11.0
11044	148	22,220	89.6	82.4	209.3	0.40	249	160	279.40	235	184	31.75	6.4	7	9.5	168	252	157	30	0.8	9.5	8	10.5	105	PIN	9.5	8	10.3	14							5.5	12.0
11048	160	26,180	108.4	97.4	227.7	0.40	271	174	301.63	254	197	34.93	6.4	8	9.5	180	275	171	32	0.8	11.1	8	12.5	113	PIN	11.1	8	12	17							5.5	15.0
11052	175	31,020	130.3	116.0	248.1	0.40	295	190	323.85	276	213	38.10	6.4	8	11.5	198	298	187	35	0.8	12.7	10	14	122	KEY							15.9	22.2	5.6	17	6.0	15.0
11057	192	36,850	154.8	140.0	273.0	0.50	324	210	355.60	308	232	41.28	9.5	10	11.5	220	327	206	38	0.8	15.9	13	17.5	135	KEY							15.9	22.2	5.6	17	6.0	17.5
11061	210	44,000	184.8	168.0	296.9	0.50	352	229	384.18	330	254	44.45	9.5	10	13.5	240	356	224	43	0.8	15.9	13	17.5	146	KEY							15.9	25.4	5.6	17	7.0	17.5
11068	230	53,130	223.2	205.0	323.2	0.50	384	248	415.93	359	283	47.63	9.5	10	13.5	260	391	241	48	1.5	15.9	13	17.5	160	KEY							19.1	28.6	6.4	20	7.0	20.0
11074	250	63,470	266.6	245.0	352.5	0.50	419	270	454.03	394	305	50.80	9.5	13	13.5	282	425	264	51	1.5	19.1	13	21	175	KEY							19.1	28.6	6.4	20	8.0	21.0
11081	270	75,570	317.0	294.0	384.6	0.60	457	295	495.30	425	337	57.15	9.5	13	15	308	464	289	56	1.5	19.1	13	21	191	KEY							19.1	31.8	6.4	20	9.0	24.0
11089	295	89,100	374.0	347.0	418.6	0.60	498	320	539.75	467	365	60.33	9.5	16	15	334	505	314	60	1.5	22.2	16	24	208	KEY							22.2	31.8	8	23	9.0	27.0
11097	325	108,900	457.0	425.0	459.4	0.60	546	352	584.20	505	403	66.68	9.5	16	17	367	552	346	67	1.5	22.2	16	24	227	KEY							22.2	38.1	8	23	9.0	31.0
11105	355	127,600	536.0	498.0	499.8	0.60	594	383	641.35	552	438	73.03	9.5	16	18	400	600	376	73	1.5	25.4	16	27	248	KEY							25.4	44.5	10	26.2	10.0	35.0
11115	385	152,900	642.0	596.0	554.3	0.70	647	417	692.15	600	476	79.38	12.7	17	19	435	653	410	79	1.5	28.6	19	31	269.9	KEY							38.1	44.5	12.7	39	10.0	40.0
11125	420	179,740	755.0	700.0	593.9	0.70	706	455	755.65	651	524	85.73	12.7	17	22	473	714	447	86	1.5	31.8	19	33	293.7	KEY							38.1	44.5	12.7	39	10.0	43.0
11136	460	216,700	910.0	845.0	647.1	0.70	769	496	825.50	711	568	92.08	12.7	19	27	515	779	487	95	1.5	34.9	26	37	319.1	KEY							44.5	50.8	15.9	45	10.0	45.0

↑ OVER	13	22	41	65
"F" UP TO AND INC.	22	41	65	92
TOLERANCE	+0.010 -0.030	+0.013 -0.043	+0.015 -0.056	+0.020 -0.071

Dimensions are in millimetres. Please contact us for additional details if required.
Michell Bearings reserve the right to change the design without notice.

14 Pad Ring



Thrust Bearings Reference Codes

Example: 08136 NFR/HB1

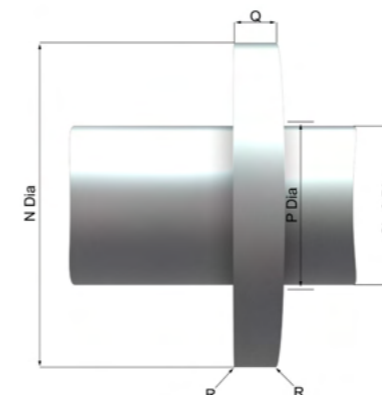
1	2		3	4	5	6	7				
Number of Thrust Pads in Full Ring	Thrust Pad Size (approx. width in mm)		Retaining Ring Form	Lubrication Arrangement	Pad Handing/Pivot Position	Retaining Ring	With or Without Adjusting Liners				
06	012	052	N Normal or standard form (all bearings in this catalogue)	F Flooded lubrication	L Left hand (anti-clockwise)	H Split (in halves)	A Without liners				
	014	057									
	017	061									
08	020	068					E Equalising segments fitted (not shown in this catalogue)	D Directed or "Low Loss" Lubrication	R Right hand (clockwise) C Centre pivoted	W Left whole	B With liners or spaces
	023	074									
	026	081									
11	028	089	B ₁ With steel liner left thick for finish machining by customer during installation								
	031	097									
14	034	105		B ₂ As "B" including shims for adjusting							
	037	115									
	040	125									
18	044	136		B ₃ With steel liner finished machined to size							
	048										
			B ₄ As "B ₃ " including shims for adjusting								

Key features

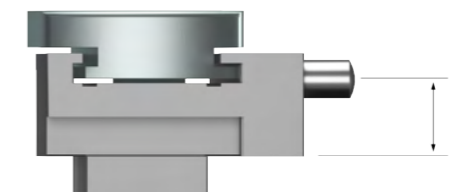
- Axial adjustment using a combination of shims and liners, finished to required thickness
- Specialist pad handing of either offset or centre pivots to suit direction of rotation
- Instrumentation to provide remote monitoring of bearing performance
- Flooded or directed 'low loss' lubrication alternatives
- 8 pad and 11 pad quantity sets can be equalised to accommodate shaft misalignment



Thrust pad stop



Detail of combined collar and shaft

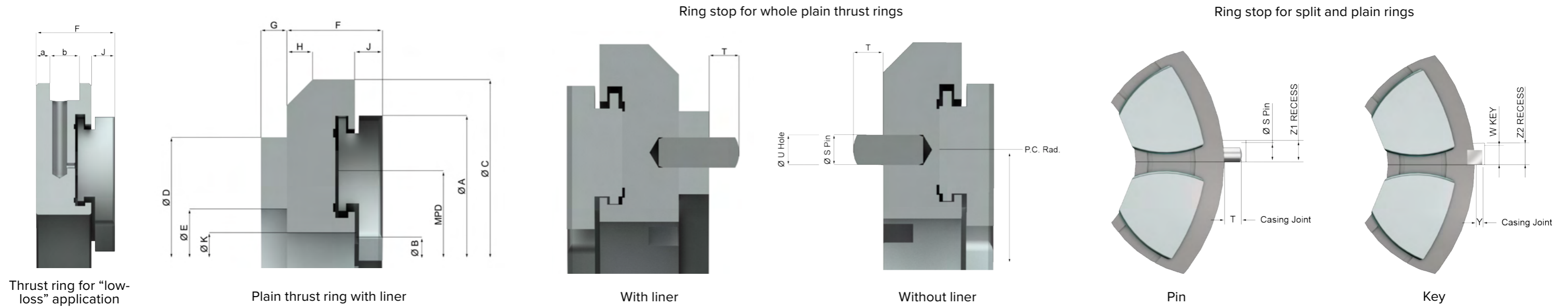


Stop pin in small thrust rings



Stop key in large thrust rings

Technical information

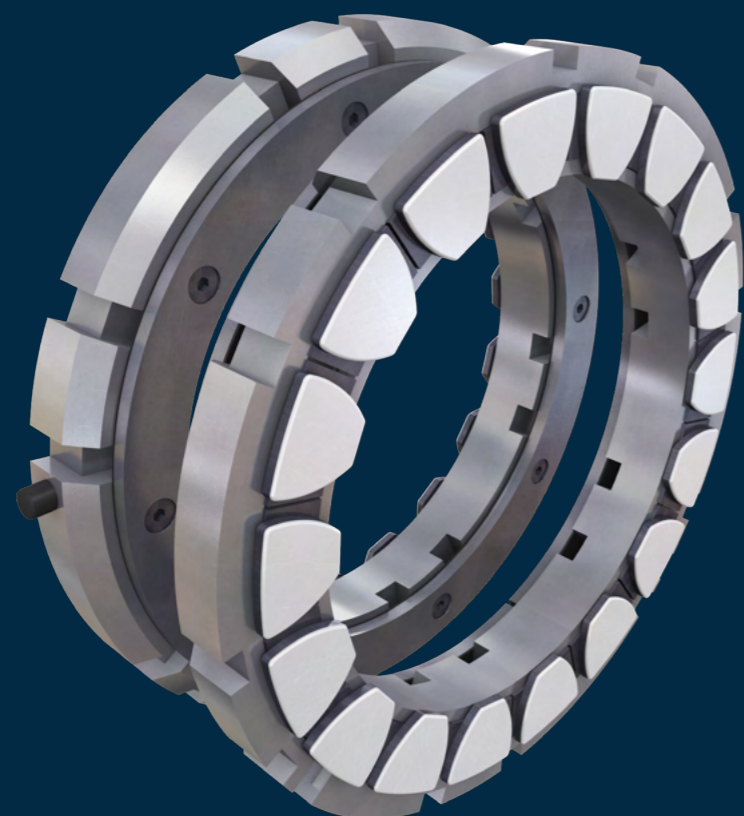


Pad ring ref	Max shaft DIA mm	Thrust surface mm ²	Max thrust load		MPD (approx)	Total axial clearance	A	B	C	D	E	F	G	H	I	K	N	P	Q	R	Ring stop for 'whole' and 'plain' thrust rings or 'low loss' thrust rings				Ring stop for 'split' and 'plain' thrust rings								a	b	
			Offset kN	Centre kN																	S	T	U	P.C. rad	Pin or key	S	T	Z1	V	w	X	Y			Z2
14012	55	1,960	4.87	4.25	71.3	0.20	82.5	58	95.25	81	62	12.70	3.2	3	2.5	58.5	84	57	7	0.4	3.2	3.5	4	35.7	PIN	3.2	3.5	3.8	6					3.0	5.0
14014	65	2,744	7.27	6.6	85.5	0.20	98.5	70	111.13	97	75	14.29	3.2	3	2.5	71	100	68	9	0.4	4.0	4	5	42.9	PIN	4.0	4	4.8	7					3.0	6.5
14017	78	3,948	11.4	10.7	101.0	0.20	117	82	130.18	114	89	15.88	3.2	4	4	84	121	80	10	0.8	4.8	5	5.8	50.8	PIN	4.8	5	5.3	8					3.0	6.5
14020	92	5,656	17.5	16.5	119.3	0.25	138	97	152.40	137	105	19.05	4.8	5	4	99	141	95	13	0.8	5.6	6	6.5	60.3	PIN	5.6	6	6.4	10					4.0	8.5
14023	110	8,190	27.7	26.0	143.4	0.25	165	118	184.15	159	127	20.64	4.8	5	5.5	120	168	114	16	0.8	6.4	7	7.5	71.4	PIN	6.4	7	7.2	10					4.0	8.5
14026	120	9,660	34.7	32.4	156.8	0.30	181	128	200.03	175	137	22.23	4.8	5	5.5	131	184	125	17	0.8	7.9	8	9	77.8	PIN	7.9	8	9	10					4.0	9.5
14028	130	11,480	41.6	39.0	170.9	0.30	197	140	219.08	191	152	23.81	4.8	6	6.5	144	200	137	19	0.8	7.9	8	9	85.7	PIN	7.9	8	9	12					4.0	10.0
14031	142	13,580	50.1	46.7	185.6	0.30	214	152	238.13	210	165	25.40	4.8	6	6.5	155	217	149	21	0.8	9.5	8	10.5	93.7	PIN	9.5	8	10.3	13					4.5	10.5
14034	155	16,240	61.6	57.5	203.9	0.35	235	167	260.35	225	181	26.99	6.4	6	7.5	172	238	164	22	0.8	9.5	8	10.5	101.6	PIN	9.5	8	10.3	13					4.5	11.0
14037	170	19,684	76.0	71.3	223.1	0.35	257	183	282.58	248	197	28.58	6.4	6	7.5	188	260	179	24	0.8	11.1	8	12.5	111.1	PIN	11.1	8	12	13					5.5	11.5
14040	182	23,380	91.9	86.3	241.9	0.35	279	198	307.98	267	216	31.75	6.4	6	9.5	205	283	195	27	0.8	11.1	8	12.5	120.7	PIN	11.1	8	12	15					5.5	12.5
14044	200	28,280	114.0	105.0	264.3	0.40	305	216	333.38	292	235	34.93	6.4	8	9.5	224	308	213	30	0.8	12.7	10	14	131.8	KEY					15.9	22.2	5.6	17	5.5	15.0
14048	220	33,320	138.0	124.0	287.6	0.40	332	235	361.95	318	254	38.10	6.4	10	9.5	243	335	232	32	0.8	12.7	10	14	142.9	KEY					15.9	22.2	5.6	17	5.5	18.0
14052	240	39,480	165.8	147.0	313.9	0.40	362	257	393.70	352	276	41.28	9.5	11	11.5	264	365	254	35	0.8	15.9	13	17.5	157.2	KEY					15.9	22.2	5.6	17	6	18.0
14057	260	46,900	197.0	178.0	341.8	0.50	394	280	425.45	378	302	44.45	9.5	11	11.5	289	400	273	38	1.5	15.9	13	17.5	169.6	KEY					19.1	25.4	6.4	20	6	20.0
14061	285	56,000	235.2	214.0	375.6	0.50	432	309	463.55	416	327	47.63	9.5	13	13.5	319	438	302	43	1.5	19.1	13	21	185.7	KEY					19.1	25.4	6.4	20	7	20.0
14068	310	67,620	284.0	261.0	407.7	0.50	470	334	501.65	451	362	50.80	9.5	13	13.5	345	476	327	48	1.5	19.1	13	21	203.2	KEY					19.1	28.6	6.4	20	7	23.0
14074	340	80,780	339.0	313.0	445.8	0.50	514	365	546.10	495	394	53.98	9.5	13	13.5	377	521	359	51	1.5	22.2	16	24	222.3	KEY					22.2	31.8	8	23	8	24.0
14081	370	96,180	404.0	374.0	483.8	0.60	558	396	596.90	533	432	60.33	9.5	14	15	409	565	391	54	1.5	22.2	16	24	241.3	KEY					22.2	34.9	8	23	9	27.0
14089	400	113,400	476.0	442.0	528.6	0.60	610	432	647.70	584	470	66.68	9.5	16	15	446	616	425	60	1.5	25.4	16	27	263.5	KEY					22.2	38.1	8	23	9	33.0

OVER	13	22	41	65
"F" UP TO AND INC.	22	41	65	92
TOLERANCE	+0.010 -0.030	+0.013 -0.043	+0.015 -0.056	+0.020 -0.071

Dimensions are in millimetres. Please contact us for additional details if required.
Michell Bearings reserve the right to change the design without notice.

18 Pad Ring



Thrust Bearings Reference Codes

Example: 08136 NFR/HB1

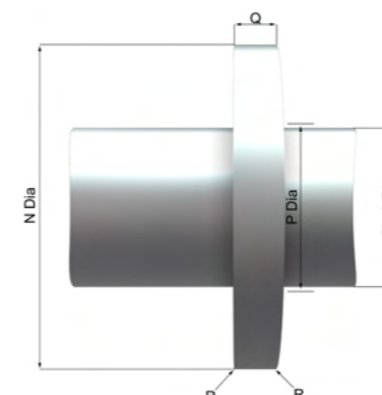
1	2		3	4	5	6	7				
Number of Thrust Pads in Full Ring	Thrust Pad Size (approx. width in mm)		Retaining Ring Form	Lubrication Arrangement	Pad Handing/Pivot Position	Retaining Ring	With or Without Adjusting Liners				
06	012	052	N Normal or standard form (all bearings in this catalogue)	F Flooded lubrication	L Left hand (anti-clockwise)	H Split (in halves)	A Without liners				
	014	057									
	017	061									
08	020	068					E Equalising segments fitted (not shown in this catalogue)	D Directed or "Low Loss" Lubrication	R Right hand (clockwise) C Centre pivoted	W Left whole	B With liners or spaces
	023	074									
	026	081									
11	028	089	B ₁ With steel liner left thick for finish machining by customer during installation								
	031	097									
	034	105									
14	037	115		B ₂ As "B" including shims for adjusting							
	040	125									
	044	136									
18	048		B ₃ With steel liner finished machined to size								
			B ₄ As "B ₃ " including shims for adjusting								

Key features

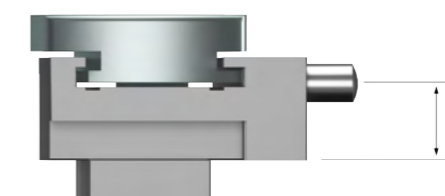
- Axial adjustment using a combination of shims and liners, finished to required thickness
- Specialist pad handing of either offset or centre pivots to suit direction of rotation
- Instrumentation to provide remote monitoring of bearing performance
- Flooded or directed 'low loss' lubrication alternatives
- 8 pad and 11 pad quantity sets can be equalised to accommodate shaft misalignment



Thrust pad stop



Detail of combined collar and shaft

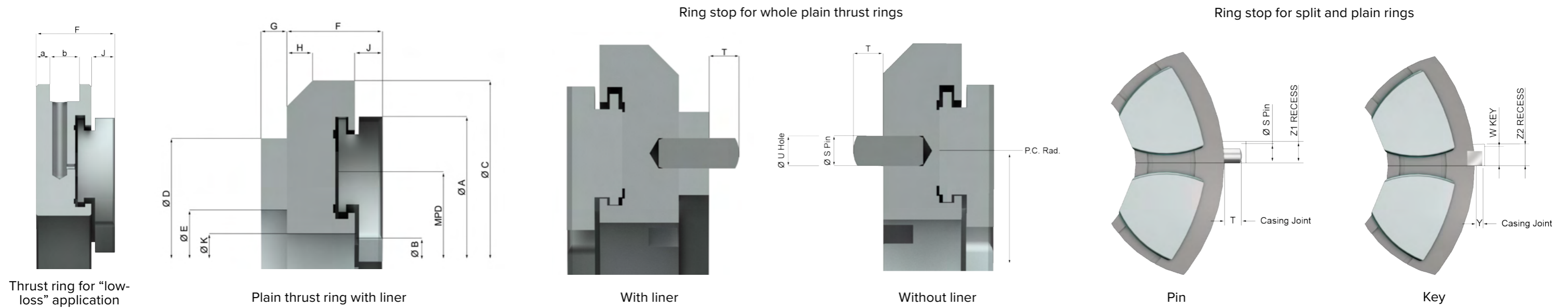


Stop pin in small thrust rings



Stop key in large thrust rings

Technical information



Thrust ring for "low-loss" application

Plain thrust ring with liner

With liner

Without liner

Pin

Key

Pad ring ref	Max shaft DIA mm	Thrust surface mm ²	Max thrust load		MPD (approx)	Total axial clearance	A	B	C	D	E	F	G	H	J	K	N	P	Q	R	Ring stop for 'whole' and 'plain' thrust rings or 'low less' thrust rings				Ring stop for 'split' and 'plain' thrust rings										
			Offset kN	Centre kN																	S	T	U	P.C. rad	Pin or key	S	T	Z1	V	w	X	Y	Z2	a	b
18012	72	2,520	6.25	5.47	91.6	0.20	103	78.5	114.30	102	83	14.29	3.2	4	2.5	79	105	76	7	0.4	4.0	4	5	46.0	PIN	4.0	4	4.8	7					3.0	6.5
18014	88	3,528	9.35	8.5	108.7	0.20	122	93.5	133.35	121	98	15.88	3.2	4	2.5	94.5	124	90	9	0.4	4.8	5	5.8	54.8	PIN	4.8	5	5.3	8					3.0	8.0
18017	105	5,076	14.7	13.7	129.7	0.20	146	111	161.93	143	117	17.46	3.2	5	4	113	149	110	10	0.8	5.6	6	6.5	65.1	PIN	5.6	6	6.4	9					3.0	8.0
18020	125	7,272	22.5	21.2	153.9	0.25	173	132	190.50	171	140	19.05	4.8	5	4	134	176	130	13	0.8	6.4	7	7.5	77.8	PIN	6.4	7	7.2	10					4.0	8.5
18023	148	10,534	35.6	33.2	184.0	0.25	206	159	225.43	203	165	22.23	4.8	6	5.5	162	210	156	16	0.8	7.9	8	9	92.1	PIN	7.9	8	9	11					4.0	10.0
18026	160	12,420	44.6	41.6	199.3	0.30	224	171	244.48	219	181	23.81	4.8	6	5.5	175	227	168	17	0.8	7.9	8	9	100.1	PIN	7.9	8	9	13					4.0	11.0
18028	175	14,760	53.4	50.2	217.4	0.30	244	187	266.70	241	197	25.40	6.4	6	6.5	192	248	184	19	0.8	9.5	8	10.5	109.5	PIN	9.5	8	10.3	13					4.0	11.5
18031	193	17,460	64.4	60.1	238.0	0.30	267	205	288.93	260	216	28.58	6.4	7	6.5	209	270	202	21	0.8	9.5	8	10.5	119.1	PIN	9.5	8	10.3	15					4.5	14.0
18034	210	20,880	79.1	73.9	260.2	0.35	292	224	317.50	286	235	30.16	6.4	7	7.5	229	295	221	22	0.8	11.1	8	12.5	130.2	PIN	11.1	8	12	15					4.5	14.5
18037	230	25,308	97.7	91.6	283.4	0.35	318	244	346.08	308	257	31.75	6.4	8	7.5	249	321	240	24	0.8	11.1	8	12.5	141.3	PIN	11.1	8	12	16					5.5	14.5
18040	255	30,060	118.1	110.0	308.2	0.35	346	265	374.65	337	279	34.93	6.4	10	9.5	272	349	262	27	0.8	12.7	10	14	154.0	KEY					15.9	22.2	5.6	17	5.5	15.5
18044	270	36,360	146.5	134.8	336.5	0.40	378	289	406.40	365	308	38.10	6.4	10	9.5	297	381	286	30	0.8	12.7	10	14	168.3	KEY					15.9	25.4	5.6	17	5.5	18.5
18048	300	42,840	177.4	159.0	367.7	0.40	413	316	444.50	406	330	41.28	9.5	11	9.5	324	419	311	32	0.8	15.9	13	17.5	184.2	KEY					15.9	25.4	5.6	17	5.5	21.0
18052	320	50,760	213.2	189.0	401.9	0.40	451	346	482.60	441	365	44.45	9.5	11	11.5	355	457	340	35	0.8	15.9	13	17.5	201.6	KEY					19.1	28.6	6.4	20	6.0	21.0
18057	355	60,300	253.3	229.0	438.7	0.50	492	378	527.05	483	394	47.63	9.5	13	11.5	387	498	371	38	0.8	19.1	13	21	219.1	KEY					19.1	28.6	6.4	20	6.0	24.0
18061	380	72,000	302.4	276.0	478.5	0.50	536	413	571.50	521	432	50.80	9.5	13	13.5	423	543	406	43	1.5	19.1	13	21	238.1	KEY					22.2	31.8	8	23	7.0	24.0
18068	420	86,940	365.2	335.0	520.5	0.50	584	448	622.30	565	476	53.98	9.5	14	13.5	459	591	441	48	1.5	22.2	16	24	260.4	KEY					22.2	31.8	8	23	7.0	26.0

↑ OVER	13	22	41	65
"F" UP TO AND INC.	22	41	65	92
TOLERANCE	+0.010 -0.030	+0.013 -0.043	+0.015 -0.056	+0.020 -0.071