



# SPRING BUSH BEARING CATALOGUE





- **SPECIAL REQUEST**
- **SPECIAL SOLUTIONS**

- **PRODUCT**

## Spring Bushing Bearings,

Spring bushing bearings, Spring roller bearings,  
Products;

It is produced and used for various applications in accordance with Das Lager Germany quality. An example of this is the steel industry, which has different applications. Roller table rollers in rolling mills, support and guide rollers in continuous casting, in furnaces or finishing equipment.

### **Typecast of the DAS LAGER bearings;**

BR – Flexible inner ring, solid roller cage, flexible outer ring.

ABC – Flexible inner ring, solid roller cage (fully guiding, torsion-free), flexible outer ring



- **(BR) Spring Bushing Roller Bearing**

Type of product	Product dimension	C0 [kN]	C [kN]
BR	35/60 mm x 64/38 mm	110	78
BR	35/62 mm x 50/36 mm	86	65
BR	35/65 mm x 56,5/38 mm	90	45
BR	35/65 mm x 64/38 mm	95	80
BR	40/68 mm x 58/45 mm	158	96
BR	40/71 mm x 60/45 mm	135	105
BR	45/67 mm x 50/40 mm	123	75
BR	45/67 mm x 73/63 mm	230	125
BR	45/75 mm x 86/70 mm	245	165
BR	50/80 mm x 75/70 mm	332	205
BR	50/85 mm x 57/45 mm	150	105
BR	50/85 mm x 73/45 mm	180	135
BR	50/95 mm x 95/70 mm	270	205
BR	55/80 mm x 73/63 mm	260	135
BR	55/90 mm x 73/63 mm	305	180
BR	60/89 mm x 73/63 mm	350	170
BR	60/89 mm x 73/63 mm	328	155

Type of product	Product dimension	C <sub>r</sub> [kN]	C <sub>0r</sub> [kN]
BR	60/95 mm x 73/63 mm	346	200
BR	60/110 mm x 105/94 mm	490	330
BR	62/89 mm x 73/63 mm	345	185
BR	70/99 mm x 73/63 mm	370	175
BR	70/120 mm x 71,5/50 mm	300	195
BR	75/104 mm x 73/63 mm	373	178
BR	75/105 mm x 73/63 mm	420	185
BR	90/121 mm x 73/63 mm	512	265

**\*\*DO YOU NEED A SPECIAL SIZE?**

Then don't hesitate to contact us. We offer manufacturing of all bearing designs in special sizes.

**The advantages of spring roller bearings are:**

- Flexible bearing ideal for extreme environmental conditions.
- Suitability for high operating temperatures
- Low sensitivity to dirt
- Compact design allows optimized bearing cross sections
- Flexible rolling element made of wrapped steel has shock effect.
- absorbent effect
- The modular design of the bearings also
- Allows replacement of individual parts during revisions.



- **(ABC) Roller Bearings**

Type of product	Product dimension	C <sub>r</sub> [kN]	C <sub>0r</sub> [kN]
ABC	45/80 mm x 80/70 mm	320	200
ABC	50/80 mm x 75/70 mm	325	180
ABC	50/85 mm x 80/70 mm	356	209
ABC	50/95 mm x 85/50 mm	304	195
ABC	55/85 mm x 75/70 mm	360	205
ABC	60/95 mm x 75/70 mm	410	220
ABC	60/89 mm x 73/63 mm	380	185
ABC	65/105 mm x 90/64 mm	370	232
ABC	65/95 mm x 75/70 mm	390	198
ABC	75/105 mm 75/70 mm	495	240
ABC	75/104 mm x 73/63 mm	420	200
ABC	80/120 mm x 73/63 mm	503	250
ABC	85/125 mm x 90/64 mm	503	280
ABC	90/121 mm x 73/63 mm	500	235

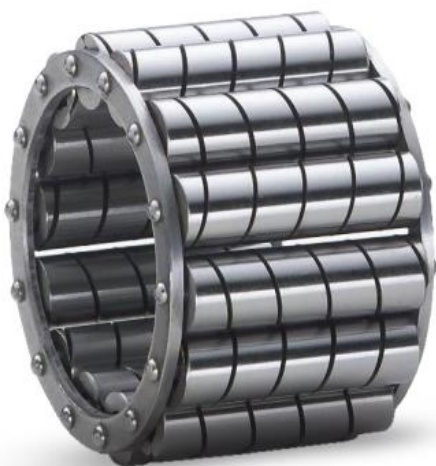
- **Spring Bushing Bearings Components**



Outer Spring Bush



Inner Spring Bush



Spring Roller Cage Assembly



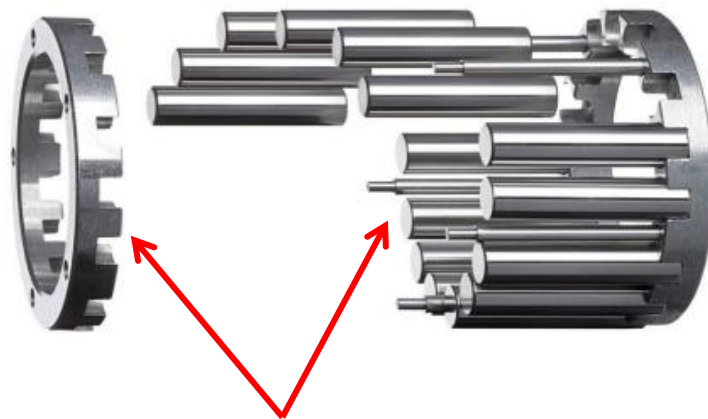
Spring Roller

- Solid Roller Cage;

The solid roller cage assembly is providing higher load capacities than the flexible roller cage assembly. For this reason, it is suitable especially for high dynamic and static loads, first and foremost on only low shock loads. In combination with the flexible bushes it is forming a bearing unit that has been designed for being applied in continuous casting machines.

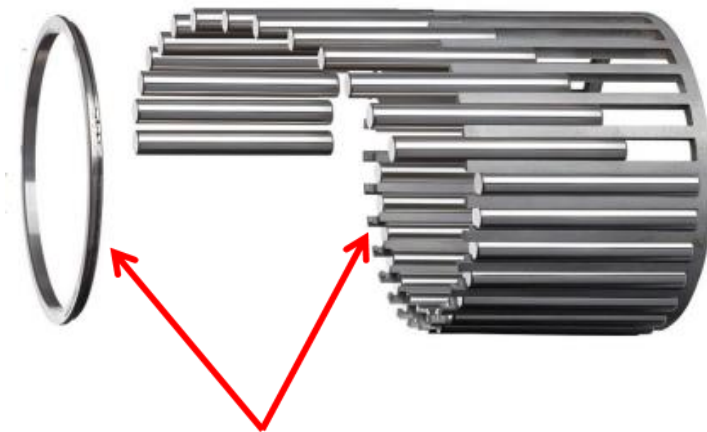


- Difference To The Standard Roller Cage Assembly Type



Standard Cage

Standard roller cage assembly: its pins are riveted to the cage rings.

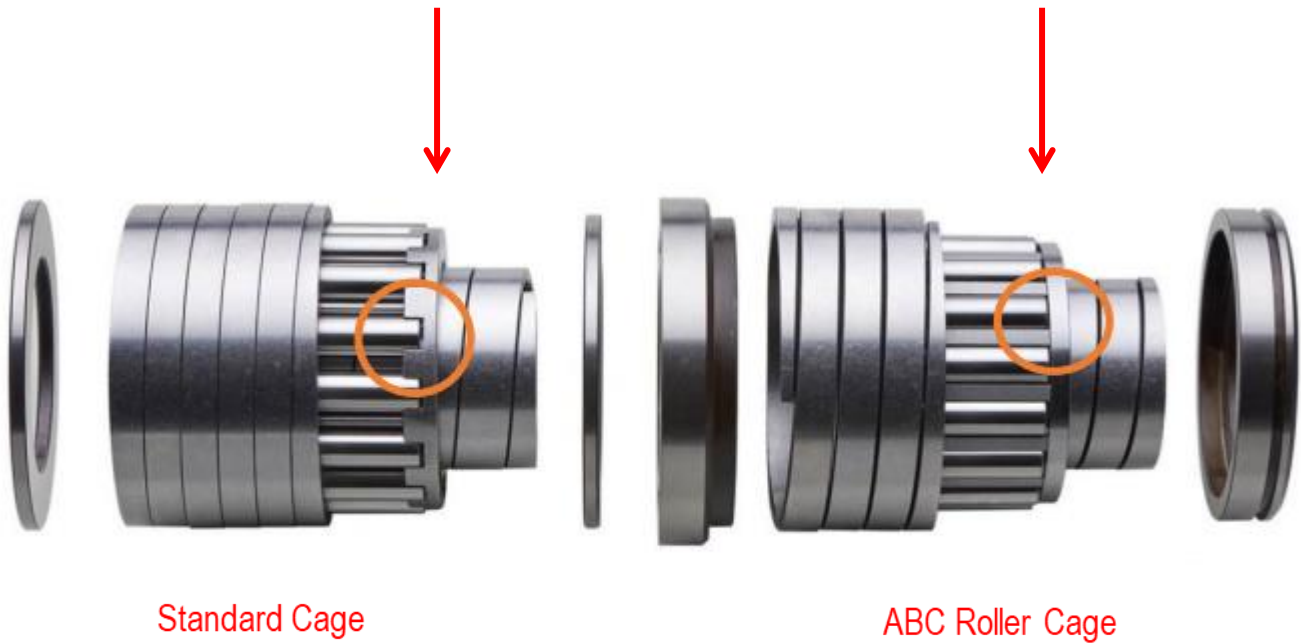


ABC Roller Cage

ABC roller cage assembly: one of its features is its motility of one cage ring due to the groove and tongue joint, which is in contrary to the previous one.



- Difference To The Standard Roller Cage Assembly



\*Unlike the standard cage the rolling element in the ABC-bearing is supported by the bar over its entire length.

- Materials For Rolling Bearings And Rolling Bearing Parts

There are many materials available for different types and applications of bearings. Each of them is selected taking into account the weight of various criteria.

The first and most important of these is the performance of the bearing, which varies depending on the material used and where the bearing is used.

The best known and probably the most studied steel in the world is 100Cr6. It is explained in detail in EN ISO 683-17 standard.

• **Assembly Instructions**



Assembly Tools

The **DAS LAGER GERMANY** system of spring bush bearings simplifies installation.

Special positioning at the shaft or the bore is not necessary. In general bearing tolerances are aligned to h7 / H7 — other fits can

be adjusted without problems.

The 'mounting principle' of pre-load results from the chosen diameter for inner and outer spring bush ring: unmounted, the inner

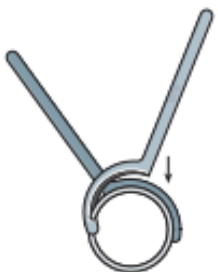
spring bush diameter is smaller than the shaft diameter; and again

unmounted the outer spring bushing's diameter is bigger compared to the bore diameter. Before installation check the mentioned diameter ratio of inner ring to shaft and outer ring to bore.

**Installation of the inner spring bush.**

Two hook wrenches aid the installation of the inner spring bush. Place the wrenches at the two opposite ends of the inner spring bush and turn them in opposite directions, thus enlarging the diameter. Opened like this the spring bush can easily be positioned on the shaft. After releasing the hook wrenches, press the windings of the bushes in axial directions, tapping the bushing gently with a piece of hard wood or a copper hammer. Note: Never force the spring bushes axially

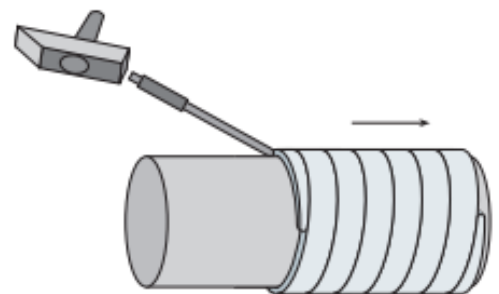
— **by using a shaft nut or anything similar!**



\*Adjust the hook wrenches, at both ends of the bushes



\*Enlarge the diameter by turning, the wrenches in opposite directions



\*Release the wrenches and use a copper, hammer to telescope the spring bush

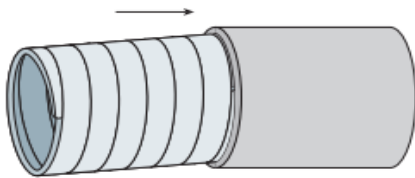
### Installation of the outer spring bush.

The outer spring bush is installed using a lever. The nut in the lever corresponds to the wall thickness of the outer spring bush.

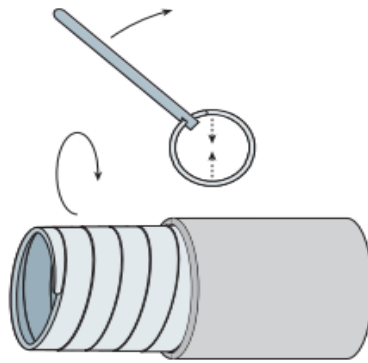
Hold the outer spring bush at an angle against the bore, so that the start of the winding fits into the bore. Using the lever, turn the outer spring bush in a clockwise direction and push it into the bore.

Analogical to the installation of the inner spring bushing, tap the windings of the bushes together gently in an axial direction.

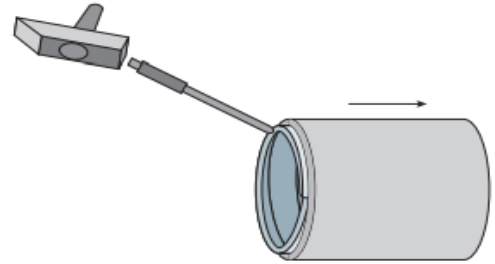
**Note: Never load the spring bushings axially by screwing on a housing cover or any similar method.**



\*Adjust the first winding to bore



\*Use lever and turn the bush clockwise



\*Release the lever and use a copper, hammer to telescope the spring bush

- **Mounting Details;**

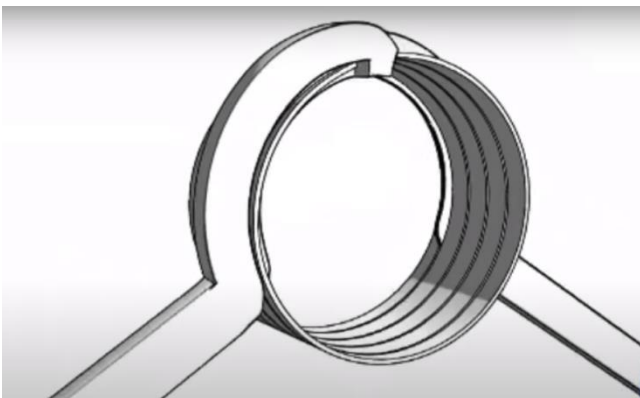


IMAGE 1

-The inner ring is clamped at both ends with the help of mounting kits. It is stretched enough to fit the shaft diameter to be applied without damaging it (*Image 1*).

-The inner ring, tensioned with mounting kits, is attached to the shaft as shown in the picture (*Image 2*).



IMAGE 2

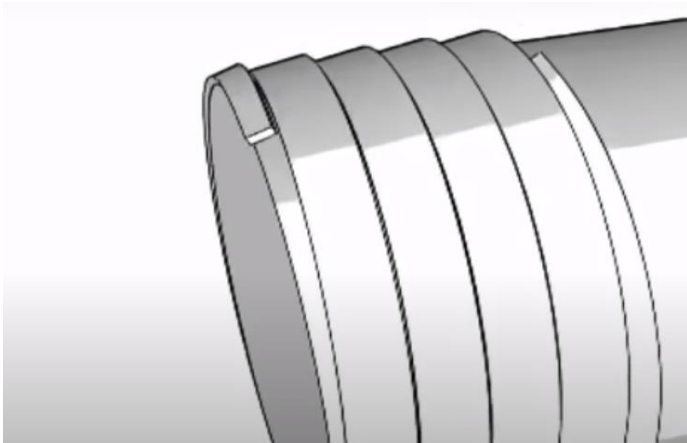


IMAGE 3

-Tension occurs in the inner ring where the shaft is assembled, as shown in the image on the side (*Image 3*).

-In order for the tensioned inner bracelet to sit stably in place, the bracelet is hit from the front with the help of a brass hammer (*Image 4-5*).

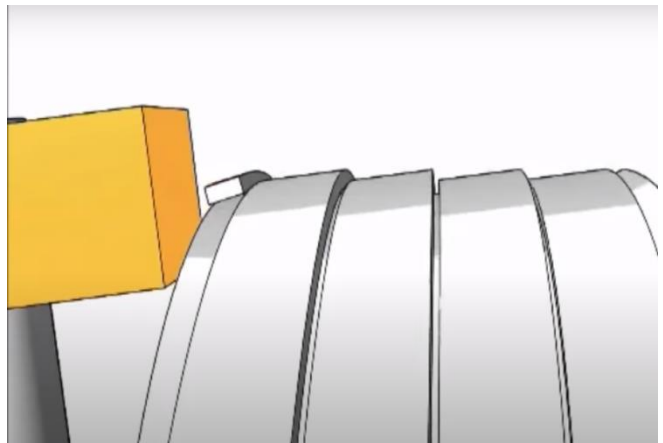


IMAGE 4

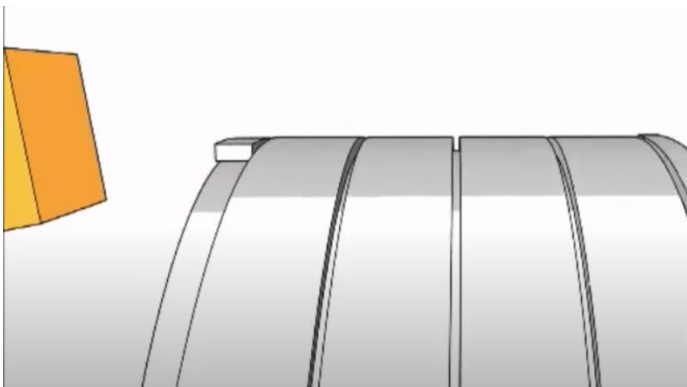


IMAGE 5

-The cage of the bearing whose inner ring is mounted is assembled as shown in the images, without requiring any mounting equipment (*Image 6-7*).



IMAGE 6



IMAGE 7

-For mounting on the prepared bed, the outer diameter is compressed using the outer ring mounting apparatus (*Image 8*).



IMAGE 8



IMAGE 9

-The compressed outer ring is attached to the bearing as shown in the image (*Image 9*).

-After the outer ring is assembled, the relevant part (Image 9) is mounted on the assembled cage and inner ring, without the need for auxiliary mounting equipment. Thus, the assembly process is completed (Image 10-11).



IMAGE 10

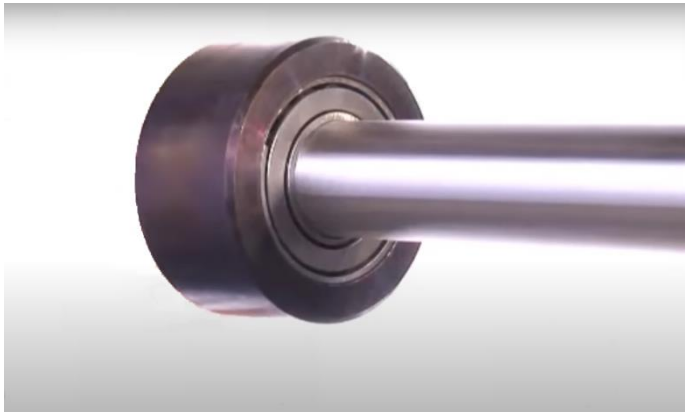


IMAGE 11

- **Dismounting Details;**

-The assembled outer ring is removed from the cage and inner ring. It is then removed from the slot where it is installed with the help of auxiliary disassembly tools. Auxiliary removal tools help loosen and remove the outer ring from the housing (Image 12-13).



IMAGE 12



IMAGE 13

-The inner ring mounted on the shaft is separated from the shaft one step by means of auxiliary devices so that the disassembly tool can be installed. Then, the diameter of the inner ring is expanded by attaching the disassembly tool and it is removed from the shaft without damaging the shaft (*Image 14-15*).



IMAGE 14



IMAGE 15

## Das Lager, Leading Company of Bearing Industry In Turkey

Das Lager Germany is the most creative, innovative and dynamic as a leading bearing firm in the Turkish industry. Das Lager Germany is in bearing and auxiliary equipment business.

The company focused on producing and marketing of industrial and automotive bearings in addition to these has placed in an important position in Turkey.

The company produces first class bearings with German design and engineering.

Das Lager Germany has the biggest product range from miniature bearings to full-scale bearings which are used in heavy industry and every field of application.

Besides the standard products, **DAS LAGER GERMANY** can also design the bearings based on the customers needs and with that it is also called ``the bearing tailor`.

Thank You For Your Kind Attention



- **Contcat Us**

Eskişehir O.S.B. 20.Cadde No:35 ESKİŞEHİR - Turkey  
+90 (222) 236.22.05  
[info@daslager.com.tr](mailto:info@daslager.com.tr)