

## Linear Bearings

## Linear Motion

### INA Linear Ball Bushings

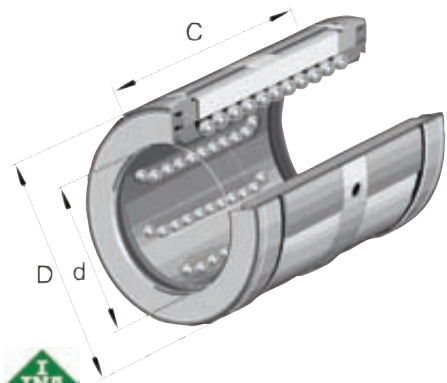
#### KS Light Series With Self Alignment



- Segmented design
- Increased load capacity
- Available with gap seals KS and KSO
- Available with open outer ring KSO or KSO...PP
- Available with contact seals KS...PP and KSO...PP
- Available with housings

Product Code	Internal Diameter	External Diameter	Length
KS12	12	22	32
KS16	16	26	36
KS20	20	32	45
KS25	25	40	58
KS30	30	47	68
KS40	40	62	80
KS50	50	75	100

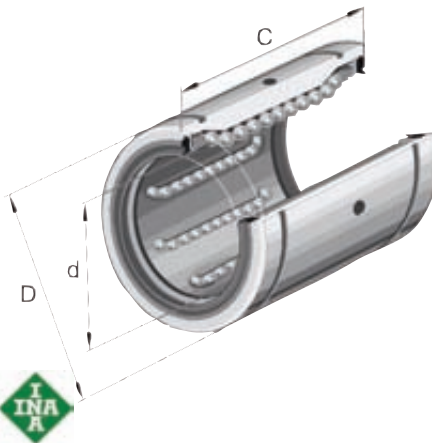
#### KN Light Series With Self Alignment



- High load carrying capacity
- Can tolerate misalignment
- Available with open outer ring KNO
- Available with gap seals KN, KNO
- Available with contact seals KN...PP, KNO...PP
- Available with housings
- Available in corrosion-resistant version

Product Code	Internal Diameter	External Diameter	Length
KN1232	12	22	32
KN1636	16	26	36
KN2045	20	32	45
KN2558	25	40	58
KN3068	30	47	68
KN4080	40	62	80
KN50100	50	75	100

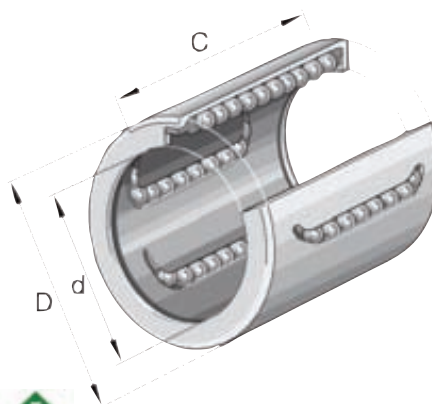
#### KB Heavy Series



- Heavy range, high rigidity, high accuracy
- Smooth low friction running
- Also available with open or split outer ring KBO or KBS
- Available with gap seals or contact seals
- Available with housings
- Available as corrosion-resistant version

Product Code	Internal Diameter	External Diameter	Length
KB1232	12	22	32
KB1636	16	26	36
KB2045	20	32	45
KB2558	25	40	58
KB3068	30	47	68
KB4080	40	62	80
KB50100	50	75	100

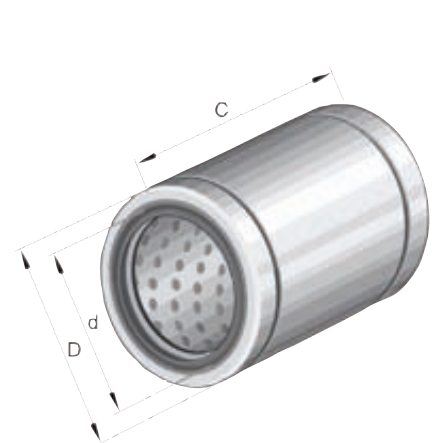
#### KH Compact Series



- Compact range
- A low radial section height
- KH supplied with gap seals
- Available with contact seals KH...PP
- Available with housings
- Corrosion-resistant design available, suffix RR

Product Code	Internal Diameter	External Diameter	Length
KH0622	6	12	22
KH0824	8	15	24
KH1026	10	17	26
KH1228	12	19	28
KH1428	14	21	28
KH1630	16	24	30
KH2030	20	28	30
KH2540	25	35	40
KH3050	30	40	50
KH5070	50	62	70

#### PAB Plain Bearing Series



- Linear plain bearing with Permaglide bush
- Supports high static loads
- Low sensitivity to contamination
- Sealed as standard
- Available with housing
- Available as corrosion-resistant version

Product Code	Internal Diameter	External Diameter	Length
PAB1232PPAS	12	22	32
PAB1636PPAS	16	26	36
PAB2045PPAS	20	32	45
PAB2558PPAS	25	40	58
PAB3068PPAS	30	47	68
PAB4080PPAS	40	62	80
PAB50100PPAS	50	75	100

### Thomson Ball Bushings

#### MultiTrac Ball Bushing



- Patented multiple track design with up to twice the load carrying capacity or 8 times the life of conventional ball bushings
- Rigid design for minimal deflection assuring accurate precise positioning
- Coefficient of friction as low as 0.001
- Patented ball control technology which eliminates binding and chatter common to high friction plain bearings and sliding way bearings
- Steady state speeds up to 3m/second and acceleration up to 15m/s<sup>2</sup> without the use of derating factors
- Wear resistant engineered polymer retainers to reduce inertia and noise levels
- Closed adjustable and open configurations available with or without seals

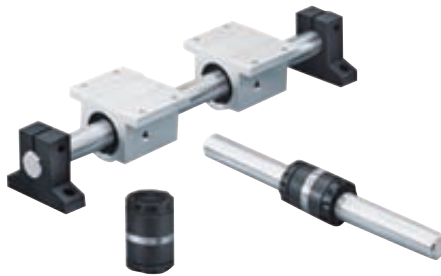
Product Code	Internal Diameter	External Diameter	Length
MAM08	8	16	25
MAM12	12	22	32
MAM16	16	26	36
MAM20	20	32	45
MAM25	25	40	58

Product Code	Internal Diameter	External Diameter	Length
MAM30	30	47	68
MAM40	40	62	80
<b>With Seals</b>			
MAM08WW	8	16	25
MAM12WW	12	22	32
MAM16WW	16	26	36
MAM20WW	20	32	45
MAM25WW	25	40	58
MAM30WW	30	47	68
MAM40WW	40	62	80
<b>Adjustable Type</b>			
MAM08ADJ	8	16	25
MAM12ADJ	12	22	32
MAM16ADJ	16	26	36
MAM20ADJ	20	32	45
MAM25ADJ	25	40	58
MAM30ADJ	30	47	68
MAM40ADJ	40	62	80
<b>Adjustable Type With Seals</b>			
MAM08ADJWW	8	16	25
MAM12ADJWW	12	22	32
MAM16ADJWW	16	26	36
MAM20ADJWW	20	32	45
MAM25ADJWW	25	40	58
MAM30ADJWW	30	47	68
MAM40ADJWW	40	62	80
<b>Open Type</b>			
MAM120PN	12	22	32
MAM160PN	16	26	36
MAM250PN	25	40	58
MAM300PN	30	47	68
MAM400PN	40	62	80
<b>Open Type With Seals</b>			
MAM120PNWW	12	22	32
MAM160PNWW	16	26	36
MAM200PNWW	20	32	45
MAM250PNWW	25	40	58
MAM300PNWW	30	47	68
MAM400PNWW	40	62	80

**Please contact  
your local Sales  
and Service  
Centre for all  
your Bearing  
requirements**



### ASBM Metric Shaft Support Block



- Size range between 8mm and 40mm
- Easily secured with two mounting bolts
- Used for end or intermittent support where loads are designed with a reference edge on one side of the base
- Can be shimmed in high precision applications to eliminate variations in the mounting surface

Product Code	Shaft Diameter	Base to Centre Height	Height	Width	Bolt centres
ASBM08	8	15	28	32	22
ASBM12	12	20	36	43	30
ASBM16	16	25	43	53	38
ASBM20	20	30	51	60	42
ASBM25	25	35	61	78	56
ASBM30	30	40	71	87	64
ASBM40	40	50	88	108	82

### Super Smart Ball Bushing

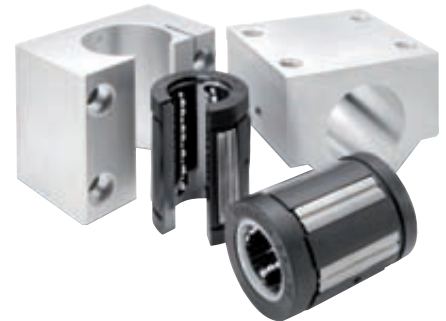


- Up to 6 times the load capacity or 216 times the travel life of a conventional ball bushing
- Twice the load capacity or 8 times the travel life of the standard Super ball bushing
- Universal self-alignment feature that compensates for misalignment of housing bores and shaft deflection
- Technologically advanced design that allows the bearing to maintain its diametrical fit up when installed in a housing that is slightly out of round
- Up to 400% longer shaft life and minimal machine downtime when replacing conventional bearings
- Coefficient of friction as low as 0.001
- Double lip integral wipers version keeps out contaminants whilst retaining lubrication which maximises travel life
- Open and closed configurations available

Product Code	Internal Diameter	External Diameter	Length
SSEM16	16	26	36
SSEM20	20	32	45
SSEM25	25	40	58

Product Code	Internal Diameter	External Diameter	Length
SSEM30	30	47	68
SSEM40	40	62	80
<b>With Seals</b>			
SSEM16WW	16	26	36
SSEM20WW	20	32	45
SSEM25WW	25	40	58
SSEM30WW	30	47	68
SSEM40WW	40	62	80
<b>Open Type</b>			
SSEM160PN	16	26	36
SSEM200PN	20	32	45
SSEM250PN	25	40	58
SSEM300PN	30	47	68
SSEM400PN	40	62	80
<b>Open Type With Seals</b>			
SSEM160PNWW	16	26	36
SSEM200PNWW	20	32	45
SSEM250PNWW	25	40	58
SSEM300PNWW	30	47	68
SSEM400PNWW	40	62	80

### Super Smart Pillow Block



- Up to 6 times the load capacity or 216 times the travel life of a conventional pillow block
- Replaceable bearing components for quick cost effective machine maintenance and minimal downtime
- Self aligning in all directions minimising installation time and cost
- Standard double acting integral seals at both ends which keep out dirt grit and other contaminants retain lubrication and maximise bearing life
- Tapped or through hole mounting configuration for ease of installation
- The twin version has 2 SuperSmart ball bushings which provide twice the load capacity or 8 times more travel life than the single version
- Closed adjustable or open types available

Product Code	To Suit Shaft Diameter	Height	Length	Width
SPPBM08	8	28	32	35
SPPBM12	12	35	39	43
SSEPBM16DD	16	42	43	53
SSEPBM20DD	20	50	54	60
SSEPBM25DD	25	60	67	78
SSEPBM30DD	30	71	79	87
SSEPBM40DD	40	91	91	108
<b>Closed Adjustable Type</b>				
SPPBAM08	8	28	32	35
SPPBAM12	12	35	39	43
SSEPBAM16DD	16	42	43	53
SSEPBAM20DD	20	50	54	60
SSEPBAM25DD	25	60	67	78
SSEPBAM30DD	30	71	79	87
SSEPBAM40DD	40	91	91	108

Product Code	To Suit Shaft Diameter	Height	Length	Width
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**Open Type**

SPPBOM12	12	28	39	43
SSEPBOAM16DD	16	35	43	53
SSEPBOAM20DD	20	42	54	60
SSEPBOAM25DD	25	51	67	78
SSEPBOAM30DD	30	60	79	87
SSEPBOAM40DD	40	77	91	108

**Open Adjustable Type**

SPPBOAM12	12	28	39	43
SSEPBOAM16DD	16	35	43	53
SSEPBOAM20DD	20	42	54	60
SSEPBOAM25DD	25	51	67	78
SSEPBOAM30DD	30	60	79	87
SSEPBOAM40DD	40	77	91	108

**Twin Closed Type**

SPTWNM08	8	28	62	35
SPTWNM12	12	35	76	43
SSETWNM16DD	16	42	84	53
SSETWNM20DD	20	50	104	60
SSETWNM25DD	25	60	130	78
SSETWNM30DD	30	71	152	87
SSETWNM40DD	40	91	176	108

**Twin Closed Adjustable Type**

SPTWNAM08	8	28	62	35
SPTWNAM12	12	35	76	43
SSETWNAM16DD	16	42	84	53
SSETWNAM20DD	20	50	104	60
SSETWNAM25DD	25	60	130	78
SSETWNAM30DD	30	71	152	87
SSETWNAM40DD	40	91	176	108

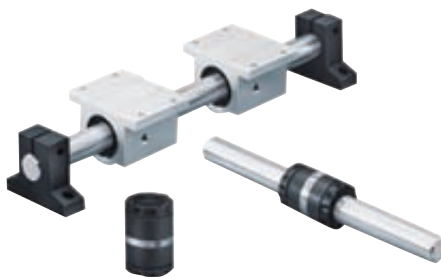
**Twin Open Type**

SPTWNOM12	12	28	76	43
SSETWNOM16DD	16	35	84	53
SSETWNOM20DD	20	41	104	60
SSETWNOM25DD	25	50	130	78
SSETWNOM30DD	30	60	152	87
SSETWNOM40DD	40	77	176	108

**Twin Open Adjustable Type**

SPTNOAM12	12	28	76	43
SSETWNOAM16DD	16	35	84	53
SSETWNOAM20DD	20	41	104	60
SSETWNOAM25DD	25	50	130	78
SSETWNOAM30DD	30	60	152	87
SSETWNOAM40DD	40	77	176	108

**We hold  
over 100,000  
bearings in  
stock**

**SBM Metric Shaft Support Block**

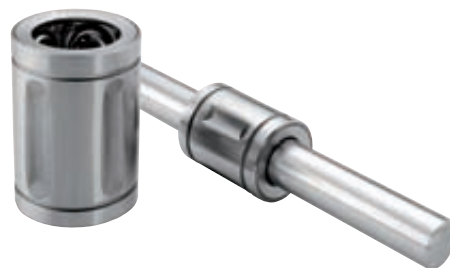
- Size range between 8mm and 40mm
- Easily secured with two mounting bolts
- Used for end or intermittent support where loads are light and shaft deflection is not a problem
- Can be shimmed in high precision applications to eliminate variations in the mounting surface

Product Code	Shaft Diameter	Base to Centre Height	Height	Width	Bolt Centres
SBM08	8	15	27	32	25
SBM12	12	20	35	40	32
SBM16	16	25	42	50	40
SBM20	20	30	50	60	45
SBM25	25	35	58	74	60
SBM30	30	40	68	84	68
SBM40	40	50	86	108	86

**Thomson 60 Case Linear Shaft**

- Case hardness 60 HRC minimum
- Diameters available from between 5 to 80mm (nominal)
- Standard straightness is .0254 mm per foot cumulative (.052mm TIR)
- Roundness .0020mm Class MM
- Surface finish 8 Ra max
- Available in corrosion resistant 440C stainless steel (50 HRC minimum)
- Can be supplied in lengths up to 4 mtrs long (Except Ø 5mm)
- Can be machined to customer specification

Product Code	Ø dia/Tolerance (mm)	Min. Usable Length (mm)
5MM	5.00/4.49	1905
8MM	8.00/7.99	4000
10MM	10.00/9.99	4000
12MM	12.00/11.99	4000
15MM	15.00/14.99	4000
16MM	16.00/15.99	4000
20MM	20.00/19.99	4000
25MM	25.00/24.99	4000
30MM	30.00/29.99	4000
40MM	40.00/39.99	4000
50MM	50.00/49.98	4000
60MM	60.00/59.98	4000
80MM	80.00/79.97	4000

**Imperial Ball Bushing Closed Type**

- All steel construction for maximum system rigidity
- Steady state travel speeds of up to 10ft/second
- Accelerations of up to 450ft/s<sup>2</sup> possible without the use of derating factors
- High operating temperatures
- Coefficient of friction as low as 0.001

Product Code	Internal Diameter	External Diameter	Length
A4812	1/4	1/2	3/4
A61014	3/8	5/8	7/8
A81420	1/2	7/8	1-1/4
A101824	5/8	1-1/8	1-1/2
A122026	3/4	1-1/4	1-5/8
A162536	1	1-9/16	2-1/4
A203242	1-1/4	2	2-5/8
A243848	1-1/2	2-3/8	3
A324864	2	3	4
A406080	2-1/2	3-3/4	5
A487296	3	4-1/2	6
A6496128	4	6	8

**Imperial Ball Bushing Open Type**

- For use on fully supported shaft systems
- All steel construction for maximum system rigidity
- Steady state travel speeds of up to 10ft/second
- High operating temperatures
- Coefficient of friction as low as 0.001
- Can be mounted in a custom housing
- Can be adjusted to remove clearance between the bushing and the shaft

Product Code	Internal Diameter	External Diameter	Length
OPN81420	1/2	7/8	1-1/4
OPN101824	5/8	1-1/8	1-1/2
OPN122026	3/4	1-1/4	1-5/8
OPN162536	1	1-9/16	2-1/4
OPN203242	1-1/4	2	2-5/8
OPN243848	1-1/2	2-3/8	3
OPN324864	2	3	4
OPN406080	2-1/2	3-3/4	5
OPN487296	3	4-1/2	6
OPN6496128	4	6	8



## Imperial Ball Bushing Adjustable Type



- All steel construction for maximum system rigidity
- Steady state travel speeds of up to 10ft/second
- Accelerations of up to 450ft/s<sup>2</sup> possible without the use of derating factors
- High operating temperatures
- Coefficient of friction as low as 0.001
- Adjustment capability provides minimum shaft and bearing clearance for improved positioning accuracy and repeatability

Product Code	Internal Diameter	External Diameter	Length
ADJ81420	1/2	7/8	1-1/4
ADJ101824	5/8	1-1/8	1-1/2
ADJ122026	3/4	1-1/4	1-5/8
ADJ162536	1	1-9/16	2-1/4
ADJ203242	1-1/4	2	2-5/8
ADJ243848	1-1/2	2-3/8	3
ADJ324864	2	3	4
ADJ406080	2-1/2	3-3/4	5
ADJ487296	3	4-1/2	6
ADJ6496128	4	6	8

## Imperial Super Smart Ball Bushing



- Up to 6 times the load capacity or 216 times the travel life of a conventional ball bushing
- Twice the load capacity or 8 times the travel life of the standard super ball bushing
- Universal self-alignment feature that compensates for misalignment of housing bores and shaft deflection
- Technologically advanced design that allows the bearing to maintain its diametrical fit up when installed in a housing that is slightly out of round
- Up to 400% longer shaft life and minimal machine downtime when replacing conventional bearings
- Coefficient of friction as low as 0.001
- Double lip integral wipers version keeps out contaminants whilst retaining lubrication which maximises travel life
- Open and closed configurations available

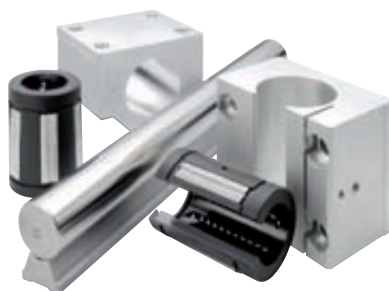
Product Code	Internal Diameter	External Diameter	Length
SSU10	5/8	1-1/8	1-1/2
SSU12	3/4	1-1/4	1-5/8
SSU16	1	1-9/16	2-1/4
SSU20	1-1/4	2	2-5/8
SSU24	1-1/2	2-3/8	3
<b>With Seals</b>			
SSU10WW	5/8	1-1/8	1-1/2
SSU12WW	3/4	1-1/4	1-5/8

Product Code	Internal Diameter	External Diameter	Length
SSU16WW	1	1-9/16	2-1/4
SSU20WW	1-1/4	2	2-5/8
SSU24WW	1-1/2	2-3/8	3
<b>Open Type</b>			
SSU100PN	5/8	1-1/8	1-1/2
SSU120PN	3/4	1-1/4	1-5/8
SSU160PN	1	1-9/16	2-1/4
SSU200PN	1-1/4	2	2-5/8
SSU240PN	1-1/2	2-3/8	3

## Open Type With Seals

SSU100PNWW	5/8	1-1/8	1-1/2
SSU120PNWW	3/4	1-1/4	1-5/8
SSU160PNWW	1	1-9/16	2-1/4
SSU200PNWW	1-1/4	2	2-5/8
SSU240PNWW	1-1/2	2-3/8	3

## Imperial Super Ball Bushing

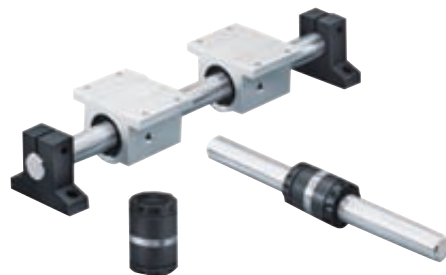


- Self aligning capability of up to 0.5° compensating for inaccuracies in base flatness or carriage machining
- Travel speeds of up to 10ft/s without a reduction in load capacity
- Lightweight wear resistant engineered polymer retainers and outer sleeves that reduce inertia and noise
- A constant coefficient of friction as low as 0.001
- Also available in open configuration for continuously supported applications
- DD integral sealed versions available

Product Code	Internal Diameter	External Diameter	Length
SUPER4	1/4	1/2	3/4
SUPER6	3/8	5/8	7/8
SUPER8	1/2	7/8	1-1/4
SUPER10	5/8	1-1/8	1-1/2
SUPER12	3/4	1-1/4	1-5/8
SUPER16	1	1-9/16	2-1/4
SUPER20	1-1/4	2	2-5/8
SUPER24	1-1/2	2-3/8	3
SUPER32	2	3	4

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## SB Imperial Shaft Support Block



- Size range between 1/4" and 2"
- Easily secured with two mounting bolts
- Malleable iron alloy for sizes 1/2" to 2" diameter, aluminium alloy for sizes 1/4" to 3/8"
- Used for end or intermittent support where loads are light and shaft deflection is not a problem.
- Can be shimmed in high precision applications to eliminate variations in the mounting surface

Product Code	Shaft Diameter - inch	Height - inch	Width - inch	Bolt centres - inch +/- .010
SB-4	.250	1.06	1.50	1.125
SB-6	.375	1.19	1.63	1.250
SB-8	.500	1.63	2.00	1.500
SB-10	.625	1.75	2.50	1.875
SB-12	.750	2.13	2.75	2.000
SB-16	1.000	2.56	3.25	2.500
SB-20	1.250	3.00	4.00	3.000
SB-24	1.500	3.50	4.75	3.500
SB-32	2.000	4.50	6.00	4.500

## SR Support Rail



- Diameter range between 1/2" and 2"
- Available with standard mounting holes for immediate use
- Available without mounting holes for customised hole spacing
- Light weight, high strength aluminium alloy rail
- Available as a pre-engineered, ready to install assembly
- Unlimited travel lengths

## Thomson 60 Case Imperial Shafting





- Sizes available from between 3/16" and 4"
- Standard straightness is .001 inch per foot cumulative (.002 TIR) with special straightness at .0005 inch per foot cumulative (.001 TIR) available
- Roundness 80 millionths of an inch
- Case hardness 60 HRC minimum
- Surface finish 8 Ra microinch
- Available in corrosion resistant 440C stainless steel (50 HRC minimum)
- Machined or cut to length options available
- Other sizes, grades & materials available on request - contact your local Brammer branch for details

Product Code	Ø dia/Tolerance (inch)	Max length (inch)	Mass per inch (lbs)
3/16L	.1870/.1865	22	.008
1/4L	.2495/.2490	94	.014
3/8L	.3745/.3740	166	.031
1/2L	.4995/.4990	166	.055
5/8L	.6245/.6240	178	.086
3/4L	.7495/.7490	178/202	.125
7/8L	.8745/.8740	178	.170
1L	.9995/.9990	178/202	.222
1-1/8L	1.1245/1.1240	178	.281
1-1/4L	1.2495/1.2490	178/202	.348
1-3/8L	1.3745/1.3740	178	.420
1-1/2L	1.4994/1.4989	178/202	.500
1-5/8L	1.6245/1.6240	178	.587
1-3/4L	1.7495/1.7490	178	.681
2L	1.9994/1.9987	178/202	.890
2-1/4L	2.2494/2.2487	178/202	1.153
2-1/2L	2.4993/2.4985	178/202	1.391
3L	2.9992/2.9983	178/202	2.003
3-1/2L	3.4990/3.4980	202	2.726
4L	3.9988/3.9976	202	3.560

#### Thomson 60 Case Tubular Shafting



- Sizes available from between 3/4" and 4"
- Standard straightness is .001 inch per foot cumulative (.002 TIR) with special straightness at .0005 inch per foot cumulative (.001 TIR) available
- Roundness 80 millionths of an inch
- Hollow inner diameter reduces weight and inertia
- Case hardness 58 HRC minimum
- Surface finish 8 Ra microinch
- Machined or cut to length options available
- Other sizes, grades & materials available on request - contact your local Brammer branch for details

Product Code	Ø dia/Tolerance (inch)	Nominal I.D (inch) +/-5%	Max length (inch)	Mass per inch (lbs)
3/4 LTU	.7495/.7490	.438	142	.0754
1 LTU	.9995/.9990	.599	173	.158
1-1/2 LTU	1.4994/1.4989	.890	173	.328
2 LTU	1.9994/1.9987	1.250	173	.542
2-1/2 LTU	2.4993/2.4985	1.750	173	.749
3 LTU	2.9992/2.9983	2.000	173	1.112
4 LTU	3.9988/3.9976	3.000	173	1.558

#### LSR Support Rail



- Diameter range between 1/2" and 4"
- Low profile design
- Available with standard mounting holes for immediate use
- Available without mounting holes for customised hole spacing
- Unlimited travel lengths

#### LSRA Support Rail Assembly



- Diameter range between 5/8" and 1-1/2"
- Single piece lengths up to 15 feet long
- Low profile design
- Bolt-down-from-the-top design

#### Bosch Rexroth Ball Bushings

##### Standard Closed Sealed Version



- High load and speed capacity
- Hardened and ground outer sleeve
- Balls of anti-friction bearing steel
- Seals at both ends
- Closed version for use on unsupported shaft
- Suitable for applications with high contamination
- High temperature applications up to 100°C

Product Code	Internal Diameter	External Diameter	Length
R0602-305-10	5	12	22
R0602-308-10	8	16	25
R0602-310-10	10	19	29
R0602-012-10	12	22	32
R0602-016-10	16	26	36
R0602-020-10	20	32	45
R0602-025-10	25	40	58
R0602-030-10	30	47	68
R0602-040-10	40	62	80
R0602-050-10	50	75	100

#### Compact Closed Sealed Version



- Low cost ball bushings
- Small compact overall dimensions
- Easy assembly - Just press in
- High travel speed - 5m/second

Product Code	Internal Diameter	External Diameter	Length
R0658-208-40	8	15	24
R0658-210-40	10	17	26
R0658-212-40	12	19	28
R0658-216-40	16	24	30
R0658-220-40	20	28	30
R0658-225-40	25	35	40
R0658-230-40	30	40	50
R0658-240-40	40	52	60
R0658-250-40	50	62	70

#### Compact Closed Sealed Version Corrosion Resistant



- Corrosion resistant bearing steel ISO683-17/EN10088
- Small compact overall dimensions
- Easy assembly - Just press in
- High travel speed - 5m/second

Product Code	Internal Diameter	External Diameter	Length
R0658-208-30	8	15	24
R0658-210-30	10	17	26
R0658-212-30	12	19	28
R0658-216-30	16	24	30
R0658-220-30	20	28	30
R0658-225-30	25	35	40
R0658-230-30	30	40	50
R0658-240-30	40	52	60
R0658-250-30	50	62	70

#### Super "A" Closed Bushing With Self Alignment



- High performance great value low cost bushing
- Automatic compensation of alignment errors up to 30°
- Steel inserts with polished ball tracks
- Unbeatable quiet operation and long lifespan
- High travel speeds 5m/second

Product Code	Internal Diameter	External Diameter	Length
R0670-212-40	12	22	32
R0670-216-40	16	26	36
R0670-220-40	20	32	45
R0670-225-40	25	40	58
R0670-230-40	30	47	68
R0670-240-40	40	62	80
R0670-250-40	50	75	100



Contact Brammer on 0870 240 2100

Linear Bearings 63

## Super "A" Open Bushing With Self Alignment



**Rexroth**  
Bosch Group

- High performance great value low cost bushing
- Automatic compensation of alignment errors up to 30°
- Steel inserts with polished ball tracks
- Unbeatable quiet operation and long lifespan
- High travel speeds 5m/second

Product Code	Internal Diameter	External Diameter	Length
R0671-212-40	12	22	32
R0671-216-40	16	26	36
R0671-220-40	20	32	45
R0671-225-40	25	40	58
R0671-230-40	30	47	68
R0671-240-40	40	62	80
R0671-250-40	50	75	100

## Compact Housed Linear Set With Seals



**Rexroth**  
Bosch Group

- Lightweight precision aluminium housing
- Compact ball bushing type R0658 fitted
- Lubricated with Dynalub 510

Product Code	To Suit Shaft Diameter
R1027-212-44	12mm
R1027-216-44	16mm
R1027-220-44	20mm
R1027-225-44	25mm
R1027-230-44	30mm
R1027-240-44	40mm
R1027-250-44	50mm

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and Service Centre**

## Super "A" Housed Linear Set with Seals



**Rexroth**  
Bosch Group

- Lightweight precision aluminium housing
- Super "A" type R0670 bushing fitted
- Fully sealed
- Easy re-lubrication
- Automatic compensation of alignment errors up to 30°

Product Code	To Suit Shaft Diameter
R1035-610-20	10mm
R1035-612-20	12mm
R1035-616-20	16mm
R1035-620-20	20mm
R1035-625-20	25mm
R1035-630-20	30mm
R1035-640-20	40mm
R1035-650-20	50mm

## SKF Ball Bushings

## LBBR Compact Series



**SKF**

- LBBR.. without seals
  - LBBR..-LS with one seal
  - LBBR..-2LS with two seals
- \*\* Without seal, 4 pieces packed in cassette (sizes 3, 4, 5 only)

Product Code	Internal Diameter	External Diameter	Length	Dynamic Load - N	Static Load - N
LBBR3 (CAS4)**	3	7	10	60	44
LBBR4 (CAS4)**	4	8	12	75	60
LBBR5 (CAS4)**	5	10	15	170	129
LBBR6A	6	12	22	335	270
LBBR8	8	15	24	490	355
LBBR10	10	17	26	585	415
LBBR12	12	19	28	695	510
LBBR14	14	21	28	710	530
LBBR16	16	24	30	930	630
LBBR20	20	28	30	1160	800
LBBR25	25	35	40	2120	1560
LBBR30	30	40	50	3150	2700
LBBR40	40	52	60	5500	4500
LBBR50	50	62	70	6950	6300

## LBBR/HV6 Compact Series Corrosion Resistant



**SKF**

- LBBR/HV6 without seals
  - LBBR-2LS/HV6 with two seals
- \*\* Without seal, 4 pieces packed in cassette (sizes 3, 4, 5 only)

Product Code	Internal Diameter	External Diameter	Length	Dynamic Load - N	Static Load - N
LBBR3/HV6 (CAS4)**	3	7	10	60	44
LBBR4/HV6 (CAS4)**	4	8	12	75	60
LBBR5 (CAS4)**	5	10	15	170	129
LBBR6A/HV6	6	12	22	335	270
LBBR8/HV6	8	15	24	490	355
LBBR10/HV6	10	17	26	585	415
LBBR12/HV6	12	19	28	695	510
LBBR14/HV6	14	21	28	710	530
LBBR16/HV6	16	24	30	930	630
LBBR20/HV6	20	28	30	1160	800
LBBR25/HV6	25	35	40	2120	1560
LBBR30/HV6	30	40	50	3150	2700
LBBR40/HV6	40	52	60	5500	4500
LBBR50/HV6	50	62	70	6950	6300

## LUHR Housed Compact Series



**SKF**

- LUCR.. without seals
- LUCR..-2LS with two seals

Product Code	Shaft Diameter	Length	Width	Base To Centre Height	Height
LUHR12	12	28	40	17	33
LUHR16	16	30	45	19	38
LUHR20	20	30	53	23	45
LUHR25	25	40	62	27	54
LUHR30	30	50	67	30	60
LUHR40	40	60	87	39	76
LUHR50	50	70	103	47	92



## LBCR Standard Series Closed Type



- LBCR..A without seals
- LBCR..-LS with one seal
- LBCR..-2LS with two seals

Product Code	Internal Diameter	External Diameter	Length	Dynamic Load - N	Static Load - N
LBCR5A	5	22	22	280	210
LBCR8A	8	16	25	490	355
LBCR12A	12	22	32	1160	980
LBCR16A	16	26	36	1500	1290
LBCR20A	20	32	45	2240	2040
LBCR25A	25	40	58	3350	3350
LBCR30A	30	47	68	5600	5700
LBCR40A	40	62	80	9000	8150
LBCR50A	50	75	100	13400	12200
LBCR60A	60	90	125	20400	18000
LBCR80A	80	120	165	37500	32000

## LUCR Housed Unit Standard Series Closed Type



- LUCR.. without seals
- LUCR..-2LS with two seals

\*\* Bearings fitted to these units are secured with snap rings to DIN 471 and cannot be relubricated.

Product Code	Shaft Diameter	Length	Width	Base To Centre Height	Height
LUCR8 **	8	25	45	15	28
LUCR12	12	32	52	18	34.5
LUCR16	16	36	56	22	40.5
LUCR20	20	45	70	25	48
LUCR25	25	58	80	30	58
LUCR30	30	68	88	35	67
LUCR40	40	80	108	45	85
LUCR50	50	100	135	50	99
LUCR60	60	125	160	60	118
LUCR80	80	165	205	80	158

## LBCT Standard Series Open Type



- LBCT..A without seals
- LBCT..-LS with one seal
- LBCT..-2LS with two seals

Product Code	Internal Diameter	External Diameter	Length	Dynamic Load - N	Static Load - N
LBCT12A	12	22	32	1160	980
LBCT16A	16	26	36	1500	1290
LBCT20A	20	32	45	2240	2040
LBCT25A	25	40	58	3350	3350
LBCT30A	30	47	68	5600	5700
LBCT40A	40	62	80	9000	8150
LBCT50A	50	75	100	13400	12200
LBCT60A	60	90	125	20400	18000
LBCT80A	80	120	165	37500	32000

## LUCT Housed Unit Standard Series Open Type



- LUCT.. without seals
- LUCT..-2LS with two seals

Product Code	Shaft Diameter	Length	Width	Base To Centre Height	Height
LUCT12	12	32	52	18	28
LUCT16	16	36	56	22	35
LUCT20	20	45	70	25	42
LUCT25	25	58	80	30	51
LUCT30	30	68	88	35	60
LUCT40	40	80	108	45	77
LUCT50	50	100	135	50	88
LUCT60	60	125	160	60	105
LUCT80	80	165	205	80	140

## LBCE Range Self Aligning Closed Type



- LBCE..A without seals
- LBCE..-LS with one seal
- LBCE..-2LS with two seals

Product Code	Internal Diameter	External Diameter	Length	Dynamic Load - N	Static Load - N
LBCE12A	12	22	32	1080	815
LBCE16A	16	26	36	1320	865
LBCE20A	20	32	45	2000	1370
LBCE25A	25	40	58	2900	2040
LBCE30A	30	47	68	4650	3250
LBCE40A	40	62	80	7800	5200
LBCE50A	50	75	100	11200	6950

## LUCE Housed Unit Self Aligning Closed Type



- LUCE.. without seals
- LUCE..-2LS with two seals

Product Code	Shaft Diameter	Length	Width	Base To Centre Height	Height
LUCE12	12	32	52	18	34.5
LUCE16	16	36	56	22	40.5
LUCE20	20	45	70	25	48
LUCE25	25	58	80	30	58
LUCE30	30	68	88	35	67
LUCE40	40	80	108	45	85
LUCE50	50	100	135	50	99

## LBCE Range Self Aligning Open Type



- LBCE..A without seals
- LBCE..-LS with one seal
- LBCE..-2LS with two seals

Product Code	Internal Diameter	External Diameter	Length	Dynamic Load - N	Static Load - N
LBCE12A	12	22	32	1080	815
LBCE16A	16	26	36	1320	865
LBCE20A	20	32	45	2000	1370
LBCE25A	25	40	58	2900	2040
LBCE30A	30	47	68	4650	3250
LBCE40A	40	62	80	7800	5200
LBCE50A	50	75	100	11200	6950



## LUCF Housed Unit Self Aligning Open Type



- LUCF.. without seals
- LUCF..-2LS with two seals

Product Code	Shaft Diameter	Length	Width	Base To Centre Height	Height
LUCF12	12	32	52	18	28
LUCF16	16	36	56	22	35
LUCF20	20	45	70	25	42
LUCF25	25	58	80	30	51
LUCF30	30	68	88	35	60
LUCF40	40	80	108	45	77
LUCF50	50	100	135	50	88
LUCF60	60	125	160	60	105
LUCF80	80	165	205	80	140

## LSCS Shaft Support



Product Code	Shaft Diameter	Depth	Base To Centre Height	Height	Width
LSCS8	8	10	15	25	45
LSCS12	12	12	20	32.5	52
LSCS16	16	15	20	35.5	56
LSCS20	20	20	25	43.5	70
LSCS25	25	28	30	53	80
LSCS30	30	30	34	63	88
LSCS40	40	36	45	81	108
LSCS50	50	49	50	92.5	135
LSCS60	60	62	60	112	160
LSCS80	80	85	80	147.5	205

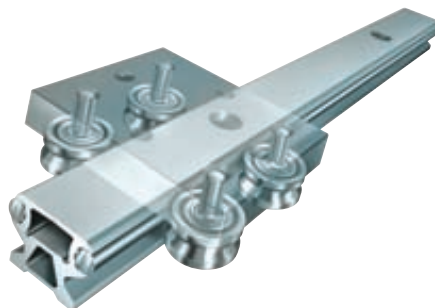
## LSNS Shaft Support



Product Code	Shaft Diameter	Depth	Base To Centre Height	Height	Width
LSNS12	12	20	20	35	43
LSNS16	16	24	25	42	53
LSNS20	20	30	30	50	60
LSNS25	25	38	35	61	78
LSNS30	30	40	40	70	87
LSNS40	40	48	50	90	108
LSNS50	50	58	60	105	132

## INA Track Roller Guidance

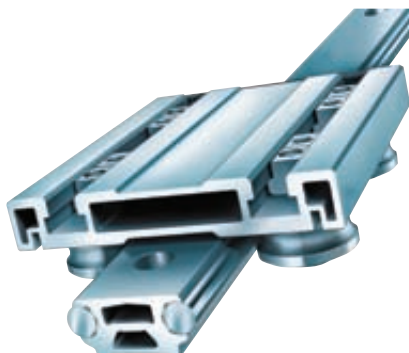
## LFL Open Carriage



- Open style carriage consisting of an anodized aluminium saddle plate with four track rollers and four bolts
- Can be installed in any combination of LFS guideways
- Preset clearance, no adjustment required
- LFS guideways supplied in single or multi piece assemblies
- Guideways sold separately, please specify length required

Product Code	Length	Width	Height
LFL20SF	50	55	20.5
LFL32SF	90	80	30
LFL52SF	100	120	43.2

## LFCL Hollow Carriage



- Hollow section carriage made from anodised, profiled aluminium
- Comprises carriage plate, four bolts, four track rollers, two end covers and eight T-nuts
- Preset clearance, no adjustment required
- Can be installed in any combination with all guideways LFS
- LFS guideways supplied single piece or multi piece

Product Code	Length	Width	Height
LFCL25	110	80	30.5
LFCL42	150	116	38.1
LFCL86	235	190	48.4

## LFDL Bogie Carriage



- Bogie carriage suitable for running on curved LFS..R guideways and straight guideways LFS
- Comprises steel saddle plate, two swivel aluminium brackets, four track rollers, two concentric bolts, two eccentric bolts

Product Code	Length	Width	Height
LFDL32	100	80	43
LFDL52	150	120	65.3

## LFKL Compact Carriage

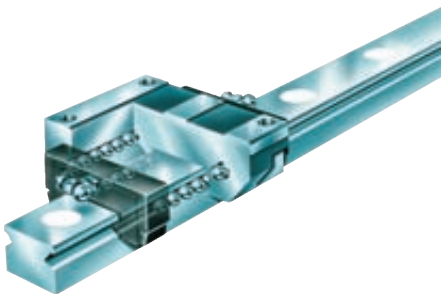


- Compact carriage
- Can be operated in contaminated environments
- Carriage consists of an anodized aluminium saddle plate, four bolts, four track rollers, sealing strips and a plastic wiper unit on each end face
- Can be used in any combination with all LFS guideways
- Preset clearance, no adjustment required
- LFS guideways can be supplied in single or multi piece assemblies
- Guideways sold separately, please specify length required

Product Code	Length	Width	Height
LFKL20SF	69	56	20.5
LFKL25SF	85	65	23.5
LFKL32SF	112	86	32
LFKL52SF	136	130	46.1

## INA Monorail Guidance

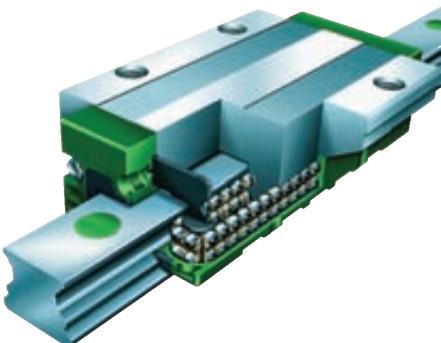
### KUE Ball System



- Two-row linear recirculating ball bearing and guideway assembly
- For applications with long unlimited stroke lengths
- Moderate loads, moderate rigidity
- Guideways supplied in single or multi piece lengths
- Range of carriage designs

Product Code	System Height	Length of Carriage	Width
KUE15	24	54.5	47
KUE20	30	70.4	63
KUE25	36	80.5	70
KUE30	42	92.9	90
KUE35	48	106.1	100

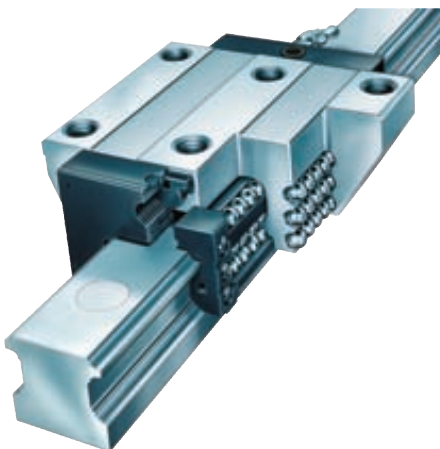
### KUVE Ball System



- Four-row linear recirculating ball bearing and guideway assembly
- Full complement design
- Wide range of carriage types
- For applications with long unlimited stroke lengths
- Moderate and high loads, moderate and high rigidity
- Guideways supplied in single or multi piece lengths
- Also available in low noise version with Quad Spacers to separate and guide rolling elements
- High speed version (10m/s) also available
- Wide range of accessories available

Product Code	System Height	Length of Carriage	Width
KUVE15B	24	59.6	47
KUVE20B	30	69.8	63
KUVE25B	36	81.7	70
KUVE30B	42	97.4	90
KUVE35B	48	110.4	100
KUVE45B	60	139	120
KUVE55B	70	172	140

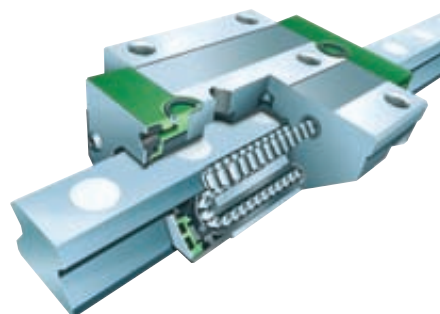
### KUSE Ball System



- Six-row linear recirculating ball bearing and guideway assembly
- For applications with long unlimited stroke lengths
- High loads, high rigidity
- Guideways supplied in single or multi piece lengths
- Range of carriage designs

Product Code	System Height	Length of Carriage	Width
KUSE20	30	70.9	63
KUSE25	36	81.8	70
KUSE30	42	91.4	90
KUSE35	48	107.1	100
KUSE45	60	136.7	120
KUSE55	70	156.5	140

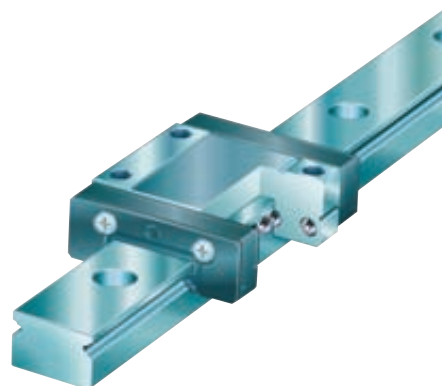
### RUE Roller System



- Linear recirculating roller bearing and guideway assembly
- For applications with long unlimited stroke lengths
- High and very high loads
- High and very high rigidity
- Guideways supplied in single or multi piece lengths
- Range carriage designs
- Wide range of accessories

Product Code	System Height	Length of Carriage	Width
RUE25D	36	90.6	70
RUE35E	48	122.9	100
RUE45E	60	145.9	120
RUE55E	70	172.7	140
RUE65E	90	195.5	170

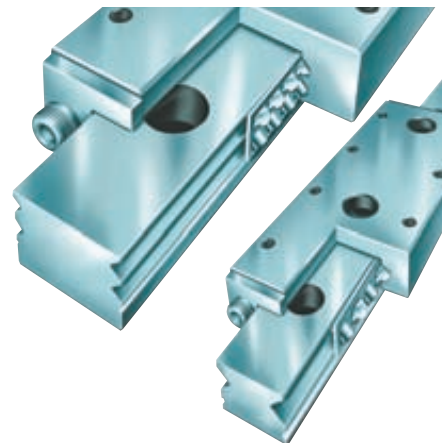
### KWEM Ball System



- Two-row miniature linear recirculating ball bearing and guideway assemblies
- Suitable for applications with unlimited stroke lengths
- High accuracy, high rigidity and high load capacity
- All external components are made from corrosion-resistant steel

Product Code	System Height	Length	Width
KWEM7	8	23.5	17
KWEM9	10	30	20
KWEM12	13	34	27
KWEM15	16	42	32

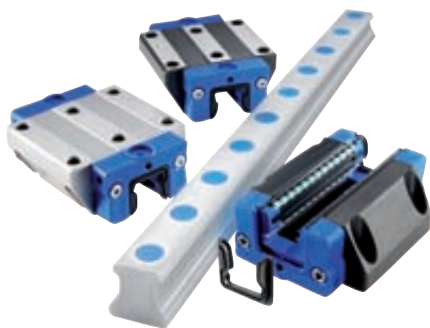
### RMWE Roller System



- Miniature carriage unit with linear locating bearings and at least one carriage
- Suitable for applications with short stroke lengths
- Several stroke lengths available for each size
- Low friction motion, high loads and high rigidity
- All external components are made from corrosion resistant steel

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## Thomson 500 Series Ball Profile Rail



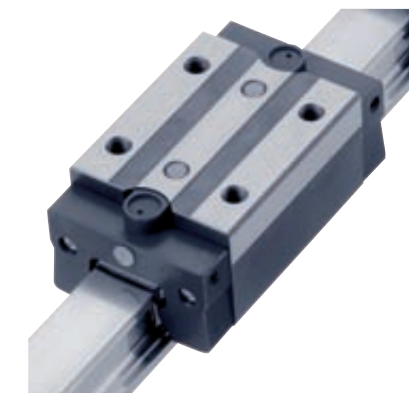
- Superior design superior quality
- Straight rails through advanced grinding technologies
- Simple installation and greater accuracy
- Joint-free rails up to 6 metres
- Smooth, quiet movement through patented insert moulded recirculation paths and optimised geometries
- Extended lubrication life as a result of grease pockets built into the recirculation path
- Multiple carriage styles and sizes available
- On site field modifiable modular seals
- Rail and carriage options from stock or short delivery
- Customisation with expanded accessory offering
- Typical applications include industrial automation, machine tools, material handling, industrial robots and food handling
- Other sizes available please contact your local Brammer branch for details

### 500 Series Standard Flange Type



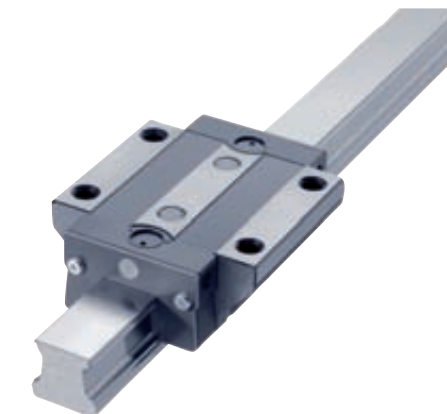
Product Code	System Height	Length of Carriage	Width
511P15A1	24	56.6	47
511P20A1	30	71.5	63
511P25A1	36	84.5	70
511P30A1	42	97.4	90
511P35A1	48	111.6	100
511P45A1	60	137.1	120

### 500 Series Standard Narrow Type



Product Code	System Height	Length of Carriage	Width
511P15C1	24	56.6	34
511P20C1	30	71.5	44
511P25C1	36	84.5	48
511P30C1	42	97.4	60
511P35C1	48	111.6	70

### 500 Series Standard Flange Long Type



Product Code	System Height	Length of Carriage	Width
511P20B1	30	87.5	63
511P25B1	36	103.5	70
511P30B1	42	119.4	90
511P35B1	48	137.1	100
511P45B1	60	168.6	120

## Thomson 500 Series Roller Profile Rail



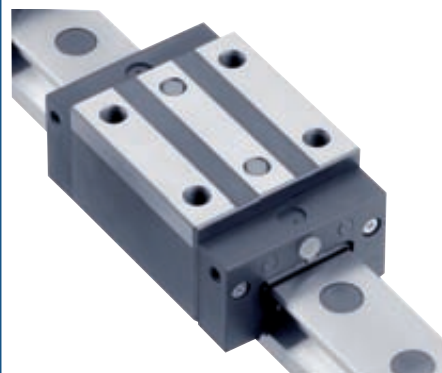
- Superior design superior quality
- Industry leading load capacities
- High rigidity from back to back four roller track arrangement
- Straight rails through advanced grinding technologies
- Simple installation and greater accuracy with joint free rails up to 6 metres
- Smooth, quiet movement through patented insert moulded recirculation paths and optimised geometries
- Multiple carriage styles and sizes available
- On site field modifiable modular seals
- Rail and carriage options from stock or short delivery
- Customisation with expanded accessory offering
- Typical Applications include industrial automation, machine tools, material handling, industrial robots and food handling
- Other sizes available please contact your local Brammer branch for details

### 500 Series Standard Flange Type



Product Code	System Height	Length	Width
512P25A1	36	81	70
512P35A1	48	109	100
512P45A1	60	137.5	120
512P55A1	70	163.5	140

### 500 Series Standard Narrow Type



Product Code	System Height	Length	Width
512P25C1	40	81	48
512P35C1	55	109	70
512P45C1	70	137.5	86
512P55C1	80	163.5	100

### 500 Series Standard Flange Long Type



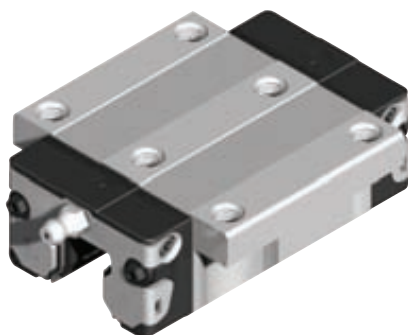
Product Code	System Height	Length	Width
512P25B1	36	103.4	70
512P35B1	48	136	100
512P45B1	60	172.5	120
512P55P1	70	205.5	140
512P65P1	90	251	170



## Bosch Rexroth Ball Rail Systems

- Full high load capacity in all directions
- Max speed 5m/second
- Lubrication ports with metal threads on all sides
- Integral all round sealing
- 2% preload for high rigidity and torque loadings
- Fully interchangeable due to standardised guide rails
- Guide rails available in a single length up to 3000mm and longer lengths in butt jointed assemblies

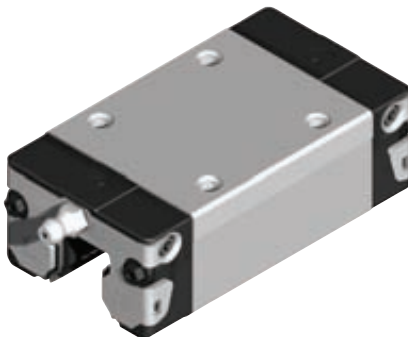
### Flanged Standard



**Rexroth**  
Bosch Group

Product Code	To Suit Guide Rail
R1651-114-20	Size 15
R1651-814-20	Size 20
R1651-214-20	Size 25
R1651-714-20	Size 30
R1651-314-20	Size 35

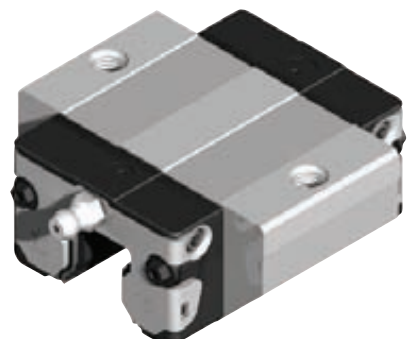
### Slimline Standard



**Rexroth**  
Bosch Group

Product Code	To Suit Guide Rail
R1622-114-20	Size 15
R1622-814-20	Size 20
R1622-214-20	Size 25
R1622-714-20	Size 30
R1622-314-20	Size 35

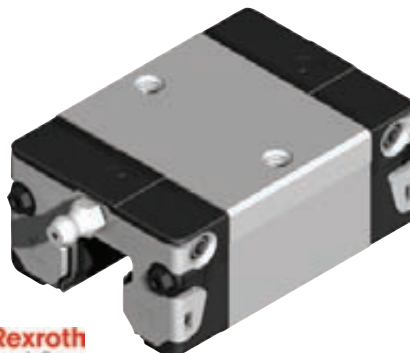
### Flanged Short



**Rexroth**  
Bosch Group

Product Code	To Suit Guide Rail
R1665-114-20	Size 15
R1665-814-20	Size 20
R1665-214-20	Size 25
R1665-714-20	Size 30
R1665-314-20	Size 35

### Slimline Short



**Rexroth**  
Bosch Group

Product Code	To Suit Guide Rail
R1666-114-20	Size 15
R1666-814-20	Size 20
R1666-214-20	Size 25
R1666-714-20	Size 30
R1666-314-20	Size 35

## Thomson AccuMini Profile rail



**THOMSON**

- Ball control design for smoothness, quietness & low friction at high speeds
- Full length integral wiper which protects bearing from contaminants so the effective system life is maximised
- Gothic design which provides high roll moment capacity
- Wear-resistant engineered polymer retainer which reduces system inertia and noise
- Typical applications include wafer handling equipment, assembly, inspection and measurement equipment

Product Code	System Height	Length of Carriage	Width
CD10AABP	15	40	26
CD15AABP	21	58	38
CD20AABP	28	76	50

## SKF Precision Rail Guides

### SKF Modular Range Guide Rails



**SKF**

- LWR/LWRB guides with ball or crossed roller assemblies
- Robust linear bearings with high load carrying capacity
- Suitable for applications with limited travel
- Constant high running accuracy
- Low friction, stick-slip free operation
- High travel speeds
- Low heat generation
- Low wear and high reliability
- High stiffness

The LWR rail guides form the basis of the SKF Modular Range. All of the guides with the LWR designation are interchangeable with each other within the given dimension series.

Where moderate loads are to be supported by a rail guide and greater priority is given to smooth operation and low friction, the use of ball assemblies is recommended.

For greater stiffness in the application crossed roller assemblies are recommended, various cage types are available depending on the size

**LWJK** ball assemblies are provided with a plastic cage, available for sizes 1 & 2

**LWAK** crossed roller are fitted as standard for size 3 with a plastic cage to retain the cylindrical rollers

**LWAL** crossed rollers are available for sizes 6 to 9, they have retained rollers in an aluminium cage

**LWERA** end pieces prevent the drift of the cages away from the loaded zone and **LWDG** special attachment screws complete the range

Product Code	Size	Rail Length	Assembly Width	Height	Rail Fixing Centres
LWRB1020	1	20	8.5	4	10
LWRB1030	1	30	8.5	4	10
LWRB1040	1	40	8.5	4	10
LWRB1050	1	50	8.5	4	10
LWRB1060	1	60	8.5	4	10
LWRB2030	2	30	12	6	15
LWRB2045	2	45	12	6	15
LWRB2060	2	60	12	6	15
LWRB2075	2	75	12	6	15
LWRB2090	2	90	12	6	15
LWRB2105	2	105	12	6	15
LWRB2120	2	120	12	6	15



Product Code	Size	Rail Length	Assembly Width	Height	Rail Fixing Centres
LWR3050	3	50	18	8	25
LWR3075	3	75	18	8	25
LWR3100	3	100	18	8	25
LWR3125	3	125	18	8	25
LWR3150	3	150	18	8	25
LWR3175	3	175	18	8	25
LWR3200	3	200	18	8	25
LWR3250	3	250	18	8	25
LWR3300	3	300	18	8	25
LWR6100	6	100	31	15	50
LWR6150	6	150	31	15	50
LWR6200	6	200	31	15	50
LWR6250	6	250	31	15	50
LWR6300	6	300	31	15	50
LWR6350	6	350	31	15	50
LWR6400	6	400	31	15	50
LWR90200	9	200	44	22	100
LWR90300	9	300	44	22	100
LWR90400	9	400	44	22	100
LWR90500	9	500	44	22	100
LWR90600	9	600	44	22	100
LWR90700	9	700	44	22	100

## SKF Precision Rail Guide Kit

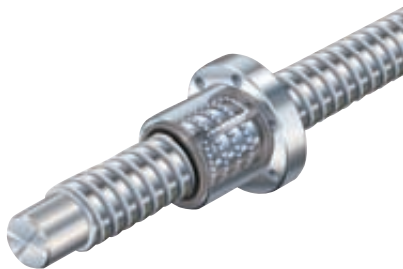


Kit packaging is a new service offered by SKF. Each Kit consists of a four piece rail set, 2 cages and 8 end pieces. Advantages include:

- All required components are supplied in ready to mount sets
- Ease of mounting, all parts can now be delivered directly to the machine on site
- Cage length easily adjustable
- Environmentally compatible packaging that can be returned free of charge and directed to the recycling process

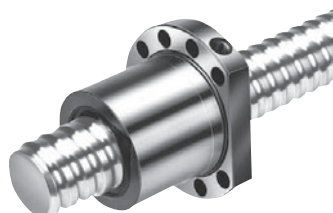
Dynamic Load - N	Static Load - N	Stroke - mm	Type of Rail - 4 pcs	Type of Cage - 4 pcs
999 LWR3050KIT	1120	26	LWR3050	LWAK 3x7
1422 LWR3075KIT	1760	36	LWR3075	LWAK 3x11
1811 LWR3100KIT	2400	46	LWR3100	LWAK 3x15
2088 LWR3125KIT	2880	66	LWR3125	LWAK 3x18
2442 LWR3150KIT	3520	76	LWR3150	LWAK 3x22
2781 LWR3175KIT	4160	86	LWR3175	LWAK 3x26
3110 LWR3200KIT	4800	96	LWR3200	LWAK 3x30
4915 LWR6100KIT	5440	50	LWR6100	LWAK 6x8
6744 LWR6150KIT	8160	78	LWR6150	LWAK 6x12
8441 LWR6200KIT	10880	106	LWR6200	LWAK 6x16
10045 LWR6250KIT	13600	134	LWR6250	LWAK 6x20
1955 LWR6300KIT	17000	144	LWR6300	LWAK 6x25
13422 LWR6350KIT	19720	172	LWR6350	LWAK 6x29
14846 LWR6400KIT	22440	200	LWR6400	LWAK 6x33

## Bosch Rexroth Ballscrews



- Smooth operation due to internal recirculation and optimal ball lift off from raceway
- High load rating due to large number of balls
- Short nut lengths
- No protruding parts, nut is easily mounted
- Effective wiping & sealing
- To DIN Standard DIN 69 051 Part 5

## FEM-E-C Single Nut With Flange



Product Code	Description	Nom Diameter	Lead
R1502-0-1065	DIN Standard Single Nut with Flange FEM-E-C	16mm	5mm
R1502-0-4085	DIN Standard Single Nut with Flange FEM-E-C	16mm	10mm

Product Code	Description	Nom Diameter	Lead
R1502-1-1085	DIN Standard Single Nut with Flange FEM-E-C	20mm	5mm
R1502-2-1085	DIN Standard Single Nut with Flange FEM-E-C	25mm	5mm
R1502-2-4085	DIN Standard Single Nut with Flange FEM-E-C	25mm	10mm
R1502-3-1085	DIN Standard Single Nut with Flange FEM-E-C	32mm	5mm
R1502-3-4086	DIN Standard Single Nut with Flange FEM-E-C	32mm	10mm
R1502-4-1086	DIN Standard Single Nut with Flange FEM-E-C	40mm	5mm
R1502-4-4085	DIN Standard Single Nut with Flange FEM-E-C	40mm	10mm

## SEM-E-C Adjustable Preload Single Nut



Product Code	Description	Nom Diameter	Lead
R1512-0-1055	DIN Standard Adjustable Preload Single Nut SEM-E-C	16mm	5mm
R1512-0-4075	DIN Standard Adjustable Preload Single Nut SEM-E-C	16mm	10mm
R1512-1-1075	DIN Standard Adjustable Preload Single Nut SEM-E-C	20mm	5mm
R1512-2-1075	DIN Standard Adjustable Preload Single Nut SEM-E-C	25mm	5mm
R1512-2-4075	DIN Standard Adjustable Preload Single Nut SEM-E-C	25mm	10mm
R1512-31075	DIN Standard Adjustable Preload Single Nut SEM-E-C	32mm	5mm
R1512-3-4075	DIN Standard Adjustable Preload Single Nut SEM-E-C	32mm	10mm
R1512-4-1075	DIN Standard Adjustable Preload Single Nut SEM-E-C	40mm	5mm
R1512-4-4075	DIN Standard Adjustable Preload Single Nut SEM-E-C	40mm	10mm

## SN-R Precision Rolled Screw



- Tolerance grade on screw shaft is T7, 52µ per 300mm

Product Code	Description	Nom Diameter	Lead	Max Standard Length	On Request
R1511-0-1700	Precision Rolled Screw SN-R Tol Grade T7	16mm	5mm	1500mm	2500mm
R1511-0-4700	Precision Rolled Screw SN-R Tol Grade T7	16mm	10mm	1500mm	2500mm
R1511-1-1700	Precision Rolled Screw SN-R Tol Grade T7	20mm	5mm	1500mm	2500mm
R1511-2-1700	Precision Rolled Screw SN-R Tol Grade T7	25mm	5mm	2500mm	5000mm
R1511-2-4700	Precision Rolled Screw SN-R Tol Grade T7	25mm	10mm	2500mm	5000mm
R1511-3-1700	Precision Rolled Screw SN-R Tol Grade T7	32mm	5mm	2500mm	5000mm
R1511-3-4710	Precision Rolled Screw SN-R Tol Grade T7	32mm	10mm	2500mm	5000mm
R1511-4-1700	Precision Rolled Screw SN-R Tol Grade T7	40mm	5mm	4500mm	5000mm
R1511-4-4700	Precision Rolled Screw SN-R Tol Grade T7	40mm	10mm	4500mm	7500mm

## Thomson Ballscrews



- DIN standard flanged and cylindrical ball nuts available
- Smooth and quiet running
- High travel speeds allow short cycle times
- Range of different diameters and leads
- Up to 98% mechanical efficiency
- Low backlash or preloaded nuts guarantee efficient operation
- Various ball return systems
- Designed for continuous operation at temperatures of -30°C up to 80°C
- Single nut preload up to 3% of dynamic capacity
- Double nut preloads available up to 10% of dynamic capacity
- Lead accuracy available from  $\pm 12\mu\text{m}/300\text{mm}$  to  $\pm 50\mu\text{m}/300\text{mm}$
- Customer specific end machining available
- A representative sample of diameter and lead combinations is shown below

## KGF-D Flanged Ballnut



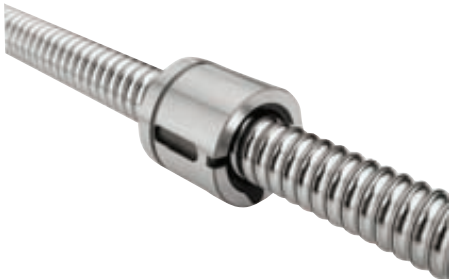
Product Code	Nom Diameter	Lead	Nut Length	Flange Diameter	Nut Diameter	Dynamic Load - kN	Static Load - kN
KGF-D1605RH-EE	16	5	42	48	28	9.3	12.0
KGF-D1610RH-EE	16	10	55	48	28	15.4	23.0
KGF-D2005RH-EE	20	5	42	58	36	10.5	14.0
KGF-D2505RH-EE	25	5	42	62	40	12.3	15.0
KGF-D2510RH-EE	25	10	55	62	40	13.2	17.5
KGF-D3205RH-EE	32	5	55	80	50	21.5	24.0
KGF-D3210RH-EE	32	10	69	80	53	33.4	44.0
KGF-D4005RH-EE	40	5	57	93	63	23.8	26.0
KGF-D4010RH-EE	40	10	71	93	63	38.0	50.0

## KGF-N Flanged Ballnut



Product Code	Nom Ø	Lead	Nut Length	Nut Ø	Dynamic Load - kN	Static Load - kN
KGF-N1605RH-EE	16	5	44	28	9.3	12.0
KGF-N2005RH-EE	20	10	44	32	10.5	12.0
KGF-N2505RH-EE	25	5	46	38	12.3	15.0
KGF-N3205RH-EE	32	5	59	45	21.5	24.0
KGF-N3210RH-EE	32	10	73	53	33.4	44.0
KGF-N4005RH-EE	40	5	59	53	23.8	26.0
KGF-N4010RH-EE	40	10	73	63	38.0	50.0

#### KGM-D Cylindrical Ballnut



Product Code	Nom Ø	Lead	Nut Ø	Nut Length	Dynamic Load - kN	Static Load - kN
KGM-D1605RH-EE	16	5	28	34	9.3	12.5
KGM-D1610RH-EE	16	10	28	50	15.4	23.0
KGM-D2005RH-EE	20	5	36	34	10.5	14.0
KGM-D2505RH-EE	25	5	40	34	12.3	15.0
KGM-D2510RH-EE	25	10	40	45	13.2	17.5
KGM-D2520RH-EE	25	20	40	35	13.0	19.0
KGM-D2525RH-EE	25	25	40	35	16.7	21.0
KGM-D3205RH-EE	32	5	50	45	21.5	24.0
KGM-D4005RH-EE	40	5	63	45	23.8	26.0
KGM-D4010RH-EE	40	10	63	60	38.0	50.0

#### KGM-N Cylindrical Ballnut



Product Code	Nom Ø	Lead	Nut Ø	Nut Length	Dynamic Load - kN	Static Load - kN
KGM-N1205RH-00	12	5	20	24	4.4	6.0
KGM-N2005RH-EE	20	5	32	34	10.5	14.0
KGM-N2020RH-EE	20	20	35	30	11.6	12.0
KGM-N2050RH-EE	20	50	35	56	13.0	18.0
KGM-N2505RH-EE	25	5	38	34	12.3	15.0
KGM-N3205RH-EE	32	5	45	45	21.5	24.0
KGM-N3210RH-EE	32	10	53	60	33.4	44.0
KGM-N3220RH-EE	32	20	53	70	29.7	42.5
KGM-N3240RH-EE	32	40	53	45	14.9	17.0
KGM-N4005RH-EE	40	5	53	45	23.8	26.0

## SKF Ballscrews

### SD Miniature Ballscrews



- Nominal diameter 6 to 16mm
- Lead 2 to 12.7mm
- Cylindrical nut with threaded end for easy mounting
- Excellent repeatability
- High positioning quality
- Compact design
- Ball recirculation in composite inserts
- Optional wipers for all sizes (except 6x2R & 10x3R)
- Backdriving makes them highly efficient
- Suitable for a wide range of applications where precision driving is required
- Separate round flanges for easy mounting available upon request

Product Code	Nom Ø	Lead	Length	Nut Ø	Mounting Thread	Dynamic Load - kN	Static Load - kN
SD6X2R	6	2	20	16.5	M14x1	1.2	1.5
SD8X2.5R	8	2.5	23.5	17.5	M15x1	2.2	2.6
SD10X2R	10	2	22	19.5	M17x1	2.5	3.5
SD10X4R	10	4	22	21	M18x1	4.5	5.4
SD12X2R	12	2	20	20	M18x1	2.9	4.6
SD12X4R	12	4	34	25.5	M20x1	5	6.5
SD12X5R	12	5	36	23	M20x1	4.2	5.3
SD14X4R	14	4	30	27	M22x1.5	6	9
SD16X2R	16	2	27	29.5	M25x1.5	3.3	6.2
SD16X5R	16	5	42	32.5	M26x1.5	7.6	10.5
SD16X10R	16	10	46	32.5	M26x1.5	10.7	17

### SH Miniature Ballscrews



- Compact design
- Ball recirculation via internal return tube
- Backdriving makes them highly efficient
- Threaded end for easy mounting
- Suitable for a wide range of applications where precision driving is required
- Separate round flanges for easy mounting available upon request

Product Code	Nom Ø	Lead	Length	Nut Ø	Mounting Thread	Dynamic Load - kN	Static Load - kN
SH6X2R	6	2	20	16.5	M14x1	1.2	1.5
SH10X3R	10	3	29	21	M18x1	2.3	3.5
SH12.7X12.7	12.7	12.7	50	29.5	M25x1.5	5.3	9

**We provide the latest specification products delivered factory sealed in perfect condition**



## SX Universal Ballscrews



- Nominal diameters 20 to 63mm
- Lead 5 to 40mm
- Cylindrical body of minimal diameter to simplify assembly
- Lubrication hole for nipple or SKF SYSTEM 24, positioned relative to the ISO thread
- Wipers available
- Ball recirculation in composite inserts
- Suitable for a wide range of applications where precision driving is required
- Separate round & square flanges for easy mounting available upon request

Product Code	Nom Ø	Lead	Length	Nut Ø	Mounting Thread	Dynamic Load - kN	Static Load - kN
SX20X5R	20	5	54	38	M35x1.5	14.5	24.4
SX25X5R	25	5	69	43	M40x1.5	19.4	37.8
SX25X10R	25	10	87	43	M40x1.5	25.8	43.7
SX32X5R	32	5	64	52	M48x1.5	22.1	50.5
SX32X10R	32	10	95	54	M48x1.5	28.9	55.7
SX40X5R	40	5	65	60	M56x1.5	24.1	63.2
SX40X10R	40	10	105	65	M60x2	63.6	127.1
SX50X10R	50	10	135	78	M72x2	81.9	189.1
SX63X10R	63	10	135	93	M85x2	91.7	243.5

### SND Precision Ballscrews



- Rolled thread ballscrew with internal recirculation nut
- Nominal diameters 16 to 63mm
- Lead 5 to 10mm
- Compact nut with integral flange for simple mounting and axial play
- Ground flanged nut: precise mounting
- Wipers available
- Ball recirculation in composite inserts
- Steel insert optional
- DIN Standard 69051
- Suitable for a wide range of applications where precision driving is required

Product Code	Nom Ø	Lead	Nut Length	Nut Ø	Dynamic Load - kN	Static Load - kN
SND16X5R	16	5	43.5	28	8.1	12.4
SND16X10R	16	10	47	28	10.7	17
SND20X5R	20	5	44.5	36	11.7	18.3
SND25X5R	25	5	44.5	40	13	22.7
SND25X10R	25	10	75	40	25.8	43.7
SND32X5R	32	5	51.5	50	19.1	40.4
SND32X10R	32	10	62.5	50	22.6	41.8
SND40X5R	40	5	58.5	63	25.4	63.2
SND40X10R	40	10	91	63	63.6	127.1
SND50X10R	50	10	93	75	70.6	157.6
SND63X10R	63	10	95	90	78.4	202.9



## SL Long Lead Ballscrews



- Nominal diameters 25 to 50mm
- Lead 20 to 50mm
- Lubrication hole for nipple or automatic SKF SYSTEM 24
- Double protection with polyamide wipers and brush wipers available

Product Code	Nom Ø	Lead	Nut Length	Flange Ø	Nut Ø	PCD	Dynamic Load - kN	Static Load - kN
SL25X20R 25	25	20	66.4	73	48	60	23	51.6
SL25X25R 25	25	25	77.9	73	48	60	22.6	51
SL32X20R 32	32	20	66.4	80	56	68	25.7	65.3
SL32X32R 32	32	32	80.3	80	56	68	26	68.3
SL32X40R 32	40	55	80	80	53	68	15.7	38.6
SL40X20R 40	40	20	86.8	95	63	78	41.8	129.4
SL40X40R 40	40	40	110.3	110	72	90	53.5	133.8
SL50X50R 50	50	50	134	125	85	105	94.8	238.2

## INA Bearings for Ballscrew Drives

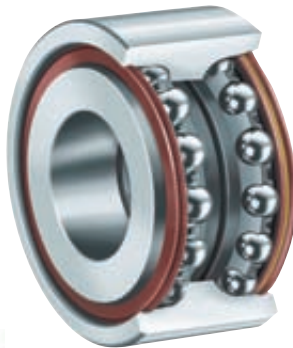
## ZKLF Axial Angular Contact Bearings



- Bearing units suitable for the high dynamic operating conditions in ballscrew drives that have high accuracy
- High load carrying capacity
- High rigidity and low friction
- Easy to fit and available in maintenance-free or low-maintenance versions
- With a contact angle of 60° the bearings can support radial forces and high axial forces
- Also available in .2Z designs
- Also available in PE designs where lower positional accuracy is required
- Also available in single and triple row variants
- Available in matched pair .2AP arrangements

Product Code	Internal Diameter	External Diameter	Width
ZKLF1255-2RS	12	55	25
ZKLF1560-2RS	15	60	25
ZKLF1762-2RS	17	62	25
ZKLF2068-2RS	20	75	28
ZKLF2575-2RS	25	75	28
ZKLF3080-2RS	30	80	28
ZKLF30100-2RS	30	100	38
ZKLF3590-2RS	35	90	34
ZKLF40100-2RS	40	100	34
ZKLF40115-2RS	40	115	46
ZKLF50115-2RS	50	115	34
ZKLF50140-2RS	60	140	54

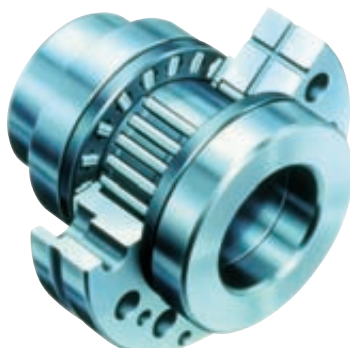
## ZKLN Axial Angular Contact Bearings



- Bearing units suitable for the high dynamic operating conditions in ballscrew drives that have high accuracy
- High load carrying capacity
- High rigidity and low friction
- Easy to fit and available in maintenance-free or low-maintenance versions
- With a contact angle of 60° the bearings can support radial forces and high axial forces
- Available in .2Z designs
- Available in PE designs where lower positional accuracy is required
- Available in single and triple row variants
- Available in matched pair .2AP arrangements

Product Code	Internal Diameter	External Diameter	Width
ZKLN0832-2RS	8	32	20
ZKLN1034-2RS	10	34	20
ZKLN1242-2RS	12	42	25
ZKLN1545-2RS	15	45	25
ZKLN1747-2RS	17	47	25
ZKLN2052-2RS	20	52	28
ZKLN2557-2RS	25	57	28
ZKLN3062-2RS	30	62	28
ZKLN3072-2RS	30	72	38
ZKLN3572-2RS	35	72	34
ZKLN4075-2RS	40	75	34
ZKLN4090-2RS	40	90	46
ZKLN5090-2RS	50	90	34
ZKLN50110-2RS	50	110	54

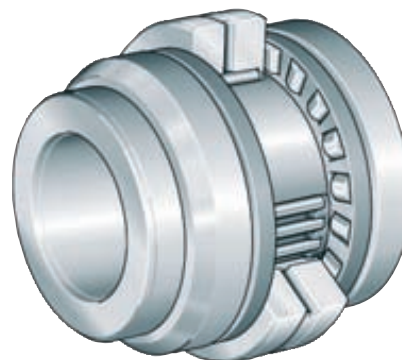
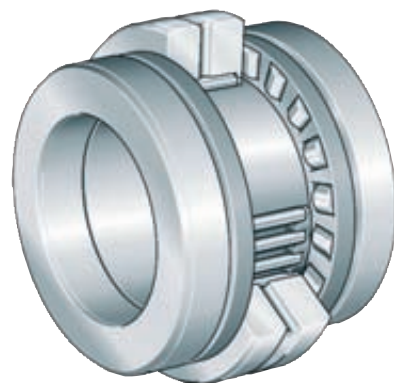
## ZARF Needle Roller/Axial Roller Bearings



- Bearing units suitable for the high dynamic operating conditions in ballscrew drives that have high accuracy
- High load carrying capacity
- High rigidity and low friction
- Easy to fit and available in maintenance-free or low-maintenance versions
- Matched inner and outer rings and cages so that the bearing is axially clearance-free after preloading by means of an INA precision locknut AM or ZM(A)
- Radial internal clearance is C2 according to DIN 620.
- ZARF..-L has an extended and stepped shaft locating washer
- ZARF..-L has holes in the outer ring for screw mounting directly on the adjacent construction or in a radial locating bore

Product Code	Internal Diameter	External Diameter	Width
ZARF1560-TV	15	60	40
ZARF1762-TV	17	62	43
ZARF2068-TV	20	68	46
ZARF2575-TV	25	75	50
ZARF3080-TV	30	80	50
ZARF3590-TV	35	90	54
ZARF40100-TV	40	100	54
ZARF45105-TV	45	105	60
ZARF50115-TV	50	115	60
ZARF2080-TV	20	80	60
ZARF2590-TV	25	90	60
ZARF30105-TV	30	105	66
ZARF35110-TV	35	110	66
ZARF40115-TV	40	115	75
ZARF45130-TV	45	130	82
ZARF50140-TV	50	140	82
ZARF55145-TV	55	145	82
ZARF60150-TV	60	160	82
ZARF65155-TV	65	155	82
ZARF70160-TV	70	160	82
ZARF75185-TV	75	180	100
ZARF90210-TV	90	210	110

## ZARN Needle Roller/Axial Roller Bearings





- Bearing units suitable for the high dynamic operating conditions in ballscrew drives that have high accuracy
- High load carrying capacity
- High rigidity and low friction
- Easy to fit and available in maintenance-free or low-maintenance versions
- Matched inner, outer rings and cages
- Preloaded against the shaft shoulder by means of a precision locknut AM or ZM(A).
- Radial internal clearance is C2 according to DIN 620.
- Bearings ZARN...L are mounted in a housing bore and the outer ring is located using a cover

Product Code	Internal Diameter	External Diameter	Width
ZARN1545-TV	15	45	40
ZARN1747-TV	17	47	43
ZARN2052-TV	20	52	46
ZARN2557-TV	25	57	50
ZARN3062-TV	30	62	50
ZARN3570-TV	35	70	54
ZARN4075-TV	40	75	54
ZARN4580-TV	45	80	60
ZARN5090-TV	50	90	60
ZARN2062-TV	20	62	60
ZARN2572-TV	25	72	60
ZARN3080-TV	30	80	66
ZARN3585-TV	35	85	66
ZARN4090-TV	40	90	75
ZARN45105-TV	45	105	82
ZARN50110-TV	50	110	82
ZARN55115-TV	55	115	82
ZARN60120-TV	60	120	82
ZARN65125-TV	65	125	82
ZARN70130-TV	70	130	82
ZARN75155-TV	75	155	100
ZARN90180-TV	90	180	110

## INA Precision Locknuts

### Precision Locknuts



Precision locknuts are used where high axial forces must be supported and high runout accuracy and rigidity are required.

The thread and the axial face of the locknut in contact with the rolling bearing are produced in a single clamping operation. This allows very high runout accuracy to be achieved. Locknuts are available in the designs AM, ZM and ZMA.

Locknuts of series AM are divided into several segments for applying the locking forces. When the hexagonal socket grub screws are tightened, the segments are elastically deformed. As a result, the thread flanks of the segments are pressed against the flanks of the shaft thread and give a high frictional force that acts to prevent loosening of the nut. The runout of the nut is not affected by this method of locking.

Locknuts ZM and ZMA (ZMA is the heavy series) are secured against rotation by means of two radially acting locking pegs. The locking pegs are manufactured together with the internal thread of the locknut. They mesh in the thread of the shaft without affecting the runout or damaging the thread. The locking pegs are secured by grub screws with a hexagonal socket arranged concentrically over the locking pegs.

Product Code	Thread	External Diameter	Width
<b>AM Series</b>			
AM15	M15X1	30	18
AM17	M17X1	32	18
AM20	M20X1	45	20
AM25	M25x1.5	45	20
AM30	M30X1	52	20
AM30/65	M30X1.5	65	30
AM35/58	M35x1.5	58	20
AM35	M35X1.5	65	22
AM40	M40X1.5	65	22
AM40/85	M40X1.5	85	32
AM45	M45X1.5	70	22
AM50	M50X1.5	75	25
AM55	M55X2	85	26
AM60	M60X2	90	26
AM65	M65X2	100	26
AM70	M70X2	100	28
AM75	M75X2	115	30
AM80	M80X2	110	30
AM85	M85X2	115	30
AM90	M90X2	130	32
AM100	M100X2	130	30
AM110	M110X2	140	30
AM120	M120X2	155	30
AM130	M130X2	165	30

### ZM Light Series

ZM06	M6X0.5	16	8
ZM08	M8X0.75	16	8
ZM10	M10X1	18	8
ZM12	M12X1	22	8
ZM15	M15X1	25	8
ZM17	M17X1	28	10
ZM20	M20X1	32	10
ZM25	M25X1.5	38	12
ZM30	M30X1.5	45	12
ZM35	M35X1.5	52	12
ZM40	M40X1.5	58	14
ZM45	M45X1.5	65	14
ZM50	M50X1.5	70	14
ZM55	M55X2	75	16
ZM60	M60X2	80	16
ZM65	M65X2	85	16
ZM70	M70X2	92	18
ZM75	M75X2	98	18
ZM80	M80X2	105	18
ZM85	M85X2	110	18
ZM90	M90X2	120	20
ZM100	M100X2	130	20
ZM105	M100X2	140	22
ZM110	M100X2	145	22
ZM115	M110X2	150	22
ZM120	M110X2	155	24
ZM125	M125X2	160	24
ZM130	M130X2	165	24
ZM140	M140X2	180	26
ZM150	M150X2	195	26

### ZMA Heavy Series

ZMA15/33	M15X1	33	16
ZMA20/38	M20X1	38	20
ZMA20/52	M20X1	52	25
ZMA25/45	M25X1.5	45	20
ZMA25/58	M25X1.5	58	28
ZMA30/52	M30X1.5	52	22
ZMA30/65	M30X1.5	65	30
ZMA35/58	M35X1.5	58	22
ZMA35/70	M35X1.5	70	30
ZMA40/62	M40X1.4	62	22
ZMA40/75	M40X1.5	75	30

Product Code	Thread	External Diameter	Width
ZMA45/68	M45X1.5	68	24
ZMA45/85	M45X1.5	85	32
ZMA50/75	M50X1.5	75	25
ZMA50/92	M50X1.5	92	32
ZMA55/98	M55X2	98	32
ZMA60/98	M60X2	98	32
ZMA65/105	M65X2	105	32
ZMA70/110	M70X2	110	35
ZMA75/125	M75X2	125	38
ZMA80/120	M80X2	120	35
ZMA90/130	M90X2	130	38
ZMA90/155	M90X2	155	38
ZMA100/140	M100X2	140	38

## Thomson Neff Leadscrews



- Large range of leads and diameters to match your requirements
- Diameters from 10mm to 24mm
- Comprehensive range of nuts in different materials
- Smooth precise and cost effective
- Accurate positioning 0.250mm/300mm in standard grade & 0.075mm/300mm in precision grade
- Standard nut backlash 0.02 to 0.25mm. Zero backlash also available
- Rolled version follows DIN 103 conformity
- Non-corrosive due to stainless steel materials and internally lubricated acetal nuts



Product Code	Screw Ø	Nut Ø	Length	Thread Length	Thread Size	Load Rating - N
CB3700	10	20.8	47.6	6.4	M16x1.5	100
CB5000	12	28.4	57.2	9.5	M25x1.5	550
CB6200	16	35.6	66.0	12.7	M30x1.5	775
CB7500	20	41.4	73.7	12.7	M35x1.5	1100
CB10000	24	47.8	76.2	15.2	M40x1.5	1550

**Also see our  
Power Tools  
section**





Product Code	Screw Ø	Nut Ø	Length	Flange Ø	PCD	Load Rating - N
CF3700	10	20.8	47.6	38.1	M16x1.5	100
CF5000	12	28.4	57.2	44.5	M25x1.5	550
CF6200	16	35.6	66.0	54.1	M30x1.5	775



Product Code	Screw Ø	Nut Ø	Length	Flange Ø	PCD	Load Rating - N
MTS3700	10	18	38.1	6.4	28.6	325
MTS5000	12	19.1	38.1	9.5	28.6	550
MTS6200	16	22.4	38.1	12.7	30.2	775
MTS7500	20	28.6	50.8	12.7	36.5	1200

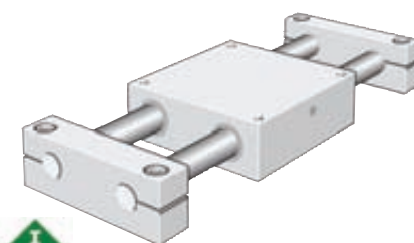


Product Code	Screw Ø	Nut Ø	Length	Thread length	Thread size	Load Rating - N
SB3700	10	19.1	19.1	6.4	M16x1.5	310
SB5000	12, 16	25.4	25.4	9.5	M22x1.5	445
SB1000	20, 24	38.1	38.1	12.7	M35x1.5	1335

**We provide access to technical expertise through your local Sales and Service Centre and authorised suppliers**

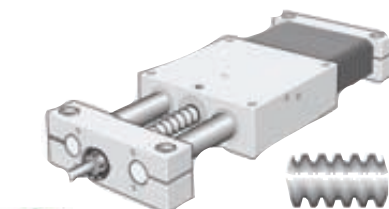
## INA Linear Tables

### LTE Linear Table Without Drive



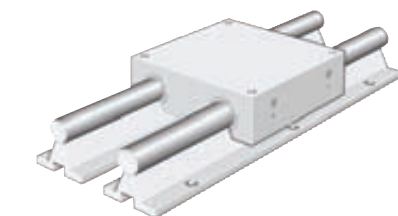
- Aluminium alloy carriage complete with four KB..PP linear ball bushings
- Hardened and ground shafts made from high alloy steel
- High positional accuracy
- Suitable for moderate loads and short strokes
- Optional sets of bellows located using Velcro™ strips (exceptions LTE 8 and LTE 12)
- Can be relubricated
- Corroctect® anti corrosion plating for shafts available
- Permaglide® PAB bushes also available

### LTE Linear Table With Drive



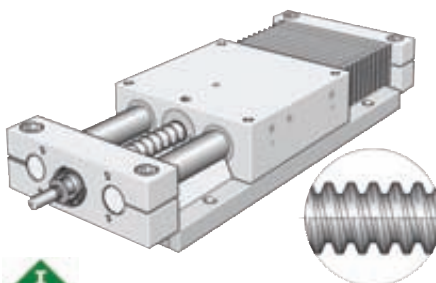
- LTE series with trapezoidal leadscrew spindle with cylindrical bronze nut
- Lubrication nipple in the carriage for the nut
- Driven side has one double row angular contact ball bearing or, depending on the table size, two single row angular contact ball bearings fitted in the shaft support block for location
- Non driven side has a single row ball bearing fitted
- All bearings are sealed and lubricated for life
- Linear bearings have initial greasing and can be relubricated
- Corroctect® anti corrosion plating for spindle and shafts available
- LTE series with rolled ballscrew spindle, pitch accuracy of 50µm over 300mm
- Cylindrical nut M or a preloaded double nut MM
- Lubrication nipple in the carriage for the nut
- Driven side has a preloaded double row angular contact ball bearing ZKLN fitted in the shaft support block for location
- Non driven side has a needle roller bearing NA fitted
- Spindle support bearings, linear ball bearings and nut(s) have initial greasing, are sealed and can be relubricated
- Corroctect® anti corrosion plating for spindle and shafts available

### LTS Linear Table Without Drive



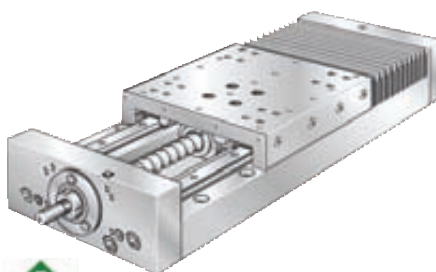
- Aluminium alloy carriage complete with four KBO..PP linear ball bushings
- Hardened and ground shafts made from high alloy steel
- Anodised aluminium support rails
- High positional accuracy
- Suitable for moderate loads and long strokes
- Optional sets of bellows located using Velcro™ strips (exception LTS 12)
- Can be relubricated
- Corroctect® anti corrosion plating for shafts available
- Permaglide® PABO bushes also available

### LTS Linear Table With Drive



- LTS series with trapezoidal leadscrew spindle with cylindrical bronze nut
- Lubrication nipple in the carriage for the nut
- Driven side has one double row angular contact ball bearing or, depending on the table size, two single row angular contact ball bearings fitted in the shaft support block for location
- Non driven side has a single row ball bearing fitted
- All bearings are sealed and lubricated for life
- Linear bearings have initial greasing and can be relubricated
- Corroctect® anti corrosion plating for spindle and shafts available
- LTS series with rolled ballscrew spindle, pitch accuracy of 50µm over 300mm
- Cylindrical nut M or a preloaded double nut MM
- Lubrication nipple in the carriage for the nut
- Driven side has a preloaded double row angular contact ball bearing ZKLN fitted in the shaft support block for location
- Non driven side has a needle roller bearing NA fitted
- Spindle support bearings, linear ball bearings and nut(s) have initial greasing, are sealed and can be relubricated
- Corroctect® anti corrosion plating for spindle and shafts available

### LTP Precision Linear Table Aluminium Version

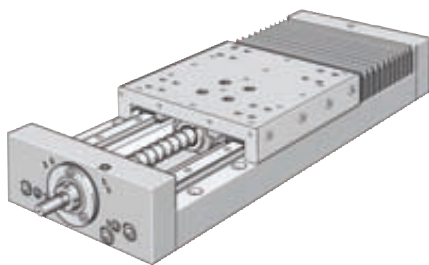


- Suitable for moderate and high loads
- High positional accuracy
- Two high precision KUE carriage and guideway assemblies or two KUZE assemblies in LTP25-325 type
- Aluminium base plate and aluminium carriage with central lubrication system for the linear ball bearings and guideway assemblies
- Rolled ballscrew with a pitch accuracy of 50µm over 300mm
- Single flanged nut, F or a preloaded flanged nut and cylindrical nut combination, FM
- ZKLF double row angular contact ball bearing for location on driven side
- NA needle roller bearing on non driven side
- Optional bellows fitted with Velcro™ strips
- Corroctect® anti corrosion plating for spindle, ball bearings and guideway assemblies available
- Can be linked to construct multi-axis systems

**Need advice?  
FREE technical  
support at every  
Brammer branch**



## LTPG Precision Linear Table Cast Iron Version

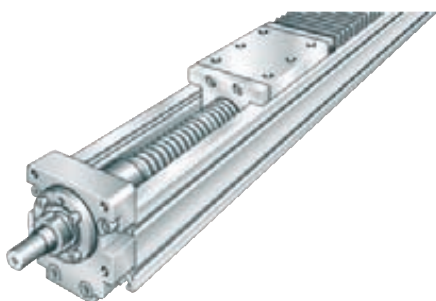


High precision linear tables LTPG (cast iron version) differs from LTP linear tables in the following respects;

- Cast iron base plate with ground seating and locating surfaces for the guideways
- Cast iron carriage with a ground surface and seating surfaces for the carriage
- Driven side bearing housing made from cast iron
- Non driven bearing housing made from cast iron

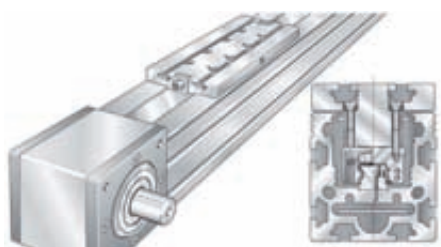
## INA Linear Actuators

### MKUE Linear Actuator



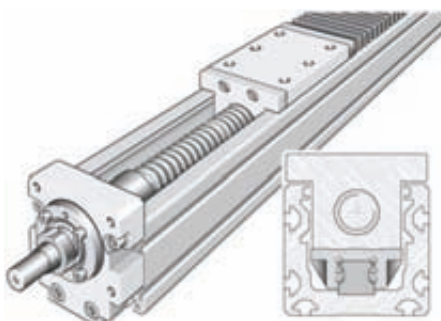
- Suitable for moderate to heavy loads
- Maximum speed 1.73m/s
- Maximum acceleration of 10m/s<sup>2</sup>
- High positional accuracy
- Anodised aluminium saddle plate with integral single or preloaded double nut
- Saddle supported by two 2 row KUE linear ball bearing and guideway assemblies arranged inline
- Guideway assemblies are preloaded, clearance free and run completely free from stick-slip
- Ballscrew drive pitches available, 5mm 10mm 20mm & 40mm
- Pitch accuracy of 50µm over 300mm
- Ballscrew supported by a preloaded double row angular contact bearing ZKLN which is greased for life
- Single cylindrical nut M or preloaded double nut MM
- Central lubrication system for the carriage and nut(s)

### MKUE Linear Actuator



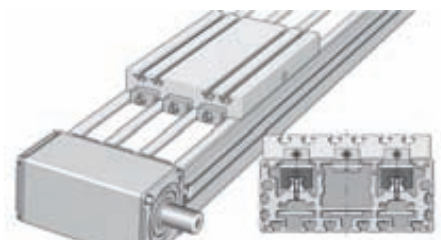
- Suitable for moderate to heavy loads
- Maximum speed 1.73m/s
- Maximum acceleration of 10m/s<sup>2</sup>
- High positional accuracy
- Anodised aluminium saddle plate with integral single or preloaded double nut
- Saddle supported by two 4 row KUE linear ball bearing and guideway assemblies arranged inline
- Guideway assemblies are preloaded, clearance free and run completely free from stick-slip
- Ballscrew drive pitches available, 5mm 10mm 20mm & 40mm
- Pitch accuracy of 50µm over 300mm
- Ballscrew supported by a preloaded double row angular contact bearing ZKLN which is greased for life
- Single cylindrical nut M or preloaded double nut MM
- Central lubrication system for the carriage and nut(s)

### MKUE Linear Actuator



- Suitable for moderate to heavy loads
- Maximum speed 1.73m/s
- Maximum acceleration of 10m/s<sup>2</sup>
- High positional accuracy
- Anodised aluminium saddle plate with integral single or preloaded double nut
- Saddle supported by two 6 row KUE linear ball bearing and guideway assemblies arranged inline
- Guideway assemblies are preloaded, clearance free and run completely free from stick-slip
- Ballscrew drive pitches available, 5mm 10mm 20mm & 40mm
- Pitch accuracy of 50µm over 300mm
- Ballscrew supported by a preloaded double row angular contact bearing ZKLN which is greased for life
- Single cylindrical nut M or preloaded double nut MM
- Central lubrication system for the carriage and nut(s)

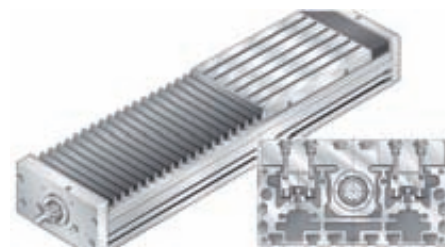
### MDKUE Tandem Linear Actuator



- Suitable for heavy loads with high moment loading about all three axis
- Maximum speed of 3m/s
- Maximum acceleration of 30m/s<sup>2</sup>
- High positional accuracy
- Highly suitable for vertical applications
- Profiled support rail with two integral 2 row KUE linear ball bearing and guideway assemblies in parallel
- Drive system with three toothed belts and two return units
- Return units consist of anodised profiled aluminium housing, two covers and a shaft unit
- Shafts supported on both sides by tapered roller bearings lubricated for life
- Return zone protected from contamination by integral brush wipers
- Anodised and profiled aluminium saddle plate

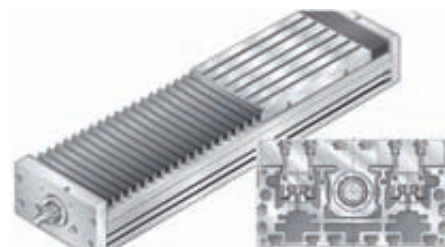
- Integral tensioners on both sides for the toothed belt
- Carriages have T-slots for fixing to the adjacent construction
- Maximum single piece length 6000mm
- Longer lengths can be achieved by combining several support rail sections
- Additional accessories include fixing brackets, fixing lugs, T-bolts and coupling housings

### MDKUE Tandem Linear Actuator



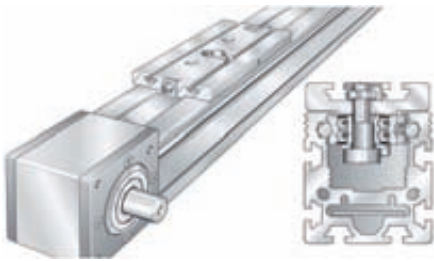
- Suitable for heavy loads with high moment loading about all three axis
- Maximum speed of 3m/s
- Maximum acceleration of 30m/s<sup>2</sup>
- High positional accuracy
- Highly suitable for vertical applications
- Significantly longer operating life than the MDKUE system under the same load
- Profiled support rail with two integral 4 row KUE linear ball bearing and guideway assemblies in parallel
- Drive system with three toothed belts and two return units
- Return units consist of anodised profiled aluminium housing, two covers and a shaft unit
- Shafts supported on both sides by tapered roller bearings lubricated for life
- Return zone protected from contamination by integral brush wipers
- Anodised and profiled aluminium saddle plate
- Integral tensioners on both sides for the toothed belt
- Carriages have T-slots for fixing to the adjacent construction
- Maximum single piece length 6000mm
- Longer lengths can be achieved by combining several support rail sections
- Additional accessories include fixing brackets, fixing lugs, T-bolts and coupling housings

### MDKUE Tandem Linear Actuator



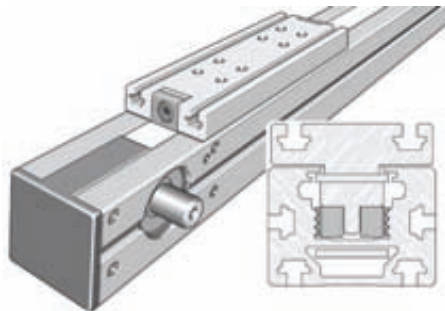
- Suitable for heavy loads with high moment loading about all three axis
- Maximum speed of 3m/s
- Maximum acceleration of 30m/s<sup>2</sup>
- High positional accuracy
- Highly suitable for vertical applications
- Significantly longer operating life than the MDKUE & MDKUE systems under the same load
- Profiled support rail with two integral 6 row KUE linear ball bearing and guideway assemblies in parallel
- Drive system with three toothed belts and two return units
- Return units consist of anodised profiled aluminium housing, two covers and a shaft unit
- Shafts supported on both sides by tapered roller bearings lubricated for life
- Return zone protected from contamination by integral brush wipers
- Anodised and profiled aluminium saddle plate
- Integral tensioners on both sides for the toothed belt
- Carriages have T-slots for fixing to the adjacent construction
- Maximum single piece length 6000mm
- Longer lengths can be achieved by combining several support rail sections
- Additional accessories include fixing brackets, fixing lugs, T-bolts and coupling housings

## MLFI Linear Actuator



- Suitable for light loads
- Maximum speed 4m/s
- Maximum acceleration 20m/s<sup>2</sup>
- High positional accuracy
- Anodised aluminium support rail utilising the INA track roller guidance system
- Two high alloy steel rods rolled into the sides
- Toothed belt drive
- Anodised aluminium carriage
- Three carriage lengths available
- 130mm carriage has 3 track rollers, 250mm & 500mm have 4 track rollers to accommodate higher forces and moment loads
- Carriage is guided by track rollers, LFR, and is set clearance free by means of eccentric bolts
- Carriage has integral tensioners on both sides for the toothed belt
- Return units incorporated in the support rail
- Shaft supported by deep groove ball bearings which are lubricated for life
- Maximum single length is 4000mm

## MGFI Linear Actuator



- Suitable for light loads
- Maximum speed 1m/s
- Maximum acceleration 5m/s<sup>2</sup>
- High positional accuracy
- Extremely quiet
- Requires very little maintenance
- Relubrication of the plain guidance system is not necessary
- Anodised aluminium support rail
- Toothed belt drive
- Anodised aluminium carriage fitted with four plain bearing units, GFK.
- GFK units have a PTFE based sliding layer are self lubricating, highly wear-resistant and offer vibration damping abilities
- Three carriage lengths available 130mm, 250mm & 500mm
- Carriage has integral tensioners on both sides for the toothed belt
- Return units incorporated in the support rail
- Shaft supported by deep groove ball bearings which are lubricated for life
- Maximum single length is 8000mm



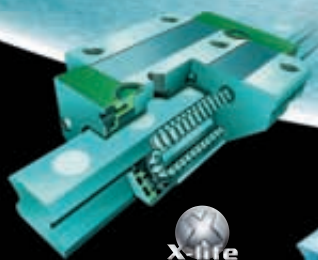
**FAG**

**Typical application**  
3 axis transfer system

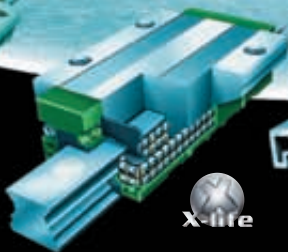
**Solution**  
INA linear actuator with  
ball monorail guidance  
system and ball screw drive

# First in Line

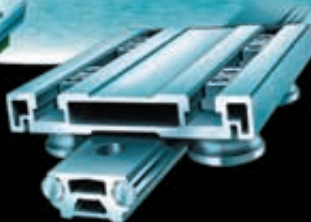
The world's largest range of linear systems from a single source



X-life



X-life



**INA linear bearings and guidance systems from Schaeffler UK offer first quality products to meet linear guidance requirements across a comprehensive range of applications.**

From simple guidance mechanisms for low to moderate accuracy to heavy duty systems offering high rigidity and load carrying capacity, the INA range is first in line.

Taking the quality envelope that bit further are X-life premium products that feature enhanced characteristics

including increased load carrying capacity, higher rigidity, lower operating temperatures and reduced noise levels.

So, whether you are designing a new machine tool, packaging machine, medical device, door closing mechanism or anything else that involves linear motion, the INA linear product range can provide the perfect solution.