





Linear bearings RSDE-ACC with anti-cage creep technology





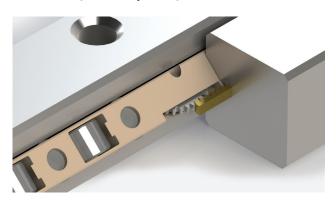
Zero cage creep

High acceleration (up to 15G)

Compact & cost saving design

Integrated in crossed roller bearing design (All metal design)

Also available for stainless steel with integrated rack machined by Electrical Chemical Machining often called ECM (UHV compatible)



ACC include a robust brass rack attached in the bottom of the groove.



ACCI anti-cage creep technology for stainless steel rails, made by ECM. Is on request available in selected rail types.

## THE PROBLEM CREEPING OF THE CAGE

Shorter production times constantly push machine designers to reach higher speeds, decrease the size and weight of their designs, while increasing machine travel and positio-ning accuracy to its limits.

Cage creep can occur in non-recirculating linear bearing applications where vibrations, improper mounting, very high-acceleration and de-acceleration, inadequate toleran-ces on the mounting surfaces, uneven preloading or moment loading is present.

As the cage creeps out from original position there is an increase of friction, reduction of travel length and prematu-re wear of the linear bearings. This shortens the lifetime and can lead to premature failures.

### **OUR SOLUTION = THE ACC-SOLUTION**

Our engineers refreshed a superior solution for use in high-tech and extreme dynamic applications. The ACC solution has proven its ability for decades to prevent cage creep in the most demanding applications and under the most seve-re environment conditions. The ACC system is integrated in the design of the linear bearing without influencing the external boundary or mounting dimensions. This allows you to replace the bearings in existing problem applications with the ACC solution.

#### THE TEST RESULT PROVE

- No increase of friction
- No reduction of accuracy
- No influence of lubrication
- Increase operational life to its limits
- Zero cage creeping
- For all mounting orientations
- Easy to assemble

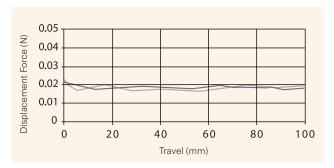




The ACC system is the best and most effective solution avai-lable. Precision rail with ACC option are currently available with the RSDE-series in all accuracy grades.

#### **FRICTION FORCE**

The ACC solution is designed and manufactured with the greatest care. Therefore, as you can see on the graph below, the force that must be applied to overcome friction is essentially unchanged.



#### **APPLICATIONS**

The ACC solution is well suited for the high speed, high pre-cision demands of the electronics and semiconductor indus-try for applications like wire bonding stages and pick-and place units



#### **OPERATING TEMPERATURE**

Linear bearings with ACC solution can operate under tem-peratures of -40°C up to +80°C. This is a significant advan-tage over similar systems using plastic components.

#### **ACCELERATION**

Max. acceleration 150 m/s<sup>2</sup> (15G)

Standard linear bearing rail set with ACC solution consist of:

- 4 pcs. rail type RSDE with ACC
- 2 pcs. roller cages type KRE(V) with ACC (rollers retained)

End screws not necessary

#### Optional:

End screws GB and mountingscrews GD

Leading global manufacturers have chosen the PM ACC

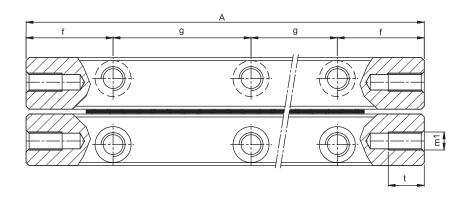
#### **LENGTH RAILS WITH ACC**

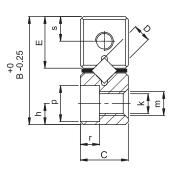
Type RSDE - ACC, from page 84 Compact type RNG - ACC, from type 88

solution as the best solution on the market.









One set consist of: 4 rails  $\,+\,$  2 roller cages, both with ACC option

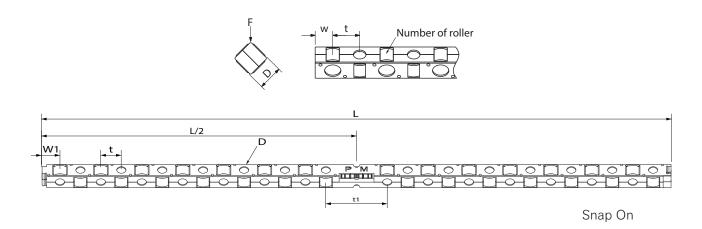
	Main dimensions					Mounting holes							End pieces		
RSDE-ACC Kit	A	В	C	E	D	f	g	h	k	m	р	r	m1	S	t
RSDE-3050x8KRE-ACC	50						1x25								
RSDE-3075x12KRE-ACC	75						2x25								
RSDE-3100x18KRE-ACC	100						3x25								
RSDE-3125x22KRE-ACC	125						4x25								
RSDE-3150x28KRE-ACC	150						5x25								
RSDE-3175x34KRE-ACC	175	18	8	8.6	3	12.5	6x25	3.5 <sup>±0.2</sup>	3.2	M4	6	3.2	МЗ	4.1	5.5
RSDE-3200x40KRE-ACC	200						7x25								
RSDE-3225x46KRE-ACC	225						8x25								
RSDE-3250x52KRE-ACC	250						9x25								
RSDE-3275x54KRE-ACC	275						10x25								
RSDE-3300x60KRE-ACC	300						11x25								
RSDE-4080x10KRE-ACC	80						1x40								
RSDE-4120x16KRE-ACC	120						2x40								
RSDE-4160x22KRE-ACC	160						3x40								
RSDE-4200x28KRE-ACC	200						4x40								
RSDE-4240x36KRE-ACC	240	22	11	10.6	4	20	5x40	4.5 <sup>±0.2</sup>	4.3	M5	7.5	4.1	МЗ	5	7
RSDE-4280x42KRE-ACC	280						6x40								
RSDE-4320x48KRE-ACC	320						7x40								
RSDE-4360x54KRE-ACC	360						8x40								
RSDE-4400x60KRE-ACC	400						9x40								

**Bold** = Short lead time item

 $\label{eq:Regular} \textit{Regular} = \textit{Long lead time item - please request for price and delivery time}$ 







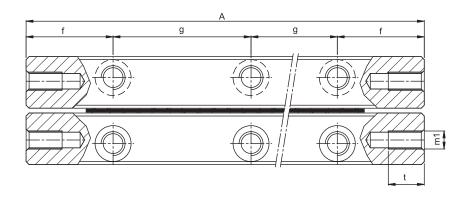
161   4704     210   7056     259   2744     310   10976     365   13328     405   15680     457   18032     507   20384     555   21168         12   48.3   50   RS     18   68.1   60   RS     22   81.3   85   RS     34   124.6   100   RS     46   164.2   120   RS     52   184   130   RS     54   190.6   160   RS	
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210     7056     18     68.1     60     RS       259     2744     22     81.3     85     RS       310     10976     3     3.3     10.9     2.2     2.95     28     101.1     95     RS       365     13328     405     15680     40     144.4     110     RS       457     18032     46     164.2     120     RS       507     20384     52     184     130     RS       555     21168     54     190.6     160     RS	RSDE-3050x10KRE-ACC
259     2744     3     3.3     10.9     2.2     2.95     28     101.1     95     RS       365     13328     405     15680     40     144.4     110     RS       457     18032     46     164.2     120     RS       507     20384     52     184     130     RS       555     21168     54     190.6     160     RS	RSDE-3075x12KRE-ACC
310 10976 3 3.3 10.9 2.2 2.95 28 101.1 95 RS   365 13328 405 15680 40 144.4 110 RS   457 18032 46 164.2 120 RS   507 20384 52 184 130 RS   555 21168 54 190.6 160 RS	RSDE-3100x18KRE-ACC
365   13328   34   124.6   100   RS     405   15680   40   144.4   110   RS     457   18032   46   164.2   120   RS     507   20384   52   184   130   RS     555   21168   54   190.6   160   RS	RSDE-3125x22KRE-ACC
405   15680     457   18032     507   20384     555   21168     40   144.4     46   164.2     120   RS     52   184     130   RS     54   190.6     160   RS	RSDE-3150x28KRE-ACC
457   18032   46   164.2   120   RS     507   20384   52   184   130   RS     555   21168   54   190.6   160   RS	RSDE-3175x34KRE-ACC
507 20384   555 21168   550 54   550 190.6   160 RS	RSDE-3200x40KRE-ACC
555 21168 54 190.6 160 <b>RS</b>	RSDE-3225x46KRE-ACC
	RSDE-3250x52KRE-ACC
605 23530 60 210.4 175 86	RSDE-3275x54KRE-ACC
000   25020           00   210.4   175   RS	RSDE-3300x60KRE-ACC
317 7850 10 54 50 RS	RSDE-4080x10KRE-ACC
475   12560   16   80.4   75   RS	RSDE-4120x16KRE-ACC
630 17270 22 106.8 100 RS	RSDE-4160x22KRE-ACC
788   21980         28   133.2   120   RS	RSDE-4200x28KRE-ACC
945   28260   4   4.4   13.2   2.8   3.85   36   173   130   RS	RSDE-4240x36KRE-ACC
1112   32970         42   199.4   160   RS	RSDE-4280x42KRE-ACC
1259 37680 48 225.8 185 RS	RSDE-4320x48KRE-ACC
1416 42390 54 252.8 210 RS	RSDE-4360x54KRE-ACC
1573   47100	RSDE-4400x60KRE-ACC

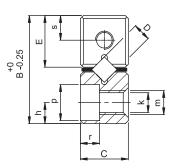
 $\mathsf{F} = \mathsf{Load}$  direction according to picture.

Units: mm









One set consist of: 4 rails  $\,+\,$  2 roller cages, both with ACC option

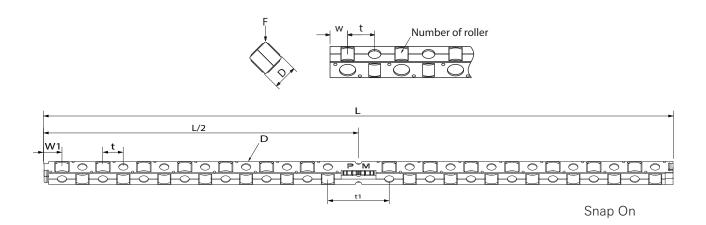
	Main dimensions					Mounting holes						End holes			
RSDE-ACC Kit	A	В	C	E	D	f	g	h	k	m	р	r	m1	S	t
RSDE-6100x8KRE-ACC	100						1x50								
RSDE-6150x14KRE-ACC	150						2x50								
RSDE-6200x16KRE-ACC	200						3x50								
RSDE-6250x22KRE-ACC	250						4x50								
RSDE-6300x28KRE-ACC	300	31	15	14.9	6	25	5x50	6 <sup>±0.2</sup>	5.2	M6	9.5	5.2	M5	7	8.5
RSDE-6350x32KRE-ACC	350						6x50								
RSDE-6400x38KRE-ACC	400						7x50								
RSDE-6450x44KRE-ACC	450						8x50								
RSDE-6500x48KRE-ACC	500						9x50								

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Weight					Roller c	age				
(g)	C <sub>dyn</sub> in (N)	D	t	t1	w	w1	Z	L	Stroke	Туре
650	14120						8	68	60	RSDE-6100x8KRE-ACC
968	24710						14	107.6	80	RSDE-6150x14KRE-ACC
1291	28240						16	120.8	150	RSDE-6200x16KRE-ACC
1610	38830						22	160.4	170	RSDE-6250x22KRE-ACC
1936	49448	6	6.7	19.8	4.3	6.3	28	200	200	RSDE-6300x28KRE-ACC
2254	56480						32	234.4	230	RSDE-6350x32KRE-ACC
2578	67070						38	274	250	RSDE-6400x38KRE-ACC
2910	77660						44	313.6	270	RSDE-6450x44KRE-ACC
3218	84720						48	340	310	RSDE-6500x48KRE-ACC

 $\mathsf{F} = \mathsf{Load}$  direction according to picture.

Units: mm

# PM RESEARCH AND PRODUCTION FACILITY



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2017