



NEEDLE ROLLER BEARINGS

HJ TYPE

INCH SERIES

- Check for availability.
- Nominal bearing diameters and widths shown.
- Tolerance tables found on page B-4-46.
- Clearance fit suggested for outer ring when housing is stationary relative to load.
- Tight transition fit suggested if housing rotates relative to load.

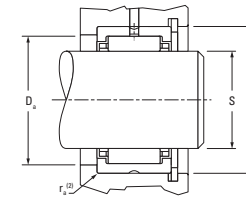
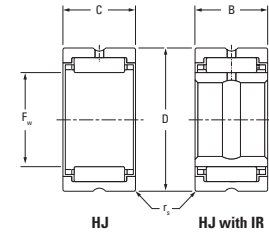
- Consult your representative for oscillating applications (e.g., low radial clearance concerns).
- Unmarked end of outer ring should be assembled against housing shoulder to clear maximum allowed housing fillet ($r_{a \max}^{(2)}$).
- Meets Military Standard MS 51961 and ASTM F2246.

Shaft Dia.	F_w	D	C (B)	$r_{a \min}$	Bearing Designation	Used With Inner Ring Designation ⁽¹⁾	Load Ratings		Fatigue Load Limit C_u	Speed Ratings	
							Dynamic	Static		Grease	Oil
							C	C_0			
in	mm in	mm in	mm in	mm in			kN lbf	kN	min ⁻¹		
1 3/4	44.450	58.738	31.750	1.52	HJ-283720	IR-222820 IR-232828 IR-253820	61.8	106	16.6	6400	9900
	1.7500	2.3125	1.250	0.06			13900	23900			
1 7/8	47.625	61.913	31.750	1.52	HJ-303920	IR-253020	65.4	117	18.1	6000	9200
	1.8750	2.4375	1.250	0.06			14700	26300			
2	50.800	65.088	25.400	1.52	HJ-324116	IR-273216	53.8	93.0	14.7	5600	8600
	2.0000	2.5625	1.000	0.06			12100	20900			
2	50.800	65.088	31.750	1.52	HJ-324120	IR-243220 IR-253220 IR-263220 IR-273220	66.7	122	19.1	5600	8600
	2.0000	2.5625	1.250	0.06			15000	27500			
2 1/4	57.150	76.200	38.100	1.52	HJ-364824	IR-283624	89.9	164	25.7	5000	7600
	2.2500	3.0000	1.500	0.06			20200	36900			
2 1/4	57.150	76.200	44.450	1.52	HJ-364828	IR-283628	104	198	30.8	5000	7600
	2.2500	3.0000	1.750	0.06			23400	44500			
2 1/2	63.500	82.550	38.100	2.03	HJ-405224	IR-314024 IR-324024	97.0	187	29.4	4400	6800
	2.5000	3.2500	1.500	0.08			21800	42100			
2 1/2	63.500	82.550	44.450	2.03	HJ-405228	IR-314028 IR-324028	112	226	35.2	4400	6800
	2.5000	3.2500	1.750	0.08			25200	50800			
2 3/4	68.850	88.900	25.400	2.03	HJ-445616	—	67.2	120	19.1	4000	6200
	2.7500	3.5000	1.000	0.08			15100	27000			
2 3/4	68.850	88.900	38.100	2.03	HJ-445624	IR-364424	101	203	31.9	4000	6200
	2.7500	3.5000	1.500	0.08			22700	45700			
2 3/4	68.850	88.900	44.450	2.03	HJ-445628	IR-354428 IR-364428	117	245	38.2	4000	6200
	2.7500	3.5000	1.750	0.08			26300	55100			
3	76.200	95.250	38.100	2.03	HJ-486024	IR-404824	107	226	35.5	3700	5600
	3.0000	3.7500	1.500	0.08			24100	50900			
3	76.200	95.250	44.450	2.03	HJ-486028	IR-384828 IR-404828	124	273	42.5	3700	5600
	3.0000	3.7500	1.750	0.08			27900	61400			
3 1/4	82.550	107.950	44.450	2.03	HJ-526828	IR-445228	162	305	48.3	3400	5300
	3.2500	4.2500	1.750	0.08			36400	68600			
3 1/4	82.550	107.950	50.800	2.03	HJ-526832	IR-445232	184	358	56.2	3400	5300
	3.2500	4.2500	2.000	0.08			41300	80500			
3 1/2	88.900	114.300	50.800	2.03	HJ-567232	IR-475632 IR-485632	187	375	58.9	3200	4900
	3.5000	4.5000	2.000	0.08			42000	84300			

⁽¹⁾ See pages B-4-54 to B-4-57 for inch series inner rings. Order inner rings separately.

⁽²⁾ $r_{a \max}$ is equal to the minimum bearing chamfer ($r_{18 \min}$) at unmarked end.

Heavy-Duty Needle Roller Bearings



Shaft surface to be 58 HRC or equivalent

Approx. Wt.	Mounting Dimensions Clearance Fit					Bearing Designation	Mounting Dimensions Tight Transition Fit				Shoulder Dia. D_s	Shaft Dia.
	S (ISO h6)		H (ISO H7)				S (ISO f6)		H (ISO N7)			
	Max.	Min.	Max.	Min.	Max.		Min.	Max.	Min.			
	mm in	mm in	mm in	mm in	mm in		mm in	mm in	mm in			
0.222	44.450	44.435	58.768	58.738	HJ-283720	44.425	44.409	58.730	58.699	53.98	1 3/4	
	0.49	1.7500	1.7494	2.3137	2.3125	1.7490	1.7484	2.3122	2.3110	2.125		
0.236	47.625	47.610	61.943	61.913	HJ-303920	47.600	47.584	61.905	61.874	57.15	1 7/8	
	0.52	1.8750	1.8744	2.4387	2.4375	1.8740	1.8734	2.4372	2.4360	2.250		
0.200	50.800	50.782	65.118	65.088	HJ-324116	50.770	50.752	65.080	65.049	60.33	2	
	0.44	2.0000	1.9993	2.5637	2.5625	1.9988	1.9981	2.5622	2.5610	2.375		
0.249	50.800	50.782	65.118	65.088	HJ-324120	50.770	50.752	65.080	65.049	60.33	2	
	0.55	2.0000	1.9993	2.5637	2.5625	1.9988	1.9981	2.5622	2.5610	2.375		
0.458	57.150	57.132	76.230	76.200	HJ-364824	57.120	57.102	76.192	76.162	68.28	2 1/4	
	1.01	2.2500	2.2493	3.0012	3.0000	2.2488	2.2481	2.9997	2.9985	2.688		
0.531	57.150	57.132	76.230	76.200	HJ-364828	57.120	57.102	76.192	76.162	68.28	2 1/4	
	1.17	2.2500	2.2493	3.0012	3.0000	2.2488	2.2481	2.9997	2.9985	2.688		
0.499	63.500	63.482	82.586	82.550	HJ-405224	63.470	63.452	82.537	82.502	74.63	2 1/2	
	1.10	2.5000	2.4993	3.2514	3.2500	2.4988	2.4981	3.2495	3.2481	2.938		
0.499	63.500	63.482	82.586	82.550	HJ-405228	63.470	63.452	82.537	82.502	74.63	2 1/2	
	1.29	2.5000	2.4993	3.2514	3.2500	2.4988	2.4981	3.2495	3.2481	2.938		
0.363	68.850	68.832	88.936	88.900	HJ-445616	68.820	68.802	88.887	88.852	80.98	2 3/4	
	0.80	2.7500	2.7493	3.5014	3.5000	2.7488	2.7481	3.4995	3.4981	3.188		
0.544	68.850	68.832	88.936	88.900	HJ-445624	68.820	68.802	88.887	88.852	80.98	2 3/4	
	1.20	2.7500	2.7493	3.5014	3.5000	2.7488	2.7481	3.4995	3.4981	3.188		
0.635	68.850	68.832	88.936	88.900	HJ-445628	68.820	68.802	88.887	88.852	80.98	2 3/4	
	1.40	2.7500	2.7493	3.5014	3.5000	2.7488	2.7481	3.4995	3.4981	3.188		
0.585	76.200	76.182	95.286	95.250	HJ-486024	76.170	76.152	95.237	95.202	87.33	3	
	1.29	3.0000	2.9993	3.7514	3.7500	2.9988	2.9981	3.7495	3.7481	3.438		
0.685	76.200	76.182	95.286	95.250	HJ-486028	76.170	76.152	95.237	95.202	87.33	3	
	1.51	3.0000	2.9993	3.7514	3.7500	2.9988	2.9981	3.7495	3.7481	3.438		
1.016	82.550	82.527	107.986	107.950	HJ-526828	82.514	82.492	107.937	107.902	98.43	3 1/4	
	2.24	3.2500	3.2491	4.2514	4.2500	3.2486	3.2477	4.2495	4.2481	3.875		
1.161	82.550	82.527	107.986	107.950	HJ-526832	82.514	82.492	107.937	107.902	98.43	3 1/4	
	2.56	3.2500	3.2491	4.2514	4.2500	3.2486	3.2477	4.2495	4.2481	3.875		
1.238	88.900	88.877	114.336	114.300	HJ-567232	88.864	88.842	114.287	114.252	104.78	3 1/2	
	2.73	3.5000	3.4991	4.5014	4.5000	3.4986	3.4977	4.4995	4.4981	4.125		