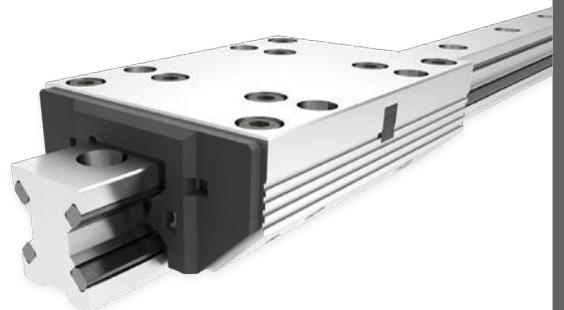
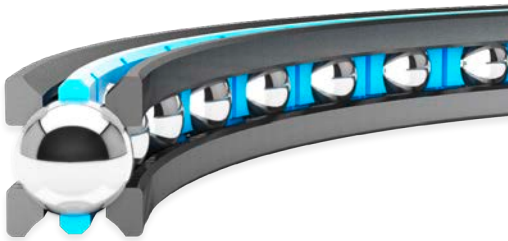
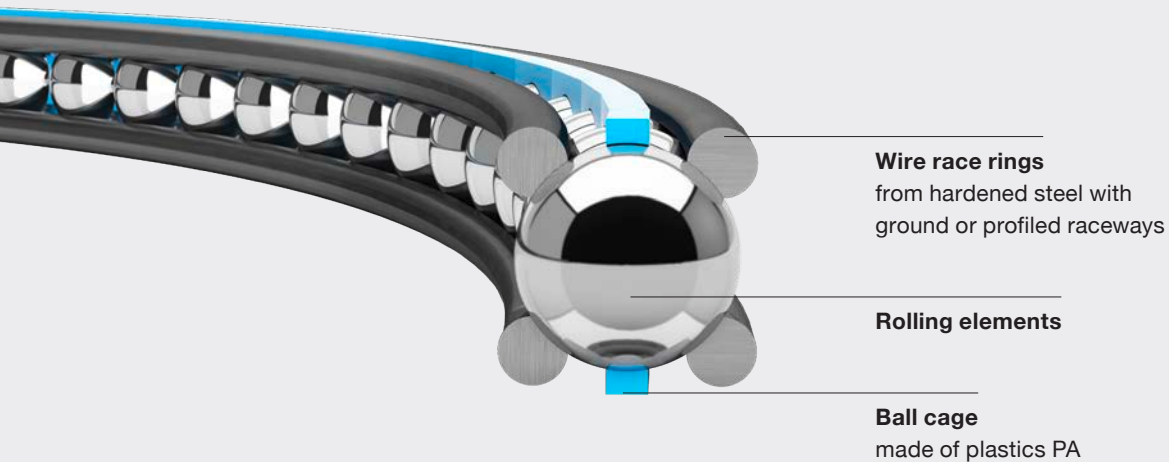

Wire Race Bearings Slim Bearings Bearing Assemblies Rotary Tables
Linear Guides Linear Tables Linear Modules

Standard Program



An ingeniously simple principle

Franke wire race bearings are based on a simple and ingenious principle. Single raceways made of hardened wire are provided with a raceway that is exactly adapted to the diameter of the rolling elements. The rolling process does not take place directly between rolling elements and enclosing construction, but with only low friction on the four open races.



Function principle and application examples:

YouTube, search for „Franke Prinziple“.

**Further information, bearing selector,
application samples, accessories, further data, etc.:**

www.franke-gmbh.com

Reduced to the essentials, Franke Wire Race Bearings enable innovative designs with substantial weight, energy and space savings, while offering comparable rigidity and maximum precision over the entire service life.

Compact, precise, lightweight and durable bearing elements and bearing assemblies

The principle of the wire race bearing allows the free design of the enclosing construction in terms of geometry and choice of materials. In addition, it is characterized by other advantages:

- 4-point system - load capacity from all directions
- Rotational resistance freely adjustable - a preloaded system
- Compact design - minimal installation space
- Insensitive to environmental influences, shock and impact elastic



Wire Race Bearings
Types and Characteristics

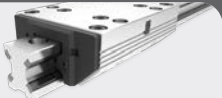
		Page	Characteristics	
	Bearing Elements	LEL	6	• highest possible degree of integration
		LER	7	• cost-sensitive series applications • maximum flexibility in terms of preload, running behaviour, diameter ranges

	Slim Bearings	LSA	8	• simple, space-saving integration,
		LSB	9	• cost effective alternative to conventional slim bearings
		LSC	10	• non-preloaded bearings

	Bearing Assemblies	LVA	12	• ready to install with a large selection range
		LVB	13	• preloaded system (optimized in terms of stiffness, speed, service life)
		LVC	14	• short-term availability
		LVD	15	• Type LVC for high rotational speeds
		LVE	16	• Type LVG as a double row roller bearing
		LVG	17	

	Rotary Tables	LTA	18	• Turntables for fast-turning or high-precision handling and measuring tasks
		LTB	19	• Bearing assemblies with direct drive • maximum flexibility in terms of preload, running characteristics, diameter ranges

Linear Systems
Types and Characteristics

	Linear Guides	FDA	22	• Aluminum roller guides in different variants (eg Niro, lubricant-free, LowCost)
		FDB		• all variants with inserted steel raceways
		FDC		• large rollers for easy and quiet running
		FDD		• Sliding resistance individually adjustable
		FDE		
		FDG		
		FDH		

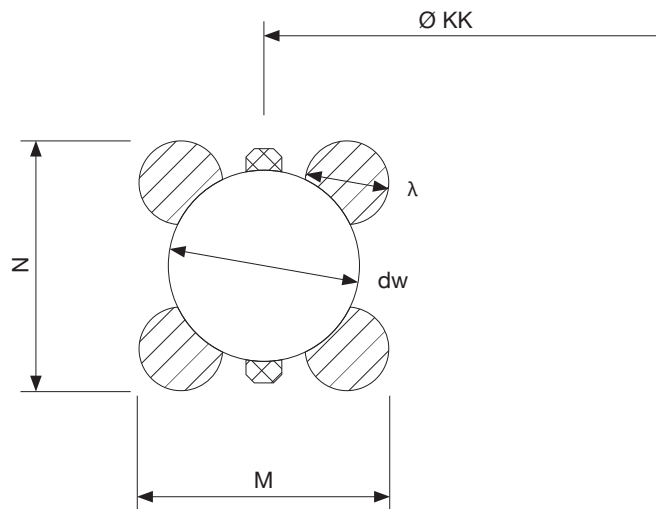
	Linear Tables Linear Modules	FTB	25	• motorized modules with stroke lengths up to 7 m
		FTC	26	• Tooth belt or spindle drive
		FTD	27	• Linear table for exact positioning



Wire Race Bearings

In all Branches
Universal freedom of design. Capacity in every application. Space saving. Variable. Individually customizable.

Bearing Elements
Type LEL
Ground Raceways



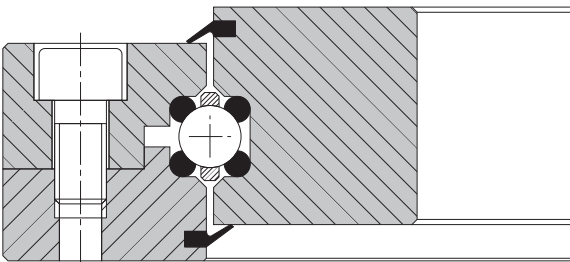
Dimensions

Size	Dimensions mm				Load rating kN				stat. moment kNm	Weight kg
	Ø KK	M x N	dw	λ	C _{oa}	C _{or}	C _a	C _r	C _{om}	
LEL1,5	70 - 150	5,9 x 5,9	5	1,5	13 - 30	6 - 14	7 - 10	6 - 8	0,2 - 1	0,04 - 0,09
LEL2,5	160 - 300	9,2 x 9,2	8	2,5	73 - 141	35 - 66	20 - 25	17 - 22	3 - 10	0,10 - 0,18
LEL4	200 - 1500	12,86 x 12,86	9,525	4	118 - 905	55 - 426	26 - 55	23 - 48	6 - 319	0,39 - 2,94
LEL5	220 - 1500	15,5 x 15,5	12	5	257 - 1782	121 - 839	41 - 83	35 - 72	13 - 629	0,70 - 4,77
LEL7	340 - 2000	20,9 x 20,9	16	7	441 - 2629	207 - 1237	62 - 119	53 - 103	35 - 1237	1,89 - 11,24

Characteristics

Franke bearing elements in type LEL meet high standards in terms of runnability and accuracy. Their hardened and CNC-ground raceways, along with the ideal geometric adjustment of ball and raceway radius, lend them outstanding bearing properties. Bearing elements in the LEL type permit the greatest possible freedom of bearing design. The standard mounting space is between 5.9 mm and 20.9 mm. Race ring thickness of up to 20 mm and bearing sizes up to 50 mm are possible to meet special requirements.

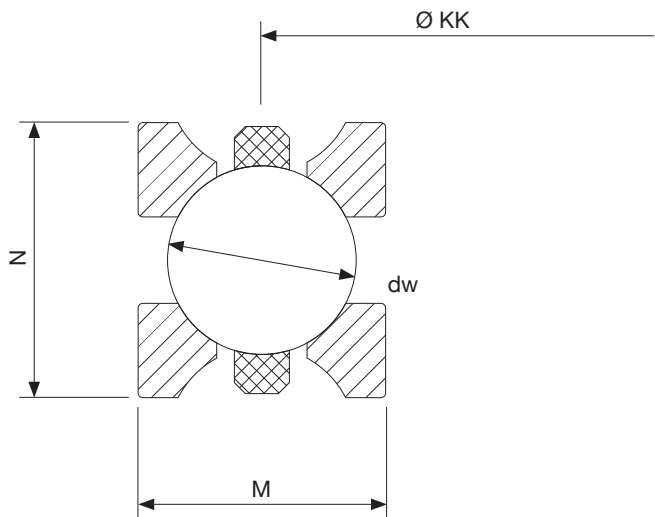
Constructive example



Technical details

Material	Ball race rings: 54SiCr6, rolling element: 100Cr6, cage: PA12
Temperature in use	−30 °C to +80 °C, briefly up to +100 °C
Circumfer. speed	max. 5 m/s, without seals max. 10 m/s
Lubricant grease	Klüber ISOFLEX TOPAS NCA52

Bearing Element
Type LER
Rectangular profile/profiled raceway



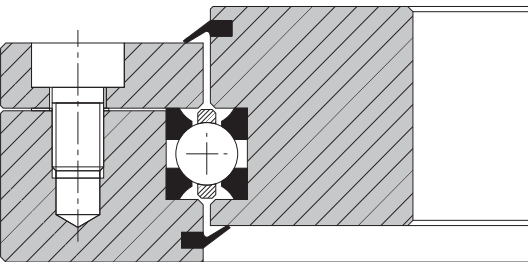
Dimensions

Size	Dimensions mm			Load rating kN				stat. moment kNm	Weight kg
	Ø KK	M x N	dw	C _{oa}	C _{or}	C _a	C _r	C _{om}	
LER2	80 - 400	7,5 x 9	6	28 - 142	13 - 67	10 - 18	8 - 15	1 - 13	0,07 - 0,34
LER3	100 - 1500	11 x 13	9,525	54 - 847	25 - 398	18 - 52	16 - 45	1 - 299	0,13 - 2,63
LER4	200 - 1500	14 x 16	12	174 - 1348	82 - 635	44 - 94	38 - 82	8 - 476	0,61 - 4,59
LER5	250 - 1800	15,75 x 17,5	12	260 - 1925	122 - 906	48 - 101	42 - 87	15 - 815	0,95 - 6,87

Characteristics

Franke bearing elements in type LER are designed for medium rotational speeds and accuracies. They run smoothly, possess high dynamism and require just compact mounting space. The straight contact surface ensures simple integration in the mating structure and also a high rigidity. The attractive price makes this bearing element type LER an economic solution. LER are generally mounted free from clearance. The preload can be defined individually to meet the specific requirement. See ‚Technical information‘ for the adjustment methods.

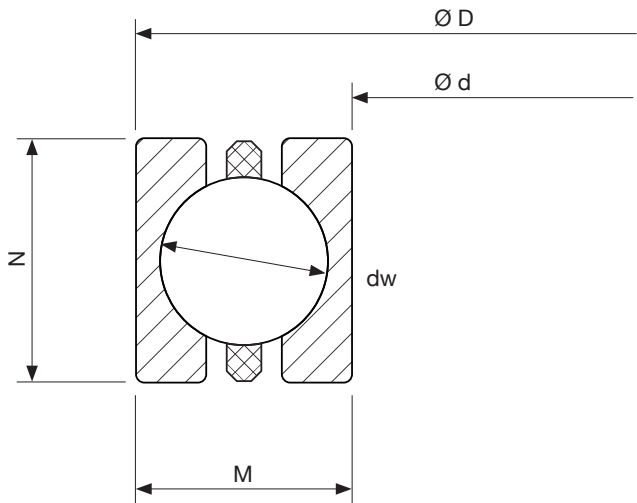
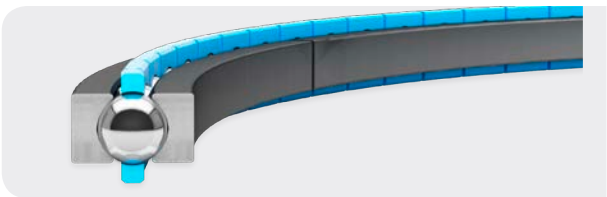
Constructive example



Technical details

Material	Ball race rings: 54SiCr6, rolling element: 100Cr6, cage: PA12
Temperature in use	−30 °C to +80 °C, briefly up to +100 °C
Circumfer. speed	max. 5 m/s, without seals max. 10 m/s
Lubricant grease	Klüber ISOFLEX TOPAS NCA52

Slim Bearings
Type LSA
2 race rings/profiled raceways



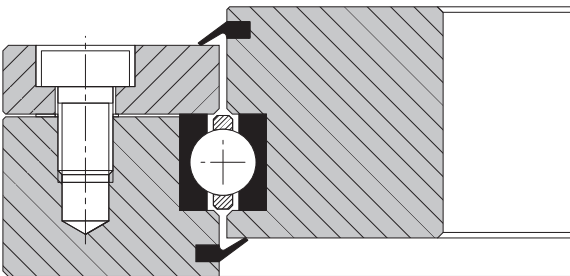
Dimensions

Size	Dimensions mm				Load rating kN				stat. moment kNm	Weight kg
	Ø D	Ø d	M x N	dw	C _{oa}	C _{or}	C _a	C _r	C _{om}	
LSA4	90,2 - 395	76,2 - 381	7 x 4	4	20 - 95	9 - 45	5 - 10	5 - 8	0,4 - 9	0,04 - 0,19
LSA6	127 - 393,7	114,3 - 381	6,35 x 6,35	4	41 - 131	19 - 62	6 - 10	5 - 8	1 - 12	0,08 - 0,27
LSA8	155,8 - 777,88	139,7 - 762	7,94 x 7,94	5	55 - 294	26 - 138	10 - 18	9 - 16	2 - 54	0,13 - 0,79

Characteristics

Franke slim bearings of type LSA deliver a convincingly smooth run, require extremely compact mounting space, ensure simple assembly and come at a favorable price. Slim bearings type LSA consist of one inner and one outer race ring with hardened and profiled raceway and a plastic cage with retained balls. The rolling elements touch the race rings at two points each, hence ensuring the 4-point system. The race rings are separated; their diameter can therefore be altered elastically for mounting.

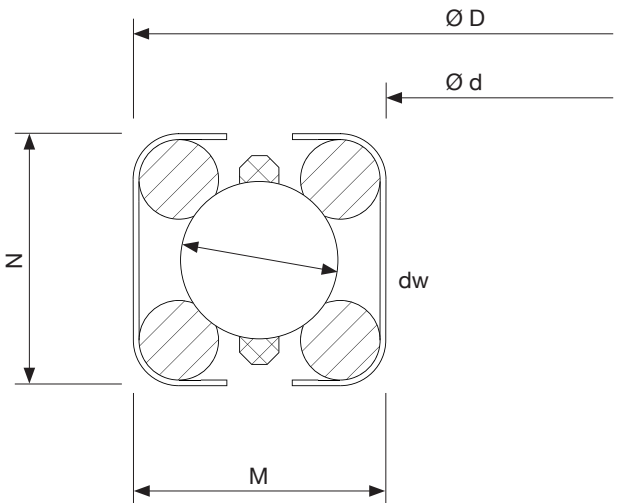
Constructive example



Technical details

Material	Ball race rings: 54SiCr6, rolling element: 100Cr6, cage: PA12
Temperature in use	-30 °C to +80 °C, briefly up to +100 °C
Circumfer. speed	max. 5 m/s, without seals max. 10 m/s
Lubricant grease	Klüber ISOFLEX TOPAS NCA52/Shell Gadus S3 V220

Slim Bearings
Type LSB
Metal sleeves/ground raceways



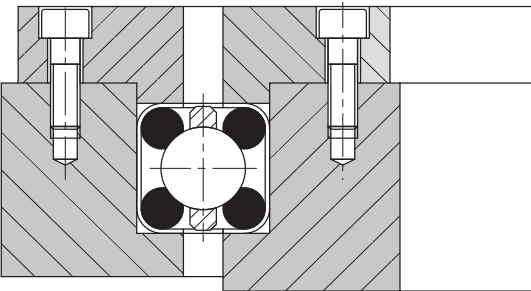
Dimensions

Größe	Dimensions mm				Load rating kN				stat. moment kNm	Weight kg
	Ø D	Ø d	M x N	dw	C _{oa}	C _{or}	C _a	C _r	C _{om}	
LSB3/8	139,7 - 654,05	120,65 - 635	9,525 x 9,57	6	50 - 251	23 - 118	11 - 20	10 - 17	2 - 38	0,15 - 0,78
LSB1/2	177,8 - 660,4	152,4 - 635	12,7 x 12,76	8	71 - 279	33 - 131	19 - 31	16 - 27	3 - 43	0,34 - 1,36
LSB3/4	215,9 - 673,1	177,8 - 635	19,05 x 19,12	15	153 - 530	72 - 250	49 - 79	43 - 68	7 - 82	0,89 - 3,07
LSB1	254 - 685,5	203,2 - 635	25,4 x 25,48	20	272 - 810	128 - 381	78 - 119	68 - 103	15 - 126	1,81 - 5,45

Characteristics

Franke slim bearings of type LSB consist of a bearing element type LEL with a ground raceway, embedded in two bearing sleeves made of metal. The sleeve holds the bearing together and hence permits rapid and simple assembly. The sleeves and the race rings are separated; their diameter can therefore be altered elastically for mounting. Unlike standard slim bearings, Franke slim bearings type LSB can be modified in terms of clearance/preload.

Constructive example




Technical details

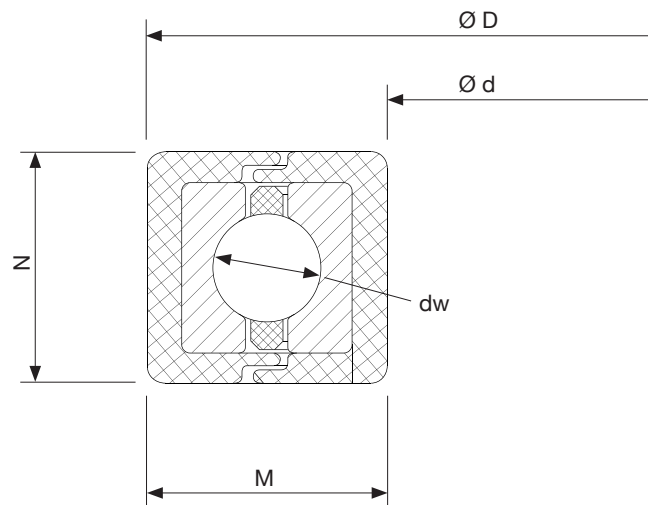
Material	Ball race rings: 54SiCr6, rolling element: 100Cr6, cage: PA12
Temperature in use	-30 °C to +80 °C, briefly up to +100 °C
Circumfer. speed	max. 5 m/s, without seals max. 10 m/s
Lubricant grease	Klüber Isoflex Topas NCA52/Shell Gadus S3 V220

Slim Bearings

Type LSC

2 race rings/profiled/Elastomer sleeve



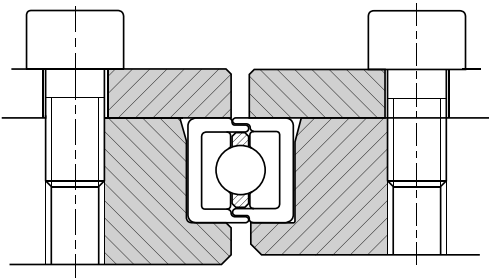


Dimensions

Größe	Dimensions mm				Load rating kN				stat. moment kNm	Weight kg
	Ø D	Ø d	M x N	dw	C _{0a}	C _{0r}	C _a	C _r	C _{0m}	
LSC4	119,25 - 398,65	97,95 - 377,35	10,65 x 6	4	26 - 95	12 - 45	6 - 10	5 - 8	0,7 - 9	0,05 - 0,19
LSC8	158,81 - 781,11	136,47 - 758,77	11,17 x 10,74	5	55 - 294	26 - 138	10 - 18	9 - 16	2 - 54	0,16 - 0,84

Characteristics
Franke slim bearings of type LSC deliver a convincingly smooth run, require extremely compact mounting space, ensure simple assembly and come at a favorable price. Slim bearings type LSC consist of an inner and outer race ring with a hardened and profiled raceway and a plastic cage with retained balls. They are covered by elastomer profiles, which take over the sealing, tolerance compensation and vibration elimination of the bearing. Due to the overlapping lips of the elastomer sleeves further sealing of the bearing is not necessary.

Constructive example



Technical details

Material	Ball race rings: 54SiCr6, rolling element: 100Cr6, cage: PA12, Elastomer: NBR
Temperature in use	−30 °C to +80 °C, briefly up to +100 °C
Circumfer. speed	max. 5 m/s, without seals max. 10 m/s
Lubricant grease	Shell Gadus S3 V220

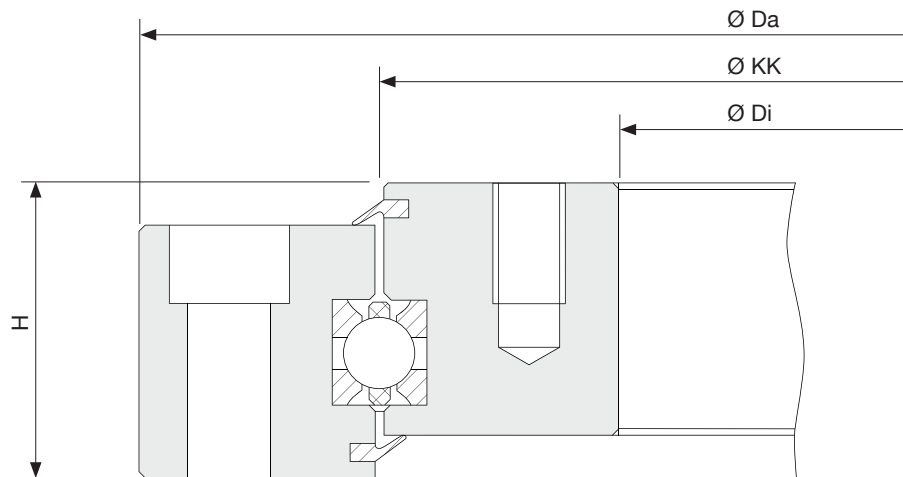
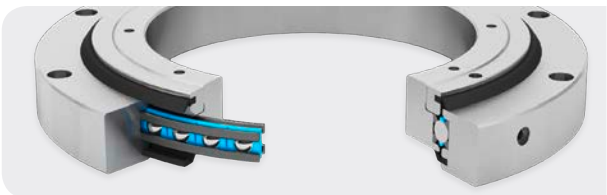
Constructive examples

Greatest possible freedom
The housing parts are not directly exposed to the load of the rolling elements and can be extremely thin-walled. Together with the small mounting space of the wire race bearings compact and lightweight constructions can easily be realised.

Bearing Assemblies

Type LVA

Steel Version



Dimensions

Size*	Dimensions mm				Load rating kN				stat. moment kNm	Weight kg	Available
	Ø KK	Ø Da	Ø Di	H	C _{oa}	C _{or}	C _a	C _r	C _{om}		
LVA0100	100	150	50	34	54	25	18	16	1	3,0	from Stock
LVA0150	150	200	100	34	82	39	22	19	3	4,6	from Stock
LVA0200	200	250	150	34	110	52	24	21	5	6,1	from Stock
LVA0250	250	300	200	34	138	65	26	23	8	7,6	from Stock
LVA0300	300	360	240	38	166	78	28	24	12	12,8	from Stock
LVA0400	400	470	330	44	424	199	54	47	40	23,7	from Stock
LVA0500	500	580	420	49	530	249	59	51	62	39,1	from Stock
LVA0600	600	680	520	49	635	299	63	54	63	46,9	from Stock
LVA1800	1800	1930	1670	90	2367	1114	114	99	1003	449,0	

*Intermediate sizes and other diameters can be found at www.franke-gmbh.com

Characteristics

LVA is a bearing assembly with housing rings made of steel and integrated bearing element. Franke bearing assemblies in type LVA are designed for medum rotatinal speeds and accuracies. They are available on short notice, in some cases even from the warehouse. Franke bearing assemblies type LVA are ready-to-use, complete bearings with integrated Wire Race Bearings. Designed as 4-point bearings, they absorb equal load from all sides and are insensitive to impact and vibration. The bearing assemblies are sealed on both sides and set free from clearance and are preloaded.

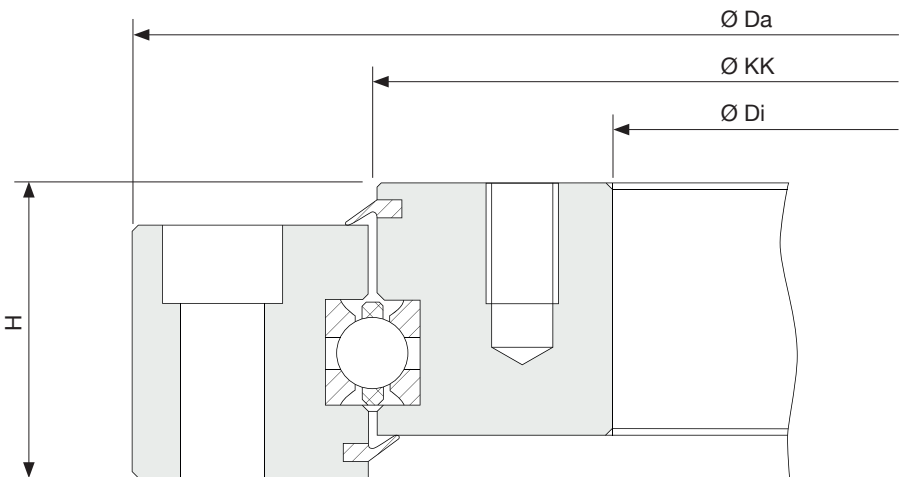
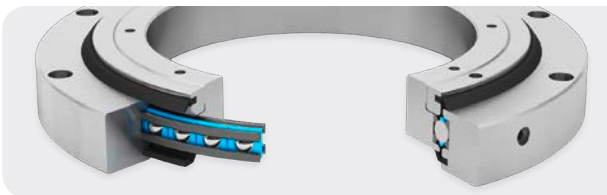
Technical details

Material	Inner / Outer ring: C45N, ball race rings: 54SiCr6, rolling elements: 100Cr6, cage: PA12, seal: NBR
Temperature in use	–30 °C to +80 °C, briefly up to +100 °C
Circumfer. speed	max. 20 m/s
Lubricant grease	Klüber Isoflex Topas NCA52
Lubrication	using grease nipples according to DIN 3405

Bearing Assembly

Type LVB

Aluminum Version



Dimensions

Size*	Dimensions mm				Load rating kN				stat. moment kNm	Weight kg	Available
	Ø KK	Ø Da	Ø Di	H	C _{oa}	C _{or}	C _a	C _r	C _{om}		
LVB0100	100	150	50	34	54	25	18	16	1	1,2	from Stock
LVB0150	150	200	100	34	82	39	22	19	3	1,8	
LVB0200	200	250	150	34	110	52	24	21	5	2,4	from Stock
LVB0250	250	300	200	34	138	65	26	23	8	3,0	
LVB0300	300	360	240	38	166	78	28	24	12	4,9	from Stock
LVB0400	400	470	330	44	424	199	54	47	40	9,5	
LVB0500	500	580	420	49	530	249	59	51	62	15,0	
LVB0600	600	680	520	49	635	299	63	54	63	18,2	
LVB1800	1800	1930	1670	90	2367	1114	114	99	1003	166,7	

*Intermediate sizes and other diameters can be found at www.franke-gmbh.com

Characteristics

LVB is a bearing assembly with housing rings made of aluminium and integrated bearing element. Franke bearing assemblies in type LVB are designed for medium rotational speeds and accuracies. They are available on short notice, in some cases even from stock. Franke bearing assemblies type LVB are ready-to-use, complete bearings with integrated Wire Race Bearings. Designed as 4-point bearings, they absorb equal load from all sides and are insensitive to impact and vibration. The bearing assemblies are sealed on both sides and set free from clearance and are preloaded.

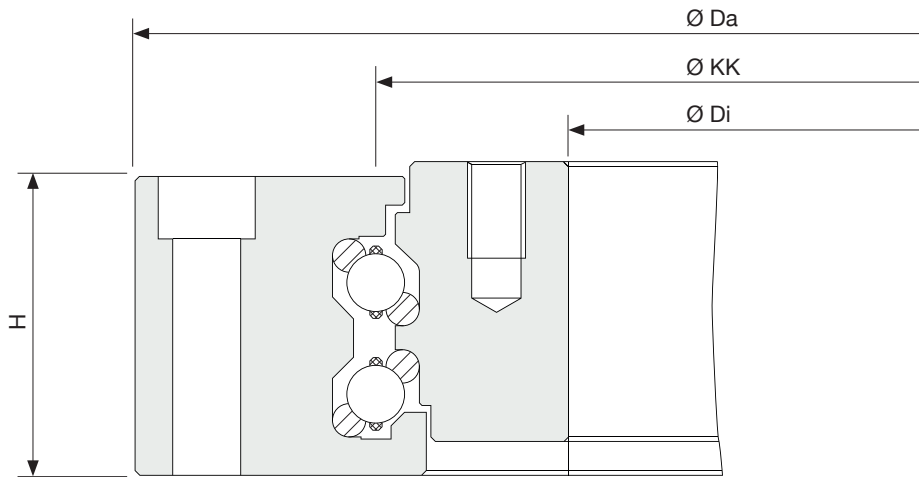
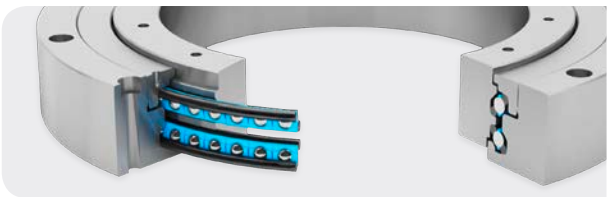
Technical details

Material	Inner / outer ring: AlZnMgCu05, ball race rings: 54SiCr6, rolling elements: 100Cr6, cage: PA12, seal: NBR
Temperature in use	–30 °C bis +80 °C, briefly up to +100 °C
Circumfer. speed	max. 5 m/s, without seals max. 10 m/s
Lubricant grease	Klüber Isoflex Topas NCA52
Lubrication	using grease nipples according to DIN 3405

Beaing Assemblies

Type LVC

Angular Ball Bearing / Steel Version



Dimensions

Size*	Dimensions mm				Load rating kN				stat. moment kNm	Weight kg
	Ø KK	Ø Da	Ø Di	H	C _{oa}	C _{or}	C _a	C _r	C _{om}	
LVC0100	100	150	50	34	55	26	11	10	1	3,7
LVC0200	200	250	150	34	113	53	15	13	7	7,4
LVA0400	400	480	330	57	318	150	33	27	30	36,7
LVA0600	600	700	520	65	816	384	67	58	115	76,2
LVA0800	800	900	720	65	1094	515	74	64	206	101,1
LVA1000	1000	1100	920	65	1372	646	81	70	323	126,0
LVA1200	1200	1300	1085	69	1644	774	86	75	464	192,6
LVA1800	1800	1930	1670	84	2472	1163	100	87	1047	437,9

*Intermediate sizes and other diameters can be found at www.franke-gmbh.com

Characteristics

LVC is a bearing assembly designed as double-row angular contact ball bearing made of steel with two integrated bearing elements. Franke bearing assemblies in type LVC are suitable for the highest circumferential speeds. Convincing aspects include their high dynamism and low rotational resistance. Franke bearing assemblies type LVC are ready-to-use, complete bearings. The double-row angular contact ball bearing in 4-point adjustment is preloaded free of clearance. It is insensitive to impact and vibration. The low rotational resistance and the minimal breakaway torque reduce the necessary drive power. Bearing assemblies type LVC operate practically without maintenance and achieve a high service life due to the low friction values.

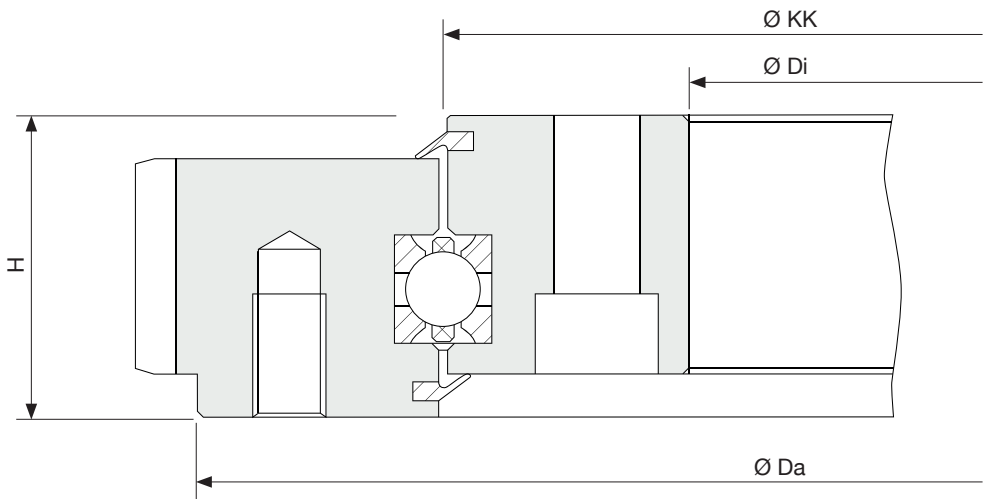
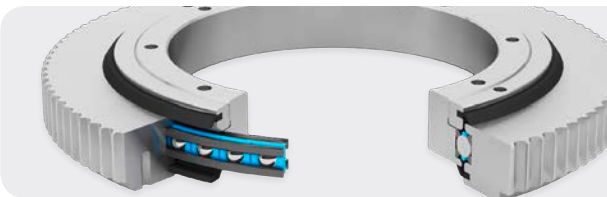
Technical details

Material	Inner / outer ring C45N, ball race rings: 54SiCr6, rolling elements: 100Cr6, cage: PA12
Temperature in use	−30 °C to +80 °C, briefly up to +100 °C
Circumfer. speed	max. 20 m/s
Lubricant grease	Klüber Isoflex Topas NCA52
Lubrication	using grease nipples according to DIN 3405

Bearing Assemblies

Type LVD

External Gear/Steel Version



Dimensions

Size*	Dimensions mm				Load rating kN				stat. moment kNm	Weight kg	Available
	Ø KK	Ø Da	Ø Di	H	C _{oa}	C _{or}	C _a	C _r	C _{om}		
LVD0100	100	150	50	34	54	25	18	16	1	3,4	
LVD0200	200	250	150	34	110	52	24	21	5	6,7	from Stock
LVD0300	300	360	240	38	166	78	28	24	12	14,1	from Stock
LVD0400	400	470	330	44	424	199	54	47	40	26,0	from Stock
LVD0600	600	680	520	49	635	299	63	54	63	50,8	
LVD0800	800	890	710	53	852	401	70	61	160	83,2	
LVD1000	1000	1090	910	53	1068	503	76	66	251	104,0	
LVD1800	1800	1930	1670	90	2367	1114	114	99	1003	484,2	

*Intermediate sizes and other diameters can be found at www.franke-gmbh.com

Characteristics

LVD is a bearing assembly with external gear type and housing rings made of steel and integrated bearing element. Franke bearing assemblies in type LVD are designed for medium rotational speeds and accuracies. They are available on short notice, in some cases even from stock. Franke bearing assemblies type LVD are ready-to-use, complete bearings with integrated Wire Race Bearings. Designed as 4-point bearings, they absorb equal load from all sides and are insensitive to impact and vibration. The bearing assemblies are sealed on both sides and set free from clearance and are preloaded.

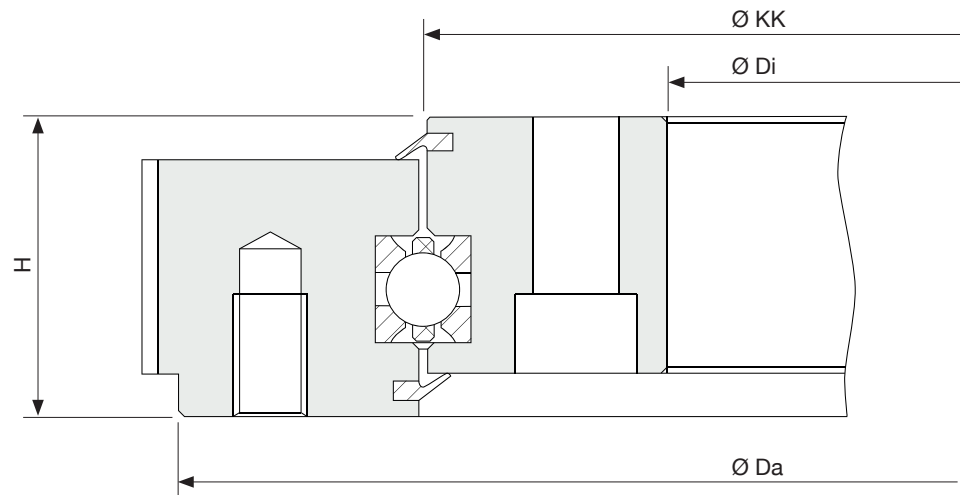
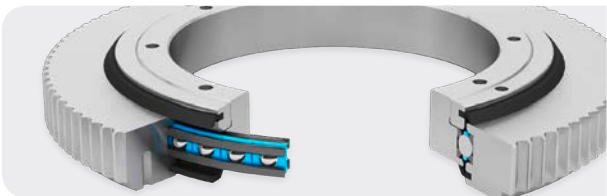
Technical details

Material	Inner ring: C45N, outer ring: 42CrMo4V, ball race rings: 54SiCr6, balls: 100Cr6, cage: PA12, seal: NBR
Temperature in use	−30 °C to +80 °C, briefly up to +100 °C
Circumfer. speed	max. 5 m/s, without seals max. 10 m/s
Lubricant grease	Klüber Isoflex Topas NCA52
Lubrication	using grease nipples according to DIN 3405

Bearing Assemblies

Type LVE

Toothed Belt Gear/Aluminum Version



Dimensions

Size*	Dimensions mm				Load rating kN				stat. moment kNm	Weight kg	Available
	Ø KK	Ø Da	Ø Di	H	C _{0a}	C _{0r}	C _a	C _r	C _{0m}		
LVE0100	100	150	50	34	54	25	18	16	1	1,2	
LVE0200	200	250	150	34	110	52	24	21	5	2,4	from Stock
LVE0300	300	360	240	38	166	78	28	24	12	5,0	from Stock
LVE0400	400	470	330	44	424	199	54	47	40	9,5	from Stock
LVE0600	600	680	520	49	635	299	63	54	63	18,2	
LVE0800	800	890	710	53	852	401	70	61	160	29,6	
LVE1000	1000	1090	910	53	1068	503	76	66	251	37,0	
LVE1800	1800	1930	1670	90	2367	1114	114	99	1003	181,1	

*Intermediate sizes and other diameters can be found at www.franke-gmbh.com

Characteristics

LVE is a bearing assembly with toothed belt gear type and housing rings made of aluminium and integrated bearing element. Franke bearing assemblies in type LVE are designed for medium rotational speeds and accuracies. They are available on short notice, in some cases even from stock. Franke bearing assemblies type LVE are ready-to-use, complete bearings with integrated Wire Race Bearings. Designed as 4-point bearings, they absorb equal load from all sides and are insensitive to impact and vibration. The bearing assemblies are sealed on both sides and set free from clearance and are preloaded.

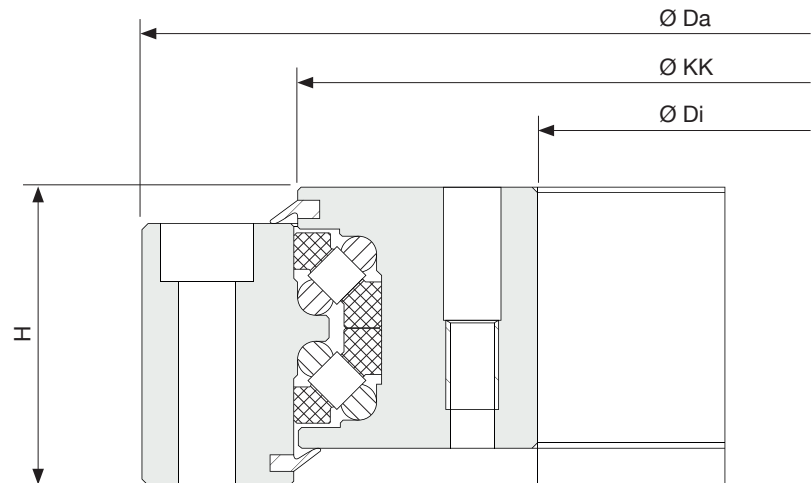
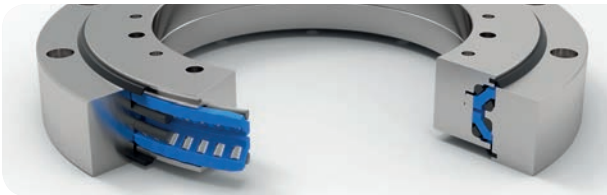
Technical details

Material	Inner / outer ring: AlZnMgCu05, ball race rings: 54SiCr6, rolling elements: 100Cr6, cage: PA12, seal: NBR
Temperature in use	−30 °C to +80 °C, briefly up to +100 °C
Circumfer. speed	max. 5 m/s, without seals max. 10 m/s
Lubricant grease	Klüber Isoflex Topas NCA52
Lubrication	using grease nipples according to DIN 3405

Bearing Assemblies

Type LVG

2-row Roller Bearing/Aluminum



New

Dimensions

Size	Dimensions mm				Load rating kN				stat. moment kNm	Weight kg
	Ø KK	Ø Da	Ø Di	H	C _{0a}	C _{0r}	C _a	C _r	C _{0m}	
LVG0200	200	262	140	47	309	124	39	36	14	4,1
LVG0300	300	375	223	57	617	247	78	72	39	9,3
LVG0400	400	475	323	57	827	331	90	83	60	12,4

Characteristics

LVG is a 2-row angular roller bearing with aluminum housing and two integrated bearing elements. Franke bearing assemblies type LVG are suitable for highest load capacities. They convince by high rigidity, low rotational resistance and low weight. Franke bearing assemblies type LVG are ready-to-use, complete bearings with integrated Wire Race Bearings. Designed as roller bearings, they absorb equal load from all sides and are insensitive to impact and vibration. The bearing assemblies are sealed from both sides and adjusted free from clearance. Due to the housing parts made of aluminum the weight is reduced by 60% compared to steel bearings.

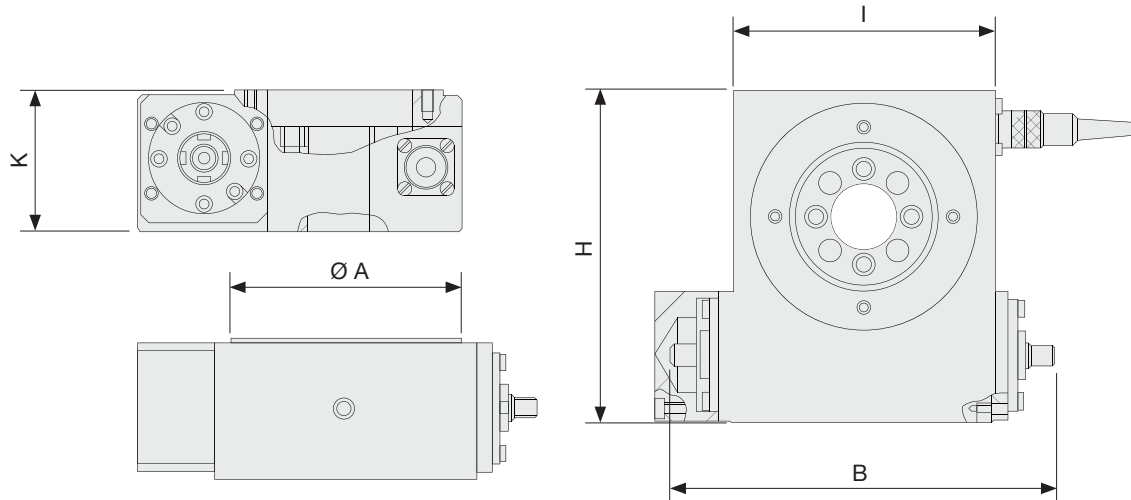
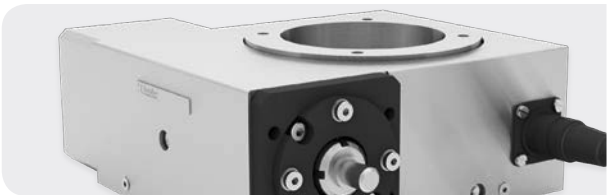
Technical details

Material	Inner / Outer ring: ALZnMgCu0,5, ball race rings: 54SiCr6, rollers: 100Cr6, cage: POM, seal: NBR
Temperature in use	−30 °C to +80 °C, briefly up to +100 °C
Circumfer. speed	max. 5 m/s
Lubricant grease	Klüber Isoflex Topas NCA52
Lubrication	using grease nipples according to DIN 3405

Rotary Tables

Type LTA

Highly dynamic / Worm Drive



Dimensions

Size	Dimensions					Weight kg
	Ø A	B	H	I	K	
LTA100	100	183	155	125	65	5,5
LTA200	200	278	255	220	70	10,0

Performance Overview

		LTA100	LTA200
Planarity and concentricity	µm	30	30
Positioning accuracy	sec	160	120
Repeatability	sec	20	14
Load rating C ₀	kN	17,5	43
Load rating C	kN	9	18
Tilting moment C _{om}	Nm	289	433
reduction	i	18	36
Input speed N _{1max}	U/min	1800	2200
Output speed N _{2max}	U/min	100	61
Input torque M _{1max}	Nm	5	5
Output torque M _{2max}	Nm	54	108

Characteristics

Franke rotary tables of type LTA are lightweight, compact, ready-to-use positioning units. They are highly resilient and deliver outstanding radial and axial run accuracy. Franke rotary tables type LTA are versatile in use and are well-suited to light processing applications and also for dynamic handling and assembly applications.

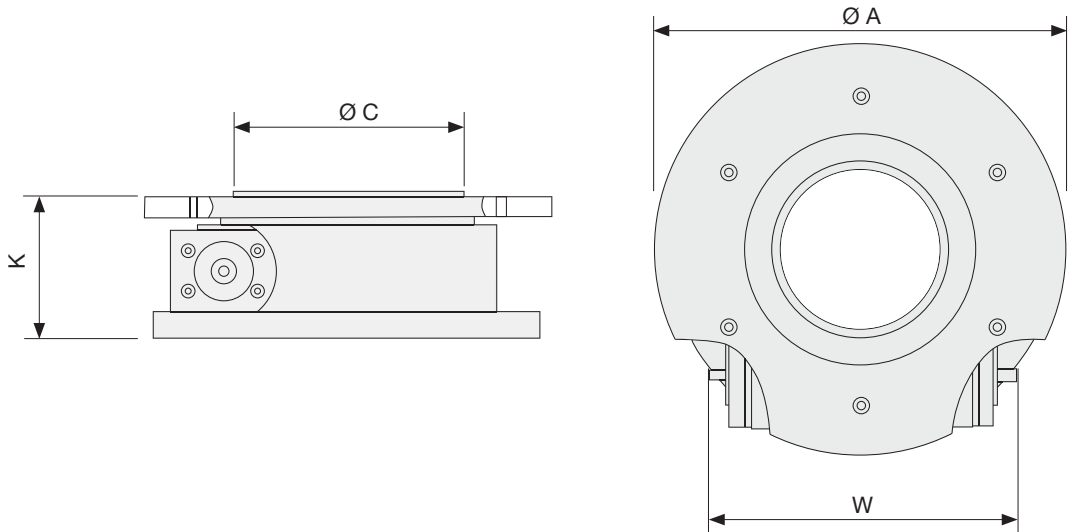
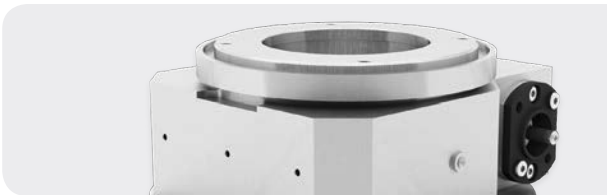
Technical Details

Material	Baseplate: Aluminium, Housing: V2A, Ball race rings: 54SiCr6, Rolling elements: 100Cr6, Worm wheel: wear-resistant bronze alloy, Worm shaft: CK45N hardened and ground
Temperature in use	-10 °C to +80 °C
Mounting position	any, but we recommend positions in which the drive module occupies the lowest point
Lubrication	with bearing grease via grease nipples
Option	inductive proximity switch, flange/coupling to mount the motor, motorization

Rotary Tables

Type LTB

High Precision / Worm Drive



Dimensions

Size	Dimensions				Weight kg
	Ø A	C	K	W	
LTB125	125	-	75	135	3
LTB175	175	-	82	196	6
LTB265	265	150	90	193	10
LTB400	400	300	100	251	27

Performance Overview

		LTB125	LTB175	LTB265	LTB400
Planarity and concentricity	µm	20	20	20	30
Positioning accuracy	sec	80	80	70	50
Repeatability	sec	16	14	10	8
Load rating C ₀	kN	2	2,6	4,2	14,1
Tilting moment C _{om}	Nm	110	140	310	1780
Reduction	i	360	360	360	360
Input speed N _{1max}	rpm	2500	2500	2500	2500
Output speed N _{2max}	rpm	7	7	7	7
Input torque M _{1max}	Nm	0,7	0,9	1,5	2
Output torque M _{2max}	Nm	70	75	160	290

Characteristics

Franke rotary tables of type LTB are open-center, ready-to-use positioning units. They are highly resilient, lightweight (aluminium housing) and deliver outstanding ATR accuracy and discrimination. Franke rotary tables of type LTB are versatile in use and are primarily suited to movement and positioning tasks in the fields of measurement, testing and orientation.

Technical Details

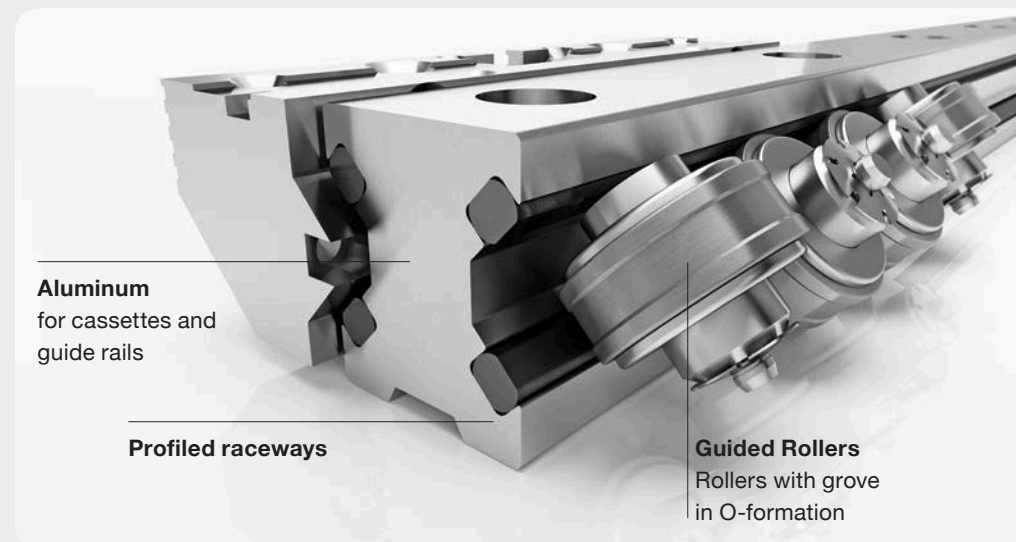
Material	Baseplate: Aluminium, Housing: V2A, Ball race rings: 54SiCr6, Rolling elements: 100Cr6, Worm wheel: wear-resistant bronze alloy, Worm shaft: CK45N hardened and ground
Temperature in use	-10 °C to +80 °C
Mounting position	any, but we recommend positions in which the drive module occupies the lowest point
Lubrication	with bearing grease via grease nipples
Option	inductive proximity switch, flange/coupling to mount the motor, motorization

Low Weight as well as smooth and easy running

Franke Aluminum Linear Systems are the best solution when it comes to speed and lightweight construction. The design principle of Franke Linear Systems makes them highly dynamic, quiet and maintenance-free. Franke Linear Systems can be modified individually to suit customer needs, thanks to their modular structure.

Franke Linear Systems can be modified individually to suit customer needs, thanks to their modular structure. You will always receive a solution that is ideally tailored to match your specific applications due to the use of various rail profiles and roller shoes, special cassettes, variable track widths or an integrated direct drive.

- Lightweight designs
- Homogeneous material properties in assemblies with aluminium profiles
- Low moved masses
- Low drive energy required
- High dynamism and speed



Customer-specific rail profile

The Franke principle of inserted raceways can be transferred to almost any aluminium profile. This enables you to structure your design individually..



Linear Systems

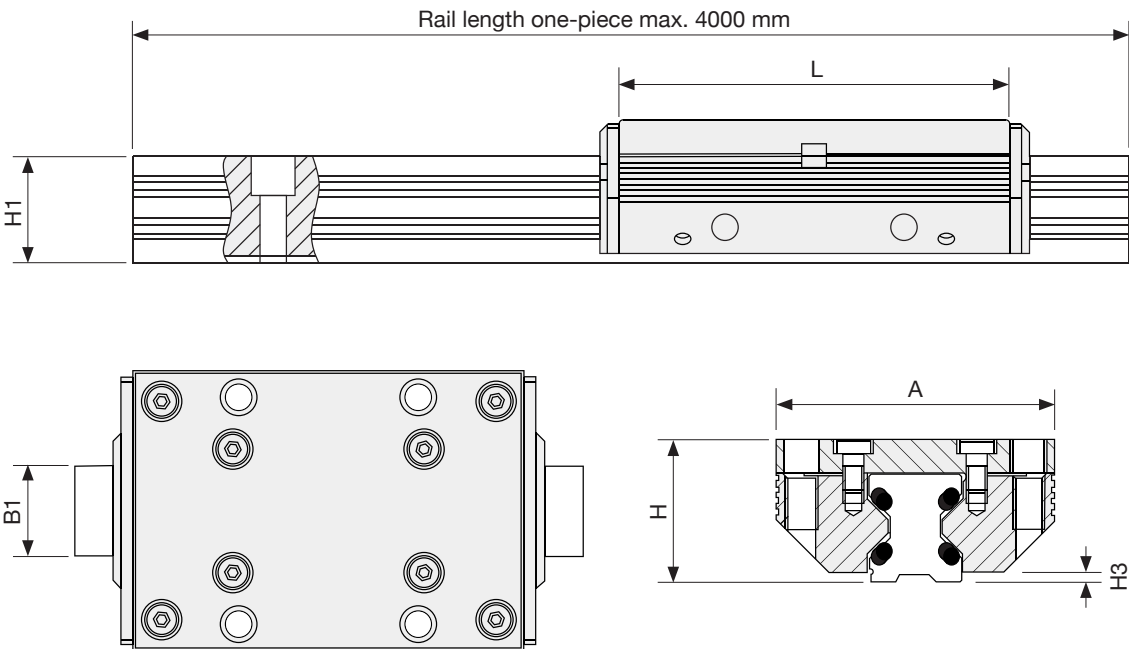
Linear Lightweight

Light. Silent. Highly-dynamic. Maintenance-free.
With integrated Drive Systems. With customized
design for serial application.

Linear Guides

Type FD

Double Rail / Cassette



Dimensions

Size	Dimensions mm						Available Types
	A	B1	H	H1	H3	L	
12	37	12,0	19	14,7	1,4	64	FDA, FDB, FDC, - , FDE, FDG, -
15	47	15,5	24	18,7	2,0	78	FDA, FDB, FDC, - , FDE, FDG, -
20	63	21,0	30	22,6	2,0	92	FDA, FDB, FDC, - , FDE, FDG, -
25	70	23,0	36	27,0	2,5	98	FDA, FDB, FDC, FDD, FDE, FDG, FDH
35	100	32,0	48	37,0	3,5	135	FDA, FDB, FDC, - , FDE, FDG, FDH
45	120	45,0	60	46,0	4,0	165	FDA, FDB, FDC, - , FDE, FDG, FDH

Characteristics

Franke Aluminum Linear Systems are the best solution when it comes to speed and lightweight construction. The design principle of Franke Linear Systems makes them highly dynamic, quiet and maintenance-free. Franke Linear Systems can be modified individually to suit customer needs, thanks to their modular structure. The slide resistance of the cassettes can be adjusted individually. The guide rails are available in one piece up to 4000mm and can coupled to endless stroke lengths.

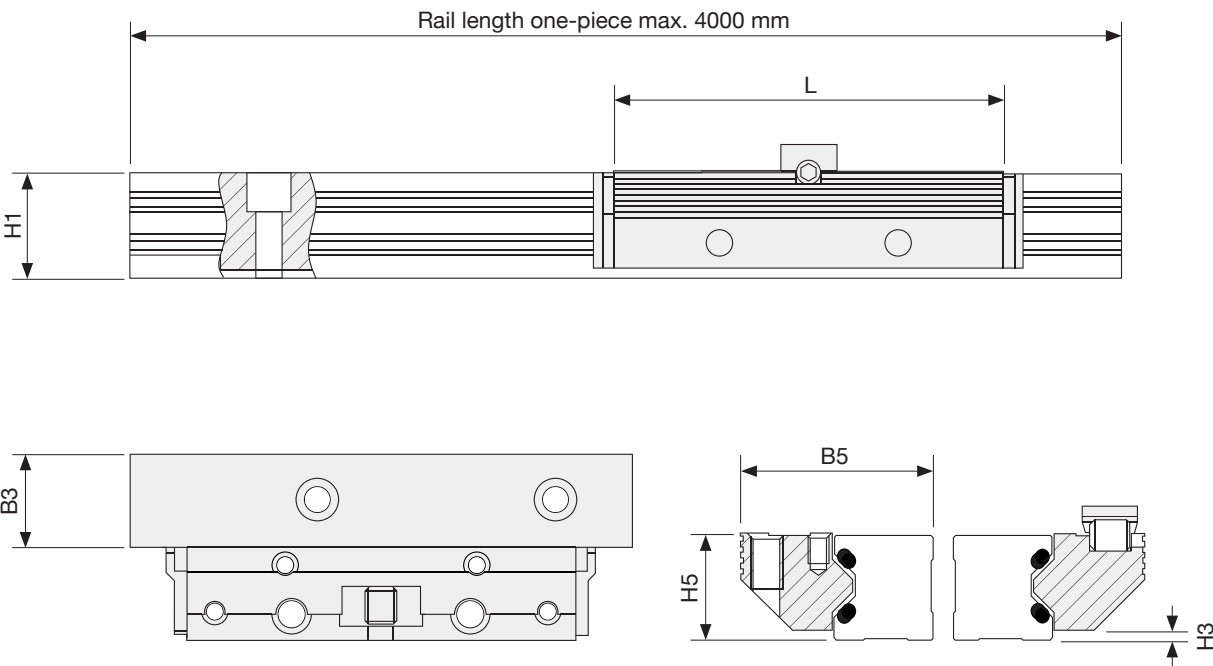
Technical Details

Material	Cassette plate, roller shoes and rail body: Aluminum; Rollers and raceways according to type: steel, non-corrosive steel, amagn. steel
Temperature in use	-10 °C to +80 °C
Vmax	10 m/s
Mounting position	any
Lubrication	lifetime lubricaton, maintenance-free

Linear Guides

Type FD

Pair of Single Rails / Pair of Roller Shoes



Dimensions

Size	Dimensions mm						Available Types
	B3	B5	H1	H3	H5	L	
12	12,00	24,4	14,7	1,4	15,0	64	FDA, FDB, FDC, - , FDE, FDG, -
15	15,25	30,9	18,7	2,0	19,0	78	FDA, FDB, FDC, - , FDE, FDG, -
20	20,00	40,9	22,6	2,0	23,0	92	FDA, FDB, FDC, - , FDE, FDG, -
25	25,00	48,4	27,0	2,5	27,5	98	FDA, FDB, FDC, FDD, FDE, FDG, FDH
35	35,00	68,9	37,0	3,5	37,5	135	FDA, FDB, FDC, - , FDE, FDG, FDH
45	45,00	82,4	46,0	4,0	46,5	165	FDA, FDB, FDC, - , FDE, FDG, FDH

Characteristics

Franke Aluminum Linear Systems are the best solution when it comes to speed and lightweight construction. The design principle of Franke Linear Systems makes them highly dynamic, quiet and maintenance-free. Franke Linear Systems can be modified individually to suit customer needs, thanks to their modular structure. The slide resistance of the roller shoes can be adjusted individually. The guide rails are available in one piece up to 4000mm and can coupled to endless stroke lengths.

Technical Details

Material	Roller shoes and rail body: Aluminum; Rollers and raceways according to type: steel, non-corrosive steel, amagn. steel
Temperature in use	-10 °C to +80 °C
Vmax	10 m/s
Mounting position	any
Lubrication	lifetime lubricaton, maintenance-free

Linear Guides

Type FD

Available Types



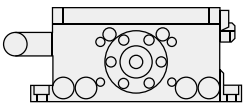
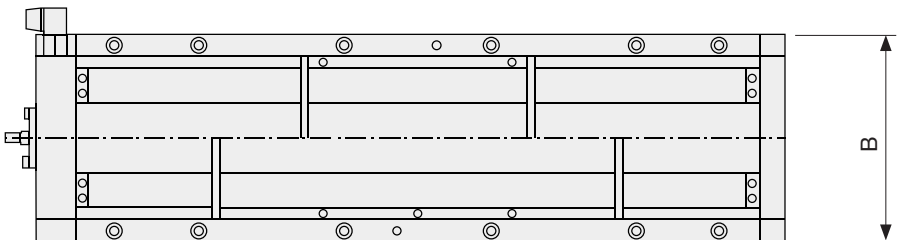
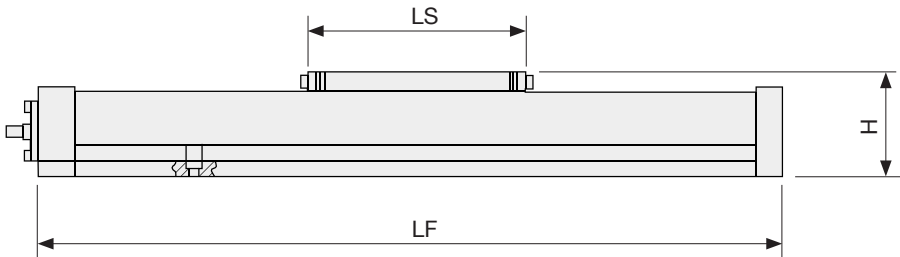
Types

Type	Characteristics	Recommended Application
FDA	<ul style="list-style-type: none">Aluminum roller guide in Standard versionIntegrated raceways made of steelRollers with needle bearings for smooth and eays running	Suitable for linear motion applications in almost all industries. Sealed rollers for maintenance-free operation over the entire service life. Light, clean run.
FDB	<ul style="list-style-type: none">Aluminum roller guide in Low-cost-designIntegrated raceways made of steelRollers with ball bearings	Suitable for linear motion applications in almost all industries. Particularly suitable for cost-sensitive applications and reduced demands on load capacity and noise.
FDC	<ul style="list-style-type: none">Aluminum roller guide in Non-corrosive designIntegrated raceways made of non-corrosive steelRollers with needle bearings for smooth and easy running	Suitable for linear motion applications in almost all industries. Insensitive to environmental influences such as moisture or cleaning agents.
FDD	<ul style="list-style-type: none">Aluminum roller guide in Non-magnetic designIntegrated raceways made of non-magnetic steelRollers in needle bearings for smooth and easy running	Suitable for linear motion applications in almost all industries. Nonmagnetic guide rails without influence on prevailing magnetic fields (e.g., in medical or electronics manufacturing).
FDE	<ul style="list-style-type: none">Aluminum roller guide in Lubricant-free designIntegrated raceways made of steelLubricant-free rollers for smooth and clean running	Suitable for linear motion applications in almost all industries. Special rollers without lubricants. Suitable for use in a vacuum or in clean rooms.
FDG	<ul style="list-style-type: none">Aluminum roller guide in Non-corrosive low cost designIntegrated racewys made of non-corrosive steelRollers with ball bearings	Suitable for linear motion applications in almost all industries. Particularly suitable for cost-sensitive applications in harsh environments or when using cleaning agents.
FDH	<ul style="list-style-type: none">Aluminum roller guide in highly dynamic designIntegrated raceways made of steelRollers with angular ball bearings for high speed and acceleration	Suitable for linear motion applications in almost all industries. Rollers with angular contact ball bearings for maximum acceleration and speed values, for example when using linear motors as the drive source.

Linear Tables

Type FTB

Spindle Drive / Metal Cover



Dimensions

Size	Dimensions mm					Load rating N C	Moment load Nm		Weight kg
	Hub	B	H	LF	LS		M _{cx}	M _{cy} /M _{cz}	
FTB06A	100-1500	155	70	315-1715	165	15000	670	220	6,4 - 21,8
FTB06B	100-1500	155	70	430-1830	280	30000	1380	1930	7,5 - 22,9

Characteristics

Franke type FTB linear tables are lightweight, compact, ready-to-install positioning units. They are highly resilient and have excellent positioning accuracy. Franke type FTB linear tables are equipped with an integrated aluminum roller guide, preloaded ball screw drive and a metal cover.

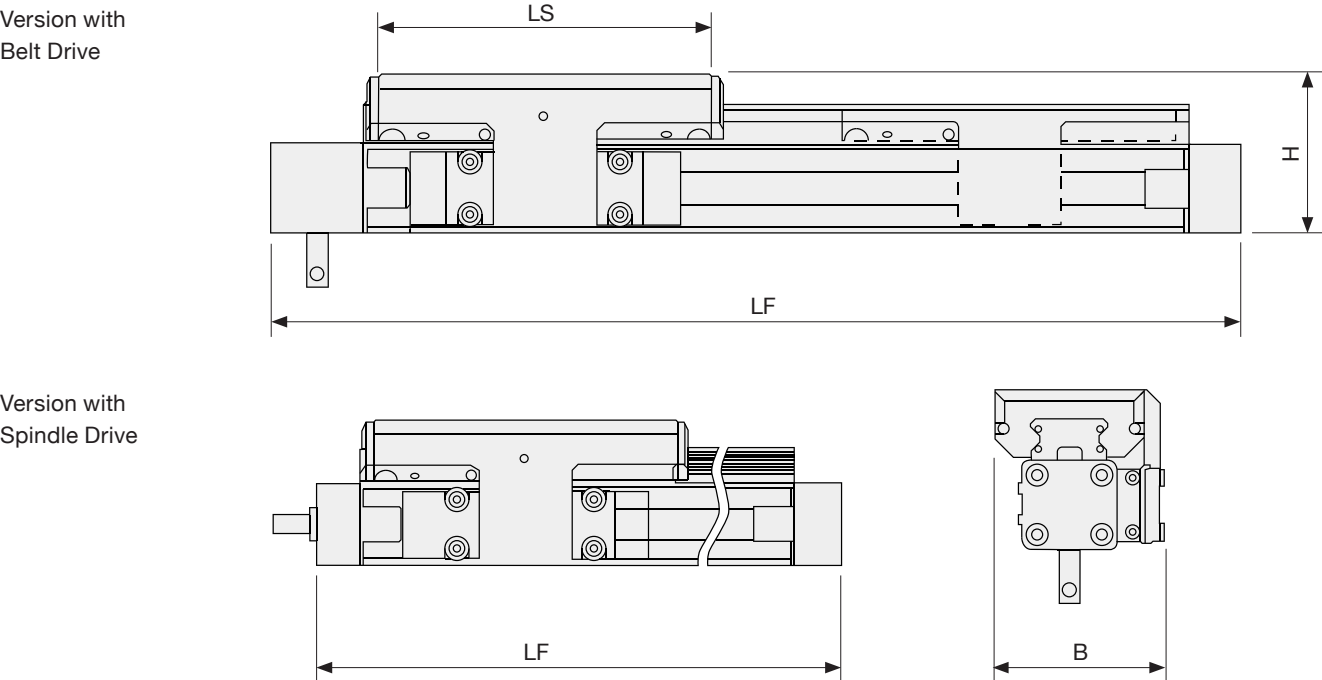
Technical Details

Material	Base plate: AlZnMgCu05, integrated roller guide: AlZnMgCu05, raceways: steel, rollers: steel, covers: non-corrosive steel
Temperature in use	-10 °C to +80 °C
Vmax	15 m/min
Mounting position	any
Lubrication	lifetime lubrication, mainenance-free

Linear Modules

Type FTC

Spindle Drive / Belt Drive



Dimensions

Größe	Dimensions mm					Tragzahl N C	Momente Nm		Weight kg
	Hub	B	H	LF	LS		M _{cx}	M _{cy} /M _{cz}	
Belt Drive									
FTC15	100-3400	72,5	73,5	360-3660	154	4200	81	190	3,0-13,9
FTC20	100-3400	91,0	88,0	411-3711	197	5400	133	338	5,5-28,6
FTC25	100-3200	117,0	118,5	524-3624	276	13500	483	922	12,4-43,4
Spindle Drive									
FTC15	100-1100	72,5	73,5	300-1300	154	4200	81	190	3,0-7,0
FTC20	100-2000	91,0	88,0	350-2250	197	5400	133	338	5,6-18,9
FTC25	100-3200	117,0	118,5	500-3600	276	13500	483	922	12,6-53,2

Characteristics

Franke liner modules type FTC are lightweight, compact, ready-to-install positioning units. They are particularly suitable for fast, dynamic movement tasks. The external guide system is moved by an internal spindle or toothed belt drive. Franke linear modules type FTC are versatile. The guide cassette can be customized to meet customer requirements.

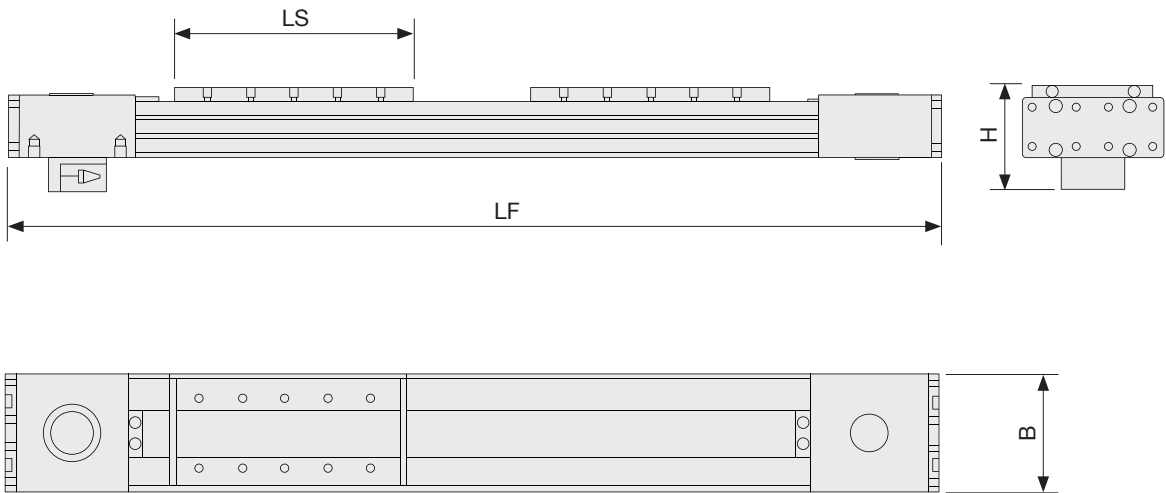
Technical Details

Material	Housing: AlZnMgCu05, external roller guide: AlZnMgCu05, raceways/rollers: steel, optional steel spindle or plastic toothed belt
Temperature in use	−10 °C to +80 °C
Vmax	5 m/s
Mounting position	any
Lubrication	lifetime lubrication, maintenance-free

Linear Modules

Type FTD

Belt Drive



Dimensions

Size	Dimensions mm					Load rating N C	Moments Nm		Weight kg
	Hub	B	H	LF	LS		M _{cx}	M _{cy} /M _{cz}	
FTD15	100-7000	93	52,5	536-7436	178	4200	45	274	5,2-35
FTD20	100-7000	116	66,5	624-7524	218	5400	76	460	10,3-56,5
FTD35	100-7000	175	92,5	794-7694	263	12500	294	1233	28,8-133,7

Characteristics

Franke FTD linear modules are lightweight, compact, ready-to-install positioning units. They are extremely space-saving and combine the guide system and the toothed belt drive protected within the module housing. Franke linear modules of the type FTD are versatile and also bridge large stroke ranges of up to 7 meters in length.

Technical Details

Material	Housing: AlZnMgCu05, integrated roller guide: AlZnMgCu05, raceways/rollers: steel, toothed belt: plastics
Temperature in use	−10 °C to +80 °C
Vmax	10 m/s
Mounting position	any
Lubrication	lifetime lubrication, maintenance-free

Lightweight Bearings, Direct Drive Systems and Special Bearings for innovations



Franke GmbH
Obere Bahnstraße 64
73431 Aalen, Germany
Tel. +49 7361 920-0
Fax +49 7361 920-120
info@franke-gmbh.de

www.franke-gmbh.com
www.light-weight-bearings.com



www.franke-gmbh.com



YouTube

XING