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## Tragfähigkeit:

Die Tragfähigkeit des Kugellagers wird als Tragzahl C in daN angegeben und unter folgenden Bedingungen getestet:

- 200mm Rollenlänge (Kurzrolle)
- Achse fest eingespannt
- Laufgeschwindigkeit 100min<sup>-1</sup> - 200min<sup>-1</sup>
- 1.000.000 Umdrehungen (Lastwechsel)

## Lebensdauer:

Aus der Tragfähigkeit kann die Lebensdauer des Kugellagers mit folgender Formel berechnet werden:

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

Hierin sind:

- L<sub>h</sub>: nominelle Lebensdauer [h]
- C: dynamische Tragzahl [N]
- n: Drehzahl [min<sup>-1</sup>]
- P: dynamische Lagerbelastung [N]  
(P = C bei rein radialer Belastung)
- p: Exponent der Lebensdauergleichung  
(für Kugellager gilt p=3)

## Kunststoffe:

Polypropylen (PP)

- gute mechanische Eigenschaften
- ausgezeichnete Stoßfestigkeit

Polyacetal (POM)

- hohe Härte und Steifigkeit
- geringe Feuchtigkeitsaufnahme
- gute Reibungs- und Verschleißigenschaften

Polyamid (PA)

- zähhart
- sehr gute mechanische Eigenschaften und Abriebfestigkeit

Antistatische Kunststoffe

- PP
- POM

Der Einsatz von antistatischem Kunststoff ist nur in dem dafür vorgesehenen Temperaturbereich zulässig, für die Leitfähigkeit können wir keine Garantien übernehmen.

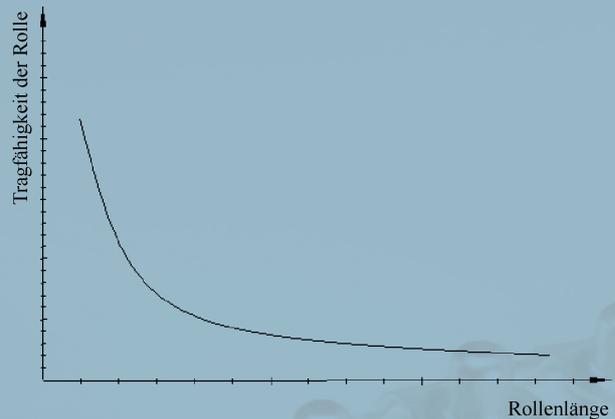
**Achtung : Kein Einsatz in EX-Bereichen !!!**

## Einflußgrößen:

Unter abweichenden Bedingungen ist die tatsächliche Tragfähigkeit der Rolle vom Rollenhersteller jeweils neu zu definieren! Bitte beachten Sie, daß die Lebensdauer und Tragfähigkeit Ihrer Rolle u.a. bestimmt wird durch:

- Rollenlänge
- Achsdurchmesser
- Achsausführung
- Umgebungseinflüssen

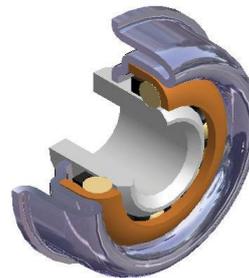
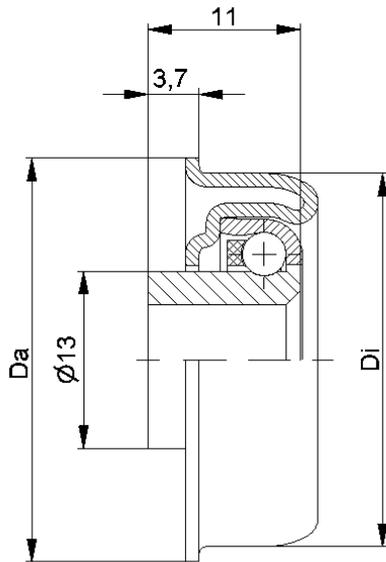
Einfluß der Rollenlänge auf die Tragfähigkeit:



## Schmierstoffe:

Unsere Kugellager werden mit hochwertigen Schmierstoffen ausgerüstet. Zusätzlich sind wir durch die Verwendung von speziellen Sonderfetten und -ölen in der Lage einen Temperaturbereich von -35°C bis +180°C zu realisieren. Unsere getesteten Schmierstoffe haben sich seit Jahren unter allen Bedingungen bestens bewährt. Bitte fragen Sie nach den für Ihren Einsatzfall von MARKES empfohlenen, optimalen Schmierstoffen. Sollte diese Bandbreite im Einzelfall nicht ausreichen, bitten wir um Ihre Anfrage.

<b>Metalltragrollenlager MTR bis 150 daN</b>		<b>1</b>
<b>Metalltragrollenlager MTS bis 250 daN</b>		<b>2</b>
<b>Kunststofftragrollenlager KTR bis 10 daN</b>		<b>3</b>
<b>Kunststofftragrollenlager KTR/KTE bis 150 daN</b>		<b>4</b>
<b>Laufrollchen KLR/SLR/SR</b>		<b>5</b>
<b>Lagerhalter LH/KLH/FL/Zubehör</b>		<b>6</b>
<b>Antriebselemente Kettenräder/Riemenräder</b>		<b>7</b>
<b>Einzelkomponenten Kettenräder/Riemenräder/konische Elemente/Metallradkörper/Zubehör</b>		<b>8</b>
<b>Spezialkugellager Ringkugellager/Axialkugellager/Konuskugellager</b>		<b>9</b>
<b>Weitere Produkte Kugelrollen/Allseitenrollen/Bremsrollen/Kurzrollen</b>		<b>10</b>



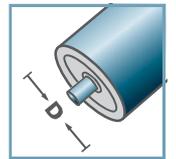
MTR-16			
Typ	Di ±0.1	Da ±0.2	Tragzahl C [daN]
MTR-30x1,2.16	27,6	29,6	30
MTR-30x1,5.16	27,3	29,6	30

Weitere Varianten auf Anfrage!

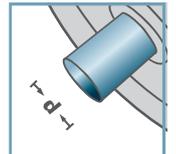
- ☛ Radkörper: Stahl, verzinkt
- ☛ Kugellager RL-16
  - ☛ Lagerschale: Stahl, gehärtet
  - ☛ Innenring: Stahl, gehärtet, verzinkt
  - ☛ Kugelkäfig: Kunststoff
  - ☛ Kugel: Stahl



MTR-16



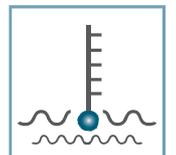
D [mm]  
30



d [mm]  
6; 8; 10



C [daN]  
30



T [°C]  
-50° - 100°

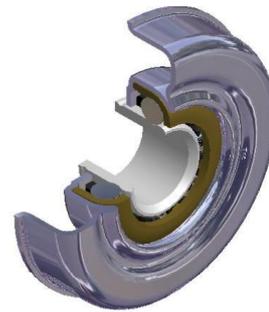
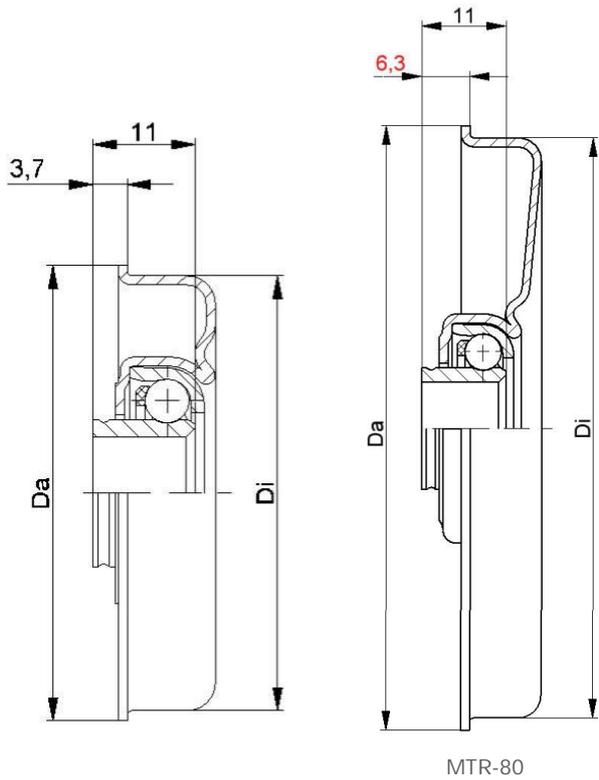


Öl

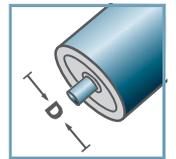


Karton [Stck.]  
50/500

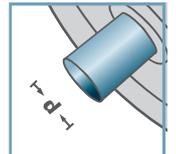
MTR



## MTR-20



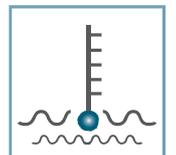
D [mm]  
40 - 80



d [mm]  
8; 10; 12; SW11



C [daN]  
80



T [°C]  
-50° - 100°



Öl



Karton [Stck.]

ø40: 250  
ø48: 100/350  
ø50: 100/350  
ø60: 200  
ø80: 100

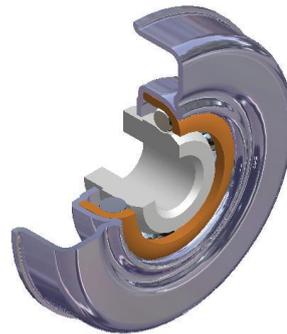
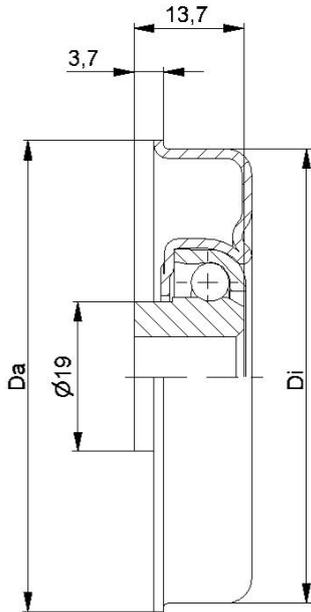
MTR-20			
Typ	Di ±0.1	Da ±0.2	Tragzahl C [daN]
MTR-40x1,5.20	37,3	39,5	80
MTR-40x2,0.20	36,3	39,5	80
MTR-48x1,5.20	45,3	47,5	80
MTR-50x1,5.20	47,3	49,5	80
MTR-50x2,0.20	46,3	49,5	80
MTR-60x1,5.20	57,3	59,5	80
MTR-60x2,0.20	56,3	59,5	80
MTR-80x2,0.20	76,4	79,5	80

Weitere Varianten auf Anfrage!

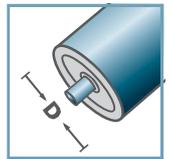
- ☛ Radkörper: Stahl, verzinkt
- ☛ Kugellager RL-20
  - ☛ Lagerschale: Stahl, gehärtet
  - ☛ Innenring: Stahl, gehärtet, verzinkt
  - ☛ Kugelkäfig: Kunststoff
  - ☛ Kugel: Stahl



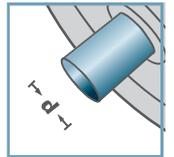
# MTR



MTR-30-2



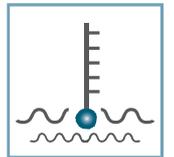
D [mm]  
50 - 80



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



C [daN]  
120



T [°C]  
0° - 100°



EP 0



Karton [Stck.]

ø50: 300  
ø60: 200  
ø80: 100

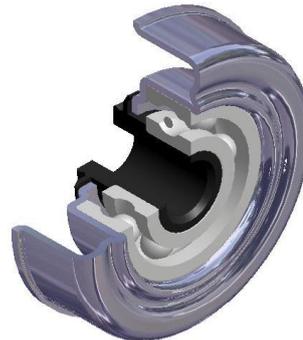
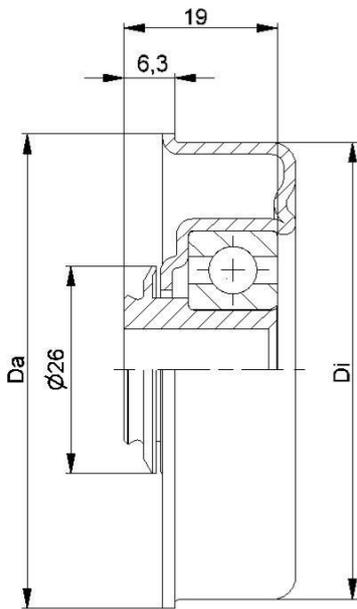
MTR-30-2			
Typ	Di ±0.1	Da ±0.2	Tragzahl C [daN]
MTR-50x1,5.30-2	47,3	49,5	120
MTR-50x2,0.30-2	46,3	49,5	120
MTR-60x1,5.30-2	57,3	59,5	120
MTR-60x2,0.30-2	56,3	59,5	120
MTR-80x2,0.30-2	76,4	79,5	120

Weitere Varianten auf Anfrage!

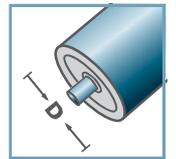
- ☛ Radkörper: Stahl, verzinkt
- ☛ Kugellager RL-30-2
  - ☛ Lagerschale: Stahl, gehärtet
  - ☛ Innenring: Stahl, gehärtet
  - ☛ Kugel: Stahl



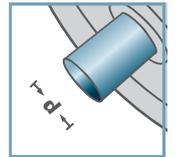
MTR



## MTR-40



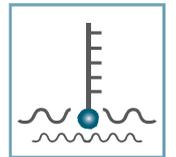
D [mm]  
50 - 80



d [mm]  
10; 12; SW11



C [daN]  
120 - 150



T [°C]  
0° - 80°



EP 2



Karton [Stck.]

ø50: 100  
ø60: 150  
ø80: 100

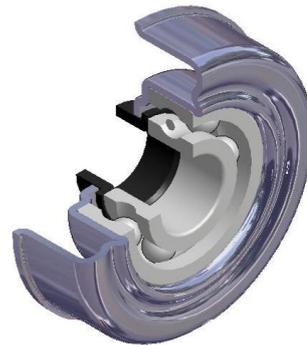
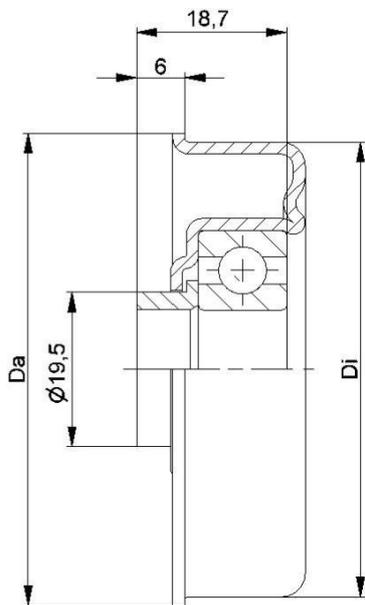
MTR-40			
Typ	Di ±0.1	Da ±0.2	Tragzahl C [daN]
MTR-50x1,5.40	47,3	49,5	120
MTR-50x2,0.40	46,3	49,5	120
MTR-60x1,5.40	57,3	59,5	150
MTR-60x2,0.40	56,3	59,5	150
MTR-60x3,0.40	54,3	59,5	150
MTR-80x2,0.40	76,5	79,5	150

Weitere Varianten auf Anfrage!

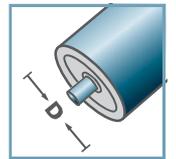
- Radkörper: Stahl, verzinkt
- Reduzierbuchse: Kunststoff
- Kugellager 6202



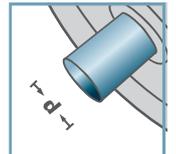
# MTR



MTR-40.15



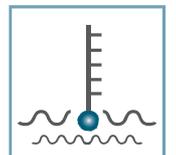
D [mm]  
50 - 80



d [mm]  
15



C [daN]  
120 - 150



T [°C]  
0° - 80°



EP 2



Karton [Stck.]

ø50: 100  
ø60: 150  
ø80: 100

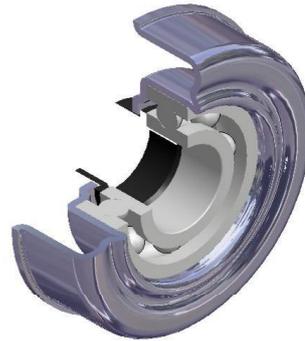
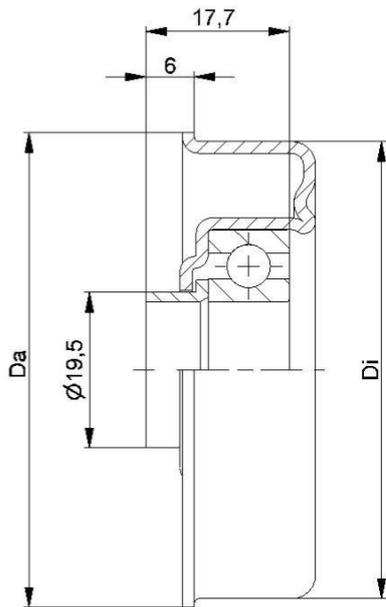
MTR-40.15			
Typ	Di ±0.1	Da ±0.2	Tragzahl C [daN]
MTR-50x1,5.40.15	47,3	49,5	120
MTR-50x2,0.40.15	46,3	49,5	120
MTR-60x1,5.40.15	57,3	59,5	150
MTR-60x2,0.40.15	56,3	59,5	150
MTR-60x3,0.40.15	54,3	59,5	150
MTR-80x2,0.40.15	76,5	79,5	150

Weitere Varianten auf Anfrage!

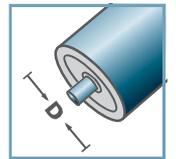
- Radkörper: Stahl, verzinkt
- Distanzbuchse: Kunststoff
- Kugellager 6202



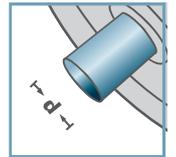
# MTR



MTR-45.17



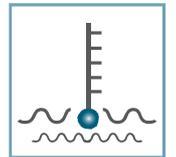
D [mm]  
50, 80



d [mm]  
17



C [daN]  
120 - 150



T [°C]  
0° - 80°



EP 2



Karton [Stck.]  
ø50: 100  
ø60: 150  
ø80: 100

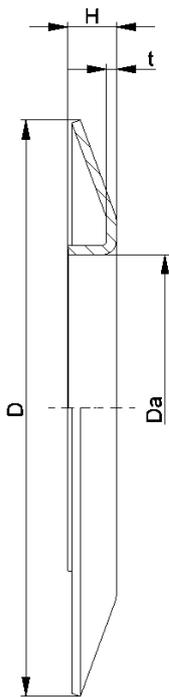
MTR-45.17			
Typ	Di ±0.1	Da ±0.2	Tragzahl C [daN]
MTR-50x1,5.45.17	47,3	49,5	120
MTR-60x2,0.45.17	56,3	59,5	150
MTR-60x3,0.45.17	54,3	59,5	150
MTR-80x2,0.45.17	76,5	79,5	150

Weitere Varianten auf Anfrage!

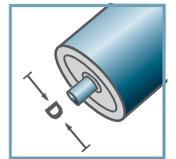
- Radkörper: Stahl, verzinkt
- Distanzbuchse: Kunststoff
- Kugellager 6003



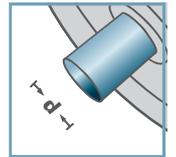
# MTR



BS-



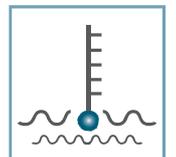
D [mm]  
50 - 108



d [mm]  
-



C [daN]  
-



T [°C]  
-



-



Karton [Stck.]

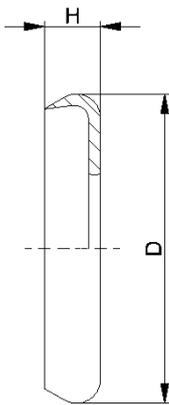


BS-				
Typ	Da ±0.1	D -2	H ±0.5	t
BS-50-130	49,9	130	10	1,5
BS-60-130	59,9	130	10	1,5
BS-80-150	79,9	150	14	2,5
BS-89-150	88,9	150	14	2,5
BS-108-150	107,9	150	14	2,5

Weitere Varianten auf Anfrage!

Bordscheibe: Stahl





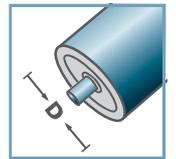
DK-MTR		
Typ	D	H
DK-MTR-20	34	7
DK-MTR-30-2	39	7

Weitere Varianten auf Anfrage!

☛ Dichtkappe: Kunststoff

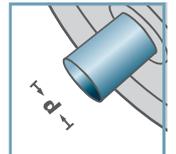


DK-MTR-



D [mm]

-



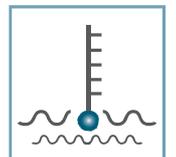
d [mm]

-



C [daN]

-



T [°C]

0° - 80°



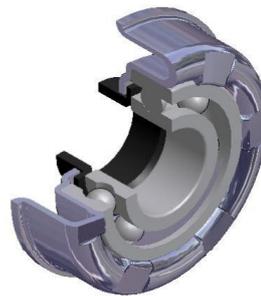
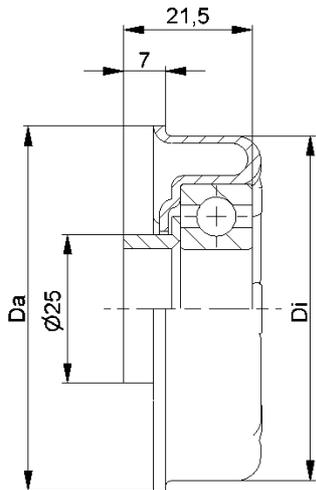
-



Karton [Stck.]



MTR



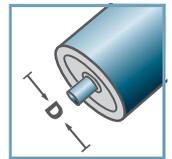
MTS-46			
Typ	Di ±0.1	Da ±0.2	Tragzahl C [daN]
MTS-63,5x2,9.46	58,1	61,5	200

Weitere Varianten auf Anfrage!

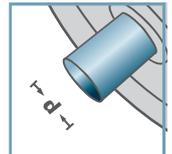
- Radkörper: Stahl, verzinkt
- Distanzbuchse: Kunststoff
- Kugellager 6004



MTS-46



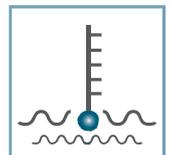
D [mm]  
63,5



d [mm]  
20



C [daN]  
200



T [°C]  
0° - 100°

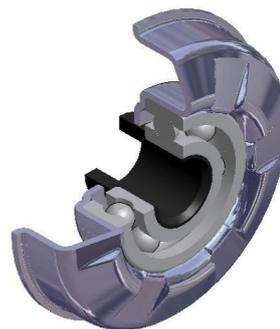
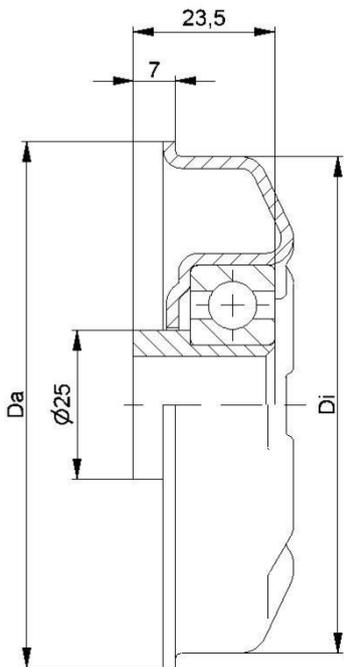


EP 2

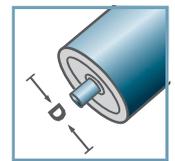


Karton [Stck.]  
50/100

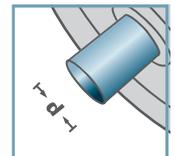
MTS



MTS-44



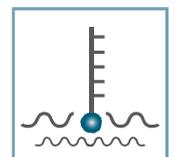
D [mm]  
80 - 108



d [mm]  
16; 17; SW14



C [daN]  
250



T [°C]  
0° - 100°



EP 2



Karton [Stck.]

50

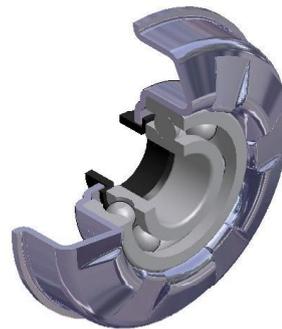
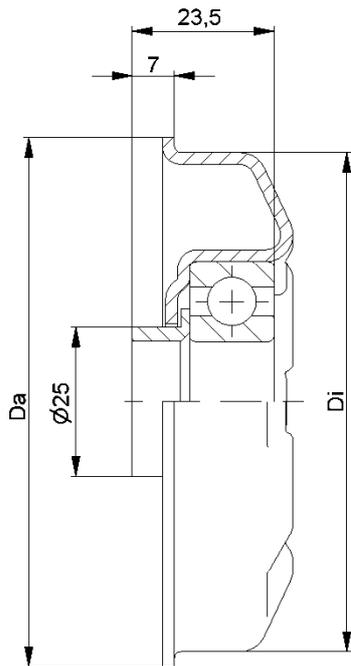
MTS-44			
Typ	Di ±0.1	Da ±0.2	Tragzahl C [daN]
MTS-80x2,0.44	76,5	79,5	250
MTS-80x3,0.44	74,5	79,5	250
MTS-89x3,0.44	83,5	88,5	250
MTS-89x3,25.44	83,0	88,5	250
MTS-108x3,25.44	102,0	107,5	250

Weitere Varianten auf Anfrage!

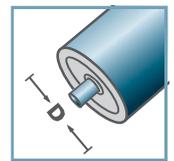
- Radkörper: Stahl, verzinkt
- Reduzierbuchse: Kunststoff
- Kugellager 6204



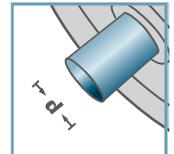
MTS



MTS-44



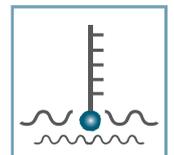
D [mm]  
80 - 108



d [mm]  
20



C [daN]  
250



T [°C]  
0° - 100°



EP 2



Karton [Stck.]

50

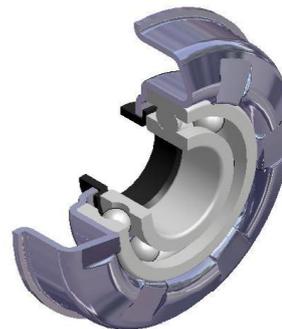
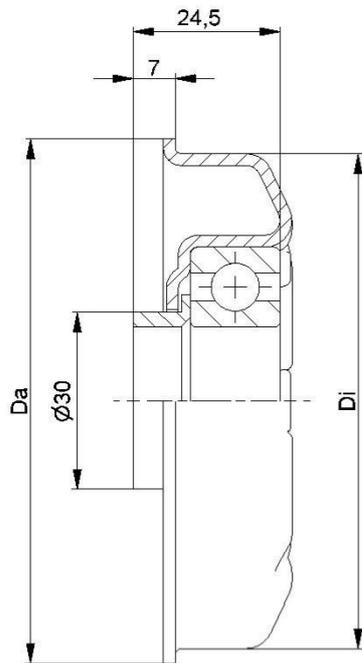
MTS-44			
Typ	Di ±0.1	Da ±0.2	Tragzahl C [daN]
MTS-80x2,0.44	76,5	79,5	250
MTS-80x3,0.44	74,5	79,5	250
MTS-89x3,0.44	83,5	88,5	250
MTS-89x3,25.44	83,0	88,5	250
MTS-108x3,25.44	102,0	107,5	250

Weitere Varianten auf Anfrage!

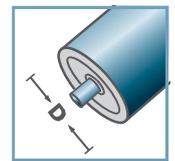
- Radkörper: Stahl, verzinkt
- Distanzbuchse: Kunststoff
- Kugellager 6204



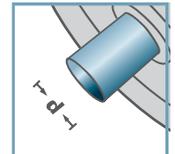
MTS



MTS-47



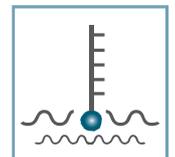
D [mm]  
89 - 108



d [mm]  
25



C [daN]  
250



T [°C]  
0° - 100°



EP 2



Karton [Stck.]

50

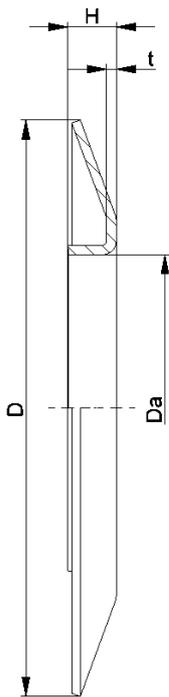
MTS-47			
Typ	Di ±0.1	Da ±0.2	Tragzahl C [daN]
MTS-89x3,0.47	83,5	88,5	250
MTS-108x3,25.47	102,0	107,5	250

Weitere Varianten auf Anfrage!

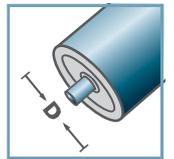
- Radkörper: Stahl, verzinkt
- Distanzbuchse: Kunststoff
- Kugellager 6205



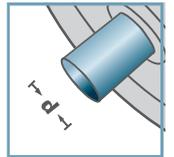
MTS



BS-



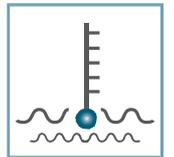
D [mm]  
50 - 108



d [mm]  
-



C [daN]  
-



T [°C]  
-



-



Karton [Stck.]



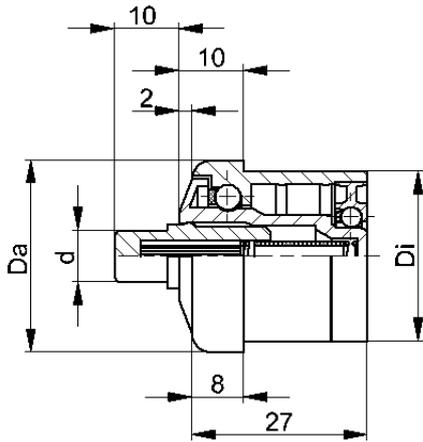
BS-				
Typ	Da ±0.1	D -2	H ±0.5	t
BS-50-130	49,9	130	10	1,5
BS-60-130	59,9	130	10	1,5
BS-80-150	79,9	150	14	2,5
BS-89-150	88,9	150	14	2,5
BS-108-150	107,9	150	14	2,5

Weitere Varianten auf Anfrage!

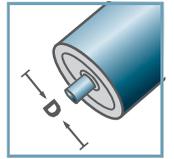
Bordscheibe: Stahl



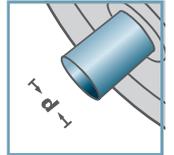
MTS



KTR-.00 FA  
KTR-.01 FA



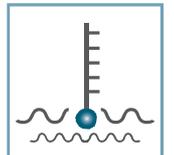
D [mm]  
20, 30, 40, 50



d [mm]  
6; 8; 10



C [daN]  
8 - 15



T [°C]  
0° - 80°

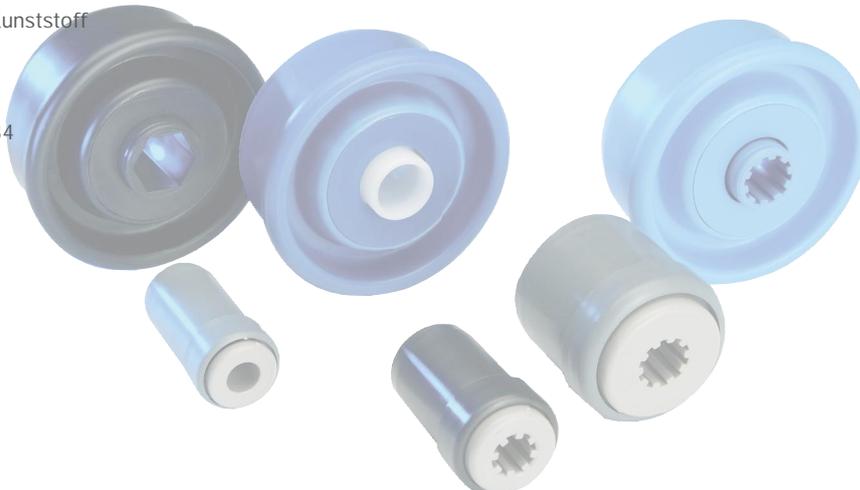


KTR-.00/.01 FA

Typ	Normal .00	Niro .01	Di +0,25	Da	d	Tragzahl C [daN]
KTR-20x1,5	x	x	17,1	19,9	6	8
KTR-30x1,8	x	x	26,5	29,9	8	10
KTR-40x2,3	x	x	35,5	39,9	8	10
KTR-50x2,8	x	x	44,6	49,9	10	15

Weitere Varianten auf Anfrage!

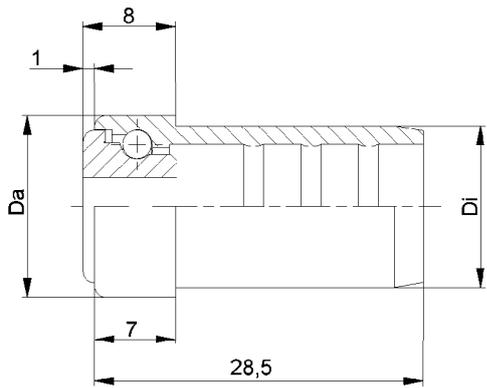
- ☛ Radkörper: Kunststoff
- ☛ Nabe: Kunststoff
- ☛ Käfig: Kunststoff
- ☛ Achse: Kunststoff
- ☛ Lagerscheibe: Kunststoff
- ☛ Kugel, Feder
  - ☛ 00: Stahl
  - ☛ 01: 1.4034



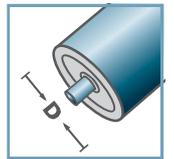
Karton [Stck.]

ø20: 500/1000  
ø30: 250/500  
ø40: 250/500  
ø50: 250

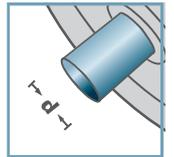
KTR



KTR-16.00  
KTR-16.01



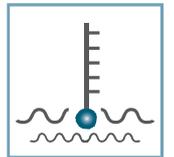
D [mm]  
16



d [mm]  
5; 6



C [daN]  
3



T [°C]  
0° - 80°



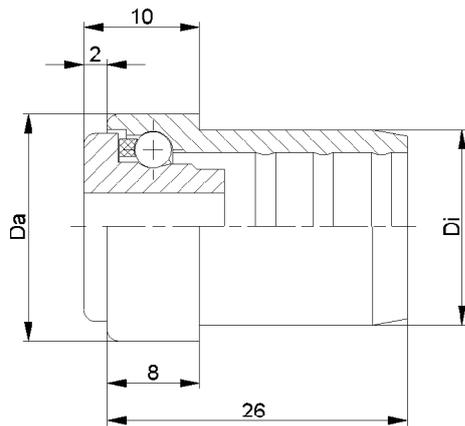
KTR-16.00/.01					
Typ	Normal .00	Niro .01	Di +0,15	Da	Tragzahl C [daN]
KTR-16x1,0	x	x	14,1	15,9	3

Weitere Varianten auf Anfrage!

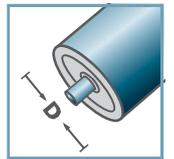
- ☛ Radkörper: Kunststoff
- ☛ Nabe: Kunststoff
- ☛ Kugel
  - ☛ 00: Stahl
  - ☛ 01: 1.4034



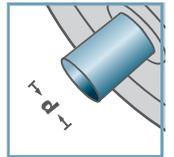
Karton [Stck.]  
500/2500



KTR-20.00  
KTR-20.01



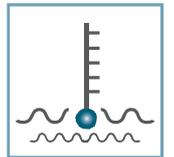
D [mm]  
20



d [mm]  
6; 8



C [daN]  
5



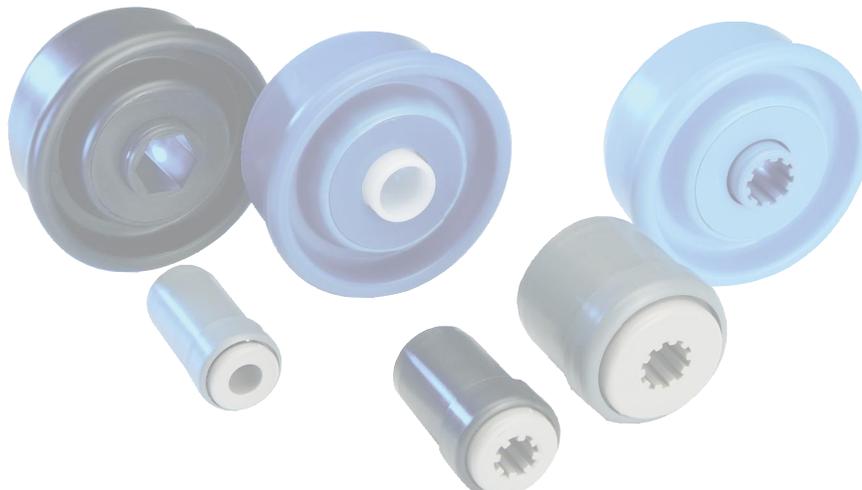
T [°C]  
0° - 80°



KTR-20.00/.01					
Typ	Normal .00	Niro .01	Di +0,15	Da	Tragzahl C [daN]
KTR-20x1,0	x	x	18,1	19,9	5
KTR-20x1,5	x	x	17,1	19,9	5

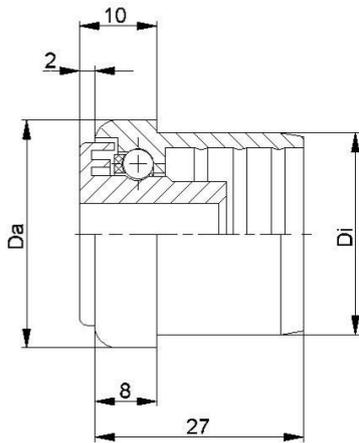
Weitere Varianten auf Anfrage!

- ☛ Radkörper: Kunststoff
- ☛ Nabe: Kunststoff
- ☛ Käfig: Kunststoff
- ☛ Kugel
  - ☛ 00: Stahl
  - ☛ 01: 1.4034

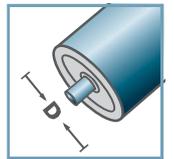


Karton [Stck.]  
500/1000

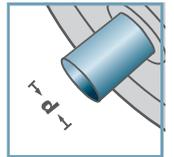
KTR



KTR-30.00  
KTR-30.01



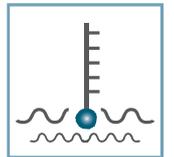
D [mm]  
30



d [mm]  
6; 8; 10



C [daN]  
7



T [°C]  
0° - 80°



KTR-30.00/.01					
Typ	Normal .00	Niro .01	Di +0,25	Da	Tragzahl C [daN]
KTR-30x1,0	x	x	28,1	29,9	7
KTR-30x1,5	x	x	27,1	29,9	7
KTR-30x1,8	x	x	26,5	29,9	7
KTR-30x2,0	x	x	26,35	29,9	7

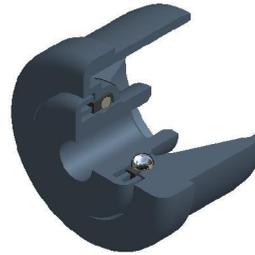
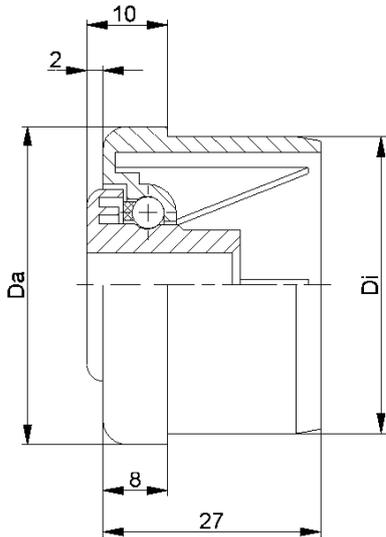
Weitere Varianten auf Anfrage!

- ☛ Radkörper: Kunststoff
- ☛ Nabe: Kunststoff
- ☛ Käfig: Kunststoff
- ☛ Kugel
  - ☛ 00: Stahl
  - ☛ 01: 1.4034

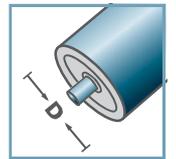


Karton [Stck.]  
50/250/500

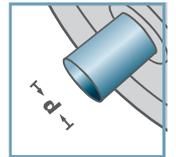
KTR



KTR-40.00  
KTR-40.01



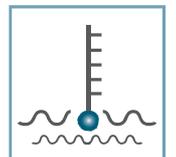
D [mm]  
40



d [mm]  
6; 8; 10



C [daN]  
7



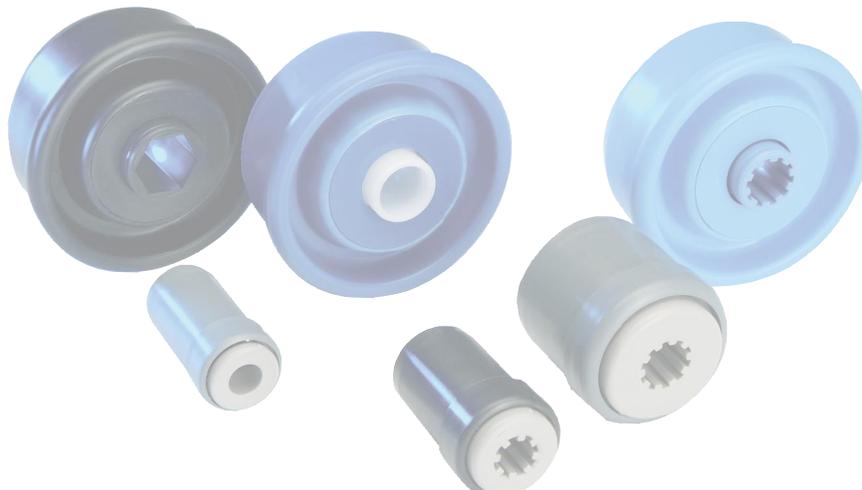
T [°C]  
0° - 80°



KTR-40.00/.01					
Typ	Normal .00	Niro .01	Di +0,25	Da	Tragzahl C [daN]
KTR-40x1,5	x	x	37,1	39,9	7
KTR-40x2,3	x	x	35,5	39,9	7

Weitere Varianten auf Anfrage!

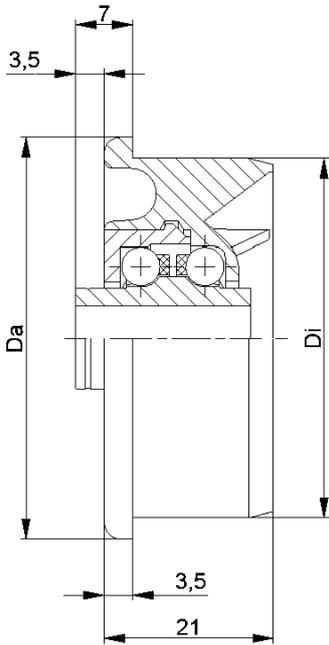
- ☛ Radkörper: Kunststoff
- ☛ Nabe: Kunststoff
- ☛ Käfig: Kunststoff
- ☛ Kugel
  - ☛ 00: Stahl
  - ☛ 01: 1.4034



Karton [Stck.]

50/250

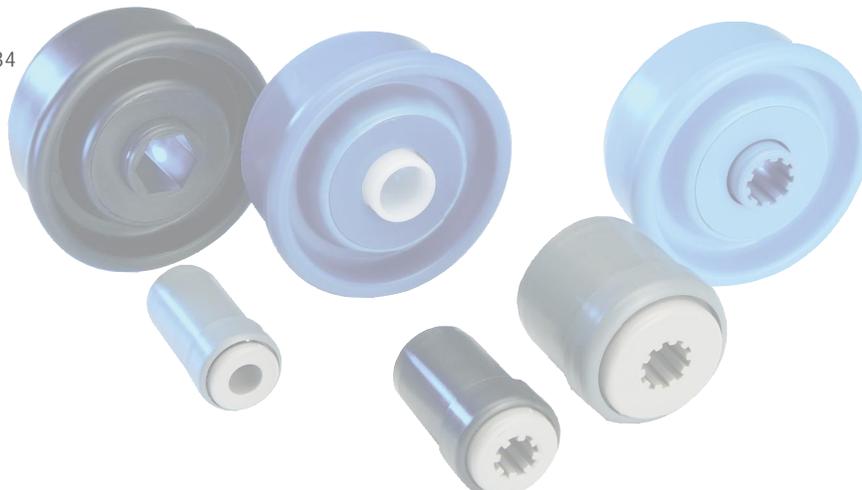
KTR



KTR-02/03					
Typ	Normal .02	Niro .03	Di +0,2	Da	Tragzahl C [daN]
KTR-50x1,5	x	x	47,3	49,9	15
KTR-50x2,0	x	x	46,3	49,9	15
KTR-50x2,8	x	x	44,6	49,9	15

Weitere Varianten auf Anfrage!

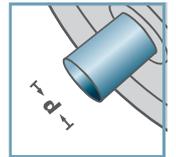
- ☛ Radkörper: Kunststoff
- ☛ Nabe: Kunststoff
- ☛ Lagerdeckel: Kunststoff
- ☛ Käfig: Kunststoff
- ☛ Kugel
  - ☛ 02: Stahl
  - ☛ 03: 1.4034



KTR-02  
KTR-03



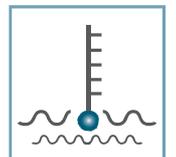
D [mm]  
50



d [mm]  
8; 10



C [daN]  
15



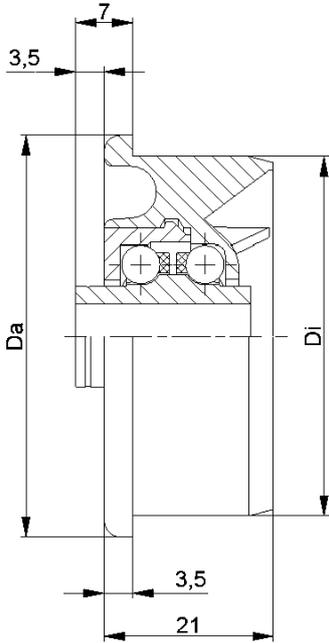
T [°C]  
0° - 80°



Karton [Stck.]

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

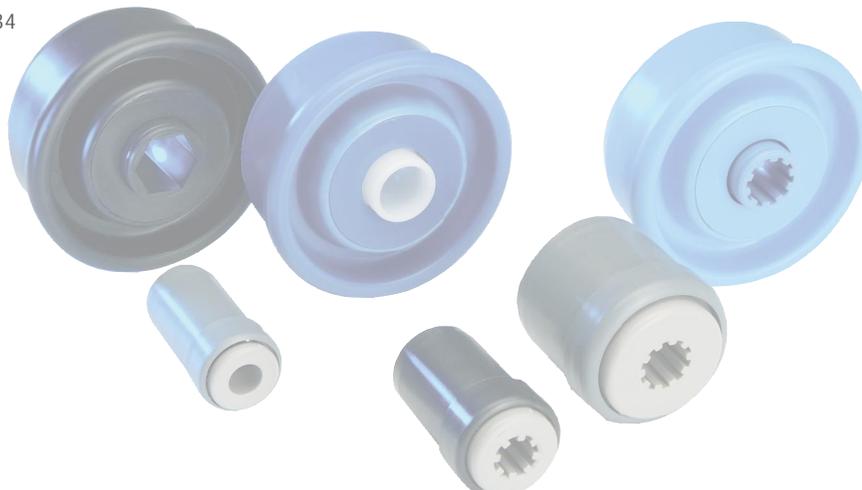
KTR



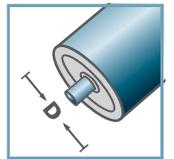
KTR-02/03					
Typ	Normal .02	Niro .03	Di +0,2	Da	Tragzahl C [daN]
KTR-50x1,5	x	x	47,3	49,9	10
KTR-50x2,8	x	x	44,6	49,9	10

Weitere Varianten auf Anfrage!

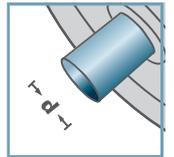
- ☛ Radkörper: Kunststoff
- ☛ Nabe: Kunststoff
- ☛ Lagerdeckel: Kunststoff
- ☛ Käfig: Kunststoff
- ☛ Kugel
- ☛ 02: Stahl
- ☛ 03: 1.4034



KTR-02  
KTR-03



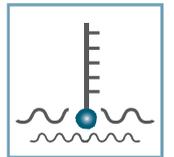
D [mm]  
50



d [mm]  
12; SW11



C [daN]  
10

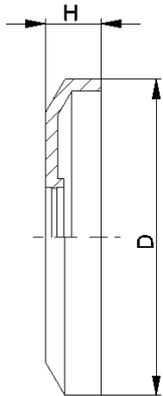


T [°C]  
0° - 80°



Karton [Stck.]

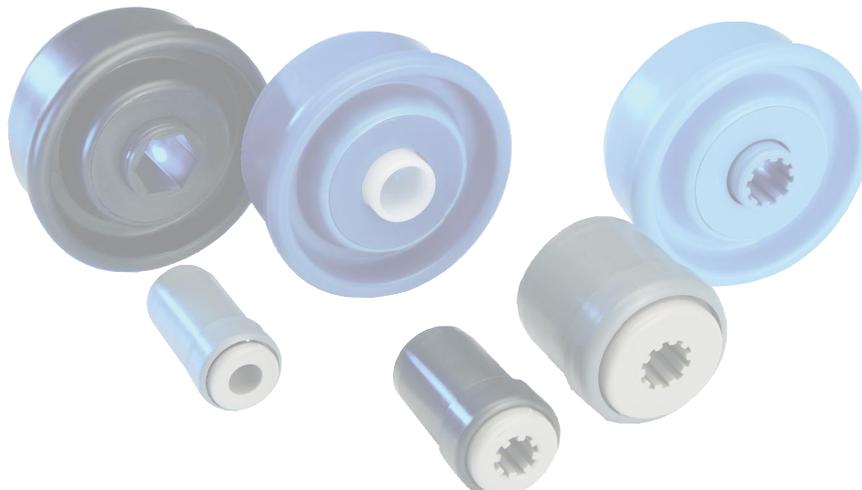
250



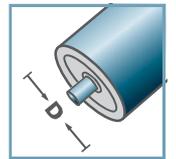
DK-KTR		
Typ	D	H
DK-KTR-02	40,5	7

Weitere Varianten auf Anfrage!

☛ Dichtkappe: Kunststoff

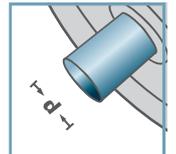


DK-KTR-02



D [mm]

-



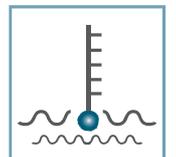
d [mm]

-



C [daN]

-



T [°C]

0° - 80°



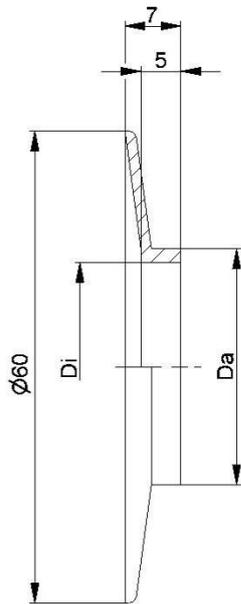
-



Karton [Stck.]



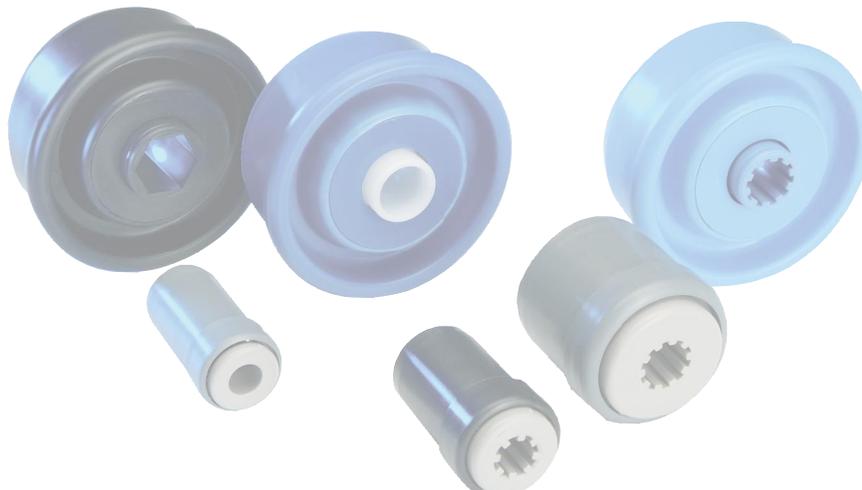
KTR



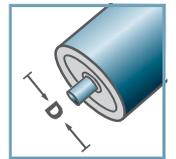
BS-		
Typ	$D_i$	$D_a$
BS-30x1,8	26,5	29,9
BS-40x1,5	37,1	39,9
BS-40x2,3	35,5	39,9

Weitere Varianten auf Anfrage!

Bordscheibe: Kunststoff

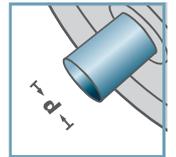


BS-



$D$  [mm]

-



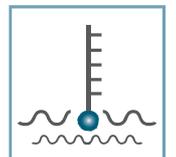
$d$  [mm]

-



$C$  [daN]

-



$T$  [°C]

0° - 80°

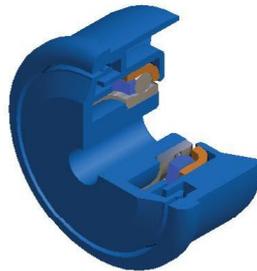
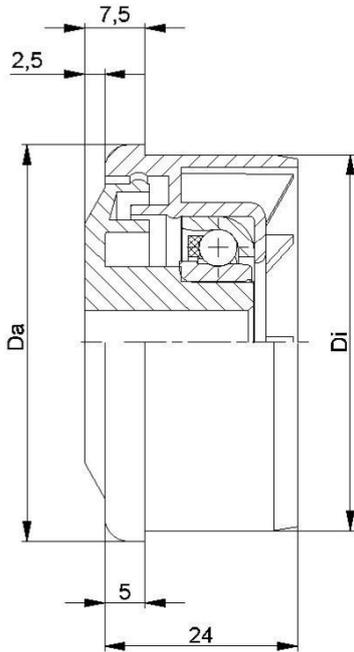


-



Karton [Stck.]

-

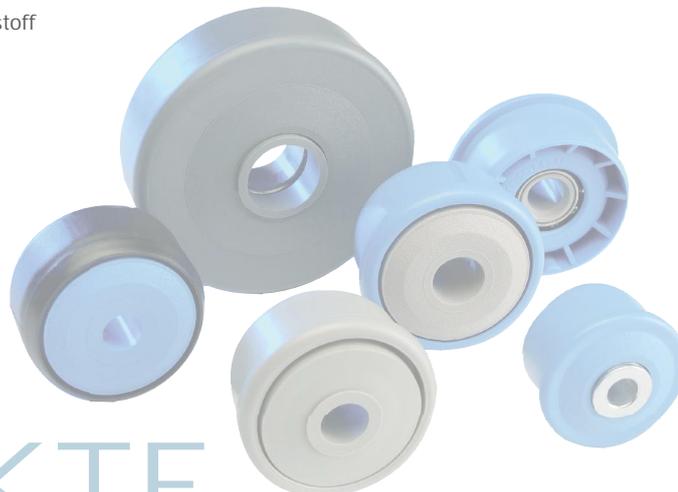


KTR-30			
Typ	Di +0,2	Da	Tragzahl C [daN]
KTR-50x1,5.30	47,3	49,9	80
KTR-50x2,8.30	44,6	49,9	80
KTR-60x1,5.30	57,3	59,9	80

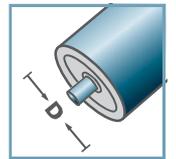
Weitere Varianten auf Anfrage!

- ☛ Radkörper: Kunststoff
- ☛ Einfachlabyrinth: Kunststoff
- ☛ Kugellager RL-30
  - ☛ Lagerschale: Stahl, gehärtet
  - ☛ Innenring: Stahl, gehärtet
  - ☛ Kugelkäfig: Kunststoff
  - ☛ Kugel: Stahl

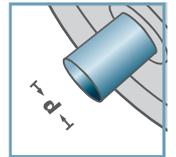
Achtung: bei Achse 15 mm ist das Einfachlabyrinth lose beigelegt und muss bei der Montage gesichert werden!



KTR-30



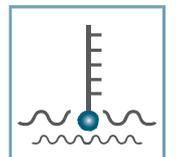
D [mm]  
50 - 60



d [mm]  
10; 12; 15; SW11



C [daN]  
80



T [°C]  
0° - 80°

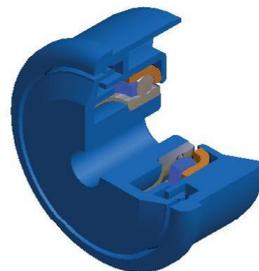
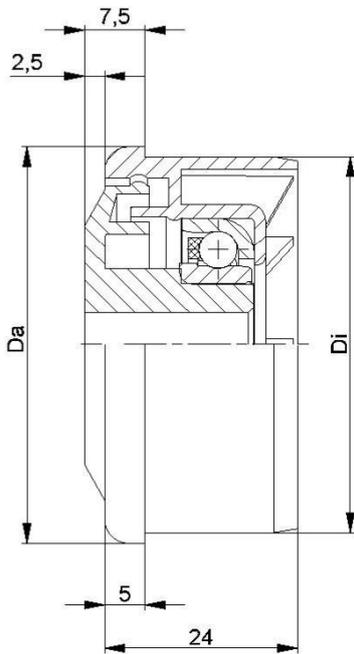


Öl



Karton [Stck.]  
ø50: 250  
ø60: 200

KTR/KTE

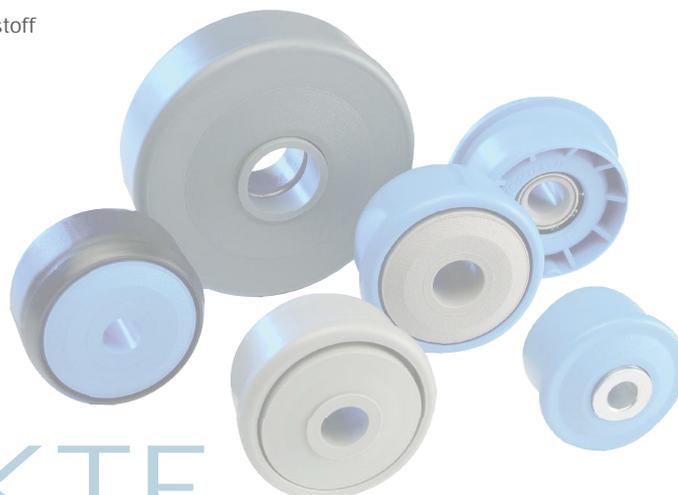


KTR-31			
Typ	Di +0,2	Da	Tragzahl C [daN]
KTR-50x1,5.31	47,3	49,9	25
KTR-50x2,8.31	44,6	49,9	25
KTR-60x1,5.31	57,3	59,9	25

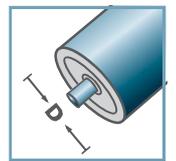
Weitere Varianten auf Anfrage!

- ☛ Radkörper: Kunststoff
- ☛ Einfachlabyrinth: Kunststoff
- ☛ Kugellager RL-31
  - ☛ Lagerschale: 1.4301
  - ☛ Innenring: 1.4305
  - ☛ Kugelkäfig: Kunststoff
  - ☛ Kugel: 1.4301

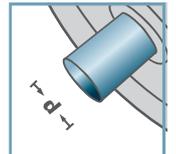
Achtung: bei Achse 15 mm ist das Einfachlabyrinth lose beilegt und muss bei der Montage gesichert werden!



KTR-31



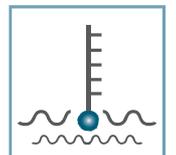
D [mm]  
50 - 60



d [mm]  
10; 12; 15; SW11



C [daN]  
25



T [°C]  
0° - 80°

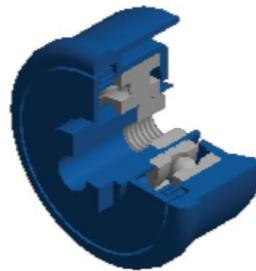
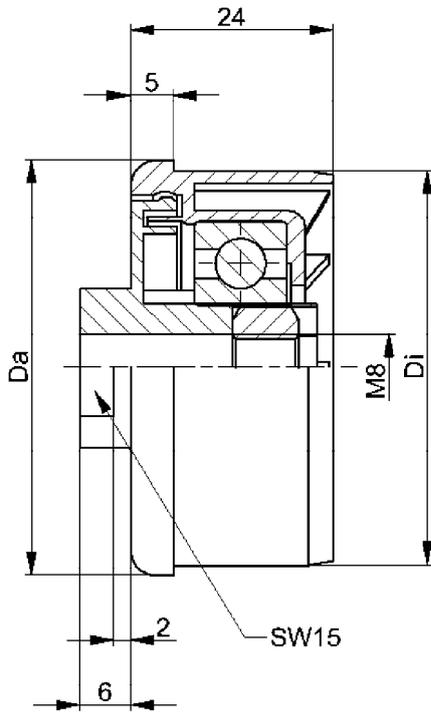


Öl



Karton [Stck.]  
ø50: 250  
ø60: 200

KTR/KTE

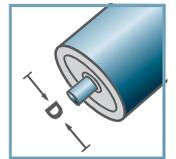


KTR-40.M8			
Typ	Di +0,2	Da	Tragzahl C [daN]
KTR-50x1,5.40	47,3	49,9	80

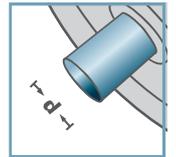
Weitere Varianten auf Anfrage!

- Radkörper: Kunststoff
- Einfachlabyrinth: Kunststoff
- Kugellager 6202
- Sechskantmutter

KTR-40.M8



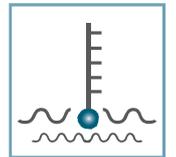
D [mm]  
50



d [mm]  
M8



C [daN]  
80



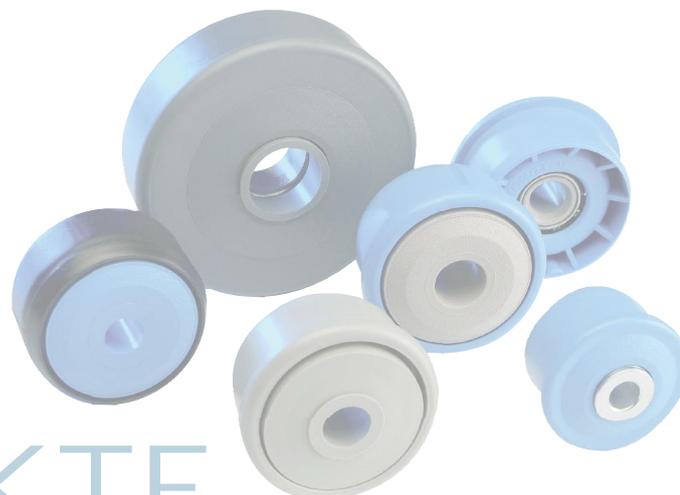
T [°C]  
0° - 80°



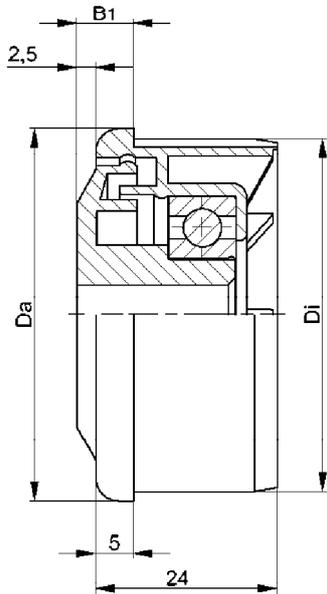
EP 2



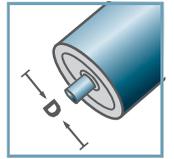
Karton [Stck.]  
ø50: 250



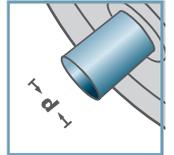
KTR/KTE



KTR-42



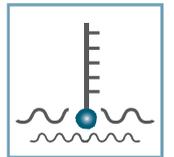
D [mm]  
40 - 60



d [mm]  
10; 12; 15; SW11



C [daN]  
80; 120



T [°C]  
0° - 80°



EP 2



Karton [Stck.]

ø40: -  
ø50: 250  
ø60: 200

KTR-42				
Typ	Di +0,25	Da	B1	Tragzahl C [daN]
KTR-40x1,5.42	37,2	39,9	9,0	120
KTR-50x1,5.42	47,3	49,9	7,5	80
KTR-50x2,0.42	46,3	49,9	7,5	80
KTR-50x2,8.42	44,6	49,9	7,5	80
KTR-60x1,5.42	57,3	59,9	7,5	80
KTR-60x2,0.42	56,3	59,9	7,5	80

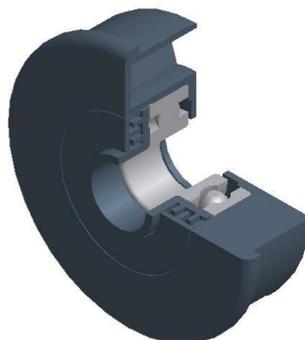
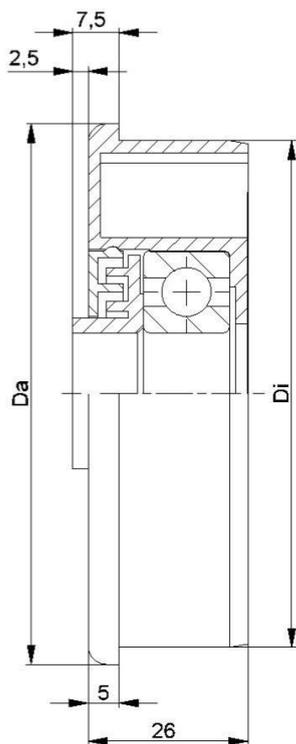
Weitere Varianten auf Anfrage!

- ☛ Radkörper: Kunststoff
- ☛ Einfachlabyrinth: Kunststoff
- ☛ Kugellager 6002

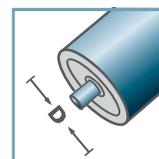
Achtung: bei Achse 15 mm ist das Einfachlabyrinth lose beigelegt und muss bei der Montage gesichert werden!



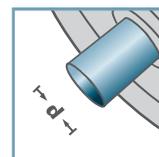
KTR/KTE



KTR-44



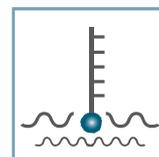
D [mm]  
89



d [mm]  
20



C [daN]  
150



T [°C]  
0° - 80°



EP 2



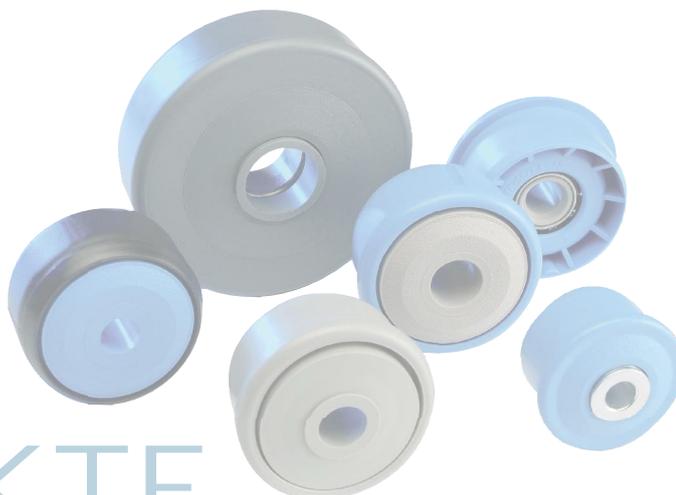
Karton [Stck.]

80

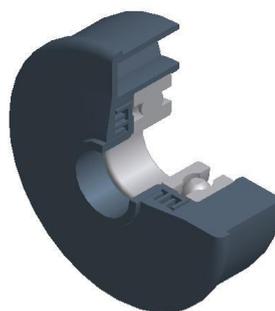
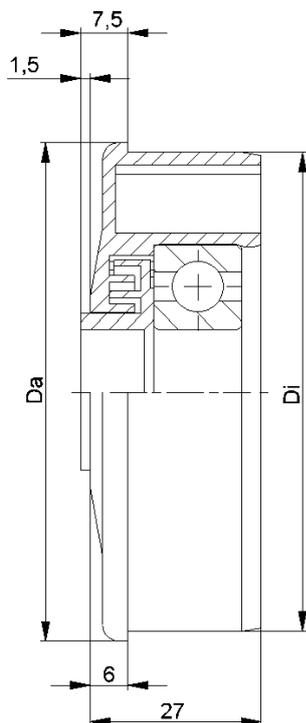
KTR-44			
Typ	Di +0,2	Da	Tragzahl C [daN]
KTR-89x3,0.44	83,3	88,9	150

Weitere Varianten auf Anfrage!

- ☛ Radkörper: Kunststoff
- ☛ Innenlabyrinth: Kunststoff
- ☛ Außenlabyrinth: Kunststoff
- ☛ Kugellager 6204



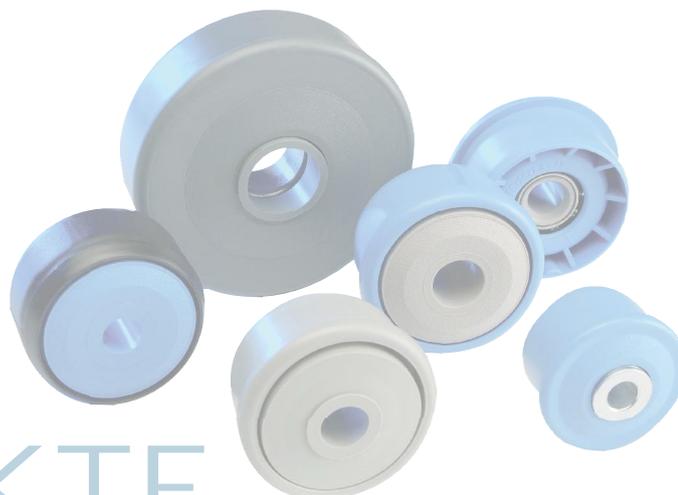
KTR/KTE



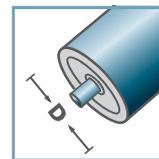
KTR-43/44			
Typ	Di +0,2	Da	Tragzahl C [daN]
KTR-63,5x2,9.43/.44	58,0	63,4	150
KTR-80x2,0.43/.44	76,4	79,9	150

Weitere Varianten auf Anfrage!

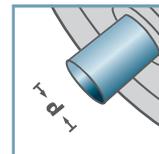
- ☛ Radkörper: Kunststoff
- ☛ Mehrfachlabyrinth: Kunststoff
- ☛ Kugellager 6303/6204



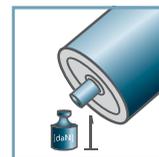
KTR-43/44



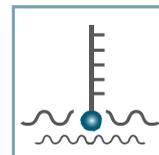
D [mm]  
63,5 - 80



d [mm]  
6303: 17  
6204: 20



C [daN]  
150



T [°C]  
0° - 80°



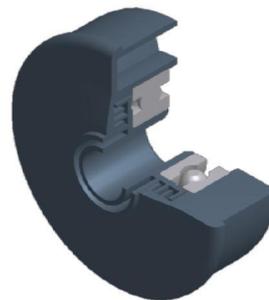
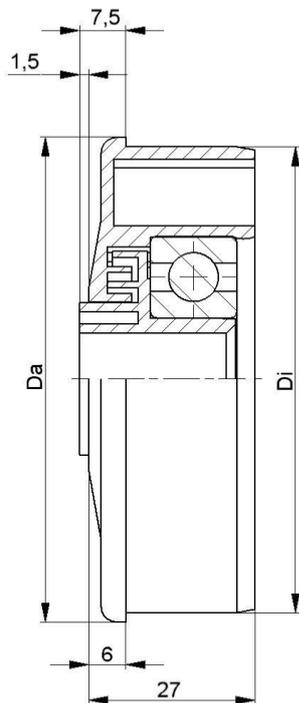
EP 2



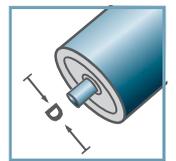
Karton [Stck.]

100

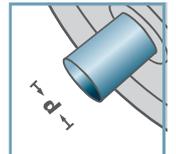
KTR/KTE



KTR-43/44



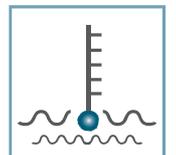
D [mm]  
63,5 - 80



d [mm]  
6303: 12  
6204: 15



C [daN]  
150



T [°C]  
0° - 80°



EP 2

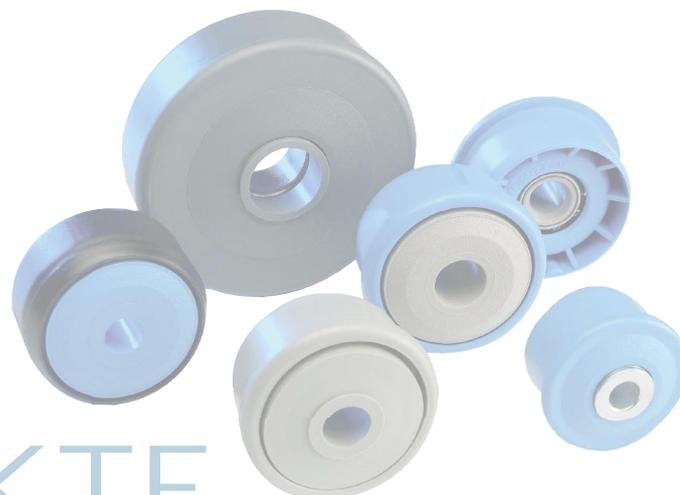


Karton [Stck.]  
100

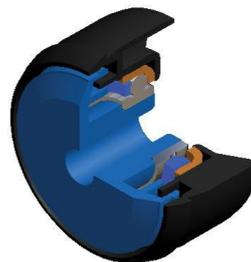
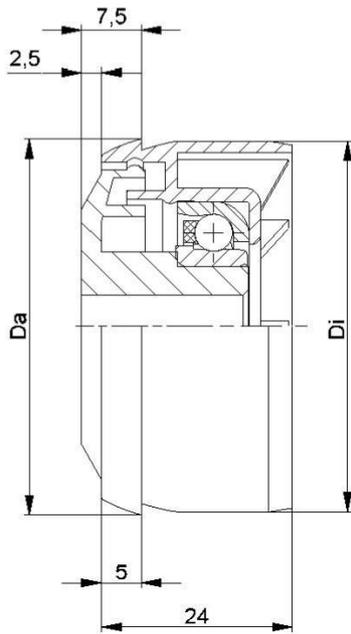
KTR-43/44			
Typ	Di +0,2	Da	Tragzahl C [daN]
KTR-63,5x2,9.43/.44	58,0	63,4	150
KTR-80x2,0.43/.44	76,4	79,9	150

Weitere Varianten auf Anfrage!

- ☛ Radkörper: Kunststoff
- ☛ Mehrfachlabyrinth: Kunststoff
- ☛ Kugellager 6303/6204



KTR/KTE

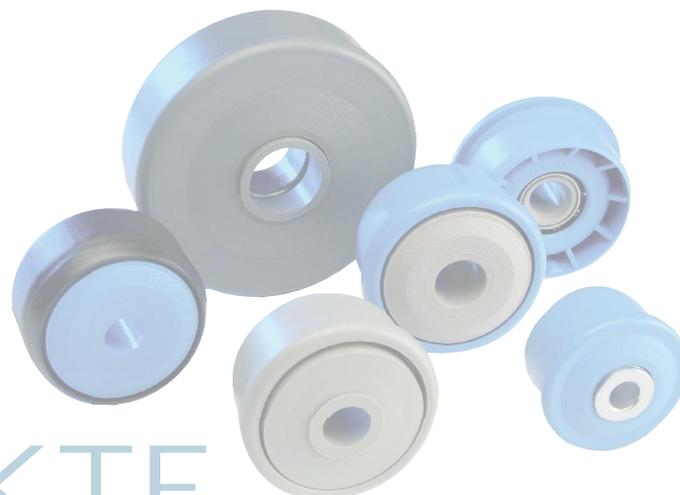


KTE-30			
Typ	Di +0,3	Da	Tragzahl C [daN]
KTE-50x1,5.30	47,1	47,9	80

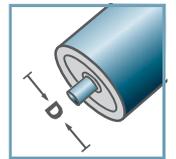
Weitere Varianten auf Anfrage!

- ☛ Radkörper: Kunststoff
- ☛ Einfachlabyrinth: Kunststoff
- ☛ Kugellager RL-30
  - ☛ Lagerschale: Stahl, gehärtet
  - ☛ Innenring: Stahl, gehärtet
  - ☛ Kugelkäfig: Kunststoff
  - ☛ Kugel: Stahl

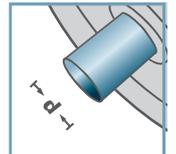
Achtung: bei Achse 15 mm ist das Einfachlabyrinth lose beigelegt und muss bei der Montage gesichert werden!



KTE-30



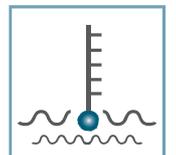
D [mm]  
50



d [mm]  
10; 12; 15; SW11



C [daN]  
80



T [°C]  
0° - 80°



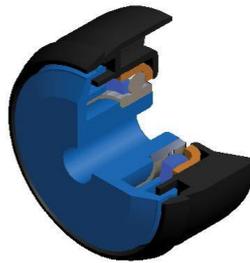
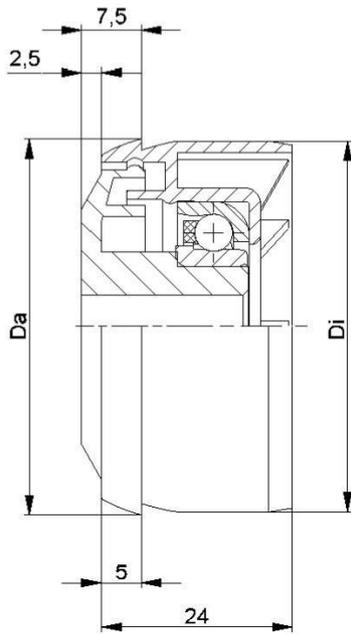
Öl



Karton [Stck.]

250

KTR/KTE

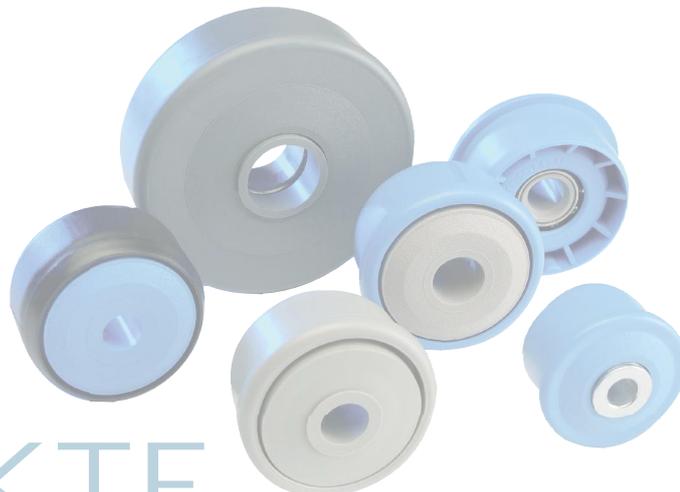


KTE-31			
Typ	Di +0,3	Da	Tragzahl C [daN]
KTE-50x1,5.31	47,1	47,9	25

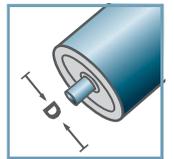
Weitere Varianten auf Anfrage!

- ☛ Radkörper: Kunststoff
- ☛ Einfachlabyrinth: Kunststoff
- ☛ Kugellager RL-31
  - ☛ Lagerschale: 1.4301
  - ☛ Innenring: 1.4305
  - ☛ Kugelkäfig: Kunststoff
  - ☛ Kugel: 1.4301

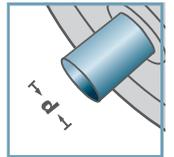
Achtung: bei Achse 15 mm ist das Einfachlabyrinth lose beigelegt und muss bei der Montage gesichert werden!



KTE-31



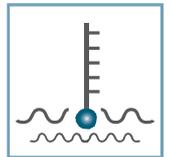
D [mm]  
50



d [mm]  
10; 12; 15; SW11



C [daN]  
25



T [°C]  
0° - 80°

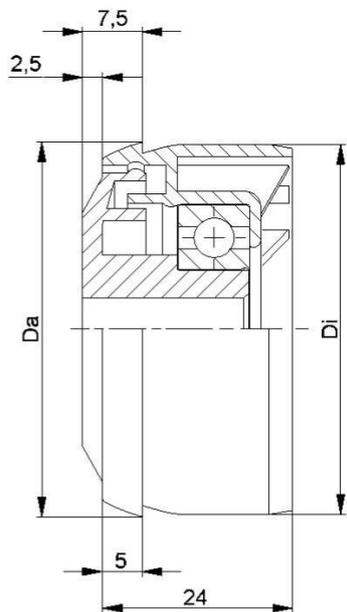


Öl



Karton [Stck.]  
250

KTR/KTE

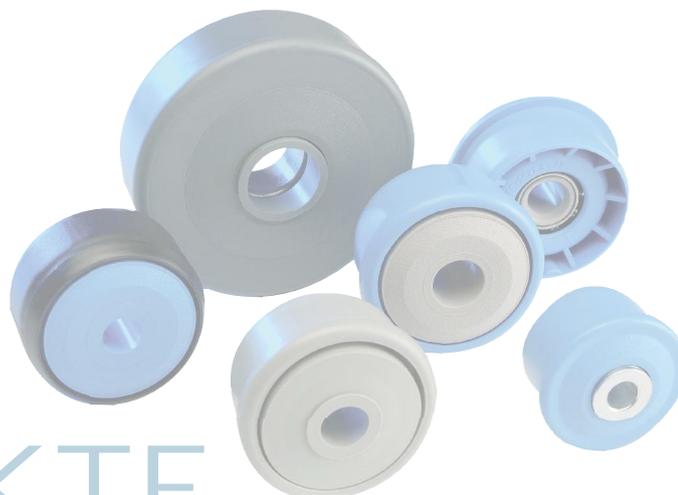


KTE-42			
Typ	Di +0,3	Da	Tragzahl C [daN]
KTE-50x1,5.42	47,1	47,9	80

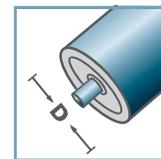
Weitere Varianten auf Anfrage!

- Radkörper: Kunststoff
- Einfachlabyrinth: Kunststoff
- Kugellager 6002

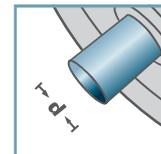
Achtung: bei Achse 15 mm ist das Einfachlabyrinth lose beigelegt und muss bei der Montage gesichert werden!



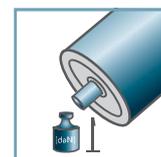
KTE-42



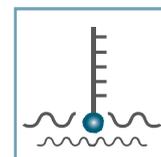
D [mm]  
50



d [mm]  
10; 12; 15; SW11



C [daN]  
80



T [°C]  
0° - 80°



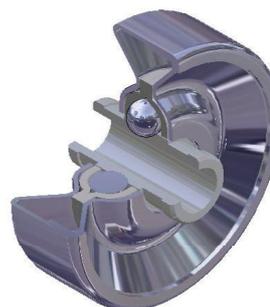
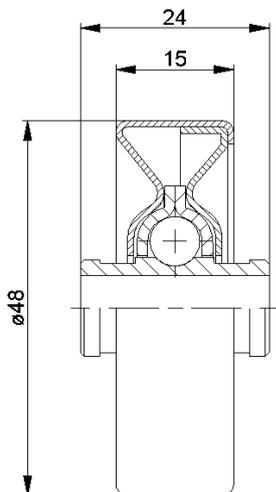
EP 2



Karton [Stck.]

250

KTR/KTE



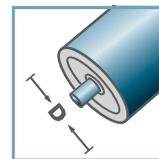
SLR	
Typ	Tragzahl C [daN]
SLR-480	20

Weitere Varianten auf Anfrage!

- Außenschalen: Stahl, verzinkt
- Lagerschale: Stahl, gehärtet
- Nabe: Stahl, gehärtet, verzinkt
- Kugel: Stahl

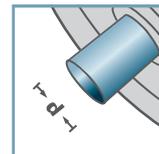


SLR-

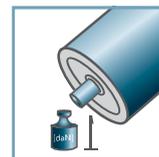


D [mm]

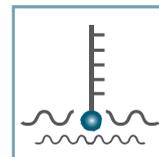
-



d [mm]  
6; 8



C [daN]  
20



T [°C]  
-30° - 140°



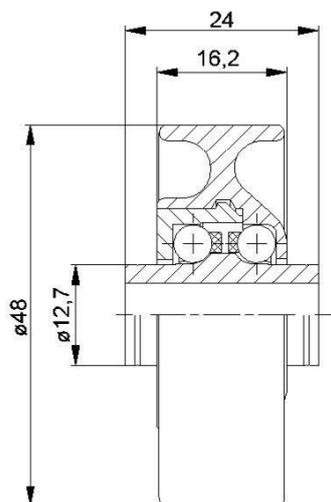
-



Karton [Stck.]

250

KLR/SLR/SR



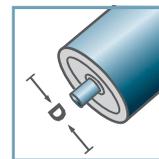
KLR-02/03			
Typ	Normal	Niro	Tragzahl C [daN]
KLR-480	x	x	15

Weitere Varianten auf Anfrage!

- ☛ Radkörper: Kunststoff
- ☛ Nabe: Kunststoff
- ☛ Lagerdeckel: Kunststoff
- ☛ Käfig: Kunststoff
- ☛ Kugel
  - ☛ 02: Stahl
  - ☛ 03: 1.4034

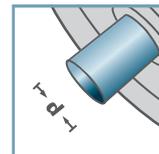


KLR-02  
KLR-03



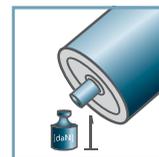
D [mm]

-



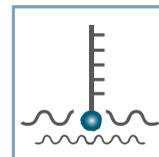
d [mm]

6; 8



C [daN]

15



T [°C]

0° - 80°



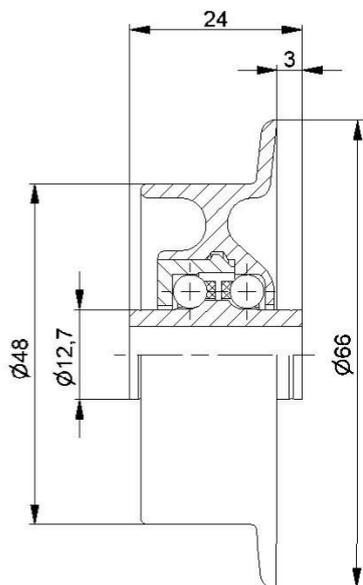
-



Karton [Stck.]

250

KLR/SLR/SR



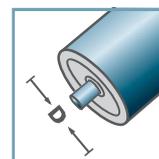
SR-02/03			
Typ	Normal	Niro	Tragzahl C [daN]
SR-480	x	x	10

Weitere Varianten auf Anfrage!

- ☛ Radkörper: Kunststoff
- ☛ Nabe: Kunststoff
- ☛ Lagerdeckel: Kunststoff
- ☛ Käfig: Kunststoff
- ☛ Kugel
  - ☛ 02: Stahl
  - ☛ 03: 1.4034

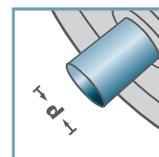


SR-02  
SR-03



D [mm]

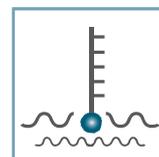
-



d [mm]  
6; 8



C [daN]  
15



T [°C]  
0° - 80°



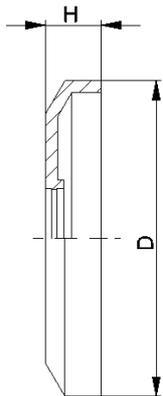
-



Karton [Stck.]

250

KLR/SLR/SR



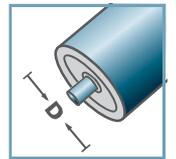
DK-KLR		
Typ	D	H
DK-KLR-02	40,5	7

Weitere Varianten auf Anfrage!

☛ Dichtkappe: Kunststoff

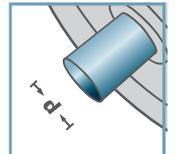


DK-KLR-02



D [mm]

-



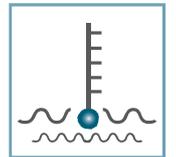
d [mm]

-



C [daN]

-



T [°C]

0° - 80°



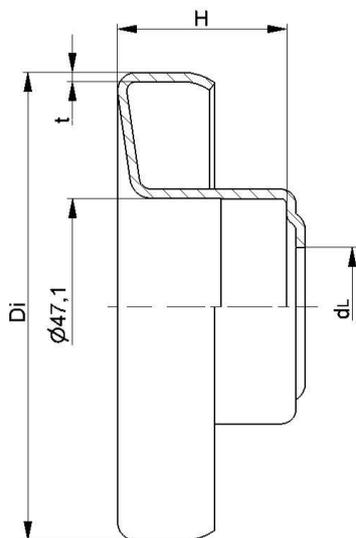
-



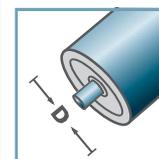
Karton [Stck.]



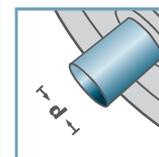
KLR/SLR/SR



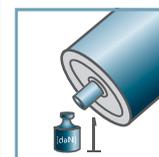
LH-6204



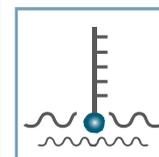
D [mm]  
63,5 - 133



d [mm]  
20



C [daN]  
-



T [°C]  
-



6204:  
D47, d20, H14

LH-6204				
Typ	Di	H	dL	t
LH-63,5x1,75/6204	60,5	33	26	1,5
LH-63,5x2,9/6204	58,2	33	26	1,5
LH-80x2,0/6204	76,5	36,5	26	2,0
LH-80x3,0/6204	74,5	36,5	26	2,0
LH-89x3,0/6204	83,5	36,5	26	2,0
LH-108x2,5/6204	103,3	36,5	26	2,0
LH-108x2,9/6204	102,8	36,5	26	2,0
LH-108x3,25/6204	102,1	36,5	26	2,0
LH-133x3,6/6204	126,3	36,5	26	2,5

Weitere Varianten auf Anfrage!

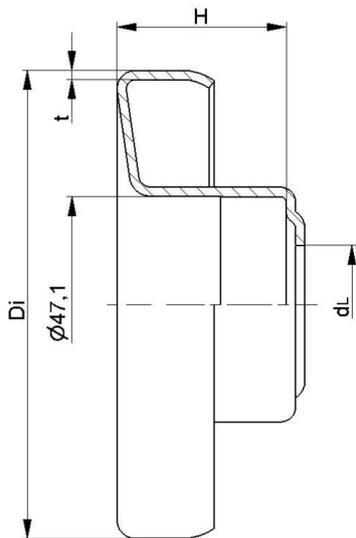
☛ Lagerhalter: Stahl



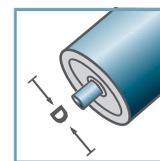
Gitterbox [Stck.]

ø63,5: 6000  
ø80: 3500  
ø89: 3100  
ø108: 2000  
ø133: 1150

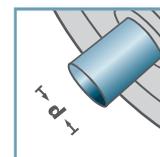
LH/FL



LH-6204 N



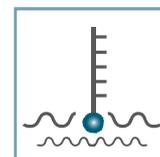
D [mm]  
63,5 - 108



d [mm]  
20



C [daN]  
-



T [°C]  
-



6204:  
D47, d20, H14



Gitterbox [Stck.]

ø63,5: 6000  
ø89: 3100/3350  
ø108: 2000

LH-6204 N				
Typ	Di	H	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

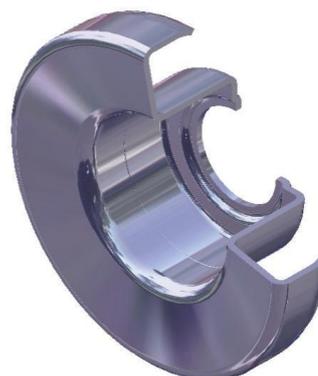
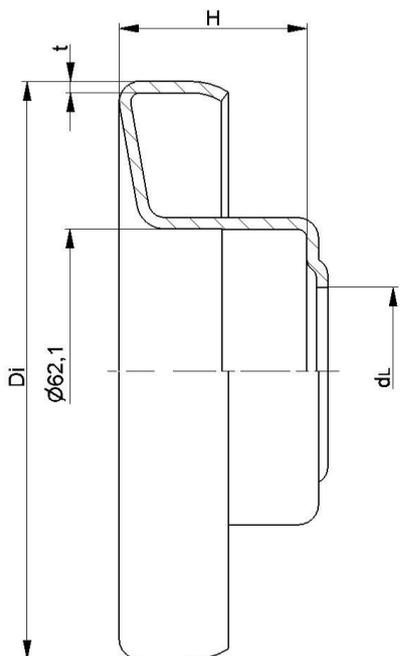
Weitere Varianten auf Anfrage!

☛ Lagerhalter: Stahl

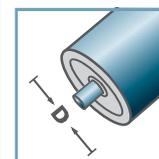
☛ \*Alternativ: Niro



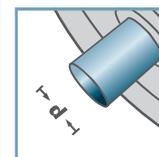
LH/FL



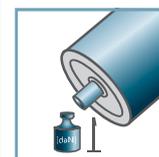
LH-6305



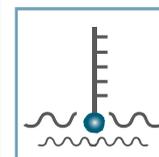
D [mm]  
89 - 159



d [mm]  
25



C [daN]  
-



T [°C]  
-



6305:  
D62, d25, H17



Gitterbox [Stck.]

ø89: 2600  
ø108: 1900  
ø133: 1150

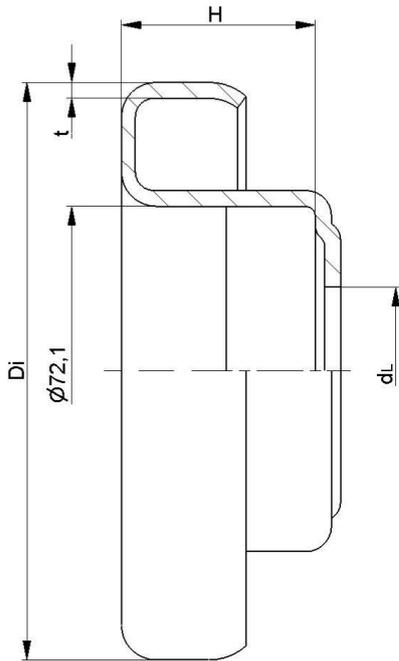
LH-6305				
Typ	Di	H	dL	t
LH-89x3,0/6305	83,5	40,5	36,5	2,0
LH-108x2,5/6305	103,3	40,5	36,5	2,0
LH-108x3,25/6305	102,1	40,5	36,5	2,0
LH-127x2,9/6305	121,7	40,5	36,5	2,5
LH-133x3,6/6305	126,3	40,5	36,5	2,5
LH-159x4,5/6305	150,5	40,5	36,5	2,5

Weitere Varianten auf Anfrage!

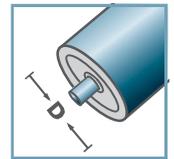
Lagerhalter: Stahl



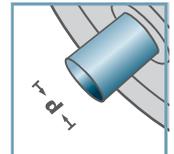
LH/FL



LH-6306



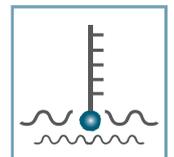
D [mm]  
108 - 159



d [mm]  
30



C [daN]  
-



T [°C]  
-



6306:  
D72, d30, H19



Gitterbox [Stck.]

Ø108: 1700  
Ø133: 1000

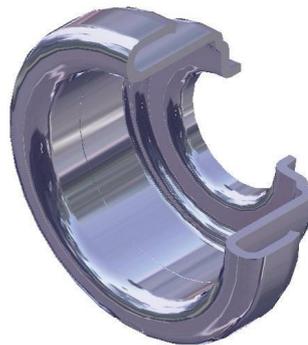
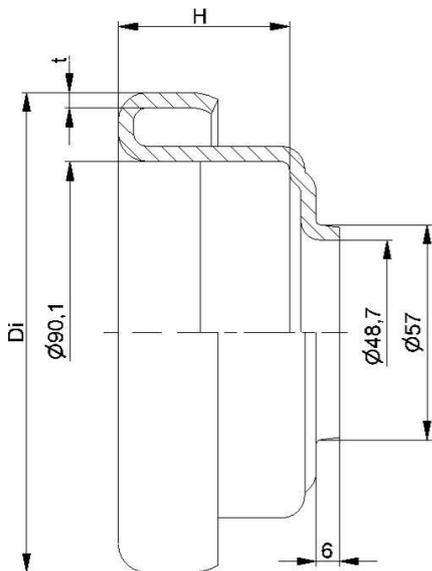
LH-6306				
Typ	Di	H	dL	t
LH-108x3,25/6306	102,1	42	36,5	3,0
LH-133x3,6/6306	126,3	42	36,5	3,5
LH-159x4,5/6306	150,5	42	36,5	2,5

Weitere Varianten auf Anfrage!

☛ Lagerhalter: Stahl



LH/FL

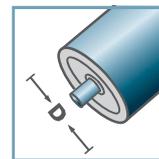


LH-6308			
Typ	Di	H	t
LH-133x3,6/6308	126,3	44,6	4,0
LH-159x4,5/6308	150,8	44,6	4,0

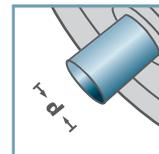
Weitere Varianten auf Anfrage!

☛ Lagerhalter: Stahl

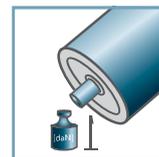
LH-6308



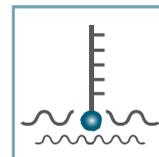
D [mm]  
133 - 159



d [mm]  
40



C [daN]  
-



T [°C]  
-



6308:  
D90, d40, H23

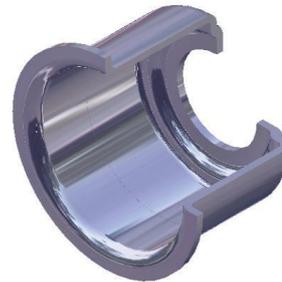
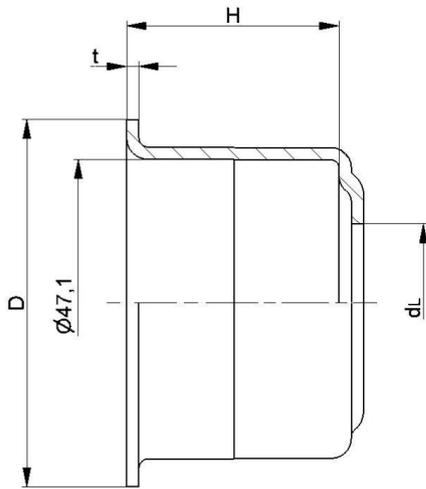


Gitterbox [Stck.]

ø133: 800  
ø159: 600



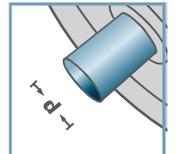
LH/FL



FL-6204



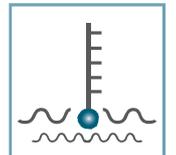
D [mm]  
60 - 76



d [mm]  
20



C [daN]  
-



T [°C]  
-



6204:  
D47, d20, H14



Gitterbox [Stck.]

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

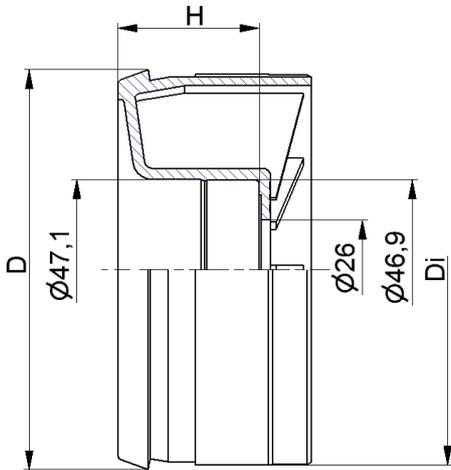
FL-6204				
Typ	D	H	dL	t
FL-60x3,0/6204	58,1	34	26	2,0
FL-63,5x2,9/6204	60,0	34,5	26	2,0
FL-76/6204	73,5	34,5	26	2,0

Weitere Varianten auf Anfrage!

☛ Lagerhalter: Stahl



LH/FL



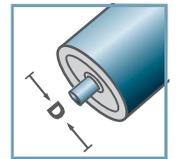
KLH-6204			
Typ	Di	H	D
KLH-89x3,0/6204	83,2	36,5	85,3
KLH-108x3,0/6204	102,2	36,5	104,3

Weitere Varianten auf Anfrage!

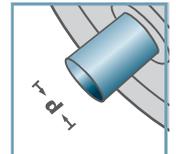
☛ Lagerhalter: Kunststoff



KLH-6204



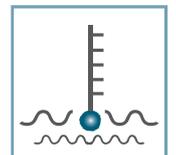
D [mm]  
89 - 108



d [mm]  
20



C [daN]  
-



T [°C]  
100°



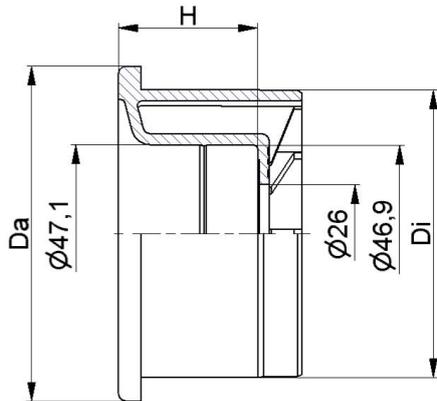
6204:  
D47, d20, H14



Gitterbox [Stck.]

1000

LH/FL

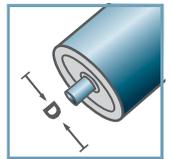


KLH-6204			
Typ	Da	Di	H
KLH-90x7,0/6204	88,8	76,3	36,5

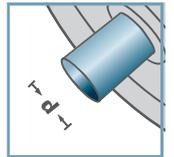
Weitere Varianten auf Anfrage!

☛ Lagerhalter: Kunststoff

KLH-6204



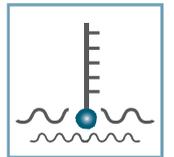
D [mm]  
90



d [mm]  
20



C [daN]  
-



T [°C]  
100°



6204:  
D47, d20, H14

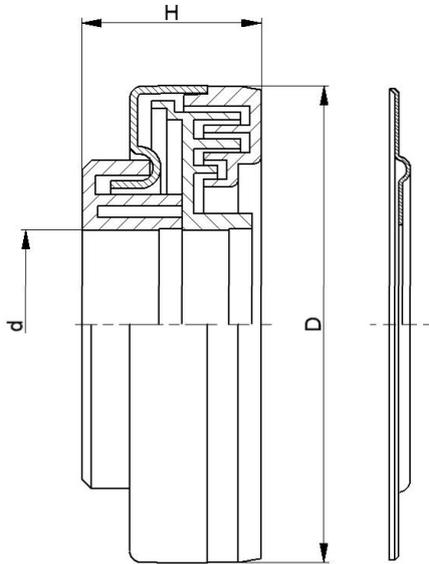


Gitterbox [Stck.]

1000



LH/FL



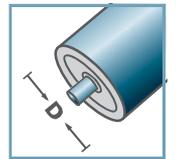
LH-			
Typ	D	H	d
LH-6303	47	22,5	17
LH-6204	47	22,5	20
LH-6204 N	47	20,0	20
LH-6305	62	23,5	25
LH-6206	62	23,5	30
LH-6306	72	24,5	30
LH-6308	90	23,1	40

Weitere Varianten auf Anfrage!

- ☛ Dichtkappe: Stahl, verzinkt
- ☛ Regenkappe: Kunststoff
- ☛ Innenlabyrinth: Kunststoff
- ☛ Außenlabyrinth: Kunststoff
- ☛ Fetthaltescheibe: Stahl, verzinkt  
(nicht bei 6306 und 6308)

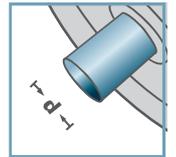


LH-



D [mm]

-

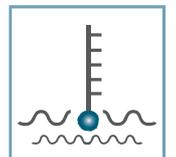


d [mm]  
17 - 40



C [daN]

-



T [°C]  
0° - 80°



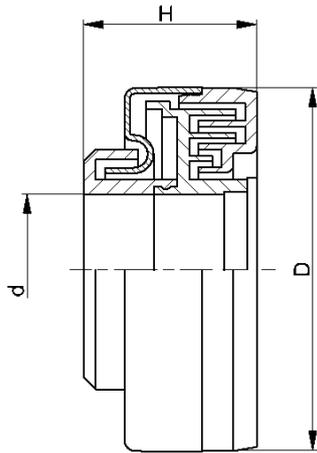
-



Karton [Stck.]

6204: 500  
6305: 500

LH/FL



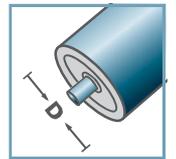
LH- montiert, gefettet			
Typ	D	H	d
LH-6303 M	47	22,5	17
LH-6204 M	47	22,5	20
LH-6305 M	62	23,5	25
LH-6308 M	90	23,1	40

Weitere Varianten auf Anfrage!

- ☛ Dichtkappe: Stahl, verzinkt
- ☛ Regenkappe: Kunststoff
- ☛ Innenlabyrinth: Kunststoff
- ☛ Außenlabyrinth: Kunststoff
- ☛ Fett: EP2

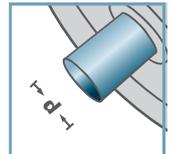


LH-



D [mm]

-

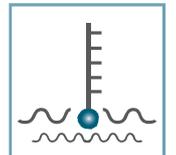


d [mm]  
17, 20



C [daN]

-



T [°C]  
0° - 80°



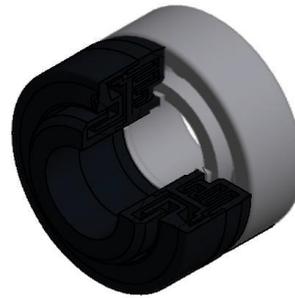
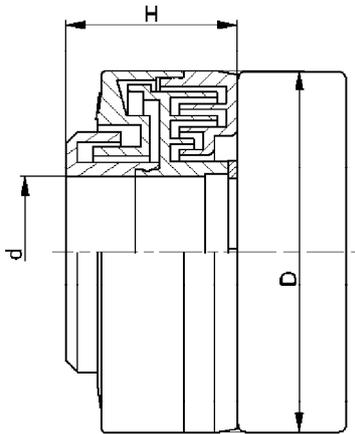
-



Karton [Stck.]



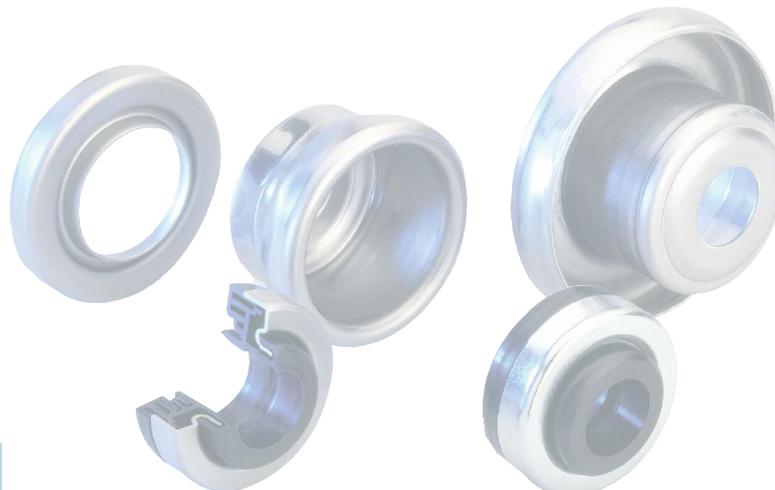
LH/FL



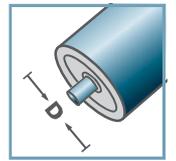
LH-			
Typ	D	H	d
LH-6303 KU	47	22,5	17
LH-6204 KU	47	22,5	20

Weitere Varianten auf Anfrage!

- ☛ Dichtkappe: Kunststoff
- ☛ Regenkappe: Kunststoff
- ☛ Innenlabyrinth: Kunststoff
- ☛ Außenlabyrinth: Kunststoff

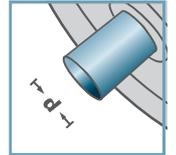


LH-



D [mm]

-

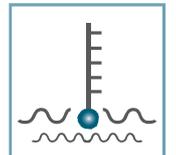


d [mm]  
20



C [daN]

-



T [°C]  
0° - 80°



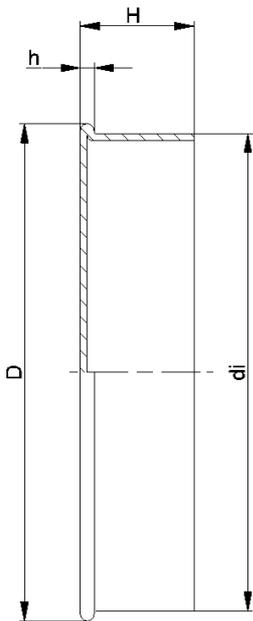
-



Karton [Stck.]



LH/FL



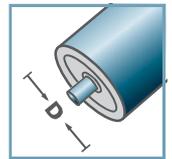
LH- geschlossen				
Typ	D	di	H	h
LH-6204	50	47,4	14,7	1,8

Weitere Varianten auf Anfrage!

☛ Dichtkappe: Stahl

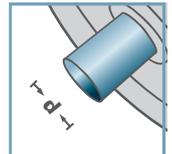


LH-



D [mm]

-



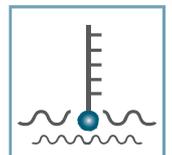
d [mm]

-



C [daN]

-



T [°C]

-



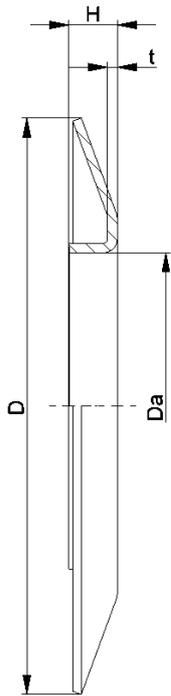
-



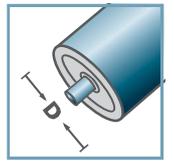
Karton [Stck.]

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

LH/FL

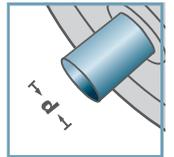


BS-



D [mm]

-



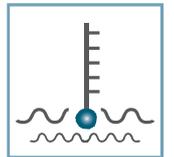
d [mm]

-



C [daN]

-



T [°C]

-



-



Karton [Stck.]

25

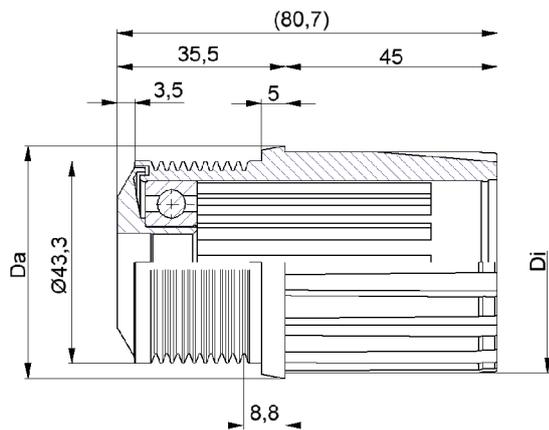
BS-				
Typ	Da ±0.1	D -2	H ±0.5	t
BS-50-130	49,9	130	10	1,5
BS-60-130	59,9	130	10	1,5
BS-80-150	79,9	150	14	2,5
BS-89-150	88,9	150	14	2,5
BS-108-150	107,9	150	14	2,5

Weitere Varianten auf Anfrage!

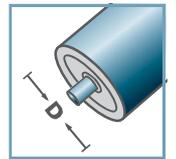
 Bordscheibe: Stahl



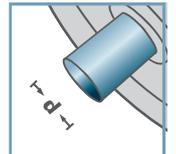
LH/FL



VR-40



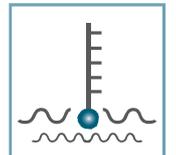
D [mm]  
50



d [mm]  
12; SW11



C [daN]  
-



T [°C]  
0° - 80°



EP 2



Karton [Stck.]

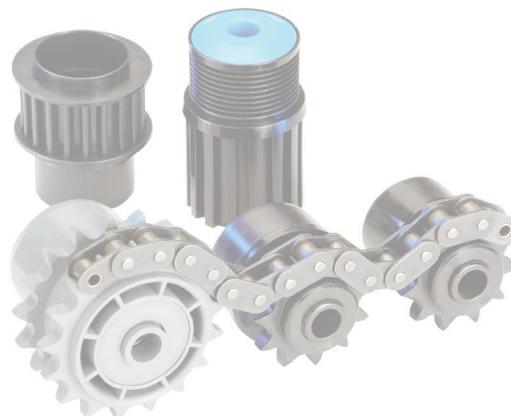
100

V-Riemenantrieb PJ VR-

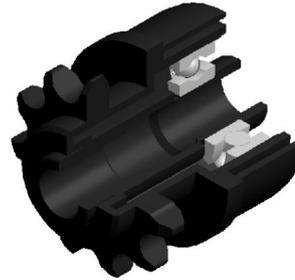
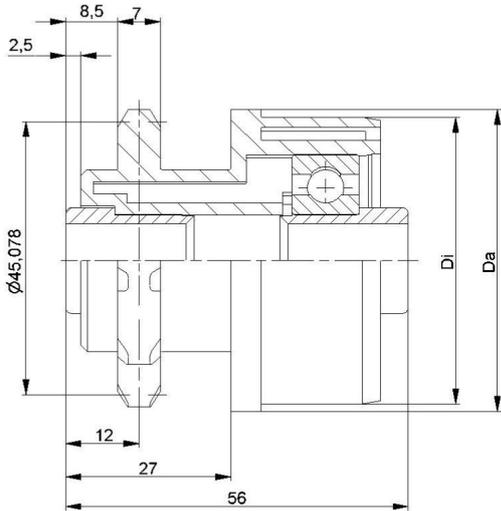
Typ	Di	Da	Tragzahl C [daN]
50x1,5.40	47,3	49,8	80

Antriebsriemen auf Anfrage lieferbar!

- ☛ Radkörper: Kunststoff
- ☛ Einfachlabyrinth: Kunststoff
- ☛ Kugellager 6202  
auch mit 2 Kugellagern lieferbar



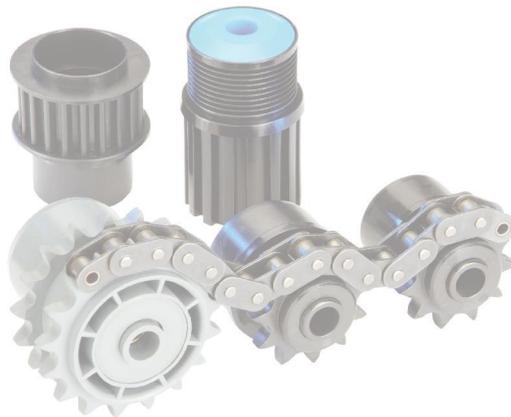
# Kunststoffriemenrad



KKR-1/2" x5/16" -Z11 Festantrieb		
Typ	Di +0,2	Da
50x1,5.40	47,3	49,9
50x2,8.40	44,6	49,9

Weitere Varianten auf Anfrage!

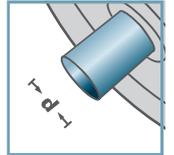
- ☛ Radkörper: Kunststoff
- ☛ Reduzierbuchse: Kunststoff
- ☛ Kugellager 6202



KKR-40



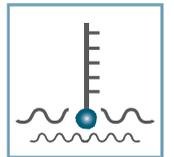
D [mm]  
50



d [mm]  
12



C [daN]  
-



T [°C]  
0° - 80°



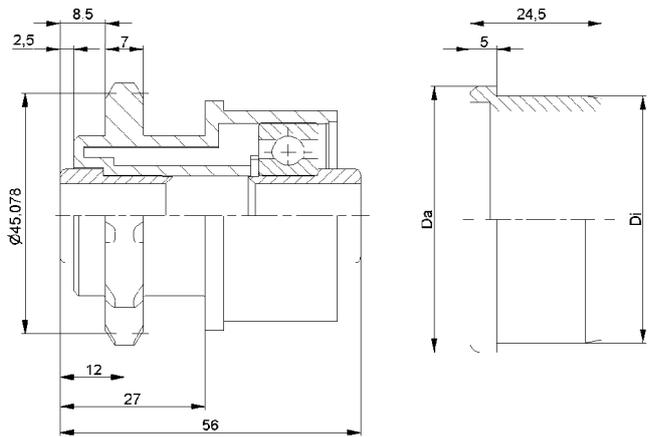
EP 2



Karton [Stck.]

150

# Kunststoffkettenrad

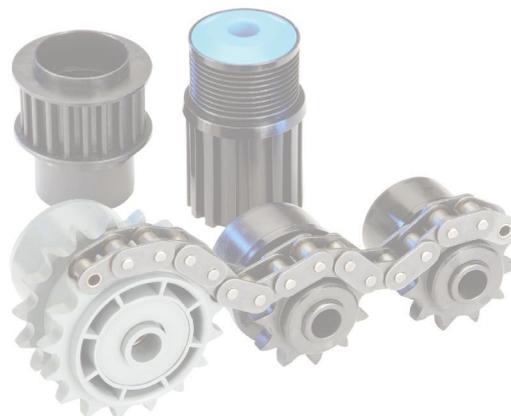


KKR-1/2" x5/16" -Z11 Stauantrieb

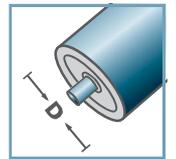
Typ	Di +0,2	Da
50x1,5.40 ST	47,3	49,9

Weitere Varianten auf Anfrage!

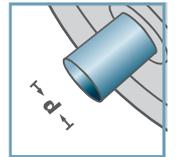
- ☛ Radkörper: Kunststoff
- ☛ Reduzierbuchse: Kunststoff
- ☛ Gleitring: Kunststoff
- ☛ Kugellager 6202



KKR-40



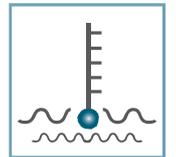
D [mm]  
50



d [mm]  
12



C [daN]  
-



T [°C]  
0° - 80°



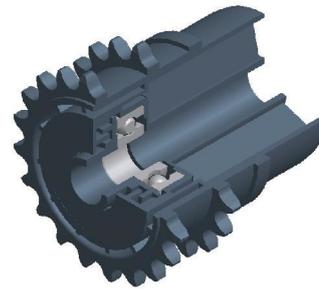
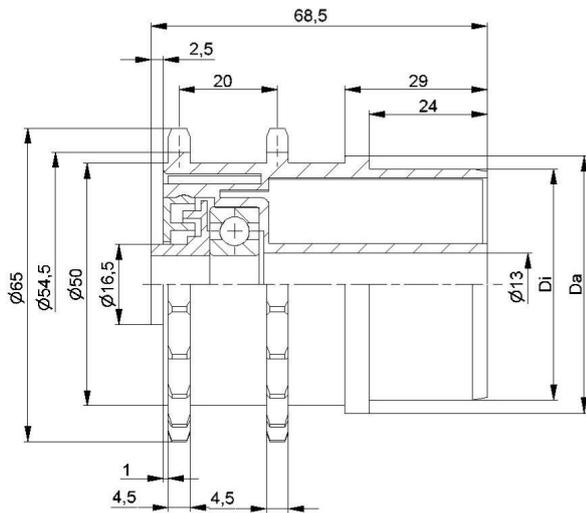
EP 2



Karton [Stck.]

Radkörper: 150  
Gleitring: 300

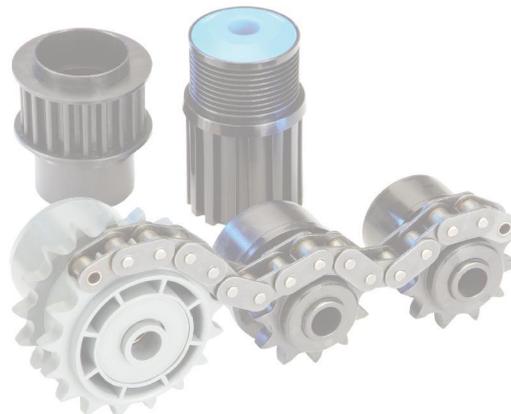
# Kunststoffkettenrad



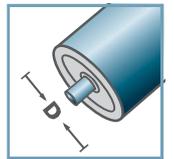
KKR-3/8" x3/16" -Z20		
Typ	Di +0,2	Da
53x3,0.41	47,6	52,9

Weitere Varianten auf Anfrage!

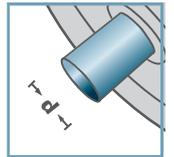
- ☛ Radkörper: Kunststoff
- ☛ Innenlabyrinth: Kunststoff
- ☛ Außenlabyrinth: Kunststoff
- ☛ Kugellager 6201



KKR-41



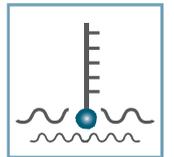
D [mm]  
53



d [mm]  
12



C [daN]  
-



T [°C]  
0° - 80°



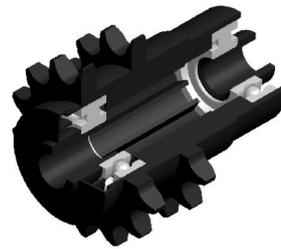
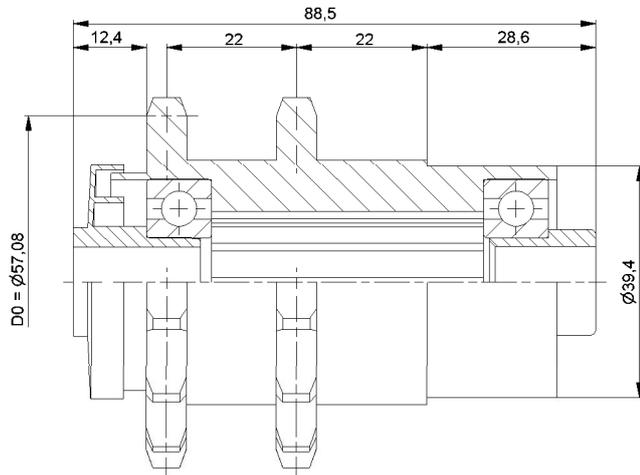
EP 2



Karton [Stck.]

60

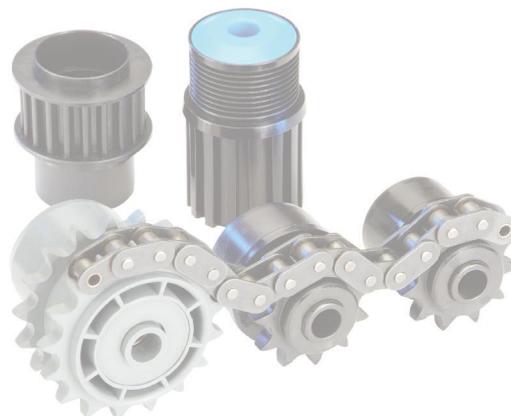
# Kunststoffkettenrad



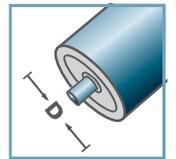
KKR-1/2" x5/16" -Z14

Weitere Varianten auf Anfrage!

- ☛ Radkörper: Kunststoff
- ☛ Labyrinth: Kunststoff
- ☛ Reduzierbuchse: Kunststoff
- ☛ Kugellager 6202

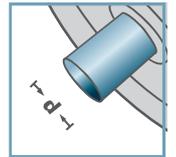


KKR-40



D [mm]

-

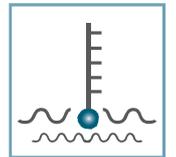


d [mm]  
12



C [daN]

-



T [°C]  
0° - 80°



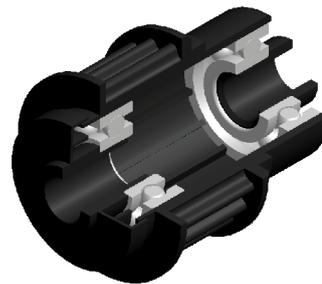
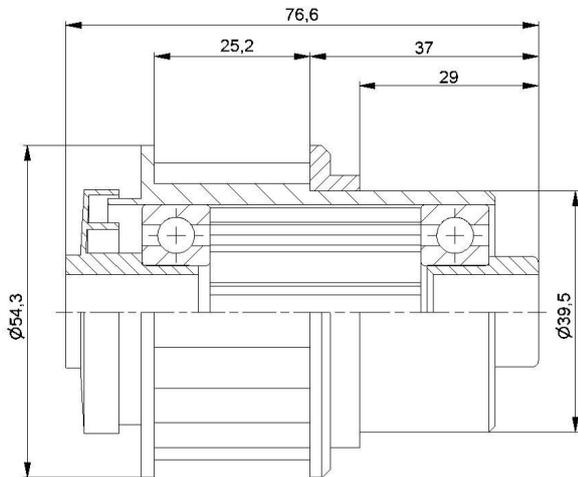
-



Karton [Stck.]

150

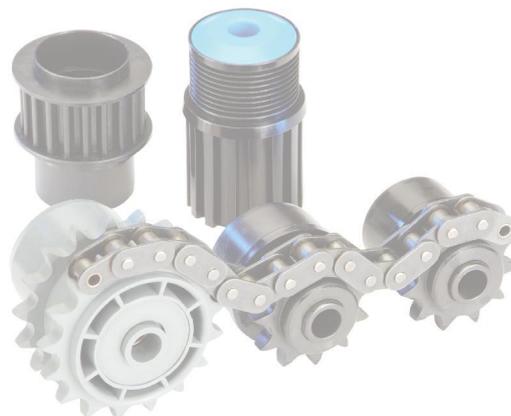
# Kunststoffkettenrad



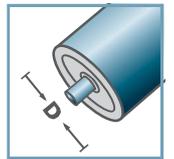
KZA-Z20.40

Weitere Varianten auf Anfrage!

- ☛ Radkörper: Kunststoff
- ☛ Labyrinth: Kunststoff
- ☛ Reduzierbuchse: Kunststoff
- ☛ Kugellager 6202

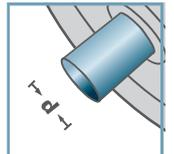


KZA-40



D [mm]

-



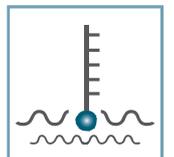
d [mm]

12



C [daN]

-



T [°C]

0° - 80°



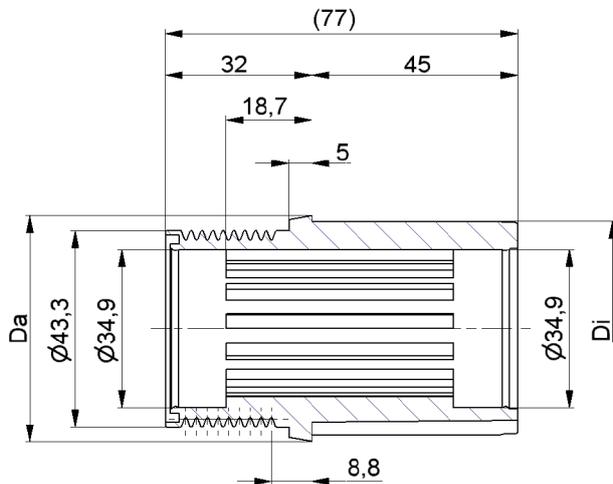
-



Karton [Stck.]

100

# Kunststoffzahnriemenrad



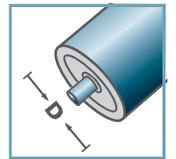
VR-		
Typ	Di	Da
50x1,5.40	47,3	49,8

Antriebsriemen auf Anfrage lieferbar!

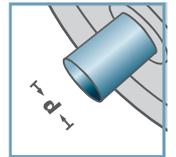
Radkörper: Kunststoff



VR-40



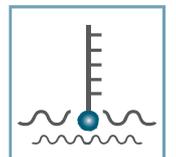
D [mm]  
50



d [mm]  
-



C [daN]  
-



T [°C]  
0° - 80°



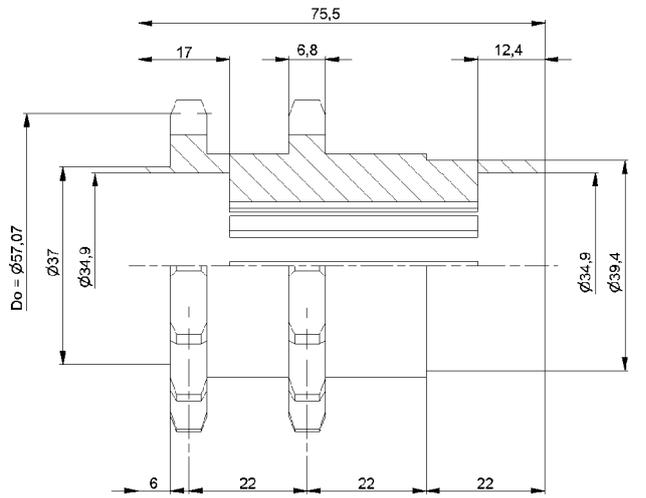
-



Karton [Stck.]

100

# Kunststoffriemenrad



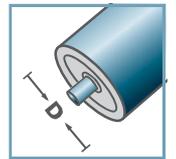
KKR-1/2" x5/16" -Z14

Weitere Varianten auf Anfrage!

Radkörper: Kunststoff

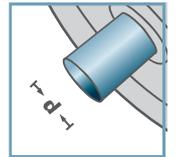


KKR-40



D [mm]

-



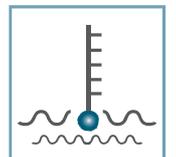
d [mm]

-



C [daN]

-



T [°C]

0° - 80°



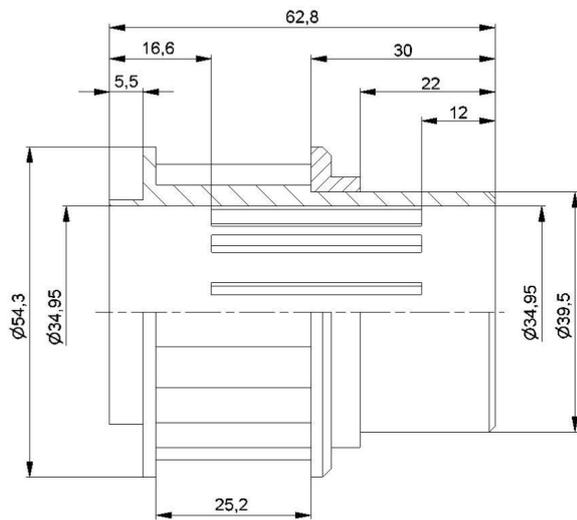
-



Karton [Stck.]

500

# Kunststoffkettenrad



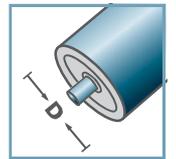
KZA-Z20.40

Weitere Varianten auf Anfrage!

Radkörper: Kunststoff

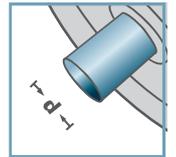


KZA-40



D [mm]

-



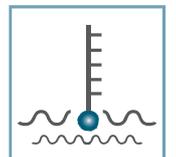
d [mm]

-



C [daN]

-



T [°C]

0° - 80°



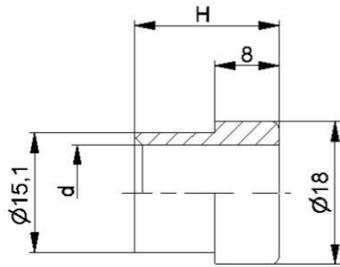
-



Karton [Stck.]

140

# Kunststoffzahnriemenrad



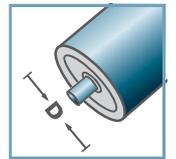
KKR-40		
Typ	d	H
KKR-40	10	19
KKR-40	12	18
KKR-40	14	19
KKR-40	SW11	19

Weitere Varianten auf Anfrage!

Reduzierbuchse: Kunststoff

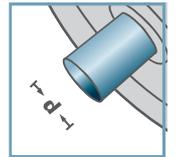


KKR-40



D [mm]

-



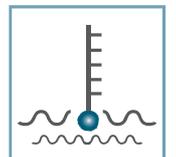
d [mm]

10; 12; 14; SW11



C [daN]

-



T [°C]

0° - 80°



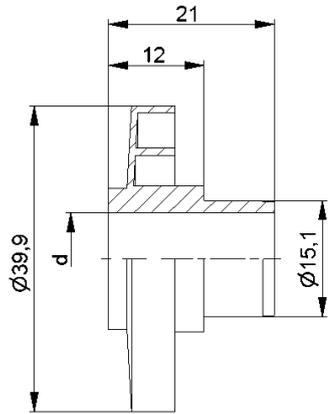
-



Karton [Stck.]

500/8000

# Zubehör Kettenräder



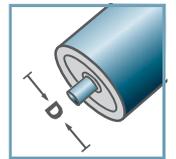
KKR-40	
Typ	d
KKR-40	10
KKR-40	12
KKR-40	14
KKR-40	SW11

Weitere Varianten auf Anfrage!

Labyrinth: Kunststoff

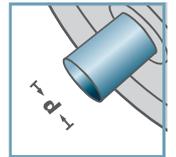


KKR-40



D [mm]

-



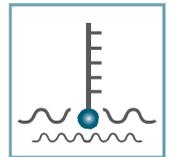
d [mm]

10; 12; 14; SW11



C [daN]

-



T [°C]

0° - 80°



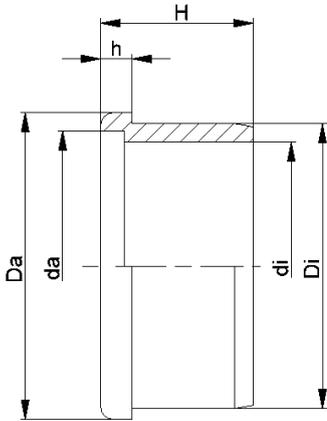
-



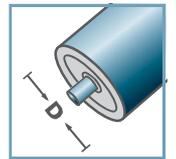
Karton [Stck.]

200/1000

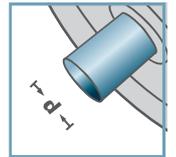
# Zubehör Kettenräder



KKR-40



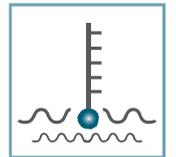
D [mm]  
50 - 60



d [mm]  
-



C [daN]  
-



T [°C]  
0° - 80°



-



Karton [Stck.]  
ø50: 400  
ø60: 250

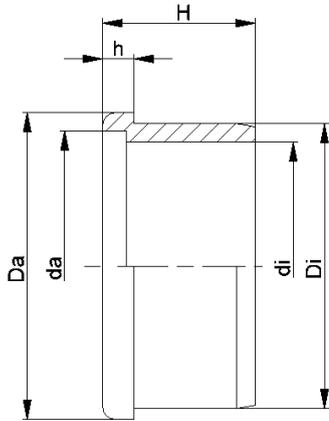
KKR-40						
Typ	Di	Da	di	da	H	h
50x1,5	47,25	50	39,3	42,6	25,2	5
50x2,8	44,7	50	39,3	42,6	25,2	5
60x1,5	57,3	60	47,0	50,7	25,5	5
60x2,0	56,3	60	47,0	50,7	25,5	5

Weitere Varianten auf Anfrage!

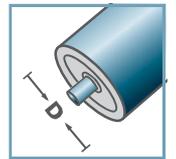
 Distanzring fest: Kunststoff



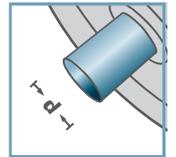
# Zubehör Kettenräder



KKR-40



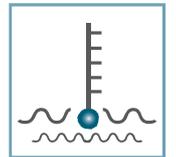
D [mm]  
50 - 60



d [mm]  
-



C [daN]  
-



T [°C]  
0° - 80°



-



Karton [Stck.]

400

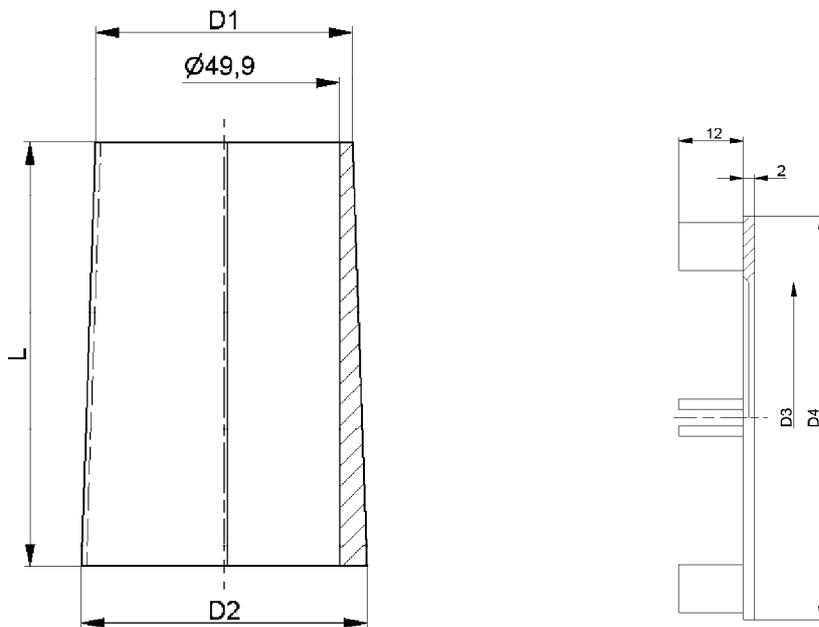
KKR-40						
Typ	Di	Da	di	da	H	h
50x1,5	47,2	50	40,6	44,6	25	5

Weitere Varianten auf Anfrage!

☛ Distanzring für Staubetrieb: Kunststoff



# Zubehör Kettenräder



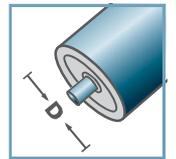
KF-50					
Typ A	D1	D2	L	D3	D4
KF-50 I-a Type A	53,4	59,7	92,5	-	-
KF-50 I-b Type A	54,0	59,7	95,5	-	-
KF-50 II Type A	60,0	66,5	100,0	-	-
KF-50 III Type A	66,5	73,0	99,0	-	-
KF-50 IV Type A	73,5	80,0	100,0	50,6	75,5
KF-50 V Type A	80,0	86,5	99,5	50,7	81,7
KF-50 VI Type A	86,5	93,5	100,0	50,6	87,7
KF-50 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	-	-

Weitere Varianten auf Anfrage!

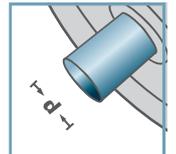
- ☛ Konische Förderelemente: Kunststoff
- ☛ Enddeckel: Kunststoff



KF-50



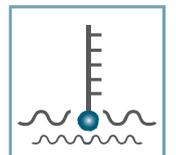
D [mm]  
50



d [mm]  
-



C [daN]  
-



T [°C]  
0° - 80°



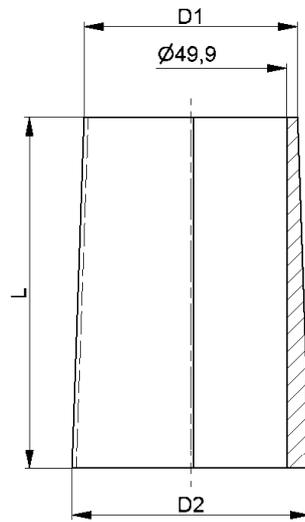
-



Karton [Stck.]



# Konische Elemente



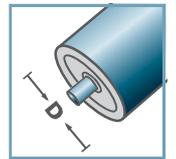
KF-50			
Typ	D1	D2	L
KF-50 I Type B	54,0	59,9	90,0
KF-50 II Type B	59,9	66,6	100,0
KF-50 III Type B	66,6	73,4	100,0
KF-50 IV Type B	73,4	80,1	100,0
KF-50 V Type B	80,1	86,9	100,0
KF-50 VI Type B	86,9	93,6	100,0
KF-50 VII Type B	93,6	100,4	100,0
KF-50 VIII Type B	100,4	107,1	100,0
KF-50 IX Type B	107,1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

Weitere Varianten auf Anfrage!

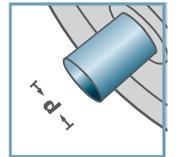
- ☛ Konische Fördererlemente: Kunststoff
- ☛ Enddeckel: Kunststoff



KF-50



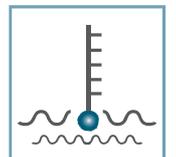
D [mm]  
50



d [mm]  
-



C [daN]  
-



T [°C]  
0° - 80°

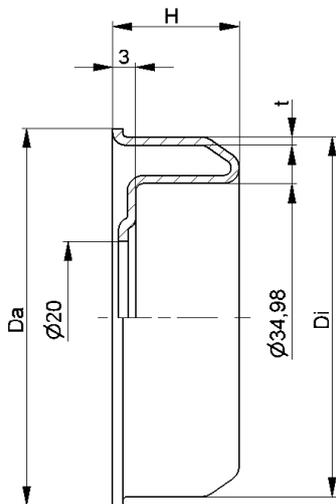


-

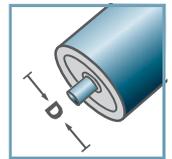


Karton [Stck.]

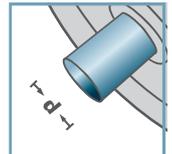
# Konische Elemente



MRK-40



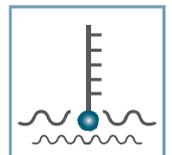
D [mm]  
50 - 60



d [mm]  
15



C [daN]  
-



T [°C]  
-



6202:  
D35; d15; H11



Karton [Stck.]

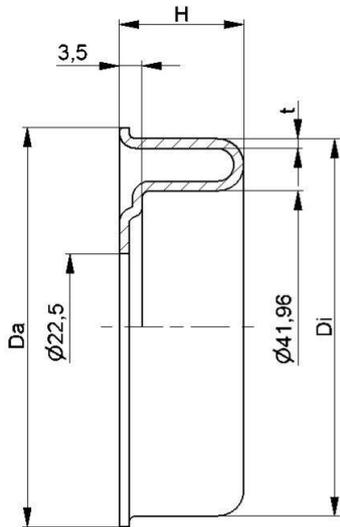
MRK-40				
Typ	Di ±0,1	Da	H	t
MRK-50x1,5.40	47,3	49,5	16	1,2
MRK-50x2,0.40	46,3	49,5	16	1,2
MRK-60x2,0.40	56,3	59,5	16,5	1,5
MRK-60x3,0.40	54,3	59,5	16,5	1,5

Weitere Varianten auf Anfrage!

Radkörper: Stahl, verzinkt



# Metalradkörper



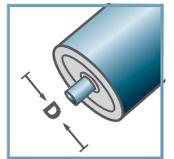
MRK-6004				
Typ	Di ±0,1	Da	H	t
MRK-63,5x2,9/6004	58,1	61,5	19,0	1,5

Weitere Varianten auf Anfrage!

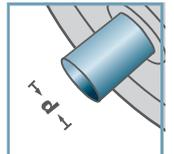
☛ Radkörper: Stahl, verzinkt



MRK-6004



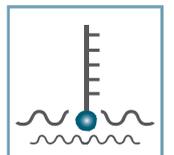
D [mm]  
63,5



d [mm]  
20



C [daN]  
-



T [°C]  
-

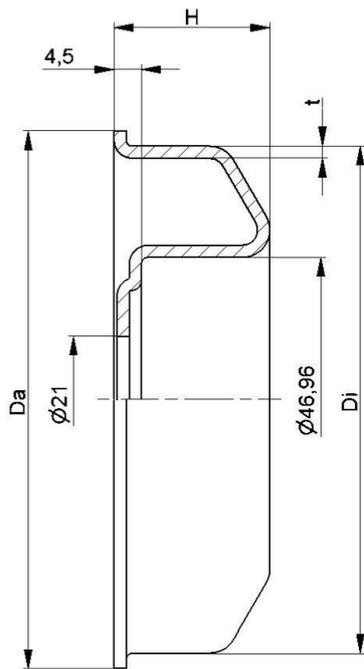


6004:  
D42; d20; H12

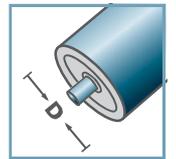


Karton [Stck.]

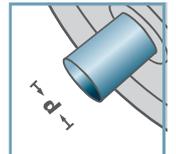
# Metalradkörper



MRK-6204



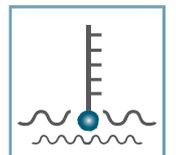
D [mm]  
80 - 108



d [mm]  
20



C [daN]  
-



T [°C]  
-



6204:  
D47; d20; H14



Karton [Stck.]

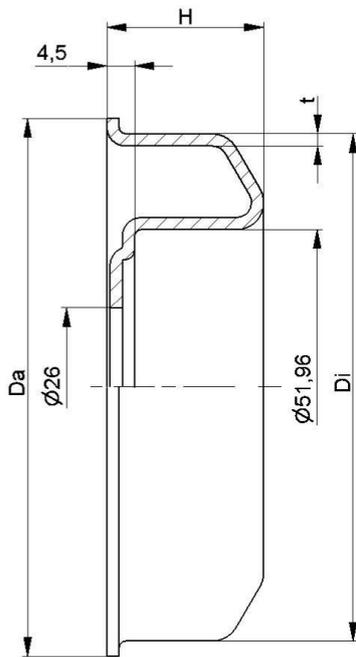
MRK-6204				
Typ	Di ±0,1	Da	H	t
MRK-80x2,0/6204	76,5	79,5	23,5	2,0
MRK-80x3,0/6204	74,5	79,5	23,5	2,0
MRK-89x3,0/6204	83,5	88,5	23,5	2,0
MRK-89x3,25/6204	83,0	88,5	23,5	2,0
MRK-108x3,25/6204	102,0	107,5	25,0	2,0

Weitere Varianten auf Anfrage!

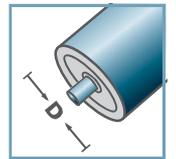
Radkörper: Stahl, verzinkt



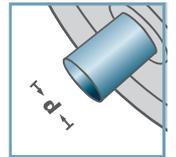
# Metalradkörper



MRK-6205



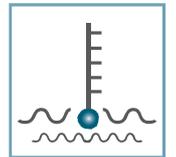
D [mm]  
80 - 108



d [mm]  
25



C [daN]  
-



T [°C]  
-



6205:  
D52; d25; H15



Karton [Stck.]

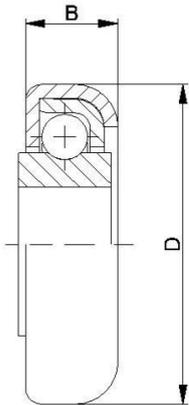
MRK-6205				
Typ	Di ±0,1	Da	H	t
MRK-80x3,0/6205	74,5	79,5	23,5	2,0
MRK-89x3,0/6205	83,5	88,5	24,5	2,0
MRK-108x3,25/6205	102,0	107,5	25,5	2,0

Weitere Varianten auf Anfrage!

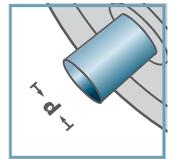
Radkörper: Stahl, verzinkt



# Metalradkörper



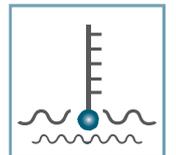
RL-0.280



d [mm]  
10; 12; 12,8



C [daN]  
7; 10



T [°C]  
0° - 80°



RL-0.280		
Typ	D	B
RL-0.280	28,0	7,6

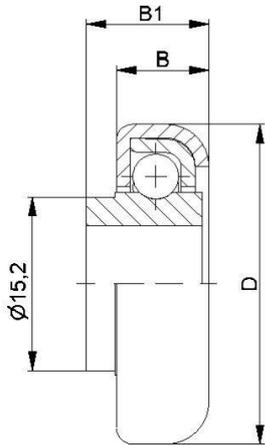
Weitere Varianten auf Anfrage!

- ☛ Kapsel: Stahl, verzinkt
- ☛ Lagerschale: Stahl
- ☛ Kugel: Stahl
- ☛ Innenring:
  - ☛ Stahl: C=10daN
  - ☛ Kunststoff: C=7daN; 0° - 80°

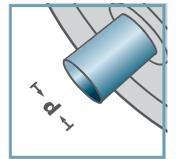


Karton [Stck.]  
500

# Ringkugellager



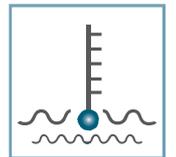
RL-0.280



10; 12



C [daN]  
7; 10



T [°C]  
0° - 80°



RL-0.280 mit Bund			
Typ	D	B	B1
RL-0.280 m.B.	28,0	7,6	10,0

Weitere Varianten auf Anfrage!

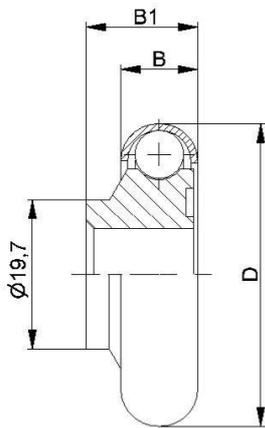
- ☛ Kapsel: Stahl, verzinkt
- ☛ Lagerschale: Stahl
- ☛ Kugel: Stahl
- ☛ Innenring:
  - ☛ Stahl: C=10daN
  - ☛ Kunststoff: C=7daN; 0° - 80°



Karton [Stck.]

500

# Ringkugellager



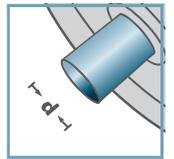
RL-0.400			
Typ	D	B	B1
RL-0.400	40,0	10,0	14,5

Weitere Varianten auf Anfrage!

- ☛ Kapsel: Stahl, verzinkt
- ☛ Kugel: Stahl
- ☛ Innenring: Kunststoff



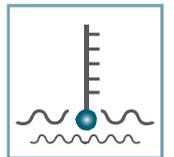
RL-0.400



d [mm]  
12



C [daN]  
7



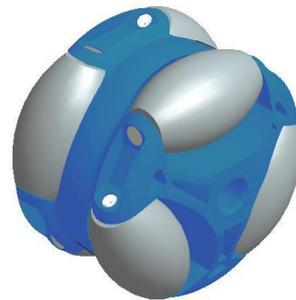
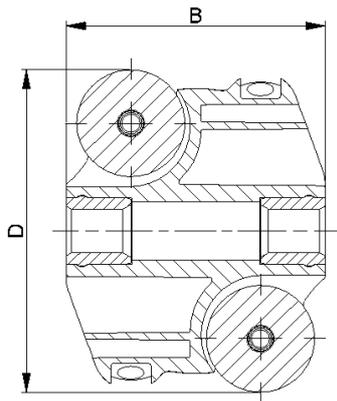
T [°C]  
0° - 80°



Karton [Stck.]

250

# Ringkugellager



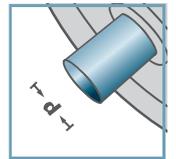
ASR-			
Typ	D	B	Tragzahl C [daN]
ASR-80	80	64	40

Weitere Varianten auf Anfrage!

- Radkörper: Kunststoff
- Tonnenrolle: Kunststoff
- Achse: 1.4301



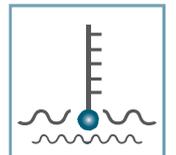
ASR-



d [mm]  
8; 12; 15; SW14



C [daN]  
40



T [°C]  
0° - 80°



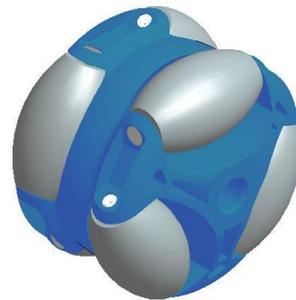
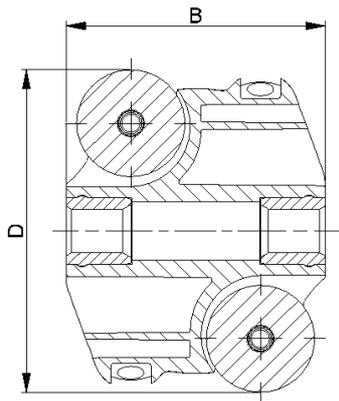
-



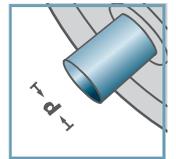
Karton [Stck.]

50

# Allseitenrollen



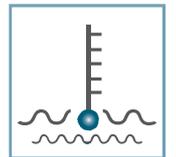
ASR-



d [mm]  
8; 10; SW9



C [daN]  
10 - 20



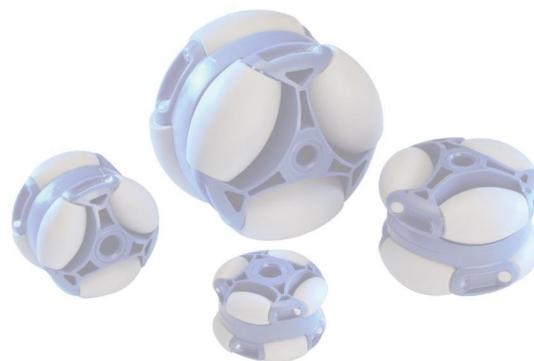
T [°C]  
0° - 80°



ASR-			
Typ	D	B	Tragzahl C [daN]
ASR-60	60	48	20
ASR-48	48	39	15
ASR-40	40	29	10

Weitere Varianten auf Anfrage!

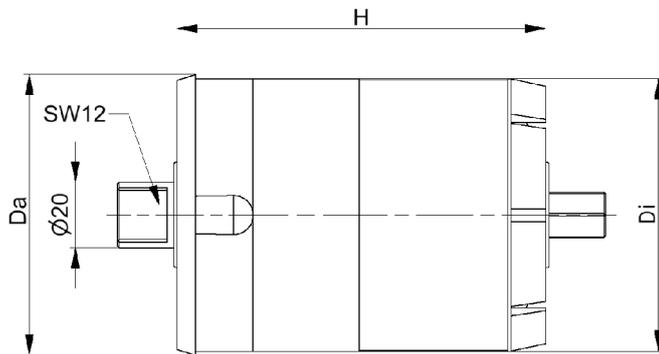
- ☛ Radkörper: Kunststoff
- ☛ Tonnenrolle: Kunststoff
- ☛ Achse: 1.4301



Karton [Stck.]

50

# Allseitenrollen

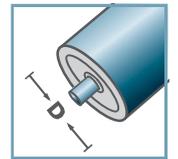


BR-89x3,0-				
Typ	Da	Di	H	Palette max. [kg]
200	88,5	83	115	200
500	88,5	83	115	500
800	88,5	83	115	800
1200	88,5	83	115	1200

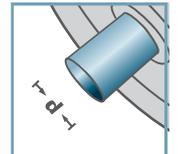
Bremsrolleneinsatz



BR-



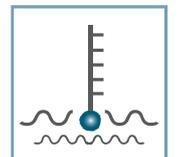
D [mm]  
89



d [mm]  
20



C [daN]  
250



T [°C]  
0° - 80°



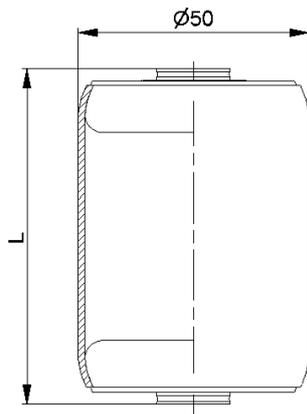
EP2



Karton [Stck.]

20

# Bremsrollen



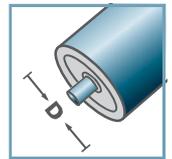
AMR-50x1,5.20		
Typ	L	Tragzahl C [daN]
AMR-50x1,5.20-66	66	160
AMR-50x1,5.20-73	73	160
AMR-50x1,5.20-80	80	160
AMR-50x1,5.20-100	100	160

Weitere Varianten auf Anfrage!

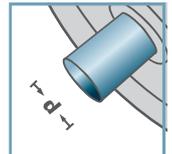
- ☛ Rohr: Stahl, verzinkt
- ☛ Metalltragrollenlager MTR-20



AMR-50.20



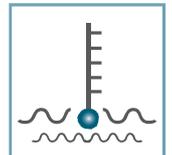
D [mm]  
50



d [mm]  
8; 10; 12; SW11



C [daN]  
160



T [°C]  
0° - 100°

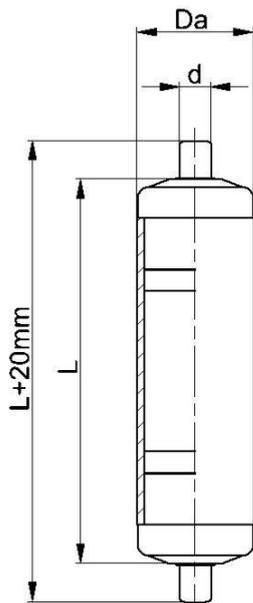


Öl

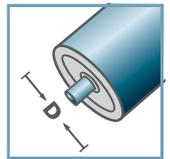


Karton [Stck.]

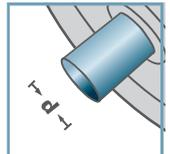
# Achslose Kurzrollen



AKR-00/01



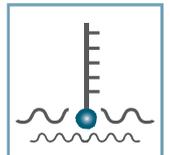
D [mm]  
20; 30; 40



d [mm]  
6; 8



C [daN]  
10; 15



T [°C]  
0° - 80°



AKR-00/01				
Typ	D	d	L max.	Tragzahl C [daN]
AKR-20x1,5.00.L	20	6	300	10
AKR-30x1,8.00.L	30	8	400	15
AKR-40x2,3.00.L	40	8	400	15
Weitere Varianten auf Anfrage!				

- ☛ Rohr: Kunststoff
- ☛ Kunststoffrollenlager KTR-00/01 mit Federachse



Karton [Stck.]

## Achslose Kunststoffrollen mit Federachse

## Sehr geehrter Kunde.

Können Sie in unserem reichhaltigen Angebot nicht das Passende finden oder benötigen eine Sonderausführung für einen speziellen Anwendungsfall?

Dann richten Sie Ihre individuelle Anfrage an uns. Um Ihnen ein optimal auf Ihre Befürfnisse abgestimmtes Angebot unterbreiten zu können, bitten wir Sie um die Beantwortung der folgenden Fragen:

per Fax: +49 2353 66985-98

per Mail: [info@markes.de](mailto:info@markes.de)

Bitte fügen Sie - sofern vorhanden - Ihrer Anfrage eine Zeichnung oder Skizze bei.

## Baugruppe Kugellager:

Produkt auf Kapitel/Seite: \_\_\_\_\_

Abweichende Abmessungen, Ausführung dazu:

\_\_\_\_\_

\_\_\_\_\_

Tragfähigkeit: \_\_\_\_\_

Drehzahl: \_\_\_\_\_

Weitere Anforderungen: \_\_\_\_\_

\_\_\_\_\_

Sind alternative Materialien zulässig?  ja  nein

Sind Varianten geplant?  ja  nein

## Allgemeines:

geplanter Jahresbedarf? \_\_\_\_\_

Abrufmengen? \_\_\_\_\_

O einmaliger Bedarf  O dauerhafter Bedarf

Verpackungsart? \_\_\_\_\_

Gebindegröße? \_\_\_\_\_

Sind kundenspezifische Prüfvorschriften zu beachten?

O ja  O nein

Falls ja, welche? \_\_\_\_\_

## Kunststoffbauteil:

Materialwunsch? \_\_\_\_\_

antistatische Ausrüstung erforderlich?  O ja  O nein

lebensmittelechte Ausrüstung erforderlich?  O ja  O nein

Farbwunsch? \_\_\_\_\_

Oberflächen? \_\_\_\_\_

optische Anforderungen? \_\_\_\_\_

weitere Anforderungen (Kundenlogo, etc.)? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Sind alternative Materialien zulässig?  O ja  O nein

Sind Varianten geplant?  O ja  O nein

## Metallbauteil:

Materialwunsch? \_\_\_\_\_

Oberflächen? \_\_\_\_\_

Vergütung? \_\_\_\_\_

Gratseite/Stanzrichtung? \_\_\_\_\_

Gratfreiheit erforderlich?  O ja  O nein

optische Anforderungen? \_\_\_\_\_

weitere Anforderungen (Kundenlogo, etc.)? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Sind alternative Materialien zulässig?  O ja  O nein

Sind Varianten geplant?  O ja  O nein

## Ansprechpartner für technische Rückfragen:

Firma: \_\_\_\_\_

Name: \_\_\_\_\_

Abteilung: \_\_\_\_\_

gewünschter Liefertermin: \_\_\_\_\_

Telefon: \_\_\_\_\_

Fax: \_\_\_\_\_

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