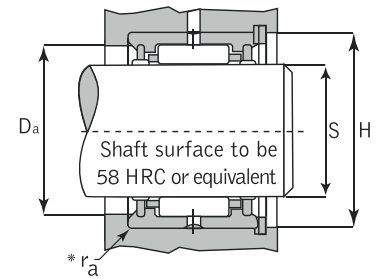


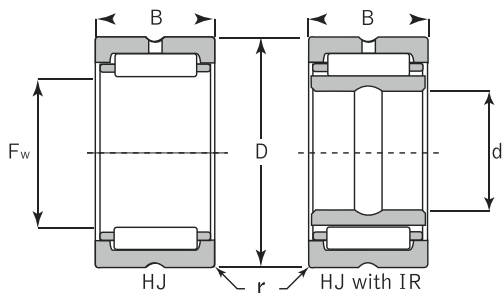


# Needle Bearings

## HJ/IR



Bearing Designation	Shaft dia.	Dimensions				Load Ratings		Limit Speed		Weight lbs	Used with Inner Ring Designation
		Fw	D	C/B	rs min	Basic Dynamic	Basic Static	Grease (rpm)	Oil (rpm)		
HJ 101812	5/8	0.6250	1.1250	0.750	0.025	4350	4650	20000	30000	0.11	IR 061012
HJ 122012 HJ 122016	3/4	0.7500 0.7500	1.2500 1.2500	0.750 1.000	0.040 0.040	4650 6190	5240 7580	16000 16000	25000 25000	0.13 0.17	IR 081212 IR 081216
HJ 142212 HJ 142216	7/8	0.8750 0.8750	1.3750 1.3750	0.750 1.000	0.040 0.040	5180 6910	6270 9070	13000 13000	21000 21000	0.14 0.19	IR 101412 IR 111412 IR 101416
HJ 162412 HJ 162416	1	1.0000 1.0000	1.5000 1.5000	0.750 1.000	0.040 0.040	5180 7560	6270 10600	12000 12000	18000 18	0.16 0.21	IR 121612 IR 121616 IR 131616
HJ 182616 HJ 182620	1-1/8	1.1250 1.1250	1.6250 1.6250	1.000 1.125	0.040 0.040	8170 10100	12100 15800	1000 10000	1600 16000	0.23 0.29	IR 141816 IR 151816 IR 141820 IR 151820
HJ 202816 HJ 202820	1-1/4	1.2500 1.2500	1.7500 1.7500	1.000 1.250	0.040 0.040	8410 10400	12900 16900	9100 9100	14000 14000	0.25 0.32	IR 162016 IR 162020
HJ 223016 HJ 223020	1/38	1.3750 1.3750	1.8750 1.8750	1.000 1.250	0.040 0.040	8950 11100	14400 18900	8200 8200	13000 13000	0.28 0.35	IR 182216 IR 182220
HJ 243316 HJ 243320	1/1/2	1.5000 1.5000	2.0625 2.0625	1.000 1.250	0.060 0.060	10700 13200	16300 21400	7600 7600	12000 12000	0.34 0.43	IR 202416 IR 192420 IR 202420
HJ 263516 HJ 263520	1-5/8	1.6250 1.6250	2.1875 2.1875	1.000 1.250	0.060 0.060	10900 13500	17200 22600	7000 7000	11000 11000	0.36 0.46	IR 212616 IR 212620 IR 222620
HJ 283716 HJ 283720	1-3/4	1.7500 1.7500	2.3125 2.3150	1.000 1.250	0.060 0.060	11200 13900	18200 23900	6400 6400	9900 9900	0.39 0.49	IR 232816 IR 242816 IR 222820 IR 232820 IR 242820
HJ 303920	1-7/8	1.8750	2.4375	1.250	0.060	14700	26300	6000	9200	0.52	IR 253020



# Needle Bearings

HJ/IR

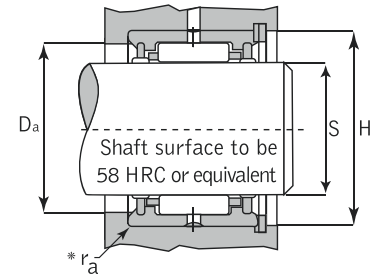


Shaft Dia.	Dimensions				Bearing Designation	Used with Inner Ring Designation	Load Ratings		Limit Speed		Weight lbs
	Fw	D	C/B	rs min			Basic Dynamic	Basic Static	Grease (rpm)	Oil (rpm)	
5/8	0.6250	1.1250	0.750	0.025	HJ 101812	IR 061012	4350	4650	20000	30000	0.11
3/4	0.7500	1.2500	0.750	0.040	HJ 122012	IR 081212	4650	5240	16000	25000	0.13
	0.7500	1.2500	1.000	0.040	HJ 122016	IR 081216	6190	7580	16000	25000	0.17
7/8	0.8750	1.3750	0.750	0.040	HJ 142212	IR 101412	5180	6270	13000	21000	0.14
	0.8750	1.3750	1.000	0.040		IR 111412					
1	1.0000	1.5000	0.750	0.040	HJ 162412	IR 121612	5180	6270	12000	18000	0.16
	1.0000	1.5000	1.000	0.040		IR 121616					
					HJ 162416	IR 131616	7560	10600	12000	18	0.21
1-1/8	1.1250	1.6250	1.000	0.040	HJ 182616	IR 141816	8170	12100	1000	1600	0.23
			1.125	0.040		IR 151816					
	1.1250	1.6250	1.125	0.040	HJ 182620	IR 141820	10100	15800	10000	16000	0.29
						IR 151820					
1-1/4	1.2500	1.7500	1.000	0.040	HJ 202816	IR 162016	8410	12900	9100	14000	0.25
	1.2500	1.7500	1.250	0.040	HJ 202820	IR 162020	10400	16900	9100	14000	0.32
1/38	1.3750	1.8750	1.000	0.040	HJ 223016	IR 182216	8950	14400	8200	13000	0.28
	1.3750	1.8750	1.250	0.040	HJ 223020	IR 182220	11100	18900	8200	13000	0.35
1-1/2	1.5000	2.0625	1.000	0.060	HJ 243316	IR 202416	10700	16300	7600	12000	0.34
	1.5000	2.0625	1.250	0.060	HJ 243320	IR 192420	13200	21400	7600	12000	0.43
						IR 202420					
1-5/8	1.6250	2.1875	1.000	0.060	HJ 263516	IR 212616	10900	17200	7000	11000	0.36
	1.6250	2.1875	1.250	0.060	HJ 263520	IR 212620	13500	22600	7000	11000	0.46
						IR 222620					
1-3/4	1.7500	2.3125	1.000	0.060	HJ 283716	IR 232816	11200	18200	6400	9900	0.39
						IR 242816					
	1.7500	2.3150	1.250	0.060	HJ 283720	IR 222820	13900	23900	6400	9900	0.49
						IR 232820					
						IR 242820					
1-7/8	1.8750	2.4375	1.250	0.060	HJ 303920	IR 253020	14700	26300	6000	9200	0.52

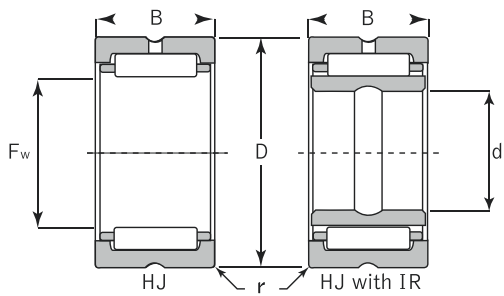


# Needle Bearings

## HJ/IR



Bearing Designation	Shaft Dia.	Dimensions				Load Ratings		Limit Speed		Weight <b>lbs</b>	Used with Inner Ring Designation
		Fw	D	C/B	rs min	Basic Dynamic	Basic Static	Grease (rpm)	Oil (rpm)		
HJ 324116 HJ 324120	2	2.0000 2.0000	2.5625 2.5625	1.000 1.250	0.060 0.060	12100 15000	20900 27500	5600 5600	8600 8600	0.44 0.55	IR 273216 IR 243220 IR 253220 IR 263220 IR 273220
HJ 364824 HJ 364828	2-1/4	2.2500 2.2500	3.0000 3.0000	1.500 1.750	0.060 0.060	20200 23400	36900 44500	5000 5000	7600 7600	1.01 1.17	IR 283624 IR 283628
HJ 405224 HJ 405228	2-1/2	2.5000 2.5000	3.2500 3.2500	1.500 1.750	0.080 0.080	21800 25200	42100 50800	4400 4400	6800 6800	1.10 1.29	IR 314024 IR 324024 IR 314028 IR 324028
HJ 445616 HJ 445624 HJ 445628	2-3/4	2.7500 2.7500 2.7500	3.5000 3.5000 3.5000	1.000 1.500 1.750	0.080 0.080 0.080	15100 22700 26300	27000 45700 55100	4000 4000 4000	6200 6200 6200	0.80 1.20 1.40	IR 364424 IR 354428 IR 364428
HJ 486024 HJ 486028	3	3.0000 3.0000	3.7500 3.7500	1.500 1.750	0.080 0.080	24100 43900	50900 86000	3700 3700	5600 5600	1.29 1.51	IR 404824 IR 384828 IR 404828
HJ 526828 HJ 526832	3-1/4	3.2500 3.2500	4.2500 4.2500	1.750 2.000	0.080 0.080	36400 41300	68600 80500	3400 3400	5300 5300	2.24 2.56	IR 445228 IR 445232
HJ 567232	3-1/2	3.5000	4.5000	2.000	0.080	42000	84300	3200	4900	2.73	IR 475632 IR 485632
HJ 607632	3-3/4	3.7500	4.7500	2.000	0.100	44200	91000	4540	4375	3.208	IR 506032 IR 526032
HJ 648032	4	4.0000	5.0000	2.000	0.100	46000	98000	4230	4625	3.397	IR 526432 IR 546432 IR 566432
HJ 688432	4-1/4	4.2500	5.2500	2.000	0.100	46500	102000	3970	4875	3.586	IR 566832 IR 606832
HJ 729636 HJ 729640	4-1/2	4.5000 4.5000	6.0000 6.0000	2.250 2.500	0.100 0.100	64400 71700	116000 134000	3850 3850	5438 5438	6.691 7.434	IR 607236 IR 607240



# Needle Bearings

HJ/IR



Shaft Dia.	Dimensions				Bearing Designation	Used with Inner Ring Designation	Load Ratings		Limit Speed		Weight
	Fw	D	C/B	rs min			Basic Dynamic	Basic Static	Grease (rpm)	Oil (rpm)	lbs
2	2.0000	2.5625	1.000	0.060	HJ 324116	IR 273216	12100	20900	5600	8600	0.44
	2.0000	2.5625	1.250	0.060	HJ 324120	IR 243220	15000	27500	5600	8600	0.55
						IR 253220					
						IR 263220					
2-1/4	2.2500	3.0000	1.500	0.060	HJ 364824	IR 283624	20200	36900	5000	7600	1.01
	2.2500	3.0000	1.750	0.060	HJ 364828	IR 283628	23400	44500	5000	7600	1.17
2-1/2	2.5000	3.2500	1.500	0.080	HJ 405224	IR 314024	21800	42100	4400	6800	1.10
						IR 324024					
	2.5000	3.2500	1.750	0.080	HJ 405228	IR 314028	25200	50800	4400	6800	1.29
						IR 324028					
2-3/4	2.7500	3.5000	1.000	0.080	HJ 445616		15100	27000	4000	6200	0.80
	2.7500	3.5000	1.500	0.080	HJ 445624	IR 364424	22700	45700	4000	6200	1.20
	2.7500	3.5000	1.750	0.080	HJ 445628	IR 354428	26300	55100	4000	6200	1.40
						IR 364428					
3	3.0000	3.7500	1.500	0.080	HJ 486024	IR 404824	24100	50900	3700	5600	1.29
	3.0000	3.7500	1.750	0.080	HJ 486028	IR 384828	43900	86000	3700	5600	1.51
						IR 404828					
3-1/4	3.2500	4.2500	1.750	0.080	HJ 526828	IR 445228	36400	68600	3400	5300	2.24
	3.2500	4.2500	2.000	0.080	HJ 526832	IR 445232	41300	80500	3400	5300	2.56
3-1/2	3.5000	4.5000	2.000	0.080	HJ 567232	IR 475632	42000	84300	3200	4900	2.73
						IR 485632					
3-3/4	3.7500	4.7500	2.000	0.100	HJ 607632	IR 506032	44200	91000	4540	4375	3.38
						IR 526032					
4	4.0000	5.0000	2.000	0.100	HJ 648032	IR 526432	46000	98000	4230	4625	3.56
						IR 546432					
						IR 566432					
4-1/4	4.2500	5.2500	2.000	0.100	HJ 688432	IR 566832	46500	102000	3970	4875	3.74
						IR 606832					
4-1/2	4.5000	6.0000	2.250	0.100	HJ 729636	IR 607236	64400	116000	3850	5438	6.02
	4.5000	6.0000	2.500	0.100	HJ 729640	IR 607240	71700	134000	3850	5438	6.71



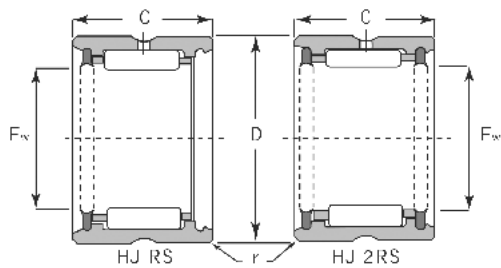
# Needle Bearings

HJ-RS / HJ-2RS



Bearing Designation		Dimensions					Load Ratings				Used with Inner Ring No.
One Seal	Two Seals	Shaft Diameter	Fw	D	C/B	rs min	Basic Dynamic C	Basic Static C0	Limiting Speed RPM	Mass Approx. <b>lbs</b>	
							lbf				
HJ 101816 RS	HJ 101816 2RS	5/8	0.625	1.125	1	0.025	4 350	4 650	6 100	0.15	
HJ 122016 RS	HJ 122016 2RS	3/4	0.75	1.25	1	0.04	4 650	5 240	5 100	0.17	IR 081216
HJ 142216 RS	HJ 142216 2RS	7/8	0.875	1.375	1	0.04	5 180	6 270	4 400	0.19	IR 101416
HJ 162416 RS	HJ 162416 2RS	1	1	1.5	1	0.04	5 680	7 300	3 800	0.21	IR 121616 IR 131616
HJ 182620 RS	HJ 182620 2RS	1-1/8	1.125	1.625	1.25	0.04	8 170	12 100	3 400	0.29	IR 141820 IR 151820
HJ 202820 RS	HJ 202820 2RS	1-1/4	1.25	1.75	1.25	0.04	8 410	12 900	3 100	0.32	IR 162020
HJ 223020 RS	HJ 223020 2RS	1-3/8	1.375	1.875	1.25	0.04	8 950	14 400	2 800	0.35	IR 182220
HJ 243320 RS	HJ 243320 2RS	1-1/2	1.5	2.0625	1.25	0.06	10 700	16 300	2 500	0.43	IR 192420 IR 202420
HJ 263520 RS	HJ 263520 2RS	1-5/8	1.625	2.1875	1.25	0.06	10 900	17 200	2 400	0.46	IR 212620
HJ 283720 RS	HJ 283720 2RS	1-3/4	1.75	2.3125	1.25	0.06	11 200	18 200	2 200	0.49	IR 222820 IR 232820 IR 242820
HJ 324120 RS	HJ 324120 2RS	2	2	2.5625	1.25	0.06	12 100	20 900	1 900	0.55	IR 243320 IR 253220 IR 263220 IR 273220
HJ 364828 RS	HJ 364828 2RS	2-1/4	2.25	3	1.75	0.06	20 200	36 900	1 700	1.17	IR 283628
HJ 405228 RS	HJ 405228 2RS	2-1/2	2.5	3.25	1.75	0.08	21 800	42 100	1 500	1.29	IR 222620 IR 314028 IR 324028
HJ 445628 RS	HJ 445628 2RS	2-3/4	2.75	3.5	1.75	0.08	22 700	45 700	1 400	1.4	IR 354428 IR 364428
HJ 486028 RS	HJ 486028 2RS	3	3	3.75	1.75	0.08	24 100	50 900	1 300	1.51	IR 384828 IR 404828

† See pages XXX for inch series inner ring. Inner rings must be ordered separately



# Needle Bearings

## HJ/IR



Dimensions					Bearing Designation		Used with Inner Ring No.†	Load Ratings			
Shaft Diameter	Fw (inch)	D	C/B	rs min				lbf		Limiting Speed RPM	Mass Approx. lbs
								One seal	Two seals		
5/8	0.6250	1.1250	1.000	0.025	HJ 101816 RS	HJ 101816 2RS		4 350	4 650	6 100	0.15
3/4	0.7500	1.2500	1.000	0.04	HJ 122016 RS	HJ 122016 2RS	IR 081216	4 650	5 240	5 100	0.17
7/8	0.8750	1.3750	1.000	0.04	HJ 142216 RS	HJ 142216 2RS	IR 101416	5 180	6 270	4 400	0.19
1	1.0000	1.5000	1.000	0.04	HJ 162416 RS	HJ 162416 2RS	IR 121616	5 680	7 300	3 800	0.21
							IR 131616				
1-1/8	1.1250	1.6250	1.250	0.04	HJ 182620 RS	HJ 182620 2RS	IR 141820	8 170	12 100	3 400	0.29
							IR 151820				
1-1/4	1.2500	1.7500	1.250	0.04	HJ 202820 RS	HJ 202820 2RS	IR 162020	8 410	12 900	3 100	0.32
1-3/8	1.3750	1.8750	1.250	0.04	HJ 223020 RS	HJ 223020 2RS	IR 182220	8 950	14 400	2 800	0.35
1-1/2	1.5000	2.0625	1.250	0.06	HJ 243320 RS	HJ 243320 2RS	IR 192420	10 700	16 300	2 500	0.43
							IR 202420				
1-5/8	1.6250	2.1875	1.250	0.06	HJ 263520 RS	HJ 263520 2RS	IR 212620	10 900	17 200	2 400	0.46
1-3/4	1.7500	2.3125	1.250	0.06	HJ 283720 RS	HJ 283720 2RS	IR 222820	11 200	18 200	2 200	0.49
							IR 232820				
							IR 242820				
2	2.0000	2.5625	1.250	0.06	HJ 324120 RS	HJ 324120 2RS	IR 243320	12 100	20 900	1 900	0.55
							IR 253220				
							IR 263220				
							IR 273220				
2-1/4	2.2500	3.0000	1.750	0.06	HJ 364828 RS	HJ 364828 2RS	IR 283628	20 200	36 900	1 700	1.17
2-1/2	2.5000	3.2500	1.750	0.08	HJ 405228 RS	HJ 405228 2RS	IR 222620	21 800	42 100	1 500	1.29
							IR 314028				
							IR 324028				
2-3/4	2.7500	3.5000	1.750	0.08	HJ 445628 RS	HJ 445628 2RS	IR 354428	22 700	45 700	1 400	1.40
							IR 364428				
3	3.0000	3.7500	1.750	0.08	HJ 486028 RS	HJ 486028 2RS	IR 384828	24 100	50 900	1 300	1.51
							IR 404828				

† See pages XXX for inch series inner ring. Inner rings must be ordered separately