



(Foto Siemens)

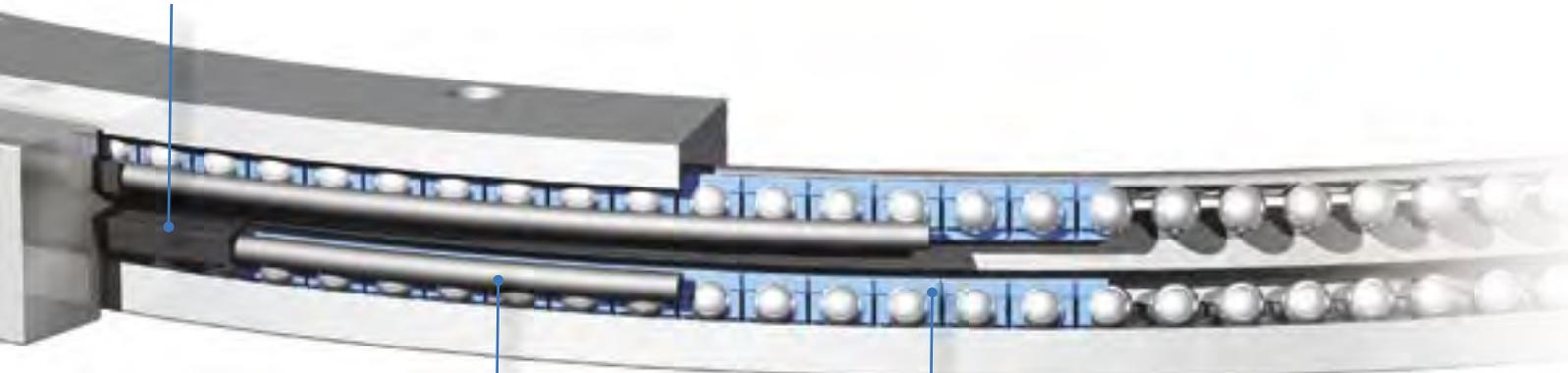
Special antifriction bearings for special solutions



FlüsterLAGER®

- Smooth and easy running
- High accuracy
- Noise reduction system
- Long lifetime
- Electrical isolation
- Small mounting space
- Best cost-performance-ratio

The wire races are embedded in Elastomer-sleeves for extremely smooth running and electrical isolation of inner and outer ring



Wire races made of non-corrosive steel or spring steel are ground exactly to the shape of the balls, the load situation and the moment loads. Thus reaching highest load capacity and running accuracy.

Ball cages with retained balls keep the rolling elements in their defined position and reduce the lubricant consumption of the bearing.



We supply you with all relevant material



Franke testbooth

Franke antifriction bearings for CT-scanners have to go through various tests. Every single bearing is supplied with a specification which documents all significant parameters. High quality of the production is achieved by using automated production processes. Meanwhile Franke Flüsterlager are successfully used in other fields such as bomb scanners at airports. (Foto Franke)



Luggage scanner

Franke Flüsterlager have become very successful in other branches. Manufacturers of luggage scanners rely on the perfect running quality and precision of Franke Flüsterlager. (Foto Invision)



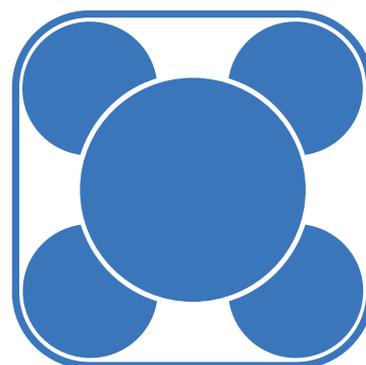
Patient bed

Leading manufacturers of medical equipment all over the world rely on Franke antifriction bearings and linear guides. Adapted to the special applications we supply our customers with individually customized solutions. This patient bed rests in a Franke bearing assembly embedded in the floor. (Foto Trumpf)



Medical supply

Swivel mechanism for a medical supply station. The roof bearing which is responsible for the turning motion is directly integrated into the roof design. Due to the adjustable preload the rotational torque can be optimally adapted. As a consequence up to 30% less drive energy is needed compared to other bearing manufacturers. Costs can be reduced between 20-30% compared to conventional solutions. (Foto Pneumatik)

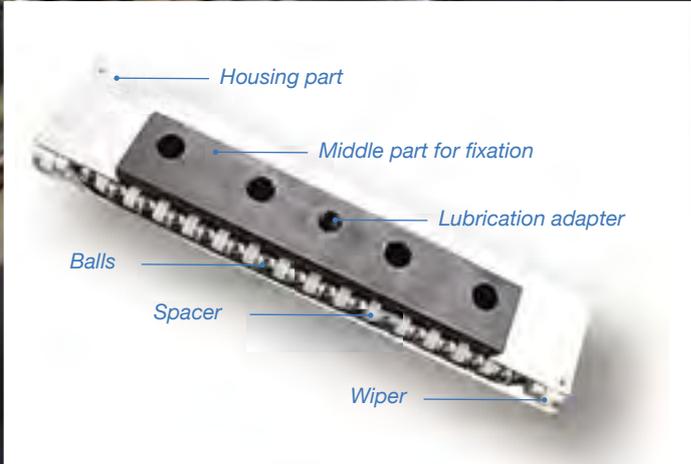


Franke

*... an invention
prevails*

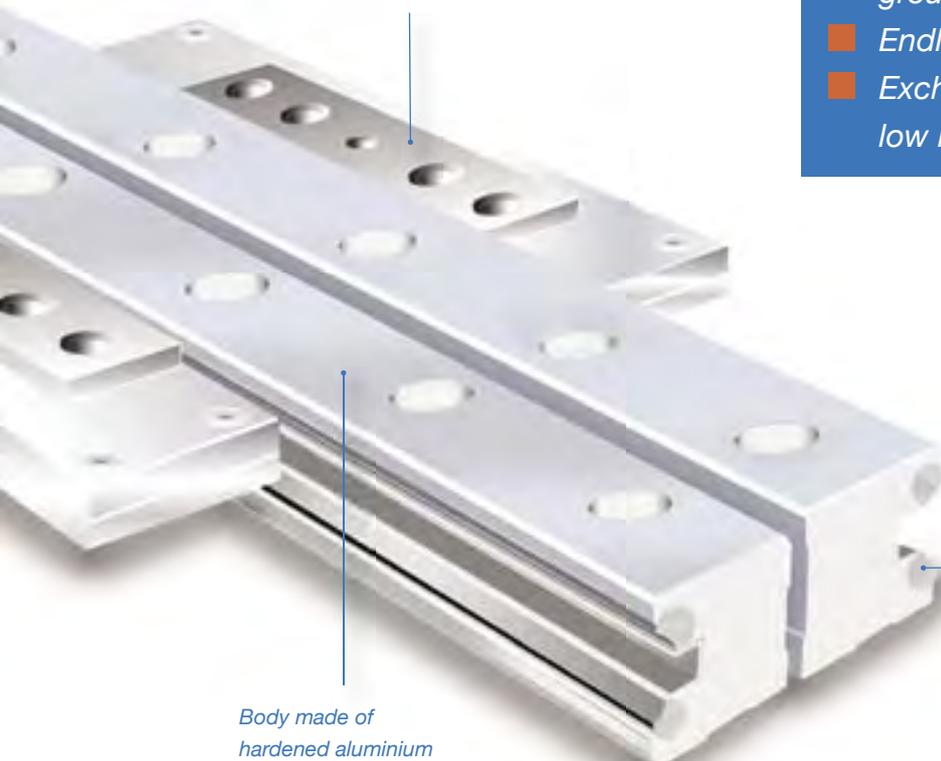


*Franke
recirculating aluminium
linear guides*



Recirculating aluminium linear guides

Recirculating element made of steel/aluminium, housing made of cast iron



Body made of hardened aluminium

- Low weight due to guide rails made of Aluminium,
- High load capacity, high safety,
- Optimized rail profile for high stiffness, ground raceways made of spring steel,
- Endless stroke lengths,
- Exchangeable raceways, low maintenance costs

Ground raceways made of high alloy spring steel



Components for innovative solutions

- Franke recirculating aluminium linear guides have proved successful in different fields and branches such as machinery, portal robots or transportation.
- Make use of our innovative guide systems and consult us for further information.
- See also www.franke-linearguides.com



Technical details

Seal: The recirculating elements are equipped with wipers.

Running Accuracy: Best running accuracy will be achieved when the surface of the mating structure matches the tolerances given in our mounting instructions.

Fixation: Screws quality 8.8 with washer DIN 125

Load capacity: Load rating see table. We are gladly prepared to calculate load capacity and lifetime for you.

Traverse speed: Traverse speed up to 3 m/s
Acceleration up to 30 m/s²

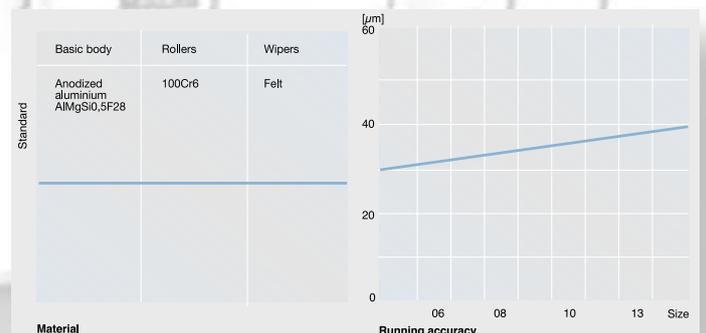
Mounting position: Optional

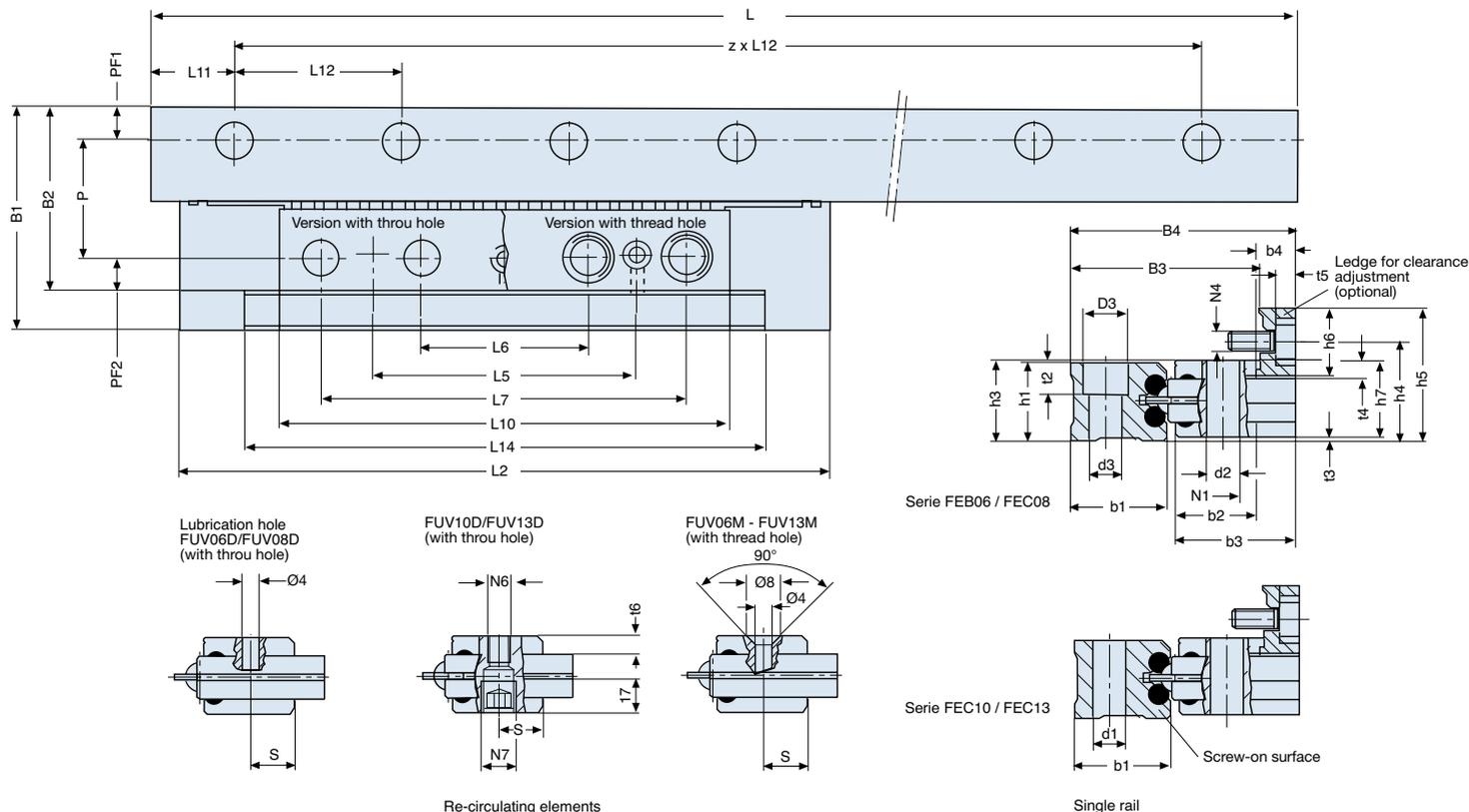
Lengths: We supply one-piece guide rails in the lengths which are given in the table as well as any intermediary length.

Friction coefficient: 0,02. With well mounted race tracks the coefficient can be reduced after 50 working hours to 0,01.

Lubrication: with bearing lubrication through lubrication nipples. We supply re-circulating elements with lubrication bores which are closed towards the screw-on surface. If you put in the closing screws for a second time please use an appropriate sealing mean.

Material: Rails: aluminium
raceways: high alloy spring steel
Re-circulating elements: steel and zinc-diecasting body





Serie	Wide				Height								Length						
	B1	B2	B3	B4	b1	D3	d1	d3	h1	h3	h4	h5	Lmax.	L11	L12	P	PF1	t2	t3
FEB06	44,5	36,5	38,0	44,5	20,0	10,0	-	5,5	16,0	16,7	20,7	27,7	2500	25	50	24,5	7,0	7,0	1'0
FEC08	57,3	47,3	48,8	57,3	26,3	11,0	-	6,6	21,0	22,2	26,0	32,5	4000	50	100	31,8	8,5	8,5	1,0
FEC10	63,0	51,4	51,4	62,9	24,4	-	9,0	-	23,8	25,0	29,4	39,4	4000	50	100	31,4	10,0	-	1,0
FEC13	79,5	65,1	65,1	80,1	31,6	-	12,0	-	31,2	33,0	37,2	48,7	4000	50	100	41,1	12,0	-	1,2

Load rating																							
2 recirc.elem.	C	b2	b3	b4	h6	h7	L2	L5	L6	L7	L10	L14	d2	N1	N4	N6	N7	PF2	S	t4	t5	t6	
FUV06D	15500	15,0	23,1	8,0	14,0	15,0	124	-	25	70	82,0	82	6,0	-	M05	-	-	5	5,0	3,0	4,0	-	-
FUV06M	15500	15,0	23,1	8,0	14,0	15,0	124	50	25	70	82,0	82	-	M06	M05	-	-	5	7,0	3,0	4,0	-	-
FUV08D	31000	19,5	29,5	10,0	15,5	20,0	153	-	32	84	100,0	104	6,6	-	M06	-	-	7	7,0	5,0	4,8	-	-
FUV08M	31000	19,5	29,5	10,0	15,5	20,0	153	58	32	84	100,0	104	-	M08	M06	-	-	7	9,5	5,0	4,8	-	-
FUV10D	50000	24,4	36,0	11,5	20,0	22,8	194	-	50	110	134,2	155	9,0	-	M06	M06	M06	10	10,0	5,4	6,0	9,0	9,0
FUV10M	50000	24,4	36,0	11,5	20,0	22,8	194	80	50	110	134,2	155	-	M10	M06	-	-	10	11,0	5,4	6,0	-	-
FUV13D	81000	31,6	46,0	15,0	23,0	30,0	242	-	60	140	169,0	178	11,0	-	M08	M05	G1/8	12	12,0	7,6	8,0	8,0	12,0
FUV13M	81000	31,6	46,0	15,0	23,0	30,0	242	100	60	140	169,0	178	-	M12	M08	-	-	12	15,0	7,6	8,0	-	-

Length Single rail [mm]	Order number				Length Single rail [mm]	Order number			
	FEB06	FEC08	FEC10	FEC13		FEB06	FEC08	FEC10	FEC13
300	62865A	62896C	83533C		2100	62890A	62921C	83558C	83597C
350	62866A	62897C	83534C	83573C	2200	62891A	62922C	83559C	83598C
400	62867A	62898C	83535C	83574C	2300	62892A	62923C	83560C	83599C
450	62868A	62899C	83536C	83575C	2400	62893A	62924C	83561C	83600C
500	62869A	62900C	83537C	83576C	2500	62894A	62925C	83562C	83601C
550	62870A	62901C	83538C	83577C	2600		62926C	83563C	83602C
600	62871A	62902C	83539C	83578C	2700		62927C	83564C	83603C
650	62872A	62903C	83540C	83579C	2800		62928C	83565C	83604C
700	62873A	62904C	83541C	83580C	2900		62929C	83566C	83605C
750	62874A	62905C	83542C	83581C	3000		62930C	83567C	83606C
800	62875A	62906C	83543C	83582C	3200		62114C	83568C	83607C
850	62876A	62907C	83544C	83583C	3400		62115C	83569C	83608C
900	62877A	62908C	83545C	83584C	3600		69116C	83570C	83609C
950	62878A	62909C	83546C	83585C	3800		69117C	83571C	83610C
1000	62879A	62910C	83547C	83586C	4000		69118C	83572C	83611C
1100	62880A	62911C	83548C	83587C					
1200	62881A	62912C	83549C	83588C					
1300	62882A	62913C	83550C	83589C					
1400	62883A	62914C	83551C	83590C					
1500	62884A	62915C	83552C	83591C	Weight [kg/m]	0,7	1,2	1,9	2,9
1600	62885A	62916C	83553C	83592C					
1700	62886A	62917C	83554C	83593C	Recircul. elem.	FUV06	FUV08	FUV10	FUV13
1800	62887A	62918C	83555C	83594C	with thru hole	80587A	80588A	80589A	80590A
1900	62888A	62919C	83556C	83595C	with thread hole	80545A	80546A	80547A	80548A
2000	62889A	62920C	83557C	83596C	Weight [kg/each]	0,2	0,4	0,8	1,7

Dimensions [mm], Load rating [N], Moments [Nm]



*... always the best solution
for special requirements*

Light, strong, durably - Components made of aluminium with Franke technology.

The embedded raceways made of non-corrosive steel or hardened spring steel guarantee high load capacity and precision. Especially in the field of portal robots or handling system.



Machinery

Franke recirculating aluminium linear guides are frequently used in machinery applications. Due to the Franke 4-point-contact-system the take equal loads from all directions. The slide resistance can be adjusted and re-adjusted to any given I

Portal robot

Franke recirculating aluminium linear guides are the best solution for building portal robots. Light and durably they fit together with the aluminium profiled mating structure which is used more and more in modern robot design. A special individual systems for individual applications: ground raceways, endless coupling of rails, high load capacity, please consult us !

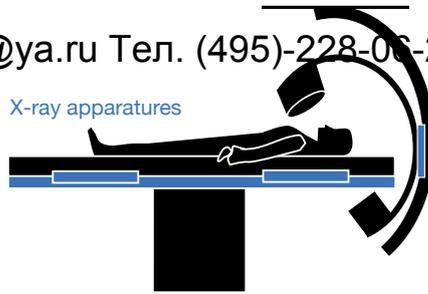
*A special individual systems ... for individual applications:
ground raceways*

*... please consult us
for your further information !*

*Alu endless coupling of rails
high load capacity*



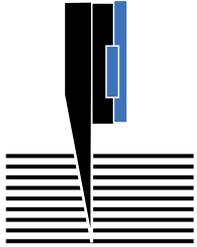
Satellite technology



X-ray apparatuses



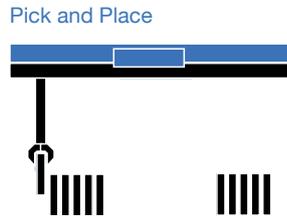
Food industry



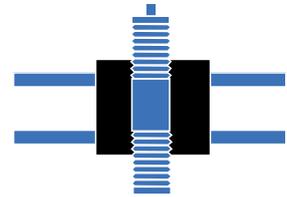
Cutting machine



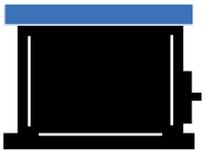
Car industry



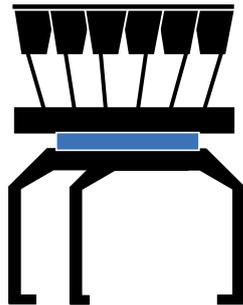
Pick and Place



Portal robot



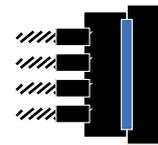
Industrial rotary table



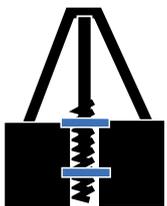
Circular knitting machine



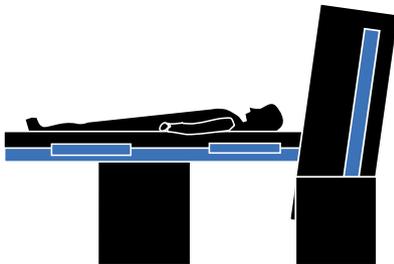
Packing machine



Tool changer



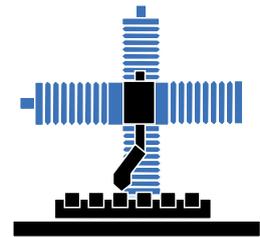
Deep-well drilling installation



Patient's bed



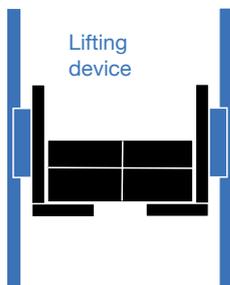
Stirring



Laser cutting



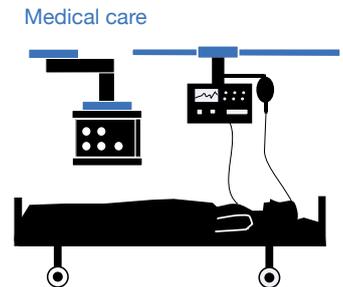
Clean room



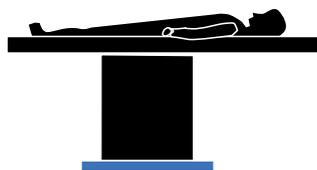
Lifting device



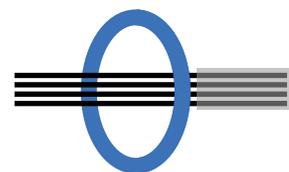
Measuring and testing



Medical care

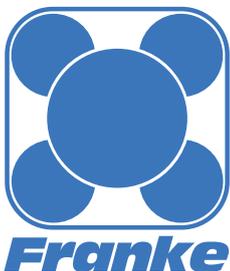


Operation table

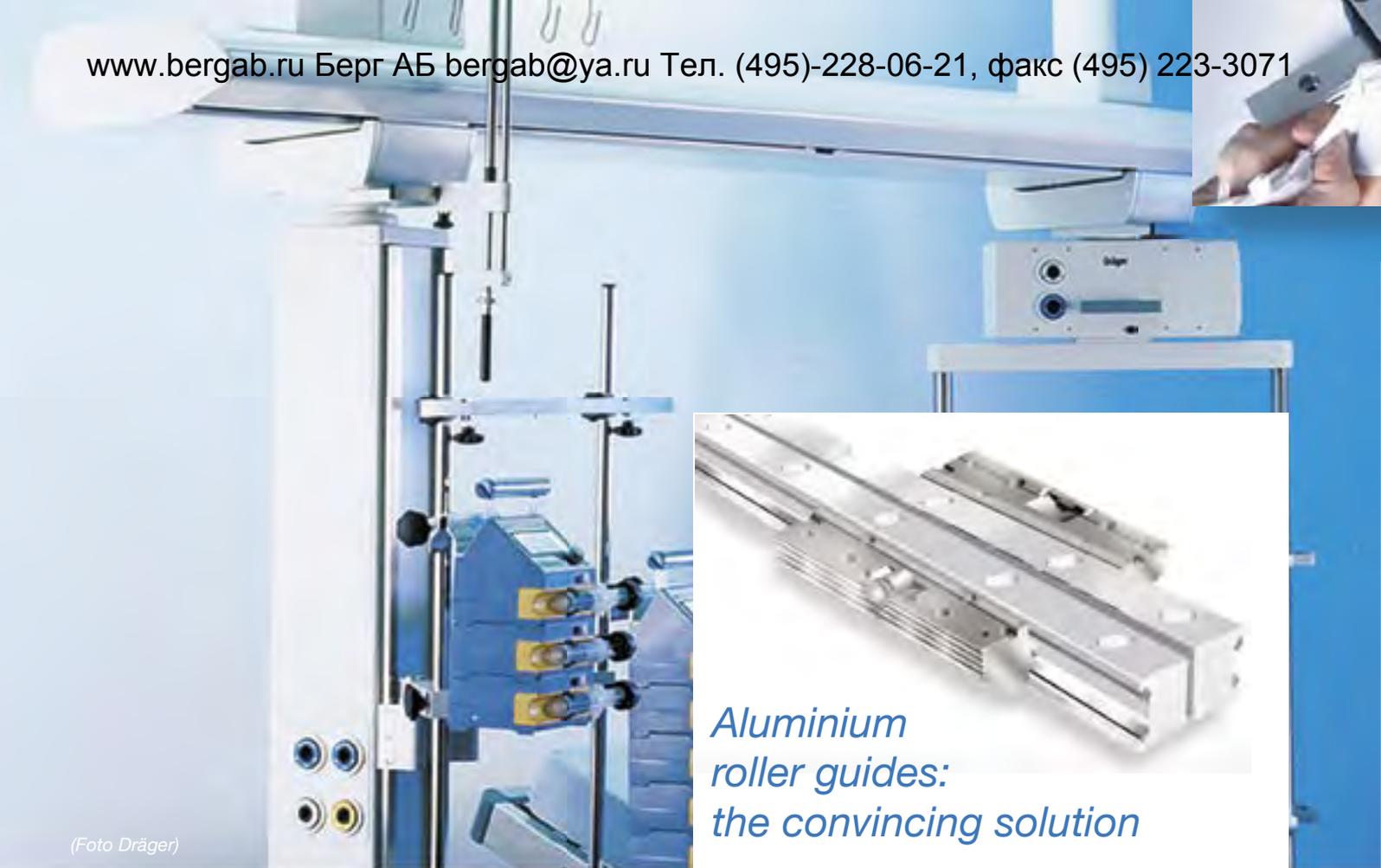


Wrapping machine

Competence for moving



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Telefax 07361 / 920-120
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www.franke-gmbh.de



(Foto Dräger)



Aluminium roller guides: the convincing solution

- Smooth and easy running
- Maintenance-free
- Grease-free
- Light aluminium design
- Numerous variants (non-corrosive, non-magnetic)
- Adjustable and re-adjustable
- Best cost-performance-ratio

grease-free
light
long lifetime



Adjustable slide resistance for different load situations.

Huge dimensioned rollers for smooth and easy running and for loads from all directions.

Detachable plastic wipers with felt inlay or metal inlay (option).

Aluminium body with special surface coating for clean room, medical technique, food industries or vacuum.

Ground raceways made of non-corrosive steel or non-magnetic steel.



A clean job:
the grease-free version of
Franke aluminium roller guides



Patient bed

Franke Aluminium roller guides for the lift movement on the magnetic resonance system. The compact and space saving design and silent running behaviour help to reduce stress-influences for the patient and the personnel. A clearance-free run and the exact positioning of the patient's couch is achieved. The guide system is maintenance free, the examination results are not influenced. Besides the aluminium roller guide is light and compact and has an especially silent running behaviour.
(Foto Trumpf)



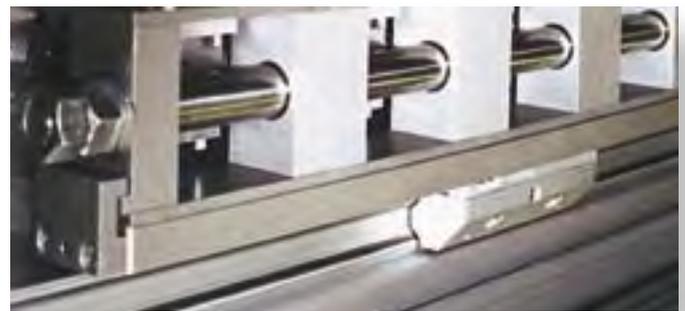
Climate chamber

The guide is used for a lifting movement of the samples in vertical direction. The guide is exposed to big temperature changes between 0°C up to 90°C and a high air humidity up to 90%. A minimum slide resistance is the precondition for the small dimensioned traction modules. The stainless steel version is resistant against humid and aggressive environment. The single-row ball bearings guarantee a low slide resistance (0,2-0,4N).
(Foto Kendro)



Dental X-ray unit

Aluminium roller guide with a customized cassette design in a dental x-ray-unit. Highest precision and small mounting space guarantee perfect results.
(Foto Sirona)



Medical production

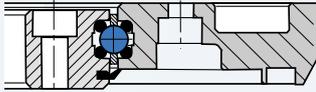
Push-and-pull device for injection ampoules. A linear guide is needed for the exact positioning of injection ampoules. The guide has to be suitable for the hygienic environment. The aluminium roller guide features a smooth and easy run - the exact positioning of the ampoules is provided. Due to the clean lifetime lubrication and the sealed bearings there is no contamination through lubricant.
(Foto Knoske)

Individual system

... for your individual application

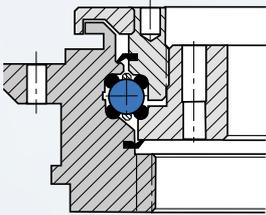
Niro non-magnetic Standard
non-corrosive ... please consult us for your
grease-free further information
Low-Cost

Franke customized antifriction bearings ... as individual as your application



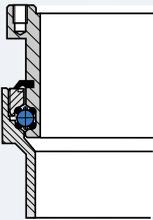
Ball-Ø: 9,5mm
Bearing-Ø: 900mm

Free selection of the housing materials enables you to use special parts for clean room or vacuum. The housing parts can be designed freely. We supply race rings and balls in various material.



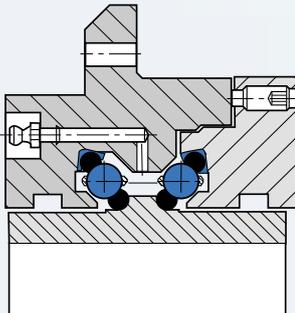
Ball-Ø: 12mm
Bearing-Ø: 780mm

4-point-contact ball bearing with several seals. The housing parts are made of non-corrosive steel.



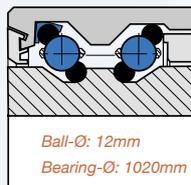
Ball-Ø: 6mm
Bearing-Ø: 240mm

There is no way to design a more space-saving bearing into an aluminium housing than with Franke bearing elements. High loads and precision due to the steel race rings.

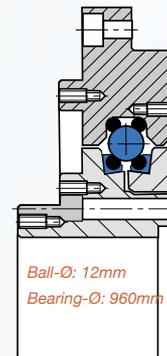


Ball-Ø: 12mm
Bearing-Ø: 1060mm

Today bearings for CT-scanners are made by Franke. The patent Flüsterlager with race rings embedded in Elastomer guarantees smooth and silent running together with excellent precision and high speed. Inner and outer ring are electrically isolated from each other. Made of aluminium the reduced weight helps to save energy.

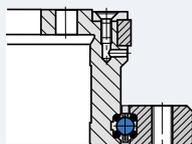


Ball-Ø: 12mm
Bearing-Ø: 1020mm



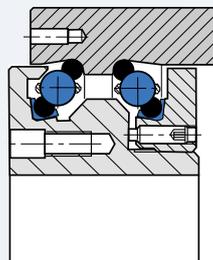
Ball-Ø: 12mm
Bearing-Ø: 960mm

4-point-contact ball bearings can be designed in various shapes. The arrangement of the race rings is relevant for the load capacity. Above you can see a 35°-arrangement for equal loads from all directions.



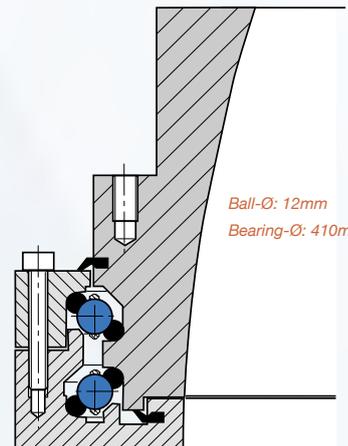
Ball-Ø: 6mm
Bearing-Ø: 138mm

There is no way to design a more space-saving bearing into an aluminium housing than with Franke bearing elements. High loads and precision due to the steel race rings.



Ball-Ø: 12mm
Bearing-Ø: 1060mm

4-point-contact ball bearing with several seals. The housing parts are made of non-corrosive steel.



Ball-Ø: 12mm
Bearing-Ø: 410mm

Take a look at this survey of successful bearing design. Together with our customers we always found the ideal solution for any special application. Small mounting space and the free selection of the housing material are the key benefits for you. These features give you the freedom in designing your mating structure.

Your benefit:

- Customized design
- Free material selection
- Clean room application
- Low particle emission
- Best cost-performance-ratio



Franke aluminium linear guides: ... for light constructions and high dynamics

Franke aluminium linear guides harmonize perfectly with aluminium mating structures in all fields of handling, pick-and-place, packaging and food industries as well as in fields of clean room and medical technique.

Due to its silent and easy running combined with high precision and load capacity the Franke aluminium linear guide has become the preferable guide system.

The huge dimensioned rollers accelerate quickly and move the cassette save and steadily. The slide resistance is adjustable and re-adjustable. High performance needle bearings lower the friction even with heavy loads.

Your benefit:

- *Aluminium light weight design*
- *Smooth and silent running*
- *Endless strokes*
- *$V_{max} > 10m/s$, high dynamical*
- *Best cost-performance-ratio*

Franke Aluminium roller guides are available in two different versions



Double rail & cassette

With double rails and cassettes we supply you with a ready-to-use adjusted linear guide system. The slide resistance of the cassette can be re-adjusted whenever needed.

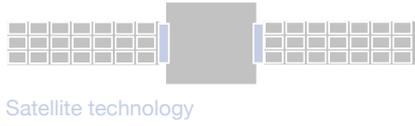


Pair of single rails & pair of roller shoes

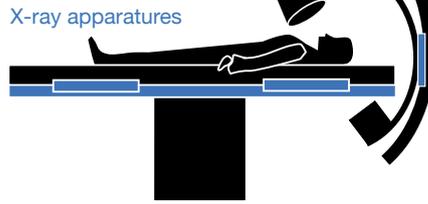
With pairs of single rails & pairs of roller shoes the aluminium roller guide becomes an integrated part of your construction. This is the most space-saving solution with free selectable guide width and a favourable price.

The patented Franke system called guided Roller, which causes the roller to keep its best position along the track, moves the Franke aluminium roller guide smooth and steady with every load it has to bear.





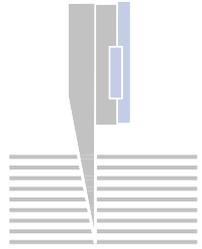
Satellite technology



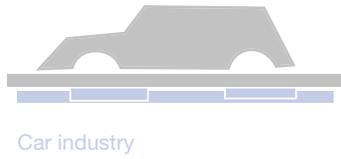
X-ray apparatuses



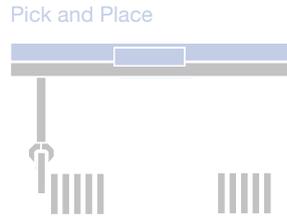
Food industry



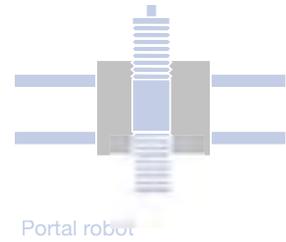
Cutting machine



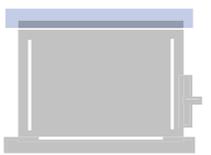
Car industry



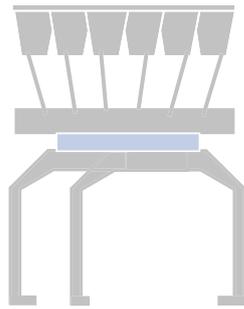
Pick and Place



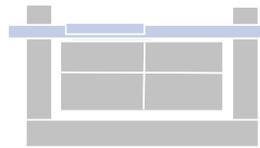
Portal robot



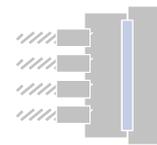
Industrial rotary table



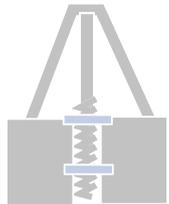
Circular knitting machine



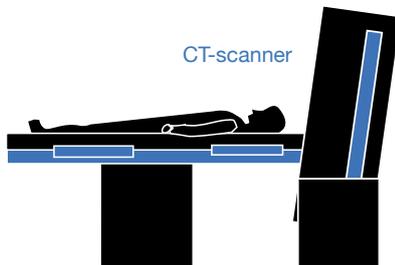
Packing machine



Tool changer



Deep-well drilling installation

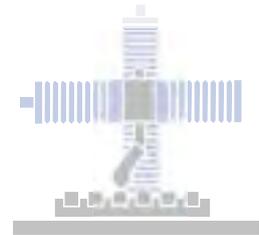


CT-scanner

Patient's bed



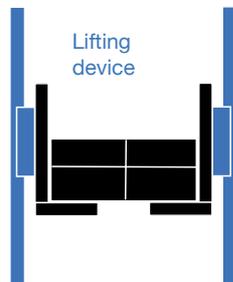
Stirring



Laser cutting



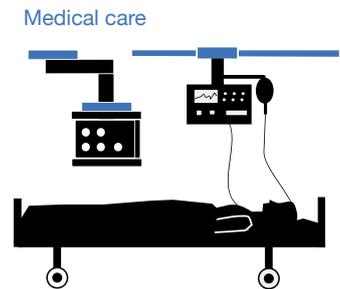
Clean room



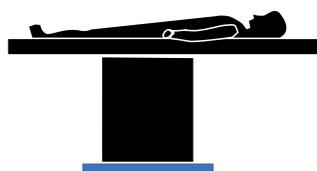
Lifting device



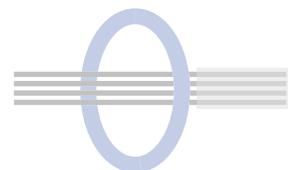
Measuring and testing



Medical care



Operation table



Wrapping machine

Competence for moving



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