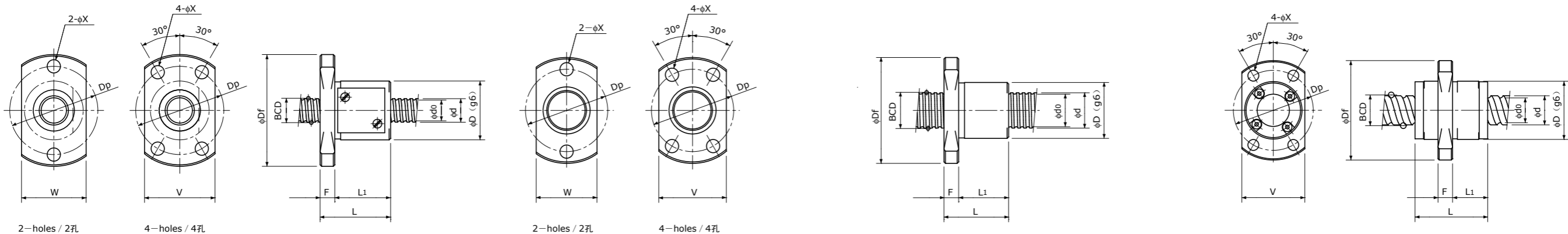


# Precision Ball Screws 精密滚珠丝杠

## Single Nut with Flange 带法兰单螺母

## Backlash type/Preload type 齿侧间隙型/预压型



Type-1:Return-plate type  
复式回路板循环方式

Type-2:Internal-deflector type or  
End-deflector type  
陀螺式循环方式或偏转器式循环方式

Type-3:End-cap type or End-deflector type  
端盖循环方式或偏转器式循环方式

Unit (单位): mm

Ball Nut Model number 螺母型号	Shaft nominal dia. 丝杠轴公称外径 d	Lead 导程	Ball size 丝杠直径	BCD 钢珠中心直径	Lead angle 导程角	Root dia. 底径 d <sub>0</sub>	Number of Circuit 循环数	Basic Load Rating 基本额定负载 N		Nut Rigidity 螺母刚性 N/∩m	Nut dimension 螺母尺寸									Ball Nut Model number 螺母型号	
								Dynamic 额定动负载 Ca	Static 额定静负载 Coa		Nut type 螺母类型	D	Df	L	L <sub>1</sub>	F	W	V	Dp		Bolt Hole 安装孔 X
FBS 01800.5 A	1.8	0.5	0.4	1.95	4°40'	1.5	2.7×1	110 / —	130 / —	19 / —	1	6	14	8.5	7	1.5	8	—	10	2.4	FBS 01800.5 A
FBS 0300.5 A	3	0.5	0.4	3.10	2°56'	2.6	2.7×1	150 / —	220 / —	29 / —	1	8	16	11	8	3	8	—	12	2.4	FBS 0300.5 A
FBS 0301 B	3	1	0.6	3.18	5°43'	2.4	3.7×1	330 / —	440 / —	42 / —	1	9	19	14	11	3	11	—	14	2.9	FBS 0301 B
FBS 0400.5 A	4	0.5	0.4	4.10	2°13'	3.6	2.7×1	160 / —	290 / —	36 / —	1	10	20	13	10	3	12	—	15	2.9	FBS 0400.5 A
FKB 0401 A	4	1	0.6	4.15	4°23'	3.4	1×3	300 / 300	430 / 430	38 / 59	2	9	19	13	10	3	11	13	14	2.9	FKB 0401 A
FBS 0401 A	4	1	0.8	4.15	4°23'	3.3	2.7×1	420 / 270	570 / 290	40 / 34	1	10	20	12	9	3	12	14	15	2.9	FBS 0401 A
FBS 0401 B	4	1	0.8	4.15	4°23'	3.3	3.7×1	560 / 350	790 / 400	54 / 45	1	11	23	17	13	4	13	15	17	3.4	FBS 0401 B
FBS 0402 A	4	2	0.8	4.15	8°43'	3.3	2.7×1	420 / 260	570 / 290	39 / 33	1	11	23	19	15	4	13	15	17	3.4	FBS 0402 A
FEB 0404 A	4	4	0.8	4.2	16°51'	3.3	2.6×2	750 / —	1150 / —	73 / —	3	11	23	17.5	11	3	—	15	17	3.4	FEB 0404 A
FEB 0408 A	4	8	0.6	4.15	31°32'	3.4	1.7×4	590 / —	1110 / —	78 / —	3	11	23	20	12	3	—	15	17	3.4	FEB 0408 A

- 注1) 设计时, 请注意使滚珠丝杠轴端的其中一端不超过丝杠轴底径。如果两个轴端设计得大于底径, 则将无法组装螺母。
- 注2) 标准螺母不带密封。需要密封时, 螺母的尺寸将发生变化, 详情请垂询本公司。某些型号的螺母不能安装密封, 敬请注意。
- 注3) 表中的刚性值为螺母的刚性值, 是在以下条件下, 根据轴向弹性位移量计算得出的理论值。  
齿侧间隙型: 相当于基本额定动负载Ca的30%的轴向负载作用时  
预压型: 施加了相当于基本额定动负载Ca的5%的预压时  
轴向负载及预压量与上述条件不同时, 可通过p-A823的公式计算。
- 注4) 标准螺纹旋向为右旋。需要左旋时, 请垂询本公司。
- 注5) 基本额定负载和刚性值(齿侧间隙型和预压型的刚性值可能会有不同)一并标示在上表中。

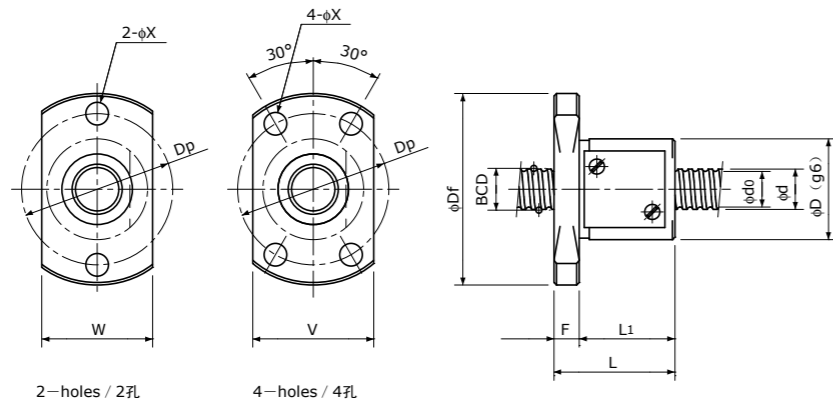
Basic Load Rating 基本额定负载 N		Nut Rigidity 螺母刚性 N/∩m
Dynamic 额定动负载 Ca	Static 额定静负载 Coa	
1000 / 640	3300 / 1650	164 / 138
		Preload type 预压型
		Backlash type 齿侧间隙型

- Note 1) The diameter of one of the Screw Shaft ends must be less than the Screw Shaft Root diameter, otherwise Ball Nut cannot be installed.
- Note 2) Ball Nut dimension is without seal at the both ends. If the seals are required, Ball Nut dimension should be changed, in that case, please ask KSS. Some type of Ball Nuts cannot equip with seals, please ask KSS representative.
- Note 3) The Rigidity values shown in the table are theoretical values of Ball Nut Rigidity calculated from the amount of Elastic Displacement under the following conditions.  
Backlash type; Apply the Axial load equivalent to 30% of the Basic Dynamic Load Rating Ca.  
Preload type; Apply the Preload equivalent to 5% of the Basic Dynamic Load Rating Ca.  
For Axial load or Preload condition other than the above, see the formula in p-A823, you can calculate Rigidity using this formula.
- Note 4) All models are Right-hand Screw. If Left-hand Screw is required, please ask KSS representative.
- Note 5) Basic Load Rating and Rigidity for Backlash type and Preload type are described in the same cell.

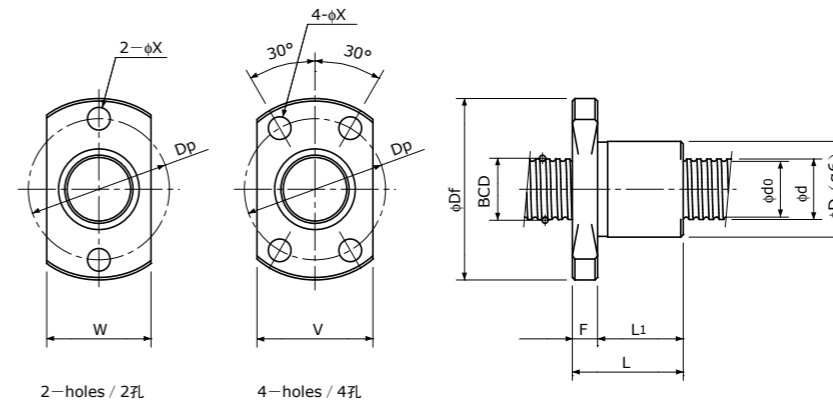
# Precision Ball Screws 精密滚珠丝杠

## Single Nut with Flange 带法兰单螺母

## Backlash type/Preload type 齿侧间隙型/预压型



Type-1: Return-plate type  
复式回路板循环方式



Type-2: Internal-deflector type or End-deflector type  
陀螺式循环方式或偏转器式循环方式

Unit (单位): mm

Ball Nut Model number 螺母型号	Shaft nominal dia. 丝杠轴公称外径 d	Lead 导程	Ball size 丝杠直径	BCD 钢珠中心直径	Lead angle 导程角	Root dia. 底径 d <sub>0</sub>	Number of Circuit 循环数	Basic Load Rating 基本额定负载 N		Nut Rigidity 螺母刚性 N/μm	Nut dimension 螺母尺寸									Ball Nut Model number 螺母型号	
								Dynamic 额定动负载 Ca	Static 额定静负载 Coa		Nut type 螺母类型	D	Df	L	L <sub>1</sub>	F	W	V	Dp		Bolt Hole 安装孔 X
FBS 0500.5 A	5	0.5	0.4	5.10	1°47'	4.6	2.7×1	180 / —	370 / —	44 / —	1	11	23	13	10	3	13	—	17	3.4	FBS 0500.5 A
FKB 0501 A	5	1	0.6	5.15	3°32'	4.4	1×3	330 / 330	560 / 560	45 / 70	2	10	20	13	10	3	12	14	15	2.9	FKB 0501 A
FBS 0501 B	5	1	0.8	5.15	3°32'	4.3	3.7×1	630 / 400	1000 / 500	65 / 55	1	12	24	17	13	4	14	15	18	3.4	FBS 0501 B
FBS 0504 A	5	4	0.8	5.15	13°53'	4.3	2.7×1	470 / 300	720 / 360	47 / 39	1	12	24	22	18	4	14	15	18	3.4	FBS 0504 A

- 注1) 设计时, 请注意使滚珠丝杠轴端的其中一端不超过丝杠轴底径。如果两个轴端设计得大于底径, 则将无法组装螺母。
- 注2) 标准螺母不带密封。需要密封时, 螺母的尺寸将发生变化, 详情请垂询本公司。某些型号的螺母不能安装密封, 敬请注意。
- 注3) 表中的刚性值为螺母的刚性值, 是在以下条件下, 根据轴向弹性位移量计算得出的理论值。  
齿侧间隙型: 相当于基本额定动负载Ca的30%的轴向负载作用时  
预压型: 施加了相当于基本额定动负载Ca的5%的预压时  
轴向负载及预压量与上述条件不同时, 可通过p-A823的公式计算。
- 注4) 标准螺纹旋向为右旋。需要左旋时, 请垂询本公司。
- 注5) 基本额定负载和刚性值(齿侧间隙型和预压型的刚性值可能会有不同)一并标示在上表中。

Basic Load Rating 基本额定负载 N		Nut Rigidity 螺母刚性 N/μm
Dynamic 额定动负载 Ca	Static 额定静负载 Coa	
1000 / 640	3300 / 1650	164 / 138

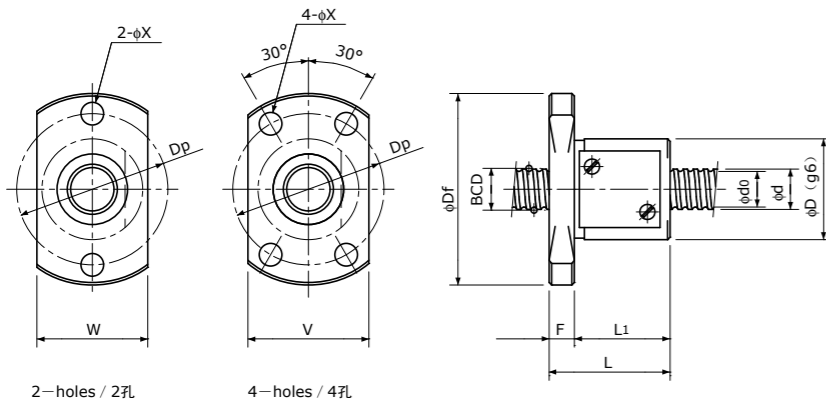
Preload type 预压型  
Backlash type 齿侧间隙型

- Note 1) The diameter of one of the Screw Shaft ends must be less than the Screw Shaft Root diameter, otherwise Ball Nut cannot be installed.
- Note 2) Ball Nut dimension is without seal at the both ends. If the seals are required, Ball Nut dimension should be changed, in that case, please ask KSS. Some type of Ball Nuts cannot equip with seals, please ask KSS representative.
- Note 3) The Rigidity values shown in the table are theoretical values of Ball Nut Rigidity calculated from the amount of Elastic Displacement under the following conditions.  
Backlash type; Apply the Axial load equivalent to 30% of the Basic Dynamic Load Rating Ca.  
Preload type; Apply the Preload equivalent to 5% of the Basic Dynamic Load Rating Ca.  
For Axial load or Preload condition other than the above, see the formula in p-A823, you can calculate Rigidity using this formula.
- Note 4) All models are Right-hand Screw. If Left-hand Screw is required, please ask KSS representative.
- Note 5) Basic Load Rating and Rigidity for Backlash type and Preload type are described in the same cell.

# Precision Ball Screws 精密滚珠丝杠

## Single Nut with Flange 带法兰单螺母

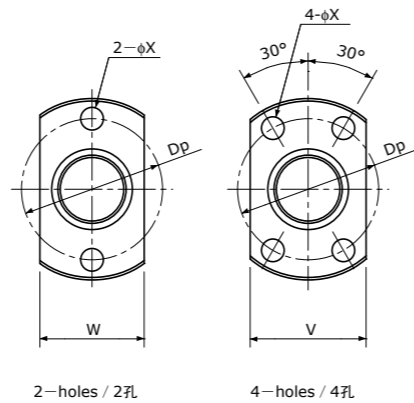
## Backlash type/Preload type 齿侧间隙型/预压型



2-holes / 2孔

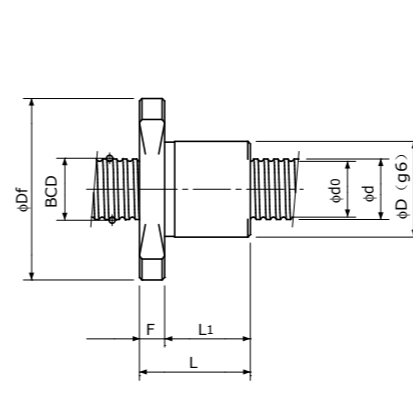
4-holes / 4孔

Type-1:Return-plate type  
复式回路板循环方式

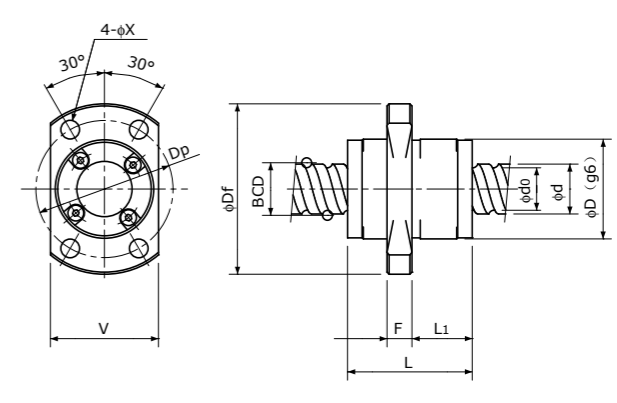


2-holes / 2孔

4-holes / 4孔



Type-2:Internal-deflector type or  
End-deflector type  
陀螺式循环方式或偏转器式循环方式



Type-3:End-cap type or End-deflector type  
端盖循环方式或偏转器式循环方式

Unit (单位): mm

Ball Nut Model number 螺母型号	Shaft nominal dia. 丝杠轴公称外径 d	Lead 导程	Ball size 丝杠直径	BCD 钢珠中心直径	Lead angle 导程角	Root dia. 底径 d <sub>0</sub>	Number of Circuit 循环数	Basic Load Rating 基本额定负载 N		Nut Rigidity 螺母刚性 N/μm	Nut dimension 螺母尺寸									Ball Nut Model number 螺母型号	
								Dynamic 额定动负载 Ca	Static 额定静负载 Coa		Nut type 螺母类型	D	Df	L	L <sub>1</sub>	F	W	V	Dp		Bolt Hole 安装孔 X
FBS 0600.5 A	6	0.5	0.4	6.10	1°30'	5.6	2.7×1	190 / —	440 / —	50 / —	1	12	25	13	10	3	14	—	19	3.4	FBS 0600.5 A
FKB 0601 A	6	1	0.8	6.20	2°56'	5.3	1×3	560 / 560	950 / 950	55 / 86	2	11	23	14.5	11	3.5	13	15	17	3.4	FKB 0601 A
FBS 0601 B	6	1	0.8	6.15	2°58'	5.3	3.7×1	680 / 430	1200 / 610	75 / 63	1	13	28	17	13	4	15	17	21.5	3.4	FBS 0601 B
FBS 0601.5 B	6	1.5	1.0	6.20	4°24'	5.1	3.7×1	980 / 620	1600 / 800	79 / 67	1	14	28	19	15	4	16	17	22	3.4	FBS 0601.5 B
FBS 0602 A	6	2	1.0	6.20	5°52'	5.1	2.7×1	750 / 470	1200 / 590	58 / 49	1	15	29	17	13	4	17	18	23	3.4	FBS 0602 A
FBS 0602.5 A	6	2.5	1.0	6.20	7°19'	5.1	2.7×1	750 / 470	1200 / 590	59 / 49	1	15	29	18	14	4	17	18	23	3.4	FBS 0602.5 A
FEB 0606 A	6	6	1.0	6.30	16°52'	5.2	1.6×2	870 / —	1450 / —	67 / —	3	14	27	17	8	4	—	16	21	3.4	FEB 0606 A
FEB 0610 A	6	10	1.2	6.30	26°48'	5.0	1.2×2	950 / —	1600 / —	50 / —	3	14	27	23	11.5	4	—	16	21	3.4	FEB 0610 A
FEB 0612 A	6	12	1.2	6.30	31°13'	5.0	0.7×2	600 / —	950 / —	29 / —	3	14	27	16	8.3	4	—	16	21	3.4	FEB 0612 A

- 注1) 设计时, 请注意使滚珠丝杠轴端的其中一端不超过丝杠轴底径。如果两个轴端设计得大于底径, 则将无法组装螺母。
- 注2) 标准螺母不带密封。需要密封时, 螺母的尺寸将发生变化, 详情请垂询本公司。某些型号的螺母不能安装密封, 敬请注意。
- 注3) 表中的刚性值为螺母的刚性值, 是在以下条件下, 根据轴向弹性位移量计算得出的理论值。齿侧间隙型: 相当于基本额定动负载Ca的30%的轴向负载作用时; 预压型: 施加了相当于基本额定动负载Ca的5%的预压时; 轴向负载及预压量与上述条件不同时, 可通过p-A823的公式计算。
- 注4) 标准螺纹旋向为右旋。需要左旋时, 请垂询本公司。
- 注5) 基本额定负载和刚性值(齿侧间隙型和预压型的刚性值可能会有不同)一并标示在上表中。

Basic Load Rating 基本额定负载 N		Nut Rigidity 螺母刚性 N/μm
Dynamic 额定动负载 Ca	Static 额定静负载 Coa	
1000 / 640	3300 / 1650	164 / 138

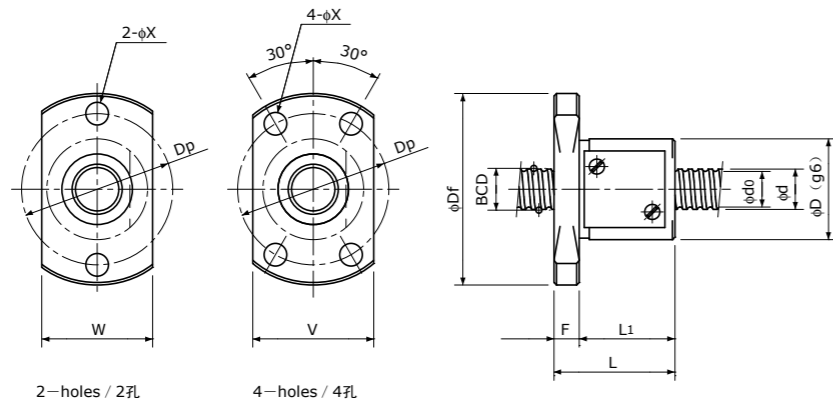
Preload type  
预压型  
Backlash type  
齿侧间隙型

- Note 1) The diameter of one of the Screw Shaft ends must be less than the Screw Shaft Root diameter, otherwise Ball Nut cannot be installed.
- Note 2) Ball Nut dimension is without seal at the both ends. If the seals are required, Ball Nut dimension should be changed, in that case, please ask KSS. Some type of Ball Nuts cannot equip with seals, please ask KSS representative.
- Note 3) The Rigidity values shown in the table are theoretical values of Ball Nut Rigidity calculated from the amount of Elastic Displacement under the following conditions. Backlash type ; Apply the Axial load equivalent to 30% of the Basic Dynamic Load Rating Ca. Preload type ; Apply the Preload equivalent to 5% of the Basic Dynamic Load Rating Ca. For Axial load or Preload condition other than the above, see the formula in p-A823, you can calculate Rigidity using this formula.
- Note 4) All models are Right-hand Screw. If Left-hand Screw is required, please ask KSS representative.
- Note 5) Basic Load Rating and Rigidity for Backlash type and Preload type are described in the same cell.

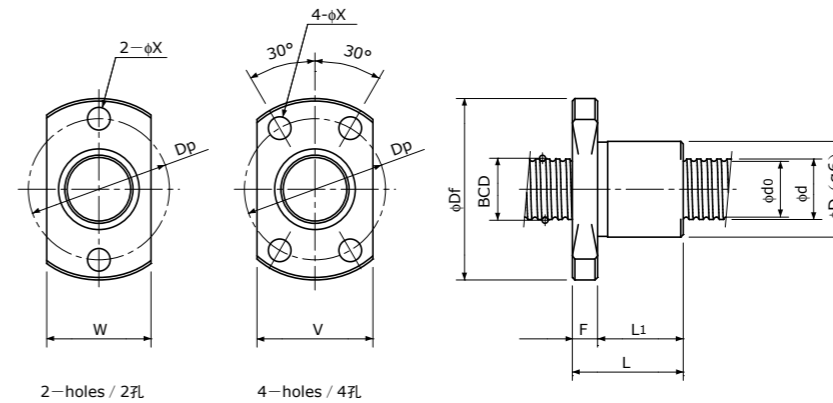
# Precision Ball Screws 精密滚珠丝杠

## Single Nut with Flange 带法兰单螺母

## Backlash type/Preload type 齿侧间隙型/预压型



Type-1: Return-plate type  
复式回路板循环方式



Type-2: Internal-deflector type or End-deflector type  
陀螺式循环方式或偏转器式循环方式

Unit (单位): mm

Ball Nut Model number 螺母型号	Shaft nominal dia. 丝杠轴公称外径 d	Lead 导程	Ball size 丝杠直径	BCD 钢珠中心直径	Lead angle 导程角	Root dia. 底径 d <sub>0</sub>	Number of Circuit 循环数	Basic Load Rating 基本额定负载 N		Nut Rigidity 螺母刚性 N/μm	Nut dimension 螺母尺寸										Ball Nut Model number 螺母型号
								Dynamic 额定动负载 Ca	Static 额定静负载 Coa		Nut type 螺母类型	D	Df	L	L <sub>1</sub>	F	W	V	Dp	Bolt Hole 安装孔 X	
FBS 0800.5 A	8	0.5	0.4	8.10	1°08'	7.6	2.7×1	220 / —	590 / —	64 / —	1	14	27	13	10	3	16	—	21	3.4	FBS 0800.5 A
FKB 0801 A	8	1	0.8	8.20	2°13'	7.3	1×3	650 / 650	1300 / 1300	70 / 109	2	13	26	15	11	4	15	17	20	3.4	FKB 0801 A
FBS 0801 B	8	1	0.8	8.15	2°15'	7.3	3.7×1	780 / 490	1650 / 820	95 / 80	1	16	30	17	13	4	18	18	24	3.4	FBS 0801 B
FKB 0801.5 A	8	1.5	1.0	8.30	3°18'	7.2	1×3	890 / 890	1650 / 1650	73 / 113	2	15	28	20	16	4	17	19	22	3.4	FKB 0801.5 A
FBS 0801.5 B	8	1.5	1.0	8.20	3°20'	7.1	3.7×1	1100 / 700	2200 / 1100	99 / 83	1	16	30	19	15	4	18	18	24	3.4	FBS 0801.5 B
FKB 0802 A	8	2	1.2	8.30	4°23'	7.0	1×3	1300 / 1300	2300 / 2300	77 / 121	2	15	28	18	14	4	17	19	22	3.4	FKB 0802 A
FBS 0802 B (1)	8	2	1.0	8.20	4°26'	7.1	3.7×1	1100 / 700	2200 / 1100	99 / 83	1	16	30	21	17	4	18	18	24	3.4	FBS 0802 B (1)
FBS 0802 B (2)	8	2	1.5875	8.30	4°23'	6.6	3.7×1	2400 / 1550	4100 / 2100	111 / 94	1	20	38	24	19	5	22	23	30	4.5	FBS 0802 B (2)

- 注1) 设计时, 请注意使滚珠丝杠轴端的其中一端不超过丝杠轴底径。如果两个轴端设计得大于底径, 则将无法组装螺母。
- 注2) 标准螺母不带密封。需要密封时, 螺母的尺寸将发生变化, 详情请垂询本公司。某些型号的螺母不能安装密封, 敬请注意。
- 注3) 表中的刚性值为螺母的刚性值, 是在以下条件下, 根据轴向弹性位移量计算得出的理论值。齿侧间隙型: 相当于基本额定动负载Ca的30%的轴向负载作用时; 预压型: 施加了相当于基本额定动负载Ca的5%的预压时; 轴向负载及预压量与上述条件不同时, 可通过p-A823的公式计算。
- 注4) 标准螺纹旋向为右旋。需要左旋时, 请垂询本公司。
- 注5) 基本额定负载和刚性值(齿侧间隙型和预压型的刚性值可能会有不同)一并标示在上表中。

Basic Load Rating 基本额定负载 N		Nut Rigidity 螺母刚性 N/μm
Dynamic 额定动负载 Ca	Static 额定静负载 Coa	
1000 / 640	3300 / 1650	164 / 138

Preload type 预压型  
Backlash type 齿侧间隙型

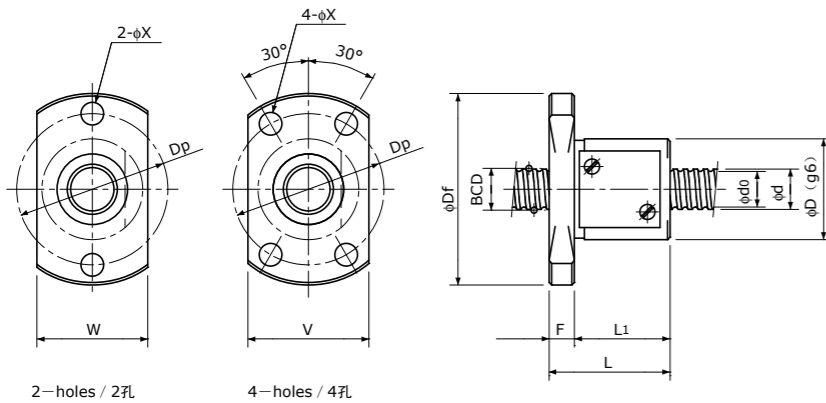
- Note 1) The diameter of one of the Screw Shaft ends must be less than the Screw Shaft Root diameter, otherwise Ball Nut cannot be installed.
- Note 2) Ball Nut dimension is without seal at the both ends. If the seals are required, Ball Nut dimension should be changed, in that case, please ask KSS. Some type of Ball Nuts cannot equip with seals, please ask KSS representative.
- Note 3) The Rigidity values shown in the table are theoretical values of Ball Nut Rigidity calculated from the amount of Elastic Displacement under the following conditions. Backlash type; Apply the Axial load equivalent to 30% of the Basic Dynamic Load Rating Ca. Preload type; Apply the Preload equivalent to 5% of the Basic Dynamic Load Rating Ca. For Axial load or Preload condition other than the above, see the formula in p-A823, you can calculate Rigidity using this formula.
- Note 4) All models are Right-hand Screw. If Left-hand Screw is required, please ask KSS representative.
- Note 5) Basic Load Rating and Rigidity for Backlash type and Preload type are described in the same cell.



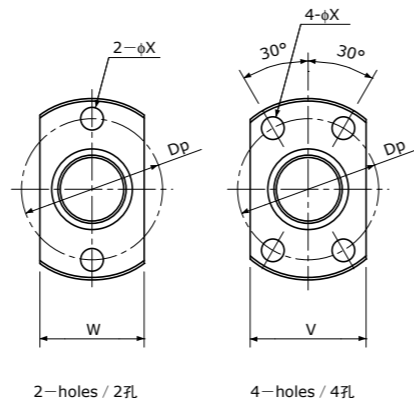
# Precision Ball Screws 精密滚珠丝杠

## Single Nut with Flange 带法兰单螺母

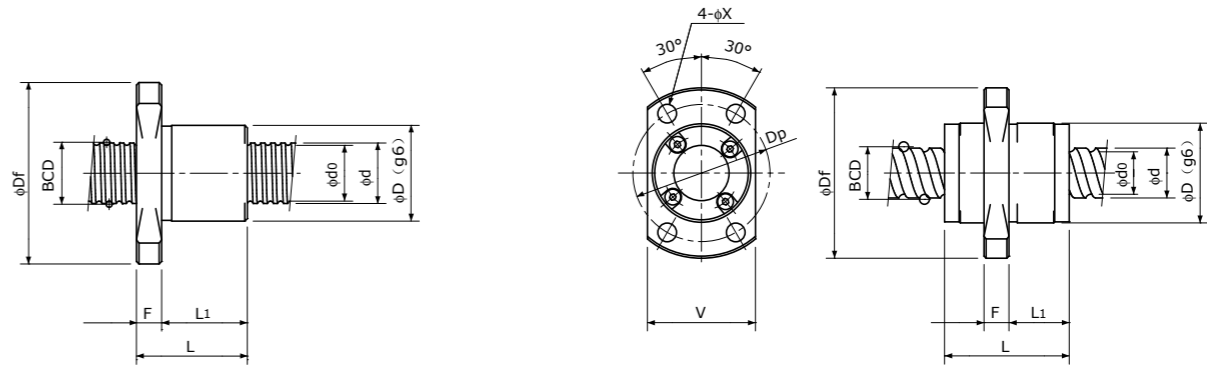
## Backlash type/Preload type 齿侧间隙型/预压型



Type-1:Return-plate type  
复式回路板循环方式



Type-2:Internal-deflector type or  
End-deflector type  
陀螺式循环方式或偏转器式循环方式



Type-3:End-cap type or End-deflector type  
端盖循环方式或偏转器式循环方式

Unit (单位): mm

Ball Nut Model number 螺母型号	Shaft nominal dia. 丝杠轴公称外径 d	Lead 导程	Ball size 丝杠直径	BCD 钢珠中心直径	Lead angle 导程角	Root dia. 底径 d <sub>0</sub>	Number of Circuit 循环数	Basic Load Rating 基本额定负载 N		Nut Rigidity 螺母刚性 N/μm	Nut dimension 螺母尺寸										Ball Nut Model number 螺母型号
								Dynamic 额定动负载 Ca	Static 额定静负载 Coa		Nut type 螺母类型	D	Df	L	L <sub>1</sub>	F	W	V	Dp	Bolt Hole 安装孔 X	
FDB 0802.5 A	8	2.5	1.5875	8.00	5°41'	6.3	2.7×1	1850 / —	3000 / —	80 / —	2	16	29	16	12	4	—	18	23	3.4	FDB 0802.5 A
FBS 0802.5 B	8	2.5	1.5875	8.30	5°29'	6.6	3.7×1	2400 / 1550	4100 / 2100	111 / 93	1	20	38	26	21	5	22	23	30	4.5	FBS 0802.5 B
FBS 0803 A	8	3	2.0	8.30	6°34'	6.2	2.7×1	2600 / 1650	4200 / 2100	85 / 70	1	20	38	25	20	5	22	23	30	4.5	FBS 0803 A
FBS 0804 A	8	4	2.0	8.30	8°43'	6.2	2.7×1	2600 / 1650	4200 / 2100	84 / 70	1	21	39	28	23	5	23	23	31	4.5	FBS 0804 A
FBS 0805 A	8	5	1.5875	8.30	10°51'	6.6	2.7×1	1850 / 1150	3000 / 1500	82 / 67	1	18	31	28	24	4	20	20	25	3.4	FBS 0805 A
FEB 0808 A	8	8	1.5875	8.40	16°52'	6.7	1.6×2	2200 / —	3800 / —	95 / —	3	18	31	20	10	4	—	20	25	3.4	FEB 0808 A
FEB 0810 A	8	10	1.5875	8.40	20°45'	6.7	1.6×2	2200 / —	3900 / —	92 / —	3	18	31	24	13	4	—	20	25	3.4	FEB 0810 A
FEB 0812 A	8	12	1.5875	8.40	24°27'	6.7	1.6×2	2200 / —	4000 / —	90 / —	3	18	31	27	17	4	—	20	25	3.4	FEB 0812 A

- 注1) 设计时, 请注意使滚珠丝杠轴端的其中一端不超过丝杠轴底径。如果两个轴端设计得大于底径, 则将无法组装螺母。
- 注2) 标准螺母不带密封。需要密封时, 螺母的尺寸将发生变化, 详情请垂询本公司。某些型号的螺母不能安装密封, 敬请注意。
- 注3) 表中的刚性值为螺母的刚性值, 是在以下条件下, 根据轴向弹性位移量计算得出的理论值。齿侧间隙型: 相当于基本额定动负载Ca的30%的轴向负载作用时; 预压型: 施加了相当于基本额定动负载Ca的5%的预压时; 轴向负载及预压量与上述条件不同时, 可通过p-A823的公式计算。
- 注4) 标准螺纹旋向为右旋。需要左旋时, 请垂询本公司。
- 注5) 基本额定负载和刚性值(齿侧间隙型和预压型的刚性值可能会有不同)一并标示在上表中。

Basic Load Rating 基本额定负载 N		Nut Rigidity 螺母刚性 N/μm
Dynamic 额定动负载 Ca	Static 额定静负载 Coa	
1000 / 640	3300 / 1650	164 / 138

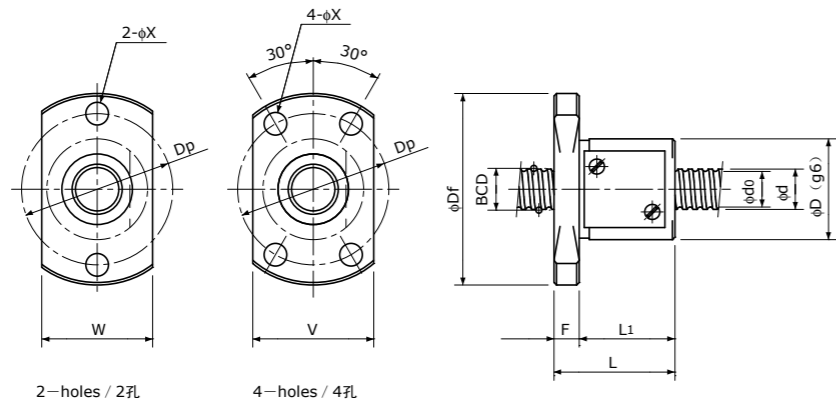
Preload type 预压型  
Backlash type 齿侧间隙型

- Note 1) The diameter of one of the Screw Shaft ends must be less than the Screw Shaft Root diameter, otherwise Ball Nut cannot be installed.
- Note 2) Ball Nut dimension is without seal at the both ends. If the seals are required, Ball Nut dimension should be changed, in that case, please ask KSS. Some type of Ball Nuts cannot equip with seals, please ask KSS representative.
- Note 3) The Rigidity values shown in the table are theoretical values of Ball Nut Rigidity calculated from the amount of Elastic Displacement under the following conditions. Backlash type; Apply the Axial load equivalent to 30% of the Basic Dynamic Load Rating Ca. Preload type; Apply the Preload equivalent to 5% of the Basic Dynamic Load Rating Ca. For Axial load or Preload condition other than the above, see the formula in p-A823, you can calculate Rigidity using this formula.
- Note 4) All models are Right-hand Screw. If Left-hand Screw is required, please ask KSS representative.
- Note 5) Basic Load Rating and Rigidity for Backlash type and Preload type are described in the same cell.

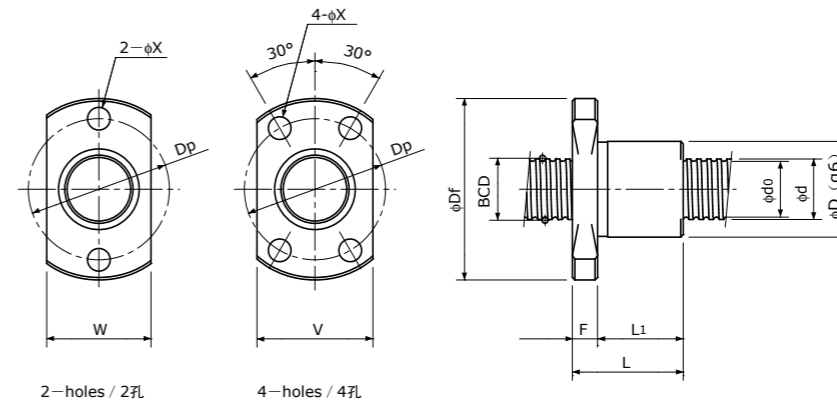
# Precision Ball Screws 精密滚珠丝杠

## Single Nut with Flange 带法兰单螺母

## Backlash type/Preload type 齿侧间隙型/预压型



Type-1: Return-plate type  
复式回路板循环方式



Type-2: Internal-deflector type or End-deflector type  
陀螺式循环方式或偏转器式循环方式

Unit (单位): mm

Ball Nut Model number 螺母型号	Shaft nominal dia. 丝杠轴公称外径 d	Lead 导程	Ball size 丝杠直径	BCD 钢珠中心直径	Lead angle 导程角	Root dia. 底径 d <sub>0</sub>	Number of Circuit 循环数	Basic Load Rating 基本额定负载 N		Nut Rigidity 螺母刚性 N/μm	Nut dimension 螺母尺寸									Ball Nut Model number 螺母型号	
								Dynamic 额定动负载 Ca	Static 额定静负载 Coa		Nut type 螺母类型	D	Df	L	L <sub>1</sub>	F	W	V	Dp		Bolt Hole 安装孔 X
FKB 1001 A	10	1	0.8	10.20	1°47'	9.3	1×3	720 / 720	1650 / 1650	84 / 131	2	15	28	15	11	4	17	19	22	3.4	FKB 1001 A
FBS 1001 B	10	1	0.8	10.15	1°48'	9.3	3.7×1	840 / 530	2000 / 1000	113 / 95	1	19	37	18	13	5	21	22	29	4.5	FBS 1001 B
FKB 1001.5 A	10	1.5	1.0	10.30	2°39'	9.2	1×3	990 / 990	2100 / 2100	87 / 136	2	17	34	21	16	5	19	21	26	4.5	FKB 1001.5 A
FBS 1001.5 B	10	1.5	1.0	10.20	2°41'	9.1	3.7×1	1250 / 790	2800 / 1400	120 / 101	1	19	37	20	15	5	21	22	29	4.5	FBS 1001.5 B
FKB 1002 A	10	2	1.2	10.30	3°32'	9.0	1×3	1450 / 1450	3000 / 3000	93 / 144	2	17	34	19	14	5	19	21	26	4.5	FKB 1002 A
FBS 1002 B	10	2	1.5875	10.30	3°32'	8.6	3.7×1	2700 / 1750	5300 / 2700	134 / 112	1	23	41	24	19	5	25	25	33	4.5	FBS 1002 B
FKB 1002.5 A	10	2.5	1.5875	10.40	4°23'	8.7	1×3	2100 / 2100	3800 / 3800	96 / 150	2	18	35	21	16	5	20	22	27	4.5	FKB 1002.5 A
FBS 1002.5 B	10	2.5	1.5875	10.30	4°25'	8.6	3.7×1	2700 / 1750	5300 / 2700	133 / 112	1	24	44	27	21	6	26	27	35	5.5	FBS 1002.5 B

- 注1) 设计时, 请注意使滚珠丝杠轴端的其中一端不超过丝杠轴底径。如果两个轴端设计得大于底径, 则将无法组装螺母。
- 注2) 标准螺母不带密封。需要密封时, 螺母的尺寸将发生变化, 详情请垂询本公司。某些型号的螺母不能安装密封, 敬请注意。
- 注3) 表中的刚性值为螺母的刚性值, 是在以下条件下, 根据轴向弹性位移量计算得出的理论值。  
齿侧间隙型: 相当于基本额定动负载Ca的30%的轴向负载作用时  
预压型: 施加了相当于基本额定动负载Ca的5%的预压时  
轴向负载及预压量与上述条件不同时, 可通过p-A823的公式计算。
- 注4) 标准螺纹旋向为右旋。需要左旋时, 请垂询本公司。
- 注5) 基本额定负载和刚性值(齿侧间隙型和预压型的刚性值可能会有不同)一并标示在上表中。

Basic Load Rating 基本额定负载 N		Nut Rigidity 螺母刚性 N/μm
Dynamic 额定动负载 Ca	Static 额定静负载 Coa	
1000 / 640	3300 / 1650	164 / 138

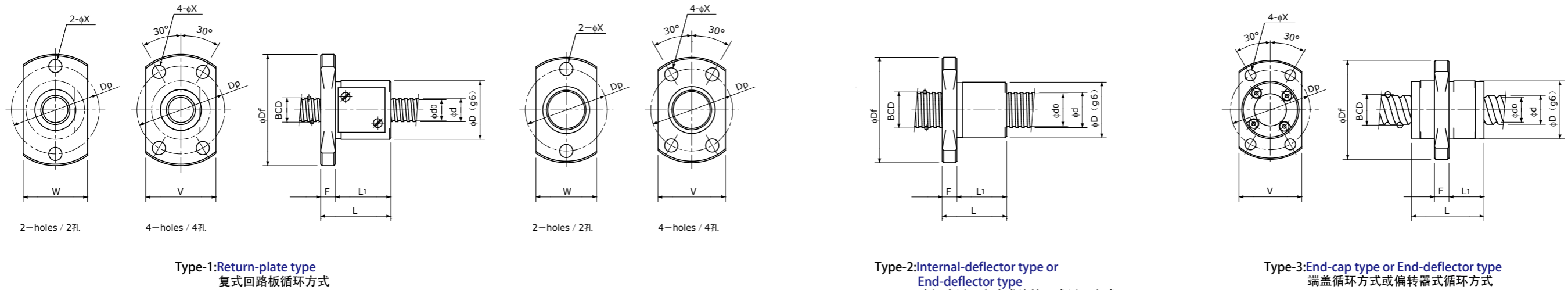
Preload type 预压型  
Backlash type 齿侧间隙型

- Note 1) The diameter of one of the Screw Shaft ends must be less than the Screw Shaft Root diameter, otherwise Ball Nut cannot be installed.
- Note 2) Ball Nut dimension is without seal at the both ends. If the seals are required, Ball Nut dimension should be changed, in that case, please ask KSS. Some type of Ball Nuts cannot equip with seals, please ask KSS representative.
- Note 3) The Rigidity values shown in the table are theoretical values of Ball Nut Rigidity calculated from the amount of Elastic Displacement under the following conditions.  
Backlash type ; Apply the Axial load equivalent to 30% of the Basic Dynamic Load Rating Ca.  
Preload type ; Apply the Preload equivalent to 5% of the Basic Dynamic Load Rating Ca.  
For Axial load or Preload condition other than the above, see the formula in p-A823, you can calculate Rigidity using this formula.
- Note 4) All models are Right-hand Screw. If Left-hand Screw is required, please ask KSS representative.
- Note 5) Basic Load Rating and Rigidity for Backlash type and Preload type are described in the same cell.

# Precision Ball Screws 精密滚珠丝杠

## Single Nut with Flange 带法兰单螺母

## Backlash type/Preload type 齿侧间隙型/预压型



Type-1: Return-plate type  
复式回路板循环方式

Type-2: Internal-deflector type or  
End-deflector type  
陀螺式循环方式或偏转器式循环方式

Type-3: End-cap type or End-deflector type  
端盖循环方式或偏转器式循环方式

Unit (单位): mm

Ball Nut Model number 螺母型号	Shaft nominal dia. 丝杠轴公称外径 d	Lead 导程	Ball size 丝杠直径	BCD 钢珠中心直径	Lead angle 导程角	Root dia. 底径 d <sub>0</sub>	Number of Circuit 循环数	Basic Load Rating 基本额定负载 N		Nut Rigidity 螺母刚性 N/μm	Nut dimension 螺母尺寸								Ball Nut Model number 螺母型号		
								Dynamic 额定动负载 Ca	Static 额定静负载 Coa		Nut type 螺母类型	D	Df	L	L <sub>1</sub>	F	W	V		Dp	Bolt Hole 安装孔 X
FBS 1003 B	10	3	2.0	10.30	5°18'	8.2	3.7×1	3900 / 2500	7200 / 3600	140 / 118	1	24	44	30	24	6	26	27	35	5.5	FBS 1003 B
FBS 1004 A	10	4	2.0	10.30	7°03'	8.2	2.7×1	3000 / 1800	5200 / 2600	104 / 86	1	24	44	29	23	6	26	27	35	5.5	FBS 1004 A
FDB 1005 A	10	5	2.0	10.30	8°47'	8.2	2.7×1	3000 / —	5200 / —	103 / —	2	23	40	26	21	5	—	25	32	4.5	FDB 1005 A
FBS 1005 A	10	5	2.0	10.30	8°47'	8.2	2.7×1	3000 / 1800	5200 / 2600	103 / 85	1	24	44	34	28	6	26	27	35	5.5	FBS 1005 A
FEB 1010 A	10	10	2.0	10.50	16°52'	8.4	1.6×2	3300 / —	5900 / —	117 / —	3	23	40	24	13	5	—	25	32	4.5	FEB 1010 A
FEB 1015 A	10	15	2.0	10.50	24°27'	8.4	1.6×2	3300 / —	6400 / —	110 / —	3	23	40	33	22	5	—	25	32	4.5	FEB 1015 A
FEB 1020 A	10	20	1.5875	10.40	31°28'	8.7	0.7×4	2100 / —	4000 / —	88 / —	3	20	37	23	13	5	—	22	29	4.5	FEB 1020 A
FEB 1030 A	10	30	1.5875	10.40	42°33'	8.7	0.7×4	2100 / —	4000 / —	76 / —	3	20	37	31.5	21.7	5	—	22	29	4.5	FEB 1030 A

- 注1) 设计时, 请注意使滚珠丝杠轴端的其中一端不超过丝杠轴底径。如果两个轴端设计得大于底径, 则将无法组装螺母。
- 注2) 标准螺母不带密封。需要密封时, 螺母的尺寸将发生变化, 详情请垂询本公司。某些型号的螺母不能安装密封, 敬请注意。
- 注3) 表中的刚性值为螺母的刚性值, 是在以下条件下, 根据轴向弹性位移量计算得出的理论值。齿侧间隙型: 相当于基本额定动负载Ca的30%的轴向负载作用时; 预压型: 施加了相当于基本额定动负载Ca的5%的预压时; 轴向负载及预压量与上述条件不同时, 可通过p-A823的公式计算。
- 注4) 标准螺纹旋向为右旋。需要左旋时, 请垂询本公司。
- 注5) 基本额定负载和刚性值(齿侧间隙型和预压型的刚性值可能会有不同)一并标示在上表中。

Basic Load Rating 基本额定负载 N		Nut Rigidity 螺母刚性 N/μm
Dynamic 额定动负载 Ca	Static 额定静负载 Coa	
1000 / 640	3300 / 1650	164 / 138

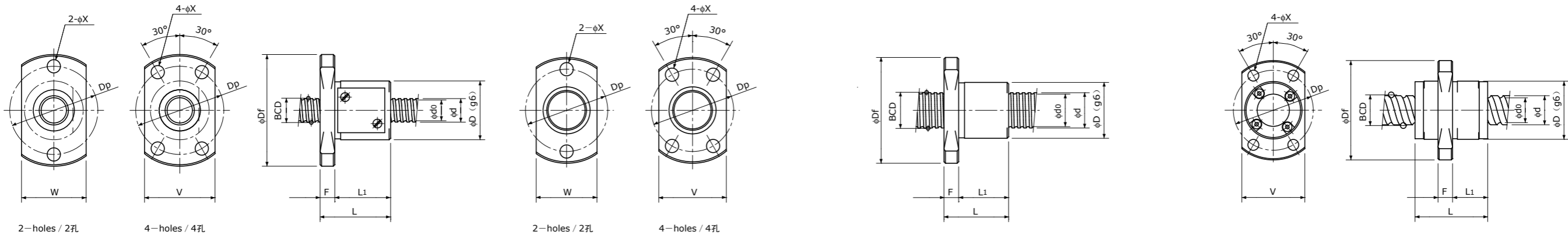
Preload type 预压型  
Backlash type 齿侧间隙型

- Note 1) The diameter of one of the Screw Shaft ends must be less than the Screw Shaft Root diameter, otherwise Ball Nut cannot be installed.
- Note 2) Ball Nut dimension is without seal at the both ends. If the seals are required, Ball Nut dimension should be changed, in that case, please ask KSS. Some type of Ball Nuts cannot equip with seals, please ask KSS representative.
- Note 3) The Rigidity values shown in the table are theoretical values of Ball Nut Rigidity calculated from the amount of Elastic Displacement under the following conditions. Backlash type; Apply the Axial load equivalent to 30% of the Basic Dynamic Load Rating Ca. Preload type; Apply the Preload equivalent to 5% of the Basic Dynamic Load Rating Ca. For Axial load or Preload condition other than the above, see the formula in p-A823, you can calculate Rigidity using this formula.
- Note 4) All models are Right-hand Screw. If Left-hand Screw is required, please ask KSS representative.
- Note 5) Basic Load Rating and Rigidity for Backlash type and Preload type are described in the same cell.

# Precision Ball Screws 精密滚珠丝杠

## Single Nut with Flange 带法兰单螺母

## Backlash type/Preload type 齿侧间隙型/预压型



Type-1: Return-plate type  
复式回路板循环方式

Type-2: Internal-deflector type or  
End-deflector type  
陀螺式循环方式或偏转器式循环方式

Type-3: End-cap type or End-deflector type  
端盖循环方式或偏转器式循环方式

Unit (单位): mm

Ball Nut Model number 螺母型号	Shaft nominal dia. 丝杠轴公称外径 d	Lead 导程	Ball size 丝杠直径	BCD 钢珠中心直径	Lead angle 导程角	Root dia. 底径 d <sub>0</sub>	Number of Circuit 循环数	Basic Load Rating 基本额定负载 N		Nut Rigidity 螺母刚性 N/μm	Nut dimension 螺母尺寸									Ball Nut Model number 螺母型号	
								Dynamic 额定动负载 Ca	Static 额定静负载 Coa		Nut type 螺母类型	D	Df	L	L <sub>1</sub>	F	W	V	Dp		Bolt Hole 安装孔 X
FKB 1201 A	12	1	0.8	12.20	1°30'	11.3	1×3	780 / 780	2000 / 2000	97 / 152	2	17	34	16	11	5	19	21	26	4.5	FKB 1201 A
FBS 1201 B	12	1	0.8	12.15	1°30'	11.3	3.7×1	910 / 570	2400 / 1200	131 / 110	1	22	40	18	13	5	24	24	32	4.5	FBS 1201 B
FKB 1202 A	12	2	1.2	12.30	2°58'	11.0	1×3	1600 / 1600	3700 / 3700	109 / 169	2	19	36	19	14	5	21	23	28	4.5	FKB 1202 A
FBS 1202 B	12	2	1.5875	12.30	2°58'	10.6	3.7×1	3000 / 1900	6400 / 3200	156 / 132	1	25	45	25	19	6	27	27	36	5.5	FBS 1202 B
FKB 1202.5 A	12	2.5	1.5875	12.40	3°41'	10.7	1×3	2300 / 2300	4700 / 4700	112 / 174	2	20	37	21	16	5	22	24	29	4.5	FKB 1202.5 A
FBS 1202.5 B	12	2.5	1.5875	12.30	3°42'	10.6	3.7×1	3000 / 1850	6400 / 3200	156 / 130	1	26	46	27	21	6	28	28	37	5.5	FBS 1202.5 B
FKB 1203 A	12	3	2.0	12.50	4°22'	10.4	1×3	3100 / 3100	5700 / 5700	115 / 179	2	22	41	32	26	6	24	26	32	5.5	FKB 1203 A
FBS 1203 B	12	3	2.0	12.30	4°26'	10.2	3.7×1	4300 / 2800	8700 / 4300	162 / 137	1	28	48	30	24	6	30	30	39	5.5	FBS 1203 B
FBS 1204 B	12	4	2.381	12.30	5°55'	9.8	3.7×1	5400 / 3400	10200 / 5100	165 / 139	1	28	48	33	27	6	30	30	39	5.5	FBS 1204 B
FBS 1205 A	12	5	2.381	12.30	7°22'	9.8	2.7×1	4100 / 2500	7400 / 3700	122 / 101	1	28	48	33	27	6	30	30	39	5.5	FBS 1205 A

- 注1) 设计时, 请注意使滚珠丝杠轴端的其中一端不超过丝杠轴底径。如果两个轴端设计得大于底径, 则将无法组装螺母。
- 注2) 标准螺母不带密封。需要密封时, 螺母的尺寸将发生变化, 详情请垂询本公司。某些型号的螺母不能安装密封, 敬请注意。
- 注3) 表中的刚性值为螺母的刚性值, 是在以下条件下, 根据轴向弹性位移量计算得出的理论值。齿侧间隙型: 相当于基本额定动负载Ca的30%的轴向负载作用时; 预压型: 施加了相当于基本额定动负载Ca的5%的预压时; 轴向负载及预压量与上述条件不同时, 可通过p-A823的公式计算。
- 注4) 标准螺纹旋向为右旋。需要左旋时, 请垂询本公司。
- 注5) 基本额定负载和刚性值(齿侧间隙型和预压型的刚性值可能会有不同)一并标示在上表中。

Basic Load Rating 基本额定负载 N		Nut Rigidity 螺母刚性 N/μm
Dynamic 额定动负载 Ca	Static 额定静负载 Coa	
1000 / 640	3300 / 1650	164 / 138

Preload type 预压型  
Backlash type 齿侧间隙型

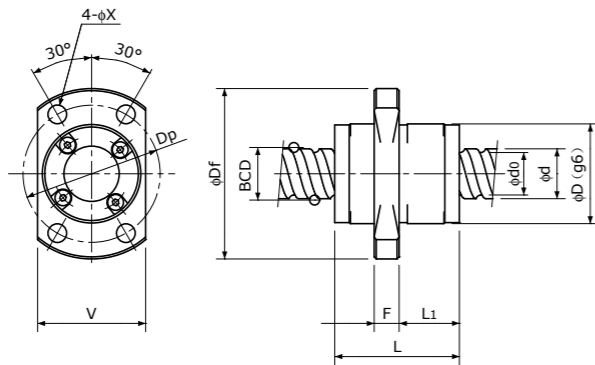
- Note 1) The diameter of one of the Screw Shaft ends must be less than the Screw Shaft Root diameter, otherwise Ball Nut cannot be installed.
- Note 2) Ball Nut dimension is without seal at the both ends. If the seals are required, Ball Nut dimension should be changed, in that case, please ask KSS. Some type of Ball Nuts cannot equip with seals, please ask KSS representative.
- Note 3) The Rigidity values shown in the table are theoretical values of Ball Nut Rigidity calculated from the amount of Elastic Displacement under the following conditions. Backlash type ; Apply the Axial load equivalent to 30% of the Basic Dynamic Load Rating Ca. Preload type ; Apply the Preload equivalent to 5% of the Basic Dynamic Load Rating Ca. For Axial load or Preload condition other than the above, see the formula in p-A823, you can calculate Rigidity using this formula.
- Note 4) All models are Right-hand Screw. If Left-hand Screw is required, please ask KSS representative.
- Note 5) Basic Load Rating and Rigidity for Backlash type and Preload type are described in the same cell.



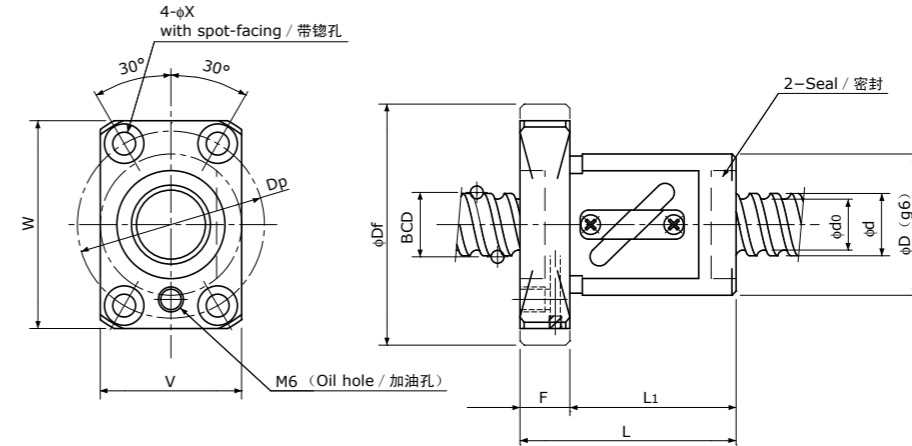
# Precision Ball Screws 精密滚珠丝杠

## Single Nut with Flange 带法兰单螺母

## Backlash type/Preload type 齿侧间隙型/预压型



Type-3: End-cap type or End-deflector type  
端盖循环方式或偏转器式循环方式



Type-4: Return-tube type  
回路管循环方式

Unit (单位): mm

Ball Nut Model number 螺母型号	Shaft nominal dia. 丝杠轴公称外径 d	Lead 导程	Ball size 丝杠直径	BCD 钢珠中心直径	Lead angle 导程角	Root dia. 底径 d <sub>0</sub>	Number of Circuit 循环数	Basic Load Rating 基本额定负载 N		Nut Rigidity 螺母刚性 N/μm	Nut dimension 螺母尺寸									Ball Nut Model number 螺母型号	
								Dynamic 额定动负载 Ca	Static 额定静负载 Coa		Nut type 螺母类型	D	Df	L	L <sub>1</sub>	F	W	V	Dp		Bolt Hole 安装孔 X
FEB 1210 A	12	10	2.381	12.65	14° 07'	10.2	1.7×2	5100 / —	9800 / —	152 / —	3	24	41	30	14.5	6	—	26	33	4.5	FEB 1210 A
FBS 1210 T	12	10	2.381	12.65	14° 07'	10.2	2.5×1	3800 / 2350	7100 / 3350	113 / 93	4	30	50	50	40	10	45	32	40	4.5	FBS 1210 T
FEB 1312 A	13	12	2.381	13.50	15° 48'	11.0	1.6×2	5000 / —	9900 / —	151 / —	3	28	45	30	17	5	—	30	37	4.5	FEB 1312 A
FEB 1315 A	13	15	2.381	13.50	19° 29'	11.0	1.6×2	5000 / —	10300 / —	147 / —	3	28	45	35	22	5	—	30	37	4.5	FEB 1315 A
FEB 1320 A	13	20	2.381	13.50	25° 15'	11.0	1.6×2	5000 / —	10700 / —	142 / —	3	28	45	43	29	5	—	30	37	4.5	FEB 1320 A

注1) 设计时, 请注意使滚珠丝杠轴端的其中一端不超过丝杠轴底径。如果两个轴端设计得大于底径, 则将无法组装螺母。

注2) 标准螺母不带密封。需要密封时, 螺母的尺寸将发生变化, 详情请垂询本公司。某些型号的螺母不能安装密封, 敬请注意。

注3) 表中的刚性值为螺母的刚性值, 是在以下条件下, 根据轴向弹性位移量计算得出的理论值。齿侧间隙型: 相当于基本额定动负载Ca的30%的轴向负载作用时; 预压型: 施加了相当于基本额定动负载Ca的5%的预压时; 轴向负载及预压量与上述条件不同时, 可通过p-A823的公式计算。

注4) 标准螺纹旋向为右旋。需要左旋时, 请垂询本公司。

注5) 基本额定负载和刚性值(齿侧间隙型和预压型的刚性值可能会有不同)一并标示在上表中。

Basic Load Rating 基本额定负载 N		Nut Rigidity 螺母刚性 N/μm
Dynamic 额定动负载 Ca	Static 额定静负载 Coa	
1000 / 640	3300 / 1650	164 / 138

Preload type 预压型  
Backlash type 齿侧间隙型

Note 1) The diameter of one of the Screw Shaft ends must be less than the Screw Shaft Root diameter, otherwise Ball Nut cannot be installed.

Note 2) Ball Nut dimension is without seal at the both ends. If the seals are required, Ball Nut dimension should be changed, in that case, please ask KSS. Some type of Ball Nuts cannot equip with seals, please ask KSS representative.

Note 3) The Rigidity values shown in the table are theoretical values of Ball Nut Rigidity calculated from the amount of Elastic Displacement under the following conditions. Backlash type; Apply the Axial load equivalent to 30% of the Basic Dynamic Load Rating Ca. Preload type; Apply the Preload equivalent to 5% of the Basic Dynamic Load Rating Ca. For Axial load or Preload condition other than the above, see the formula in p-A823, you can calculate Rigidity using this formula.

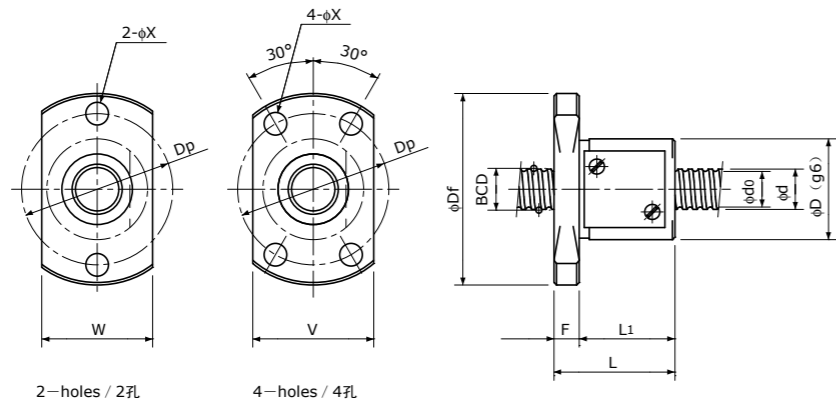
Note 4) All models are Right-hand Screw. If Left-hand Screw is required, please ask KSS representative.

Note 5) Basic Load Rating and Rigidity for Backlash type and Preload type are described in the same cell.

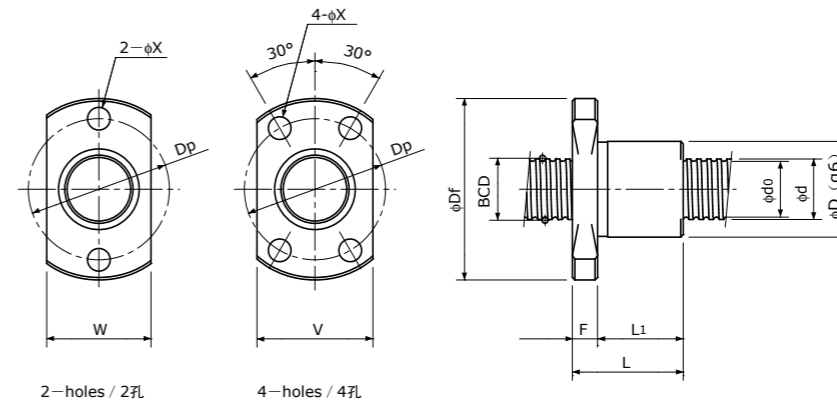
# Precision Ball Screws 精密滚珠丝杠

## Single Nut with Flange 带法兰单螺母

## Backlash type/Preload type 齿侧间隙型/预压型



Type-1: Return-plate type  
复式回路板循环方式



Type-2: Internal-deflector type or End-deflector type  
陀螺式循环方式或偏转器式循环方式

Unit (单位): mm

Ball Nut Model number 螺母型号	Shaft nominal dia. 丝杠轴公称外径 d	Lead 导程	Ball size 丝杠直径	BCD 钢珠中心直径	Lead angle 导程角	Root dia. 底径 d <sub>0</sub>	Number of Circuit 循环数	Basic Load Rating 基本额定负载 N		Nut Rigidity 螺母刚性 N/μm	Nut dimension 螺母尺寸									Ball Nut Model number 螺母型号	
								Dynamic 额定动负载 Ca	Static 额定静负载 Coa		Nut type 螺母类型	D	Df	L	L <sub>1</sub>	F	W	V	Dp		Bolt Hole 安装孔 X
FBS 1401 B	14	1	0.8	14.15	1°17'	13.3	3.7×1	960 / 610	2900 / 1450	148 / 124	1	26	46	21	15	6	28	28	37	5.5	FBS 1401 B
FKB 1402 A	14	2	1.2	14.30	2°33'	13.0	1×3	1700 / 1700	4300 / 4300	122 / 190	2	21	40	20	14	6	23	26	31	5.5	FKB 1402 A
FBS 1402 B	14	2	1.5875	14.30	2°33'	12.6	3.7×1	3200 / 2000	7500 / 3800	176 / 148	1	26	46	25	19	6	28	28	37	5.5	FBS 1402 B
FKB 1402.5 A	14	2.5	1.5875	14.40	3°10'	12.7	1×3	2500 / 2500	5600 / 5600	127 / 197	2	22	41	22	16	6	24	26	32	5.5	FKB 1402.5 A
FBS 1402.5 B	14	2.5	1.5875	14.30	3°11'	12.6	3.7×1	3200 / 2000	7500 / 3700	176 / 148	1	28	48	27	21	6	30	30	39	5.5	FBS 1402.5 B
FKB 1403 A	14	3	2.0	14.50	3°46'	12.4	1×3	3400 / 3400	6800 / 6800	131 / 204	2	24	43	32	26	6	26	27	34	5.5	FKB 1403 A
FBS 1403 B	14	3	2.0	14.30	3°49'	12.2	3.7×1	4600 / 2900	10100 / 5000	184 / 154	1	30	51	30	24	6	32	32	42	5.5	FBS 1403 B
FKB 1404 A	14	4	2.381	14.65	4°58'	12.2	1×3	4500 / 4500	8600 / 8600	136 / 212	2	26	45	29	23	6	28	28	36	5.5	FKB 1404 A
FBS 1404 B	14	4	2.381	14.30	5°05'	11.8	3.7×1	5700 / 3600	11600 / 5800	187 / 157	1	30	51	33	27	6	32	32	42	5.5	FBS 1404 B
FBS 1405 B	14	5	2.381	14.30	6°21'	11.8	3.7×1	5700 / 3600	11600 / 5800	186 / 157	1	30	51	39	33	6	32	32	42	5.5	FBS 1405 B

- 注1) 设计时, 请注意使滚珠丝杠轴端的其中一端不超过丝杠轴底径。如果两个轴端设计得大于底径, 则将无法组装螺母。
- 注2) 标准螺母不带密封。需要密封时, 螺母的尺寸将发生变化, 详情请垂询本公司。某些型号的螺母不能安装密封, 敬请注意。
- 注3) 表中的刚性值为螺母的刚性值, 是在以下条件下, 根据轴向弹性位移量计算得出的理论值。  
齿侧间隙型: 相当于基本额定动负载Ca的30%的轴向负载作用时  
预压型: 施加了相当于基本额定动负载Ca的5%的预压时  
轴向负载及预压量与上述条件不同时, 可通过p-A823的公式计算。
- 注4) 标准螺纹旋向为右旋。需要左旋时, 请垂询本公司。
- 注5) 基本额定负载和刚性值(齿侧间隙型和预压型的刚性值可能会有不同)一并标示在上表中。

Basic Load Rating 基本额定负载 N		Nut Rigidity 螺母刚性 N/μm
Dynamic 额定动负载 Ca	Static 额定静负载 Coa	
1000 / 640	3300 / 1650	164 / 138

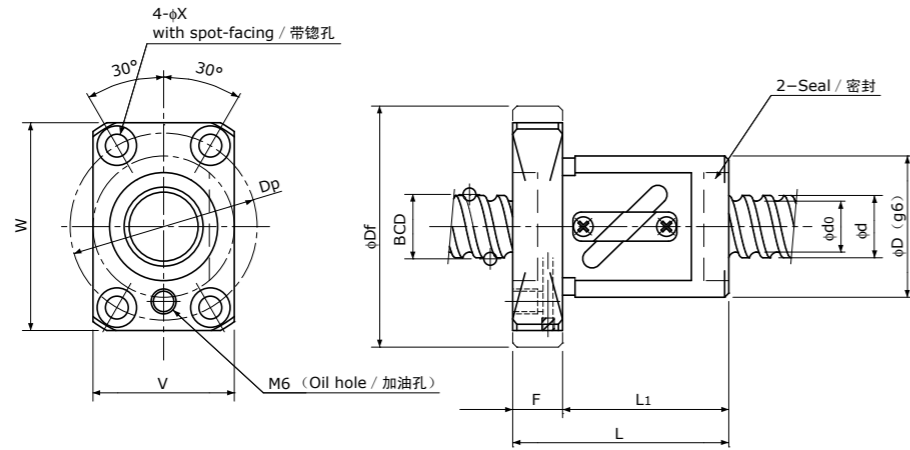
Preload type 预压型  
Backlash type 齿侧间隙型

- Note 1) The diameter of one of the Screw Shaft ends must be less than the Screw Shaft Root diameter, otherwise Ball Nut cannot be installed.
- Note 2) Ball Nut dimension is without seal at the both ends. If the seals are required, Ball Nut dimension should be changed, in that case, please ask KSS. Some type of Ball Nuts cannot equip with seals, please ask KSS representative.
- Note 3) The Rigidity values shown in the table are theoretical values of Ball Nut Rigidity calculated from the amount of Elastic Displacement under the following conditions.  
Backlash type; Apply the Axial load equivalent to 30% of the Basic Dynamic Load Rating Ca.  
Preload type; Apply the Preload equivalent to 5% of the Basic Dynamic Load Rating Ca.  
For Axial load or Preload condition other than the above, see the formula in p-A823, you can calculate Rigidity using this formula.
- Note 4) All models are Right-hand Screw. If Left-hand Screw is required, please ask KSS representative.
- Note 5) Basic Load Rating and Rigidity for Backlash type and Preload type are described in the same cell.

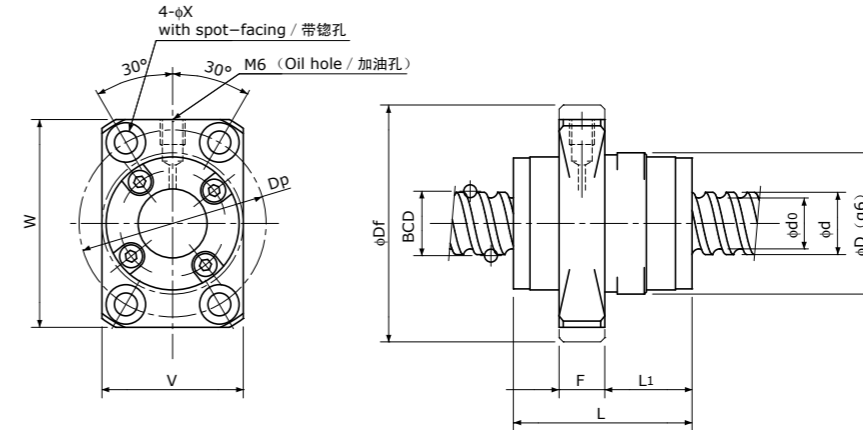
# Precision Ball Screws 精密滚珠丝杠

## Single Nut with Flange 带法兰单螺母

## Backlash type/Preload type 齿侧间隙型/预压型



Type-4:Return-tube type  
回路管循环方式



Type-5:End-deflector type  
偏转器式循环方式

Unit (单位): mm

Ball Nut Model number 螺母型号	Shaft nominal dia. 丝杠轴公称外径 d	Lead 导程	Ball size 丝杠直径	BCD 钢珠中心直径	Lead angle 导程角	Root dia. 底径 d <sub>0</sub>	Number of Circuit 循环数	Basic Load Rating 基本额定负载 N		Nut Rigidity 螺母刚性 N/μm	Nut dimension 螺母尺寸										Ball Nut Model number 螺母型号
								Dynamic 额定动负载 Ca	Static 额定静负载 Coa		Nut type 螺母类型	D	Df	L	L <sub>1</sub>	F	W	V	Dp	Bolt Hole 安装孔 X	
FBS 1504 T	15	4	2.381	15.50	4°42'	13.0	2.5×1	4100 / 2580	8550 / 4300	136 / 112	4	32	56	41	31	10	48	32	43	5.5	FBS 1504 T
FEB 1505 A	15	5	3.175	15.50	5°41'	12.2	3.7×1	8900 / —	17000 / —	208 / —	5	34	57	33	16	11	50	34	45	5.5	FEB 1505 A
FBS 1505 T	15	5	3.175	15.80	5°45'	12.4	2.5×1	6900 / 4350	12500 / 6250	148 / 122	4	34	58	44	34	10	50	34	45	5.5	FBS 1505 T
FEB 1510 A	15	10	3.175	15.50	11°36'	12.2	2.7×2	12000 / —	25000 / —	289 / —	5	34	57	43	21	11	50	34	45	5.5	FEB 1510 A
FBS 1510 T	15	10	3.175	15.80	11°23'	12.4	1.5×1	4400 / 2540	7900 / 3450	87 / 69	4	34	58	52	40	12	50	34	45	6.0	FBS 1510 T
FEB 1520 A	15	20	3.175	15.75	22°01'	12.4	1.7×2	8000 / —	16000 / —	178 / —	5	34	57	52	28.5	11	50	34	45	5.5	FEB 1520 A
FBS 1520 T	15	20	3.175	15.80	21°56'	12.4	1.5×1	4400 / 2540	7900 / 3450	84 / 67	4	34	58	62	50	12	50	34	45	6.0	FBS 1520 T
FEB 1530 A	15	30	3.175	15.75	31°14'	12.4	1.7×2	8000 / —	16000 / —	163 / —	5	34	57	71	45.5	11	50	34	45	5.5	FEB 1530 A

- 注1) 设计时, 请注意使滚珠丝杠轴端的其中一端不超过丝杠轴底径。如果两个轴端设计得大于底径, 则将无法组装螺母。
- 注2) 标准螺母不带密封。需要密封时, 螺母的尺寸将发生变化, 详情请垂询本公司。某些型号的螺母不能安装密封, 敬请注意。
- 注3) 表中的刚性值为螺母的刚性值, 是在以下条件下, 根据轴向弹性位移量计算得出的理论值。齿侧间隙型: 相当于基本额定动负载Ca的30%的轴向负载作用时; 预压型: 施加了相当于基本额定动负载Ca的5%的预压时; 轴向负载及预压量与上述条件不同时, 可通过p-A823的公式计算。
- 注4) 标准螺纹旋向为右旋。需要左旋时, 请垂询本公司。
- 注5) 基本额定负载和刚性值(齿侧间隙型和预压型的刚性值可能会有不同)一并标示在上表中。

Basic Load Rating 基本额定负载 N		Nut Rigidity 螺母刚性 N/μm
Dynamic 额定动负载 Ca	Static 额定静负载 Coa	
1000 / 640	3300 / 1650	164 / 138

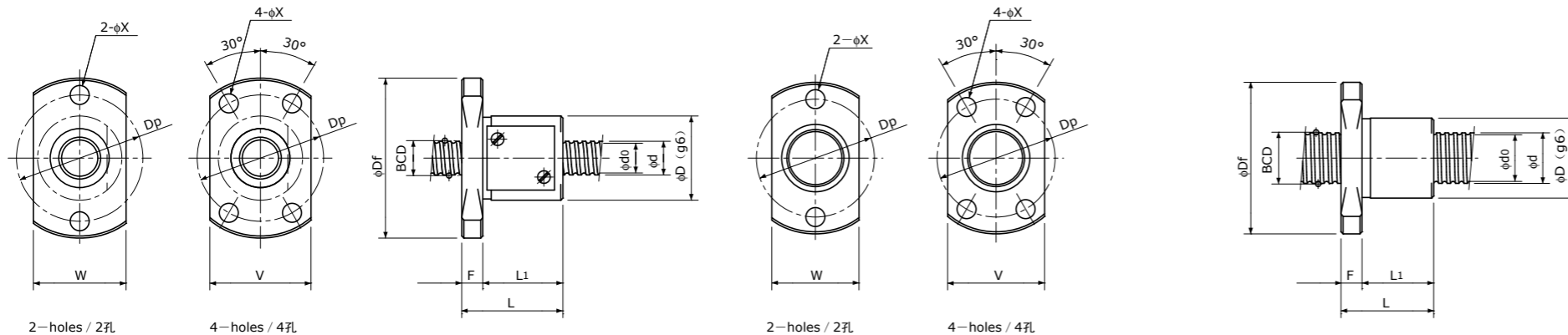
Preload type 预压型  
Backlash type 齿侧间隙型

- Note 1) The diameter of one of the Screw Shaft ends must be less than the Screw Shaft Root diameter, otherwise Ball Nut cannot be installed.
- Note 2) Ball Nut dimension is without seal at the both ends. If the seals are required, Ball Nut dimension should be changed, in that case, please ask KSS. Some type of Ball Nuts cannot equip with seals, please ask KSS representative.
- Note 3) The Rigidity values shown in the table are theoretical values of Ball Nut Rigidity calculated from the amount of Elastic Displacement under the following conditions. Backlash type ; Apply the Axial load equivalent to 30% of the Basic Dynamic Load Rating Ca. Preload type ; Apply the Preload equivalent to 5% of the Basic Dynamic Load Rating Ca. For Axial load or Preload condition other than the above, see the formula in p-A823, you can calculate Rigidity using this formula.
- Note 4) All models are Right-hand Screw. If Left-hand Screw is required, please ask KSS representative.
- Note 5) Basic Load Rating and Rigidity for Backlash type and Preload type are described in the same cell.

# Precision Ball Screws 精密滚珠丝杠

## Single Nut with Flange 带法兰单螺母

Backlash type/Preload type  
齿侧间隙型/预压型



Type-1: Return-plate type  
复式回路板循环方式

Type-2: Internal-deflector type or  
End-deflector type  
陀螺式循环方式或偏转器式循环方式

Unit (单位): mm

Ball Nut Model number 螺母型号	Shaft nominal dia. 丝杠轴公称外径 d	Lead 导程	Ball size 丝杠直径	BCD 钢珠中心直径	Lead angle 导程角	Root dia. 底径 d <sub>0</sub>	Number of Circuit 循环数	Basic Load Rating 基本额定负载 N		Nut Rigidity 螺母刚性 N/∑m	Nut dimension 螺母尺寸										Ball Nut Model number 螺母型号
								Dynamic 额定动负载 Ca	Static 额定静负载 Coa		Nut type 螺母类型	D	Df	L	L <sub>1</sub>	F	W	V	Dp	Bolt Hole 安装孔 X	
FBS 1601 B	16	1	0.8	16.15	1°08'	15.3	3.7×1	1000 / 640	3300 / 1650	164 / 138	1	28	48	21	15	6	30	30	39	5.5	FBS 1601 B
FKB 1602 A	16	2	1.2	16.30	2°14'	15.0	1×3	1850 / 1850	5000 / 5000	137 / 213	2	24	43	20	14	6	26	27	34	5.5	FKB 1602 A
FBS 1602 B	16	2	1.5875	16.30	2°14'	14.6	3.7×1	3400 / 2100	8600 / 4300	197 / 163	1	28	48	25	19	6	30	30	39	5.5	FBS 1602 B
FKB 1603 A	16	3	2.0	16.50	3°19'	14.4	1×3	3600 / 3600	8000 / 8000	146 / 227	2	26	45	32	26	6	28	28	36	5.5	FKB 1603 A
FBS 1603 B	16	3	2.0	16.30	3°21'	14.2	3.7×1	4900 / 3100	11600 / 5800	205 / 172	1	32	53	30	24	6	34	34	44	5.5	FBS 1603 B
FKB 1604 A	16	4	2.381	16.65	4°22'	13.9	1×3	4800 / 4800	10000 / 10000	152 / 237	2	28	47	29	23	6	30	30	38	5.5	FKB 1604 A
FBS 1604 B	16	4	2.381	16.30	4°28'	13.8	3.7×1	6200 / 3900	13600 / 6800	209 / 174	1	34	54	34	28	6	36	36	45	5.5	FBS 1604 B
FBS 1605 B	16	5	3.175	16.50	5°31'	13.2	3.7×1	9100 / 5700	18200 / 9100	217 / 182	1	38	57	42	36	6	40	40	48	5.5	FBS 1605 B

- 注1) 设计时, 请注意使滚珠丝杠轴端的其中一端不超过丝杠轴底径。如果两个轴端设计得大于底径, 则将无法组装螺母。
- 注2) 标准螺母不带密封。需要密封时, 螺母的尺寸将发生变化, 详情请垂询本公司。某些型号的螺母不能安装密封, 敬请注意。
- 注3) 表中的刚性值为螺母的刚性值, 是在以下条件下, 根据轴向弹性位移量计算得出的理论值。齿侧间隙型: 相当于基本额定动负载Ca的30%的轴向负载作用时; 预压型: 施加了相当于基本额定动负载Ca的5%的预压时; 轴向负载及预压量与上述条件不同时, 可通过p-A823的公式计算。
- 注4) 标准螺纹旋向为右旋。需要左旋时, 请垂询本公司。
- 注5) 基本额定负载和刚性值(齿侧间隙型和预压型的刚性值可能会有不同)一并标示在上表中。

Basic Load Rating 基本额定负载 N		Nut Rigidity 螺母刚性 N/∑m
Dynamic 额定动负载 Ca	Static 额定静负载 Coa	
1000 / 640	3300 / 1650	164 / 138

Preload type 预压型  
Backlash type 齿侧间隙型

- Note 1) The diameter of one of the Screw Shaft ends must be less than the Screw Shaft Root diameter, otherwise Ball Nut cannot be installed.
- Note 2) Ball Nut dimension is without seal at the both ends. If the seals are required, Ball Nut dimension should be changed, in that case, please ask KSS. Some type of Ball Nuts cannot equip with seals, please ask KSS representative.
- Note 3) The Rigidity values shown in the table are theoretical values of Ball Nut Rigidity calculated from the amount of Elastic Displacement under the following conditions. Backlash type; Apply the Axial load equivalent to 30% of the Basic Dynamic Load Rating Ca. Preload type; Apply the Preload equivalent to 5% of the Basic Dynamic Load Rating Ca. For Axial load or Preload condition other than the above, see the formula in p-A823, you can calculate Rigidity using this formula.
- Note 4) All models are Right-hand Screw. If Left-hand Screw is required, please ask KSS representative.
- Note 5) Basic Load Rating and Rigidity for Backlash type and Preload type are described in the same cell.