

INNER RINGS

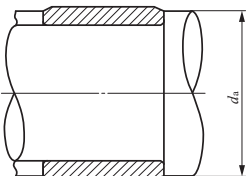
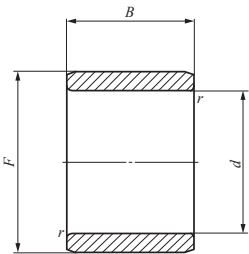
Inner Rings for Shell Type Needle Roller Bearings



Shaft dia. 7 – 17mm

Shaft dia. mm	Identification number	Mass (Ref.) g	Boundary dimensions mm				Standard mounting dimension mm		Assembled bearings		
			<i>d</i>	<i>F</i>	<i>B</i>	⁽¹⁾ <i>r</i> _{s min}	Min.	Max.	TA···Z (TAM)	TLA···Z (TLAM)	YT YTL
7	IRT 710	3.2	7	10	10.5	0.3	9	9.7	TA 1010Z	TLA 1010Z	—
	IRT 712	3.9	7	10	12.5	0.3	9	9.7	TA 1012Z	TLA 1012Z	—
	IRT 715	4.8	7	10	15.5	0.3	9	9.7	TA 1015Z	TLA 1015Z	—
8	IRT 810	5.1	8	12	10.5	0.3	10	11	—	TLA 1210Z	YTL 1210
	IRT 812	6	8	12	12.5	0.3	10	11	TA 1212Z	TLA 1212Z	YT 1212
	IRT 815	7.5	8	12	15.5	0.3	10	11	TA 1215Z	—	—
10	IRT 1012	5.2	10	13	12.5	0.3	12	12.7	—	TLA 1312Z	—
	IRT 1012-2	7.2	10	14	12.5	0.3	12	13	—	TLA 1412Z	—
	IRT 1016-2	9.6	10	14	16.5	0.3	12	13	TA 1416Z	TLA 1416Z	—
	IRT 1020-2	11.9	10	14	20.5	0.3	12	13	TA 1420Z	—	—
	IRT 1010-1	7.9	10	15	10.5	0.3	12	14	TA 1510Z	—	—
	IRT 1012-1	9.4	10	15	12.5	0.3	12	14	TA 1512Z	TLA 1512Z	—
	IRT 1015-1	11.7	10	15	15.5	0.3	12	14	TA 1515Z	—	—
	IRT 1020-1	15.5	10	15	20.5	0.3	12	14	TA 1520Z	—	—
	IRT 1025-1	19.3	10	15	25.5	0.3	12	14	TA 1525Z	—	—
	IRT 1212	6.1	12	15	12.5	0.3	14	14.5	TA 1512Z	TLA 1512Z	—
12	IRT 1216	8.1	12	15	16.5	0.3	14	14.5	—	TLA 1516Z	—
	IRT 1222	11	12	15	22.5	0.3	14	14.5	—	TLA 1522Z	—
	IRT 1212-1	8.5	12	16	12.5	0.3	14	15	—	TLA 1612Z	—
	IRT 1216-1	11.2	12	16	16.5	0.3	14	15	TA 1616Z	TLA 1616Z	—
	IRT 1220-1	13.9	12	16	20.5	0.3	14	15	TA 1620Z	—	—
	IRT 1222-1	15.2	12	16	22.5	0.3	14	15	—	TLA 1622Z	—
	IRT 1215-2	13.6	12	17	15.5	0.3	14	16	TA 1715Z	—	YT 1715
	IRT 1220-2	18	12	17	20.5	0.3	14	16	TA 1720Z	—	—
	IRT 1225-2	22.5	12	17	25.5	0.3	14	16	TA 1725Z	—	YT 1725
	IRT 1512	7.5	15	18	12.5	0.3	17	17.5	—	TLA 1812Z	—
15	IRT 1513	8.1	15	18	13.5	0.3	17	17.5	TA 1813Z	—	—

Note⁽¹⁾ Minimum allowable value of chamfer dimension *r*
Remark No oil hole is provided.



IRT

Shaft dia. mm	Identification number	Mass (Ref.) g	Boundary dimensions mm				Standard mounting dimension mm		Assembled bearings		
			<i>d</i>	<i>F</i>	<i>B</i>	⁽¹⁾ <i>r</i> _{s min}	Min.	Max.	TA···Z (TAM)	TLA···Z (TLAM)	YT YTL
15	IRT 1515	9.3	15	18	15.5	0.3	17	17.5	TA 1815Z	—	—
	IRT 1516	9.9	15	18	16.5	0.3	17	17.5	—	TLA 1816Z	—
	IRT 1517	10.5	15	18	17.5	0.3	17	17.5	TA 1817Z	—	—
	IRT 1519	11.7	15	18	19.5	0.3	17	17.5	TA 1819Z	—	—
	IRT 1520	12.3	15	18	20.5	0.3	17	17.5	TA 1820Z	—	—
	IRT 1525	15.2	15	18	25.5	0.3	17	17.5	TA 1825Z	—	—
	IRT 1516-1	13.6	15	19	16.5	0.3	17	18	TA 1916Z	—	—
	IRT 1520-1	16.8	15	19	20.5	0.3	17	18	TA 1920Z	—	—
	IRT 1515-2	16.4	15	20	15.5	0.3	17	19	TA 2015Z	—	YT 2015
	IRT 1520-2	21.5	15	20	20.5	0.3	17	19	TA 2020Z	TLA 2020Z	YT 202820
	IRT 1525-2	27	15	20	25.5	0.3	17	19	TA 202820Z	—	—
	IRT 1520Z	21.5	15	20	20.5	0.3	17	19	TA 2025Z	—	YT 2025
	IRT 1530-2	32	15	20	30.5	0.3	17	19	TA 2030Z	TLA 2030Z	—
17	IRT 1716	11.1	17	20	16.5	0.3	19	19.5	—	TLA 2016Z	—
	IRT 1720	13.7	17	20	20.5	0.3	19	19.5	TA 2020Z	TLA 2020Z	YT 202820
	IRT 1730	20.5	17	20	30.5	0.3	19	19.5	TA 202820Z	—	—
	IRT 1716-1	15.1	17	21	16.5	0.3	19	20	TA 2030Z	TLA 2030Z	—
	IRT 1720-1	18.8	17	21	20.5	0.3	19	20	TA 2116Z	—	YT 2116
	IRT 1710-2	12.4	17	22	10.5	0.3	19	21	TA 2120Z	—	YT 2120
	IRT 1715-2	18.3	17	22	15.5	0.3	19	21	TA 2210Z	—	—
	IRT 1716-2	19.4	17	22	16.5	0.3	19	21	TA 2215Z	—	—
	IRT 1720-2	24	17	22	20.5	0.3	19	21	TA 223016Z	TLA 2216Z	YT 223016
	IRT 1725-2	30	17	22	25.5	0.3	19	21	TA 2220Z	TLA 2220Z	YT 223020
	IRT 1730-2	36	17	22	30.5	0.3	19	21	TA 223020Z	—	—
	IRT 1725Z	30	17	22	25.5	0.3	19	21	TA 2225Z	—	—
	IRT 1730Z	36	17	22	30.5	0.3	19	21	TA 2230Z	—	—
	IRT 1716Z	11.1	17	20	16.5	0.3	19	19.5	—	—	—
	IRT 1720Z	13.7	17	20	20.5	0.3	19	19.5	—	—	—

Note⁽¹⁾ Minimum allowable value of chamfer dimension *r*
Remark No oil hole is provided.

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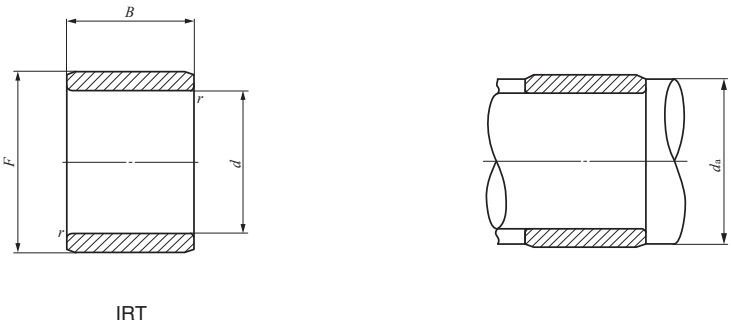
Inner Rings for Shell Type Needle Roller Bearings



Shaft dia. 20 – 45mm

Shaft dia. mm	Identification number	Mass (Ref.) g	Boundary dimensions mm				Standard mounting dimension mm		Assembled bearings		
			<i>d</i>	<i>F</i>	<i>B</i>	⁽¹⁾ <i>r</i> _{s min}	Min.	Max.	TA ··· Z (TAM)	TLA ··· Z (TLAM)	YT YTL
20	IRT 2016	17.5	20	24	16.5	0.3	22	23	TA 243216Z	—	YT 243216
	IRT 2020	22	20	24	20.5	0.3	22	23	TA 2420Z	—	YT 243220
									TA 243220Z		
	IRT 2028	30.5	20	24	28.5	0.3	22	23	TA 2428Z	—	YT 2428
	IRT 2010-1	14.3	20	25	10.5	0.3	22	24	TA 2510Z	—	YT 2510
	IRT 2015-1	21	20	25	15.5	0.3	22	24	TA 2515Z	—	YT 2515
	IRT 2020-1	28	20	25	20.5	0.3	22	24	TA 2520Z	TLA 2520Z	YT 2520
	IRT 2025-1	34.5	20	25	25.5	0.3	22	24	TA 2525Z	—	YT 2525
	IRT 2026-1	36	20	25	26.5	0.3	22	24	—	TLA 2526Z	YTL 2526
	IRT 2030-1	41.5	20	25	30.5	0.3	22	24	TA 2530Z	—	—
22	IRT 2038-1	52.5	20	25	38.5	0.3	22	24	—	TLAW 2538Z	—
	IRT 2216	19.1	22	26	16.5	0.3	24	25	TA 2616Z	—	YT 2616
	IRT 2220	24	22	26	20.5	0.3	24	25	TA 2620Z	—	YT 2620
	IRT 2220-1	37	22	28	20.5	0.3	24	27	TA 2820Z	TLA 2820Z	YT 2820
	IRT 2230-1	55.5	22	28	30.5	0.3	24	27	TA 2830Z	—	—
25	IRT 2520	26.5	25	29	20.5	0.3	27	28	TA 2920Z	—	YT 2920
	IRT 2530	40	25	29	30.5	0.3	27	28	TA 2930Z	—	—
	IRT 2515-1	25.5	25	30	15.5	0.3	27	29	TA 3015Z	—	—
	IRT 2520-1	34	25	30	20.5	0.3	27	29	TA 3020Z	TLA 3020Z	—
	IRT 2525-1	42.5	25	30	25.5	0.3	27	29	TA 3025Z	—	—
	IRT 2526-1	44	25	30	26.5	0.3	27	29	—	TLA 3026Z	—
	IRT 2530-1	50.5	25	30	30.5	0.3	27	29	TA 3030Z	—	—
	IRT 2538-1	64	25	30	38.5	0.3	27	29	—	TLAW 3038Z	—
28	IRT 2820	29.5	28	32	20.5	0.3	30	31	TA 3220Z	—	YT 3220
	IRT 2830	44	28	32	30.5	0.3	30	31	TA 3230Z	—	—
30	IRT 3012	24.5	30	35	12.5	0.6	34	34.5	TA 3512Z	TLA 3512Z	—
	IRT 3015	30.5	30	35	15.5	0.6	34	34.5	TA 3515Z	—	—

Note⁽¹⁾ Minimum allowable value of chamfer dimension *r*
Remark No oil hole is provided.

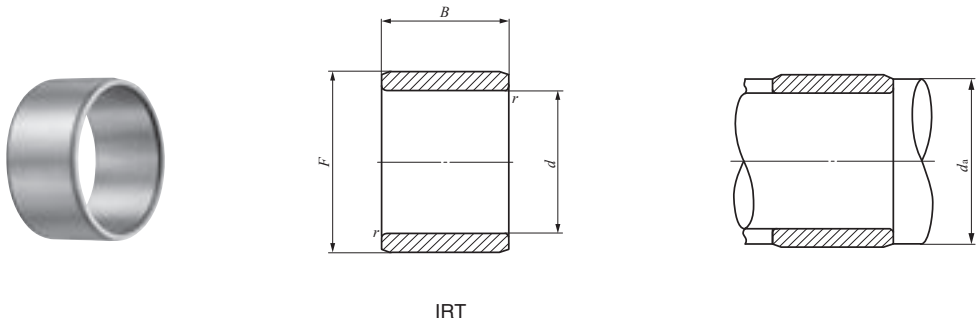


Shaft dia. mm	Identification number	Mass (Ref.) g	Boundary dimensions mm				Standard mounting dimension mm		Assembled bearings		
			<i>d</i>	<i>F</i>	<i>B</i>	⁽¹⁾ <i>r</i> _{s min}	Min.	Max.	TA ··· Z (TAM)	TLA ··· Z (TLAM)	YT YTL
30	IRT 3020	40	30	35	20.5	0.6	34	34.5	TA 3520Z	TLA 3520Z	—
	IRT 3025	50	30	35	25.5	0.6	34	34.5	TA 3525Z	—	—
	IRT 3030	60	30	35	30.5	0.6	34	34.5	TA 3530Z	—	—
32	IRT 3220	42.5	32	37	20.5	0.6	36	36.5	TA 3720Z	—	YT 3720
	IRT 3230	63.5	32	37	30.5	0.6	36	36.5	TA 3730Z	—	—
	IRT 3215-1	39.5	32	38	15.5	0.6	36	37	TA 3815Z	—	—
	IRT 3220-1	52	32	38	20.5	0.6	36	37	TA 3820Z	—	—
	IRT 3225-1	64.5	32	38	25.5	0.6	36	37	TA 3825Z	—	—
	IRT 3230-1	77.5	32	38	30.5	0.6	36	37	TA 3830Z	—	—
	IRT 3245-1	115	32	38	45.5	0.6	36	37	TAW 3845Z	—	—
35	IRT 3515	35	35	40	15.5	0.6	39	39.5	TA 4015Z	—	YT 4015
	IRT 3520	46.5	35	40	20.5	0.6	39	39.5	TA 4020Z	TLA 4020Z	—
	IRT 3525	58	35	40	25.5	0.6	39	39.5	TA 4025Z	—	YT 4025
	IRT 3530	69	35	40	30.5	0.6	39	39.5	TA 4030Z	—	—
	IRT 3540	91.5	35	40	40.5	0.6	39	39.5	TA 4040Z	—	—
40	IRT 4020	52.5	40	45	20.5	0.6	44	45.5	TA 4520Z	TLA 4520Z	YT 4520
	IRT 4025	65.5	40	45	25.5	0.6	44	45.5	TA 4525Z	—	YT 4525
	IRT 4030	78.5	40	45	30.5	0.6	44	45.5	TA 4530Z	—	—
	IRT 4040	104	40	45	40.5	0.6	44	45.5	TA 4540Z	—	—
45	IRT 4512	36	45	50	12.5	0.6	49	49.5	TA 5012Z	—	—
	IRT 4515	44.5	45	50	15.5	0.6	49	49.5	TA 5015Z	—	—
	IRT 4520	59	45	50	20.5	0.6	49	49.5	TA 5020Z	TLA 5020Z	—
	IRT 4525	73	45	50	25.5	0.6	49	49.5	TA 5025Z	TLA 5025Z	—
	IRT 4530	87.5	45	50	30.5	0.6	49	49.5	TA 5030Z	—	—
	IRT 4540	116	45	50	40.5	0.6	49	49.5	TA 5040Z	—	—
	IRT 4545	131	45	50	45.5	0.6	49	49.5	TAW 5045Z	—	—

Note⁽¹⁾ Minimum allowable value of chamfer dimension *r*
Remark No oil hole is provided.

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Inner Rings for Shell Type Needle Roller Bearings

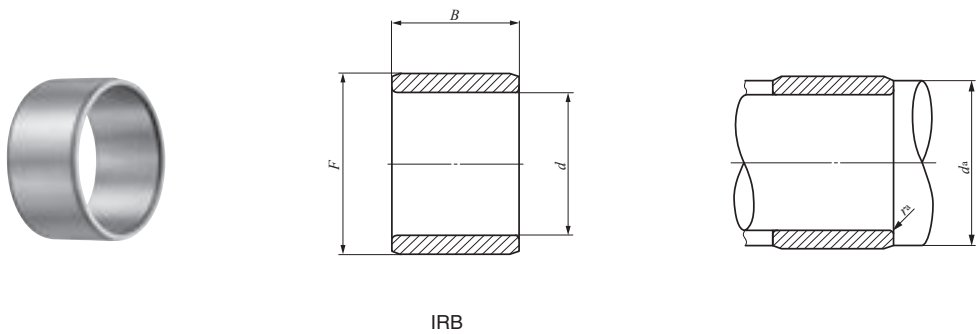


Shaft dia. 50 — 60mm

Shaft dia. mm	Identification number	Mass (Ref.) g	Boundary dimensions mm				Standard mounting dimension mm		Assembled bearings		
			d	F	B	⁽¹⁾ r _{s min}	d _a Min.	d _a Max.	TA···Z (TAM)	TLA···Z (TLAM)	YT YTL
50	IRT 5020-1	65	50	55	20.5	0.6	54	54.5	TA 5520Z	TLA 5520Z	—
	IRT 5025-1	81	50	55	25.5	0.6	54	54.5	TA 5525Z	TLA 5525Z	—
	IRT 5030-1	96.5	50	55	30.5	0.6	54	54.5	TA 5530Z	—	—
	IRT 5040-1	128	50	55	40.5	0.6	54	54.5	TA 5540Z	—	—
	IRT 5045-1	144	50	55	45.5	0.6	54	54.5	TAW 5545Z	—	—
	IRT 5050-1	160	50	55	50.5	0.6	54	54.5	TAW 5550Z	—	—
	IRT 5025	169	50	60	25.5	1.5	58	59	TA 6025Z	—	—
	IRT 5030	205	50	60	30.5	1.5	58	59	TA 6030Z	—	—
	IRT 5040	270	50	60	40.5	1.5	58	59	TA 6040Z	—	—
	IRT 5045	300	50	60	45.5	1.5	58	59	TAW 6045Z	—	—
	IRT 5050	335	50	60	50.5	1.5	58	59	TAW 6050Z	—	—
52	IRT 5212	86	52	62	12.5	1.5	60	60.5	TA 6212Z	—	—
55	IRT 5525	185	55	65	25.5	1.5	63	63.5	TA 6525Z	—	—
	IRT 5530	220	55	65	30.5	1.5	63	63.5	TA 6530Z	—	—
	IRT 5545	330	55	65	45.5	1.5	63	63.5	TAW 6545Z	—	—
	IRT 5550	365	55	65	50.5	1.5	63	63.5	TAW 6550Z	—	—
60	IRT 6025	200	60	70	25.5	1.5	68	68.5	TA 7025Z	—	—
	IRT 6030	240	60	70	30.5	1.5	68	68.5	TA 7030Z	—	—
	IRT 6040	320	60	70	40.5	1.5	68	68.5	TA 7040Z	—	—
	IRT 6050	395	60	70	50.5	1.5	68	68.5	TAW 7050Z	—	—

Note⁽¹⁾ Minimum allowable value of chamfer dimension *r*
Remark No oil hole is provided.

Inner Rings for Shell Type Needle Roller Bearings **Inch Series**



Shaft dia. 7.938 — 15.875mm

Shaft dia. mm (inch)	Identification number	Mass (Ref.) g	Boundary dimensions mm(inch)			Standard mounting dimensions mm ⁽¹⁾			Assembled bearings		
			d	F	B	d _a Min.	d _a Max.	r _{as max} Max.	BA···Z (BAM)	BHA···Z (BHAM)	YB YBH
7.938 (⁵ / ₁₆)	IRB 58	8	7.938 (⁵ / ₁₆)	12.700 (¹ / ₂)	13.08	11.3	11.7	0.3	BA 88Z	BHA 88Z	YB 88
9.525 (³ / ₈)	IRB 68	8.9	9.525 (³ / ₈)	14.288 (⁹ / ₁₆)	13.08	12.8	13.2	0.3	BA 98Z	BHA 98Z	YB 98
	IRB 68-1	12.6	9.525 (³ / ₈)	15.875 (⁵ / ₈)	13.08	12.8	14	0.3	BA 108Z	BHA 108Z	YB 108
	IRB 612	13.2	9.525 (³ / ₈)	14.288 (⁹ / ₁₆)	19.43	12.8	13.2	0.3	BA 912Z	—	YB 912
	IRB 612-1	18.8	9.525 (³ / ₈)	15.875 (⁵ / ₈)	19.43	12.8	14	0.3	BA 1012Z	BHA 1012Z	YB 1012
11.112 (⁷ / ₁₆)	IRB 78	10.1	11.112 (⁷ / ₁₆)	15.875 (⁵ / ₈)	13.08	14.4	14.8	0.3	BA 108Z	BHA 108Z	YB 108
	IRB 712	15	11.112 (⁷ / ₁₆)	15.875 (⁵ / ₈)	19.43	14.4	14.8	0.3	BA 1012Z	BHA 1012Z	YB 1012
	IRB 714	17.4	11.112 (⁷ / ₁₆)	15.875 (⁵ / ₈)	22.60	14.4	14.8	0.3	BA 1014Z	—	—
	IRB 716	19.9	11.112 (⁷ / ₁₆)	15.875 (⁵ / ₈)	25.78	14.4	14.8	0.3	BA 1016Z	BHA 1016Z	—
12.700 (¹ / ₂)	IRB 86	8.5	12.700 (¹ / ₂)	17.462 (¹¹ / ₁₆)	9.90	16.9	16.9	0.3	BA 116Z	—	—
	IRB 88	11.2	12.700 (¹ / ₂)	17.462 (¹¹ / ₁₆)	13.08	16.9	16.9	0.3	BA 118Z	BHA 118Z	—
	IRB 812	16.7	12.700 (¹ / ₂)	17.462 (¹¹ / ₁₆)	19.43	16.9	16.9	0.3	BA 1112Z	BHA 1112Z	YB 1112
	IRB 88-1	15.8	12.700 (¹ / ₂)	19.050 (³ / ₄)	13.08	16.9	17.5	0.6	BA 128Z	—	YB 128
	IRB 810-1	19.6	12.700 (¹ / ₂)	19.050 (³ / ₄)	16.25	16.9	17.5	0.6	BA 1210Z	—	YB 1210
	IRB 812-1	23.5	12.700 (¹ / ₂)	19.050 (³ / ₄)	19.43	16.9	17.5	0.6	BA 1212Z	BHA 1212Z	YB 1212
	IRB 814-1	27.5	12.700 (¹ / ₂)	19.050 (³ / ₄)	22.60	16.9	17.5	0.6	BA 1214Z	—	—
	IRB 816-1	31	12.700 (¹ / ₂)	19.050 (³ / ₄)	25.78	16.9	17.5	0.6	BA 1216Z	—	—
14.288 (⁹ / ₁₆)	IRB 98	17.3	14.288 (⁹ / ₁₆)	20.638 (¹³ / ₁₆)	13.08	19	19.6	0.6	BA 138Z	BHA 138Z	YB 138
	IRB 910	21.5	14.288 (⁹ / ₁₆)	20.638 (¹³ / ₁₆)	16.25	19	19.6	0.6	BA 1310Z	BHA 1310Z	YB 1310
	IRB 912	26	14.288 (⁹ / ₁₆)	20.638 (¹³ / ₁₆)	19.43	19	19.6	0.6	BA 1312Z	BHA 1312Z	YB 1312
	IRB 914	30	14.288 (⁹ / ₁₆)	20.638 (¹³ / ₁₆)	22.60	19	19.6	0.6	BA 1314Z	—	—
	IRB 916	34.5	14.288 (⁹ / ₁₆)	20.638 (¹³ / ₁₆)	25.78	19	19.6	0.6	BA 1316Z	—	—
	IRB 920	43	14.288 (⁹ / ₁₆)	20.638 (¹³ / ₁₆)	32.13	19	19.6	0.6	BA 1320Z	—	—
15.875 (⁵ / ₈)	IRB 106	14.5	15.875 (⁵ / ₈)	22.225 (⁷ / ₈)	9.90	20.7	21.2	0.6	BA 146Z	—	—
	IRB 108	18.9	15.875 (⁵ / ₈)	22.225 (⁷ / ₈)	13.08	20.7	21.2	0.6	BA 148Z	—	YB 148
	IRB 1012	28	15.875 (⁵ / ₈)	22.225 (⁷ / ₈)	19.43	20.7	21.2	0.6	BA 1412Z	BHA 1412Z	YB 1412

Note⁽¹⁾ Maximum allowable fillet corner radius of shaft
Remark No oil hole is provided.