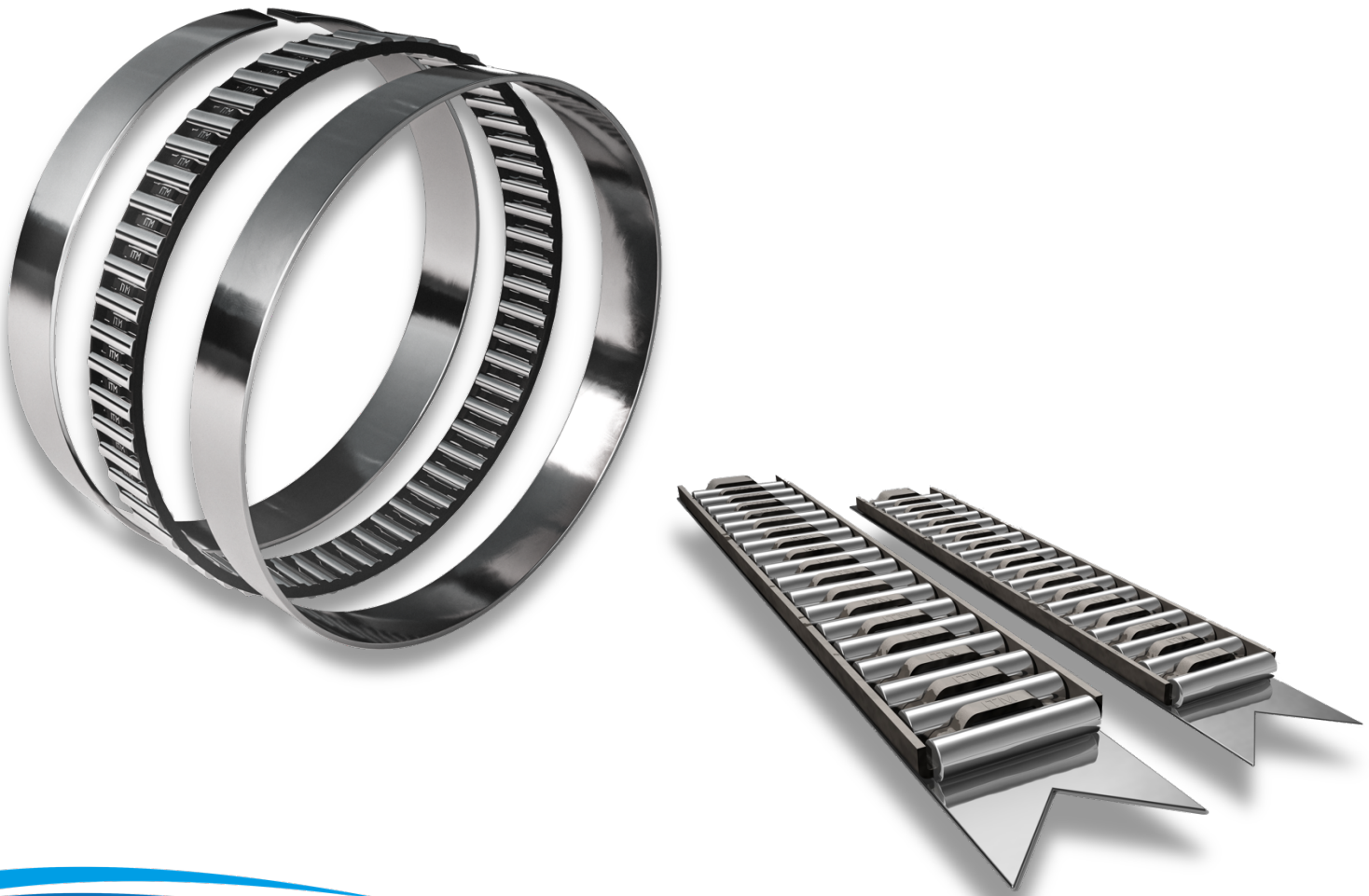


# Steel Cages IBF/IBFZ

## Radial Steel Cages K/KR



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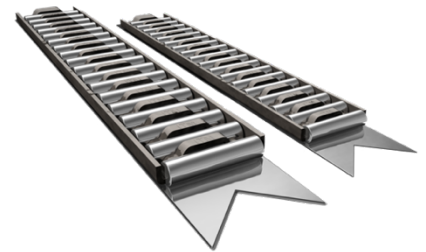
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## Radial Steel Cages without needles (IBF) with needles (IBFZ)

### Properties

- Made of alloyed steel, with pockets to accommodate precision needles class 2 per DIN 5402-3 specification
- Assembled with hardened and profiled needles (IBFZ)
- Can be bent into radial needle cages (K)
- Available in standard length of 2000 mm with / without precision needles, various lengths on request
- Can be produced in small quantities and short lead times
- Allow very flexible dimensions
- Low friction and easy spin with high load and stiffness



## Radial Steel Cages (K), with hardened steel rings (KR)

- Cages enable higher speeds compared to full complement bearings
- Little installation space needed
- Suitable for large shaft diameters
- Available in small quantities and flexible dimensions
- Tailored dimensions available at short notice
- Oil and grease lubrication possible



## Design Information

- When using Radial Steel Cage (**K**) shaft and housing surface finish must be hardened and ground to keep best service life
- Steel Cages with Needles **IBFZ** can be delivered as linear Steel Cage in different lengths, bent Radial Steel Cage diameters upon customer's request (**K**) as well as complete Radial Steel Cage with hardened inner- and outer metal tapes (**KR**)
- Tolerance shaft / housing: f6/H7
- Open joint
- Lateral contact surface ( $Ra < 0.8$ ) must be wear-resistant

## Sealing

Sealing is carried out with commercial seals between bearing and matching parts.

## Delivery execution / Installation

Flat cages, radial needle rollers are packed in corrosion-protected boxes.

Before installation, parts must be oiled or greased, dependent what lubrication will be applied. Radial needle rollers are provided ready to install and individually packed.

## Shipping Sizes

Flat cages are available from stock in standard lengths of 2000 mm.

Customized dimensions for flat cages and radial needle rollers can be also produced on short call.

## Order Example and Designation:

- **Flat Cage without needles** – IBF 735 length 1500 mm
  - Order description: IBF 735.1500
- **Flat Cage with needles** – IBFZ 735 length 2000 mm
  - Order description: IBFZ 735.2000
- **Radial Needle Roller IBFZ 735**  
Shaft diameter 500 mm housing bore 514 mm width 35 mm  
Order description: K 500x514x35 from IBFZ 735
- **Radial Needle Roller with Steel Ring KR**  
Flat cage with needles IBFZ 1240  
Shaft diameter 800 mm housing bore 828 mm width 40 mm  
Order description: KR 800x828x40 from IBFZ 1240

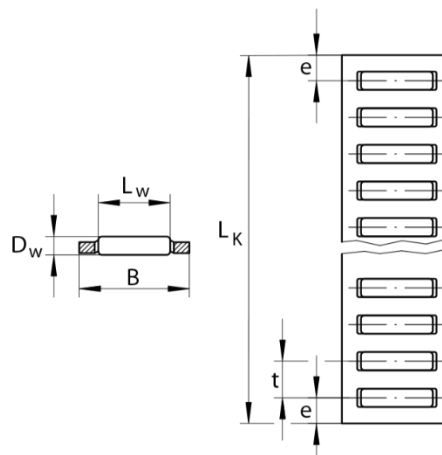
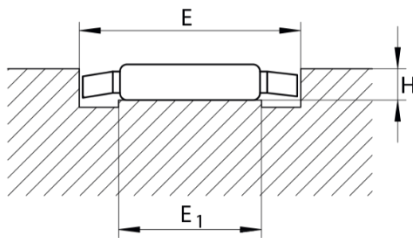


# Technical Details

Dimension Scale		Dimension in mm											
Reference	Weight per 1000 mm	Dimensions	min.	max.	t	e	D <sub>W</sub>	L <sub>W</sub>	Loads	Mating Dimensions			
		B	Shaft Diameter							stat. C <sub>0</sub>	E	E <sub>1</sub>	H
	kg		d <sub>min</sub>	d <sub>max</sub>					N	N		min	
IBFZ 320	0,34	20	120	~1000	6	4,5	3	15,8	3950 ·vd	1060 · d	20,4 <sup>+0,2</sup>	16	2,7 <sup>-0,2</sup>
IBFZ 3020-H20	0,37	20	120	~1000	6	4,5	3	13,8	3440 ·vd	925 · d	20,4 <sup>+0,2</sup>	14	2,7 <sup>-0,2</sup>
IBFZ 515	0,37	15	105	~1000	8	5,5	5	11,8	5100 ·vd	1050 · d	15,4 <sup>+0,2</sup>	12	4,6 <sup>-0,2</sup>
IBFZ 523	0,53	23	95	~1000	8	5,5	5	19,8	7300 ·vd	1660 · d	23,4 <sup>+0,2</sup>	20	4,6 <sup>-0,2</sup>
IBFZ 532	0,72	32	180	~1000	8	5,5	5	27,8	9600 ·vd	2350 · d	32,5 <sup>+0,3</sup>	28	4,6 <sup>-0,2</sup>
IBFZ 728	0,87	28	175	~1000	11	7,5	7	24	10400 ·vd	2050 · d	28,4 <sup>+0,2</sup>	24	6,5 <sup>-0,2</sup>
IBFZ 735	1,08	35	220	~1000	11	7,5	7	30	12400 ·vd	2600 · d	35,0 <sup>+/-0,3</sup>	30	6,5 <sup>-0,2</sup>
IBFZ 1240	1,97	40	160	~1000	16	10,0	12	36	21800 ·vd	3650 · d	40,5 <sup>+0,3</sup>	36	11,0 <sup>-0,2</sup>

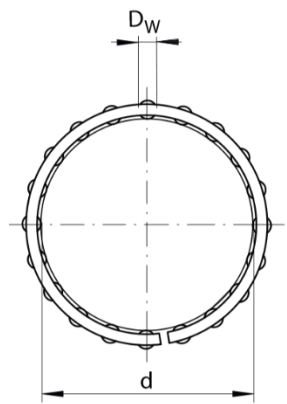
Mating dimensions

Anschlussmaße



$L_K \pi = (d + D_w)$   
(gestreckte Länge vor dem Rundbiegen)

Flat length before bending



aus Flachkäfig IBFZ gebogen

Made of steel cage IBFZ

Toleranz für den Innenlaufbahn-Durchmesser: f6  
Toleranz für den Außenlaufbahn-Durchmesser: H7  
Tolerance inner race diameter f6  
Tolerance outer race diameter H7

