

PLANETARY ROLLER SCREWS



Rev.A, October 2020

CUSTOMIZED DESIGN AND SUPERIOR ACCURACY FOR PRECISION
POSITIONING APPLICATIONS WITH HIGH LOADS AND ACCELERATIONS

Whenever the highest levels of motion control performance and design flexibility are required, you'll find Moog expertise at work. Through our world-class technological solutions, we help you overcome your toughest engineering obstacles.

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This catalog is for users with technical knowledge. To ensure all necessary characteristics for function and safety of the system, the user has to check the suitability of the products described herein. The products described in this document are subject to change without notice. In case of doubt, please contact Moog.

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MOOG PLANETARY ROLLER SCREWS

Moog: Always the best technology for you

Thanks to our extensive experience applying hydraulic and electric motion control, Moog is uniquely positioned to provide the most appropriate solutions for each application applying a wide variety of technologies. Our “technology neutral” perspective means that we always recommend the best technical solution for the customer as we have a deep understanding of advantages and challenges of all motion technologies.

Moog: Linear actuation suite of solutions

For instance, compared to hydraulic and pneumatic linear motion system, an electromechanical system incorporating a linear motion feeding mechanism is superior in many aspect, and can dramatically reduce complexity of the control system of valves, pumps, filters, and sensors.

Of all screws used for industrial motion control, roller screws are indisputably the head of the class in terms of performance durability and a host of other characteristics, offering several advantages over all other designs (ball or acme screws).

Moog: Roller screw makes the difference

There are many different parameters to consider when deciding between technologies. Lifetime is often one of the most important, and sometimes most overlooked, factors, especially in the face of immediate costs. While a ball screw solution might present lower upfront costs, roller screws have a higher dynamic load rating than ball screws, with smaller sizes, and they provide a much longer working life to the machine, thus proving to be a better long-term investment.

In addition, the size and configuration of a roller screw, conventional or inverted, can be fine-tuned so the actuator will meet all the performance requirements of the application in a smaller envelope. An actuator with roller screws will also consistently exceed the dynamic load capability and lifetime of a much larger ball screw one.

Roller screw actuators offer several advantages over ball screw actuators:

- An appropriately designed roller screw will always be inherently more reliable than its ball screw counterpart
- Parity of performance with a ball screw can be achieved by a considerably smaller roller screw, allowing significant downsizing

- Roller screw actuators are the perfect choice for extremely high duty cycle applications
- They are ideal for applications that require long uninterrupted operation for high yield machinery.
- They allow noise level reduction in noise sensitive environments

Moog: Comparing technologies

Conventional ball screw assemblies can provide relatively accurate linear motion for industrial machines at somewhat lower costs. However, this apparent advantage is offset by limitations in terms of precision and dynamics as well as their general bulkiness. Thus modern designers often find difficult to integrate them into the more and more compact configurations required by current machinery.

Roller screw technology present itself as an overall better alternative, with superior loading capabilities and more accurate positioning, greater power density and consistent reliability, over an exponentially longer lifetime.

The technical concepts that stand behind a roller screw ensure distinct mechanical advantages, over a ball screw:

- Rollers have larger number of contact points allowing for:
 - Higher static and dynamic Load capacity
 - Longer service life
 - Increased axial stiffness
- Their planetary driven mechanism will deliver:
 - Higher speeds and accelerations
 - Reduced level of noise and vibrations (arising mainly from timing gears)
 - Superior shock load resistance (absence of collisions between rolling elements)
 - Reliable response on movement reversals
 - Improved heat resistance (lower rolling friction)
- The absence of recirculating elements will significantly reduce risks of mechanical failures (pitting, false brinelling)
- Assemblies with less components will lower maintenance requirements, allowing for simpler and less frequent maintenance, and inertia, allowing for the use of smaller motors

Moog: Roller screw fields of success

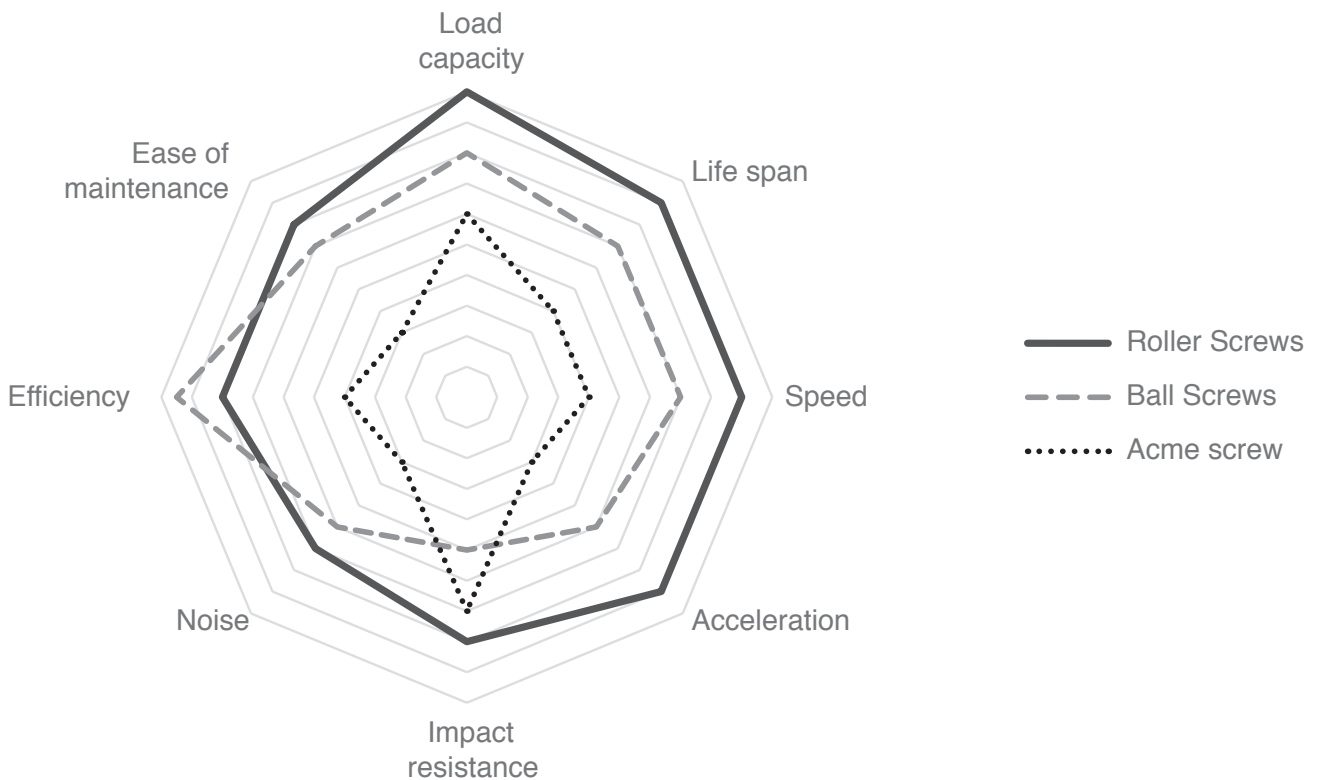
Roller screw based electromechanical cylinders are increasingly used as drop-in replacements for hydraulic rams in applications that require high actuation forces, providing additional value over the lifetime of a machine that more than offsets the higher initial outlay. Operations that require precise and replicable linear motion, such

as welding or riveting, are the most common examples of applications for which roller screws are best suited, thanks to their positioning accuracy and motion repeatability. They are equally indicated for a wide variety of industrial applications, from plastic molding to micro-electronics.

Screws technologies

	Roller Screws	Ball Screws	Acme screw
Load capacity	Very large	Large	Large
Life span	Very long	Long	Very short
Speed	Very fast	Average	Slow
Acceleration	Very large	Average	Small
Rigidity	Very high	Average	Very high
Impact resistance	Very high	Average	Very high
Heat resistance	Very resistant	Average	Resistant
Space required	Very small	Average	Average
Friction	Small	Very Small	Large
Vibration/noise	Very small	Small	Slightly large
Efficiency	75 to 90%	85 to 95%	Around 40%
Ease of maintenance	Very easy	Average	Very low
Environmental load	Very small	Very small	Small
Customizability	Very high	High	Average

The table above shows a comparison of acme screw, ball screw and planetary roller screw actuators as systems deriving from Moog’s own actuation design experience as well as data provided by other manufacturers.



MOOG PLANETARY ROLLER SCREWS

Customization

Moog is the supplier of choice for customers using screws to solve applications that mass produced screws cannot. The suite of screws ensures a reliable tailor-made solution, thanks to our extensive motion control know-how.

Our aim is to deliver a complete, high performance solution, co-designed with the customer to fulfill their requirements.

With dedicated screws designs, existing machines are suitable for upgrades without redesigning or retooling. The saving in terms of refurbishment costs are enhanced by reduced downtimes, as we are able to provide identical replacement spare parts with fast lead times even for low volume orders.

Some of the available options for Moog screws include, but are not limited to:

- Unique customizations:
 - Combination of diameter and lead not included in this catalogue
 - Special materials (such as stainless steel)
 - Heat treatments
 - Fine and Ultra-fine surface finishing (to reduce friction and increase life)
 - Dedicated solutions for harsh environments
- Special shaft features:
 - Splines
 - Deep-hole or through-hole drilling
 - Chrome plating of the interfaces
- Special nut features
 - Nut with trunnion mounting points
 - Custom shaped flanges
 - Modified points of lubrication to optimize the application

Testing capabilities

Providing the best solution requires not only the optimal design, but also to check the in-field performances of the screws. For this purpose, Moog Bergamo has at its disposal outstanding testing capabilities, developed thanks to the experience of our highly specialized technicians. Moog's unique test benches are currently dedicated to analyze:

- Screws Preload values
- Burn-in phase
- Vibration Spectrum
- Critical Frequencies
- Backlash



MOOG ULTRAPOW ER PLANETARY ROLLER SCREWS

Increased performances for most demanding applications

The “Ultrapower Planetary Roller Screws” Suite is Moog answer to all the applications with extreme performance requirements, which standard roller screws cannot meet. The Ultrapower series is able to compete with hydraulic

actuators to deliver Static Capacity forces of up to 3000kN, while additionally ensuring the higher precision that only electric control can deliver.



Moog specialists have optimized this technology in order to achieve maximum performance compared to other linear actuation solutions, providing also an unrivalled service life and power density.

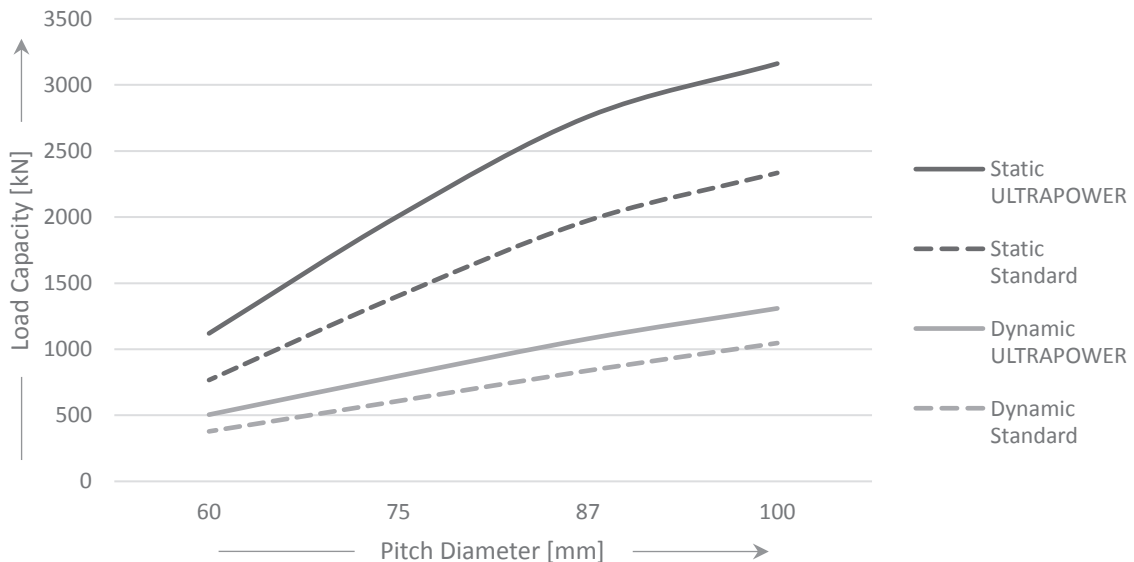
The Ultrapower Screws combine all the unique features of Planetary Roller Screws (High Precision, Speed and Acceleration rates, reduced axial backlash), with outstanding Load Capacities (up to 50% more than the standard products) in a compact envelope, making them a perfect solution even for designs with extremely small footprint.

The main industrial fields that can take advantage of the Ultrapower Screws are:

- injection molding and die casting
- steel industry (casting and rolling)
- presses

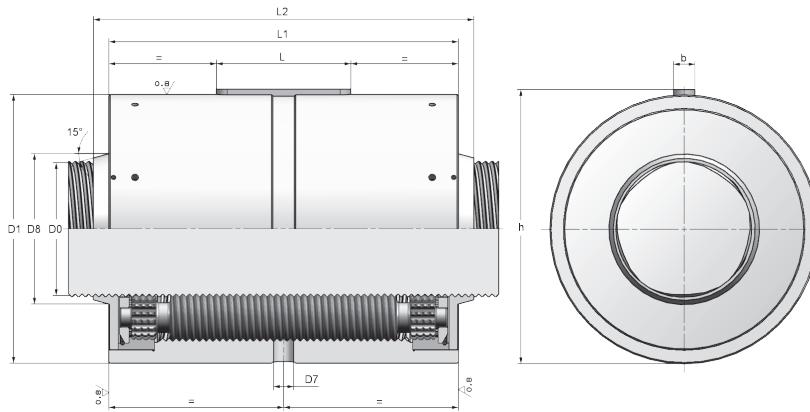
and, more generally, all applications where a suitable alternative to hydraulics is needed.

The chart below shows a comparison between the standard roller screws and the ultrapower load capacities.



SINGLE CYLINDRICAL NUT | Dimensions and Load Capacities

Table 00C



NOTES

- 1) Standard number of rollers
- 2) Maximum number of rollers
- 3) Custom dimension available upon request
- 4) With $D_0 < 21$ mm wipers within nut length

D_0	Ph_0	$C_a^{1)}$	$C_{oa}^{1)}$	$C_a^{2)}$	$C_{oa}^{2)}$	N	$D1^{3)}$	D7	D8	L x b	h	L1	L2 ⁴⁾
mm	mm	kN	kN	kN	kN	Starts	[g6] mm	mm	mm	mm	mm	mm	mm
15	2	24	39	28	49	5	34	3	-	14x4	35,5	51	51
	4	26	39	30	48	5	34	3	-	14x4	35,5	51	51
	5	26	37	30	46	5	34	3	-	14x4	35,5	51	51
	6	26	32	31	41	5	34	3	-	14x4	35,5	51	51
	8	24	29	28	37	5	34	3	-	14x4	35,5	51	51
20	2	31	52	35	64	5	42	3	-	20x4	43,5	55	55
	4	33	56	38	68	5	42	3	-	20x4	43,5	55	55
	5	34	54	39	66	5	42	3	-	20x4	43,5	55	55
	6	35	49	41	62	5	42	3	-	20x4	43,5	55	55
	8	32	44	37	55	5	42	3	-	20x4	43,5	55	55
	10	32	42	37	52	5	42	3	-	20x4	43,5	55	55
21	2	47	83	53	102	5	45	5	26	20x5	47	64	72
	4	51	92	58	112	5	45	5	26	20x5	47	64	72
	5	52	90	59	110	5	45	5	26	20x5	47	64	72
	6	54	82	62	103	5	45	5	26	20x5	47	64	72
	8	49	72	57	89	5	45	5	26	20x5	47	64	72
	10	49	72	57	90	5	45	5	26	20x5	47	64	72
23•	2	37	62	42	76	5	45	4	30	20x5	47	65	-
	4	40	70	46	86	5	45	4	30	20x5	47	65	-
	5	41	69	47	85	5	45	4	30	20x5	47	65	-
	6	46	72	53	88	5	45	4	30	20x5	47	65	-
	8	39	56	46	70	5	45	4	30	20x5	47	65	-
	10	39	57	46	71	5	45	4	30	20x5	47	65	-
25	2	64	114	73	139	5	53	5	32	25x6	55,5	78	90
	4	70	133	80	163	5	53	5	32	25x6	55,5	78	90
	5	72	133	82	163	5	53	5	32	25x6	55,5	78	90
	6	81	140	92	172	5	53	5	32	25x6	55,5	78	90
	8	69	111	80	138	5	53	5	32	25x6	55,5	78	90
	10	69	103	80	129	5	53	5	32	25x6	55,5	78	90
	15	74	96	86	120	5	53	5	32	25x6	55,5	78	90
	20	66	77	77	96	5	53	5	32	25x6	55,5	78	90
	25	58	58	68	74	5	53	5	32	25x6	55,5	78	90

Screws marked with symbol • are not standard products

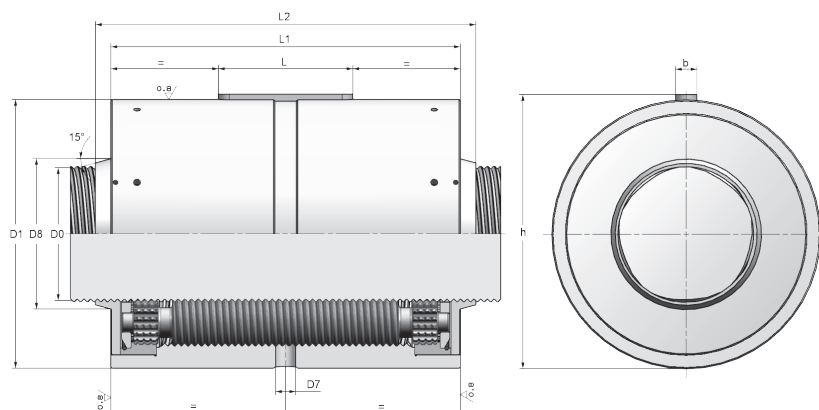
Table 00C

LEGEND of SYMBOLS

D_0	[mm]	Nominal Diameter	J_s	[kg·mm ² /m]	Linear Momentum of Inertia of Shaft
Ph_0	[mm]	Lead	J_{N-N}	[kg·mm ²]	Momentum of Inertia of Nut with rotating Nut
C_a	[kN]	Dynamic Load Capacity	J_{N-S}	[kg·mm ²]	Momentum of Inertia of Rollers with rotating Shaft
C_{oa}	[kN]	Static Load Capacity	f_s	[10 ⁶ N]	Axial Stiffness Factor of Shaft
m_s	[kg]	Linear Mass of Shaft	f_N	[N ^{2/3} /μm]	Axial Stiffness Factor of Nut
m_N	[kg]	Nut overall Mass (including rollers)			

For approximate Axial Stiffness of Nut use the formula $R_N = f_N \cdot F_{ax}^{1/3}$, where F_{ax} is the external axial load applied
 For approximate Axial Stiffness of Shaft use the formula $R_S = f_s / L_S$, where L_S is the length of the threaded shaft

m_s	m_N	J_s	J_{N-N}	J_{N-S}	f_s	f_N	Designation
kg/m	kg	kg·mm ² /m	kg·mm ²	kg·mm ²	10 ⁶ N	N ^{2/3} /μm	
1,4	0,2	39	41	1	37,1	51	00C-015-02
1,4	0,2	39	41	1	37,1	34	00C-015-04
1,4	0,2	39	41	1	37,1	29	00C-015-05
1,4	0,2	39	40	1	37,1	24	00C-015-06
1,4	0,2	39	40	1	37,1	20	00C-015-08
2,5	0,3	123	93	5	66,0	91	00C-020-02
2,5	0,3	123	93	5	66,0	60	00C-020-04
2,5	0,3	123	93	5	66,0	53	00C-020-05
2,5	0,3	123	92	4	66,0	44	00C-020-06
2,5	0,3	123	92	4	66,0	37	00C-020-08
2,5	0,3	123	92	4	66,0	32	00C-020-10
2,7	0,5	150	148	7	72,7	100	00C-021-02
2,7	0,5	150	148	7	72,7	66	00C-021-04
2,7	0,5	150	148	7	72,7	58	00C-021-05
2,7	0,4	150	146	6	72,7	49	00C-021-06
2,7	0,4	150	146	6	72,7	41	00C-021-08
2,7	0,4	150	146	6	72,7	35	00C-021-10
3,3	0,4	216	-	-	87,2	99	00C-023-02 •
3,3	0,4	216	-	-	87,2	66	00C-023-04 •
3,3	0,4	216	-	-	87,2	58	00C-023-05 •
3,3	0,4	216	-	-	87,2	52	00C-023-06 •
3,3	0,4	216	-	-	87,2	41	00C-023-08 •
3,3	0,4	216	-	-	87,2	35	00C-023-10 •
3,9	0,8	301	342	18	103,1	132	00C-025-02
3,9	0,8	301	342	18	103,1	88	00C-025-04
3,9	0,8	301	342	18	103,1	77	00C-025-05
3,9	0,8	301	342	18	103,1	69	00C-025-06
3,9	0,7	301	338	16	103,1	54	00C-025-08
3,9	0,7	301	338	16	103,1	47	00C-025-10
3,9	0,7	301	338	16	103,1	36	00C-025-15
3,9	0,7	301	338	16	103,1	30	00C-025-20
3,9	0,7	301	333	14	103,1	23	00C-025-25



NOTES

- 1) Standard number of rollers
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- 4) With $D_0 < 21$ mm wipers within nut length

D_0	Ph_0	$C_a^{1)}$	$C_{oa}^{1)}$	$C_a^{2)}$	$C_{oa}^{2)}$	N	$D1^{3)}$	D7	D8	L x b	h	L1	L2 ⁴⁾
mm	mm	kN	kN	kN	kN	Starts	[g6] mm	mm	mm	mm	mm	[h12] mm	mm
27	2	45	74	51	90	5	53	5	32	20x5	55	55	69
	4	49	88	56	108	5	53	5	32	20x5	55	55	69
	5	47	79	54	99	5	53	5	32	20x5	55	55	69
	6	52	84	61	105	5	53	5	32	20x5	55	55	69
	8	48	75	56	93	5	53	5	32	20x5	55	55	69
	10	49	70	57	88	5	53	5	32	20x5	55	55	69
	15	53	66	61	83	5	53	5	32	20x5	55	55	69
	20	43	47	51	60	5	53	5	32	20x5	55	55	69
30	2	75	131	86	160	5	64	5	38	32x6	66,5	85	99
	5	85	164	97	201	5	64	5	38	32x6	66,5	85	99
	6	96	176	110	215	5	64	5	38	32x6	66,5	85	99
	8	89	158	102	194	5	64	5	38	32x6	66,5	85	99
	10	90	150	103	184	5	64	5	38	32x6	66,5	85	99
	15	91	131	106	163	5	64	5	38	32x6	66,5	85	99
	20	82	105	95	131	5	64	5	38	32x6	66,5	85	99
	25	79	91	92	113	5	64	5	38	32x6	66,5	85	99
	30	69	70	82	90	5	64	5	38	32x6	66,5	85	99
36 •	6	-	-	103	273	6	68	5	45	25x5	70	80	96
	9	-	-	119	284	6	68	5	45	25x5	70	80	96
	12	-	-	105	232	6	68	5	45	25x5	70	80	96
	18	-	-	117	229	6	68	5	45	25x5	70	80	96
	24	-	-	101	170	6	68	5	45	25x5	70	80	96
	30	-	-	98	146	6	68	5	45	25x5	70	80	96
39	2	104	171	119	209	5	80	7	50	40x8	83	100	116
	5	119	240	137	293	5	80	7	50	40x8	83	100	116
	6	135	265	155	324	5	80	7	50	40x8	83	100	116
	10	128	239	147	292	5	80	7	50	40x8	83	100	116
	15	144	227	164	277	5	80	7	50	40x8	83	100	116
	20	120	185	140	231	5	80	7	50	40x8	83	100	116
	25	119	162	138	202	5	80	7	50	40x8	83	100	116
	30	116	144	134	180	5	80	7	50	40x8	83	100	116

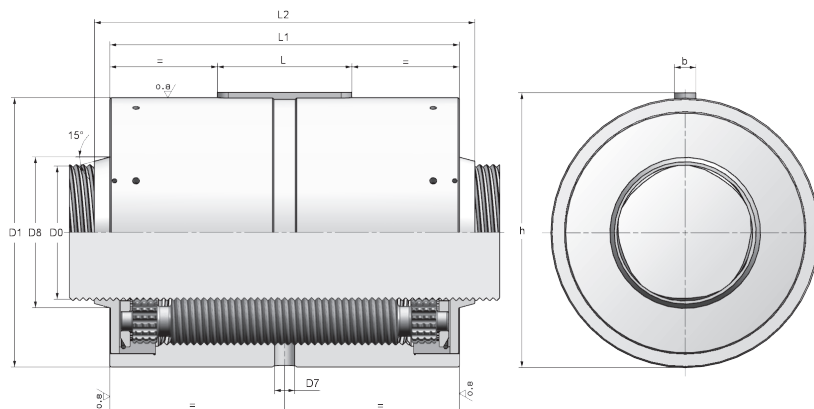
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LEGEND of SYMBOLS

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C_{oa}	[kN]	Static Load Capacity	f_s	[10 ⁶ N]	Axial Stiffness Factor of Shaft
m_s	[kg]	Linear Mass of Shaft	f_N	[N ^{2/3} /μm]	Axial Stiffness Factor of Nut
m_N	[kg]	Nut overall Mass (including rollers)			

For approximate Axial Stiffness of Nut use the formula $R_N = f_N \cdot F_{ax}^{1/3}$, where F_{ax} is the external axial load applied
 For approximate Axial Stiffness of Shaft use the formula $R_S = f_s / L_S$, where L_S is the length of the threaded shaft

m_s	m_N	J_s	J_{N-N}	J_{N-S}	f_s	f_N	Designation
kg/m	kg	kg·mm ² /m	kg·mm ²	kg·mm ²	10 ⁶ N	N ^{2/3} /μm	
4,5	0,5	410	215	19	120,2	106	00C-027-02
4,5	0,5	410	215	19	120,2	71	00C-027-04
4,5	0,5	410	210	18	120,2	58	00C-027-05
4,5	0,5	410	210	18	120,2	52	00C-027-06
4,5	0,5	410	210	18	120,2	44	00C-027-08
4,5	0,5	410	210	18	120,2	38	00C-027-10
4,5	0,5	410	210	18	120,2	29	00C-027-15
4,5	0,5	410	205	16	120,2	22	00C-027-20
4,5	0,5	410	205	16	120,2	19	00C-027-25
5,5	1,3	624	805	41	148,4	155	00C-030-02
5,5	1,3	624	805	41	148,4	90	00C-030-05
5,5	1,3	624	805	41	148,4	81	00C-030-06
5,5	1,3	624	805	41	148,4	68	00C-030-08
5,5	1,3	624	805	41	148,4	59	00C-030-10
5,5	1,2	624	794	38	148,4	43	00C-030-15
5,5	1,2	624	794	38	148,4	35	00C-030-20
5,5	1,2	624	794	38	148,4	30	00C-030-25
5,5	1,2	624	784	34	148,4	25	00C-030-30
8,0	1,3	1294	928	59	213,8	112	00C-036-06 •
8,0	1,3	1294	928	59	213,8	87	00C-036-09 •
8,0	1,2	1294	918	55	213,8	69	00C-036-12 •
8,0	1,2	1294	918	55	213,8	54	00C-036-18 •
8,0	1,2	1294	909	51	213,8	42	00C-036-24 •
8,0	1,2	1294	909	51	213,8	36	00C-036-30 •
9,4	2,3	1783	2218	157	250,9	203	00C-039-02
9,4	2,3	1783	2218	157	250,9	119	00C-039-05
9,4	2,3	1783	2218	157	250,9	107	00C-039-06
9,4	2,3	1783	2218	157	250,9	78	00C-039-10
9,4	2,3	1783	2218	157	250,9	61	00C-039-15
9,4	2,2	1783	2178	143	250,9	48	00C-039-20
9,4	2,2	1783	2178	143	250,9	41	00C-039-25
9,4	2,2	1783	2178	143	250,9	36	00C-039-30



NOTES

- 1) Standard number of rollers
- 2) Maximum number of rollers
- 3) Custom dimension available upon request
- 4) With $D_0 < 21$ mm wipers within nut length

D_0	Ph_0	$C_a^{1)}$	$C_{oa}^{1)}$	$C_a^{2)}$	$C_{oa}^{2)}$	N	$D1^{3)}$	D7	D8	L x b	h	L1	L2 ⁴⁾
mm	mm	kN	kN	kN	kN	Starts	[g6] mm	mm	mm	mm	mm	[h12] mm	mm
44 •	6	-	-	119	321	6	80	7	56	32x6	82,5	90	106
	8	-	-	123	327	6	80	7	56	32x6	82,5	90	106
	12	-	-	123	291	6	80	7	56	32x6	82,5	90	106
	18	-	-	139	272	6	80	7	56	32x6	82,5	90	106
	24	-	-	120	230	6	80	7	56	32x6	82,5	90	106
	30	-	-	119	200	6	80	7	56	32x6	82,5	90	106
	36	-	-	117	177	6	80	7	56	32x6	82,5	90	106
48	5	189	396	216	485	5	100	7	60	45x8	103	127	145
	6	215	448	246	548	5	100	7	60	45x8	103	127	145
	8	201	425	229	519	5	100	7	60	45x8	103	127	145
	10	205	423	235	517	5	100	7	60	45x8	103	127	145
	15	233	420	266	513	5	100	7	60	45x8	103	127	145
	20	213	385	243	471	5	100	7	60	45x8	103	127	145
	25	196	316	227	395	5	100	7	60	45x8	103	127	145
	30	193	284	224	354	5	100	7	60	45x8	103	127	145
60	5	282	599	322	733	5	122	10,5	71	45x10	125	152	170
	6	322	694	368	849	5	122	10,5	71	45x10	125	152	170
	10	309	688	354	841	5	122	10,5	71	45x10	125	152	170
	15	355	716	405	876	5	122	10,5	71	45x10	125	152	170
	20	327	630	373	771	5	122	10,5	71	45x10	125	152	170
	25	328	624	375	763	5	122	10,5	71	45x10	125	152	170
	30	327	589	374	720	5	122	10,5	71	45x10	125	152	170
	35	334	504	388	630	5	122	10,5	71	45x10	125	152	170
64	6	-	-	245	705	6	115	7	75	45x8	118	129	151
	12	-	-	270	783	6	115	7	75	45x8	118	129	151
	18	-	-	297	736	6	115	7	75	45x8	118	129	151
	24	-	-	274	641	6	115	7	75	45x8	118	129	151
	30	-	-	276	618	6	115	7	75	45x8	118	129	151
	36	-	-	276	587	6	115	7	75	45x8	118	129	151
	42	-	-	292	514	6	115	7	75	45x8	118	129	151

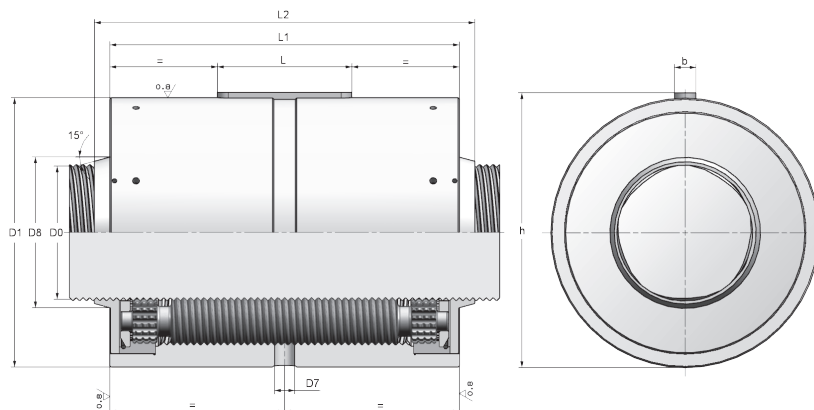
Screws marked with symbol • are not standard products

LEGEND of SYMBOLS

D_0 [mm]	Nominal Diameter	J_s [kg·mm ² /m]	Linear Momentum of Inertia of Shaft
Ph_0 [mm]	Lead	J_{N-N} [kg·mm ²]	Momentum of Inertia of Nut with rotating Nut
C_a [kN]	Dynamic Load Capacity	J_{N-S} [kg·mm ²]	Momentum of Inertia of Rollers with rotating Shaft
C_{oa} [kN]	Static Load Capacity	f_s [10 ⁶ N]	Axial Stiffness Factor of Shaft
m_s [kg]	Linear Mass of Shaft	f_N [N ^{2/3} /μm]	Axial Stiffness Factor of Nut
m_N [kg]	Nut overall Mass (including rollers)		

For approximate Axial Stiffness of Nut use the formula $R_N = f_N \cdot F_{ax}^{1/3}$, where F_{ax} is the external axial load applied
 For approximate Axial Stiffness of Shaft use the formula $R_S = f_s / L_S$, where L_S is the length of the threaded shaft

m_s	m_N	J_s	J_{N-N}	J_{N-S}	f_s	f_N	Designation
kg/m	kg	kg·mm ² /m	kg·mm ²	kg·mm ²	10 ⁶ N	N ^{2/3} /μm	
11,9	1,8	2889	1848	143	319,3	116	00C-044-06
11,9	1,8	2889	1848	143	319,3	98	00C-044-08
11,9	1,8	2889	1825	133	319,3	73	00C-044-12
11,9	1,8	2889	1825	133	319,3	56	00C-044-18
11,9	1,7	2889	1802	123	319,3	44	00C-044-24
11,9	1,7	2889	1802	123	319,3	38	00C-044-30
11,9	1,7	2889	1802	123	319,3	33	00C-044-36
14,2	4,6	4091	7053	459	380,0	145	00C-048-05
14,2	4,6	4091	7053	459	380,0	131	00C-048-06
14,2	4,6	4091	7053	459	380,0	110	00C-048-08
14,2	4,6	4091	7053	459	380,0	96	00C-048-10
14,2	4,6	4091	7053	459	380,0	75	00C-048-15
14,2	4,6	4091	7053	459	380,0	63	00C-048-20
14,2	4,4	4091	6937	417	380,0	51	00C-048-25
14,2	4,4	4091	6937	417	380,0	45	00C-048-30
22,2	8,0	9988	18072	1381	593,8	184	00C-060-05
22,2	8,0	9988	18072	1381	593,8	165	00C-060-06
22,2	8,0	9988	18072	1381	593,8	122	00C-060-10
22,2	8,0	9988	18072	1381	593,8	96	00C-060-15
22,2	8,0	9988	18072	1381	593,8	80	00C-060-20
22,2	8,0	9988	18072	1381	593,8	70	00C-060-25
22,2	8,0	9988	18072	1381	593,8	62	00C-060-30
22,2	7,7	9988	17723	1255	593,8	53	00C-060-35
25,3	5,4	12930	11155	983	675,6	178	00C-064-06
25,3	5,4	12930	11155	983	675,6	118	00C-064-12
25,3	5,3	12930	10997	912	675,6	88	00C-064-18
25,3	5,3	12930	10997	912	675,6	73	00C-064-24
25,3	5,3	12930	10997	912	675,6	63	00C-064-30
25,3	5,3	12930	10997	912	675,6	56	00C-064-36
25,3	5,1	12930	10839	842	675,6	48	00C-064-42



NOTES

- 1) Standard number of rollers
- 2) Maximum number of rollers
- 3) Custom dimension available upon request
- 4) With $D_0 < 21$ mm wipers within nut length

D_0	Ph_0	$C_a^{1)}$	$C_{oa}^{1)}$	$C_a^{2)}$	$C_{oa}^{2)}$	N	$D1^{3)}$	D7	D8	L x b	h	L1	L2⁴⁾
mm	mm	kN	kN	kN	kN	Starts	[g6] mm	mm	mm	mm	mm	[h12] mm	mm
75	5	-	-	482	1090	5	150	10,5	87	63x10	153	191	211
	6	-	-	552	1291	5	150	10,5	87	63x10	153	191	211
	10	-	-	533	1344	5	150	10,5	87	63x10	153	191	211
	15	-	-	618	1471	5	150	10,5	87	63x10	153	191	211
	20	-	-	572	1324	5	150	10,5	87	63x10	153	191	211
	25	-	-	579	1256	5	150	10,5	87	63x10	153	191	211
	30	-	-	581	1184	5	150	10,5	87	63x10	153	191	211
	35	-	-	611	1176	5	150	10,5	87	63x10	153	191	211
87	40	-	-	542	1029	5	150	10,5	87	63x10	153	191	211
	10	-	-	691	1785	5	175	12	103	100x12	178	220	244
	15	-	-	805	2018	5	175	12	103	100x12	178	220	244
	20	-	-	747	1845	5	175	12	103	100x12	178	220	244
	25	-	-	759	1778	5	175	12	103	100x12	178	220	244
	30	-	-	765	1695	5	175	12	103	100x12	178	220	244
	35	-	-	863	1715	5	175	12	103	100x12	178	220	244
100	40	-	-	720	1523	5	175	12	103	100x12	178	220	244
	15	-	-	1042	2727	5	200	15	112	100x16	204	260	284
	20	-	-	969	2530	5	200	15	112	100x16	204	260	284
	25	-	-	988	2470	5	200	15	112	100x16	204	260	284
	30	-	-	999	2381	5	200	15	112	100x16	204	260	284
	35	-	-	1133	2441	5	200	15	112	100x16	204	260	284
40	-	-	1007	2181	5	200	15	112	100x16	204	260	284	

LEGEND of SYMBOLS

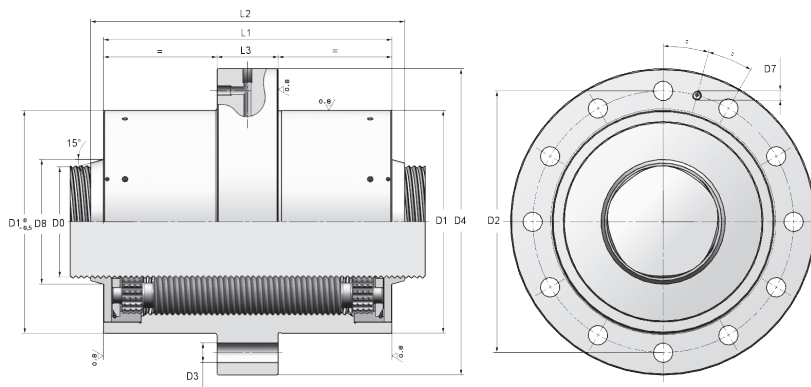
D_0	[mm]	Nominal Diameter	J_S	[kg·mm ² /m]	Linear Momentum of Inertia of Shaft
Ph_0	[mm]	Lead	J_{N-N}	[kg·mm ²]	Momentum of Inertia of Nut with rotating Nut
C_a	[kN]	Dynamic Load Capacity	J_{N-S}	[kg·mm ²]	Momentum of Inertia of Rollers with rotating Shaft
C_{oa}	[kN]	Static Load Capacity	f_s	[10 ⁶ N]	Axial Stiffness Factor of Shaft
m_s	[kg]	Linear Mass of Shaft	f_N	[N ^{2/3} /μm]	Axial Stiffness Factor of Nut
m_N	[kg]	Nut overall Mass (including rollers)			

For approximate Axial Stiffness of Nut use the formula $R_N = f_N \cdot F_{ax}^{1/3}$, where F_{ax} is the external axial load applied
 For approximate Axial Stiffness of Shaft use the formula $R_S = f_s / L_S$, where L_S is the length of the threaded shaft

m_s	m_N	J_S	J_{N-N}	J_{N-S}	f_s	f_N	Designation
kg/m	kg	kg·mm ² /m	kg·mm ²	kg·mm ²	10 ⁶ N	N ^{2/3} /μm	
34,7	15,0	24385	50527	4300	927,8	232	00C-075-05
34,7	15,0	24385	50527	4300	927,8	209	00C-075-06
34,7	15,0	24385	50527	4300	927,8	155	00C-075-10
34,7	15,0	24385	50527	4300	927,8	122	00C-075-15
34,7	15,0	24385	50527	4300	927,8	102	00C-075-20
34,7	15,0	24385	50527	4300	927,8	89	00C-075-25
34,7	15,0	24385	50527	4300	927,8	79	00C-075-30
34,7	14,3	24385	49441	3909	927,8	67	00C-075-35
34,7	14,3	24385	49441	3909	927,8	62	00C-075-40
46,7	23,8	44152	109301	9084	1248,4	176	00C-087-10
46,7	23,8	44152	109301	9084	1248,4	138	00C-087-15
46,7	23,8	44152	109301	9084	1248,4	116	00C-087-20
46,7	23,8	44152	109301	9084	1248,4	101	00C-087-25
46,7	23,8	44152	109301	9084	1248,4	91	00C-087-30
46,7	23,8	44152	109301	9084	1248,4	82	00C-087-35
46,7	22,8	44152	107007	8258	1248,4	71	00C-087-40
61,7	36,6	77067	218654	18959	1649,3	161	00C-100-15
61,7	36,6	77067	218654	18959	1649,3	136	00C-100-20
61,7	36,6	77067	218654	18959	1649,3	118	00C-100-25
61,7	36,6	77067	218654	18959	1649,3	106	00C-100-30
61,7	36,6	77067	218654	18959	1649,3	96	00C-100-35
61,7	36,6	77067	218654	18959	1649,3	88	00C-100-40

SINGLE FLANGED NUT | Dimensions and Load Capacities

Table 00D



NOTES

- 1) Standard number of rollers
- 2) Maximum number of rollers
- 3) Custom dimension available upon request
- 4) With $D_0 < 21$ mm wipers within nut length

D_0	Ph_0	$C_a^{1)}$	$C_{oa}^{1)}$	$C_a^{2)}$	$C_{oa}^{2)}$	N	$D1^{3)}$	D2	$n \times D3$	D4	D7	D8	L1	L2 ⁴⁾	L3
mm	mm	kN	kN	kN	kN	Starts	[g6] mm	mm	mm	mm	mm	mm	[h12] mm		
15	2	24	39	28	49	5	34	45	6x6	56	M6	-	51	-	18
	4	26	39	30	48	5	34	45	6x6	56	M6	-	51	-	18
	5	26	37	30	46	5	34	45	6x6	56	M6	-	51	-	18
	6	26	32	31	41	5	34	45	6x6	56	M6	-	51	-	18
	8	24	29	28	37	5	34	45	6x6	56	M6	-	51	-	18
20	2	31	52	35	64	5	42	53	6x6	64	M6	-	55	-	20
	4	33	56	38	68	5	42	53	6x6	64	M6	-	55	-	20
	5	34	54	39	66	5	42	53	6x6	64	M6	-	55	-	20
	6	35	49	41	62	5	42	53	6x6	64	M6	-	55	-	20
	8	32	44	37	55	5	42	53	6x6	64	M6	-	55	-	20
	10	32	42	37	52	5	42	53	6x6	64	M6	-	55	-	20
21	2	47	83	53	102	5	45	56	6x6	68	M6	26	64	72	18
	4	51	92	58	112	5	45	56	6x6	68	M6	26	64	72	18
	5	52	90	59	110	5	45	56	6x6	68	M6	26	64	72	18
	6	54	82	62	103	5	45	56	6x6	68	M6	26	64	72	18
	8	49	72	57	89	5	45	56	6x6	68	M6	26	64	72	18
	10	49	72	57	90	5	45	56	6x6	68	M6	26	64	72	18
23 •	2	37	62	42	76	5	45	56	6x7	67	M6	30	65	-	20
	4	40	70	46	86	5	45	56	6x7	67	M6	30	65	-	20
	5	41	69	47	85	5	45	56	6x7	67	M6	30	65	-	20
	6	46	72	53	88	5	45	56	6x7	67	M6	30	65	-	20
	8	39	56	46	70	5	45	56	6x7	67	M6	30	65	-	20
	10	39	57	46	71	5	45	56	6x7	67	M6	30	65	-	20
25	2	64	114	73	139	5	53	70	6x7	84	M6	32	78	90	20
	4	70	133	80	163	5	53	70	6x7	84	M6	32	78	90	20
	5	72	133	82	163	5	53	70	6x7	84	M6	32	78	90	20
	6	81	140	92	172	5	53	70	6x7	84	M6	32	78	90	20
	8	69	111	80	138	5	53	70	6x7	84	M6	32	78	90	20
	10	69	103	80	129	5	53	70	6x7	84	M6	32	78	90	20
	15	74	96	86	120	5	53	70	6x7	84	M6	32	78	90	20
	20	66	77	77	96	5	53	70	6x7	84	M6	32	78	90	20
	25	58	58	68	74	5	53	70	6x7	84	M6	32	78	90	20

Screws marked with symbol • are not standard products

Table 00D

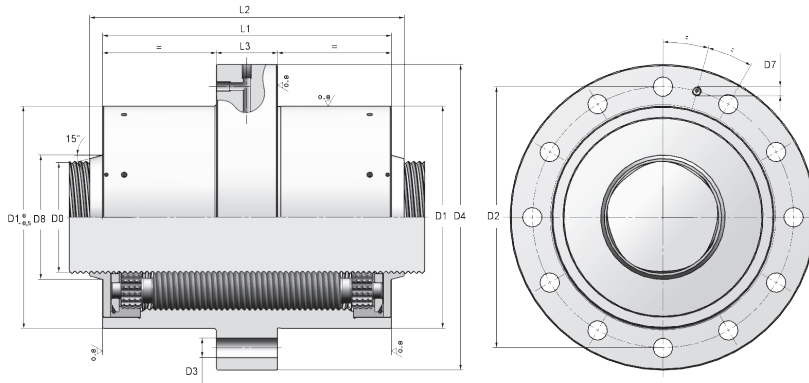
LEGEND of SYMBOLS

D_0 [mm]	Nominal Diameter	J_s [kg·mm ² /m]	Linear Momentum of Inertia of Shaft
Ph_0 [mm]	Lead	J_{N-N} [kg·mm ²]	Momentum of Inertia of Nut with rotating Nut
C_a [kN]	Dynamic Load Capacity	J_{N-S} [kg·mm ²]	Momentum of Inertia of Rollers with rotating Shaft
C_{oa} [kN]	Static Load Capacity	f_s [10 ⁶ N]	Axial Stiffness Factor of Shaft
m_s [kg]	Linear Mass of Shaft	f_N [N ^{2/3} /μm]	Axial Stiffness Factor of Nut
m_N [kg]	Nut overall Mass (including rollers)		

For approximate Axial Stiffness of Nut use the formula $R_N = f_N \cdot F_{ax}^{1/3}$, where F_{ax} is the external axial load applied

For approximate Axial Stiffness of Shaft use the formula $R_s = f_s / L_s$, where L_s is the length of the threaded shaft

m_s	m_N	J_s	J_{N-N}	J_{N-S}	f_s	f_N	Designation
kg/m	kg	kg·mm ² /m	kg·mm ²	kg·mm ²	10 ⁶ N	N ^{2/3} /μm	
1,4	0,4	39	159	1	37,1	51	00D-015-02
1,4	0,4	39	159	1	37,1	34	00D-015-04
1,4	0,4	39	159	1	37,1	29	00D-015-05
1,4	0,4	39	158	1	37,1	24	00D-015-06
1,4	0,4	39	158	1	37,1	20	00D-015-08
2,5	0,6	123	304	5	66,0	91	00D-020-02
2,5	0,6	123	304	5	66,0	60	00D-020-04
2,5	0,6	123	304	5	66,0	53	00D-020-05
2,5	0,6	123	302	4	66,0	44	00D-020-06
2,5	0,6	123	302	4	66,0	37	00D-020-08
2,5	0,6	123	302	4	66,0	32	00D-020-10
2,7	0,7	150	387	7	72,7	100	00D-021-02
2,7	0,7	150	387	7	72,7	66	00D-021-04
2,7	0,7	150	387	7	72,7	58	00D-021-05
2,7	0,7	150	386	6	72,7	49	00D-021-06
2,7	0,7	150	386	6	72,7	41	00D-021-08
2,7	0,7	150	386	6	72,7	35	00D-021-10
3,3	0,7	216	-	-	87,2	99	00D-023-02 •
3,3	0,7	216	-	-	87,2	66	00D-023-04 •
3,3	0,7	216	-	-	87,2	58	00D-023-05 •
3,3	0,7	216	-	-	87,2	52	00D-023-06 •
3,3	0,7	216	-	-	87,2	41	00D-023-08 •
3,3	0,7	216	-	-	87,2	35	00D-023-10 •
3,9	1,3	301	988	18	103,1	132	00D-025-02
3,9	1,3	301	988	18	103,1	88	00D-025-04
3,9	1,3	301	988	18	103,1	77	00D-025-05
3,9	1,3	301	988	18	103,1	69	00D-025-06
3,9	1,3	301	984	16	103,1	54	00D-025-08
3,9	1,3	301	984	16	103,1	47	00D-025-10
3,9	1,3	301	984	16	103,1	36	00D-025-15
3,9	1,3	301	984	16	103,1	30	00D-025-20
3,9	1,2	301	979	14	103,1	23	00D-025-25



NOTES

- 1) Standard number of rollers
- 2) Maximum number of rollers
- 3) Custom dimension available upon request
- 4) With $D_0 < 21$ mm wipers within nut length

D_0	Ph_0	$C_a^{1)}$	$C_{oa}^{1)}$	$C_a^{2)}$	$C_{oa}^{2)}$	N	$D1^{3)}$	D2	n x D3	D4	D7	D8	L1	L2⁴⁾	L3
mm	mm	kN	kN	kN	kN	Starts	[g6]	mm	mm	mm	mm	mm	[h12]	mm	mm
27	2	45	74	51	90	5	53	68	6x7	83	M6	35	55	69	22
	4	49	88	56	108	5	53	68	6x7	83	M6	35	55	69	22
	5	47	79	54	99	5	53	68	6x7	83	M6	35	55	69	22
	6	52	84	61	105	5	53	68	6x7	83	M6	35	55	69	22
	8	48	75	56	93	5	53	68	6x7	83	M6	35	55	69	22
	10	49	70	57	88	5	53	68	6x7	83	M6	35	55	69	22
	15	53	66	61	83	5	53	68	6x7	83	M6	35	55	69	22
	20	43	47	51	60	5	53	68	6x7	83	M6	35	55	69	22
25	41	40	49	51	5	53	68	6x7	83	M6	35	55	69	22	
30	2	75	131	86	160	5	64	81	6x9	98	M6	38	85	99	27
	5	85	164	97	201	5	64	81	6x9	98	M6	38	85	99	27
	6	96	176	110	215	5	64	81	6x9	98	M6	38	85	99	27
	8	89	158	102	194	5	64	81	6x9	98	M6	38	85	99	27
	10	90	150	103	184	5	64	81	6x9	98	M6	38	85	99	27
	15	91	131	106	163	5	64	81	6x9	98	M6	38	85	99	27
	20	82	105	95	131	5	64	81	6x9	98	M6	38	85	99	27
	25	79	91	92	113	5	64	81	6x9	98	M6	38	85	99	27
30	69	70	82	90	5	64	81	6x9	98	M6	38	85	99	27	
36 •	6	-	-	103	273	6	68	85	6x9	102	M6	45	80	96	27
	9	-	-	119	284	6	68	85	6x9	102	M6	45	80	96	27
	12	-	-	105	232	6	68	85	6x9	102	M6	45	80	96	27
	18	-	-	117	229	6	68	85	6x9	102	M6	45	80	96	27
	24	-	-	101	170	6	68	85	6x9	102	M6	45	80	96	27
30	-	-	98	146	6	68	85	6x9	102	M6	45	80	96	27	
39	2	104	171	119	209	5	80	102	6x11	124	M6	50	100	116	33
	5	119	240	137	293	5	80	102	6x11	124	M6	50	100	116	33
	6	135	265	155	324	5	80	102	6x11	124	M6	50	100	116	33
	10	128	239	147	292	5	80	102	6x11	124	M6	50	100	116	33
	15	144	227	164	277	5	80	102	6x11	124	M6	50	100	116	33
	20	120	185	140	231	5	80	102	6x11	124	M6	50	100	116	33
	25	119	162	138	202	5	80	102	6x11	124	M6	50	100	116	33
	30	116	144	134	180	5	80	102	6x11	124	M6	50	100	116	33

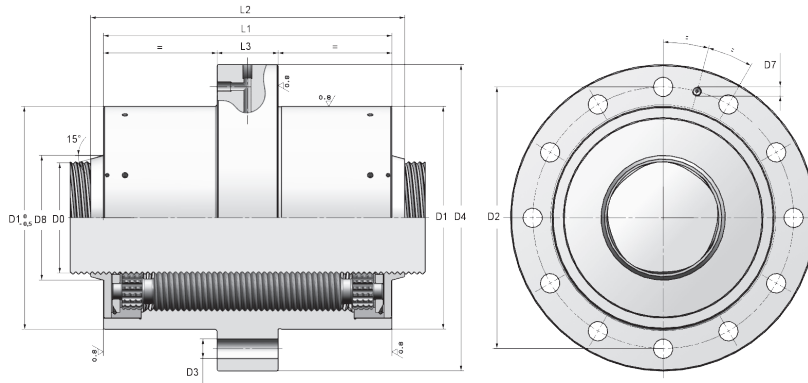
Screws marked with symbol • are not standard products

LEGEND of SYMBOLS

D_0	[mm]	Nominal Diameter	J_s	[kg·mm ² /m]	Linear Momentum of Inertia of Shaft
Ph_0	[mm]	Lead	J_{N-N}	[kg·mm ²]	Momentum of Inertia of Nut with rotating Nut
C_a	[kN]	Dynamic Load Capacity	J_{N-S}	[kg·mm ²]	Momentum of Inertia of Rollers with rotating Shaft
C_{oa}	[kN]	Static Load Capacity	f_s	[10 ⁶ N]	Axial Stiffness Factor of Shaft
m_s	[kg]	Linear Mass of Shaft	f_N	[N ^{2/3} /μm]	Axial Stiffness Factor of Nut
m_N	[kg]	Nut overall Mass (including rollers)			

For approximate Axial Stiffness of Nut use the formula $R_N = f_N \cdot F_{ax}^{1/3}$, where F_{ax} is the external axial load applied
 For approximate Axial Stiffness of Shaft use the formula $R_S = f_s / L_S$, where L_S is the length of the threaded shaft

m_s	m_N	J_s	J_{N-N}	J_{N-S}	f_s	f_N	Designation
kg/m	kg	kg·mm ² /m	kg·mm ²	kg·mm ²	10 ⁶ N	N ^{2/3} /μm	
4,5	1,1	410	885	19	120,2	106	00D-027-02
4,5	1,1	410	885	19	120,2	71	00D-027-04
4,5	1,0	410	880	18	120,2	58	00D-027-05
4,5	1,0	410	880	18	120,2	52	00D-027-06
4,5	1,0	410	880	18	120,2	44	00D-027-08
4,5	1,0	410	880	18	120,2	38	00D-027-10
4,5	1,0	410	880	18	120,2	29	00D-027-15
4,5	1,0	410	876	16	120,2	22	00D-027-20
4,5	1,0	410	876	16	120,2	19	00D-027-25
5,5	2,2	624	2375	41	148,4	155	00D-030-02
5,5	2,2	624	2375	41	148,4	90	00D-030-05
5,5	2,2	624	2375	41	148,4	81	00D-030-06
5,5	2,2	624	2375	41	148,4	68	00D-030-08
5,5	2,2	624	2375	41	148,4	59	00D-030-10
5,5	2,1	624	2364	38	148,4	43	00D-030-15
5,5	2,1	624	2364	38	148,4	35	00D-030-20
5,5	2,1	624	2364	38	148,4	30	00D-030-25
5,5	2,1	624	2354	34	148,4	25	00D-030-30
8,0	2,2	1294	2735	59	213,8	112	00D-036-06 •
8,0	2,2	1294	2735	59	213,8	87	00D-036-09 •
8,0	2,2	1294	2726	55	213,8	69	00D-036-12 •
8,0	2,2	1294	2726	55	213,8	54	00D-036-18 •
8,0	2,2	1294	2716	51	213,8	42	00D-036-24 •
8,0	2,2	1294	2716	51	213,8	36	00D-036-30 •
9,4	4,1	1783	7189	157	250,9	203	00D-039-02
9,4	4,1	1783	7189	157	250,9	119	00D-039-05
9,4	4,1	1783	7189	157	250,9	107	00D-039-06
9,4	4,1	1783	7189	157	250,9	78	00D-039-10
9,4	4,1	1783	7189	157	250,9	61	00D-039-15
9,4	4,0	1783	7149	143	250,9	48	00D-039-20
9,4	4,0	1783	7149	143	250,9	41	00D-039-25
9,4	4,0	1783	7149	143	250,9	36	00D-039-30



NOTES

- 1) Standard number of rollers
- 2) Maximum number of rollers
- 3) Custom dimension available upon request
- 4) With $D_0 < 21$ mm wipers within nut length

D_0	Ph_0	$C_a^{1)}$	$C_{oa}^{1)}$	$C_a^{2)}$	$C_{oa}^{2)}$	N	$D1^{3)}$	D2	n x D3	D4	D7	D8	L1	L2 ⁴⁾	L3
mm	mm	kN	kN	kN	kN	Starts	[g6] mm	mm	mm	mm	mm	mm	mm	[h12] mm	
44 •	6	-	-	119	321	6	80	102	6x11	124	M6	56	90	106	33
	8	-	-	123	327	6	80	102	6x11	124	M6	56	90	106	33
	12	-	-	123	291	6	80	102	6x11	124	M6	56	90	106	33
	18	-	-	139	272	6	80	102	6x11	124	M6	56	90	106	33
	24	-	-	120	230	6	80	102	6x11	124	M6	56	90	106	33
	30	-	-	119	200	6	80	102	6x11	124	M6	56	90	106	33
	36	-	-	117	177	6	80	102	6x11	124	M6	56	90	106	33
48	5	189	396	216	485	5	100	127	6x13,5	150	M8x1	60	127	145	37
	6	215	448	246	548	5	100	127	6x13,5	150	M8x1	60	127	145	37
	8	201	425	229	519	5	100	127	6x13,5	150	M8x1	60	127	145	37
	10	205	423	235	517	5	100	127	6x13,5	150	M8x1	60	127	145	37
	15	233	420	266	513	5	100	127	6x13,5	150	M8x1	60	127	145	37
	20	213	385	243	471	5	100	127	6x13,5	150	M8x1	60	127	145	37
	25	196	316	227	395	5	100	127	6x13,5	150	M8x1	60	127	145	37
	30	193	284	224	354	5	100	127	6x13,5	150	M8x1	60	127	145	37
60	5	282	599	322	733	5	122	150	6x17,5	180	M8x1	71	152	170	45
	6	322	694	368	849	5	122	150	6x17,5	180	M8x1	71	152	170	45
	10	309	688	354	841	5	122	150	6x17,5	180	M8x1	71	152	170	45
	15	355	716	405	876	5	122	150	6x17,5	180	M8x1	71	152	170	45
	20	327	630	373	771	5	122	150	6x17,5	180	M8x1	71	152	170	45
	25	328	624	375	763	5	122	150	6x17,5	180	M8x1	71	152	170	45
	30	327	589	374	720	5	122	150	6x17,5	180	M8x1	71	152	170	45
	35	334	504	388	630	5	122	150	6x17,5	180	M8x1	71	152	170	45
64	6	-	-	245	705	6	115	150	6x17,5	180	M8x1	75	129	151	45
	12	-	-	270	783	6	115	150	6x17,5	180	M8x1	75	129	151	45
	18	-	-	297	736	6	115	150	6x17,5	180	M8x1	75	129	151	45
	24	-	-	274	641	6	115	150	6x17,5	180	M8x1	75	129	151	45
	30	-	-	276	618	6	115	150	6x17,5	180	M8x1	75	129	151	45
	36	-	-	276	587	6	115	150	6x17,5	180	M8x1	75	129	151	45
	42	-	-	292	514	6	115	150	6x17,5	180	M8x1	75	129	151	45

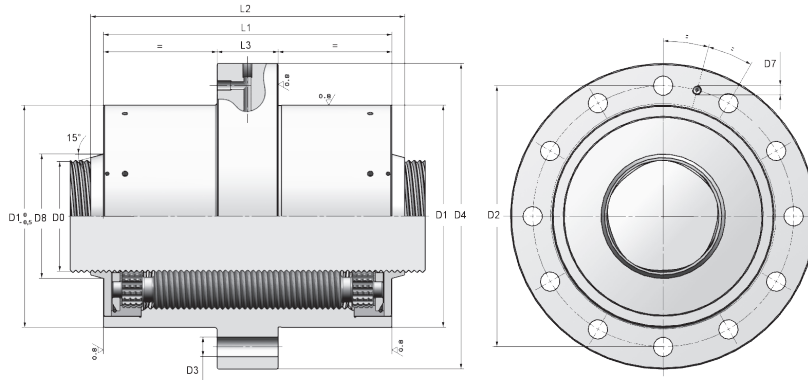
Screws marked with symbol • are not standard products

LEGEND of SYMBOLS

D_0	[mm]	Nominal Diameter	J_s	[kg·mm ² /m]	Linear Momentum of Inertia of Shaft
Ph_0	[mm]	Lead	J_{N-N}	[kg·mm ²]	Momentum of Inertia of Nut with rotating Nut
C_a	[kN]	Dynamic Load Capacity	J_{N-S}	[kg·mm ²]	Momentum of Inertia of Rollers with rotating Shaft
C_{oa}	[kN]	Static Load Capacity	f_s	[10 ⁶ N]	Axial Stiffness Factor of Shaft
m_s	[kg]	Linear Mass of Shaft	f_N	[N ^{2/3} /μm]	Axial Stiffness Factor of Nut
m_N	[kg]	Nut overall Mass (including rollers)			

For approximate Axial Stiffness of Nut use the formula $R_N = f_N \cdot F_{ax}^{1/3}$, where F_{ax} is the external axial load applied
 For approximate Axial Stiffness of Shaft use the formula $R_S = f_s / L_S$, where L_S is the length of the threaded shaft

m_s	m_N	J_s	J_{N-N}	J_{N-S}	f_s	f_N	Designation
kg/m	kg	kg·mm ² /m	kg·mm ²	kg·mm ²	10 ⁶ N	N ^{2/3} /μm	
11,9	3,6	2889	6819	143	319,3	116	00D-044-06 •
11,9	3,6	2889	6819	143	319,3	98	00D-044-08 •
11,9	3,6	2889	6796	133	319,3	73	00D-044-12 •
11,9	3,6	2889	6796	133	319,3	56	00D-044-18 •
11,9	3,6	2889	6773	123	319,3	44	00D-044-24 •
11,9	3,6	2889	6773	123	319,3	38	00D-044-30 •
11,9	3,6	2889	6773	123	319,3	33	00D-044-36 •
14,2	7,5	4091	18637	459	380,0	145	00D-048-05
14,2	7,5	4091	18637	459	380,0	131	00D-048-06
14,2	7,5	4091	18637	459	380,0	110	00D-048-08
14,2	7,5	4091	18637	459	380,0	96	00D-048-10
14,2	7,5	4091	18637	459	380,0	75	00D-048-15
14,2	7,5	4091	18637	459	380,0	63	00D-048-20
14,2	7,3	4091	18521	417	380,0	51	00D-048-25
14,2	7,3	4091	18521	417	380,0	45	00D-048-30
22,2	12,9	9988	46795	1381	593,8	184	00D-060-05
22,2	12,9	9988	46795	1381	593,8	165	00D-060-06
22,2	12,9	9988	46795	1381	593,8	122	00D-060-10
22,2	12,9	9988	46795	1381	593,8	96	00D-060-15
22,2	12,9	9988	46795	1381	593,8	80	00D-060-20
22,2	12,9	9988	46795	1381	593,8	70	00D-060-25
22,2	12,9	9988	46795	1381	593,8	62	00D-060-30
22,2	12,6	9988	46447	1255	593,8	53	00D-060-35
25,3	10,7	12930	41496	983	675,6	178	00D-064-06
25,3	10,7	12930	41496	983	675,6	118	00D-064-12
25,3	10,6	12930	41338	912	675,6	88	00D-064-18
25,3	10,6	12930	41338	912	675,6	73	00D-064-24
25,3	10,6	12930	41338	912	675,6	63	00D-064-30
25,3	10,6	12930	41338	912	675,6	56	00D-064-36
25,3	10,4	12930	41180	842	675,6	48	00D-064-42



NOTES

- ¹⁾ Standard number of rollers
- ²⁾ Maximum number of rollers
- ³⁾ Custom dimension available upon request
- ⁴⁾ With $D_0 < 21$ mm wipers within nut length

D_0	Ph_0	$C_a^{1)}$	$C_{oa}^{1)}$	$C_a^{2)}$	$C_{oa}^{2)}$	N	$D1^{3)}$	D2	$n \times D3$	D4	D7	D8	L1	L2 ⁴⁾	L3
mm	mm	kN	kN	kN	kN	Starts	[g6] mm	mm	mm	mm	mm	mm	[h12] mm		
75	5	-	-	482	1090	5	150	180	8x17,5	210	M8x1	87	191	211	45
	6	-	-	552	1291	5	150	180	8x17,5	210	M8x1	87	191	211	45
	10	-	-	533	1344	5	150	180	8x17,5	210	M8x1	87	191	211	45
	15	-	-	618	1471	5	150	180	8x17,5	210	M8x1	87	191	211	45
	20	-	-	572	1324	5	150	180	8x17,5	210	M8x1	87	191	211	45
	25	-	-	579	1256	5	150	180	8x17,5	210	M8x1	87	191	211	45
	30	-	-	581	1184	5	150	180	8x17,5	210	M8x1	87	191	211	45
	35	-	-	611	1176	5	150	180	8x17,5	210	M8x1	87	191	211	45
	40	-	-	542	1029	5	150	180	8x17,5	210	M8x1	87	191	211	45
87	10	-	-	691	1785	5	175	200	12x13,5	220	M8x1	103	220	244	40
	15	-	-	805	2018	5	175	200	12x13,5	220	M8x1	103	220	244	40
	20	-	-	747	1845	5	175	200	12x13,5	220	M8x1	103	220	244	40
	25	-	-	759	1778	5	175	200	12x13,5	220	M8x1	103	220	244	40
	30	-	-	765	1695	5	175	200	12x13,5	220	M8x1	103	220	244	40
	35	-	-	863	1715	5	175	200	12x13,5	220	M8x1	103	220	244	40
	40	-	-	720	1523	5	175	200	12x13,5	220	M8x1	103	220	244	40
100	15	-	-	1042	2727	5	200	245	12x17,5	275	M8x1	112	260	284	55
	20	-	-	969	2530	5	200	245	12x17,5	275	M8x1	112	260	284	55
	25	-	-	988	2470	5	200	245	12x17,5	275	M8x1	112	260	284	55
	30	-	-	999	2381	5	200	245	12x17,5	275	M8x1	112	260	284	55
	35	-	-	1133	2441	5	200	245	12x17,5	275	M8x1	112	260	284	55
	40	-	-	1007	2181	5	200	245	12x17,5	275	M8x1	112	260	284	55

LEGEND of SYMBOLS

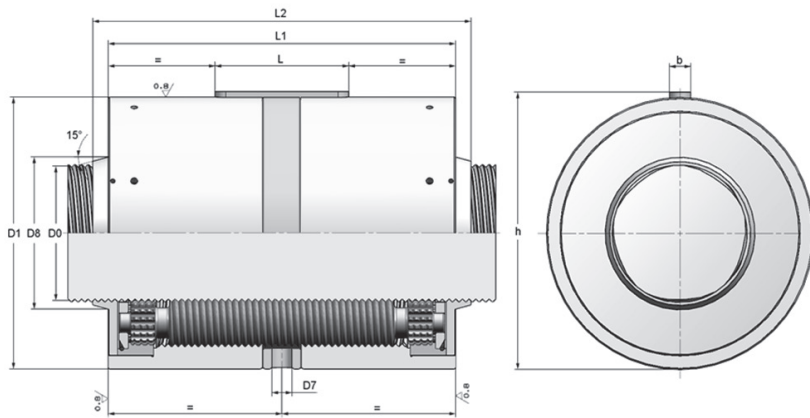
D_0 [mm]	Nominal Diameter	J_S [kg·mm ² /m]	Linear Momentum of Inertia of Shaft
Ph_0 [mm]	Lead	J_{N-N} [kg·mm ²]	Momentum of Inertia of Nut with rotating Nut
C_a [kN]	Dynamic Load Capacity	J_{N-S} [kg·mm ²]	Momentum of Inertia of Rollers with rotating Shaft
C_{oa} [kN]	Static Load Capacity	f_S [10 ⁶ N]	Axial Stiffness Factor of Shaft
m_S [kg]	Linear Mass of Shaft	f_N [N ^{2/3} /μm]	Axial Stiffness Factor of Nut
m_N [kg]	Nut overall Mass (including rollers)		

For approximate Axial Stiffness of Nut use the formula $R_N = f_N \cdot F_{ax}^{1/3}$, where F_{ax} is the external axial load applied
 For approximate Axial Stiffness of Shaft use the formula $R_S = f_S / L_S$, where L_S is the length of the threaded shaft

m_S	m_N	J_S	J_{N-N}	J_{N-S}	f_S	f_N	Designation
kg/m	kg	kg·mm ² /m	kg·mm ²	kg·mm ²	10 ⁶ N	N ^{2/3} /μm	
34,7	21,0	24385	100416	4300	927,8	232	00D-075-05
34,7	21,0	24385	100416	4300	927,8	209	00D-075-06
34,7	21,0	24385	100416	4300	927,8	155	00D-075-10
34,7	21,0	24385	100416	4300	927,8	122	00D-075-15
34,7	21,0	24385	100416	4300	927,8	102	00D-075-20
34,7	21,0	24385	100416	4300	927,8	89	00D-075-25
34,7	21,0	24385	100416	4300	927,8	79	00D-075-30
34,7	20,3	24385	99330	3909	927,8	67	00D-075-35
34,7	20,3	24385	99330	3909	927,8	62	00D-075-40
46,7	28,2	44152	152602	9084	1248,4	176	00D-087-10
46,7	28,2	44152	152602	9084	1248,4	138	00D-087-15
46,7	28,2	44152	152602	9084	1248,4	116	00D-087-20
46,7	28,2	44152	152602	9084	1248,4	101	00D-087-25
46,7	28,2	44152	152602	9084	1248,4	91	00D-087-30
46,7	28,2	44152	152602	9084	1248,4	82	00D-087-35
46,7	27,2	44152	150308	8258	1248,4	71	00D-087-40
61,7	48,7	77067	393252	18959	1649,3	161	00D-100-15
61,7	48,7	77067	393252	18959	1649,3	136	00D-100-20
61,7	48,7	77067	393252	18959	1649,3	118	00D-100-25
61,7	48,7	77067	393252	18959	1649,3	106	00D-100-30
61,7	48,7	77067	393252	18959	1649,3	96	00D-100-35
61,7	48,7	77067	393252	18959	1649,3	88	00D-100-40

SPLIT CYLINDRICAL NUT | Dimensions and Load Capacities

Table OCC



NOTES

- 1) Standard number of rollers
- 2) Maximum number of rollers
- 3) Custom dimension available upon request
- 4) With $D_0 < 21$ mm wipers within nut length

D_0	Ph_0	$C_a^{1)}$	$C_{oa}^{1)}$	$C_a^{2)}$	$C_{oa}^{2)}$	N	$D1^{3)}$	D7	D8	L x b	h	L1	L2 ⁴⁾
mm	mm	kN	kN	kN	kN	Starts	[g6] mm	mm	mm	mm	mm	[h12] mm	mm
15	2	15	20	17	24	5	34	3	-	14x4	35,5	51	51
	4	16	19	19	24	5	34	3	-	14x4	35,5	51	51
	5	16	18	19	23	5	34	3	-	14x4	35,5	51	51
	6	16	16	19	20	5	34	3	-	14x4	35,5	51	51
	8	15	14	18	19	5	34	3	-	14x4	35,5	51	51
20	2	19	26	22	32	5	42	3	-	20x4	43,5	55	55
	4	21	28	24	34	5	42	3	-	20x4	43,5	55	55
	5	21	27	24	33	5	42	3	-	20x4	43,5	55	55
	6	22	25	26	31	5	42	3	-	20x4	43,5	55	55
	8	20	22	23	27	5	42	3	-	20x4	43,5	55	55
	10	20	21	23	26	5	42	3	-	20x4	43,5	55	55
21	2	29	42	34	51	5	45	5	26	20x5	47	64	72
	4	32	46	37	56	5	45	5	26	20x5	47	64	72
	5	33	45	37	55	5	45	5	26	20x5	47	64	72
	6	34	41	39	51	5	45	5	26	20x5	47	64	72
	8	31	36	36	45	5	45	5	26	20x5	47	64	72
	10	31	36	36	45	5	45	5	26	20x5	47	64	72
23•	2	23	31	27	38	5	45	4	30	20x5	47	65	-
	4	25	35	29	43	5	45	4	30	20x5	47	65	-
	5	26	35	30	42	5	45	4	30	20x5	47	65	-
	6	29	36	33	44	5	45	4	30	20x5	47	65	-
	8	25	28	29	35	5	45	4	30	20x5	47	65	-
	10	25	28	29	36	5	45	4	30	20x5	47	65	-
25	2	40	57	46	69	5	53	5	32	25x6	55,5	78	90
	4	44	67	50	81	5	53	5	32	25x6	55,5	78	90
	5	45	67	52	82	5	53	5	32	25x6	55,5	78	90
	6	51	70	58	86	5	53	5	32	25x6	55,5	78	90
	8	43	55	50	69	5	53	5	32	25x6	55,5	78	90
	10	44	52	50	65	5	53	5	32	25x6	55,5	78	90
	15	47	48	54	60	5	53	5	32	25x6	55,5	78	90
	20	42	38	48	48	5	53	5	32	25x6	55,5	78	90
	25	36	29	43	37	5	53	5	32	25x6	55,5	78	90

Screws marked with symbol • are not standard products

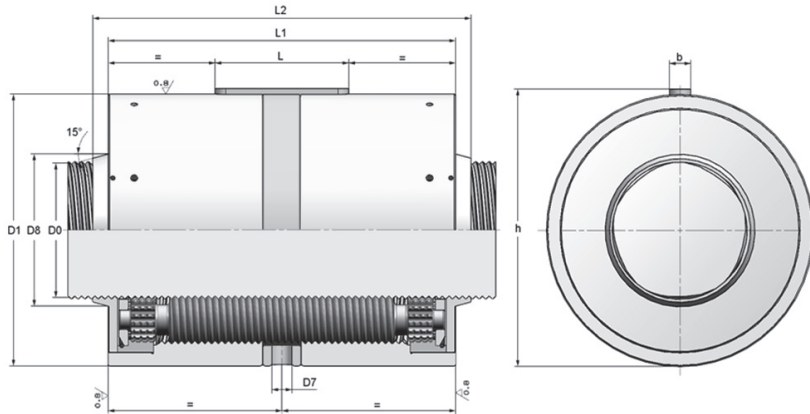
Table OCC

LEGEND of SYMBOLS

D_0 [mm]	Nominal Diameter	J_s [kg·mm ² /m]	Linear Momentum of Inertia of Shaft
Ph_0 [mm]	Lead	J_{N-N} [kg·mm ²]	Momentum of Inertia of Nut with rotating Nut
C_a [kN]	Dynamic Load Capacity	J_{N-S} [kg·mm ²]	Momentum of Inertia of Rollers with rotating Shaft
C_{oa} [kN]	Static Load Capacity	f_s [10 ⁶ N]	Axial Stiffness Factor of Shaft
m_s [kg]	Linear Mass of Shaft	f_N [N ^{2/3} /μm]	Axial Stiffness Factor of Nut
m_N [kg]	Nut overall Mass (including rollers)		

For approximate Axial Stiffness of Nut use the formula $R_N = f_N \cdot F_{ax}^{1/3}$, where F_{ax} is the external axial load applied
 For approximate Axial Stiffness of Shaft use the formula $R_s = f_s / L_s$, where L_s is the length of the threaded shaft

m_s	m_N	J_s	J_{N-N}	J_{N-S}	f_s	f_N	Designation
kg/m	kg	kg·mm ² /m	kg·mm ²	kg·mm ²	10 ⁶ N	N ^{2/3} /μm	
1,4	0,2	39	41	1	37,1	32	OCC-015-02
1,4	0,2	39	41	1	37,1	21	OCC-015-04
1,4	0,2	39	41	1	37,1	19	OCC-015-05
1,4	0,2	39	40	1	37,1	15	OCC-015-06
1,4	0,2	39	40	1	37,1	13	OCC-015-08
2,5	0,3	123	93	5	66,0	57	OCC-020-02
2,5	0,3	123	93	5	66,0	38	OCC-020-04
2,5	0,3	123	93	5	66,0	33	OCC-020-05
2,5	0,3	123	92	4	66,0	28	OCC-020-06
2,5	0,3	123	92	4	66,0	23	OCC-020-08
2,5	0,3	123	92	4	66,0	20	OCC-020-10
2,7	0,5	150	148	7	72,7	63	OCC-021-02
2,7	0,5	150	148	7	72,7	42	OCC-021-04
2,7	0,5	150	148	7	72,7	36	OCC-021-05
2,7	0,4	150	146	6	72,7	31	OCC-021-06
2,7	0,4	150	146	6	72,7	26	OCC-021-08
2,7	0,4	150	146	6	72,7	22	OCC-021-10
3,3	0,4	216	-	-	87,2	63	OCC-023-02 •
3,3	0,4	216	-	-	87,2	42	OCC-023-04 •
3,3	0,4	216	-	-	87,2	36	OCC-023-05 •
3,3	0,4	216	-	-	87,2	33	OCC-023-06 •
3,3	0,4	216	-	-	87,2	26	OCC-023-08 •
3,3	0,4	216	-	-	87,2	22	OCC-023-10 •
3,9	0,8	301	342	18	103,1	83	OCC-025-02
3,9	0,8	301	342	18	103,1	55	OCC-025-04
3,9	0,8	301	342	18	103,1	48	OCC-025-05
3,9	0,8	301	342	18	103,1	43	OCC-025-06
3,9	0,7	301	338	16	103,1	34	OCC-025-08
3,9	0,7	301	338	16	103,1	30	OCC-025-10
3,9	0,7	301	338	16	103,1	23	OCC-025-15
3,9	0,7	301	338	16	103,1	19	OCC-025-20
3,9	0,7	301	333	14	103,1	15	OCC-025-25



NOTES

- ¹⁾ Standard number of rollers
- ²⁾ Maximum number of rollers
- ³⁾ Custom dimension available upon request
- ⁴⁾ With $D_0 < 21$ mm wipers within nut length

D_0	Ph_0	$C_a^{1)}$	$C_{oa}^{1)}$	$C_a^{2)}$	$C_{oa}^{2)}$	N	$D1^{3)}$	D7	D8	L x b	h	L1	L2 ⁴⁾
mm	mm	kN	kN	kN	kN	Starts	[g6] mm	mm	mm	mm	mm	[h12] mm	mm
27	2	28	37	32	45	5	53	5	32	20x5	55	55	69
	4	31	44	35	54	5	53	5	32	20x5	55	55	69
	5	29	40	34	49	5	53	5	32	20x5	55	55	69
	6	33	42	38	52	5	53	5	32	20x5	55	55	69
	8	31	37	35	47	5	53	5	32	20x5	55	55	69
	10	31	35	36	44	5	53	5	32	20x5	55	55	69
	15	33	33	39	41	5	53	5	32	20x5	55	55	69
	20	27	23	32	30	5	53	5	32	20x5	55	55	69
	25	26	20	31	26	5	53	5	32	20x5	55	55	69
30	2	47	65	54	80	5	64	5	38	32x6	66,5	85	99
	5	54	82	61	100	5	64	5	38	32x6	66,5	85	99
	6	61	88	69	108	5	64	5	38	32x6	66,5	85	99
	8	56	79	64	97	5	64	5	38	32x6	66,5	85	99
	10	57	75	65	92	5	64	5	38	32x6	66,5	85	99
	15	57	65	67	82	5	64	5	38	32x6	66,5	85	99
	20	51	53	60	66	5	64	5	38	32x6	66,5	85	99
	25	50	45	58	57	5	64	5	38	32x6	66,5	85	99
	30	44	35	52	45	5	64	5	38	32x6	66,5	85	99
36•	6	-	-	65	137	6	68	5	45	25x5	70	80	96
	9	-	-	75	142	6	68	5	45	25x5	70	80	96
	12	-	-	66	116	6	68	5	45	25x5	70	80	96
	18	-	-	74	115	6	68	5	45	25x5	70	80	96
	24	-	-	63	85	6	68	5	45	25x5	70	80	96
	30	-	-	62	73	6	68	5	45	25x5	70	80	96
39	2	65	86	75	105	5	80	7	50	40x8	83	100	116
	5	75	120	86	147	5	80	7	50	40x8	83	100	116
	6	85	132	98	162	5	80	7	50	40x8	83	100	116
	10	81	120	92	146	5	80	7	50	40x8	83	100	116
	15	90	113	103	139	5	80	7	50	40x8	83	100	116
	20	76	92	88	115	5	80	7	50	40x8	83	100	116
	25	75	81	87	101	5	80	7	50	40x8	83	100	116
	30	73	72	85	90	5	80	7	50	40x8	83	100	116

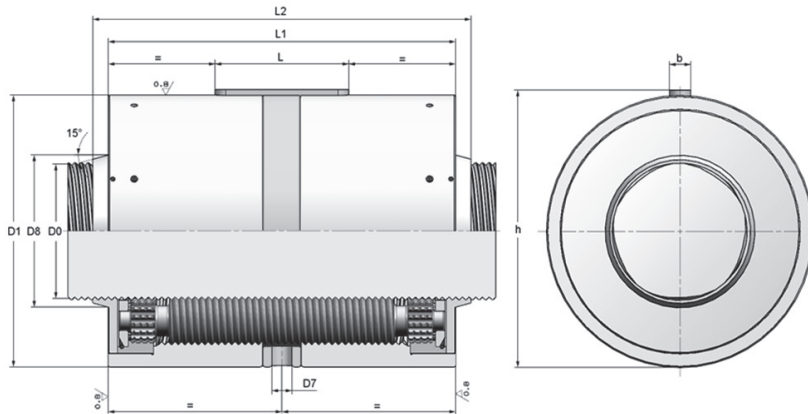
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LEGEND of SYMBOLS

D_0 [mm]	Nominal Diameter	J_S [kg·mm ² /m]	Linear Momentum of Inertia of Shaft
Ph_0 [mm]	Lead	J_{N-N} [kg·mm ²]	Momentum of Inertia of Nut with rotating Nut
C_a [kN]	Dynamic Load Capacity	J_{N-S} [kg·mm ²]	Momentum of Inertia of Rollers with rotating Shaft
C_{oa} [kN]	Static Load Capacity	f_S [10 ⁶ N]	Axial Stiffness Factor of Shaft
m_S [kg]	Linear Mass of Shaft	f_N [N ^{2/3} /μm]	Axial Stiffness Factor of Nut
m_N [kg]	Nut overall Mass (including rollers)		

For approximate Axial Stiffness of Nut use the formula $R_N = f_N \cdot F_{ax}^{1/3}$, where F_{ax} is the external axial load applied
 For approximate Axial Stiffness of Shaft use the formula $R_S = f_S / L_S$, where L_S is the length of the threaded shaft

m_S	m_N	J_S	J_{N-N}	J_{N-S}	f_S	f_N	Designation
kg/m	kg	kg·mm ² /m	kg·mm ²	kg·mm ²	10 ⁶ N	N ^{2/3} /μm	
4,5	0,5	410	215	19	120,2	67	OCC-027-02
4,5	0,5	410	215	19	120,2	44	OCC-027-04
4,5	0,5	410	210	18	120,2	37	OCC-027-05
4,5	0,5	410	210	18	120,2	33	OCC-027-06
4,5	0,5	410	210	18	120,2	27	OCC-027-08
4,5	0,5	410	210	18	120,2	24	OCC-027-10
4,5	0,5	410	210	18	120,2	18	OCC-027-15
4,5	0,5	410	205	16	120,2	14	OCC-027-20
4,5	0,5	410	205	16	120,2	12	OCC-027-25
5,5	1,3	624	805	41	148,4	98	OCC-030-02
5,5	1,3	624	805	41	148,4	57	OCC-030-05
5,5	1,3	624	805	41	148,4	51	OCC-030-06
5,5	1,3	624	805	41	148,4	43	OCC-030-08
5,5	1,3	624	805	41	148,4	37	OCC-030-10
5,5	1,2	624	794	38	148,4	27	OCC-030-15
5,5	1,2	624	794	38	148,4	22	OCC-030-20
5,5	1,2	624	794	38	148,4	19	OCC-030-25
5,5	1,2	624	784	34	148,4	16	OCC-030-30
8,0	1,3	1294	928	59	213,8	70	OCC-036-06 •
8,0	1,3	1294	928	59	213,8	55	OCC-036-09 •
8,0	1,2	1294	918	55	213,8	44	OCC-036-12 •
8,0	1,2	1294	918	55	213,8	34	OCC-036-18 •
8,0	1,2	1294	909	51	213,8	26	OCC-036-24 •
8,0	1,2	1294	909	51	213,8	23	OCC-036-30 •
9,4	2,3	1783	2218	157	250,9	128	OCC-039-02
9,4	2,3	1783	2218	157	250,9	75	OCC-039-05
9,4	2,3	1783	2218	157	250,9	67	OCC-039-06
9,4	2,3	1783	2218	157	250,9	49	OCC-039-10
9,4	2,3	1783	2218	157	250,9	38	OCC-039-15
9,4	2,2	1783	2178	143	250,9	30	OCC-039-20
9,4	2,2	1783	2178	143	250,9	26	OCC-039-25
9,4	2,2	1783	2178	143	250,9	23	OCC-039-30



NOTES

- 1) Standard number of rollers
- 2) Maximum number of rollers
- 3) Custom dimension available upon request
- 4) With $D_0 < 21$ mm wipers within nut length

D_0	Ph_0	$C_a^{1)}$	$C_{oa}^{1)}$	$C_a^{2)}$	$C_{oa}^{2)}$	N	$D1^{3)}$	D7	D8	L x b	h	L1	L2 ⁴⁾
mm	mm	kN	kN	kN	kN	Starts	[g6] mm	mm	mm	mm	mm	[h12] mm	mm
44 •	6	-	-	75	160	6	80	7	56	32x6	82,5	90	106
	8	-	-	78	164	6	80	7	56	32x6	82,5	90	106
	12	-	-	77	146	6	80	7	56	32x6	82,5	90	106
	18	-	-	87	136	6	80	7	56	32x6	82,5	90	106
	24	-	-	76	115	6	80	7	56	32x6	82,5	90	106
	30	-	-	75	100	6	80	7	56	32x6	82,5	90	106
	36	-	-	74	88	6	80	7	56	32x6	82,5	90	106
48	5	119	198	136	242	5	100	7	60	45x8	103	127	145
	6	135	224	155	274	5	100	7	60	45x8	103	127	145
	8	126	212	145	260	5	100	7	60	45x8	103	127	145
	10	129	212	148	259	5	100	7	60	45x8	103	127	145
	15	147	210	168	256	5	100	7	60	45x8	103	127	145
	20	134	193	153	235	5	100	7	60	45x8	103	127	145
	25	123	158	143	198	5	100	7	60	45x8	103	127	145
	30	122	142	141	177	5	100	7	60	45x8	103	127	145
60	5	177	300	203	366	5	122	10,5	71	45x10	125	152	170
	6	203	347	232	424	5	122	10,5	71	45x10	125	152	170
	10	195	344	223	421	5	122	10,5	71	45x10	125	152	170
	15	223	358	255	438	5	122	10,5	71	45x10	125	152	170
	20	206	315	235	385	5	122	10,5	71	45x10	125	152	170
	25	207	312	236	381	5	122	10,5	71	45x10	125	152	170
	30	206	295	235	360	5	122	10,5	71	45x10	125	152	170
	35	211	252	244	315	5	122	10,5	71	45x10	125	152	170
64	6	-	-	154	352	6	115	7	75	45x8	118	129	151
	12	-	-	170	392	6	115	7	75	45x8	118	129	151
	18	-	-	187	368	6	115	7	75	45x8	118	129	151
	24	-	-	173	320	6	115	7	75	45x8	118	129	151
	30	-	-	174	309	6	115	7	75	45x8	118	129	151
	36	-	-	174	293	6	115	7	75	45x8	118	129	151
	42	-	-	184	257	6	115	7	75	45x8	118	129	151

Screws marked with symbol • are not standard products

LEGEND of SYMBOLS

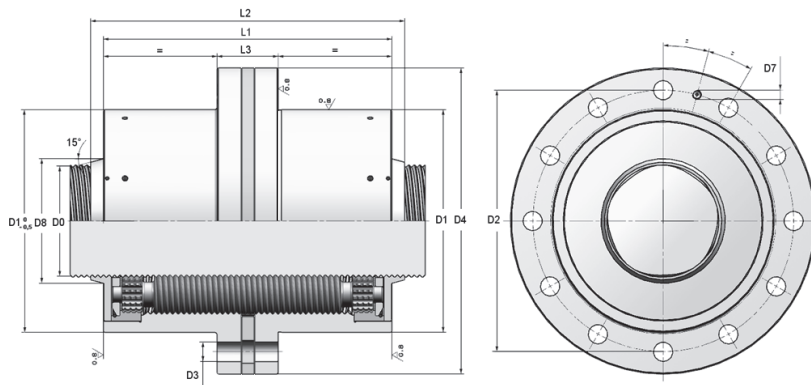
D_0	[mm]	Nominal Diameter	J_S	[kg·mm ² /m]	Linear Momentum of Inertia of Shaft
Ph_0	[mm]	Lead	J_{N-N}	[kg·mm ²]	Momentum of Inertia of Nut with rotating Nut
C_a	[kN]	Dynamic Load Capacity	J_{N-S}	[kg·mm ²]	Momentum of Inertia of Rollers with rotating Shaft
C_{oa}	[kN]	Static Load Capacity	f_s	[10 ⁶ N]	Axial Stiffness Factor of Shaft
m_s	[kg]	Linear Mass of Shaft	f_N	[N ^{2/3} /μm]	Axial Stiffness Factor of Nut
m_N	[kg]	Nut overall Mass (including rollers)			

For approximate Axial Stiffness of Nut use the formula $R_N = f_N \cdot F_{ax}^{1/3}$, where F_{ax} is the external axial load applied
 For approximate Axial Stiffness of Shaft use the formula $R_S = f_s / L_S$, where L_S is the length of the threaded shaft

m_s	m_N	J_S	J_{N-N}	J_{N-S}	f_s	f_N	Designation
kg/m	kg	kg·mm ² /m	kg·mm ²	kg·mm ²	10 ⁶ N	N ^{2/3} /μm	
11,9	1,8	2889	1848	143	319,3	73	OCC-044-06 •
11,9	1,8	2889	1848	143	319,3	62	OCC-044-08 •
11,9	1,8	2889	1825	133	319,3	46	OCC-044-12 •
11,9	1,8	2889	1825	133	319,3	35	OCC-044-18 •
11,9	1,7	2889	1802	123	319,3	28	OCC-044-24 •
11,9	1,7	2889	1802	123	319,3	24	OCC-044-30 •
11,9	1,7	2889	1802	123	319,3	21	OCC-044-36 •
14,2	4,6	4091	7053	459	380,0	92	OCC-048-05
14,2	4,6	4091	7053	459	380,0	82	OCC-048-06
14,2	4,6	4091	7053	459	380,0	69	OCC-048-08
14,2	4,6	4091	7053	459	380,0	61	OCC-048-10
14,2	4,6	4091	7053	459	380,0	47	OCC-048-15
14,2	4,6	4091	7053	459	380,0	40	OCC-048-20
14,2	4,4	4091	6937	417	380,0	32	OCC-048-25
14,2	4,4	4091	6937	417	380,0	28	OCC-048-30
22,2	8,0	9988	18072	1381	593,8	116	OCC-060-05
22,2	8,0	9988	18072	1381	593,8	104	OCC-060-06
22,2	8,0	9988	18072	1381	593,8	77	OCC-060-10
22,2	8,0	9988	18072	1381	593,8	60	OCC-060-15
22,2	8,0	9988	18072	1381	593,8	51	OCC-060-20
22,2	8,0	9988	18072	1381	593,8	44	OCC-060-25
22,2	8,0	9988	18072	1381	593,8	39	OCC-060-30
22,2	7,7	9988	17723	1255	593,8	33	OCC-060-35
25,3	5,4	12930	11155	983	675,6	112	OCC-064-06
25,3	5,4	12930	11155	983	675,6	74	OCC-064-12
25,3	5,3	12930	10997	912	675,6	55	OCC-064-18
25,3	5,3	12930	10997	912	675,6	46	OCC-064-24
25,3	5,3	12930	10997	912	675,6	40	OCC-064-30
25,3	5,3	12930	10997	912	675,6	35	OCC-064-36
25,3	5,1	12930	10839	842	675,6	30	OCC-064-42

SPLIT FLANGED NUT | Dimensions and Load Capacities

Table ODD



NOTES

- 1) Standard number of rollers
- 2) Maximum number of rollers
- 3) Custom dimension available upon request
- 4) With $D_0 < 21$ mm wipers within nut length

D_0	Ph_0	$C_a^{1)}$	$C_{oa}^{1)}$	$C_a^{2)}$	$C_{oa}^{2)}$	N	$D1^{3)}$	D2	$n \times D3$	D4	D7	D8	L1	L2 ⁴⁾	L3
mm	mm	kN	kN	kN	kN	Starts	[g6] mm	mm	mm	mm	mm	mm	[h12] mm		
15	2	15	20	17	24	5	34	45	6x6	56	M6	-	51	-	18
	4	16	19	19	24	5	34	45	6x6	56	M6	-	51	-	18
	5	16	18	19	23	5	34	45	6x6	56	M6	-	51	-	18
	6	16	16	19	20	5	34	45	6x6	56	M6	-	51	-	18
	8	15	14	18	19	5	34	45	6x6	56	M6	-	51	-	18
20	2	19	26	22	32	5	42	53	6x6	64	M6	-	55	-	20
	4	21	28	24	34	5	42	53	6x6	64	M6	-	55	-	20
	5	21	27	24	33	5	42	53	6x6	64	M6	-	55	-	20
	6	22	25	26	31	5	42	53	6x6	64	M6	-	55	-	20
	8	20	22	23	27	5	42	53	6x6	64	M6	-	55	-	20
21	2	29	42	34	51	5	45	56	6x6	68	M6	26	64	72	18
	4	32	46	37	56	5	45	56	6x6	68	M6	26	64	72	18
	5	33	45	37	55	5	45	56	6x6	68	M6	26	64	72	18
	6	34	41	39	51	5	45	56	6x6	68	M6	26	64	72	18
	8	31	36	36	45	5	45	56	6x6	68	M6	26	64	72	18
23 •	2	23	31	27	38	5	45	56	6x7	67	M6	30	65	-	20
	4	25	35	29	43	5	45	56	6x7	67	M6	30	65	-	20
	5	26	35	30	42	5	45	56	6x7	67	M6	30	65	-	20
	6	29	36	33	44	5	45	56	6x7	67	M6	30	65	-	20
	8	25	28	29	35	5	45	56	6x7	67	M6	30	65	-	20
25	2	40	57	46	69	5	53	70	6x7	84	M6	32	78	90	20
	4	44	67	50	81	5	53	70	6x7	84	M6	32	78	90	20
	5	45	67	52	82	5	53	70	6x7	84	M6	32	78	90	20
	6	51	70	58	86	5	53	70	6x7	84	M6	32	78	90	20
	8	43	55	50	69	5	53	70	6x7	84	M6	32	78	90	20
	10	44	52	50	65	5	53	70	6x7	84	M6	32	78	90	20
	15	47	48	54	60	5	53	70	6x7	84	M6	32	78	90	20
	20	42	38	48	48	5	53	70	6x7	84	M6	32	78	90	20
	25	36	29	43	37	5	53	70	6x7	84	M6	32	78	90	20

Screws marked with symbol • are not standard products

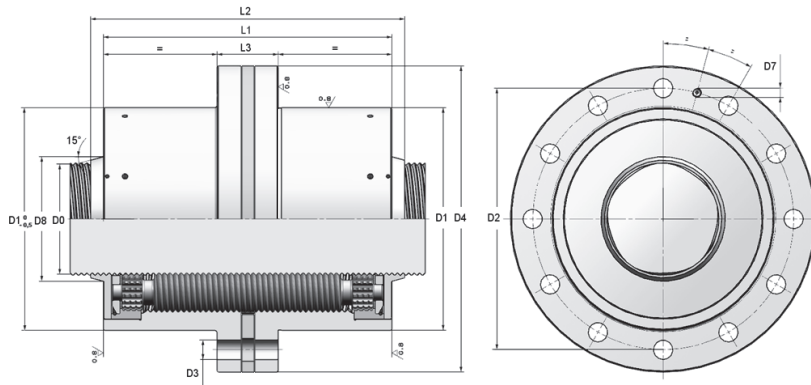
Table ODD

LEGEND of SYMBOLS

D_0 [mm]	Nominal Diameter	J_s [kg·mm ² /m]	Linear Momentum of Inertia of Shaft
Ph_0 [mm]	Lead	J_{N-N} [kg·mm ²]	Momentum of Inertia of Nut with rotating Nut
C_a [kN]	Dynamic Load Capacity	J_{N-S} [kg·mm ²]	Momentum of Inertia of Rollers with rotating Shaft
C_{oa} [kN]	Static Load Capacity	f_s [10 ⁶ N]	Axial Stiffness Factor of Shaft
m_s [kg]	Linear Mass of Shaft	f_N [N ^{2/3} /μm]	Axial Stiffness Factor of Nut
m_N [kg]	Nut overall Mass (including rollers)		

For approximate Axial Stiffness of Nut use the formula $R_N = f_N \cdot F_{ax}^{1/3}$, where F_{ax} is the external axial load applied
 For approximate Axial Stiffness of Shaft use the formula $R_s = f_s / L_s$, where L_s is the length of the threaded shaft

m_s	m_N	J_s	J_{N-N}	J_{N-S}	f_s	f_N	Designation
kg/m	kg	kg·mm ² /m	kg·mm ²	kg·mm ²	10 ⁶ N	N ^{2/3} /μm	
1,4	0,4	39	159	1	37,1	32	ODD-015-02
1,4	0,4	39	159	1	37,1	21	ODD-015-04
1,4	0,4	39	159	1	37,1	19	ODD-015-05
1,4	0,4	39	158	1	37,1	15	ODD-015-06
1,4	0,4	39	158	1	37,1	13	ODD-015-08
2,5	0,6	123	304	5	66,0	57	ODD-020-02
2,5	0,6	123	304	5	66,0	38	ODD-020-04
2,5	0,6	123	304	5	66,0	33	ODD-020-05
2,5	0,6	123	302	4	66,0	28	ODD-020-06
2,5	0,6	123	302	4	66,0	23	ODD-020-08
2,5	0,6	123	302	4	66,0	20	ODD-020-10
2,7	0,7	150	387	7	72,7	63	ODD-021-02
2,7	0,7	150	387	7	72,7	42	ODD-021-04
2,7	0,7	150	387	7	72,7	36	ODD-021-05
2,7	0,7	150	386	6	72,7	31	ODD-021-06
2,7	0,7	150	386	6	72,7	26	ODD-021-08
2,7	0,7	150	386	6	72,7	22	ODD-021-10
3,3	0,7	216	-	-	87,2	63	ODD-023-02 •
3,3	0,7	216	-	-	87,2	42	ODD-023-04 •
3,3	0,7	216	-	-	87,2	36	ODD-023-05 •
3,3	0,7	216	-	-	87,2	33	ODD-023-06 •
3,3	0,7	216	-	-	87,2	26	ODD-023-08 •
3,3	0,7	216	-	-	87,2	22	ODD-023-10 •
3,9	1,3	301	988	18	103,1	83	ODD-025-02
3,9	1,3	301	988	18	103,1	55	ODD-025-04
3,9	1,3	301	988	18	103,1	48	ODD-025-05
3,9	1,3	301	988	18	103,1	43	ODD-025-06
3,9	1,3	301	984	16	103,1	34	ODD-025-08
3,9	1,3	301	984	16	103,1	30	ODD-025-10
3,9	1,3	301	984	16	103,1	23	ODD-025-15
3,9	1,3	301	984	16	103,1	19	ODD-025-20
3,9	1,2	301	979	14	103,1	15	ODD-025-25



NOTES

- 1) Standard number of rollers
- 2) Maximum number of rollers
- 3) Custom dimension available upon request
- 4) With $D_0 < 21$ mm wipers within nut length

D_0	Ph_0	$C_a^{1)}$	$C_{oa}^{1)}$	$C_a^{2)}$	$C_{oa}^{2)}$	N	$D1^{3)}$	D2	$n \times D3$	D4	D7	D8	L1	L2 ⁴⁾	L3
mm	mm	kN	kN	kN	kN	Starts	[g6] mm	mm	mm	mm	mm	mm	[h12] mm		
27	2	28	37	32	45	5	53	68	6x7	83	M6	35	55	69	22
	4	31	44	35	54	5	53	68	6x7	83	M6	35	55	69	22
	5	29	40	34	49	5	53	68	6x7	83	M6	35	55	69	22
	6	33	42	38	52	5	53	68	6x7	83	M6	35	55	69	22
	8	31	37	35	47	5	53	68	6x7	83	M6	35	55	69	22
	10	31	35	36	44	5	53	68	6x7	83	M6	35	55	69	22
	15	33	33	39	41	5	53	68	6x7	83	M6	35	55	69	22
	20	27	23	32	30	5	53	68	6x7	83	M6	35	55	69	22
30	2	47	65	54	80	5	64	81	6x9	98	M6	38	85	99	27
	5	54	82	61	100	5	64	81	6x9	98	M6	38	85	99	27
	6	61	88	69	108	5	64	81	6x9	98	M6	38	85	99	27
	8	56	79	64	97	5	64	81	6x9	98	M6	38	85	99	27
	10	57	75	65	92	5	64	81	6x9	98	M6	38	85	99	27
	15	57	65	67	82	5	64	81	6x9	98	M6	38	85	99	27
	20	51	53	60	66	5	64	81	6x9	98	M6	38	85	99	27
	25	50	45	58	57	5	64	81	6x9	98	M6	38	85	99	27
36 •	6	-	-	65	137	6	68	85	6x9	102	M6	45	80	96	27
	9	-	-	75	142	6	68	85	6x9	102	M6	45	80	96	27
	12	-	-	66	116	6	68	85	6x9	102	M6	45	80	96	27
	18	-	-	74	115	6	68	85	6x9	102	M6	45	80	96	27
	24	-	-	63	85	6	68	85	6x9	102	M6	45	80	96	27
	30	-	-	62	73	6	68	85	6x9	102	M6	45	80	96	27
39	2	65	86	75	105	5	80	102	6x11	124	M6	50	100	116	33
	5	75	120	86	147	5	80	102	6x11	124	M6	50	100	116	33
	6	85	132	98	162	5	80	102	6x11	124	M6	50	100	116	33
	10	81	120	92	146	5	80	102	6x11	124	M6	50	100	116	33
	15	90	113	103	139	5	80	102	6x11	124	M6	50	100	116	33
	20	76	92	88	115	5	80	102	6x11	124	M6	50	100	116	33
	25	75	81	87	101	5	80	102	6x11	124	M6	50	100	116	33
30	73	72	85	90	5	80	102	6x11	124	M6	50	100	116	33	

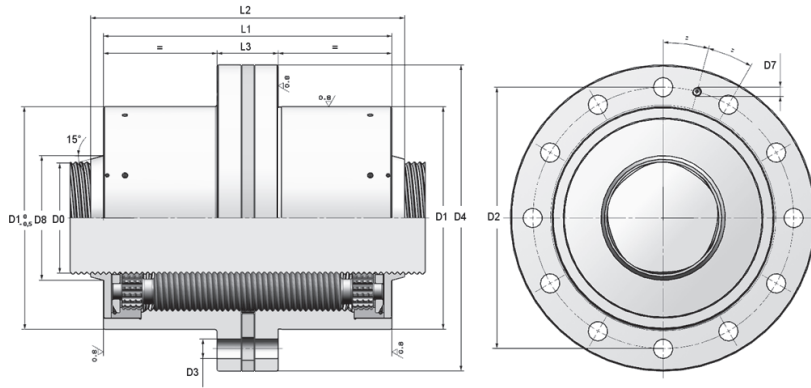
Screws marked with symbol • are not standard products

LEGEND of SYMBOLS

D_0	[mm]	Nominal Diameter	J_S	[kg·mm ² /m]	Linear Momentum of Inertia of Shaft
Ph_0	[mm]	Lead	J_{N-N}	[kg·mm ²]	Momentum of Inertia of Nut with rotating Nut
C_a	[kN]	Dynamic Load Capacity	J_{N-S}	[kg·mm ²]	Momentum of Inertia of Rollers with rotating Shaft
C_{oa}	[kN]	Static Load Capacity	f_s	[10 ⁶ N]	Axial Stiffness Factor of Shaft
m_s	[kg]	Linear Mass of Shaft	f_N	[N ^{2/3} /μm]	Axial Stiffness Factor of Nut
m_N	[kg]	Nut overall Mass (including rollers)			

For approximate Axial Stiffness of Nut use the formula $R_N = f_N \cdot F_{ax}^{1/3}$, where F_{ax} is the external axial load applied
 For approximate Axial Stiffness of Shaft use the formula $R_S = f_s / L_S$, where L_S is the length of the threaded shaft

m_s	m_N	J_S	J_{N-N}	J_{N-S}	f_s	f_N	Designation
kg/m	kg	kg·mm ² /m	kg·mm ²	kg·mm ²	10 ⁶ N	N ^{2/3} /μm	
4,5	1,1	410	885	19	120,2	67	ODD-027-02
4,5	1,1	410	885	19	120,2	44	ODD-027-04
4,5	1,0	410	880	18	120,2	37	ODD-027-05
4,5	1,0	410	880	18	120,2	33	ODD-027-06
4,5	1,0	410	880	18	120,2	27	ODD-027-08
4,5	1,0	410	880	18	120,2	24	ODD-027-10
4,5	1,0	410	880	18	120,2	18	ODD-027-15
4,5	1,0	410	876	16	120,2	14	ODD-027-20
4,5	1,0	410	876	16	120,2	12	ODD-027-25
5,5	2,2	624	2375	41	148,4	98	ODD-030-02
5,5	2,2	624	2375	41	148,4	57	ODD-030-05
5,5	2,2	624	2375	41	148,4	51	ODD-030-06
5,5	2,2	624	2375	41	148,4	43	ODD-030-08
5,5	2,2	624	2375	41	148,4	37	ODD-030-10
5,5	2,1	624	2364	38	148,4	27	ODD-030-15
5,5	2,1	624	2364	38	148,4	22	ODD-030-20
5,5	2,1	624	2364	38	148,4	19	ODD-030-25
5,5	2,1	624	2354	34	148,4	16	ODD-030-30
8,0	2,2	1294	2735	59	213,8	70	ODD-036-06 •
8,0	2,2	1294	2735	59	213,8	55	ODD-036-09 •
8,0	2,2	1294	2726	55	213,8	44	ODD-036-12 •
8,0	2,2	1294	2726	55	213,8	34	ODD-036-18 •
8,0	2,2	1294	2716	51	213,8	26	ODD-036-24 •
8,0	2,2	1294	2716	51	213,8	23	ODD-036-30 •
9,4	4,1	1783	7189	157	250,9	128	ODD-039-02
9,4	4,1	1783	7189	157	250,9	75	ODD-039-05
9,4	4,1	1783	7189	157	250,9	67	ODD-039-06
9,4	4,1	1783	7189	157	250,9	49	ODD-039-10
9,4	4,1	1783	7189	157	250,9	38	ODD-039-15
9,4	4,0	1783	7149	143	250,9	30	ODD-039-20
9,4	4,0	1783	7149	143	250,9	26	ODD-039-25
9,4	4,0	1783	7149	143	250,9	23	ODD-039-30



NOTES

- ¹⁾ Standard number of rollers
- ²⁾ Maximum number of rollers
- ³⁾ Custom dimension available upon request
- ⁴⁾ With $D_0 < 21$ mm wipers within nut length

D_0	Ph_0	$C_a^{1)}$	$C_{oa}^{1)}$	$C_a^{2)}$	$C_{oa}^{2)}$	N	$D1^{3)}$	D2	$n \times D3$	D4	D7	D8	L1	L2 ⁴⁾	L3
mm	mm	kN	kN	kN	kN	Starts	[g6] mm	mm	mm	mm	mm	mm	[h12] mm		
44 •	6	-	-	75	160	6	80	102	6x11	124	M6	56	90	106	33
	8	-	-	78	164	6	80	102	6x11	124	M6	56	90	106	33
	12	-	-	77	146	6	80	102	6x11	124	M6	56	90	106	33
	18	-	-	87	136	6	80	102	6x11	124	M6	56	90	106	33
	24	-	-	76	115	6	80	102	6x11	124	M6	56	90	106	33
	30	-	-	75	100	6	80	102	6x11	124	M6	56	90	106	33
	36	-	-	74	88	6	80	102	6x11	124	M6	56	90	106	33
48	5	119	198	136	242	5	100	127	6x13,5	150	M8x1	60	127	145	37
	6	135	224	155	274	5	100	127	6x13,5	150	M8x1	60	127	145	37
	8	126	212	145	260	5	100	127	6x13,5	150	M8x1	60	127	145	37
	10	129	212	148	259	5	100	127	6x13,5	150	M8x1	60	127	145	37
	15	147	210	168	256	5	100	127	6x13,5	150	M8x1	60	127	145	37
	20	134	193	153	235	5	100	127	6x13,5	150	M8x1	60	127	145	37
	25	123	158	143	198	5	100	127	6x13,5	150	M8x1	60	127	145	37
	30	122	142	141	177	5	100	127	6x13,5	150	M8x1	60	127	145	37
60	5	177	300	203	366	5	122	150	6x17,5	180	M8x1	71	152	170	45
	6	203	347	232	424	5	122	150	6x17,5	180	M8x1	71	152	170	45
	10	195	344	223	421	5	122	150	6x17,5	180	M8x1	71	152	170	45
	15	223	358	255	438	5	122	150	6x17,5	180	M8x1	71	152	170	45
	20	206	315	235	385	5	122	150	6x17,5	180	M8x1	71	152	170	45
	25	207	312	236	381	5	122	150	6x17,5	180	M8x1	71	152	170	45
	30	206	295	235	360	5	122	150	6x17,5	180	M8x1	71	152	170	45
	35	211	252	244	315	5	122	150	6x17,5	180	M8x1	71	152	170	45
64	6	-	-	154	352	6	115	150	6x17,5	180	M8x1	75	129	151	45
	12	-	-	170	392	6	115	150	6x17,5	180	M8x1	75	129	151	45
	18	-	-	187	368	6	115	150	6x17,5	180	M8x1	75	129	151	45
	24	-	-	173	320	6	115	150	6x17,5	180	M8x1	75	129	151	45
	30	-	-	174	309	6	115	150	6x17,5	180	M8x1	75	129	151	45
	36	-	-	174	293	6	115	150	6x17,5	180	M8x1	75	129	151	45
	42	-	-	184	257	6	115	150	6x17,5	180	M8x1	75	129	151	45

LEGEND of SYMBOLS

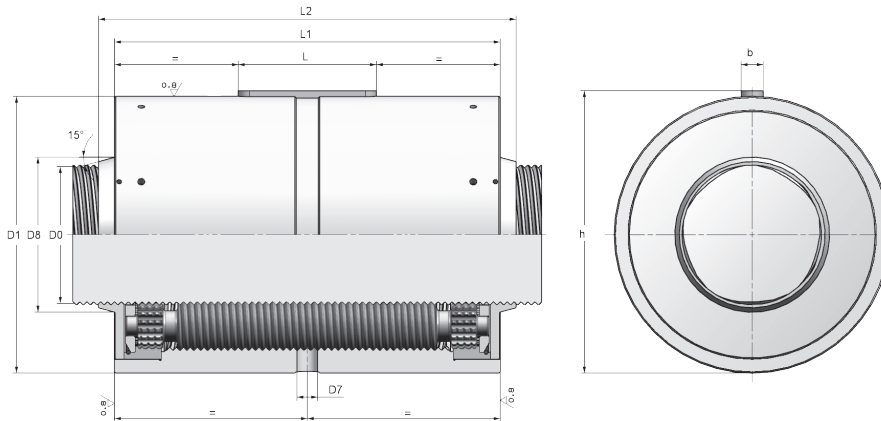
D_0	[mm]	Nominal Diameter	J_s	[kg·mm ² /m]	Linear Momentum of Inertia of Shaft
Ph_0	[mm]	Lead	J_{N-N}	[kg·mm ²]	Momentum of Inertia of Nut with rotating Nut
C_a	[kN]	Dynamic Load Capacity	J_{N-S}	[kg·mm ²]	Momentum of Inertia of Rollers with rotating Shaft
C_{oa}	[kN]	Static Load Capacity	f_s	[10 ⁶ N]	Axial Stiffness Factor of Shaft
m_s	[kg]	Linear Mass of Shaft	f_N	[N ^{2/3} /μm]	Axial Stiffness Factor of Nut
m_N	[kg]	Nut overall Mass (including rollers)			

For approximate Axial Stiffness of Nut use the formula $R_N = f_N \cdot F_{ax}^{1/3}$, where F_{ax} is the external axial load applied
 For approximate Axial Stiffness of Shaft use the formula $R_S = f_S / L_S$, where L_S is the length of the threaded shaft

m_s	m_N	J_s	J_{N-N}	J_{N-S}	f_s	f_N	Designation
kg/m	kg	kg·mm ² /m	kg·mm ²	kg·mm ²	10 ⁶ N	N ^{2/3} /μm	
11,9	3,6	2889	6819	143	319,3	73	ODD-044-06 •
11,9	3,6	2889	6819	143	319,3	62	ODD-044-08 •
11,9	3,6	2889	6796	133	319,3	46	ODD-044-12 •
11,9	3,6	2889	6796	133	319,3	35	ODD-044-18 •
11,9	3,6	2889	6773	123	319,3	28	ODD-044-24 •
11,9	3,6	2889	6773	123	319,3	24	ODD-044-30 •
11,9	3,6	2889	6773	123	319,3	21	ODD-044-36 •
14,2	7,5	4091	18637	459	380,0	92	ODD-048-05
14,2	7,5	4091	18637	459	380,0	82	ODD-048-06
14,2	7,5	4091	18637	459	380,0	69	ODD-048-08
14,2	7,5	4091	18637	459	380,0	61	ODD-048-10
14,2	7,5	4091	18637	459	380,0	47	ODD-048-15
14,2	7,5	4091	18637	459	380,0	40	ODD-048-20
14,2	7,3	4091	18521	417	380,0	32	ODD-048-25
14,2	7,3	4091	18521	417	380,0	28	ODD-048-30
22,2	12,9	9988	46795	1381	593,8	116	ODD-060-05
22,2	12,9	9988	46795	1381	593,8	104	ODD-060-06
22,2	12,9	9988	46795	1381	593,8	77	ODD-060-10
22,2	12,9	9988	46795	1381	593,8	60	ODD-060-15
22,2	12,9	9988	46795	1381	593,8	51	ODD-060-20
22,2	12,9	9988	46795	1381	593,8	44	ODD-060-25
22,2	12,9	9988	46795	1381	593,8	39	ODD-060-30
22,2	12,6	9988	46447	1255	593,8	33	ODD-060-35
25,3	10,7	12930	41496	983	675,6	112	ODD-064-06
25,3	10,7	12930	41496	983	675,6	74	ODD-064-12
25,3	10,6	12930	41338	912	675,6	55	ODD-064-18
25,3	10,6	12930	41338	912	675,6	46	ODD-064-24
25,3	10,6	12930	41338	912	675,6	40	ODD-064-30
25,3	10,6	12930	41338	912	675,6	35	ODD-064-36
25,3	10,4	12930	41180	842	675,6	30	ODD-064-42

ULTRAPOWER | SINGLE CYLINDRICAL NUT | Dimensions and Load Capacities

Table UPC



NOTES

¹⁾ On request dimension can be customized

D ₀	Ph ₀	C _a	C _{oa}	N	D1 ¹⁾	D7	D8	L x b	h	L1	L2
mm	mm	kN	kN	Starts	[g6] mm	mm	mm	mm	mm	[h12] mm	mm
60	10	472	1228	5	122	11	71	56x10	125	171	189
	15	541	1279	5	122	11	71	56x10	125	171	189
	20	498	1125	5	122	11	71	56x10	125	171	189
	25	500	1114	5	122	11	71	56x10	125	171	189
	30	499	1052	5	122	11	71	56x10	125	171	189
	35	518	920	5	122	11	71	56x10	125	171	189
75	10	700	1926	5	150	11	87	63x10	153	213	233
	15	811	2107	5	150	11	87	63x10	153	213	233
	20	751	1896	5	150	11	87	63x10	153	213	233
	25	760	1799	5	150	11	87	63x10	153	213	233
	30	763	1696	5	150	11	87	63x10	153	213	233
87	10	903	2543	5	175	12	103	100x12	178	245	269
	15	1052	2875	5	175	12	103	100x12	178	245	269
	20	976	2630	5	175	12	103	100x12	178	245	269
	25	992	2533	5	175	12	103	100x12	178	245	269
	30	1000	2416	5	175	12	103	100x12	178	245	269
	35	1128	2444	5	175	12	103	100x12	178	245	269
	40	940	2171	5	175	12	103	100x12	178	245	269
100	15	1303	3695	5	200	15	112	100x16	204	280	304
	20	1213	3427	5	200	15	112	100x16	204	280	304
	25	1236	3345	5	200	15	112	100x16	204	280	304
	30	1250	3225	5	200	15	112	100x16	204	280	304
	35	1417	3306	5	200	15	112	100x16	204	280	304
	40	1260	2954	5	200	15	112	100x16	204	280	304

ULTRAPOWER | SINGLE CYLINDRICAL NUT | Dimensions and Load Capacities

Table UPC

LEGEND of SYMBOLS

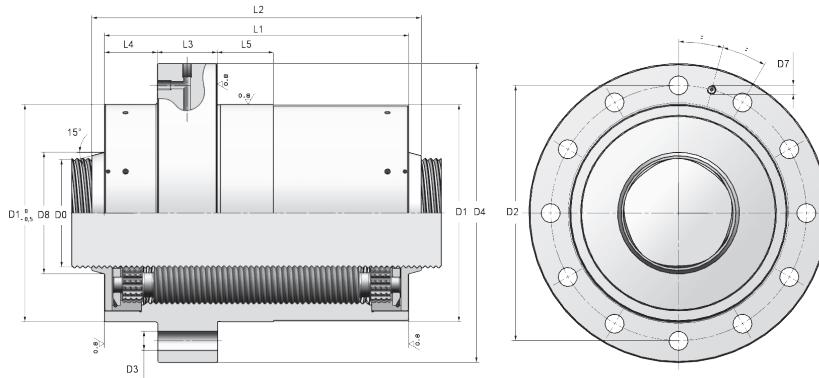
D_0	[mm]	Nominal Diameter	J_s	[kg·mm ² /m]	Linear Momentum of Inertia of Shaft
Ph_0	[mm]	Lead	J_{N-N}	[kg·mm ²]	Momentum of Inertia of Nut with rotating Nut
C_a	[kN]	Dynamic Load Capacity	J_{N-S}	[kg·mm ²]	Momentum of Inertia of Rollers with rotating Shaft
C_{oa}	[kN]	Static Load Capacity	f_s	[10 ⁶ N]	Axial Stiffness Factor of Shaft
m_s	[kg]	Linear Mass of Shaft	f_N	[N ^{2/3} /μm]	Axial Stiffness Factor of Nut
m_N	[kg]	Nut overall Mass (including rollers)			

For approximate Axial Stiffness of Nut use the formula $R_N = f_N \cdot F_{ax}^{1/3}$, where F_{ax} is the external axial load applied
 For approximate Axial Stiffness of Shaft use the formula $R_S = f_s / L_S$, where L_S is the length of the threaded shaft

m_s	m_N	J_s	J_{N-N}	J_{N-S}	f_s	f_N	Designation
kg/m	kg	kg·mm ² /m	kg·mm ²	kg·mm ²	10 ⁶ N	N ^{2/3} /μm	
22,2	9,1	9988	20426	1587	593,8	135	UPC-060-10
22,2	9,1	9988	20426	1587	593,8	105	UPC-060-15
22,2	9,1	9988	20426	1587	593,8	88	UPC-060-20
22,2	9,1	9988	20426	1587	593,8	76	UPC-060-25
22,2	9,1	9988	20426	1587	593,8	68	UPC-060-30
22,2	8,7	9988	20025	1443	593,8	58	UPC-060-35
34,7	16,8	24385	56593	4884	927,8	168	UPC-075-10
34,7	16,8	24385	56593	4884	927,8	132	UPC-075-15
34,7	16,8	24385	56593	4884	927,8	111	UPC-075-20
34,7	16,8	24385	56593	4884	927,8	96	UPC-075-25
34,7	16,8	24385	56593	4884	927,8	86	UPC-075-30
46,7	26,7	44152	122191	10285	1248,4	194	UPC-087-10
46,7	26,7	44152	122191	10285	1248,4	152	UPC-087-15
46,7	26,7	44152	122191	10285	1248,4	128	UPC-087-20
46,7	26,7	44152	122191	10285	1248,4	112	UPC-087-25
46,7	26,7	44152	122191	10285	1248,4	100	UPC-087-30
46,7	26,7	44152	122191	10285	1248,4	90	UPC-087-35
46,7	25,6	44152	119594	9350	1248,4	78	UPC-087-40
61,7	39,6	77067	236083	20637	1649,3	172	UPC-100-15
61,7	39,6	77067	236083	20637	1649,3	145	UPC-100-20
61,7	39,6	77067	236083	20637	1649,3	126	UPC-100-25
61,7	39,6	77067	236083	20637	1649,3	113	UPC-100-30
61,7	39,6	77067	236083	20637	1649,3	102	UPC-100-35
61,7	39,6	77067	236083	20637	1649,3	94	UPC-100-40

ULTRAPOWER | SINGLE FLANGED NUT | Dimensions and Load Capacities

Table UPD



NOTES

- 1) Custom dimension available upon request
- 2) On request the flange position can be shifted axially to the middle of nut

D ₀	Ph ₀	C _a	C _{oa}	N	D1 ¹⁾	D2	n x D3	D4	D7	D8	L1	L2	L3	L4 ²⁾	L5
mm	mm	kN	kN	Starts	[g6] mm	mm	mm	mm	mm	mm	[h12] mm	mm	mm	mm	mm
60	10	472	1228	5	122	146	8x13,5	166	M8x1	71	171	189	30	25	40
	15	541	1279	5	122	146	8x13,5	166	M8x1	71	171	189	30	25	40
	20	498	1125	5	122	146	8x13,5	166	M8x1	71	171	189	30	25	40
	25	500	1114	5	122	146	8x13,5	166	M8x1	71	171	189	30	25	40
	30	499	1052	5	122	146	8x13,5	166	M8x1	71	171	189	30	25	40
	35	518	920	5	122	146	8x13,5	166	M8x1	71	171	189	30	25	40
75	10	700	1926	5	150	174	12x13,5	195	M8x1	87	213	233	35	30	40
	15	811	2107	5	150	174	12x13,5	195	M8x1	87	213	233	35	30	40
	20	751	1896	5	150	174	12x13,5	195	M8x1	87	213	233	35	30	40
	25	760	1799	5	150	174	12x13,5	195	M8x1	87	213	233	35	30	40
	30	763	1696	5	150	174	12x13,5	195	M8x1	87	213	233	35	30	40
87	10	903	2543	5	175	200	12x13,5	220	M8x1	103	245	269	40	35	40
	15	1052	2875	5	175	200	12x13,5	220	M8x1	103	245	269	40	35	40
	20	976	2630	5	175	200	12x13,5	220	M8x1	103	245	269	40	35	40
	25	992	2533	5	175	200	12x13,5	220	M8x1	103	245	269	40	35	40
	30	1000	2416	5	175	200	12x13,5	220	M8x1	103	245	269	40	35	40
	35	1128	2444	5	175	200	12x13,5	220	M8x1	103	245	269	40	35	40
	40	940	2171	5	175	200	12x13,5	220	M8x1	103	245	269	40	35	40
100	15	1303	3695	5	200	224	12x17,5	245	M8x1	112	280	304	50	40	40
	20	1213	3427	5	200	224	12x17,5	245	M8x1	112	280	304	50	40	40
	25	1236	3345	5	200	224	12x17,5	245	M8x1	112	280	304	50	40	40
	30	1250	3225	5	200	224	12x17,5	245	M8x1	112	280	304	50	40	40
	35	1417	3306	5	200	224	12x17,5	245	M8x1	112	280	304	50	40	40
	40	1260	2954	5	200	224	12x17,5	245	M8x1	112	280	304	50	40	40

ULTRAPOWER | SINGLE FLANGED NUT | Dimensions and Load Capacities

Table UPD

LEGEND of SYMBOLS

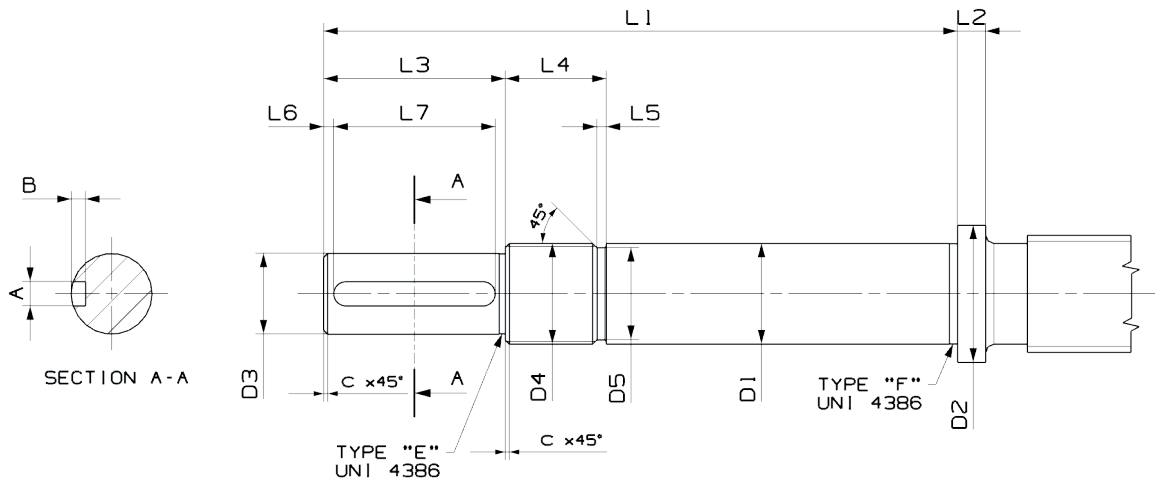
D_0 [mm]	Nominal Diameter	J_s [kg·mm ² /m]	Linear Momentum of Inertia of Shaft
Ph_0 [mm]	Lead	J_{N-N} [kg·mm ²]	Momentum of Inertia of Nut with rotating Nut
C_a [kN]	Dynamic Load Capacity	J_{N-S} [kg·mm ²]	Momentum of Inertia of Rollers with rotating Shaft
C_{oa} [kN]	Static Load Capacity	f_s [10 ⁶ N]	Axial Stiffness Factor of Shaft
m_s [kg]	Linear Mass of Shaft	f_N [N ^{2/3} /μm]	Axial Stiffness Factor of Nut
m_N [kg]	Nut overall Mass (including rollers)		

For approximate Axial Stiffness of Nut use the formula $R_N = f_N \cdot F_{ax}^{1/3}$, where F_{ax} is the external axial load applied
 For approximate Axial Stiffness of Shaft use the formula $R_S = f_s / L_S$, where L_S is the length of the threaded shaft

m_s	m_N	J_s	J_{N-N}	J_{N-S}	f_s	f_N	Designation
kg/m	kg	kg·mm ² /m	kg·mm ²	kg·mm ²	10 ⁶ N	N ^{2/3} /μm	
22,2	11,5	9988	32860	1587	593,8	135	UPD-060-10
22,2	11,5	9988	32860	1587	593,8	105	UPD-060-15
22,2	11,5	9988	32860	1587	593,8	88	UPD-060-20
22,2	11,5	9988	32860	1587	593,8	76	UPD-060-25
22,2	11,5	9988	32860	1587	593,8	68	UPD-060-30
22,2	11,1	9988	32459	1443	593,8	58	UPD-060-35
34,7	20,2	24385	81938	4884	927,8	168	UPD-075-10
34,7	20,2	24385	81938	4884	927,8	132	UPD-075-15
34,7	20,2	24385	81938	4884	927,8	111	UPD-075-20
34,7	20,2	24385	81938	4884	927,8	96	UPD-075-25
34,7	20,2	24385	81938	4884	927,8	86	UPD-075-30
46,7	31,1	44152	165493	10285	1248,4	194	UPD-087-10
46,7	31,1	44152	165493	10285	1248,4	152	UPD-087-15
46,7	31,1	44152	165493	10285	1248,4	128	UPD-087-20
46,7	31,1	44152	165493	10285	1248,4	112	UPD-087-25
46,7	31,1	44152	165493	10285	1248,4	100	UPD-087-30
46,7	31,1	44152	165493	10285	1248,4	90	UPD-087-35
46,7	30,0	44152	162896	9350	1248,4	78	UPD-087-40
61,7	45,8	77067	313266	20637	1649,3	172	UPD-100-15
61,7	45,8	77067	313266	20637	1649,3	145	UPD-100-20
61,7	45,8	77067	313266	20637	1649,3	126	UPD-100-25
61,7	45,8	77067	313266	20637	1649,3	113	UPD-100-30
61,7	45,8	77067	313266	20637	1649,3	102	UPD-100-35
61,7	45,8	77067	313266	20637	1649,3	94	UPD-100-40

ENDSHAFT | FIXED SUPPORT | Dimensions*

Table 001

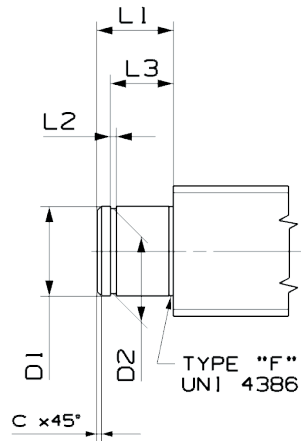


D ₀	D ₁	D ₂	D ₃	D ₄	D ₅	L ₁	L ₂	L ₃	L ₄	L ₅	L ₆	A	B	L ₇
mm	[h6] mm	mm	[h7] mm	[6g] mm	[h11] mm	[js12] mm	mm	[js12] mm	mm	mm	mm	[N9] mm	[+0.1/0] mm	[+0.5/0] mm
15	10	16,5	8	M10x1	8	98	7	28	15	2	1,5	3	1,8	25
20	15	25	12	M15x1	13	140	11	39	22	2	2	5	3	35
21														
23														
25	20	32	17	M20x1	18	158	13	45	22	2	2,5	6	3,5	40
27														
30	25	39	22	M25x1,5	22,5	180	17	51	26	3	3	8	4	45
36														
39	35	52	30	M35x1,5	32,5	220	14	67	26	3	3,5	10	5	60
44														
48	45	63	40	M45x1,5	42,5	266	18	87	28	3	3,5	14	5,5	80
60	60	82	55	M60x2	56,5	317	21	98	32	3	4	16	6	90
64														
75	75	105	70	M75x2	71,5	370	29	108	38	4	4	20	7,5	100
87	120	160	110	M120x2	116,5	500	33	130	38	4	5	28	10	120
100														

* Design based on catalogue Load capacity for Planetary Roller Screws

ENDSHAFT | FLOATING SUPPORT | Dimensions*

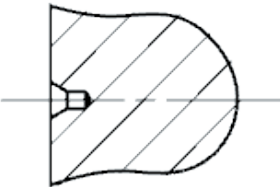
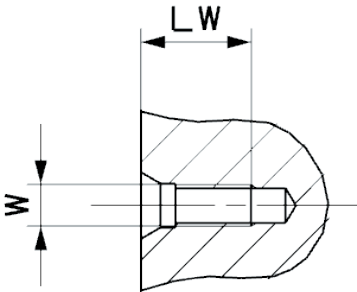
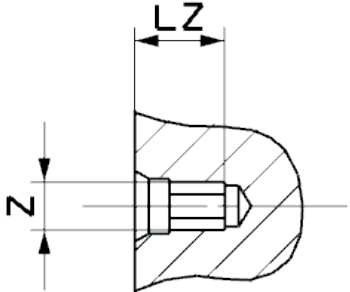
Table 002



D₀ mm	D1 [js7] mm	D2 [h12] mm	L1 [js12] mm	L2 [H13] mm	L3 [H11] mm	C mm
15	10	9,6	11	1,1	9,1	0,5
20 21 23	15	14,3	14	1,1	12,1	0,5
25 27	20	19	16	1,3	13,3	0,5
30 36	25	23,9	19	1,3	16,3	0,5
39 44	30	28,6	21	1,6	17,6	1
48	40	37,5	24	1,85	19,85	1
60 64	50	47	27	2,15	22,15	1
75	60	57	30	2,15	24,15	2
87 100	90	86,5	40	3,15	33,15	2

* Design based on catalogue Load capacity for Planetary Roller Screws

ENDSHAFT | OPTIONAL FEATURES | Dimensions

					
	"X" Centering hole - UNI 6411	"W" Threaded hole - UNI 9321	"Z" Hexagon socket		
D₀ mm		W mm	LW mm	Z mm	LZ mm
15	-	-	-	-	-
20 21 23 25 27	-	M4	10	3	6
30 36	-	M6	16	5	10
39 44 48	-	M8	19	8	15
60 64 75	-	M10	22	10	20
87 100	-	M16	36	16	35

ORDERING CODE

To order a Roller Screw choose the various options by filling in the box-card on this page. Use the Customization Tables displayed in next page as needed (Table A is required). Please provide any additional documentation (drawings or technical data) to our sales department.

NUT TYPE	
00C	Single cylindrical - standard backlash
00D	Single flanged - standard backlash
0RC	Single cylindrical - no backlash/reduced backlash
0RD	Single flanged - no backlash/reduced backlash
0CC	Split cylindrical - with preload
0DD	Split flanged - with preload
UPC	Ultra power -single cylindrical - standard backlash
UPD	Ultra power - single flanged - standard backlash
ROLLERSCREW NOMINAL DIAMETER [mm]	
Default diameter selection: From 15 up to 100	
ROLLERSCREW LEAD [mm]	
Default lead selection: From 2 up to 42	
ROLLERSCREW LEAD DIRECTION	
R	Right hand
L	Left hand
WIPERS	
A	Standard wipers
B	Wipers within nut
C	No wipers
ROLLERSCREW ACCURACY CLASS	
3	Precision class ISO3
5	Precision class ISO5
NUMBER OF ROLLERS	
MAX	Maximum number of rollers
MIN	Minimum number of rollers

- - - - - - - - - - -

LEFT SHAFT-END FORM	
000	Non machined end-shaft
001	Standard end-shaft for axial bearing - NO key-slot
011	Standard end-shaft for axial bearing - WITH key-slot
101 ¹⁾	Custom end-shaft for axial bearing - NO key-slot
111 ¹⁾	Custom end-shaft for axial bearing - WITH key-slot
002	Standard end-shaft for radial bearing
202 ¹⁾	Custom end-shaft for radial bearing
500 ²⁾	Special end-shaft, drawing submission is required

LEFT SHAFT-END OPTIONAL FEATURES	
X ³⁾	Centering hole - UNI 6411
W ³⁾	Threaded hole - UNI 9321
Z ³⁾	Hexagon socket

RIGHT SHAFT-END FORM
 Refer to "LEFT SHAFT-END FORM" Table

RIGHT SHAFT-END OPTIONAL FEATURES
 Refer to "LEFT SHAFT-END OPTIONAL FEATURES" Table

SHAFT OVERALL LENGTH [mm]
 Max Length 4000mm. Contact Moog Technical Office for longer shafts

NUT ORIENTATION (Only in case of flanged nut)	
H	Nut "D1 g6" facing the shortest shaft-end
J	Nut "D1 g6" facing the longest shaft-end

LUBRICATION	
Y	Standard grease
N	No grease
S	Special grease - datasheet is required

¹⁾ For an END-SHAFT with dimensions different from the standard, fill "Table B" and "Table C" and insert code **101**, **111** or **202** into Box-card
²⁾ For an END-SHAFT that does not match neither "Table B" nor "Table C", the inclusion of a drawing is required. Insert code **500** into Box-card
³⁾ See "Table D" for more details

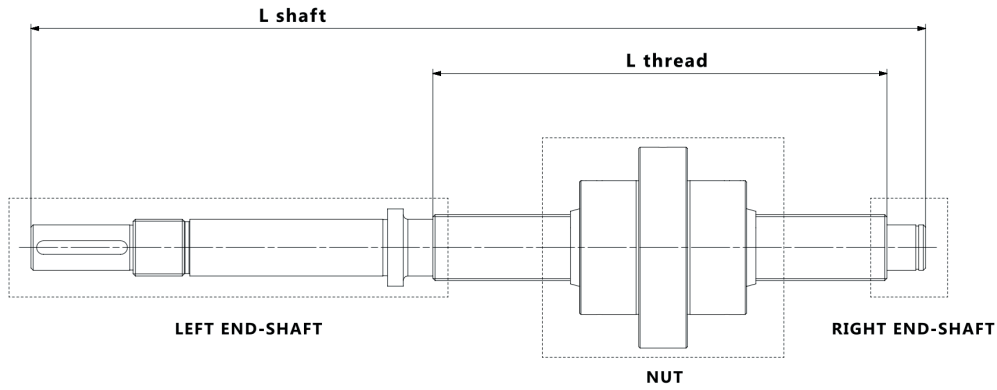


Table A - SHAFT DIMENSIONS			
Shaft overall length	L shaft		[mm]
Threaded section length	L thread		[mm]

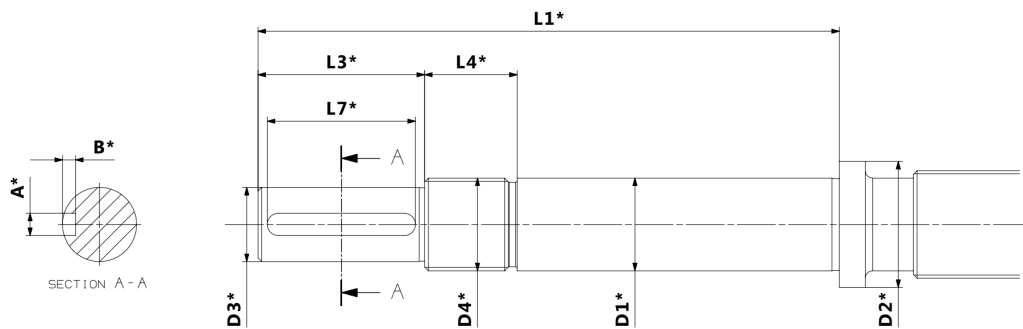


Table B - CUSTOM SHAFT- END FOR AXIAL BEARING			
Use this table for custom END-SHAFT with "001" or "011" geometry but not standard dimensions.			
Fill Box-card with code "101" for Custom end-shaft for axial bearing - NO key-slot			
Fill Box-card with code "111" for Custom end-shaft for axial bearing - WITH key-slot			
L1*	[mm]	D3*	[mm]
L3*	[mm]	D4*	[mm]
L4*	[mm]	A*	[mm]
D1*	[mm]	B*	[mm]
D2*	[mm]	L7*	[mm]

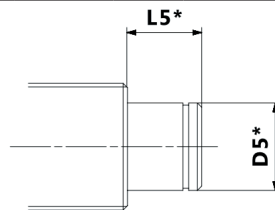


Table C - CUSTOM SHAFT-END FOR RADIAL BEARING			
Use this table for custom END-SHAFT with "002" geometry but not standard dimensions.			
Fill Box-card with code 202 for custom end-shaft for radial bearing			
D5*	[mm]	L5*	[mm]

Table D - SHAFT-END OPTIONAL FEATURES		
"X" Centering hole - UNI 6411	"W" Threaded hole - UNI 9321	"Z" Hexagon socket

NOTES

A series of horizontal dotted lines for writing notes.

NOTES

A series of horizontal dotted lines for writing notes.

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