BEARINGS

TECHNO
TOTAL
SOLUTIONS S.R.L.

ISO 9001:2015
BUREAU VERITAS
Certification

TECHNICAL DATA SHEETS

TECHNO TOTAL SOLUTIONS S.R.L

COMPANY

Techno Total Solutions srl *(**TTS**) is in the position to **offer technical and commercial advices in all the fields** in which bearings are employed. All **TTS** employees have a strong and consolidated experience in bearings related areas. This is basically the reason why they have decided to put together their knowledge and abilities – to give life to a company finalized to deliver cylindrical and spherical roller bearings of various types and dimensions applicable to complex industrial production environments as an alternative to very big companies not often willing to take care of customer needs and satisfaction.*

THE GOALS

***TTS** is strongly committed to totally fulfil customers expectations, to assure quality products and to keep on schedule with lead times. The company is an example of the typical small/medium italian firm. And the dimension is perfect to guarantee the mentioned services to a wide range of customers.*
***Dynamism and technical flexibility** give a great contribution in business development with representative customer companies in the iron and steel sector. Moreover they provide **TTS** new opportunities to enter industrial sectors unknown before.*

THE OFFERING

*Planning, production, assembly, testing and marketing of specific products are leading activities at **TTS**. The products are realised and assembled either at **TTS** plant or at highly qualified companies selected by **TTS** itself depending on the peculiarity of the items and the business needs. **TTS** also believes in the need of prompt replies to customers' technical questions and issues. **TTS** technical designers work side by side with the customers' technical departments in order to get the best out of the projects. The team work leads, of course, to customer satisfaction, and it also guarantees a remarkable improvement in the company know-how and experience. Moreover, a good team work between the customers and **TTS** people means an increase in the machines performance, a reduction in the machines downtime and a better project management.*

THE STAFF

***The technical team** structure is made of young specialised people, whose know-how in new technologies is very high and older people, whose main task is to support the others with the great experience achieved in years and years of work in the bearings sector.*
***The team of testers** is well trained to verify the quality of the bearings during the manufacturing phase and when the finished good is ready for the market. It is always ready to give suggestions to the production sector in order to assure continuous improvements. Whenever necessary, the people in the team are also available for inspections at customers plants for specific requirements and improvements.*
***The sales team** consists of motivated people in the position to face challenges in different areas and applications. It is specialised in the iron and steel industry – the core business of the company.*

Certifications

Our Company is ISO 9001-2015 (Bureau Veritas) certified to design and manifacture bearings for the Steel Industry.

ISO 9001-2008 | *2011, March 22*
ISO 9001-2015 | *2017, June 28 - Revision 2023, March 21*

High quality standards and accuracy of our products are guaranteed by careful management and inspection either of the inbound flow of raw material and the end products deriving from the manufacturing process.

Thanks to our powerful ERP system, the scheduling and the management of the bill of material to manufacture an end product is continuously monitored to guarantee fast and reliable deliveries to our customers.

We do strongly believe in the continuous improvement of the process and, for that reason, our staff is constantly up to date with the Lean Six Sigma methodologies.

Our continuous improvement projects are managed by certified personnel:

Six Sigma® GREEN BELT | *2016*
Six Sigma® BLACK BELT | *2017*

Furthermore we are on the way to get the ISO 14001 certification.

COMPETENZA GB GREENBELT 6 sigma GALGANO & ASSOCIATI

COMPETENZA BB BLACKBELT 6 sigma GALGANO & ASSOCIATI

ISO 14001

TECHNO TOTAL SOLUTIONS S.R.L.

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T.T.S. is committed to providing technical and commercial consulting services in all the areas where bearings are used.

T.T.S. members, whose professional ranks are the outcome of many years of experience in the bearings industry, have decided to gather their own know-how to supply special and standard bearings to small and large steel plants as an alternative to big, not flexible and often not focused on the customer satisfaction companies.

T.T.S. business comprises the design, the production, the testing and the selling of all its products; highly qualified companies that have overcome

T.T.S. severe selections are in charge of specific manufactures related to the product.

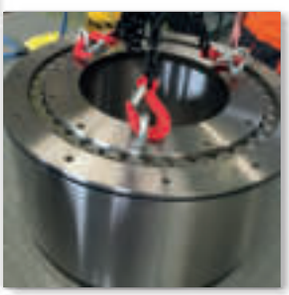
T.T.S. product range:
- Bearings and rollers for material handling and lifting Steel industry and metallurgy bearings
- Turbine bearings
- Bearings for painting lines
- Linear-motion and machine tool bearings
- TTS technical team can design bearings as per customer specific request

T.T.S. is a Six Sigma certified company
All its working environments have been organized applying the 5 s methodology.

T.T.S. is ISO 9001 certified
All the production phases are certified in accordance with the regulations in force and the respect of agreed deadlines is guaranteed.
Incoming/Outgoing goods control is a vital facet of ensuring product quality. TTS products are tested with qualified instrumentation in order to guarantee the repeatability and the conformity with the customer specifications.
The identification of the single components is also performed to guarantee the components traceability.
Specific testing certifications and quality certifications (as per customer request) can be provided together with the standard testing certifications.

BEARINGS FOR MATERIAL HANDLING SYSTEMS

Lifting systems undergo high static and dynamic loads, strokes and vibrations. **TTS** bearings are a warranty in terms of reliability and they do represent a great compromise between **quality and price**.

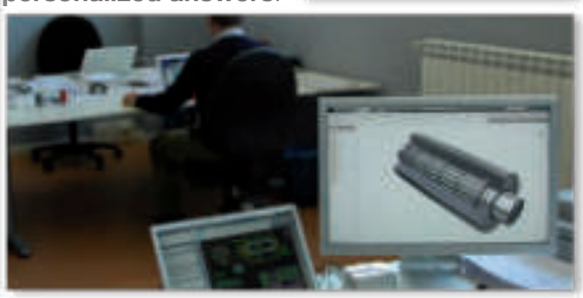


MACHINE TOOL BEARINGS

TTS helps you to improve **machine tools and spindles performances** with a wide range of solutions created to satisfy every application request and adjusted to the market needs, always maintaining **highprofessional and quality standards**.

BEARINGS FOR TENSION LEVELLERS

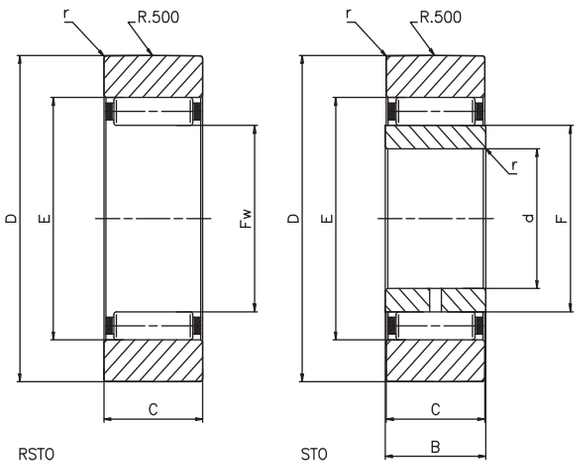
The easiest way to get high precision sheets, straps is the rollers leveller. **TTS offering fits any specific request with accurate personalized answers**.



STEEL INDUSTRY BEARINGS

Bearings undergo heavy loads, strokes and sudden changes in velocity. **TTS** makes huge designs efforts every day in order to improve the company know-how and supply long lasting bearings: maximizing performance and minimizing costs is our motto.

YOKE TYPE TRACK ROLLERS WITH SEPARABLE INNER RING
NEEDLE ROLLERS WITH CAGE



General specifications

Materials

Outer rings:
UNI 16CrNi4 steel case-hardened or equal
surface hardness 60±2 HRC
Inner rings:
UNI 100Cr6 steel hardened and tempered or equal
surface hardness 60±2 HRC
Cages:
In according to dimensions: polyamide reinforced with glass fibers, ribbon cage, massive steel cage "M" shaped.
Rolling elements:
UNI 100Cr6 steel hardened and tempered or equal
surface hardness 62±2 HRC

Tolerances:
In according to DIN 620

Dimensional and running accuracy:
In according to PN

Radial clearance:
Approximately CN, in according to DIN 620 - 4

Load ratings:
In according to ISO 76 e ISO 281

Code	Mass	Code	Mass	Dimensions							Load Ratings		Fatigue Limit load	Rotation Speed [4]
				d	D[2]	C	B	F/F_w [3]	E	r min.	C_{rW}	C_{0rW}	P_{urW}	
	g		g	mm	mm	mm	mm	mm	mm	mm	kN	kN	kN	
RSTO 05 TN[1]	8,5	**-**	-	-	**16**	7,8	-	7	10	0,3	2,55	2,55	0,31	16000
RSTO 06 TN	12,5	**STO 06 TN**	17	6	**19**	9,8	10	10	13	0,3	3,75	4,5	0,58	10000
RSTO 08 TN	21	**STO 08 TN**	26	8	**24**	9,8	10	12	15	0,3	4,2	5,5	0,7	8000
RSTO 10	42	**STO 10**	49	10	**30**	11,8	12	14	20	0,3	8,4	9,2	1,17	5500
RSTO 12	49	**STO 12**	57	12	**32**	11,8	12	16	22	0,3	8,9	10,1	1,28	4500
RSTO 15	50	**STO 15**	63	15	**35**	11,8	12	20	26	0,3	9,1	10,7	1,35	3300
RSTO 17	88	**STO 17**	107	17	**40**	15,8	16	22	29	0,3	14,3	17,7	2,19	2800
RSTO 20	130	**STO 20**	152	20	**47**	15,8	16	25	32	0,3	16,2	21,5	2,7	2400
RSTO 25	150	**STO 25**	177	25	**52**	15,8	16	30	37	0,3	16,5	22,9	2,85	1800
RSTO 30	255	**STO 30**	308	30	**62**	19,8	20	38	46	0,6	23,3	35	4	1300
RSTO 35	375	**STO 35**	441	35	**72**	19,8	20	42	50	0,6	25,5	40	4,55	1100
RSTO 40	420	**STO 40**	530	40	**80**	19,8	20	50	58	1	24	39	4,95	850
RSTO 45	453	**STO 45**	576	45	**85**	19,8	20	55	63	1	25,5	43	4,95	750
RSTO 50	481	**STO 50**	617	50	**90**	19,8	20	60	68	1	26	46,5	5,4	650

Standard outer crown R.500. Optimized TTS profile on request
To order bearing with cylindrical outer profile use /X sufix

1) TN= plastic cage (max. allowable operating temperature +120°C)
2) Tolerance of rounded outer diameter D= 0/-0,050
3) F= racewy diameter of inner ring/ F_w= rollers jacket diameter (toll. F6)
4) Max. operating speed with grease lubrication

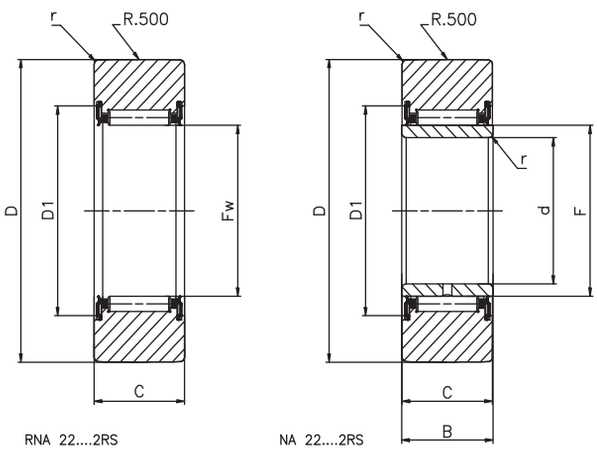
Some application fields:
- general handling

Alternative design:
- track rollers for low temperatures aplications and for high temperture apl.
- track rollers employed in corrosive environments
- **in according to customer drawing**

YOKE TYPE TRACK ROLLERS WITH SEPARABLE INNER RING .2RS
NEEDLE ROLLERS WITH CAGE

Sheet n°

2002



General specifications

Materials

Outer rings:
UNI 16CrNi4 steel case-hardened or equal
surface hardness 60±2 HRC
Inner rings:
UNI 100Cr6 steel hardened and tempered or equal
surface hardness 60±2 HRC
Cages:
In according to dimensions: polyamide reinforced with glass fibers, ribbon cage, massive steel cage "M" shaped.
Rolling elements:
UNI 100Cr6 steel hardened and tempered or equal
surface hardness 62±2 HRC

Tolerances:
In according to DIN 620

Dimensional and running accuracy:
In according to PN

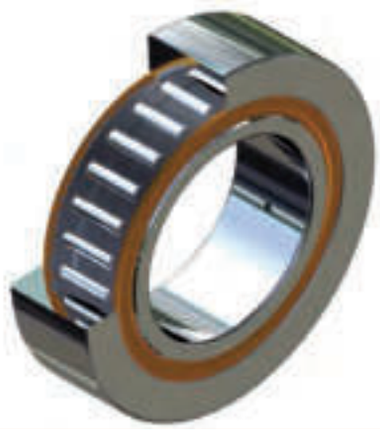
Radial clearance:
Approximately CN, in according to DIN 620 - 4

Load ratings:
In according to ISO 76 e ISO 281

Code	Mass	Code	Mass	Dimensions								Load Ratings		Fatigue Limit load	Rotation Speed [4]
				d	D[2]	C	B	F/F_w [3]	D_1	r min.	r_1 min.	C_{rW}	C_{0rW}	P_{urW}	
	g		g	mm	mm	mm	mm	mm	mm	mm	mm	kN	kN	kN	giri/min
RNA 22/6.2RS[1]	18	**NA 22/6.2RS**	22	6	**19**	11,8	12	10	16	0,3	0,3	3,9	3,65	0,41	9000
RNA 22/8.2RS	29	**NA 22/8.2RS**	34	8	**24**	11,8	12	12	18	0,3	0,3	4,8	4,8	0,54	7000
RNA 2200.2RS	52	**NA 2200.2RS**	60	10	**30**	13,8	14	14	20	0,6	0,3	7	8	0,96	5500
RNA 2201.2RS	57	**NA 2201.2RS**	67	12	**32**	13,8	14	16	22	0,6	0,3	7,5	9	1,08	4700
RNA 2202.2RS	60	**NA 2202.2RS**	75	15	**35**	13,8	14	20	26	0,6	0,3	7,6	9,5	1,15	3400
RNA 2203.2RS	94	**NA 2203.2RS**	112	17	**40**	15,8	16	22	28	1	0,3	9,9	13,7	1,62	3000
RNA 2204.2RS	152	**NA 2204.2RS**	177	20	**47**	17,8	18	25	33	1	0,3	15,2	18,3	2,3	2300
RNA 2205.2RS	179	**NA 2205.2RS**	209	25	**52**	17,8	18	30	38	1	0,3	15,7	20	2,5	1800
RNA 2206.2RS	284	**NA 2206.2RS**	324	30	**62**	19,8	20	35	43	1	0,3	18,4	25,5	3	1400
RNA 2207.2RS	432	**NA 2207.2RS**	505	35	**72**	22,7	23	42	50	1,1	0,6	23	35,5	4,35	1100
RNA 2208.2RS	530	**NA 2208.2RS**	628	40	**80**	22,7	23	48	57	1,1	0,6	27,5	40,5	4,6	850
RNA 2209.2RS	545	**NA 2209.2RS**	655	45	**85**	22,7	23	52	62	1,1	0,6	28,5	43	4,9	800
RNA 2210.2RS	563	**NA 2210.2RS**	690	50	**90**	22,7	23	58	68	1,1	0,6	28	42,5	4,8	650

Standard outer crow n R.500. Optimized TTS profile on request
To order bearing w ith cylindrical outer profile use /X sufix

1) ,2RS= sealed execution. Max. allow able operating temperature -30°C/+100°C (continuos use)
2) Tolerance of rounded outer diameter D= 0/-0,050
3) F= racew ay diameter of inner ring/ F_w= rollers jacket diameter (toll. F6)
4) Max. operating speed w ith grease lubrication



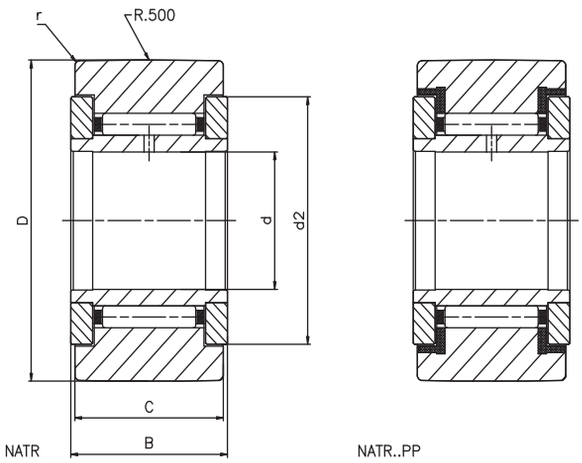
Some application fields:
- general handling

Alternative design:
- track rollers for low temperatures aplications and for high temperture apl.
- track rollers employed in corrosive environments
- **in according to customer drawing**

YOKE TYPE TRACK ROLLERS
NEEDLE ROLLERS WITH CAGE

Sheet n°

2003



General specifications

Materials
Outer rings:
UNI 16CrNi4 steel case-hardened or equal
surface hardness 60±2 HRC
Inner rings:
UNI 100Cr6 steel hardened and tempered or equal
surface hardness 60±2 HRC
Washers:
UNI 16CrNi4 steel case-hardened or equal
surface hardness 60±2 HRC
Cages:
In according to dimensions: polyamide reinforced with glass fibers, ribbon cage, massive steel cage "M" shaped.
Rolling elements:
UNI 100Cr6 steel hardened and tempered or equal
surface hardness 62±2 HRC

Tolerances:
In according to DIN 620

Dimensional and running accuracy:
In according to PN

Radial clearance:
Approx. C2, in according to DIN 620 - 4

Load ratings:
In according to ISO 76 e ISO 281

Code	Mass	Code	Mass	Dimensions						Load Ratings		Fatigue Limit load	Rotation Speed [4]
				d	D[2]	B[3]	C	d_2	r min.	C_{rW}	C_{0rW}	P_{urW}	
	g		g	mm	mm	mm	mm	mm	mm	kN	kN	kN	giri/min
NATR 05	14	**NATR 05 PP[1]**	14	5	**16**	12	11	12,5	0,15	3,15	3,3	0,41	14000
NATR 06	20	**NATR 06 PP**	19	6	**19**	12	11	15	0,15	3,5	3,9	0,49	11000
NATR 08	41	**NATR 08 PP**	38	8	**24**	15	14	19	0,3	5,5	6,4	0,81	7500
NATR 10	64	**NATR 10 PP**	61	10	**30**	15	14	23	0,6	6,8	8,4	1,07	5500
NATR 12	71	**NATR 12 PP**	66	12	**32**	15	14	25	0,6	6,9	8,8	1,11	4500
NATR 15	104	**NATR 15 PP**	95	15	**35**	19	18	27,6	0,6	9,7	14,1	1,68	3600
NATR 17	144	**NATR 17 PP**	139	17	**40**	21	20	31,5	1	10,9	15,5	1,83	2900
NATR 20	246	**NATR 20 PP**	236	20	**47**	25	24	36,5	1	15,5	25,5	3	2400
NATR 25	275	**NATR 25 PP**	271	25	**52**	25	24	41,5	1	15,4	26,5	3,05	1800
NATR 30	470	**NATR 30 PP**	444	30	**62**	29	28	51	1	23,6	38,5	4,55	1300
-		**- NATR 35 PP**	547	35	**72**	29	28	58	1,1	25,5	44,5	5,2	1000
-		**- NATR 40 PP**	795	40	**80**	32	30	66	1,1	33	59	6,9	850
-		**- NATR 50 PP**	867	50	**90**	32	30	76	1,1	32	59	6,9	650

Standard outer crown R.500. Optimized TTS profile on request
To order bearing with cylindrical outer profile use /X sufix

1) PP= sealed execution. Max. allowable operating temperature -30°C/+100°C (continuos use)
2) Tolerance of rounded outer diameter D= 0/-0,050
3) Width tolerance B= h12
4) Max. operating speed with grease lubrication

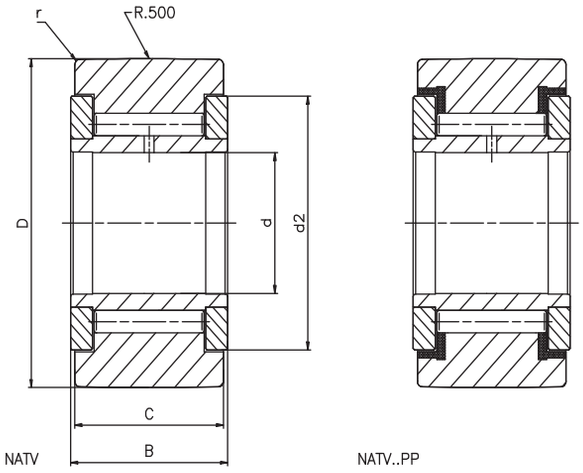
Some application fields:
- general handling

Alternative executions:
- track rollers for low temperatures aplications and for high temperture apl.
- track rollers employed in corrosive environments
- **in according to customer drawing**

YOKE TYPE TRACK ROLLERS
FULL COMPLEMENT OF NEEDLE ROLLERS

Sheet n°

2004



General specifications

Materials
Outer rings:
UNI 16CrNi4 steel case-hardened or equal
surface hardness 60±2 HRC
Inner rings:
UNI 100Cr6 steel hardened and tempered or equal
surface hardness 60±2 HRC
Washers:
UNI 16CrNi4 steel case-hardened or equal
surface hardness 60±2 HRC
Rolling elements:
UNI 100Cr6 steel hardened and tempered or equal
surface hardness 62±2 HRC

Tolerances:
In according to DIN 620

Dimensional and running accuracy:
In according to PN

Radial clearance:
Approximately C2, in according to DIN 620 - 4

Load ratings:
In according to ISO 76 e ISO 281

Code	Mass	Code	Mass	Dimensions					Load Ratings		Fatigue Limit load	Rotation Speed [4]
				d	D[2]	B[3]	C	d_2	r min.	C_{rw}	C_{orw}	P_{urw}	
	g		g	mm	mm	mm	mm	mm	mm	kN	kN	kN	Rpm
NATV 05	14	**NATV 05 PP[1]**	14	5	**16**	12	11	12,5	0,15	4,85	6,5	0,85	3800
NATV 06	20	**NATV 06 PP**	19	6	**19**	12	11	15	0,15	5,5	7,9	1,03	3100
NATV 08	41	**NATV 08 PP**	38	8	**24**	15	14	19	0,3	7,8	11,4	1,42	2500
NATV 10	64	**NATV 10 PP**	61	10	**30**	15	14	23	0,6	9,5	14,6	1,82	2100
NATV 12	71	**NATV 12 PP**	66	12	**32**	15	14	25	0,6	9,7	15,4	1,92	1800
NATV 15	104	**NATV 15 PP**	95	15	**35**	19	18	27,6	0,6	12,8	23	2,9	1600
NATV 17	144	**NATV 17 PP**	139	17	**40**	21	20	31,5	1	14,8	26,5	3	1400
NATV 20	246	**NATV 20 PP**	236	20	**47**	25	24	36,5	1	20,6	42	5,2	1300
NATV 25	275	**NATV 25 PP**	271	25	**52**	25	24	41,5	1	20,5	44	5,4	1000
NATV 30	470	**NATV 30 PP**	444	30	**62**	29	28	51	1	30,5	62	7,7	850
-		**- NATV 35 PP**	547	35	**72**	29	28	58	1,1	33	73	9	750
-		**- NATV 40 PP**	795	40	**80**	32	30	66	1,1	41	90	11,2	650
-		**- NATV 50 PP**	867	50	**90**	32	30	76	1,1	40,5	93	11,6	550

Standard outer crow n R.500. Optimized TTS profile on request
To order bearing w ith cylindrical outer profile use /X sufix

1) PP= sealed execution. Max. allow able operating temperature -30°C/+100°C (continuos use)
2) Tolerance of rounded outer diameter D= 0/-0,050
3) Width tolerance B= h12
4) Max. operating speed w ith grease lubrication

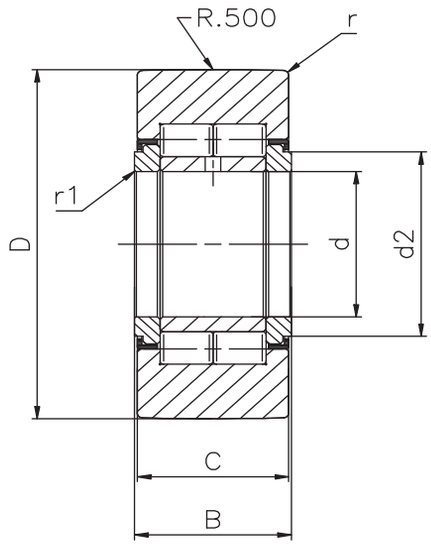
Some application fields:
- general handling

Alternative design:
- track rollers for low temperatures aplications and for high temperture apl.
- track rollers employed in corrosive environments
- **in according to customer drawing**

YOKE TYPE TRACK ROLLERS
FULL COMPLEMENT OF CYLINDRICAL ROLLERS

Sheet n°

2005



General specifications

Materials
Outer rings:
UNI 16CrNi4 steel case-hardened or equal
surface hardness 60±2 HRC
Inner rings:
UNI 100Cr6 steel hardened and tempered or equal
surface hardness 60±2 HRC
Washers:
UNI 16CrNi4 steel case-hardened or equal
surface hardness 60±2 HRC
Rolling elements:
UNI 100Cr6 steel hardened and tempered or equal
surface hardness 62±2 HRC

Tolerances:
In according to DIN 620

Dimensional and running accuracy:
In according to PN

Radial clearance:
Approximately C2, in according to DIN 620 - 4

Load ratings:
In according to ISO 76 e ISO 281

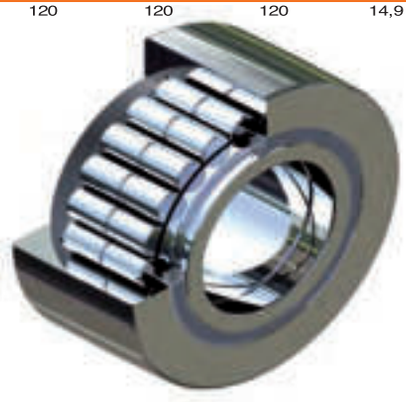
Code	Mass	Dimensions							Load ratings				Fatigue Limit load	Rotation Speed [3]
		d	D[1]	B[2]	C	d_2	r min.	r_1 min	C_{rW}	C_{orW}	$F_{r\ adm}$	$F_{0r\ adm}$	P_{urW}	
	g	mm	mm	mm	mm	mm	mm	mm	kN	kN	kN	kN	kN	Rpm
NUTR 15	99	15	**35**	19	18	20	0,6	0,3	15	16,8	8,6	16,8	2,22	6500
NUTR 17	147	17	**40**	21	20	22	1	0,5	18,4	22,6	13,1	22,6	2,9	5500
NUTR 15 42	158	15	**42**	19	18	20	0,6	0,3	18,1	21,9	21,9	21,9	2,9	6500
NUTR 17 47	220	17	**47**	21	20	22	1	0,5	21,3	28	28	28	3,6	5500
NUTR 20	245	20	**47**	25	24	27	1	0,5	28	35	16,4	33	4,4	4200
NUTR 20 52	321	20	**52**	25	24	27	1	0,5	31,5	41	38,5	41	5,2	4200
NUTR 25	281	25	**52**	25	24	31	1	0,5	29	37,5	17,3	34,5	4,7	4200
NUTR 25 62	450	25	**62**	25	24	31	1	0,5	35,5	50	50	50	6,3	4200
NUTR 30	465	30	**62**	29	28	38	1	0,5	40	50	23,5	46,5	6,3	2600
NUTR 30 72	697	30	**72**	29	28	38	1	0,5	47,5	64	64	64	8,1	2600
NUTR 35	630	35	**72**	29	28	44	1,1	0,6	44,5	60	32	60	7,6	2100
NUTR 35 80	836	35	**80**	29	28	44	1,1	0,6	51	72	72	72	9,1	2100
NUTR 40	816	40	**80**	32	30	50,5	1,1	0,6	55	75	30,5	60	9,4	1600
NUTR 45	883	45	**85**	32	30	55,2	1,1	0,6	56	78	31,5	61	9,7	1400
NUTR 40 90	1129	40	**90**	32	30	50,5	1,1	0,6	66	95	84	95	11,9	1600
NUTR 50	950	50	**90**	32	30	59,8	1,1	0,6	57	81	32	62	10,1	1300
NUTR 45 100	1396	45	**100**	32	30	55,2	1,1	0,6	71	107	106	107	13,3	1400
NUTR 50 110	1690	50	**110**	32	30	59,8	1,1	0,6	76	120	120	120	14,9	1300

Standard outer crown R.500. Optimized TTS profile on request
To order bearing with cylindrical outer profile use /X sufix

1) Tolerance of rounded outer diameter D= 0/-0,050
2) Width tolerance B= h12
3) Max. operating speed with grease lubrication

Some application fields:
- general handling

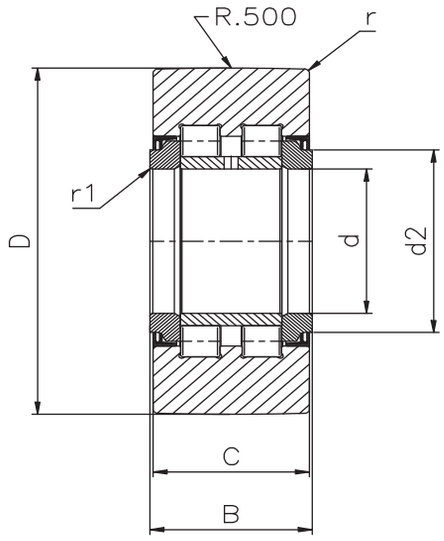
Alternative design:
- track rollers for low temperatures aplications and for high temperture apl.
- track rollers employed in corrosive environments
- **in according to customer drawing**



YOKE TYPE TRACK ROLLERS WITH AXIAL SHOULDER
FULL COMPLEMENT OF CYLINDRICAL ROLLERS

Sheet n°

2006



General specifications

Materials
Outer rings:
UNI 16CrNi4 steel case-hardened or equal
surface hardness 60±2 HRC
Inner rings:
UNI 100Cr6 steel hardened and tempered or equal
surface hardness 60±2 HRC
Washers:
UNI 16CrNi4 steel case-hardened or equal
surface hardness 60±2 HRC
Rolling elements:
UNI 100Cr6 steel hardened and tempered or equal
surface hardness 62±2 HRC

Tolerances:
In according to DIN 620

Dimensional and running accuracy:
In according to PN

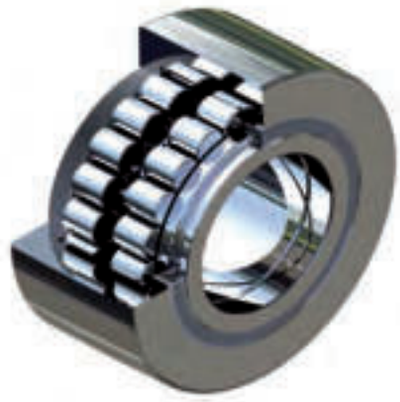
Radial clearance:
Approximately C2, in according to DIN 620 - 4

Load ratings:
In according to ISO 76 e ISO 281

Code	Mass	Dimensions							Load ratings				Fatigue Limit load	Rotation Speed [3]
		d	D[1]	B[2]	C	d_2	r min.	r_1 min	C_{rW}	C_{orW}	$F_{r\ adm}$	$F_{Or\ adm}$	P_{urW}	
	g	mm	**mm**	mm	mm	mm	mm	mm	kN	kN	kN	kN	kN	Rpm
PWTR 15.2RS	99	15	**35**	19	18	20	0,6	0,3	11,6	11,3	9,4	11,3	2,22	6000
PWTR 17.2RS	147	17	**40**	21	20	22	1	0,5	13,2	13,8	13,8	13,8	2,9	5000
PWTR 15 42.2RS	158	15	**42**	19	18	20	0,6	0,3	13,5	14,1	14,1	14,1	2,9	6000
PWTR 17 47.2RS	220	17	**47**	21	20	22	1	0,5	14,8	16,4	16,4	16,4	3,6	5000
PWTR 20.2RS	245	20	**47**	25	24	27	1	0,5	23,2	25,5	18,3	25,5	4,4	3800
PWTR 20 52.2RS	321	20	**52**	25	24	27	1	0,5	25,5	29,5	29,5	29,5	5,2	3800
PWTR 25.2RS	281	25	**52**	25	24	31	1	0,5	24,2	19,3	19,3	28	4,7	3800
PWTR 25 62.2RS	450	25	**62**	25	24	31	1	0,5	29	36	36	36	6,3	3800
PWTR 30.2RS	465	30	**62**	29	28	38	1	0,5	35	39,5	25,5	39,5	6,3	2200
PWTR 30 72.2RS	697	30	**72**	29	28	38	1	0,5	41	49	49	49	8,1	2200
PWTR 35.2RS	630	35	**72**	29	28	44	1,1	0,6	38,5	46,5	34,5	46,5	7,6	1800
PWTR 35 80.2RS	836	35	**80**	29	28	44	1,1	0,6	43,5	55	55	55	9,1	1800
PWTR 40.2RS	816	40	**80**	32	30	50,5	1,1	0,6	44,5	53	35	53	9,4	1500
PWTR 45.2RS	883	45	**85**	32	30	55,2	1,1	0,6	45	55	36	55	9,7	1300
PWTR 40 90.2RS	1129	40	**90**	32	30	50,5	1,1	0,6	52	66	66	66	11,9	1500
PWTR 50.2RS	950	50	**90**	32	30	59,8	1,1	0,6	45,5	57	37	57	10,1	1100
PWTR 45 100.2RS	1396	45	**100**	32	30	55,2	1,1	0,6	56	74	74	74	13,3	1300
PWTR 50 110.2RS	1690	50	**110**	32	30	59,8	1,1	0,6	59	82	82	82	14,9	1100

Standard outer crown R.500. Optimized TTS profile on request
To order bearing with cylindrical outer profile use /X sufix

1) Tolerance of rounded outer diameter D= 0/-0,050
2) Width tolerance B= h12
3) Max. operating speed with grease lubrication



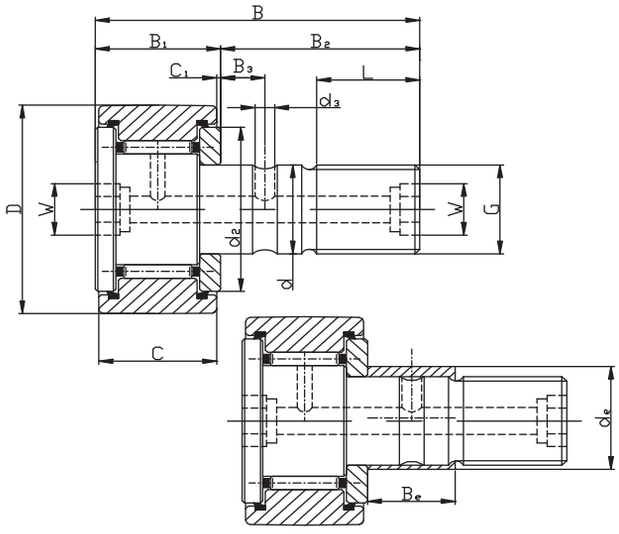
Some application fields:
- general handling

Alternative design:
- track rollers for low temperatures aplications and for high temperture apl.
- track rollers employed in corrosive environments
- **in according to customer drawing**

NEEDLE TRACK ROLLER – STUD TYPE – WITH CAGE, WITH OR WITHOUT AN ECCENTRIC AXLE BOX

Sheet n°

2007



General specifications

Materials
Outer rings:
UNI 16CrNi4 steel case-hardened or equal
surface hardness 60±2 HRC
Pins:
UNI 16CrNi4 steel case-hardened or equal
surface hardness 60±2 HRC (pin end excluded)
Washers:
UNI 16CrNi4 steel case-hardened or equal
surface hardness 60±2 HRC
Rolling elements:
UNI 100Cr6 steel hardened and tempered or equal
surface hardness 62±2 HRC

Tolerances:
In according to DIN 620

Dimensional and running accuracy:
In according to PN

Radial clearance:
Approximately C2, in according to DIN 620 - 4

Load ratings:
In according to ISO 76 e ISO 281

NUKRE

Code	Mass	Code	Mass	Dimensions																	Greaser	Tighten. Torque	Load ratings			Fatique Limit load
				$d^{1)}$	$D^{2)}$	$B^{4)}$	B_1max	B_2	B_3	C	C_1	r min.	d_2	d_3	G	L	W	$d_k^{3)}$	B_4	e		M_A	C_{0W}	C_{0W}	$F_{r\,adm\,adm}$	P_{urW}
	g			mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		Nm	kN	kN	kNkN	kN
KR 16	19			6	16	28	12,2	16	-	11	0,6	0,15	12,5	-	M6 (X1)	8	-	-	-	-	NIP A1	3	3,15	3,3		0,41
		KRE 16 PP	20	6	16	28	12,2	16	-	11	0,6	0,15	12,5	-	M6 (X1)	8	-	9	7	0,5	NIP A1	3	3,15	3,3		0,41
KR 19	29			8	19	32	12,2	20	-	11	0,6	0,15	15	-	M8 (X1,25)	10	-	-	-	-	NIP A1	8	3,5	3,9		0,49
		KRE 19 PP	32	8	19	32	12,2	20	-	11	0,6	0,15	15	-	M8 (X1,25)	10	-	11	9	0,5	NIP A1	8	3,5	3,9		0,49
KR 22	45			10	22	36	13,2	23	-	12	0,6	0,3	17,5	-	M10X1	12	5	-	-	-	NIPA1X4,5	15	4,45	5,2		0,65
		KRE 22 PP	47	10	22	36	13,2	23	-	12	0,6	0,3	17,5	-	M10X1	12	5	13	10	0,5	NIPA1X4,5	15	4,45	5,2		0,65
KR 26	59			10	26	36	13,2	23	-	12	0,6	0,3	17,5	-	M10X1	12	5	-	-	-	NIPA1X4,5	15	5,1	6,2		0,77
		KRE 26 PP	62	10	26	36	13,2	23	-	12	0,6	0,3	17,5	-	M10X1	12	5	13	10	0,5	NIPA1X4,5	15	5,1	6,2		0,77
KR 30	92			12	30	40	15,2	25	-	14	0,6	0,6	23	-	M12X1,5	13	6	-	-	-	NIPA1X4,5	22	6,8	8,4		1,07
		KRE 30 PP	93	12	30	40	15,2	25	-	14	0,6	0,6	23	-	M12X1,5	13	6	15	11	0,5	NIPA1X4,5	22	6,8	8,4		1,07
KR 32	103			12	32	40	15,2	25	-	14	0,6	0,6	23	-	M12X1,5	13	6	-	-	-	NIPA1X4,5	22	7,1	9		1,14
		KRE 32 PP	104	12	32	40	15,2	25	-	14	0,6	0,6	23	-	M12X1,5	13	6	15	11	0,5	NIPA1X4,5	22	7,1	9		1,14
KR35	173			16	35	52	19,6	32,5	8	18	0,8	0,6	27,6	3	M16X1,5	17	8	-	-	-	NIP A2X7,5	58	9,7	14,1		1,68
		KRE 35 PP	177	16	35	52	19,6	32,5	8	18	0,8	0,6	27,6	3	M16X1,5	17	8	20	14	1	NIP A2X7,5	58	9,7	14,1		1,68
KR 40	247			18	40	58	21,6	36,5	8	20	0,8	1	31,5	3	M18X1,5	19	8	-	-	-	NIP A2X7,5	87	10,9	15,5		1,83
		KRE 40 PP	255	18	40	58	21,6	36,5	8	20	0,8	1	31,5	3	M18X1,5	19	8	22	16	1	NIP A2X7,5	87	10,9	15,5		1,83
		KRE 47 PP	400	20	47	66	25,6	40,5	9	24	0,8	1	36,5	4	M20X1,5	21	10	24	18	1	NIP A2X7,5	120	15,5	25,5		3
		KRE 52 PP	473	20	52	66	25,6	40,5	9	24	0,8	1	36,5	4	M20X1,5	21	10	24	18	1	NIP A2X7,5	120	16,8	29		3,4
		KRE 62 PP	798	24	62	80	30,6	49,5	11	29	0,8	1	44	4	M24X1,5	25	14	28	22	1	NIP A3X9,5	220	26,5	47,5		6,1
		KRE 72 PP	1038	24	72	80	30,6	49,5	11	29	0,8	1,1	44	4	M24X1,5	25	14	28	22	1	NIP A3X9,5	220	28	53		6,7
		KRE 80 PP	1665	30	80	100	37	63	15	35	1	1,1	53	4	M30X1,5	32	14	35	29	1,5	NIP A3X9,5	450	39,5	77		9,7
		KRE 90 PP	2032	30	90	100	37	63	15	35	1	1,1	53	4	M30X1,5	32	14	35	29	1,5	NIP A3X9,5	450	41,5	83		10,5

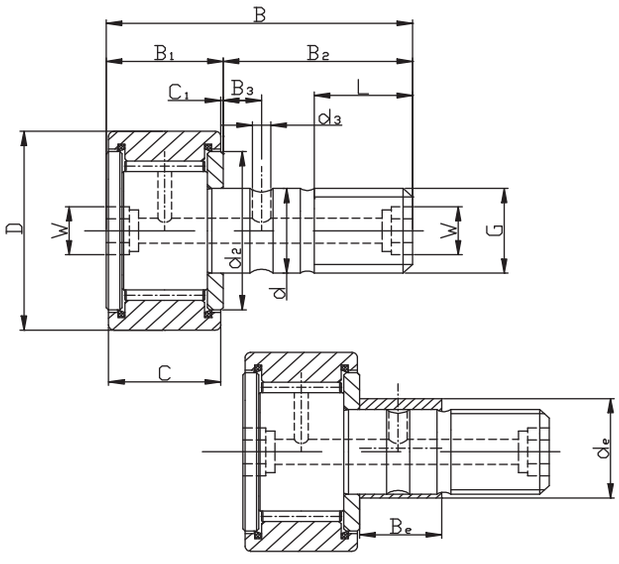
Standard outer crown R.500. Optimized TTS profile on request
To order bearing with cylindrical outer profile use /X sufix

1) Tolerance of pin diameter d= h7
2) Tolerance of rounde outer diameter D= 0/-0,050
3) Tolerance of pin length B= +0,600/-0,300
4) Tolerance of pin diameter de= h9
5) Max. operating speed with grease lubrication

Some application fields:
- general handling

Alternative design:
- track rollers for low temperatures aplications and for high temperture apl.
- track rollers employed in corrosive environments
- **in according to customer drawing**

FULL COMPLEMENT NEEDLE TRACK ROLLER – STUD TYPE – WITH OR WITHOUT AN ECCENTRIC AXLE BOX



NUKRE

General specifications

Materials
Outer rings:
UNI 16CrNi4 steel case-hardened or equal
surface hardness 60±2 HRC
Pins:
UNI 16CrNi4 steel case-hardened or equal
surface hardness 60±2 HRC (pin end excluded)
Washers:
UNI 16CrNi4 steel case-hardened or equal
surface hardness 60±2 HRC
Rolling elements:
UNI 100Cr6 steel hardened and tempered or equal
surface hardness 62±2 HRC

Tolerances:
In according to DIN 620

Dimensional and running accuracy:
In according to PN

Radial clearance:
Approximately C2, in according to DIN 620 - 4

Load ratings:
In according to ISO 76 e ISO 281

Code	Mass	Code	Mass	Dimensions																	Greaser Tighten. Torque	Load ratings		Fatique Limit load	Rotation Speed.[5]
				d[1]	D[2]	B[3]	B_1max	B_2	B_3	C	C_1	r min.	d_1	d_3	G	Lg	W	d_e[4]	B_e	e		M_A	C_{rW}	C_{orW}	P_{urW}	
	g			mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		Nm	kN	kN	kN	Rpm
KRV 16 PP	19			6	16	28	12,2	16	-	11	0,6	0,15	12,5	-	M6 (X1)	8	-	-	-	-	NIP A1	3	4,85	6,5	0,85	3800
		KRVE 16 PP	22	6	16	28	12,2	16	-	11	0,6	0,15	12,5	-	M6 (X1)	8	-	9	7	0,5	NIP A1	3	4,85	6,5	0,85	3800
KRV 19 PP	31			8	19	32	12,2	20	-	11	0,6	0,15	15	-	M8 (X1,25)	10	-	-	-	-	NIP A1	8	5,5	7,9	1,03	3100
		KRVE 19 PP	35,2	8	19	32	12,2	20	-	11	0,6	0,15	15	-	M8 (X1,25)	10		11	9	0,5	NIP A1	8	5,5	7,9	1,03	3100
KRV 22 PP	45			10	22	36	13,2	23	-	12	0,6	0,3	17,5	-	M10X1	12	SW5	-	-	-	NIP A1X4,5	15	6,3	9,1	1,09	2600
		KRVE 22 PP	49,3	10	22	36	13,2	23	-	12	0,6	0,3	17,5	-	M10X1	12	SW5	13	10	0,5	NIP A1X4,5	15	6,3	9,1	1,09	2600
KRV 26 PP	59			10	26	36	13,2	23	-	12	0,6	0,3	17,5	-	M10X1	12	SW5	-	-	-	NIP A1X4,5	15	7,3	11,3	1,36	2600
		KRVE 26 PP	65,3	10	26	36	13,2	23	-	12	0,6	0,3	17,5	-	M10X1	12	SW5	13	10	0,5	NIP A1X4,5	15	7,3	11,3	1,36	2600
KRV 30 PP	91			12	30	40	15,2	25	6	14	0,6	0,6	23	3	M12X1,5	13	Sw6	-	-	-	NIP A1X4,5	22	9,5	14,6	1,82	2100
		KRVE 30 PP	94,5	12	30	40	15,2	25	6	14	0,6	0,6	23	3	M12X1,5	13	Sw6	15	11	0,5	NIP A1X4,5	22	9,5	14,6	1,82	2100
KRV 32 PP	101			12	30	40	15,2	25	6	14	0,6	0,6	23	3	M12X1,5	13	Sw6	-	-	-	NIP A1X4,5	22	10	15,8	1,97	2100
		KRVE 32 PP	105,5	12	30	40	15,2	25	6	14	0,6	0,6	23	3	M12X1,5	13	Sw6	15	11	0,5	NIP A1X4,5	22	10	15,8	1,97	2100
KRV 35 PP	166			16	35	52	19,6	32,5	8	18	0,8	0,6	27,6	3	M16X1,5	17	Sw6	-	-	-	NIP A2X 7,5	58	12,8	23	2,9	1600
		KRVE 35 PP	176,5	16	35	52	19,6	32,5	8	18	0,8	0,6	27,6	3	M16X1,5	17	Sw6	20	14	1	NIP A2X 7,5	58	12,8	23	2,9	1600

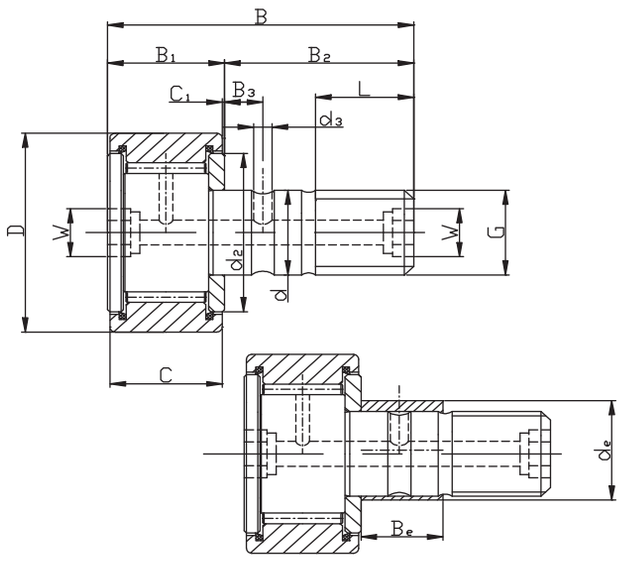
Standard outer crown R.500. Optimized TTS profile on request
To order bearing with cylindrical outer profile use /X sufix

1) Tolerance of pin diameter d= h7
2) Tolerance of rounde outer diameter D= 0/-0,050
3) Tolerance of pin length B= +0,600/-0,300
4) Tolerance of pin diameter de= h9
5) Max. operating speed with grease lubrication

Some application fields:
- general handling

Alternative design:
- track rollers for low temperatures aplications and for high temperture apl.
- track rollers employed in corrosive environments
- **in according to customer drawing**

FULL COMPLEMENT NEEDLE TRACK ROLLER – STUD TYPE – WITH OR WITHOUT AN ECCENTRIC AXLE BOX



NUKRE

General specifications

Materials
Outer rings:
UNI 16CrNi4 steel case-hardened or equal
surface hardness 60±2 HRC
Pins:
UNI 16CrNi4 steel case-hardened or equal
surface hardness 60±2 HRC (pin end excluded)
Washers:
UNI 16CrNi4 steel case-hardened or equal
surface hardness 60±2 HRC
Rolling elements:
UNI 100Cr6 steel hardened and tempered or equal
surface hardness 62±2 HRC

Tolerances:
In according to DIN 620

Dimensional and running accuracy:
In according to PN

Radial clearance:
Approximately C2, in according to DIN 620 - 4

Load ratings:
In according to ISO 76 e ISO 281

Code	Mass	Code	Mass	Dimensions																		Greases	Tighten. Torque	Load ratings		Fatique Limit load	Rotation Speed.[5]
				d[1]	D[2]	B[3]	B_1max	B_2	B_3	C	C_1	r min.	d_2	d_3	G	Lg	W	d_e[4]	B_e	e		M_t	C_{rN}	C_{orN}	P_{urN}	
	g			mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		Nm	kN	kN	kN	Rpm
KRV 40 PP	247			18	40	58	21,6	36,5	8	20	0,8	1	31,5	3	M18X1,5	19	8	-	-	-	NIP A2X7,5	87	14,8	26,5	3	1400
		KRVE 40 PP	257,8	18	40	58	21,6	36,5	8	20	0,8	1	31,5	3	M18X1,5	19	8	22	14	1	NIP A2X7,5	87	14,8	26,5	3	1400
KRV 47 PP	390			20	47	66	25,6	40,5	9	24	0,8	1	36,5	4	M20X1,5	21	10	-	-	-	NIP A2X7,5	120	20,6	42	5,2	1300
		KRVE 47 PP	399,5	20	47	66	25,6	40,5	9	24	0,8	1	36,5	4	M20X1,5	21	10	24	18	1	NIP A2X7,5	120	20,6	42	5,2	1300
KRV 52 PP	463			20	52	66	25,6	40,5	9	24	0,8	1	36,5	4	M20X1,5	21	10	-	-	-	NIP A2X7,5	120	22,5	48	5,9	1300
		KRVE 52 PP	469,5	20	52	66	25,6	40,5	9	24	0,8	1	36,5	4	M20X1,5	21	10	24	18	1	NIP A2X7,5	120	22,5	48	5,9	1300
KRV 62 PP	787			24	62	80	30,6	49,5	11	29	0,8	1	44	4	M24X1,5	25	14	-	-	-	NIP A3X9,5	220	34	76	9,9	1100
		KRVE 62 PP	823,5	24	62	80	30,6	49,5	11	29	0,8	1	44	4	M24X1,5	25	14	28	22	1	NIP A3X9,5	220	34	76	9,9	1100
KRV 72 PP	1027			24	72	80	30,6	49,5	11	29	0,8	1,1	44	4	M24X1,5	25	14	-	-	-	NIP A3X9,5	220	37	85	11,1	1100
		KRVE 72 PP	1038,2	24	72	80	30,6	49,5	11	29	0,8	1,1	44	4	M24X1,5	25	14	28	22	1	NIP A3X9,5	220	37	85	11,1	1100
KRV 80 PP	1636			30	80	100	37	63	15	35	1	1,1	53	4	M30X1,5	32	14	-	-	-	NIP A3X9,5	450	49,5	120	15,6	850
		KRVE 80 PP	1700	30	80	100	37	63	15	35	1	1,1	53	4	M30X1,5	32	14	35	29	1,5	NIP A3X9,5	450	49,5	120	15,6	850
KRV 90 PP	2003			30	90	100	37	63	15	35	1	1,1	53	4	M30X1,5	32	14	-	-	-	NIP A3X9,5	450	53	130	16,9	850
		KRVE 90 PP	2020	30	90	100	37	63	15	35	1	1,1	53	4	M30X1,5	32	14	35	29	1,5	NIP A3X9,5	450	53	130	16,9	850

Standard outer crown R.500. Optimized TTS profile on request
To order bearing with cylindrical outer profile use /X sufix

1) Tolerance of pin diameter d= h7
2) Tolerance of rounde outer diameter D= 0/-0,050
3) Tolerance of pin length B= +0,600/-0,300
4) Tolerance of pin diameter de= h9
5) Max. operating speed with grease lubrication

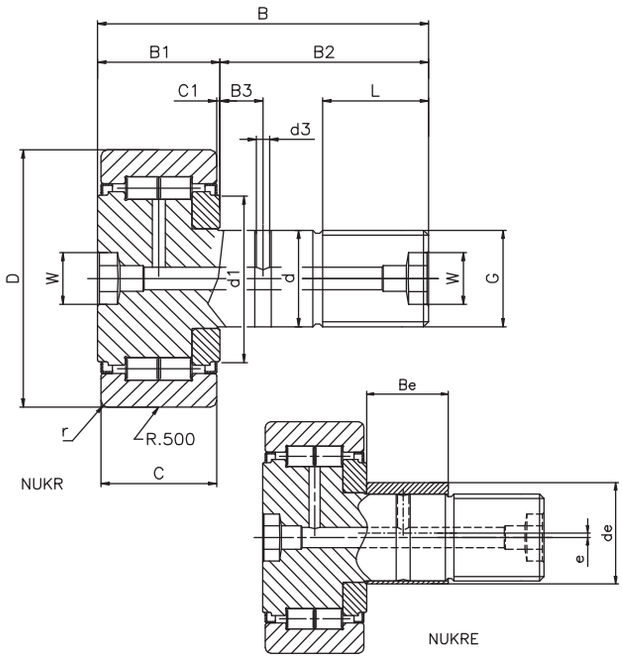
Some application fields:
- general handling

Alternative design:
- track rollers for low temperatures aplications and for high temperture apl.
- track rollers employed in corrosive environments
- **in according to customer drawing**

STUD TYPE TRACK ROLLERS
FULL COMPLEMENT OF CYLINDRICAL ROLLERS

Sheet n°

2010



General specifications

Materials
Outer rings:
UNI 16CrNi4 steel case-hardened or equal
surface hardness 60±2 HRC
Pins:
UNI 16CrNi4 steel case-hardened or equal
surface hardness 60±2 HRC (pin end excluded)
Washers:
UNI 16CrNi4 steel case-hardened or equal
surface hardness 60±2 HRC
Rolling elements:
UNI 100Cr6 steel hardened and tempered or equal
surface hardness 62±2 HRC

Tolerances:
In according to DIN 620

Dimensional and running accuracy:
In according to PN

Radial clearance:
Approximately C2, in according to DIN 620 - 4

Load ratings:
In according to ISO 76 e ISO 281

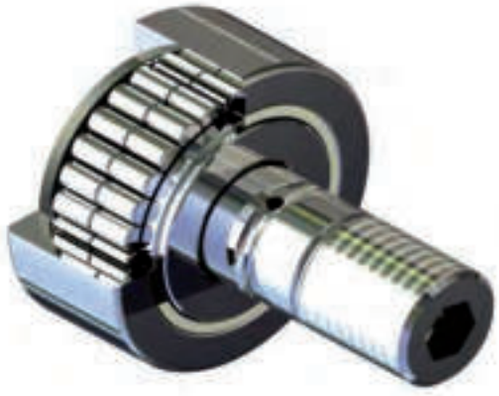
Code	Mass	Code	Mass	Dimensions																		Greaser	Tighten. Torque	Load ratings				Fatigue Limit load	Rotation Speed [5]
				$d^{1)}$	$D^{2)}$	$B^{3)}$	B_1max	B_2	B_3	C	C_1	r min.	D_1	d_3	G	L	W	$d_e^{4)}$	B_e	e		M_A	C_{rW}	C_{0rW}	$F_{r\,adm}$	$F_{0r\,adm}$	P_{crW}		
	g			mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		Nm	kN	kN	kN	kN	kN	kN	Rpm
NUKR 35	164			16	35	52	19,6	32,5	7,8	18	0,8	0,6	20	3	M16x1,5	17	SW 8	-	-	-	NIP A2	58	15	16,8	8,6	16,8	2,22	6500
		NUKRE 35	177	16	35	52	22,6	29,5	-	18	3,8	0,6	27,6	-	M16x1,5	17	SW 8	20	12	1	NIP A2	58	15	16,8	8,6	16,8	2,22	6500
NUKR 40	242			18	40	58	21,6	36,5	8	20	0,8	1	22	3	M18x1,5	19	SW 8	-	-	-	NIP A2	87	18,4	22,6	13,1	22,6	2,9	5500
		NUKRE 40	258	18	40	58	24,6	33,5	-	20	3,8	1	30	-	M18x1,5	19	SW 8	22	14	1	NIP A2	87	18,4	22,6	13,1	22,6	2,9	5500
NUKR 47	380			20	47	66	25,6	40,5	9	24	0,8	1	27	4	M20x1,5	21	SW 10	-	-	-	NIP A2	120	28	35	16,4	33	4,4	4200
		NUKRE 47	400	20	47	66	25,6	40,5	9	24	0,8	1	27	4	M20x1,5	21	SW 10	24	18	1	NIP A2	120	28	35	16,4	33	4,4	4200
NUKR 52	450			20	52	66	25,6	40,5	9	24	0,8	1	31	4	M20x1,5	21	SW 10	-	-	-	NIP A2	120	29	37,5	17,3	34,5	4,7	4200
		NUKRE 52	470	20	52	66	25,6	40,5	9	24	0,8	1	31	4	M20x1,5	21	SW 10	24	18	1	NIP A2	120	29	37,5	17,3	34,5	4,7	4200
NUKR 62	795			24	62	80	30,6	49,5	11	28	1,3	1	38	4	M24x1,5	25	SW 14	-	-	-	NIP A3	220	40	50	23,5	46,5	6,3	2600
		NUKRE 62	824	24	62	80	30,6	49,5	11	28	1,3	1	38	4	M24x1,5	25	SW 14	28	22	1	NIP A3	220	40	50	23,5	46,5	6,3	2600
NUKR 72	1020			24	72	80	30,6	49,5	11	28	1,3	1,1	44	4	M24x1,5	25	SW 14	-	-	-	NIP A3	220	44,5	60	32	60	7,6	2600
		NUKRE 72	1050	24	72	80	30,6	49,5	11	28	1,3	1,1	44	4	M24x1,5	25	SW 14	28	22	1	NIP A3	220	44,5	60	32	60	7,6	2600
NUKR 80	1600			30	80	100	37	63	15	35	1	1,1	47	4	M30x1,5	32	SW 14	-	-	-	NIP A3	450	69	98	47,5	96	12,1	1800
		NUKRE 80	1670	30	80	100	37	63	15	35	1	1,1	47	4	M30x1,5	32	SW 14	35	29	1,5	NIP A3	450	69	98	47,5	96	12,1	1800
NUKR 90	1900			30	90	100	37	63	15	35	1	1,1	47	4	M30x1,5	32	SW 14	-	-	-	NIP A3	450	79	117	77	117	14,4	1800
		NUKRE 90	2020	30	90	100	37	63	15	35	1	1,1	47	4	M30x1,5	32	SW 14	35	29	1,5	NIP A3	450	79	117	77	117	14,4	1800

Standard outer crown R.500. Optimized TTS profile on request
To order bearing with cylindrical outer profile use /X sufix

1) Tolerance of pin diameter d= h7
2) Tolerance of rounde outer diameter D= 0/-0,050
3) Tolerance of pin length B= +0,600/-0,300
4) Tolerance of pin diameter de= h9
5) Max. operating speed with grease lubrication

Some application fields:
- general handling

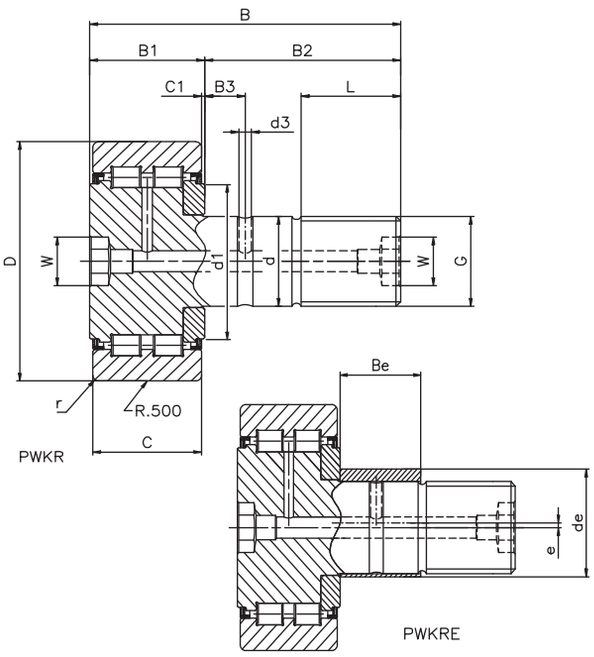
Alternative design:
- track rollers for low temperatures aplications and for high temperture apl.
- track rollers employed in corrosive environments
- **in according to customer drawing**



STUD TYPE TRACK ROLLERS WITH AXIAL SHOULDER
FULL COMPLEMENT OF CYLINDRICAL ROLLERS

Scheda n°

2011



General specifications

Materials
Outer rings:
UNI 16CrNi4 steel case-hardened or equal
surface hardness 60±2 HRC
Pins:
UNI 16CrNi4 steel case-hardened or equal
surface hardness 60±2 HRC (pin end excluded)
Washers:
UNI 16CrNi4 steel case-hardened or equal
surface hardness 60±2 HRC
Rolling elements:
UNI 100Cr6 steel hardened and tempered
surface hardness 62±2 HRC

Tolerances:
In according to DIN 620

Dimensional and running accuracy:
In according to PN

Radial clearance:
Approximately C2, in according to DIN 620 - 4

Load ratings:
In according to ISO 76 e ISO 281

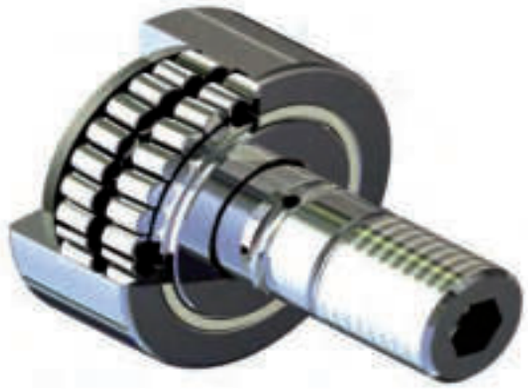
Code	Mass	Code	Mass	Dimensions																Greaser	Tighten. Torque	Load ratings				Fatigue Limit load	Rotation Speed [6]
				d^{2}	D[3]	B^{4}	B_1max	B_2	B_3	C	C_1	r min.	d_1	d_3	G	L	W	d_e[5]	B_e	e		M_A	C_{rW}	C_{orW}	$F_{r\,adm}$	$F_{Or\,adm}$	P_{urW}	
	g			mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm		Nm	kN	kN	kN	kN	kN	Rpm
PWKR 35.2RS[1]	164			16	35	52	19,6	32,5	7,8	18	0,8	0,6	20	3	M16x1,5	17	SW 8	-	-	-	NIP A2	58	11,6	11,3	9,4	11,3	1,78	6500
		PWKRE 35.2RS	177	16	35	52	22,6	29,5	-	18	3,8	0,6	27,6	-	M16x1,5	17	SW 8	20	12	1	NIP A2	58	11,6	11,3	9,4	11,3	1,78	6500
PWKR 40.2RS	242			18	40	58	21,6	36,5	8	20	0,8	1	22	3	M18x1,5	19	SW 8	-	-	-	NIP A2	87	13,2	13,8	13,8	13,8	2,2	5500
		PWKRE 40.2RS	258	18	40	58	24,6	33,5	-	20	3,8	1	30	-	M18x1,5	19	SW 8	22	14	1	NIP A2	87	13,2	13,8	13,8	13,8	2,2	5500
PWKR 47.2RS	380			20	47	66	25,6	40,5	9	24	0,8	1	27	4	M20x1,5	21	SW 10	-	-	-	NIP A2	120	23,2	25,5	18,3	25,5	3,6	4200
		PWKRE 47.2RS	400	20	47	66	25,6	40,5	9	24	0,8	1	27	4	M20x1,5	21	SW 10	24	18	1	NIP A2	120	23,2	25,5	18,3	25,5	3,6	4200
PWKR 52.2RS	450			20	52	66	25,6	40,5	9	24	0,8	1	31	4	M20x1,5	21	SW 10	-	-	-	NIP A2	120	24,2	28	19,3	28	3,9	4200
		PWKRE 52.2RS	470	20	52	66	25,6	40,5	9	24	0,8	1	31	4	M20x1,5	21	SW 10	24	18	1	NIP A2	120	24,2	28	19,3	28	3,9	4200
PWKR 62.2RS	795			24	62	80	30,6	49,5	11	28	1,3	1	38	4	M24x1,5	25	SW 14	-	-	-	NIP A3	220	35	39,5	25,5	39,5	5,4	2600
		PWKRE 62.2RS	824	24	62	80	30,6	49,5	11	28	1,3	1	38	4	M24x1,5	25	SW 14	28	22	1	NIP A3	220	35	39,5	25,5	39,5	5,4	2600
PWKR 72.2RS	1020			24	72	80	30,6	49,5	11	28	1,3	1,1	44	4	M24x1,5	25	SW 14	-	-	-	NIP A3	220	38,5	46,5	46,5	46,5	6,3	2600
		PWKRE 72.2RS	1050	24	72	80	30,6	49,5	11	28	1,3	1,1	44	4	M24x1,5	25	SW 14	28	22	1	NIP A3	220	38,5	46,5	46,5	46,5	6,3	2600
PWKR 80.2RS	1600			30	80	100	37	63	15	35	1	1,1	47	4	M30x1,5	32	SW 14	-	-	-	NIP A3	450	56	70	53	70	9,1	1800
		PWKRE 80.2RS	1670	30	80	100	37	63	15	35	1	1,1	47	4	M30x1,5	32	SW 14	35	29	1,5	NIP A3	450	56	70	53	70	9,1	1800
PWKR 90.2RS	1900			30	90	100	37	63	15	35	1	1,1	47	4	M30x1,5	32	SW 14	-	-	-	NIP A3	450	63	82	82	82	10,7	1800
		PWKRE 90.2RS	2020	30	90	100	37	63	15	35	1	1,1	47	4	M30x1,5	32	SW 14	35	29	1,5	NIP A3	450	63	82	82	82	10,7	1800

Standard outer crown R.500. Optimized TTS profile on request
To order bearing with cylindrical outer profile use /X sufix

1) .2RS= sealed execution. Max. allowable operating temperature -30°C/+100°C (continuos use)
2) Tolerance of pin diameter d= h7
3) Tolerance of rounded outer diameter D= 0/-0,050
4) Tolerance of pin length B= +0,600/-0,300
5) Tolerance of pin diameter de= h9

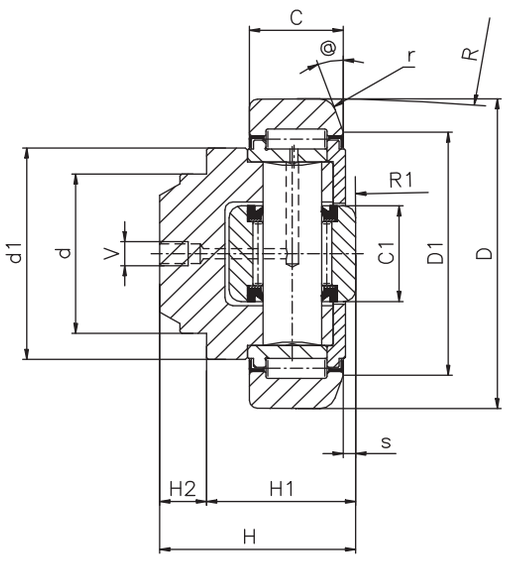
Some application fields:
- general handling

Alternative design:
- track rollers for low temperatures aplications and for high temperture apl.
- track rollers employed in corrosive environments
- **in according to customer drawing**



COMBINED BEARINGS FOR "C" STEEL SECTION

Sheet n°
3001



General specifications

Materials

Outer rings:
UNI 16CrNi4 steel case-hardened or equal
surface hardness 60±2 HRC
Inner rings:
UNI 100Cr6 steel hardened and tempered or equal
surface hardness 60±2 HRC
Rolling elements:
UNI 100Cr6 steel hardened and tempered or equal
surface hardness 62±2 HRC
Pin:
UNI Fe 510C steel annealed or equal to ensure an easy welding

Tolerances:
For info contact TTS technical department

Dimensional and running accuracy:
For info contact TTS technical department

Radial clearance:
For info contact TTS technical department

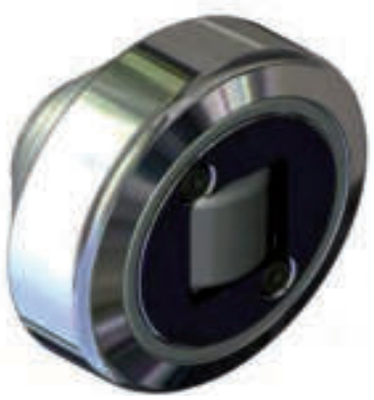
Load ratings:
In according to ISO 76 e ISO 281

Code	Dimensions															Load ratings				Speed	Mass	Section	Plate
	d	D	C	H	H_1	H_2	D_1	C_1	d_1	s	@	r	R	R_1	V	C	C_0	C_a	C_{0a}	Grease			
ZZ / 2RS	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	°	mm	mm	mm	mm	kN	kN	kN	kN	Rpm	kg		
OB 0706[1)]	30	52,5	19	33	27	6	43	16	40	3	10	3	500	500		26,5	46	6	6	800	0,39		POB 706
OB 0001[1,2)]	30	62	20	37,5	30,5	7	50	20	42	2,5	20	3	500	500		39	65	14	21	900	0,52	2890	POB 001
OB 0002	35	70,1	23	44	36	8	57	22	48	2,5	20	3	500	500	M6x1	56	93	17	25	900	0,78	2867	POB 002
OB 0003	40	77,7	23	48	36,5	11,5	61	24	54	3	20	3	700	700	M6x1	58	101,5	21	32	800	1,02	2810	POB 003
OB 0005	45	88,9	30	57	44	13	68	26	59	3,5	20	4	700	700	M6x1	84	133	28	43	700	1,61	2811	POB 005
OB 0007	60	107,7	31	69	55	14	82	34	71	4	20	4	1000	700	M6x1	94	162	46	84	650	2,69	2862	POB 007
OB 0009	60	123	37	72,3	56	16,3	92	40	80	5	20	4	1000	1000	M6x1	132	242	53	94	500	3,88	2891	POB 007
OB 0010	60	149	43	78,5	58,5	20	116	50	103	5	15	4	1000	1000	M6x1	179	353	83	131	400	6,65	2757	POB 010
OB 0191	60	149	45	86	67	19	120	50	107	5,5	15	4	1000	1000	1/8 Gas	179	353	83	131	400	7,15	2757	POB 010

1) Not relubricable bearing
2) Increased outer diameter (62,5 mm) on request

Some application fields:
- forklift (mast roller)
- general handling

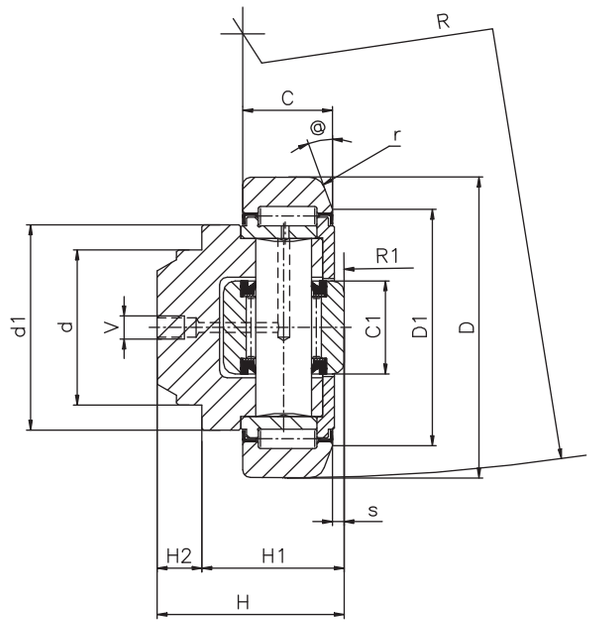
Alternative design:
- bearings for low temperatures aplications and for high temperture apl.
- bearings employed in corrosive environments
- **in according to customer drawing**



COMBINED BEARINGS FOR "I" STEEL SECTION
INCLINED SECTION

Sheet n°

3002



General specifications

Materials

Outer rings:
UNI 16CrNi4 steel case-hardened or equal
surface hardness 60±2 HRC
Inner rings:
UNI 100Cr6 steel hardened and tempered or equal
surface hardness 60±2 HRC
Rolling elements:
UNI 100Cr6 steel hardened and tempered or equal
surface hardness 62±2 HRC
Pin:
UNI Fe 510C steel annealed or equal to ensure an easy welding

Tolerances:
For info contact TTS technical department

Dimensional and running accuracy:
For info contact TTS technical department

Radial clearance:
For info contact TTS technical department

Load ratings:
In according to ISO 76 e ISO 281

Code	Dimensions															Load ratings				Speed	Mass	Section	Plate
	d	D	C	H	H_1	H_2	D_1	C_1	d_1	s	@	r	R	R_1	V	C	C_0	C_a	C_{0a}	Grease			
ZZ / 2RS	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	°	mm	mm	mm	mm	kN	kN	kN	kN	Rpm	kg		
OB 0031[1]	35	70,35	23	40,5	30,5	10	57	22	48	3	20	4	650	500		56	93	17	25	900	0,74	3018	POB 002
OB 0004	40	78,3	23	40,7	29	11,7	61	24	54	3	20	4	700	700	M6x1	58	101,5	21	32	800	0,88	3019	POB 003
OB 0034	45	89,25	30	50	37,5	12,5	68	26	59	3,5	20	4	850	700	M6x1	84	133	28	43	800	1,58	3020	POB 005
OB 0006	50	101,8	28	46	33	13	77	30	67	3	20	4	850	700	M6x1	91	153	32	50	700	1,72	2912	POB 006
OB 0008	55	108,55	31	53	38,5	14,5	82	34	71	4	20	4	1000	700	M6x1	94	162	39	66	700	2,22	3100	POB 008
OB 0040	60	123,5	33	57	42	15	94	33	78	3	15	4	1000	750	M6x1	134	211	39	57	500	3,2	3353	POB 007
OB 0016[2]	60	129,4	33	56,5	42,5	14	94	40	78	3	10	4	1000	750	M6x1	126	200	42	73	500	3,4	W.76.049.0 on demand	
OB 0011[2]	80	165	36	61	46	15	130	60	113	3	10	4	1000	1000	M6x1	173	306	58	111	400	6,3	W.81.023.2 on demand	

1) Not relubricable bearing
2) Non-tapered external profile

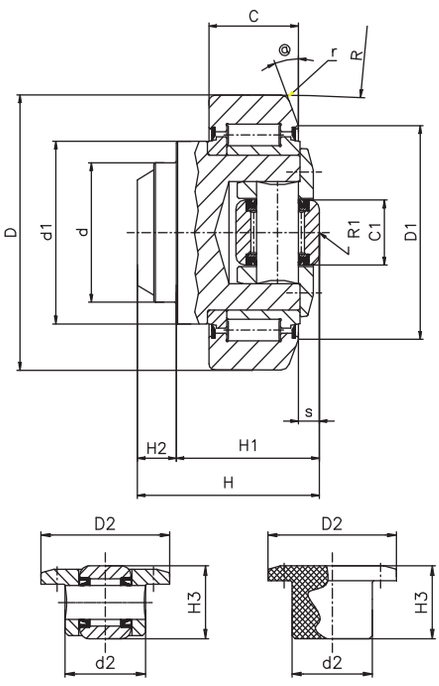
Some application fields:
- forklift (mast roller)
- general handling

Alternative executions:
- bearings for low temperatures aplications and for high temperture apl.
- bearings employed in corrosive environments
- **in according to customer drawing**

COMBINED BEARINGS FOR STEEL SECTION ADJUSTABLE WITH SUPPORT

Sheet n°

3003



General specifications

Materials

Outer rings:
UNI 16CrNi4 steel case-hardened or equal
surface hardness 60±2 HRC
Inner rings:
UNI 100Cr6 steel hardened and tempered or equal
surface hardness 60±2 HRC
Rolling elements:
UNI 100Cr6 steel hardened and tempered or equal
surface hardness 62±2 HRC
Pin:
UNI Fe 510C steel annealed or equal to ensure an easy welding
Axial support:
UNI 40NiCrMo4 steel hardened and tempered or equal
Sliding block:
Ertalon 6SA black/ Ertacetal H or equal

Tolerances:
For info contact TTS technical department

Dimensional and running accuracy:
For info contact TTS technical department

Radial clearance:
For info contact TTS technical department

Load ratings:
In according to ISO 76 e ISO 281

Code		Dimensions																	Load ratings				Speed	Mass	Section	Plate
		d	D	C	H	H_1	H_2	D_1	C_1	d_1	$s^{2)}$	@	r	R	R_1	D_2	d_2	H_3	C	C_0	C_a	C_{0a}	Grease			
2RS	Support	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	°	mm	mm	mm	mm	mm	mm	kN	kN	kN	kN	Rpm	kg		
OB 0146	OB 0146G2	30	62	20	43	33	10	50	16	42	5,5	20	3	500	500	40	25	22	39	65	10	14	900	0,6	2890	POB 001
OB 0147	OB 0146G2	35	70,1	23	48	40	8	57	16	48	6,5	20	4	500	500	40	25	22	56	93	10	14	900	0,9	2867	POB 002
OB 0148	OB 0148G2	40	77,7	23	50,5	39,5	11	61	21	54	7	20	4	700	700	52	33	28	58	101,5	14	22	800	1,05	2810	POB 003
OB 0149[1)]	OB 0148G2	40	78,3	23	45	34	11	61	21	54	7	20	4	850	700	52	33	28	58	101,5	14	22	800	0,95	3019	POB 003
OB 0150	OB 0148G2	45	88,9	30	61	48	13	69,5	21	59	7	20	3	850	700	52	33	28	84	133	14	22	700	1,7	2811	POB 005
OB 0151[1)]	OB 0151G2	50	101,9	28	50,5	37,5	13	77	21	67	7	20	3	850	700	52	33	28	91	153	18	22	700	1,85	2912	POB 006
OB 0142	OB 0142G2	60	107,7	31	69	55	14	82	33	71	8	20	4	1000	700	74	48	38	94	162	39	57	650	2,4	2862	POB 007
OB 0152[1)]	OB 0142G2	55	108,55	31	58,5	44,5	14	82	33	71	8	20	4	1000	700	74	48	38	94	162	39	57	650	2,8	3100	POB 008
OB 0153	OB 0142G2	60	123	37	75,8	59,5	16,3	92	33	78	8	20	4	1000	1000	74	48	38	132	242	39	57	500	4,1	2891	POB 007
OB 0154	OB 0154G2	60	149	43	89	69	20	116	50	103	15	15	4	1000	1000	105	72	55	179	353	83	131	400	6,8	2757	POB 010

To order bearing with plastic sliding block use /F sufix

1) Conical profile

2) Axial displacement can be made by means of packing rings, available dimensions 0,5 and 1 mm

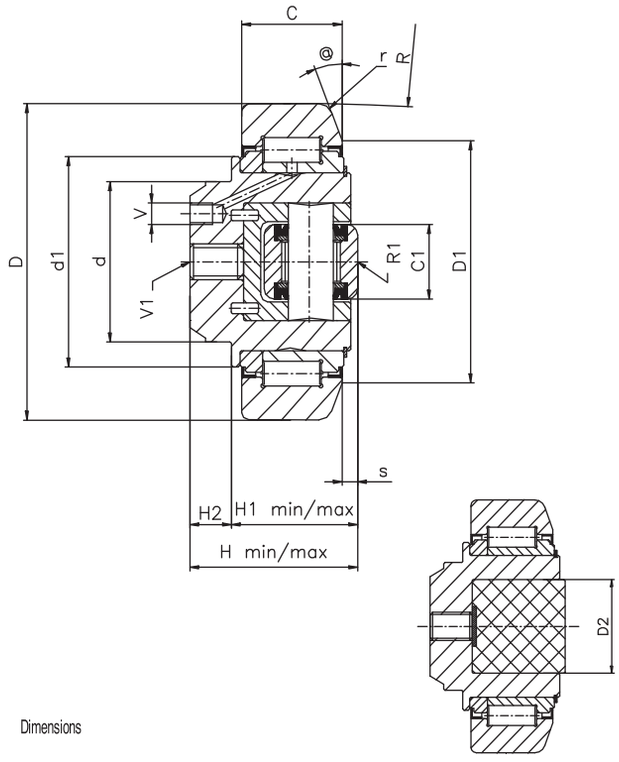
Some application fields:
- forklift (mast roller)
- general handling

Alternative design:
- bearings for low temperatures aplications and for high temperture apl.
- bearings employed in corrosive environments
- **in according to customer drawing**

COMBINED BEARINGS FOR STEEL SECTION ADJUSTABLE BY MEANS OF SCREW

Sheet n°

3004



General specifications

Materials

Outer rings:
UNI 16CrNi4 steel case-hardened or equal
surface hardness 60±2 HRC
Inner rings:
UNI 100Cr6 steel hardened and tempered or equal
surface hardness 60±2 HRC
Rolling elements:
UNI 100Cr6 steel hardened and tempered or equal
surface hardness 62±2 HRC
Pin:
UNI Fe 510C steel annealed or equal to ensure an easy welding
Sliding block:
Ertalon 6SA black/ Ertacetal H or equal

Tolerances:
For info contact TTS technical department

Dimensional and running accuracy:
For info contact TTS technical department

Radial clearance:
For info contact TTS technical department

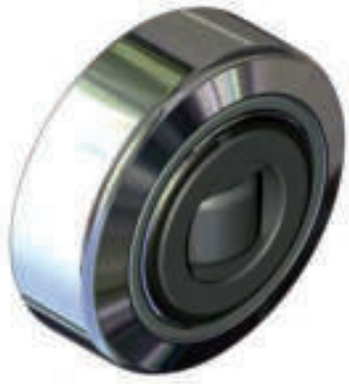
Load ratings:
In according to ISO 76 e ISO 281

Code	Dimensions																			Load ratings				Speed	Mass	Section	Plate
	d	D	C	H_{min}	H_{max}	H_{1min}	H_{1max}	H_2	D_1	C_1	D_2	d_1	@	r	R	R_1	s[4]	V	V_1	C	C_0	C_a	C_{0a}	Grease			
ZZ	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	°	mm	mm	mm	mm	mm	mm	kN	kN	kN	kN	Rpm	kg		
OB 0961[1,2]	30	62	20	37,5	39,5	30,5	32,5	7	50	-	26	42	20	3	500	500	3	-	M10	39	65	-	-	900	0,52	2890	POB 001
OB 0962[2]	35	70,1	23	38,5	40,5	31,5	33,5	7	57	-	30	48	20	3	500	500	3,5	M6x1	M10	56	93	-	-	900	0,6	2867	POB 002
OB 0963[3]	40	77,7	23	40,7	42,7	31,7	33,7	9	61	-	30	54	20	3	700	700	4,5	M6x1	M10	58	101,5	-	-	800	0,82	2810	POB 003
OB 0964[5]	45	88,9	30	48,5	51	36,5	39	12	68	21	33	59	20	4	700	700	4,5	M6x1	M10	84	133	15	22	700	1,43	2811	POB 005
OB 0965[3,5]	50	101,9	28	46	48,5	33	35,5	13	77	21	33	67	20	4	850	700	3	M6x1	M10	91	153	18	22	700	1,7	2912	POB 006
OB 0966[5]	55	107,7	31	53,5	56,5	41,5	44,5	12	82	30	42	71	20	4	1000	700	6,5	M6x1	M16	94	162	31	40	650	2,45	2862	POB 008
OB 0967[5]	60	123	33	61,5	64,5	49,5	52,5	12	94	30	42	78	15	4	1000	1000	7	M6x1	M16	132	242	31	40	500	3,5	2891	POB 007
OB 0968[5]	60	149	43	75,5	79	58,5	62	17	116	45	63	103	15	4	1000	1000	7,3	M6x1	M10	179	353	68	71	400	6,5	2757	POB 010

1) Not relubricable bearing
2) Bearing available with plastic sliding block only
3) Conical profile
4) Axial displacement can be made by means of screw UNI 5929 – DIN 9162
5) To order bearing with plastic sliding block use /F sufix

Some application fields:
- forklift (mast roller)
- general handling

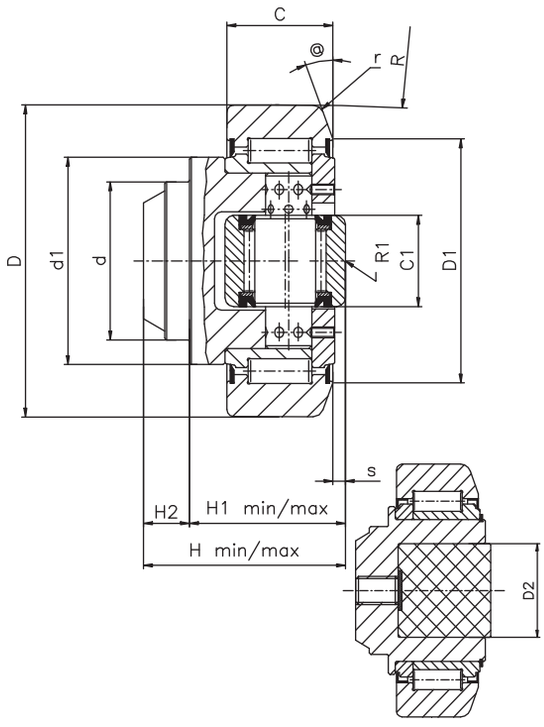
Alternative design:
- bearings for low temperatures aplications and for high temperture apl.
- bearings employed in corrosive environments
- **in according to customer drawing**



COMBINED BEARINGS FOR STEEL SECTION ADJUSTABLE FOR HIGH DIMENSION

Sheet n°

3006



General specifications

Materials

Outer rings:
UNI 18NiCrMo5 steel case-hardened or equal
surface hardness 60±2 HRC
Inner rings:
UNI 100Cr6 steel hardened and tempered or equal
surface hardness 60±2 HRC
Rolling elements:
UNI 100Cr6 steel hardened and tempered or equal
surface hardness 62±2 HRC
Eccentrical Pin:
UNI 100Cr6 steel case-hardened or equal
surface hardness 60±2 HRC
Pin:
UNI Fe 510C steel annealed or equal to ensure an easy welding

Tolerances:
For info contact TTS technical department

Dimensional and running accuracy:
For info contact TTS technical department

Radial clearance:
For info contact TTS technical department

Load ratings:
In according to ISO 76 e ISO 281

Codice	Dimensioni																	Coefficienti di carico				Velocità	Massa	Profilato
	d	D	C	H_{min}	H_{max}	H_{1min}	H_{1max}	H_2	D_1	C_1	d_1	s	@	r	R	R_1	C	C_0	C_a	C_{0a}	Grasso			
2RS	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	°	mm	mm	mm	kN	kN	kN	kN	giri/min	kg	
OB 0038A	80	165	40	69	72	53	56	16	130	50	113	8	15	3	1000	1000	190	336	68	71	120	9,2	10L
OB 0012A	100	190	48	84,5	87,5	64,5	67,5	20	160	60	124	6,5	15	4	1000	1500	257	441	99	165	100	10,6	16L
OB 0013A	110	220	58	94,5	97,5	74,5	77,5	20	190	75	146	6,5	15	4	1500	2000	325	681	152	295	90	17,3	18H
OB 0014A	120	250	60	102	105	77	80	25	220	75	168	7	15	4	1500	2000	354	794,5	152	295	70	23,9	28H
OB 0015A	150	280	72	119,5	123,5	89,5	93,5	30	250	90	188	7,5	15	4	2000	3000	496	1091	215	475	55	36	36H-42H

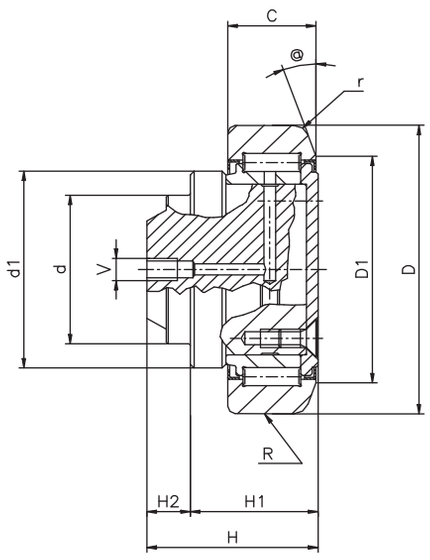
Some application fields:
- forklift (mast roller)
- general handling

Alternative design:
- bearings for low temperatures aplications and for high temperture apl.
- bearings employed in corrosive environments
- **in according to customer drawing**

STUD TYPE TRACK ROLLERS FOR STEEL SECTION

Sheet n°

3007



General specifications

Materials

Outer rings:
UNI 16CrNi4 steel case-hardened or equal
surface hardness 60±2 HRC
Inner rings:
UNI 100Cr6 steel hardened and tempered or equal
surface hardness 60±2 HRC
Rolling elements:
UNI 100Cr6 steel hardened and tempered or equal
surface hardness 62±2 HRC
Pin:
UNI Fe 510C steel annealed or equal to ensure an easy welding

Tolerances:
For info contact TTS technical department

Dimensional and running accuracy:
For info contact TTS technical department

Radial clearance:
For info contact TTS technical department

Load ratings:
In according to ISO 76 e ISO 281

Code	Dimensions												Load ratings		Speed	Mass	Section	Plate
	d	D	C	H	H_1	H_2	D_1	d_1	@	r	R	V	C	C_0	Grease			
ZZ / 2RS	mm	mm	mm	mm	mm	mm	mm	mm	°	mm	mm	mm	kN	kN	Rpm	kg		
OB 0111	30	62	20	36,5	29,5	7	50	42	20	3	500	M6x1	39	65	900	0,6	2890	POB 001
OB 0112	35	70,1	23	42	34	8	57	48	20	3	500	M6x1	56	93	900	0,8	2867	POB 002
OB 0113	40	77,7	23	44,5	33,5	11,5	61	53	20	3	700	M6x1	58	101,5	800	1,1	2810	POB 003
OB 0115	45	88,9	30	54	41	13	68	59	20	4	700	M6x1	84	133	700	1,7	2811	POB 005
OB 0117	60	107,7	31	65,5	51,5	14	82	71	20	4	1000	M6x1	94	162	650	2,7	2862	POB 007
OB 0119	60	123	37	67,8	51,5	16,3	92	80	20	4	1000	M6x1	132	242	500	3,9	2891	POB 007
OB 0120	60	149	43	74	54	20	116	103	15	4	1000	M6x1	179	353	400	6,5	2757	POB 010

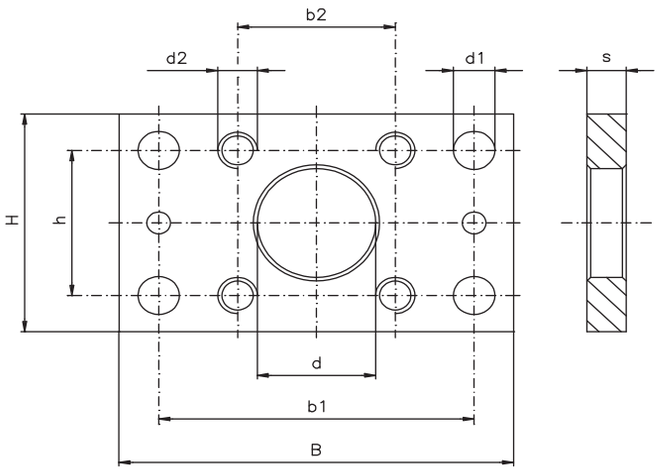
Some application fields:
- forklift (mast roller)
- general handling

Alternative design:
- bearings for low temperatures aplications and for high temperture apl.
- bearings employed in corrosive environments
- **in according to customer drawing**

FIXING PLATE

Sheet n°

3008



General specifications

Materials
UNI Fe 510C steel annealed or equal to ensure an easy welding

Tolerances:
In according to UNI-ISO 2768-cL

Code Dimensions

	d	B	H	s	d_1	d_2	b_1	b_2	h
	mm	mm	mm	mm	mm	mm	mm	mm	mm
POB 706	**30**	90	50	10	8,5	M8	70	40	30
POB 001	**30**	100	60	10	10,5	M10	80	40	40
POB 002	**35**	120	80	15	12,5	M12	90	50	50
POB 003	**40**	120	80	15	12,5	M12	90	50	50
POB 005	**45**	120	120	20	-	M16	-	90	90
POB 006	**50**	120	120	20	-	M16	-	90	90
POB 007	**60**	180	120	20	17	M16	140	80	80
POB 008	**55**	180	120	20	17	M16	140	80	80
POB 010	**60**	200	150	20	17	M16	160	100	100

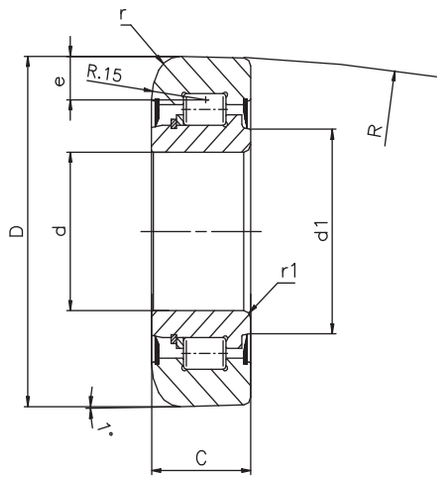
Some application fields:
- forklift (mast roller)
- general handling

Alternative design:
- in according to customer drawing

RADIAL CYLINDRICAL ROLLERS BEARINGS FOR STEEL SECTION FOR INCLINED MOUNTING

Sheet n°

3009



General specifications

Materials

Outer rings:
UNI 16CrNi4 steel case-hardened or equal
surface hardness 60±2 HRC
Inner rings:
UNI 100Cr6 steel hardened and tempered or equal
surface hardness 60±2 HRC
Rolling elements:
UNI 100Cr6 steel hardened and tempered or equal
surface hardness 62±2 HRC

Tolerances:
For info contact TTS technical department

Dimensional and running accuracy:
For info contact TTS technical department

Radial clearance:
For info contact TTS technical department

Load ratings:
In according to ISO 76 e ISO 281

Code	Dimensions							Load ratings			Speed	Section
	d	D	C	e	d_1	r	r_1	R	C	C_0	Grease	
2RS	mm	mm	mm	mm	mm	mm	mm	mm	kN	kN	Rpm	
OB 1624	30	70	22	8,5	41	6	1	250	41	51	900	3018
OB 1625	35	78	22	8,5	47	6	1	250	44	60	800	3019
OB 1626	40	88,5	28	11	51	7	2	500	63	90	700	3020
OB 1627	50	101,8	24	11	66	7	2	500	70	100	700	2912
OB 1628	50	107,8	28	11	66	7	2	1000	87	120	650	3100
OB 1629	50	123	38	11	66	7	2	1000	145	265	600	2891

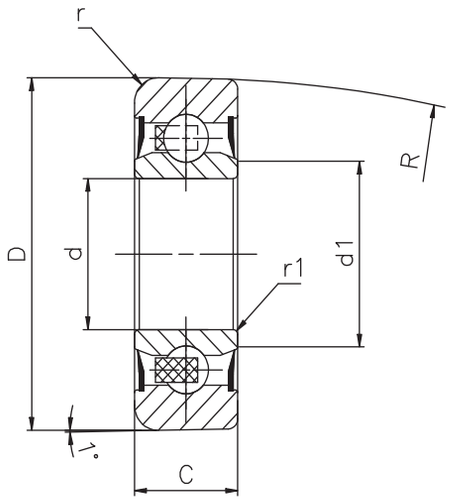
Some application fields:
- forklift (mast roller)
- general handling

Alternative design:
- bearings for low temperatures aplications and for high temperture apl.
- bearings employed in corrosive environments
- **in according to customer drawing**

RADIAL BALL BEARINGS FOR STEEL SECTION FOR INCLINED MOUNTING

Sheet n°

3010



General specifications

Materials

Outer rings:
UNI 16CrNi4 steel case-hardened or equal
surface hardness 60±2 HRC
Inner rings:
UNI 100Cr6 steel hardened and tempered or equal
surface hardness 60±2 HRC
Rolling elements:
UNI 100Cr6 steel hardened and tempered or equal
surface hardness 62±2 HRC

Tolerances:
For info contact TTS technical department

Dimensional and running accuracy:
For info contact TTS technical department

Radial clearance:
For info contact TTS technical department

Load ratings:
In according to ISO 76 e ISO 281

Code	Dimensions							Load ratings		Speed	Section
	d	D	C	d_1	r	r_1	R	C	C_0	Grease	
2RS	mm	mm	mm	mm	mm	mm	mm	kN	kN	Rpm	
OB 0433	30	70	22	40	5	1	500	19,6	13,7	1850	3018
OB 0434	30	70,8	22	40	5	1	500	19,6	13,7	1850	3018
OB 0435	30	78	22	40	5	1	500	19,6	13,7	1850	3019
OB 0436	30	79	22	40	5	1	500	19,6	13,7	1850	3019

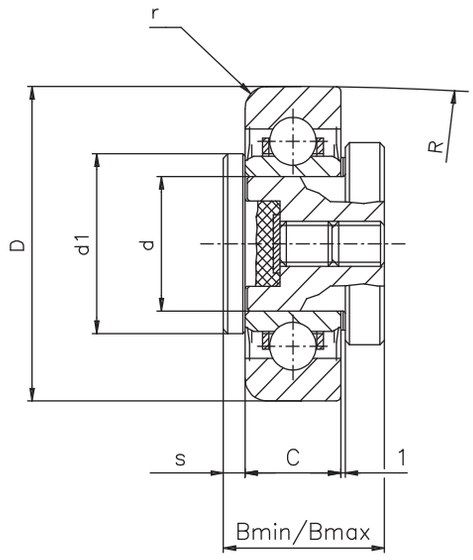
Some application fields:
- forklift (mast roller)
- general handling

Alternative design:
- bearings for low temperatures aplications and for high temperture apl.
- bearings employed in corrosive environments
- **in according to customer drawing**

RADIAL BALL BEARINGS FOR STEEL SECTION FOR MOUNTING WITH SLIDING BLOCK

Sheet n°

3011



General specifications

Materials

Outer rings:
UNI 16CrNi4 steel case-hardened or equal
surface hardness 60±2 HRC
Inner rings:
UNI 100Cr6 steel hardened and tempered or equal
surface hardness 60±2 HRC
Rolling elements:
UNI 100Cr6 steel hardened and tempered or equal
surface hardness 62±2 HRC
Sliding block:
Ertalon 6SA black/ Ertacetal H or equal
Pin:
UNI Fe 510C steel annealed or equal to ensure an easy welding

Tolerances:
In according to DIN 620

Dimensional and running accuracy:
In according to PN

Radial clearance:
C0, in according to DIN 620

Load ratings:
In according to ISO 76 e ISO 281

Bearing	Unit	Dimensions									Load ratings		Section
		d	D	C	d_1	B_{min}	B_{max}	r	s	R	C	C_0	
		mm	mm	mm	mm	mm	mm	mm	mm	mm	kN	kN	
OBS 0900	OBSG 0900	25	62	20	32	31	33	2	5	300	14,3	8	2890
OBS 0948	OBSG 0948	25	62,4	20	32	31	33	2	5	300	14,3	8	2890
OBS 0901	OBSG 0901	30	70	22	40	36	38	5	5	500	19,6	13,7	2867
OBS 0902	OBSG 0902	30	70,8	22	40	36	38	5	5	500	19,6	13,7	2867
OBS 0907	OBSG 0907	30	78	22	40	36	38	5	5	500	19,6	13,7	2810

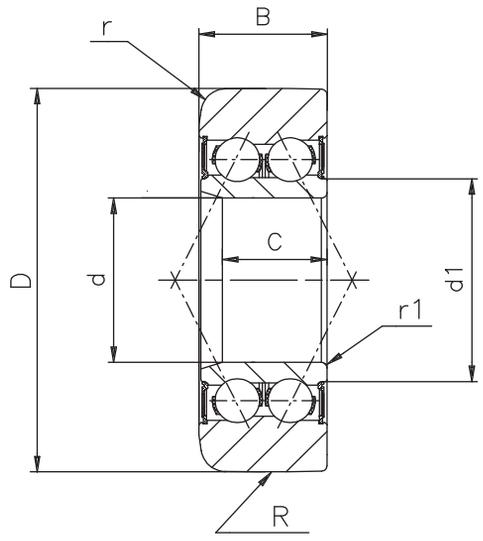
Some application fields:
- forklift (mast roller)
- general handling

Alternative design:
- bearings for low temperatures aplications and for high temperture apl.
- bearings employed in corrosive environments
- **in according to customer drawing**

RADIAL 2 ROWS BALL BEARINGS FOR STEEL SECTION FOR INCLINED MOUNTING

Sheet n°

3012



General specifications

Materials

Outer rings:
UNI 16CrNi4 steel case-hardened or equal
surface hardness 60±2 HRC
Inner rings:
UNI 100Cr6 steel hardened and tempered or equal
surface hardness 60±2 HRC
Rolling elements:
UNI 100Cr6 steel hardened and tempered or equal
surface hardness 62±2 HRC

Tolerances:
For info contact TTS technical department

Dimensional and running accuracy:
For info contact TTS technical department

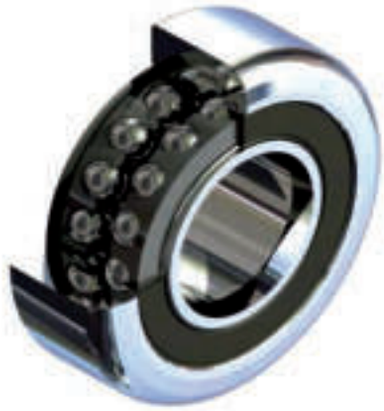
Radial clearance:
For info contact TTS technical department

Load ratings:
In according to ISO 76 e ISO 281

Code	Dimensions								Load ratings				Speed	Section
	d	D	B	C	d_1	r	r_1	R	C	C_0	C_w	C_{ow}	Grease	
2RS	mm	mm	mm	mm	mm	mm	mm	mm	kN	kN	kN	kN	Rpm	
OBS 1202	30	70,2	23	19,2	38	5	1	500	30	21	25	18	7000	3018
OBS 1204	30	77,7	23	19,2	38	5	1	500	30	21	25	18	7000	3019
OBS 1219	40	88,8	29	23,2	50	6	1	500	48	36	35	25	5000	3020

Some application fields:
- forklift (mast roller)
- general handling

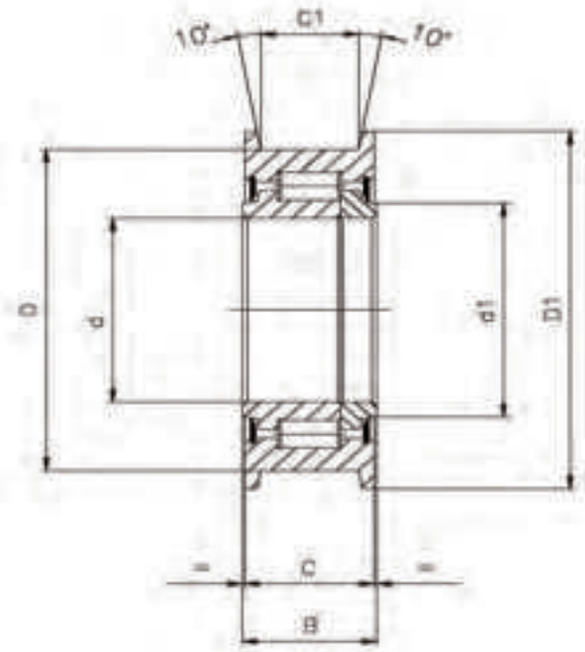
Alternative design:
- bearings for low temperatures aplications and for high temperture apl.
- bearings employed in corrosive environments
- **in according to customer drawing**



CHAIN PULLEY WITH CYLINDRICAL ROLLERS
LIGHT APPLICATION

Sheet n°

3016



General specifications

Materials

Outer rings:
UNI 16CrNi4 steel case-hardened or eqaul
surface hardness 60±2 HRC
Inner rings:
UNI 100Cr6 steel hardened and tempered or equal
surface hardness 60±2 HRC
Rolling elements:
UNI 100Cr6 steel hardened and tempered or equal
surface hardness 62±2 HRC

Tolerances:
For info contact TTS technical department

Dimensional and running accuracy:
For info contact TTS technical department

Radial clearance:
For info contact TTS technical department

Load ratings:
In according to ISO 76 e ISO 281

Code	Dimensions							Load ratings		Mass	Chain		
	d	D	B	C	C_1	D_1	d_1	C	C_0				
2RS	mm	mm	mm	mm	mm	mm	mm	kN	kN	kg			
OB 0051	40	70	26,5	25	19	78	46,5	51	74	0,5	BL 534	AL 544	LL 1044
OB 0052	40	80	28	26	19	90	46,5	62	88	0,75	BL 534	AL 544	LL 1244
OB 0053	40	85	38	36	28	99	51	86	125	1,2	BL 634	AL 644	LL 1266
OB 0054	40	80	43	41	33	98	50	96	139,5	1,2	BL 634	AL 666	LL 1288
OB 0055	50	100	42	40	33	115	60	117	192	1,7	BL 834	AL 844	LL 1644
OB 0056	55	110	58	56	45	135	70	146	241	1,7	BL 846	AL 866	LL 1666
OB 0057	55	130	67	65	55	158	73,5	253,5	397,5	3,5	BL 1046	AL 1066	LL 2066

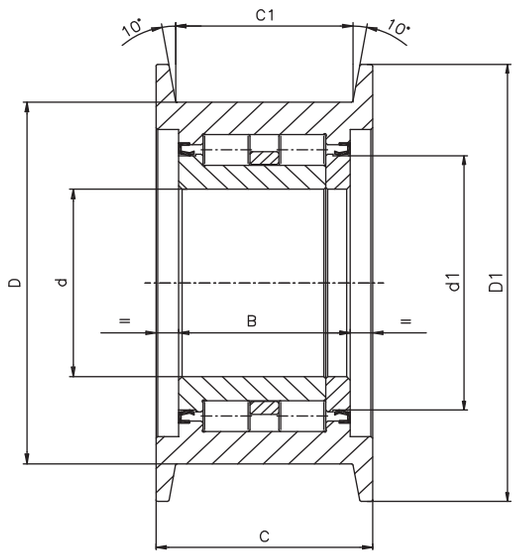
Some application fields:
- forklift
- machinery for lifting

Alternative design:
- pulleys for low temperatures aplications and for high temperture apl.
- pulleys employed in corrosive environments
- **in according to customer drawing**

CHAIN PULLEYS WITH CYLINDRICAL ROLLERS
HEAVY APPLICATION

Sheet n°

3017



General specifications

Materials

Outer rings:
UNI 16CrNi4 steel case-hardened or equal
surface hardness 60±2 HRC
Inner rings:
UNI 100Cr6 steel hardened and tempered or equal
surface hardness 60±2 HRC
Rolling elements:
UNI 100Cr6 steel hardened and tempered or equal
surface hardness 62±2 HRC

Tolerances:
For info contact TTS technical department

Dimensional and running accuracy:
For info contact TTS technical department

Radial clearance:
For info contact TTS technical department

Load ratings:
In according to ISO 76 e ISO 281

Code	Dimensions							Load ratings		Mass	Chain		
	d	D	B	C	C_1	D_1	d_1	C	C_0				
2RS	mm	mm	mm	mm	mm	mm	mm	kN	kN	kg			
OB 0060	80	157	68	88	72	187	100	336	570	4,5	BL 1246	AL 1266	LL 2466
OB 0061	100	184	85	106	88	218	125	381	694	16,3	BL 1466	AL 1466	LL 2866
OB 0062	110	212	95	120	98	256	155	528	985,5	23,6	BL 1666	AL 1666	LL 3266
OB 0063	110	212	125	150	128	256	150	720	1636	29	BL 1688	AL 1688	LL 3288

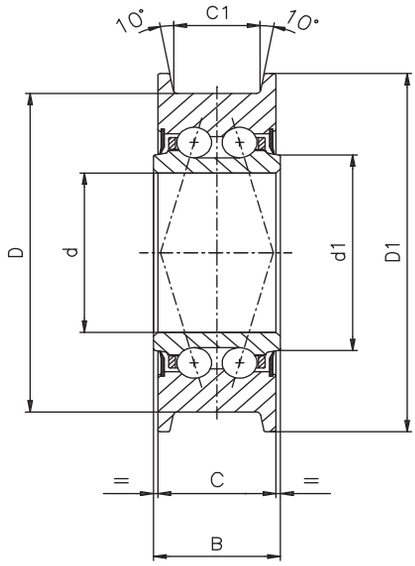
Some application fields:
- forklift
- machinery for lifting

Alternative design:
- pulleys for low temperatures aplications and for high temperture apl.
- pulleys employed in corrosive environments
- **in according to customer drawing**

CHAIN PULLEYS WITH BALLS
LIGHT APPLICATION

Sheet n°

3018



General specifications

Materials

Outer rings:
UNI 16CrNi4 steel case-hardened or equal
surface hardness 60±2 HRC
Inner rings:
UNI 100Cr6 steel hardened and tempered or equal
surface hardness 60±2 HRC
Rolling elements:
UNI 100Cr6 steel hardened and tempered or equal
surface hardness 62±2 HRC

Tolerances:
For info contact TTS technical department

Dimensional and running accuracy:
For info contact TTS technical department

Radial clearance:
For info contact TTS technical department

Load ratings:
In according to ISO 76 e ISO 281

Code	Dimensions							Load ratings		Mass	Chain		
	d	D	B	C	C_1	D_1	d_1	C	C_0				
2RS	mm	mm	mm	mm	mm	mm	mm	kN	kN	kg			
OBS 1240	40	75	26	28	19	85	50	25	32	0,45	BL 534	AL 544	LL 1044
OBS 1239	40	80	28	26	19	90	50	25	32	0,7	BL 534	AL 544	LL 1244
OBS 1238	40	85	38	36	28	98	50	37	45	1,1	BL 634	AL 644	LL 1266
OBS 1237	40	80	43	41	33	98	50	37	45	1,1	BL 634	AL 666	LL 1288
OBS 1236	50	100	42	40	33	115	60	52,8	58,5	1,5	BL 834	AL 844	LL 1644
OBS 1235	55	110	58	56	45	135	70	57,2	67	1,5	BL 846	AL 866	LL 1666
OBS 1234	55	130	67	65	55	158	75	72,1	85	3,1	BL 1046	AL 1066	LL 2066

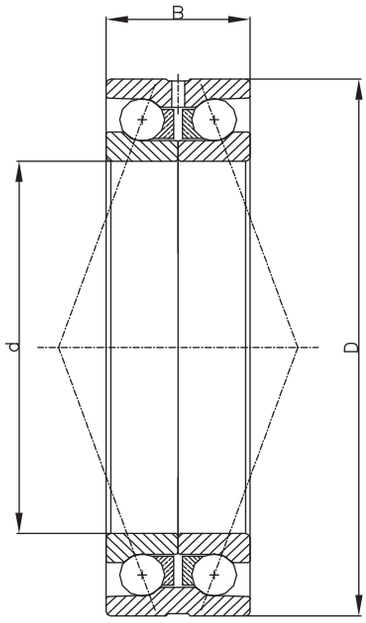
Some application fields:
- forklift
- machinery for lifting

Alternative design:
- pulleys for low temperatures aplications and for high temperture apl.
- pulleys employed in corrosive environments
- **in according to customer drawing**

HIGH DIMENSIONS
DOUBLE ROW ANGULAR CONTACT BALL BEARINGS

Sheet n°

4005



Product description
The main peculiarity of the angular contact ball bearing consists in the slightly different positions of the internal and external bearing raceways (they do not share the same axle). This particular configuration is typically advised for combined loads when radial and axial loads act at the same time.
The double row angular contact ball bearing can be seen as two angular contact ball bearings with an O-configuration setup or an X-configuration setup. It can support radial and axial loads with an axial load from both sides. It is narrower than a couple of angular contact ball bearings.

Some application fields:
- rolling mill, finishing rolls
- machine tools, vertical lathes

Alternative design:
- for low temperatures aplications and for high temperature aplications
- with seals or with protection shields
- employed in corrosive environments
- **in according to customer drawing**

Product range	mm	mm	mm
	d	D	B
Min. Value	100	170	60,3
Max. Value	1000	1170	140

General specifications

Materials

Outer rings:
UNI 100Cr6 steel or equivalent hardened and tempered surface hardness 60±2 HRC

Inner rings:
UNI 100Cr6 steel or equivalent hardened and tempered surface hardness 60±2 HRC

Cages:
steel sheet, machined brass or machined steel according to application requirements

Rolling elements:
UNI 100Cr6 steel or equivalent hardened and tempered surface hardness 62±2 HRC

Dimensions:
in according to UNI ISO 15:1991

Dimensional accuracy:
For info contact TTS technical department

Running accuracy:
For info contact TTS technical department

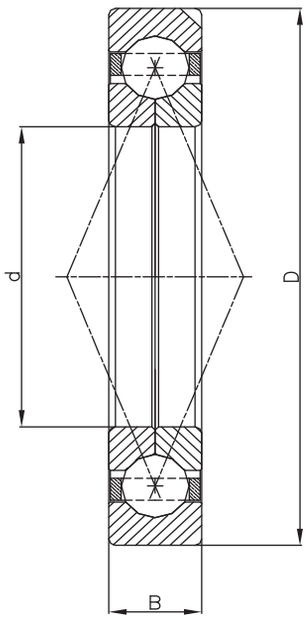
Axial clearance:
For info contact TTS technical department

Load ratings:
in according to UNI ISO 76:1995 and UNI ISO 281:1995

HIGH DIMENSIONS
FOUR-POINT CONTACT BALL BEARINGS

Sheet n°

4006



Product description
Single row bearing with two inner rings and one outer ring. The raceways are designed to support an axial load from both sides by themselves.
It is smaller than the double row angular contact ball bearings along the axial direction.
Typically its contact angle is equal to 35° or 45° and the inner ring is made up of two parts.
A large load carrying capacity due to the high number of balls is the trademark of this type of bearing.
The two inner semi-rings and the outer ring together with the cage/balls group can be separately assembled.

Some application fields:
- rolling mill, finishing rolls
- machine tools, vertical lathes

Alternative design:
- with dimensional and running accuracy better than standard
- with clearance different than standard
- for low temperature aplications and for high temperature aplications
- with seals or with protection shields
- employed in corrosive environments
- **in according to customer drawing**

Product range	mm	mm	mm
	d	D	B
Min. Value	100	150	24
Max. Value	480	870	170

General specifications

Materials

Outer rings:
UNI 100Cr6 steel or equivalent hardened and tempered
surface hardness 60±2 HRC

Inner rings:
UNI 100Cr6 steel or equivalent hardened and tempered
surface hardness 60±2 HRC

Cages:
machined brass or machined steel according to application requirements

Rolling elements:
UNI 100Cr6 steel or equivalent hardened and tempered
surface hardness 62±2 HRC

Dimensions:
in according to UNI ISO 15:1991

Dimensional accuracy:
PN, in according to UNI ISO 492:1998

Running accuracy:
PN, in according to UNI ISO 492:1998

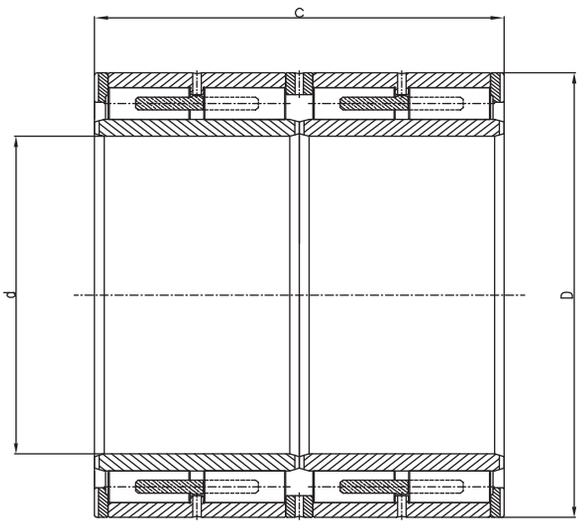
Axial clearance:
For info contact TTS technical department

Load ratings:
in according to UNI ISO 76:1995 and UNI ISO 281:1995

MULTIROW CYLINDRICAL ROLLER BEARINGS

Sheet n°

4011



Product description
Typically used in the necks of the rolls in rolling mills, calenders, roller presses.
Its peculiarity is a lower coefficient of friction.
It is highly recommended in high-speed rolling mills due to the fact that it is normally assembled with interference fit.
The reduced radial footprint of this bearing allows the use of high diameter necks with respect to the rolling cylinder diameter.

Some application fields:
- rolling mill, roll necks
- roller presses
- plate bending machine

Alternative design:
- with ring and rollers in case hardening steel
- with clearance different than standard
- with tapered bore
- with grooves on rings faces
- with helical grooves in the bore
- for low temperatures applications and for high temperature applications
- with seal rings
- **in according to customer drawing**

Product range	mm	mm	mm
	d	D	B
Min. Value	100	140	275
Max. Value	1400	1900	1360

General specifications

Materials

Outer rings:
UNI 100Cr6 steel or equivalent hardened and tempered surface hardness 60±2 HRC – Stabilized S0

Inner rings:
UNI 100Cr6 steel or equivalent hardened and tempered surface hardness 60±2 HRC – Stabilized S0

Cages:
machined brass, machined steel or steel pin design according to application requirements

Rolling elements:
UNI 100Cr6 steel or equivalent hardened and tempered surface hardness 62±2 HRC

Dimensions:
For info contact TTS technical department

Dimensional accuracy:
P6, in according to UNI ISO 492:1998

Running accuracy:
P5, in according to UNI ISO 492:1998

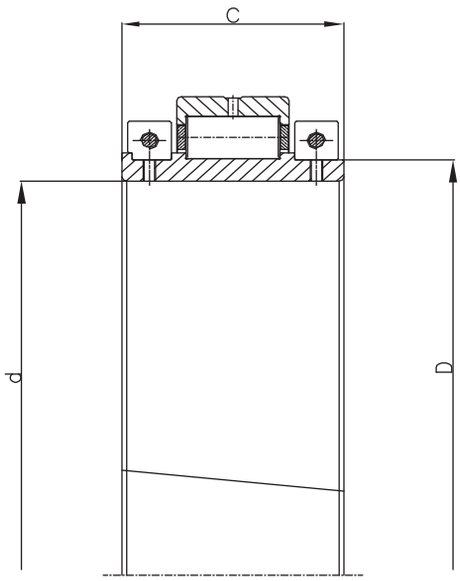
Radial clearance:
For info contact TTS technical department

Load ratings:
in according to UNI ISO 76:1995 and UNI ISO 281:1995

HIGH DIMENSIONS
SPLITTED RADIAL CYLINDRICAL ROLLER BEARINGS

Sheet n°

4018



Product description
Mainly used in the case of poor accessibility or not straight shafts.

Its use is advised whenever the maintenance or the replacement in the case of the traditional bearings would be too time consuming and expensive. The typical applications for this type of bearing are the pilgrim step type rolling mills, the crankshafts, the cup-wheel excavators, the rolling mill spindles and the huge ventilation devices.

Some application fields:
- pilger mill
- crankshaf
- bucket wheel excavators
- supports for intermediate ship axis

Alternative design:
- with ring and roller in case hardening steel
- with dimensional and running accuracy better than standard
- with clearance different than standard
- for low temperatures applications and for high temperature applications
- with seals or with protection shields
- **in according to customer drawing**

Product range	mm	mm	mm
	d	D	B
Min. Value	220	393,7	90
Max. Value	1400	1700	210

General specifications
Materials

Outer rings:
UNI 100Cr6 steel or equivalent hardened and tempered surface hardness 60±2 HRC

Inner rings:
UNI 100Cr6 steel or equivalent hardened and tempered surface hardness 60±2 HRC

Cages:
machined brass, machined steel or steel pin design according to application requirements

Rolling elements:
UNI 100Cr6 steel or equivalent hardened and tempered surface hardness 62±2 HRC

Dimensions:
For info contact TTS technical department

Dimensional accuracy:
For info contact TTS technical department

Running accuracy:
For info contact TTS technical department

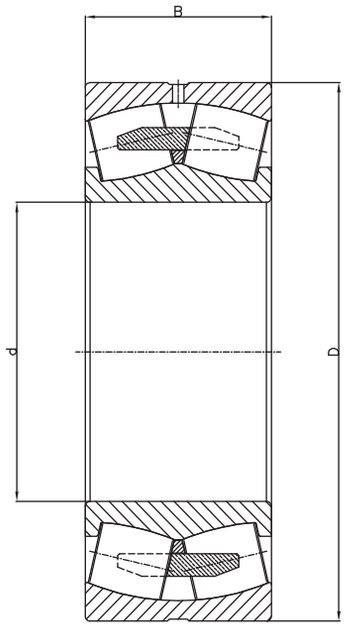
Radial clearance:
CN, in according to UNI ISO 5753:1994

Load ratings:
For info contact TTS technical department

HIGH DIMENSIONSRADIAL
RADIAL SPHERICAL ROLLER BEARINGS

Sheet n°

4020



Product description
Double row bearing with one spherical raceway on the outer ring and 2 raceways on the inner ring.
The two raceways on the inner ring have a certain tilt with respect to the axle. For this reason this type of bearing neither does feel the effects of the shaft alignment errors with respect to the cage nor the effects of any possible sags in the shaft.
It can support radial and axial loads with an axial load from both sides.

Some application fields:
- steel industry
- mineral and construction industries, wheel crane
- paper mill

Alternative design:
- with dimensional and running accuracy better than standard
- with clearance different than standard
- with tapered bore
- with adapter sleeves or with withdrawal sleeves
- with helical grooves in the bore
- for low temperatures applications and for high temperature applications
- with seals or with protection shields
- employed in corrosive environments
- for vibratory applications (vedi scheda cod. 8012)
- **in according to customer drawing**

Product range	mm	mm	mm
	d	D	B
Min. Value	100	150	45
Max. Value	1800	2180	580

General specifications

Materials

Outer rings:
UNI 100Cr6 steel or equivalent hardened and tempered surface hardness 60±2 HRC – Stabilized S0

Inner rings:
UNI 100Cr6 steel or equivalent hardened and tempered surface hardness 60±2 HRC – Stabilized S0

Cages:
steel sheet, machined brass or machined steel according to application requirements

Rolling elements:
UNI 100Cr6 steel or equivalent hardened and tempered surface hardness 62±2 HRC

Dimensions:
in according to UNI ISO 15:1991

Dimensional accuracy:
PN, in according to UNI ISO 492:1998

Running accuracy:
For info contact TTS technical department

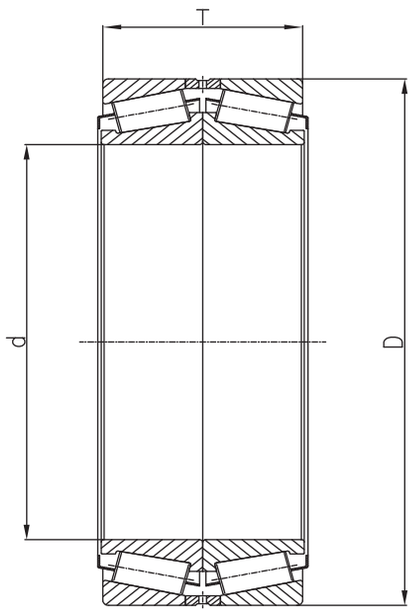
Radial clearance:
CN, in according to UNI ISO 5753:1994

Load ratings:
in according to UNI ISO 76:1995 and UNI ISO 281:1995

HIGH DIMENSIONS
PAIRED SINGLE ROW TAPERED ROLLER BEARINGS

Sheet n°

4023



Product description
The paired single row tapered roller bearing does guarantee economic solutions and great convenience from the maintenance and assembling point of view.
The single row tapered roller bearing can be paired with an O-configuration or an X-configuration setup.
The X-configuration setup, in which the action lines of the load converge in the bearings axle, is favourable when the bearing must bear axial loads with the axial load acting in both the axial directions. In this case the load will be supported by only one bearing at a time.
The O-configuration setup, in which the action lines of the load diverge from the bearing axle, is also favourable when the bearing must support an axial load from both sides.

Some application fields:
- gear reducer
- machine tolls, mandrel
- handling, roller support
- mining industry, axial sliding rollers

Alternative design:
- with ring and roller made of case hardening steel
- with seals or with protection shields
- **in according to customer drawing**

Product range	mm	mm	mm
	d	D	B
Min. Value	100	150	64
Max. Value	609,6	787,4	530

General specifications

Materials

Outer rings:
UNI 100Cr6 steel or equivalent hardened and tempered
surface hardness 60±2 HRC

Inner ring:
UNI 100Cr6 steel or equivalent hardened and tempered
surface hardness 60±2 HRC

Cages:
steel sheet or steel pin design according to application requirements

Rolling elements:
UNI 100Cr6 steel or equivalent hardened and tempered
surface hardness 62±2 HRC

Dimensions:
in according to ISO 355:2007

Dimensional accuracy:
For info contact TTS technical department

Running accuracy:
For info contact TTS technical department

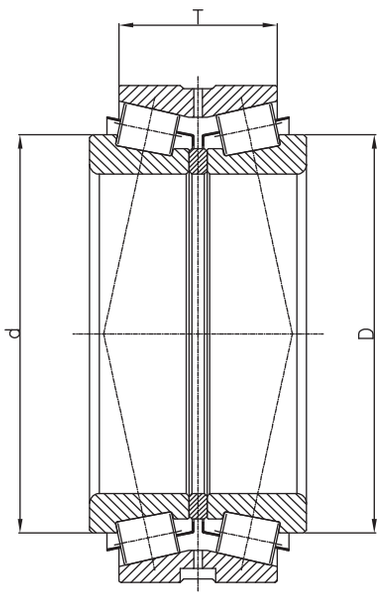
Axial clearance:
For info contact TTS technical department

Load ratings:
in according to UNI ISO 76:1995 and UNI ISO 281:1995

HIGH DIMENSIONS
DOUBLE ROW TAPERED ROLLER BEARINGS

Sheet n°

4024



Product description
Typically a very rigid bearing, it can support heavy combined loads. It can tie the shaft in the two directions with a certain axial play or a certain preload.
This type of bearing is mainly used in the reducers for lifting devices, in the rolling mills and in the mining processing machinery like tunnel digging machines.

Some application fields:
- gear reducer
- rolling mill
- lifting devices
- mining industry

Alternative design:
- with ring and roller in case hardening steel
- with tapered bore
- with grooves on rings faces
- with helical grooves in the bore
- with seals or with protection shields
- **in according to customer drawing**

Product range	mm	mm	mm
	d	D	B
Min. Value	100	150	49
Max. Value	3811	4216,4	742

General specifications

Materiali

Outer ring:
UNI 100Cr6 steel or equivalent hardened and tempered
surface hardness 60±2 HRC – Stabilized S0

Inner rings:
UNI 100Cr6 steel or equivalent hardened and tempered
surface hardness 60±2 HRC – Stabilized S0

Cages:
steel sheet or steel pin design according to application requirements

Rolling elements:
UNI 100Cr6 steel or equivalent hardened and tempered
surface hardness 62±2 HRC

Dimensions:
For info contact TTS technical department

Dimensional accuracy:
For info contact TTS technical department

Running accuracy:
For info contact TTS technical department

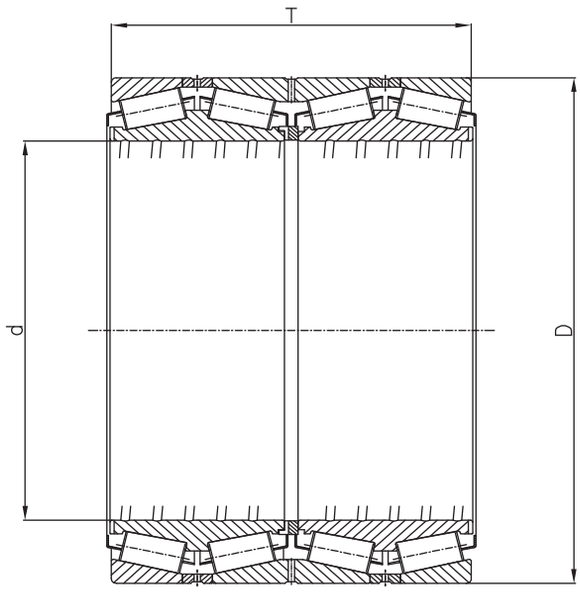
Axial clearance:
For info contact TTS technical department

Load ratings:
in according to UNI ISO 76:1995 and UNI ISO 281:1995

MULTIROW TAPERED ROLLER BEARINGS

Sheet n°

4025



Product description
Typically used in the rolling mills when the rolling speed is low or moderate.
This type of bearing can support radial and axial loads and it usually does not require the use of thrust bearings; the necks can therefore be relatively short and the cranckset can be the same in both sides.

Some application fields:
- rolling mill, roll necks

Alternative design:
- with ring and roller made of case hardening steel
- with dimensional and running accuracy better than standard
- with clearance different than standard
- with tapered bore
- with grooves on rings faces
- with helical grooves in the bore
- for low temperatures applications and for high temperature app.
- with seal rings
- **in according to customer drawing**

Product range	mm	mm	mm
	d	D	B
Min. Value	120,65	174,63	139,7
Max. Value	1580	1960	1080

General specifications

Materials

Outer rings:
UNI 100Cr6 steel or equivalent hardened and tempered
surface hardness 60±2 HRC – Stabilized S0

Inner rings:
UNI 100Cr6 steel or equivalent hardened and tempered
surface hardness 60±2 HRC – Stabilized S0

Cages:
steel sheet or steel pin design according to application requirements

Rolling elements:
UNI 100Cr6 steel or equivalent hardened and tempered
surface hardness 62±2 HRC

Dimensions:
For info contact TTS technical department

Dimensional accuracy:
For info contact TTS technical department

Running accuracy:
For info contact TTS technical department

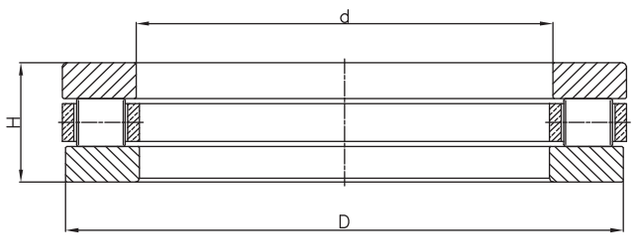
Axial clearance:
For info contact TTS technical department

Load ratings:
in according to UNI ISO 76:1995 and UNI ISO 281:1995

HIGH DIMENSIONS
CYLINDRICAL ROLLER THRUST BEARINGS

Sheet n°

4032



Product descrition
Typically used when high axial load capacity, high shock resistance, high stiffness and reduced axial footprint are required.
This type of bearing is mainly used whenever the axial load capacity of a ball bearing is not sufficient.

Some application fields:
- machine tools
- rolling mill

Alternative design:
- double effect
- with dimensional and running accuracy better than standard
- **in according to customer drawing**

Product range	mm	mm	mm
	d	D	B
Min. Value	100	135	25
Max. Value	2540	2700	300

General specifilications

Materials

Shaft washers:
UNI 100Cr6 steel or equivalent hardened and tempered
surface hardness 60±2 HRC

Housing washers:
UNI 100Cr6 steel or equivalent hardened and tempered
surface hardness 60±2 HRC

Cages:
steel sheet, pressed PA6.6, machined brass or machined steel
according to application requirements

Rolling elements:
UNI 100Cr6 steel or equivalent hardened and tempered
surface hardness 62±2 HRC

Dimensions:
in according to UNI ISO 104:1998

Dimensional accuracy:
PN, in according to UNI ISO 492:1998

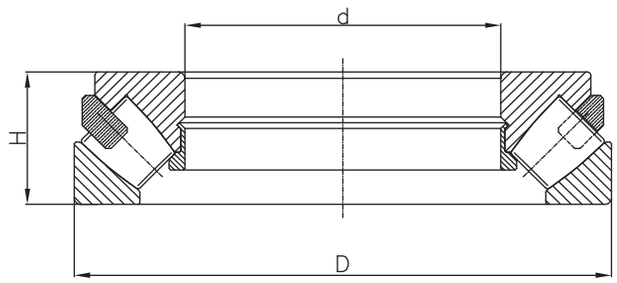
Running accuracy:
PN, in according to UNI ISO 492:1998

Load ratings:
in according to UNI ISO 76:1995 and UNI ISO 281:1995

HIGH DIMENSIONS
SPHERICAL ROLLER THRUST BEARINGS

Sheet n°

4034



Product description
This type of bearing is characterized by a center alignment angle that permits the transmission of the load from one raceway to the other. It can, therefore, simultaneously support a radial and an axial load. It is steerable and, for this reason, it does not feel either the effect of a flection of the shaft or any mismatch between the position of the shaft and its cage .

Some application fields:
- mining industry, tower crane
- forging
- supports for intermediate ship axis

Alternative executions:
- with dimensional and running accuracy better than standard
- **in according to customer drawing**

Product range	mm	mm	mm
	d	D	B
Min. Value	100	170	39
Max. Value	1600	2280	408

General specifications

Materials

Shaft washers:
UNI 100Cr6 steel or equivalent hardened and tempered
surface hardness 60±2 HRC

Housing washers:
UNI 100Cr6 steel or equivalent hardened and tempered
surface hardness 60±2 HRC

Cages:
steel sheet, machined brass or machined steel
according to application requirements

Rolling elements:
UNI 100Cr6 steel or equivalent hardened and tempered
surface hardness 62±2 HRC

Dimensions:
in according to UNI ISO 104:1998

Dimensional accuracy:
PN, in according to UNI ISO 492:1998

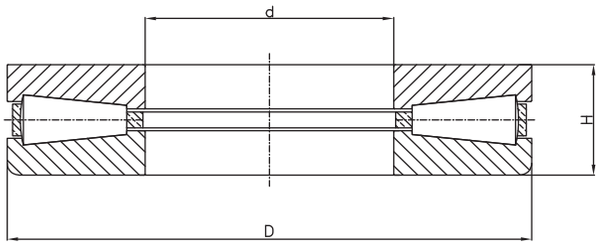
Rolling accuracy:
PN, in according to UNI ISO 492:1998

Load ratings:
in according to UNI ISO 76:1995 ed UNI ISO 281:1995

HIGH DIMENSIONS
TAPERED ROLLER THRUST BEARINGS

Sheet n°

4035



Product description
This type of bearing is used in the assembling of thick system.
It can support high axial loads and it is characterized by high shock resistance and high stiffness.

Some application fields:
- rolling mill
- mining, crane hooks

Alternative design:
- with ring and rollers made of case hardening steel
- double effect
- **in according to customer drawing**

Product range	mm	mm	mm
	d	D	B
Min. Value	100	230	52
Max. Value	340	660	165

General specifications

Materials

Shaft washers:
UNI 100Cr6 steel or equivalent hardened and tempered
surface hardness 60±2 HRC

Housing washers:
UNI 100Cr6 steel or equivalent hardened and tempered
surface hardness 60±2 HRC

Cages:
steel sheet, machined brass or machined steel
according to application requirements

Rolling elements:
UNI 100Cr6 steel or equivalent hardened and tempered
surface hardness 62±2 HRC

Dimensions:
For info contact TTS technical department

Dimensional accuracy:
For info contact TTS technical department

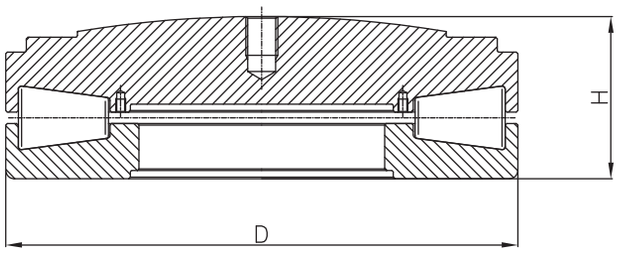
Running accuracy:
For info contact TTS technical department

Load ratings:
in according to UNI ISO 76:1995 and UNI ISO 281:1995

SCREW-DOWN BEARINGS

Sheet n°

4036



Product description
Full complement type tapered roller thrust bearing; it permits the angular movement of the screw spindle with respect to the support. Is suitable for very high axial loads and it is equipped with very long rollers of large diameter.

Some application fields:
- rolling mill

Alternative design:
- with rings and rollers made of case hardening steel
- with spherical plate
- **in according to customer drawing**

Product range	mm	mm
	D	H
Min. Value	203,2	75,62
Max. Value	920	280

General specification

Materials

Washers:
UNI 100Cr6 steel or equivalent hardened and tempered surface hardness 60±2 HRC

Rolling elements:
UNI 100Cr6 steel or equivalent hardened and tempered surface hardness 62±2 HRC

Dimensions:
For info contact TTS technical department

Dimensional accuracy:
For info contact TTS technical department

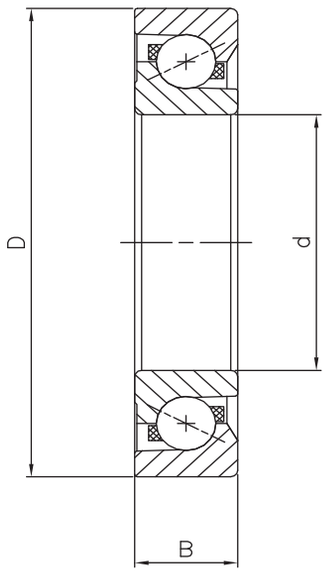
Running accuracy:
For info contact TTS technical department

Load ratings:
in according to UNI ISO 76:1995 and UNI ISO 281:1995

HIGH PRECISION
SINGLE ROW ANGULAR CONTACT BALL BEARINGS

Sheet n°

6010



Product desciption
Typically a high precision bearing with particular build specifications from the contact geometry to the surface configuration; it gives the mandrel an excellent rotation ability, high precision, high stiffness and a good vibration behaviour.
This type of bearing has been especially developed to support recirculating ball-screw.

Some application fields:
- machine tools
- paper industry
- woodworking
- patterns turbines

Alternative design:
- in esecuzione universale o forniti accoppiati nelle diverse disposizioni
- hybrid
- con anelli e sfere in acciaio resistente allo scorrimento a caldo
- con guarnizioni incorporate o protezioni in lamiera
- **in according to costumer drawing**

Product range	mm	mm	mm
	d	D	B
Min. Value	12	32	10
Max. Value	130	280	58

General specification
Materials

Outer rings:
UNI 100Cr6 steel hardened and tempered surface hardness 60±2 HRC – Stabilized

Inner rings:
UNI 100Cr6 steel hardened and tempered surface hardness 60±2 HRC – Stabilized

Cages:
reinforced phenolic resin or machined steel
according to application requirements

Rolling elements:
UNI 100Cr6 steel or equivalent hardened and tempered surface hardness 62±2 HRC

Dimensions:
For info contact TTS technical department

Dimensional accuracy:
For info contact TTS technical department

Running accuracy:
For info contact TTS technical department

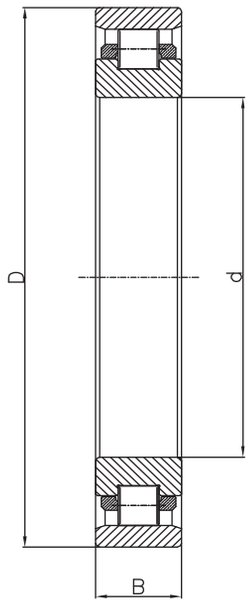
Axial clearance:
For info contact TTS technical department

Load ratings:
in according to UNI ISO 76:1995 and UNI ISO 281:1995

HIGH PRECISON
SINGLE ROW CYLINDRICAL ROLLER BEARINGS

Sheet n°

6013



Product description
This type of bearing can simultaneously support heavy radial loads and high-speed.
The configuration of the rib differentiates one bearing from the other.

Typically the cylindrical rollers reside in the raceway between the ribs on one of the rings.

This particular configuration results in a better lubrication, a lower coefficient of friction and, therefore, a lower operating temperature.

Some application fields:
- machine tools
- textile industry
- woodworking
- patterns turbine

Alternative design:
- with tapered bore
- hybrid
- with rings and rollers made of creep resistant steel
- with seals or with protection shields
- **in according to customer drawing**

Product range	mm	mm	mm
	d	D	B
Min. Value	30	55	12
Max. Value	500	720	100

General specifications

Materials

Outer rings:
UNI 100Cr6 steel or equivalent hardened and tempered surface hardness 60±2 HRC

Inner rings:
UNI 100Cr6 steel or equivalent hardened and tempered surface hardness 60±2 HRC

Cages:
steel sheet, machined brass or machined steel according to application requirements

Rolling elements:
UNI 100Cr6 steel or equivalent hardened and tempered surface hardness 62±2 HRC

Dimensions:
For info contact TTS technical department

Dimensional accuracy:
For info contact TTS technical department

Running accuracy:
For info contact TTS technical department

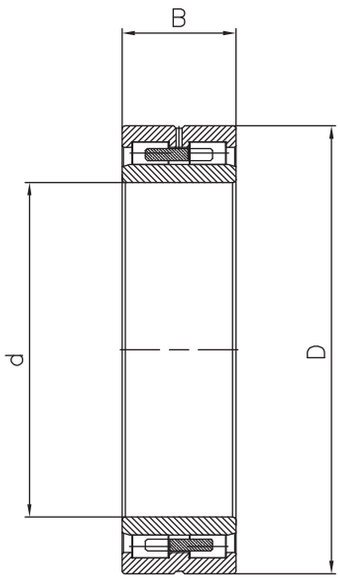
Radial clearance:
For info contact TTS technical department

Load ratings:
in according to UNI ISO 76:1995 and UNI ISO 381:1995

HIGH PRECISION
DOUBLE ROW CYLINDRICAL ROLLER BEARINGS

Sheet n°

6014



Product description
This type of bearing is characterized by a thin cross section, a large load carrying capacity and a high stiffness. These peculiarities make the bearing suitable for the use in machine tools, rolling mills, calendars, grinding mills and big reducers.
The ring with the ribs, the cage and the rollers can be separately assembled from the other ring. Or, even better, every single component can be separately assembled making the assembling, the maintenance and the inspection procedures faster and easier.

Some application fields:
- machine tools
- textile industry
- woodworking
- patterns turbines

Alternative design:
- with tapered bore
- hybrid
- with rings and rollers made of creep resistant steel
- with seals or with protection shields
- **in according to customer drawing**

Product range	mm	mm	mm
	d	D	B
Min. Value	30	55	19
Max. Value	500	720	170

General specification

Materials

Outer rings:
UNI 100Cr6 steel or equivalent hardened and tempered
surface hardness 60±2 HRC

Inner rings:
UNI 100Cr6 steel or equivalent hardened and tempered
surface hardness 60±2 HRC

Cages:
pressed PA6.6, machined brass or machined steel
according to application requirements

Rolling elements:
UNI 100Cr6 steel or equivalent hardened and tempered
surface hardness 62±2 HRC

Dimensional accuracy:
For info contact TTS technical department

Rolling accuracy:
For info contact TTS technical department

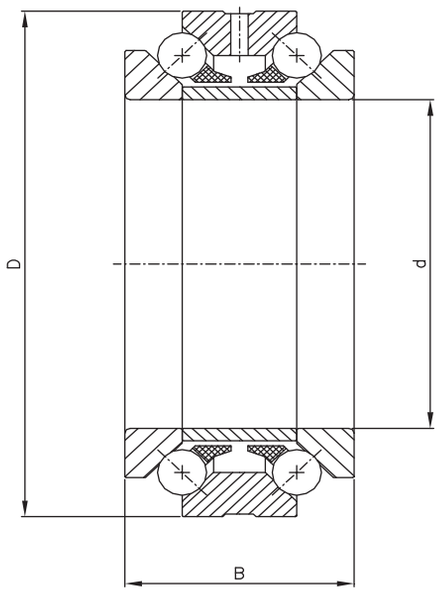
Radial clearance:
For info contact TTS technical department

Load ratings:
in according to UNI ISO 76:1995 and UNI ISO 281:1995

HIGH PRECISION
DOUBLE DIRECTION ANGULAR CONTACT BALL BEARING

Sheet n°

6016



Product description
This type of bearing is made up of an upper component with a larger load carrying capacity and a lower smaller component locked to the machine. The two components are assembled together as a single unit.
Typically characterized by a reduced height it is advised for combined loads when radial and axial loads act at the same time. It can also support (turn-over) tilting moments; only one bearing is, therefore, necessary to hold the rotating and the fastened components of the machine.
Every single component of the bearing can be separately assembled making the assembling, the maintenance and the inspection procedures faster and easier.

Some application fields:
- machine tools

Alternative design:
- in according to customer drawing

Product range	mm	mm	mm
	d	D	B
Min. Value	30	55	32
Max. Value	410	600	236

General specification

Materials

Shaft washers:
UNI 100Cr6 steel or equivalent hardened and tempered
surface hardness 60±2 HRC

Housing washers:
UNI 100Cr6 steel or equivalent hardened and tempered
surface hardness 60±2 HRC

Cages:
reinforced phenolic resin or machined steel
according to application requirements

Rolling elements:
UNI 100Cr6 steel or equivalent hardened and tempered
surface hardness 62±2 HRC

Dimensions:
For info contact TTS technical department

Dimensional accuracy:
For info contact TTS technical department

Rolling accuracy:
For info contact TTS technical department

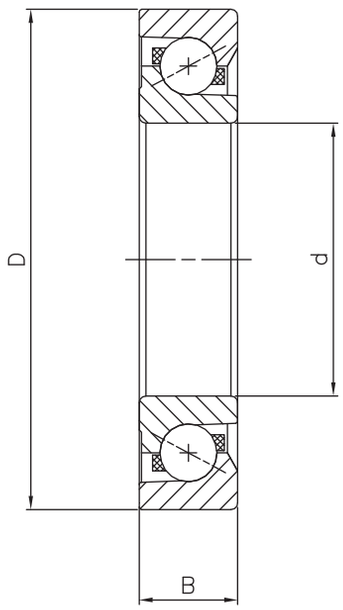
Axial clearance:
For info contact TTS technical department

Load ratings:
in according to UNI ISO 76:1995 and UNI ISO 281:1995

SINGLE ROW ANGULAR CONTACT BALL BEARING FOR RECIRCULATING BALL-SCREW

Sheet n°

6020



Product description

This type of bearing has been especially developed to support recirculating ball-screws.
It offers high precision and stiffness, a low coefficient of friction, high rotational speed during quick positional shifts.

Some application fields:

- machine tools, recirculating ball-screws

Alternative design:

- with integrated fixing flange
- with seals or with protection shields
- **in according to customer drawing**

Range di produzione	mm	mm	mm
	d	D	B
Valori min	12	32	10
Valori max	130	280	58

General specifications

Materials

Shaft washers:
UNI 100Cr6 steel or equivalent hardened and tempered surface hardness 60±2 HRC

Housing washers:
UNI 100Cr6 steel or equivalent hardened and tempered surface hardness 60±2 HRC

Cages:
reinforced phenolic resin

Rolling elements:
UNI 100Cr6 steel or equivalent hardened and tempered surface hardness 62±2 HRC

Dimensions:
For info contact TTS technical department

Dimensional accuracy:
For info contact TTS technical department

Running accuracy:
For info contact TTS technical department

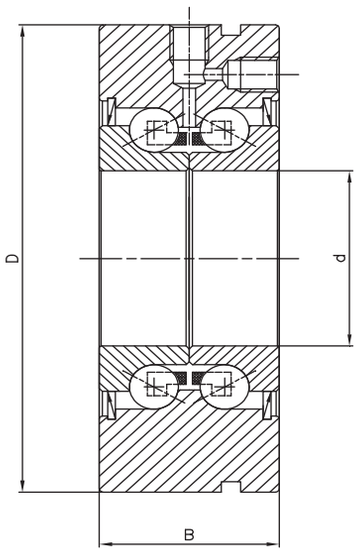
Axial clearance:
For info contact TTS technical department

Load ratings:
in according to UNI ISO 76:1995 ed UNI ISO 281:1995

HIGH PRECISION DOUBLE ROW ANGULAR CONTACT BALL BEARINGS FOR RECIRCULATING BALL-SCREWS

Sheet n°

6022



Product description
This type of bearing has been especially developed to support recirculating ball-screws.
It offers high precision and stiffness, a low coefficient of friction, high rotational speed during quick positional shifts.

Typically made up of an outer ring in one piece, an inner ring in two pieces, ball rows and seals it is a bi-directional bearing with a 60° pressure angle and an O-configuration setup.
It can support radial and axial loads with an axial load from both sides; it must be preloaded with a locknut during the assembly.

Some application fields:
- machine tools, recirculating ball-screws

Alternative design:
- with integrated fixing flange
- with seals or with protection shields
- **in according to customer drawing**

Product range	mm	mm	mm
	d	D	B
Min. Value	12	55	25
Max. Value	100	200	68

General specification

Materials

Shaft washers:
UNI 100Cr6 steel or equivalent hardened and tempered
surface hardness 60±2 HRC

Housing washers:
UNI 100Cr6 steel or equivalent hardened and tempered
surface hardness 60±2 HRC

Cages:
reinforced phenolic resin

Rolling elements:
UNI 100Cr6 steel or equivalent hardened and tempered
surface hardness 62±2 HRC

Dimensions:
For info contact TTS technical department

Dimensional accuracy:
For info contact TTS technical department

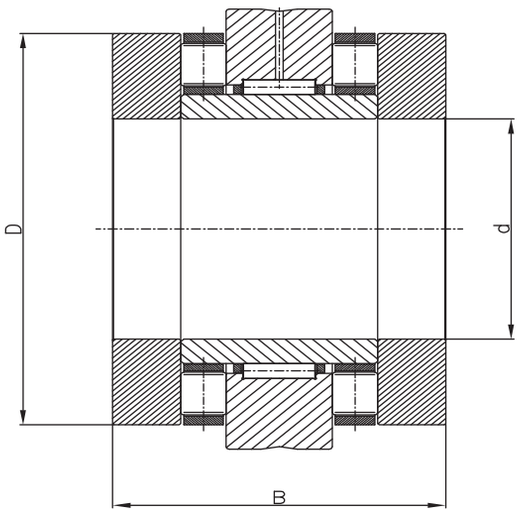
Running accuracy:
For info contact TTS technical department

Axial clearance:
For info contact TTS technical department

Load ratings:
in according to UNI ISO 76:1995 ed UNI ISO 281:1995

HIGH PRECISION
NEEDLE ROLLER/AXIAL CYLINDRICAL ROLLER BEARINGS

Sheet n°
6030



Product description
Typically made up of a double direction axial cylindrical roller bearing and a driving radial needle roller bearing.
This type of bearing is used in the transmission of high axial loads and when the axial positioning must be very precise (recirculating ball-screws) It is also available with an outer flanged ring to make the assembly of the bearing to the machine easier.

Some applications fields:
- machine tools, recirculating ball-screws

Alternative design:
- with integrated fixing flange
- with seal housing washer
- **in according to customer drawing**

Product range	mm	mm	mm
	d	D	B
Min. Value	15	45	40
Max. Value	90	180	110

General specification

Materials

Outer rings:
UNI 100Cr6 steel or equivalent hardened and tempered
surface hardness 60±2 HRC

Inner rings:
UNI 100Cr6 steel or equivalent hardened and tempered
surface hardness 60±2 HRC

Washers:
UNI 100Cr6 steel or equivalent hardened and tempered
surface hardness 60±2 HRC

Cages:
reinforced phenolic resin or machined steel
according to application requirements

Rolling elements:
UNI 100Cr6 steel or equivalent hardened and tempered
surface hardness 62±2 HRC

Dimensions:
For info contact TTS technical department

Dimensional accuracy:
For info contact TTS technical department

Running accuracy:
For info contact TTS technical department

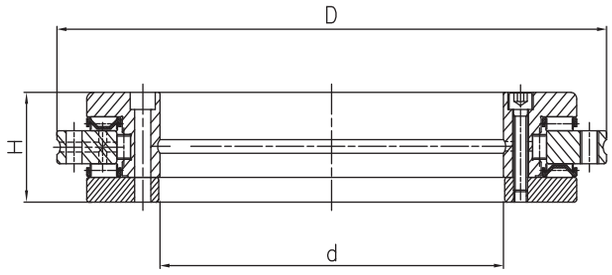
Axial/radial clearance:
For info contact TTS technical department

Load ratings:
in according to UNI ISO 76:1995 and UNI ISO 281:1995

AXIAL-RADIAL ROLLER BEARING

Sheet n°

6035



Product description
Typically made up of a double direction axial cylindrical roller bearing and a driving radial roller bearing.
An outer flanged ring makes the assembly of the bearing to the machine very easy.
This type of bearing is used in the transmission of high radial and axial loads from both sides and it can support tilting moments.

Some application fields:
- machine tools, positioning and rotary table

Alternative design:
- in according to customer drawing

Product range	mm	mm	mm
	d	D	B
Min. Value	50	126	30
Max. Value	650	870	122

General specification

Materials

Shaft washers:
UNI 100Cr6 steel or equivalent hardened and tempered
surface hardness 60±2 HRC

Housing washers:
UNI 100Cr6 steel or equivalent hardened and tempered
surface hardness 60±2 HRC

Cages:
Generally steel sheet

Rolling elements:
UNI 100Cr6 steel or equivalent hardened and tempered
surface hardness 62±2 HRC

Dimensions:
For info contact TTS technical department

Dimensional accuracy:
For info contact TTS technical department

Rolling accuracy:
For info contact TTS technical department

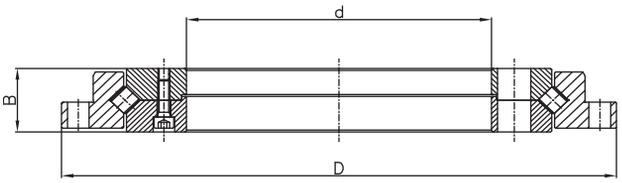
Axial/radial clearance:
For info contact TTS technical department

Load ratings:
in according to UNI ISO 76:1995 and UNI ISO 281:1995

HIGH PRECISION
CROSSED ROLLER BEARINGS

Sheet n°

6037



Product description
This type of bearing is made up of rolling elements with an X arrangement in which every rolling element is perpendicular with respect to the adjacent one. The rolling elements are positioned in a grinded raceway with a 90° V profile and they are separated by plastic spacers.
Due to this particular setup the bearing can support radial and axial loads with an axial load from both sides and tilting moments. It is also characterized by high stiffness because of the hardness of the inner and outer rings.
It is mainly used in specific applications such as hinged joints and industrial robots rotating units (anthropomorphic robots), machine tool rotary tables, medical devices, measuring machines, semiconductor production equipment.

Some application fields:
- machine tools, positioning and rotary planes
- handling, joint of the robot

Alternative design:
- full complement
- with integrated fixing flange
- **in according to costumer drawing**

Product range	mm	mm	mm
	d	D	B
Min. Value	70	90	10
Max. Value	400	500	46

General specification

Materials

Shaft washers:
UNI 100Cr6 steel or equivalent hardened and tempered surface hardness 60±2 HRC

Housing washers:
UNI 100Cr6 steel or equivalent hardened and tempered surface hardness 60±2 HRC

Rolling elements:
UNI 100Cr6 steel or equivalent hardened and tempered surface hardness 62±2 HRC

Dimensions:
For info contact TTS technical department

Dimensional accuracy:
For info contact TTS technical department

Running accuracy:
For info contact TTS technical department

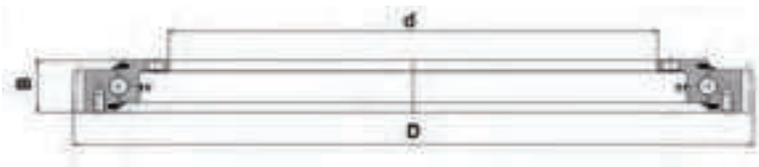
Axial clearance:
For info contact TTS technical department

Laod ratings:
in according to UNI ISO 76:1995 and UNI ISO 281:1995

SLEWING BEARINGS

Sheet n°

7003



Product description

This type of bearing comprises of an inner and outer ring, one of which usually incorporates a gear.The attachment holes in both the rings helps for a quick and optimized transmission between the adjacent connected machine components. This bearing can accommodate loads acting singly or in combination or in any direction. The optimum design of the raceway along with the rolling elements, spacers, sealing systems and lubrication guarantees the required motion precision, the operational parameters and the required life.

External surface protection treatments can also be done to provide high level of reliability,rating life and security again premature damage such as fatigue in the raceway and surface corrosion.

Some applications:
- Tower cranes,Tunnelling machines,Excavators,
- Wind turbines, Rotating tables,Roller conveyors

Alternative designs:
- Four- point contact ball bearing
- Eight-point contact ball bearing
- Crossed cylindrical roller bearing
- Triple row roller bearing
- Roller/Ball combination bearing
- **in accordance to costumer drawing**

Product range	mm	mm	mm
	d	D	B
Min. Value	200	400	50
Max. Value	1500	1800	150

General specification

Materials

Inner/Outer rings:
UNI C45/42CrMo4 steel or equivalent hardened and tempered surface hardness 60±2 HRC on the raceway

Spacers/Sealing:
Nylon spacers
NBR seals

Rolling elements:
UNI 100Cr6 steel or equivalent hardened and tempered surface hardness 62±2 HRC

Dimensions:
For info contact TTS technical department

Dimensional accuracy:
For info contact TTS technical department

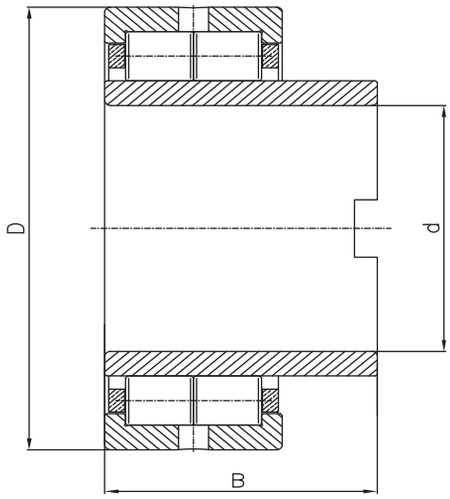
Running accuracy:
For info contact TTS technical department

Axial clearance:
For info contact TTS technical department

ROLLER BEARINGS
WITH UNCONSTRAINED AXIAL DISPLACEMENT ABILITY

Sheet n°

8004



Product description
Typically a roller bearing with a longer than usual inner ring and with an axial displacement ability.
This type of bearing can support large radial loads, axial expansions of the shaft and it guarantees a high rotation precision.
It is mainly used in paper machines.

Some application fields:
- paper machine

Alternative design:
- for low temperatures applications and for high temperature applications
- employed in corrosive environments
- **in according to customer drawing**

Product range	mm	mm	mm
	d	D	B
Min. Value	100	140	40
Max. Value	1320	1720	475

General specifications

Materials

Outer rings:
UNI 100Cr6 steel or equivalent hardened and tempered
surface hardness 60±2 HRC – Stabilized S0
Inner rings:
UNI 100Cr6 steel or equivalent hardened and tempered
surface hardness 60±2 HRC – Stabilized S0
Cages:
machined brass, machined aluminum alloy
according to application requirements
Rolling elements:
UNI 100Cr6 steel or equivalent hardened and tempered
surface hardness 62±2 HRC

Dimensions:
For info contact TTS technical department

Dimensional accuracy:
For info contact TTS technical department

Running accuracy:
For info contact TTS technical department

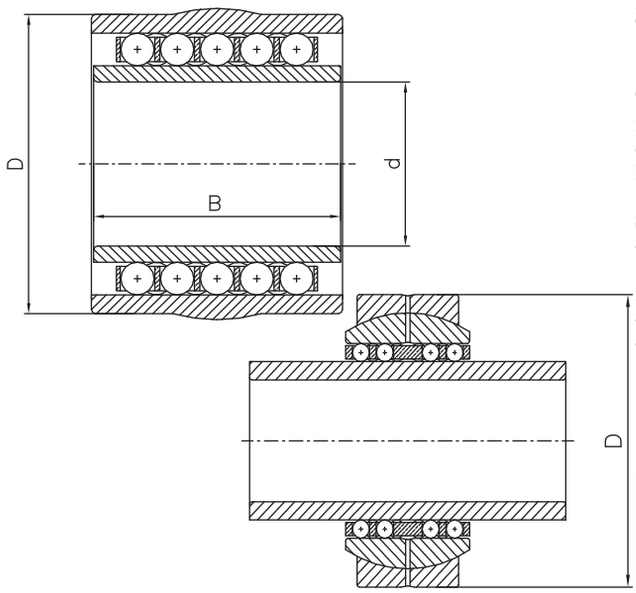
Radial clearance:
For info contact TTS technical department

Load ratings:
in according to UNI ISO 76:1995 and UNI ISO 281:1995

MULTIROW BALL BEARINGS WITH AN EXTERNAL SPHERICAL SURFACE

Sheet n°

8005



Product description
Typically a multirow ball bearing. The rows are stored in a solid brass or light alloy cage in which the inner and outer raceways have a cylindrical shape in order to compensate any occasional axial expansions of the shaft. The external surface is spherical to offset any possible initial misalignments and it can be provided with a self-aligning outer ring (rod end).
It is mainly used in paper machines.

Some application fields:
- paper machine

Alternative delivery:
- for low temperatures applications and for high temperature
- employed in corrosive environments
- **in according to customer drawing**

Product range	mm	mm	mm
	d	D	B
Min. Value	40	73	59
Max. Value	100	230	220

General specification

Materials

Outer rings:
UNI 100Cr6 steel or equivalent hardened and tempered
surface hardness 60±2 HRC – Stabilized S0

Inner rings:
UNI 100Cr6 steel or equivalent hardened and tempered
surface hardness 60±2 HRC – Stabilized S0

Cages:
machined brass, machined aluminum alloy
according to application requirements

Rolling elements:
UNI 100Cr6 steel or equivalent hardened and tempered
surface hardness 62±2 HRC

Dimensions:
For info contact TTS technical department

Dimensional accuracy:
For info contact TTS technical department

Running accuracy:
For info contact TTS technical department

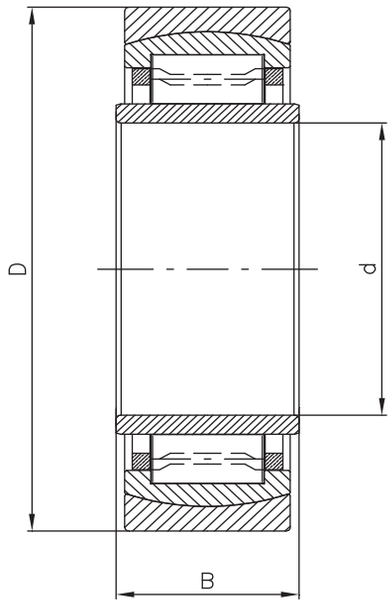
Radial clearance:
For info contact TTS technical department

Laod ratings:
For info contact TTS technical department

SELF-ALIGNING RADIAL ROLLER BEARING

Sheet n°

8006



Product description
This type of bearing consists of one removable inner ring (to offset a possible axial expansion of the shaft), one spherical intermediate ring (to offset any possible initial misalignments) and one self-aligning outer ring (spherical joint).
It is mainly used in paper machines.

Some application fields:
- steel industry, continuous melt
- paper machine, drying cylinders

Alternative design:
- low temperatures applications and for high temperature
- employed in corrosive environments
- **in according to customer drawing**

Product range	mm	mm	mm
	d	D	B
Min. Value	100	150	40
Max. Value	1250	1630	515

General specification

Materials
Spherical housing rings:
UNI 100Cr6 steel or equivalent hardened and tempered
surface hardness 60±2 HRC – Stabilized S0 - phosphatized
Spherical outer rings:
UNI 100Cr6 steel or equivalent hardened and tempered
surface hardness 60±2 HRC – Stabilized S0
Inner rings:
UNI 100Cr6 steel or equivalent hardened and tempered
surface hardness 60±2 HRC – Stabilized S0
Cages:
machined brass, machined aluminum alloy
according to application requirements
Rolling elements:
UNI 100Cr6 steel or equivalent hardened and tempered
surface hardness 62±2 HRC

Dimensions:
For info contact TTS technical department

Dimensional accuracy:
For info contact TTS technical department

Rolling accuracy:
For info contact TTS technical department

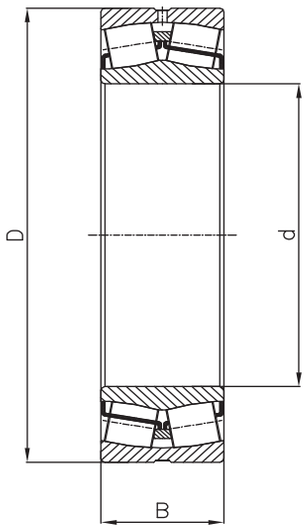
Radial clearance:
For info contact TTS technical department

Laod ratings:
in according to UNI ISO 76:1995 and UNI ISO 381:1995

SPHERICAL ROLLER BEARINGS FOR VIBRANTING SCREENS

Sheet n°

8012



Product description
This type of bearing consists of two rows of rollers and one spherical raceway on the outer ring. It is provided with special internal geometries, finishing and clearances suitable for vibrating screens.
The two raceways on the inner ring have a certain tilt with respect to the axle. For this reason this type of bearing neither does feel the effects of the shaft alignment errors with respect to the cage nor the effects of any possible sags in the shaft.
It can support radial and axial loads with an axial load from both sides.

Some application fields:
- steel industry, vibrating screens
- gruppi di trasmissione, planetary gears
- mineral and construction industries, compactors
- transportation, bushings railway

Alternative design:
- with tapered bore
- for low temperatures applications and for high temperature
- employed in corrosive environments
- **in according to customer drawing**

Product range	mm	mm	mm
	d	D	B
Min. Value	40	90	33
Max. Value	240	500	155

General specifications

Materials
Outer rings:
UNI 100Cr6 steel or equivalent hardened and tempered surface hardness 60±2 HRC – Stabilized S0

Inner rings:
UNI 100Cr6 steel or equivalent hardened and tempered surface hardness 60±2 HRC – Stabilized S0

Cages:
steel sheet with surface hardening

Rolling elements:
UNI 100Cr6 steel or equivalent hardened and tempered surface hardness 62±2 HRC

Dimensions:
in according to UNI ISO 15:1991

Dimensional accuracy:
For info contact TTS technical department

Running accuracy:
For info contact TTS technical department

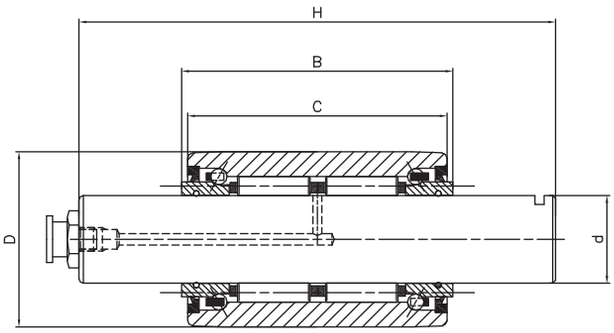
Radial clearance:
For info contact TTS technical department

Laod ratings:
in according to UNI ISO 76:1995 and UNI ISO 381:1995

BACK-UP ROLLERS WITH STUD

Sheet n°

8020



General specifications

Materials
Outer rings:
UNI 100Cr6 steel or equivalent hardened and tempered
surface hardness 60±2 HRC
Pin:
UNI 100Cr6 steel or equivalent hardened and tempered
surface hardness 60±2 HRC
Washers:
UNI 16CrNi4 or equal steel case-hardened
surface hardness 60±2 HRC
Rolling elements:
UNI 100Cr6 steel or equivalent hardened and tempered
surface hardness 62±2 HRC
Tolerances:
According to DIN 620

Precision class:
According to P6

Radial clearance:
Approximately CN, according to DIN 620

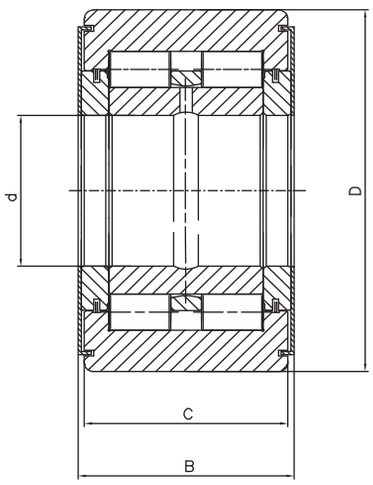
Load ratings:
According to ISO 76 and ISO 281

Code	Dimensions					Load ratings		Rotation Spedd
	d	D	H	B	C	C	C_0	Grasso
	mm	mm	mm	mm	mm	kN	kN	giri/min
RSP 0001	12	25,5	61,5	32	30	8,3	12,2	45.900
RSP 0002	12	25,5	61,5	32	30	8,3	12,2	45.900
RSP 0003	12	25,5	61,5	32	30	9	15	7.650
RSP 0004	14	27	75	43	41	13,5	20	7.650
RSP 0005	15	31	77	46	44	18	23	7.650
RSP 0006	15	31	82	48	46	18	23	7.650
RSP 0007	15	33	95	52	50	46,2	71,1	4.960
RSP 0008	15	33	110	82	80	80	62	4.845
RSP 0009	18	33	90	58	57	20	37	7.310
RSP 0010	18	33	90	58	57	26	30,5	4.250
RSP 0011	18	36	95	64	62	25	46	6.800
RSP 0012	18	37	102	59	57	33,5	52	37.400
RSP 0013	16	38	95	52	50	32	31	4.658
RSP 0014	16	38	110	82	80	92	68	4.420
RSP 0015	18	40	109	63	60	40	57	35.700
RSP 0016	20	41	81	50	48	34	52	3.400
RSP 0017	20	41	110	70	68	40	68	2.040
RSP 0018	20	45	102	70	68	66,1	114,3	3.961
RSP 0019	20	47	168	112	108	123	260	1.037

Code	Dimensions					Load ratings		Rotation Speed
	d	D	H	B	C	C	C_0	Grasso
	mm	mm	mm	mm	mm	kN	kN	giri/min
RSP 0020	20	47	110	72	70	75	113,5	3.400
RSP 0021	20	47	145	116,6	115	108,8	135	14.110
RSP 0022	20	47	145	117	115	102	124	34.000
RSP 0023	20	47	172	116	115	102	125	3.162
RSP 0024	25	48	95	60	58	40	75	1.700
RSP 0025	25	48	133	85	83	66	112	1.700
RSP 0026	25	48	133	85	83	68	94	3.400
RSP 0027	25	50	90	60	58	82	140	3.230
RSP 0028	20	52	225	160	159	151	248	11.900
RSP 0029	25	52	138	80	78	79	124	1.700
RSP 0030	28	52	110	72	69	45	110	1.700
RSP 0031	28	52	110	72	69	48	68	27.200
RSP 0032	30	56	105	67	65	44,2	77	22.100
RSP 0033	30	56	133	85	83	67	132	1.275
RSP 0034	30	56	133	85	83	68	133	1.190
RSP 0035	30	60	99,5	58,5	57	62	109	1.700
RSP 0036	30	63	133	85	83	75	118	1.020
RSP 0037	32	66	178	105	103	104	130	680
RSP 0038	50	83	190	130	128	120	300	680

Some application fields:
- levellers
Alternative design:
- for low temperatures applications and for high temperature
- employed in corrosive environments
- in according to customer drawing

BACK-UP ROLLERS



General specifications

Materials
Outer rings:
UNI 100Cr6 steel or equivalent hardened and tempered
surface hardness 60±2 HRC
Inner rings:
UNI 100Cr6 steel or equivalent hardened and tempered
surface hardness 60±2 HRC
Washers:
UNI 16CrNi4 or equal steel case-hardened
surface hardness 60±2 HRC
Rolling elements:
UNI 100Cr6 steel or equivalent hardened and tempered
surface hardness 62±2 HRC
Tolerances:
According to DIN 620

Precision class:
According to P6

Radial clearance:
Approximately CN, according to DIN 620

Load ratings:
According to ISO 76 and ISO 281

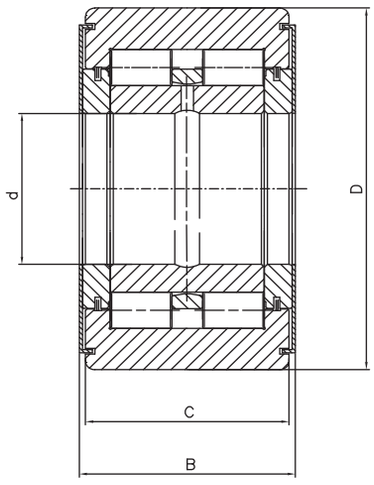
Code	Dimensions				Load ratings		Rotation Speed
	d	D	C	B	C	C_0	Grasso
	mm	mm	mm	mm	kN	kN	giri/min
RS 0001	20	48	27	36	36	53	3.290
RS 0002	25	52	40	42	38	60	2.941
RS 0003	25	52	46	48	38,6	60	2.941
RS 0004	25	65	45	41	68	95	2.057
RS 0005	25	65	45	41	78	111	2.482
RS 0006	30	72	40	42	67	61	2.176
RS 0007	30	72	40	42	70	100	2.176
RS 0008	30	72	40	42	73	105	2.176
RS 0009	25	74	50	47	99	139	2.329
RS 0010	30	80	44	48	85	141	1.955
RS 0011	35	80	44	48	100	161	1.870
RS 0012	35	80	44	48	106	104	1.870
RS 0013	35	80	54	50	103	163	1.955
RS 0014	40	80	31	33	39,5	32	6.069
RS 0015	30	90	49	51	105	150,5	2.040
RS 0016	40	90	32	35	57	62	1.445
RS 0017	40	90	47	44	104	160	1.700
RS 0018	40	90	48	51	100	152	1.700
RS 0019	40	95	51	55	124	192	1.207
RS 0020	40	100	47	50	132	196	1.615
RS 0021	45	100	37	40	85,5	76	1.530

Code	Dimensions				Load ratings		Rotation Speed
	d	D	C	B	C	C_0	Grasso
	mm	mm	mm	mm	kN	kN	giri/min
RS 0022	40	105	46	50	138	210	1.496
RS 0023	50	105	56	60	187	165	1.445
RS 0024	50	105	56	60	189	314	1.445
RS 0025	45	110	56	60	155	232	1.530
RS 0026	45	110	56	60	200	340	1.360
RS 0027	35	114	52	54	132,5	196	1.666
RS 0028	50	118	50	47	138	153	1.020
RS 0029	50	120	55	58	161	245	1.360
RS 0030	45	120	55	58	161	245	1.360
RS 0031	50	120	47	50	138	153	1.020
RS 0032	50	120	47	50	156	270	1.190
RS 0033	50	120	55	58	185	190	1.020
RS 0034	50	120	60	65	147	230	1.377
RS 0035	50	120	65	68	176	264	1.360
RS 0036	50	120	66	70	231	390	1.388
RS 0037	55	120	49	52	156	270	1.190
RS 0038	55	122	52	56	152	240	1.326
RS 0039	55	122	53	56	168	261	1.309
RS 0040	70	122,5	30	32	128	200	1.139
RS 0041	50	127	46	50	145	166	1.020
RS 0042	50	127	46	50	156	248	1.326

Some application fields:
- levellers

Alternative design:
- for low temperatures applications and for high temperature
- employed in corrosive environments
- **in according to customer drawing**

BACK-UP ROLLERS



General specifications

Materials
Outer rings:
UNI 100Cr6 steel or equivalent hardened and tempered
surface hardness 60±2 HRC
Inner rings:
UNI 100Cr6 steel or equivalent hardened and tempered
surface hardness 60±2 HRC
Washers:
UNI 16CrNi4 or equal steel case-hardened
surface hardness 60±2 HRC
Rolling elements:
UNI 100Cr6 steel or equivalent hardened and tempered
surface hardness 62±2 HRC
Tolerances:
According to DIN 620

Precision class:
According to P6

Radial clearance:
Approximately CN, according to DIN 620

Load ratings:
According to ISO 76 and ISO 281

Code	Dimensions				Load ratings		Rotation Speed
	d	D	C	B	C	C_0	Grease
	mm	mm	mm	mm	kN	kN	Rpm
RS 0043	50	130	46	50	145	166	1.020
RS 0044	50	130	47	48	202	316	1.326
RS 0045	50	130	63	67	200	207	1.020
RS 0046	50	130	63	67	200	207	1.020
RS 0047	50	130	66	70	237	240	1.020
RS 0048	50	130	66	70	255	451	1.207
RS 0049	65	130	42	44	150	143	1.122
RS 0050	60	135	42	44	155	150	1.020
RS 0051	55	140	56	60	180,5	209	850
RS 0052	55	140	56	60	191	210	850
RS 0053	65	140	56	60	206,5	211	850
RS 0054	55	145	76	*	251	393	1.190
RS 0055	60	150	61	65	223	259	765
RS 0056	65	150	51	55	220	324	544
RS 0057	70	150	61	63	223,5	259	969
RS 0058	65	152	65 *		320	583	1.105
RS 0059	50	160	84	86	352	613	1.173
RS 0060	60	160	68	73	269	434	1.105
RS 0061	60	160	100	104	374	439	765
RS 0062	60	160	100	104	476	806	1.037
RS 0063	65	160	67	71	217	248	765

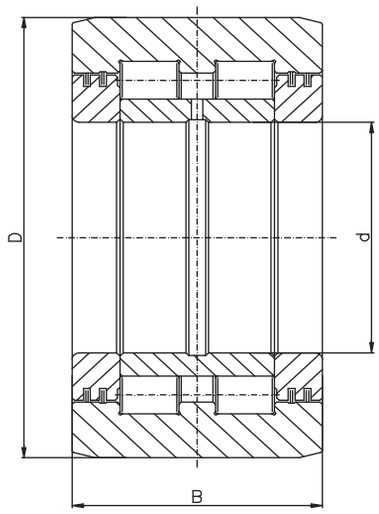
Code	Dimensions				Load ratings		Rotation Speed
	d	D	C	B	C	C_0	Grease
	mm	mm	mm	mm	kN	kN	Rpm
RS 0064	65	160	67	71	286	452	1.105
RS 0065	65	160	75	78	330	531	1.054
RS 0066	65	160	75	78	297	301	765
RS 0067	65	180	63	66	308	528	901
RS 0068	90	180	98	102	495	996	816
RS 0069	80	200	88	92	482	870	638
RS 0070	90	200	88	92	525	890	782
RS 0071	120	200	55	57	311	632	663
RS 0072	85	205	110	112	595	1000	2.210
RS 0073	75	210	146	148	765	1433	833
RS 0074	100	210	100	101	560	978	714
RS 0075	80	220	125	127	638	1143	1.445
RS 0076	90	220	75	78	297	301	765
RS 0077	90	220	117	120	655	1182	782
RS 0078	110	234	100	104	480	590	595
RS 0079	120	250	90	94	611	1112	629
RS 0080	120	250	121	124	433	506	595
RS 0081	120	250	121	124	878	1687	629
RS 0082	120	260	129	132	871	1677	1.309
RS 0083	120	260	180	184	1.161	2537	638
RS 0084	120	280	121	124	892	1665	595

Some application fields:
- levellers
Alternative design:
- for low temperatures applications and for high temperature
- employed in corrosive environments
- **in according to customer drawing**

TRACK ROLLERS

Sheet n°

8030



Product description
This type of radial roller bearing is used in steel processing industry as a track roller for any type of handlings.
Its dimensions, shape, and performance are not subjected to any standardizations; the bearing is designed and produced under customer's specifications

Some apllication fields:
- steel industry, sintering plan

Alternative design:
- in according to customer drawing

Product range	mm	mm	mm
	d	D	B
Min. Value	50	110	32
Max. Value	180	500	230

General specifications

Materials
Outer rings:
UNI 18NiCrMo5 or equal steel case-hardened
surface hardness 60±2 HRC

Inner rings:
UNI 100Cr6 steel or equivalent hardened and tempered
surface hardness 60±2 HRC

Rolling elements:
UNI 100Cr6 steel or equivalent hardened and tempered
surface hardness 62±2 HRC

Dimensions:
For info contact TTS technical department

Dimensional accuracy:
For info contact TTS technical department

Running accuracy:
For info contact TTS technical department

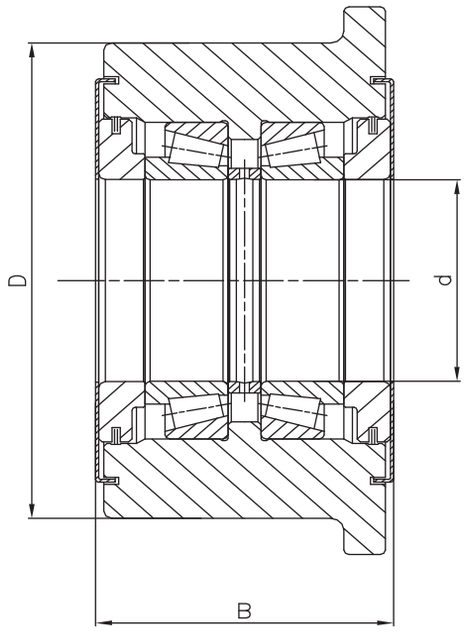
Radial clearance:
For info contact TTS technical department

Laod rating:
in according to UNI ISO 76:1995 and UNI ISO 381:1995

TRACK ROLLERS

Sheet n°

8031



Product description
This type of radial roller bearing is used in steel processing industry as a track roller for any type of handlings.
Its dimensions, shape, and performance are not subjected to any standardizations; the bearing is designed and produced under customer's specifications

Some application fields:
- steel industry, sintering plan

Alternative design:
- in according to customer drawing

Product range	mm	mm	mm
	d	D	B
Min. Value	50	110	32
Max. Value	180	500	230

General specification

Materials
Rings:
For info contact TTS technical department

Rolling elements:
UNI 100Cr6 steel or equivalent hardened and tempered
surface hardness 62±2 HRC

Dimensions:
For info contact TTS technical department

Dimensional accuracy:
For info contact TTS technical department

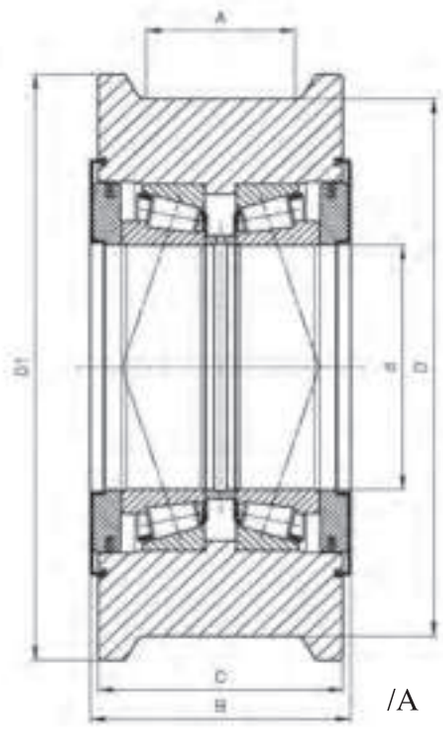
Running accuracy:
For info contact TTS technical department

Axial clearance:
For info contact TTS technical department

Laod ratings:
in according to UNI ISO 76:1995 and UNI ISO 381:1995

TRACK ROLLERS

Sheet n°
8031/A



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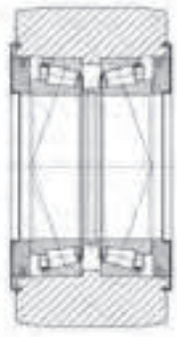


/C

Code	Dimension						Load Ratings		Speed	Mass		
										/A	/B	/C
	d	D	A	D_1	B	C	C	C_0				
	mm	mm	mm	mm	mm	mm	kN	kN		kg	kg	kg
RV 00001	50	125	40	140	65	60	104	176	2.400	4,5	4,3	4,0
RV 00002	50	125	45	140	75	70	104	176	2.400	6,1	5,8	5,5
RV 00003	60	150	50	170	75	70	200	228	2.100	8,5	8,3	8,0
RV 00004	60	150	55	170	85	80	200	228	2.100	9,8	9,3	8,8
RV 00005	70	165	60	190	90	85	215	312	1.800	12,3	11,7	11,1
RV 00006	80	185	65	210	100	95	234	432	1.600	17,2	16,4	15,5
RV 00007	100	215	75	250	115	105	295	560	1.300	25,1	23,7	22,3
RV 00008	100	220	62	240	100	94	295	560	1300	21,0	20,0	19,0
RV 00009	120	255	85	290	130	120	415	830	1.100	37,9	36,0	34,0

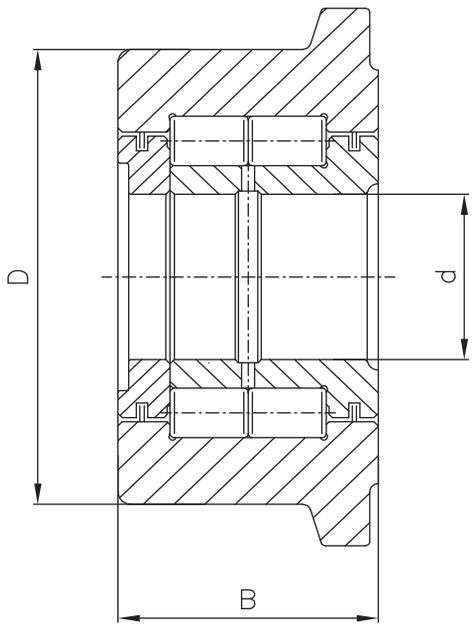
Some application fields:
- steel industry, sintering plan

Alternative design:
- in according to customer drawing

TRACK ROLLERS

Sheet n°

8032



Product description
This type of radial roller bearing is used in steel processing industry as a track roller for any type of handlings.
Its dimensions, shape, and performance are not subjected to any standardizations; the bearing is designed and produced under customer's specifications.

Some spplication fields:
- rolling mill, coils handling

Alternative executions:
- in according to costumer drawing

Range di produzione	mm	mm	mm
	d	D	B
Valori min	50	110	32
Valori max	180	500	230

General specifications

Materials
Outer rings:
UNI 18NiCrMo5 or equal steel case-hardened
surface hardness 60±2 HRC

Inner rings:
UNI 100Cr6 steel or equivalent hardened and tempered
surface hardness 60±2 HRC

Rolling elements:
UNI 100Cr6 steel or equivalent hardened and tempered
surface hardness 62±2 HRC

Dimensions:
For info contact TTS technical department

Dimensional accuracy:
For info contact TTS technical department

Running accuracy:
For info contact TTS technical department

Radial clearance:
For info contact TTS technical department

Laod ratings:
in according to UNI ISO 76:1995 and UNI ISO 381:1995