

Roller Screws





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Helix Linear Technologies, Inc., Beachwood, Ohio USA

Company

Helix Linear Technologies is a global manufacturer of linear actuators, lead screws and ball screws. Serving clients in the aerospace, medical, life science, security, semiconductor, and defense industries, we focus on helping our customers achieve their application and profitability goals. Our innovative product design and world-class engineering capabilities solve real-world linear motion issues, building a foundation for our client's long-term success.

Culture

Our culture is rooted in agility, responsiveness, and teamwork. Our team comprises happy, competitive professionals who are experts in manufacturing innovative electromechanical linear motion solutions. We strive to exceed our customers' expectations in all interactions and are committed to continuous improvement.

History

Helix Linear Technologies was founded in 2011 to meet the growing demand for high-precision lead screws in the electromechanical actuation industry. Our rapid growth and expanded product lines now include end-to-end linear actuator solutions, providing our clients with customized options and fully integrated solutions.

Roller Screws

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Roller Screws

Back in 1942, Swedish engineer, Carl Bruno Strandgren invented the non-recirculating planetary roller screw. Soon after, he filed a series of related patents. He also patented, in 1963 a different technology, the recirculating roller screw.

The new technologies quickly demonstrated their tremendous capabilities when compared to the original ball screws. Roller screws proved to have superior rigidity, load capacity, lifetime, strength, reliability, and accuracy. They have proved to be the perfect solution where low torque and small leads are required while maintaining high loads and also working in adverse conditions.

Since its introduction in the early 1960's, with the exception of minor changes the design of the planetary roller screw has largely remained the same. However, thanks to the Helix Linear innovative design many limitations are now overcome, opening possibilities of solutions that could only be dreamed of before.

Revolution In Roller Screw Design To Boost Your Applications

Helix Linear Technologies has been founded by bearing and roller screw professionals with decades of experience in this field, the company is dedicated to maintaining the highest quality, design, engineering and manufacturing standards for customers.

Focusing on non-recirculating planetary roller screws, our engineering team, as well as being industry experts are highly qualified and have extensive experience in mechanics and tribology.

They have revisited the existing technology and have developed breakthrough solutions for extremely high-capacity roller screws. The Helix Roller Screw comes with the highest performance when compared to any other existing solution offered in the market.

Our goal of ours is to provide all customers in any location, with the best planetary roller screws ever and offer pioneering linear motion solutions.

Figure 1.1 - Exploded view of a typical roller screw design



Breakthrough Designs

As a result of our expertise and knowledge we have developed, through rigorous testing and validation the “High-Capacity Roller Screw (HRS)”. This unique solution provides the highest load density that cannot be matched with any existing and alternative product.

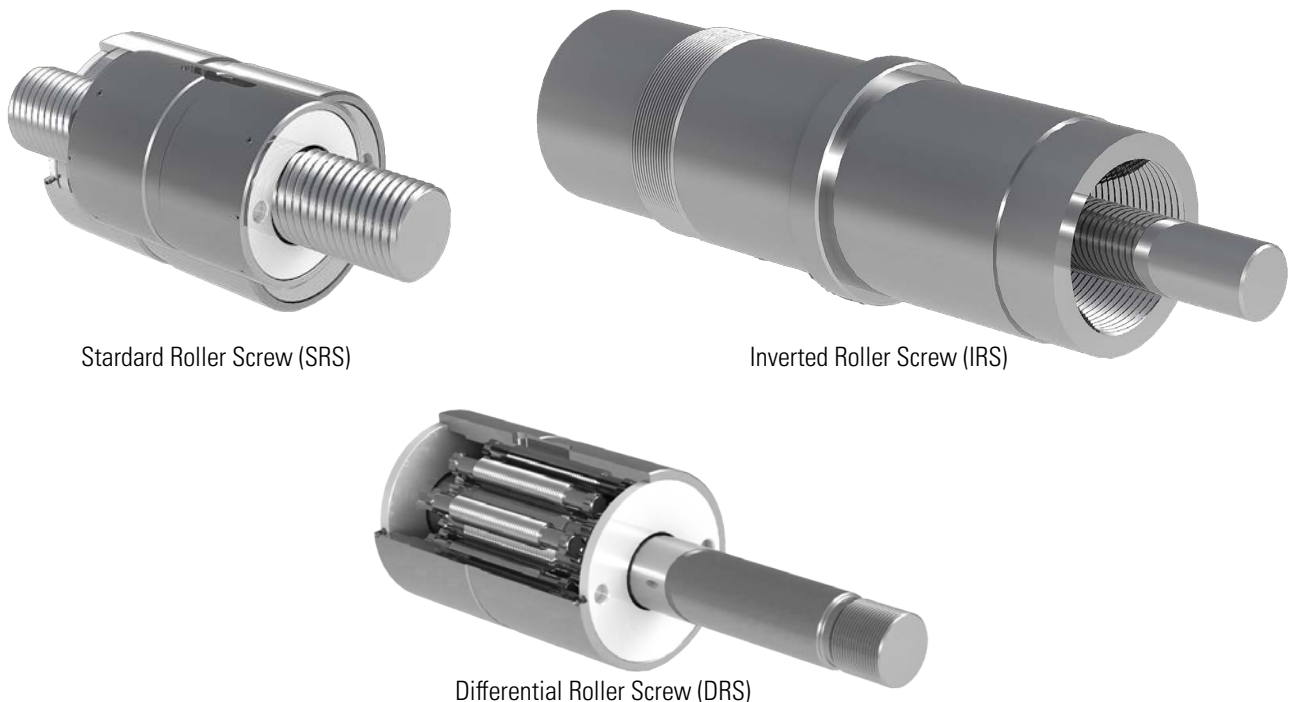
This unparalleled technology is offered as a drop-in. Replacement to any existing roller screw enabling much improved performance and optimisation in many applications. Our global team can support you wherever you are.

The High-Capacity Roller Screw (HRS) presented in this catalogue are available in three main types (fig 1.2):

- a. The Standard Roller Screw (SRS)
- b. The Inverted Roller Screw (IRS)
- c. The Differential Roller Screw (DRS)

Helix Linear Technologies also provides new products that combine HRB (Herringbone Roller Bearings) with a planetary roller screw (Fig. 1.1). More details are available in section 6.

Figure 1.2 - main types of High Capacity Roller Screws



High-Capacity Roller Screws

The Technology Behind the Screws

Customers may have noticed that lubricants applied in traditional roller screws often discolour after a few cycles or initial operation. Most will have been advised by the manufacturer that this is quite normal. It is caused by contamination of the lubricant by debris created within the roller screw itself and can result in reduced lifetime and premature failure due to accelerated wear. The traditional roller screw has a specific design and manufacture of the synchronisation gears and threads. Due to the sharp edges of the rollers they interfere with the threads. Due to this interference there are small particles that break away, contaminating the lubricant which then spreads onto the screw shaft which may generate heat, leading to wear and failure mentioned above.

This consequently reduces the lifetime of the mechanism in a significant way. This also increases relubrication frequency and makes maintenance more expensive. If the roller screw is equipped with wipers, the degradation process can even develop faster since contamination originates inside the nut and will be trapped in the assembly. Both lubricant and rolling surface are getting prematurely damaged. .

Very High & Reliable Capacity Ratings

Many planetary roller screws have been delivered with quality issues due the complex manufacturing of rollers and consequential thread or gear interference. Due to the design and manufacturing process the threads act as sharp blades that permanently scrape or rub the contacting surface. Due to this abrasion, there is rapid surface damage.

Moreover, the involute gear profiles used in all traditional roller screws are practically reducing the actual load capacities. This is an important consideration to take into account when sizing and designing an application. The screw load capacities are defined independently from the gear design whereas the gear directly influences the correct running and as described above could shorten life. Traditional involute gear design in roller screws is constrained by thread size to low modules. Traditional products do not consider the involute gear weaknesses when load capacities are defined. However, the intrinsic robustness of the roller screw gives a good overall performance in many situations but the industry trend is demanding greater reliability and durability (maximising uptime and reducing maintenance costs) as well as downsizing and more demanding applications. In this respect, it is of primary importance to understand the real safety factors on capacity ratings when selecting a roller screw and thus taking into account every interaction that exists in the assembly (see Fig 1.3).

Figure 1.3 - Comparison between Helix roller screws and existing products

	Helix Roller Screw design	Historic design #1	Historic design #2
	Helix Profile	Involute	
Kinematics	√√√	√√	√√
Smooth meshing of gears eliminating contamination of lubricant			
	Yes	No	No
Utilisation of roller length	√√√	√√	√√
Durability & cleanliness	√√√	√√	√√
Capacity & life	√√√	√√	√√

Roller Screws

Cleaner Lubricant For Longer Life

As mentioned, the current gear design causes defects to the mechanism resulting in shortened life and premature failure. To improve the overall robustness of the roller screw a new gear definition is required. This new gear definition should eliminate thread and tooth interference, eliminating any self-contamination inside the roller screw and the roller screw nut but also for higher capacity roller screws by fully separating the gear and thread design maximising useful roller thread length.

Moving on from legacy designs that have not addressed the issues explained above. With the growing markets requiring electromechanical solutions this needed to be addressed... Helix Linear Technologies has succeeded in finding answers to such complex issues and have developed solutions enabling and offering customers the highest load density roller ever. This is achieved by smart design and optimising arrangement. Advanced calculations and modelling have been developed to set a new standard in roller screw design. The Helix Linear solution is a combination of original and proven roller screw technology combined with break-through and innovative improvements in gearing, ring gears, roller profile, wipers and carriers.

New Gears For Unprecedented Performance

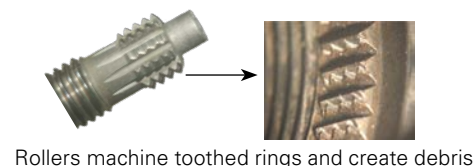
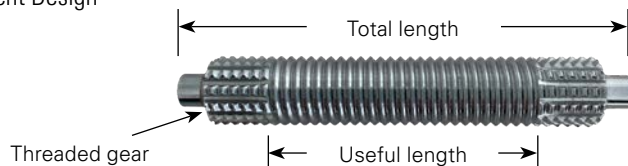
Helix Linear Technologies uses a new and unique gearing based on a special profile characterized by an excellent contact ratio allowing the mechanism to operate quietly and without vibration. This new

gear geometry prevents indentation as the roller teeth contact the mating gear rings with. This new gear geometry prevents indentation as the roller teeth contact the mating gear rings with full axial length that is not interrupted nor disrupted by any thread. Without this design there is disruption that generates significant mechanical noise and affects the synchronisation kinematics. Consequently, with the Helix Roller Screw solution the lubricant contamination is reduced, limiting oxidation and prolonging life. The lubricant (oil or grease) maintains full properties and performance as well as appearance and remains clean. The screw can reliably operate bringing peace of mind to the customer.

In addition, Helix Linear Technologies has also removed small roller ends enabling greater use of the useful thread by making it longer. Advanced load sharing calculations have been performed and a dedicated manufacturing process has been implemented to set the best load distribution. This customised and robust design is assembled with new open hole carriers that securely retain the rollers, even when the nut is removed from the shaft. This roller and carrier arrangement provides the greatest possible number of contacts per length. Thus, with this contact density optimisation Helix Linear Technologies has been able to increase load capacity as an average of 40% compared to existing planetary roller screws, while keeping external dimensions the same. This facilitates easy interchangeability with pre-existing products. Alongside the improved load capacity there are improvements in axial, radial and bending stiffness (see Fig 1.4).

Figure 1.4 - Planetary roller screw design vs. example of current product

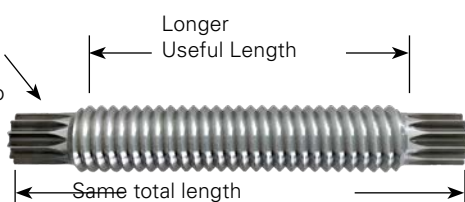
Current Design



Rollers machine toothed rings and create debris

Helix Bearings and Roller Screws

No threaded gear provides smoother and quieter operation, no indentation, and no contamination.



- Best running & +40% capacity ratings
- Engineered material and treatments
- New thread profile
- Manufacturing done to optimize load distribution

Roller Screws

Advanced Roller Screw Modelling to Speed Up Developments & Simulate Performance

With the removal of the ends of the rollers we are able to extend the useful contact length and consequently extend the capacity of the screw by 40%. This means that Helix Linear can replace existing products providing extra assurance of reliable operation and maximizing uptime.

For comparable performance Helix Linear Technologies can be applied to support downsizing and weight. Helix has also designed wipers that are easier to install. Our wipers are also available with a lubricant filtering option. Please consult us to find out more reduction. Exploiting the possibility to review surrounding components.

Figure 1.5 - Gear profiles of Helix planetary roller screws

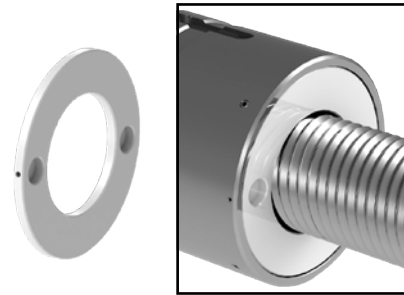


Pushing Capacity Limits

Our goal is to extend the boundaries of capacity limits. With our expertise, Helix engineers have reviewed the entire design to develop the optimized solution. Unique advanced calculations and modeling have supported this process to raise the bar in terms of performance. This innovation and optimization have also been applied to inverted roller screw designs.

Helix also has wipers easy-to-install wipers available with a lubricant filtering option available on request. Consult a Helix engineer to learn more.

Figure 1.6- Wipers shown in a Helix roller screw assembly



Advantages of the High-Capacity Planetary Roller Screw Features

High-capacity roller screws offer customers the following advantages compared to ball screws, or conventional roller screws.

- Higher load density
- Higher static and dynamic load capacities
- Extended lifetime
- No self-contamination
- Cleaner lubricant
- Lower wear rate
- Increased axial, radial and bending stiffnesses
- Reduced re-lubrication intervals
- Cheaper maintenance cost
- Easier condition monitoring
- Reduced TCO

Applications for Helix Roller Screws

With ultimate driving performance, high-capacity roller screws can be used in many linear motion Applications, here are just a few examples:

- Presses for injection moulding and blow moulding
- Servo presses
- Broaching machines
- Large machine tools
- Electromechanical actuators
- Car assembly lines
- Factory automation
- Robots
- Off-highway vehicles

Markets

Roller screws are used in many industries and high-tech segments. We are experts in reviewing specific requirements and offer the right solution that will be a perfect fit and perform even in the most extreme conditions.

Whether it's a new project or an existing application we are here to help and support development. Contact us with your enquiry and let's discuss how Helix can bring a competitive advantage to your solutions.

Aeronautics



Conditions in Aircraft are extreme and increasingly demanding. The Helix Roller Screw is the perfect solution that will help to optimize the space envelope and the weight without compromise on performance and safety. Our solutions are available in stainless steel and with coatings. The customization and design of the interfaces will help to reach the best integration and compactness. The reduced number of parts takes reliability to the highest level.

Aerospace



In Space applications such as shuttles, rockets and satellites, the major concern is the contamination of the device and the condensation of outgassing materials in the vacuum of space. As a result, roller screws applied in such a challenging environment must be ultraclean, ultra precise and ultra reliable. The Helix Roller Screw is the best reliable solution that will meet all of this for the variety of demanding applications in space.

Linear Motion Actuators



The requirements in linear and actuation technology are becoming even more challenging. With the growth in electrification and increasing demands in downsizing and weight reduction Helix Roller Screw solutions have been developed to meet these challenges. Having exceptional capacity we are able to help customers

Markets, continued

reduce size of their offers and enable applications to be optimised. Due to our unique designs and technology and torque reduction we see benefits the surrounding parts and drives such as electric motors.

Automation and Robotics



In advanced manufacturing industries, the need for Automation and Robotics, and robot end effectors is growing rapidly. This technology increases productivity, reduces costs which contributes to a better efficiency and competitiveness. Specifications in this sector include more demanding requirements for example endurance, speed, precision and protection from contamination. The Helix Roller screw is an excellent solution which helps to optimize production and uptime. High volume manufacturing is becoming increasingly dependent on automation for example, spot welding, clinching, riveting, gluing, tapping, form & piercing...

Construction machinery



Harsh environments and the need to lengthen service life. The Construction Machinery segment operates under extreme conditions such as dust, soil, high loads, tough weather and extreme temperatures. Helix Linear Technologies can be the ideal solution, replacing high maintenance systems such as hydraulics. The use of Helix technology, by replacing hydraulics helps owners become more environmentally friendly and is a perfect solution to meet the demands of today and tomorrow

Petroleum



Oil and Gas operations are becoming more challenging as the demand for energy grows around the world. New challenges both on and offshore develop quickly with greater depths, pressures, and temperatures. Equipment is constantly threatened by conditions like stress, shocks, heat and contamination. In this environment, safety is paramount and downtime not an option. The Helix Roller Screw offers high level of reliability, performance and durability keeping operations running. Helix Linear Technologies provides longer service life, reduced or zero maintenance and greaseless operation in many applications.

Robots



Robots are increasingly being adopted in many different industries. Being common to automotive they are being applied in defense, & security, healthcare, aerospace, food & beverage, education and being developed and applied in the domestic arena. The demands of roller screws, the various applications for robots may vary and will require for example, optimized size (in a compact envelop), power density, smooth and quiet running, minimum maintenance, high degree of accuracy and much more. Roller screws from Helix are a perfect fit.

Injection molding machines

High output and efficiency are key to the injection molding market. With electrification, high maintenance and environmental factors are forcing machine makers



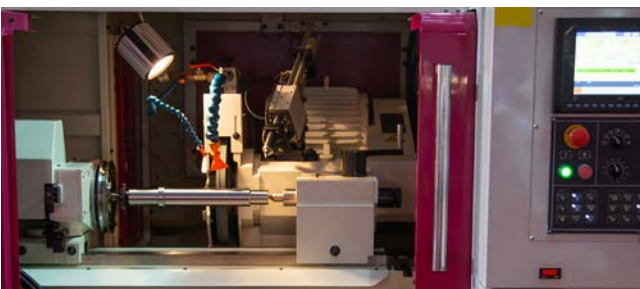
to adopt new technologies. Coupled with the high power density, reliable operation. In addition due to Helix Linear Technologies' unique design we can make injection molding machines even more efficient. Providing our solutions with faster operation with longer leads due to our unique technology.

Racing, Sports & Competition



Most of the key success factors in racing are to be quicker, more agile and have reliable operation. Failure and losing is not an option! Knowing, in competition you can push to extreme limits and you have that competitive advantage, the confidence to win. Roller screws from Helix Linear are compact in design, enabling excellent opportunities to reduce weight, not just in our solution but with surrounding components. Whether it is land, water or air our robust designs combine weight reduction with robustness and reliability beyond any solution being offered today!

Precision Machines



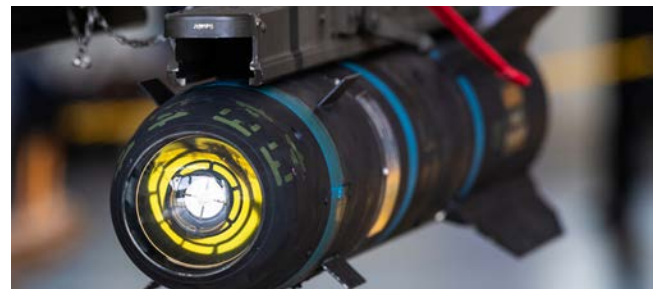
Machine tools require higher speed and stiffness to combine precision and productivity. They need to deliver more and maintain production to meet customer demands. Our solutions provide reliable operation, reduced maintenance and maximum uptime. Our lead technology can permit even greater efficiency and production, making our roller screws the most efficient in the market. Increasing the productivity for the customer. A perfect solution for broaching, grinding, polishing, as well as metal forming machines such as wire and tube

Medical applications



The Medical sector are challenging applications that require special attention that not only combine compactness and reliability but also minimize noise levels and drive torque. In the Helix Roller Screw, the only source of negligible noise originates from contact between roller ends and guides. In addition, when the environment requires the Helix Roller Screw is offered in specific materials (for instance non- magnetic or stainless). Helix screws can be fully customized for special operating conditions.

Military & Defense



In any application failure is not an option and least of all in Military and Defense segments. Reliability, accuracy, durability and precision is key and our high-capacity screws plays an integral part in solutions demanding more.

Product Portfolio



Standard and Ultra-High-Capacity
Roller Screw: Cylindrical
SRS-C or URS-C



Standard and Ultra-High-Capacity
Roller Screw: Flanged
SRS-F or URS-F



Standard and Ultra-High-Capacity
Roller Screw: Off-Centered Flanged
SRS-P or URS-P



Inverted Roller Screw
IRS



Differential Roller Screw
DRS



EZZE-MOUNT Bearing Support
SBU



Recirculating Roller Screw: Cylindrical
RRS-C



Flanged Roller Screw: Cylindrical
RRS-F



EZZE-MOUNT Bearing Support with
Herringbone Roller Bearings
HHF



Split Roller Screw
with integrated Herringbone Roller Bearing
HRA-s



Roller Screws with integrated
Herringbone Roller Bearing
HRA-i

Ordering a Roller Screw Assembly

SRS - 30×10R - C(+) 360/420 - G5 - L - Z - H - G

ROLLER SCREW TYPE _____

SRS = Standard Roller Screw
 URS = Ultra-Capacitive Roller Screw
 IRS = Inverted Roller Screw
 DRS = Differential Roller Screw
 RRS = Recirculating Roller Screw

NOMINAL DIAMETER _____

Diameter × Lead (in millimeters)

HELIX _____

R = Right
 L = Left

NUT TYPE _____

C = Cylindrical
 F = Centered flange
 P = Off-centered Flange

CONSTRAINTS _____

+ = With backlash
 0 = Zero backlash
 - = With preload

THREADED LENGTH / TOTAL LENGTH _____

In millimeters

LEAD PRECISION _____

G5 (standard), G3, G1

FLANGED NUT ORIENTATION _____

S = Outer diameter oriented toward short shaft end
 L = Outer diameter oriented toward long shaft end
 - = For identical machined ends and cylindrical nuts

SHAFT MACHINED END _____

Z = According to customer drawing

WIPERS _____

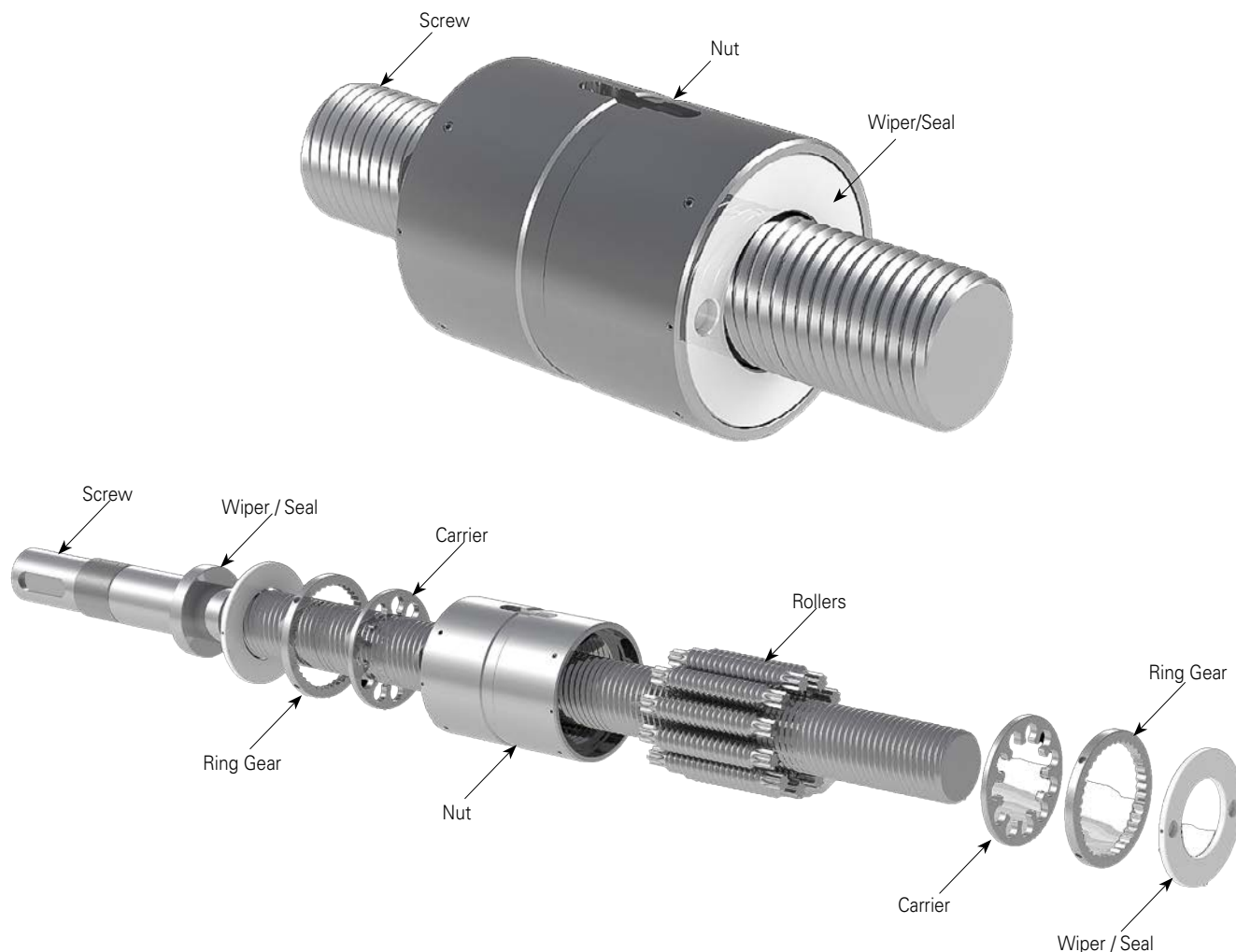
H = With wipers
 T = Without wipers
 X = Nut design without wipers recesses (for special SRS nut types only)

LUBRICANT _____

G = Grease
 O = Oil
 D = Dry

Standard Roller Screws (SRS)

Overview



Helix Roller Screws are designed and manufactured to suit to critical space constraints with extreme reliability and high performance.

The Standard Roller Screw (SRS) is the most common type of roller screw. With an assortment close to existing nut-screw mechanisms such as lead and ball screws when viewed. Also, it is the type of roller screw that is most subjected to standardization compared to others. In the SRS, the nut with rollers translates axially along the rotating screw.

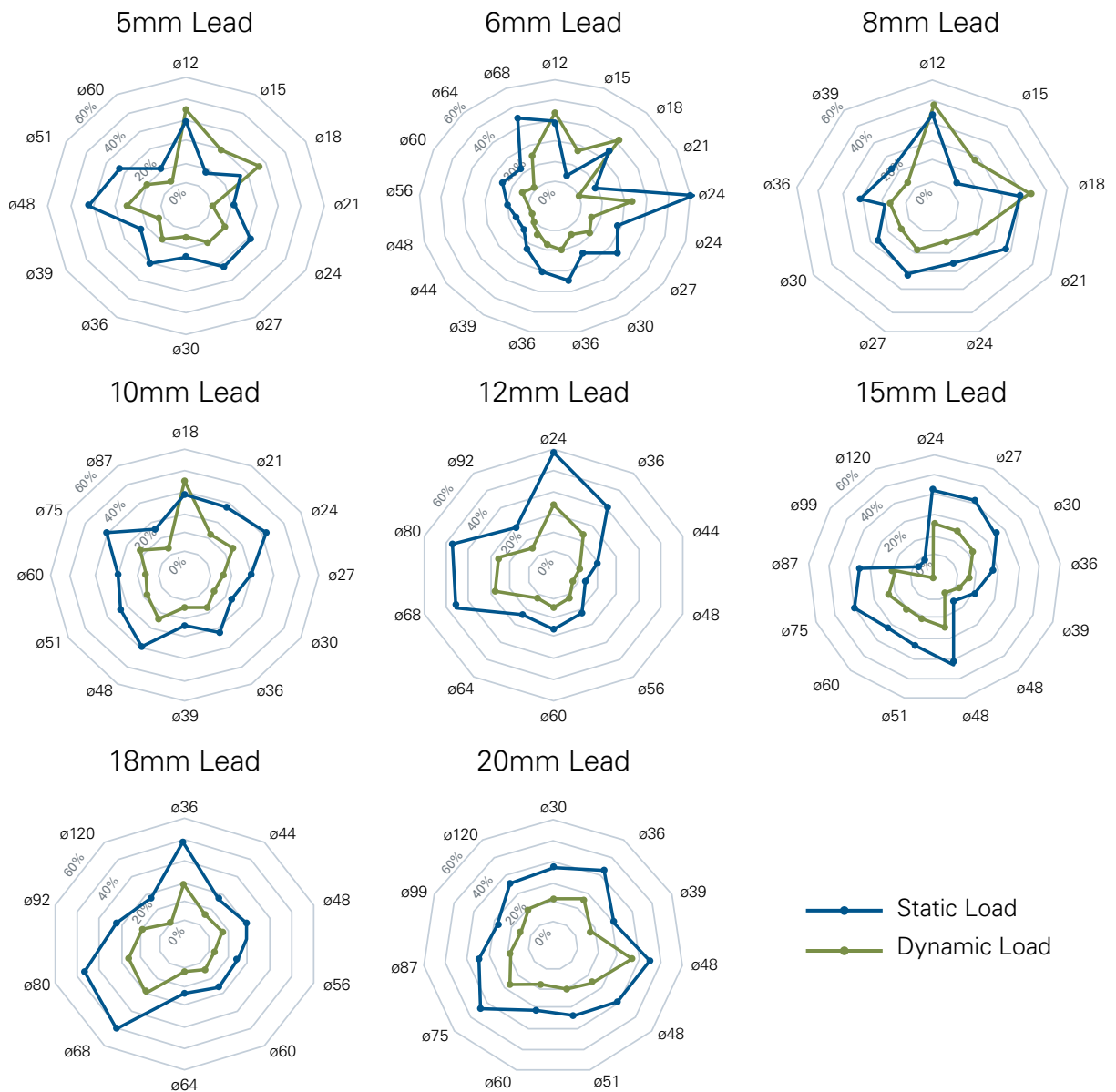
It is available in all sizes possible with different nut

features such as cylindrical flanged and can be customized to fit the customer need. The SRS can be provided with or without axial or radial play or backlash by adjusting at least one threaded component. It can also be preloaded to increase the axial stiffness with spring ring and split nuts or through rollers.

The SRS is offered also in bigger sizes range and with larger lengths of the nut, named as the Ultra-High-Capacity Standard Roller Screw (URS) version. The URS is designed for demanding applications

Standard Roller Screws (SRS)

Load Capacity Charts



Standard Roller Screws (SRS)

Dynamic Load Ratings (kN)

Nominal Diameter (mm)	Lead (mm)									
	1	2	3	4	5	6	8	9	10	
4*	7	8	9							
8	14	17	18	19						
12		21	19	20	22	22	23			
15		30	33	36	38	39	41			
18		43	47	50	53	55	58		62	
21		54	59	64	66	70	75		78	
24			56			66				
24		66		91	97	99	105		112	
27		85		101	106	106	106		110	
30		98		116	123	127	137		145	
36						122		133		
36		128		151	160	165	177		189	
39		145		172	180	189	204		213	
44						160				
48						198				
48					272				319	
51					315				370	
56						247				
60						287		315		
60					449				494	
64						290				
68						406				
75									616	
80										
87									735	
92										
99										
120										
120										

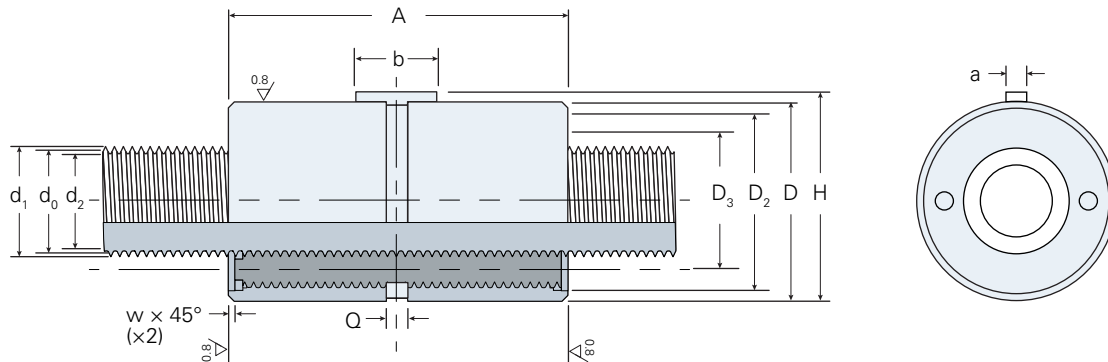
Lead (mm)									
12	15	18	20	24	25	30	35	36	42
77									
	120								
	118								
	156		193						
142		152		195					
	202		261						
	228		277		279				
189		204		254		261			
230	241	256	302	320					
	355		445		412		413		
	411		512		518				
289		318		393		402		416	
336		367		469		465		460	382
	593		610		607		562		
345		379		479		499		479	
485		542		672		691		683	
	677		802		803	810			
488		538		655		657		658	
	792		922		938		932		
621		690		823		822		840	
	1059		1239		1251	1268	1283		
		1173		1356		1379		1387	
	1260		1470		1484	1495	1529		

Standard Roller Screws with Cylindrical Nut

ø4 – ø18 mm



d _o (mm)	P _h (mm)	N (mm)	C _a (kN)	C _{0a} (kN)	η	η'	S ₀	T ₀ (Nm)	m _n (kg)	m _s (kg/m)	I _s (kgmm ² /m)	I _{nn} (kgmm ²)	I _{ns}	Z _n (mL)	Z _s (mL/m)
4	1	3	7	12	0.89	0.87	0.02	0.01	0.1	0.1	0.20	2.96	0.03	0.7	0.2
	2	3	8	12	0.89	0.87	0.02	0.01	0.1	0.1	0.20	2.96	0.03	0.7	0.2
	3	3	9	12	0.88	0.87	0.02	0.01	0.1	0.1	0.20	2.96	0.03	0.7	0.3
8	1	4	14	26	0.83	0.82	0.02	0.02	0.1	0.4	3.14	9.9	0.2	1.1	0.3
	2	4	17	27	0.83	0.82	0.02	0.02	0.1	0.4	3.14	9.9	0.2	1.2	0.4
	3	4	18	27	0.83	0.82	0.02	0.03	0.1	0.4	3.14	9.9	0.2	1.2	0.5
	4	4	19	27	0.83	0.82	0.02	0.04	0.1	0.4	3.14	9.9	0.2	1.2	0.7
12	2	5	21	38	0.8	0.79	0.02	0.05	0.2	0.9	15.9	20.2	0.5	1.6	0.5
	3	5	23	37	0.8	0.79	0.02	0.06	0.2	0.9	15.9	20.2	0.5	1.6	0.7
	4	5	24	37	0.8	0.79	0.02	0.07	0.2	0.9	15.9	20.2	0.5	1.6	0.8
	5	5	26	38	0.79	0.79	0.02	0.09	0.2	0.9	15.9	20.2	0.5	1.6	1.0
	6	5	27	37	0.79	0.79	0.02	0.10	0.2	0.9	15.9	20.2	0.5	1.6	1.2
	8	5	26	32	0.79	0.79	0.02	0.14	0.2	0.9	15.9	20.2	0.5	1.6	1.5
15	2	5	30	60	0.8	0.79	0.02	0.06	0.2	1.4	38.8	39.8	1.4	2.0	0.6
	3	5	33	59	0.8	0.79	0.02	0.07	0.2	1.4	38.8	39.8	1.4	2.0	0.9
	4	5	36	60	0.8	0.79	0.02	0.09	0.2	1.4	38.8	39.8	1.4	2.1	1.1
	5	5	38	60	0.8	0.79	0.02	0.10	0.2	1.4	38.8	39.8	1.4	2.1	1.3
	6	5	39	59	0.79	0.79	0.02	0.12	0.2	1.4	38.8	39.8	1.4	2.1	1.5
	8	5	41	59	0.79	0.79	0.02	0.15	0.2	1.4	38.8	39.8	1.4	2.1	1.9
18	2	5	43	95	0.8	0.79	0.02	0.07	0.3	2.0	80.4	74.3	3	2.6	0.8
	3	5	47	95	0.8	0.79	0.02	0.08	0.3	2.0	80.4	74.3	3	2.6	1.0
	4	5	50	95	0.8	0.79	0.02	0.10	0.3	2.0	80.4	74.3	3	2.6	1.3
	5	5	53	95	0.8	0.79	0.02	0.11	0.3	2.0	80.4	74.3	3	2.7	1.5
	6	5	55	95	0.8	0.79	0.02	0.13	0.3	2.0	80.4	74.3	3	2.7	1.8
	8	5	58	93	0.79	0.79	0.02	0.16	0.3	2.0	80.4	74.3	3	2.7	2.3
	10	5	62	96	0.79	0.79	0.04	0.20	0.3	2.0	80.4	74.3	3	2.9	3.1



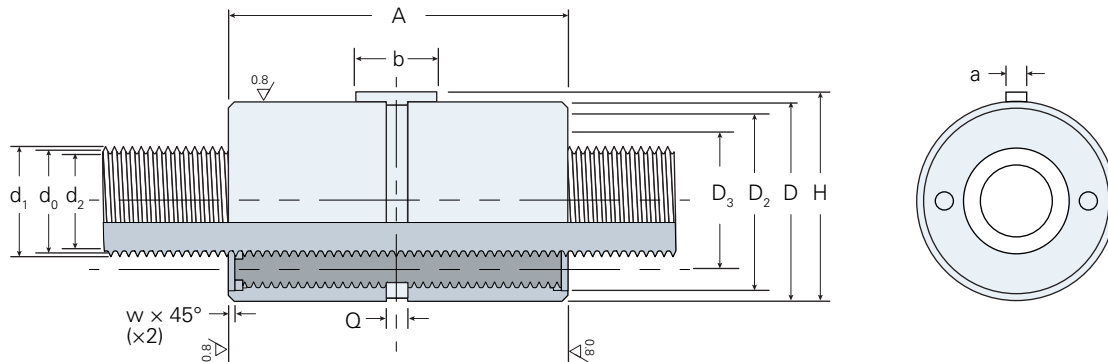
Part Number	d ₁ (mm)	d ₂ (mm)	D _{g6/H7} (mm)	A _{h12} (mm)	w (mm)	a (mm)	b _{h9} (mm)	H (mm)	Q (mm)	D ₂ (mm)	D ₃ (mm)
SRS 4×1 R-C	4.1	3.8	19	40	0.5	3	10	20.3	3	16	8
SRS 4×2 R-C	4.2	3.7	19	40	0.5	3	10	20.3	3	16	8
SRS 4×3 R-C	4.3	3.5	19	40	0.5	3	10	20.3	3	16	8
SRS 8×1 R-C	8.1	7.9	25	44	0.5	4	12	26.5	5	21	12
SRS 8×2 R-C	8.2	7.8	25	44	0.5	4	12	26.5	5	21	12
SRS 8×3 R-C	8.2	7.6	25	44	0.5	4	12	26.5	5	21	12
SRS 8×4 R-C	8.3	7.5	25	44	0.5	4	12	26.5	5	21	12
SRS 12×2 R-C	12.1	11.8	30	44	0.5	4	12	31.5	5	25	16
SRS 12×3 R-C	12.2	11.7	30	44	0.5	4	12	31.5	5	25	16
SRS 12×4 R-C	12.3	11.6	30	44	0.5	4	12	31.5	5	25	16
SRS 12×5 R-C	12.3	11.5	30	44	0.5	4	12	31.5	5	25	16
SRS 12×6 R-C	12.4	11.4	30	44	0.5	4	12	31.5	5	25	16
SRS 12×8 R-C	12.4	11.1	30	44	0.5	4	12	31.5	5	25	16
SRS 15×2 R-C	15.1	14.8	35	50	0.5	4	16	36.5	5	30	20
SRS 15×3 R-C	15.2	14.7	35	50	0.5	4	16	36.5	5	30	20
SRS 15×4 R-C	15.3	14.6	35	50	0.5	4	16	36.5	5	30	20
SRS 15×5 R-C	15.3	14.5	35	50	0.5	4	16	36.5	5	30	20
SRS 15×6 R-C	15.4	14.4	35	50	0.5	4	16	36.5	5	30	20
SRS 15×8 R-C	15.5	14.2	35	50	0.5	4	16	36.5	5	30	20
SRS 18×2 R-C	18.1	17.8	40	58	0.5	5	18	42	5	35	24
SRS 18×3 R-C	18.2	17.7	40	58	0.5	5	18	42	5	35	24
SRS 18×4 R-C	18.3	17.6	40	58	0.5	5	18	42	5	35	24
SRS 18×5 R-C	18.3	17.5	40	58	0.5	5	18	42	5	35	24
SRS 18×6 R-C	18.4	17.4	40	58	0.5	5	18	42	5	35	24
SRS 18×8 R-C	18.5	17.2	40	58	0.5	5	18	42	5	35	24
SRS 18×10 R-C	18.6	17.0	40	58	0.5	5	18	42	5	35	24

Standard Roller Screws with Cylindrical Nut

ø21 – ø27 mm



do (mm)	Ph (mm)	N (mm)	Ca (kN)	C0a (kN)	η	η'	S0	T0 (Nm)	mn (kg)	ms (kg/m)	Is (kgmm ² /m)	l _{nn} (kgmm ²)	l _{ns}	Zn (mL)	Zs (mL/m)
21	2	5	54	127	0.8	0.79	0.02	0.09	0.5	2.7	149	123	7	3.4	0.9
	3	5	59	127	0.8	0.79	0.02	0.11	0.5	2.7	149	123	7	3.4	1.2
	4	5	64	127	0.8	0.79	0.02	0.13	0.5	2.7	149	123	7	3.4	1.5
	5	5	66	126	0.8	0.79	0.02	0.15	0.5	2.7	149	123	7	3.5	1.8
	6	5	70	128	0.8	0.79	0.02	0.17	0.5	2.7	149	123	7	3.5	2.1
	8	5	75	128	0.79	0.79	0.02	0.21	0.5	2.7	149	123	7	3.6	2.6
	10	5	78	127	0.79	0.79	0.04	0.25	0.5	2.7	149	123	7	3.8	3.6
24	3	6	56	130	0.77	0.77	0.02	0.13	0.5	3.5	254	155	8	3.3	1.2
	6	6	66	131	0.77	0.77	0.02	0.2	0.5	3.5	254	155	8	3.4	2
	12	6	77	132	0.77	0.77	0.04	0.34	0.5	3.5	254	155	8	3.7	4.1
24	2	5	77	210	0.8	0.79	0.02	0.09	0.8	3.5	254	313	15	4.5	1
	4	5	91	208	0.8	0.79	0.02	0.13	0.8	3.5	254	313	15	4.6	1.7
	5	5	97	214	0.8	0.79	0.02	0.15	0.8	3.5	254	313	16	4.7	2
	6	5	99	206	0.8	0.79	0.02	0.17	0.8	3.5	254	313	15	4.8	2.3
	8	5	105	205	0.8	0.79	0.02	0.22	0.8	3.5	254	313	15	4.9	3
	10	5	112	210	0.79	0.79	0.04	0.25	0.8	3.5	254	313	15	5.2	4.1
	15	5	120	205	0.79	0.79	0.07	0.37	0.8	3.5	254	313	15	5.9	6.4
27	2	5	85	234	0.8	0.79	0.02	0.11	1	4.5	407	432	25	5.3	1.2
	4	5	101	235	0.8	0.79	0.02	0.16	1	4.5	407	432	25	5.4	1.9
	5	5	106	231	0.8	0.79	0.02	0.18	1	4.5	407	432	25	5.5	2.3
	6	5	110	230	0.8	0.79	0.02	0.2	1	4.5	407	432	25	5.6	2.6
	8	5	118	231	0.8	0.79	0.02	0.25	1	4.5	407	432	25	5.7	3.4
	10	5	122	227	0.79	0.79	0.04	0.29	1	4.5	407	432	25	6.1	4.6
	15	5	131	223	0.79	0.79	0.07	0.41	1	4.5	407	432	25	6.8	7.1



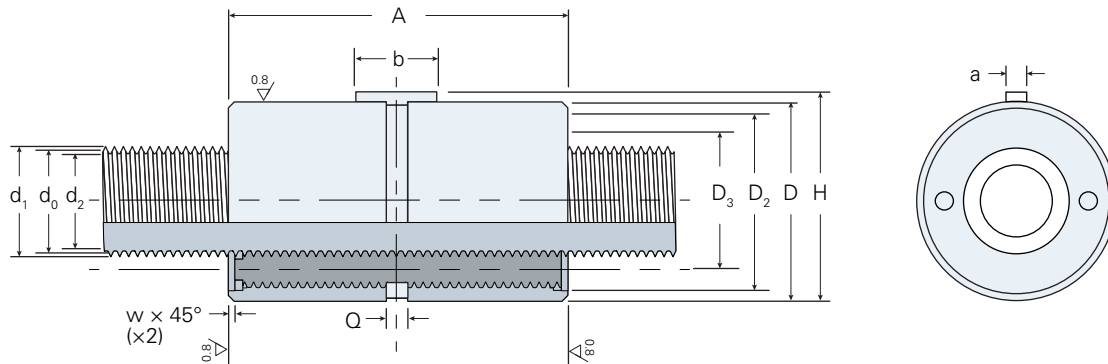
Part Number	d ₁ (mm)	d ₂ (mm)	D g6/H7 (mm)	A h12 (mm)	w (mm)	a (mm)	b h9 (mm)	H (mm)	Q (mm)	D ₂ (mm)	D ₃ (mm)
SRS 21×2 R-C	21.1	20.8	45	64	0.5	5	20	47	5	40	28
SRS 21×3 R-C	21.2	20.7	45	64	0.5	5	20	47	5	40	28
SRS 21×4 R-C	21.3	20.6	45	64	0.5	5	20	47	5	40	28
SRS 21×5 R-C	21.3	20.5	45	64	0.5	5	20	47	5	40	28
SRS 21×6 R-C	21.4	20.4	45	64	0.5	5	20	47	5	40	28
SRS 21×8 R-C	21.5	20.2	45	64	0.5	5	20	47	5	40	28
SRS 21×10 R-C	21.6	20	45	64	0.5	5	20	47	5	40	28
SRS 24×3 R-C	24.2	23.8	48	58	0.5	5	20	50	5	42	30
SRS 24×6 R-C	24.3	23.5	48	58	0.5	5	20	50	5	42	30
SRS 24×12 R-C	24.6	23	48	58	0.5	5	20	50	5	42	30
SRS 24×2 R-C	24.1	23.8	53	78	0.5	6	25	55.5	5	46	32
SRS 24×4 R-C	24.3	23.6	53	78	0.5	6	25	55.5	5	46	32
SRS 24×5 R-C	24.3	23.5	53	78	0.5	6	25	55.5	5	46	32
SRS 24×6 R-C	24.4	23.4	53	78	0.5	6	25	55.5	5	46	32
SRS 24×8 R-C	24.5	23.2	53	78	0.5	6	25	55.5	5	46	32
SRS 24×10 R-C	24.6	23	53	78	0.5	6	25	55.5	5	46	32
SRS 24×15 R-C	24.8	22.4	53	78	0.5	6	25	55.5	5	46	32
SRS 27×2 R-C	27.1	26.8	58	79	0.5	6	25	60	5	51	36
SRS 27×4 R-C	27.3	26.6	58	79	0.5	6	25	60	5	51	36
SRS 27×5 R-C	27.3	26.5	58	79	0.5	6	25	60	5	51	36
SRS 27×6 R-C	27.4	26.4	58	79	0.5	6	25	60	5	51	36
SRS 27×8 R-C	27.5	26.2	58	79	0.5	6	25	60	5	51	36
SRS 27×10 R-C	27.6	26	58	79	0.5	6	25	60	5	51	36
SRS 27×15 R-C	27.9	25.4	58	79	0.5	6	25	60	5	51	36

Standard Roller Screws with Cylindrical Nut

ø30 – ø36 mm



d _o (mm)	P _h (mm)	N (mm)	C _a (kN)	C _{0a} (kN)	η	η'	S ₀	T ₀ (Nm)	m _n (kg)	m _s (kg/m)	I _s (kgmm ² /m)	I _{nn} (kgmm ²)	I _{ns}	Z _n (mL)	Z _s (mL/m)
30	2	5	98	279	0.8	0.79	0.02	0.12	1.3	5.5	620	667	42	7	1.3
	4	5	116	277	0.8	0.79	0.02	0.18	1.3	5.5	620	667	42	7.1	2.1
	5	5	123	280	0.8	0.79	0.02	0.2	1.3	5.5	620	667	42	7.2	2.5
	6	5	127	277	0.8	0.79	0.02	0.22	1.3	5.5	620	667	42	7.3	2.9
	8	5	137	278	0.8	0.79	0.02	0.27	1.3	5.5	620	667	42	7.4	3.8
	10	5	145	281	0.8	0.79	0.04	0.32	1.3	5.5	620	667	42	7.9	5.1
	15	5	156	276	0.79	0.79	0.07	0.44	1.3	5.5	620	667	42	8.8	7.9
	20	5	193	317	0.79	0.79	0.07	0.62	1.3	5.5	620	667	42	9.3	10.1
36	6	6	122	287	0.77	0.77	0.02	0.28	1.2	7.9	1,286	770	55	7.6	3
	9	6	133	284	0.77	0.77	0.02	0.37	1.2	7.9	1,286	770	55	7.8	4.3
	12	6	142	281	0.77	0.77	0.04	0.46	1.2	7.9	1,286	770	55	8.2	6.1
	18	6	152	276	0.77	0.77	0.07	0.65	1.2	7.9	1,286	770	55	9.1	9.5
	24	6	195	332	0.77	0.77	0.07	0.91	1.2	7.9	1,286	770	55	9.6	12.1
36	2	5	128	389	0.8	0.79	0.02	0.15	1.8	7.9	1,286	1,252	98	9	1.5
	4	5	151	390	0.8	0.79	0.02	0.21	1.8	7.9	1,286	1,252	98	9.2	2.5
	5	5	160	390	0.8	0.79	0.02	0.24	1.8	7.9	1,286	1,252	98	9.3	3
	6	5	165	384	0.8	0.79	0.02	0.27	1.8	7.9	1,286	1,252	98	9.4	3.5
	8	5	177	385	0.8	0.79	0.02	0.32	1.8	7.9	1,286	1,252	98	9.7	4.5
	10	5	189	392	0.8	0.79	0.04	0.37	1.8	7.9	1,286	1,252	98	10.3	6.1
	15	5	202	379	0.79	0.79	0.07	0.51	1.8	7.9	1,286	1,252	98	11.6	9.4
	20	5	261	462	0.79	0.79	0.07	0.68	1.8	7.9	1,286	1,252	98	12.3	12



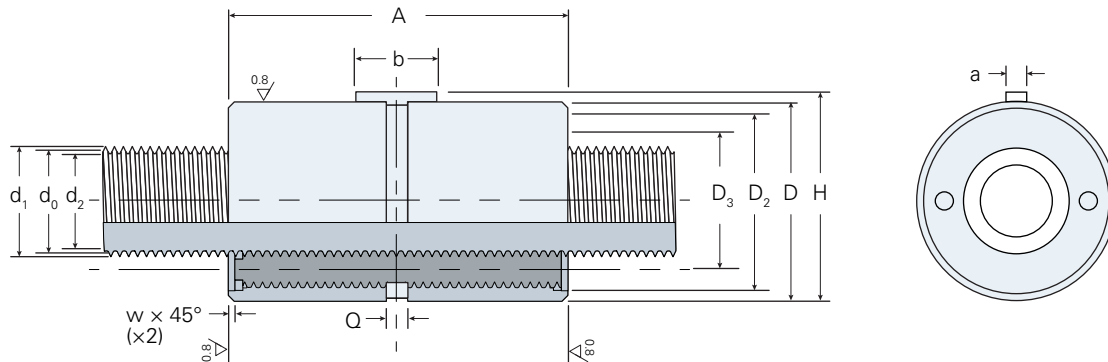
Part Number	d ₁ (mm)	d ₂ (mm)	D g6/H7 (mm)	A h12 (mm)	w (mm)	a (mm)	b h9 (mm)	H (mm)	Q (mm)	D ₂ (mm)	D ₃ (mm)
SRS 30×2 R-C	30.1	29.8	64	85	0.5	6	32	66.5	5	58	40
SRS 30×4 R-C	30.3	29.6	64	85	0.5	6	32	66.5	5	58	40
SRS 30×5 R-C	30.3	29.5	64	85	0.5	6	32	66.5	5	58	40
SRS 30×6 R-C	30.4	29.4	64	85	0.5	6	32	66.5	5	58	40
SRS 30×8 R-C	30.5	29.2	64	85	0.5	6	32	66.5	5	58	40
SRS 30×10 R-C	30.6	29	64	85	0.5	6	32	66.5	5	58	40
SRS 30×15 R-C	30.9	28.4	64	85	0.5	6	32	66.5	5	58	40
SRS 30×20 R-C	31.1	27.9	64	85	0.5	6	32	66.5	5	58	40
SRS 36×6 R-C	36.3	35.5	68	80	0.5	5	25	70	5	62	45
SRS 36×9 R-C	36.5	35.3	68	80	0.5	5	25	70	5	62	45
SRS 36×12 R-C	36.6	35	68	80	0.5	5	25	70	5	62	45
SRS 36×18 R-C	36.9	34.4	68	80	0.5	5	25	70	5	62	45
SRS 36×24 R-C	37.1	33.8	68	80	0.5	5	25	70	5	62	45
SRS 36×2 R-C	36.1	35.8	74	96	0.5	6	28	76.7	5	68	48
SRS 36×4 R-C	36.3	35.6	74	96	0.5	6	28	76.7	5	68	48
SRS 36×5 R-C	36.4	35.5	74	96	0.5	6	28	76.7	5	68	48
SRS 36×6 R-C	36.4	35.4	74	96	0.5	6	28	76.7	5	68	48
SRS 36×8 R-C	36.5	35.2	74	96	0.5	6	28	76.7	5	68	48
SRS 36×10 R-C	36.7	35	74	96	0.5	6	28	76.7	5	68	48
SRS 36×15 R-C	36.9	34.5	74	96	0.5	6	28	76.7	5	68	48
SRS 36×20 R-C	37.2	33.9	74	96	0.5	6	28	76.7	5	68	48

Standard Roller Screws with Cylindrical Nut

ø39 – ø48 mm



d ₀ (mm)	P _h (mm)	N (mm)	C _a (kN)	C _{0a} (kN)	η	η'	S ₀	T ₀ (Nm)	m _n (kg)	m _s (kg/m)	I _s (kgmm ² /m)	I _{nn} (kgmm ²)	I _{ns}	Z _n (mL)	Z _s (mL/m)
39	2	5	145	458	0.8	0.79	0.02	0.18	2.3	9.3	1,772	1,797	147	11.8	1.7
	4	5	172	459	0.8	0.79	0.02	0.26	2.3	9.3	1,772	1,797	147	12	2.7
	5	5	180	452	0.8	0.79	0.02	0.29	2.3	9.3	1,772	1,797	147	12.2	3.3
	6	5	189	456	0.8	0.79	0.02	0.33	2.3	9.3	1,772	1,797	147	12.3	3.8
	8	5	204	461	0.8	0.79	0.02	0.39	2.3	9.3	1,772	1,797	147	12.6	4.9
	10	5	213	454	0.8	0.79	0.04	0.45	2.3	9.3	1,772	1,797	147	13.4	6.6
	15	5	228	439	0.79	0.79	0.07	0.61	2.3	9.3	1,772	1,797	147	14.8	10.2
	20	5	277	487	0.79	0.79	0.07	0.74	2.2	9.3	1,772	1,786	136	15.2	13
44	25	5	279	461	0.79	0.79	0.07	0.95	2.2	9.3	1,772	1,786	136	16	15.8
	6	6	160	400	0.77	0.77	0.02	0.39	1.8	11.9	2,870	1,531	141	10.9	3.7
	12	6	189	402	0.77	0.77	0.04	0.61	1.8	11.9	2,870	1,531	141	11.8	7.4
	18	6	204	395	0.77	0.77	0.07	0.84	1.8	11.9	2,870	1,531	141	13	11.5
	24	6	254	453	0.77	0.77	0.07	1.16	1.8	11.9	2,870	1,531	141	13.7	14.6
48	30	6	261	445	0.77	0.77	0.07	1.47	1.8	11.9	2,870	1,531	141	14.4	17.8
	6	6	198	534	0.77	0.77	0.02	0.41	2.3	14.1	4,065	2,151	226	12.9	4
	12	6	230	526	0.77	0.77	0.04	0.63	2.3	14.1	4,065	2,151	226	14.2	8.1
	15	6	241	522	0.77	0.77	0.07	0.74	2.3	14.1	4,065	2,151	226	15.3	10.9
	18	6	256	539	0.77	0.77	0.07	0.85	2.3	14.1	4,065	2,151	226	15.8	12.5
	20	6	302	602	0.77	0.77	0.07	0.98	2.3	14.1	4,065	2,151	226	16	13.7
48	24	6	320	620	0.77	0.77	0.07	1.15	2.3	14.1	4,065	2,151	226	16.6	15.9
	5	5	272	788	0.8	0.79	0.02	0.34	4.7	14.1	4,065	5,835	443	18.6	4
	10	5	319	780	0.8	0.79	0.04	0.51	4.7	14.1	4,065	5,835	443	20.6	8.1
	15	5	355	794	0.8	0.79	0.07	0.67	4.7	14.1	4,065	5,835	443	23.1	12.5
	20	5	445	916	0.79	0.79	0.07	0.88	4.7	14.1	4,065	5,835	443	24.4	15.9
	25	5	412	812	0.79	0.79	0.07	0.98	4.6	14.1	4,065	5,801	409	25.2	19.3
51	30	5	413	815	0.79	0.79	0.07	1.17	4.6	14.1	4,065	5,801	409	26.5	22.7
	5	5	315	964	0.8	0.79	0.02	0.35	5.1	15.9	5,181	6,239	619	19.1	4.3



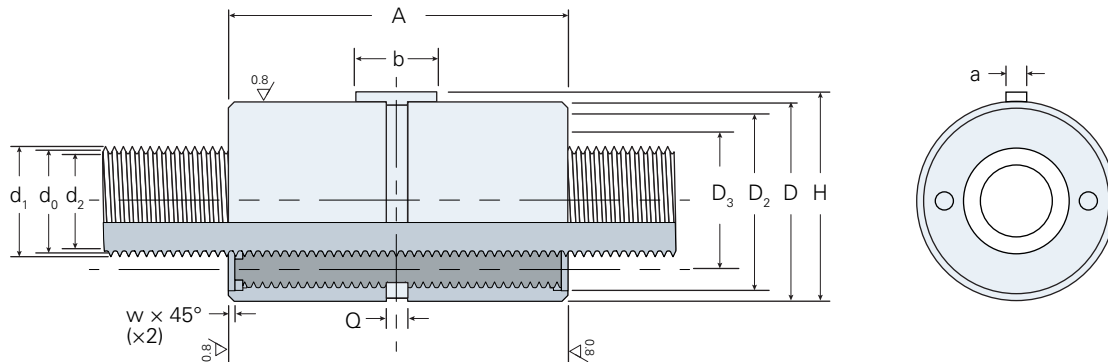
Part Number	d ₁ (mm)	d ₂ (mm)	D _{g6/H7} (mm)	A _{h12} (mm)	w (mm)	a (mm)	b _{h9} (mm)	H (mm)	Q (mm)	D ₂ (mm)	D ₃ (mm)
SRS 39x2 R-C	39.1	38.8	80	100	1	8	40	83	7	72	52
SRS 39x4 R-C	39.3	38.6	80	100	1	8	40	83	7	72	52
SRS 39x5 R-C	39.4	38.5	80	100	1	8	40	83	7	72	52
SRS 39x6 R-C	39.4	38.4	80	100	1	8	40	83	7	72	52
SRS 39x8 R-C	39.5	38.2	80	100	1	8	40	83	7	72	52
SRS 39x10 R-C	39.7	38	80	100	1	8	40	83	7	72	52
SRS 39x15 R-C	39.9	37.5	80	100	1	8	40	83	7	72	52
SRS 39x20 R-C	40.2	36.9	80	100	1	8	40	83	7	72	52
SRS 39x25 R-C	40.4	36.3	80	100	1	8	40	83	7	72	52
SRS 44x6 R-C	44.4	43.5	80	90	0.5	6	32	82.5	7	73	55
SRS 44x12 R-C	44.7	43	80	90	0.5	6	32	82.5	7	73	55
SRS 44x18 R-C	44.9	42.5	80	90	0.5	6	32	82.5	7	73	55
SRS 44x24 R-C	45.1	41.9	80	90	0.5	6	32	82.5	7	73	55
SRS 44x30 R-C	45.3	41.3	80	90	0.5	6	32	82.5	7	73	55
SRS 48x6 R-C	48.4	47.5	86	99	1	6	45	88.7	7	80	60
SRS 48x12 R-C	48.7	47	86	99	1	6	45	88.7	7	80	60
SRS 48x15 R-C	48.8	46.8	86	99	1	6	45	88.7	7	80	60
SRS 48x18 R-C	48.9	46.5	86	99	1	6	45	88.7	7	80	60
SRS 48x20 R-C	49	46.3	86	99	1	6	45	88.7	7	80	60
SRS 48x24 R-C	49.2	45.9	86	99	1	6	45	88.7	7	80	60
SRS 48x5 R-C	48.4	47.5	100	127	1	8	45	103	7	90	64
SRS 48x10 R-C	48.7	47	100	127	1	8	45	103	7	90	64
SRS 48x15 R-C	49	46.5	100	127	1	8	45	103	7	90	64
SRS 48x20 R-C	49.2	46	100	127	1	8	45	103	7	90	64
SRS 48x25 R-C	49.5	45.4	100	127	1	8	45	103	7	90	64
SRS 48x30 R-C	49.7	44.8	100	127	1	8	45	103	7	90	64
SRS 51x5 R-C	51.4	50.5	102	139	1	8	50	105	7	94	68

Standard Roller Screws with Cylindrical Nut

ø51 – ø60 mm



d _o (mm)	P _h (mm)	N (mm)	C _a (kN)	C _{0a} (kN)	η	η'	S ₀	T ₀ (Nm)	m _n (kg)	m _s (kg/m)	I _s (kgmm ² /m)	I _{nn} (kgmm ²)	I _{ns}	Z _n (mL)	Z _s (mL/m)
	10	5	370	955	0.8	0.79	0.07	0.52	5.1	15.9	5,181	6,239	619	23	9.8
	15	5	411	970	0.8	0.79	0.07	0.68	5.1	15.9	5,181	6,239	619	24.6	13.3
	20	5	512	1121	0.79	0.79	0.07	0.89	5.1	15.9	5,181	6,239	619	26.3	16.8
	25	5	518	1139	0.79	0.79	0.07	1.07	5.1	15.9	5,181	6,239	619	28.1	20.4
56	6	6	247	708	0.77	0.77	0.02	0.47	3.5	19.2	7,531	4,474	472	17.9	4.7
	12	6	289	699	0.77	0.77	0.04	0.72	3.5	19.2	7,531	4,474	472	19.7	9.4
	18	6	318	702	0.77	0.77	0.07	0.96	3.5	19.2	7,531	4,474	472	21.8	14.6
	24	6	393	795	0.77	0.77	0.07	1.29	3.5	19.2	7,531	4,474	472	22.9	18.5
	30	6	402	785	0.77	0.77	0.07	1.59	3.5	19.2	7,531	4,474	472	24.1	22.5
	36	6	416	830	0.77	0.77	0.07	1.87	3.5	19.2	7,531	4,474	472	25.3	26.5
60	6	6	287	869	0.77	0.77	0.02	0.49	5	22.1	9,924	7,875	699	23.5	5
	9	6	315	864	0.77	0.77	0.02	0.62	5	22.1	9,924	7,875	699	24.2	7.1
	12	6	336	860	0.77	0.77	0.04	0.75	5	22.1	9,924	7,875	699	25.6	10.1
	18	6	367	850	0.77	0.77	0.07	0.99	5	22.1	9,924	7,875	699	28.2	15.6
	24	6	469	1010	0.77	0.77	0.07	1.29	5	22.1	9,924	7,875	699	29.5	19.8
	30	6	465	969	0.77	0.77	0.07	1.61	5	22.1	9,924	7,875	699	31	24.1
	42	6	460	961	0.77	0.77	0.07	2.27	5	22.1	9,924	7,875	699	34	32.7
60	5	5	382	1213	0.8	0.79	0.02	0.43	8.3	22.1	9,924	14,797	1,298	28.7	5
	10	5	449	1202	0.8	0.79	0.04	0.63	8.3	22.1	9,924	14,797	1,298	31.9	10.1
	15	5	494	1206	0.8	0.79	0.07	0.81	8.3	22.1	9,924	14,797	1,298	35.8	15.6
	20	5	593	1378	0.8	0.79	0.07	1.04	8.3	22.1	9,924	14,797	1,298	37.9	19.8
	25	5	610	1431	0.79	0.79	0.07	1.23	8.3	22.1	9,924	14,797	1,298	40.1	24
	30	5	607	1419	0.79	0.79	0.07	1.45	8.3	22.1	9,924	14,797	1,298	42.3	28.2
	35	5	562	1264	0.79	0.79	0.07	1.53	8	22.1	9,924	14,687	1,198	43.3	32.5



Part Number	d ₁ (mm)	d ₂ (mm)	D g6/H7 (mm)	A h12 (mm)	w (mm)	a (mm)	b h9 (mm)	H (mm)	Q (mm)	D ₂ (mm)	D ₃ (mm)
SRS 51x10 R-C	51.7	50	102	139	1	8	50	105	7	94	68
SRS 51x15 R-C	52	49.5	102	139	1	8	50	105	7	94	68
SRS 51x20 R-C	52.3	49	102	139	1	8	50	105	7	94	68
SRS 51x25 R-C	52.5	48.4	102	139	1	8	50	105	7	94	68
SRS 56x6 R-C	56.4	55.5	100	112	1	8	40	103	7	92	70
SRS 56x12 R-C	56.7	55	100	112	1	8	40	103	7	92	70
SRS 56x18 R-C	57	54.5	100	112	1	8	40	103	7	92	70
SRS 56x24 R-C	57.2	54	100	112	1	8	40	103	7	92	70
SRS 56x30 R-C	57.4	53.4	100	112	1	8	40	103	7	92	70
SRS 56x36 R-C	57.6	52.8	100	112	1	8	40	103	7	92	70
SRS 60x6 R-C	60.4	59.5	110	124	1	8	40	113.2	10.5	100	75
SRS 60x9 R-C	60.5	59.3	110	124	1	8	40	113.2	10.5	100	75
SRS 60x12 R-C	60.7	59	110	124	1	8	40	113.2	10.5	100	75
SRS 60x18 R-C	61	58.5	110	124	1	8	40	113.2	10.5	100	75
SRS 60x24 R-C	61.2	58	110	124	1	8	40	113.2	10.5	100	75
SRS 60x30 R-C	61.5	57.4	110	124	1	8	40	113.2	10.5	100	75
SRS 60x42 R-C	61.8	56.2	110	124	1	8	40	113.2	10.5	100	75
SRS 60x5 R-C	60.4	59.5	122	152	1	10	45	125	10.5	110	80
SRS 60x10 R-C	60.7	59.1	122	152	1	10	45	125	10.5	110	80
SRS 60x15 R-C	61	58.5	122	152	1	10	45	125	10.5	110	80
SRS 60x20 R-C	61.3	58	122	152	1	10	45	125	10.5	110	80
SRS 60x25 R-C	61.5	57.5	122	152	1	10	45	125	10.5	110	80
SRS 60x30 R-C	61.8	56.9	122	152	1	10	45	125	10.5	110	80
SRS 60x35 R-C	62	56.3	122	152	1	10	45	125	10.5	110	80

Standard Roller Screws with Cylindrical Nut

ø64 – ø87 mm



d _o (mm)	P _h (mm)	N (mm)	C _a (kN)	C _{0a} (kN)	η	η'	S ₀	T ₀ (Nm)	m _n (kg)	m _s (kg/m)	I _s (kgmm ² /m)	I _{nn} (kgmm ²)	I _{ns}	Z _n (mL)	Z _s (mL/m)
64	6	6	290	990	0.77	0.77	0.02	0.53	5.5	25.1	12,847	9,248	947	22.7	5.4
	12	6	345	979	0.77	0.77	0.04	0.79	5.5	25.1	12,847	9,248	947	25.1	10.8
	18	6	379	969	0.77	0.77	0.07	1.04	5.5	25.1	12,847	9,248	947	28.1	16.7
	24	6	479	1118	0.77	0.77	0.07	1.36	5.5	25.1	12,847	9,248	947	29.7	21.1
	30	6	499	1170	0.77	0.77	0.07	1.63	5.5	25.1	12,847	9,248	947	31.3	25.6
	36	6	479	1094	0.77	0.77	0.07	1.99	5.5	25.1	12,847	9,248	947	33.1	30.2
68	6	6	406	1630	0.77	0.77	0.02	0.48	10.3	28.3	16,373	23,768	1,633	28.5	5.7
	12	6	485	1618	0.77	0.77	0.04	0.72	10.3	28.3	16,373	23,768	1,633	32.4	11.4
	18	6	542	1637	0.77	0.77	0.07	0.93	10.3	28.3	16,373	23,768	1,633	37	17.7
	24	6	672	1860	0.77	0.77	0.07	1.22	10.3	28.3	16,373	23,768	1,633	39.6	22.4
	30	6	691	1917	0.77	0.77	0.07	1.46	10.3	28.3	16,373	23,768	1,633	42.2	27.2
	36	6	683	1867	0.77	0.77	0.07	1.75	10.3	28.3	16,373	23,768	1,633	44.9	32
75	10	5	616	2045	0.8	0.79	0.04	0.74	15.5	34.5	24,229	40,776	4,062	45.7	12.6
	15	5	677	2014	0.8	0.79	0.07	0.95	15.5	34.5	24,229	40,776	4,062	52.2	19.5
	20	5	802	2396	0.8	0.79	0.07	1.18	15.5	34.5	24,229	40,776	4,062	55.8	24.7
	25	5	803	2359	0.8	0.79	0.07	1.4	15.5	34.5	24,229	40,776	4,062	59.6	29.9
	30	5	810	2364	0.79	0.79	0.07	1.62	15.5	34.5	24,229	40,776	4,062	63.3	35.1
80	12	6	488	1537	0.77	0.77	0.04	0.96	9.5	39.2	31,366	22,869	2,778	37.5	13.4
	18	6	538	1524	0.77	0.77	0.07	1.24	9.5	39.2	31,366	22,869	2,778	42.1	20.8
	24	6	655	1762	0.77	0.77	0.07	1.58	9.5	39.2	31,366	22,869	2,778	44.7	26.3
	30	6	657	1747	0.77	0.77	0.07	1.9	9.5	39.2	31,366	22,869	2,778	47.3	31.9
	36	6	658	1732	0.77	0.77	0.07	2.24	9.5	39.2	31,366	22,869	2,778	50	37.5
87	10	5	735	2538	0.8	0.79	0.04	0.88	23.8	46.4	43,870	84,778	8,363	62.5	14.6
	15	5	792	2523	0.8	0.79	0.07	1.12	23.8	46.4	43,870	84,778	8,363	70.6	22.6
	20	5	922	2925	0.8	0.79	0.07	1.38	23.8	46.4	43,870	84,778	8,363	75	28.6
	25	5	938	2955	0.8	0.79	0.07	1.61	23.8	46.4	43,870	84,778	8,363	79.6	34.6
	30	5	932	2890	0.8	0.79	0.07	1.87	23.8	46.4	43,870	84,778	8,363	84.2	40.6

1-855-435-4958

Standard Roller Screws with Cylindrical Nut

ø92 – ø120 mm



d ₀ (mm)	P _h (mm)	N (mm)	C _a (kN)	C _{0a} (kN)	η	η'	S ₀	T ₀ (Nm)	m _n (kg)	m _s (kg/m)	I _s (kgmm ² /m)	I _{nn} (kgmm ²)	I _{ns}	Z _n (mL)	Z _s (mL/m)
92	12	6	621	2108	0.77	0.77	0.04	1.19	14.5	51.9	54,859	43,415	6,004	49.9	15.4
	18	6	690	2113	0.77	0.77	0.07	1.52	14.5	51.9	54,859	43,415	6,004	56.2	23.9
	24	6	823	2472	0.77	0.77	0.07	1.9	14.5	51.9	54,859	43,415	6,004	59.6	30.2
	30	6	822	2428	0.77	0.77	0.07	2.28	14.5	51.9	54,859	43,415	6,004	63.1	36.6
	36	6	840	2484	0.77	0.77	0.07	2.62	14.5	51.9	54,859	43,415	6,004	66.7	43
99	15	5	1059	3928	0.8	0.79	0.07	1.17	39.9	60	73,559	188,263	17,722	103.8	25.7
	20	5	1239	4589	0.8	0.79	0.07	1.42	39.9	60	73,559	188,263	17,722	110.6	32.5
	25	5	1251	4568	0.8	0.79	0.07	1.66	39.9	60	73,559	188,263	17,722	117.4	39.3
	30	5	1268	4602	0.8	0.79	0.07	1.89	39.9	60	73,559	188,263	17,722	124.3	46.2
	35	5	1283	4636	0.8	0.79	0.07	2.13	39.9	60	73,559	188,263	17,722	131.3	53
120	18	6	1173	4572	0.77	0.77	0.07	1.75	44.1	88.2	158,789	271,873	26,318	111.9	31.2
	24	6	1356	5242	0.77	0.77	0.07	4.77	44.1	88.2	158,789	271,873	26,318	119.2	39.4
	30	6	1379	5283	0.77	0.77	0.07	2.52	44.1	88.2	158,789	271,873	26,318	126.6	47.7
	36	6	1387	5257	0.77	0.77	0.07	2.89	44.1	88.2	158,789	271,873	26,318	134	55.9
120	15	5	1260	5057	0.8	0.79	0.07	1.47	62.9	88.2	158,789	420,854	42,375	141.6	31.2
	20	5	1470	5875	0.8	0.79	0.07	1.77	62.9	88.2	158,789	420,854	42,375	150.7	39.4
	25	5	1484	5850	0.8	0.79	0.07	2.05	62.9	88.2	158,789	420,854	42,375	159.8	47.6
	30	5	1495	5826	0.8	0.79	0.07	2.32	62.9	88.2	158,789	420,854	42,375	169	55.9
	35	5	1529	5966	0.8	0.79	0.07	2.58	62.9	88.2	158,789	420,854	42,375	178.2	64.1

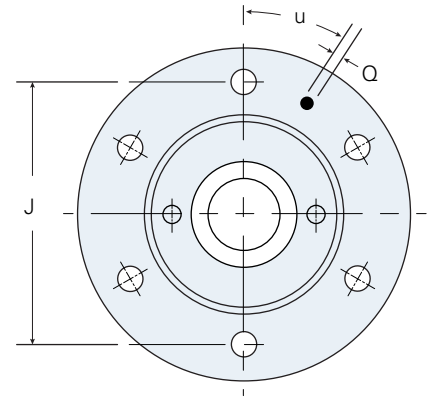
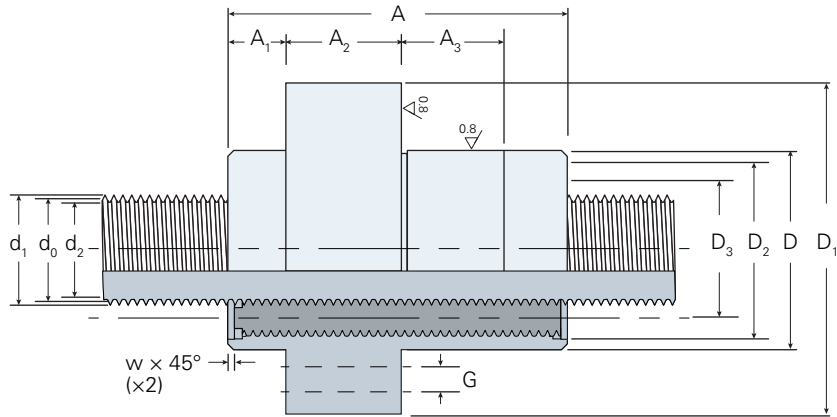
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Standard Roller Screws with Flanged Nut

ø4 – ø18 mm



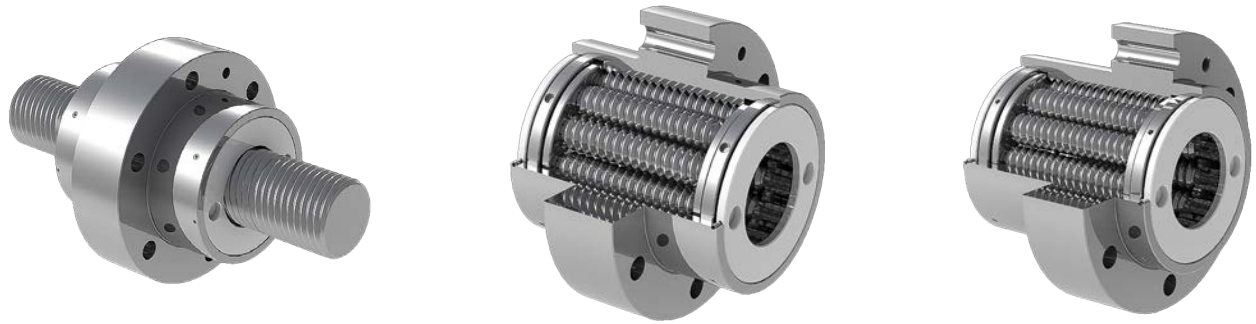
d ₀ (mm)	P _h (mm)	N (mm)	C _a (kN)	C _{0a} (kN)	η	η'	S ₀	T ₀ (Nm)	m ^a (kg)	m _s (kg/m)	I _s (kgmm ² /m)	I _{nn} (kgmm ²)	I _{ns}	Z _n (mL)	Z _s (mL/m)
4	1	3	7	12	0.89	0.87	0.02	0.01	0.1	0.1	0.2	20.62	0.0	0.6	0.2
	2	3	8	12	0.89	0.87	0.02	0.01	0.1	0.1	0.2	20.62	0.0	0.6	0.2
	3	3	9	12	0.88	0.87	0.02	0.01	0.1	0.1	0.2	20.62	0.0	0.6	0.3
8	1	4	14	26	0.83	0.82	0.02	0.02	0.2	0.4	3.14	55.3	0.2	1	0.3
	2	4	17	27	0.83	0.82	0.02	0.02	0.2	0.4	3.14	55.3	0.2	1	0.4
	3	4	18	27	0.83	0.82	0.02	0.03	0.2	0.4	3.14	55.3	0.2	1	0.5
	4	4	19	27	0.83	0.82	0.02	0.04	0.2	0.4	3.14	55.3	0.2	1	0.7
12	2	5	21	38	0.8	0.79	0.02	0.05	0.3	0.9	15.9	87.1	0.5	1.4	0.5
	3	5	23	37	0.8	0.79	0.02	0.06	0.3	0.9	15.9	87.1	0.5	1.4	0.7
	4	5	24	37	0.8	0.79	0.02	0.07	0.3	0.9	15.9	87.1	0.5	1.4	0.8
	5	5	26	38	0.79	0.79	0.02	0.09	0.3	0.9	15.9	87.1	0.5	1.4	1
	6	5	27	37	0.79	0.79	0.02	0.1	0.3	0.9	15.9	87.1	0.5	1.4	1.2
	8	5	26	32	0.79	0.79	0.02	0.14	0.3	0.9	15.9	86.7	0.5	1.4	1.5
15	2	5	30	60	0.8	0.79	0.02	0.06	0.4	1.4	38.8	162	1.4	1.9	0.6
	3	5	33	59	0.8	0.79	0.02	0.07	0.4	1.4	38.8	162	1.4	1.9	0.9
	4	5	36	60	0.8	0.79	0.02	0.09	0.4	1.4	38.8	162	1.4	1.9	1.1
	5	5	38	60	0.8	0.79	0.02	0.1	0.4	1.4	38.8	162	1.4	1.9	1.3
	6	5	39	59	0.79	0.79	0.02	0.12	0.4	1.4	38.8	162	1.4	1.9	1.5
	8	5	41	59	0.79	0.79	0.02	0.15	0.4	1.4	38.8	162	1.4	2	1.9
18	2	5	43	95	0.8	0.79	0.02	0.07	0.6	2	80.4	240	3	2.4	0.8
	3	5	47	95	0.8	0.79	0.02	0.08	0.6	2	80.4	240	3	2.4	1
	4	5	50	95	0.8	0.79	0.02	0.1	0.6	2	80.4	240	3	2.4	1.3
	5	5	53	95	0.8	0.79	0.02	0.11	0.6	2	80.4	240	3	2.5	1.5
	6	5	55	95	0.8	0.79	0.02	0.13	0.6	2	80.4	240	3	2.5	1.8
	8	5	58	93	0.79	0.79	0.02	0.16	0.6	2	80.4	240	3	2.6	2.3
	10	5	62	96	0.79	0.79	0.04	0.2	0.6	2	80.4	240	3	2.7	3.1



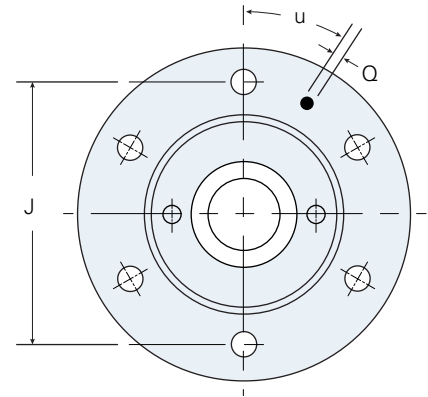
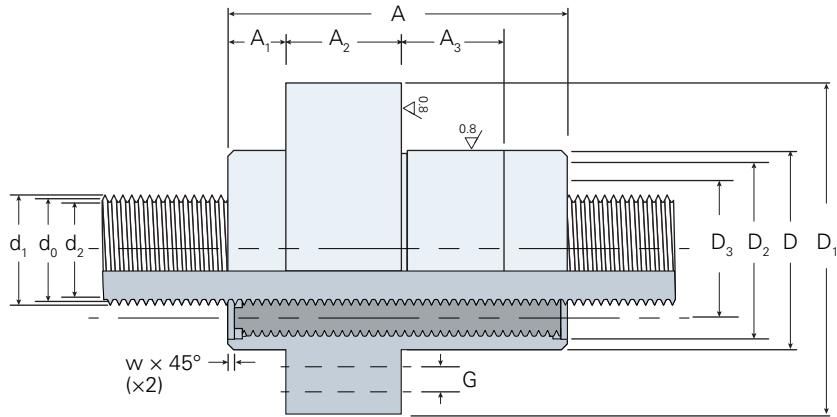
Part Number	d ₁ (mm)	d ₂ (mm)	D (mm) g6/H7	D g6/H7 (mm)	A h12 (mm)	A ₁ (mm) F only	A ₁ (mm) P only	A ₂ (mm)	A ₃ (mm)	J (mm)	G	w (mm)	Q (mm)	D ₂ (mm)	D ₃ (mm)	u
SRS 4x1 R3 F/P	4.1	3.8	19	39	40	14	-	12	14	29	6xø4.5	0.5	M6	16	8	30°
SRS 4x2 R3 F/P	4.2	3.7	19	39	40	14	-	12	14	29	6xø4.5	0.5	M6	16	8	30°
SRS 4x3 R3 F/P	4.3	3.5	19	39	40	14	-	12	14	29	6xø4.5	0.5	M6	16	8	30°
SRS 8x1 R4 F/P	8.1	7.9	25	46	44	14	-	16	14	36	6xø4.5	0.5	M6	21	12	30°
SRS 8x2 R4 F/P	8.2	7.8	25	46	44	14	-	16	14	36	6xø4.5	0.5	M6	21	12	30°
SRS 8x3 R4 F/P	8.2	7.6	25	46	44	14	-	16	14	36	6xø4.5	0.5	M6	21	12	30°
SRS 8x4 R4 F/P	8.3	7.5	25	46	44	14	-	16	14	36	6xø4.5	0.5	M6	21	12	30°
SRS 12x2 R5 F/P	12.1	11.8	30	51	44	14	-	16	14	41	6xø4.5	0.5	M6	25	16	30°
SRS 12x3 R5 F/P	12.2	11.7	30	51	44	14	-	16	14	41	6xø4.5	0.5	M6	25	16	30°
SRS 12x4 R5 F/P	12.3	11.6	30	51	44	14	-	16	14	41	6xø4.5	0.5	M6	25	16	30°
SRS 12x5 R5 F/P	12.3	11.5	30	51	44	14	-	16	14	41	6xø4.5	0.5	M6	25	16	30°
SRS 12x6 R5 F/P	12.4	11.4	30	51	44	14	-	16	14	41	6xø4.5	0.5	M6	25	16	30°
SRS 12x8 R5 F/P	12.4	11.1	30	51	44	14	-	16	14	41	6xø4.5	0.5	M6	25	16	30°
SRS 15x2 R5 F/P	15.1	14.8	35	58	50	16	-	18	16	46	6xø6	0.5	M6	30	20	30°
SRS 15x3 R5 F/P	15.2	14.7	35	58	50	16	-	18	16	46	6xø6	0.5	M6	30	20	30°
SRS 15x4 R5 F/P	15.3	14.6	35	58	50	16	-	18	16	46	6xø6	0.5	M6	30	20	30°
SRS 15x5 R5 F/P	15.3	14.5	35	58	50	16	-	18	16	46	6xø6	0.5	M6	30	20	30°
SRS 15x6 R5 F/P	15.4	14.4	35	58	50	16	-	18	16	46	6xø6	0.5	M6	30	20	30°
SRS 15x8 R5 F/P	15.5	14.2	35	58	50	16	-	18	16	46	6xø6	0.5	M6	30	20	30°
SRS 18x2 R5 F/P	18.1	17.8	40	63	58	20	-	18	20	51	6xø6	0.5	M6	35	24	30°
SRS 18x3 R5 F/P	18.2	17.7	40	63	58	20	-	18	20	51	6xø6	0.5	M6	35	24	30°
SRS 18x4 R5 F/P	18.3	17.6	40	63	58	20	-	18	20	51	6xø6	0.5	M6	35	24	30°
SRS 18x5 R5 F/P	18.3	17.5	40	63	58	20	-	18	20	51	6xø6	0.5	M6	35	24	30°
SRS 18x6 R5 F/P	18.4	17.4	40	63	58	20	-	18	20	51	6xø6	0.5	M6	35	24	30°
SRS 18x8 R5 F/P	18.5	17.2	40	63	58	20	-	18	20	51	6xø6	0.5	M6	35	24	30°
SRS 18x10 R5 F/P	18.6	17	40	63	58	20	-	18	20	51	6xø6	0.5	M6	35	24	30°

Standard Roller Screws with Flanged Nut

ø21 – ø27 mm



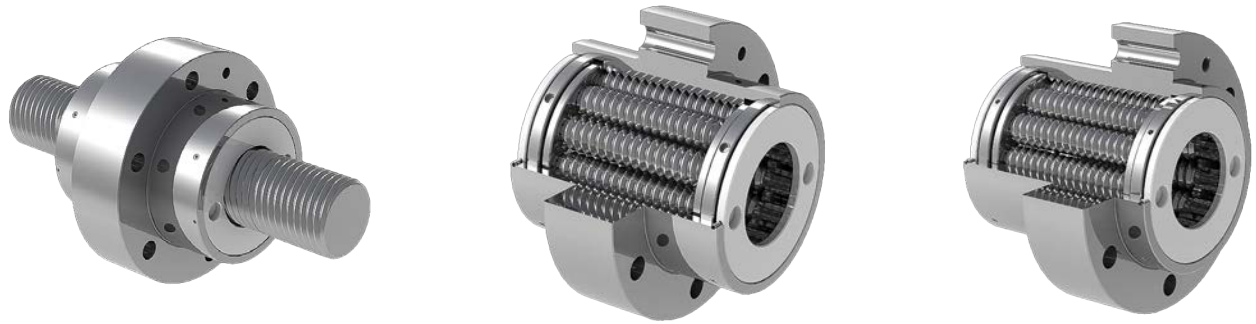
d ₀ (mm)	P _h (mm)	N (mm)	C _a (kN)	C _{0a} (kN)	η	η'	S ₀	T ₀ (Nm)	m ^a (kg)	m _s (kg/m)	I _s (kgmm ² /m)	I _{nn} (kgmm ²)	I _{ns}	Z _n (mL)	Z _s (mL/m)
21	2	5	56	134	0.8	0.79	0.02	0.09	0.7	2.7	149	344	7	3	0.9
	3	5	61	132	0.8	0.79	0.02	0.11	0.7	2.7	149	344	7	3	1.2
	4	5	66	134	0.8	0.79	0.02	0.13	0.7	2.7	149	344	7	3	1.5
	5	5	69	135	0.8	0.79	0.02	0.15	0.7	2.7	149	344	7	3.1	1.8
	6	5	72	133	0.8	0.79	0.02	0.17	0.7	2.7	149	344	7	3.1	2.1
	8	5	77	135	0.79	0.79	0.02	0.21	0.7	2.7	149	344	7	3.2	2.6
	10	5	81	136	0.79	0.79	0.04	0.25	0.7	2.7	149	344	7	3.4	3.6
24	3	6	56	130	0.77	0.77	0.02	0.13	0.7	3.5	254	402	8	3.1	1.2
	6	6	66	131	0.77	0.77	0.02	0.2	0.7	3.5	254	402	8	3.2	2
	12	6	77	132	0.77	0.77	0.04	0.34	0.7	3.5	254	402	8	3.5	4.1
24	2	5	77	210	0.8	0.79	0.02	0.09	1.3	3.5	254	910	15	4.3	1
	4	5	91	208	0.8	0.79	0.02	0.13	1.3	3.5	254	910	15	4.4	1.7
	5	5	97	214	0.8	0.79	0.02	0.15	1.3	3.5	254	909	16	4.5	2
	6	5	99	206	0.8	0.79	0.02	0.17	1.3	3.5	254	910	15	4.6	2.3
	8	5	105	205	0.8	0.79	0.02	0.22	1.3	3.5	254	910	15	4.7	3
	10	5	112	210	0.79	0.79	0.04	0.25	1.3	3.5	254	910	15	5	4.1
	15	5	120	205	0.79	0.79	0.07	0.37	1.3	3.5	254	910	15	5.7	6.4
27	2	5	85	234	0.8	0.79	0.02	0.11	1.4	4.5	407	990	25	5.1	1.2
	4	5	101	235	0.8	0.79	0.02	0.16	1.4	4.5	407	990	25	5.2	1.9
	5	5	106	231	0.8	0.79	0.02	0.18	1.4	4.5	407	990	25	5.3	2.3
	6	5	110	230	0.8	0.79	0.02	0.2	1.4	4.5	407	990	25	5.3	2.6
	8	5	118	231	0.8	0.79	0.02	0.25	1.4	4.5	407	990	25	5.5	3.4
	10	5	122	227	0.79	0.79	0.04	0.29	1.4	4.5	407	990	25	5.9	4.6
	15	5	131	223	0.79	0.79	0.07	0.41	1.4	4.5	407	990	25	6.6	7.1



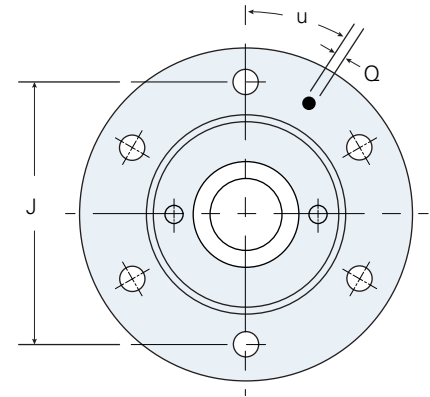
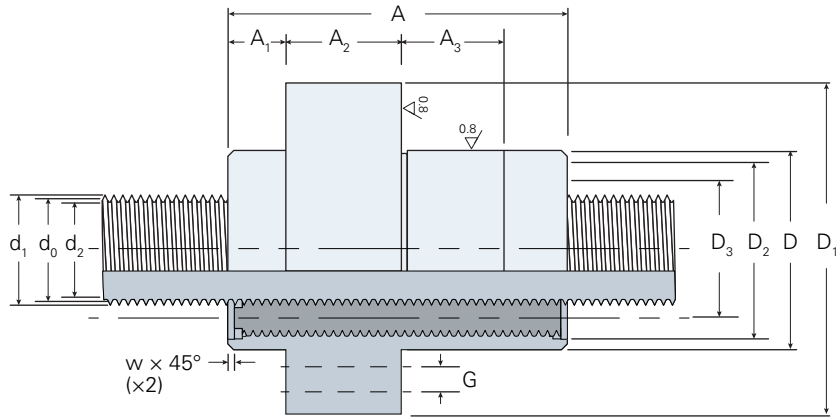
Part Number	d ₁ (mm)	d ₂ (mm)	D (mm) g6/H7	D g6/H7 (mm)	A h12 (mm)	A ₁ (mm) F only	A ₁ (mm) P only	A ₂ (mm)	A ₃ (mm)	J (mm)	G	w (mm)	Q (mm)	D ₂ (mm)	D ₃ (mm)	u
SRS 21x2 R5 F/P	21.1	20.8	45	68	64	23	10	18	10	56	6xø6	0.5	M6	40	28	30°
SRS 21x3 R5 F/P	21.2	20.7	45	68	64	23	10	18	10	56	6xø6	0.5	M6	40	28	30°
SRS 21x4 R5 F/P	21.3	20.6	45	68	64	23	10	18	10	56	6xø6	0.5	M6	40	28	30°
SRS 21x5 R5 F/P	21.3	20.5	45	68	64	23	10	18	10	56	6xø6	0.5	M6	40	28	30°
SRS 21x6 R5 F/P	21.4	20.4	45	68	64	23	10	18	10	56	6xø6	0.5	M6	40	28	30°
SRS 21x8 R5 F/P	21.5	20.2	45	68	64	23	10	18	10	56	6xø6	0.5	M6	40	28	30°
SRS 21x10 R5 F/P	21.6	20	45	68	64	23	10	18	10	56	6xø6	0.5	M6	40	28	30°
SRS 24x3 R6 F/P	24.2	23.8	48	71	58	20	10	18	10	59	6xø6	0.5	M6	42	30	30°
SRS 24x6 R6 F/P	24.3	23.5	48	71	58	20	10	18	10	59	6xø6	0.5	M6	42	30	30°
SRS 24x12 R6 F/P	24.6	23	48	71	58	20	10	18	10	59	6xø6	0.5	M6	42	30	30°
SRS 24x2 R5 F/P	24.1	23.8	53	84	78	29	10	20	10	70	6xø7	0.5	M6	46	32	30°
SRS 24x4 R5 F/P	24.3	23.6	53	84	78	29	10	20	10	70	6xø7	0.5	M6	46	32	30°
SRS 24x5 R5 F/P	24.3	23.5	53	84	78	29	10	20	10	70	6xø7	0.5	M6	46	32	30°
SRS 24x6 R5 F/P	24.4	23.4	53	84	78	29	10	20	10	70	6xø7	0.5	M6	46	32	30°
SRS 24x8 R5 F/P	24.5	23.2	53	84	78	29	10	20	10	70	6xø7	0.5	M6	46	32	30°
SRS 24x10 R5 F/P	24.6	23	53	84	78	29	10	20	10	70	6xø7	0.5	M6	46	32	30°
SRS 24x15 R5 F/P	24.8	22.4	53	84	78	29	10	20	10	70	6xø7	0.5	M6	46	32	30°
SRS 27x2 R5 F/P	27.1	26.8	58	83	79	22	10	22	10	68	6xø7	0.5	M6	51	36	30°
SRS 27x4 R5 F/P	27.3	26.6	58	83	79	22	10	22	10	68	6xø7	0.5	M6	51	36	30°
SRS 27x5 R5 F/P	27.3	26.5	58	83	79	22	10	22	10	68	6xø7	0.5	M6	51	36	30°
SRS 27x6 R5 F/P	27.4	26.4	58	83	79	22	10	22	10	68	6xø7	0.5	M6	51	36	30°
SRS 27x8 R5 F/P	27.5	26.2	58	83	79	22	10	22	10	68	6xø7	0.5	M6	51	36	30°
SRS 27x10 R5 F/P	27.6	26	58	83	79	22	10	22	10	68	6xø7	0.5	M6	51	36	30°
SRS 27x15 R5 F/P	27.9	25.4	58	83	79	22	10	22	10	68	6xø7	0.5	M6	51	36	30°

Standard Roller Screws with Flanged Nut

ø30 – ø36 mm



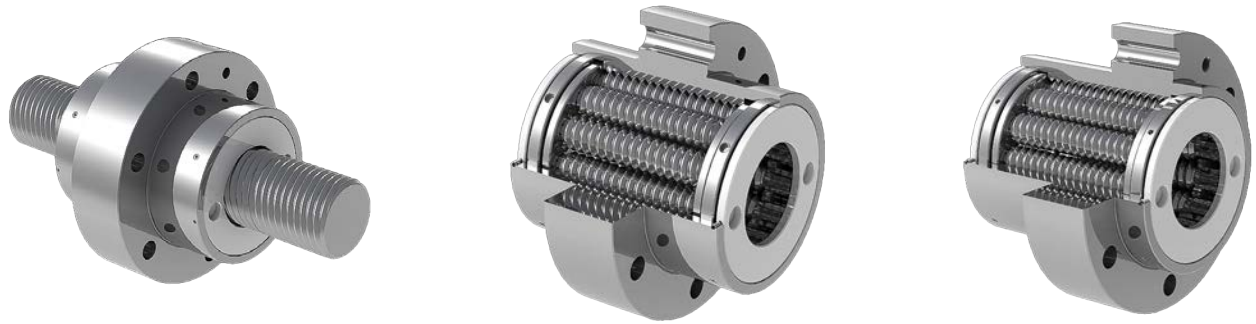
d ₀ (mm)	P _h (mm)	N (mm)	C _a (kN)	C _{0a} (kN)	η	η'	S ₀	T ₀ (Nm)	m ^a (kg)	m _s (kg/m)	I _s (kgmm ² /m)	I _{nn} (kgmm ²)	I _{ns}	Z _n (mL)	Z _s (mL/m)
30	2	5	96	271	0.8	0.79	0.02	0.12	2.1	5.5	620	2,015	42	7	1.3
	4	5	114	272	0.8	0.79	0.02	0.18	2.1	5.5	620	2,015	42	7.2	2.1
	5	5	121	273	0.8	0.79	0.02	0.2	2.1	5.5	620	2,015	42	7.2	2.5
	6	5	125	270	0.8	0.79	0.02	0.23	2.1	5.5	620	2,015	42	7.3	2.9
	8	5	133	268	0.8	0.79	0.02	0.27	2.1	5.5	620	2,015	42	7.5	3.8
	10	5	140	268	0.8	0.79	0.04	0.32	2.1	5.5	620	2,015	42	7.9	5.1
	15	5	156	276	0.79	0.79	0.07	0.44	2.1	5.5	620	2,015	42	8.8	7.9
	20	5	193	317	0.79	0.79	0.07	0.62	2.1	5.5	620	2,015	42	9.3	10.1
36	6	6	122	287	0.77	0.77	0.02	0.28	2.1	7.9	1,286	2,383	55	7.6	3
	9	6	133	284	0.77	0.77	0.02	0.37	2.1	7.9	1,286	2,383	55	7.8	4.3
	12	6	142	281	0.77	0.77	0.04	0.46	2.1	7.9	1,286	2,383	55	8.3	6.1
	18	6	152	276	0.77	0.77	0.07	0.65	2.1	7.9	1,286	2,383	55	9.1	9.5
	24	6	195	332	0.77	0.77	0.07	0.91	2.1	7.9	1,286	2,383	55	9.6	12.1
36	2	5	128	389	0.8	0.79	0.02	0.15	2.8	7.9	1,286	3,316	98	8.9	1.5
	4	5	151	390	0.8	0.79	0.02	0.21	2.8	7.9	1,286	3,316	98	9.1	2.5
	5	5	160	390	0.8	0.79	0.02	0.24	2.8	7.9	1,286	3,316	98	9.2	3
	6	5	165	384	0.8	0.79	0.02	0.27	2.8	7.9	1,286	3,316	98	9.4	3.5
	8	5	177	385	0.8	0.79	0.02	0.32	2.8	7.9	1,286	3,316	98	9.6	4.5
	10	5	189	392	0.8	0.79	0.04	0.37	2.8	7.9	1,286	3,316	98	10.3	6.1
	15	5	202	379	0.79	0.79	0.07	0.51	2.8	7.9	1,286	3,316	98	11.5	9.4
	20	5	261	462	0.79	0.79	0.07	0.68	2.8	7.9	1,286	3,316	98	12.2	12



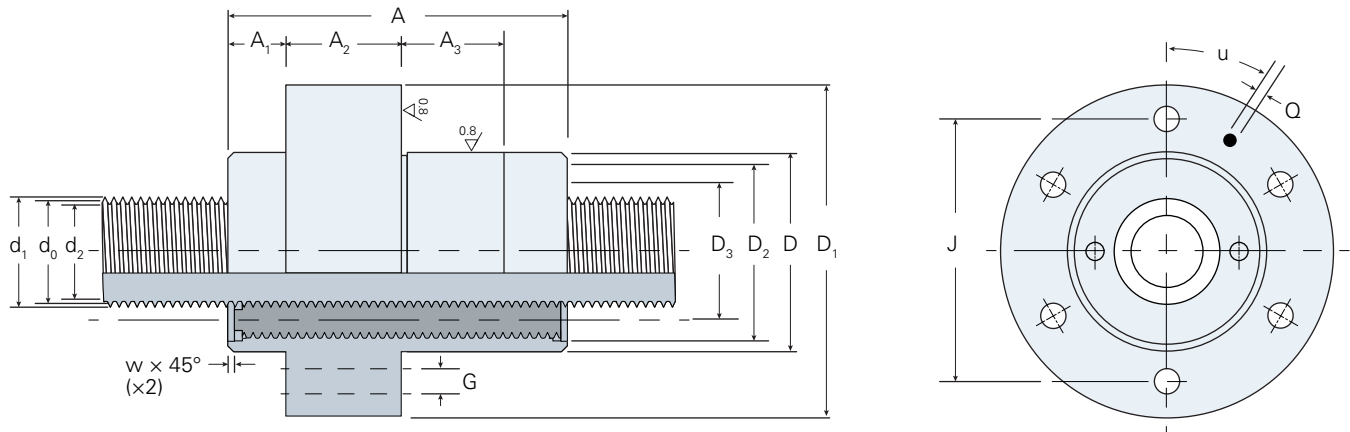
Part Number	d ₁ (mm)	d ₂ (mm)	D (mm) g6/H7	D g6/H7 (mm)	A h12 (mm)	A ₁ (mm) F only	A ₁ (mm) P only	A ₂ (mm)	A ₃ (mm)	J (mm)	G	w (mm)	Q (mm)	D ₂ (mm)	D ₃ (mm)	u
SRS 30x2 R5 F/P	30.1	29.8	64	97	85	29	12	27	15	81	6xø9	0.5	M6	58	40	30°
SRS 30x4 R5 F/P	30.3	29.6	64	97	85	29	12	27	15	81	6xø9	0.5	M6	58	40	30°
SRS 30x5 R5 F/P	30.3	29.5	64	97	85	29	12	27	15	81	6xø9	0.5	M6	58	40	30°
SRS 30x6 R5 F/P	30.4	29.4	64	97	85	29	12	27	15	81	6xø9	0.5	M6	58	40	30°
SRS 30x8 R5 F/P	30.5	29.2	64	97	85	29	12	27	15	81	6xø9	0.5	M6	58	40	30°
SRS 30x10 R5 F/P	30.6	29	64	97	85	29	12	27	15	81	6xø9	0.5	M6	58	40	30°
SRS 30x15 R5 F/P	30.9	28.4	64	97	85	29	12	27	15	81	6xø9	0.5	M6	58	40	30°
SRS 30x20 R5 F/P	31.1	27.9	64	97	85	29	12	27	15	81	6xø9	0.5	M6	58	40	30°
SRS 36x6 R6 F/P	36.3	35.5	68	102	80	26.5	12	27	15	85	6xø9	0.5	M6	62	45	30°
SRS 36x9 R6 F/P	36.5	35.3	68	102	80	26.5	12	27	15	85	6xø9	0.5	M6	62	45	30°
SRS 36x12 R6 F/P	36.6	35	68	102	80	26.5	12	27	15	85	6xø9	0.5	M6	62	45	30°
SRS 36x18 R6 F/P	36.9	34.4	68	102	80	26.5	12	27	15	85	6xø9	0.5	M6	62	45	30°
SRS 36x24 R6 F/P	37.1	33.8	68	102	80	26.5	12	27	15	85	6xø9	0.5	M6	62	45	30°
SRS 36x2 R5 F/P	36.1	35.8	74	110	96	35.5	13	25	18	92	6xø9	0.5	M6	68	48	30°
SRS 36x4 R5 F/P	36.3	35.6	74	110	96	35.5	13	25	18	92	6xø9	0.5	M6	68	48	30°
SRS 36x5 R5 F/P	36.4	35.5	74	110	96	35.5	13	25	18	92	6xø9	0.5	M6	68	48	30°
SRS 36x6 R5 F/P	36.4	35.4	74	110	96	35.5	13	25	18	92	6xø9	0.5	M6	68	48	30°
SRS 36x8 R5 F/P	36.5	35.2	74	110	96	35.5	13	25	18	92	6xø9	0.5	M6	68	48	30°
SRS 36x10 R5 F/P	36.7	35	74	110	96	35.5	13	25	18	92	6xø9	0.5	M6	68	48	30°
SRS 36x15 R5 F/P	36.9	34.5	74	110	96	35.5	13	25	18	92	6xø9	0.5	M6	68	48	30°
SRS 36x20 R5 F/P	37.2	33.9	74	110	96	35.5	13	25	18	92	6xø9	0.5	M6	68	48	30°

Standard Roller Screws with Flanged Nut

ø39 – ø48 mm



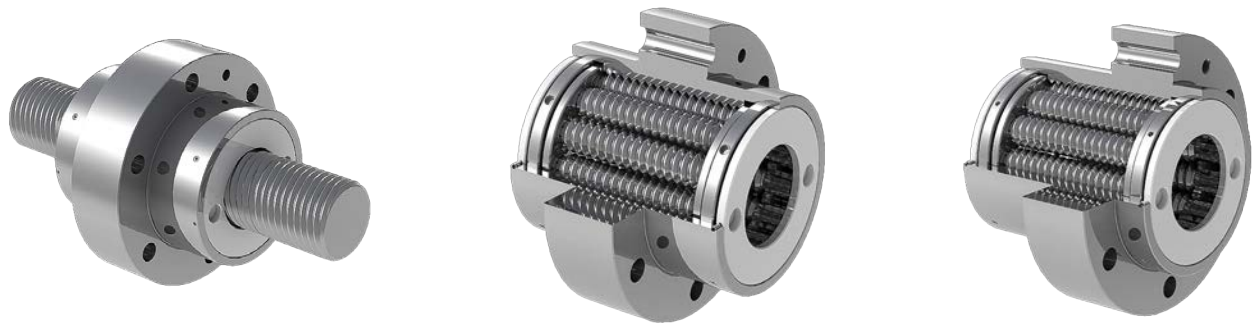
d ₀ (mm)	P _h (mm)	N (mm)	C _a (kN)	C _{0a} (kN)	η	η'	S ₀	T ₀ (Nm)	m ^a (kg)	m _s (kg/m)	I _s (kgmm ² /m)	I _{nn} (kgmm ²)	I _{ns}	Z _n (mL)	Z _s (mL/m)
39	2	5	148	469	0.8	0.79	0.02	0.18	4	9.3	1,772	6,339	148	10.4	1.7
	4	5	174	466	0.8	0.79	0.02	0.26	4	9.3	1,772	6,339	148	10.7	2.7
	5	5	185	470	0.8	0.79	0.02	0.29	4	9.3	1,772	6,339	148	10.9	3.3
	6	5	192	467	0.8	0.79	0.02	0.32	4	9.3	1,772	6,339	148	11	3.8
	8	5	204	461	0.8	0.79	0.02	0.39	4	9.3	1,772	6,339	148	11.3	4.9
	10	5	218	472	0.8	0.79	0.04	0.44	4	9.3	1,772	6,339	148	12.1	6.6
	15	5	237	466	0.79	0.79	0.07	0.6	4	9.3	1,772	6,339	148	13.6	10.2
	20	5	277	487	0.79	0.79	0.07	0.74	3.9	9.3	1,772	6,328	137	14	13
	25	5	297	508	0.79	0.79	0.07	0.92	3.9	9.3	1,772	6,328	137	14.8	15.8
44	6	6	160	400	0.77	0.77	0.02	0.39	3.5	11.9	2,870	6,068	141	11	3.7
	12	6	189	402	0.77	0.77	0.04	0.61	3.5	11.9	2,870	6,068	141	12	7.4
	18	6	204	395	0.77	0.77	0.07	0.84	3.5	11.9	2,870	6,068	141	13.2	11.5
	24	6	254	453	0.77	0.77	0.07	1.16	3.5	11.9	2,870	6,068	141	13.8	14.6
	30	6	261	445	0.77	0.77	0.07	1.47	3.5	11.9	2,870	6,068	141	14.5	17.8
48	6	6	198	534	0.77	0.77	0.02	0.41	3.8	14.1	4,065	6,186	226	12.6	4
	12	6	230	526	0.77	0.77	0.04	0.63	3.8	14.1	4,065	6,186	226	13.9	8.1
	15	6	241	522	0.77	0.77	0.07	0.74	3.8	14.1	4,065	6,186	226	15	10.9
	18	6	256	539	0.77	0.77	0.07	0.85	3.8	14.1	4,065	6,186	226	15.4	12.5
	20	6	302	602	0.77	0.77	0.07	0.98	3.8	14.1	4,065	6,186	226	15.7	13.7
	24	6	320	620	0.77	0.77	0.07	1.15	3.8	14.1	4,065	6,186	226	16.3	15.9
48	5	5	272	788	0.8	0.79	0.02	0.34	7.3	14.1	4,065	16,332	443	18.1	4
	10	5	319	780	0.8	0.79	0.04	0.51	7.3	14.1	4,065	16,332	443	20.1	8.1
	15	5	355	794	0.8	0.79	0.07	0.67	7.3	14.1	4,065	16,332	443	22.6	12.5
	20	5	445	916	0.79	0.79	0.07	0.88	7.3	14.1	4,065	16,332	443	23.9	15.9
	25	5	412	812	0.79	0.79	0.07	0.98	7.1	14.1	4,065	16,298	409	24.7	19.3
	30	5	413	815	0.79	0.79	0.07	1.17	7.1	14.1	4,065	16,298	409	26	22.7



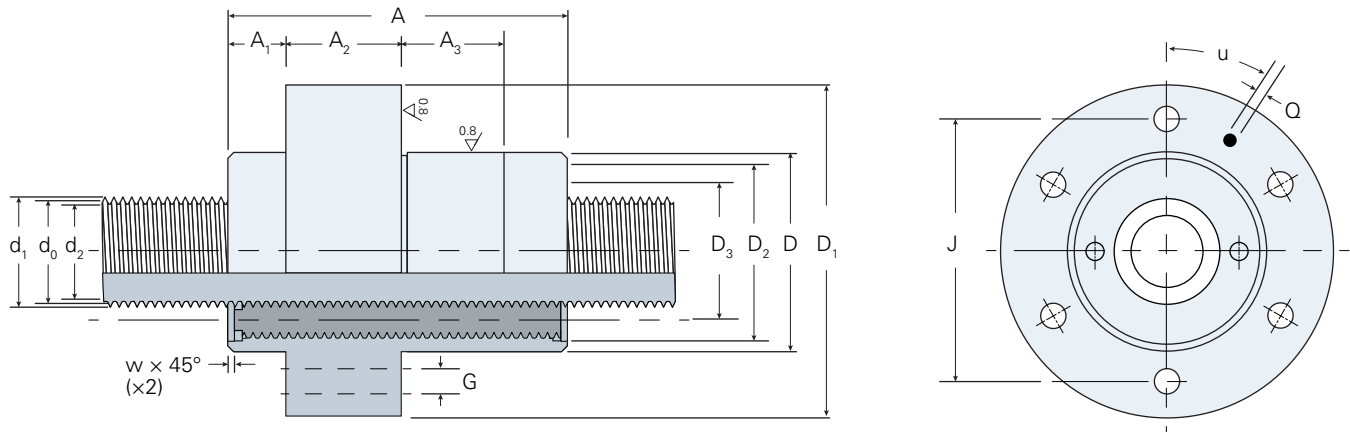
Part Number	d_1 (mm)	d_2 (mm)	D (mm) g6/H7	D g6/H7 (mm)	A h12 (mm)	A_1 (mm) F only	A_1 (mm) P only	A_2 (mm)	A_3 (mm)	J (mm)	G	w (mm)	Q (mm)	D_2 (mm)	D_3 (mm)	u
SRS 39x2 R5 F/P	39.1	38.8	82	124	100	33.5	13	33	18	102	6xØ11	1	M6	72	52	30°
SRS 39x4 R5 F/P	39.3	38.6	82	124	100	33.5	13	33	18	102	6xØ11	1	M6	72	52	30°
SRS 39x5 R5 F/P	39.4	38.5	82	124	100	33.5	13	33	18	102	6xØ11	1	M6	72	52	30°
SRS 39x6 R5 F/P	39.4	38.4	82	124	100	33.5	13	33	18	102	6xØ11	1	M6	72	52	30°
SRS 39x8 R5 F/P	39.5	38.2	82	124	100	33.5	13	33	18	102	6xØ11	1	M6	72	52	30°
SRS 39x10 R5 F/P	39.7	38	82	124	100	33.5	13	33	18	102	6xØ11	1	M6	72	52	30°
SRS 39x15 R5 F/P	39.9	37.5	82	124	100	33.5	13	33	18	102	6xØ11	1	M6	72	52	30°
SRS 39x20 R5 F/P	40.2	36.9	82	124	100	33.5	13	33	18	102	6xØ11	1	M6	72	52	30°
SRS 39x25 R5 F/P	40.4	36.3	82	124	100	33.5	13	33	18	102	6xØ11	1	M6	72	52	30°
SRS 44x6 R6 F/P	44.4	43.5	82	124	90	28.5	12	33	18	102	6xØ11	0.5	M6	73	55	30°
SRS 44x12 R6 F/P	44.7	43	82	124	90	28.5	12	33	18	102	6xØ11	0.5	M6	73	55	30°
SRS 44x18 R6 F/P	44.9	42.5	82	124	90	28.5	12	33	18	102	6xØ11	0.5	M6	73	55	30°
SRS 44x24 R6 F/P	45.1	41.9	82	124	90	28.5	12	33	18	102	6xØ11	0.5	M6	73	55	30°
SRS 44x30 R6 F/P	45.3	41.3	82	124	90	28.5	12	33	18	102	6xØ11	0.5	M6	73	55	30°
SRS 48x6 R6 F/P	48.4	47.5	86	122	99	32	12	35	18	104	6xØ11	1	M8x1	80	60	80°
SRS 48x12 R6 F/P	48.7	47	86	122	99	32	12	35	18	104	6xØ11	1	M8x1	80	60	80°
SRS 48x15 R6 F/P	48.8	46.8	86	122	99	32	12	35	18	104	6xØ11	1	M8x1	80	60	80°
SRS 48x18 R6 F/P	48.9	46.5	86	122	99	32	12	35	18	104	6xØ11	1	M8x1	80	60	80°
SRS 48x20 R6 F/P	49	46.3	86	122	99	32	12	35	18	104	6xØ11	1	M8x1	80	60	80°
SRS 48x24 R6 F/P	49.2	45.9	86	122	99	32	12	35	18	104	6xØ11	1	M8x1	80	60	80°
SRS 48x5 R5 F/P	48.4	47.5	105	150	127	45	15	37	20	127	6xØ13.5	1	M8x1	90	64	90°
SRS 48x10 R5 F/P	48.7	47	105	150	127	45	15	37	20	127	6xØ13.5	1	M8x1	90	64	90°
SRS 48x15 R5 F/P	49	46.5	105	150	127	45	15	37	20	127	6xØ13.5	1	M8x1	90	64	90°
SRS 48x20 R5 F/P	49.2	46	105	150	127	45	15	37	20	127	6xØ13.5	1	M8x1	90	64	90°
SRS 48x25 R5 F/P	49.5	45.4	105	150	127	45	15	37	20	127	6xØ13.5	1	M8x1	90	64	90°
SRS 48x30 R5 F/P	49.7	44.8	105	150	127	45	15	37	20	127	6xØ13.5	1	M8x1	90	64	90°

Standard Roller Screws with Flanged Nut

ø51 – ø60 mm



d ₀ (mm)	P _h (mm)	N (mm)	C _a (kN)	C _{0a} (kN)	η	η'	S ₀	T ₀ (Nm)	m ^a (kg)	m _s (kg/m)	I _s (kgmm ² /m)	I _{nn} (kgmm ²)	I _{ns}	Z _n (mL)	Z _s (mL/m)
51	5	5	315	964	0.8	0.79	0.02	0.35	7.3	15.9	5,181	14,909	619	18.4	4.3
	10	5	370	955	0.8	0.79	0.07	0.52	7.3	15.9	5,181	14,909	619	22.3	9.8
	15	5	411	970	0.8	0.79	0.07	0.68	7.3	15.9	5,181	14,909	619	24	13.3
	20	5	512	1121	0.79	0.79	0.07	0.89	7.3	15.9	5,181	14,909	619	25.7	16.8
	25	5	518	1139	0.79	0.79	0.07	1.07	7.3	15.9	5,181	14,909	619	27.4	20.4
56	6	6	247	708	0.77	0.77	0.02	0.47	6.1	19.2	7,531	14,972	472	17.4	4.7
	12	6	289	699	0.77	0.77	0.04	0.72	6.1	19.2	7,531	14,972	472	19.2	9.4
	18	6	318	702	0.77	0.77	0.07	0.96	6.1	19.2	7,531	14,972	472	21.3	14.6
	24	6	393	795	0.77	0.77	0.07	1.29	6.1	19.2	7,531	14,972	472	22.4	18.5
	30	6	402	785	0.77	0.77	0.07	1.59	6.1	19.2	7,531	14,972	472	23.6	22.5
	36	6	416	830	0.77	0.77	0.07	1.87	6.1	19.2	7,531	14,972	472	24.8	26.5
60	6	6	287	869	0.77	0.77	0.02	0.49	7.3	22.1	9,924	17,721	699	22.9	5
	9	6	315	864	0.77	0.77	0.02	0.62	7.3	22.1	9,924	17,721	699	23.5	7.1
	12	6	336	860	0.77	0.77	0.04	0.75	7.3	22.1	9,924	17,721	699	25	10.1
	18	6	367	850	0.77	0.77	0.07	0.99	7.3	22.1	9,924	17,721	699	27.5	15.6
	24	6	469	1010	0.77	0.77	0.07	1.29	7.3	22.1	9,924	17,721	699	28.9	19.8
	30	6	465	969	0.77	0.77	0.07	1.61	7.3	22.1	9,924	17,721	699	30.3	24.1
	42	6	460	961	0.77	0.77	0.07	2.27	7.3	22.1	9,924	17,721	699	33.3	32.7
60	5	5	382	1213	0.8	0.79	0.02	0.43	12.6	22.1	9,924	40,320	1,298	28.2	5
	10	5	449	1202	0.8	0.79	0.04	0.63	12.6	22.1	9,924	40,320	1,298	31.4	10.1
	15	5	494	1206	0.8	0.79	0.07	0.81	12.6	22.1	9,924	40,320	1,298	35.2	15.6
	20	5	593	1378	0.8	0.79	0.07	1.04	12.6	22.1	9,924	40,320	1,298	37.3	19.8
	25	5	610	1431	0.79	0.79	0.07	1.23	12.6	22.1	9,924	40,320	1,298	39.5	24
	30	5	607	1419	0.79	0.79	0.07	1.45	12.6	22.1	9,924	40,320	1,298	41.7	28.2
	35	5	562	1264	0.79	0.79	0.07	1.53	12.3	22.1	9,924	40,210	1,198	42.8	32.5



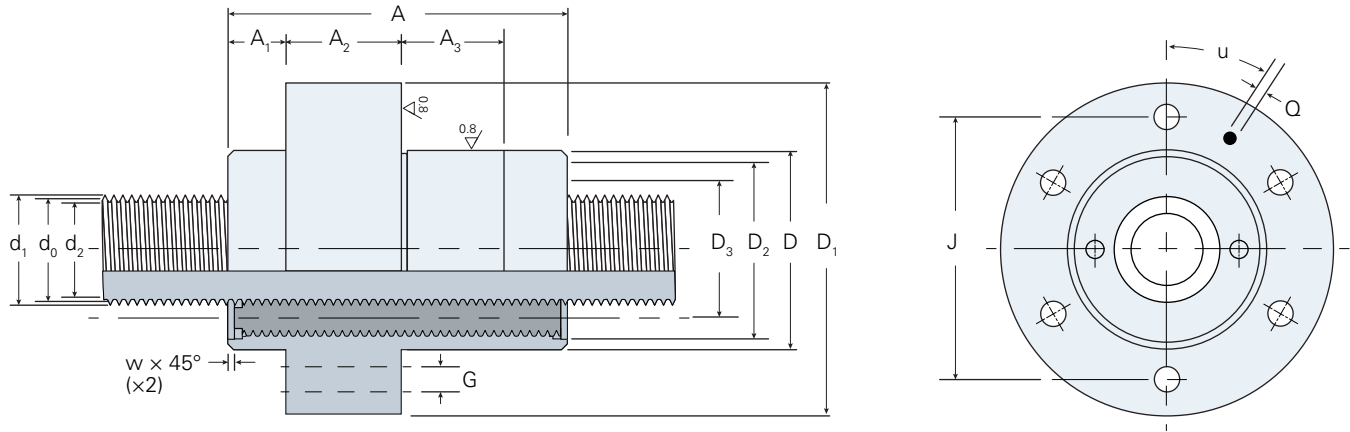
Part Number	d ₁ (mm)	d ₂ (mm)	D (mm) g6/H7	D _{g6/H7} (mm)	A h12 (mm)	A ₁ (mm) F only	A ₁ (mm) P only	A ₂ (mm)	A ₃ (mm)	J (mm)	G	w (mm)	Q (mm)	D ₂ (mm)	D ₃ (mm)	u
SRS 51x5 R5 F/P	51.4	50.5	102	147	139	52	15	35	20	124	6xø13.5	1	M8x1	94	68	94°
SRS 51x10 R5 F/P	51.7	50	102	147	139	52	15	35	20	124	6xø13.5	1	M8x1	94	68	94°
SRS 51x15 R5 F/P	52	49.5	102	147	139	52	15	35	20	124	6xø13.5	1	M8x1	94	68	94°
SRS 51x20 R5 F/P	52.3	49	102	147	139	52	15	35	20	124	6xø13.5	1	M8x1	94	68	94°
SRS 51x25 R5 F/P	52.5	48.4	102	147	139	52	15	35	20	124	6xø13.5	1	M8x1	94	68	94°
SRS 56x6 R6 F/P	56.4	55.5	105	150	112	37.5	15	37	20	127	6xø13.5	1	M8x1	92	70	92°
SRS 56x12 R6 F/P	56.7	55	105	150	112	37.5	15	37	20	127	6xø13.5	1	M8x1	92	70	92°
SRS 56x18 R6 F/P	57	54.5	105	150	112	37.5	15	37	20	127	6xø13.5	1	M8x1	92	70	92°
SRS 56x24 R6 F/P	57.2	54	105	150	112	37.5	15	37	20	127	6xø13.5	1	M8x1	92	70	92°
SRS 56x30 R6 F/P	57.4	53.4	105	150	112	37.5	15	37	20	127	6xø13.5	1	M8x1	92	70	92°
SRS 56x36 R6 F/P	57.6	52.8	105	150	112	37.5	15	37	20	127	6xø13.5	1	M8x1	92	70	92°
SRS 60x6 R6 F/P	60.4	59.5	110	150	124	42	15	40	20	130	6xø13.5	1	M8x1	100	75	100°
SRS 60x9 R6 F/P	60.5	59.3	110	150	124	42	15	40	20	130	6xø13.5	1	M8x1	100	75	100°
SRS 60x12 R6 F/P	60.7	59	110	150	124	42	15	40	20	130	6xø13.5	1	M8x1	100	75	100°
SRS 60x18 R6 F/P	61	58.5	110	150	124	42	15	40	20	130	6xø13.5	1	M8x1	100	75	100°
SRS 60x24 R6 F/P	61.2	58	110	150	124	42	15	40	20	130	6xø13.5	1	M8x1	100	75	100°
SRS 60x30 R6 F/P	61.5	57.4	110	150	124	42	15	40	20	130	6xø13.5	1	M8x1	100	75	100°
SRS 60x42 R6 F/P	61.8	56.2	110	150	124	42	15	40	20	130	6xø13.5	1	M8x1	100	75	100°
SRS 60x5 R5 F/P	60.4	59.5	122	180	152	53.5	17	45	25	150	6xø17.5	1	M8x1	110	80	110°
SRS 60x10 R5 F/P	60.7	59.1	122	180	152	53.5	17	45	25	150	6xø17.5	1	M8x1	110	80	110°
SRS 60x15 R5 F/P	61	58.5	122	180	152	53.5	17	45	25	150	6xø17.5	1	M8x1	110	80	110°
SRS 60x20 R5 F/P	61.3	58	122	180	152	53.5	17	45	25	150	6xø17.5	1	M8x1	110	80	110°
SRS 60x25 R5 F/P	61.5	57.5	122	180	152	53.5	17	45	25	150	6xø17.5	1	M8x1	110	80	110°
SRS 60x30 R5 F/P	61.8	56.9	122	180	152	53.5	17	45	25	150	6xø17.5	1	M8x1	110	80	110°
SRS 60x35 R5 F/P	62	56.3	122	180	152	53.5	17	45	25	150	6xø17.5	1	M8x1	110	80	110°

Standard Roller Screws with Flanged Nut

ø64 – ø87 mm



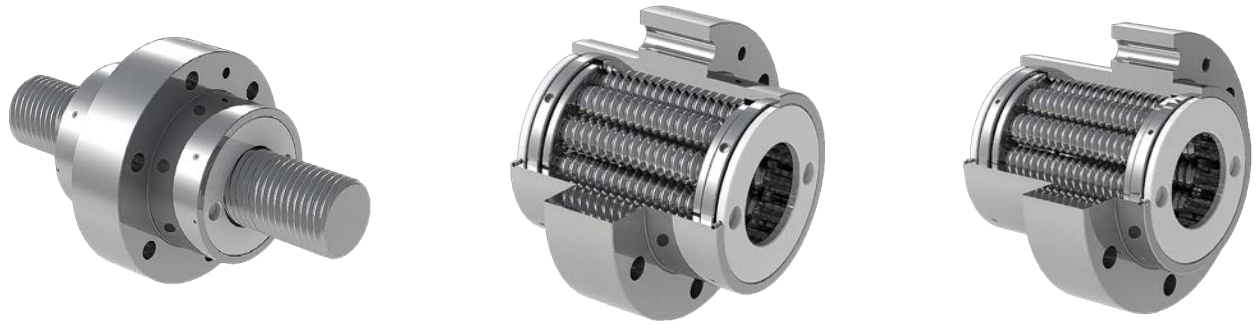
d ₀ (mm)	P _h (mm)	N (mm)	C _a (kN)	C _{0a} (kN)	η	η'	S ₀	T ₀ (Nm)	m ^a (kg)	m _s (kg/m)	l _s (kgmm ² /m)	l _{nn} (kgmm ²)	l _{ns}	Z _n (mL)	Z _s (mL/m)
64	6	6	290	990	0.77	0.77	0.02	0.53	10.3	25.1	12,847	36,498	947	24	5.4
	12	6	345	979	0.77	0.77	0.04	0.79	10.3	25.1	12,847	36,498	947	26.4	10.8
	18	6	379	969	0.77	0.77	0.07	1.04	10.3	25.1	12,847	36,498	947	29.4	16.7
	24	6	479	1118	0.77	0.77	0.07	1.36	10.3	25.1	12,847	36,498	947	31	21.1
	30	6	499	1170	0.77	0.77	0.07	1.63	10.3	25.1	12,847	36,498	947	32.6	25.6
	36	6	479	1094	0.77	0.77	0.07	1.99	10.3	25.1	12,847	36,498	947	34.3	30.2
68	6	6	406	1630	0.77	0.77	0.02	0.48	13.5	28.3	16,373	42,310	1,633	28.5	5.7
	12	6	485	1618	0.77	0.77	0.04	0.72	13.5	28.3	16,373	42,310	1,633	32.3	11.4
	18	6	542	1637	0.77	0.77	0.07	0.93	13.5	28.3	16,373	42,310	1,633	36.9	17.7
	24	6	672	1860	0.77	0.77	0.07	1.22	13.5	28.3	16,373	42,310	1,633	39.5	22.4
	30	6	691	1917	0.77	0.77	0.07	1.46	13.5	28.3	16,373	42,310	1,633	42.2	27.2
	36	6	683	1867	0.77	0.77	0.07	1.75	13.5	28.3	16,373	42,310	1,633	44.9	32
75	10	5	616	2045	0.8	0.79	0.04	0.74	20.8	34.5	24,229	84,685	4,062	44.2	12.6
	15	5	677	2014	0.8	0.79	0.07	0.95	20.8	34.5	24,229	84,685	4,062	50.7	19.5
	20	5	802	2396	0.8	0.79	0.07	1.18	20.8	34.5	24,229	84,685	4,062	54.4	24.7
	25	5	803	2359	0.8	0.79	0.07	1.4	20.8	34.5	24,229	84,685	4,062	58.1	29.9
	30	5	810	2364	0.79	0.79	0.07	1.62	20.8	34.5	24,229	84,685	4,062	61.8	35.1
80	12	6	488	1537	0.77	0.77	0.04	0.96	15.8	39.2	31,366	73,419	2,778	36.3	13.4
	18	6	538	1524	0.77	0.77	0.07	1.24	15.8	39.2	31,366	73,419	2,778	41	20.8
	24	6	655	1762	0.77	0.77	0.07	1.58	15.8	39.2	31,366	73,419	2,778	43.5	26.3
	30	6	657	1747	0.77	0.77	0.07	1.9	15.8	39.2	31,366	73,419	2,778	46.2	31.9
	36	6	658	1732	0.77	0.77	0.07	2.24	15.8	39.2	31,366	73,419	2,778	48.8	37.5
87	10	5	735	2538	0.8	0.79	0.04	0.88	29.9	46.4	43,870	150,239	8,363	60.1	14.6
	15	5	792	2523	0.8	0.79	0.07	1.12	29.9	46.4	43,870	150,239	8,363	68.3	22.6
	20	5	922	2925	0.8	0.79	0.07	1.38	29.9	46.4	43,870	150,239	8,363	72.7	28.6
	25	5	938	2955	0.8	0.79	0.07	1.61	29.9	46.4	43,870	150,239	8,363	77.3	34.6
	30	5	932	2890	0.8	0.79	0.07	1.87	29.9	46.4	43,870	150,239	8,363	81.9	40.6



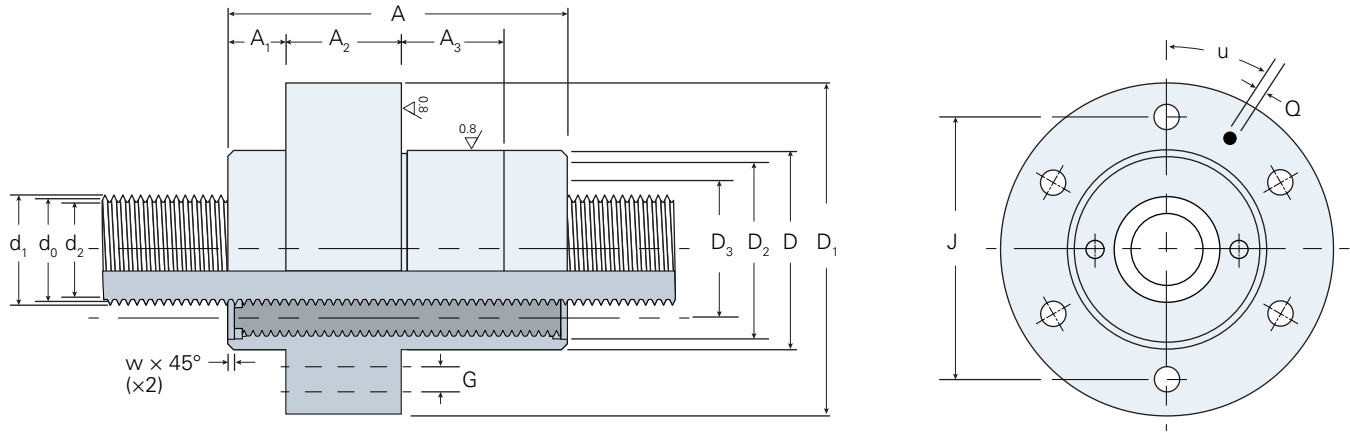
Part Number	d ₁ (mm)	d ₂ (mm)	D (mm) g6/H7	D g6/H7 (mm)	A h12 (mm)	A ₁ (mm) F only	A ₁ (mm) P only	A ₂ (mm)	A ₃ (mm)	J (mm)	G	w (mm)	Q (mm)	D ₂ (mm)	D ₃ (mm)	u
SRS 64x6 R6 F/P	64.4	63.5	120	180	129	42	17	45	25	150	6xø17.5	1	M8x1	106	80	106°
SRS 64x12 R6 F/P	64.7	63	120	180	129	42	17	45	25	150	6xø17.5	1	M8x1	106	80	106°
SRS 64x18 R6 F/P	65	62.5	120	180	129	42	17	45	25	150	6xø17.5	1	M8x1	106	80	106°
SRS 64x24 R6 F/P	65.3	62	120	180	129	42	17	45	25	150	6xø17.5	1	M8x1	106	80	106°
SRS 64x30 R6 F/P	65.5	61.4	120	180	129	42	17	45	25	150	6xø17.5	1	M8x1	106	80	106°
SRS 64x36 R6 F/P	65.7	60.8	120	180	129	42	17	45	25	150	6xø17.5	1	M8x1	106	80	106°
SRS 68x6 R6 F/P	68.4	67.5	130	172	170	62.5	17	45	25	152	6xø17.5	1	M8x1	115	85	115°
SRS 68x12 R6 F/P	68.7	67.1	130	172	170	62.5	17	45	25	152	6xø17.5	1	M8x1	115	85	115°
SRS 68x18 R6 F/P	69	66.5	130	172	170	62.5	17	45	25	152	6xø17.5	1	M8x1	115	85	115°
SRS 68x24 R6 F/P	69.3	66	130	172	170	62.5	17	45	25	152	6xø17.5	1	M8x1	115	85	115°
SRS 68x30 R6 F/P	69.5	65.4	130	172	170	62.5	17	45	25	152	6xø17.5	1	M8x1	115	85	115°
SRS 68x36 R6 F/P	69.7	64.9	130	172	170	62.5	17	45	25	152	6xø17.5	1	M8x1	115	85	115°
SRS 75x10 R5 F/P	75.7	74.1	150	210	191	73	21	45	35	180	8xø17.5	1	M8x1	138	100	138°
SRS 75x15 R5 F/P	76	73.6	150	210	191	73	21	45	35	180	8xø17.5	1	M8x1	138	100	138°
SRS 75x20 R5 F/P	76.3	73.1	150	210	191	73	21	45	35	180	8xø17.5	1	M8x1	138	100	138°
SRS 75x25 R5 F/P	76.6	72.5	150	210	191	73	21	45	35	180	8xø17.5	1	M8x1	138	100	138°
SRS 75x30 R5 F/P	76.9	72	150	210	191	73	21	45	35	180	8xø17.5	1	M8x1	138	100	138°
SRS 80x12 R6 F/P	80.7	79.1	150	210	158	55.5	19	45	35	180	8xø17.5	1	M8x1	130	100	130°
SRS 80x18 R6 F/P	81	78.6	150	210	158	55.5	19	45	35	180	8xø17.5	1	M8x1	130	100	130°
SRS 80x24 R6 F/P	81.3	78	150	210	158	55.5	19	45	35	180	8xø17.5	1	M8x1	130	100	130°
SRS 80x30 R6 F/P	81.6	77.5	150	210	158	55.5	19	45	35	180	8xø17.5	1	M8x1	130	100	130°
SRS 80x36 R6 F/P	81.8	76.9	150	210	158	55.5	19	45	35	180	8xø17.5	1	M8x1	130	100	130°
SRS 87x10 R5 F/P	87.7	86.1	175	235	215	85	23	45	40	200	8xø17.5	1	M8x1	162	116	162°
SRS 87x15 R5 F/P	88	85.6	175	235	215	85	23	45	40	200	8xø17.5	1	M8x1	162	116	162°
SRS 87x20 R5 F/P	88.4	85.1	175	235	215	85	23	45	40	200	8xø17.5	1	M8x1	162	116	162°
SRS 87x25 R5 F/P	88.6	84.6	175	235	215	85	23	45	40	200	8xø17.5	1	M8x1	162	116	162°
SRS 87x30 R5 F/P	88.9	84	175	235	215	85	23	45	40	200	8xø17.5	1	M8x1	162	116	162°

Standard Roller Screws with Flanged Nut

ø92 – ø120 mm



d ₀ (mm)	P _h (mm)	N (mm)	C _a (kN)	C _{0a} (kN)	η	η'	S ₀	T ₀ (Nm)	m ^a (kg)	m _s (kg/m)	I _s (kgmm ² /m)	I _{nn} (kgmm ²)	I _{ns}	Z _n (mL)	Z _s (mL/m)
92	12	6	621	2108	0.77	0.77	0.04	1.19	20.1	51.9	54,859	95,265	6,004	48.1	15.4
	18	6	690	2113	0.77	0.77	0.07	1.52	20.1	51.9	54,859	95,265	6,004	54.4	23.9
	24	6	823	2472	0.77	0.77	0.07	1.9	20.1	51.9	54,859	95,265	6,004	57.8	30.2
	30	6	822	2428	0.77	0.77	0.07	2.28	20.1	51.9	54,859	95,265	6,004	61.3	36.6
	36	6	840	2484	0.77	0.77	0.07	2.62	20.1	51.9	54,859	95,265	6,004	64.9	43
99	15	5	1059	3928	0.8	0.79	0.07	1.17	50.6	60	73,559	343,650	17,722	93.7	25.7
	20	5	1239	4589	0.8	0.79	0.07	1.42	50.6	60	73,559	343,650	17,722	100.5	32.5
	25	5	1251	4568	0.8	0.79	0.07	1.66	50.6	60	73,559	343,650	17,722	107.3	39.3
	30	5	1268	4602	0.8	0.79	0.07	1.89	50.6	60	73,559	343,650	17,722	114.2	46.2
	35	5	1283	4636	0.8	0.79	0.07	2.13	50.6	60	73,559	343,650	17,722	121.2	53
120	18	6	1173	4572	0.77	0.77	0.07	1.75	55.7	88.2	158,789	472,562	26,318	99.9	31.2
	24	6	1356	5242	0.77	0.77	0.07	4.77	55.7	88.2	158,789	472,562	26,318	107.2	39.4
	30	6	1379	5283	0.77	0.77	0.07	2.52	55.7	88.2	158,789	472,562	26,318	114.6	47.7
	36	6	1387	5257	0.77	0.77	0.07	2.89	55.7	88.2	158,789	472,562	26,318	122	55.9
120	15	5	1260	5057	0.8	0.79	0.07	1.47	81.2	88.2	158,789	816,800	42,375	128.7	31.2
	20	5	1470	5875	0.8	0.79	0.07	1.77	81.2	88.2	158,789	816,800	42,375	137.7	39.4
	25	5	1484	5850	0.8	0.79	0.07	2.05	81.2	88.2	158,789	816,800	42,375	146.8	47.6
	30	5	1495	5826	0.8	0.79	0.07	2.32	81.2	88.2	158,789	816,800	42,375	156	55.9
	35	5	1529	5966	0.8	0.79	0.07	2.58	81.2	88.2	158,789	816,800	42,375	165.3	64.1

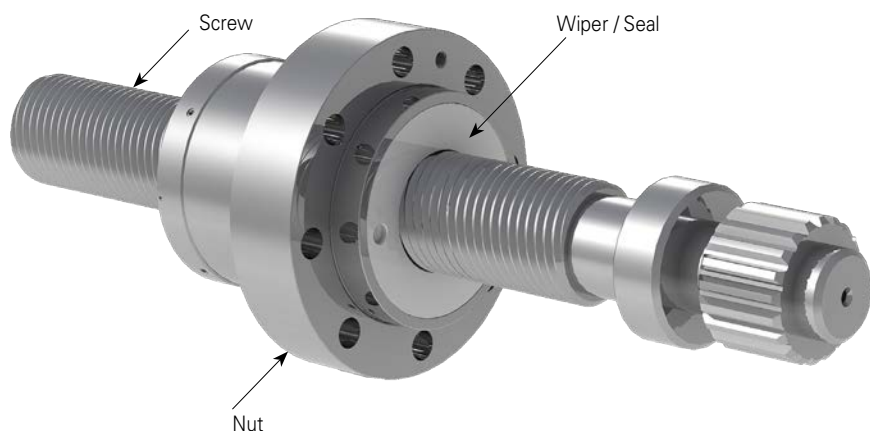


Part Number	d ₁ (mm)	d ₂ (mm)	D (mm) g6/H7	D g6/H7 (mm)	A h12 (mm)	A ₁ (mm) F only	A ₁ (mm) P only	A ₂ (mm)	A ₃ (mm)	J (mm)	G	w (mm)	Q (mm)	D ₂ (mm)	D ₃ (mm)	u
SRS 92x12 R6 F/P	92.7	91.1	160	220	179	67	21	45	40	190	8xø17.5	1	M8x1	150	115	150°
SRS 92x18 R6 F/P	93	90.6	160	220	179	67	21	45	40	190	8xø17.5	1	M8x1	150	115	150°
SRS 92x24 R6 F/P	93.3	90.1	160	220	179	67	21	45	40	190	8xø17.5	1	M8x1	150	115	150°
SRS 92x30 R6 F/P	93.6	89.5	160	220	179	67	21	45	40	190	8xø17.5	1	M8x1	150	115	150°
SRS 92x36 R6 F/P	93.9	89	160	220	179	67	21	45	40	190	8xø17.5	1	M8x1	150	115	150°
SRS 99x15 R5 F/P	100.1	97.6	200	275	271	102.5	26	55	40	245	12xø17.5	1.5	M8x1	182	132	182°
SRS 99x20 R5 F/P	100.4	97.1	200	275	271	102.5	26	55	40	245	12xø17.5	1.5	M8x1	182	132	182°
SRS 99x25 R5 F/P	100.7	96.6	200	275	271	102.5	26	55	40	245	12xø17.5	1.5	M8x1	182	132	182°
SRS 99x30 R5 F/P	101	96.1	200	275	271	102.5	26	55	40	245	12xø17.5	1.5	M8x1	182	132	182°
SRS 99x35 R5 F/P	101.2	95.5	200	275	271	102.5	26	55	40	245	12xø17.5	1.5	M8x1	182	132	182°
SRS 120x18 R6 F/P	121	118.6	220	300	260	105	26	50	40	240	12xø17.5	1.5	M10x1.5	200	150	200°
SRS 120x24 R6 F/P	121.4	118.1	220	300	260	105	26	50	40	240	12xø17.5	1.5	M10x1.5	200	150	200°
SRS 120x30 R6 F/P	121.7	117.6	220	300	260	105	26	50	40	240	12xø17.5	1.5	M10x1.5	200	150	200°
SRS 120x36 R6 F/P	121.9	117	220	300	260	105	26	50	40	240	12xø17.5	1.5	M10x1.5	200	150	200°
SRS 120x15 R5 F/P	121.1	118.6	260	340	300	112.5	27	55	60	305	12xø17.5	1.5	M10x1.5	220	160	220°
SRS 120x20 R5 F/P	121.4	118.1	260	340	300	112.5	27	55	60	305	12xø17.5	1.5	M10x1.5	220	160	220°
SRS 120x25 R5 F/P	121.7	117.6	260	340	300	112.5	27	55	60	305	12xø17.5	1.5	M10x1.5	220	160	220°
SRS 120x30 R5 F/P	122	117.1	260	340	300	112.5	27	55	60	305	12xø17.5	1.5	M10x1.5	220	160	220°
SRS 120x35 R5 F/P	122.3	116.6	260	340	300	112.5	27	55	60	305	12xø17.5	1.5	M10x1.5	220	160	220°

Ultra-High-Capacity Roller Screws (URS)

Overview

Helix Roller Screws are an innovation resulting from understanding customer needs and our in-depth knowledge and experience in roller screw engineering and manufacturing.



Ultra-High-Capacity Roller Screws (URS) are a variant of SRS designs offered in larger sizes range and with larger lengths of the nut, named as the Ultra-High-Capacity Standard Roller Screws. The URS is designed for demanding applications with heavy loads and long service needs. By optimizing the assembly, the number of contacts and the threads, this design is provided with loads ratings up to 65% over the SRS range.

The URS is available from range $\varnothing 60$ mm to $\varnothing 210$ mm for the screw with various leads and nut types with flange options and are not available with preload.

This solution offers best power density with its larger and robust design and is ideal when you have to manage heavy loads or severe duty cycles.



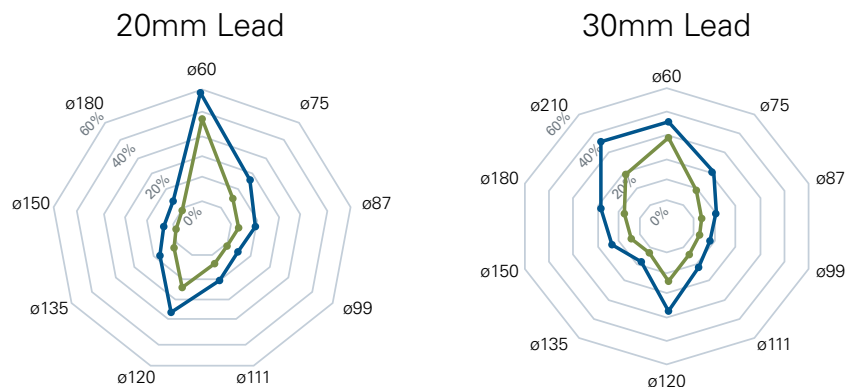
Ultra-High-Capacity Roller Screws (URS)

Dynamic Load Ratings (kN)

Nominal Diameter (mm)	Lead (mm)						
	15	20	25	30	35	40	50
60	766	763	725	733			
75	997	1009	1026	1019			
87	1204	1219	1246	1235			
99	1436	1462	1475	1496	1513		
111	1609	1620	1653	1658	1690		
120	1924	1953	1967	1988	2024	2031	
135	2059	2096	2119	2148	2148	2157	2168
150	2424	2475	2503	2511	2554	2553	2569
180		3497		3572		3620	3710
210				4218		4218	4243

Ultra-High-Capacity Roller Screws (URS)

Quick Reference Guide and Load Capacity Charts

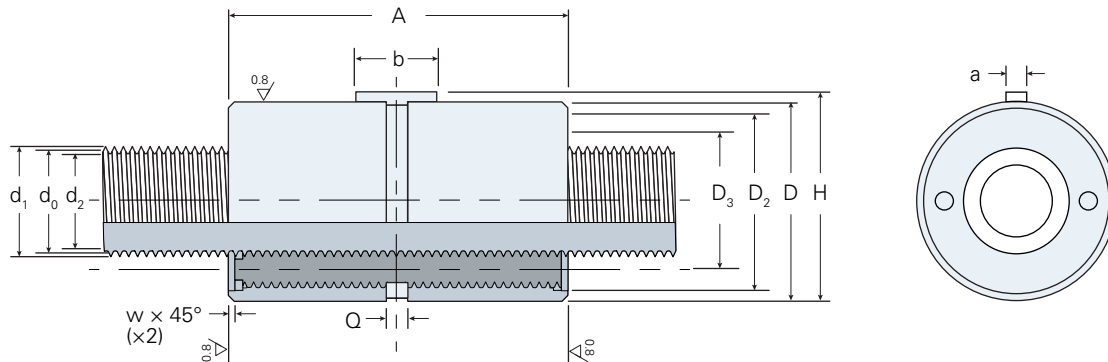


Ultra-High Capacity Roller Screws with Cylindrical Nut

ø60 – ø111 mm



d ₀ (mm)	P _h (mm)	N (mm)	C _a (kN)	C _{0a} (kN)	η	η'	S ₀	m ⁿ (kg)	m _s (kg/m)	I _s (kgmm ² /m)	I _{nn} (kgmm ²)	I _{ns}	Z _n (mL)	Z _s (mL/m)
60	15	5	766	1927	0.8	0.79	0.07	9	22	9,924	16,717	1,458	37	16
	20	5	763	1892	0.8	0.79	0.07	9	22	9,924	16,717	1,458	40	20
	25	5	725	1742	0.79	0.79	0.07	9	22	9,924	16,602	1,342	41	24
	30	5	733	1764	0.79	0.79	0.07	9	22	9,924	16,602	1,342	43	28
75	15	5	997	3195	0.8	0.79	0.07	17	34	24,229	45,593	4,538	55	20
	20	5	1009	3176	0.8	0.79	0.07	17	34	24,229	45,593	4,538	59	25
	25	5	1026	3207	0.8	0.79	0.07	17	34	24,229	45,593	4,538	63	30
	30	5	1019	3137	0.79	0.79	0.07	17	34	24,229	45,593	4,538	67	35
87	15	5	1204	4226	0.8	0.79	0.07	27	46	43,870	97,340	9,540	78	23
	20	5	1219	4203	0.8	0.79	0.07	27	46	43,870	97,340	9,540	83	29
	25	5	1246	4268	0.8	0.79	0.07	27	46	43,870	97,340	9,540	89	35
	30	5	1235	4159	0.8	0.79	0.07	27	46	43,870	97,340	9,540	94	41
99	15	5	1436	5499	0.8	0.79	0.07	41	60	73,559	195,025	18,192	102	26
	20	5	1462	5507	0.8	0.79	0.07	41	60	73,559	195,025	18,192	109	33
	25	5	1475	5482	0.8	0.79	0.07	41	60	73,559	195,025	18,192	116	39
	30	5	1496	5523	0.8	0.79	0.07	41	60	73,559	195,025	18,192	123	46
	35	5	1513	5564	0.8	0.79	0.07	41	60	73,559	195,025	18,192	130	53
111	15	5	1609	6494	0.8	0.79	0.07	60	75	116,248	388,513	31,164	127	29
	20	5	1620	6392	0.8	0.79	0.07	60	75	116,248	388,513	31,164	135	36
	25	5	1653	6475	0.8	0.79	0.07	60	75	116,248	388,513	31,164	143	44
	30	5	1658	6410	0.8	0.79	0.07	60	75	116,248	388,513	31,164	152	52
	35	5	1690	6530	0.8	0.79	0.07	60	75	116,248	388,513	31,164	160	59



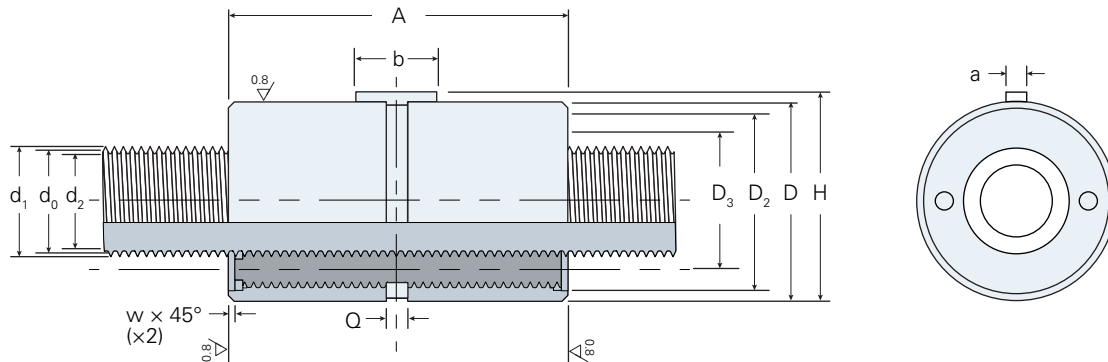
Part Number	d ₁ (mm)	d ₂ (mm)	D _{g6/H7} (mm)	A _{h12} (mm)	w (mm)	a (mm)	b _{h9} (mm)	H (mm)	Q (mm)	D ₂ (mm)	D ₃ (mm)
URS 60x15 R-C	61	58.5	122	171	1	10	56	125	11	110	80
URS 60x20 R-C	61.3	58	122	171	1	10	56	125	11	110	80
URS 60x25 R-C	61.5	57.5	122	171	1	10	56	125	11	110	80
URS 60x30 R-C	61.8	56.9	122	171	1	10	56	125	11	110	80
URS 75x15 R-C	76	73.6	150	213	1	10	63	153	11	138	100
URS 75x20 R-C	76.3	73.1	150	213	1	10	63	153	11	138	100
URS 75x25 R-C	76.6	72.5	150	213	1	10	63	153	11	138	100
URS 75x30 R-C	76.9	72	150	213	1	10	63	153	11	138	100
URS 87x15 R-C	88	85.6	175	245	1.5	12	100	178	12	162	116
URS 87x20 R-C	88.4	85.1	175	245	1.5	12	100	178	12	162	116
URS 87x25 R-C	88.6	84.6	175	245	1.5	12	100	178	12	162	116
URS 87x30 R-C	88.9	84	175	245	1.5	12	100	178	12	162	116
URS 99x15 R-C	100.1	97.6	200	280	1.5	16	100	204	15	182	132
URS 99x20 R-C	100.4	97.1	200	280	1.5	16	100	204	15	182	132
URS 99x25 R-C	100.7	96.6	200	280	1.5	16	100	204	15	182	132
URS 99x30 R-C	101	96.1	200	280	1.5	16	100	204	15	182	132
URS 99x35 R-C	101.2	95.5	200	280	1.5	16	100	204	15	182	132
URS 111x15 R-C	112.1	109.6	230	300	1.5	16	100	234	15	210	148
URS 111x20 R-C	112.4	109.1	230	300	1.5	16	100	234	15	210	148
URS 111x25 R-C	112.7	108.6	230	300	1.5	16	100	234	15	210	148
URS 111x30 R-C	113	108.1	230	300	1.5	16	100	234	15	210	148
URS 111x35 R-C	113.3	107.6	230	300	1.5	16	100	234	15	210	148

Ultra-High Capacity Roller Screws with Cylindrical Nut

ø120 – ø210 mm



d ₀ (mm)	P _h (mm)	N (mm)	C _a (kN)	C _{0a} (kN)	η	η'	S ₀	m ⁿ (kg)	m _s (kg/m)	I _s (kgmm ² /m)	I _{nn} (kgmm ²)	I _{ns}	Z _n (mL)	Z _s (mL/m)
120	15	5	1924	8526	0.8	0.79	0.07	73	88	158,789	488,658	48,719	147	31
	20	5	1953	8495	0.8	0.79	0.07	73	88	158,789	488,658	48,719	158	39
	25	5	1967	8423	0.8	0.79	0.07	73	88	158,789	488,658	48,719	168	48
	30	5	1988	8433	0.8	0.79	0.07	73	88	158,789	488,658	48,719	179	56
	35	5	2024	8564	0.8	0.79	0.07	73	88	158,789	488,658	48,719	190	64
	40	5	2031	8532	0.8	0.79	0.1	73	88	158,789	488,658	48,719	209	75
135	15	5	2059	9377	0.8	0.79	0.07	110	112	254,349	1,058,803	82,646	194	35
	20	5	2096	9388	0.8	0.79	0.07	110	112	254,349	1,058,803	82,646	206	44
	25	5	2119	9354	0.8	0.79	0.07	110	112	254,349	1,058,803	82,646	218	54
	30	5	2148	9409	0.8	0.79	0.07	110	112	254,349	1,058,803	82,646	231	63
	35	5	2148	9286	0.8	0.79	0.07	110	112	254,349	1,058,803	82,646	243	72
	40	5	2157	9252	0.8	0.79	0.1	110	112	254,349	1,058,803	82,646	265	85
150	50	5	2168	9184	0.79	0.79	0.1	110	112	254,349	1,058,803	82,646	289	103
	15	5	2424	11989	0.8	0.79	0.07	166	138	387,668	2,162,323	140,806	248	39
	20	5	2475	12051	0.8	0.79	0.07	166	138	387,668	2,162,323	140,806	264	49
	25	5	2503	12013	0.8	0.79	0.07	166	138	387,668	2,162,323	140,806	279	59
	30	5	2511	11875	0.8	0.79	0.07	166	138	387,668	2,162,323	140,806	295	70
	35	5	2554	12037	0.8	0.79	0.07	166	138	387,668	2,162,323	140,806	311	80
180	40	5	2553	11899	0.8	0.79	0.1	166	138	387,668	2,162,322	140,806	338	94
	50	5	2569	11823	0.8	0.79	0.1	166	138	387,668	2,162,322	140,806	370	115
	20	5	3497	20308	0.8	0.79	0.07	323	198	803,868	6,291,319	384,142	417	59
	30	5	3572	20213	0.8	0.79	0.07	323	198	803,868	6,291,319	384,142	469	84
	40	5	3620	20118	0.8	0.79	0.1	323	198	803,868	6,291,319	384,142	540	113
	50	5	3710	20512	0.8	0.79	0.1	323	198	803,868	6,291,319	384,142	592	137
210	30	5	4174	25433	0.8	0.79	0.07	428	270	1,489,264	10,292,311	768,311	586	98
	40	5	4218	25183	0.8	0.79	0.1	428	270	1,489,264	10,292,310	768,311	677	131
	50	5	4243	24933	0.8	0.79	0.1	428	270	1,489,264	10,292,310	768,311	744	160



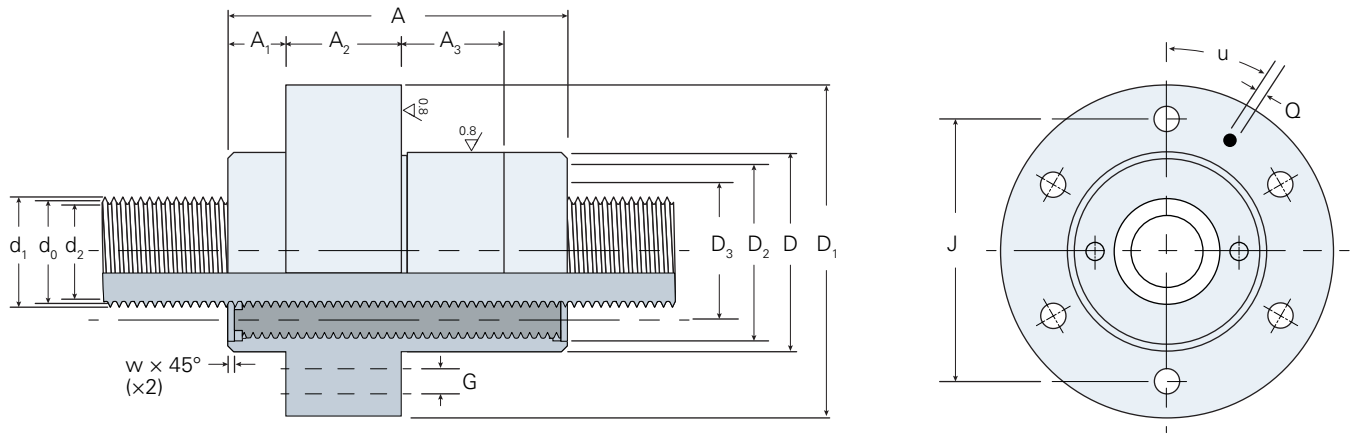
Part Number	d ₁ (mm)	d ₂ (mm)	D _{g6/H7} (mm)	A _{h12} (mm)	w (mm)	a (mm)	b _{h9} (mm)	H (mm)	Q (mm)	D ₂ (mm)	D ₃ (mm)
URS 120x15 R-C	121.1	118.6	240	346	1.5	16	100	244	15	220	160
URS 120x20 R-C	121.4	118.1	240	346	1.5	16	100	244	15	220	160
URS 120x25 R-C	121.7	117.6	240	346	1.5	16	100	244	15	220	160
URS 120x30 R-C	122	117.1	240	346	1.5	16	100	244	15	220	160
URS 120x35 R-C	122.3	116.6	240	346	1.5	16	100	244	15	220	160
URS 120x40 R-C	122.6	116	240	346	1.5	16	100	244	15	220	160
URS 135x15R-C	136.1	133.6	280	370	2	28	120	286	15	254	180
URS 135x20R-C	136.4	133.1	280	370	2	28	120	286	15	254	180
URS 135x25R-C	136.7	132.6	280	370	2	28	120	286	15	254	180
URS 135x30R-C	137	132.1	280	370	2	28	120	286	15	254	180
URS 135x35R-C	137.3	131.6	280	370	2	28	120	286	15	254	180
URS 135x40R-C	137.6	131.1	280	370	2	28	120	286	15	254	180
URS 135x50R-C	138.2	130	280	370	2	28	120	286	15	254	180
URS 150x15R-C	151.1	148.6	320	412	3	32	160	327	15	280	200
URS 150x20R-C	151.4	148.1	320	412	3	32	160	327	15	280	200
URS 150x25R-C	151.7	147.6	320	412	3	32	160	327	15	280	200
URS 150x30R-C	152.1	147.1	320	412	3	32	160	327	15	280	200
URS 150x35R-C	152.4	146.6	320	412	3	32	160	327	15	280	200
URS 150x40R-C	152.7	146.1	320	412	3	32	160	327	15	280	200
URS 150x50R-C	153.2	145	320	412	3	32	160	327	15	280	200
URS 180x20R-C	181.4	178.2	390	528	3	32	160	397	20	345	240
URS 180x30R-C	182.1	177.2	390	528	3	32	160	397	20	345	240
URS 180x40R-C	182.7	176.2	390	528	3	32	160	397	20	345	240
URS 180x50R-C	183.3	175.1	390	528	3	32	160	397	20	345	240
URS 210x30R-C	212.1	207.2	440	570	3	40	200	450	20	398	280
URS 210x40R-C	212.8	206.2	440	570	3	40	200	450	20	398	280
URS 210x50R-C	213.4	205.2	440	570	3	40	200	450	20	398	280

Ultra-High Capacity Roller Screws with Flanged Nut

ø60 – ø111 mm



d ₀ (mm)	P _h (mm)	N (mm)	C _a (kN)	C _{0a} (kN)	η	η'	S ₀	T ₀ (Nm)	m ⁿ (kg)	m _s (kg/m)	I _s (kgmm ² /m)	I _{nn} (kgmm ²)	I _{ns}	Z _n (mL)
60	15	5	766	1927	0.8	0.79	0.07	11	22	9,924	26,684	1,458	34	16
	20	5	763	1892	0.8	0.79	0.07	11	22	9,924	26,684	1,458	37	20
	25	5	725	1742	0.79	0.79	0.07	11	22	9,924	26,607	1,382	38	24
	30	5	733	1764	0.79	0.79	0.07	11	22	9,924	26,607	1,382	40	28
75	15	5	997	3195	0.8	0.79	0.07	20	34	24,229	64,816	4,538	51	20
	20	5	1009	3176	0.8	0.79	0.07	20	34	24,229	64,816	4,538	55	25
	25	5	1026	3207	0.8	0.79	0.07	20	34	24,229	64,816	4,538	59	30
	30	5	1019	3137	0.79	0.79	0.07	20	34	24,229	64,816	4,538	63	35
87	15	5	1204	4226	0.8	0.79	0.07	29	46	43,870	109,670	9,540	70	23
	20	5	1219	4203	0.8	0.79	0.07	29	46	43,870	109,670	9,540	75	29
	25	5	1246	4268	0.8	0.79	0.07	29	46	43,870	109,670	9,540	80	35
	30	5	1235	4159	0.8	0.79	0.07	29	46	43,870	109,670	9,540	86	41
99	15	5	1436	5499	0.8	0.79	0.07	46	60	73,559	257,641	18,192	91	26
	20	5	1462	5507	0.8	0.79	0.07	46	60	73,559	257,641	18,192	98	33
	25	5	1475	5482	0.8	0.79	0.07	46	60	73,559	257,641	18,192	104	39
	30	5	1496	5523	0.8	0.79	0.07	46	60	73,559	257,641	18,192	111	46
	35	5	1513	5564	0.8	0.79	0.07	46	60	73,559	257,641	18,192	118	53
111	15	5	1609	6494	0.8	0.79	0.07	68	75	116,248	518,585	31,164	114	29
	20	5	1620	6392	0.8	0.79	0.07	68	75	116,248	518,585	31,164	122	36
	25	5	1653	6475	0.8	0.79	0.07	68	75	116,248	518,585	31,164	130	44
	30	5	1658	6410	0.8	0.79	0.07	68	75	116,248	518,585	31,164	139	52
	35	5	1690	6530	0.8	0.79	0.07	68	75	116,248	518,585	31,164	147	59



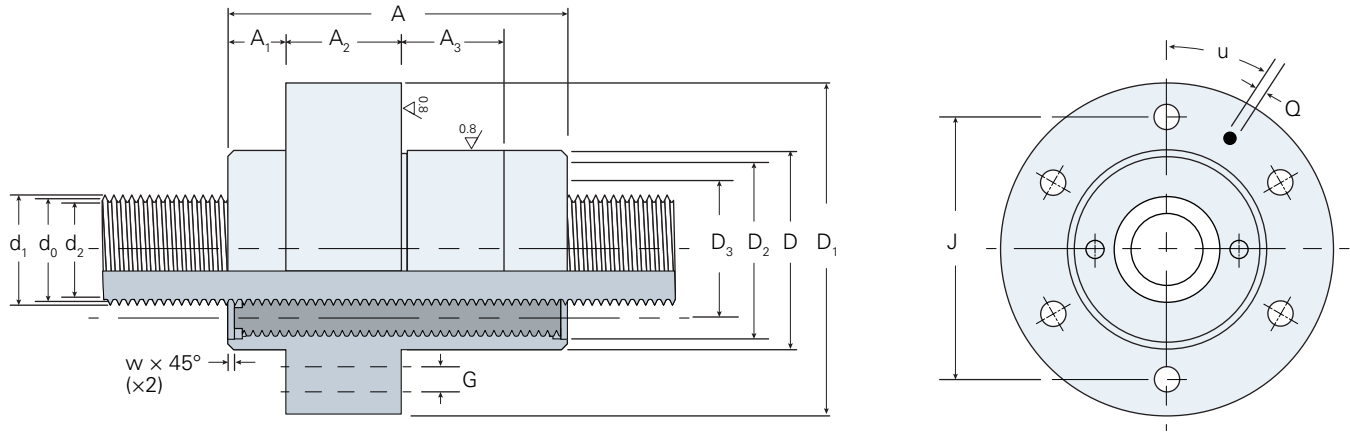
Zs (mL/m)	d1 (mm)	d2 (mm)	D g6/H7 (mm)	D1 (mm)	A h12 (mm)	A1 (mm)	A1 (mm)	A2 (mm)	A3 (mm)	J (mm)	G (mm)	w (mm)	Q (mm)	D2 (mm)	D3 (mm)	u
URS 60x15 R-F/P	61	58.5	122	166	171	70.5	25	30	40	146	8xØ13.5	1	M8x1	110	80	22.5°
URS 60x20 R-F/P	61.3	58	122	166	171	70.5	25	30	40	146	8xØ13.5	1	M8x1	110	80	22.5°
URS 60x25 R-F/P	61.5	57.5	122	166	171	70.5	25	30	40	146	8xØ13.5	1	M8x1	110	80	22.5°
URS 60x30 R-F/P	61.8	56.9	122	166	171	70.5	25	30	40	146	8xØ13.5	1	M8x1	110	80	22.5°
URS 75x15 R-F/P	76	73.6	150	195	213	89	30	35	40	174	12xØ13.5	1	M8x1	138	100	15°
URS 75x20 R-F/P	76.3	73.1	150	195	213	89	30	35	40	174	12xØ13.5	1	M8x1	138	100	15°
URS 75x25 R-F/P	76.6	72.5	150	195	213	89	30	35	40	174	12xØ13.5	1	M8x1	138	100	15°
URS 75x30 R-F/P	76.9	72	150	195	213	89	30	35	40	174	12xØ13.5	1	M8x1	138	100	15°
URS 87x15 R-F/P	88	85.6	175	200	245	102.5	35	40	40	200	12xØ13.5	1.5	M8x1	162	116	15°
URS 87x20 R-F/P	88.4	85.1	175	200	245	102.5	35	40	40	200	12xØ13.5	1.5	M8x1	162	116	15°
URS 87x25 R-F/P	88.6	84.6	175	200	245	102.5	35	40	40	200	12xØ13.5	1.5	M8x1	162	116	15°
URS 87x30 R-F/P	88.9	84	175	200	245	102.5	35	40	40	200	12xØ13.5	1.5	M8x1	162	116	15°
URS 99x15 R-F/P	100.1	97.6	200	245	280	115	40	50	40	224	12xØ13.5	1.5	M8x1	182	132	15°
URS 99x20 R-F/P	100.4	97.1	200	245	280	115	40	50	40	224	12xØ13.5	1.5	M8x1	182	132	15°
URS 99x25 R-F/P	100.7	96.6	200	245	280	115	40	50	40	224	12xØ13.5	1.5	M8x1	182	132	15°
URS 99x30 R-F/P	101	96.1	200	245	280	115	40	50	40	224	12xØ13.5	1.5	M8x1	182	132	15°
URS 99x35 R-F/P	101.2	95.5	200	245	280	115	40	50	40	224	12xØ13.5	1.5	M8x1	182	132	15°
URS 111x15 R-F/P	112.1	109.6	230	286	300	125	50	50	40	260	12xØ17.5	1.5	M12x1.75	210	148	15°
URS 111x20 R-F/P	112.4	109.1	230	286	300	125	50	50	40	260	12xØ17.5	1.5	M12x1.75	210	148	15°
URS 111x25 R-F/P	112.7	108.6	230	286	300	125	50	50	40	260	12xØ17.5	1.5	M12x1.75	210	148	15°
URS 111x30 R-F/P	113	108.1	230	286	300	125	50	50	40	260	12xØ17.5	1.5	M12x1.75	210	148	15°
URS 111x35 R-F/P	113.3	107.6	230	286	300	125	50	50	40	260	12xØ17.5	1.5	M12x1.75	210	148	15°

Ultra-High Capacity Roller Screws with Flanged Nut

ø120 – ø210 mm



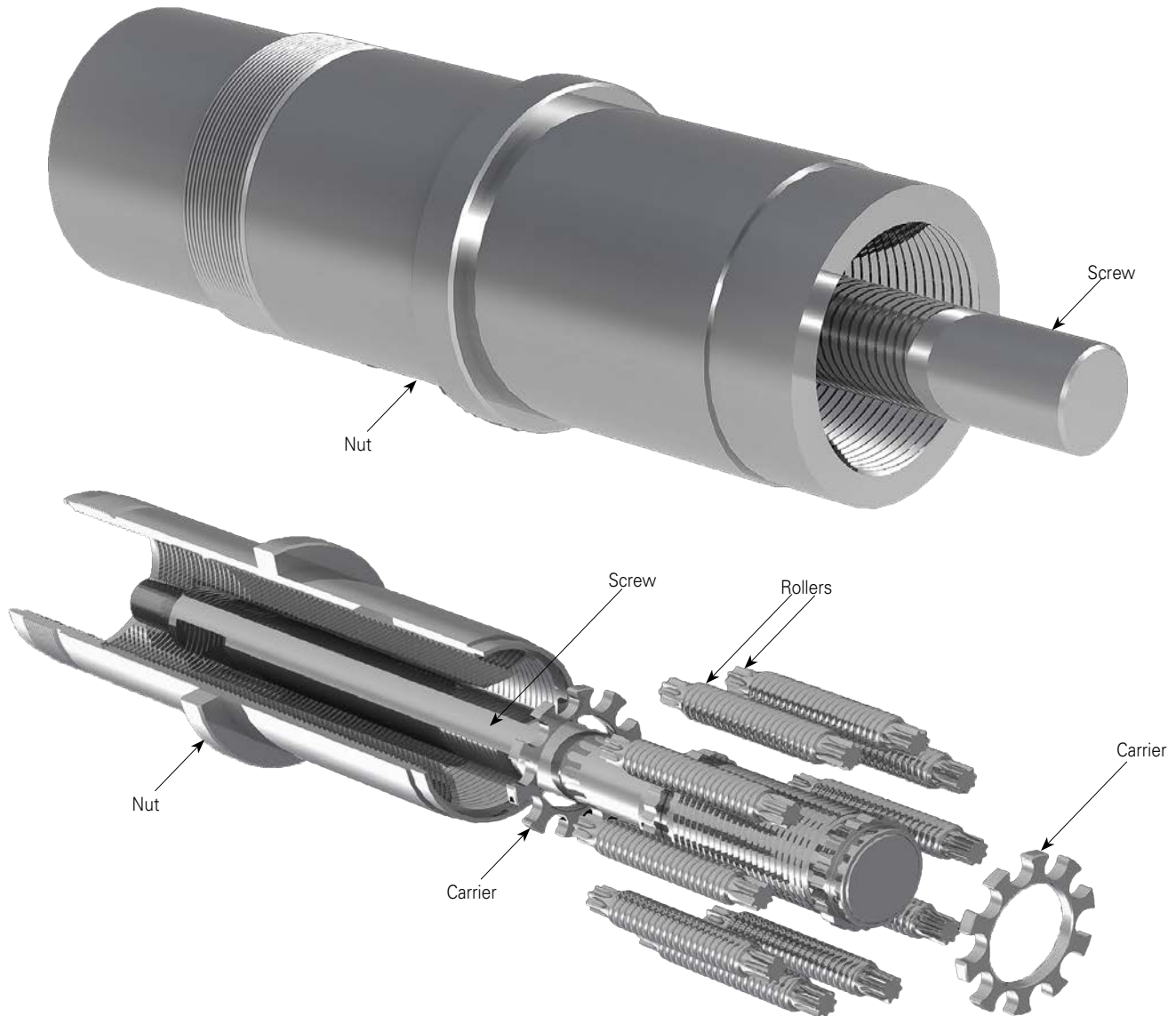
d ₀ (mm)	P _h (mm)	N (mm)	C _a (kN)	C _{0a} (kN)	η	η'	S ₀	T ₀ (Nm)	m ^a (kg)	m _s (kg/m)	I _s (kgmm ² /m)	I _{nn} (kgmm ²)	I _{ns}	Z _n (mL)
120	15	5	1924	8526	0.8	0.79	0.07	82	88	158,789	649,761	48,719	133	31
	20	5	1953	8495	0.8	0.79	0.07	82	88	158,789	649,761	48,719	144	39
	25	5	1967	8423	0.8	0.79	0.07	82	88	158,789	649,761	48,719	155	48
	30	5	1988	8433	0.8	0.79	0.07	82	88	158,789	649,761	48,719	166	56
	35	5	2024	8564	0.8	0.79	0.07	82	88	158,789	649,761	48,719	176	64
	40	5	2031	8532	0.8	0.79	0.1	82	88	158,789	649,761	48,719	196	75
135	15	5	2059	9377	0.8	0.79	0.07	123	112	254,349	1,383,766	82,646	173	35
	20	5	2096	9388	0.8	0.79	0.07	123	112	254,349	1,383,766	82,646	185	44
	25	5	2119	9354	0.8	0.79	0.07	123	112	254,349	1,383,766	82,646	197	54
	30	5	2148	9409	0.8	0.79	0.07	123	112	254,349	1,383,766	82,646	209	63
	35	5	2148	9286	0.8	0.79	0.07	123	112	254,349	1,383,766	82,646	221	72
	40	5	2157	9252	0.8	0.79	0.1	123	112	254,349	1,383,766	82,646	243	85
150	50	5	2168	9184	0.79	0.79	0.1	123	112	254,349	1,383,766	82,646	268	103
	15	5	2424	11989	0.8	0.79	0.07	183	138	387,668	2,713,467	140,806	210	39
	20	5	2475	12051	0.8	0.79	0.07	183	138	387,668	2,713,467	140,806	225	49
	25	5	2503	12013	0.8	0.79	0.07	183	138	387,668	2,713,467	140,806	241	59
	30	5	2511	11875	0.8	0.79	0.07	183	138	387,668	2,713,467	140,806	256	70
	35	5	2554	12037	0.8	0.79	0.07	183	138	387,668	2,713,467	140,806	272	80
180	40	5	2553	11899	0.8	0.79	0.1	183	138	387,668	2,713,467	140,806	300	94
	50	5	2569	11823	0.8	0.79	0.1	183	138	387,668	2,713,467	140,806	331	115
	20	5	3497	20308	0.8	0.79	0.07	357	198	803,868	7,762,604	264,492	355	59
	30	5	3572	20213	0.8	0.79	0.07	357	198	803,868	7,762,604	264,492	406	84
	40	5	3620	20118	0.8	0.79	0.1	357	198	803,868	7,762,604	264,492	477	113
	50	5	3710	20512	0.8	0.79	0.1	357	198	803,868	7,762,604	264,492	530	137
210	30	5	4174	25433	0.8	0.79	0.07	477	270	1,489,264	12,927,862	526,529	514	98
	40	5	4218	25183	0.8	0.79	0.1	477	270	1,489,264	12,927,861	526,529	605	131
	50	5	4243	24933	0.8	0.79	0.1	477	270	1,489,264	12,927,861	526,529	672	160



Zs (mL/m)	d1 (mm)	d2 (mm)	D g6/H7 (mm)	D1 (mm)	A h12 (mm)	A1 (mm)	A1 (mm)	A2 (mm)	A3 (mm)	J (mm)	G (mm)	w (mm)	Q (mm)	D2 (mm)	D3 (mm)	u
URS 120x15 R-F/P	121.1	118.6	240	296	346	137.5	50	55	60	270	12xØ17.5	1.5	M12x1.75	220	160	15°
URS 120x20 R-F/P	121.4	118.1	240	296	346	137.5	50	55	60	270	12xØ17.5	1.5	M12x1.75	220	160	15°
URS 120x25 R-F/P	121.7	117.6	240	296	346	137.5	50	55	60	270	12xØ17.5	1.5	M12x1.75	220	160	15°
URS 120x30 R-F/P	122	117.1	240	296	346	137.5	50	55	60	270	12xØ17.5	1.5	M12x1.75	220	160	15°
URS 120x35 R-F/P	122.3	116.6	240	296	346	137.5	50	55	60	270	12xØ17.5	1.5	M12x1.75	220	160	15°
URS 120x40 R-F/P	122.6	116	240	296	346	137.5	50	55	60	270	12xØ17.5	1.5	M12x1.75	220	160	15°
URS 135x15 R-F/P	136.1	133.6	280	345	370	155	60	60	80	315	12xØ20	2	M12x1.75	254	180	15°
URS 135x20 R-F/P	136.4	133.1	280	345	370	155	60	60	80	315	12xØ20	2	M12x1.75	254	180	15°
URS 135x25 R-F/P	136.7	132.6	280	345	370	155	60	60	80	315	12xØ20	2	M12x1.75	254	180	15°
URS 135x30 R-F/P	137	132.1	280	345	370	155	60	60	80	315	12xØ20	2	M12x1.75	254	180	15°
URS 135x35 R-F/P	137.3	131.6	280	345	370	155	60	60	80	315	12xØ20	2	M12x1.75	254	180	15°
URS 135x40 R-F/P	137.6	131.1	280	345	370	155	60	60	80	315	12xØ20	2	M12x1.75	254	180	15°
URS 135x50 R-F/P	138.2	130	280	345	370	155	60	60	80	315	12xØ20	2	M12x1.75	254	180	15°
URS 150x15 R-F/P	151.1	148.6	320	385	412	171	65	70	80	355	12xØ20	3	M12x1.75	280	200	15°
URS 150x20 R-F/P	151.4	148.1	320	385	412	171	65	70	80	355	12xØ20	3	M12x1.75	280	200	15°
URS 150x25 R-F/P	151.7	147.6	320	385	412	171	65	70	80	355	12xØ20	3	M12x1.75	280	200	15°
URS 150x30 R-F/P	152.1	147.1	320	385	412	171	65	70	80	355	12xØ20	3	M12x1.75	280	200	15°
URS 150x35 R-F/P	152.4	146.6	320	385	412	171	65	70	80	355	12xØ20	3	M12x1.75	280	200	15°
URS 150x40 R-F/P	152.7	146.1	320	385	412	171	65	70	80	355	12xØ20	3	M12x1.75	280	200	15°
URS 150x50 R-F/P	153.2	145	320	385	412	171	65	70	80	355	12xØ20	3	M12x1.75	280	200	15°
URS 180x20 R-F/P	181.4	178.2	390	470	528	219	96	90	100	433	12xØ24	3	M12x1.75	345	240	15°
URS 180x30 R-F/P	182.1	177.2	390	470	528	219	96	90	100	433	12xØ24	3	M12x1.75	345	240	15°
URS 180x40 R-F/P	182.7	176.2	390	470	528	219	96	90	100	433	12xØ24	3	M12x1.75	345	240	15°
URS 180x50 R-F/P	183.3	175.1	390	470	528	219	96	90	100	433	12xØ24	3	M12x1.75	345	240	15°
URS 210x30 R-F/P	212.1	207.2	440	530	570	235	100	100	100	490	12xØ26	3	M12x1.75	398	280	15°
URS 210x40 R-F/P	212.8	206.2	440	530	570	235	100	100	100	490	12xØ26	3	M12x1.75	398	280	15°
URS 210x50 R-F/P	213.4	205.2	440	530	570	235	100	100	100	490	12xØ26	3	M12x1.75	398	280	15°

Inverted Roller Screws (IRS)

Overview

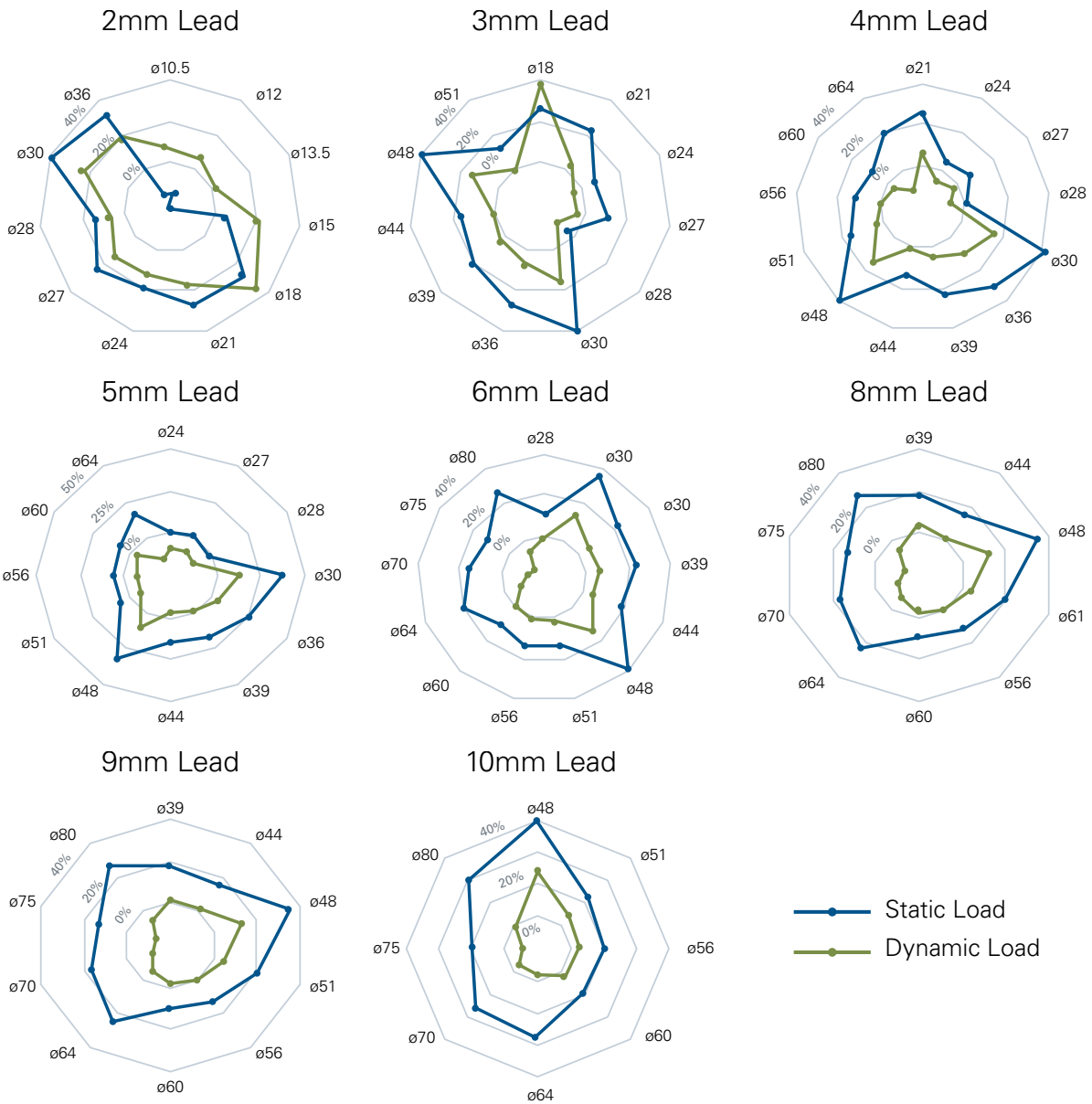


The Inverted Roller Screw (IRS) is the exact inverse of the standard roller screw (SRS). The screw shaft together with the rollers translates internally along the nut. It exhibits higher load capacities in the same envelop

thanks to its geometric settings. This type of planetary roller screw can only be preloaded using rollers as for backlash elimination with rollers. Normally the nut and the screw are customized to fit application needs.

Inverted Roller Screws (IRS)

Load Capacity Charts



Inverted Roller Screws (IRS)

Dynamic Load Ratings (kN)

Nominal diameter (mm)	Lead (mm)						
	1	2	2,4	3	4	5	6
9	14						
12	16	18					
14	16	19					
15	27	32		33			
18	42	49	51	54			
21		63	66	70	75		
24		82	86	91	96	102	
27		90		100	106	111	
28		66		72	78	80	86
30		120	125	133	142	149	155
36		103		113	122	127	130
39			176	185	200	209	219
44			155		166	176	183
48			256	270	290	305	320
51				300	321	338	352
56					248	262	274
60					278	295	307
64					297	313	329
70							274
75							306
80							421

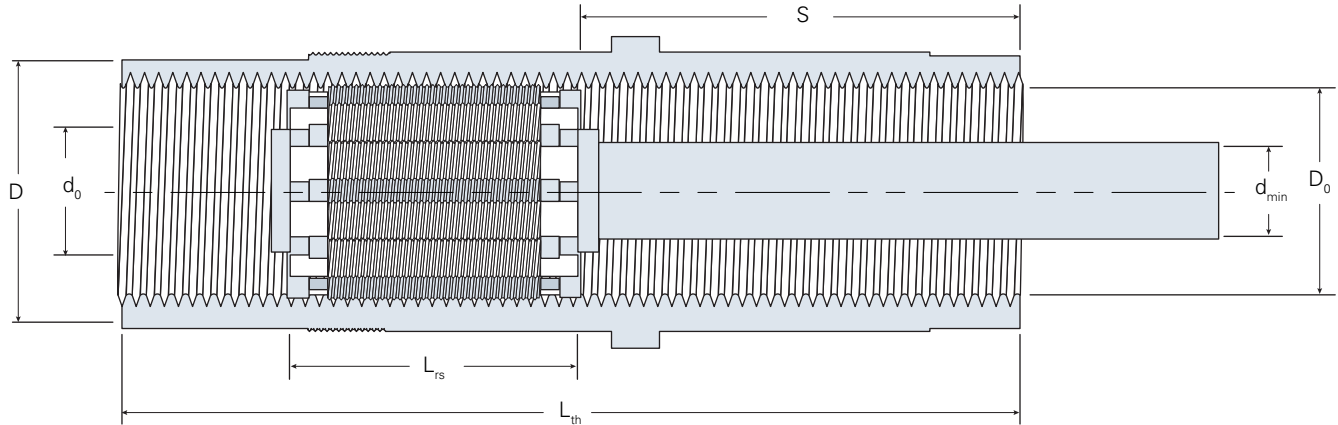
Lead (mm)							
7	8	9	10	12	14	15	16
136							
227	232						
187	193	200					
329	339	346	355				
366	380	392	394				
285	291	300	310	324			
317	326	339	344	363			
341	356	361	371	389	409		
	294		314	324	342	346	
	330		344	367	381	387	
	454		483	505	505	524	609

Inverted Roller Screws

ø10.5 – ø21 mm



d ₀ (mm)	D ₀ (mm)	P _h (mm)	N (mm)	C _a (kN)	C _{0a} (kN)	η	η'	Z _n (mL)	Z _s (mL/m)
10.5	18	2	3	14	18	0.79	0.8	1.1	0.4
12	20	1	3	16	24	0.78	0.78	0.8	0.5
	20	2	3	18	24	0.79	0.78	1.2	0.5
13.5	23	1	3	16	24	0.78	0.78	0.9	0.6
	23	2	3	19	24	0.78	0.78	1.4	0.6
15	25	1	3	27	54	0.78	0.78	1	0.7
	25	2	3	32	54	0.78	0.78	1.5	0.7
	25	3	3	33	48	0.79	0.78	2.1	0.9
18	30	1	3	42	97	0.78	0.77	1.2	1.2
	30	2	3	49	98	0.78	0.78	1.8	1.2
	30	2.4	3	51	96	0.78	0.78	2.1	1.2
	30	3	3	54	98	0.79	0.78	2.5	1.3
	30	4	3	57	96	0.79	0.79	3.2	1.3
	30	5	3	60	96	0.79	0.79	4.4	1.4
	30	6	3	64	99	0.8	0.79	5.2	1.5
21	35	2	3	63	134	0.78	0.78	2.1	1.5
	35	2.4	3	66	134	0.78	0.78	2.5	1.6
	35	3	3	70	135	0.78	0.78	2.9	1.6
	35	4	3	75	135	0.79	0.78	3.7	1.7
	35	5	3	79	135	0.79	0.79	5.1	1.9
	35	6	3	82	136	0.79	0.79	5.9	2



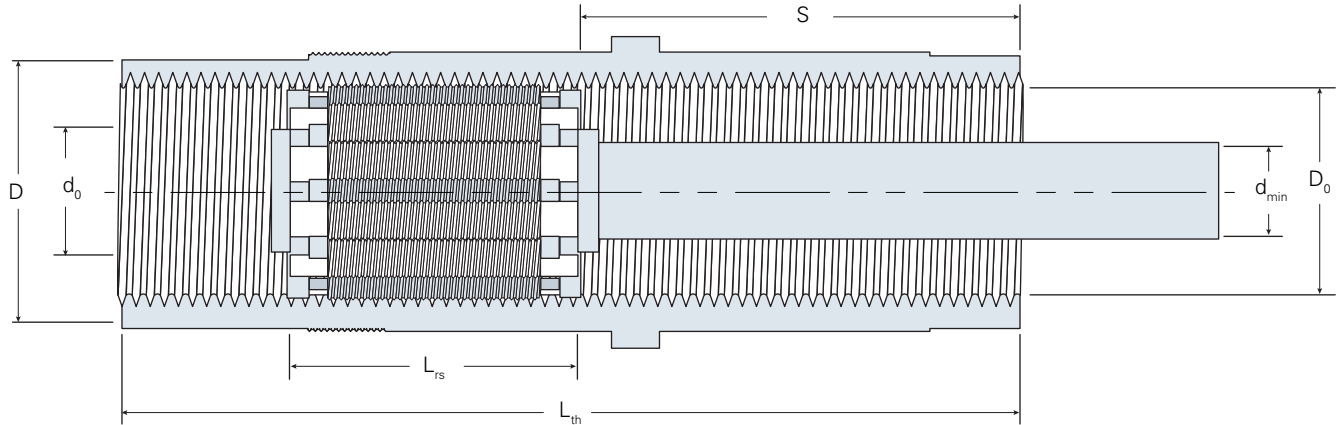
	Max axial play	Minimum push tube outer diameter	Recommended minimum nut outer diameter	Threaded length of the nut	Standard Stroke	Length of Roller Set
part number	S_0	d_{min} (mm)	$D_{g6/H7}$ (mm)	L_{th} (mm)	S_{max} (mm)	L_{rs} (mm)
IRS 10.5x2 R	0.02	8	24	87	61	26
IRS 12x1 R	0.02	10	26	99	70	29
IRS 12x2 R	0.02	10	26	99	70	29
IRS 13.5x1 R	0.02	12	30	112	84	28
IRS 13.5x2 R	0.02	12	30	112	84	28
IRS 15x1 R	0.02	12	32	124	86	38
IRS 15x2 R	0.02	12	32	111	86	38
IRS 15x3 R	0.02	12	32	124	86	38
IRS 18x1 R	0.02	16	38	149	99	50
IRS 18x2 R	0.02	16	38	149	99	50
IRS 18x2.4 R	0.02	16	38	149	99	50
IRS 18x3 R	0.02	16	38	149	99	50
IRS 18x4 R	0.02	16	38	149	99	50
IRS 18x5 R	0.04	16	38	149	99	50
IRS 18x6 R	0.04	16	38	149	99	50
IRS 21x2 R	0.02	18	45	174	118	56
IRS 21x2.4 R	0.02	18	45	174	118	56
IRS 21x3 R	0.02	18	45	174	118	56
IRS 21x4 R	0.02	18	45	174	118	56
IRS 21x5 R	0.04	18	45	174	118	56
IRS 21x6 R	0.04	18	45	174	118	56

Inverted Roller Screws

ø24 – ø30 mm



d ₀ (mm)	D ₀ (mm)	P _h (mm)	N (mm)	C _a (kN)	C _{0a} (kN)	η	η'	Z _n (mL)	Z _s (mL/m)
24	40	2	3	82	191	0.78	0.78	2.4	1.9
	40	2.4	3	86	191	0.78	0.78	2.8	2
	40	3	3	91	193	0.78	0.78	3.4	2.1
	40	4	3	96	188	0.79	0.78	4.3	2.2
	40	5	3	102	190	0.79	0.78	5.8	2.4
	40	6	3	106	189	0.79	0.79	6.7	2.6
27	45	2	3	90	210	0.78	0.78	2.8	2.3
	45	3	3	100	210	0.78	0.78	3.8	2.4
	45	4	3	106	207	0.78	0.78	4.8	2.5
	45	5	3	111	205	0.79	0.78	6.5	2.9
28	42	2	4	66	156	0.84	0.83	2.1	1.9
	42	3	4	72	157	0.84	0.83	2.8	1.9
	42	4	4	78	157	0.84	0.83	3.5	2
	42	5	4	80	152	0.84	0.83	4.9	2.2
	42	6	4	86	158	0.85	0.83	5	2.1
30	50	2	3	120	312	0.78	0.78	3.1	2.9
	50	2.4	3	125	310	0.78	0.78	3.5	2.9
	50	3	3	133	315	0.78	0.78	4.2	3
	50	4	3	142	313	0.78	0.78	5.3	3.2
	50	5	3	149	311	0.79	0.78	7.3	3.7
	50	6	3	155	309	0.79	0.78	8.4	3.9



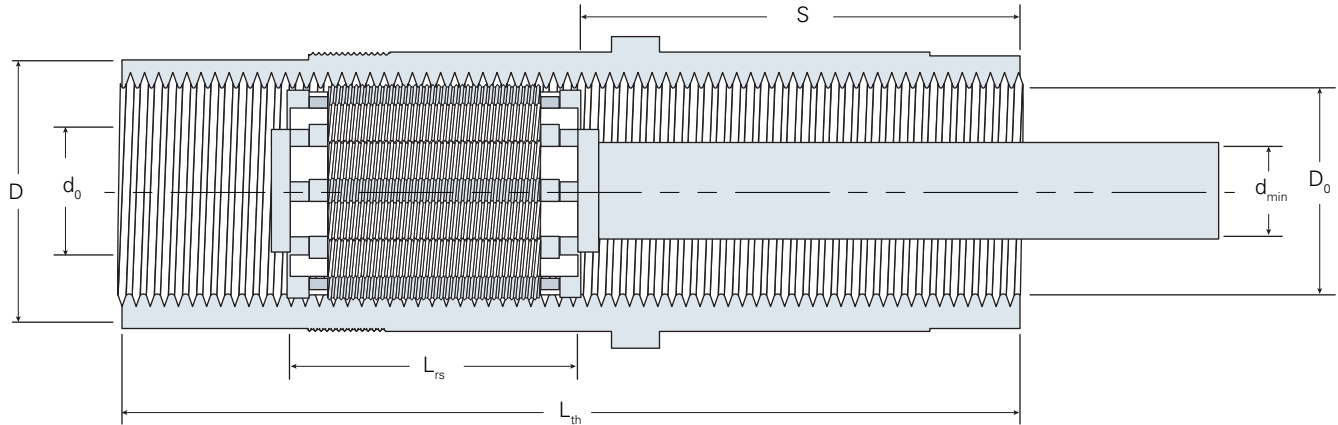
	Max axial play	Minimum push tube outer diameter	Recommended minimum nut outer diameter	Threaded length of the nut	Standard Stroke	Length of Roller Set
part number	S_0	d_{min} (mm)	$D_{g6/H7}$ (mm)	L_{th} (mm)	S_{max} (mm)	L_{rs} (mm)
IRS 24x2 R	0.02	21	50	199	134	65
IRS 24x2.4 R	0.02	21	50	199	134	65
IRS 24x3 R	0.02	21	50	199	134	65
IRS 24x4 R	0.02	21	50	199	134	65
IRS 24x5 R	0.04	21	50	199	134	65
IRS 24x6 R	0.04	21	50	199	134	65
IRS 27x2 R	0.02	24	55	224	162	62
IRS 27x3 R	0.02	24	55	224	162	62
IRS 27x4 R	0.02	24	55	224	162	62
IRS 27x5 R	0.04	24	55	224	162	62
IRS 28x2 R	0.02	25	52	209	157	52
IRS 28x3 R	0.02	25	52	209	157	52
IRS 28x4 R	0.02	25	52	209	157	52
IRS 28x5 R	0.04	25	52	209	157	52
IRS 28x6 R	0.02	27	52	209	157	52
IRS 30x2 R	0.02	27	60	249	174	75
IRS 30x2.4 R	0.02	27	60	249	174	75
IRS 30x3 R	0.02	27	60	249	174	75
IRS 30x4 R	0.02	27	60	249	174	75
IRS 30x5 R	0.04	27	60	249	174	75
IRS 30x6 R	0.04	27	60	249	174	75

Inverted Roller Screws

ø36 – ø44 mm



d_0 (mm)	D_0 (mm)	P_h (mm)	N (mm)	C_a (kN)	C_{0a} (kN)	η	η'	Z_n (mL)	Z_s (mL/m)
36	54	2	4	103	284	0.82	0.81	2.7	2.8
	54	3	4	113	280	0.82	0.81	3.6	2.9
	54	4	4	122	285	0.83	0.81	4.5	3
	54	5	4	127	279	0.83	0.82	6.3	3.4
	54	6	4	130	270	0.83	0.82	6.4	3.4
	54	7	4	136	274	0.83	0.82	8.2	3.8
39	65	2.4	3	176	473	0.76	0.76	4.6	5.1
	65	3	3	185	470	0.76	0.76	5.5	5.3
	65	4	3	200	477	0.76	0.76	6.9	5.6
	65	5	3	209	472	0.76	0.76	9.4	6.3
	65	6	3	219	472	0.77	0.77	10.9	6.6
	65	7	3	227	473	0.77	0.77	12.4	6.9
	65	8	3	232	468	0.77	0.77	13.9	7.1
44	66	3	4	155	420	0.82	0.81	4.4	4.8
	66	4	4	166	420	0.82	0.81	5.5	5
	66	5	4	176	426	0.83	0.81	7.7	5.6
	66	6	4	183	422	0.83	0.82	8.8	5.7
	66	7	4	187	412	0.83	0.82	10	5.9
	66	8	4	193	413	0.83	0.82	11.1	6
	66	9	4	200	416	0.83	0.82	12.2	6.2



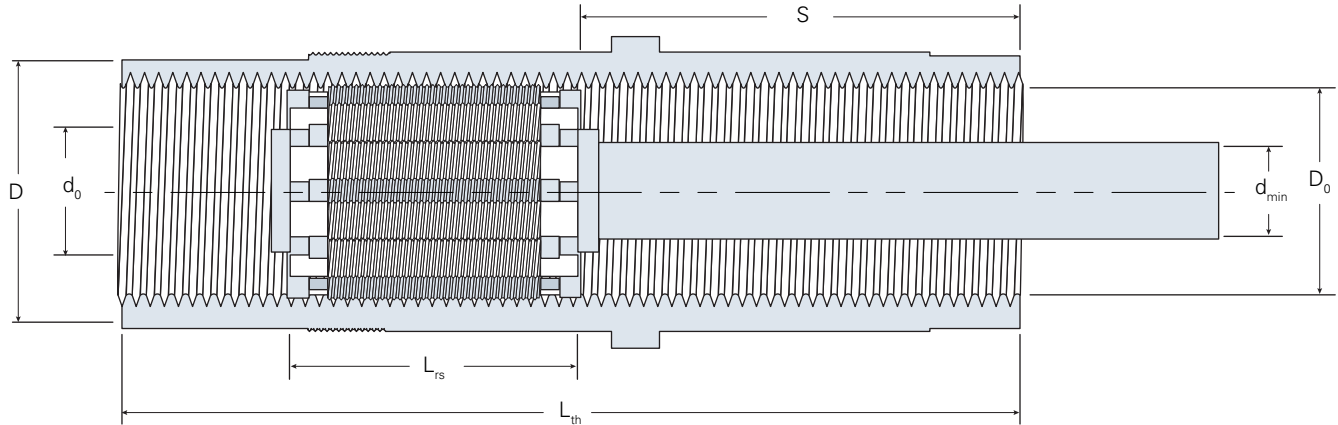
	Max axial play	Minimum push tube outer diameter	Recommended minimum nut outer diameter	Threaded length of the nut	Standard Stroke	Length of Roller Set
part number	S_0	d_{min} (mm)	$D_{g6/H7}$ (mm)	L_{th} (mm)	S_{max} (mm)	L_{rs} (mm)
IRS 36x2 R	0.02	33	64	269	206	63
IRS 36x3 R	0.02	33	64	269	206	63
IRS 36x4 R	0.02	33	64	269	206	63
IRS 36x5 R	0.04	33	64	269	206	63
IRS 36x6 R	0.02	33	64	269	206	63
IRS 36x7 R	0.04	33	64	269	206	63
IRS 39x2.4 R	0.02	36	75	324	234	90
IRS 39x3 R	0.02	36	75	324	234	90
IRS 39x4 R	0.02	36	75	324	234	90
IRS 39x5 R	0.04	36	75	324	234	90
IRS 39x6 R	0.04	36	75	324	234	90
IRS 39x7 R	0.04	36	75	324	234	90
IRS 39x8 R	0.04	36	75	324	234	90
IRS 44x3 R	0.02	40	76	329	253	76
IRS 44x4 R	0.02	40	76	329	253	76
IRS 44x5 R	0.04	40	76	329	253	76
IRS 44x6 R	0.04	40	76	329	253	76
IRS 44x7 R	0.04	40	76	329	253	76
IRS 44x8 R	0.04	40	76	329	253	76
IRS 44x9 R	0.04	40	76	329	253	76

Inverted Roller Screws

ø48 – ø56 mm



d ₀ (mm)	D ₀ (mm)	P _h (mm)	N (mm)	C _a (kN)	C _{0a} (kN)	η	η'	Z _n (mL)	Z _s (mL/m)
48	80	2.4	3	256	776	0.78	0.77	5.6	8.1
	80	3	3	270	777	0.78	0.77	6.7	8.4
	80	4	3	290	778	0.78	0.78	8.5	8.8
	80	5	3	305	775	0.78	0.78	10.4	9.3
	80	6	3	320	780	0.78	0.78	13.4	10.5
	80	7	3	329	769	0.78	0.78	15.3	10.9
	80	8	3	339	767	0.79	0.78	17.1	11.4
	80	9	3	346	760	0.79	0.78	18.9	11.8
	80	10	3	355	761	0.79	0.78	20.7	12.3
51	85	3	3	300	892	0.78	0.77	7.1	9.3
	85	4	3	321	889	0.78	0.78	9.1	9.8
	85	5	3	338	886	0.78	0.78	12.3	11.2
	85	6	3	352	883	0.78	0.78	14.3	11.7
	85	7	3	366	884	0.78	0.78	16.2	12.2
	85	8	3	380	893	0.78	0.78	18.1	12.7
	85	9	3	392	898	0.79	0.78	20.1	13.3
	85	10	3	394	871	0.79	0.78	22	13.8
56	84	4	4	248	711	0.82	0.81	7	7.5
	84	5	4	262	712	0.82	0.81	9.8	8.5
	84	6	4	274	713	0.82	0.81	11.2	8.8
	84	7	4	285	717	0.83	0.82	12.7	9.1
	84	8	4	291	702	0.83	0.82	14.1	9.4
	84	9	4	300	706	0.83	0.82	15.5	9.7
	84	10	4	310	716	0.83	0.82	17	9.9
	84	12	4	324	718	0.83	0.82	19.9	10.5



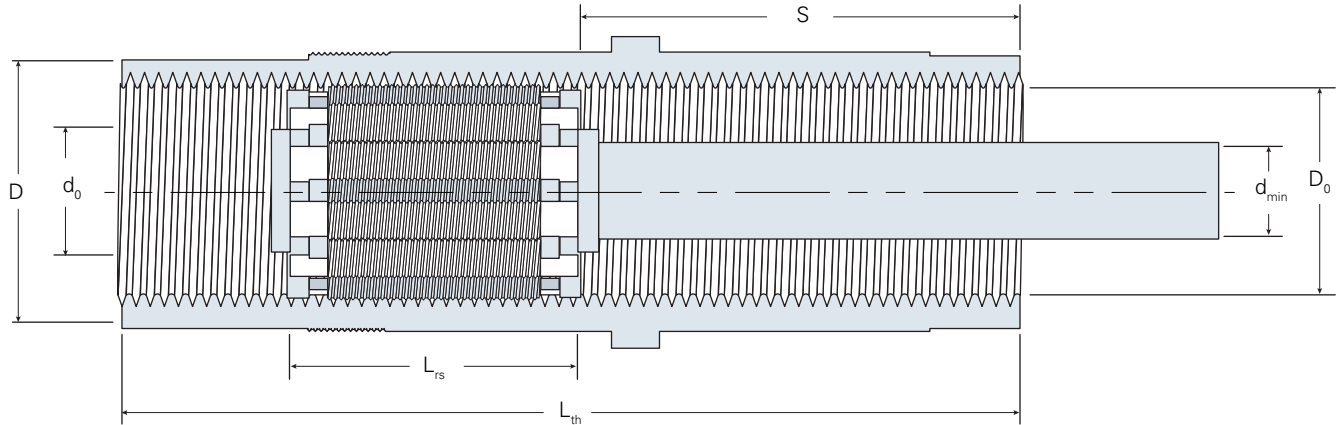
	Max axial play	Minimum push tube outer diameter	Recommended minimum nut outer diameter	Threaded length of the nut	Standard Stroke	Length of Roller Set
part number	S_0	d_{min} (mm)	$D_{g6/H7}$ (mm)	L_{th} (mm)	S_{max} (mm)	L_{rs} (mm)
IRS 48x2.4 R	0.02	44	90	399	285	114
IRS 48x3 R	0.02	44	90	399	285	114
IRS 48x4 R	0.02	44	90	399	285	114
IRS 48x5 R	0.02	44	90	399	285	114
IRS 48x6 R	0.04	44	90	399	285	114
IRS 48x7 R	0.04	44	90	399	285	114
IRS 48x8 R	0.04	44	90	399	285	114
IRS 48x9 R	0.04	44	90	399	285	114
IRS 48x10 R	0.04	44	90	399	285	114
IRS 51x3 R	0.02	47	99	424	303	121
IRS 51x4 R	0.02	47	99	424	303	121
IRS 51x5 R	0.04	47	99	424	303	121
IRS 51x6 R	0.04	47	99	424	303	121
IRS 51x7 R	0.04	47	99	424	303	121
IRS 51x8 R	0.04	47	99	424	303	121
IRS 51x9 R	0.04	47	99	424	303	121
IRS 51x10 R	0.04	47	99	424	303	121
IRS 56x4 R	0.02	52	98	419	323	96
IRS 56x5 R	0.04	52	98	419	323	96
IRS 56x6 R	0.04	52	98	419	323	96
IRS 56x7 R	0.04	52	98	419	323	96
IRS 56x8 R	0.04	52	98	419	323	96
IRS 56x9 R	0.04	52	98	419	323	96
IRS 56x10 R	0.04	52	98	419	323	96
IRS 56x12 R	0.04	52	98	419	323	96

Inverted Roller Screws

ø60 – ø70 mm



d_0 (mm)	D_0 (mm)	P_h (mm)	N (mm)	C_a (kN)	C_{0a} (kN)	η	η'	Z_n (mL)	Z_s (mL/m)
60	90	4	4	278	825	0.82	0.81	7.6	8.5
	90	5	4	295	829	0.82	0.81	10.5	9.6
	90	6	4	307	827	0.82	0.81	12	9.9
	90	7	4	317	821	0.83	0.82	13.6	10.3
	90	8	4	326	815	0.83	0.82	15.1	10.6
	90	9	4	339	830	0.83	0.82	16.7	11
	90	10	4	344	817	0.83	0.82	18.2	11.3
	90	12	4	363	832	0.83	0.82	21.3	12
64	96	4	4	297	1021	0.82	0.81	8.1	10.5
	96	5	4	313	1011	0.82	0.81	11.2	11.8
	96	6	4	329	1016	0.82	0.81	12.8	12.2
	96	7	4	341	1009	0.82	0.81	14.5	12.7
	96	8	4	356	1025	0.83	0.82	16.1	13.1
	96	9	4	361	996	0.83	0.82	17.8	13.5
	96	10	4	371	997	0.83	0.82	19.4	13.9
	96	12	4	389	999	0.83	0.82	22.7	14.7
70	96	14	4	409	1016	0.83	0.82	28.3	16.9
	98	6	5	274	892	0.89	0.87	11.1	10.2
	98	8	5	294	887	0.89	0.88	13.8	10.7
	98	10	5	314	902	0.89	0.88	16.5	11.3
	98	12	5	324	878	0.89	0.88	19.1	11.8
	98	14	5	342	898	0.89	0.88	24.1	13.6
	98	15	5	346	890	0.89	0.88	25.5	13.9



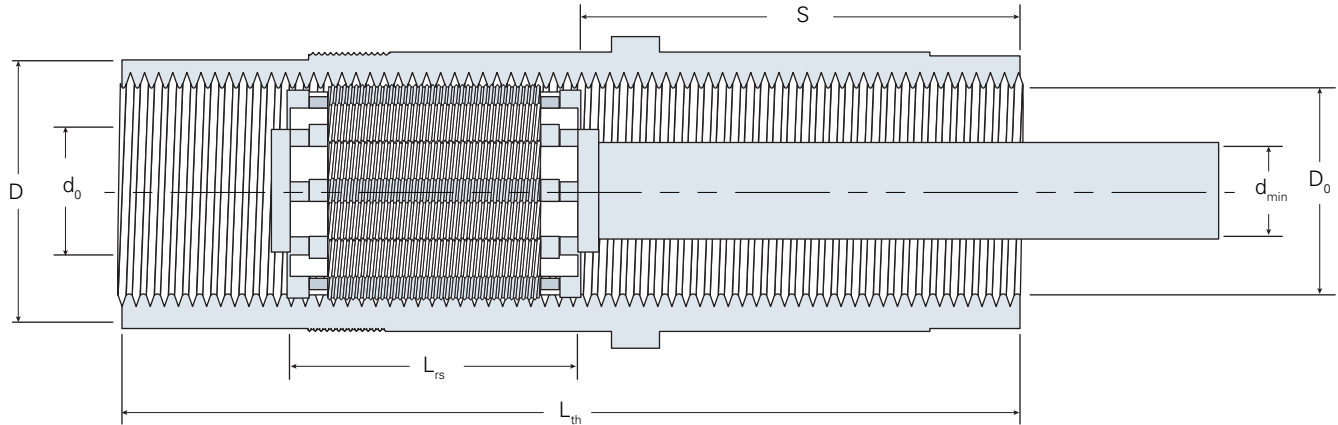
	Max axial play	Minimum push tube outer diameter	Recommended minimum nut outer diameter	Threaded length of the nut	Standard Stroke	Length of Roller Set
part number	S_0	d_{min} (mm)	$D_{g6/H7}$ (mm)	L_{th} (mm)	S_{max} (mm)	L_{rs} (mm)
IRS 60x4 R	0.02	56	108	449	347	102
IRS 60x5 R	0.04	56	108	449	347	102
IRS 60x6 R	0.04	56	108	449	347	102
IRS 60x7 R	0.04	56	108	449	347	102
IRS 60x8 R	0.04	56	108	449	347	102
IRS 60x9 R	0.04	56	108	449	347	102
IRS 60x10 R	0.04	56	108	449	347	102
IRS 60x12 R	0.04	56	108	449	347	102
IRS 64x4 R	0.02	60	114	479	365	114
IRS 64x5 R	0.04	60	114	479	365	114
IRS 64x6 R	0.04	60	114	479	365	114
IRS 64x7 R	0.04	60	114	479	365	114
IRS 64x8 R	0.04	60	114	479	365	114
IRS 64x9 R	0.04	60	114	479	365	114
IRS 64x10 R	0.04	60	114	479	365	114
IRS 64x12 R	0.04	60	114	479	365	114
IRS 64x14 R	0.07	60	114	479	365	114
IRS 70x6 R	0.04	66	120	489	393	96
IRS 70x8 R	0.04	66	120	489	393	96
IRS 70x10 R	0.04	66	120	489	393	96
IRS 70x12 R	0.04	66	120	489	393	96
IRS 70x14 R	0.07	66	120	489	393	96
IRS 70x15 R	0.07	66	120	489	393	96

Inverted Roller Screws

ø75 – ø80 mm



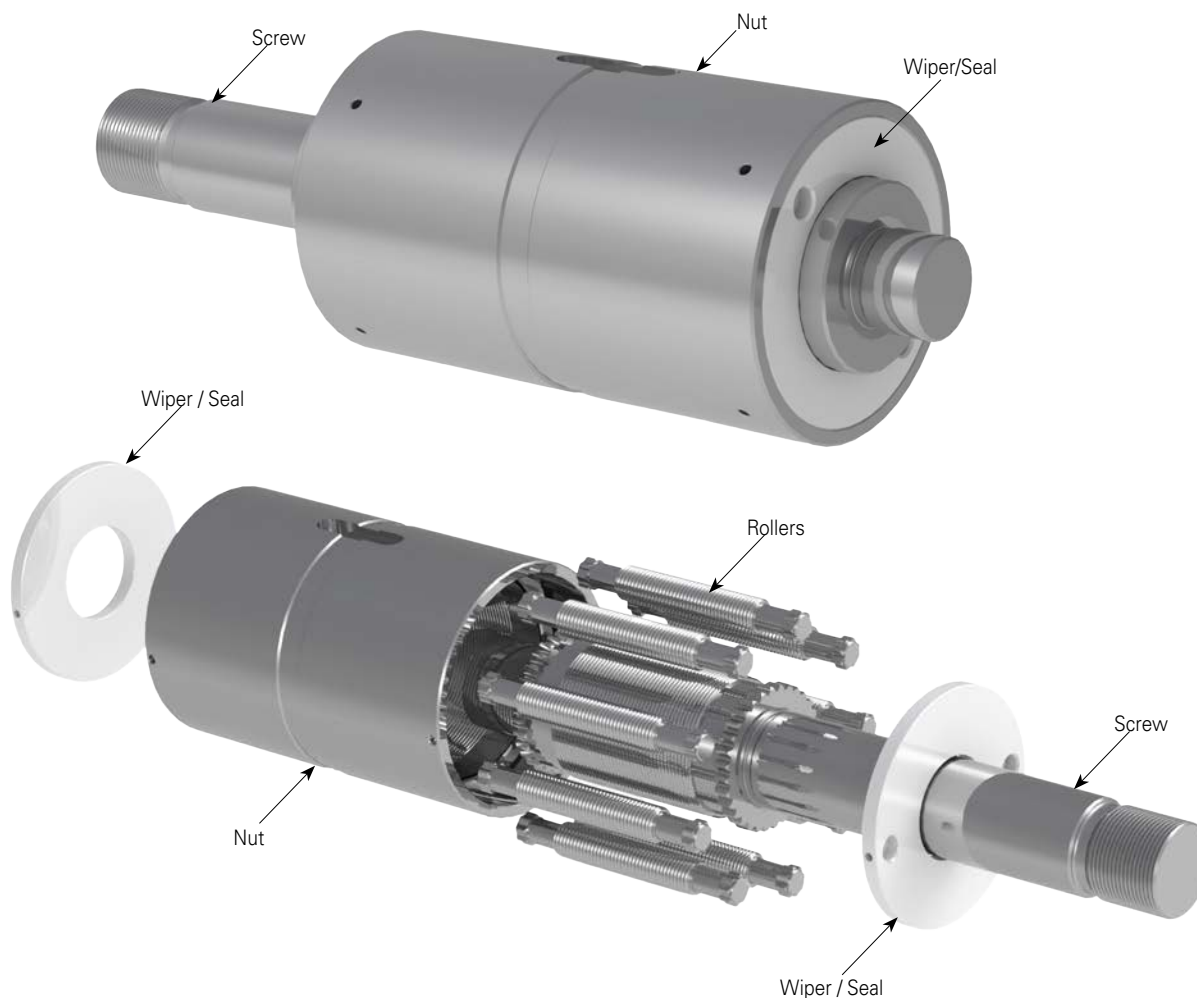
d ₀ (mm)	D ₀ (mm)	P _h (mm)	N (mm)	C _a (kN)	C _{0a} (kN)	η	η'	Z _n (mL)	Z _s (mL/m)
75	105	6	5	306	1034	0.89	0.87	11.9	11.4
	105	8	5	330	1036	0.89	0.87	14.8	12.1
	105	10	5	344	1010	0.89	0.88	17.6	12.7
	105	12	5	367	1039	0.89	0.88	20.5	13.4
	105	14	5	381	1034	0.89	0.88	25.9	15.4
	105	15	5	387	1031	0.89	0.88	27.3	15.8
80	120	6	4	421	1358	0.82	0.81	16	17.3
	120	8	4	454	1361	0.82	0.81	20.1	18.5
	120	10	4	483	1372	0.83	0.82	24.2	19.7
	120	12	4	505	1365	0.83	0.82	28.3	20.8
	120	14	4	524	1359	0.83	0.82	35.3	24
	120	16	4	609	1556	0.83	0.82	39.4	25.2



	Max axial play	Minimum push tube outer diameter	Recommended minimum nut outer diameter	Threaded length of the nut	Standard Stroke	Length of Roller Set
part number	S_0	d_{min} (mm)	$D_{g6/H7}$ (mm)	L_{th} (mm)	S_{max} (mm)	L_{rs} (mm)
IRS 75x6 R	0.04	70	127	524	422	102
IRS 75x8 R	0.04	70	127	524	422	102
IRS 75x10 R	0.04	70	127	524	422	102
IRS 75x12 R	0.04	70	127	524	422	102
IRS 75x14 R	0.07	70	127	524	422	102
IRS 75x15 R	0.07	70	127	524	422	102
IRS 80x6 R	0.04	75	142	599	473	126
IRS 80x8 R	0.04	75	142	599	473	126
IRS 80x10 R	0.04	75	142	599	473	126
IRS 80x12 R	0.04	75	142	599	473	126
IRS 80x14 R	0.07	75	142	599	473	126
IRS 80x16 R	0.07	75	142	599	473	126

Differential Roller Screws (DRS)

Overview



The DRS is designed when extreme positioning accuracy and resolution is required for instance in laboratory, space, telescope, medical applications. The lead can be from hundredth of mm up to few tenth or

mm. The resulting lead is achieved with a differential motion between the shaft nut and rollers which are actually designed with a larger pitch to keep a very high load capacity.

Differential Roller Screws (DRS)

Dynamic Load Ratings (kN)

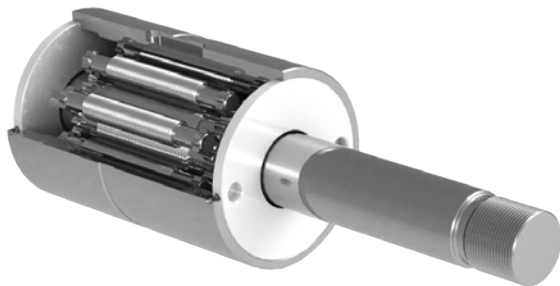
Nominal Diameter (mm)	Lead (mm)		
	0.2	0.4	0.6
16	17	20	23
20	33	39	45
24	47	55	63
28	53	63	72
32	56	66	76
36	61	72	82
40	92	108	124
44	103	122	140

Possible leads can be extremely small, reaching a few hundredths of mm if needed. This design is perfect if you need extreme resolution and positioning accuracy on a short stroke.

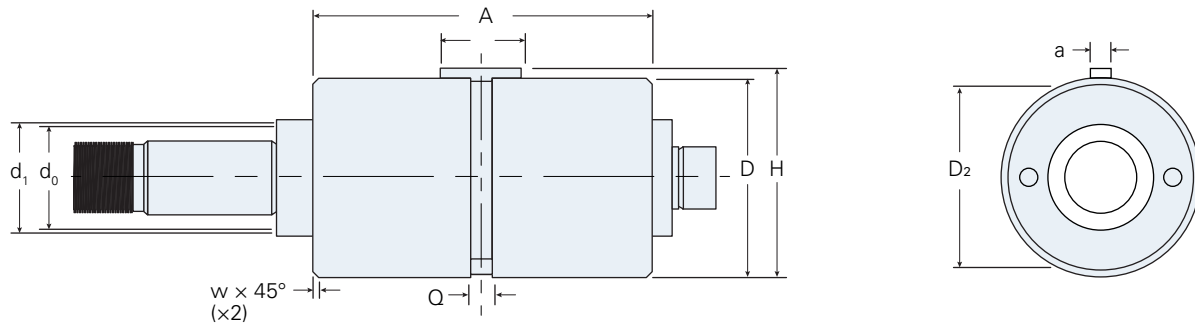
As always material, coatings and interface dimensions will be fully adapted to meet application needs. Please consult our Engineering team for further details. Our innovative design has been optimized to a higher level with a fewer components and lower weight while keeping high load and speed capabilities.

Differential Roller Screws

ø16 – ø44 mm



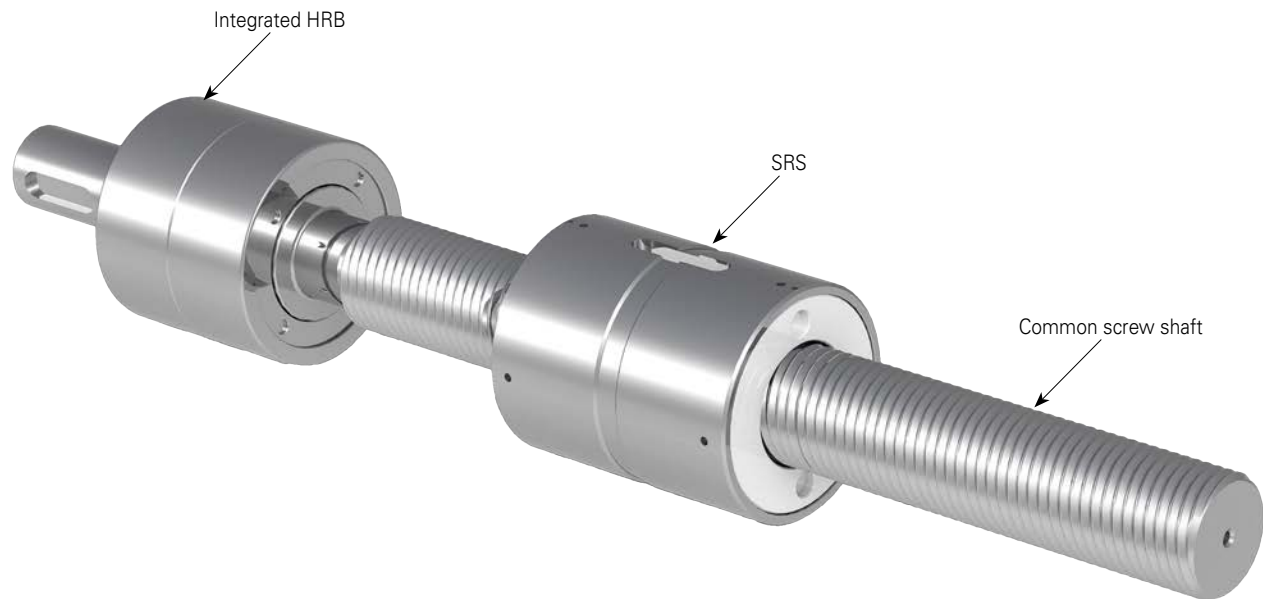
d_0 (mm)	P_h (mm)	C_a (kN)	C_{0a} (kN)	η	η'	ST	m_n (kg)	m_s (kg/m)	I_s (kgmm ² /m)	I_{nn} (kgmm ²)	I_{ns}	Z_s (mL/m)
16	0.2	17	21	0.79	0.78	5	0.2	1.6	50	62	29.7	5
	0.4	20	28	0.81	0.8	5	0.2	1.6	50	71	38	5
	0.6	23	34	0.8	0.79	5	0.2	1.6	50	79	47	5
20	0.2	33	56	0.79	0.78	5	0.3	2.5	123	161	93.3	7.6
	0.4	39	71	0.81	0.8	5	0.4	2.5	123	188	120	7.6
	0.6	45	87	0.8	0.79	5	0.4	2.5	123	215	146.7	7.7
24	0.2	47	88	0.79	0.78	5	0.5	3.5	254	344	193.9	11
	0.4	55	113	0.81	0.8	5	0.6	3.5	254	400	249	11
	0.6	63	138	0.8	0.79	5	0.6	3.5	254	455	305	11
28	0.2	53	101	0.79	0.78	5	0.6	4.8	471	482	283	15
	0.4	63	129	0.81	0.8	5	0.7	4.8	471	563	364	15
	0.6	72	158	0.8	0.79	5	0.7	4.8	471	644	445	15
32	0.2	56	103	0.79	0.78	5	0.8	6.3	803	723	358.5	19
	0.4	66	132	0.81	0.8	5	0.9	6.3	803	826	461	19
	0.6	76	161	0.8	0.79	5	1	6.3	803	928	563	19
36	0.2	61	110	0.79	0.78	5	1	7.9	1,286	978	468	24
	0.4	72	142	0.81	0.8	5	1.1	7.9	1,286	1,111	602	25
	0.6	82	173	0.8	0.79	5	1.2	7.9	1,286	1,245	735	25
40	0.2	92	202	0.79	0.78	5	1.2	9.8	1,960	1,652	1,010	31
	0.4	108	260	0.81	0.8	5	1.3	9.8	1,960	1,941	1,299	31
	0.6	124	318	0.8	0.79	5	1.5	9.8	1,960	2,229	1,587	31
44	0.2	103	235	0.79	0.78	5	1.4	11.9	2,870	2,235	1,376	37
	0.4	122	303	0.81	0.8	5	1.6	11.9	2,870	2,628	1,769	37
	0.6	140	370	0.8	0.79	5	1.8	11.9	2,870	3,021	2,162	37



	d ₁ (mm)	D _{g6/H7} (mm)	A _{h12} (mm)	w (mm)	a _{h9} (mm)	b (mm)	H (mm)	Q (mm)	D ₂ (mm)
DRS 16x0.2 R	16.5	32	63	0.5	4	12	33.5	5	27
DRS 16x0.4 R	16.5	32	63	0.5	4	12	33.5	5	27
DRS 16x0.6 R	16.5	32	63	0.5	4	12	33.5	5	27
DRS 20x0.2 R	20.5	38	77	0.5	5	18	40	5	35
DRS 20x0.4 R	20.5	38	77	0.5	5	18	40	5	35
DRS 20x0.6 R	20.5	38	77	0.5	5	18	40	5	35
DRS 24x0.2 R	24.5	45	86	0.5	5	20	47	5	40
DRS 24x0.4 R	24.5	45	86	0.5	5	20	47	5	40
DRS 24x0.6 R	24.5	45	86	0.5	5	20	47	5	40
DRS 28x0.2 R	28.5	50	87	0.5	5	20	52	5	45
DRS 28x0.4 R	28.5	50	87	0.5	5	20	52	5	45
DRS 28x0.6 R	28.5	50	87	0.5	5	20	52	5	45
DRS 32x0.2 R	32.5	58	85	0.5	6	25	60	5	53
DRS 32x0.4 R	32.5	58	85	0.5	6	25	60	5	53
DRS 32x0.6 R	32.5	58	85	0.5	6	25	60	5	53
DRS 36x0.2 R	36.5	64	85	0.5	6	32	66.5	5	58
DRS 36x0.4 R	36.5	64	85	0.5	6	32	66.5	5	58
DRS 36x0.6 R	36.5	64	85	0.5	6	32	66.5	5	58
DRS 40x0.2 R	40.5	68	104	1	6	32	70	7	63
DRS 40x0.4 R	40.5	68	104	1	6	32	70	7	63
DRS 40x0.6 R	40.5	68	104	1	6	32	70	7	63
DRS 44x0.2 R	44.5	74	108	1	6	32	76.7	7	70
DRS 44x0.4 R	44.5	74	108	1	6	32	76.7	7	70
DRS 44x0.6 R	45	74	108	1	6	32	76.7	7	70

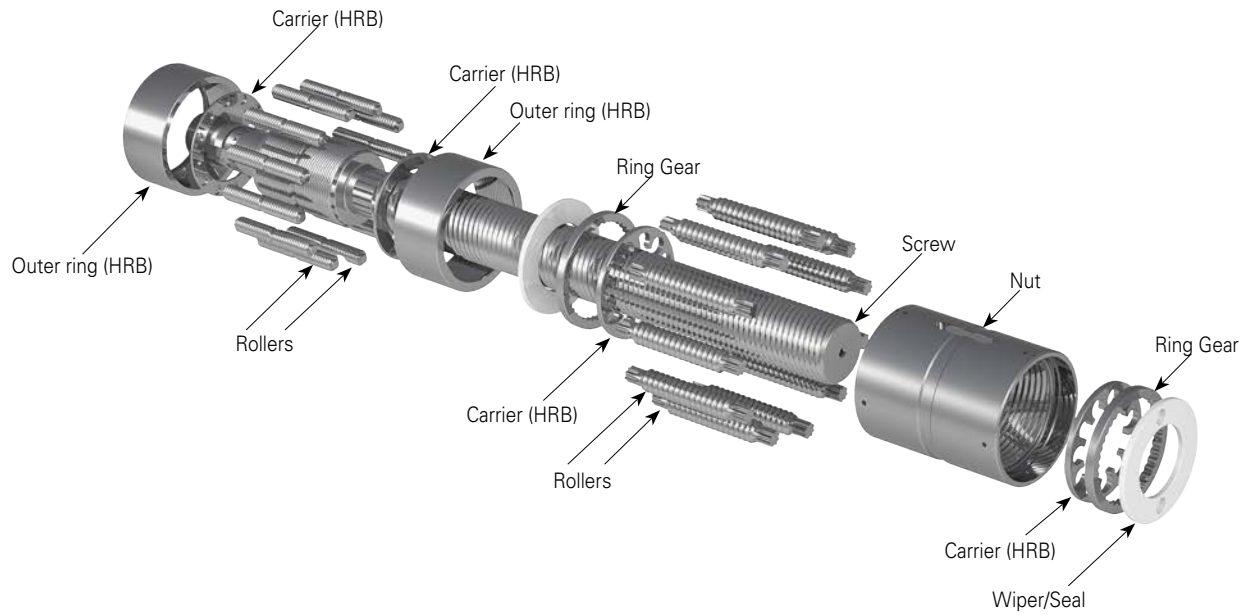
Standard Roller Screws with HRB (HRA-s)

Overview



According to customer requirements Helix Roller Screws can be designed and supplied with customized HRS solutions with integrated Herringbone Roller Bearings (HRBs). The main advantage of this compact solution that combines bearing and roller screw on the same shaft is to optimize the available space, reduce mass and the cost of HRS and surrounding parts. Named as the HRA, this mechanism exists in standard with IT or HT bearing nut assemblies to align HRS and HRB capacities. The nut of the HRS can have any shape to fit customer requirements.

The table to the right helps select the right bearing nut that can equip the HRS in a standard HRA configuration. Adjustment can be made depending on the application. The shaft is to optimize the whole available space, reduce masses and the cost of HRS and surrounding parts. Named as the HRA, this mechanism exists in standard with IT or HT bearing nut assemblies to align HRS and Adjustment can be made depending on the application requirements. So, Helix can advise in selecting the right HRA.



Nominal Diameter (mm)	Part Number
60	HHT-060
75	HHT-075
87	HHT-080
99	HHT-090
111	HHT-095
120	HHT-110
135	HHT-120
150	HHT-130

Standard Roller Screws with HRB (HRA-s)

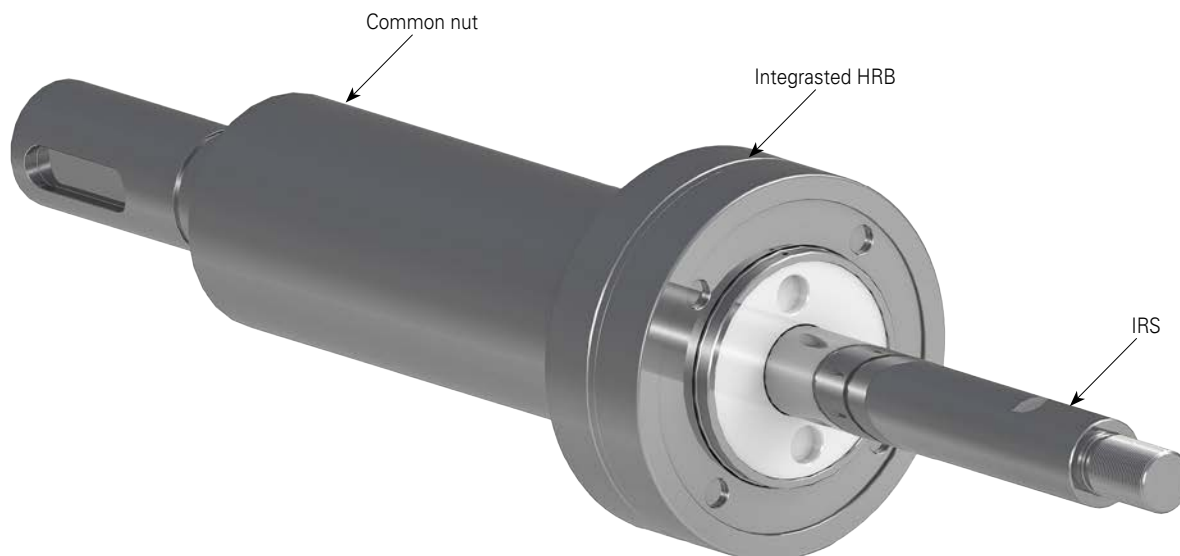
Recommended sizes of integrated HRB for HRA-s

Nominal diameter (mm)	Lead (mm)									
	1	2	3	4	5	6	8	9	10	
4	HIS-010	HIS-010	HIS-010							
8	HIS-012	HIS-012	HIS-012	HIS-012						
12		HIS-012	HIS-012	HHS-012	HHS-012	HHS-012	HHS-012			
15		HIT-012	HIT-012	HIT-012	HIT-012	HIT-012	HIT-012			
18		HIT-015	HIT-015	HIT-015	HIT-015	HIT-015	HIT-015		HIT-015	
21			HIT-017	HIT-017	HIT-017	HIT-017	HHT-017		HHT-017	
24			HIT-020			HIT-020				
24		HIT-020		HIT-020	HIT-020	HIT-020	HIT-020		HIT-020	
27		HIT-025		HIT-025	HIT-025	HIT-025	HIT-025		HIT-025	
30		HIT-025		HIT-025	HIT-025	HIT-025	HIT-025		HIT-025	
36						HHT-030		HIT-025		
36		HHT-030		HHT-030	HHT-030	HHT-030	HHT-030		HHT-030	
39		HHT-030		HHT-030	HHT-030	HHT-030	HHT-030		HHT-030	
44						HHT-035				
48						HHT-040				
48					HHT-040				HHT-040	
51					HHT-040				HHT-040	
56						HHT-045				
60					HIT-055	HIT-055		HIT-050		
60									HHT-050	
64						HIT-060				
68						HHT-055				
75									HHT-060	
80										
87									HIT-080	
92										
99										
120										
120										

Lead (mm)									
12	15	18	20	24	25	30	35	36	42

HRA-i

Roller Screw with an IRS and Herringbone Roller Bearings

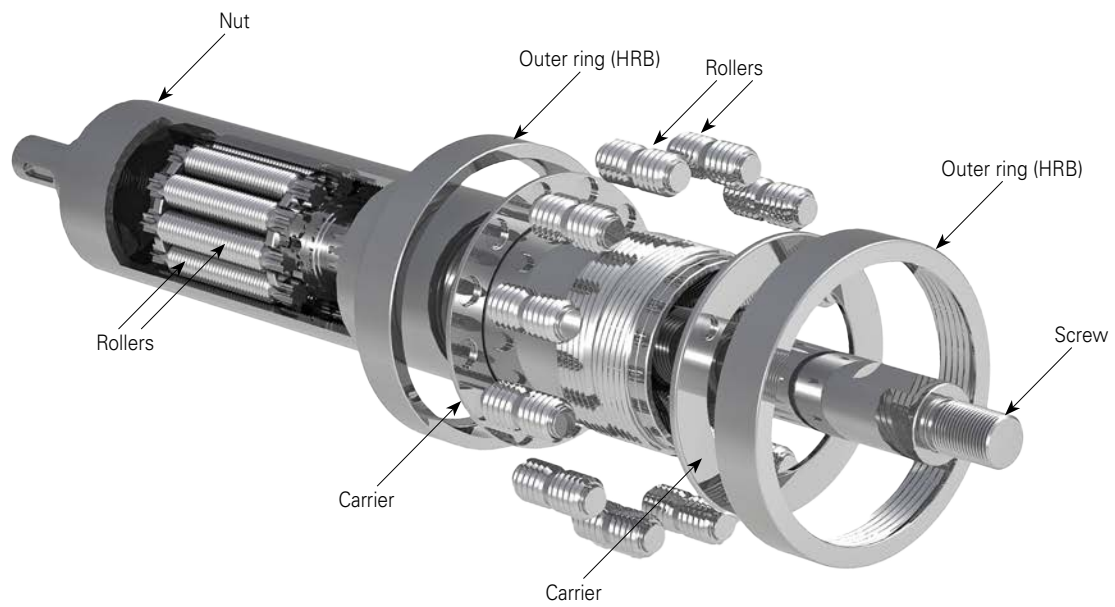


The HRA-i is a design where the inner ring of a HRB is fully integrated on the nut of an inverted roller screw (Fig. 6.3 and Fig. 6.4). The HRA-i eliminates the need for a locknut and flange on the nut of an Inverted Roller Screw (IRS).

The main advantage of this compact solution that combines bearing and roller screw through a common component is to align the load capacities of both mechanisms and to optimize the entire available space, reduce masses and the cost of HRS as well as permitting improved design of parts. This is not possible with any traditional, existing bearings in such envelopes.

By maximizing capacity and reliability, the HRA-i also offers unprecedented power density with a custom mechanical package ready for the next generation of compact electric linear actuators.

The Helix designation system is not limited to HRA solutions. Contact our engineering team who can help to optimize your solution using the HRA design.



HRA-i

Recommended sizes of integrated HRB for HRA-i

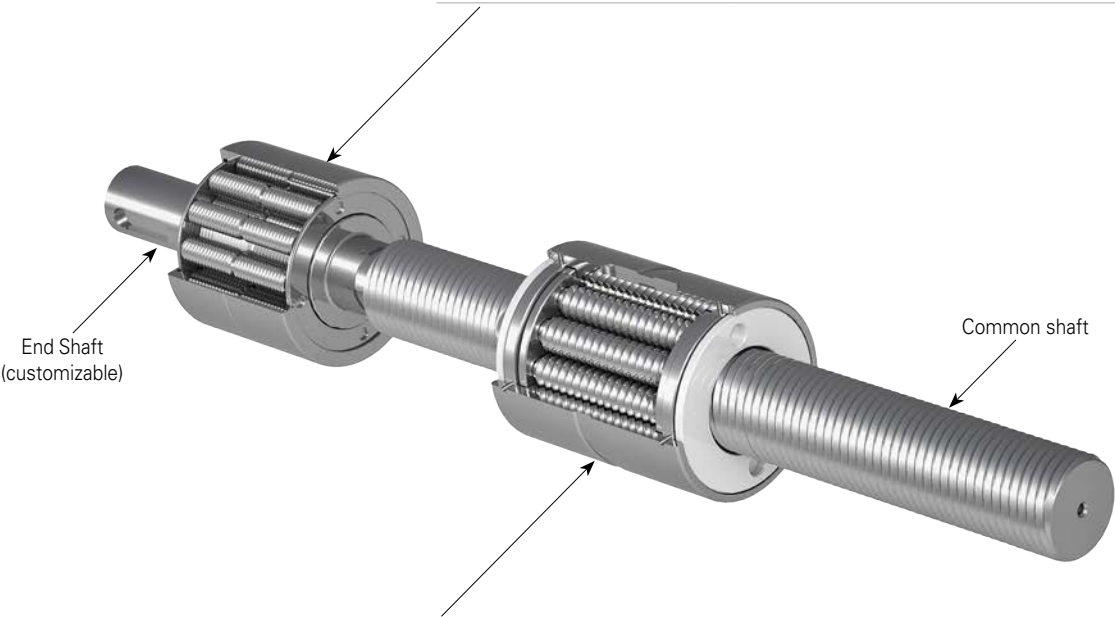
Nominal Diameter (mm)	Lead (mm)							
	1	2	2.4	3	4	5	6	7
9		HIS-020						
12	HIS-020	HIS-020						
14	HHS-020	HIS-025						
15	HIS-030	HIS-030		HIS-030				
18	HHS-030	HHS-030	HHS-030	HHS-030	HHS-030	HHS-030	HHS-030	
21		HIS-040	HIS-040	HIS-040	HIS-040	HIS-040	HIS-040	
24		HHS-040	HHS-040	HHS-040	HHS-040	HHS-040	HHS-040	
27		HHS-045		HHS-045	HHS-045	HHS-045		
28				HIS-045	HIS-045	HIS-045	HIS-045	
30		HHS-050	HHS-050	HHS-050	HHS-050	HHS-050	HHS-050	
36		HHS-050		HHS-050	HHS-050	HHS-050	HHS-050	HHS-050
39		HHT-030		HHT-030	HHT-030	HHT-030	HHT-030	HHT-030
44		HHT-030		HHT-030	HHT-030	HHT-030	HHT-030	HHT-030
48						HHT-035		
51						HHT-040		
56					HHT-040			HHT-040
60					HHT-040			HHT-040
64						HHT-045		
70						HIT-055		
75					HIT-055			HHT-050
80						HIT-060		

Standard Roller Screws with HRB (HRA-s)

ø15 – ø60 mm

Integrated HRB (HRA)

Type	B Length (mm)	D Outer Diameter (mm)	Equivalents (C, Co)
Single (S)	20 - 134	ø32 - ø320	HIS, HHS, HIT, HHT
Twin (T)	40 - 238	ø32 - ø320	HIS, HHS, HIT, HHT

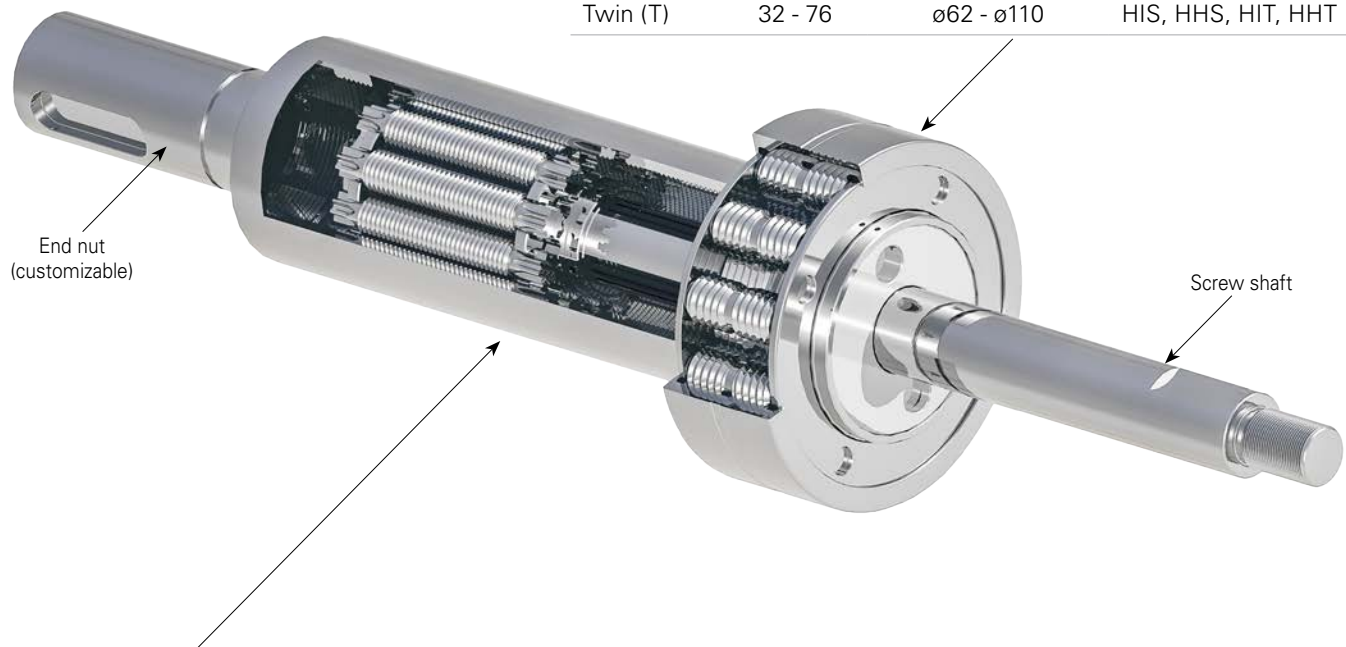


Standard Roller Screws (SRS)

do - Screw Pitch Diameter (mm)	Lead Min - Max (mm)	Backlash (µm)
15	2 - 8	0 - 20
21	2 - 10	0 - 20
25	5 - 15	0 - 20
30	5 - 15	0 - 40
39	5 - 15	0 - 70
48	5 - 20	0 - 70
60	10 - 20	0 - 70

Inverted Roller Screws with HRB (HRA-I)

ø15 – ø39 mm



Integrated HRB (HRA)

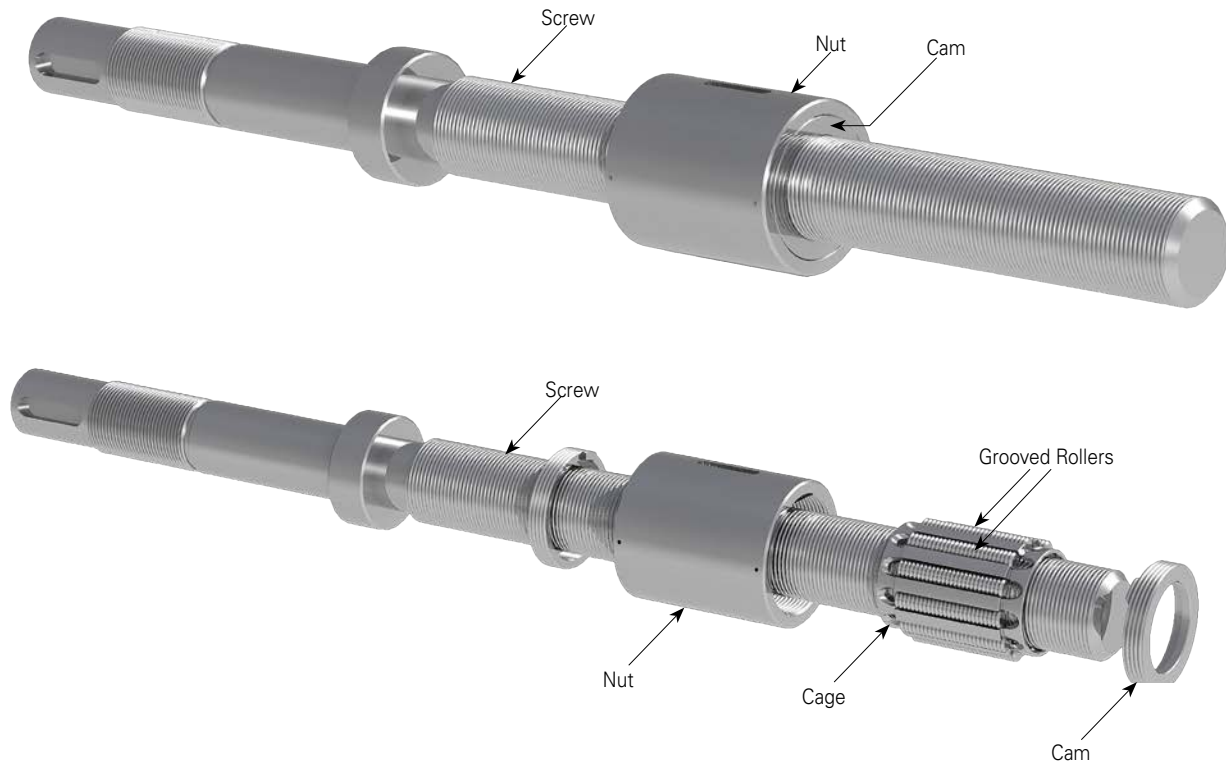
Type	B Length (mm)	D Outer Diameter (mm)	Equivalents (C, Co)
Single (S)	32 - 76	ø62 - ø110	HIS, HHS, HIT, HHT
Twin (T)	32 - 76	ø62 - ø110	HIS, HHS, HIT, HHT

Inverted Roller Screws (SRS)

d ₀ - Screw Pitch Diameter (mm)	Lead Min - Max (mm)	D Nut Outer Diameter (µm)	Backlash (µm)
15	1 - 3	32	0 - 20
21	2 - 6	45	0 - 20
27	2 - 6	55	0 - 20
30	2 - 6	60	0 - 20
36	2 - 7	64	0 - 40
39	3 - 8	75	0 - 40

Recirculating Roller Screws (RRS)

Overview



Recirculating Roller Screw completes our range of Helix Roller Screws. They can have very fine leads for applications that require positioning with high resolution.

A step up from ball screws, the Helix Recirculating Roller Screw has many more contact points and offer higher load capacity and better rigidity.

Unlike planetary roller screws, the Recirculating Roller Screw allow rollers guides within a cage to recirculate inside the nut assembly thanks to cams.

This design is ideal for applications where long strokes with smaller leads are needed with high capacity in reduced envelopes. It is available with a cylindrical or flanged nut.

Recirculating Roller Screws (RRS)

Dynamic Load Ratings (kN)

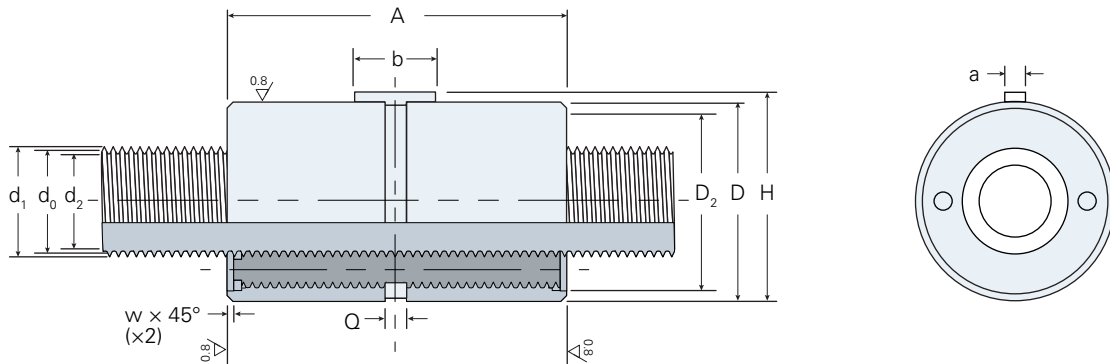
Nominal Diameter (mm)	Lead (mm)				
	1	2	3	4	5
8	11.8	11.8			
10	14.1	14.1			
12	16.1	16.1			
16	19.4	19.4			
20	27.1	27.1			
25	39.7	39.7			
32	60.8	60.8	73.5		
36	73.8	73.8			
40	79.8	79.8		97.3	
50	134.1	139.9	160.0	168.2	
63		219.6	241.4	219.6	
80		374.6	414.2	440.6	
100			512.0	523.3	527.5
125					986.0

Recirculating Roller Screws with Cylindrical Nut

ø8 – ø36 mm



d_0 (mm)	P_h (mm)	N (mm)	C_a (kN)	C_{0a} (kN)	η	η'	S_0	T_0 (Nm)	m_n (kg)	m_s (kg/m)	I_s (kgmm ² /mm)	I_{nn}	I_{ns}	Z_n (mL)	Z_s (mL/m)
8	1	1	11.8	14.3	0.8	0.75	0.02	0.02	0.2	0.36	2.6	3.6	0.1	1.1	0.7
	2	2	11.8	14.3	0.79	0.73	0.02	0.03	0.2	0.36	2.6	3.6	0.1	1.2	0.7
10	1	1	14.1	17.8	0.8	0.75	0.02	0.03	0.2	0.57	6.7	5	0.1	1.3	0.8
	2	2	14.1	17.8	0.79	0.73	0.02	0.04	0.2	0.57	6.7	5	0.1	1.4	0.8
12	1	1	16.1	21.3	0.8	0.75	0.02	0.05	0.2	0.84	14.2	6.7	0.1	1.6	1
	2	2	16.1	21.3	0.79	0.73	0.02	0.06	0.2	0.84	14.2	6.7	0.1	1.7	1
16	1	1	19.4	28.2	0.8	0.75	0.02	0.06	0.3	1.51	46.2	14	0.3	2	1.3
	2	2	19.4	28.2	0.79	0.73	0.02	0.07	0.3	1.51	46.2	14	0.3	2.1	1.3
20	1	1	27.1	49.7	0.8	0.75	0.02	0.07	0.4	2.38	115	29.8	0.8	3.1	1.7
	2	2	27.1	49.7	0.79	0.73	0.02	0.08	0.4	2.38	115	29.8	0.8	3.2	1.7
25	1	1	39.7	85.2	0.8	0.75	0.02	0.09	0.6	3.75	285	79.3	2.5	3.3	2.1
	2	2	39.7	85.2	0.79	0.73	0.02	0.1	0.6	3.75	285	79.3	2.5	3.4	2.1
32	1	1	60.8	149	0.8	0.75	0.02	0.12	1.2	6.18	773	280	9.1	7	2.7
	2	2	60.8	149	0.79	0.73	0.02	0.13	1.2	6.18	773	280	9.1	7.1	2.7
	3	2	73.5	145	0.79	0.73	0.02	0.14	1.2	6.18	773	280	9.1	7.3	3.8
36	1	1	73.8	181	0.8	0.75	0.02	0.15	2.2	7.9	1286	682	13.5	7.6	3
	2	2	73.8	172	0.79	0.73	0.02	0.16	2.2	7.9	1286	682	13.5	7.7	3



part number	d ₀ (mm)	d ₂ (mm)	D g6/H7 (mm)	A h12 w/ wiper recesses (mm)	A h12 w/o wiper recesses (mm)	w (mm)	a (mm)	b h9 (mm)	H (mm)	Q (mm)	D ₂ (mm)
RRS 8x1 R-C	7.7	7.1	20	40	31	0.2	2	12	20.8	5	16.5
RRS 8x2 R-C	7.7	7.1	20	40	31	0.2	2	12	20.8	5	16.5
RRS 10x1 R-C	9.7	9.1	22	40	31	0.2	2	12	22.8	5	18.5
RRS 10x2 R-C	9.7	9.1	22	40	31	0.2	2	12	22.8	5	18.5
RRS 12x1 R-C	11.7	11.1	24	40	31	0.2	2	12	24.8	5	20.5
RRS 12x2 R-C	11.7	11.1	24	40	31	0.2	2	12	24.8	5	20.5
RRS 16x1 R-C	15.7	15.1	29	40	31	0.5	3	12	30.2	5	25
RRS 16x2 R-C	15.7	15.1	29	40	31	0.5	3	12	30.2	5	25
RRS 20x1 R-C	19.7	19.1	34	45	37	0.5	3	16	35.2	5	28.5
RRS 20x2 R-C	19.7	19.1	34	45	37	0.5	3	16	35.2	5	28.5
RRS 25x1 R-C	24.7	24.1	42	54	44	0.5	4	20	43.5	5	36
RRS 25x2 R-C	24.7	24.1	42	54	44	0.5	4	20	43.5	5	36
RRS 32x1 R-C	31.7	31.1	54	67	57	1	4	25	55.5	5	45
RRS 32x2 R-C	31.7	31.1	54	67	57	1	4	25	55.5	5	45
RRS 32x3 R-C	31.7	30.5	54	67	57	1	4	25	55.5	5	45
RRS 36x1 R-C	35.7	35.1	61	75	62	1	6	28	63.5	5	53
RRS 36x2 R-C	35.7	35.1	61	75	62	1	6	28	63.5	5	53

Recirculating Roller Screws with Cylindrical Nut

ø40 – ø125 mm



d ₀ (mm)	P _h (mm)	N (mm)	C _a (kN)	C _{0a} (kN)	η	η'	S ₀	T ₀ (Nm)	m _n (kg)	m _s (kg/m)	I _s (kgmm ² /mm)	I _{nn}	I _{ns}	Z _n (mL)	Z _s (mL/m)
40	1	1	79.8	207	0.8	0.75	0.02	0.17	2.1	9.69	1900	879	18.8	11.5	3.4
	2	2	79.8	207	0.79	0.73	0.02	0.18	2.1	9.69	1900	879	18.8	11.7	3.4
	4	2	97.3	199	0.78	0.72	0.04	0.19	2.1	9.69	1900	879	18.8	11.9	6.7
50	1	1	134	410	0.8	0.75	0.02	0.35	3.7	15	4550	2,190	76	19.1	4
	2	2	140	424	0.79	0.73	0.04	0.36	3.7	15	4550	2,190	76	19.2	5
	3	2	160	429	0.79	0.73	0.04	0.37	3.7	15	4550	2,190	76	19.4	7
	4	2	168	408	0.78	0.72	0.04	0.38	3.7	15	4550	2,190	76	19.6	8
63	2	2	220	563	0.79	0.73	0.04	0.53	6.4	23.9	11,600	6,460	230	22.5	6.3
	3	2	241	534	0.78	0.72	0.04	0.54	6.4	23.9	11,600	6,460	230	22.7	8.4
	4	2	220	563	0.79	0.73	0.04	0.55	6.4	23.9	11,600	6,460	230	22.8	10.6
80	2	2	375	1393	0.79	0.73	0.07	0.96	17.8	38.1	29,400	38,900	1,290	36.5	9.9
	3	2	414	1361	0.78	0.72	0.07	0.97	17.8	38.1	29,400	38,900	1,290	36.6	12.6
	4	2	441	1326	0.79	0.73	0.07	0.98	17.8	38.1	29,400	38,900	1,290	36.8	15.3
100	3	2	512	1577	0.78	0.72	0.07	1.17	33.1	59.5	71,800	108,000	4,000	103.2	15.7
	4	2	523	1548	0.78	0.72	0.07	1.18	33.1	59.5	71,800	108,000	4,000	103.4	19.1
	5	2	528	1520	0.77	0.7	0.07	1.19	33.1	59.5	71,800	108,000	4,000	103.6	22.5
125	5	2	986	3973	0.77	0.7	0.07	1.75	62.3	93.6	178,000	342,000	11,800	141.6	28.2

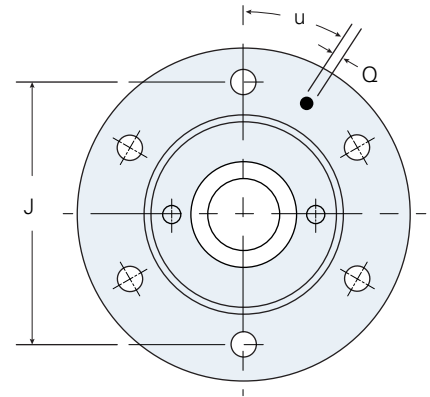
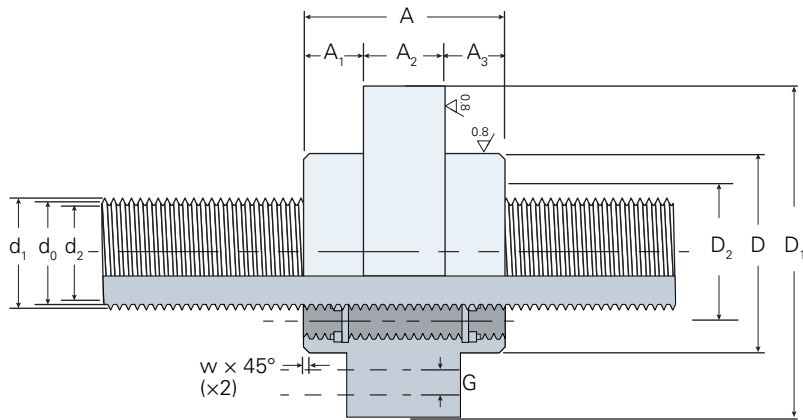
91

Recirculating Roller Screws with Flanged Nut

ø8 – ø36 mm



d ₀ (mm)	P _n (mm)	N (mm)	C _a (kg)	C _{0a} (kg)	η	η'	S ₀	T ₀ (Nm)	m _n (kg)	m _s (kg/m)	I _s (kgmm ² /mm)	I _{nn}	I _{ns}	Z _n (mL)	Z _s (mL/m)
8	1	1	11.8	14.3	0.8	0.75	0.02	0.02	0.2	0.36	2.6	3.6	0.1	1.1	0.7
	2	2	11.8	14.3	0.79	0.73	0.02	0.03	0.2	0.36	2.6	3.6	0.1	1.2	0.7
10	1	1	14.1	17.8	0.8	0.75	0.02	0.03	0.2	0.57	6.7	5	0.1	1.3	0.8
	2	2	14.1	17.8	0.79	0.73	0.02	0.04	0.2	0.57	6.7	5	0.1	1.4	0.8
12	1	1	16.1	21.3	0.8	0.75	0.02	0.05	0.2	0.84	14.2	6.7	0.1	1.6	1
	2	2	16.1	21.3	0.79	0.73	0.02	0.06	0.2	0.84	14.2	6.7	0.1	1.7	1
16	1	1	19.4	28.2	0.8	0.75	0.02	0.06	0.3	1.51	46.2	14	0.3	2	1.3
	2	2	19.4	28.2	0.79	0.73	0.02	0.07	0.3	1.51	46.2	14	0.3	2.1	1.3
20	1	1	27.1	49.7	0.8	0.75	0.02	0.07	0.4	2.38	115	29.8	0.8	3.1	1.7
	2	2	27.1	49.7	0.79	0.73	0.02	0.08	0.4	2.38	115	29.8	0.8	3.2	1.7
25	1	1	39.7	85.2	0.8	0.75	0.02	0.09	0.6	3.75	285	79.3	2.5	3.3	2.1
	2	2	39.7	85.2	0.79	0.73	0.02	0.1	0.6	3.75	285	79.3	2.5	3.4	2.1
32	1	1	60.8	149	0.8	0.75	0.02	0.12	1.2	6.18	773	280	9.1	7	2.7
	2	2	60.8	149	0.79	0.73	0.02	0.13	1.2	6.18	773	280	9.1	7.1	2.7
	3	2	73.5	145	0.79	0.73	0.02	0.14	1.2	6.18	773	280	9.1	7.3	3.8
36	1	1	73.8	181	0.8	0.75	0.02	0.15	2.2	7.9	1286	682	13.5	7.6	3
	2	2	73.8	172	0.79	0.73	0.02	0.16	2.2	7.9	1286	682	13.5	7.7	3



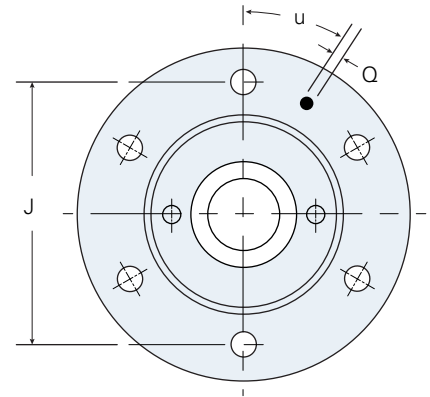
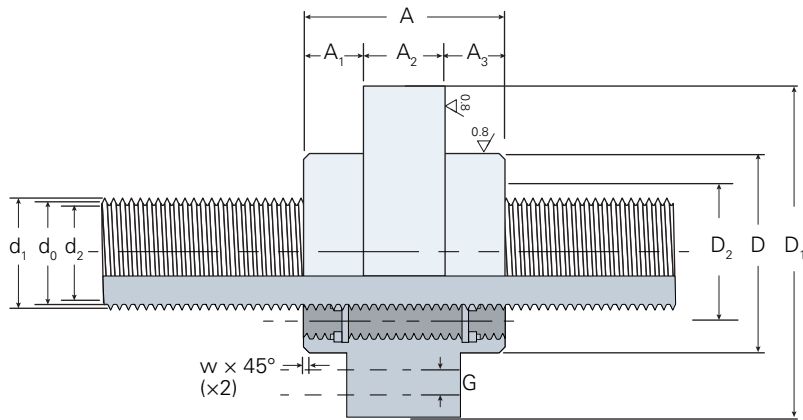
	d ₁ (mm)	d ₂ (mm)	D (mm)	A h12 w/ wiper recesses (mm)	A ₁ (mm)	A ₂ (mm)	w (mm)	a (mm)	b (mm)	H (mm)	Q (mm)	D ₂ (mm)	u
RRS 8x1 R-F	7.7	7.1	20	31	7.5	16	43	0.2	33	6xø4.5	M6	16.5	30°
RRS 8x2 R-F	7.7	7.1	20	31	7.5	16	43	0.2	33	6xø4.5	M6	16.5	30°
RRS 10x1 R-F	9.7	9.1	22	31	7.5	16	43	0.2	33	6xø4.5	M6	18.5	30°
RRS 10x2 R-F	9.7	9.1	22	31	7.5	16	43	0.2	33	6xø4.5	M6	18.5	30°
RRS 12x1 R-F	11.7	11.1	24	31	7.5	16	46	0.2	36	6xø4.5	M6	20.5	30°
RRS 12x2 R-F	11.7	11.1	24	31	7.5	16	46	0.2	36	6xø4.5	M6	20.5	30°
RRS 16x1 R-F	15.7	15.1	29	31	7.5	16	51	0.5	41	6xø4.5	M6	25	30°
RRS 16x2 R-F	15.7	15.1	29	31	7.5	16	51	0.5	41	6xø4.5	M6	25	30°
RRS 20x1 R-F	19.7	19.1	34	37	9.5	18	58	0.5	46	6xø6	M6	28.5	30°
RRS 20x2 R-F	19.7	19.1	34	37	9.5	18	58	0.5	46	6xø6	M6	28.5	30°
RRS 25x1 R-F	24.7	24.1	42	44	13	18	68	0.5	56	6xø6	M6	36	30°
RRS 25x2 R-F	24.7	24.1	42	44	13	18	68	0.5	56	6xø6	M6	36	30°
RRS 32x1 R-F	31.7	31.1	54	57	18.5	20	84	1	70	6xø7	M6	45	30°
RRS 32x2 R-F	31.7	31.1	54	57	18.5	20	84	1	70	6xø7	M6	45	30°
RRS 32x3 R-F	31.7	30.5	54	57	18.5	20	84	1	70	6xø7	M6	45	30°
RRS 36x1 R-F	35.7	35.1	61	62	22.5	17	90	1	75	6xø7	M6	53	30°
RRS 36x2 R-F	35.7	35.1	61	62	22.5	17	90	1	75	6xø7	M6	53	30°

Recirculating Roller Screws with Flanged Nut

ø40 – ø125 mm



d_0 (mm)	P_h (mm)	N (mm)	C_a (kg)	C_{0a} (kg)	η	η'	S_0	T_0 (Nm)	m_n (kg)	m_s (kg/m)	I_s (kgmm ² /mm)	I_{nn}	I_{ns}	Z_n (mL)	Z_s (mL/m)
40	1	1	79.8	207	0.8	0.75	0.02	0.17	2.1	9.69	1,900	879	18.8	11.5	3.4
	2	2	79.8	207	0.79	0.73	0.02	0.18	2.1	9.69	1,900	879	18.8	11.7	3.4
	4	2	97.3	199	0.78	0.72	0.04	0.19	2.1	9.69	1,900	879	18.8	11.9	6.7
50	1	1	134	410	0.8	0.75	0.02	0.35	3.7	15	4,550	2,190	76	19.1	4
	2	2	140	424	0.79	0.73	0.04	0.36	3.7	15	4,550	2,190	76	19.2	5
	3	2	160	429	0.79	0.73	0.04	0.37	3.7	15	4,550	2,190	76	19.4	7
	4	2	168	408	0.78	0.72	0.04	0.38	3.7	15	4,550	2,190	76	19.6	8
63	2	2	220	563	0.79	0.73	0.04	0.53	6.4	23.9	11,600	6,460	230	22.5	6.3
	3	2	241	534	0.78	0.72	0.04	0.54	6.4	23.9	11,600	6,460	230	22.7	8.4
	4	2	220	563	0.79	0.73	0.04	0.55	6.4	23.9	11,600	6,460	230	22.8	10.6
80	2	2	375	1393	0.79	0.73	0.07	0.96	17.8	38.1	29,400	38,900	1,290	36.5	9.9
	3	2	414	1361	0.78	0.72	0.07	0.97	17.8	38.1	29,400	38,900	1,290	37	12.6
	4	2	441	1326	0.79	0.73	0.07	0.98	17.8	38.1	29,400	38,900	1,290	37	15.3
100	3	2	512	1577	0.78	0.72	0.07	1.17	33.1	59.5	71,800	108,000	4,000	103.2	15.7
	4	2	523	1548	0.78	0.72	0.07	1.18	33.1	59.5	71,800	108,000	4,000	103	19.1
	5	2	528	1520	0.77	0.7	0.07	1.19	33.1	59.5	71,800	108,000	4,000	104	22.5
125	5	2	986	3973	0.77	0.7	0.07	1.75	62.3	93.6	178,000	342,000	11,800	141.6	28.2

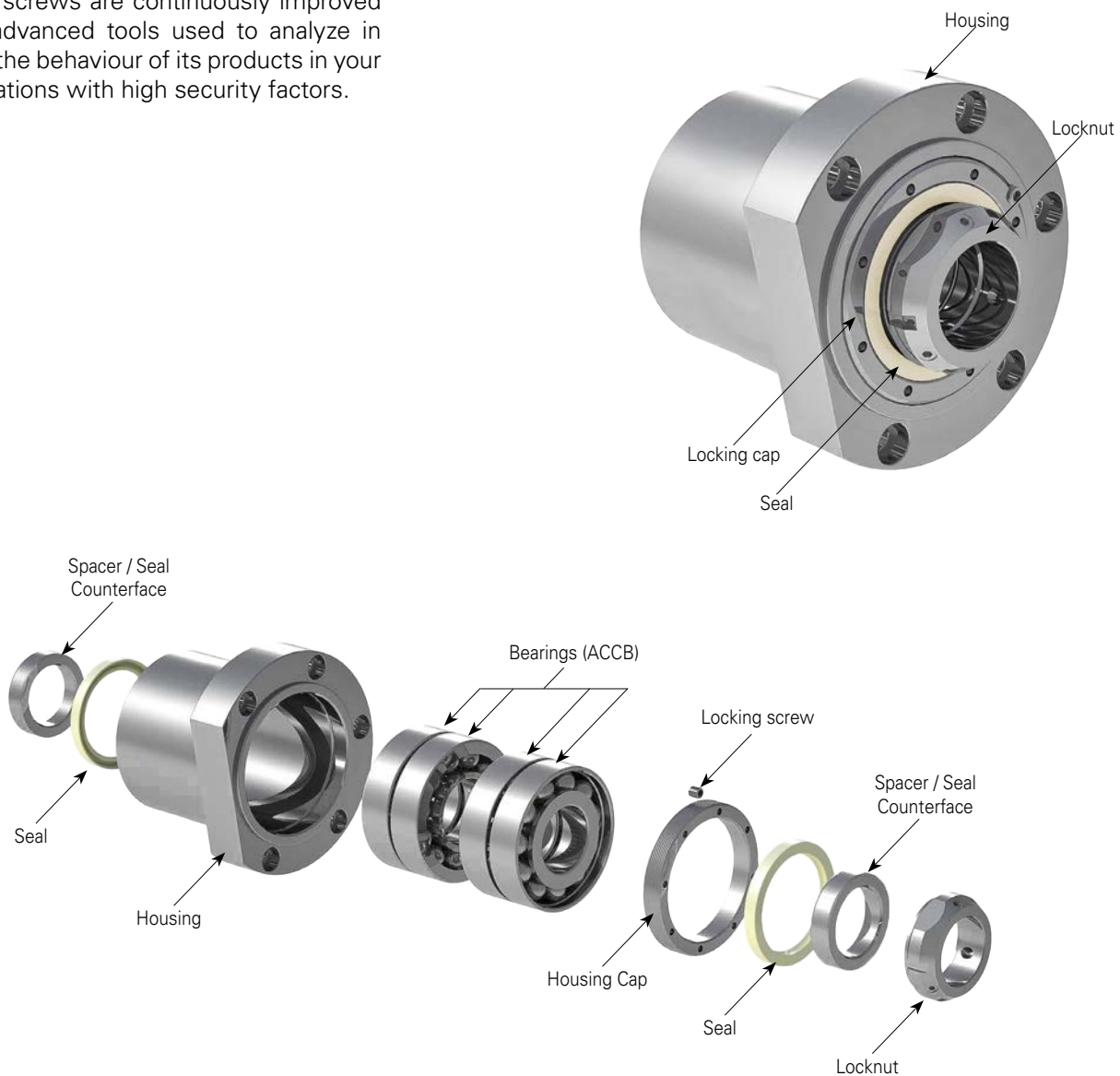


	d ₁ (mm)	d ₂ (mm)	D (mm)	A _{h12} w/ wiper recesses (mm)	A ₁ (mm)	A ₂ (mm)	w (mm)	a (mm)	b (mm)	H (mm)	Q (mm)	D ₂ (mm)	u
RRS 40x1 R-F	39.7	39.1	68	63	18	27	102	1	85	6xø9	M6	57	30°
RRS 40x2 R-F	39.7	39.1	68	63	18	27	102	1	85	6xø9	M6	57	30°
RRS 40x4 R-F	39.3	38.8	68	63	18	27	102	1	85	6xø9	M6	57	30°
RRS 50x1 R-F	49.7	49.1	82	85	26	33	124	1	102	6xø11	M6	70	30°
RRS 50x2 R-F	49.5	48.7	82	85	26	33	124	1	102	6xø11	M6	70	30°
RRS 50x3 R-F	49.3	48.6	82	85	26	33	124	1	102	6xø11	M6	70	30°
RRS 50x4 R-F	49.3	48.2	82	85	26	33	124	1	102	6xø11	M6	70	30°
RRS 63x2 R-F	62.4	61.2	103	104	35.5	33	150	1	127	6xø13	M8x1	94	30°
RRS 63x3 R-F	62.3	61.2	103	104	35.5	33	150	1	127	6xø13	M8x1	94	30°
RRS 63x4 R-F	62.3	61.1	103	104	35.5	33	150	1	127	6xø13	M8x1	94	30°
RRS 80x2 R-F	78.7	76.6	141	175	65	45	200	1	170	8xø17	M8x1	120	22.5°
RRS 80x3 R-F	78.6	76.6	141	175	65	45	200	1	170	8xø17	M8x1	120	22.5°
RRS 80x4 R-F	78.6	76.4	141	175	65	45	200	1	170	8xø17	M8x1	120	22.5°
RRS 100x3 R-F	98.6	95.7	175	205	77.5	50	240	2	210	12xø17	M8x1	150	15°
RRS 100x4 R-F	98.3	95.6	175	205	77.5	50	240	2	210	12xø17	M8x1	150	15°
RRS 100x5 R-F	98.3	95.5	175	205	77.5	50	240	2	210	12xø17	M8x1	150	15°
RRS 125x5 R-F	123.3	120.5	220	250	98	55	310	3	270	12xø19	M8x1	185	15°

Bearing Units

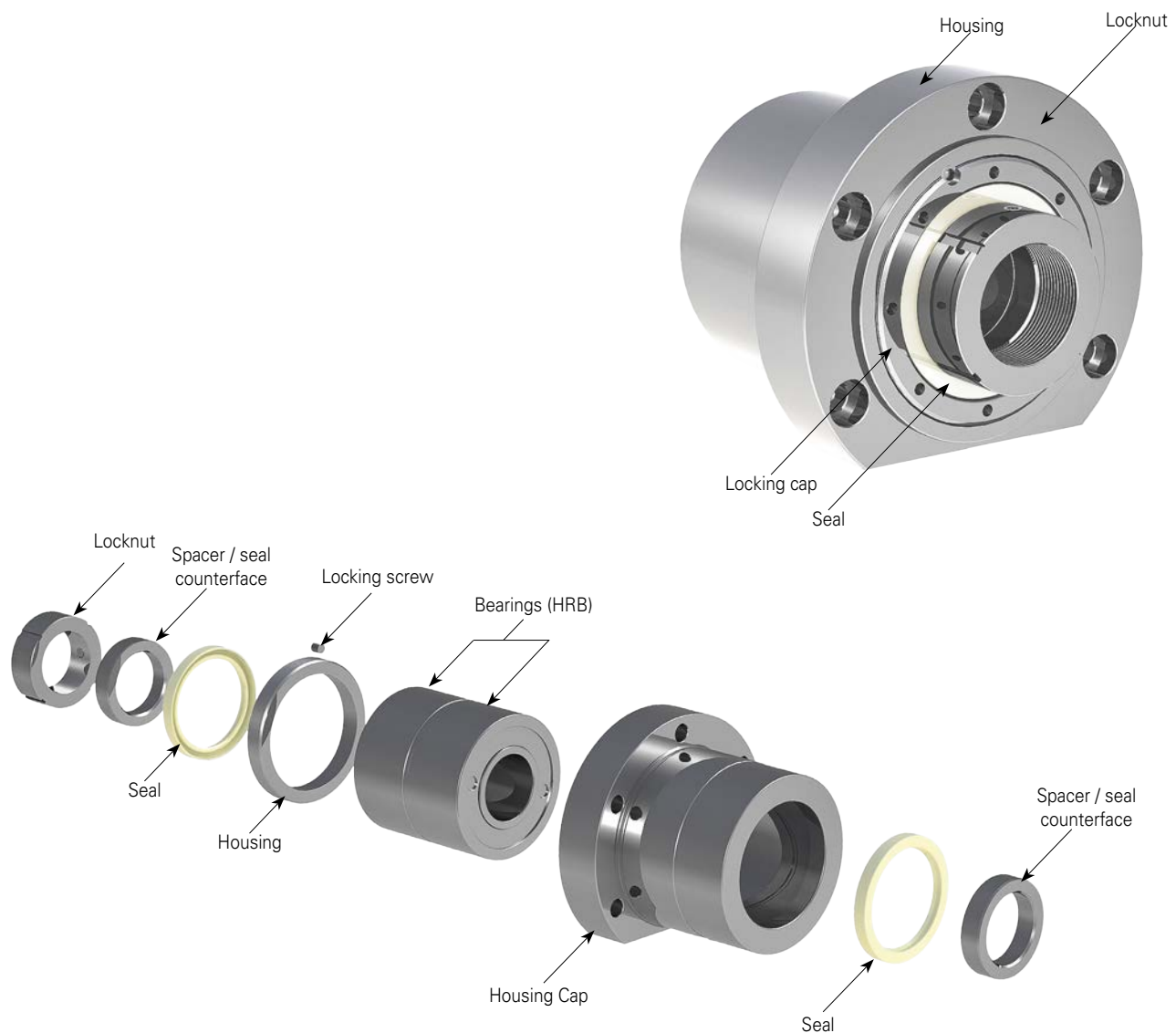
SBU and HHF

Roller screws are continuously improved with advanced tools used to analyze in detail the behaviour of its products in your applications with high security factors.



Helix Roller Screws can accommodate existing bearing designs. The Support Bearing Unit (SBU) can house existing bearing products such as stacked ACBBs (Angular Contact Ball Bearings) and other solutions as defined, including the Herringbone Roller Bearing (integrated into the housing HHF). Both solutions are sealed, lubricated and are designed for easy installation.

The SBU is designed for our planetary roller screws (SRS and URS) with nominal diameters between 8 mm and 80 mm as well as recirculating roller screws (RRS) between 8mm and 125 mm.



For greater capacity and stiffness, the HHF has been developed. Ideal for even more demanding and extreme conditions.

The HHF solution optimizes capacity and space with greater stiffness. Having the highest power density and longer lifetime than any bearing currently available. The HHF can also be customized easily to fit customer needs.

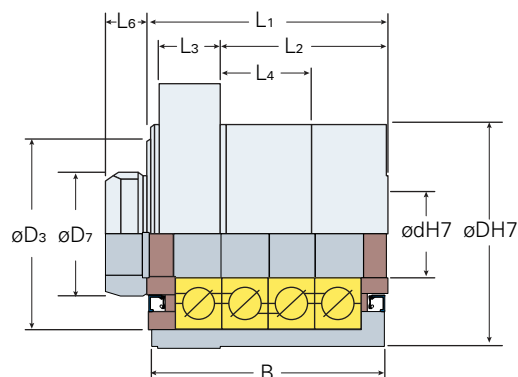
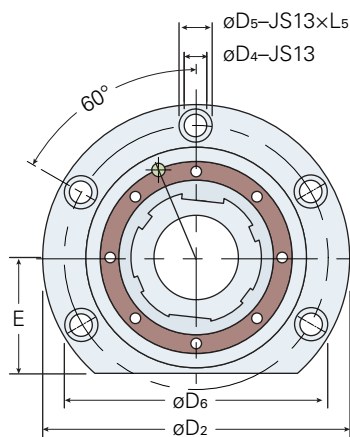
The HHF is designed and can be applied to Standard Roller Screws (SRS or URS) with nominal diameters between 8 to 80 mm and for Recirculating Roller Screws (RRS) with nominal diameters between 8 to 125 mm.

It is of primary importance that the capacity of the bearing unit exceeds the capacity of the roller screw to give the most robust design and reliable operation. The best compact bearing solution that can be assembled of your roller screw.

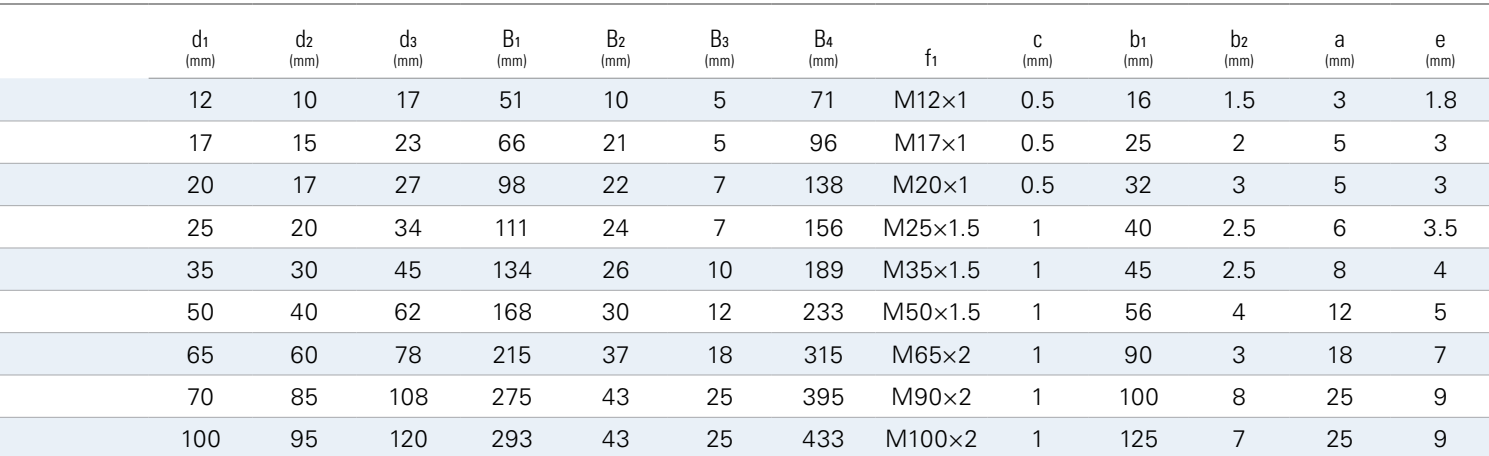
SBU: Support Bearing Units with ACCBs

ø12mm – ø100 mm

Bearing Dimensions				Dynamic Load	Static Load	High Precision KMT Locknut				
Part Number	Internal Diameter (mm)	External Diameter (mm)	B (mm)	Ca (kN)	C0a (kN)	Standard Arrangement	Part Number	Hook Spanner	Tightening Torque (kN)	Mass (kg)
SBU-1	12	47	40	13.3	14.7	1+1	KMT 1	HN 3	15	0.72
SBU-2	17	60	44	27.9	31.9	1+1	KMT 3	HN 4	22	1.16
SBU-3	20	60	74	40.1	63.8	2+2	KMT 4	HN 5	27	1.73
SBU-4	25	80	86	79.8	122	2+2	KMT 5	HN 5	38	3.71
SBU-5	35	100	106	123	212	2+2	KMT 7	HN 7	65	6.72
SBU-6	50	130	136	214	385	2+2	KMT 10	HN 10	110	13.62
SBU-7	65	170	175	314	631	2+2	KMT 14	HN 14	200	29.51
SBU-8	70	220	229	513	1192	2+2	KMT 18	HN 18	300	60.47
SBU-9	100	250	245	615	1600	2+2	KMT 20	HN 20	400	84.21



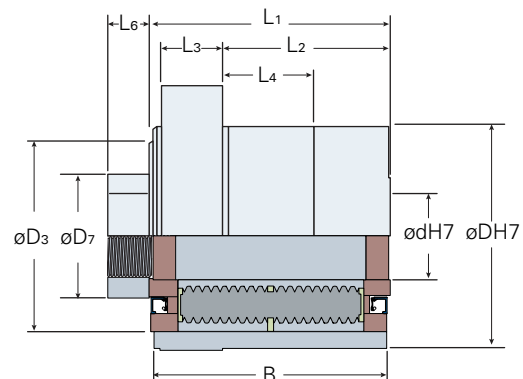
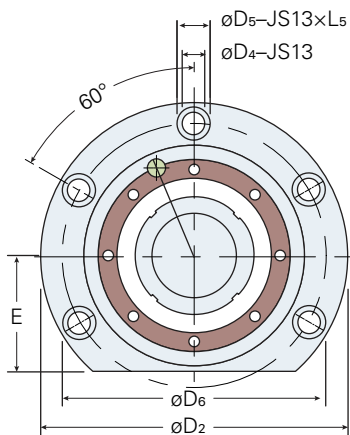
Part Number	D ₂ (mm)	D ₃ (mm)	D ₄ (mm)	D ₅ (mm)	D ₆ (mm)	D ₇ (mm)	L ₁ (mm)	L ₂ (mm)	L ₃ (mm)	L ₄ (mm)	L ₅ (mm)	L ₆ (mm)	E (mm)
SBU-1	77	47	6.6	11	63	22	42	25	12	10	2	8	27
SBU-2	92	57	6.6	11	76	28	46	32	12	15	2	10	32
SBU-3	92	58	9	14	74	38	77	60	15	27	2	10	32
SBU-4	122	74	11	17	100	45	89	68	19	33	3	20	44
SBU-5	144	94	13	19	120	58	110	82	25	42	5	22	54
SBU-6	177	128	13	19	152	75	140	98.5	36	52	11	25	67
SBU-7	230	164	17	25	198	105	180	133.5	41	50	11	32	87
SBU-8	292	215	22	32	252	130	235	179	48	94	13	38	115
SBU-9	330	240	25	38	285	140	253	195	50	109	14	38	130



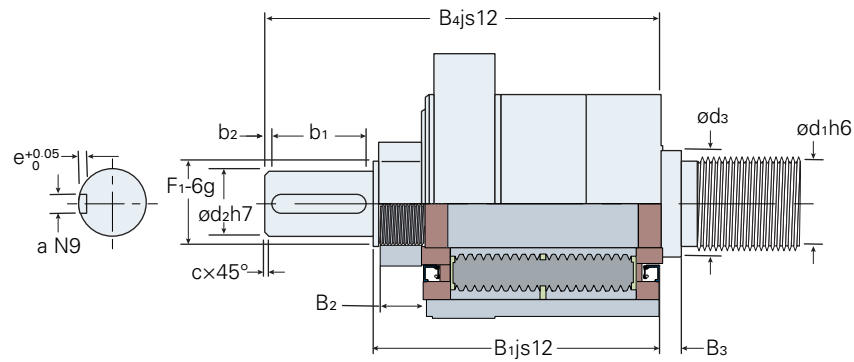
HHF: Support Bearing Units with HRB

ø12mm – ø100 mm

	Bearing Dimensions			Dynamic Load	Static Load	Lifetime Benefit	Speed Ratings		Mass (kg)
	Internal Diameter (mm)	External Diameter (mm)	B (mm)	C _a (kN)	C _{0a} (kN)		Reference Speed	Limiting Speed	
HHF-1	12	47	40	19	17	4x	25,000	29,100	0.72
HHF-2	17	60	44	42	53	4x	17,600	20,500	1.16
HHF-3	20	60	74	138	258	50x	15,000	17,500	1.73
HHF-4	25	80	86	206	430	26x	12,000	14,000	3.71
HHF-5	35	100	106	314	736	24x	8,500	10,000	6.72
HHF-6	50	130	136	640	1,483	34x	6,000	7,000	13.62
HHF-7	65	170	175	885	2,399	25x	4,600	5,300	29.51
HHF-8	90	220	229	1,546	5,087	45x	3,300	3,800	60.47
HHF-9	100	250	245	1,783	6,285	31x	3,000	3,500	84.21



	D ₂ (mm)	D ₃ (mm)	D ₄ (mm)	D ₅ (mm)	D ₆ (mm)	D ₇ (mm)	L ₁ (mm)	L ₂ (mm)	L ₃ (mm)	L ₄ (mm)	L ₅ (mm)	L ₆ (mm)	E (mm)
HHF-1	77	47	6.6	11	63	22	42	25	12	10	2	8	27
HHF-2	92	57	6.6	11	76	28	46	32	12	15	2	10	32
HHF-3	92	58	9	14	74	38	77	60	15	27	2	10	32
HHF-4	122	74	11	17	100	45	89	68	19	33	3	20	44
HHF-5	144	94	13	19	120	58	110	82	25	42	5	22	54
HHF-6	177	128	13	19	152	75	140	98.5	36	52	11	25	67
HHF-7	230	164	17	25	198	105	180	133.5	41	50	11	32	87
HHF-8	292	215	22	32	252	130	235	179	48	94	13	38	115
HHF-9	330	240	25	38	285	140	253	195	50	109	14	38	130



d ₁ (mm)	d ₂ (mm)	d ₃ (mm)	B ₁ (mm)	B ₂ (mm)	B ₃ (mm)	B ₄ (mm)	f ₁	c (mm)	b ₁ (mm)	b ₂ (mm)	a (mm)	e (mm)
12	10	17	51	10	5	71	M12×1	0.5	16	1.5	3	1.8
17	15	23	66	21	5	96	M17×1	0.5	25	2	5	3
20	17	27	98	22	7	138	M20×1	0.5	32	3	5	3
25	20	34	111	24	7	156	M25×1.5	1	40	2.5	6	3.5
35	30	45	134	26	10	189	M35×1.5	1	45	2.5	8	4
50	40	62	168	30	12	233	M50×1.5	1	56	4	12	5
65	60	78	215	37	18	315	M65×2	1	90	3	18	7
70	85	108	275	43	25	395	M90×2	1	100	8	25	9
100	95	120	293	43	25	433	M100×2	1	125	7	25	9

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