

# Rolling Elements



## Balls

KINEX-KLF, a. s., Kysucké Nové Mesto produces balls in tolerance classes corresponding to the international standard ISO 3290.

The ball hardness ranges from 61 to 65 HRC.

The balls having a diameters 3.175 and 3.969 mm are supplied in the following tolerance classes 10, 16, 20, 28, 40 and 100, the balls having a diameter from 6.35 to 17.462 mm in tolerance classes 16, 20, 28, 140 and 100 and the balls having a diameter from 18.256 to 33.338 mm in tolerance classes 20, 28, 40 and 100.

Example of designation: ball 15,875-40

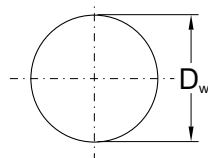
## Cylindrical Rollers

KINEX-KLF, a. s., Kysucké Nové Mesto produces cylindrical rollers in the tolerance classes II a III. The hardness of cylindrical rollers is within a range of 60 - 65 HRC.

The dimensions tables contain basic dimensions of cylindrical rollers shown in the tables are manufactured in designs Z (designation Z is not indicated), B, ZB. The designations B and ZB are used for cylindrical rollers with convex contour of the rolling surface, which eliminates risk of edge stress and improves the guidance of cylindrical rollers along raceways.

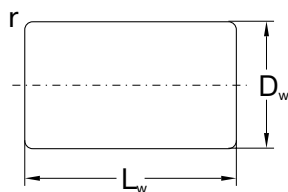
Example of designation: cylindrical roller 8 x 12 III ZB

# Balls

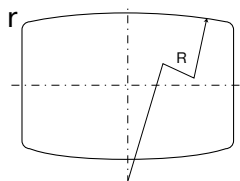


Nominal diameter $D_w$		Mass 1000 pieces	Nominal diameter $D_w$		Mass 1000 pieces
mm	inch		mm	inch	
3,175	1/8	0,132	16,669	21/32	19,000
3,969	3/16	0,257	17,462	11/16	21,900
4,762	3/16	0,444	18,256	23/32	25,000
5,556	7/32	0,705	19,050	3/4	28,400
6	-	0,887	19,844	25/32	32,100
6,350	1/4	1,050	20,000	-	32,900
6,747	17/64	1,260	20,638	13/16	36,100
7,144	9/32	1,500	21,431	27/32	40,400
7,938	5/16	2,060	22	-	43,800
8,500	-	2,520	22,225	7/8	45,100
8,731	11/32	2,730	23,019	29/32	50,100
9,525	3/8	3,550	23,812	15/16	55,500
10,319	13/32	4,510	24,606	31/32	61,200
11,112	7/16	5,640	25,400	1	67,300
11,906	15/32	6,930	26,988	11/16	80,800
12,700	1/2	8,420	28,575	11/8	95,800
13,494	17/32	10,100	30,162	13/16	113,000
14	-	11,300	31,750	11/4	132,000
14,288	9/16	12,000	33,338	15/16	152,000
15,081	19/32	14,100	35	-	176,000
15,875	5/8	16,400	40	-	263,000
16	-	16,800	45	-	374,000

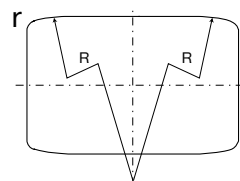
## Cylindrical Rollers



Z



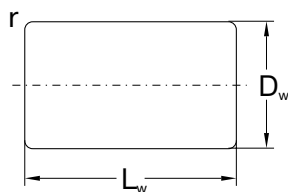
B



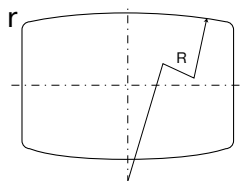
ZB

Dimensions		r	Mass 1000 pieces	Dimensions		Mass 1000 pieces
$D_w \times L_w$	mm			$D_w \times L_w$	mm	
5 x 10	0,3	1,52	11 x 22	0,8	16,20	
6 x 8	0,3	1,78	13 x 13	0,8	13,30	
6 x 12	0,3	2,61	13 x 20	0,8	20,40	
6,35 x 12	0,3	2,98	14 x 13,8	0,8	16,40	
6,5 x 6,5	0,5	1,66	14 x 14	0,8	16,60	
6,5 x 9	0,5	2,30	14 x 15	0,8	18,00	
7 x 10	0,5	2,96	14 x 20	0,8	23,80	
7 x 14	0,5	4,02	14 x 22	0,8	26,20	
7,35 x 14	0,3	4,66	14 x 26	0,8	31,00	
7,5 x 7,5	0,5	2,54	14 x 28	0,8	33,40	
7,5 x 9	0,5	3,06	15 x 15	0,8	20,40	
7,5 x 11	0,5	3,74	15 x 16	0,8	22,00	
7,5 x 17	0,4	5,83	15 x 17	0,8	23,10	
7,5 x 19	0,4	6,52	15 x 22	0,8	30,00	
8 x 8	0,5	3,08	15 x 24	0,8	32,80	
8 x 12	0,5	4,65	15 x 25	0,8	34,40	
8 x 16	0,5	6,27	15 x 30	0,8	41,30	
9 x 9	0,5	4,40	15 x 32	0,8	43,90	
9 x 10	0,5	4,90	16 x 16	0,8	24,80	
9 x 13	0,5	6,40	16 x 17	0,8	26,40	
9 x 14	0,5	6,80	16 x 24	0,8	37,30	
10 x 10	0,5	6,00	16 x 27	0,8	42,00	
10 x 11	0,5	6,70	17 x 17	1,0	29,70	
10 x 14	0,5	8,50	17 x 24	1,0	42,00	
10 x 15	0,5	9,20	17 x 34	1,0	59,00	
10 x 16	0,5	9,80	18 x 18	1,0	35,70	
10 x 20	0,5	12,20	18 x 19	1,0	37,70	
10 x 25	0,5	15,30	18 x 26	1,0	51,00	
11 x 11	0,8	8,10	18 x 30	1,0	59,60	
11 x 12	0,8	8,90	18 x 36	1,0	71,50	
11 x 15	0,8	11,08	19 x 19	1,0	41,60	
12 x 12	0,8	10,4	19 x 20	1,0	44,40	
12 x 14	0,8	10,4	19 x 28	1,0	61,00	
12 x 18	0,8	10,4	19 x 32	1,0	70,30	

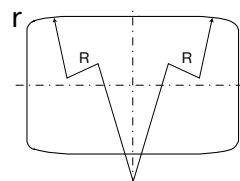
## Cylindrical Rollers



Z



B



ZB

Dimensions		Weight 1000 ks	Dimensions		Weight 1000 ks
$D_w \times L_w$	r		$D_w \times L_w$	r	
mm		kg	mm		kg
20 x 20	1,0	48,50	27 x 48	1,5	214,00
20 x 30	1,0	73,00	28 x 28	1,5	133,00
20 x 40	1,0	97,70	28 x 30	1,5	143,00
21 x 21	1,0	56,00	28 x 32	1,5	153,00
21 x 22	1,0	59,00	28 x 44	1,5	210,00
21 x 42	1,0	112,00	28 x 56	1,5	269,00
22 x 22	1,0	64,00	30 x 30	1,5	163,00
22 x 24	1,0	71,00	30 x 33	1,5	180,00
22 x 34	1,0	100,00	30 x 48	1,5	262,00
22 x 44	1,0	129,00	30 x 63	1,5	346,00
23 x 23	1,0	74,00	32 x 32	1,5	199,00
23 x 34	1,0	112,00	32 x 52	1,5	324,00
24 x 24	1,0	84,00	32 x 64	1,5	400,00
24 x 26	1,0	91,00	34 x 43	2,0	239,00
24 x 36	1,0	126,00	34 x 55	2,0	387,00
24 x 40	1,0	141,00	38 x 38	2,0	283,00
25 x 25	1,5	95,00	38 x 62	2,0	552,00
25 x 36	1,5	137,00	40 x 40	2,0	389,00
26 x 26	1,5	107,00	42 x 42	2,0	457,00
26 x 40	1,5	164,00	45 x 45	2,0	562,00
26 x 48	1,5	198,00	48 x 48	2,0	682,00