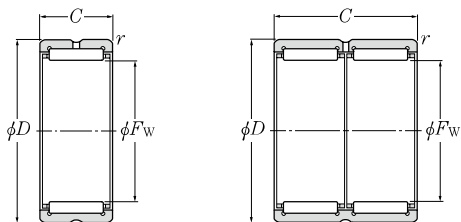


Needle Roller Bearings

NTN

Machined-ring needle roller bearings
without an inner ring

RNA49 type
RNA59 type
RNA69 type
NK type



RNA49···R type, RNA59 type
RNA69···R type ($\phi F_w \leq 35\text{mm}$)
NK···R type

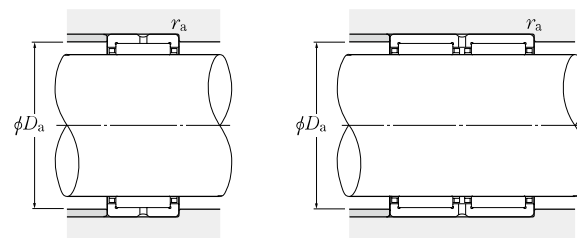
F_w 28 ~ 40mm

Boundary dimensions				Basic load rating		Fatigue load limit N C_u	Allowable speed		Number	Installation-related dimensions mm		Mass kg (approx.)
mm				dynamic N C_r	static N C_{0r}		min ⁻¹ Grease lubrication	Oil lubrication		D_a Max.	$r_{as^{(2)}}$ Max.	
F_w	28	$+0.033$ $+0.020$	39 17 0.3	23 200	29 300	3 600	9 500	14 000	RNA49/22R	37	0.3	0.050
			39 23 0.3	26 400	37 500	4 600	9 500	14 000	RNA59/22	37	0.3	0.092
			39 30 0.3	40 000	58 500	7 150	9 500	14 000	RNA69/22R	37	0.3	0.100
F_w	29	$+0.033$ $+0.020$	38 20 0.3	22 200	34 000	4 150	9 500	14 000	NK29/20R	36	0.3	0.054
			38 30 0.3	27 500	50 500	6 150	9 500	14 000	NK29/30R	36	0.3	0.084
F_w	30	$+0.033$ $+0.020$	40 20 0.3	22 100	34 000	4 150	8 500	13 000	NK30/20R	38	0.3	0.065
			40 30 0.3	33 000	57 000	6 950	8 500	13 000	NK30/30R	38	0.3	0.098
			42 17 0.3	24 000	31 500	3 800	8 500	13 000	RNA4905R	40	0.3	0.061
			42 23 0.3	30 500	43 000	5 200	8 500	13 000	RNA5905	40	0.3	0.101
			42 30 0.3	41 500	63 000	7 650	8 500	13 000	RNA6905R	40	0.3	0.112
F_w	32	$+0.041$ $+0.025$	42 20 0.3	23 500	37 500	4 600	8 500	13 000	NK32/20R	40	0.3	0.068
			42 30 0.3	34 000	60 500	7 350	8 500	13 000	NK32/30R	40	0.3	0.102
			45 17 0.3	24 800	33 500	4 050	8 500	13 000	RNA49/28RCT	43	0.3	0.073
			45 23 0.3	32 000	45 500	5 550	8 500	13 000	RNA59/28	43	0.3	0.108
			45 30 0.3	43 000	67 000	8 150	8 500	13 000	RNA69/28R	43	0.3	0.135
F_w	35	$+0.041$ $+0.025$	45 20 0.3	24 800	41 500	5 050	7 500	11 000	NK35/20RCT	43	0.3	0.074
			45 30 0.3	36 000	66 500	8 100	7 500	11 000	NK35/30R	43	0.3	0.112
			47 17 0.3	25 500	35 500	4 300	7 500	11 000	RNA4906R	45	0.3	0.069
			47 23 0.3	32 500	48 500	5 950	7 500	11 000	RNA5906	45	0.3	0.108
			47 30 0.3	42 500	67 500	8 250	7 500	11 000	RNA6906R	45	0.3	0.126
F_w	37	$+0.041$ $+0.025$	47 20 0.3	25 300	43 500	5 300	7 500	11 000	NK37/20R	45	0.3	0.077
			47 30 0.3	36 500	69 500	8 500	7 500	11 000	NK37/30R	45	0.3	0.107
F_w	38	$+0.041$ $+0.025$	48 20 0.3	25 900	45 000	5 500	7 500	11 000	NK38/20R	46	0.3	0.079
			48 30 0.3	37 500	73 000	8 900	7 500	11 000	NK38/30R	46	0.3	0.107
F_w	40	$+0.041$ $+0.025$	50 20 0.3	26 400	47 000	5 750	6 500	10 000	NK40/20R	48	0.3	0.083
			50 30 0.3	38 500	76 000	9 250	6 500	10 000	NK40/30R	48	0.3	0.125
			52 20 0.6	31 500	47 500	5 800	6 500	10 000	RNA49/32R	48	0.6	0.089
			52 27 0.6	38 000	61 000	7 450	6 500	10 000	RNA59/32	48	0.6	0.149
			52 36 0.6	47 500	82 000	10 000	6 500	10 000	RNA69/32R	48	0.6	0.162

- 1) Smallest allowable dimension for chamfer dimension r .
2) Largest allowable dimension for fillet radius r_a of housing and shaft.

Needle Roller Bearings

NTN



F_w 42 ~ 63mm

Boundary dimensions				Basic load rating		Fatigue load limit N C_u	Allowable speed		Number	Installation-related dimensions mm		Mass kg (approx.)
mm				dynamic N C_r	static N C_{0r}		min ⁻¹ Grease lubrication	Oil lubrication		D_a Max.	$r_{as^{(2)}}$ Max.	
F_w	42	$+0.041$ $+0.025$	52 20 0.3	26 900	49 000	5 950	6 500	9 500	NK42/20R	50	0.3	0.086
			52 30 0.3	39 000	79 000	9 650	6 500	9 500	NK42/30R	50	0.3	0.130
			55 20 0.6	32 000	50 000	6 100	6 500	9 500	RNA4907R	51	0.6	0.107
F_w	43	$+0.041$ $+0.025$	55 27 0.6	39 000	64 500	7 850	6 500	9 500	RNA5907	51	0.6	0.176
			55 36 0.6	49 000	86 500	10 500	6 500	9 500	RNA6907R	51	0.6	0.193
F_w	45	$+0.041$ $+0.025$	53 20 0.3	27 500	51 000	6 200	6 500	9 500	NK43/20R	51	0.3	0.086
			53 30 0.3	40 000	82 000	10 000	6 500	9 500	NK43/30R	51	0.3	0.133
F_w	47	$+0.041$ $+0.025$	55 20 0.3	28 000	52 500	6 450	6 000	9 000	NK45/20R	53	0.3	0.092
			55 30 0.3	41 000	85 500	10 400	6 000	9 000	NK45/30RCT	53	0.3	0.139
F_w	48	$+0.041$ $+0.025$	57 20 0.3	28 800	55 500	6 800	5 500	8 500	NK47/20RCT	55	0.3	0.095
			57 30 0.3	42 500	91 500	11 200	5 500	8 500	NK47/30R	55	0.3	0.142
			62 22 0.6	43 500	66 500	8 150	5 500	8 500	RNA4908R	58	0.6	0.140
F_w	50	$+0.041$ $+0.025$	62 30 0.6	53 000	92 500	11 300	5 500	8 500	RNA5908	58	0.6	0.225
			62 40 0.6	67 000	116 000	14 100	5 500	8 500	RNA6908R	58	0.6	0.256
F_w	52	$+0.041$ $+0.025$	62 25 0.6	38 500	74 500	9 050	5 500	8 000	NK50/25RCT	58	0.6	0.158
			62 35 0.6	51 000	106 000	12 900	5 500	8 000	NK50/35R	58	0.6	0.221
F_w	55	$+0.049$ $+0.030$	68 22 0.6	46 000	73 000	8 950	5 000	7 500	RNA4909R	64	0.6	0.182
			68 30 0.6	56 000	101 000	12 300	5 000	7 500	RNA5909	64	0.6	0.232
			68 40 0.6	70 500	127 000	15 500	5 000	7 500	RNA6909R	64	0.6	0.273
F_w	58	$+0.049$ $+0.030$	68 25 0.6	41 000	82 000	10 000	5 000	7 500	NK55/25R	64	0.6	0.193
			68 35 0.6	54 000	118 000	14 300	5 000	7 500	NK55/35R	64	0.6	0.26
			72 22 0.6	48 000	80 000	9 750	4 700	7 000	RNA4910R	68	0.6	0.163
F_w	60	$+0.049$ $+0.030$	72 30 0.6	58 000	110 000	13 400	4 700	7 000	RNA5910	68	0.6	0.289
			72 40 0.6	74 000	139 000	17 000	4 700	7 000	RNA6910R	68	0.6	0.320
F_w	63	$+0.049$ $+0.030$	72 25 0.6	41 000	85 000	10 400	4 300	6 500	NK60/25R	68	0.6	0.185
			72 35 0.6	57 000	130 000	15 800	4 300	6 500	NK60/35R	68	0.6	0.258
			80 25 1	58 500	99 500	12 100	4 300	6 500	RNA4911R	75	1	0.255
F_w	63	$+0.049$ $+0.030$	80 34 1	76 500	140 000	17 100	4 300	6 500	RNA5911	75	1	0.367
			80 45 1	94 000	183 000	22 300	4 300	6 500	RNA6911R	75	1	0.470

- 1) Smallest allowable dimension for chamfer dimension r .
2) Largest allowable dimension for fillet radius r_a of housing and shaft.