Multi-purpose products (Miniature Ball Screw with Ball Spline: BSSP)

**Features**
- This is a combined product which is possible for linear and rotational movement as well as suction at the same time with one unit.
- Achieved developing very compact product as "Overlap type" using Miniature Ball Screws and Miniature Ball Splines.

**Separated type (SP)**
- It is a combined products, which has Ball Screw and Ball Spline processed on the same Shaft.

**Multi-Functional VZ Actuator**
- The brand new products which applied the KSS miniature Ball Screw with Ball Spline (BSSP), and realized three functions, linear motion (L), rotary motion (R), and suction (S), with one product.

**Features**
- Low torque
- Wide variety of size
- Possible to select small Pitch

**Thread**, **ACME Screw Thread**, **special Pitch**, and **multiple start Thread**.

**Original Grease for Miniature Ball Screws**

**Features**
- This grease has high lubrication performance without deteriorating Ball Screw function.
- The original Grease for Clean room usage is also available.

**Motor Specifications.**
- This means various options are available based on Motor Specifications.

**Combination of Shaft dia. & Pitch**

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<th>Shaft dia.</th>
<th>Pitch</th>
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<td>10</td>
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**Company Outline**

**Trade Name.**

**Date of incorporation.** June, 1960 (Date of establishment: June, 1960)

**Capital.** 120,700,000JPY

**Company Address.**
Head office: 1-22-14 Yapuchi, Ota-ku, Tokyo 146-0093, Japan
Tel: +81-3-3756-3921 Fax: +81-3-3756-3232
Ojiya Plant: Aza Shinbo 4-14, Oaza Yamaya, Ojiya City, Niigata Pref. 947-0043, Japan
Director President & Representative Director Akihisa Ota
Certification ISO9001 (JQA-OM1331) ISO14001 (JQA-EM0583)

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**KSS Co., Ltd.** 201709 DI

**Company Address**
Head office: 1-22-14 Yapuchi, Ota-ku, Tokyo 146-0093, Japan
Trade Name: KSS Co.,Ltd.
Capital: 120,700,000JPY
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**Multi-purpose products**

**Precision Lead Screw**

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**Products Digest catalog**

vol.92.1
**Ball Screw**

**Standard Products**

- **SG series (Precision Ball Screws)**:
  - Configuration of feed side end-journal is standardized, supported side end-journal is free type and standard travel is set up. Since supported side end-journal is unfinished, it is possible to do additional end machining with your requested thread length.
  - SD series (Bi-directional Ball Screws)
    - There are two types of Ball Screws because a shaft has bi-directional thread.
    - Since fixed and supported side end-journal is unfinished, design flexibility is enlarged.

- **SR series (Rolled Ball Screws)**
  - Standard and reasonable price products by Rolling formed process.
  - Since fixed and supported side end-journal is unfinished, design flexibility is enlarged.
  - There are also Rolled Ball Screws made of stainless steel (SSRT series) in stock.

- **SB series (Sandwiched Stainless Rolled Screws)**
  - Fixed side end-journal is set up bigger than Shaft nominal diameter and unfinished.
  - It is possible to do bi-end-journal configuration compatible with SG series.
  - There are also integrated-end-journal Rolled Ball Screws made of stainless steel (SSRT series) in stock.

- **PSRT series (Precision Rolled Ball Screws)**
  - The conventional type of Rolled Ball Screws can reach the accuracy grade of C110 or C17. KSS newly developed the high grade accuracy of Rolled Ball Screws, which can achieve JS25 grade.

**Features**

- **End-deflector**
  - One type with Flange type with Flange type, which can achieve JIS C5 grade.
  - C7 or C10. KSS newly developed the high grade accuracy of Rolled Ball Screws, which can achieve JS25 grade.

- **Roller type**
  - Suitable for Linearity due to the self-locking performance of a roller type.
  - It is possible to do additional end machining with your requested thread length.

- **End-deflector**
  - A more compact design compared to Flange type.

- **Integrated end-journal Rolled Ball Screws**
  - The Nut should be mounted using an end-deflector.

**Custimized products**

- We offer customized products. To reduce design process at customer, each Ball Screw type is standardized.

**Single Nut with Flange (FBF, FBFS, FBS, FBFSR series)**

- The most simple Single Nut type. Nut should be mounted using clamp on the key way on the Nut outer and Nut end surface.

**Single Nut with M-thread (MS, MSR series)**

- The Cylinder Single Nut which is compact. The Nut should be mounted by clamping on the key way on the Nut outer and Nut end surface.

**Square type Single Nut (KS series)**

- The Square Nut is finished with a large mounting bore parallel to the Nut center. This type is suitable for placing the combined mounting screw on the side of the Nut for a more compact design compared to Flange type.

**Bi-directional Nut with Flange (FSF, FSFS, FBFS series)**

- There are both Right-hand thread and Left-handed thread on a Shaft, it has bi-directional function. In addition, absolute position control for both Nut is available.

**Customized products**

- Nut style list for Precision Ball Screws & Rolled Ball Screws.
  - Single Nut with Flange (FB, FBFS, FBS, FBFSR)
  - Single Nut with M-thread (MS, MSR)
  - Square type Single Nut (KS)
  - Bi-directional Nut with Flange (FBFS, FBFSR)
  - Bi-directional Nut with M-thread (MSR)

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**Linear Actuator External (Ball Screw type)**

- **Features**
  - It is a Compact Linear Actuator installed Motor directly onto the Ball Screw Shaft, which is sturdy and compact structure available.

- **Combination of Ball Screw**
  - Ball Screw Shaft is ideally constructed to form the Motor Rotor Shaft.
  - Since combining the Motor Shaft and Ball Screw Shaft, Coupling area, saving total length, low-loss motion can be achieved.

- **Simple combination of the Hollow Motor and the Ball Screw contributes to lightweight and compact body.**