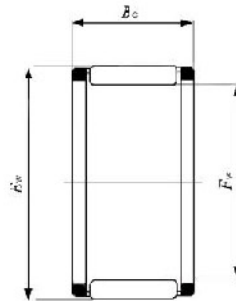




Needle roller and cage assemblies

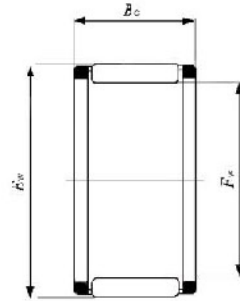


Dimension table . Dimensions in mm

Shaft diameter	Designation	Mass ≈ g	Dimensions			Basic load ratings		Fatigue load P _u N	Limiting speed n _G min ⁻¹	Reference speed n _B min ⁻¹
			F _w	E _w	B _c	dyn. C N	stat. C ₀ N			
3	K 3X5X7 TN	0.3	3	5	7	1 463	1 225	145	47 500	85 500
	K 3X5X9 TN	0.4	3	5	9	1 624	1 406	176	47 500	47 500
	K 3X6X7 TN	0.4	3	6	7	1 358	921	99	44 650	44 650
4	K 4X7X7 TN	0.5	4	7	7	1 653	1 206	135	40 850	40 850
	K 4X7X10 TN	0.7	4	7	10	2 213	1 748	216	37 050	37 050
5	K 5X8X8 TN	0.7	5	8	8	2 232	1 824	223	37 050	37 050
	K 5X8X10 TN	0.9	5	8	10	2 850	2 517	323	35 150	35 150
6	K 6X9X8 TN	0.8	6	9	8	2 470	2 166	266	35 150	35 150
	K 6X9X10 TN	1.1	6	9	10	3 182	2 992	380	33 250	33 250
	K 6X10X13 TN	1.9	6	10	13	3 610	2 945	346	33 250	33 250
7	K 7X9X7 TN	0.6	7	9	7	1 643	1 681	200	33 250	33 250
	K 7X10X8 TN	0.9	7	10	8	2 707	2 517	304	32 300	32 300
	K 7X10X10 TN	1.0	7	11	10	3 467	3 420	441	32 300	32 300
8	K 8X11X8 TN	1.0	8	11	8	2 945	2 850	342	30 400	30 400
	K 8X11X10 TN	1.2	8	11	10	3 752	3 895	503	30 400	30 400
	K 8X11X13 TN	1.7	8	11	13	4 845	5 510	655	30 400	30 400
	K 8X12X10 TN	2.0	8	12	10	4 750	4 465	522	30 400	30 400
9	K 9X12X10 TN	1.5	9	12	10	4 275	4 750	617	29 450	29 450
	K 9X12X13 TN	2.1	9	12	13	5 605	6 745	807	29 450	29 450
10	K 10X13X10 TN	1.6	10	13	10	4 512	5 225	674	27 550	27 550
	K 10X13X13 TN	2.3	10	13	13	5 890	7 410	883	27 550	27 550
	K 10X13X16 TN	2.9	10	13	16	6 745	8 835	1 092	27 550	27 550
	K 10X14X10 TN	2.5	10	14	10	5 510	5 700	674	27 550	27 550
	K 10X14X13 TN	4.6	10	14	13	7 125	7 980	1 016	27 550	27 550
	K 10X16X12 TN	4.5	10	16	12	7 695	6 840	741	26 600	26 600
12	K 12X15X10 TN	2.9	12	15	10	4 655	5 795	978	25 650	25 650
	K 12X15X13 TN	2.3	12	15	13	6 080	8 075	1 073	25 650	25 650
	K 12X16X13 TN	5.5	12	16	13	7 600	8 930	1 197	25 650	25 650
	K 12X17X13 TN	4.9	12	17	13	9 120	9 880	1 187	24 700	24 700
	K 12X18X12 TN	6.0	12	18	12	9 500	9 405	1 187	24 700	24 700



Needle roller and cage assemblies

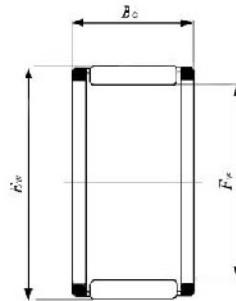


Dimension table . Dimensions in mm

Shaft diameter	Designation	Mass ≈ g	Dimensions			Basic load ratings		Fatigue load P _u N	Limiting speed n _G min ⁻¹	Reference speed n _B min ⁻¹
			F _w	E _w	B _c	dyn. C N	stat. C ₀ N			
14	K 14X18X10	4.0	14	18	10	6 745	8 075	969	23 750	19 000
	K 14X18X13	6.5	14	18	13	7 790	9 595	1 197	23 750	19 950
	K 14X18X15 TN	5.0	14	18	15	9 025	11 685	1 434	23 750	19 000
	K 14X18X17	8.0	14	18	17	10 260	13 680	1 738	23 750	19 000
	K 14X20X12	8.5	14	20	12	9 785	10 070	1 282	22 800	18 050
15	K 15X18X17 TN	4.6	15	18	17	7 600	11 495	1 453	23 750	19 950
	K 15X19X10	5.0	15	19	10	7 125	8 740	1 045	22 800	18 050
	K 15X19X13	7.0	15	19	13	8 075	10 355	1 292	22 800	18 050
	K 15X19X17	9.5	15	19	17	10 735	14 820	1 881	22 800	18 050
	K 15X20X13	7.0	15	20	13	9 405	10 925	1 282	22 800	18 050
	K 15X21X15	11.0	15	21	15	13 585	15 580	1 947	22 800	16 150
	K 15X21X21	17.0	15	21	21	18 430	23 085	2 897	22 800	16 150
16	K 16X20X10	5.5	16	20	10	7 410	9 405	1 121	22 800	17 100
	K 16X20X13	7.5	16	20	13	8 455	11 210	1 387	22 800	17 100
	K 16X20X17	10.0	16	20	17	11 115	15 960	2 023	22 800	17 100
	K 16X22X12	10.0	16	22	12	10 925	11 875	1 501	21 850	16 150
	K 16X22X16	12.0	16	22	16	14 060	16 625	2 118	21 850	16 150
	K 16X22X20	17.0	16	22	20	17 385	21 660	2 660	21 850	15 200
	K 16X24X20	22.0	16	24	20	20 330	22 325	2 517	20 900	14 250
17	K 17X21X10	5.5	17	21	10	7 695	10 070	1 206	21 850	16 150
	K 17X21X13	6.5	17	21	13	9 880	13 870	1 691	21 850	16 150
	K 17X21X17	9.5	17	21	17	11 590	17 005	2 156	21 850	16 150
18	K 18X22X10	6.0	18	22	10	7 980	10 735	1 282	20 900	15 200
	K 18X22X13	8.0	18	22	13	8 740	12 065	1 491	20 900	16 150
	K 18X22X17	11.0	18	22	17	11 495	17 100	2 175	20 900	15 200
	K 18X24X12	12.0	18	24	12	12 160	14 155	1 786	20 900	14 250
	K 18X24X13	13.0	18	24	13	12 445	14 535	1 767	20 900	14 250
	K 18X24X20	18.0	18	24	20	19 190	25 650	3 135	20 900	13 300
	K 18X25X22	23.0	18	25	22	21 945	27 550	3 372	20 900	13 300



Needle roller and cage assemblies

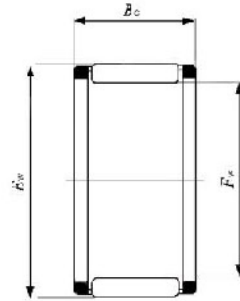


Dimension table . Dimensions in mm

Shaft diameter	Designation	Mass ≈ g	Dimensions			Basic load ratings		Fatigue load P_u N	Limiting speed n_G min ⁻¹	Reference speed n_B min ⁻¹
			F_w	E_w	B_c	dyn. C N	stat. C_o N			
19	K 19X23X13	8.0	19	23	13	9 025	12 825	1 586	20 900	15 200
	K 19X23X17	11.0	19	23	17	11 875	18 240	2 318	20 900	14 250
20	K 20X24X10	6.5	20	24	10	8 455	11 970	1 444	19 950	14 250
	K 20X24X13	9.0	20	24	13	9 310	13 585	1 691	19 950	14 250
	K 20X24X17	12.0	20	26	17	12 255	19 380	2 470	19 950	14 250
	K 20X26X12	11.0	20	26	12	12 730	15 390	1 947	19 950	12 350
	K 20X26X13	12.0	20	26	13	13 680	17 005	2 061	19 950	13 300
	K 20X26X17	16.0	20	26	17	18 240	24 700	2 897	19 950	12 350
	K 20X26X20	19.0	20	26	20	20 045	27 550	3 372	19 950	12 350
	K 20X28X16	20.0	20	28	16	18 810	21 280	2 565	19 000	12 350
	K 20X28X20	27.0	20	28	20	22 705	27 075	3 087	19 000	12 350
	K 20X28X25	32.0	20	28	25	28 975	37 050	4 560	19 000	12 350
	K 20X30X30	49.0	20	30	30	33 725	39 425	4 702	19 000	12 350
	21	K 21X25X13	9.0	21	25	13	9 595	14 345	1 786	19 950
22	K 22X26X10	7.5	22	26	10	8 645	12 730	1 520	19 000	12 350
	K 22X26X13	9.5	22	26	13	9 880	15 105	1 881	19 000	13 300
	K 22X26X17	12.0	22	26	17	13 015	21 565	2 755	19 000	12 350
	K 22X28X17	18.0	22	28	17	18 430	25 650	3 040	19 000	11 400
	K 22X29X16	16.0	22	29	16	19 000	24 225	2 992	18 050	11 400
	K 22X30X15 TN	18.0	22	30	15	19 095	22 230	2 612	18 050	11 400
	K 22X32X24	43.0	22	32	24	32 300	38 000	4 275	17 100	10 450
23	K 23X35X16 TN	29.0	23	35	16	23 275	22 705	2 707	16 150	10 450
24	K 24X28X10	5.8	24	28	10	9 120	14 060	1 681	18 050	11 400
	K 24X28X13	10.0	24	28	13	10 450	16 720	2 071	18 050	12 350
	K 24X28X17	13.0	24	28	17	13 775	23 750	3 040	18 050	11 400
	K 24X30X17	19.0	24	30	17	18 525	26 125	3 135	17 100	11 400



Needle roller and cage assemblies

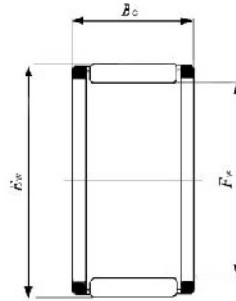


Dimension table . Dimensions in mm

Shaft diameter	Designation	Mass ≈ g	Dimensions			Basic load ratings		Fatigue load P_u N	Limiting speed n_G min ⁻¹	Reference speed n_B min ⁻¹
			F_w	E_w	B_c	dyn. C N	stat. C_o N			
25	K 25X29X10	8.5	25	29	10	9 405	14 630	1 757	17 100	11 400
	K 25X29X13	11.0	25	29	13	10 735	17 480	2 175	17 100	11 400
	K 25X29X17	14.0	25	29	17	14 155	24 700	3 135	17 100	11 400
	K 25X30X17	16.0	25	30	17	17 765	28 500	3 372	17 100	10 450
	K 25X30X20	18.0	25	30	20	20 615	34 675	4 275	17 100	10 450
	K 25X31X17	19.0	25	31	17	18 620	27 075	3 182	17 100	10 450
	K 25X31X21	20.0	25	31	21	23 465	36 100	4 465	17100	10 450
	K 25X32X16	21.0	25	32	16	19 760	26 125	3 230	16 150	10 450
	K 25X33X20	33.0	25	33	20	27 075	36 100	4 132	16 150	10 450
	K 25X33X24	39.0	25	33	24	32 300	44 650	5 415	16 150	9 500
	K 25X35X30	65.0	25	35	30	44 650	58 900	7 125	15 200	9 500
26	K 26X30X13	11.0	26	30	13	11 020	18 240	2 270	17 100	11 400
	K 26X30X17	15.0	26	30	17	14 440	26 125	3 277	17 100	11 400
28	K 28X33X13	13.0	28	33	13	14 535	22 990	2 802	15 200	9 500
	K 28X33X17	17.0	28	33	17	18 715	31 825	3 752	15 200	9 500
	K 28X34X17	24.0	28	34	17	20 710	31 825	3 800	15 200	9 500
	K 28X35X16	24.0	28	35	16	20 425	28 025	3 515	15 200	9 500
	K 28X35X18	27.0	28	35	18	22 800	32 300	4 132	15 200	9 500
	K 28X40X25	70.0	28	40	25	43 225	52 250	5 605	13 300	8 550
30	K 30X34X13	14.0	30	34	13	11 685	20 615	2 565	14 250	9 500
	K 30X35X13	14.0	30	35	13	14 820	24 225	2 897	14 250	9 500
	K 30X35X17	19.0	30	35	17	18 620	32 300	3 752	14 250	9 500
	K 30X35X27	30.0	30	35	27	28 975	56 050	7 410	14 250	9 025
	K 30X37X16	27.0	30	37	16	21 945	31 825	3 942	14 250	9 025
	K 30X37X18	30.0	30	37	18	24 700	36 575	4 655	14 250	9 025
	K 30X40X18	48.0	30	40	18	30 400	38 000	4 465	13 300	8 550
K 30X40X30	73.0	30	40	30	46 550	65 550	7 885	14 250	8 550	



Needle roller and cage assemblies

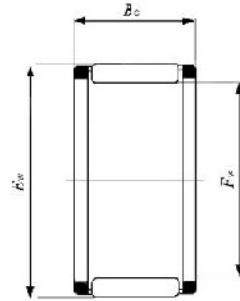


Dimension table . Dimensions in mm

Shaft diameter	Designation	Mass ≈ g	Dimensions			Basic load ratings		Fatigue load P_u N	Limiting speed n_G min ⁻¹	Reference speed n_B min ⁻¹
			F_w	E_w	B_c	dyn. C N	stat. C_o N			
32	K 32X37X13	18	32	37	13	14 725	24 225	2 945	13 300	9 025
	K 32X37X17	19	32	37	17	18 905	33 725	3 942	13 300	9 025
	K 32X37X27	30	32	37	27	28 500	57 000	7 410	13 300	8 550
	K 32X38X20	30	32	38	20	25 175	42 750	5 225	13 300	8 550
	K 32X39X16	37	32	39	16	22 610	33 725	4 180	13 300	8 550
	K 32X39X18	31	32	39	18	25 175	38 950	4 940	13 300	8 550
	K 32X40X25	49	32	40	25	35 625	55 100	6 650	13 300	8 075
	K 32X46X32	119	32	46	32	62 700	79 800	9 405	12 350	7 600
35	K 35X40X13	19	35	40	13	15 390	26 600	3 182	12 350	8 550
	K 35X40X17	21	35	40	17	19 760	36 575	4 322	12 350	8 075
	K 35X40X25	31	35	40	25	28 025	57 000	7 315	12 350	8 075
	K 35X40X27 TN	39	35	40	27	23 750	46 075	5 890	12 350	8 550
	K 35X42X16	34	35	42	16	23 180	35 625	4 417	12 350	8 075
	K 35X42X18	34	35	42	18	26 125	40 850	5 225	12 350	8 075
	K 35X42X20	37	35	42	20	28 500	46 550	5 605	12 350	7 600
	K 35X42X30	67	35	42	30	37 050	64 600	8 170	12 350	8 075
	K 35X45X20	56	35	45	20	35 150	47 500	5 700	11 400	7 600
	K 35X45X30	80	35	45	30	50 350	75 050	9 025	11 400	7 600
37	K 37X42X17	22	37	42	17	21 280	40 850	4 845	11 400	7 600
38	K 38X43X17	29	38	43	17	19 475	36 575	4 275	11 400	7 600
	K 38X43X27	43	38	43	27	29 925	64 600	8 360	11 400	7 600
	K 38X46X20	47	38	46	20	33 725	54 150	6 175	11 400	7 125
	K 38X46X32	76	38	46	32	52 250	94 050	11 970	11 400	7 125
40	K 40X45X13	22	40	45	13	16 720	30 875	3 705	11 400	7 600
	K 40X45X17	31	40	45	17	20 330	39 425	4 609	11 400	7 600
	K 40X45X27	46	40	45	27	31 350	69 350	8 930	11 400	7 125
	K 40X47X18	39	40	47	18	28 025	47 500	6 080	10 450	7 125
	K 40X47X20	42	40	47	20	30 875	54 150	6 460	10 450	7 125
	K 40X48X20	49	40	48	20	34 200	56 050	6 460	10 450	6 650



Needle roller and cage assemblies

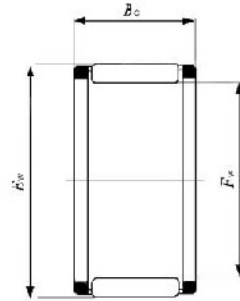


Dimension table . Dimensions in mm

Shaft diameter	Designation	Mass ≈ g	Dimensions			Basic load ratings		Fatigue load P_u N	Limiting speed n_G min ⁻¹	Reference speed n_B min ⁻¹
			F_w	E_w	B_c	dyn. C N	stat. C_o N			
42	K 42X47X13	18	42	47	13	16 910	31 825	3 847	10 450	7 125
	K 42X47X17	32	42	47	17	20 615	40 850	4 750	10 450	7 125
	K 42X50X20	53	42	50	20	33 250	54 150	6 175	10 450	6 650
43	K 43X48X17	30	43	48	17	20 520	40 850	4 750	10 450	7 125
	K 43X48X27	50	43	48	27	31 825	71 250	9 310	10 450	6 650
45	K 45X50X17	34	45	50	17	21 375	43 700	5 130	9 500	6 650
	K 45X50X27	51	45	50	27	32 775	76 000	9 975	9 500	6 650
	K 45X52X18	42	45	52	18	29 925	54 150	6 840	9 500	6 175
	K 45X53X20	55	45	53	20	37 050	63 650	7 410	9 500	6 175
	K 45X53X21	60	45	53	21	36 575	63 650	7 410	10 450	6 175
	K 45X53X28	81	45	53	28	49 400	93 100	11 685	11 400	6 175
	K 45X59X18 TN	72	45	59	18	41 800	51 300	6 080	9 025	6 175
	K 45X59X32	148	45	59	32	69 350	97 850	11 685	9 025	6 175
47	K 47X52X17	35	47	52	17	22 135	46 550	5 415	9 500	6 650
	K 47X52X27	51	47	52	27	33 250	78 850	10 260	9 500	6 175
50	K 50X55X13.5	30	50	55	13.5	17 290	34 675	4 085	9 025	6 175
	K 50X55X17	35	50	55	17	20 995	44 650	5 510	9 025	6 175
	K 50X55X20	43	50	55	20	25 175	57 000	6 840	9 025	6 175
	K 50X55X30	65	50	55	30	37 050	92 150	11 970	9 025	6 175
	K 50X57X18	47	50	57	18	31 825	59 850	7 695	8 550	6 175
	K 50X58X20	75	50	58	20	33 725	58 900	7 505	8 550	5 700
	K 50X58X25	90	50	58	25	41 800	76 950	9 215	8 550	5 700
52	K 52X57X12	24	52	57	12	17 100	34 675	4 132	8 550	6 175
55	K 55X60X20	40	55	60	20	27 075	62 700	7 600	8 075	5 700
	K 55X60X27	60	55	60	27	36 100	92 150	11 780	8 075	5 700
	K 55X60X30	71	55	60	30	38 950	102 600	13 395	8 075	5 700
	K 55X62X18	52	55	62	18	33 725	66 500	8 455	8 075	5 225
	K 55X63X20	67	55	63	20	38 000	70 300	8 075	8 075	5 225
	K 55X63X25	80	55	63	25	48 450	95 950	11 685	8 075	5 225
	K 55X63X32	102	55	63	32	58 900	123 500	15 770	8 075	5 225
58	K 58X65X18	52	58	65	18	33 250	66 500	8 550	7 600	5 225



Needle roller and cage assemblies

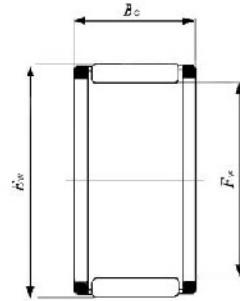


Dimension table . Dimensions in mm

Shaft diameter	Designation	Mass ≈ g	Dimensions			Basic load ratings		Fatigue load P_u N	Limiting speed n_G min ⁻¹	Reference speed n_B min ⁻¹
			F_w	E_w	B_c	dyn. C N	stat. C_o N			
60	K 60X65X20	52	60	65	20	28 025	68 400	8 170	7 600	5 225
	K 60X65X30	77	60	65	30	40 375	110 200	14 440	7 600	5 225
	K 60X68X20	71	60	68	20	41 325	80 750	9 405	7 125	4 750
	K 60X68X23	94	60	68	23	47 025	95 950	11 495	7 125	4 750
	K 60X68X25	89	60	68	25	50 350	105 450	12 920	7 125	4 750
	K 60X75X42	240	60	75	42	112 100	189 050	22 705	7 125	4 560
64	K 64X70X16	53	64	70	16	26 600	57 000	7 125	7 125	5 225
65	K 65X70X20	56	65	70	20	28 975	73 150	8 835	7 125	4 750
	K 65X70X30	83	65	70	30	41 800	117 800	15 390	7 125	4 750
	K 65X73X23	108	65	73	23	43 700	89 300	10 450	6 650	4 750
	K 65X73X30	141	65	73	30	54 150	116 850	14 440	6 650	4 750
68	K 68X74X20	71	68	74	20	33 725	79 800	9 595	6 650	4 750
	K 68X74X30	100	68	74	30	44 175	112 100	14 725	6 650	4 750
70	K 70X76X20	71	70	76	20	34 200	81 700	9 880	6 175	4 655
	K 70X76X30	110	70	76	30	49 400	132 050	17 385	6 175	4 465
	K 70X78X30	148	70	78	30	57 000	128 250	15 865	6 175	4 465
72	K 72X80X20	98	72	80	20	39 425	80 750	10 070	6 175	4 465
73	K 73X79X20	75	73	79	20	35 150	85 500	10 355	6 175	4 465
75	K 75X81X20	79	75	81	20	35 625	89 300	10 830	6 175	4 370
	K 75X81X30	114	75	81	30	49 400	135 850	17 670	6 175	4 275
	K 75X83X23	124	75	83	23	47 500	103 550	12 065	5 700	4 275
	K 75X83X30	147	75	83	30	58 900	135 850	16910	5 700	4 275
80	K 80X86X20	60	80	86	20	36 575	93 100	11 305	5 700	4 180
	K 80X88X30	138	80	88	30	67 450	167 200	21 280	5 700	5 700
85	K 85X92X20	102	85	92	20	42 275	102 600	13 205	5 225	5 225
90	K 90X97X20	109	90	97	20	42 750	107 350	13 775	4 750	4 750
	K 90X98X27	150	90	98	27	57 950	142 500	17 100	4 750	4 750
	K 90X98X30	172	90	98	30	64 600	163 400	20 235	4 750	4 750
95	K 95X103X30	165	95	103	30	65 550	171 000	21 185	4 655	4 655



Needle roller and cage assemblies



Dimension table . Dimensions in mm

Shaft diameter	Designation	Mass ≈ g	Dimensions			Basic load ratings		Fatigue load P_u N	Limiting speed n_G min ⁻¹	Reference speed n_B min ⁻¹
			F_w	E_w	B_c	dyn. C N	stat. C_o N			
100	K 100X107X21	120	100	107	21	45 600	120 650	15 295	4 465	4 465
	K 100X108X27	185	100	108	27	54 150	135 850	16 055	4 465	4 465
	K 100X108X30	180	100	108	30	67 450	178 600	21 945	4 465	4 465
105	K 105X112X21	129	105	112	21	45 125	120 650	15 105	4 275	4 275
110	K 110X117X24	172	110	117	24	53 200	150 100	17 480	4 085	4 085
	K 110X118X30	217	110	118	30	74 100	208 050	25 175	4 085	4 085
115	K 115X123X27	200	115	123	27	59 850	161 500	18 240	3 895	3 895
120	K 120X127X24	165	120	127	24	56 050	165 300	18 810	3 800	3 800
125	K 125X133X35	275	125	133	35	81 700	247 000	28 975	3 610	3 610
130	K 130X137X24	170	130	137	24	57 950	176 700	19 665	3 515	3 515
135	K 135X143X35	300	135	143	35	86 450	275 500	31 825	3 325	3 325
145	K 145X153X26	262	145	153	26	70 300	213 750	22 895	3 135	3 135
150	K 150X160X46	570	150	160	46	139 650	446 500	50 350	3 040	3 040
155	K 155X163X26	265	155	163	26	71 250	224 200	23 560	2 945	2 945
160	K 160X170X46	550	160	170	46	144 400	484 500	53 200	2 850	2 850
165	K 165X173X26	320	165	173	26	76 950	251 750	25 650	2 755	2 755
175	K 175X183X32	400	175	183	32	94 050	332 500	35 625	2 565	2 565
185	K 185X195X37	607	185	195	37	121 600	403 750	41 325	2 470	2 470
195	K 195X205X37	620	195	205	37	126 350	427 500	42 750	2 375	2 375
210	K 210X220X42	740	210	220	42	146 300	532 000	53 200	2 185	2 185
220	K 220X230X42	790	220	230	42	150 100	560 500	56 050	2 090	2 090
240	K 240X250X42	850	240	250	42	155 800	598 500	58 900	1 900	1 900
265	K 265X280X50	1810	265	280	50	242 250	817 000	74 100	1 710	1 710