Product Reference Guide

CATALOG PRG

OTHER PRODUCTS

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This product section has been excerpted from our full Product Reference Guide to reduce download time. Our complete Product Reference Guide is available in print and on CD-ROM. To receive the full version, please contact your nearest INA Sales Office listed on the last page of this file.

FOREWORD

This publication was designed to serve as a quick reference to the standard product series offered by INA USA Corporation (INA) for its domestic market. The guide provides a current overview of INA products, including basic envelope dimensions and capacities, in one publication – it is not an engineering design guide intended to replace INA engineering catalogs. Consequently, the metric and inch conversions are listed to 3 decimal places for easy reference and rapid identification of correct replacement part(s), not 4 decimal places as necessary for quality control purposes.

This publication can be used to narrow the choices between the many different INA product lines and series for new designs. Detailed engineering information for new designs can be found in our traditional catalogs or by contacting the INA Engineering Department.

A significant portion of INA sales are special production sizes. The identification of those parts is sometimes difficult since a comprehensive listing is beyond the intent of this publication. Special part numbers take as many different forms as the series listed here, but the basic system is to use sequential numbers for each new design. Usually the prefix is F or FC but can include VH, INA or the bearing type such as NA. INA maintains a technical help desk to identify sizes not known or to match competitors' parts.

The toll free 800 numbers listed will give you access to INA Customer Service representatives. These representatives can tap into INA Worldwide resources to provide the bearings you need.

Storage Life

Lubricants age naturally due to environmental influences. It is therefore the user's responsibility to follow the directions given by the lubricant manufacturer.

The greases used in INA rolling bearings have a mineral oil base and experience shows that they can be stored for up to 3 years without deteriorating providing the following important conditions are met.

- Closed storage room
- Temperature between 0°C and 40°C
- Relative atmospheric humidity 65% or less
- Security from chemical agents (vapors, gases, fluids)
- Sealed rolling bearings

The frictional torque can be considerably higher after linger storage periods than in freshly greased bearings and the lubricity of the grease can also have deteriorated.

INA bearings have many optional features available including:

- ISO series of bearings generally include the standard clearance options CN, C2, C3 and C4.
- ISO bearing series include PN, P6 and P5 precision classes.
- Corrotect™ plating is available for most bearing designs. Corrotect is a patented process for zinc–iron and zinc–iron–cobalt plating in a thin layer which can be applied to standard components. The protection exceeds stainless steel and the cost is half. Add suffix RR.
- All sealed bearings are supplied pregreased. In most cases the standard lubricant is Shell Retinax LX 2 or equivalent. Other greases are available, some at extra cost.
- Unsealed bearings may not be greased when shipped.
- Speed limits as published, are based on oil lubrication for open bearings or grease lubrication for sealed bearings. The speed limits are calculated based on a nominal load and heat balance equation. Higher speeds may be allowed depending on the application.
- Dynamic capacities are published based on INA standard usage of ISO and ABMA formulas. New life theory threshold values are published in other INA publications.
- Life calculations and evaluations can be made from INA engineering based catalogs which are available from your INA Sales Representative.
- Other features are available based on current production volumes including heat stabilization of the rings, matched bearing sets, with oil holes and grooves, etc.

ABMA	American Bearing Manufacturers Association
ASTM	American Society Of Testing And Materials
DIN	Deutsches Institut für Normung e.V.
ISO	International Standards Organization

Use of INA Part Numbers & Suffixes

INA has extra options to give you the maximum flexibility in answering customer needs.
Cage styles, seal types, internal clearances, and needle sorts are available to help you select the right part for your customers.

UG - Shell type open bearings come standard without grease (Example: SCE87 UG)
AA040 - Shell type sealed bearings come standard with 40% Retinax LX2 (Example: SCE8799 AA040)
0-7 - Radial needle roller & cage assemblies come standard with 0-7 Micron Needle Sorts
(Example: NRA5X49.8G2 0-7, K25X33X24B 0-7)

The table below provides a quick reference regarding our part numbers and integral suffixes. See each part section for part number schematics.

PART / SUFFIX	DEFINITION	EXAMPLE
HK1010, SCE86PP	INA Part Number	SCE87, PASE1-1/2, RA100RR
2RS	2 Lip Seals	62032RS, 3200J2RS
2Z	2 Gap Shields	62032Z, 3300J2Z
J	Steel Cage	52100J, 3200J
KDD, KDDU	2 Gap Shields	LR5208KDD, LR5307KDDU
M	Bronze Cage	930M, 89460M
NPP, NPPU	2 Lip Seals	GRA100NPPB, LR5202NPPU
PP	2 Lip Seals	SCE87PP
RR	2 Land Riding Seals	G1103KRRB, RA100RR
TN	Plastic Cage	81102TN, 87410TN
X	Cylindrical OD for Track Rollers	NATV20PPX, NUTR20X
-	Normal Clearance	6203, 62032RS
C2	C2 Clearance	6302 C2, 63022Z C2
C3	C3 Clearance	6205 C3, 62052RS C3
C4	C4 Clearance	5305J C4, 6210 C4
AA040	40% - Shell Retinax LX2	HK1010 AA040
UG	Ungreased / Corrosion Protected	HK1010 UG
0-7	0-7 Micron - Needle Sort	NRA5X49.8G2 0-7, K25X33X24B 0-7
0-10	0-10 Micron - Needle Sort	AXK6590 0-10

Unitized Compact System
MLFZ SERIES
Rail, Integral Design Carriage

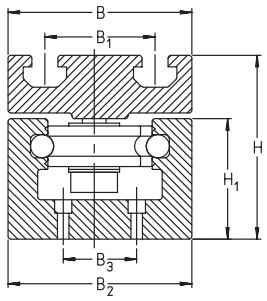
For details on part numbers, descriptive suffixes and various technical references, please refer to front of this section.

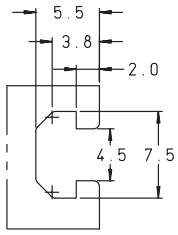
DIMENSION TABLE – Dimensions in mm																			
PART NUMBER	B	B_1	B_2	B_3	D_1	H	H_1	H_2	H_3	H_4	H_5	K_1	L	L_1	L_3	L_4	L_5	O	T
MLFZ 20 MI	31.75	19	31.75	19	–	31.8	20.8	–	–	–	–	#6-32	63.5	–	–	–	–	–	–
MLFZ 28 ZR	44.45	31.75	44.45	31.8	26	44.5	33.5	12.7	19.05	9.53	19.05	–	114.3	60	33.88	25.4	8.46	6-32	1.19

PART NUMBER	WEIGHTS			ALLOWABLE LOADS N				ALLOWABLE MOMENTS Nm						MOMENT OF INERTIA		BELT TYPE
	Go g	G100 g	Gc g	Fy	Foy	Fz	Foz	Mx	Mox	My	Moy	Mz	Moz	Iy mm^4	Iz mm^4	
MLFZ 20 MI	185	121	105	350	350	300	650	2	2.9	3.5	5.8	5.9	5.9	11950	31880	–
MLFZ 28 ZR	720	215	192	350	350	300	650	3.3	4.9	3.5	5.8	5.9	5.9	62300	159900	16T5

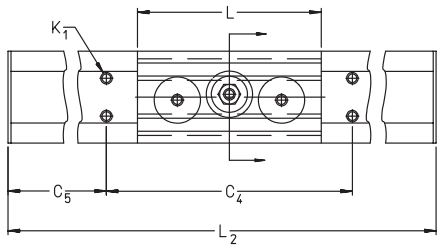
1. For maximum lengths please contact factory.
2. Custom carriages can be provided to suit individual requirements.
3. Load ratings valid for fully supported elements.
4. Load ratings not valid for corrosion resistant series.

MLFZ 20

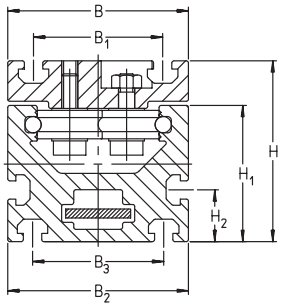


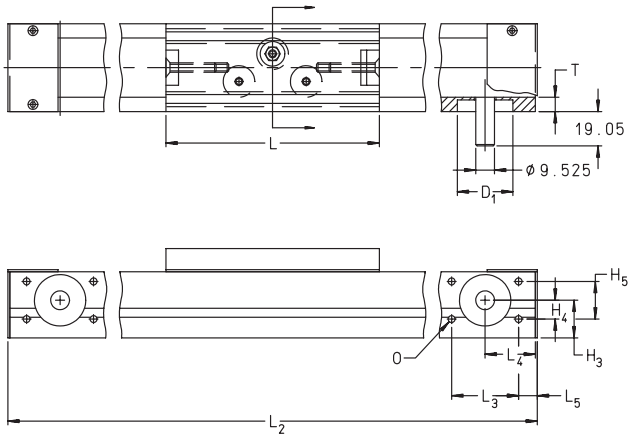


T-NUT DETAIL



MLFZ 28





Beam Rail
LFSB SERIES
Standard Carriage
LFL SERIES

For details on part numbers, descriptive suffixes and various technical references, please refer to front of this section.

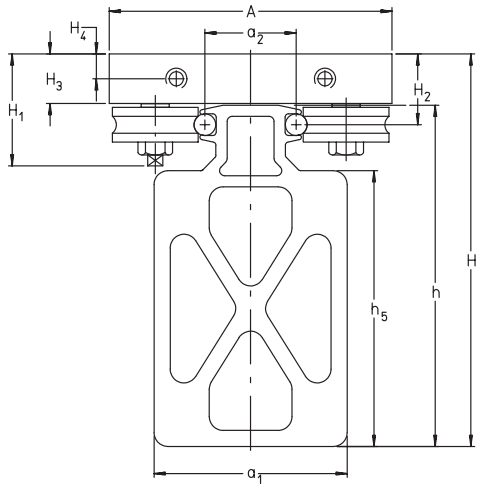
DIMENSION TABLE – Dimensions in mm

PART NUMBER RAIL	WEIGHT	PART NUMBER CARRIAGE	WEIGHT	DIMENSIONS						LOAD CALCULATIONS								
				CARRIAGE			RAIL			LOAD CURVE 3)	ALLOWABLE LOADS		ALLOWABLE MOMENTS			MOMENT OF INERTIA	
				H	A	C	h	a	L 2)		Fy	Fz	Mx	My	Mz	Iy	Iz
	g/m		g								N	N	Nm	Nm	Nm	mm^4	mm^4
LFSB 32	9970	LFL 90-80	400	135.6	80	90	120.2	32	4000	2	850	1000	11	30	26	1.485×10^6	4.72×10^6
LFSB 52	18600	LFL 100-120	1000	177.4	120	100	157.2	52	4000	3	1500	2500	33	75	47	5.25×10^6	15.9×10^6
LFSB 52	18600	LFL 150-155	1900	183.4	135	150	157.2	52	4000	4	2400	4500	51	105	126	5.25×10^6	15.9×10^6

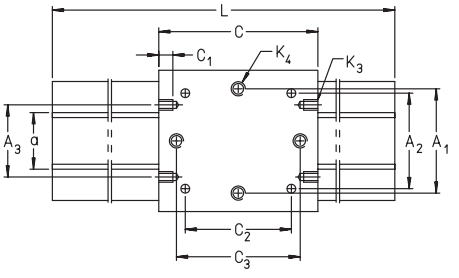
MOUNTING DIMENSIONS – Dimensions in mm

PART NUMBER RAIL	WEIGHT g/m	PART NUMBER CARRIAGE	A_1	A_2	A_3	a_1	a_2	C_1	C_2	C_3	H_1	H_2	H_3	H_4	h_5	K_3	K_4
LFSB 32	9970	LFL 90-80	59	54	56	63.5	26	7	60	70	35	20.4	14	7	101.6	M6	M8
LFSB 52	18600	LFL 100-120	90	83	65	88.9	42	12	60	70	53.5	29.2	19.5	9.75	127	M6	M10
LFSB 52	18600	LFL 150-135	105	90	65	88.9	42	12	105	110	59	35.2	24	12	127	M6	M10

1. The beam rail is designed as a rigid, light weight beam, suitable for end mounting.
2. Contact factory for longer lengths.
3. Not valid for corrosion resistant series.



LFSB with LFL



TOP VIEW

Beam Rail
LFSB SERIES
Enclosed, Sealed Carriage
LFKL SERIES

For details on part numbers, descriptive suffixes and various technical references, please refer to front of this section.

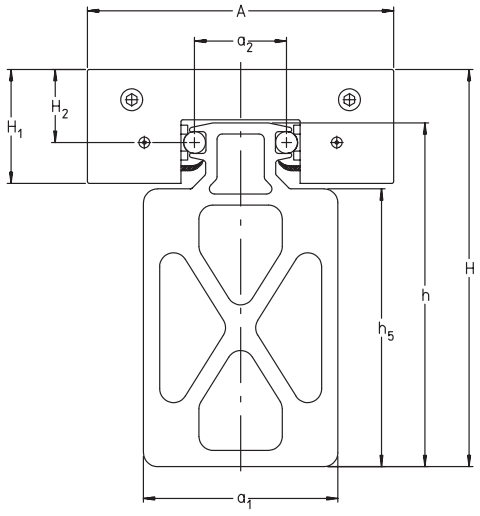
DIMENSION TABLE – Dimensions in mm

PART NUMBER RAIL	WEIGHT	PART NUMBER CARRIAGE	WEIGHT	DIMENSIONS						LOAD CALCULATIONS								
				CARRIAGE			RAIL			LOAD CURVE [4]	ALLOWABLE LOADS		ALLOWABLE MOMENTS			MOMENT OF INERTIA		
				H	A	C	h	a	L[2]		Fy	Fz	Mx	My	Mz	Iy	Iz	
	g/m		g								N	N	Nm	Nm	Nm	mm^4	mm^4	
LFSB 32	9970	LFKL 112-86	700	135.7	86	112	120.2	32	4000	2	850	1000	11	30	26	1.485×10^6	4.72×10^6	
LFSB 52	18600	LFKL 136-130	1500	177.2	130	136	157.2	52	4000	3	1500	2500	33	75	47	5.25×10^6	15.9×10^6	
LFSB 52	18600	LFKL 186-145	2900	183.5	145	186	157.2	52	4000	4	2400	4500	51	105	126	5.25×10^6	15.9×10^6	
LFSB 52	18600	LFKL 205-155	3900	183.5	155	205	157.2	52	4000	5	4800	8000	101	480	288	5.25×10^6	15.9×10^6	

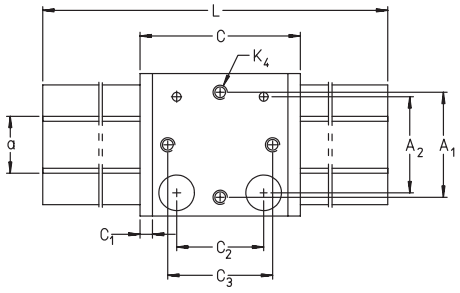
MOUNTING DIMENSIONS – Dimensions in mm

PART NUMBER RAIL	WEIGHT g/m	PART NUMBER CARRIAGE	A_1	A_2	a_1	a_2	C_1	C_2	C_3	H_1	H_2	H_3	h_5	K_4	K_5
LFSB 32	1000	LFKL 112-86	59	54	63.5	26	7	60	70	32	20.3	14	101.6	M8	18
LFSB 52	3000	LFKL 136-130	90	83	88.9	42	10	60	70	46.1	29	19.5	127	M10	30
LFSB 52	3000	LFKL 186-145	105	90	88.9	42	10	105	110	53.8	35.3	24	127	M10	30
LFSB 52	3000	LFKL 205-155	115	95	112	42	10	120	140	55	35.3	24	127	M12	34

1. Rail end support mounting holes can be provided to suit individual requirements.
2. Enclosed carriages are provided with felt shaft wipers with provision for lubrication, and a running bottom sealing element.
3. Contact factory for longer lengths.
4. Not valid for corrosion resistant series.



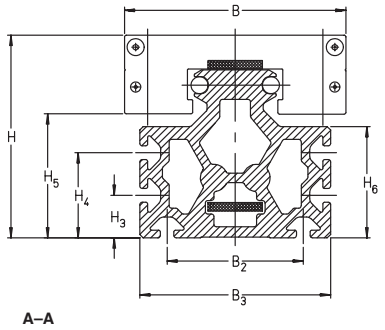
LFSB with LFKL



TOP VIEW

Linear Modular Unit With Track Roller Guidance System And Toothed Belt Drive

MLF..ZR SERIES



For details on part numbers, descriptive suffixes and various technical references, please refer to front of this section.

DIMENSION TABLE · Dimensions in mm

PART NUMBER	DIMENSIONS																			
	L	B	H	L_1 ±0.1	B_1 ±0.1	O	H_1	H_2	B_2	B_3	H_3	H_4	H_5	H_6	L_3	O_1	D	D_1 G7	D_2	T ±0.1
MLF 32 086 ZR	155	86	82	50	59	M8	40	81.5	43	75	25	–	50	47	80	M6	80	70	61	2.3
MLF 52 130 ZR	200	130	119	55	90	M10	57.7	117.75	80	112	25	50	72.8	65.4	115.4	M8	115	95	76	3.5
MLF 52 145 ZR	245	145	125	80	105	M10	57.7	117.75	80	112	25	50	71.2	65.4	115.4	M8	115	95	76	3.5
MLF 52 155 ZR	260	155	125	90	115	M12	57.7	117.75	80	112	25	50	70	65.4	115.4	M8	115	95	76	3.5

TOOTHED BELT / GEAR WHEELS

	TOOTHED BELT TYPE	PERMISSIBLE TOOTHED BELT DRIVE FORCE N	MASS kg/m	DISPLACEMENT mm/rev.	MASS MOMENT OF INERTIA OF BOTH GEAR WHEELS $kg \cdot m^2$
MLF 32 086 ZR	20 AT 5	640	0.068	175	$2.2 \cdot 10^{-4}$
MLF 52 130 ZR	32 AT 10	1750	0.2	270	$12.6 \cdot 10^{-4}$
MLF 52 145 ZR	32 AT 10	1750	0.2	270	$12.6 \cdot 10^{-4}$
MLF 52 155 ZR	32 AT 10	1750	0.2	270	$12.6 \cdot 10^{-4}$

1) When using standard brush wipers:
L_2=Stroke+L+2xS
The additional factor S represents a security which is dependent on the specific application and must be at least 85 mm;
Stroke in mm
When using bellows: L_2=Stroke x 1.4+L+2xS
The factor of 1.4 accounts for the compressed length of the bellows.
Maximum length of profiled support rail L_2=6000 mm (longer profiled support rails available on request)

2) Total weight $G_{tot} = G_0 + \frac{G_{100} \text{ x (Stroke +2xS)}}{100}$ [kg]

When using bellows:

Total weight $G_{tot} = G_0 + \frac{G_{100} \text{ x Stroke x } 1.4}{100}$ [kg]

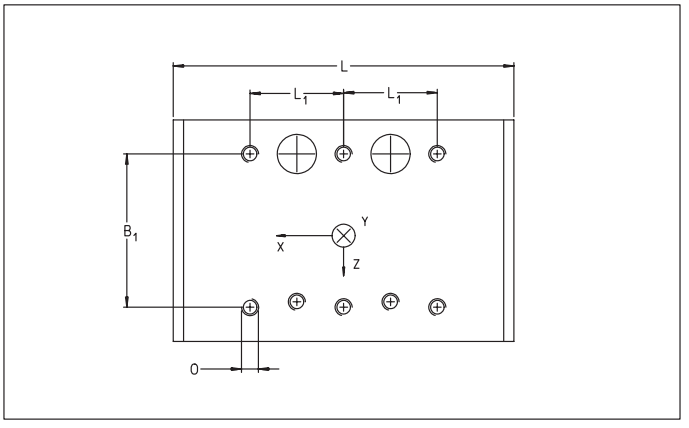
3) G_0 =weight of unit for stroke length 0

4) G_{100} =weight of unit per 100 mm stroke of the carriage

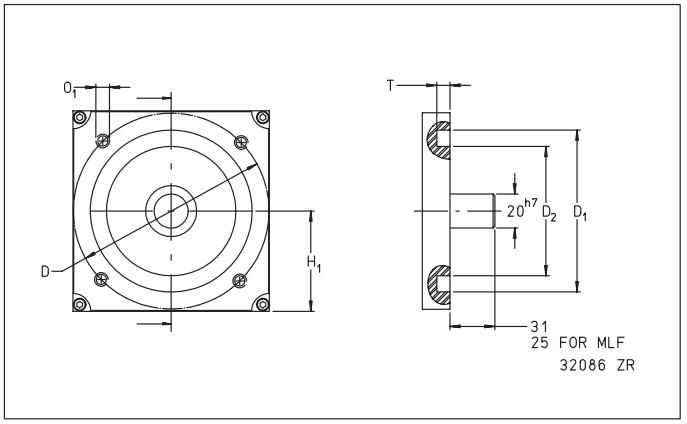
5) G_{LFKL} =weight of moving mass of the carriage

6) Values for individual loads and with complete support for underside of the unit. These must be reduced for combined loading.

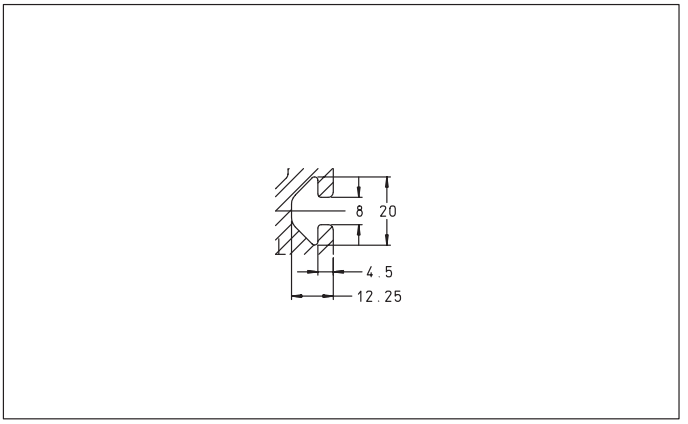
Mounting dimensions



Carriage

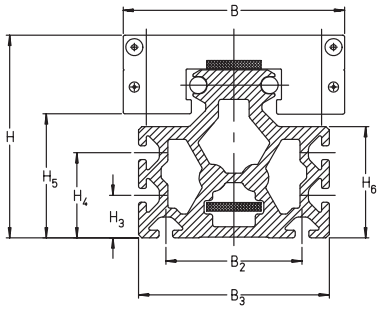


Coupling/Coupling Housing



T–grooves

Linear Modular Unit With Track Roller Guidance System And Toothed Belt Drive
MLF..ZR SERIES

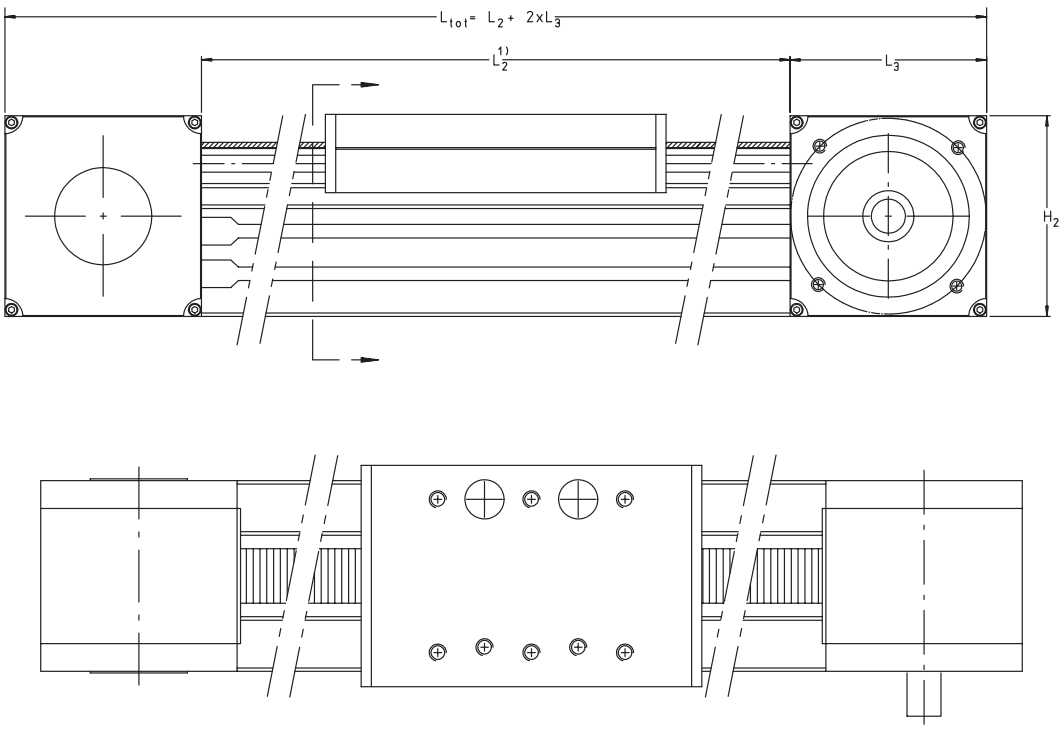


A–A

For details on part numbers, descriptive suffixes and various technical references, please refer to front of this section.

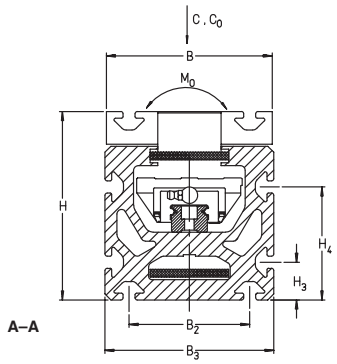
MASS[2]			PERMISSIBLE LOADS[6]				PERMISSIBLE MOMENTS[6]						GEOMETRICAL MOMENTS OF INERTIA cm^4	
G_0[3] kg	G_{100}[4] kg	G_{LFKL}[5] kg	F_{yperm} N	F_{oyperm} N	F_{zperm} N	F_{ozperm} N	M_{xperm} Nm	M_{oxperm} Nm	M_{yperm} Nm	M_{oyperm} Nm	M_{zperm} Nm	M_{ozperm} Nm	Iy	Iz
4.8	0.6	0.8	850	1400	1000	1000	11	18	30	30	26	43	100	76
12	1.28	2	1500	2500	3500	3500	33	52	105	105	47	78	392	304
13.9	1.28	3.2	2400	4000	4500	4500	51	84	236	236	126	210	392	304
15.7	1.28	5	4800	7900	8000	8000	101	166	480	480	288	474	392	304

MLF 52130 ZR AR



Linear Modular Unit With Recirculating Ball Bearing Guidance System And Toothed Belt Drive

MKUE..ZR..N SERIES



For details on part numbers, descriptive suffixes and various technical references, please refer to front of this section.

DIMENSION TABLE · Dimensions in mm

PART NUMBER	DIMENSIONS															
	L	B	H	B_1 ±0.2	H_1	H_2	L_1 ±0.1	H_3	H_4	B_2	B_3	O	D	D_1 G7	D_2	T ±0.1
MKUE 25 ZR..N	250	110	125	80	57.7	115.5	263	25	75	80	112	M8	115	95	76	3.5

TOOTHED BELT / GEAR WHEELS

	TOOTHED BELT TYPE	PERMISSIBLE TOOTHED BELT DRIVE FORCE N	MASS kg/m	DISPLACEMENT mm/rev.	MASS MOMENT OF INERTIA OF BOTH GEAR WHEELS $kg \cdot m^2$
MKUE 25 ZR..N	50 AT 10	1880	0.315	250	$30.6 \cdot 10^{-4}$

1) L_2=Stroke+L_1+2xS
The additional factor S represents a security which is dependent on the specific application and must be at least 85 mm;
Stroke in mm
Maximum length of profiled support rail L_2=4000 mm (longer profiled support rails available on request)

2) Total weight $G_{tot} = G_0 + \frac{G_{100} \times (\text{Stroke} + 2xS)}{100}$ [kg]

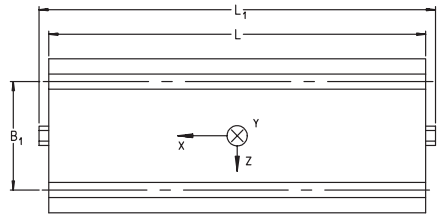
3) G_0 =weight of unit for stroke length 0

4) G_{100} =weight of unit per 100 mm stroke of the carriage

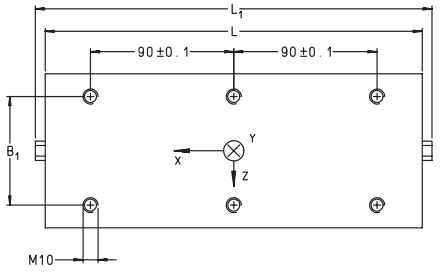
5) G_{MKWE}=weight of moving mass of the carriage

6) Values with complete support for underside of the unit

Mounting dimensions

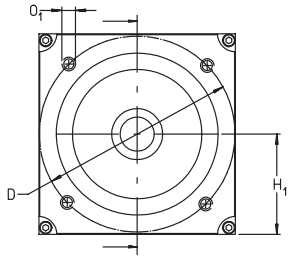


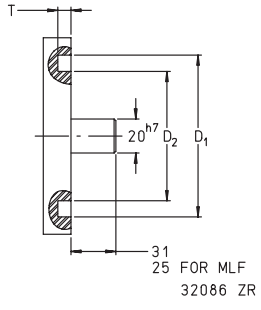
STANDARD CARRIAGE WITH T-GROOVES



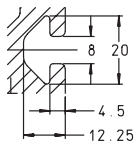
(CARRIAGE AVAILABLE WITH HOLES)

Carriage





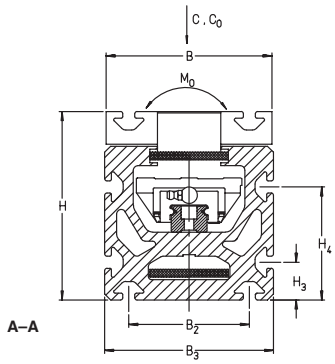
Coupling/Coupling Housing



T–grooves

Linear Modular Unit With Recirculating Ball Bearing Guidance System And Toothed Belt Drive

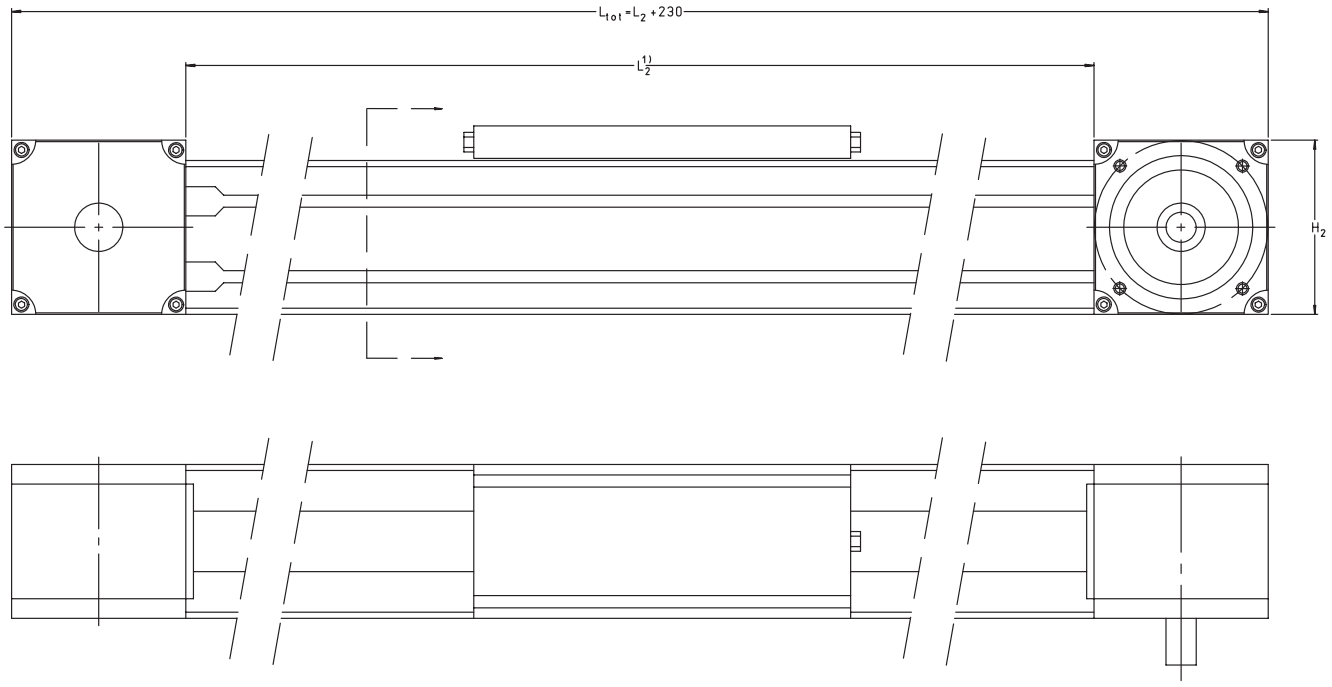
MKUE..ZR..N SERIES



For details on part numbers, descriptive suffixes and various technical references, please refer to front of this section.

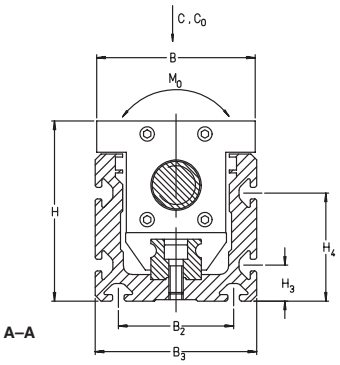
MASS[2]			BASIC LOAD RATINGS[6]		PERMISSIBLE STATIC MOMENT[6]	GEOMETRICAL MOMENTS OF INERTIA cm^4	
G_O[3] kg	G_{100}[4] kg	G_{MKWE}[5] kg	C kN	C_0 kN	M_0 STATIC Nm	Iy	Iz
16.2	1.66	3,8	26.3	41.8	411	733	517

MKUE 25 ZR AR N



Linear Modular Unit With Recirculating Ball Bearing Guidance System And Ball Screw Drive

MKUE..KGT SERIES



For details on part numbers, descriptive suffixes and various technical references, please refer to front of this section.

DIMENSION TABLE · Dimensions in mm

PART NUMBER	SPINDLE	DIMENSIONS													
	$d_0 x P^{7)}$	L	B	H	L_1 ±0.1	B_1 ±0.1	O	d ∅h6	H_1	H_2	L_3	L_4	H_3	H_4	B_2
MKUE 25 KGT 5	32X5	200	110	125	55	80	M10	19	80	124.5	39	67	25	75	80
MKUE 25 KGT 10	32X10	200	110	125	55	80	M10	19	80	124.5	39	67	25	75	80
MKUE 25 KGT 40	32X40	200	110	125	55	80	M10	19	80	124.5	39	67	25	75	80

1) L_2=Stroke × 1.2 + L +2×S
S=spindle lead P;stroke in mm
Maximum length of profiled Support rail L_2 = 4000 mm (longer profiled support rails available on request).
Modular units with a stroke length over 1200 mm can be fitted with movable spindle supports.

2) Total weight $G_{tot} = G_0 + \frac{G_{100} \text{ x Stroke x } 1.2}{100}$ [kg]

3) G_0 = weight of unit for stroke length 0

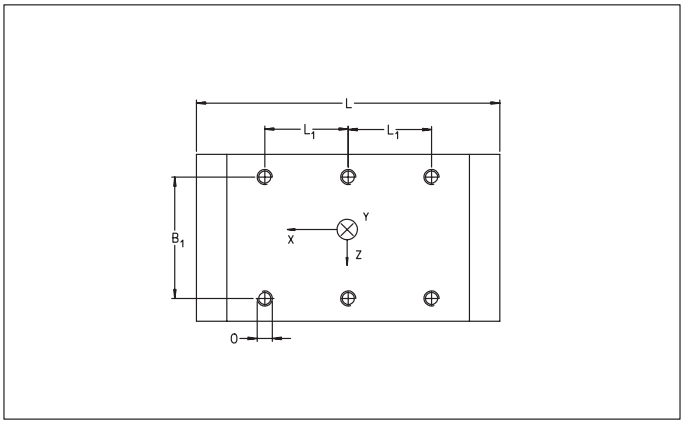
4) G_{100} = wieght of unit per 100 mm stroke of the carriage

5) G_{MKWE}= weight of moving mass of the carriage

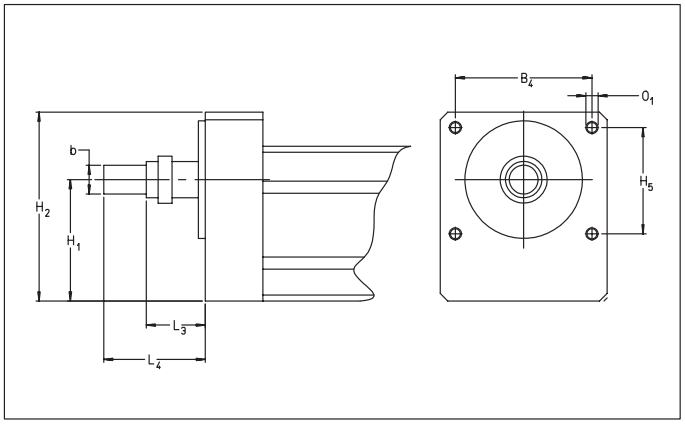
6) Values with complete support for underside of the unit

7) d_0 × P = nominal spindle diameter×spindle lead

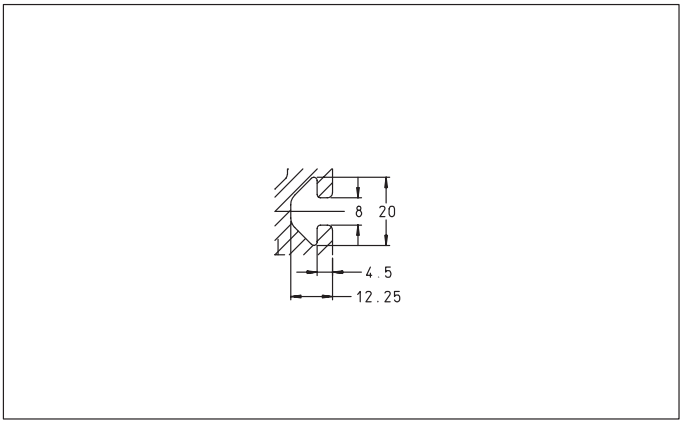
Mounting dimensions



Carriage



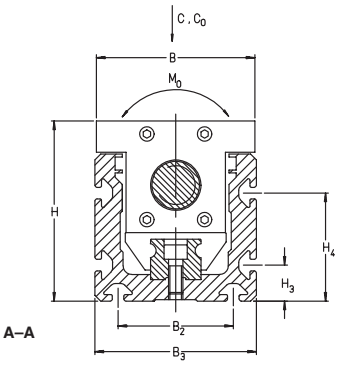
Coupling/Coupling Housing



T–grooves

Linear Modular Unit With Recirculating Ball Bearing Guidance System And Ball Screw Drive

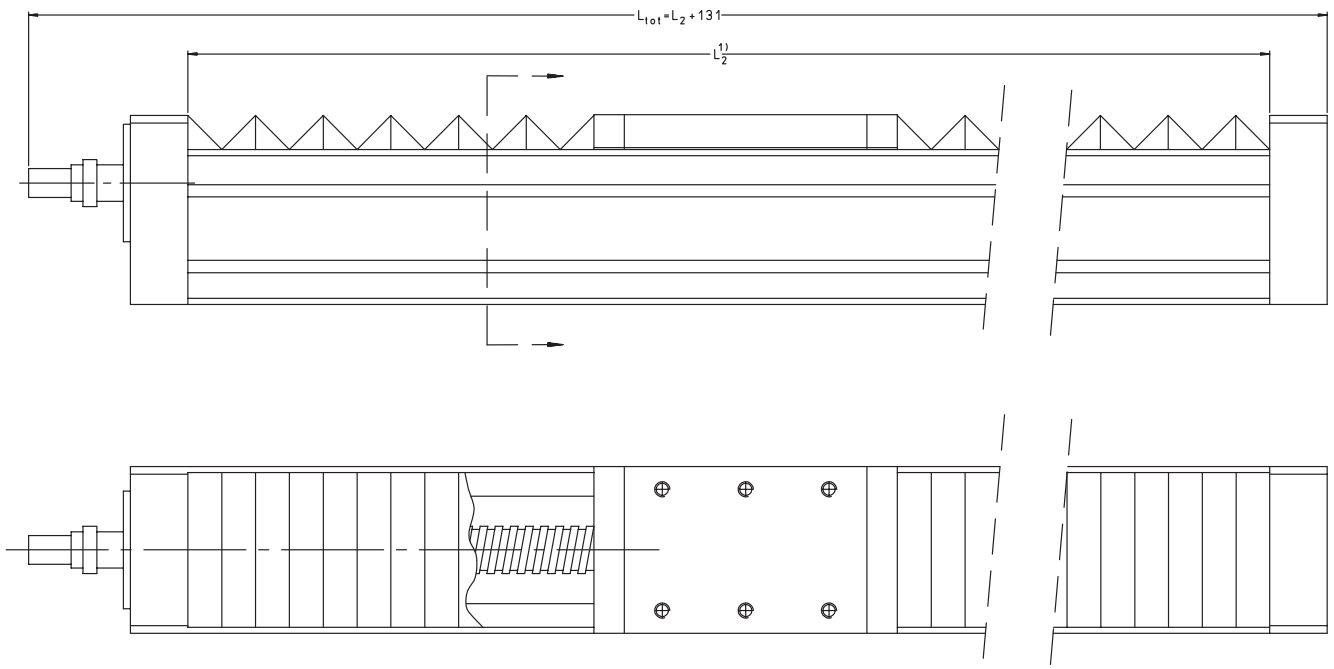
MKUE..KGT SERIES



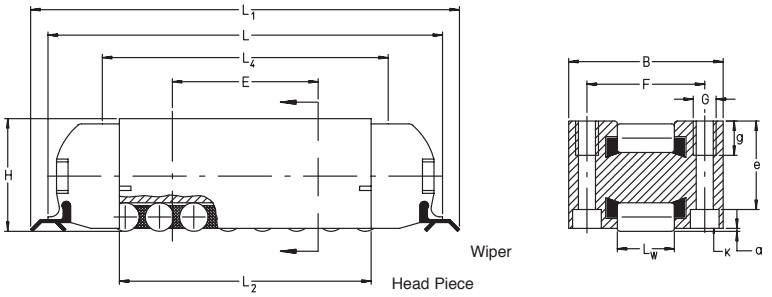
For details on part numbers, descriptive suffixes and various technical references, please refer to front of this section.

				MASS[2]			BASIC LOAD RATINGS[6]		PERMISSIBLE STATIC MOMENT[6]	GEOMETRICAL MOMENTS OF INERTIA cm^4	
B_3	H_5	B_4	O_1	G_O[3] kg	G_{100}[4] kg	G_{MKWE}[5] kg	C kN	C_0 kN	M_0 STATIC Nm	Iy	Iz
112	70	90	M8	17.4	2	4.3	26.3	41.8	411	717	408
112	70	90	M8	17.4	2	4.3	26.3	41.8	411	717	408
112	70	90	M8	17.4	2	4.3	26.3	41.8	411	717	408

MKUE 25 KGT 10



Linear Roller Bearings
RUS, RUS..KS SERIES



RUS 19 069 to RUS 38 206

For details on part numbers, descriptive suffixes and various technical references, please refer to front of this section.

DIMENSION TABLE · Dimensions in mm

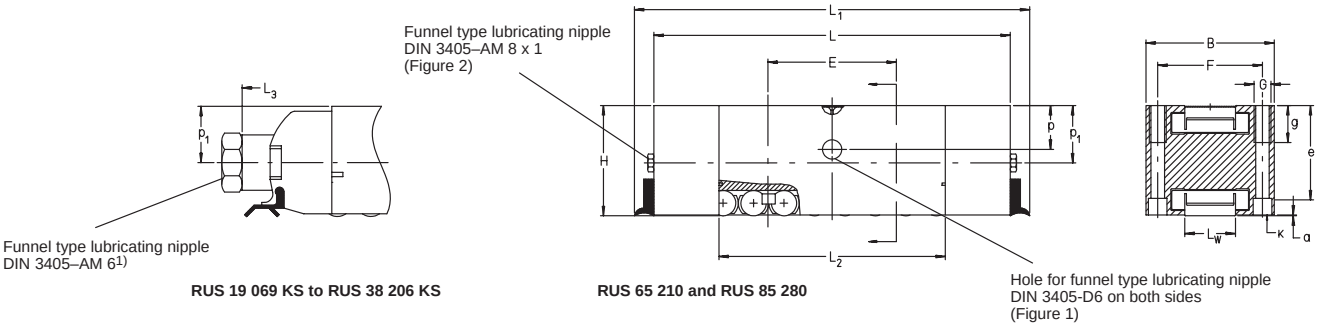
PART NUMBER		MASS	DIMENSIONS							
			H	L	B	L_1	L_2	L_3	L_W	a
		kg								
RUS 19 069		0.16	19	69	27	75	44	–	10	0.2
	RUS 19 069 KS	0.19	19	–	27	–	44	76	10	0.2
RUS 19 105		0.27	19	105	27	111	78.5	–	10	0.2
	RUS 19 105 KS	0.29	19	–	27	–	78.5	112	10	0.2
RUS 26 086		0.41	26	86	40	92	53	–	14	0.2
	RUS 26 086 KS	0.49	26	–	40	–	53	92	14	0.2
RUS 26 102		0.53	26	102	40	108	69	–	14	0.2
	RUS 26 102 KS	0.61	26	–	40	–	69	108	14	0.2
RUS 26 126		0.70	26	126	40	132	93	–	14	0.2
	RUS 26 126 KS	0.78	26	–	40	–	93	132	14	0.2
RUS 38 134		1.27	38	133	52	133	85	–	20	0.2
	RUS 38 134 KS	1.53	38	–	52	–	85	136	20	0.2
RUS 38 206		2.28	38	206	52	206	158	–	20	0.2
	RUS 38 206 KS	2.53	38	–	52	–	158	209	20	0.2
RUS 65 210		7.5	65	211	76	234	134	–	30	0.5
RUS 85 280*)		16	85	281	104	303	185	–	40	0.5

1) If the lubricating nipple is replaced by tube or pipe connections, the thread length must not exceed 6 mm.

2) Minimum length to be supported

3) UG guideway for RUS 85 280 available on request

*) Available on request



RUS 19 069 KS to RUS 38 206 KS **RUS 65 210 and RUS 85 280**

BASIC LOAD RATINGS		MOUNTING DIMENSIONS								K FOR FIXING SCREWS TO DIN 912	MATCHING ADJUSTING GIBS	MATCHING GUIDEWAYS
dyn. C N	stat. C_0 N	L_4[2)]	E ±0.1	F ±0.1	G	e	g	p	p_1			
42,000	33,000	50	25.5	20.6	M4	15.5	6	–	–	M3	VUS 19 069	UG 6628 UV 5323 UFA 3210 UFK 3210 UFB 4710
42,000	33,000	50	25.5	20.6	M4	15.5	6	–	10	M3	VUS 19 069	
68,000	61,000	85	50	20.6	M4	15.5	6	–	–	M3	VUS 19 105	
68,000	61,000	85	50	20.6	M4	15.5	6	–	10	M3	VUS 19 105	
76,000	56,000	63	28	30	M6	21	10	–	–	M4	VUS 26 086	UG 9741 UV 7532 UFA 4710 UFK 4710 UFB 6412
76,000	56,000	63	28	30	M6	21	10	–	13.5	M4	VUS 26 086	
95,000	75,000	79	44	30	M6	21	10	–	–	M4	VUS 26 102	
95,000	75,000	79	44	30	M6	21	10	–	13.5	M4	VUS 26 102	
122,000	103,000	103	68	30	M6	21	10	–	–	M4	VUS 26 126	
122,000	103,000	103	68	30	M6	21	10	–	13.5	M4	VUS 26 126	
179,000	133,000	100	51	41	M8	31	14	–	–	M6	VUS 38 134	UG 12 553 UV 9542 UFA 6412 UFK 6412 UFB 7812
179,000	133,000	100	51	41	M8	31	14	–	19.5	M6	VUS 38 134	
305,000	265,000	172	102	41	M8	31	14	–	–	M6	VUS 38 206	
305,000	265,000	172	102	41	M8	31	14	–	19.5	M6	VUS 38 206	
465,000	345,000	–	76	62	M10	55	22	26	34	M8	VUS 65 210	UG 16 260 UV 13 863 UFA 8815 UFK 8815 UFB 10 615
840,000	620,000	–	101.5	82.5	M14	73	30	33	45	M10	VUS 85 280	UG....[3)] UV 16 977 UFA 11 518 UFK 11 518 UFB 14 0185

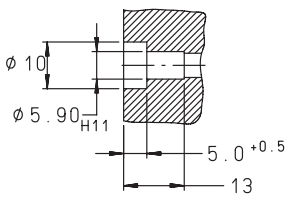


Figure 1

Lubrication holes are provided on both sides for funnel type grease nipples DIN 3405-D6 (supplied with the bearing) or either tube or pipe connection. If no lubrication connection is to be provided the holes should be plugged with the lubricating nipples.

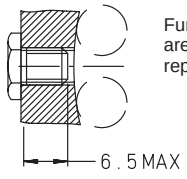
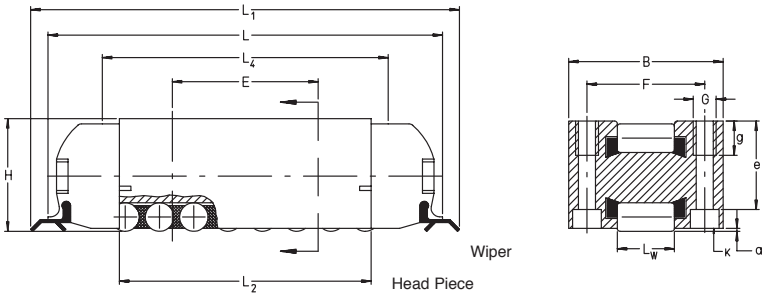


Figure 2

Funnel type lubricating nipples DIN 3405-AM 8x1 are mounted in the head pieces. They can be replaced by tube or pipe connections.

Linear Roller Bearings
RUSZ, RUSZ..KS SERIES



RUS 19 069 to RUS 38 206

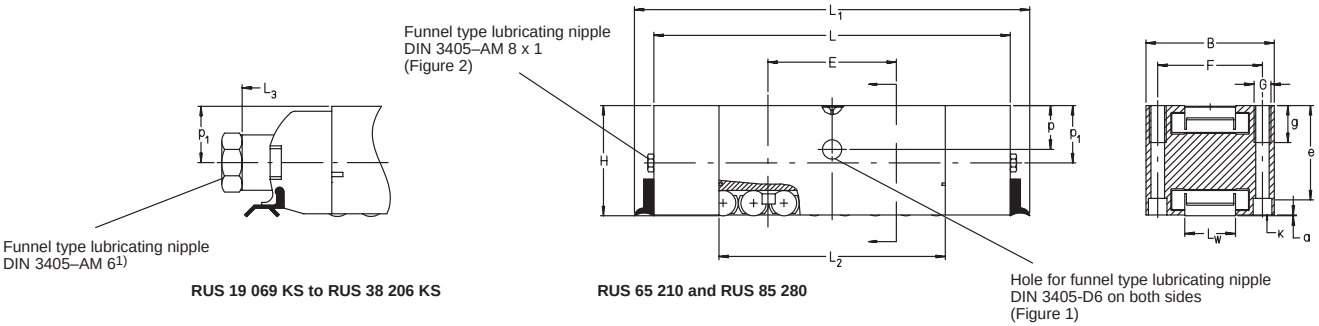
For details on part numbers, descriptive suffixes and various technical references, please refer to front of this section.

DIMENSION TABLE · Dimensions in mm

PART NUMBER	DIMENSIONS							
	H	L	B	L_1	L_2	L_3	L_W	a
RUSZ 12044	19.05	69	25.4	75	44	–	10	0.2
RUSZ 18059	28.57	94	38.1	100	60	–	14	0.2
RUSZ 24084	38.1	133	50.8	133	85	–	20	0.2
RUSZ 12044 KS	19.05	69	25.4	75	44	76	10	0.2
RUSZ 18059 KS	28.57	94	38.1	100	60	132	14	0.2
RUSZ 24084 KS	38.1	133	50.8	133	85	136	20	0.2

1) If the lubricating nipple is replaced by tube or pipe connections, the thread length must not exceed 6 mm.

2) Minimum length to be supported



RUS 19 069 KS to RUS 38 206 KS **RUS 65 210 and RUS 85 280**

BASIC LOAD RATINGS		MOUNTING DIMENSIONS								K FOR FIXING SCREWS TO DIN 912	MATCHING ADJUSTING GIBS	MATCHING GUIDEWAYS
dyn. C N	stat. C_0 N	L_4 2)	E ±0.1	F ±0.1	G	e	g	p	p_1			
42000	33000	50	25.5	20.6	–	15.5	–	–	–	M3x22	VUSZ 12044	UG6628 UV5323 UFA/UFK3210 UFB4710
86000	65000	71	38	31	–	23.6	–	–	–	M4x30	VUSZ 18059	UG9745 UV7532 UFA/UFK4710 UFB6412
179000	133000	100	51	41	–	32.1	–	–	–	M5x45	VUSZ 24084	UG12553 UV9542 UFA/UFK6412 UFB7812
42000	33000	50	25.5	20.6	–	15.5	–	–	–	M3x22	VUSZ 12044	UG6628 UV5323 UFA/UFK3210 UFB4710
86000	65000	71	38	31	–	23.6	–	–	–	M4x30	VUSZ 18059	UG9745 UV7532 UFA/UFK4710 UFB6412
179000	133000	100	51	41	–	32.1	–	–	–	M5x45	VUSZ 24084	UG12553 UV9542 UFA/UFK6412 UFB7812

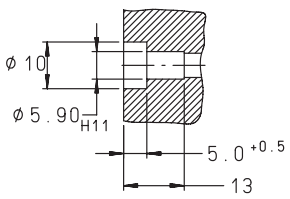


Figure 1

Lubrication holes are provided on both sides for funnel type grease nipples DIN 3405-D6 (supplied with the bearing) or either tube or pipe connection. If no lubrication connection is to be provided the holes should be plugged with the lubricating nipples.

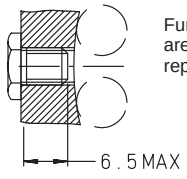
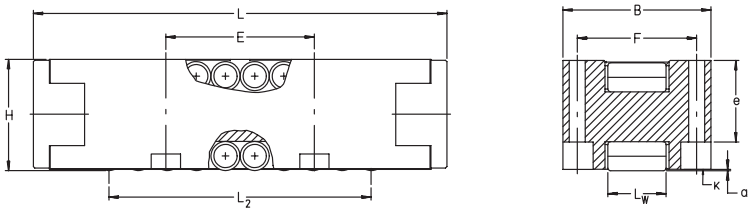


Figure 2

Funnel type lubricating nipples DIN 3405-AM 8x1 are mounted in the head pieces. They can be replaced by tube or pipe connections.

Linear Roller Bearings
PR SERIES



For details on part numbers, descriptive suffixes and various technical references, please refer to front of this section.

DIMENSION TABLE · Dimensions in mm

PART NUMBER	MASS	DIMENSIONS					
		H	L	B	L_2	L_W	a
	kg						
PR 14 032	0.095	14.285	51	22.23	31	9	0.2
PR 14 044	0.2	19.05	69	25.4	42	10	0.35
PR 14 061	0.65	28.57	96	38.1	58.5	16	0.35
PR 14 089	1.75	38.1	142	50.8	90	20	0.4
PR 14 135	5.65	57.15	196	76.2	126	30	0.5
PR 14 182	13.25	76.2	264	101.6	167	40	0.6

1) UG guideway for PR 14 182 available on request

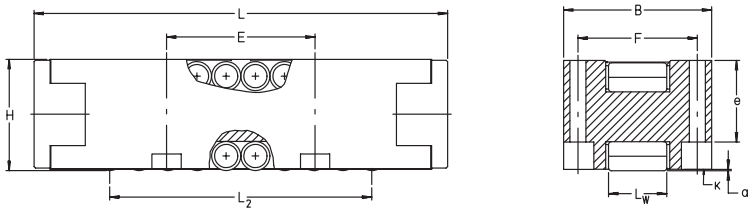
2) Not available from stock. Please check delivery time.

Ordering examples:

Linear roller bearing PR 14 061
with a tolerance for the nominal height H of –10 to –15 µm:
PR 14 061 –10 –15

Linear roller bearing PR 14 135
with a tolerance for the nominal height H of –10 to –20 µm:
PR 14 135 –10 –20

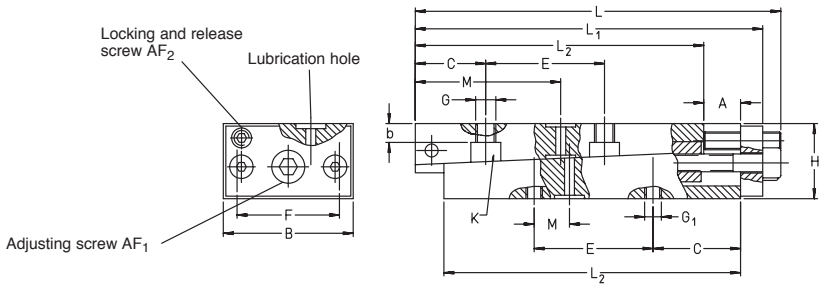
Linear Roller Bearings
PR SERIES



For details on part numbers, descriptive suffixes and various technical references, please refer to front of this section.

BASIC LOAD RATINGS		MOUNTING DIMENSIONS			K FOR FIXING SCREWS TO DIN 912	MATCHING ADJUSTING GIBS	MATCHING GUIDEWAYS	
dyn. C N	stat. C_0 N	E ±0.1	F ±0.1	e				
21,700	17,600	19	17.1	10	M2.5	–	UG 6628 UV 5323	UFA 3210 UFK 3210
44,000	37,500	25.5	20.6	14	M3	VUSZ 12 044	UG 6628 UV 5323	UFA 3210 UFK 3210 UFB 4710
107,000	86,000	38	31	20.8	M4	VUSZ 18 059	UG 9741 UV 7532	UFA 4710 UFK 4710 UFB 6412
205,000	171,000	51	41	28	M5	VUSZ 24 084	UG 12 553 UV 9542	UFA 6412 UFK 6412 UFB 7812
435,000	345,000	76.2	62	42	M6	VUSZ 36 135[2)]	UG 16 260 UV 13 863	UFA 8815 UFK 8815 UFB 10 615
790,000	620,000	101.6	82.5	56	M8	VUSZ 48 182[2)]	UG....[1)] UV 16 977	UFA 11 518 UFK 11 518 UFB 14 018

Adjusting Gibs
VUS, METRIC SIZES SERIES
VUSZ, INCH SIZES SERIES



For details on part numbers, descriptive suffixes and various technical references, please refer to front of this section.

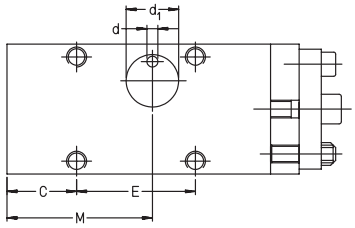
DIMENSION TABLE · Dimensions in mm

PART NUMBER	MASS	DIMENSIONS			MOUNTING DIMENSIONS					
		B	H	L	L_1	L_2	E	F	b	C
	kg		min.	max.	max.		±0.1	±0.1		
VUS 19 069	0.24	26.5	16	78	73	62	25.5	20.6	4	16.5
VUS 19 105	0.32	26.5	16	123	119	100	50	20.6	3.5	25
VUS 26 086	0.6	39.5	25	97	89	75	28	30	6	20.5
VUS 26 102	0.71	39.5	25	113	105	91	44	30	6	20.5
VUS 26 126	0.9	39.5	25	137	129	115	68	30	6	20.5
VUS 38 134	1.47	51.5	30	141	131	115	51	41	7	28
VUS 38 206	2.1	51.5	25	250	240	200	102	41	5	49

DIMENSION TABLE · Dimensions in mm

PART NUMBER	MASS	DIMENSIONS			MOUNTING DIMENSIONS					
		B	H	L	L_1	L_2	E	F	b	C
	kg		min.	max.	max.		±0.1	±0.1		
VUSZ 12 044	0.19	25	16	78	73	62	25.5	19[1)]	4	16.5
VUSZ 18 059	0.63	37.6	25	107	99	85	38	31	6	20.5
VUSZ 24 084	1.38	50	30	141	131	115	51	41	7	28

1) Distance between the mounting holes in the top wedge of the gib; deviates from the bottom wedge

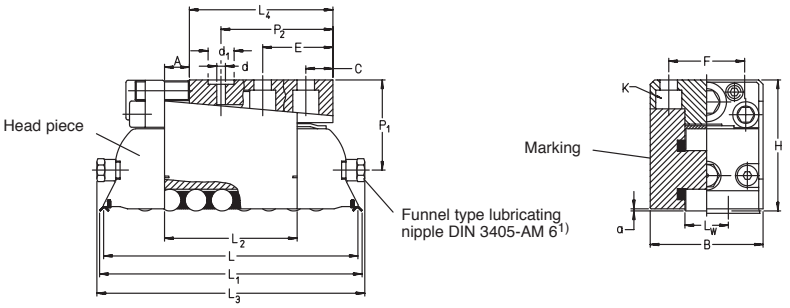


Top View

DIMENSION TABLE · Dimensions in mm										
					G_1, K FOR FIXING SCREW TO DIN 912	HEIGHT CHANGE		ADJUSTING SCREW	LOCKING AND RELEASE SCREW	MATCHING LINEAR ROLLER BEARINGS
M	d	d_1	A max.	G		ΔH max.	PER SCREW ROTATION	AF_1	AF_2	
16.5	3.5	12	7	M 4	M 3	0.35	0.035	3	2	RUS 19 069
29	3.5	12	15	M 4	M 3	0.5	0.023	3	2.5	RUS 19 105
19.5	5	16	8	M 6	M 4	0.4	0.05	6	3	RUS 26 086
27.5	5	16	8	M 6	M 4	0.4	0.05	6	3	RUS 26 102
39.5	5	16	8	M 6	M 4	0.4	0.05	6	3	RUS 26 126
30.5	5	22	8	M 8	M 6	0.4	0.062	8	4	RUS 38 134
61	5	22	30	–	M 6	1	0.05	8	5	RUS 38 206

DIMENSION TABLE · Dimensions in mm										
					G_1, K FOR FIXING SCREW TO DIN 912	HEIGHT CHANGE		ADJUSTING SCREW	LOCKING AND RELEASE SCREW	MATCHING LINEAR ROLLER BEARINGS
M	d	d_1	A max.	G		ΔH max.	PER SCREW ROTATION	AF_1	AF_2	
16.5	3.5	12	7	–	M 3	0.35	0.035	3	2	PR 14 044
20	5	16	8	–	M 4	0.4	0.05	6	3	PR 14 061
30.5	5	22	8	–	M 5	0.4	0.062	8	4	PR 14 089

Linear Roller Bearings With Integral Adjusting Gib
RUSV..KS SERIES

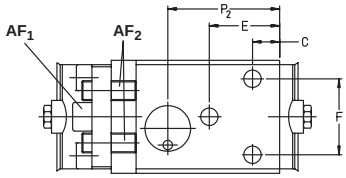


For details on part numbers, descriptive suffixes and various technical references, please refer to front of this section.

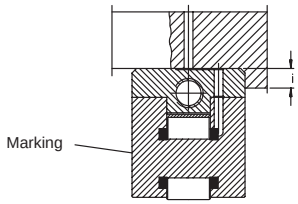
DIMENSION TABLE · Dimensions in mm

PART NUMBER	MASS	DIMENSIONS										BASIC LOAD RATINGS	
		H	L	B	L_W	a	L_1 ≈	L_2	L_3	L_4	d_1	dyn. C N	stat. C_0 N
	kg												
RUSV 30 069 KS	0.32	30	69	27	10	0.3	75	43.5	82	45	12	42,000	33,000
RUSV 30 105 KS	0.46	30	105	27	10	0.3	111	78.5	117	79	12	68,000	61,000
RUSV 42 086 KS	0.81	42	86	40	14	0.3	92	52.4	98	54	16	76,000	56,000
RUSV 42 102 KS	0.99	42	102	40	14	0.3	108	68.4	114	70	16	95,000	75,000
RUSV 42 126 KS	1.26	42	126	40	14	0.3	132	92.4	138	94	16	122,000	103,000
RUSV 60 134 KS	2.25	60	134	52	20	0.3	133	85	143	86	22	179,000	133,000
RUSV 60 206 KS	3.47	60	206	52	20	0.3	206	158	216	159	22	305,000	265,000

1) If the lubricating nipple is replaced by tube or pipe connections, the thread length must not exceed 6mm.



TOP VIEW



DIMENSION TABLE · Dimensions in mm

MOUNTING DIMENSIONS									ADJUSTING SCREW	LOCKING AND RELEASE SCREW	HEIGHT CHANGE			MATCHING LINEAR ROLLER BEARINGS	MATCHING GUIDEWAY
C	E	F	i	P_1	P_2	P_3	d	K	AF_1	AF_2	A max.	ΔH max.	PER SCREW ROTATION		
5	25	19	4	21	33	9	2.5	M 4	3	2	7	0.37	0.035	RUS 19 069 KS	UG 6628
5	45	19	4	21	53	9	2.5	M 4	3	2	7	0.37	0.023	RUS 19 105 KS	UV 5323
															UFA 3210
															UFK 3210
															UFB 4710
8	23	26	6	29.5	38	14.5	3	M 6	6	3	10	0.52	0.05	RUS 26 086 KS	UG 9741
8	38	26	6	29.5	53	14.5	3	M 6	6	3	10	0.52	0.05	RUS 26 102 KS	UV 7532
8	58	26	6	29.5	73	14.5	3	M 6	6	3	10	0.52	0.05	RUS 26 126 KS	UFA 4710
															UFK 4710
															UFB 6412
10	45	35	8	41.5	65	18	4	M 8	8	4	15	0.78	0.062	RUS 38 134 KS	UG 12 553
10	115	35	8	41.5	145	18	4	M 8	8	4	15	0.78	0.05	RUS 38 206 KS	UV 9542
															UFA 6412
															UFK 6412
															UFB 7812

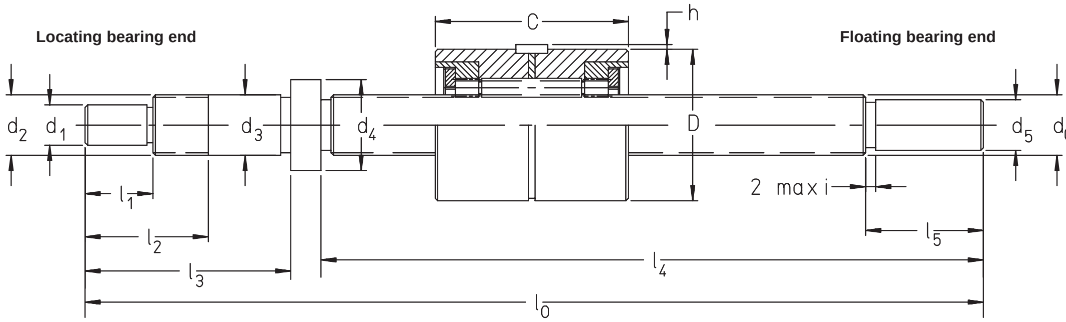
Planetary Roller Screw
RGT SERIES

- Split roller nut, preloaded
- Standard ends configuration

For details on part numbers, descriptive suffixes and various technical references, please refer to front of this section.

DIMENSION TABLE · Dimensions in mm																
NOMINAL DIAMETER	PART NUMBER	PITCH	STROKE	MASS	DIMENSIONS – SCREW SHAFT											
d_0	d_0	P	H	kg	d_1 ISO h6	d_2	d_3 –0.005	d_4	d_5 ISO h6	l_0	l_1	l_2	l_3	l_4	l_5
5	RGT 5.	1.	25	0.084	5	M6X0.5	6	10	4	113	11	22	34	75	14
	RGT 5.	1.	50	0.088	5	M6X0.5	6	10	4	138	11	22	34	100	14
	RGT 5.	1.	75	0.092	5	M6X0.5	6	10	4	163	11	22	34	125	14
	RGT 5.	1.	100	0.096	5	M6X0.5	6	10	4	188	11	22	34	150	14
8	RGT 8.	1.	25	0.11	5	M6X0.5	6	10	6	120	11	22	34	82	16
	RGT 8.	1.	50	0.121	5	M6X0.5	6	10	6	145	11	22	34	107	16
	RGT 8.	1.	100	0.141	5	M6X0.5	6	10	6	195	11	22	34	157	16
	RGT 8.	1.	150	0.16	5	M6X0.5	6	10	6	245	11	22	34	207	16
	RGT 8.	1.	200	0.18	5	M6X0.5	6	10	6	295	11	22	34	257	16
	RGT 8.	2.	25	0.11	5	M6X0.5	6	10	6	120	11	22	34	82	16
	RGT 8.	2.	50	0.121	5	M6X0.5	6	10	6	145	11	22	34	107	16
	RGT 8.	2.	100	0.141	5	M6X0.5	6	10	6	195	11	22	34	157	16
	RGT 8.	2.	150	0.16	5	M6X0.5	6	10	6	245	11	22	34	207	16
	RGT 8.	2.	200	0.18	5	M6X0.5	6	10	6	295	11	22	34	257	16
	RGT 8.	4.	25	0.11	5	M6X0.5	6	10	6	120	11	22	34	82	16
	RGT 8.	4.	50	0.121	5	M6X0.5	6	10	6	145	11	22	34	107	16
	RGT 8.	4.	100	0.141	5	M6X0.5	6	10	6	195	11	22	34	157	16
	RGT 8.	4.	150	0.16	5	M6X0.5	6	10	6	245	11	22	34	207	16
	RGT 8.	4.	200	0.18	5	M6X0.5	6	10	6	295	11	22	34	257	16
	RGT 8.	5.	25	0.11	5	M6X0.5	6	10	6	120	11	22	34	82	16
	RGT 8.	5.	50	0.121	5	M6X0.5	6	10	6	145	11	22	34	107	16
	RGT 8.	5.	100	0.141	5	M6X0.5	6	10	6	195	11	22	34	157	16
	RGT 8.	5.	150	0.16	5	M6X0.5	6	10	6	245	11	22	34	207	16
	RGT 8.	5.	200	0.18	5	M6X0.5	6	10	6	295	11	22	34	257	16

1) Limiting speed of the planetary roller screw. Critical speed n_{max} and limiting speed of the rolling bearings should be considered.



NUT			KEY TO DIN 6885	LOAD RATINGS		SPRINGS RATIO	LIMITING SPEED[1)]	LOCATING BEARING	FLOATING BEARING	SEAL	LOCK NUT
D ISO g6	h	C h12		dyn. C N	stat. C_0 N	C_K $N^{2/3}$ / µm	$n_{g\ grease}$ rpm				
19	1.3	31	3X3X10	5,300	5,400	27	6,000	ZKLN0624.2RS	HK0408TN	G4X8X2	ZM06
19	1.3	31	3X3X10	5,300	5,400	27	6,000	ZKLN0624.2RS	HK0408TN	G4X8X2	ZM06
19	1.3	31	3X3X10	5,300	5,400	27	6,000	ZKLN0624.2RS	HK0408TN	G4X8X2	ZM06
19	1.3	31	3X3X10	5,300	5,400	27	6,000	ZKLN0624.2RS	HK0408TN	G4X8X2	ZM06
21	1.3	31	3X3X10	3,100	3,950	31	5,800	ZKLN0624.2RS	NK6/10TN	G6X12X2	ZM06
21	1.3	31	3X3X10	3,100	3,950	31	5,800	ZKLN0624.2RS	NK6/10TN	G6X12X2	ZM06
21	1.3	31	3X3X10	3,100	3,950	31	5,800	ZKLN0624.2RS	NK6/10TN	G6X12X2	ZM06
21	1.3	31	3X3X10	3,100	3,950	31	5,800	ZKLN0624.2RS	NK6/10TN	G6X12X2	ZM06
21	1.3	31	3X3X10	3,100	3,950	31	5,800	ZKLN0624.2RS	NK6/10TN	G6X12X2	ZM06
21	1.3	31	3X3X10	6,200	4,550	21	5,800	ZKLN0624.2RS	NK6/10TN	G6X12X2	ZM06
21	1.3	31	3X3X10	6,200	4,550	21	5,800	ZKLN0624.2RS	NK6/10TN	G6X12X2	ZM06
21	1.3	31	3X3X10	6,200	4,550	21	5,800	ZKLN0624.2RS	NK6/10TN	G6X12X2	ZM06
21	1.3	31	3X3X10	6,200	4,550	21	5,800	ZKLN0624.2RS	NK6/10TN	G6X12X2	ZM06
21	1.3	31	3X3X10	6,200	4,550	21	5,800	ZKLN0624.2RS	NK6/10TN	G6X12X2	ZM06
21	1.3	31	3X3X10	12,200	4,800	15	5,800	ZKLN0624.2RS	NK6/10TN	G6X12X2	ZM06
21	1.3	31	3X3X10	12,200	4,800	15	5,800	ZKLN0624.2RS	NK6/10TN	G6X12X2	ZM06
21	1.3	31	3X3X10	12,200	4,800	15	5,800	ZKLN0624.2RS	NK6/10TN	G6X12X2	ZM06
21	1.3	31	3X3X10	12,200	4,800	15	5,800	ZKLN0624.2RS	NK6/10TN	G6X12X2	ZM06
21	1.3	31	3X3X10	12,200	4,800	15	5,800	ZKLN0624.2RS	NK6/10TN	G6X12X2	ZM06
21	1.3	31	3X3X10	15,200	4,800	13	5,800	ZKLN0624.2RS	NK6/10TN	G6X12X2	ZM06
21	1.3	31	3X3X10	15,200	4,800	13	5,800	ZKLN0624.2RS	NK6/10TN	G6X12X2	ZM06
21	1.3	31	3X3X10	15,200	4,800	13	5,800	ZKLN0624.2RS	NK6/10TN	G6X12X2	ZM06
21	1.3	31	3X3X10	15,200	4,800	13	5,800	ZKLN0624.2RS	NK6/10TN	G6X12X2	ZM06
21	1.3	31	3X3X10	15,200	4,800	13	5,800	ZKLN0624.2RS	NK6/10TN	G6X12X2	ZM06

Planetary Roller Screw
RGT SERIES

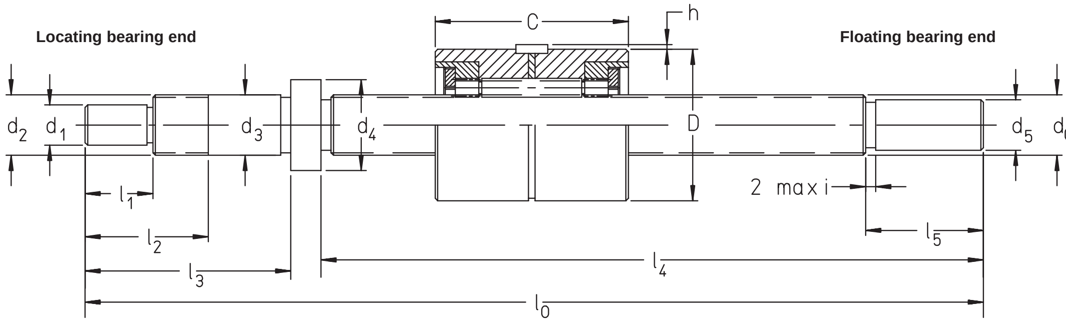
- Split roller nut, preloaded
- Standard ends configuration

For details on part numbers, descriptive suffixes and various technical references, please refer to front of this section.

DIMENSION TABLE (Contd.) · Dimensions in mm

NOMINAL DIAMETER d_0	PART NUMBER d_0	PITCH P	STROKE H	MASS kg	DIMENSIONS – SCREW SHAFT										
					d_1 ISO h6	d_2	d_3 –0.005	d_4	d_5 ISO h6	l_0	l_1	l_2	l_3	l_4	l_5
12	RGT 12.	1.	100	0.293	10	M12X1	12	18	10	220	20	33	53	161	20
	RGT 12.	1.	200	0.382	10	M12X1	12	18	10	320	20	33	53	261	20
	RGT 12.	1.	300	0.47	10	M12X1	12	18	10	420	20	33	53	361	20
	RGT 12.	1.	400	0.559	10	M12X1	12	18	10	520	20	33	53	461	20
	RGT 12.	1.	500	0.648	10	M12X1	12	18	10	620	20	33	53	561	20
	RGT 12.	2.	100	0.293	10	M12X1	12	18	10	220	20	33	53	161	20
	RGT 12.	2.	200	0.382	10	M12X1	12	18	10	320	20	33	53	261	20
	RGT 12.	2.	300	0.47	10	M12X1	12	18	10	420	20	33	53	361	20
	RGT 12.	2.	400	0.559	10	M12X1	12	18	10	520	20	33	53	461	20
	RGT 12.	2.	500	0.648	10	M12X1	12	18	10	620	20	33	53	561	20
	RGT 12.	4.	100	0.293	10	M12X1	12	18	10	220	20	33	53	161	20
	RGT 12.	4.	200	0.382	10	M12X1	12	18	10	320	20	33	53	261	20
	RGT 12.	4.	300	0.47	10	M12X1	12	18	10	420	20	33	53	361	20
	RGT 12.	4.	400	0.559	10	M12X1	12	18	10	520	20	33	53	461	20
	RGT 12.	4.	500	0.648	10	M12X1	12	18	10	620	20	33	53	561	20
	RGT 12.	5.	100	0.293	10	M12X1	12	18	10	220	20	33	53	161	20
	RGT 12.	5.	200	0.382	10	M12X1	12	18	10	320	20	33	53	261	20
	RGT 12.	5.	300	0.47	10	M12X1	12	18	10	420	20	33	53	361	20
	RGT 12.	5.	400	0.559	10	M12X1	12	18	10	520	20	33	53	461	20
	RGT 12.	5.	500	0.648	10	M12X1	12	18	10	620	20	33	53	561	20

1) Limiting speed of the planetary roller screw. Critical speed n_{max} and limiting speed of the rolling bearings should be considered.



NUT			KEY TO DIN 6885	LOAD RATINGS		SPRING RATIO	LIMITING SPEED[1)]	LOCATING BEARING		FLOATING BEARING	SEAL	LOCK NUT
D ISO g6	h	C h12		dyn. C N	stat. C_0 N	C_K $N^{2/3}$ / µm	$n_{g\ grease}$ rpm					
32	1.7	31	4X4X14	3,700	6,400	38	5,600	ZKLN1242.2RS	ZKLF1255.2RS	NK10/12TN	G10X17X3	ZM12
32	1.7	31	4X4X14	3,700	6,400	38	5,600	ZKLN1242.2RS	ZKLF1255.2RS	NK10/12TN	G10X17X3	ZM12
32	1.7	31	4X4X14	3,700	6,400	38	5,600	ZKLN1242.2RS	ZKLF1255.2RS	NK10/12TN	G10X17X3	ZM12
32	1.7	31	4X4X14	3,700	6,400	38	5,600	ZKLN1242.2RS	ZKLF1255.2RS	NK10/12TN	G10X17X3	ZM12
32	1.7	31	4X4X14	3,700	6,400	38	5,600	ZKLN1242.2RS	ZKLF1255.2RS	NK10/12TN	G10X17X3	ZM12
26	2	31	4X4X14	4,900	5,000	27	5,600	ZKLN1242.2RS	ZKLF1255.2RS	NK10/12TN	G10X17X3	ZM12
26	2	31	4X4X14	4,900	5,000	27	5,600	ZKLN1242.2RS	ZKLF1255.2RS	NK10/12TN	G10X17X3	ZM12
26	2	31	4X4X14	4,900	5,000	27	5,600	ZKLN1242.2RS	ZKLF1255.2RS	NK10/12TN	G10X17X3	ZM12
26	2	31	4X4X14	4,900	5,000	27	5,600	ZKLN1242.2RS	ZKLF1255.2RS	NK10/12TN	G10X17X3	ZM12
26	2	31	4X4X14	4,900	5,000	27	5,600	ZKLN1242.2RS	ZKLF1255.2RS	NK10/12TN	G10X17X3	ZM12
26	2	31	4X4X14	9,700	5,500	19	5,600	ZKLN1242.2RS	ZKLF1255.2RS	NK10/12TN	G10X17X3	ZM12
26	2	31	4X4X14	9,700	5,500	19	5,600	ZKLN1242.2RS	ZKLF1255.2RS	NK10/12TN	G10X17X3	ZM12
26	2	31	4X4X14	9,700	5,500	19	5,600	ZKLN1242.2RS	ZKLF1255.2RS	NK10/12TN	G10X17X3	ZM12
26	2	31	4X4X14	9,700	5,500	19	5,600	ZKLN1242.2RS	ZKLF1255.2RS	NK10/12TN	G10X17X3	ZM12
26	2	31	4X4X14	9,700	5,500	19	5,600	ZKLN1242.2RS	ZKLF1255.2RS	NK10/12TN	G10X17X3	ZM12
26	2	31	4X4X14	12,100	5,500	17	5,600	ZKLN1242.2RS	ZKLF1255.2RS	NK10/12TN	G10X17X3	ZM12
26	2	31	4X4X14	12,100	5,500	17	5,600	ZKLN1242.2RS	ZKLF1255.2RS	NK10/12TN	G10X17X3	ZM12
26	2	31	4X4X14	12,100	5,500	17	5,600	ZKLN1242.2RS	ZKLF1255.2RS	NK10/12TN	G10X17X3	ZM12
26	2	31	4X4X14	12,100	5,500	17	5,600	ZKLN1242.2RS	ZKLF1255.2RS	NK10/12TN	G10X17X3	ZM12
26	2	31	4X4X14	12,100	5,500	17	5,600	ZKLN1242.2RS	ZKLF1255.2RS	NK10/12TN	G10X17X3	ZM12

Planetary Roller Screw
RGT SERIES

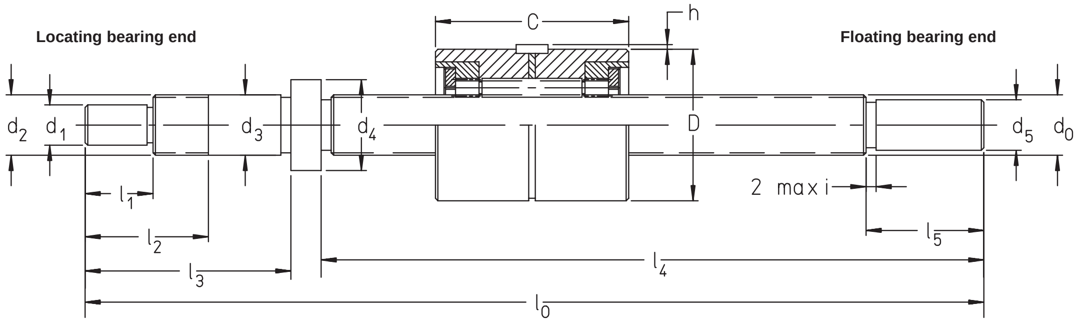
- Split roller nut, preloaded
- Standard ends configuration

For details on part numbers, descriptive suffixes and various technical references, please refer to front of this section.

DIMENSION TABLE (Contd.) · Dimensions in mm

NOMINAL DIAMETER d_0	PART NUMBER d_0	PITCH P	STROKE H	MASS kg	DIMENSIONS – SCREW SHAFT										
					d_1 ISO h6	d_2	d_3 –0.005	d_4	d_5 ISO h6	l_0	l_1	l_2	l_3	l_4	l_5
15	RGT 15.	2.	100	0.501	12	M15X1	15	22	12	224	20	31	53	165	20
	RGT 15.	2.	200	0.64	12	M15X1	15	22	12	324	20	31	53	265	20
	RGT 15.	2.	300	0.779	12	M15X1	15	22	12	424	20	31	53	365	20
	RGT 15.	2.	400	0.917	12	M15X1	15	22	12	524	20	31	53	465	20
	RGT 15.	2.	500	1.056	12	M15X1	15	22	12	624	20	31	53	565	20
	RGT 15.	2.	600	1.195	12	M15X1	15	22	12	724	20	31	53	665	20
	RGT 15.	4.	100	0.501	12	M15X1	15	22	12	224	20	31	53	165	20
	RGT 15.	4.	200	0.64	12	M15X1	15	22	12	324	20	31	53	265	20
	RGT 15.	4.	300	0.779	12	M15X1	15	22	12	424	20	31	53	365	20
	RGT 15.	4.	400	0.917	12	M15X1	15	22	12	524	20	31	53	465	20
	RGT 15.	4.	500	1.056	12	M15X1	15	22	12	624	20	31	53	565	20
	RGT 15.	4.	600	1.195	12	M15X1	15	22	12	724	20	31	53	665	20
	RGT 15.	5.	100	0.501	12	M15X1	15	22	12	224	20	31	53	165	20
	RGT 15.	5.	200	0.64	12	M15X1	15	22	12	324	20	31	53	265	20
	RGT 15.	5.	300	0.779	12	M15X1	15	22	12	424	20	31	53	365	20
	RGT 15.	5.	400	0.917	12	M15X1	15	22	12	524	20	31	53	465	20
	RGT 15.	5.	500	1.056	12	M15X1	15	22	12	624	20	31	53	565	20
	RGT 15.	5.	600	1.195	12	M15X1	15	22	12	724	20	31	53	665	20

1) Limiting speed of the planetary roller screw. Critical speed n_{max} and limiting speed of the rolling bearings should be considered.



NUT			KEY TO DIN 6885	BASIC LOAD RATINGS		SPRING RATIO	LIMITING SPEED[1)]	LOCATING BEARING		FLOATING BEARING	SEAL	LOCK NUT
D ISO g6	h	C h12		dyn. C N	stat. C_0 N	C_K $N^{2/3}$ / µm	$n_{g\ grease}$ rpm					
34	1.7	35	4X4X14	6,100	8,000	34	5,500	ZKLN1545.2RS	ZKLF1560.2RS	NK12/12TN	G12X19X3	ZM15
34	1.7	35	4X4X14	6,100	8,000	34	5,500	ZKLN1545.2RS	ZKLF1560.2RS	NK12/12TN	G12X19X3	ZM15
34	1.7	35	4X4X14	6,100	8,000	34	5,500	ZKLN1545.2RS	ZKLF1560.2RS	NK12/12TN	G12X19X3	ZM15
34	1.7	35	4X4X14	6,100	8,000	34	5,500	ZKLN1545.2RS	ZKLF1560.2RS	NK12/12TN	G12X19X3	ZM15
34	1.7	35	4X4X14	6,100	8,000	34	5,500	ZKLN1545.2RS	ZKLF1560.2RS	NK12/12TN	G12X19X3	ZM15
34	1.7	35	4X4X14	6,100	8,000	34	5,500	ZKLN1545.2RS	ZKLF1560.2RS	NK12/12TN	G12X19X3	ZM15
34	1.7	35	4X4X14	12,200	8,900	24	5,500	ZKLN1545.2RS	ZKLF1560.2RS	NK12/12TN	G12X19X3	ZM15
34	1.7	35	4X4X14	12,200	8,900	24	5,500	ZKLN1545.2RS	ZKLF1560.2RS	NK12/12TN	G12X19X3	ZM15
34	1.7	35	4X4X14	12,200	8,900	24	5,500	ZKLN1545.2RS	ZKLF1560.2RS	NK12/12TN	G12X19X3	ZM15
34	1.7	35	4X4X14	12,200	8,900	24	5,500	ZKLN1545.2RS	ZKLF1560.2RS	NK12/12TN	G12X19X3	ZM15
34	1.7	35	4X4X14	12,200	8,900	24	5,500	ZKLN1545.2RS	ZKLF1560.2RS	NK12/12TN	G12X19X3	ZM15
34	1.7	35	4X4X14	12,200	8,900	24	5,500	ZKLN1545.2RS	ZKLF1560.2RS	NK12/12TN	G12X19X3	ZM15
34	1.7	35	4X4X14	15,200	9,100	21	5,500	ZKLN1545.2RS	ZKLF1560.2RS	NK12/12TN	G12X19X3	ZM15
34	1.7	35	4X4X14	15,200	9,100	21	5,500	ZKLN1545.2RS	ZKLF1560.2RS	NK12/12TN	G12X19X3	ZM15
34	1.7	35	4X4X14	15,200	9,100	21	5,500	ZKLN1545.2RS	ZKLF1560.2RS	NK12/12TN	G12X19X3	ZM15
34	1.7	35	4X4X14	15,200	9,100	21	5,500	ZKLN1545.2RS	ZKLF1560.2RS	NK12/12TN	G12X19X3	ZM15
34	1.7	35	4X4X14	15,200	9,100	21	5,500	ZKLN1545.2RS	ZKLF1560.2RS	NK12/12TN	G12X19X3	ZM15
34	1.7	35	4X4X14	15,200	9,100	21	5,500	ZKLN1545.2RS	ZKLF1560.2RS	NK12/12TN	G12X19X3	ZM15

Planetary Roller Screw
RGT SERIES

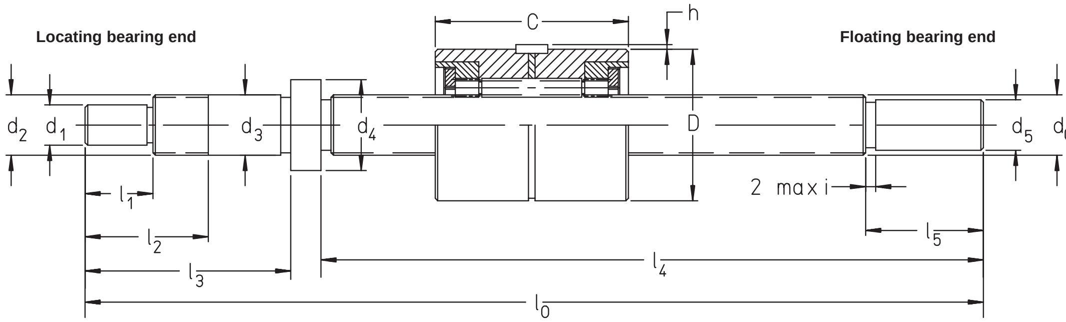
- Split roller nut, preloaded
- Standard ends configuration

For details on part numbers, descriptive suffixes and various technical references, please refer to front of this section.

DIMENSION TABLE (Contd.) · Dimensions in mm

NOMINAL DIAMETER d_0	PART NUMBER d_0	PITCH P	STROKE H	MASS kg	DIMENSIONS – SCREW SHAFT										
					d_1 ISO h6	d_2	d_3 –0.005	d_4	d_5 ISO h6	l_0	l_1	l_2	l_3	l_4	l_5
20	RGT 20.	2.	400	1.713	12	M15X1	15	22	12	546	20	31	53	487	20
	RGT 20.	2.	500	1.96	12	M15X1	15	22	12	646	20	31	53	587	20
	RGT 20.	2.	600	2.207	12	M15X1	15	22	12	746	20	31	53	687	20
	RGT 20.	2.	800	2.7	12	M15X1	15	22	12	946	20	31	53	887	20
	RGT 20.	2.	1000	3.193	12	M15X1	15	22	12	1146	20	31	53	1087	20
	RGT 20.	2.	1200	3.686	12	M15X1	15	22	12	1346	20	31	53	1287	20
	RGT 20.	4.	400	1.713	12	M15X1	15	22	12	546	20	31	53	487	20
	RGT 20.	4.	500	1.96	12	M15X1	15	22	12	646	20	31	53	587	20
	RGT 20.	4.	600	2.207	12	M15X1	15	22	12	746	20	31	53	687	20
	RGT 20.	4.	800	2.7	12	M15X1	15	22	12	946	20	31	53	887	20
	RGT 20.	4.	1000	3.193	12	M15X1	15	22	12	1146	20	31	53	1087	20
	RGT 20.	4.	1200	3.686	12	M15X1	15	22	12	1346	20	31	53	1287	20
	RGT 20.	5.	400	1.713	12	M15X1	15	22	12	546	20	31	53	487	20
	RGT 20.	5.	500	1.96	12	M15X1	15	22	12	646	20	31	53	587	20
	RGT 20.	5.	600	2.207	12	M15X1	15	22	12	746	20	31	53	687	20
	RGT 20.	5.	800	2.7	12	M15X1	15	22	12	946	20	31	53	887	20
	RGT 20.	5.	1000	3.193	12	M15X1	15	22	12	1146	20	31	53	1087	20
	RGT 20.	5.	1200	3.686	12	M15X1	15	22	12	1346	20	31	53	1287	20
	RGT 20.	6.	400	1.713	12	M15X1	15	22	12	546	20	31	53	487	20
	RGT 20.	6.	500	1.96	12	M15X1	15	22	12	646	20	31	53	587	20
	RGT 20.	6.	600	2.207	12	M15X1	15	22	12	746	20	31	53	687	20
	RGT 20.	6.	800	2.7	12	M15X1	15	22	12	946	20	31	53	887	20
	RGT 20.	6.	1000	3.193	12	M15X1	15	22	12	1146	20	31	53	1087	20
	RGT 20.	6.	1200	3.686	12	M15X1	15	22	12	1346	20	31	53	1287	20

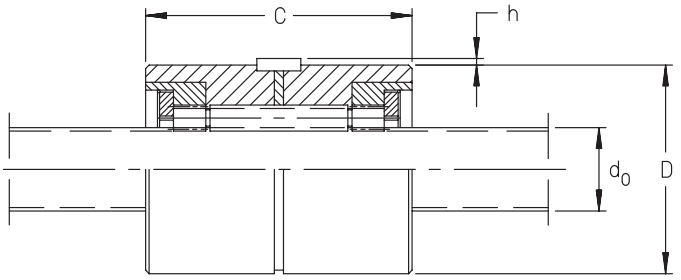
1) Limiting speed of the planetary roller screw. Critical speed n_{max} and limiting speed of the rolling bearings should be considered.



NUT			KEY TO DIN 6885	LOAD RATINGS		SPRING RATIO	LIMITING SPEED[1)]	LOCATING BEARING		FLOATING BEARING	SEAL	LOCK NUT
D ISO g6	h	C h12		dyn. C N	stat. C_0 N	C_K $N^{2/3}$ / µm	$n_{g\ grease}$ rpm					
42	1.7	55	4X4X18	10,900	21,800	61	5,200	ZKLN1545.2RS	ZKLF1560.2RS	NK12/12TN	G12X19X3	ZM15
42	1.7	55	4X4X18	10,900	21,800	61	5,200	ZKLN1545.2RS	ZKLF1560.2RS	NK12/12TN	G12X19X3	ZM15
42	1.7	55	4X4X18	10,900	21,800	61	5,200	ZKLN1545.2RS	ZKLF1560.2RS	NK12/12TN	G12X19X3	ZM15
42	1.7	55	4X4X18	10,900	21,800	61	5,200	ZKLN1545.2RS	ZKLF1560.2RS	NK12/12TN	G12X19X3	ZM15
42	1.7	55	4X4X18	10,900	21,800	61	5,200	ZKLN1545.2RS	ZKLF1560.2RS	NK12/12TN	G12X19X3	ZM15
42	1.7	55	4X4X18	10,900	21,800	61	5,200	ZKLN1545.2RS	ZKLF1560.2RS	NK12/12TN	G12X19X3	ZM15
42	1.7	55	4X4X18	21,700	25,000	42	5,200	ZKLN1545.2RS	ZKLF1560.2RS	NK12/12TN	G12X19X3	ZM15
42	1.7	55	4X4X18	21,700	25,000	42	5,200	ZKLN1545.2RS	ZKLF1560.2RS	NK12/12TN	G12X19X3	ZM15
42	1.7	55	4X4X18	21,700	25,000	42	5,200	ZKLN1545.2RS	ZKLF1560.2RS	NK12/12TN	G12X19X3	ZM15
42	1.7	55	4X4X18	21,700	25,000	42	5,200	ZKLN1545.2RS	ZKLF1560.2RS	NK12/12TN	G12X19X3	ZM15
42	1.7	55	4X4X18	21,700	25,000	42	5,200	ZKLN1545.2RS	ZKLF1560.2RS	NK12/12TN	G12X19X3	ZM15
42	1.7	55	4X4X18	21,700	25,000	42	5,200	ZKLN1545.2RS	ZKLF1560.2RS	NK12/12TN	G12X19X3	ZM15
42	1.7	55	4X4X18	27,000	26,000	38	5,200	ZKLN1545.2RS	ZKLF1560.2RS	NK12/12TN	G12X19X3	ZM15
42	1.7	55	4X4X18	27,000	26,000	38	5,200	ZKLN1545.2RS	ZKLF1560.2RS	NK12/12TN	G12X19X3	ZM15
42	1.7	55	4X4X18	27,000	26,000	38	5,200	ZKLN1545.2RS	ZKLF1560.2RS	NK12/12TN	G12X19X3	ZM15
42	1.7	55	4X4X18	27,000	26,000	38	5,200	ZKLN1545.2RS	ZKLF1560.2RS	NK12/12TN	G12X19X3	ZM15
42	1.7	55	4X4X18	27,000	26,000	38	5,200	ZKLN1545.2RS	ZKLF1560.2RS	NK12/12TN	G12X19X3	ZM15
42	1.7	55	4X4X18	27,000	26,000	38	5,200	ZKLN1545.2RS	ZKLF1560.2RS	NK12/12TN	G12X19X3	ZM15
42	1.7	55	4X4X18	32,500	26,500	34	5,200	ZKLN1545.2RS	ZKLF1560.2RS	NK12/12TN	G12X19X3	ZM15
42	1.7	55	4X4X18	32,500	26,500	34	5,200	ZKLN1545.2RS	ZKLF1560.2RS	NK12/12TN	G12X19X3	ZM15
42	1.7	55	4X4X18	32,500	26,500	34	5,200	ZKLN1545.2RS	ZKLF1560.2RS	NK12/12TN	G12X19X3	ZM15
42	1.7	55	4X4X18	32,500	26,500	34	5,200	ZKLN1545.2RS	ZKLF1560.2RS	NK12/12TN	G12X19X3	ZM15
42	1.7	55	4X4X18	32,500	26,500	34	5,200	ZKLN1545.2RS	ZKLF1560.2RS	NK12/12TN	G12X19X3	ZM15
42	1.7	55	4X4X18	32,500	26,500	34	5,200	ZKLN1545.2RS	ZKLF1560.2RS	NK12/12TN	G12X19X3	ZM15

Planetary Roller Screw
RGT SERIES

- Split roller nut, preloaded
- Special ends configuration*)



For details on part numbers, descriptive suffixes and various technical references, please refer to front of this section.

DIMENSION TABLE · Dimensions in mm

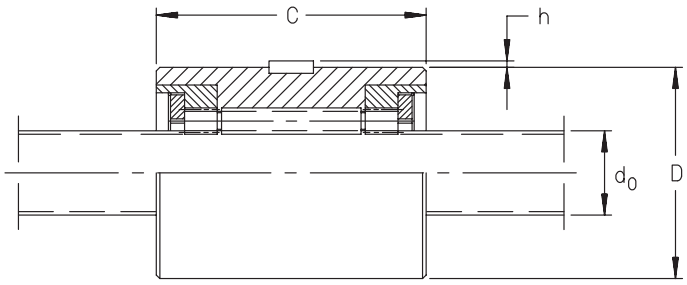
NOMINAL DIAMETER	PART NUMBER	PITCH	NUT DIMENSIONS			KEY TO DIN 6885	SPRING RATIO	LIMITING SPEED[1]	LOAD RATINGS	
			D	h	C		C_K	$n_{g\ grease}$	dyn.	stat.
d_0	d_0	P	ISO g6		h12		$N^{2/3}/\mu m$	rpm	C N	C_0 N
24	RGT 24.	2	48	1.7	55	4X4X18	75	5,000	13,200	32,000
	RGT 24.	4	48	1.7	55	4X4X18	52	5,000	26,000	37,500
	RGT 24.	5	48	1.7	55	4X4X18	46	5,000	32,500	39,000
	RGT 24.	6	48	1.7	55	4X4X18	42	5,000	39,000	40,000
27	RGT 27.	2	55	1.7	55	4X4X18	76	4,900	13,400	35,000
	RGT 27.	4	55	1.7	55	4X4X18	53	4,900	26,500	41,500
	RGT 27.	5	55	1.7	55	4X4X18	47	4,900	33,000	43,000
	RGT 27.	6	55	1.7	55	4X4X18	43	4,900	39,500	44,500
	RGT 27.	8	55	1.7	55	4X4X18	37	4,900	53,000	45,500
30	RGT 30.	2	62	1.7	55	5X5X22	78	4,700	13,500	38,000
	RGT 30.	4	62	1.7	55	5X5X22	54	4,700	27,000	45,000
	RGT 30.	5	62	1.7	55	5X5X22	48	4,700	33,500	47,000
	RGT 30.	6	62	1.7	55	5X5X22	44	4,700	40,000	48,500
	RGT 30.	8	62	1.7	55	5X5X22	38	4,700	53,000	50,000
36	RGT 36.	2	75	1.7	68	5X5X22	108	4,400	18,300	65,000
	RGT 36.	4	75	1.7	68	5X5X22	74	4,400	36,000	78,000
	RGT 36.	5	75	1.7	68	5X5X22	65	4,400	45,000	82,000
	RGT 36.	6	75	1.7	68	5X5X22	59	4,400	54,000	85,000
	RGT 36.	8	75	1.7	68	5X5X22	51	4,400	72,000	89,000
39	RGT 39.	2	80	1.7	72	5X5X25	117	4,200	19,800	76,000
	RGT 39.	4	80	1.7	72	5X5X25	80	4,200	39,500	92,000
	RGT 39.	5	80	1.7	72	5X5X25	71	4,200	49,000	97,000
	RGT 39.	10	80	1.7	72	5X5X25	56	4,200	97,000	109,000
48	RGT 48.	5	96	2.7	95	6X6X40	91	3,800	62,000	155,000
	RGT 48.	10	96	2.7	95	6X6X40	63	3,800	124,000	178,000
63	RGT 63.	5	118	3.5	115	8X7X45	116	3,000	78,000	250,000
	RGT 63.	10	118	3.5	115	8X7X45	80	3,000	155,000	295,000

1) Limiting speed of the planetary roller screw. Critical speed n_{max} and limiting speed of the rolling bearings should be considered.

*) Available on request.

Planetary Roller Screw
RGT SERIES

- One–piece roller nut, not preloaded
- Special ends configuration*)



For details on part numbers, descriptive suffixes and various technical references, please refer to front of this section.

DIMENSION TABLE · Dimensions in mm

NOMINAL DIAMETER	PART NUMBER	PITCH	NUT DIMENSIONS			KEY TO DIN 6885	SPRING RATIO	LIMITING SPEED[1]	LOAD RATINGS	
			D	h	C		C_K	$n_{g\ grease}$	dyn.	stat.
d_0	d_0	P	ISO g6		h12		$N^{2/3}$ / µm	rpm	C N	C_0 N
24	RGT 24.	2	48	1.7	55	4X4X18	124	5,000	22,400	69,000
	RGT 24.	4	48	1.7	55	4X4X18	86	5,000	44,500	80,000
	RGT 24.	5	48	1.7	55	4X4X18	64	5,000	55,000	83,000
	RGT 24.	6	48	1.7	55	4X4X18	69	5,000	66,000	85,000
27	RGT 27.	2	55	1.7	55	4X4X18	127	4,900	22,700	75,000
	RGT 27.	4	55	1.7	55	4X4X18	87	4,900	45,000	88,000
	RGT 27.	5	55	1.7	55	4X4X18	78	4,900	56,000	92,000
	RGT 27.	6	55	1.7	55	4X4X18	71	4,900	67,000	94,000
	RGT 27.	8	55	1.7	55	4X4X18	61	4,900	89,000	98,000
30	RGT 30.	2	62	1.7	55	5X5X22	130	4,700	23,000	81,000
	RGT 30.	4	62	1.7	55	5X5X22	89	4,700	45,500	96,000
	RGT 30.	5	62	1.7	55	5X5X22	79	4,700	57,000	100,000
	RGT 30.	6	62	1.7	55	5X5X22	72	4,700	68,000	103,000
	RGT 30.	8	62	1.7	55	5X5X22	62	4,700	90,000	107,000
36	RGT 36.	2	75	1.7	68	5X5X22	176	4,400	31,000	136,000
	RGT 36.	4	75	1.7	68	5X5X22	121	4,400	61,000	165,000
	RGT 36.	5	75	1.7	68	5X5X22	107	4,400	76,000	173,000
	RGT 36.	6	75	1.7	68	5X5X22	97	4,400	91,000	179,000
	RGT 36.	8	75	1.7	68	5X5X22	84	4,400	121,000	188,000
39	RGT 39.	2	80	1.7	72	5X5X25	191	4,200	33,000	159,000
	RGT 39.	4	80	1.7	72	5X5X25	131	4,200	66,000	193,000
	RGT 39.	5	80	1.7	72	5X5X25	116	4,200	82,000	203,000
	RGT 39.	10	80	1.7	72	5X5X25	91	4,200	163,000	228,000
48	RGT 48.	5	96	2.7	95	6X6X40	148	3,800	104,000	320,000
	RGT 48.	10	96	2.7	95	6X6X40	103	3,800	206,000	370,000
63	RGT 63.	5	118	3.5	115	8X7X45	188	3,000	129,000	520,000
	RGT 63.	10	118	3.5	115	8X7X45	129	3,000	255,000	610,000

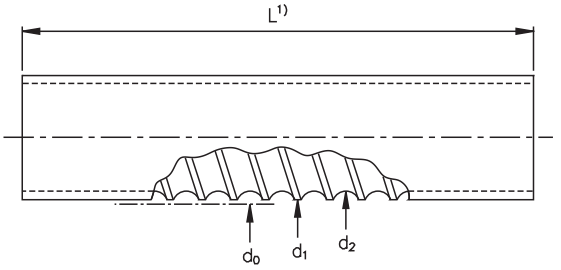
1) Limiting speed of the planetary roller screw. Critical speed n_{max} and limiting speed of the rolling bearings should be considered.

*) Available on request.

Rolled Ball Screws

SERIES KGS

- Metric dimensions
- High strength steel Cf53 (SAE1055)
- Induction hardened to 60 HRC
- Gothic arch thread form

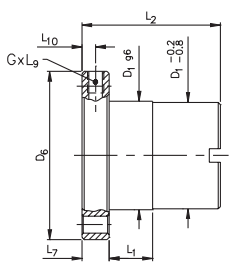


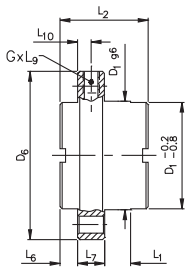
For details on part numbers, descriptive suffixes and various technical references, please refer to front of this section.

NOMINAL PITCH DIAMETER d_0	DESIGNATION	ACCURACY CLASS (μm/300 mm)	d_0 mm	Lead P mm	d_1 mm	d_2 mm	NUMBER OF STARTS	L_{max} 1) mm	MASS (kg/m)
16	KGS 1605	23 / 50	16	5	15.5	12.9	1	5600	1.26
	KGS 1610	23 / 50	16	10	15.4	13.0	2	5600	1.26
20	KGS 2005	23 / 50	20	5	19.5	16.9	1	5600	2.04
	KGS 2020	23 / 50	20	20	19.5	16.9	4	5600	2.07
	KGS 2050	23 / 50	20	50	19.1	16.5	5	5600	2.04
25	KGS 2505	23 / 50	25	5	24.5	21.9	1	5600	3.33
	KGS 2510	23 / 50	25	10	24.5	21.9	1	5600	3.33
	KGS 2520	23 / 50	25	20	24.6	22.0	4	5600	3.33
	KGS 2525	23 / 50	25	25	24.5	22.0	5	5600	3.33
	KGS 2550	23 / 50	25	50	24.5	21.5	5	5600	3.33
32	KGS 3205	23 / 50	32	5	31.5	28.9	1	5600	5.61
	KGS 3210	23 / 50	32	10	31.7	27.3	1	5600	5.60
	KGS 3220	23 / 50	32	20	31.7	27.9	2	5600	5.61
	KGS 3240	23 / 50	32	40	30.9	28.3	4	5600	5.61
40	KGS 4005	23 / 50	40	5	39.5	36.9	1	5600	9.03
	KGS 4010	23 / 50	40	10	39.5	34.1	2	5600	8.33
	KGS 4020	23 / 50	40	20	39.7	35.9	2	5600	9.01
	KGS 4040	23 / 50	40	40	38.9	36.3	4	5600	9.01
50	KGS 5010	50	50	10	49.5	44.1	1	5600	13.48
	KGS 5020	50	50	20	49.5	44.1	2	5600	13.50
63	KGS 6310	50	63	10	62.5	57.1	1	5600	22.04
	KGS 6320	50	63	20	62.5	57.1	2	5600	22.03

Flanged Ball Nuts
SERIES KGF

- Metric dimensions
- Flange mounting
- Optimized internal ball return systems
- Buna contact seals
- Threaded lubrication port
- 3000 rpm speed limit

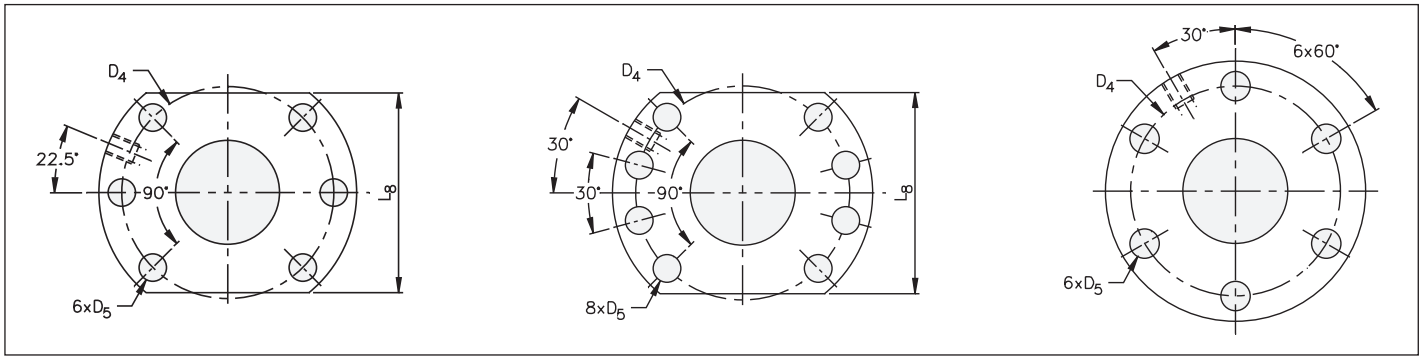




For details on part numbers, descriptive suffixes and various technical references, please refer to front of this section.

NOMINAL PITCH DIAMETER d_0	DESIGNATION d_0 LEAD	SEAL SUFFIX	FORM	HOLE PATTERN	D_1 mm	D_4 mm	D_5 mm	D_6 mm	L_1 mm	L_2 mm	L_6 mm	L_7 mm	L_8 mm	L_9 mm	L_{10} mm	LUBE HOLE G	AXIAL BACKLASH MAX	LOAD RATINGS DYN C (kN)	LOAD RATINGS STAT C (kN)
16	KGF D 16 05	EE	E	1	28	38	5.5	48	10	42	-	10	40	10	5	M6	0.08	12.0	12.7
	KGF D 16 10	EE	E	1	28	38	5.5	48	10	55	-	10	40	10	5	M6	0.08	23.0	26.0
20	KGF N 20 05	EE	E	3	32	45	7	55	8	44	-	12	-	8	6	M6	0.08	14.0	17.0
	KGF N 20 20	EE	S	3	35	50	7	62	4	30	8	10	-	8	5	M6	0.08	12.0	19.2
	KGF N 20 50	EE	S	3	35	50	7	62	10	56	9	10	-	8	5	M6	0.15	18.0	22.0
25	KGF D 25 05	EE	E	1	40	51	6.6	62	10	42	-	10	48	10	5	M6	0.08	15.0	22.4
	KGF D 25 10	EE	E	1	40	51	6.6	62	16	55	-	10	48	10	5	M6	0.08	17.5	25.0
	KGF D 25 20	EE	S	1	40	51	6.6	62	4	35	10.5	10	48	8	5	M6	0.15	19.0	23.5
	KGF D 25 25	EE	S	1	40	51	6.6	62	9	35	8	10	-[1]	8	5	M6	0.08	21.0	31.0
	KGF D 25 50	EE	S	1	40	51	6.6	62	10	58	10.5	10	48	8	5	M6	0.15	22.5	29.0
32	KGF N 32 05	EE	E	3	45	58	7	70	10	59	-	16	-	8	8	M6	0.08	24.0	49.0
	KGF N 32 10	EE	E	3	53	68	7	80	10	73	-	16	-	8	8	M8x1	0.08	44.0	53.0
	KGF D 32 20	EE	E	1	53	65	9	80	16	80	-	12	62	10	6	M6	0.08	42.5	61.0
	KGF N 32 40	EE	S	3	53	68	7	80	14	45	7.5	16	-	10	8	M6	0.08	17.0	32.0
40	KGF D 40 05	EE	E	2	63	78	9	93	10	57	-	14	70	10	7	M6	0.08	26.0	63.5
	KGF D 40 10	EE	E	2	63	78	9	95	16	71	-	14	70	10	7	M8x1	0.08	50.0	70.0
	KGF D 40 20	EE	E	2	63	78	9	93	16	80	-	14	70	10	7	M8x1	0.08	44.5	77.0
	KGF D 40 40	EE	S	2	63	78	9	93	16	85	7.5	14	-[1]	10	7	M8x1	0.08	42.0	93.0
50	KGF D 50 10	EE	E	2	75	93	11	110	16	95	-	16	85	10	8	M8x1	0.08	78.0	153.0
	KGF D 50 20	EE	E	2	85	103	11	125	22	95	-	18	95	10	9	M8x1	0.08	82.0	137.0
63	KGF D 63 10	EE	E	2	90	108	11	125	16	97	-	18	95	10	9	M8x1	0.08	86.0	200.0
	KGF D 63 20	EE	E	2	95	115	13.5	135	25	99	-	20	100	10	10	M8x1	0.08	85.0	170.0

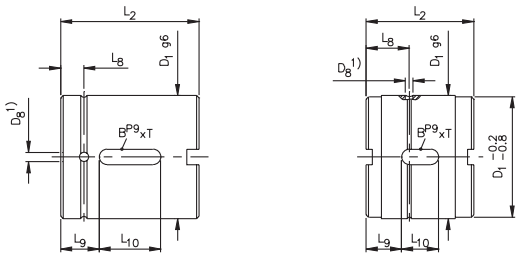
Notes
1) Round flange.



Hole pattern 1 | Hole pattern 2 | Hole Pattern 3

Cylindrical Ball Nuts
SERIES KGM

- Metric dimensions
- Cylindrical mounting
- Optimized internal ball return systems
- Buna contact seals
- Radial lubrication hole and groove
- 3000 rpm speed limit



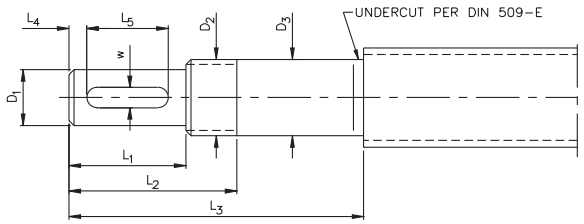
For details on part numbers, descriptive suffixes and various technical references, please refer to front of this section.

NOMINAL PITCH DIAMETER d_0	DESIGNATION d_0 LEAD	SEAL SUFFIX	FORM	D_1 mm	D_8 1) mm	L_2 mm	L_8 mm	L_9 mm	L_{10} mm	BxT	AXIAL BACKLASH MAX	LOAD RATINGS DYN C (kN)	LOAD RATINGS STAT C (kN)
16	KGM D 16 05	EE	E	28	3	34	7	7	20	5x2	0.08	12.5	12.7
	KGM D 16 10	EE	E	28	3	50	7	15	20	5x2	0.08	23.0	26.0
20	KGM N 20 05	EE	E	32	3	34	7	7	20	5x2	0.08	14.0	17.0
	KGM N 20 20	EE	S	35	1.5	30	11.5	9	12	5x3	0.08	12.0	19.2
	KGM N 20 50	EE	S	35	1.5	56	16	18	20	5x3	0.15	18.0	22.0
25	KGM D 25 05	EE	E	40	3	34	7	7	20	5x2	0.08	15.0	22.4
	KGM D 25 10	EE	E	40	3	45	7.5	12.5	20	5x2	0.08	17.5	25.0
	KGM D 25 20	EE	S	40	1.5	35	14	11.5	12	5x3	0.15	19.0	23.5
	KGM D 25 25	EE	S	40	1.5	35	11.5	11	13	5x3	0.08	21.0	31.0
	KGM D 25 50	EE	S	40	1.5	58	17	19	20	5x3	0.15	22.5	29.0
32	KGM N 32 05	EE	E	45	3	45	7.5	8	30	6x2.5	0.08	24.0	49.0
	KGM N 32 10	EE	E	53	4	60	10	15	30	6x2.5	0.08	44.0	53.0
	KGM N 32 20	EE	E	53	3	70	7.5	20	30	6x2.5	0.08	42.5	61.0
	KGM N 32 40	EE	S	53 2)	1.5	45	13	10	25	6x4	0.08	17.0	32.0
40	KGM D 40 05	EE	E	63	3	45	7.5	8	30	6x2.5	0.08	26.0	63.5
	KGM D 40 10	EE	E	63	4	60	10	15	30	6x2.5	0.08	50.0	70.0
	KGM D 40 20	EE	E	63	3	70	7.5	20	30	6x2.5	0.08	44.5	77.0
	KGM D 40 40	EE	S	63	1.5	85	15	27.5	30	6x3.5	0.08	42.0	93.0
50	KGM D 50 10	EE	E	75	4	82	11	23	36	6x2,5	0.08	78.0	153.0
	KGM N 50 20	EE	E	85	4	82	10	23	36	6x2,5	0.08	82.0	137.0
63	KGM D 63 10	EE	E	90	4	82	11	23	36	6x2.5	0.08	86.0	200.0
	KGM D 63 20	EE	E	95	4	82	10	23	36	6x2.5	0.08	85.0	170.0

Notes
1) Position of lubrication hole not defined on circumference.
2) D1 -0.2/-0.8 is D1 -1/-1.5

Standard Screw Ends
FORM D

- "Fixed" drive end support configuration
- Designed for INA ballscrew support bearings and locknuts
- Locknut threads to 6g tolerance class
- Standard metric keyways

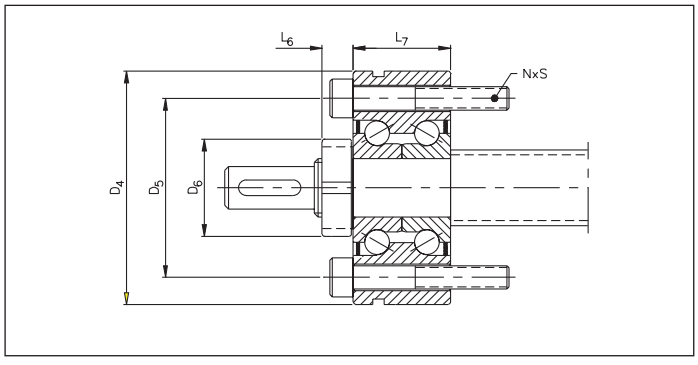


For details on part numbers, descriptive suffixes and various technical references, please refer to front of this section.

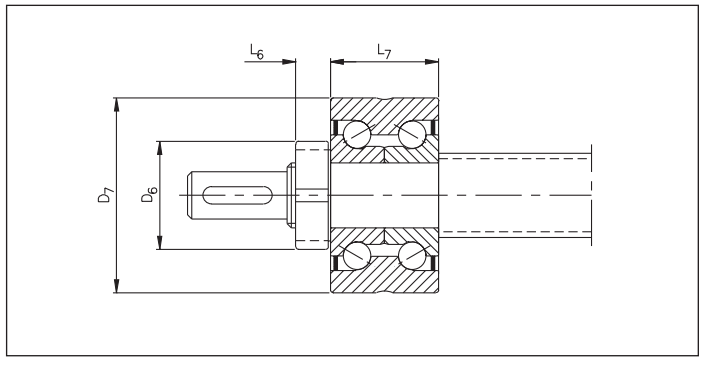
NOMINAL PITCH DIAMETER d_0	D_1^{k6} mm	D_2 mm	D_3^{k6} mm	L_1 mm	L_2 mm	L_3 mm	L_4 mm	KEYWAY TO DIN 6885 w x depth x L_6
16	9	M12x1	12	20	30	55	2.5	3 x 1.8 x 16
20	11	M15x1	15	23	33	58	3.5	4 x 2.5 x 16
25	14	M20x1	20	30	42	70	4	5 x 3 x 22
32	19	M25x1.5	25	40	54	82	6	6 x 3.5 x 28
40	24	M30x1.5	30	50	64	92	7	8 x 4 x 36

NOMINAL PITCH DIAMETER d_0	D_4 mm	D_5 mm	D_6 mm	D_7 mm	L_6 mm	L_7 mm	N x S mm	BEARING		LOCKNUT	MAX. AXIAL LOAD (kN)
16	55	42	22	42	8	25	3 x M6	ZKLF 1255.2RS	ZKLN 1242.2RS	ZM12	12
20	60	46	25	45	8	25	3 x M6	ZKLF 1560.2RS	ZKLN 1545.2RS	ZM15	14
25	68	53	32	52	10	28	4 x M6	ZKLF 2068.2RS	ZKLN 2052.2RS	ZM20	16
32	75	58	38	57	12	28	4 x M6	ZKLF 2575.2RS	ZKLN 2557.2RS	ZM25	20
40	80	63	45	62	12	28	6 x M6	ZKLF 3080.2RS	ZKLN 3062.2RS	ZM30	22

Notes
Bearings and locknut must be ordered separately. For more information, see INA publication ZAE.



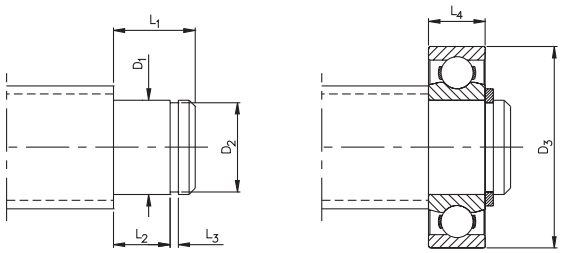
Form D with 2KLF and 2M



Form D with 2KLN and 2M

Standard Screw Ends
FORM W AND N AND Z

- Radial end support configurations W & N
- Designed for INA bearings and retaining rings
- Form Z - cut and chamfer only



Form W

For details on part numbers, descriptive suffixes and various technical references, please refer to front of this section.

Form W

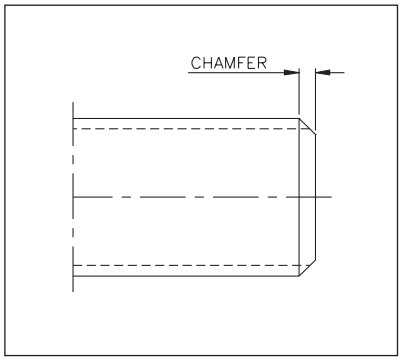
NOMINAL PITCH DIAMETER d_0	D_1^{k6} mm	D_2 mm	D_3 mm	L_1 mm	L_2 mm	L_3 mm	L_4 mm	BEARING	SHAFT RING PER DIN 471
16	12	11.5	28	12	8	1.1	8	6001 2RS	12x1
20	15	14.2	32	13	9	1.3	9	6002 2RS	15x1
25	20	18.8	42	16	12	1.3	12	6004 2RS	20x1.2
32	25	23.7	52	20	15	1.3	15	6205 2RS	25x1.2
40	30	28.6	62	21	16	1.6	16	6206 2RS	30x1.5
50	40	38.5	80	25	18	1.85	18	6208 2RS	40x1.75
63	55	52	100	29	21	2.15	21	6211 2RS	55x2

Notes
Bearings must be ordered separately. For more information, see INA publication 517.
Shaft rings not included.

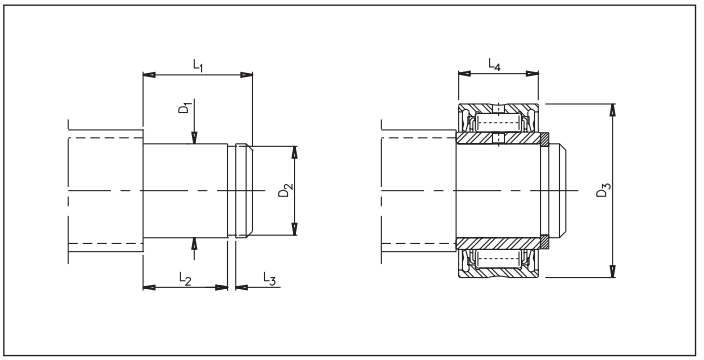
Form N

NOMINAL PITCH DIAMETER d_0	D_1^{k6} mm	D_2 mm	D_3 mm	L_1 mm	L_2 mm	L_3 mm	L_4 mm	INA NEEDLE ROLLER BEARING	INA SNAP RING
16	12	11.5	24	18	14	1.1	13	NA 4901 2RS	WR 12
20	15	14.4	28	18	14	1.3	13	NA 4902 2RS	WR 15
25	20	19.2	37	22	18	1.3	17	NA 4904 2RS	WR 20
32	25	24	42	23	18	1.3	17	NA 4905 2RS	WR 25
40	30	29	47	23	18	1.6	17	NA 4906 2RS	WR 30
50	40	38.5	62	30	23	1.6	22	NA 4908 2RS	WR 40
63	50	48.5	62	30.5	23	1.6	22	NA 4910 2RS	WR 50

Notes
Bearings must be ordered separately. For more information, see INA publication 517.
Shaft rings not included.



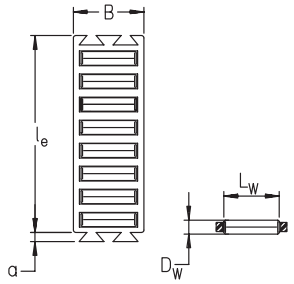
Form Z



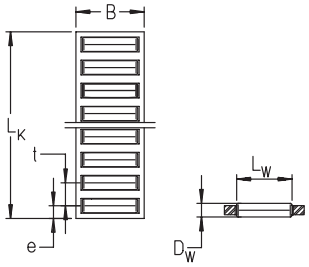
Form N

INA-HYDREL
Flat Cage Assemblies
FF, H, BF, HR SERIES

- Single row



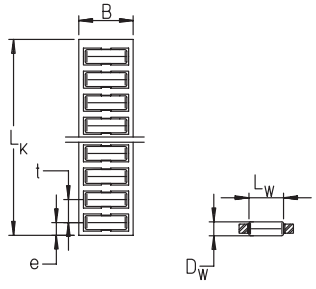
FF SERIES



H, BF SERIES

For details on part numbers, descriptive suffixes and various technical references, please refer to front of this section.

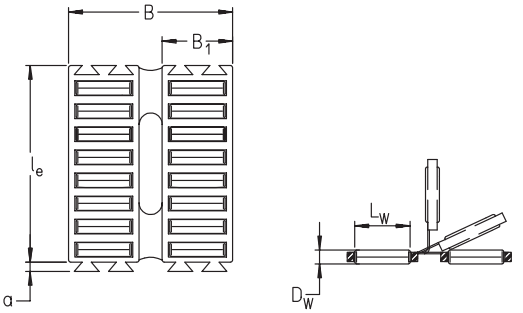
PART NUMBER				WGT.	B	D_w	L_w	t	e	a	L_k max.	l_3	Z_e ROLLERS PER CAGE	DYN. LOAD PER 10 ROLLERS C	STAT. LOAD PER 10 ROLLERS C_0
				g/L_K=1000 mm	mm	mm	mm	mm	mm	mm	mm	mm	Number	N	N
FF2010	–	–	–	46	10	2	6.8	–	–	2	–	32	7	11800	28000
–	H10	–	–	63	10	2	6.8	4.5	3.5	–	3000	–	–	11800	28000
FF2515	–	–	–	84	15	2.5	9.8	–	–	2.5	–	45	8	21200	52000
–	H15	–	–	120	15	2.5	9.8	5	3.5	–	3000	–	–	21200	52000
FF3020	–	–	–	148	20	3	13.8	–	–	3	–	60	9	35500	88000
–	H20	–	–	202	20	3	13.8	6	4.5	–	3000	–	–	35500	88000
–	–	BF3020	–	342	20	3	15.8	6	4.5	–	2000	–	–	39500	102000
FF3525	–	–	–	221	25	3.5	17.8	–	–	3	–	75	10	53000	132000
–	H25	–	–	294	25	3.5	17.8	7	5	–	3000	–	–	53000	132000
–	–	BF5015	–	375	15	5	11.8	8	5.5	–	2000	–	–	60000	123000
–	–	BF5023	–	530	23	5	19.8	8	5.5	–	2000	–	–	91000	211000
–	–	BF5032	–	722	32	5	27.8	8	5.5	–	2000	–	–	119000	300000
–	–	–	HR50	105	10.5	5	5	10	6.5	–	3000	–	–	30000	51000
–	–	BF7028	–	875	28	7	24	11	7.5	–	2000	–	–	165000	365000
–	–	BF7035	–	1080	35	7	30	11	7.5	–	2000	–	–	197000	455000
–	–	–	HR70	295	17	7	10	13	8.5	–	3000	–	–	82000	148000
–	–	–	HR100	598	24	10	14	17	10	–	3000	–	–	169000	295000
–	–	BF12022	–	1220	22	12	18	16	10	–	2000	–	–	260000	460000
–	–	BF12040	–	1970	40	12	36	16	10	–	2000	–	–	455000	930000



HR SERIES

INA-HYDREL
Flat Cage Assemblies
FF..ZW, H..ZW, HR..ZW SERIES

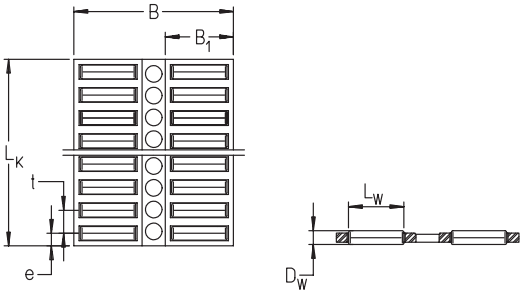
- Double row



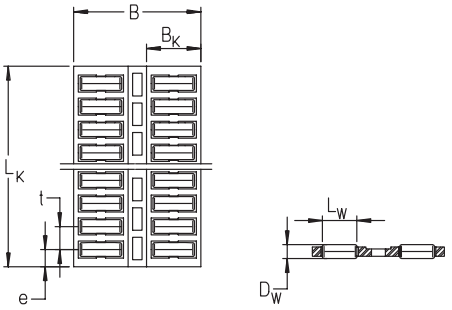
FF..ZW SERIES

For details on part numbers, descriptive suffixes and various technical references, please refer to front of this section.

PART NUMBER			WGT.	B	B_1	D_w	L_w	t	e	a	L_k max.	l_3	Z_e ROLLERS PER CAGE	DYN. LOAD PER 10 ROLLERS C	STAT. LOAD PER 10 ROLLERS C_0
			g/L_K=1000 mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Number	N	N
FF 2025 ZWA	–	–	94	25	10	2	6.8	–	–	2	–	32	7	20200	56000
–	H 24 ZW	–	138	24	10.5	2	6.8	4.5	3.5	–	3000	–	–	20200	56000
FF 2535 ZW	–	–	182	35	15	2.5	9.8	–	–	2.4	–	45	8	36500	103000
–	H 34 ZW	–	239	33.5	14.3	2.5	9.8	5.5	4	–	3000	–	–	36500	103000
FF 3045 ZW	–	–	315	45	20	3	13.8	–	–	3	–	60	9	61000	177000
–	H 44 ZW	–	408	44	19	3	13.8	6	4.5	–	3000	–	–	61000	177000
FF 3555 ZW	–	–	464	55	25	3.5	17.8	–	–	3.2	–	75	10	90000	265000
–	H 55 ZW	–	598	55	24	3.5	17.8	7	5	–	3000	–	–	90000	265000
–	–	HR 50 ZW	215	24	10.5	5	5	10	6.5	–	3000	–	–	51000	101000
–	–	HR 70 ZW	602	40	17	7	10	13	8.5	–	3000	–	–	141000	295000
–	–	HR 100 ZW	1233	55	24	10	14	17	10	–	3000	–	–	290000	590000



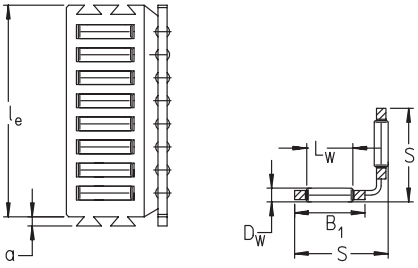
H..ZW SERIES



HR..ZW SERIES

INA-HYDREL
Angled Flat Cage Assemblies
FFW, HW, HRW SERIES

- Double row with 90° bend

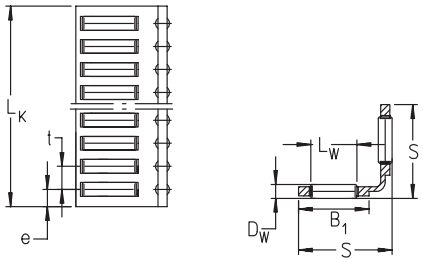


FFW SERIES

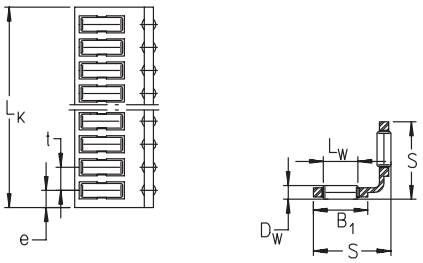
For details on part numbers, descriptive suffixes and various technical references, please refer to front of this section.

PART NUMBER			WGT.	S	B_1	D_w	L_w	t	e	a	L_k max.	l_3	Z_e ROLLERS PER CAGE	DYN. LOAD PER 10 ROLLERS C	STAT. LOAD PER 10 ROLLERS C_0
			g/L_K=1000 mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Number	N	N
	HW10	–	219	10	8	2	4.8	4	3	–	1000	–	–	10700	27400
FFW 2025 ZWA	–	–	94	15	10	2	6.8	–	–	2	–	32	7	14300	40000
–	HW15	–	138	15	10.5	2	6.8	4.5	3.5	–	3000	–	–	14300	40000
FFW 2535	–	–	182	20.5	15	2.5	9.8	–	–	2.4	–	45	8	25500	73000
–	HW20	–	239	20	14.3	2.5	9.8	5.5	4	–	3000	–	–	25500	73000
FFW 3045	–	–	315	26	20	3	13.8	–	–	3	–	60	9	43000	125000
–	HW25	–	408	25	19	3	13.8	6	4.5	–	3000	–	–	43000	125000
FFW 3555	–	–	464	31.5	25	3.5	17.8	–	–	3.2	–	75	10	64000	187000
–	HW30	–	598	30	24	3.5	17.8	7	5	–	3000	–	–	64000	187000
–	–	HRW 50	215	15.5	10.5	5	5	10	6.5	–	3000	–	–	36500	72000
–	–	HRW 70	602	25	17	7	10	13	8.5	–	3000	–	–	99000	209000
–	–	HRW100	1233	34	24	10	14	17	10	–	3000	–	–	205000	415000

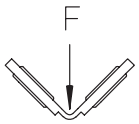
The basic load ratings are valid for the condition that the two sections of the cage are symmetrical to the load direction (see diagram below).



HW SERIES



HRW SERIES



LOAD DIRECTION