



**MACHINED TYPE NEEDLE ROLLER BEARINGS**

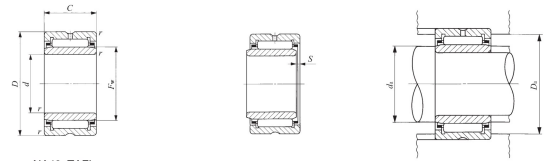
With Inner Ring



Shaft dia. 5 – 12mm

Shaft dia. mm	Identification number						Mass (Ref.)	
	NA 49	NA 69	NA 48	TAFI	TRI	GTRI	g	d
5	NA 495	—	—	—	—	—	7.3	5
	—	—	—	TAFI 51512	—	—	11.9	5
	—	—	—	TAFI 51516	—	—	16.7	5
6	NA 496	—	—	—	—	—	9.1	6
	—	—	—	TAFI 61612	—	—	13	6
	—	—	—	TAFI 61616	—	—	17.5	6
7	NA 497	—	—	—	—	—	11.2	7
	—	—	—	TAFI 71712	—	—	14.3	7
	—	—	—	TAFI 71716	—	—	19.2	7
8	NA 498	—	—	—	—	—	15	8
	—	—	—	TAFI 91912	—	—	16.7	9
9	—	—	—	TAFI 91916	—	—	22.5	9
	NA 499	—	—	—	—	—	16.7	9
	—	—	—	—	—	—	—	—
10	NA 4900	—	—	—	—	—	24	10
	—	—	—	TAFI 102216	—	—	30	10
	—	—	—	TAFI 102220	—	—	38	10
12	NA 4901	—	—	—	—	—	26.5	12
	—	—	—	TAFI 122416	—	—	33.5	12
	—	NA 6901	—	TAFI 122420	—	—	42.5	12
	—	—	—	—	—	—	44.5	12
	—	—	—	—	—	—	—	—

Notes<sup>(1)</sup> Minimum allowable value of chamfer dimension *r*  
<sup>(2)</sup> Allowable axial shift amount of inner ring to outer ring  
<sup>(3)</sup> Allowable rotational speed applies to oil lubrication. For grease lubrication, a maximum of 60% of this value is allowable.  
 Remarks 1. TAFI series with a bore diameter *d* of 22 mm or less have no oil hole. In others, the outer ring has an oil groove and an oil hole.  
 2. No grease is prepacked. Perform proper lubrication.



NA49 TAFI  
NA69 (*d* ≤ 30)

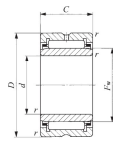
Boundary dimensions mm				Standard mounting dimensions mm		Basic dynamic load rating	Basic static load rating	Allowable rotational speed <sup>(3)</sup>	Assembled inner ring			
<i>D</i>	<i>C</i>	<i>B</i>	<i>r<sub>s</sub></i> min <sup>(1)</sup>	<i>F<sub>w</sub></i>	<i>S</i> <sup>(2)</sup>	<i>C</i>	<i>C<sub>0</sub></i>	rpm				
						Min. <i>d<sub>i</sub></i>	Max. <i>D<sub>i</sub></i>					
13	10	—	0.15	7	0.5	6.2	6.7	11.8	2 960	2 690	60 000	LRT 5710
15	12	—	0.2	8	0.5	6.6	7.7	13.4	5 060	4 690	50 000	LRT 5812
15	16	—	0.2	8	0.5	6.6	7.7	13.4	7 080	7 220	50 000	LRT 5816
15	10	—	0.15	8	0.5	7.2	7.7	13.8	3 960	3 420	50 000	LRT 6810
16	12	—	0.2	9	0.5	7.6	8.7	14.4	5 490	5 330	45 000	LRT 6912
16	16	—	0.2	9	0.5	7.6	8.7	14.4	7 680	8 210	45 000	LRT 6916
17	10	—	0.15	9	0.5	8.2	8.7	15.8	4 530	3 650	45 000	LRT 7910
17	12	—	0.2	10	0.5	8.6	9.7	15.4	5 880	5 970	40 000	LRT 71012
17	16	—	0.2	10	0.5	8.6	9.7	15.4	8 230	9 190	40 000	LRT 71016
19	11	—	0.2	10	0.5	9.6	9.9	17.4	6 180	5 030	40 000	LRT 81011
19	12	—	0.3	12	0.5	11	11.5	17	6 610	7 260	35 000	LRT 91212
19	16	—	0.3	12	0.5	11	11.5	17	9 250	11 200	35 000	LRT 91216
20	11	—	0.3	12	0.5	11	11.5	18	6 600	6 310	35 000	LRT 91211
22	13	—	0.3	14	0.5	12	13	20	9 230	10 100	30 000	LRT 101413
22	16	—	0.3	14	0.5	12	13	20	11 700	13 700	30 000	LRT 101416
22	20	—	0.3	14	0.5	12	13	20	14 800	18 600	30 000	LRT 101420
24	13	—	0.3	16	0.5	14	15	22	9 660	11 100	25 000	LRT 121613
24	16	—	0.3	16	0.5	14	15	22	12 300	15 100	25 000	LRT 121616
24	20	—	0.3	16	0.5	14	15	22	15 500	20 400	25 000	LRT 121620
24	22	—	0.3	16	0.5	14	15	22	17 100	23 000	25 000	LRT 121622

D  
NA  
TAFI  
TRI  
BRI

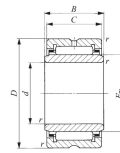


## MACHINED TYPE NEEDLE ROLLER BEARINGS

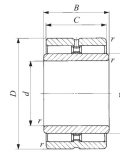
With Inner Ring



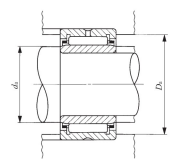
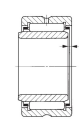
NA49 TAFI  
NA69 ( $d \leq 30$ )



TRI



GTRI



Shaft dia. 15 – 22mm

Shaft dia. mm	Identification number						Mass (Ref.) g	$d$
	NA 49	NA 69	NA 48	TAFI	TRI	GTRI		
15	—	—	—	TAFI 152716	—	—	39.5	15
	NA 4902	—	—	TAFI 152720	—	—	50	15
	—	NA 6902	—	—	—	—	35	15
	—	—	—	—	—	—	61	15
	—	—	—	—	TRI 153320	GTRI 153320	81	15
17	—	—	—	TAFI 172916	—	—	43.5	17
	NA 4903	—	—	TAFI 172920	—	—	54	17
	—	NA 6903	—	—	—	—	39	17
	—	—	—	—	—	—	67	17
	—	—	—	—	TRI 173425	GTRI 173425	104	17
20	—	—	—	TAFI 203216	—	—	48.5	20
	NA 4904	—	—	TAFI 203220	—	—	61	20
	—	NA 6904	—	—	—	—	78.5	20
	—	—	—	—	—	—	136	20
	—	—	—	—	TRI 203820	GTRI 203820	99	20
22	—	—	—	TAFI 223416	—	—	52	22
	NA 49/22	—	—	TAFI 223420	—	—	67.5	22
	—	NA 69/22	—	—	—	—	87	22
	—	—	—	—	—	—	152	22
	—	—	—	—	—	—	—	—

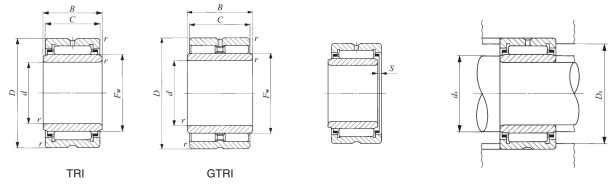
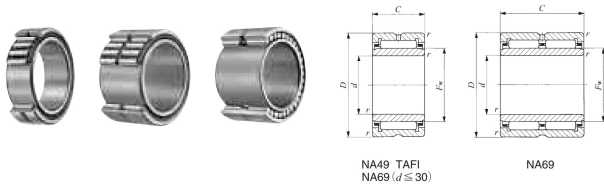
Notes(1) Minimum allowable value of chamfer dimension  $r$   
 (2) Allowable axial shift amount of inner ring to outer ring  
 (3) Allowable rotational speed applies to oil lubrication. For grease lubrication, a maximum of 60% of this value is allowable.  
 Remarks1. TAFI series with a bore diameter  $d$  of 22 mm or less have no oil hole. In others, the outer ring has an oil groove and an oil hole.  
 2. No grease is prepacked. Perform proper lubrication.

Boundary dimensions mm				Standard mounting dimensions mm			Basic dynamic load rating $C$ N	Basic static load rating $C_0$ N	Allowable rotational speed <sup>(3)</sup> rpm	Assembled inner ring		
$D$	$C$	$B$	$r_{s \min}$ <sup>(1)</sup>	$F_w$ <sup>(2)</sup>	$S$ <sup>(3)</sup>	Min. $d_{is}$					Max. $D_{is}$	
27	16	—	0.3	19	0.5	17	18	25	14 000	18 700	20 000	LRT 151916
27	20	—	0.3	19	0.5	17	18	25	17 700	25 300	20 000	LRT 151920
28	13	—	0.3	20	0.3	17	19	26	10 900	13 800	20 000	LRT 152013
28	23	—	0.3	20	0.3	17	19	26	19 300	28 800	20 000	LRT 152023
33	20	20.5	0.3	20	0.3	17	19	31	24 300	26 500	20 000	LRT 152020
33	20	20.5	0.3	20	—	17	19	31	29 200	37 200	7 500	LRTZ 152020
29	16	—	0.3	21	0.5	19	20	27	14 400	20 000	19 000	LRT 172116
29	20	—	0.3	21	0.5	19	20	27	18 200	27 100	19 000	LRT 172120
30	13	—	0.3	22	0.3	19	21	28	11 700	15 600	18 000	LRT 172213
30	23	—	0.3	22	0.3	19	21	28	20 800	32 500	18 000	LRT 172223
34	25	25.5	0.3	22	0.5	19	21	32	29 100	36 800	18 000	LRT 172225
34	25	25.5	0.3	22	—	19	21	32	37 900	57 800	7 000	LRTZ 172225
32	16	—	0.3	24	0.5	22	23	30	15 300	22 500	17 000	LRT 202416
32	20	—	0.3	24	0.5	22	23	30	19 400	30 500	17 000	LRT 202420
37	17	—	0.3	25	0.5	22	24	35	21 000	25 000	16 000	LRT 202517
37	30	—	0.3	25	0.5	22	24	35	35 400	48 900	16 000	LRT 202530
38	20	20.5	0.3	25	0.3	22	24	36	28 900	35 000	16 000	LRT 202520
38	25	25.5	0.3	25	0.5	22	24	36	34 800	44 400	16 000	LRT 202525
38	20	20.5	0.3	25	—	22	24	36	33 300	46 500	6 000	LRTZ 202520
38	25	25.5	0.3	25	—	22	24	36	42 400	63 700	6 000	LRTZ 202525
34	16	—	0.3	26	0.5	24	25	32	16 300	24 900	15 000	LRT 222616
34	20	—	0.3	26	0.5	24	25	32	20 600	33 800	15 000	LRT 222620
39	17	—	0.3	28	1	24	27	37	21 400	28 900	14 000	LRT 222817
39	30	—	0.3	28	0.5	24	27	37	36 300	56 900	14 000	LRT 222830



## MACHINED TYPE NEEDLE ROLLER BEARINGS

With Inner Ring



Shaft dia. 25 – 32mm

Shaft dia. mm	Identification number						Mass (Ref.) g	d
	NA 49	NA 69	NA 48	TAFI	TRI	GTRI		
25	—	—	—	TAFI 253820	—	—	82	25
	NA 4905	—	—	TAFI 253830	—	—	123	25
	—	NA 6905	—	—	—	—	92.5	25
	—	—	—	—	TRI 254425	—	157	25
	—	—	—	—	—	GTRI 254425	175	25
28	—	—	—	TAFI 284220	—	—	96.5	28
	NA 49/28	—	—	TAFI 284230	—	—	145	28
	—	NA 69/28	—	—	—	—	101	28
	—	—	—	—	—	—	176	28
	—	—	—	—	—	GTRI 284530	196	28
30	—	—	—	TAFI 304520	—	—	112	30
	NA 4906	—	—	TAFI 304530	—	—	171	30
	—	NA 6906	—	—	—	—	106	30
	—	—	—	—	—	—	184	30
	—	—	—	—	TRI 304830	—	199	30
32	—	—	—	TAFI 324720	—	—	121	32
	NA 49/32	—	—	TAFI 324730	—	—	180	32
	—	—	—	—	—	—	165	32
	—	NA 69/32	—	—	—	—	245	32
	—	—	—	—	TRI 325230	—	295	32
—	—	—	—	—	GTRI 325230	270	32	

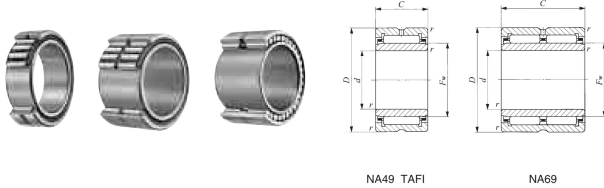
Notes (1) Minimum allowable value of chamfer dimension  $r$   
 (2) Allowable axial shift amount of inner ring to outer ring  
 (3) Allowable rotational speed applies to oil lubrication. For grease lubrication, a maximum of 60% of this value is allowable.  
 Remarks 1. The outer ring has an oil groove and an oil hole.  
 2. No grease is prepacked. Perform proper lubrication.

Boundary dimensions mm						Standard mounting dimensions mm			Basic dynamic load rating C	Basic static load rating C <sub>0</sub>	Allowable rotational speed <sup>(3)</sup> rpm	Assembled inner ring
D	C	B	r <sub>s min</sub> <sup>(1)</sup>	F <sub>w</sub> <sup>(2)</sup>	S <sup>(2)</sup>	Min. d <sub>1</sub>	Max. d <sub>2</sub>	D <sub>1</sub> Max.				
38	20	—	0.3	29	0.5	27	28	36	21 600	37 200	14 000	LRT 252920
38	30	—	0.3	29	1	27	28	36	30 900	59 100	14 000	LRT 252930
42	17	—	0.3	30	0.5	27	29	40	23 700	30 700	13 000	LRT 253017
42	30	—	0.3	30	0.5	27	29	40	42 100	64 300	13 000	LRT 253030
44	25	25.5	0.3	30	0.5	27	29	42	37 900	52 100	13 000	LRT 253025
44	25	25.5	0.3	30	—	27	29	42	47 000	76 500	5 000	LRT 253025
42	20	—	0.3	32	0.5	30	31	40	25 700	42 200	12 000	LRT 283220
42	30	—	0.3	32	1	30	31	40	36 800	67 200	12 000	LRT 283230
45	17	—	0.3	32	1	30	31	43	24 500	32 700	12 000	LRT 283217
45	30	—	0.3	32	1	30	31	43	41 800	64 800	12 000	LRT 283230
45	30	30.5	0.3	32	—	30	31	43	58 000	101 000	4 500	LRT 283230
45	20	—	0.3	35	0.3	32	34	43	26 900	46 200	11 000	LRT 303520
45	30	—	0.3	35	0.5	32	34	43	38 600	73 600	11 000	LRT 303530
47	17	—	0.3	35	0.5	32	34	45	25 200	34 700	11 000	LRT 303517
47	30	—	0.3	35	0.5	32	34	45	43 000	69 000	11 000	LRT 303530
48	30	30.5	0.3	35	1	32	34	46	47 400	72 300	11 000	LRT 303530-1
48	30	30.5	0.3	35	—	32	34	46	61 100	110 000	4 500	LRTZ 303530
47	20	—	0.3	37	0.3	34	36	45	28 200	50 100	11 000	LRT 323720
47	30	—	0.3	37	0.5	34	36	45	40 500	79 800	11 000	LRT 323730
52	20	—	0.6	40	0.5	36	39	48	31 200	47 800	10 000	LRT 324020
52	30	30.5	0.6	38	0.5	36	37	48	50 800	81 100	11 000	LRT 323830
52	36	—	0.6	40	0.3	36	39	48	53 500	95 700	10 000	LRT 324036
52	30	30.5	0.6	38	—	36	37	48	64 200	121 000	4 000	LRTZ 323830



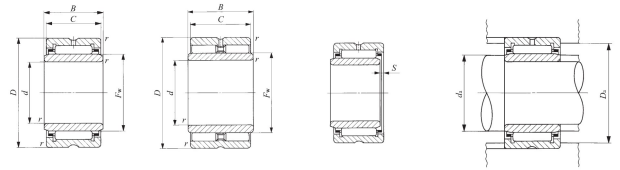
## MACHINED TYPE NEEDLE ROLLER BEARINGS

With Inner Ring



NA49 TAFI

NA69



TRI

GTRI

Shaft dia. 35 – 45mm

Shaft dia. mm	Identification number						Mass (Ref.) g	
	NA 49	NA 69	NA 48	TAFI	TRI	GTRI	$d$	$d$
35	—	—	—	TAFI 355020	—	—	129	35
	NA 4907	—	—	TAFI 355030	—	—	192	35
	—	NA 6907	—	—	—	—	178	35
	—	—	—	—	TRI 355630	—	280	35
	—	—	—	—	—	GTRI 355520 GTRI 355630	191 310	35 35
38	—	—	—	TAFI 385320	—	—	136	38
	—	—	—	TAFI 385330	—	—	205	38
40	—	—	—	TAFI 405520	—	—	143	40
	—	—	—	TAFI 405530	—	—	215	40
	—	—	—	—	TRI 405930	—	270	40
	NA 4908	—	—	—	—	—	245	40
	—	NA 6908	—	—	—	GTRI 405930	440 300	40 40
42	—	—	—	TAFI 425720	—	—	149	42
	—	—	—	TAFI 425730	—	—	225	42
	—	—	—	—	TRI 426230	—	305	42
45	—	—	—	TAFI 456225	—	—	230	45
	—	—	—	TAFI 456235	—	—	320	45
	—	—	—	—	TRI 456430	—	300	45
	NA 4909	—	—	—	—	—	285	45
	—	NA 6909	—	—	—	GTRI 456430	520 335	45 45

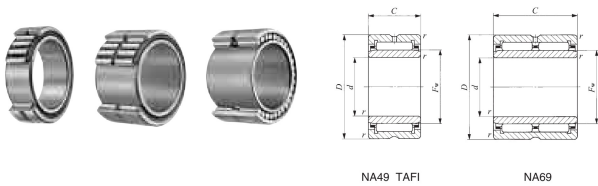
Notes(1) Minimum allowable value of chamfer dimension  $r$   
 (2) Allowable axial shift amount of inner ring to outer ring  
 (3) Allowable rotational speed applies to oil lubrication. For grease lubrication, a maximum of 60% of this value is allowable.  
 Remarks 1. The outer ring has an oil groove and an oil hole.  
 2. No grease is prepacked. Perform proper lubrication.

Boundary dimensions mm				Standard mounting dimensions mm			Basic dynamic load rating	Basic static load rating	Allowable rotational speed <sup>(3)</sup>	Assembled inner ring		
$D$	$C$	$B$	$r_{s \min}$ <sup>(1)</sup>	$F_w$	$S$ <sup>(2)</sup>	Min. $d_{is}$	Max. $d_{is}$	$D_{is}$ Max.	$C$	$C_0$	rpm	
50	20	—	0.3	40	0.3	37	39	48	29 400	54 100	10 000	LRT 354020
50	30	—	0.3	40	0.5	37	39	48	42 300	86 200	10 000	LRT 354030
55	20	—	0.6	42	0.5	39	41	51	32 000	50 100	9 500	LRT 354220
55	36	—	0.6	42	0.3	39	41	51	54 900	100 000	9 500	LRT 354236
56	30	30.5	0.6	42	0.5	39	41	52	53 800	90 100	9 500	LRT 354230
55	20	20.5	0.6	40	—	39	39.5	51	44 300	73 600	3 500	LRTZ 354020
56	30	30.5	0.6	42	—	39	41	52	67 500	133 000	3 500	LRTZ 354230
53	20	—	0.3	43	0.3	40	42	51	30 500	58 200	9 500	LRT 384320
53	30	—	0.3	43	0.5	40	42	51	43 800	92 600	9 500	LRT 384330
55	20	—	0.3	45	0.3	42	44	53	31 000	60 200	9 000	LRT 404520
55	30	—	0.3	45	0.5	42	44	53	44 600	95 800	9 000	LRT 404530
59	30	30.5	0.6	45	1	44	44.5	55	55 100	94 800	9 000	LRT 404530-1
62	22	—	0.6	48	0.5	44	47	58	41 600	67 400	8 500	LRT 404822
62	40	—	0.6	48	0.3	44	47	58	71 300	135 000	8 500	LRT 404840
59	30	30.5	0.6	45	—	44	44.5	55	70 300	142 000	3 500	LRTZ 404530
57	20	—	0.3	47	0.3	44	46	55	31 500	62 200	8 500	LRT 424720
57	30	—	0.3	47	0.5	44	46	55	45 200	99 100	8 500	LRT 424730
62	30	30.5	0.6	48	0.5	46	47	58	56 300	99 500	8 500	LRT 424830
62	30	30.5	0.6	48	—	46	47	58	72 700	154 000	3 000	LRTZ 424830
62	25	—	0.3	50	0.5	47	49	60	43 000	85 300	8 000	LRT 455025
62	35	—	0.3	50	1	47	49	60	58 000	125 000	8 000	LRT 455035
64	30	30.5	0.6	50	1	49	49.5	60	57 700	104 000	8 000	LRT 455030
68	22	—	0.6	52	0.5	49	51	64	43 500	73 300	7 500	LRT 455222
68	40	—	0.6	52	0.3	49	51	64	74 600	147 000	7 500	LRT 455240
64	30	30.5	0.6	50	—	49	49.5	60	74 600	158 000	3 000	LRTZ 455030



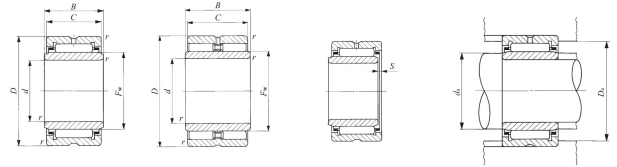
**MACHINED TYPE NEEDLE ROLLER BEARINGS**

With Inner Ring



NA49 TAFI

NA69



TRI

GTRI

Shaft dia. 50 – 70mm

Shaft dia. mm	Identification number						Mass (Ref.)	
	NA 49	NA 69	NA 48	TAFI	TRI	GTRI	g	d
50	—	—	—	TAFI 506825	—	—	270	50
	NA 4910	—	—	TAFI 506835	—	—	365	50
	—	NA 6910	—	—	—	—	295	50
	—	—	—	—	—	—	530	50
	—	—	—	—	TRI 507745	GTRI 507745	755	50
55	—	—	—	TAFI 557225	—	—	275	55
	NA 4911	—	—	TAFI 557235	—	—	380	55
	—	NA 6911	—	—	—	—	410	55
	—	—	—	—	—	—	730	55
	—	—	—	—	TRI 558138	GTRI 558138	650	55
60	—	—	—	TAFI 608225	—	—	395	60
	NA 4912	—	—	TAFI 608235	—	—	560	60
	—	NA 6912	—	—	—	—	440	60
	—	—	—	—	—	—	785	60
	—	—	—	—	TRI 608945	GTRI 608945	960	60
65	NA 4913	—	—	—	—	—	470	65
	—	NA 6913	—	TAFI 659035	—	—	710	65
	—	—	—	—	—	—	840	65
70	—	—	—	TAFI 709525	—	—	540	70
	NA 4914	—	—	TAFI 709535	—	—	755	70
	—	NA 6914	—	—	—	—	765	70
						1 400	70	

Notes(1) Minimum allowable value of chamfer dimension r  
 (2) Allowable axial shift amount of inner ring to outer ring  
 (3) Allowable rotational speed applies to oil lubrication. For grease lubrication, a maximum of 60% of this value is allowable.  
 Remarks1. The outer ring has an oil groove and an oil hole.  
 2. No grease is prepacked. Perform proper lubrication.

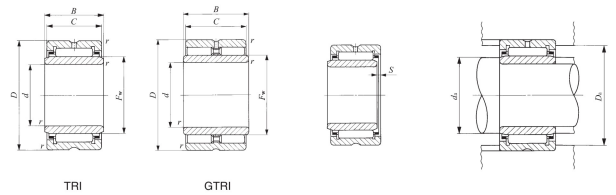
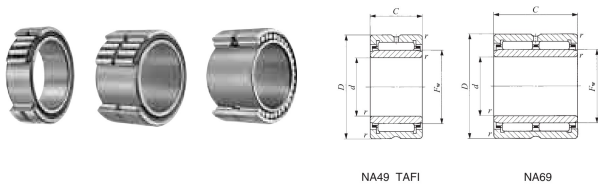
Boundary dimensions mm				Standard mounting dimensions mm				Basic dynamic load rating C	Basic static load rating C <sub>0</sub>	Allowable rotational speed <sup>(3)</sup>	Assembled inner ring
D	C	B	r <sub>s min</sub> <sup>(1)</sup>	F <sub>w</sub> <sup>(2)</sup>	S	Min. d <sub>is</sub>	Max. d <sub>is</sub>	N	N	rpm	
68	25	—	0.3	55	0.5	52	54	45 400	94 000	7 500	LRT 505525
68	35	—	0.3	55	1	52	54	61 200	138 000	7 500	LRT 505535
72	22	—	0.6	58	0.5	54	57	46 200	82 100	7 000	LRT 505822
72	40	—	0.6	58	0.3	54	57	79 200	164 000	7 000	LRT 505840
77	45	45.5	1	58	2	55	57	104 000	191 000	7 000	LRT 505845
77	45	45.5	1	58	—	55	57	135 000	280 000	2 500	LRTZ 505845
72	25	—	0.3	60	0.5	57	59	47 500	103 000	6 500	LRT 556025
72	35	—	0.3	60	1	57	59	64 100	151 000	6 500	LRT 556035
80	25	—	1	63	1	60	61	57 600	97 200	6 500	LRT 556325
80	45	—	1	63	0.5	60	61	98 700	194 000	6 500	LRT 556345
81	38	38.5	1	62	1.5	60	60.5	92 000	166 000	6 500	LRT 556238
81	38	38.5	1	62	—	60	60.5	118 000	241 000	2 500	LRTZ 556238
82	25	—	0.6	68	0.3	64	66	54 800	117 000	6 000	LRT 606825
82	35	—	0.6	68	1	64	66	72 000	166 000	6 000	LRT 606835
85	25	—	1	68	1	65	66	60 200	105 000	6 000	LRT 606825-1
85	45	—	1	68	0.5	65	66	103 000	211 000	6 000	LRT 606845
89	45	45.5	1	70	2	65	68	114 000	228 000	5 500	LRT 607045
89	45	45.5	1	70	—	65	68	147 000	336 000	2 000	LRTZ 607045
90	25	—	1	72	1	70	70.5	62 700	113 000	5 500	LRT 657225
90	35	—	1	73	1	70	71	80 400	181 000	5 500	LRT 657335
90	45	—	1	72	0.5	70	70.5	108 000	227 000	5 500	LRT 657245
95	25	—	1	80	0.3	75	78	59 400	137 000	5 000	LRT 708025
95	35	—	1	80	1	75	78	78 100	195 000	5 000	LRT 708035
100	30	—	1	80	1.5	75	78	83 200	158 000	5 000	LRT 708030
100	54	—	1	80	1	75	78	134 000	311 000	5 000	LRT 708054

D  
 NA  
 TAFI  
 TRI  
 BRI



**MACHINED TYPE NEEDLE ROLLER BEARINGS**

With Inner Ring



Shaft dia. 75 – 90mm

Shaft dia. mm	Identification number						Mass (Ref.)	
	NA 49	NA 69	NA 48	TAFI	TRI	GTRI	g	d
75	—	—	—	TAFI 7510525	—	—	675	75
	NA 4915	—	—	—	—	—	810	75
	—	NA 6915	—	TAFI 7510535	—	—	945	75
	—	—	—	—	—	—	1 480	75
	—	—	—	—	TRI 7510845	GTRI 7510845	1 340	75
80	—	—	—	TAFI 8011025	—	—	710	80
	NA 4916	—	—	—	—	—	855	80
	—	NA 6916	—	TAFI 8011035	—	—	995	80
	—	—	—	—	—	—	1 560	80
	—	—	—	—	—	—	—	—
85	—	—	—	TAFI 8511526	—	—	775	85
	NA 4917	—	—	TAFI 8511536	—	—	1 080	85
	—	NA 6917	—	—	—	—	1 280	85
	—	—	—	—	—	—	2 340	85
	—	—	—	—	TRI 8511850	—	1 640	85
90	—	—	—	TAFI 9012026	—	—	820	90
	NA 4918	—	—	TAFI 9012036	—	—	1 140	90
	—	NA 6918	—	—	—	—	1 350	90
	—	—	—	—	TRI 9012550	—	1 870	90
	—	—	—	—	—	GTRI 9012550	2 460	90

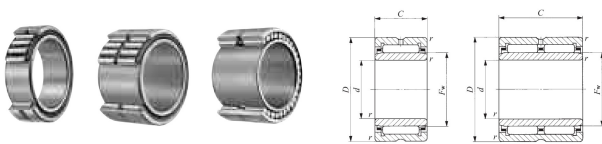
Boundary dimensions mm				Standard mounting dimensions mm			Basic dynamic load rating	Basic static load rating	Allowable rotational speed <sup>(3)</sup>	Assembled inner ring		
D	C	B	r <sub>s min</sub> <sup>(1)</sup>	F <sub>w</sub> <sup>(2)</sup>	S	Min. d <sub>is</sub> Max.	C	C <sub>0</sub>	rpm	LRT		
105	25	—	1	85	0.5	80	83	100	76 300	145 000	4 500	LRT 758525
105	30	—	1	85	1.5	80	83	100	86 200	169 000	4 500	LRT 758530
105	35	—	1	85	1.5	80	83	100	102 000	210 000	4 500	LRT 758535
105	54	—	1	85	1	80	83	100	138 000	331 000	4 500	LRT 758554
108	45	45.5	1	83	2.5	80	81	103	146 000	270 000	5 000	LRT 758345
108	45	45.5	1	83	—	80	81	103	190 000	396 000	1 800	LRTZ 758345
110	25	—	1	90	0.5	85	88	105	77 300	150 000	4 500	LRT 809025
110	30	—	1	90	1.5	85	88	105	87 300	175 000	4 500	LRT 809030
110	35	—	1	90	1.5	85	88	105	103 000	217 000	4 500	LRT 809035
110	54	—	1	90	1	85	88	105	143 000	351 000	4 500	LRT 809054
115	26	—	1	95	1	90	93	110	79 700	159 000	4 000	LRT 859526
115	36	—	1	95	2	90	93	110	106 000	231 000	4 000	LRT 859536
120	35	—	1.1	100	1	91.5	98	113.5	110 000	244 000	4 000	LRT 8510035
120	63	—	1.1	100	0.5	91.5	98	113.5	173 000	467 000	4 000	LRT 8510063
118	50	50.5	1	93	3	90	91	113	165 000	329 000	4 500	LRT 859350
120	45	45.5	1.5	95	2.5	93	93.5	112	155 000	305 000	4 000	LRT 859545
118	50	50.5	1	93	—	90	91	113	224 000	509 000	1 600	LRTZ 859350
120	45	45.5	1.5	95	—	93	93.5	112	204 000	455 000	1 600	LRTZ 859545
120	26	—	1	100	1	95	98	115	82 400	168 000	4 000	LRT 9010026
120	36	—	1	100	2	95	98	115	110 000	244 000	4 000	LRT 9010036
125	35	—	1.1	105	1	96.5	103	118.5	113 000	258 000	4 000	LRT 9010535
125	50	50.5	1.5	100	3	98	98.5	117	172 000	355 000	4 000	LRT 9010050
125	63	—	1.1	105	0.5	96.5	103	118.5	178 000	490 000	4 000	LRT 9010563
125	50	50.5	1.5	100	—	98	98.5	117	234 000	549 000	1 500	LRTZ 9010050

Notes<sup>(1)</sup> Minimum allowable value of chamfer dimension r  
<sup>(2)</sup> Allowable axial shift amount of inner ring to outer ring  
<sup>(3)</sup> Allowable rotational speed applies to oil lubrication. For grease lubrication, a maximum of 60% of this value is allowable.  
 Remarks<sup>1</sup> The outer ring has an oil groove and an oil hole.  
 2. No grease is prepacked. Perform proper lubrication.

D  
 NA  
 TAFI  
 TRI  
 BRI

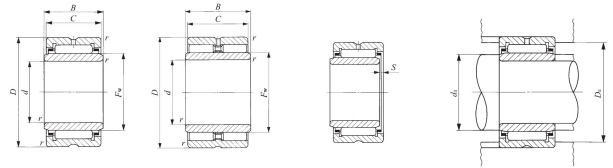
## MACHINED TYPE NEEDLE ROLLER BEARINGS

With Inner Ring



NA49 TAFI  
NA48

NA69



TRI

GTRI

Shaft dia. 95 – 150mm

Shaft dia. mm	Identification number						Mass (Ref.) g	
	NA 49	NA 69	NA 48	TAFI	TRI	GTRI	$g$	$d$
95	—	—	—	TAFI 9512526	—	—	860	95
	NA 4919	—	—	TAFI 9512536	—	—	1 190	95
	—	NA 6919	—	—	—	—	1 420	95
	—	—	—	—	—	—	2 580	95
100	—	—	—	TAFI 10013030	—	—	1 040	100
	—	—	—	TAFI 10013040	—	—	1 380	100
	NA 4920	—	—	—	TRI 10013550	—	2 040	100
	—	—	—	—	—	GTRI 10013550	1 960	100
105	—	—	—	—	—	—	2 200	100
	—	—	—	—	TRI 10515350	—	3 020	105
110	—	—	NA 4822	—	—	—	3 270	105
	NA 4922	—	—	—	—	—	1 200	110
120	—	—	NA 4824	—	—	—	2 120	110
	NA 4924	—	—	—	—	—	1 300	120
125	—	—	—	—	—	—	2 960	120
	—	—	—	—	TRI 12517860	—	4 780	125
130	—	—	NA 4826	—	—	—	5 180	125
	NA 4926	—	—	—	—	—	1 960	130
135	—	—	—	—	—	—	4 030	130
	—	—	—	—	TRI 13518860	—	5 100	135
140	—	—	NA 4828	—	—	—	5 530	135
	NA 4928	—	—	—	—	—	2 100	140
150	—	—	NA 4830	—	—	—	4 290	140
	NA 4930	—	—	—	—	—	2 880	150
							6 380	150

Notes<sup>(1)</sup> Minimum allowable value of chamfer dimension  $r$   
<sup>(2)</sup> Allowable axial shift amount of inner ring to outer ring  
<sup>(3)</sup> Allowable rotational speed applies to oil lubrication. For grease lubrication, a maximum of 60% of this value is allowable.  
 Remarks<sup>1</sup> The outer ring has an oil groove and an oil hole.  
<sup>2</sup> No grease is prepacked. Perform proper lubrication.

Boundary dimensions mm				Standard mounting dimensions mm			Basic dynamic load rating $C$ N	Basic static load rating $C_0$ N	Allowable rotational speed <sup>(3)</sup> rpm	Assembled inner ring		
$D$	$C$	$B$	$r_s$ <sup>(1)</sup> mm	$F_w$ <sup>(2)</sup>	$S$	Min. $d_s$					Max. $D_s$	
125	26	—	1	105	1	100	103	120	84 700	178 000	4 000	LRT 9510526
125	36	—	1	105	2	100	103	120	113 000	258 000	4 000	LRT 9510536
130	35	—	1.1	110	1	101.5	108	123.5	116 000	271 000	3 500	LRT 9511035
130	63	—	1.1	110	0.5	101.5	108	123.5	182 000	514 000	3 500	LRT 9511063
130	30	—	1	110	0.5	105	108	125	106 000	240 000	3 500	LRT 10011030
130	40	—	1	110	1.5	105	108	125	134 000	324 000	3 500	LRT 10011040
135	50	50.5	1.5	110	3	108	108.5	127	183 000	395 000	3 500	LRT 10011050
140	40	—	1.1	115	1	106.5	113	133.5	145 000	329 000	3 500	LRT 10011540
135	50	50.5	1.5	110	—	108	108.5	127	245 000	603 000	1 400	LRTZ 10011050
153	50	50.5	1.5	115	3	113	113.5	145	233 000	414 000	3 500	LRT 10511550
153	50	50.5	1.5	115	—	113	113.5	145	315 000	614 000	1 300	LRTZ 10511550
140	30	—	1	120	1	115	118	135	93 200	239 000	3 500	LRT 11012030
150	40	—	1.1	125	1	116.5	123	143.5	152 000	357 000	3 000	LRT 11012540
150	30	—	1	130	1	125	128	145	96 900	259 000	3 000	LRT 12013030
165	45	—	1.1	135	2	126.5	133	158.5	187 000	435 000	3 000	LRT 12013545
178	60	60.5	1.5	140	2.5	133	138	170	307 000	625 000	3 000	LRT 12514060
178	60	60.5	1.5	140	—	133	138	170	409 000	923 000	1 100	LRTZ 12514060
165	35	—	1.1	145	1	136.5	143	158.5	116 000	340 000	3 000	LRT 13014535
180	50	—	1.5	150	2.5	138	148	172	215 000	540 000	2 500	LRT 13015050
188	60	60.5	1.5	150	2.5	143	148	180	320 000	675 000	2 500	LRT 13515060
188	60	60.5	1.5	150	—	143	148	180	423 000	989 000	1 000	LRTZ 13515060
175	35	—	1.1	155	1	146.5	153	168.5	120 000	363 000	2 500	LRT 14015535
190	50	—	1.5	160	2.5	148	158	182	224 000	580 000	2 500	LRT 14016050
190	40	—	1.1	165	1.5	156.5	163	183.5	168 000	446 000	2 500	LRT 15016540
210	60	—	2	170	3	159	168	201	324 000	712 000	2 500	LRT 15017060



## MACHINED TYPE NEEDLE ROLLER BEARINGS

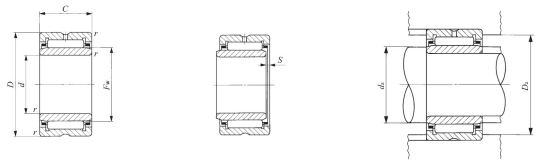
With Inner Ring



Shaft dia. 160 – 340mm

Shaft dia. mm	Identification number						Mass (Ref.)	
	NA 49	NA 69	NA 48	TAFI	TRI	GTRI	g	d
160	—	—	NA 4832	—	—	—	3 050	160
	NA 4932	—	—	—	—	—	6 750	160
170	—	—	NA 4834	—	—	—	4 120	170
	NA 4934	—	—	—	—	—	7 110	170
180	—	—	NA 4836	—	—	—	4 340	180
	NA 4936	—	—	—	—	—	10 200	180
190	—	—	NA 4838	—	—	—	5 760	190
	NA 4938	—	—	—	—	—	10 700	190
200	—	—	NA 4840	—	—	—	6 040	200
	NA 4940	—	—	—	—	—	15 400	200
220	—	—	NA 4844	—	—	—	6 570	220
	NA 4944	—	—	—	—	—	16 700	220
240	—	—	NA 4848	—	—	—	10 200	240
	NA 4948	—	—	—	—	—	18 000	240
260	—	—	NA 4852	—	—	—	11 000	260
	NA 4952	—	—	—	—	—	31 100	260
280	—	—	NA 4856	—	—	—	15 800	280
	NA 4956	—	—	—	—	—	33 100	280
300	—	—	NA 4860	—	—	—	22 300	300
	NA 4960	—	—	—	—	—	51 400	300
320	—	—	NA 4864	—	—	—	23 700	320
	NA 4964	—	—	—	—	—	54 400	320
340	—	—	NA 4868	—	—	—	25 000	340
	NA 4968	—	—	—	—	—	57 300	340

Notes<sup>(1)</sup> Minimum allowable value of chamfer dimension  $r$   
<sup>(2)</sup> Allowable axial shift amount of inner ring to outer ring  
<sup>(3)</sup> Allowable rotational speed applies to oil lubrication. For grease lubrication, a maximum of 60% of this value is allowable.  
 Remarks<sup>1</sup> The outer ring has an oil groove and an oil hole.  
 2. No grease is prepacked. Perform proper lubrication.



NA49 NA48

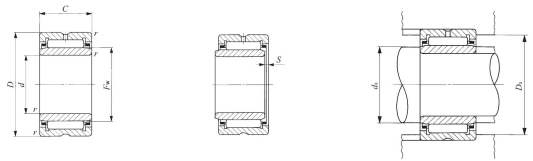
Boundary dimensions mm				Standard mounting dimensions mm			Basic dynamic load rating C N	Basic static load rating C <sub>0</sub> N	Allowable rotational speed <sup>(3)</sup> rpm	Assembled inner ring		
D	C	B	r <sub>s min</sub> <sup>(1)</sup>	F <sub>w</sub> <sup>(2)</sup>	S	Min. d <sub>is</sub>					Max. D <sub>is</sub>	
200	40	—	1.1	175	1.5	166.5	173	193.5	173 000	474 000	2 500	LRT 16017540
220	60	—	2	180	3	169	178	211	337 000	761 000	1 900	LRT 16018060
215	45	—	1.1	185	1.5	176.5	183	208.5	211 000	567 000	1 900	LRT 17018545
230	60	—	2	190	3	179	188	221	347 000	810 000	1 900	LRT 17019060
225	45	—	1.1	195	1.5	186.5	193	218.5	218 000	602 000	1 900	LRT 18019545
250	69	—	2	205	3	189	203	241	434 000	989 000	1 900	LRT 18020569
240	50	—	1.5	210	1.5	198	208	232	249 000	726 000	1 800	LRT 19021050
260	69	—	2	215	3	199	213	251	440 000	1 020 000	1 700	LRT 19021569
250	50	—	1.5	220	1.5	208	218	242	255 000	766 000	1 600	LRT 20022050
280	80	—	2.1	225	4	211	223	269	518 000	1 120 000	1 600	LRT 20022580
270	50	—	1.5	240	1.5	228	238	262	266 000	833 000	1 500	LRT 22024050
300	80	—	2.1	245	4	231	243	289	536 000	1 200 000	1 400	LRT 22024580
300	60	—	2	265	2	249	262	291	345 000	1 150 000	1 300	LRT 24026560
320	80	—	2.1	265	4	251	262	309	565 000	1 320 000	1 300	LRT 24026580
320	60	—	2	285	2	269	282	311	354 000	1 220 000	1 100	LRT 26028560
360	100	—	2.1	290	4	271	287	349	847 000	1 900 000	1 100	LRT 260290100
350	69	—	2	305	2.5	289	302	341	486 000	1 550 000	950	LRT 28030569
380	100	—	2.1	310	4	291	307	369	877 000	2 040 000	950	LRT 280310100
380	80	—	2.1	330	2.5	311	327	369	610 000	1 900 000	900	LRT 30033080
420	118	—	3	340	4	313	337	407	1 130 000	2 650 000	850	LRT 300340118
400	80	—	2.1	350	2.5	331	347	389	635 000	2 040 000	750	LRT 32035080
440	118	—	3	360	4	333	357	427	1 170 000	2 830 000	750	LRT 320360118
420	80	—	2.1	370	2.5	351	367	409	651 000	2 140 000	700	LRT 34037080
460	118	—	3	380	4	353	377	447	1 220 000	3 020 000	700	LRT 340380118





**MACHINED TYPE NEEDLE ROLLER BEARINGS**

With Inner Ring



NA49 NA48

Shaft dia. 360 – 440mm

Shaft dia. mm	Identification number						Mass (Ref.)	
	NA 49	NA 69	NA 48	TAFI	TRI	GTRI	g	d
360	—	—	NA 4872	—	—	—	26 400	360
	NA 4972	—	—	—	—	—	60 200	360
380	—	—	NA 4876	—	—	—	44 600	380
	NA 4976	—	—	—	—	—	90 300	380
400	NA 4980	—	—	—	—	—	94 400	400
420	NA 4984	—	—	—	—	—	98 500	420
440	NA 4988	—	—	—	—	—	131 000	440

Notes(1) Minimum allowable value of chamfer dimension r  
 (2) Allowable axial shift amount of inner ring to outer ring  
 (3) Allowable rotational speed applies to oil lubrication. For grease lubrication, a maximum of 60% of this value is allowable.  
 Remarks1. The outer ring has an oil groove and an oil hole.  
 2. No grease is prepacked. Perform proper lubrication.



Boundary dimensions mm				Standard mounting dimensions mm			Basic dynamic load rating	Basic static load rating	Allowable rotational speed <sup>(3)</sup>	Assembled inner ring	
D	C	B	r <sub>s min</sub> <sup>(1)</sup>	F <sub>w</sub> <sup>(2)</sup>	S <sup>(2)</sup>	Min. d <sub>2</sub>	Max. d <sub>2</sub>	C	C <sub>0</sub>	rpm	
440	80	—	2.1	390	2.5	371	387	680 000	2 320 000	650	LRT 36039080
480	118	—	3	400	4	373	397	1 260 000	3 200 000	600	LRT 360400118
480	100	—	2.1	415	3	391	412	951 000	2 860 000	600	LRT 380415100
520	140	—	4	430	5	396	427	1 540 000	4 030 000	500	LRT 380430140
540	140	—	4	450	5	416	447	1 590 000	4 270 000	500	LRT 400450140
560	140	—	4	470	5	436	467	1 640 000	4 510 000	500	LRT 420470140
600	160	—	4	490	5	456	487	1 910 000	5 140 000	400	LRT 440490160

D  
NA  
TAFI  
TRI  
BRI