

NEEDLE ROLLER BEARINGS

HJ TYPE INCH SERIES

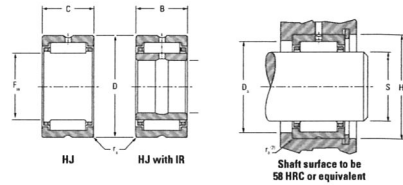
- Check for availability.
- Nominal bearing diameters and widths shown.
- Tolerance fits found on page B-4-39.
- Clearance fit suggested for outer ring when housing is stationary relative to load.
- Tight transition fit suggested if housing rotates relative to load.

- 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.
- Meets Military Standard MS 51961 and ASTM F2246.

Shaft Dia.	F _o	D	C (R)	r _{max}	Bearing Designation	Outer Ring Designation ¹	Load Ratings		Fatigue Load Limit C ₁₀	Speed Ratings	
							Dynamic C	Static C ₀		Grease	Oil
in	mm	mm	mm	mm			kN	lbf	mm ³	mm ³	
1/8	15.875 0.625	28.575 1.125	19.050 0.750	0.04 0.025	HJ-101812	IR-081812	19.3 4350	26.7 6000	3.25	20000	30000
1/4	19.050 0.750	31.750 1.250	19.050 0.750	1.02 0.04	HJ-122012	IR-081212	29.7 6650	23.3 5240	3.65	16000	25000
	19.050 0.750	31.750 1.250	25.400 1.000	1.02 0.04	HJ-122016	IR-081216	27.8 6200	33.8 7500	5.30	16000	25000
3/8	22.225 0.875	34.925 1.375	19.050 0.750	1.02 0.04	HJ-142212	IR-101412	23.1 5180	27.9 6200	4.25	13000	21000
	22.225 0.875	34.925 1.375	25.400 1.000	1.02 0.04	HJ-142216	IR-101416	21.9 4890	46.5 10400	6.25	13000	21000
1	25.400 1.000	38.100 1.500	19.050 0.750	1.02 0.04	HJ-162412	IR-121612	25.2 5660	32.5 7300	5.10	12000	16000
	25.400 1.000	38.100 1.500	25.400 1.000	1.02 0.04	HJ-162416	IR-121616	24.0 5380	47.2 10600	7.40	12000	16000
1 1/8	28.575 1.125	41.275 1.625	25.400 1.000	1.02 0.04	HJ-182616	IR-141816	36.3 8120	53.8 12000	8.45	10000	16000
	28.575 1.125	41.275 1.625	31.750 1.250	1.02 0.04	HJ-182620	IR-141820	44.9 10000	76.3 17000	10.9	10000	16000
1 1/4	31.750 1.250	44.500 1.750	25.400 1.000	1.02 0.04	HJ-202816	IR-162016	37.4 8410	57.4 12800	9.00	9000	14000
	31.750 1.250	44.500 1.750	31.750 1.250	1.02 0.04	HJ-202820	IR-162020	46.3 10400	75.2 16800	11.7	9000	14000
1 3/8	34.925 1.375	47.625 1.875	25.400 1.000	1.02 0.04	HJ-223016	IR-182216	39.8 8890	64.1 14300	10.1	8000	13000
	34.925 1.375	47.625 1.875	31.750 1.250	1.02 0.04	HJ-223020	IR-182220	48.4 10800	84.1 18800	13.0	8000	13000
1 1/2	38.100 1.500	52.388 2.0625	25.400 1.000	1.52 0.06	HJ-243216	IR-202416	47.6 10700	72.5 16300	11.4	7600	12000
	38.100 1.500	52.388 2.0625	31.750 1.250	1.52 0.06	HJ-243220	IR-202420	58.7 13000	95.2 21400	14.9	7600	12000
1 5/8	41.275 1.625	55.563 2.1875	25.400 1.000	1.52 0.06	HJ-263416	IR-222616	48.5 10900	76.5 17000	12.1	7000	11000
	41.275 1.625	55.563 2.1875	31.750 1.250	1.52 0.06	HJ-263420	IR-222620	60.1 13500	100.9 22600	15.7	7000	11000
1 3/4	44.450 1.750	58.738 2.3125	25.400 1.000	1.52 0.06	HJ-283616	IR-242816	49.8 11000	81.0 18200	12.8	6400	9900

¹ See pages B-4-48 to B-4-51 for inch series inner rings. Order inner rings separately.
² r_{max} is equal to the minimum bearing chamfer (r_{min}) at unmarked end.

Heavy-Duty Needle Roller Bearings



Approx. Wt.	Mounting Dimensions				Bearing Designation	Mounting Dimensions				Shoulder Dia.	Shaft Dia.
	Clearance Fit		Tight Transition Fit			Clearance Fit		Tight Transition Fit			
lb	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
0.050	15.875 0.625	19.050 0.750	28.575 1.125	25.400 1.000	HJ-101812	19.050 0.750	19.050 0.750	28.575 1.125	25.400 1.000	28.547 1.1226	25.83 1.018
0.060	19.050 0.750	19.050 0.750	31.750 1.250	31.750 1.250	HJ-122012	19.050 0.750	19.050 0.750	31.750 1.250	31.750 1.250	31.717 1.2467	29.63 1.168
0.077	19.050 0.750	19.050 0.750	31.750 1.250	31.750 1.250	HJ-122016	19.050 0.750	19.050 0.750	31.750 1.250	31.750 1.250	31.717 1.2467	28.97 1.136
0.064	22.225 0.875	22.225 0.875	34.925 1.375	34.925 1.375	HJ-142212	22.225 0.875	22.225 0.875	34.925 1.375	34.925 1.375	34.892 1.3727	30.18 1.188
0.066	22.225 0.875	22.225 0.875	34.925 1.375	34.925 1.375	HJ-142216	22.225 0.875	22.225 0.875	34.925 1.375	34.925 1.375	34.892 1.3727	30.18 1.188
0.073	25.400 1.000	25.363 0.9985	38.125 1.500	38.100 1.500	HJ-162412	25.363 0.9985	25.363 0.9985	38.125 1.500	38.092 1.4969	38.067 1.4867	33.32 1.312
0.095	25.400 1.000	25.363 0.9985	38.125 1.500	38.100 1.500	HJ-162416	25.363 0.9985	25.363 0.9985	38.125 1.500	38.092 1.4969	38.067 1.4867	33.32 1.312
0.104	28.575 1.125	28.562 1.140	41.200 1.625	41.275 1.650	HJ-182616	28.562 1.140	28.562 1.140	41.200 1.625	41.267 1.6401	41.242 1.6327	36.53 1.438
0.132	28.575 1.125	28.562 1.140	41.200 1.625	41.275 1.650	HJ-182620	28.562 1.140	28.562 1.140	41.200 1.625	41.267 1.6401	41.242 1.6327	36.53 1.438
0.113	31.750 1.250	31.726 1.2465	44.475 1.750	44.450 1.750	HJ-202816	31.726 1.2465	31.726 1.2465	44.475 1.750	44.442 1.7469	44.417 1.7467	39.67 1.562
0.145	31.750 1.250	31.726 1.2465	44.475 1.750	44.450 1.750	HJ-202820	31.726 1.2465	31.726 1.2465	44.475 1.750	44.442 1.7469	44.417 1.7467	39.67 1.562
0.127	34.925 1.375	34.910 1.364	47.650 1.875	47.625 1.850	HJ-223016	34.910 1.364	34.910 1.364	47.650 1.875	47.617 1.8743	47.592 1.8727	42.88 1.688
0.159	34.925 1.375	34.910 1.364	47.650 1.875	47.625 1.850	HJ-223020	34.910 1.364	34.910 1.364	47.650 1.875	47.617 1.8743	47.592 1.8727	42.88 1.688
0.154	38.100 1.500	38.065 1.4984	52.418 2.0637	52.388 2.0625	HJ-243216	38.065 1.4984	38.065 1.4984	52.418 2.0637	52.383 2.0622	52.349 2.0610	47.63 1.875
0.190	38.100 1.500	38.065 1.4984	52.418 2.0637	52.388 2.0625	HJ-243220	38.065 1.4984	38.065 1.4984	52.418 2.0637	52.383 2.0622	52.349 2.0610	47.63 1.875
0.163	41.275 1.625	41.260 1.6244	55.563 2.1875	55.563 2.1875	HJ-263416	41.260 1.6244	41.260 1.6244	55.563 2.1875	55.529 2.1860	55.504 2.1850	50.80 2.000
0.209	41.275 1.625	41.260 1.6244	55.563 2.1875	55.563 2.1875	HJ-263420	41.260 1.6244	41.260 1.6244	55.563 2.1875	55.529 2.1860	55.504 2.1850	50.80 2.000
0.177	44.450 1.750	44.426 1.7484	58.738 2.3125	58.738 2.3125	HJ-283616	44.426 1.7484	44.426 1.7484	58.738 2.3125	58.703 2.3110	58.679 2.3105	53.96 2.125

Continued on next page.