SPINDEL- UND LAGERUNGSTECHNIK
FRAUREUTH GMBH

Thin Section Bearings

Notice regarding use of this catalogue:
The catalogue does not claim to be complete.

SLF specializes in the continuous development and production of customized roller bearings. Consequently, our product range is continually evolving. In this endeavor, our paramount goal is to provide optimal customer benefits. Don’t hesitate to contact us should your needs go beyond the scope of the materials referenced in this catalog.

The current product data can be found in the online catalog on our website:
www.slf-fraureuth.de/en/catalogue

October 2024

Table of contents

SLF in Profile

SLF group

From its foundation in 1993, the spindle and bearing producer Spindel- und Lagerungstechnik Fraureuth GmbH has developed into a solid specialist enterprise with 350 employees. With our quality products MADE IN GERMANY, SLF will continue to grow and develop its international presence. We support our customers worldwide through subsidiaries in the USA and China.

Our main location in Fraureuth in the west of Saxony, Germany has over 80 years of tradition and history in roller bearing production. SLF offers extraordinary standards for international customers who rely on individualized innovative products and excellent service.

AT THE CENTER OF MOVEMENT

Production

We produce our sophisticated products at the traditional location in Fraureuth. Quality begins with the purchase of the raw materials and semi-finished products that are the basis for our roller bearings and spindle units highest precision. Long-term suppliers fulfill our stringent quality requirements. Perfectly aligned manufacturing processes and state-of-the-art technologies make possible a wide variety of products and flexibility in the implementation of individual customer requests.

Engineering service

In a total area of 60,000 m², we offer the value-added chain of roller bearing and spindle manufacturing. We can oversee every step of the manufacturing operation, from machining of the parts & components before hardening to heat treatment, followed by machining of parts & components after heat treatment and final assembly.

Our comprehensive machinery is constantly being enhanced and modernized to fulfill the ever-increasing requirements of our products. The key to success and guarantor of consistently high quality is our team of qualified employees.

SLF means perfection down to the last detail – MADE IN GERMANY.

SLF is a top-ranking engineering partner and supplier of the highest performance bearing solutions for customers with sophisticated requirements from machine tool main spindles and similar precision applications. With our comprehensive assortment of high precision bearings in a variety of designs, we offer a wide range of solutions that enable our customers' success.

At SLF, we will offer solutions for all your roller bearing applications with the most technically sophisticated, economical, and sustainable solutions offering high quality and precision.

From the design of individualized new solutions via optimization variants for existing bearing versions up to replacement solutions, our experienced employees are willing and able to help you.

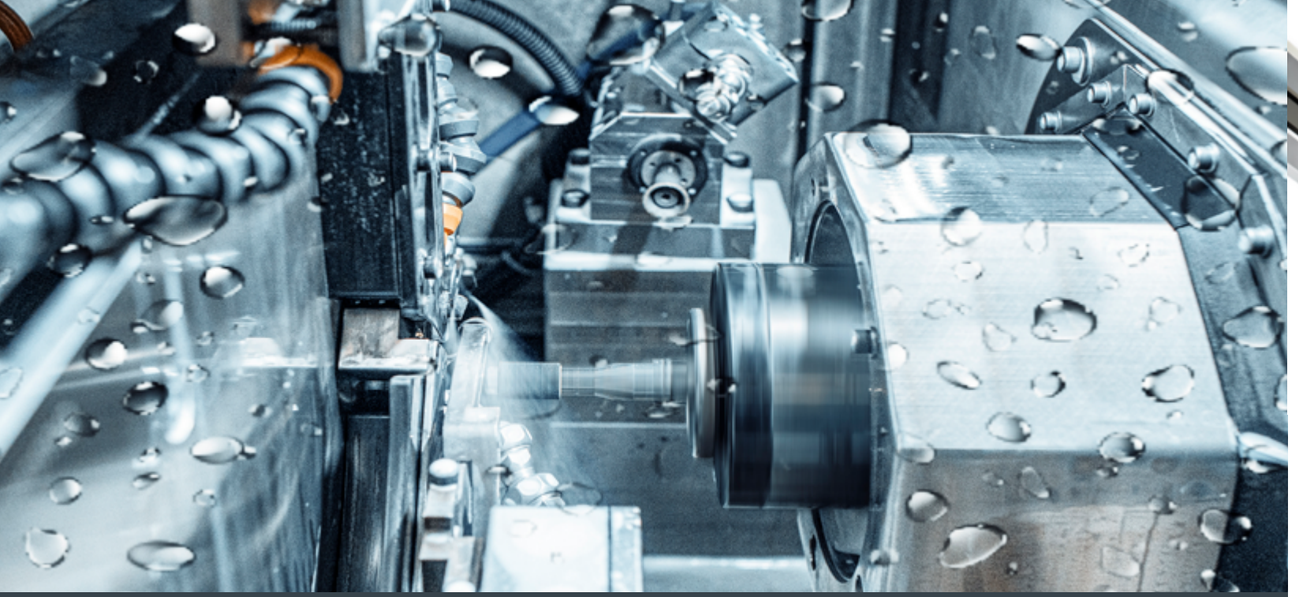
Offering a comprehensive bearing concept, SLF helps you achieve the best performance possible for your applications in terms of precision, longetivity, and cost efficiency.

Quality standards

SLF products are characterized by high quality and maximum precision. SLF stands for perfection down to the last detail.

Our strength lies in realizing individual solutions tailored to the customer. To achieve this, we ensure stable product quality, starting with consultation and support of our customers and continuing with flexibility in meeting the customer's requirements, up to continuous quality assurance.

Our integrated quality assurance system guarantees the high-quality standards required for machine tools at every step of production. This comprehensive quality management is confirmed by the Spindel- und Lagerungstechnik Fraureuth GmbH audits performed according to DIN EN ISO 9001:2015.



Profile thin section bearings

Spindel- und Lagerungstechnik Fraureuth Gmbh (SLF) is a global manufacturer of standard and customized Super Precision Bearings. With our advanced, highly technical manufacturing capabilities located in Germany, you can rely on SLF to provide the highest quality and precision thin section bearings for your application needs. SLF is second to none when it comes to quality, delivery and manufacturing flexibility.

With over 30 years of high precision bearing manufacturing, no application is too tough, precise or extreme for SLF thin section bearings. Whatever the need, our design and manufacturing team will engineer the most superior solutions. Choose from a variety of standard and specialty bearings, steel, grease and cage materials for your specific application requirements. SLF sets new standards when it comes to thin section bearings.

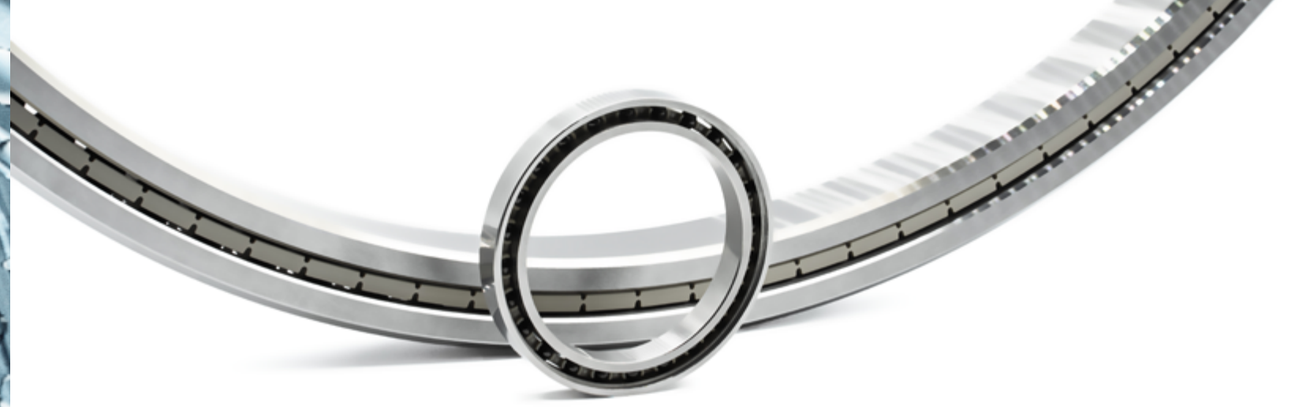
SLF's thin section bearings are available in three different materials: Standard, Stainless, and Premium. Besides Standard (100Cr6) and Stainless (440C), SLF is exclusively offering Premium thin section bearings made from X30 in combination with ceramic rolling elements. This material combination offers unique properties to SLF's thin section bearings. The Premium material X30 is characterized by exceptional corrosion resistance. Compared to conventional materials, it offers a 25 % higher load capacity. Additionally, it is resistant to rust, acids, and various media, making it perfect for use in challenging environments.

Depending on your needs in specific applications, SLF thin section bearings are the perfect choice. From Standard to Premium, there's no compromise in quality or precision.

Flexibility

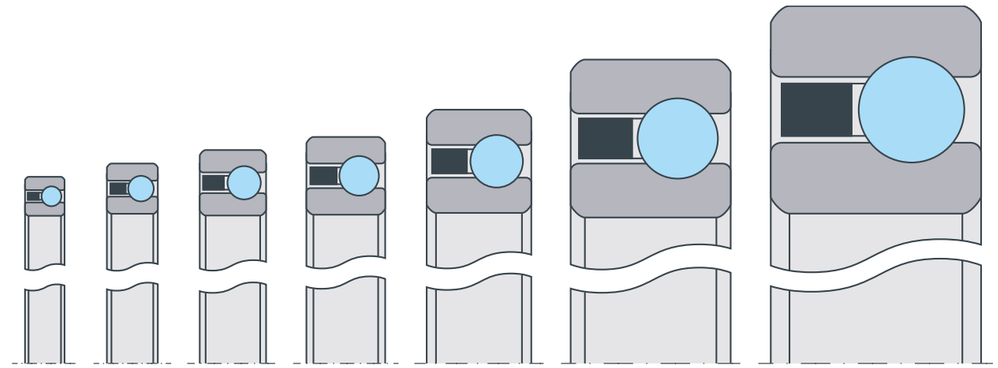
Precision

Reliability



Productportfolio thin section

Overview cross section bearings



SLF material portfolio

Material Combination	Rings	Balls	Cage
Standard	100Cr6 – 1.3505 – SAE 52100	100CR6 – 1.3505 – SAE 52100	brass solid
Stainless	440C – 1.4125 – AISI 440C	440C – 1.4125 – AISI 440C	brass solid
Premium	X30 – 1.4108 – X30CrMoN15-1	Si_3N_4	PEEK solid

All other Variants are possible according customer request, necessity of the application

Material Combination	Properties / Performance					
	corrosion resistance	acid, leach, salt resistance	fatigue stress resilience	wear resistance	operating temperature	resilience against rollover
Standard	0	0	0	0	0	0
Stainless	+(+)	+	0	-	0	0
Premium	+++	+++	+++	+++*	(++)**	+

** in combination with Si_3N_4 rolling elements*

*** modified heat treatment for high temperature usage (not applicable with PEEK cage) - after request*

Nomenclature (and SLF Standard)

Nomenclature cross section bearings

Position	1	2	3	4	5	6	7	8	9 (optional)
Description	Material	Series		Size		Type	Separator	Precision	Radial play (**)
Example	K	B		0 4 5		A	MH	4	A

Position 1 – Materials

Rings / Balls

K	SAE 52100 Steel, no seals or shields
S	AISI 440C Stainless steel, no seals or shields
P	Special Steel X30, ceramic balls, no seals or shields
X	SAE 52100 Steel, ceramic balls, no seals or shields
Y	AISI 440C Stainless steel, ceramic balls, no seals or shields
Z	other

Position 2 – Series

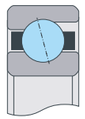
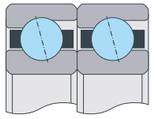
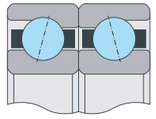
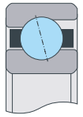
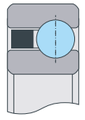
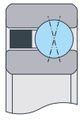
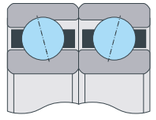
Open Bearings

AA	3/16'' x 3/16''
A	1/4'' x 1/4''
B	5/16'' x 5/16''
C	3/8'' x 3/8''
D	1/2'' x 1/2''
F	3/4'' x 3/4''
G	1'' x 1''

Position 3, 4, 5 – Size

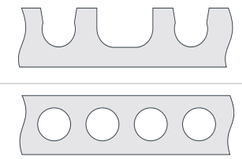
Nominal bearing bore in inches, multiplied by ten

Position 6 – Bearing type

A	Angular contact single bearing (not for universal duplexing)		T	Angular contact pair-duplexed tandem	
B	Angular contact pair-duplexed back to back		U	Angular contact single bearing (for universal duplexing)	
C	Radial contact		X	Four-point contact	
F	Angular contact pair-duplexed face to face		Z	other	

Position 7 – Separator

MH	brass, one-piece ring, snap-type
ENH	PEEK, one-piece ring, snap-type
TH	phenolic laminate, one-piece ring, snap-type
MP	brass, one-piece ring with circular pockets
ENP	PEEK, one-piece ring with circular pockets
TP	phenolic laminate, one-piece ring with circular pockets



Position 8 – Precision

0	is equivalent to ABMA 26.2 ABEC 1F
3	is equivalent to ABMA 26.2 ABEC 3F
4	is equivalent to ABMA 26.2 ABEC 5F
6	is equivalent to ABMA 26.2 ABEC 7F

Position 9 – Clearance or preload

Clearance

A	.0000'' to .0005''
B	.0000'' to .0010''
C	.0005'' to .0010''
D	.0005'' to .0015''
E	.0010'' to .0020''
F	.0015'' to .0025''
G	.0020'' to .0030''
H	.0030'' to .0040''
I	.0040'' to .0050''
J	.0050'' to .0060''

Preload

K	.0000'' to .0005''
L	.0000'' to .0010''
M	.0005'' to .0010''
N	.0005'' to .0015''
P	.0010'' to .0020''
Q	.0010'' to .0015''
R	.0015'' to .0025''
S	.0020'' to .0030''
Z	other clearance or preload

blank…standard default clearance

- *Type X or C = Diametral Preload or Clearance*
- *Duplexed Type A = Axial Preload or Clearance*

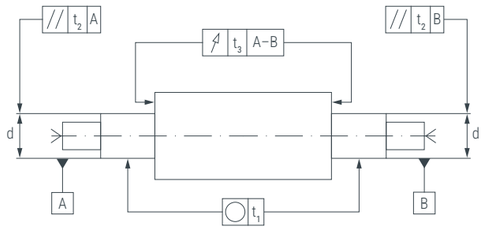
Installation tolerances for thin section bearings

Manufacturing tolerances of the parts surrounding the bearings

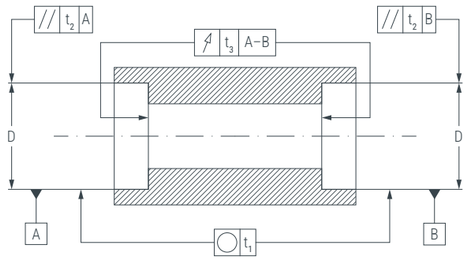
The peak performance of any thin section bearing will be obtained when the mating parts sufficiently conform to those of the bearings required mounting tolerances. This is necessary to keep the correct concentricity as the rings of the thin section bearings adjust to the shape of the shaft and the housing bore when assembled.

If this process is not adhered to, this will result in the bearing becoming out of round and can subsequently produce mis-alignment, this condition will affect the running characteristics and in turn, may cause premature failure. The greater the application speed and precision accuracy of the bearing, the more important it is to control both application mating surfaces.

The tolerance values in the following tables only apply for light to medium bearing loads, for K series bearings made of standard steel (100Cr6 steel) and shafts / sleeves made of standard steel. If you have any further questions, please contact our Sales and Engineering Team.



Shaft machining



Machining of the housing bore

Shape and position tolerances for bearing seating surfaces

Tolerance class of the bearings	Bearing seat		Roundness tolerance t_1		Parallelism tolerance t_2		Axial run-out tolerance t_3
			Circumferential load	Point load	Circumferential load	Point load	
ABEC 1F ABEC 3F	shaft	≤ 500	$\frac{IT3}{2}$	$\frac{IT4}{2}$	IT3	IT4	IT3
		> 500	$\frac{IT6}{2}$	$\frac{IT6}{2}$	IT6	IT6	$\frac{IT6}{2}$
	housing	≤ 500	$\frac{IT4}{2}$	$\frac{IT5}{2}$	IT4	IT5	IT4
		> 500	$\frac{IT6}{2}$	$\frac{IT6}{2}$	IT6	IT6	$\frac{IT6}{2}$
ABEC 7F	shaft		$\frac{IT2}{2}$	$\frac{IT3}{2}$	IT2	IT3	IT2
	housing		$\frac{IT3}{2}$	$\frac{IT4}{2}$	IT3	IT4	IT3

ISO basic tolerance T

Quality	Nominal dimension range in mm															
	about	1	3	6	10	18	30	50	80	120	180	250	315	400	500	630
	to	3	6	10	18	30	50	80	120	180	250	315	400	500	630	800
IT	**Basic tolerance T in µm** (DIN EN ISO 286-1)															
1		0,8	1	1	1,2	1,5	1,5	2	2,5	3,5	4,5	6	7	8	-	-
2		1,2	1,5	1,5	2	2,5	2,5	3	4	5	7	8	9	10	-	-
3		2	2,5	2,5	3	4	4	5	6	8	10	12	13	15	-	-
4		3	4	4	5	6	7	8	10	12	14	16	18	20	-	-
5		4	5	6	8	9	11	13	15	18	20	23	25	27	-	-
6		6	8	9	11	13	16	19	22	25	29	32	36	40	44	50

Installation tolerances, tolerance class ABEC 1F (tolerance values in µm)

Shaft diameter d		Deep groove ball bearing – Type C								Four-point bearing – Type X Angular contact ball bearing – Type A							
		Circumferential load for the inner ring				Point load for the inner ring				Circumferential load for the inner ring				Point load for the inner ring			
		shaft		housing		shaft		housing		shaft		housing		shaft		housing	
mm	inch	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.
25,4	1	+10	0	+13	0	-10	-20	-13	-25	+10	0	+13	0	-10	-20	-13	-25
38,1	1,5	+13	0	+13	0	-13	-25	-13	-25	+13	0	+13	0	-13	-25	-13	-25
50,8	2	+15	0	+15	0	-15	-30	-15	-30	+15	0	+13	0	-15	-30	-13	-25
63,5	2,5	+15	0	+15	0	-15	-30	-15	-30	+15	0	+13	0	-15	-30	-13	-25
76,2	3	+15	0	+15	0	-15	-30	-15	-30	+15	0	+15	0	-15	-30	-15	-30
88,9	3,5	+20	0	+15	0	-20	-40	-15	-30	+20	0	+15	0	-20	-40	-15	-30
101,6	4	+20	0	+15	0	-20	-40	-15	-30	+20	0	+15	0	-20	-40	-15	-30
107,95	4,25	+20	0	+20	0	-20	-40	-20	-40	+20	0	+20	0	-20	-40	-20	-40
114,3	4,5	+20	0	+20	0	-20	-40	-20	-40	+20	0	+20	0	-20	-40	-20	-40
120,65	4,75	+25	0	+20	0	-25	-50	-20	-40	+25	0	+20	0	-25	-50	-20	-40
127	5	+25	0	+20	0	-25	-50	-20	-40	+25	0	+20	0	-25	-50	-20	-40
139,7	5,5	+25	0	+25	0	-25	-50	-25	-50	+25	0	+25	0	-25	-50	-25	-50
152,4	6	+25	0	+25	0	-25	-50	-25	-50	+25	0	+25	0	-25	-50	-25	-50
165,1	6,5	+25	0	+25	0	-25	-50	-25	-50	+25	0	+25	0	-25	-50	-25	-50
177,8	7	+25	0	+30	0	-25	-50	-30	-50	+25	0	+30	0	-30	-50	-30	-60
190,5	7,5	+30	0	+30	0	-30	-60	-30	-60	+30	0	+30	0	-30	-60	-30	-60
203,2	8	+30	0	+30	0	-30	-60	-30	-60	+30	0	+30	0	-30	-60	-30	-60
228,6	9	+30	0	+30	0	-30	-60	-30	-60	+30	0	+30	0	-30	-60	-30	-60
254	10	+35	0	+35	0	-35	-70	-35	-70	+35	0	+35	0	-35	-70	-35	-70
279,4	11	+35	0	+35	0	-35	-70	-35	-70	+35	0	+35	0	-35	-70	-35	-70
304,8	12	+35	0	+35	0	-35	-70	-35	-70	+35	0	+35	0	-35	-70	-35	-70
355,6	14	+40	0	+40	0	-40	-80	-40	-80	+35	0	+35	0	-35	-70	-35	-70
406,4	16	+45	0	+45	0	-45	-90	-45	-90	+40	0	+40	0	-40	-80	-40	-80
457,2	18	+45	0	+45	0	-45	-90	-45	-90	+40	0	+40	0	-40	-80	-40	-80
508	20	+50	0	+50	0	-50	-100	-50	-100	+45	0	+45	0	-45	-90	-45	-90
635	25	+75	0	+75	0	-75	-150	-75	-150	+45	0	+45	0	-45	-90	-45	-90
762	30	+75	0	+75	0	-75	-150	-75	-150	+45	0	+45	0	-45	-90	-45	-90
889	35	+100	0	+100	0	-100	-200	-100	-200	+45	0	+50	0	-50	-100	-50	-100

Installation tolerances, tolerance class ABEC 3F, ABEC 5F and ABEC 7F (tolerance values in µm)

Shaft diameter d		Tolerance class ABEC 3F								Tolerance class ABEC 5F and ABEC 7F							
		Circumferential load for the inner ring				Point load for the inner ring				Circumferential load for the inner ring				Point load for the inner ring			
		shaft		housing		shaft		housing		shaft		housing		shaft		housing	
mm	inch	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.
25,4	1	+5	0	+8	0	-5	-10	-8	-15	+4	0	+5	0	-4	-8	-5	-10
38,1	1,5	+8	0	+8	0	-8	-15	-8	-15	+5	0	+5	0	-5	-10	-5	-10
50,8	2	+10	0	+10	0	-10	-20	-10	-20	+5	0	+5	0	-5	-10	-5	-10
63,5	2,5	+10	0	+10	0	-10	-20	-10	-20	+5	0	+5	0	-5	-10	-5	-10
76,2	3	+10	0	+10	0	-10	-20	-10	-20	+5	0	+8	0	-5	-10	-8	-15
88,9	3,5	+13	0	+10	0	-13	-25	-10	-20	+6	0	+8	0	-6	-13	-8	-15
101,6	4	+13	0	+10	0	-13	-25	-10	-20	+6	0	+8	0	-6	-13	-8	-15
107,95	4,25	+13	0	+13	0	-13	-25	-13	-25	+6	0	+10	0	-6	-13	-10	-20
114,3	4,5	+13	0	+13	0	-13	-25	-13	-25	+6	0	+10	0	-6	-13	-10	-20
120,65	4,75	+15	0	+13	0	-15	-30	-13	-25	+8	0	+10	0	-8	-15	-10	-20
127	5	+15	0	+13	0	-15	-30	-13	-25	+8	0	+10	0	-8	-15	-10	-20
139,7	5,5	+15	0	+15	0	-15	-30	-15	-30	+8	0	+10	0	-8	-15	-10	-20
152,4	6	+15	0	+15	0	-15	-30	-15	-30	+8	0	+10	0	-8	-15	-10	-20
165,1	6,5	+15	0	+15	0	-15	-30	-15	-30	+8	0	+10	0	-8	-15	-10	-20
177,8	7	+15	0	+18	0	-15	-30	-18	-35	+8	0	+10	0	-8	-15	-10	-20
190,5	7,5	+18	0	+18	0	-18	-35	-18	-35	+10	0	+10	0	-10	-20	-10	-20
203,2	8	+18	0	+18	0	-18	-35	-18	-35	+10	0	+10	0	-10	-20	-10	-20
228,6	9	+18	0	+18	0	-18	-35	-18	-35	+10	0	+10	0	-10	-20	-10	-20
254	10	+20	0	+20	0	-20	-40	-20	-40	+13	0	+13	0	-13	-25	-13	-25
279,4	11	+20	0	+20	0	-20	-40	-20	-40	+13	0	+13	0	-13	-25	-13	-25
304,8	12	+20	0	+23	0	-20	-40	-23	-45	+13	0	+13	0	-13	-25	-13	-25
355,6	14	+20	0	+23	0	-20	-40	-23	-45	+13	0	+15	0	-13	-25	-15	-30
406,4	16	+23	0	+25	0	-23	-45	-25	-50	-	-	-	-	-	-	-	-
457,2	18	+23	0	+25	0	-23	-45	-25	-50	-	-	-	-	-	-	-	-
508	20	+25	0	+30	0	-25	-50	-30	-60	-	-	-	-	-	-	-	-

Lubrication

Thin section bearings are coated at the factory with the corrosion protection agent “ANTICORIT BGI21”. Before lubrication, the protective agent should be removed with a clean mineral oil-based degreasing agent. If it is not to be removed, check that the lubricant is compatible with the protective oil.

The user is responsible for lubricating the bearings with oil or grease. Depending on the operating conditions, the customer selects the appropriate lubricant for his case. The thin section bearings can also be supplied greased on request. If you have any further questions, please contact our Sales and Engineering Team.

Product Tables

Overview of preferred series

Cross Section Size in mm	Cross Section	Bearing Type	Bore Size in mm											
			25,40	38,10	44,45	50,80	63,50	76,20	88,90	101,60	107,95	114,30	120,65	127,00
			Bore Size in Inches											
			1.00	1.50	1.75	2.00	2.50	3.00	3.50	4.00	4.25	4.50	4.75	5.00
	KAA Series	A	•	•	•									
4,762	3/16''	C	•	•	•									
		X	•	•	•									
	KA Series	A				•	•	•	•	•				
6,350	1/4''	C				•	•	•	•	•	•		•	
		X				•	•	•	•	•				
	KB Series	A				•	•	•	•	•				•
7,938	5/16''	C				•	•	•	•	•				•
		X				•	•	•	•	•				•
	KC Series	A								•				•
9,525	3/8''	C								•		•		•
		X								•		•		•
	KD Series	A								•				•
12,700	1/2''	C								•				•
		X								•		•		•
	KF Series	A												
19,050	3/4''	C								•				•
		X								•				•
	KG Series	A												
25,400	1''	C												•
		X												•
			1.00	1.50	1.75	2.00	2.50	3.00	3.50	4.00	4.25	4.50	4.75	5.00

Bore Size in mm														
139,70	152,50	165,10	177,80	190,50	203,20	228,60	254,00	279,40	304,80	355,60	406,40	457,20	508,00
Bore Size in Inches													
5.50	6.00	6.50	7.00	7.50	8.00	9.00	10.00	11.00	12.00	14.00	16.00	18.00	20.00
•	•	•			•	•		•	•				
•	•	•			•	•		•	•				
•	•	•				•		•	•				
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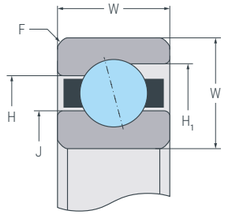
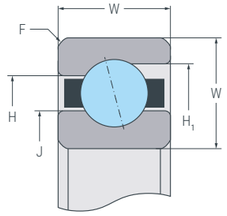
•			•	•			•	•					
•		•	•	•		•	•	•	•	•			
•		•	•	•		•	•	•	•	•			
							•	•	•	•	•	•	•
		•		•			•	•	•	•	•	•	•
		•		•			•	•	•	•	•	•	•
5.50	6.00	6.50	7.00	7.50	8.00	9.00	10.00	11.00	12.00	14.00	16.00	18.00	20.00

Legend: • *Preferred series*

Product Tables Type A – Angular contact

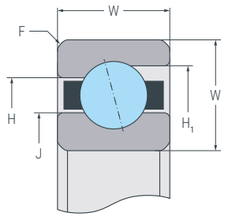
Type A – Angular contact



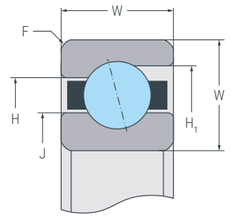


SLF Bearing number	Bore d		Outside Diameter D		Width W		Land Diameter J inner ring		Land Diameter H outer ring		Land Diameter H_1 outer ring		Housing Fillet F		Ball Diameter	Approx. Weight		Radial Load Ratings Static		Radial Load Ratings Static (ISO 76)		Radial Load Ratings Dynamic		Radial Load Ratings Dynamic (ISO 281)		SLF Bearing number
	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	lbs	kg	lbf	kN	lbf	kN	lbf	kN	lbf	kN	
KAA15AMP0	1,500	38,100	1,875	47,625	0,1875	4,762	1,638	41,60	1,732	44,00	1,781	45,23	0,015	0,4	3/32	0,04	0,017	upon request	upon request	0,692	3,080	upon request	upon request	0,687	3,060	KAA15AMP0
KA020AMP0	2,000	50,800	2,500	63,500	0,2500	6,350	2,185	55,50	2,315	58,80	2,375	60,32	0,025	0,6	1/8	0,10	0,045	upon request	upon request	1,113	4,950	upon request	upon request	1,079	4,800	KA020AMP0
KB020AMP0	2,000	50,800	2,625	66,675	0,3125	7,938	2,232	56,70	2,394	60,80	2,874	73,00	0,040	1,0	5/32	0,15	0,068	upon request	upon request	1,511	6,720	upon request	upon request	1,531	6,810	KB020AMP0
KA025AMP0	2,500	63,500	3,000	76,200	0,2500	6,350	2,685	68,20	2,815	71,50	3,374	85,69	0,025	0,6	1/8	0,12	0,054	upon request	upon request	1,342	5,970	upon request	upon request	1,157	5,140	KA025AMP0
KB025AMP0	2,500	63,500	3,125	79,375	0,3125	7,938	2,732	69,40	2,894	73,50	2,470	62,73	0,040	1,0	5/32	0,19	0,086	upon request	upon request	1,829	8,140	upon request	upon request	1,667	7,420	KB025AMP0
KA030AMP0	3,000	76,200	3,500	88,900	0,2500	6,350	3,181	80,80	3,315	84,20	2,969	75,42	0,025	0,6	1/8	0,14	0,064	upon request	upon request	1,566	6,970	upon request	upon request	1,190	5,290	KA030AMP0
KB035AMP0	3,500	88,900	4,125	104,775	0,3125	7,938	3,732	94,80	3,894	98,90	3,968	100,79	0,040	1,0	5/32	0,27	0,122	upon request	upon request	2,424	10,780	upon request	upon request	1,903	8,460	KB035AMP0
KB040AMP0	4,000	101,600	4,625	117,475	0,3125	7,938	4,232	107,50	4,394	111,60	4,467	113,47	0,040	1,0	5/32	0,30	0,136	upon request	upon request	2,721	12,100	upon request	upon request	1,908	8,490	KB040AMP0
KD040AMP0	4,000	101,600	5,000	127,000	0,5000	12,700	4,370	111,00	4,630	117,60	4,752	120,70	0,060	1,5	1/4	0,80	0,363	upon request	upon request	4,438	19,740	upon request	upon request	3,749	16,680	KD040AMP0
KF055AMP0	5,500	139,700	7,000	177,800	0,7500	19,050	6,055	153,80	6,445	163,70	6,750	171,44	0,080	2,0	3/8	2,59	1,175	upon request	upon request	9,425	41,920	upon request	upon request	7,484	33,290	KF055AMP0
KD060AMP0	6,000	152,400	7,000	177,800	0,5000	12,700	6,370	161,80	6,630	168,40	10,745	272,93	0,060	1,5	1/4	1,15	0,522	upon request	upon request	6,247	27,790	upon request	upon request	4,134	18,390	KD060AMP0
KF060AMP0	6,000	152,400	7,500	190,500	0,7500	19,050	6,555	166,50	6,945	176,40	12,743	323,68	0,080	2,0	3/8	2,72	1,234	upon request	upon request	10,256	45,620	upon request	upon request	7,918	35,220	KF060AMP0
KG060AMP0	6,000	152,400	8,000	203,200	1,0000	25,400	6,740	171,20	7,256	184,30	6,630	168,40	0,080	2,0	1/2	5,07	2,300	upon request	upon request	13,974	62,160	upon request	upon request	11,603	51,610	KG060AMP0
KG080AMP0	8,000	203,200	10,000	254,000	1,0000	25,400	8,740	222,00	9,256	235,10	7,129	181,08	0,080	2,0	1/2	6,54	2,966	upon request	upon request	17,740	78,910	upon request	upon request	13,049	58,050	KG080AMP0
KF090AMP0	9,000	228,600	10,500	266,700	0,7500	19,050	9,555	242,70	9,945	252,60	10,126	257,20	0,080	2,0	3/8	3,95	1,792	upon request	upon request	14,587	64,890	upon request	upon request	8,792	39,110	KF090AMP0
KD100AMP0	10,000	254,000	11,000	279,400	0,5000	12,700	10,370	263,40	10,630	270,00	7,509	190,73	0,060	1,5	1/4	1,87	0,848	upon request	upon request	9,959	44,300	upon request	upon request	5,056	22,490	KD100AMP0
KG100AMP0	10,000	254,000	12,000	304,800	1,0000	25,400	10,740	272,80	11,256	285,90	9,507	241,47	0,080	2,0	1/2	8,00	3,629	upon request	upon request	21,406	95,220	upon request	upon request	13,991	62,230	KG100AMP0

The current product data can be found in the online catalog on our website **https://www.slf-fraureuth.de/en/catalogue/**



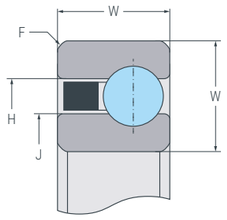
SLF Bearing number	Bore d		Outside Diameter D		Width W		Land Diameter J inner ring		H outer ring		H_1 outer ring	
	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm
KG110AMP0	11,000	279,400	13,000	330,200	1,0000	25,400	11,740	298,20	12,256	311,30	11,505	292,22
KD120AMP0	12,000	304,800	13,000	330,200	0,5000	12,700	12,370	314,20	12,630	320,80	12,504	317,59
KG120AMP0	12,000	304,800	14,000	355,600	1,0000	25,400	12,740	323,60	13,256	336,70	13,502	342,96

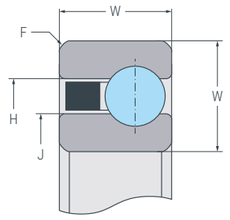


Housing Fillet F		Ball Diameter	Approx. Weight		Radial Load Ratings Static		Static (ISO 76)		Dynamic		Dynamic (ISO 281)		SLF Bearing number
inch	mm	inch	lbs	kg	lbf	kN	lbf	kN	lbf	kN	lbf	kN	
0,080	2,0	1/2	8,68	3,937	upon request	upon request	23,352	103,870	upon request	upon request	14,826	65,950	KG110AMP0
0,060	1,5	1/4	2,23	1,012	upon request	upon request	11,856	52,740	upon request	upon request	5,679	25,260	KD120AMP0
0,080	2,0	1/2	9,47	4,296	upon request	upon request	24,972	111,080	upon request	upon request	14,389	64,010	KG120AMP0

Product Tables Type C – Radial contact

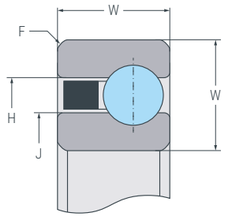
Type C – Radial contact



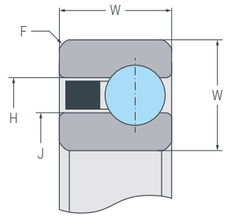


SLF Bearing number	Bore d		Outside Diameter D		Width W		Land Diameter J inner ring		Land Diameter H outer ring		Housing Fillet F		Ball Diameter	Approx. Weight		Radial Load Ratings Static		Static (ISO 76)		Dynamic		Dynamic (ISO 281)		SLF Bearing number
	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	lbs	kg	lbf	kN	lbf	kN	lbf	kN	lbf	kN	
KAA15CMH0	1,500	38,100	1,875	47,625	0,1875	4,762	1,638	41,60	1,732	44,00	0,015	0,4	3/32	0,04	0,018	upon request	upon request	0,588	2,610	upon request	upon request	1,664	7,400	KAA15XMH0
KA020CMH0	2,000	50,800	2,500	63,500	0,2500	6,350	2,185	55,50	2,315	58,80	0,025	0,6	1/8	0,10	0,045	upon request	upon request	0,973	4,330	upon request	upon request	2,374	10,560	KA020XMH0
KB020CMH0	2,000	50,800	2,625	66,675	0,3125	7,938	2,232	56,70	2,394	60,80	0,040	1,0	5/32	0,16	0,073	upon request	upon request	1,311	5,830	upon request	upon request	3,034	13,500	KB020XMH0
KA025CMH0	2,500	63,500	3,000	76,200	0,2500	6,350	2,685	68,20	2,815	71,50	0,025	0,6	1/8	0,13	0,059	upon request	upon request	1,174	5,220	upon request	upon request	2,581	11,480	KA025XMH0
KB025CMH0	2,500	63,500	3,125	79,375	0,3125	7,938	2,732	69,40	2,894	73,50	0,040	1,0	5/32	0,19	0,086	upon request	upon request	1,577	7,010	upon request	upon request	3,324	14,790	KB025XMH0
KA030CMH0	3,000	76,200	3,500	88,900	0,2500	6,350	3,181	80,80	3,315	84,20	0,025	0,6	1/8	0,15	0,068	upon request	upon request	1,370	6,090	upon request	upon request	2,737	12,170	KA030XMH0
KB035CMH0	3,500	88,900	4,125	104,775	0,3125	7,938	3,732	94,80	3,894	98,90	0,040	1,0	5/32	0,27	0,122	upon request	upon request	2,086	9,280	upon request	upon request	3,677	16,350	KB035XMH0
KB040CMH0	4,000	101,600	4,625	117,475	0,3125	7,938	4,232	107,50	4,394	111,60	0,040	1,0	5/32	0,30	0,136	upon request	upon request	2,360	10,500	upon request	upon request	3,992	17,760	KB040XMH0
KD040CMH0	4,000	101,600	5,000	127,000	0,5000	12,700	4,370	111,00	4,630	117,60	0,060	1,5	1/4	0,78	0,354	upon request	upon request	3,892	17,310	upon request	upon request	6,265	27,870	KD040XMH0
KF055CMH0	5,500	139,700	7,000	177,800	0,7500	19,050	6,055	153,80	6,445	163,70	0,080	2,0	3/8	2,50	1,134	upon request	upon request	8,107	36,060	upon request	upon request	10,500	46,700	KF055XMH0
KD060CMH0	6,000	152,400	7,000	177,800	0,5000	12,700	6,370	161,80	6,630	168,40	0,060	1,5	1/4	1,16	0,526	upon request	upon request	5,480	24,370	upon request	upon request	7,223	32,130	KD060XMH0
KF060CMH0	6,000	152,400	7,500	190,500	0,7500	19,050	6,555	166,50	6,945	176,40	0,080	2,0	3/8	2,70	1,225	upon request	upon request	8,756	38,950	upon request	upon request	11,052	49,160	KF060XMH0
KG060CMH0	6,000	152,400	8,000	203,200	1,0000	25,400	6,740	171,20	7,256	184,30	0,080	2,0	1/2	5,10	2,313	upon request	upon request	12,259	54,530	upon request	upon request	14,552	64,730	KG060XMH0
KG080CMH0	8,000	203,200	10,000	254,000	1,0000	25,400	8,740	222,00	9,256	235,10	0,080	2,0	1/2	6,50	2,948	upon request	upon request	15,566	69,240	upon request	upon request	16,533	73,540	KG080XMH0
KF090CMH0	9,000	228,600	10,500	266,700	0,7500	19,050	9,555	242,70	9,945	252,60	0,080	2,0	3/8	3,90	1,769	upon request	upon request	12,329	54,840	upon request	upon request	12,741	56,680	KF090XMH0
KD100CMH0	10,000	254,000	11,000	279,400	0,5000	12,700	10,370	263,40	10,630	270,00	0,060	1,5	1/4	1,88	0,853	upon request	upon request	8,623	38,360	upon request	upon request	8,866	39,440	KD100XMH0
KG100CMH0	10,000	254,000	12,000	304,800	1,0000	25,400	10,740	272,80	11,256	285,90	0,080	2,0	1/2	7,90	3,583	upon request	upon request	18,786	83,560	upon request	upon request	17,975	79,960	KG100XMH0

The current product data can be found in the online catalog on our website **https://www.slf-fraureuth.de/en/catalogue/**



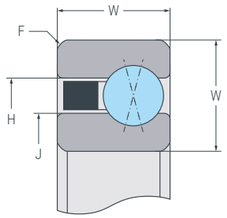
SLF Bearing number	Bore d		Outside Diameter D		Width W		Land Diameter J inner ring		Land Diameter H outer ring	
	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm
KG110CMH0	11,000	279,400	13,000	330,200	1,0000	25,400	11,740	298,20	12,256	311,30
KD120CMH0	12,000	304,800	13,000	330,200	0,5000	12,700	12,370	314,20	12,630	320,80
KG120CMH0	12,000	304,800	14,000	355,600	1,0000	25,400	12,740	323,60	13,256	336,70

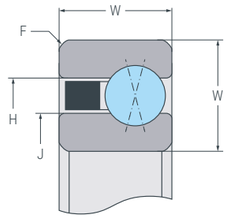


Housing Fillet F		Ball Diameter	Approx. Weight		Radial Load Ratings Static		Static (ISO 76)		Dynamic		Dynamic (ISO 281)		SLF Bearing number
inch	mm	inch	lbs	kg	lbf	kN	lbf	kN	lbf	kN	lbf	kN	
0,080	2,0	1/2	8,60	3,901	upon request	upon request	20,233	90,000	upon request	upon request	18,070	80,380	KG110XMH0
0,060	1,5	1/4	2,25	1,021	upon request	upon request	10,266	45,660	upon request	upon request	9,959	44,300	KD120XMH0
0,080	2,0	1/2	9,30	4,218	upon request	upon request	21,919	97,500	upon request	upon request	19,060	84,780	KG120XMH0

Product Tables Type X – Four-Point contact

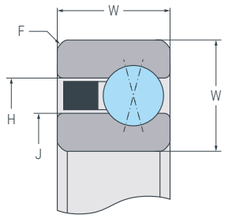
Type X – Four-Point contact



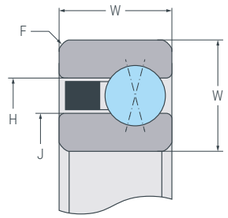


SLF Bearing number	Bore d		Outside Diameter D		Width W		Land Diameter J inner ring		Land Diameter H outer ring		Housing Fillet F		Ball Diameter	Approx. Weight		Radial Load Ratings Static		Static (ISO 76)		Dynamic		Dynamic (ISO 281)		SLF Bearing number
	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm	inch	lbs	kg	lbf	kN	lbf	kN	lbf	kN	lbf	kN	
KAA15XMH0	1,500	38,100	1,875	47,625	0,1875	4,762	1,638	41,60	1,732	44,00	0,015	0,4	3/32	0,04	0,018	upon request	upon request	0,588	2,610	upon request	upon request	1,664	7,400	KAA15XMH0
KA020XMH0	2,000	50,800	2,500	63,500	0,2500	6,350	2,185	55,50	2,315	58,80	0,025	0,6	1/8	0,10	0,045	upon request	upon request	0,973	4,330	upon request	upon request	2,374	10,560	KA020XMH0
KB020XMH0	2,000	50,800	2,625	66,675	0,3125	7,938	2,232	56,70	2,394	60,80	0,040	1,0	5/32	0,16	0,073	upon request	upon request	1,311	5,830	upon request	upon request	3,034	13,500	KB020XMH0
KA025XMH0	2,500	63,500	3,000	76,200	0,2500	6,350	2,685	68,20	2,815	71,50	0,025	0,6	1/8	0,13	0,059	upon request	upon request	1,174	5,220	upon request	upon request	2,581	11,480	KA025XMH0
KB025XMH0	2,500	63,500	3,125	79,375	0,3125	7,938	2,732	69,40	2,894	73,50	0,040	1,0	5/32	0,19	0,086	upon request	upon request	1,577	7,010	upon request	upon request	3,324	14,790	KB025XMH0
KA030XMH0	3,000	76,200	3,500	88,900	0,2500	6,350	3,181	80,80	3,315	84,20	0,025	0,6	1/8	0,15	0,068	upon request	upon request	1,370	6,090	upon request	upon request	2,737	12,170	KA030XMH0
KB035XMH0	3,500	88,900	4,125	104,775	0,3125	7,938	3,732	94,80	3,894	98,90	0,040	1,0	5/32	0,27	0,122	upon request	upon request	2,086	9,280	upon request	upon request	3,677	16,350	KB035XMH0
KB040XMH0	4,000	101,600	4,625	117,475	0,3125	7,938	4,232	107,50	4,394	111,60	0,040	1,0	5/32	0,30	0,136	upon request	upon request	2,360	10,500	upon request	upon request	3,992	17,760	KB040XMH0
KD040XMH0	4,000	101,600	5,000	127,000	0,5000	12,700	4,370	111,00	4,630	117,60	0,060	1,5	1/4	0,78	0,354	upon request	upon request	3,892	17,310	upon request	upon request	6,265	27,870	KD040XMH0
KF055XMH0	5,500	139,700	7,000	177,800	0,7500	19,050	6,055	153,80	6,445	163,70	0,080	2,0	3/8	2,50	1,134	upon request	upon request	8,107	36,060	upon request	upon request	10,499	46,700	KF055XMH0
KD060XMH0	6,000	152,400	7,000	177,800	0,5000	12,700	6,370	161,80	6,630	168,40	0,060	1,5	1/4	1,16	0,526	upon request	upon request	5,480	24,370	upon request	upon request	7,223	32,130	KD060XMH0
KF060XMH0	6,000	152,400	7,500	190,500	0,7500	19,050	6,555	166,50	6,945	176,40	0,080	2,0	3/8	2,70	1,225	upon request	upon request	8,756	38,950	upon request	upon request	11,052	49,160	KF060XMH0
KG060XMH0	6,000	152,400	8,000	203,200	1,0000	25,400	6,740	171,20	7,256	184,30	0,080	2,0	1/2	5,10	2,313	upon request	upon request	12,259	54,530	upon request	upon request	14,552	64,730	KG060XMH0
KG080XMH0	8,000	203,200	10,000	254,000	1,0000	25,400	8,740	222,00	9,256	235,10	0,080	2,0	1/2	6,50	2,948	upon request	upon request	15,566	69,240	upon request	upon request	16,533	73,540	KG080XMH0
KF090XMH0	9,000	228,600	10,500	266,700	0,7500	19,050	9,555	242,70	9,945	252,60	0,080	2,0	3/8	3,90	1,769	upon request	upon request	12,329	54,840	upon request	upon request	12,741	56,680	KF090XMH0
KD100XMH0	10,000	254,000	11,000	279,400	0,5000	12,700	10,370	263,40	10,630	270,00	0,060	1,5	1/4	1,88	0,853	upon request	upon request	8,623	38,360	upon request	upon request	8,036	35,740	KD100XMH0
KG100XMH0	10,000	254,000	12,000	304,800	1,0000	25,400	10,740	272,80	11,256	285,90	0,080	2,0	1/2	7,90	3,583	upon request	upon request	18,786	83,560	upon request	upon request	17,975	79,960	KG100XMH0

The current product data can be found in the online catalog on our website **https://www.slf-fraureuth.de/en/catalogue/**



SLF Bearing number	Bore d		Outside Diameter D		Width W		Land Diameter J inner ring		Land Diameter H outer ring	
	inch	mm	inch	mm	inch	mm	inch	mm	inch	mm
KG110XMH0	11,000	279,400	13,000	330,200	1,0000	25,400	11,740	298,20	12,256	311,30
KD120XMH0	12,000	304,800	13,000	330,200	0,5000	12,700	12,370	314,20	12,630	320,80
KG120XMH0	12,000	304,800	14,000	355,600	1,0000	25,400	12,740	323,60	13,256	336,70



Housing Fillet F		Ball Diameter	Approx. Weight		Radial Load Ratings Static		Static (ISO 76)		Dynamic		Dynamic (ISO 281)		SLF Bearing number
inch	mm	inch	lbs	kg	lbf	kN	lbf	kN	lbf	kN	lbf	kN	
0,080	2,0	1/2	8,60	3,901	upon request	upon request	20,233	90,000	upon request	upon request	18,070	80,380	KG110XMH0
0,060	1,5	1/4	2,25	1,021	upon request	upon request	10,266	45,660	upon request	upon request	9,026	40,150	KD120XMH0
0,080	2,0	1/2	9,30	4,218	upon request	upon request	21,919	97,500	upon request	upon request	19,060	84,780	KG120XMH0

Application

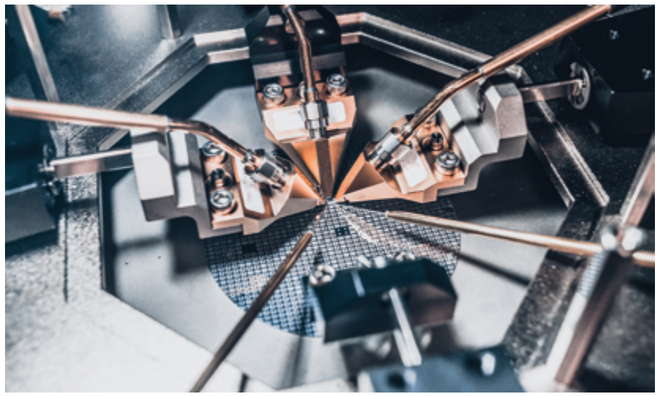
Application

Food and Beverage

- Packaging equipment
- Food processing machinery
- Cappers
- Fillers

Semiconductor

- Atmospheric Vacuum Seals
- Assembly Robots
- Inspection Equipment
- Etching System
- Positioners
- Wafer Manufacturing
- Spin Dryers
- Mechanical polishers



Machine Tool

- Rotary Tables
- Automation
- Robotics

Medical Equipment

- Centrifuges
- CT scanners
- PET scanners
- Robotic surgery device
- X-Ray and scanning machines

Defense and Security

- Imaging Systems
- Radar
- Satellite mounts
- Gun mounts
- Military Robotics
- Missile and Torpedo systems
- Security Cameras

Industrial and Industrial Robotic

- Robotic Arm Assembly
- Slip Rings & Rotary Unions
- Index & Rotary Tables
- Wire Braiding
- Textile Machines
- Packaging Equipment
- Tire Manufacturing
- Pick and Place Robotics
- Gimbles

SLF other products

Product range roller bearings

From standard deep groove ball bearings to highly precise spindle bearing solutions up to complex bearing units – each "µ" matters to us. We design and produce roller bearings in all standard designs, from 25 mm to 1,600 mm outer diameter.

We produce more than 2 million roller bearings annually. Our special strength is the flexibility of our production, which also enables the one-of-a-kind production of customized products. When the application options of a standard bearing are limited, we implement individualized solutions optimally customized to each application our customers require. Our products are used wherever the highest requirements in terms of speed, precision, and longevity must be met. Our roller bearings perform outstandingly not only in the production of machine tools, but also in other high-precision applications, such as the textile industry, and in robotics. We closely cooperate with our customers from a very wide variety of industries and work side by side with them to engineer individualized solutions.

LEARN MORE

Product range spindle units

The accuracy of machine tools is based on high-precision spindle units. SLF produces spindles as one-of-a-kind pieces and in small batches up to 1,800 mm long, from 32 mm to 525 mm diameter, with 1 µm running accuracy. Our strength is to engineer individual customized spindle solutions. In this process, our highly qualified team of specialists supports you in dimensioning and optimizing your spindle applications.

Moreover, our range of services also includes spindle unit repair and overhaul. We maintain and repair both SLF spindles and products made by other manufacturers. Our customers benefit from repairs twice, since spindle repair not only saves money, but also reduces the delivery time by up to 80 %. This is our contribution to making your machinery available as soon as possible.

LEARN MORE

Imprint

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