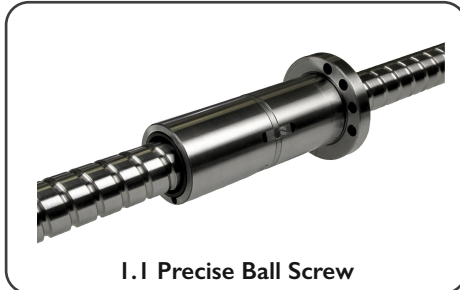


# KSK Product Brochure

V2022NOV



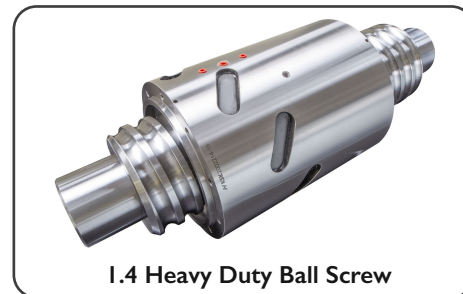
1.1 Precise Ball Screw



1.2 Basic Ball Screw



1.3 Special Ball Screw



1.4 Heavy Duty Ball Screw

**KSK Precise Motion** is a manufacturer of ball screws and other precision components. The company is a globally sought-after partner of machine and equipment manufacturers. KSK ball screws are used in various machinery sectors, especially due to their high efficiency ensured by a low rolling resistance. KSK offers Several accuracy classes for Grounded threads & Rolled Threads according to ISO 3408 standards. KSK has a wide range of Ball Screws with Diameter upto 200 mm & Length upto 15000 mm. KSK also provide Customized Ball screws as per Customer Drawings.

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## 1.1 Precise Ball Screw

Precise Screw is the most commonly used type of ball screw due to its universality, excellent technical parameters and wide design scope. These Ball screws have grounded threads with Length upto 15000 mm & Diameter upto 180 mm. Precise screws are available with P0 to P5 Accuracy classes according to ISO3408. Precise ball screws provide transmission Efficiency upto 97%. These Ball Screws can be Customized as per Drawing.



### Selection Parameters

Parameters	Min	Max
Diameter	12 mm	180 mm
Pitch	5 mm	50(P25)mm
Number of effective turns	0.8	7.6
Length of Nut	41 mm	478 mm
Ball Nut diameter	36 mm	170 mm
Flange diameter	58 mm	125 mm
Flange Width	10 mm	30 mm
Load static	21,184 N	1,168,525 N
Load dynamic	13,174 N	3,62,492 N

### Industries it caters to

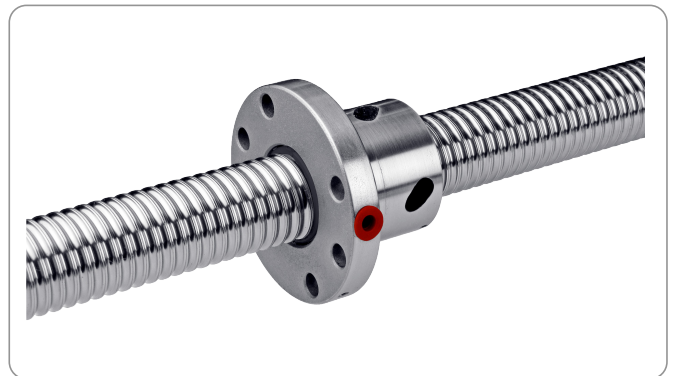
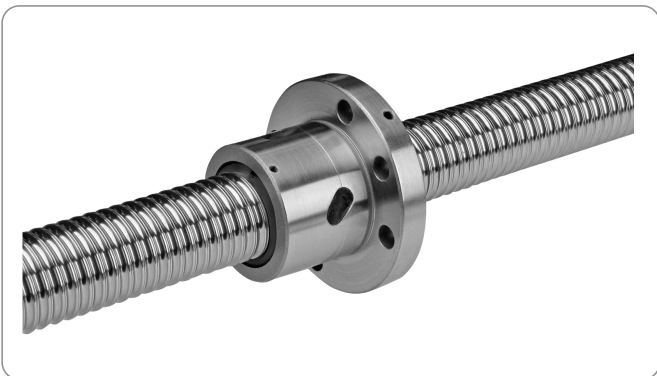
Material Handling  
Automation  
Packaging

### Product application

Grinding machine tools  
Milling and boring machine tools  
Machining centres  
Transport mechanisms  
Woodworking machines tools  
Industrial automation

## 1.2 Basic Ball Screw

Transportation Ball Screws are intended for applications without emphasis on high positioning precision such as transportation and lifting equipment, wood turning machine tools, etc. Basic Ball Screws are rolled threaded with accuracy classes T5, T7 according to ISO3408. Lengths available are upto 5600 mm & Diameter upto 63 mm. Basic Ball Screws Transmission Efficiency upto 95%. Basic Ball Screws can Customized as per Drawing.



### Selection Parameters

Parameters	Min	Max
Diameter		63 mm
Accuracy Classes	T5	T7
Transmission Efficiency	93%	95%

### Industries it caters to

Material Handling  
Automation  
Packaging

### Product application

Transport mechanisms  
Woodworking machines tools  
Industrial automation

## 1.3 Special Ball Screw

The Special Ball Screws by KSK include Telescopic Ball Screw, Threadless Ball screw, Ball Screw with Driven Nut and many more. Special Ball Screws can also be Customized as per Drawing with Variety of Materials.

### Industries it caters to

- Material Handling
- Automation
- Packaging
- Nuclear
- Aircraft
- Plastic

### Product application

- Manipulating platforms
- Hexapods
- Industrial Robotics



#### 1.3.1 TELESCOPIC BALL SCREW



Telescopic ball screws are utilised in situations when achieving small stopping dimensions and big strokes is important. It is a telescopic set of various ball screws that are fastened into one another, and the nuts of these nuts also serve as bearings for holding another shaft of the set of ball screws. These ball screws replace hydraulic cylinders and have the benefit of being simple to position and regulate.

#### 1.3.2 THREADLESS BALL SCREW



Threadless ball screws are without profile primarily designed for manipulator and transportation equipment motion mechanisms, where it is necessary to effectively convert rotary motion to linear motion without sacrificing the rigidity and load-bearing capacity of the gear while still meeting the demands for simple, straightforward maintenance and manufacturing ease.

## 1.4 Heavy Duty Ball Screw

High-load ball Screws have double load capacities than the standard ball screws with high rigidity, which is achieved by change of the thread profile radius. The high-load ball screws have lower efficiency & are intended only for low-speed application. Standard high-load screws are non-preloaded. KSK Ball Screws have Dynamic loads upto 4,000,000 N & Diameter Upto 200 mm with P1,P3,P5 accuracy classes according to ISO3408. Heavy Duty Ball Screws have Transmission Efficiency around 93% to 95%. Heavy Duty Ball screw Can be Customized as customer's drawing & requirements.



### Selection Parameters

Parameters	Min	Max
Diameter	63 mm	160 mm
Pitch	12 mm	32 mm
Number of effective turns	6	15
Length of Nut	123 mm	570 mm
Ball Nut diameter	70 mm	230 mm
Flange diameter	104 mm	282 mm
Flange Width	18 mm	60 mm
Load static	335,000 N	9,886,000 N
Load dynamic	149,000 N	2,558,000 N

### Industries it caters to

- Material Handling
- Automation
- Packaging

### Product application

- Injection molding machines
- Electric presses
- Lifting equipment
- Replacements of hydraulic cylinders