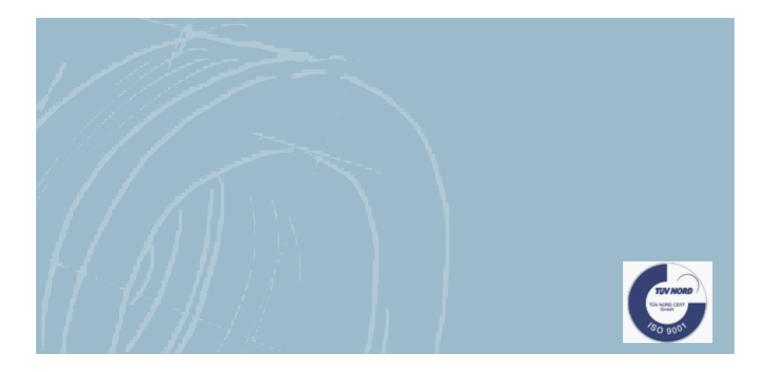


Markes GmbH & Co. KG Metallwarenfabrik

Wiesenstraße 61 58507 Lüdenscheid, Germany Phone: + 49 (0) 2351 1531-0 Fax: +49 (0) 2351 1531-11 info@markes.de·www.markes.de





### Dear Customer.

Are you unable to find what you need in our extensive range of products? Or do you need a special version for a specific application?

To enable the preparation of an offer that is tailored to your needs you are kindly requested to answer the following questions:

By Fax: +49 (0)2351 1531-11 By Mail: info@markes.de

Kindly enclose a drawing or sketch with your request for quotation – if available.

Ball bearing assemblies:		Particulars:		
Product in chapter / on page:  Deviating dimensions, version:		Planned annual volume?  Call-off quantities?		
		O Non-recurrent requirement	_	
		Type of packaging? Packing unit?		
Cinit		Customer specific test specifications	have to be respected?	
Number of revolutions:		O YES O NO	1	
Further requirements:		If YES, please specify?		
Alternative materials are permissible?	O YES O NO			
Variants are planned?	O YES O NO			
Plastic part:		Metal part:		
Specified material?		Specified material?		
Antistatic treatment is required?	O YES O NO			
Treatment for contact with foodstuffs is required?		Hardening and/or tempering?		
	ES O NO	Raw edge/direction of punching?		
		Absence of burr is required?		
Appearance standards?		Further requirements (customer logo,	, etc.)?	
Further requirements (customer logo, etc	·.)? 			
Alternative materials are permissible?	O YES O NO			
Variants are planned?	O YES O NO	Variants are planned?	O YES O NO	
Person to contact to cla	rify technic	al issues:		
Firm:		Phone:		
·		Fax:		
		Email:		
Specified date of delivery:				

### Load capacity:

The load capacity of the ball bearing is specified as load rating C in daN and tested under following conditions:

- 200mm roller length (short roller)
- · axis fixed restrained
- rotarional speed 100min-1 200min-1
- 1.000.000 revolutions (load change)

### Service life:

From the load capacity the service life of the ball bearing could be calculated with following formula:

$$Lh = \frac{1000000}{60 \times n} \left(\frac{C}{P}\right)^p$$

### Herein are:

Lh: nominal service life [h]
C: dynamic load rating [N]
n: revolutions [min-1]
P: dynamic bearing load [N]

p: (P = C in case of radial load only) exponent of service life equation (for ball bearing is considered p=3)

### Plastics:

### Polypropylen (PP)

- · good mechanical characteristic
- excellent shock resistance

### Polyacetal (POM)

- · high hardness and stiffness
- · low absorbtion of humidity
- · good friction and abrasion characteristic

### Polyamid (PA)

- · tenacious/rigid
- · very good mechanical characteristic and abrasion resistance

### **Antistatic Plastics**

- PP
- POM

The use of antistatic plastics is only premissible in the provided temperature range. We can not give any guarantee for the conductivity.

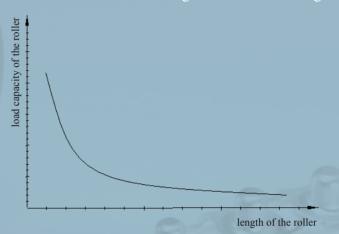
Attention: Do not use in explosion-proofed areas !!!

### Affecting conditions:

Under different conditions the roller manufacturer has to determine the real new load capacity of the roller by himself. Kindly note that the service life and the load capacity of your roller will be determined by:

- roller length
- · axis diameter
- style of the axis
- environment influences

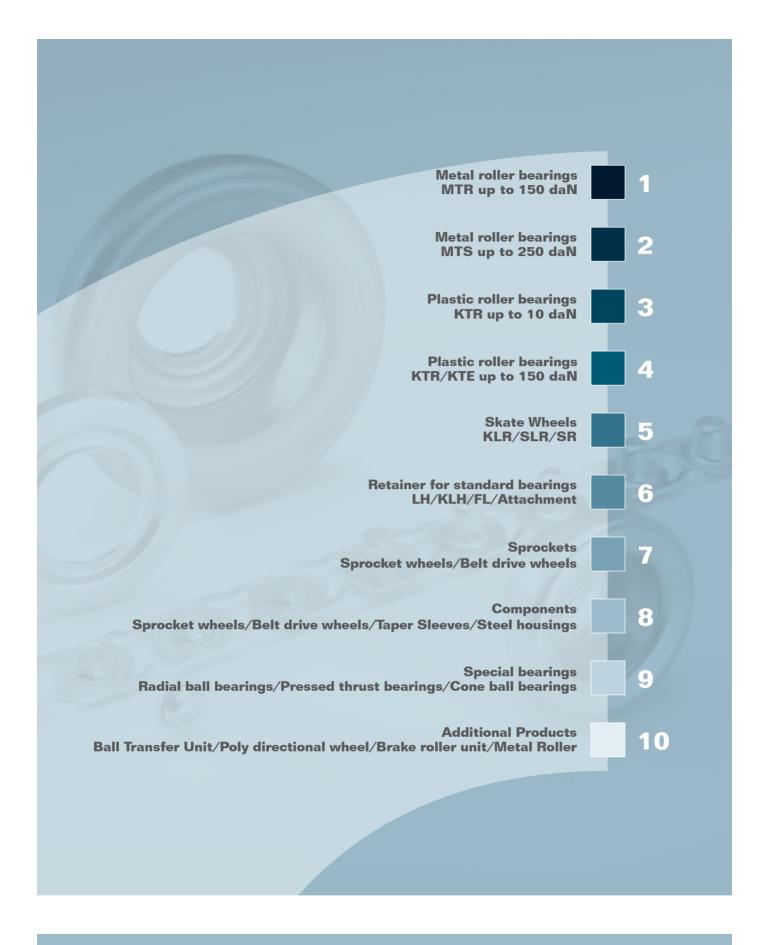
Influence of the roller length for the load rating



### Lubricants:

Our ball bearings are equipped with high quality lubricants. Furthermore our special greases and oils can reach a temperature range from -35°C to +180°C. Our tested lubricants are best prooved for many years under every conditions. In a given case please ask for the optimal lubricants recommended by MARKES..

### Technical specifications



### Content

### Metal roller bearings MTR up to 150 daN



### Metal roller bearings MTR

- $\cdot$  for inserting into steel tubes
- · semi precision ball bearing or ball bearing according DIN
- · typically use and characteristic
  - semy precision: easy running for gravity conveyors and for axial load too up to 200 r.p.m. usual
  - · DIN: noise reduced and used for higher loads and power driven conveyors
- · extensive attachment
- · special type made of stainless steel or with special lubrication on request



### Metal roller bearings MTS up to 250 daN



### Metal roller bearings MTS

- · for inserting in steel tubes
- · ball bearings according to DIN
- · typically use and characteristic
  - · suitable for heavy loads (palett transport)
  - · used as counter bearing for brake rollers
- · extensive attachment
- $\cdot$  special type made of stainless steel or with special lubrication on request



MTS

### Plastic roller bearings KTR up to 10 daN



### Plastic roller bearings KTR

- · easy assembling by pressing into tubes
- · one or two ball cages
- · typically use and characteristic
  - · easy running for gravity conveyors
- $\cdot \ \text{extensive attachment} \\$
- $\cdot$  special type like antistatic, with special lubrication or individual lay-out on request

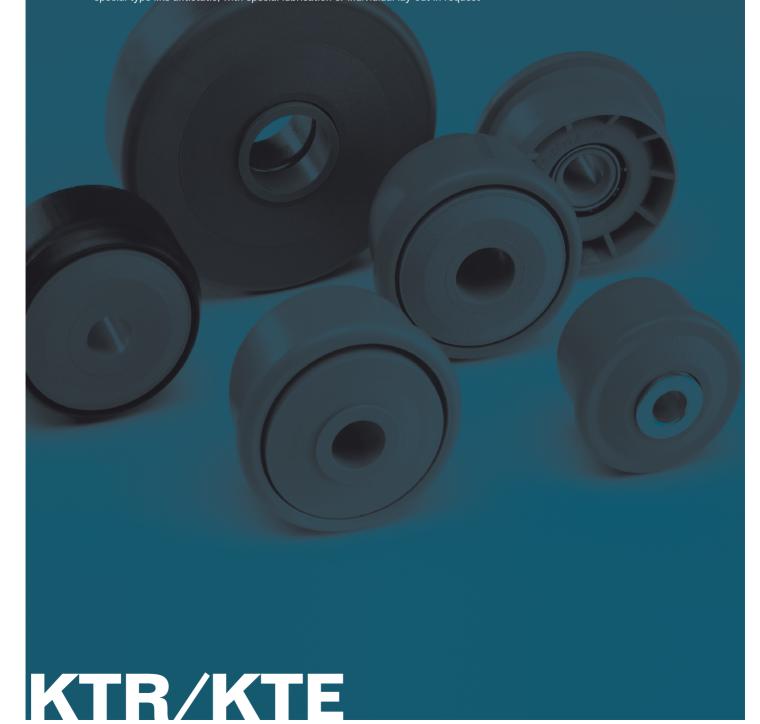


Plastic roller bearings KTR/KTE up to 150 daN



### Plastic roller bearings KTR/KTE

- $\cdot\;$  KTR for pressing and KTE for inserting into tubes
- · semi precision ball bearing or ball bearing according DIN
- · typically use and characteristic
  - semy precision: easy running for gravity conveyor and for axial load too up to 200 r.p.m.
  - · DIN: noise reduced and used for higher loads and power driven conveyors
- · special type like antistatic, with special lubrication or individiual lay-out in request



Skate Wheels KLR/SLR/SR



### **Skate Wheels KLR/SLR/SR** · plastic skate wheels double-row ball cage · free running on axis · typically use and characteristic · very easy running for skate wheel conveyors · extensive attachment · special type like antistatic, noise reduced or individual lay-out on request KLR/SLR/SR

### 6

### Retainer for standard bearings LH/KLH/FL





### Sprockets



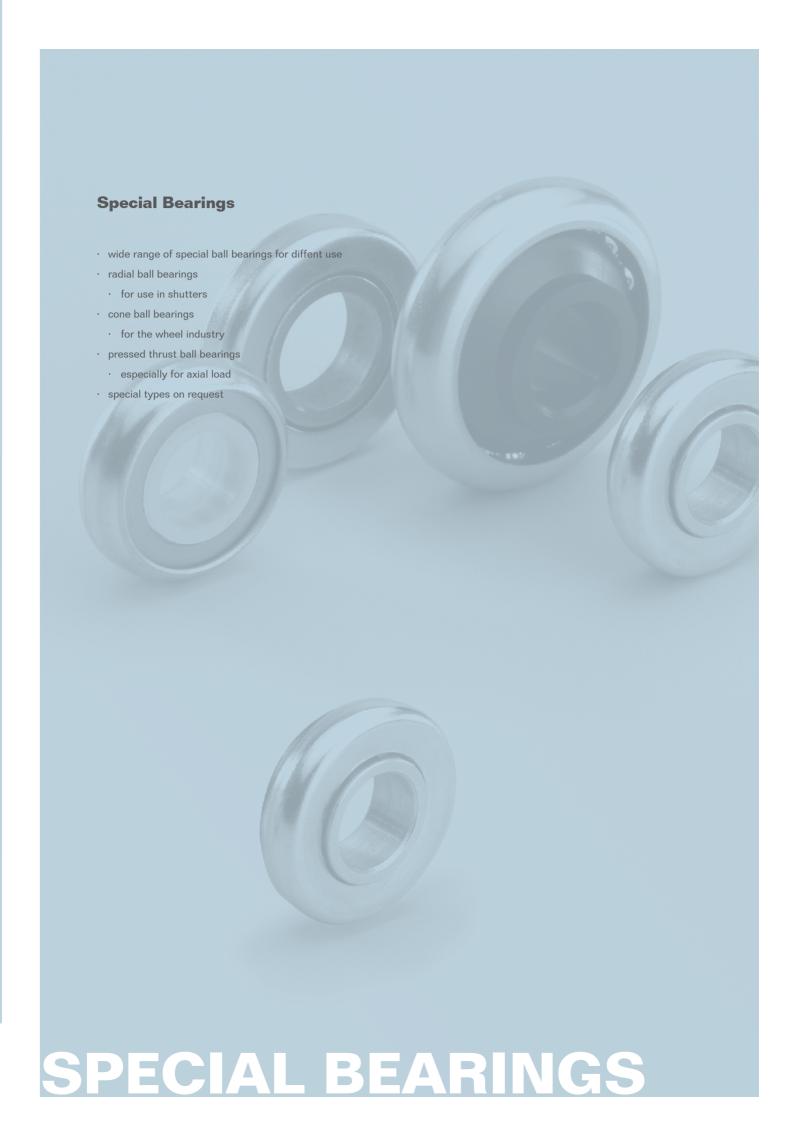
## **Sprockets** · easy assembling by pressing into the tube · typically use and characteristic · extensive attachment · special types on request

**SPROCKETS** 











# **Additional products/Attachment** · extensive attachment for further products · sales being effected via cooperation partners · special bearings on request



**D** [mm] 12



**d** [mm]



**C** [daN]



**T** [°C] 0° - 100°



-



9 3 5 19,5



MTR-01				
Туре	Di	Da	Load Rating C [daN]	
MTR-12x1,0.01	10,15	11,9	4	
Other dimensions on request!				

Housing: Stainless Inner Race: Stainless

**G** Ball: Stainless





**D** [mm] 30



**d** [mm] 8; 10



C [daN]



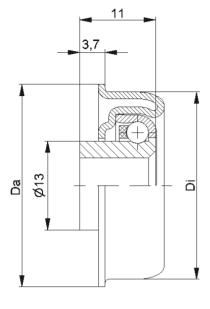
**T** [°C] 0° - 100°







500





MTR-16				
Туре	Di ±0.1	Da ±0.2	Load Rating C [daN]	
MTR-30x1,2.16	27,6	29,6	30	
MTR-30x1,5.16	27,3	29,6	30	
Other dimensions on request!				

C Housing: Steel, Zinc plated

**C** Bearing RL-16

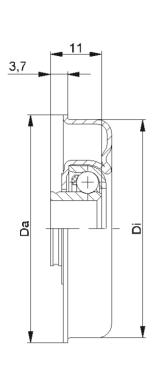
**c** Bearing Shell: Steel, Hardened

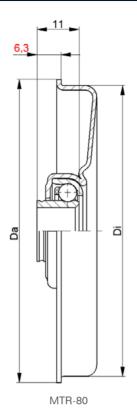
C Inner Race: Steel, Hardened, Zinc plated

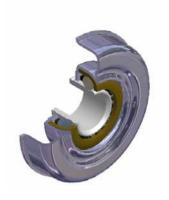
**G** Ball Cage: Plastic

**6** Ball: Steel











**D** [mm] 40 - 80



**d** [mm] 8; 10; 12; SW11



**C** [daN]



**T** [°C] 0° - 100°



Vactra No. 2

### MTR-20 Load Rating Di ±0.1 Da ±0.2 Type C [daN] MTR-40x1,5.20 37,3 39,5 80 MTR-40x2,0.20 39,5 36,3 80 MTR-48x1,5.20 45.3 47.5 80 MTR-50x1,5.20 47,3 49.5 80 MTR-50x2,0.20 46,3 49.5 80 MTR-60x1,5.20 57,3 59,5 80 MTR-60x2,0.20 56,3 59,5 80 MTR-80x2,0.20 76,4 79,5 80

### Other dimensions on request!

G Housing: Steel, Zinc plated

**G** Bearing RL-20

**G** Bearing Shell: Steel, Hardened

**♥** Inner Race: Steel, Hardened, Zinc plated

**&** Ball Cage: Plastic

**6** Ball: Steel

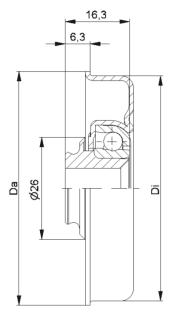


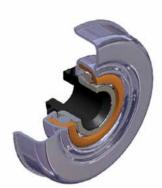


Carton [pcs.]

ø40:	250
ø48:	350
ø50:	350
ø60:	200
ø80:	125









**D** [mm] 50 - 80



**d** [mm] 8; 10; 12; SW11



C [daN]



**T** [°C] 0° - 100°



MTR-30			
Туре	Di ±0.1	Da ±0.2	Load Rating C [daN]
MTR-50x1,5.30	47,3	49,5	120
MTR-50x2,0.30	46,3	49,5	120
MTR-50x3,0.30	44,3	49,5	120
MTR-60x1,5.30	57,3	59,5	120
MTR-60x2,0.30	56,3	59,5	120
MTR-80x2,0.30	76,4	79,5	120

Other dimensions on request! C Housing: Steel, Zinc plated

C Reducing Bush: Plastic

**G** Bearing RL-30

**&** Bearing Shell: Steel, Hardened C Inner Race: Steel, Hardened







Carton [pcs.]

300 ø50: 200 ø60: ø80: 125

### MTR-30-2



50 - 80



10;12; 14; 15; SW11



C [daN]



**T** [°C] 0° - 100°







**d** [mm]

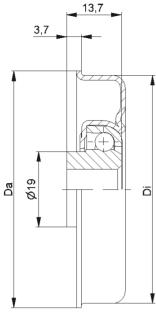






Carton [pcs.]

ø50:	300
ø60:	200
ø80:	125





MTR-30-2			
Туре	Di ±0.1	Da ±0.2	Load Rating <b>C [daN]</b>
MTR-50x1,5.30-2	47,3	49,5	120
MTR-50x2,0.30-2	46,3	49,5	120
MTR-60x1,5.30-2	57,3	59,5	120
MTR-60x2,0.30-2	56,3	59,5	120
MTR-80x2,0.30-2	76,4	79,5	120
Other dimensions on request!			

C Housing: Steel, Zinc plated

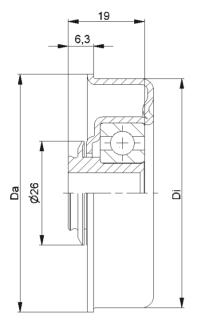
**G** Bearing RL-30-2

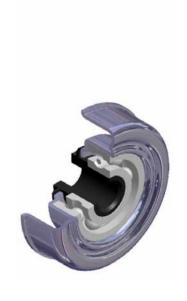
**C** Bearing Shell: Steel, Hardened















**D** [mm] 50 - 80



**d** [mm] 10; 12; SW11



**C** [daN] 120 - 150



**T** [°C] 0° - 80°



EP 2

MTR-40			
Туре	Di ±0.1	Da ±0.2	Load Rating C [daN]
MTR-50x1,5.40	47,3	49,5	120
MTR-50x2,0.40	46,3	49,5	120
MTR-60x1,5.40	57,3	59,5	150
MTR-60x2,0.40	56,3	59,5	150
MTR-60x3,0.40	54,3	59,5	150
MTR-80x2,0.40	76,5	79,5	150
Other dimensions on request!			

G Housing: Steel, Zinc plated

C Reducing Bush: Plastic

C Bearing 6202





Carton [pcs.]

 ø50:
 100

 ø60:
 200

 ø80:
 125

### MTR-40.15



50 - 80







**T** [°C] 0° - 80°



EP 2



**D** [mm]



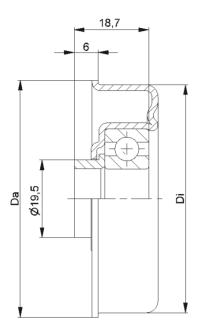
**d** [mm] 15

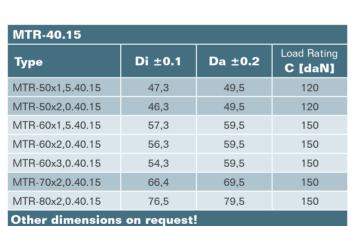




Carton [pcs.]

ø50:	100
ø60:	200
ø70:	125
ø80:	125





G Housing: Steel, Zinc plated





### MTR-45.17





**d** [mm] 17





**T** [°C] 0° - 80°



**D** [mm] 50, 80



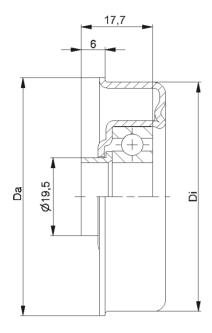


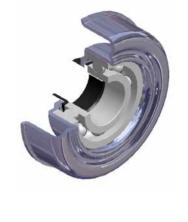




Carton [pcs.]

100 125 ø50: ø80:





MTR-45.17				
Туре	Di ±0.1	Da ±0.2	Load Rating  C [daN]	
MTR-50x1,5.45.17	47,3	49,5	120	
MTR-80x2,0.45.17	76,5	79,5	150	
Other dimensions on request!				

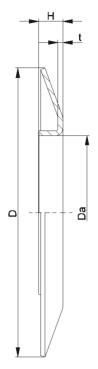
C Housing: Steel, Zinc plated

C Distance Bush: Plastic

**G** Bearing 6003













**D** [mm] 50 - 108



**d** [mm]



C [daN]



**T** [°C]



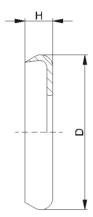




BS-				
Туре	Da ±0.1	D -2	H ±0.5	t
BS-50-130	49,9	130	10	1,5
BS-60-130	59,9	130	10	1,5
BS-80-150	79,9	150	14	2,5
BS-89-150	88,9	150	14	2,5
BS-108-150	107,9	150	14	2,5
Other dimensions on request				

**C** Wheel Flange: Steel









DK-MTR			
Туре	D	н	
DK-MTR-20	34	7	
DK-MTR-30-2	39	7	
Other dimensions on request!			

**C** Seal Bonnet: Plastic







**D** [mm]



**d** [mm]



C [daN]



**T** [°C] 0° - 80°





### DK-MTR-



**D** [mm]





**d** [mm]



C [daN]

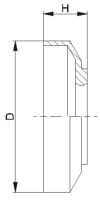


**T** [°C] 0° - 80°











**c** Seal Bonnet: Plastic



MTS-46



**D** [mm] 63,5



**d** [mm] 20



**C** [daN]



**T** [°C] 0° - 100°

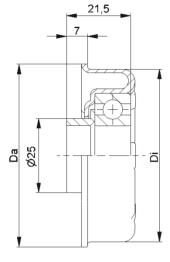


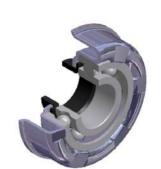
FP 2



Carton [pcs.]

50





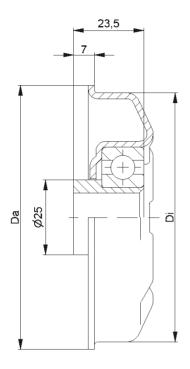
MTS-46			
Туре	Di ±0.1	Da ±0.2	Load Rating <b>C [daN]</b>
MTS-63,5x2,9.46	58,1	61,5	200
Other dimensions on request!			

**Ů** Housing: Steel, Zinc plated

C Distance Bush: Plastic

**G** Bearing 6004







### MTS-44



**D** [mm] 80 - 108



**d** [mm] 16; 17; SW14



**C** [daN] 250



**T** [°C] 0° - 100°



FD

MTS-44						
Туре	Di ±0.1	Da ±0.2	Load Rating <b>C [daN]</b>			
MTS-80x2,0.44	76,5	79,5	250			
MTS-80x3,0.44	74,5	79,5	250			
MTS-89x3,0.44	83,5	88,5	250			
MTS-89x3,25.44	83,0	88,5	250			
MTS-108x3,25.44	102,0	107,5	250			

C Housing: Steel, Zinc plated

Other dimensions on request!

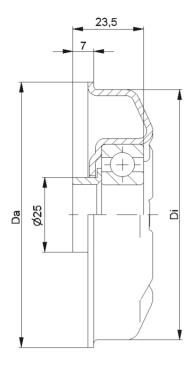
C Reducing Bush: Plastic

**c** Bearing 6204





Carton [pcs.]





### MTS-44



**D** [mm] 80 - 108



**d** [mm] 20



**C** [daN] 250



**T** [°C] 0° - 100°



FP 2

MTS-44	MTS-44						
Туре	Di ±0.1	Da ±0.2	Load Rating C [daN]				
MTS-80x2,0.44	76,5	79,5	250				
MTS-80x3,0.44	74,5	79,5	250				
MTS-89x3,0.44	83,5	88,5	250				
MTS-89x3,25.44	83,0	88,5	250				
MTS-108x3,25.44	102,0	107,5	250				
Other dimensions	Other dimensions on request!						

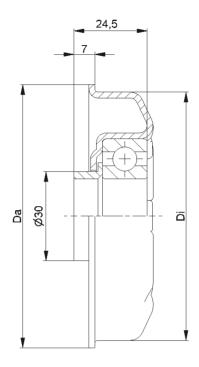
Housing: Steel, Zinc plated Distance Bush: Plastic

**C** Bearing 6204





Carton [pcs.]



Di ±0.1

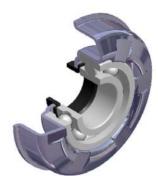
83,5

102,0

Da ±0.2

88,5

107,5





MTS-47



**D** [mm] 89 - 108



**d** [mm] 25



C [daN] 250



**T** [°C] 0° - 100°



EP 2



Load Rating

C [daN]

250

250



50

MTS-47

MTS-89x3,0.47

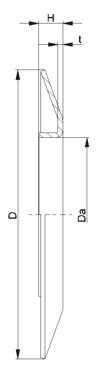
**G** Bearing 6205

MTS-108x3,25.47

Other dimensions on request!

C Housing: Steel, Zinc plated C Distance Bush: Plastic

Туре











**D** [mm] 50 - 108



**d** [mm]



C [daN]



**T** [°C]







BS-					
Туре	Da ±0.1	D -2	H ±0.5	t	
BS-50-130	49,9	130	10	1,5	
BS-60-130	59,9	130	10	1,5	
BS-80-150	79,9	150	14	2,5	
BS-89-150	88,9	150	14	2,5	
BS-108-150	107,9	150	14	2,5	
Other dimensions	on request!				

**C** Wheel Flange: Steel



KTR-16.00 KTR-16.01



16



**d** [mm] 5; 6



C [daN]



**T** [°C] 0° - 80°



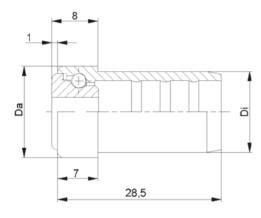










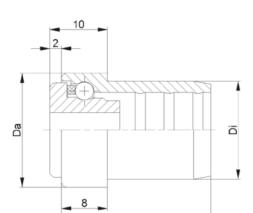




KTR-16.00/.01					
Туре	Normal	Stainless .01	Di +0,15	Da	Load Rating <b>C [daN]</b>
KTR-16x1,0	х	х	14,1	15,9	3
Other dimensions on request!					

- **G** Housing: Plastic
- C Inner Race: Plastic
- C Ball
  - C 00: Steel
  - **©** 01: 1.4034







KTR-20.00/.01					
Туре	Normal .00	Stainless .01	Di +0,15	Da	Load Rating  C [daN]
KTR-20x1,0	x	x	18,1	19,9	5
KTR-20x1,5	х	Х	17,1	19,9	5

## Other dimensions on request!

**G** Housing: Plastic

C Inner Race: Plastic

**&** Ball Cage: Plastic

C Ball

**c** 00: Steel

**©** 01: 1.4034







**D** [mm] 20



**d** [mm] 6; 8



**C** [daN]



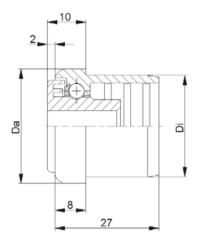
**T** [°C] 0° - 80°



-



Carton [pcs.]





KTR-30.00/.01						
Туре	Normal .00	Stainless .01	Di +0,25	Da	Load Rating  C [daN]	
KTR-30x1,0	×	x	28,1	29,9	7	
KTR-30x1,5	х	x	27,1	29,9	7	
KTR-30x1,8	х	х	26,5	29,9	7	
KTR-30x2,0	Х	Х	26,35	29,9	7	

# Other dimensions on request!

**G** Housing: Plastic

**C** Inner Race: Plastic

**C** Ball Cage: Plastic

C Ball







**D** [mm] 30



**d** [mm] 6; 8; 10



**C** [daN]



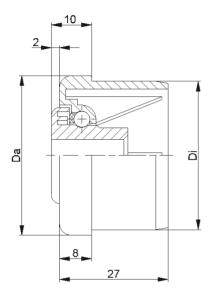
**T** [°C]



-



Carton [pcs.]





# Other dimensions on request!

**c** Housing: Plastic

KTR-40.00/.01

Туре

KTR-40x1,5

KTR-40x2,3

C Inner Race: Plastic

**&** Ball Cage: Plastic

C Ball

C 00: Steel

**©** 01: 1.4034





**D** [mm] 40



**d** [mm] 6; 8; 10



**C** [daN]



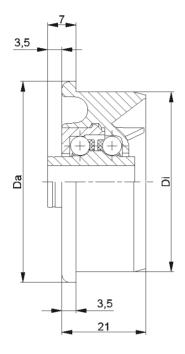
**T** [°C]



-



Carton [pcs.]





KTR-02/03					
Туре	Normal .02	Stainless .03	Di +0,2	Da	Load Rating <b>C [daN]</b>
KTR-50x1,5	x	х	47,3	49,9	10
KTR-50x2,0	x	x	46,3	49,9	10
KTR-50x2,8	Х	Х	44,6	49,9	10

## Other dimensions on request!

**6** Housing: Plastic

**C** Inner Race: Plastic

Bearing Cap: PlasticBall Cage: Plastic

C Ball







**D** [mm] 50



**d** [mm] 8; 10



**C** [daN]



**T** [°C]

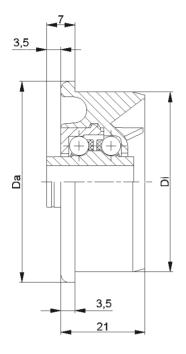


\_



Carton [pcs.]

50x1,5: 250 50x2,0: 300 50x2,8: 250





KTR-02/03					
Туре	Normal .02	Stainless .03	Di +0,2	Da	Load Rating <b>C [daN]</b>
KTR-50x1,5	х	х	47,3	49,9	10
KTR-50x2,8	x	x	44,6	49,9	10
Other dimensions on request!					

C Housing: Plastic

C Inner Race: Plastic

**&** Bearing Cap: Plastic

G Ball Cage: Plastic

C Ball

🕻 02: Steel







**D** [mm] 50



**d** [mm] 12; SW11



**C** [daN]



**T** [°C] 0° - 80°



-



Carton [pcs.]

### DK-KTR-02



**D** [mm]



**d** [mm]



C [daN]

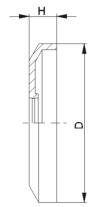


**T** [°C] 0° - 80°







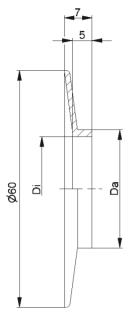




DK-KTR				
Туре	D	н		
DK-KTR-02	40,5	7		
Other dimensions on request!				

**G** Seal Bonnet: Plastic





BS-

Туре

BS-30x1,0

BS-30x1,8

BS-40x1,5

BS-40x2,3

**&** Wheel Flange: Plastic

Di

28,1

26,5

37,1

35,5

Other dimensions on request!

Da

29,9

29,9

39,9

39,9







**D** [mm]





**d** [mm]



C [daN]

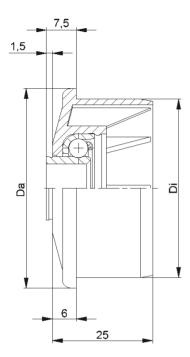


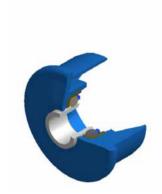
**T** [°C] 0° - 80°











KTR-25						
Туре	Di +0,2	Da	Load Rating C [daN]			
KTR-40x3,0.25	34,3	39,9	50			
KTR-50x1,5.25	47,3	49,9	50			
KTR-50x2,8.25	44,6	49,9	50			

## Other dimensions on request!

**6** Housing: Plastic

**G** Bearing RL-25

**c** Bearing Shell: Steel, Hardened

**G** Inner Race: Steel, Hardened, Zinc plated

**C** Ball Cage: Plastic

**6** Ball: Steel







**D** [mm] 40 - 50



**d** [mm] 8; 10; 12



**C** [daN]



**T** [°C] 0° - 80°



Vactra No. 2



Carton [pcs.]

ø40: 400 ø50: 250





**D** [mm] 50 - 60



**d** [mm] 10; 12; 14; 15; SW11



**C** [daN]



**T** [°C]

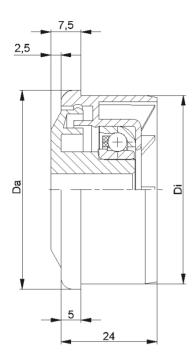


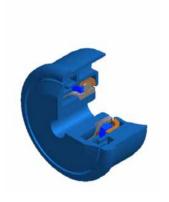
Vactra No. 2



Carton [pcs.]

ø50: 250 ø60: 200





KTR-30						
Туре	Di +0,2	Da	Load Rating C [daN]			
KTR-50x1,5.30	47,3	49,9	80			
KTR-50x2,8.30	44,6	49,9	80			
KTR-60x1,5.30	57,3	59,9	80			

### Other dimensions on request!

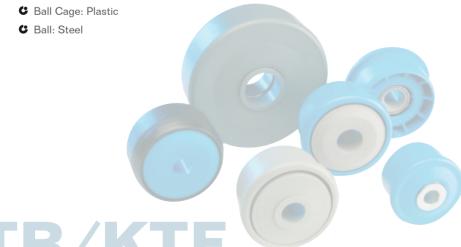
**C** Housing: Plastic

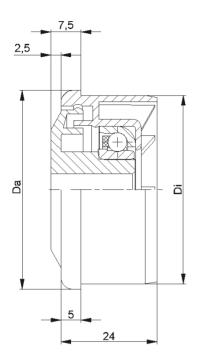
**G** Single Labyrinth Seal: Plastic

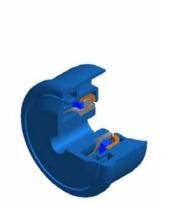
**G** Bearing RL-30

**&** Bearing Shell: Steel, Hardened

C Inner Race: Steel, Hardened







KTR-31			
Туре	Di +0,2	Da	Load Rating <b>C [daN]</b>
KTR-50x1,5.31	47,3	49,9	25
KTR-50x2,8.31	44,6	49,9	25
KTR-60x1,5.31	57,3	59,9	25

### Other dimensions on request!

**G** Housing: Plastic

**C** Single Labyrinth Seal: Plastic

**G** Bearing RL-31

**C** Bearing Shell: 1.4301

**c** Inner Race: 1.4305

**6** Ball: 1.4301







**D** [mm] 50 - 60



**d** [mm] 10; 12; 14; 15; SW11



C [daN]



**T** [°C]



Vactra No. 2



Carton [pcs.]

ø50: 250 200 ø60:

KTR-40.M8



**D** [mm] 50 - 60



**d** [mm] M8



**C** [daN]



**T** [°C] 0° - 80°

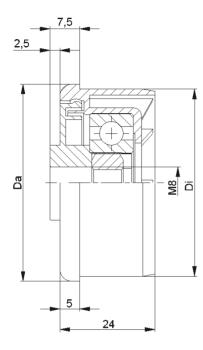


EP 2



Carton [pcs.]

ø50: 250 ø60: 100





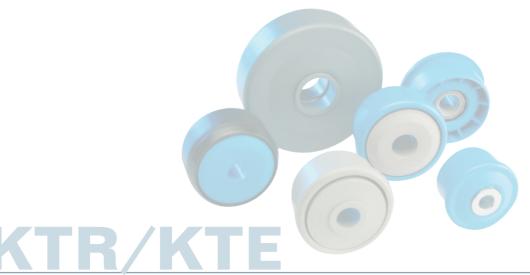
KTR-40.M8					
Туре	Di +0,2	Da	Load Rating <b>C [daN]</b>		
KTR-50x1,5.40	47,3	49,9	80		
KTR-60x1,5.40 57,3 59,9 80					
Other dimensions on request!					

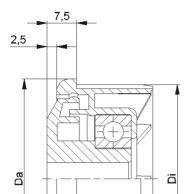
**G** Housing: Plastic

**C** Single Labyrinth Seal: Plastic

**C** Bearing 6202

C Hexagon Nut







LOTTO AG			
KTR-42			
Туре	Di +0,25	Da	Load Rating <b>C [daN]</b>
KTR-40x1,5.42	37,2	39,9	80
KTR-50x1,5.42	47,3	49,9	80
KTR-50x2,0.42	46,3	49,9	80
KTR-50x2,8.42	44,6	49,9	80
KTR-60x1,5.42	57,3	59,9	80
KTR-60x2,0.42	56,3	59,9	80
Other dimensions	on request!		

**c** Housing: Plastic

**&** Single Labyrinth Seal: Plastic









**D** [mm] 40 - 60



**d** [mm] 10; 12; 14; 15; SW11



**C** [daN]



**T** [°C] 0° - 80°

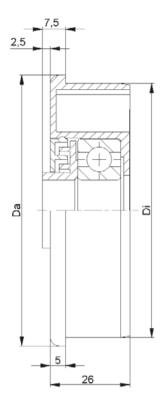


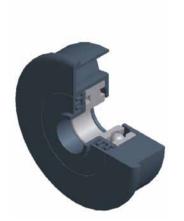
EP 2



Carton [pcs.]

ø50: 250 ø60: 100





KTR-44				
Туре	Di +0,2	Da	Load Rating <b>C [daN]</b>	
KTR-89x3,0.44	83,3	88,9	150	
Other dimensions on request!				

- **4** Housing: Plastic
- C Inner Labyrinth Seal: Plastic
- **©** Outer Labyrinth Seal: Plastic
- C Bearing 6204







**D** [mm] 89



**d** [mm] 20



**C** [daN]



**T** [°C]



EP 2



Carton [pcs.]





**D** [mm] 63,5 - 80



**d** [mm] 6303: 17 6204: 20



**C** [daN]



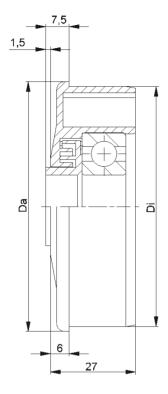
**T** [°C] 0° - 80°



EP 2



Carton [pcs.]





KTR-43/44				
Туре	Di +0,2	Da	Load Rating <b>C [daN]</b>	
KTR-63,5x2,9.43/.44	58,0	63,4	150	
KTR-80x2,0.43/.44	76,4	79,9	150	
Other dimensions on request!				

**c** Housing: Plastic

**&** Multiple Labyrinth Seal: Plastic

**G** Bearing 6303/6204



KTR-43/44



**D** [mm] 63,5 - 80



**d** [mm] 6303: 12 6204: 15



**C** [daN]



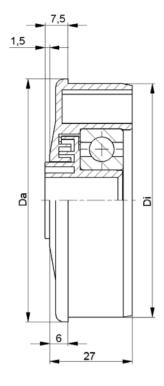
**T** [°C] 0° - 80°



EP 2



Carton [pcs.]



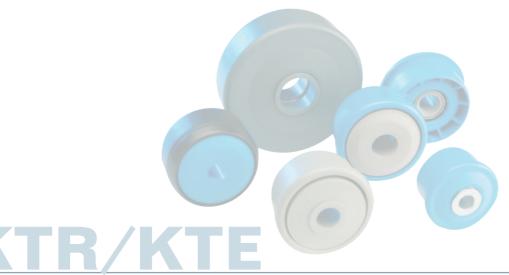


KTR-43/44				
Туре	Di +0,2	Da	Load Rating <b>C [daN]</b>	
KTR-63,5x2,9.43/.44	58,0	63,4	150	
KTR-80x2,0.43/.44	76,4	79,9	150	
Other dimensions on request!				

**c** Housing: Plastic

**G** Multiple Labyrinth Seal: Plastic

**G** Bearing 6303/6204







**D** [mm] 50



**d** [mm] 10; 12; 14; 15; SW11



**C** [daN]



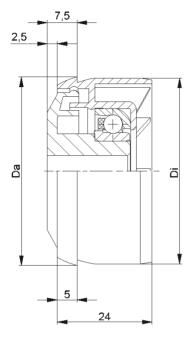
**T** [°C] 0° - 80°



Vactra No. 2



Carton [pcs.]





KTE-30			
Туре	Di +0,3	Da	Load Rating <b>C [daN]</b>
KTE-50x1,5.30	47,1	47,9	80
Other dimensions on request!			

**G** Housing: Plastic

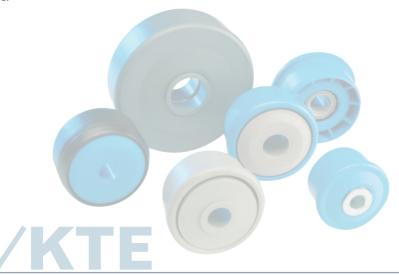
**C** Single Labyrinth Seal: Plastic

**G** Bearing RL-30

**G** Bearing Shell: Steel, Hardened

C Inner Race: Steel, Hardened

Cage: Plastic
Ball: Steel







**D** [mm] 50



**d** [mm] 10; 12; 14; 15; SW11



**C** [daN]



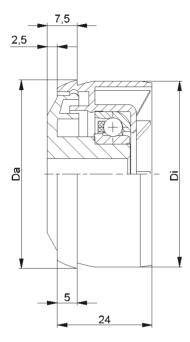
**T** [°C] 0° - 80°



Vactra No. 2



Carton [pcs.]





KTE-31			
Туре	Di +0,3	Da	Load Rating <b>C [daN]</b>
KTE-50x1,5.31	47,1	47,9	25
Other dimensions on request!			

**G** Housing: Plastic

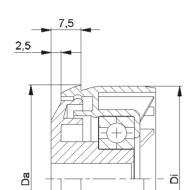
**C** Single Labyrinth Seal: Plastic

**G** Bearing RL-31

**G** Bearing Shell: 1.4301 **G** Inner Race: 1.4305

Cage: Plastic
Ball: 1.4301







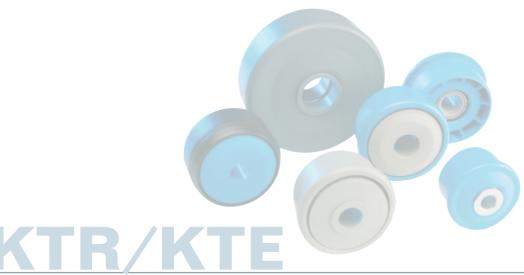
KTE-42				
Туре	Di +0,3	Da	Load Rating C [daN]	
KTE-50x1,5.42	47,1	47,9	80	
Other dimensions on request!				

**G** Housing: Plastic

5

**C** Single Labyrinth Seal: Plastic

**G** Bearing 6002







**D** [mm] 50



**d** [mm] 10; 12; 14; 15; SW11



**C** [daN]



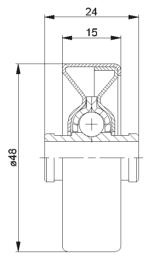
**T** [°C] 0° - 80°



EP 2



Carton [pcs.]



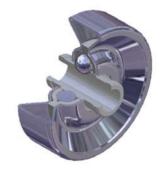
SLR

Туре

SLR-480

**c** Skate Wheel: Steel

Other dimensions on request!







**D** [mm]



**d** [mm] 6; 8



C [daN]



**T** [°C] -30° - 140°







250

Load Rating

C [daN]

# 24 16,2



KLR-02/03				
Туре	Normal .02	Stainless .03	Load Rating  C [daN]	
KLR-480	x	х	10	
Other dimensions on request!				

**4** Housing: Plastic

C Inner Race: Plastic

**C** Bearing Cap: Plastic

**&** Ball Cage: Plastic

C Ball

🕻 02: Steel

**©** 03: 1.4034





**D** [mm]



**d** [mm] 6; 8



**C** [daN]



**T** [°C] 0° - 80°



-



Carton [pcs.]





**D** [mm]



**d** [mm] 6; 8



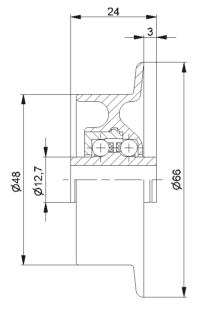
C [daN]



**T** [°C] 0° - 80°









SR-02/03					
Туре	Normal .02	Stainless .03	Load Rating <b>C [daN]</b>		
SR-480	x	x	10		
Other dimensions on request!					

**G** Housing: Plastic

C Inner Race: Plastic

**C** Bearing Cap: Plastic

**&** Ball Cage: Plastic

**C** Ball

C 02: Steel

**©** 03: 1.4034



### DK-KLR-02



**D** [mm]



**d** [mm]



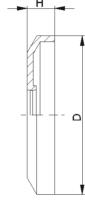
C [daN]



**T** [°C] 0° - 80°









DK-KLR				
Туре	D	н		
DK-KLR-02	40,5	7		
Other dimensions on request!				

**G** Seal Bonnet: Plastic



Ճ

LH-6204

LH-63,5x1,75/6204

LH-80x2,0/6204

LH-80x3,0/6204

LH-89x3,0/6204

LH-108x2,5/6204

LH-108x3,25/6204

LH-133x3,6/6204

Other dimensions on request!

**C** Retainer for Standard Bearings: Steel

Туре

Di

60,5

76,5

74,5

83,5

103,3

102,1

126,3

н

33

36,5

36.5

36,5

36,5

36,5

36,5





**D** [mm] 63,5 - 133



20







6204:





**d** [mm]



**T** [°C]



D47, d20, H14

Skeleton Container [pcs.]

ø63,5:

ø80: ø89:

ø108:

ø133:



dL

26

26

26

26

26

26

26

1,5

2,0

2.0

2.0

2.0

2,0

2,5

6000

3500

3100

2100





**D** [mm] 63,5 - 108



**d** [mm] 20



C [daN]



**T** [°C]



6204: D47, d20, H14

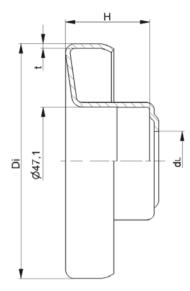


Skeleton Container [pcs.] Ø63,5: 6000

 Ø63,5:
 6000

 Ø89:
 3100

 Ø108:
 2100



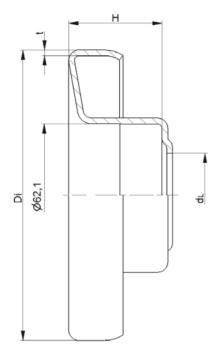


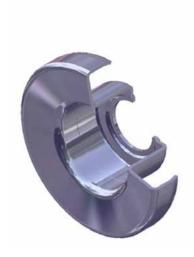
LH-6204 N					
Туре	Di	н	dL	t	
LH-63,5x1,75/6204N	60,5	31,8	21	1,5	
LH-89x3,0/6204N *	83,7	33,5	21	1,5	
LH-108x3,25/6204N	102,1	36,5	21	2,0	
Other dimensions on request!					

© Retainer for Standard Bearings: Steel

**c** \*Alternative: Stainless







### LH-6305



**D** [mm] 89 - 159



**d** [mm] 25



C [daN]



**T** [°C]



6305: D62, d25, H17

LH-6305				
Туре	Di	н	dL	t
LH-89x3,0/6305	83,5	40,5	36,5	2,0
LH-108x2,5/6305	103,3	40,5	36,5	2,0
LH-108x3,25/6305	102,1	40,5	36,5	2,0
LH-133x3,6/6305	126,3	40.5	36,5	2,5
LH-159x4,5/6305	150,5	40,5	36,5	2,5
Other dimensions on request!				

Retainer for Standard Bearings: Steel



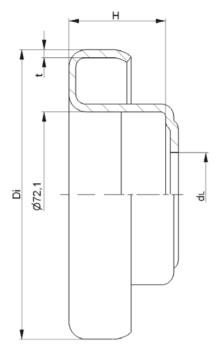


 Skeleton

 Container [pcs.]
 Ø89:
 2600

 Ø108:
 1900

 Ø133:
 1150







### LH-6306



**D** [mm] 108 - 159



**d** [mm] 30



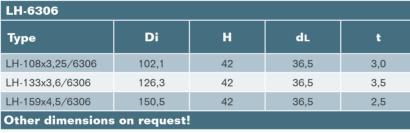
C [daN]



**T** [°C]



6306: D72, d30, H19



**C** Retainer for Standard Bearings: Steel





Container [pcs.] ø108: 1700 ø133: 1000

LH-6308



**D** [mm] 133 - 159



**d** [mm] 40



C [daN]



**T** [°C]



6308: D90, d40, H23

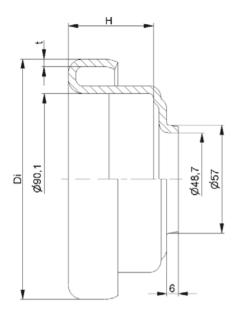


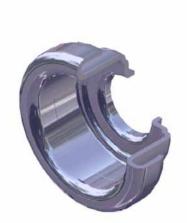
 Skeleton

 Container [pcs.]

 Ø133:
 800

 Ø159:
 600





LH-6308				
Туре	Di	н	t	
LH-133x3,6/6308	126,3	44,6	4,0	
LH-159x4,5/6308	150,8	44,6	4,0	
Other dimensions on request!				

**c** Retainer for Standard Bearings: Steel



FL-6204



**D** [mm] 60 - 76



**d** [mm] 20



C [daN]



**T** [°C]

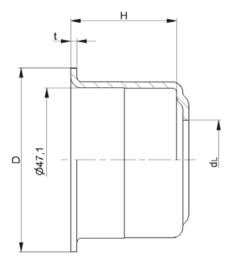


6204: D47, d20, H14



Skeleton Container [pcs.]

ø60:	4000
ø63,5:	4000
ø70:	2000
ø76:	2000





FL-6204				
Туре	D	н	dL	t
FL-60x3,0/6204	58,1	34	26	2,0
FL-63,5x2,9/6204	60,0	34,5	26	2,0
FL-70/6204	67,5	34,5	26	2,0
FL-76/6204	73,5	34,5	26	2,0
Other dimensions on request!				

**C** Retainer for Standard Bearings: Steel



KLH-6204



**D** [mm] 89 - 108



**d** [mm] 20



C [daN]

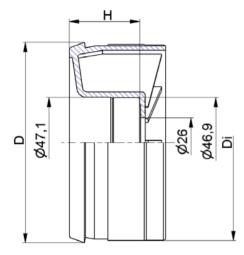


**T** [°C]



6204: D47, d20, H14







KLH-6204			
Туре	Di	н	D
KLH-89x3,0/6204	83,2	36,5	85,3
KLH-108x3,0/6204	102,2	36,5	104,3
Other dimensions on request!			

**c** Retainer for Standard Bearings: Plastic



KLH-6204



**D** [mm] 90



**d** [mm] 20



C [daN]

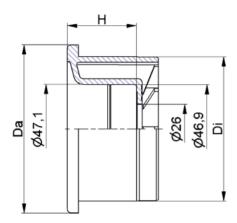


**T** [°C] 100°



6204: D47, d20, H14



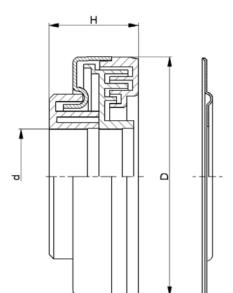




KLH-6204			
Туре	Da	Di	н
KLH-90x7,0/6204	88,8	76,3	36,5
Other dimensions on request!			

**c** Retainer for Standard Bearings: Plastic









LH-



**D** [mm]



**d** [mm] 17 - 40



C [daN]



**T** [°C]







Carton [pcs.]

6204: 500 6305: 500

LH-			
Туре	D	н	d
LH-6303	47	22,5	17
LH-6204	47	22,5	20
LH-6204 N *	47	20,0	20
LH-6305	62	23,5	25
LH-6206	62	23,5	30
LH-6306	72	24,5	30
LH-6308	90	23,1	40
Other dimensions on veryoot!			

### Other dimensions on request!

C Seal Bonnet: Steel, Zinc plated

**c** \*Alternative: Stainless

C Rain Cap: Plastic

C Inner Labyrinth Seal: Plastic

C Outer Labyrinth Seal: Plastic

C Sheet Gasket: Steel, Zinc plated (not available with 6306 and 6308)









**d** [mm]



C [daN]







**D** [mm]



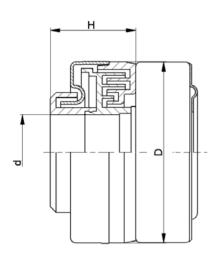
17, 20



**T** [°C] 0° - 80°









LH- mounted, greased				
Туре	D	н	d	
LH-6303 M	47	22,5	17	
LH-6204 M	47	22,5	20	
Other dimensions on request!				

**G** Seal Bonnet: Steel, Zinc plated

C Rain Cap: Plastic

C Inner Labyrinth Seal: Plastic C Outer Labyrinth Seal: Plastic

**c** Sheet Gasket: Steel, Zinc plated

**C** Grease: EP2







**D** [mm]



**d** [mm] 20



C [daN]

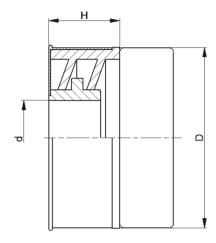


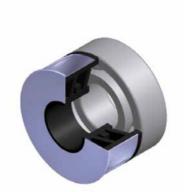
**T** [°C] 0° - 80°











UF-			
Туре	D	н	d
UF-6204	47	18,5	20
Other dimensions on request!			

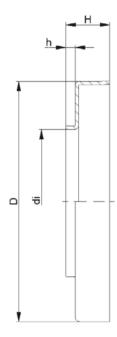
**♥** Seal Bonnet: Steel, Zinc plated

C Inner Labyrinth Seal: Plastic

C Outer Labyrinth Seal: Plastic



**Seal Bonnet ST** 6



ST-

Type ST-6204

ST-6305

ST-6306

**C** Seal Bonnet: Steel

D

47,5

62,5

72,5

Other dimensions on request!

di

27,4

37,4

37,4

Н

11,9

11,4

11,4

h

2,4

2,4

1,4



- 2	•	ı	-
	_	-	



**D** [mm]



**d** [mm]



C [daN]





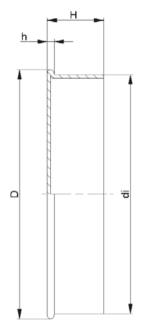


**T** [°C]





Seal Bonnet ST 6







ST- closed				
Туре	D	di	н	h
ST-6204	50	47,4	14,7	1,8
ST-6305	65	62,4	14,7	1,8
ST-6306	77	72,4	12,5	1,8
Other dimensions on request!				

C Seal Bonnet: Steel







**D** [mm]



**d** [mm]



C [daN]



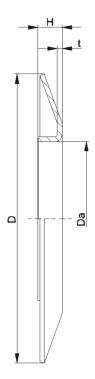
**T** [°C]





Carton [pcs.]

ST-6204	125
ST-6305	100
ST-6306	100











**D** [mm]





**d** [mm]



C [daN]





**T** [°C]





Carton [pcs.]



BS-				
Туре	Da ±0.1	D -2	H ±0.5	t
BS-50-130	49,9	130	10	1,5
BS-60-130	59,9	130	10	1,5
BS-80-150	79,9	150	14	2,5
BS-89-150	88,9	150	14	2,5
BS-108-150	107,9	150	14	2,5
Other dimensions on request!				

**C** Wheel Flange: Steel



VR-40



D [mm]



d [mm]



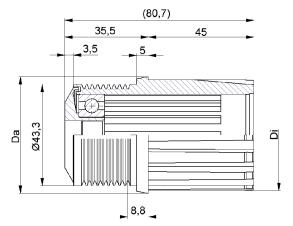
C [daN]



T [°C]





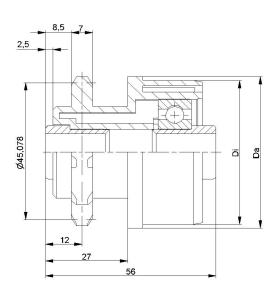




V-Beltdrive PJ VR-				
Туре	Di	Da	Load Rating C [daN]	
50x1,5.40	47,3	49,8	80	
Driving belt available on request!				

- **c** Housing: Plastic
- **c** Single Labyrinth Seal: Plastic
- **G** Bearing 6202 also with two bearings available









KKR-40



D [mm] 50



d [mm] 12



C [daN]



T [°C]





150

### KKR-1/2" x5/16" -Z11 for fix driving Туре Di + 0.2Da 50x1,5.40 47,3 49,9 50x2,0.40 46,3 49,9 50x2,8.40 44,6 49,9 Other dimensions on request!

**c** Housing: Plastic

C Reducing Bush: Plastic

**G** Bearing 6202



# Plastic Sprocket Wheel

KKR-40



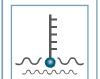
D [mm] 50



d [mm] 12



C [daN]



T [°C]

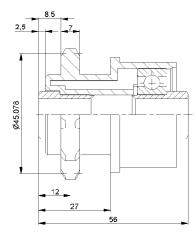


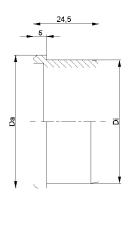
FD 2



Carton [pcs.]

Housing: 150 Sliding Ring: 300







KKR-1/2" x5/16" -Z11 for friction driving			
Туре	Di +0,2	Da	
50x1,5.40 ST	47,3	49,9	
50x2,0.40 ST	46,3	49,9	
50x2,8.40 ST	44,6	49,9	

## Other dimensions on request!

**c** Housing: Plastic

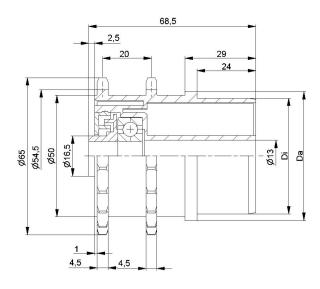
C Reducing Bush: Plastic

**6** Sliding Ring: Plastic

**G** Bearing 6202



Plastic Sprocket Wheel







KKR-3/8" x3/16" -Z20			
Туре	Di +0,2	Da	
53x3,0.41 47,6 52,9			
Other dimensions on request!			

**c** Housing: Plastic

G Inner Labyrinth Seal: Plastic

**©** Outer Labyrinth Seal: Plastic

**G** Bearing 6201



KKR-41



D [mm] 53



d [mm]



C [daN]



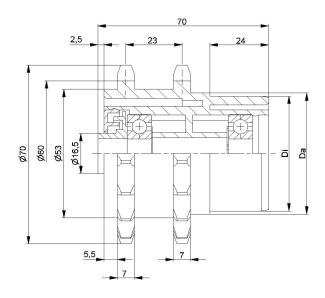
T [°C]





60

# Plastic Sprocket Wheel







KKR-1/2" x5/16" -Z17			
Туре	Di +0,2	Da	
50x1,5.41 47,3 49,8			
Other dimensions on request!			

**G** Housing: Plastic

G Inner Labyrinth Seal: Plastic

**©** Outer Labyrinth Seal: Plastic

C Bearing 6201



KKR-41



D [mm]



d [mm]



C [daN]



T [°C]





Carton [pcs.]

150

# Plastic Sprocket Wheel

88.5



KKR-40



D [mm]



d [mm] 12



C [daN]



T [°C]



-



Carton [pcs.]

150

### KKR-1/2" x5/16" -Z14

### Other dimensions on request!

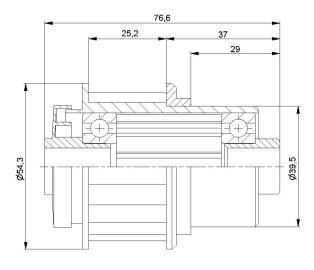
**G** Housing: Plastic

C Labyrinth Seal: Plastic

C Reducing Bush: Plastic

**G** Bearing 6202







KZA-40



D [mm]



d [mm]



C [daN]



T [°C]





100

### KZA-Z20.40

### Other dimensions on request!

**G** Housing: Plastic

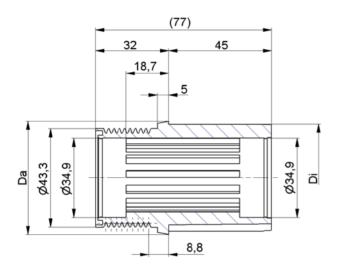
C Labyrinth Seal: Plastic

C Reducing Bush: Plastic

**G** Bearing 6202



# Plastic Synchronous Belt Drive







**VR-40** 

**D** [mm] 50



**d** [mm]



C [daN]



**T** [°C] 0° - 100°



-



Carton [pcs.]

150

# VRType Di Da 50x1,5.40 47,3 49,8 Driving belt available on request!

C Housing: Plastic



# Plastic VR-Belt Drive Wheel

# KKR-40



**D** [mm] 50



**d** [mm]



C [daN]



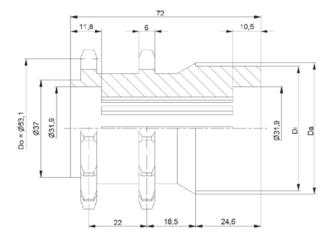
**T** [°C] 0° - 80°





Carton [pcs.]

100



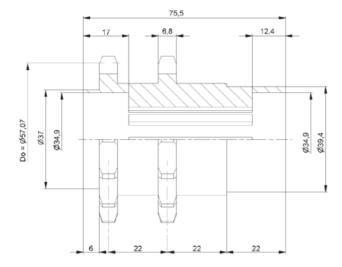


KKR-1/2"x5/16"-Z13			
Туре	Di +0,2	Da	
50x1,5.40	47,3	49,9	
Other dimensions on request!			

**G** Housing: Plastic



# Plastic Sprocket Wheel





**KKR-40** 



**D** [mm]

. .



**d** [mm]

-



C [daN]

-



**T** [°C]



-



Carton [pcs.]

100

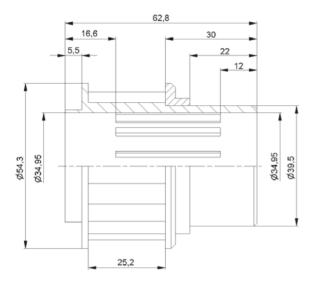
# KKR-1/2"x5/16"-Z14

# Other dimensions on request!

C Housing: Plastic



# Plastic Sprocket Wheel





**KZA-40** 



**D** [mm]



**d** [mm]





C [daN]



**T** [°C] 0° - 80°



-



Carton [pcs.]

150

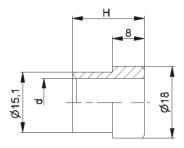
### KZA-Z20.40

# Other dimensions on request!

G Housing: Plastic



# Plastic Synchronous Belt Drive





KKR-40			
	d	н	
KKR-40	10	19	
KKR-40	12	18	
KKR-40	14	19	
KKR-40	SW11	19	
Other dimensions on request!			

C Reducing Bush: Plastic



### KKR-40



**D** [mm]

-



**d** [mm] 10; 12; 14; SW11



C [daN]

-



**T** [°C] 0° - 80°



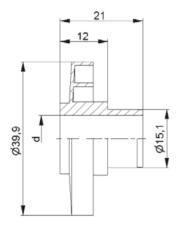
-



Carton [pcs.]

500

# **Reducing Bush**





KKR-40		
Тур	d	
KKR-40	10	
KKR-40	12	
KKR-40	14	
KKR-40	SW11	
Other dimensions on request!		

C Labyrinth Seal: Plastic



### KKR-40



**D** [mm]

-



**d** [mm] 10; 12; 14; SW11



C [daN]

-



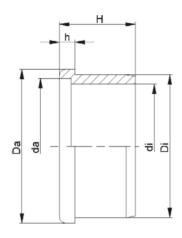
**T** [°C] 0° - 80°



-



Carton [pcs.]





### KKR-40 Di di Н Da da h Тур 50x1,5 47,25 50 39,3 42,6 25,2 5 50x2,8 44,7 50 39,3 42,6 25,2 5 60x1,5 57,3 47,0 50,7 25,5 5 60x2,0 56,3 47,0 60 50,7 25,5 5 Other dimensions on request!

C Distance Ring Fix: Plastic



# KKR-40



**D** [mm] 50 - 60



**d** [mm]



C [daN]



**T** [°C]



-

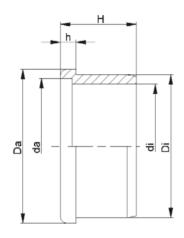


Carton [pcs.]

 Ø50:
 400

 Ø60:
 250

 Ø80:
 100







KKR-40						
Тур	Di	Da	di	da	н	h
50x1,5	47,2	50	40,6	44,6	25	5
50x2,8	44,6	49,7	40,6	44,6	25	4,8
Other dimensions on request						

C Distance Ring Friction: Plastic



# **Distance Ring**

### KKR-40



**D** [mm] 50 - 60



**d** [mm]





C [daN]

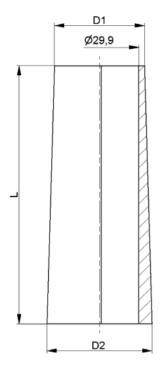


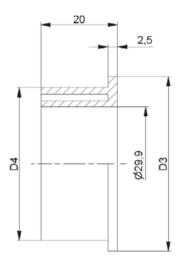
**T** [°C] 0° - 80°





Carton [pcs.]





KF-30					
Туре А	D1	D2	L	<b>D</b> 3	D4
KF-30 I Type A	33,6	39,2	96,4	-	-
KF-30 II Type A	39,1	45,6	100,5	45,6	40
KF-30 III Type A	45,7	52,1	100,5	52,1	46,7
KF-30 IV Type A	52,2	58,8	100,5	57,9	57,9
KF-30 V Type A	58,6	65,1	100,5	64,9	60,0
KF-30 VI Type A	65,2	71,9	100,5	71,3	66,4

# Other dimensions on request!

**C** Conic Roller: Plastic

C Endcap: Plastic



### KF-30



**D** [mm] 30



**d** [mm]



C [daN]

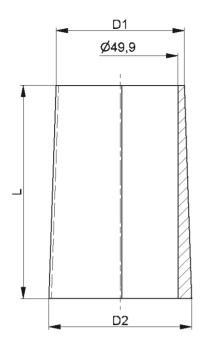


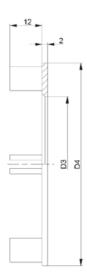
**T** [°C]



Carton [pcs.]



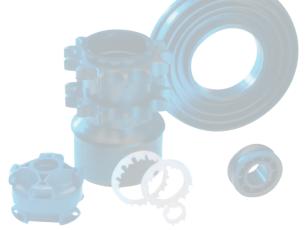




KF-50					
Туре А	D1	D2	L	D3	D4
KF-50 I-a Type A	53,4	59,7	92,5	-	-
KF-50 I-b Type A	54,0	59,7	95,5	-	-
KF-50 II Type A	60,0	66,5	100,0	-	-
KF-50 III Type A	66,5	73,0	99,0	-	-
KF-50 IV Type A	73,5	80,0	100,0	50,6	75,5
KF-50 V Type A	80,0	86,5	95,5	50,7	81,7
KF-50 VI Type A	86,5	93,5	100,0	50,6	87,7
KF-50 VII Type A	93,5	100,0	100,0	50,6	94,3
KF-50 VIII Type A	100,0	106,5	95,5	-	-
KF-50 IX Type A	106,5	113,0	95,5		-
KF-50 X Type A	113,0	119,5	95,5		

Other dimensions on request!
Conic Roller: Plastic

C Endcap: Plastic



# Taper Sleeves





**D** [mm] 50



**d** [mm]



C [daN]



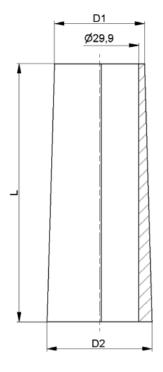
**T** [°C]

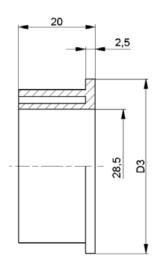


Souther level

Carton [pcs.]







KF-30				
Туре	D1	D2	<b>D</b> 3	L
KF-30 I Type B	34,0	39,6	-	83
KF-30 II Type B	39,6	46,4		100
KF-30 III Type B	46,4	53,2	48,8	100
KF-30 IV Type B	53,2	59,9	55,8	100
KF-30 V Type B	59,9	66,7	62,3	100
KF-30 VI Type B	66,7	73,5	68,8	100

# Other dimensions on request!

Conic Roller: Plastic

Endcap: Plastic



# Taper Sleeves

### KF-30



**D** [mm] 30



**d** [mm]



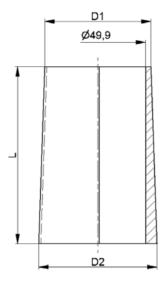
C [daN]



**T** [°C] 0° - 80°



Carton [pcs.]



KF-50			
Туре	D1	D2	L
KF-50 I Type B	54,0	59,9	90,0
KF-50 II Type B	59,9	66,6	100,0
KF-50 III Type B	66,6	73,4	100,0
KF-50 IV Type B	73,4	80,1	100,0
KF-50 V Type B	80,1	86,9	100,0
KF-50 VI Type B	86,9	93,6	100,0
KF-50 VII Type B	93,6	100,4	100,0
KF-50 VIII Type B	100,4	107,1	100,0
KF-50 IX Type B	107,1	113,9	100,0
KF-50 X Type B	113,9	120,9	100,0

Other dimensions on request!

Conic Roller: Plastic **c** Endcap: not necessary



### KF-50



**D** [mm] 50



**d** [mm]



C [daN]

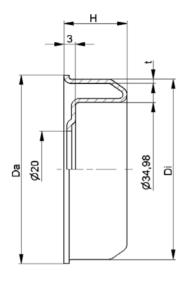


**T** [°C] 0° - 80°











MRK-40				
Туре	Di ±0,1	Da	н	t
MRK-50x1,5.40	47,3	49,5	16	1,2
MRK-50x2,0.40	46,3	49,5	16	1,2
MRK-60x2,0.40	56,3	59,5	16,5	1,5
MRK-60x3,0.40	54,3	59,5	16,5	1,5
Other dimensions on request!				

C Housing: Steel, Zinc plated



### **MRK-40**



**D** [mm] 50 - 60



**d** [mm]



C [daN]



**T** [°C]



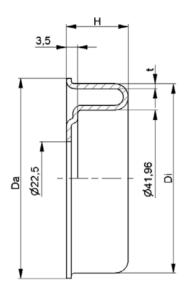
6202: D35; d15; H11



Carton [pcs.]

ø50: 100 ø60: 250







MRK-6004				
Туре	Di ±0,1	Da	н	ŧ
MRK-63,5x2,9/6004	58,1	61,5	19,0	1,5
Other dimensions on request!				

C Housing: Steel, Zinc plated



# **Steel Housing**

### MRK-6004



**D** [mm] 63,5



**d** [mm] 20



C [daN]



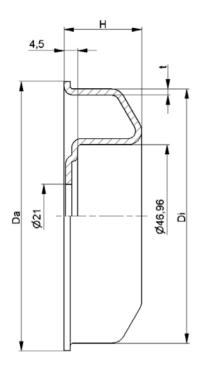
**T** [°C]



6004: D42; d20; H12



Carton [pcs.]







MRK-6204				
Туре	Di ±0,1	Da	н	t
MRK-80x2,0/6204	76,5	79,5	23,5	2,0
MRK-80x3,0/6204	74,5	79,5	23,5	2,0
MRK-89x3,0/6204	83,5	88,5	23,5	2,0
MRK-89x3,25/6204	83,0	88,5	23,5	2,0
MRK-108x3,25/6204	102,0	107,5	25,0	2,0
Other dimensions on request!				

**C** Housing: Steel, Zinc plated



### MRK-6204



**D** [mm] 80 - 108



**d** [mm] 20



C [daN]



**T** [°C]



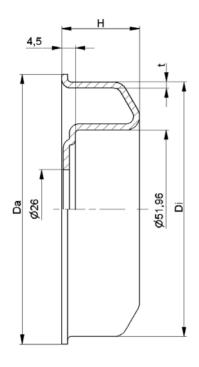
6204: D47; d20; H14



Carton [pcs.]

50

# **Steel Housing**





### MRK-6205 Di ±0,1 Da н Туре MRK-80x2,0/6205 76,5 79,5 23,5 2,0 MRK-80x3,0/6205 74,5 79,5 23,5 2,0 MRK-89x3,0/6205 83,5 88,5 24,5 2,0 MRK-108x3,25/6205 102,0 107,5 25,5 2,0

G Housing: Steel, Zinc plated

Other dimensions on request!



### **MRK-6205**



**D** [mm] 80 - 108



**d** [mm] 25



C [daN]



**T** [°C]



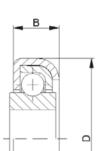
6205: D52; d25; H15



Carton [pcs.]

50

# **Steel Housing**





RL-0.280			
Туре	D	В	
RL-0.280	28,0	7,6	
Other dimensions on request!			

Capsule: Steel, Zinc Plated

**C** Bearing Shell: Steel

**C** Ball: Steel

**C** Inner Race

C Steel: C=10daN

C Plastic: C=7daN; 0° - 80°









**d** [mm] 10; 12; 12,8



**C** [daN] 7 - 10



**T** [°C] 0° - 80°





Carton [pcs.]

500

# Radial Ball Bearings





10; 12; 12,8



7 - 10

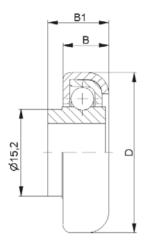


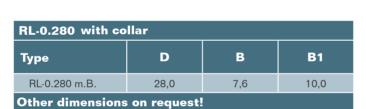




C [daN]







Capsule: Steel, Zinc Plated

**C** Bearing Shell: Steel

**&** Ball, Steel

**C** Inner Race

C Steel: C=10daN

C Plastic: C=7daN; 0° - 80°







Carton [pcs.]

**RL-0.400** 





C [daN]





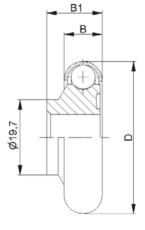


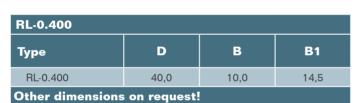


**d** [mm] 10; 12



**T** [°C] 0° - 80°





Capsule: Steel, Zinc Plated

C Ball: Steel

C Inner Race: Plastic







Carton [pcs.]

Δ









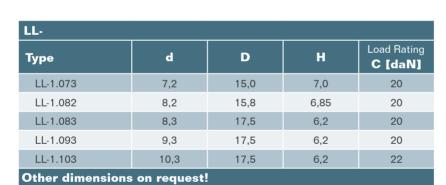


**d** [mm] 7; 8; 9; 10



C [daN] 450





Capsule: Steel

& Ball Race: Steel, hardened

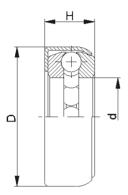
C Ball: Steel







Carton [pcs.]





LL-				
Туре	d	D	н	Load Rating C [daN]
LL-1.113	11,3	20,0	7,0	22
LL-1.123	12,3	22,0	8,0	22
LL-1.133	13,3	22,0	8,0	22
LL-1.141	14,15	22,0	7,7	22
Other dimensions				

Other dimensions on request!

Capsule: Steel

**&** Ball Race: Steel, hardened

**C** Ball: Steel





# **Pressed Thrust Bearings**

LL-



**d** [mm] 11; 12; 13; 14



**C** [daN] 450 - 600



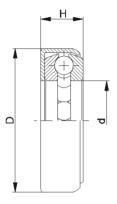
**T** [°C]





Carton [pcs.]

ø11:	500
ø12:	250
ø13:	250
ø14:	250





LL-					
Туре	d	D	н	Load Rating <b>C [daN]</b>	
LL-1.143	14,3	25,0	8,5	22	
LL-1.163	16,4	27,0	9,0	24	
LL-1.201	20,1	36,6	10,8	24	
Other dimensions on request!					

Capsule: Steel

**&** Ball Race: Steel, hardened

**6** Ball: Steel





# **Pressed Thrust Bearings**



**d** [mm] 14; 16; 20



**C** [daN] 750



**T** [°C]



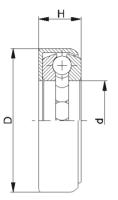


Carton [pcs.]

 Ø14:
 200

 Ø16:
 200

 Ø20:
 350





LL-						
Туре	d	D	н	Load Rating <b>C [daN]</b>		
LL-1.203	20,4	33,0	10,0	26		
LL-1.223	22,4	43,5	12,0	26		
LL-1.233	23,4	43,5	12,0	26		
LL-1.243	24,4	43,5	12,0	26		
LL-1.253	25,4	43,5	12,0	26		
LL-1.263	26,4	43,5	12,0	26		

Other dimensions on request!

Capsule: Steel

**G** Ball Race: Steel, hardened

**&** Ball: Steel





# **Pressed Thrust Bearings**

LL-



**d** [mm] 20; 22; 23; 24; 25; 26



**C** [daN] 240 - 260



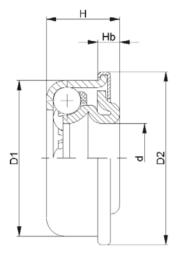
**T** [°C]

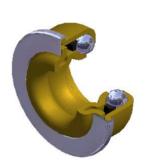




Carton [pcs.]

ø20:	100
ø22:	50
ø23:	50
ø24:	50
ø25:	50
ø26:	50





KL-					
Туре	d	D1	D2	н	Hb
KL-4.10A	10,05	25,05	28,5	12,8	4,0
KL-4.12	12,05	27,05	30,2	12,2	3,8
KL-4.127	12,75	27,05	30,2	12,2	3,8
KL-4.14	14,05	27,05	30,2	12,0	3,6
Other dimensions	on rourock				

### Other dimensions on request!

**G** Bearing Shell: Steel, Hardened

**C** Cone: Steel, Hardened

C Dust Cap: Steel, Zinc plated

Cage: Plastic

**C** Ball: Steel





# **Cone Ball Bearings**





**d** [mm] 10; 12; 12,7; 14



**C** [daN]



**T** [°C]

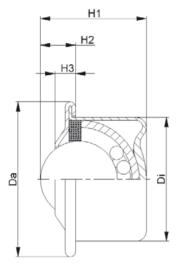


EP



Carton [pcs.]

KL-4.10A: 500 KL-4.12: 1000 KL-4.127: 1000 KL-4.14: 1000





KRO						
Туре	Da	Di	H1	H2	Н3	Load Rating C [daN]
KRO-015L	31,0	24,0	21,0	9,5	5,5	50
KRO-022L	45,0	36,0	30,5	10,0	6,0	120
KRO-015	31,0	24,0	21,0	9,5	5,5	120
KRO-022	45,0	36,0	30,5	10,0	6,0	350







**d** [mm]



C [daN] 50 - 120

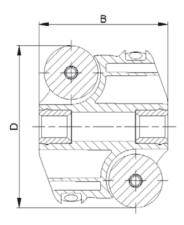


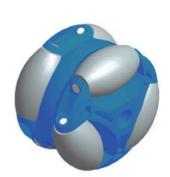
**T** [°C] -30° - 100°

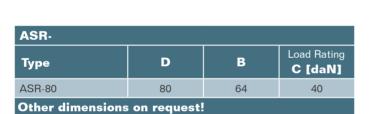




Carton [pcs.]







C Housing: Plastic

**G** Barrel-shaped Roller: Plastic

**G** Axis: 1.4301







**d** [mm] 8; 12;15; SW14



**C** [daN] 40



**T** [°C] 0° - 80°

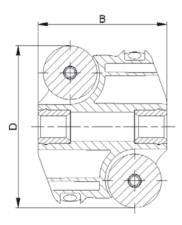


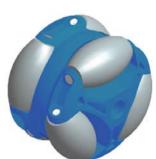


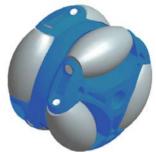
Carton [pcs.]

50

# **Polydirectional Wheel**











**d** [mm] 8; 10; SW9



C [daN] 10 - 20



**T** [°C] 0° - 80°



ASR-					
Туре	D	В	Load Rating  C [daN]		
ASR-60	60	48	20		
ASR-48	48	39	15		
ASR-40	40	29	10		
Other discourse and the second					

Other dimensions on request!

G Housing: Plastic

**&** Barrel-shaped Roller: Plastic

**C** Axis: 1.4301



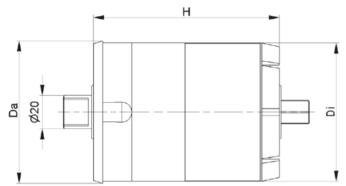


Carton [pcs.]

50

# **lydirectional Wh**





BR-89x3,0-					
Туре	Da	Di	н	Load Rating 【kg】	
200	88,5	83	115	200	
500	88,5	83	115	500	
800	88,5	83	115	800	
1200	88,5	83	115	1200	



**Brake Roller Unit** 





**D** [mm]



**d** [mm] 20



**C** [daN] 250



**T** [°C]



EP2



Carton [pcs.]

# Ø50



AMR-50x1,5.20						
Туре	L	Load Rating <b>C [daN]</b>				
AMR-50x1,5.20-66	66	160				
AMR-50x1,5.20-73	73	160				
AMR-50x1,5.20-80	80	160				
AMR-50x1,5.20-100	100	160				
Other dimensions on request!						

Tube: Steel, Zinc platedMetal Roller Bearing MTR-20



# **Metal Roller**

### AMR-50.20



**D** [mm] 50



**d** [mm] 8; 10; 12; SW11



**C** [daN]



**T** [°C] 0° - 100°



Vactra No. 2

