

# NOVIN

## Ball Bearing

MICRO COUPLINGS  
SUPPORT UNITS  
FA UNITS



**NOVIN**  
Ball Bearing



INNOBIZ  
중소기업 기술혁신 연합

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# Support Units

# FA Units

این شرکت در جهت توسعه اقتصاد کشور عزیزمان ایران و حرکت در جهت دستیابی به اقتصاد فراگیر داخلی با سابقه طولانی در عرضه انواع بلبرینگهای سوزنی و خطی افتخار دارد به منظور تأمین قطعات با همکاران و تولیدکنندگان صنعتی همکاری صمیمانه داشته باشیم.

**شرکت نوین بلبرینگ** افتخار دارد با سابقه 15 ساله در عرضه انواع بلبرینگها و داشتن نمایندگی های **SAMICK** کره در ایران و **HIWIN** تایوان در خاورمیانه و پخش انواع نیدل برینگ و رولربرینگها با مارک **IKO** ژاپن و داشتن نمایندگی **TSUBAKI , DAIDO METAL** ژاپن در ایران و تهیه و توزیع سیستم های

جدید

**BALLSCREW , LINEAR GUIDE WAY , LINEAR STAGE , LINEAR ACTUATOR , MOTOR DRIVER**

**LINEAR MOTOR GANTRY , LINEAR MOTOR X-Y STAGE , MOGNETIC MEASURING SYSTEM**

سفارشات مشتریان خود را با مارک های قید شده در بالا در سریعترین زمان تهیه و تحویل نماید



شرکت نوین بلبرینگ با کادری مجرب قادر می باشد نیاز شما عزیزان را از لحاظ تأمین قطعات و مشاوره فنی و ارائه CD و کاتالوگ یا جداول اطلاعاتی تأمین نمایند.  
امید است در جهت سازندگی کشور عزیزمان ایران همکاری لازم را انجام دهیم.

**Novin**  
**Ball Bearing**

[www.novinballbearing.com](http://www.novinballbearing.com)



# **Novin** **Ball Bearing**

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ROHS Application

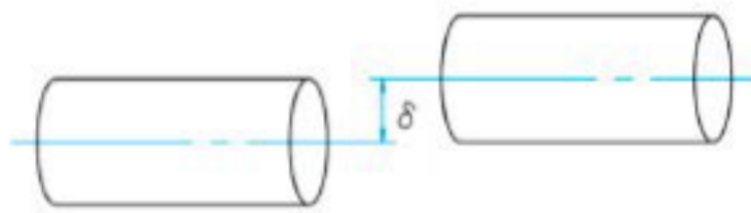
**NOVIN**  
Ball Bearing  
Micro Couplings



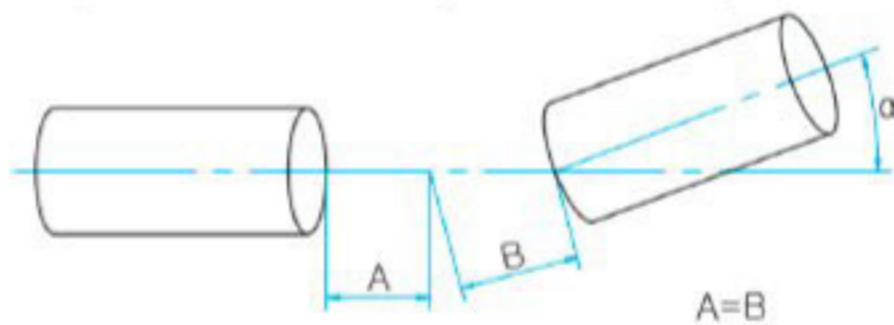
## Alignment Adjustment

- ① Flexible coupling can transmit torque and rotation angle while allowing misalignment. When the misalignment gets higher than limit, vibration may occur and the life of coupling may be reduced. Make sure to adjust the alignment accordingly.
- ② There are three types of shaft misalignments such as eccentricity (error in parallel alignment), angularity (error in angular alignment) and end-play (shift axle direction). Adjust the alignment to be lower than limit listed in the specification table of each product provided in this catalog.
- ③ The limit of misalignment recorded in this catalog is for one misalignment for eccentricity, angularity and end-play. When there are more than 2 misalignments, we recommend you to apply 1/2 of misalignment limit.
- ④ Misalignments are sometimes caused not only by equipment assembly but also by vibration, heat expansion, wear of bearings and so forth during operation. Therefore, it is recommended to adjust the shaft misalignment to be below 1/3 of maximum limit.

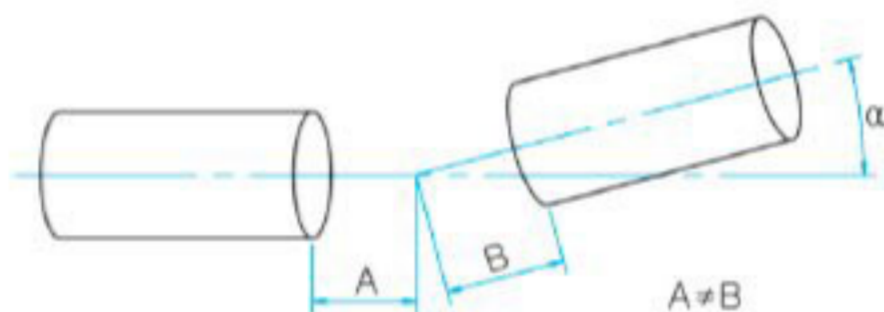
### Parallel Offset Misalignment



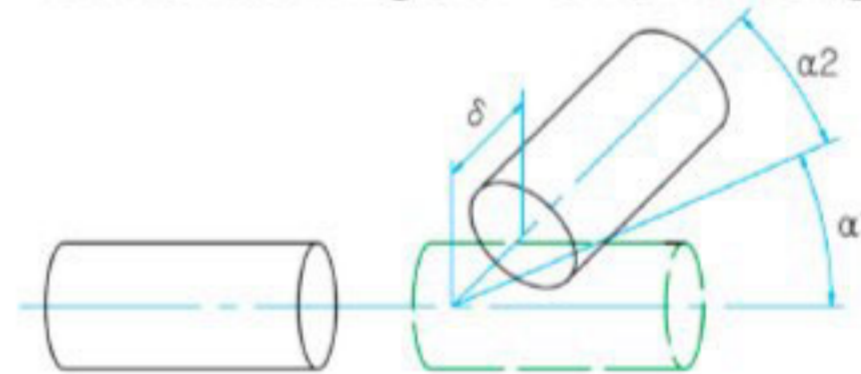
### Symmetrical Angular Misalignment



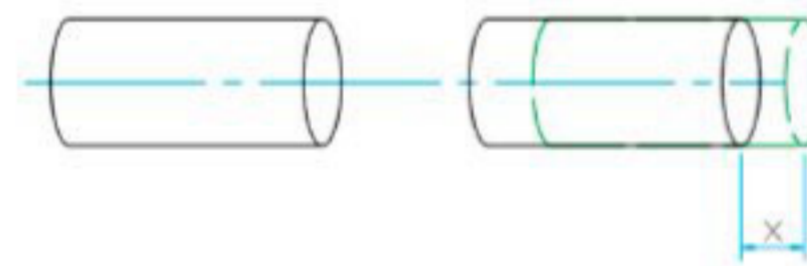
### Non-Symmetrical Angular Misalignment



### Combined Angular-Offset Misalignment



### End-Play



### Run Out



## Adjustment of Torque according to Temperature

SOH, SFC, and SJC use polyurethane, polyacetal or plastic parts. These models must be used in the operational temperature indicated in this catalog. When ambient temperature exceeds 30°..., maximum torque and rated torque should be checked by the correction value chart beside.

Category Temperature	Correction Value
-20°C ~ 30°C	1.00
30°C ~ 40°C	0.80
40°C ~ 60°C	0.6
60°C ~ 100°C	0.5

## Cautions

- Misalignment exceeding maximum limit and excessive torque may result in shorter life of coupling due to plastic deformation.
- Stop machine operation at once when there is abnormal metallic noise, and proceed to check shaft misalignment, disturbance in shaft rotation, loosen screw and so forth.
- When used at rotation machine with significant load fluctuation, apply adhesive on screw to prevent loosening or select a size on higher rank.

# SRB Series

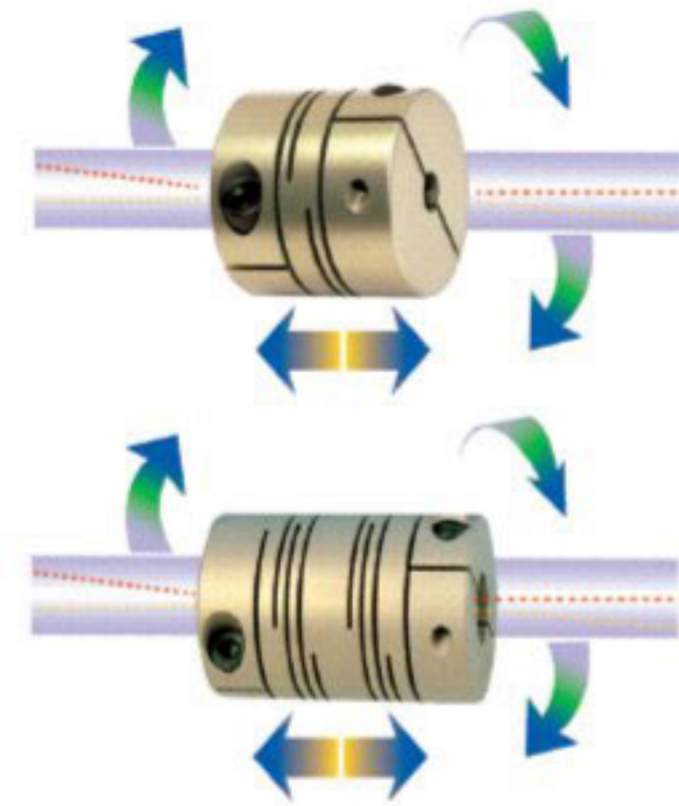
## Micro Radial Beam Flexible Coupling



This Product is radial beam type flexible coupling that is made of high strength aluminum alloy (Al7075-T6) and one-piece structure.

### Features

- Zero backlash
- Complete absorption of eccentricity, angularity, and end-play by spring action of radial beam structure.
- High strength aluminum alloy (Al 7075-T6) makes high torsion rigidity and torque, and products are available in aluminum alloy and stainless steel.
- It can be used in high RPM by accurate concentricity and low inertia moment.
- Regular direction and reverse direction are identical and no repair is necessary.
- Excellent durability and oil and chemical resistance.



※Registration of Design 0237181

### Structure & Material

#### SRB Type



Body1: **Stainless Steel**  
Body2: High Strength Aluminum Alloy (Al7075-T6) and Anodizing

#### SRBM Type



Body: High Strength Aluminum Alloy (Al7075-T6) and Anodizing

### Relief Type



\* It is easy to assembly by processing widely the inside of coupling

### How to order product

**SRB – 22C**

Product No.

$\phi 6$

Shaft Dia

×

$\phi 8$

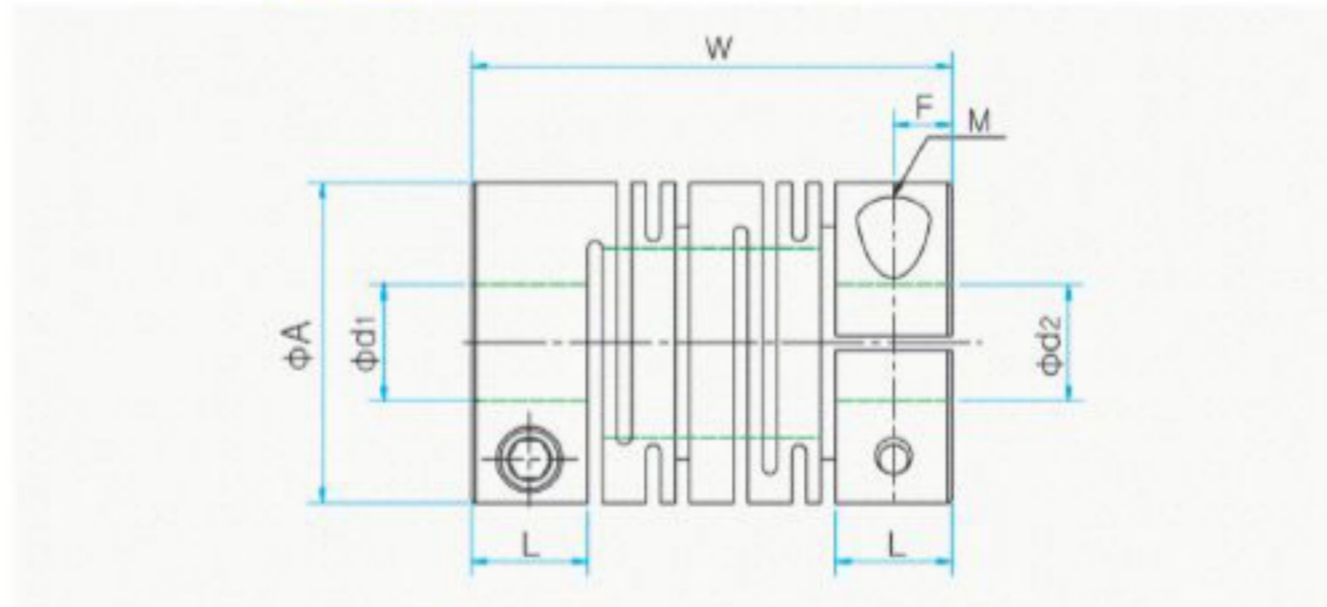
Shaft Dia

※ Please, specify the diameters of both shaft ends in the order form.

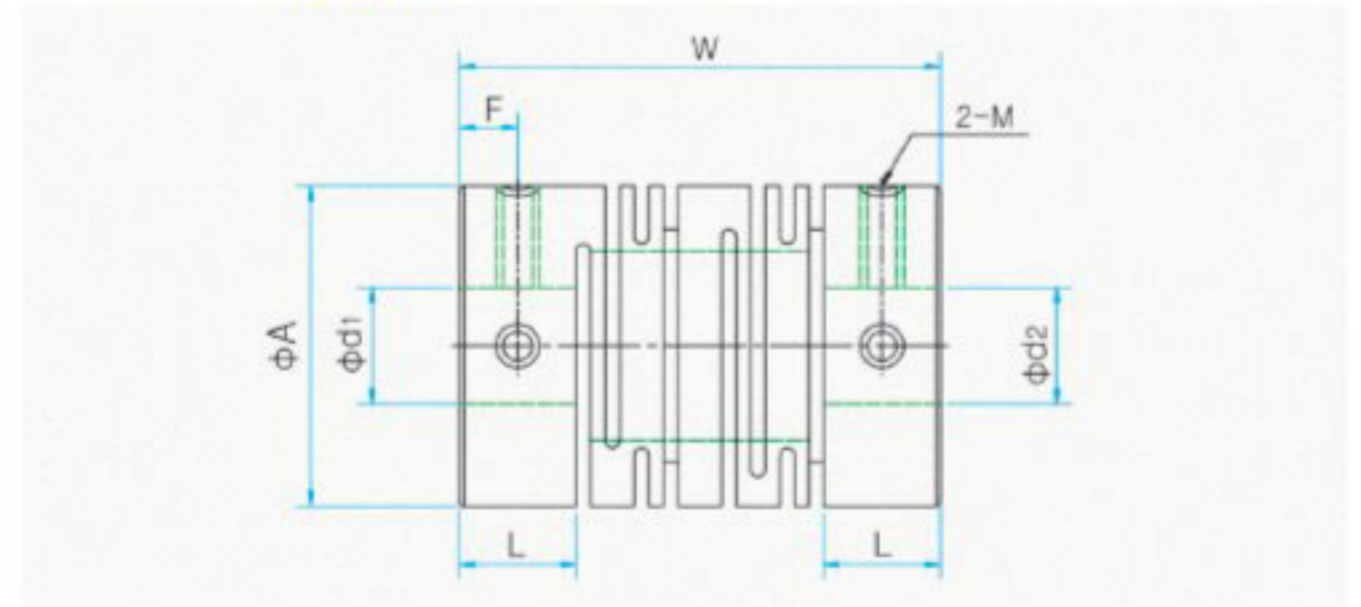


# SRB Series Micro Radial Beam Flexible Coupling

## SRB - C (CLAMP TYPE)



## SRB - (SET SCREW TYPE)



## Standards & Performance

※ Material: AL 7075-T6

Product Number	DIMENSION(mm)(±0.3)					mass (g)	Moment of inertia (kg · m <sup>2</sup> )	Max · RPM (min <sup>-1</sup> )	Rated Torque (N · m)	Max Torque (N · m)	Torsional Stiffness (N · m/rad)	Errors of Misalignment		
	A	L	W	F	M							Angle(°)	Parallel(mm)	End-Play(mm)
SRB-12C	12.7	5	19	2.5	2	3.8	8.8 × 10 <sup>-8</sup>	12,000	0.2	0.4	36	2.5	0.1	±0.3
SRB-16C	16	6.1	21.5	3	2.6	8.5	3.1 × 10 <sup>-7</sup>	10,000	0.4	0.8	65	2.5	0.15	±0.3
SRB-19C	19.1	6.1	23	3	2.6	12	6.4 × 10 <sup>-7</sup>	8,000	0.6	1.2	140	2.5	0.15	±0.3
SRB-22C	22.2	7.2	26.5	3.6	3	19	1.4 × 10 <sup>-6</sup>	7,000	1.0	2.0	170	2.5	0.15	±0.4
SRB-26C	26.2	7.4	31.4	3.7	3	33	3.4 × 10 <sup>-6</sup>	6,000	1.5	3.0	240	2.5	0.2	±0.4
SRBA-32C	31.8	9.4	39	4.7	4	60	1.0 × 10 <sup>-6</sup>	5,000	2.6	5.2	400	2.5	0.2	±0.4
SRBB-32C	31.8	9.4	44	4.7	4	68	1.0 × 10 <sup>-5</sup>	5,000	2.6	5.2	380	2.5	0.2	±0.4
SRBA-39C	39	10.8	43	5.4	5	95	2.1 × 10 <sup>-5</sup>	4,000	6.5	13	520	2.5	0.25	±0.4
SRBB-39C	39	12	56	6	5	135	3.1 × 10 <sup>-5</sup>	4,000	6.5	13	460	2.5	0.25	±0.4
SRBA-49C	49	15	63.5	7.5	6	260	9.4 × 10 <sup>-5</sup>	3,300	13	26	740	2.5	0.25	±0.5
SRBB-49C	49	15	70	7.5	6	270	1.0 × 10 <sup>-4</sup>	3,300	13	26	740	2.5	0.25	±0.5
SRBA-60C	60	19	76.2	9.35	8	440	2.5 × 10 <sup>-4</sup>	2,600	24	48	1,000	2.5	0.25	±0.5
SRBB-60C	60	19	88	9.35	8	520	3.0 × 10 <sup>-4</sup>	2,600	24	48	980	2.5	0.3	±0.5
SRB-12	12.7	4.5	18	2.2	2.5	3.6	8.8 × 10 <sup>-8</sup>	28,000	0.2	0.4	36	2.5	0.1	±0.3
SRB-16	16	4.6	18.5	2.3	3	7.8	2.8 × 10 <sup>-7</sup>	24,000	0.4	0.8	65	2.5	0.15	±0.3
SRB-19	19.1	5.7	22	2.8	3	12	6.4 × 10 <sup>-7</sup>	20,000	0.6	1.2	140	2.5	0.15	±0.3
SRB-22	22.2	6.5	25	3.2	4	19	1.4 × 10 <sup>-6</sup>	17,000	1.0	2.0	170	2.5	0.15	±0.4
SRB-26	26.2	6.8	30	3.4	4	33	3.4 × 10 <sup>-6</sup>	15,000	1.5	3.0	240	2.5	0.2	±0.4
SRB-32	31.8	9.4	39	4.7	5	62	9.4 × 10 <sup>-6</sup>	12,000	2.6	5.2	400	2.5	0.2	±0.4
SRB-39	39	16	56	6	5	124	2.8 × 10 <sup>-5</sup>	9,500	6.5	13	460	2.5	0.25	±0.4
SRB-49	49	20	70	9.5	6	280	1.1 × 10 <sup>-4</sup>	7,000	13	26	740	2.5	0.25	±0.5
SRB-60	60	19	88	9	8	500	3.0 × 10 <sup>-4</sup>	6,000	24	48	980	2.5	0.3	±0.5

## Standard Inner diameter

Product Number	(d <sub>1</sub> , d <sub>2</sub> ) Standard INNER Diameter (mm)																			
	φ 2	φ 3	φ 4	φ 5	φ 6	φ 6.35	φ 8	φ 9.525	φ 10	φ 11	φ 12	φ 14	φ 15	φ 16	φ 18	φ 19	φ 20	φ 22	φ 24	φ 25
SRB-12C, 12		●	●	●																
SRB-16C, 16		●	●	●	●															
SRB-19C, 19			●	●	●	●	●													
SRB-22C, 22				●	●	●	●	●	●											
SRB-26C, 26				●	●	●	●	●	●	●										
SRBA-32C, 32							●	●	●	●	●	●								
SRBA-39C, 39									●	●	●	●	●	●	●	●				
SRBA-49C, 49										●	●	●	●	●	●	●	●			
SRBA-60C, 60												●	●	●	●	●	●	●	●	●

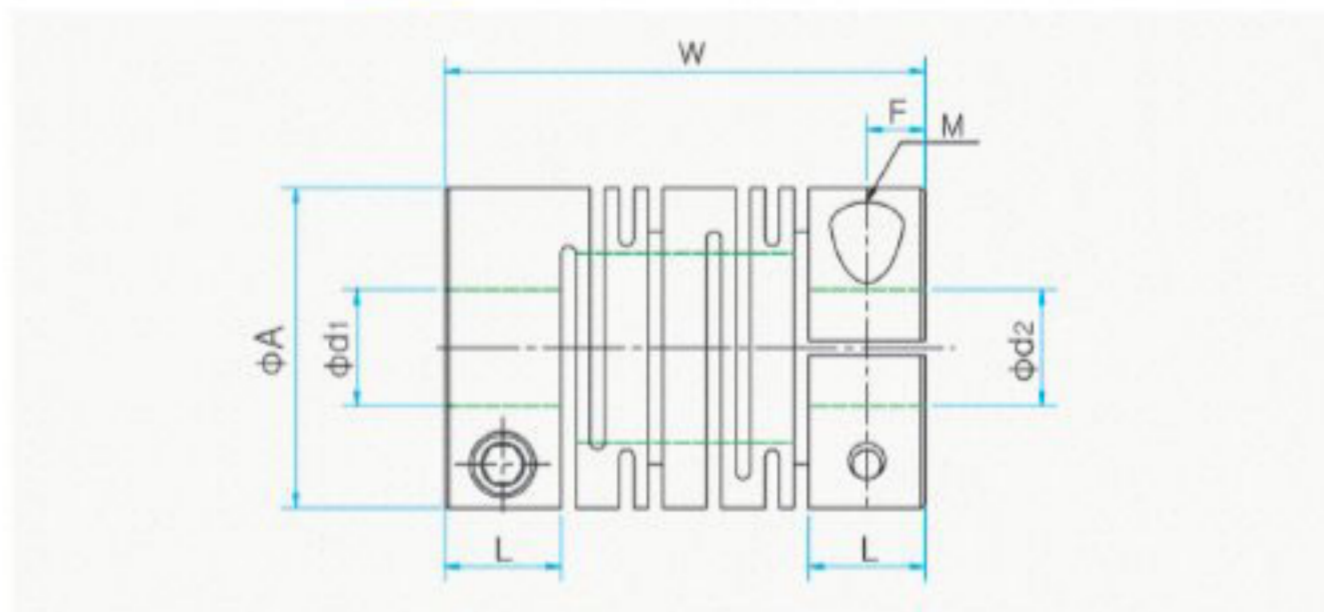
INNER diameter INCH type is also available.  
KEY TYPE is also available

Non standard inner diameter product is also available  
The inner diameter of SRBA-□□ and SRBB-□□ is same

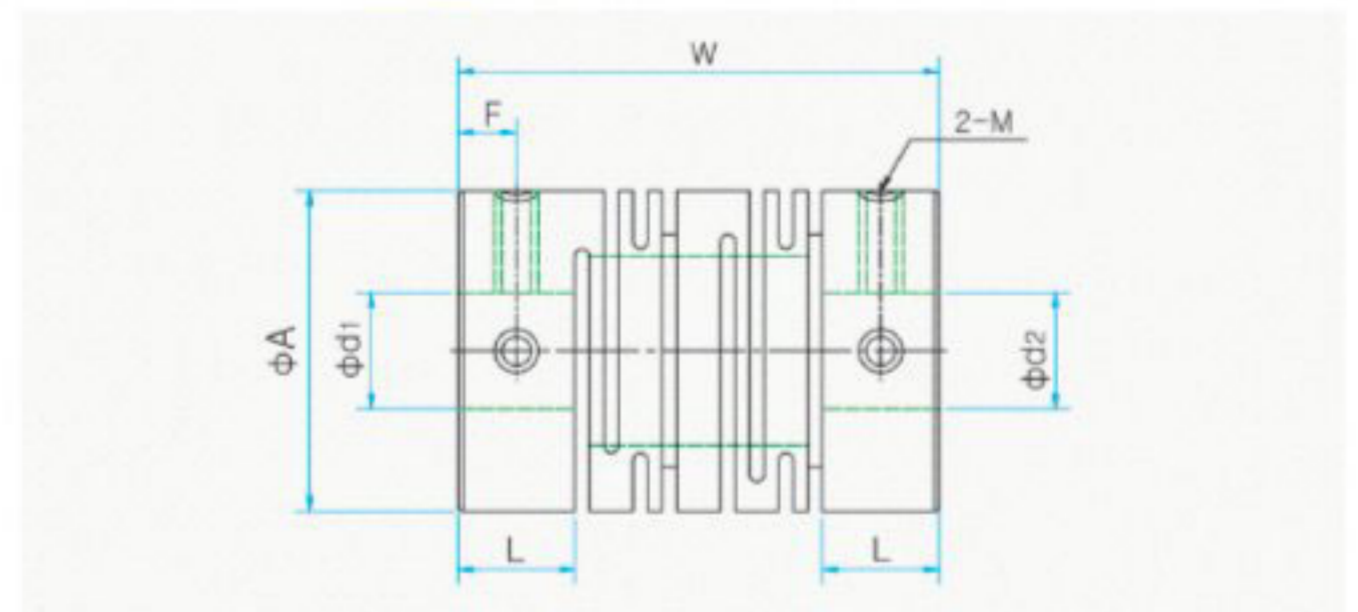
# SRB Series Micro Radial Beam Flexible Coupling

※ Please, download CAD DATA on [www.sungilfa.com](http://www.sungilfa.com)

## SRBS - ■ ■ C (CLAMP TYPE)



## SRBS - ■ ■ (SET SCREW TYPE)



## Standards & Performance

※ Material: Stainless

Product Number	DIMENSION(mm)(±0.3)					mass (g)	Moment of inertia (kg · m <sup>2</sup> )	Max · RPM (min <sup>-1</sup> )	Rated Torque (N · m)	Max Torque (N · m)	Torsional Stiffness (N · m/rad)	Errors of Misalignment		
	A	L	W	F	M							Angle(°)	Parallel(mm)	End-Play(mm)
SRBS-12C	12.7	5	19	2.5	2	13	3.0 × 10 <sup>-7</sup>	12,000	0.3	0.6	65	2.5	0.1	±0.3
SRBS-16C	16	6.1	21.5	3	2.6	26	9.0 × 10 <sup>-7</sup>	10,000	0.5	1	85	2.5	0.15	±0.3
SRBS-19C	19.1	6.1	23	3	2.6	32	1.7 × 10 <sup>-6</sup>	8,000	0.9	1.8	230	2.5	0.15	±0.3
SRBS-22C	22.2	7.2	26.5	3.6	3	43	3.0 × 10 <sup>-6</sup>	7,000	1.6	3.2	290	2.5	0.15	±0.4
SRBS-26C	26.2	7.4	31.4	3.7	3	84	8.6 × 10 <sup>-6</sup>	6,000	2.1	4.2	350	2.5	0.2	±0.4
SRBS-32C	31.8	9.4	39	4.7	4	160	2.5 × 10 <sup>-5</sup>	5,000	3.5	7	840	2.5	0.2	±0.4
SRBAS-39C	39	10.8	43	5.4	5	280	4.0 × 10 <sup>-5</sup>	4,000	8	16	1,200	2.5	0.25	±0.4
SRBBS-39C	39	12	56	6	5	360	8.6 × 10 <sup>-5</sup>	4,000	8	16	1,000	2.5	0.25	±0.4
SRBAS-49C	49	15	63.5	7.5	6	710	2.7 × 10 <sup>-4</sup>	3,300	16	32	1,600	2.5	0.25	±0.5
SRBBS-49C	49	15	70	7.5	6	740	2.8 × 10 <sup>-4</sup>	3,300	16	32	1,400	2.5	0.25	±0.5
SRBS-12	12.7	4.5	18	2.2	2.5	13	3.0 × 10 <sup>-8</sup>	28,000	0.3	0.6	65	2.5	0.1	±0.3
SRBS-16	16	4.6	18.5	2.3	3	21	8.4 × 10 <sup>-7</sup>	24,000	0.5	1	85	2.5	0.15	±0.3
SRBS-19	19.1	5.7	22	2.8	3	32	1.7 × 10 <sup>-7</sup>	20,000	0.9	1.8	230	2.5	0.15	±0.3
SRBS-22	22.2	6.5	25	3.2	4	43	3.0 × 10 <sup>-6</sup>	17,000	1.6	3.2	290	2.5	0.15	±0.4
SRBS-26	26.2	6.8	30	3.4	4	84	8.6 × 10 <sup>-6</sup>	15,000	2.1	4.2	350	2.5	0.2	±0.4
SRBS-32	31.8	9.4	39	4.7	5	160	2.5 × 10 <sup>-6</sup>	12,000	3.5	7	840	2.5	0.2	±0.4
SRBS-39	39	16	56	6	5	350	8.4 × 10 <sup>-5</sup>	9,500	8	16	1,000	2.5	0.25	±0.4
SRBS-49	49	20	70	9.5	6	740	2.8 × 10 <sup>-4</sup>	7,000	16	32	1,400	2.5	0.25	±0.5

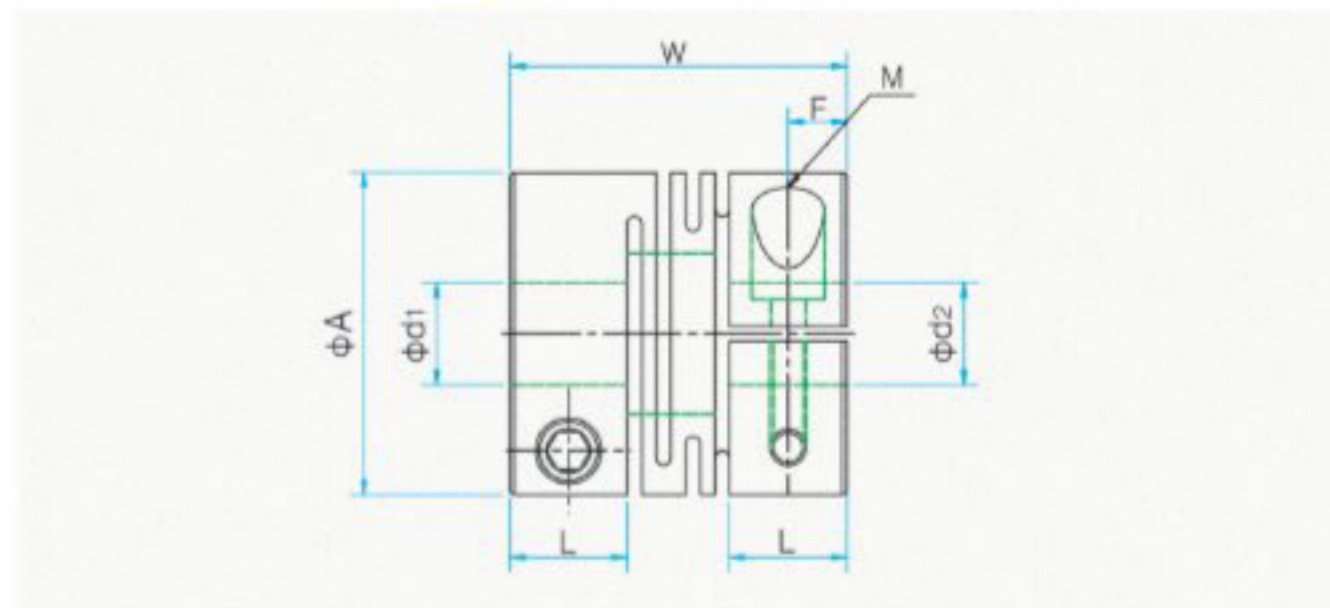
## Standard Inner diameter

Product Number	(d <sub>1</sub> , d <sub>2</sub> ) Standard INNER Diameter (mm)							
SRBS-12,12C	3 × 3	3 × 4	4 × 4	4 × 5	4.5 × 5	5 × 5		
SRBS-16C	3 × 3	4 × 4	4 × 5	4 × 6	4.5 × 5	4.5 × 6	5 × 5	5 × 6
SRBS-16	6 × 6							
SRBS-19C	4 × 4	4 × 5	5 × 5	5 × 6	5 × 8	6 × 6	6 × 6.35	6 × 8
SRBS-19	6.35 × 8	8 × 8						
SRBS-22C	5 × 5	5 × 6	6 × 6	6 × 6.35	6 × 8	6 × 10	6.35 × 8	6.35 × 10
SRBS-22	8 × 8	8 × 9.525	8 × 10	10 × 10				
SRBS-26C	5 × 5	6 × 6	6 × 6.35	6 × 8	6 × 10	6.35 × 8	6.35 × 10	8 × 8
SRBS-26	8 × 9.525	8 × 10	10 × 10	10 × 12	12 × 12			
SRBS-32C	6 × 6	6 × 8	6 × 10	6.35 × 8	8 × 8	8 × 9.525	8 × 10	8 × 12
SRBS-32	10 × 10	10 × 12	10 × 14	12 × 12	12 × 14	14 × 14	15 × 15	
SRBAS-39C,39	8 × 8	10 × 10	10 × 12	10 × 14	12 × 12	14 × 14	15 × 15	16 × 16
SRBAS-49C,49	12 × 14	14 × 14	14 × 16	15 × 15	16 × 16	18 × 18	20 × 20	

# SRB Series Micro Radial Beam Flexible Coupling

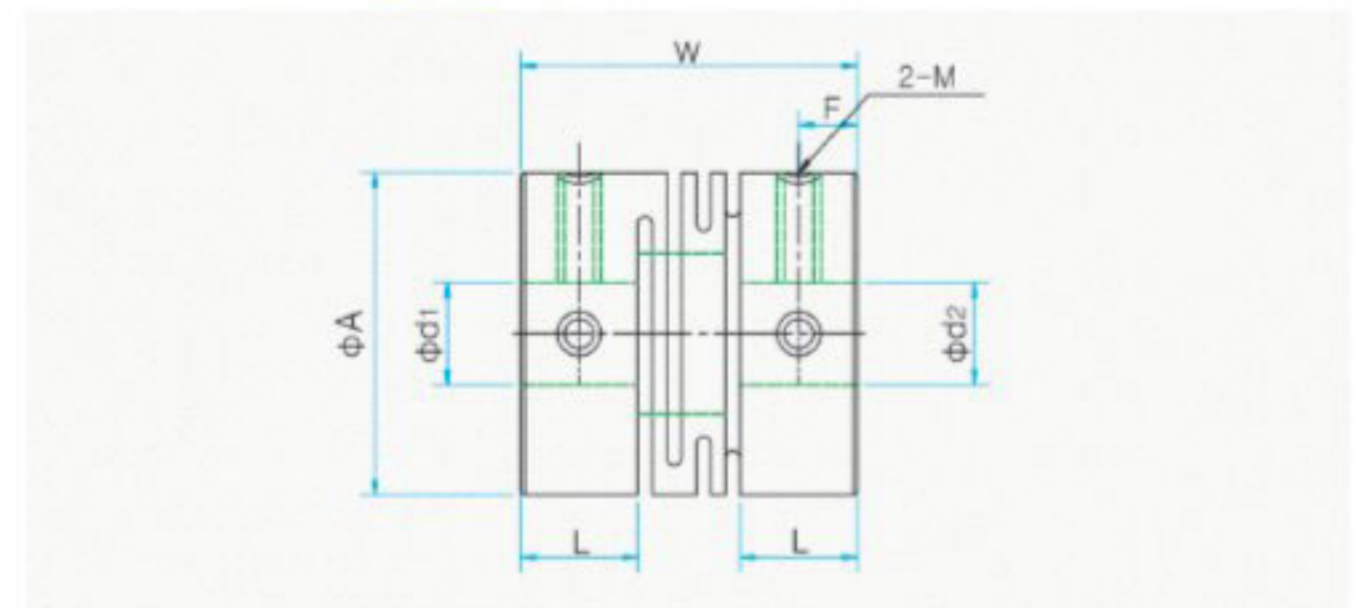
※ Please, download CAD DATA on [www.sungilfa.com](http://www.sungilfa.com)

## SRBM(S)- ■ ■ C (CLAMP TYPE)



\*Material : AL 7075-T6, Stainless

## SRBM - ■ ■ (SET SCREW TYPE)



\*Material : AL 7075-T6

## Standards & Performance

Product Number	DIMENSION(mm)(±0.3)					mass (g)	Moment of inertia (kg · m <sup>2</sup> )	Max · RPM (min <sup>-1</sup> )	Rated Torque (N · m)	Max Torque (N · m)	Torsional Stiffness (N · m/rad)	Errors of Misalignment		
	A	L	W	F	M							Angle(°)	Parallel(mm)	End-Play(mm)
SRBM-12C	12.7	5	14	2.5	2	3.2	7.4 × 10 <sup>-8</sup>	20,000	0.2	0.4	60	1	0	0.15
SRBM-16C	16	6	16	3.0	2.6	8.0	2.9 × 10 <sup>-7</sup>	20,000	0.4	0.8	130	1	0	0.15
SRBM-19C	19.1	6.3	17	3.1	2.6	10	5.0 × 10 <sup>-7</sup>	19,000	0.6	1.2	160	1	0	0.15
SRBM-22C	22.2	7.4	20	3.7	3	15	1.1 × 10 <sup>-6</sup>	17,000	1.0	2.0	180	1	0	0.15
SRBM-26C	26.2	8.4	23	4.2	3	25	2.5 × 10 <sup>-6</sup>	15,000	1.5	3.0	480	1	0	0.15
SRBM-32C	31.8	11	30	5.5	4	50	7.5 × 10 <sup>-6</sup>	10,000	2.6	5.2	780	1	0	0.15
SRBMS-12C	12.7	5	14	2.5	2	10	2.4 × 10 <sup>-7</sup>	20,000	0.3	0.6	120	1	0	0.15
SRBMS-16C	16	6	16	3.0	2.6	20	7.0 × 10 <sup>-7</sup>	20,000	0.5	1.0	240	1	0	0.15
SRBMS-19C	19.1	6.3	17	3.1	2.6	32	1.5 × 10 <sup>-6</sup>	19,000	0.9	1.8	300	1	0	0.15
SRBMS-22C	22.2	7.4	20	3.7	3	42	3.1 × 10 <sup>-6</sup>	17,000	1.6	3.2	350	1	0	0.15
SRBMS-26C	26.2	8.4	23	4.2	3	70	7.2 × 10 <sup>-6</sup>	15,000	2.1	4.2	720	1	0	0.15
SRBMS-32C	31.8	11	30	5.5	4	140	2.0 × 10 <sup>-5</sup>	10,000	3.5	7.0	1,300	1	0	0.15
SRBM-12	12.7	4.5	13	2.2	2.5	3.2	7.4 × 10 <sup>-8</sup>	28,000	0.2	0.4	60	1	0	0.15
SRBM-16	16	5.0	14	2.5	3	8.0	2.9 × 10 <sup>-7</sup>	24,000	0.4	0.8	130	1	0	0.15
SRBM-19	19.1	6.3	17	3.1	3	10	5.0 × 10 <sup>-7</sup>	22,000	0.6	1.2	160	1	0	0.15
SRBM-22	22.2	6.9	19	3.4	4	15	1.1 × 10 <sup>-6</sup>	19,000	1.0	2.0	180	1	0	0.15
SRBM-26	26.2	7.9	22	3.9	4	25	2.5 × 10 <sup>-6</sup>	18,000	1.5	3.6	480	1	0	0.15
SRBM-32	31.8	10.5	29	5.2	5	50	7.5 × 10 <sup>-6</sup>	12,000	2.6	5.2	780	1	0	0.15

Released on May/2009

Product Number	(d <sub>1</sub> , d <sub>2</sub> ) Standard INNER Diameter (mm)													
	φ 2	φ 3	φ 4	φ 5	φ 6	φ 6.35	φ 8	φ 9.525	φ 10	φ 11	φ 12	φ 14	φ 15	
SRBM(S)-12C, 12		●	●	●										
SRBM(S)-16C, 16		●	●	●	●									
SRBM(S)-19C, 19			●	●	●	●	●							
SRBM(S)-22C, 22				●	●	●	●	●	●					
SRBM(S)-26C, 26				●	●	●	●	●	●	●	●			
SRBM(S)-32C, 32					●	●	●	●	●	●	●	●	●	●

☑ INNER diameter INCH type is also available. ☑ KEY TYPE is also available ☑ Non standard inner diameter product is also available



# S0H Series

## Zero Backlash Oldham Coupling

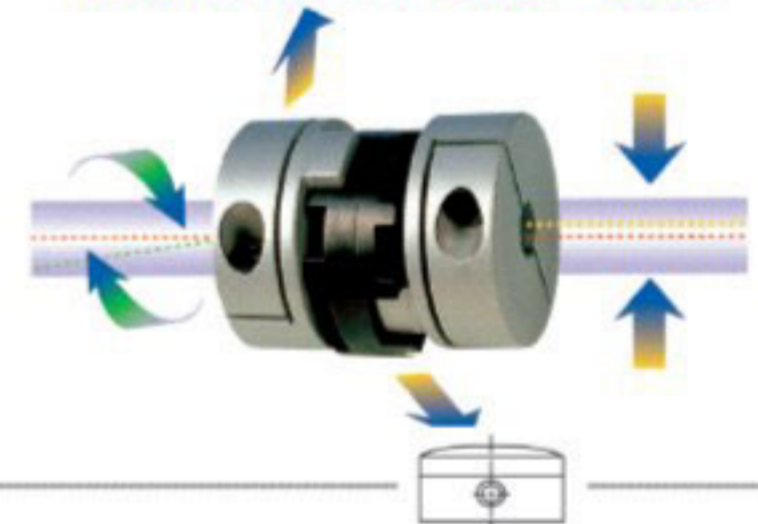


The major characteristic of OLDHAM COUPLING is that it provides exceptional flexibility and wide range of parallel and misalignment acceptability. Since there is no restoring force, there is little weight on bearing. Please, do not confuse with jaw coupling which are operated by different principle. Torque is transferred through disk that is capable of accepting misalignment error and mechanical intermittence. Replacement of disk is easy without disassembling hub from the shaft.

### Features

- Flexible movement - little weight on bearing
- High torsion rigidity
- Superior performance toward parallel, angular and misalignment
- Free from electro-magnetism
- Low inertia
- Easy assembly
- Electricity insulation effect

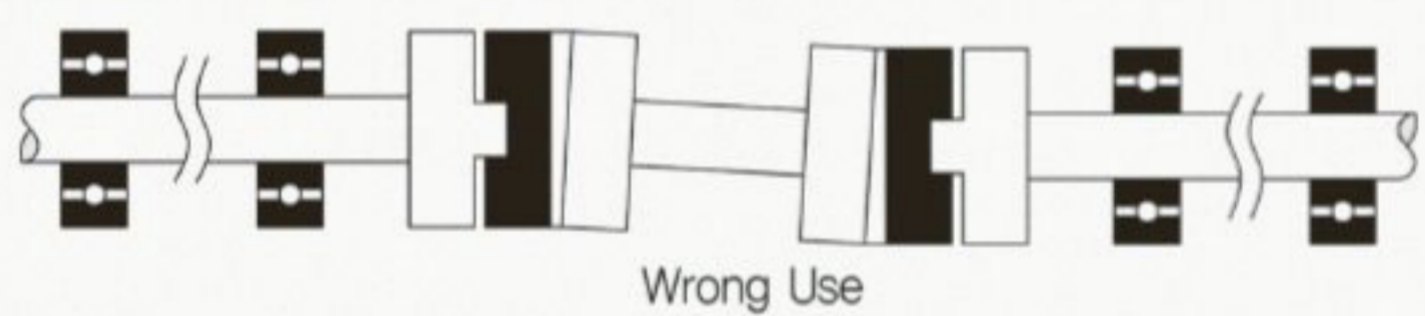
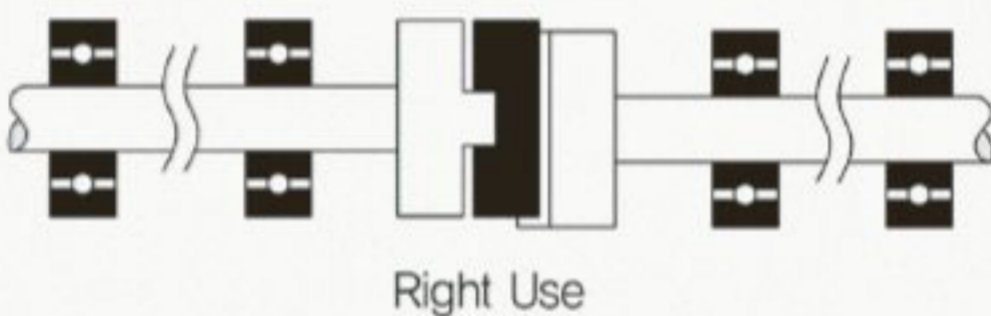
\* Registration of Design 152625  
\* Patent on a New Device 12128



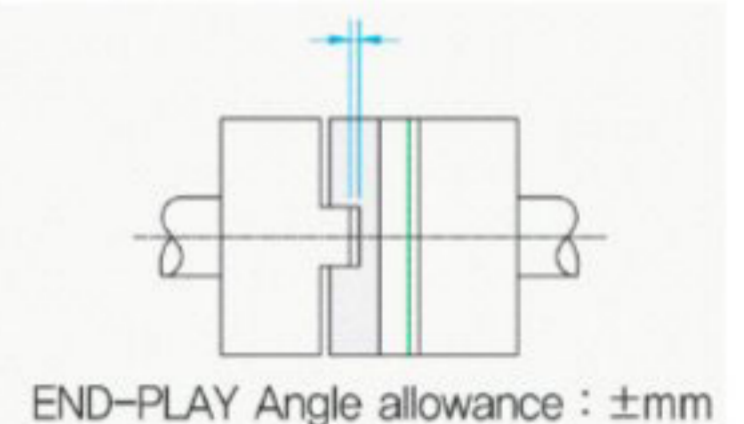
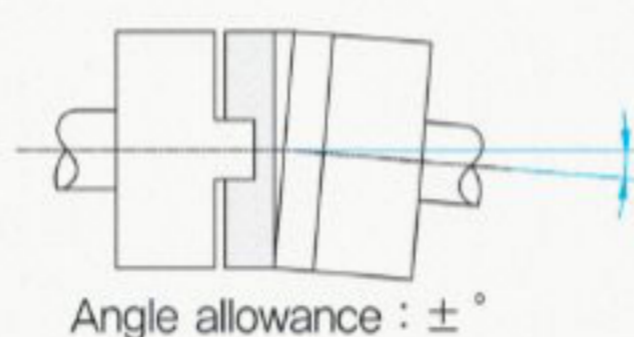
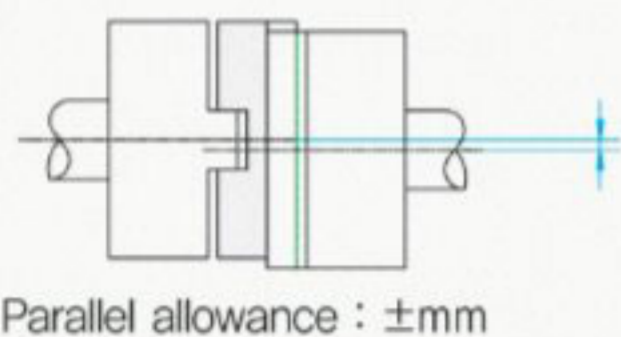
The past coupling	SUNGIL COUPLING	
		Micro rounding in the Hub accepts angular movement and lessen the load of shaft. Conventional OLDHAM coupling occurs bending moment in outer diameter for angular use. Therefore, it allows a little angular movement. SUNG IL OLDHAM coupling featuring micro rounding in the hub is designed for the angular disposition occurring in the center part. In consequence, angular allowance, lessen the shaft load transfer full torque.

### Proper installation of OLDHAM COUPLING

- Cascade layout should be avoided and proper bearing support is necessary.
- OLDHAM coupling is not adequate for connecting moving shafts or used in pair.



### Misalignment



### Application

- X-Y Position Table
- Good for small sized motor like AC motor, DC motor, Servo motor, Tacho generator and so forth
- Hydraulic distribution system and optical system
- Ventilation equipment, environmental equipment, encoder and small pump
- Paper, disk, tape transporting device

### Structure & Material

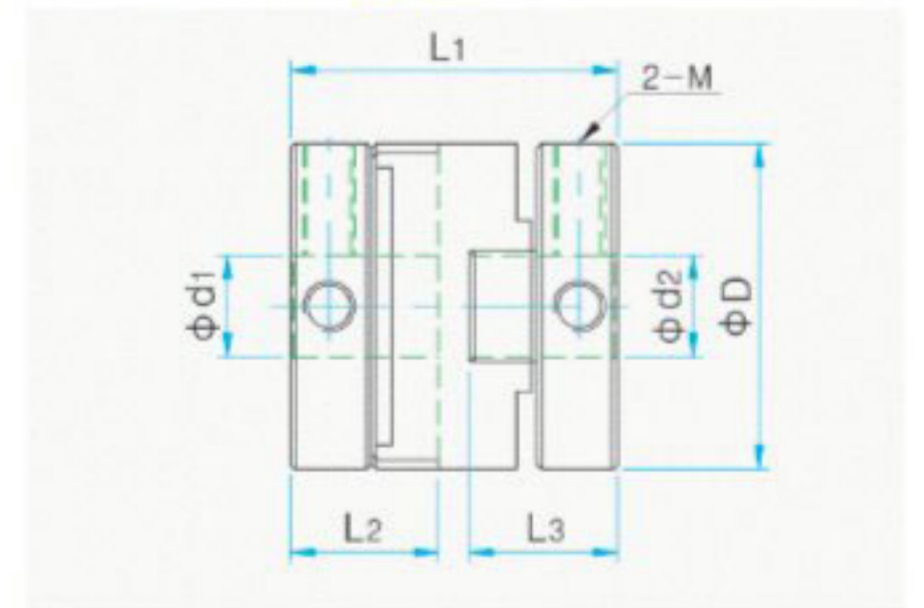
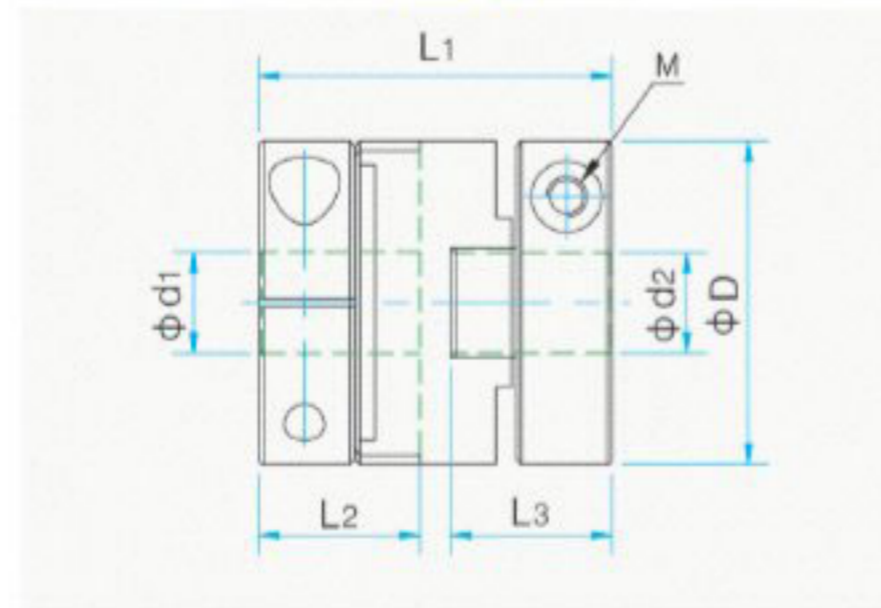
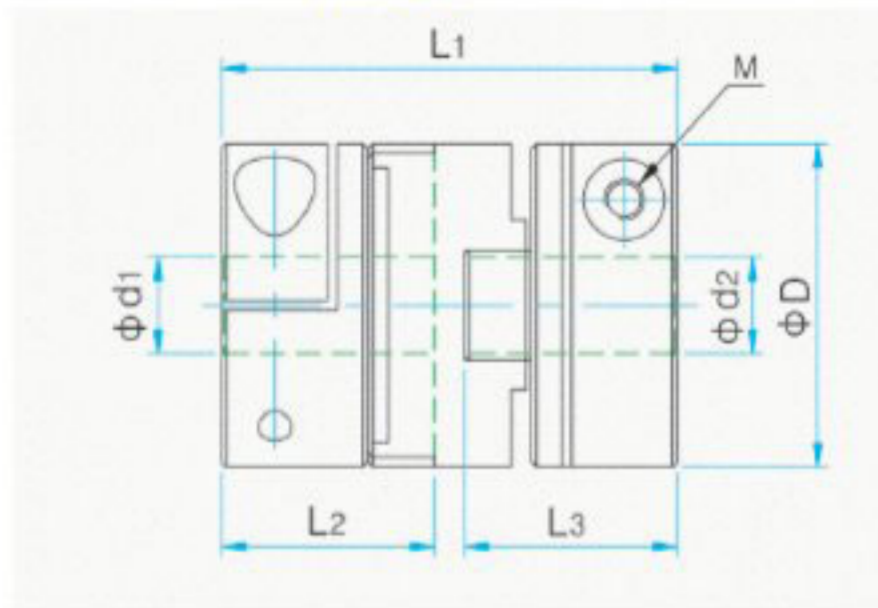


# SOH Series Zero Backlash Oldham Coupling

 **SOH - ■ ■ C** (CLAMP TYPE)

 **SOHM - ■ ■ C** (CLAMP TYPE)

 **SOH - ■ ■** (SET SCREW TYPE)



## Standards & Performance

Product Number	DIMENSION(mm)(±0.3)				Bolt M	mass (g)	Max Torque (N·m)	Rated Torque (N·m)	Torsional Stiffness (N·m/rad)	Moment of inertia (kg·m <sup>2</sup> )	Max·RPM (min <sup>-1</sup> )	Errors of Misalignment		
	D	L1	L2	L3								Angle(°)	Parallel(mm)	End-Play(mm)
SOH-16C	16	23.6	11	11	M2.6	10	2	1	65	3.7 × 10 <sup>-7</sup>	8,000	2	1	0.1
SOH-20C	20	25.5	11.8	11.8	M2.6	16	3	1.5	120	9.3 × 10 <sup>-7</sup>	7,000	2	1.5	0.1
SOH-25C	25.5	32	14.8	14.8	M3	34	5	2.5	200	3.3 × 10 <sup>-6</sup>	6,000	2	2	0.1
SOH-32C	32	45	21	21	M4	80	14	7	620	1.3 × 10 <sup>-5</sup>	4,800	2	2.5	0.2
SOH-43C	43	52	24	24	M5	160	30	15	1,200	4.3 × 10 <sup>-5</sup>	4,000	2	3.0	0.2
SOH-53C	53	58	27	27	M5	252	50	25	1,400	1.0 × 10 <sup>-4</sup>	3,400	2	3.2	0.2
SOH-57C	57	77	36.5	36.5	M6	390	72	36	2,600	1.8 × 10 <sup>-4</sup>	3,200	2	3.5	0.2
SOHM-16C	16	21	9.5	9.5	M2.6	9	2	1	65	3.2 × 10 <sup>-7</sup>	8,000	2	1	0.1
SOHM-20C	20	22.5	10	10	M2.6	14	3	1.5	120	8.2 × 10 <sup>-7</sup>	7,000	2	1.5	0.1
SOHM-25C	25.5	27	12	12	M3	27	5	2.5	200	2.6 × 10 <sup>-6</sup>	6,000	2	2	0.1
SOHM-32C	32	35	16	16	M4	52	14	7	620	8.3 × 10 <sup>-6</sup>	4,800	2	2.5	0.2
SOHM-43C	43	47	21.2	21.2	M5	132	30	15	1,200	2.0 × 10 <sup>-5</sup>	4,000	2	3.0	0.2
SOHM-53C	53	53	24.3	24.3	M5	235	50	25	1,400	9.6 × 10 <sup>-5</sup>	3,400	2	3.2	0.2
SOHM-57C	57	56	26.7	26.7	M6	250	72	36	2,600	1.3 × 10 <sup>-4</sup>	3,200	2	3.5	0.2
SOHM-70C	73	77	37	37	M8	450	130	65	4,800	4.5 × 10 <sup>-4</sup>	3,000	2	3.5	0.2
SOH-16	16	18	8	8	M3	7	2	1	65	2.4 × 10 <sup>-7</sup>	8,000	2	1	0.1
SOH-20	20	20	8.9	8.9	M4	14	3	1.5	120	8.1 × 10 <sup>-7</sup>	7,000	2	1.5	0.1
SOH-25	25.5	25.5	11.6	11.6	M4	20	5	2.5	200	1.8 × 10 <sup>-6</sup>	6,000	2	2	0.1
SOH-32	32	32	14.5	14.5	M5	48	14	7	620	6.7 × 10 <sup>-6</sup>	4,800	2	2.5	0.2
SOH-43	43	52	24	24	M5	160	30	15	1,200	3.9 × 10 <sup>-5</sup>	4,000	2	3.0	0.2
SOH-53	53	58	27	27	M6	252	50	25	1,400	1.0 × 10 <sup>-4</sup>	3,400	2	3.2	0.2
SOH-57	57	77	36.5	36.5	M8	390	72	36	2,600	1.8 × 10 <sup>-4</sup>	3,200	2	3.5	0.2
SOH-70	73	77	37	37	M8	450	130	65	4,800	4.5 × 10 <sup>-4</sup>	3,000	2	3.5	0.2

There is just one bolt in SOH16, SOH20

## How to order product

**SOH - 57C**

**φ 15**

**×**

**φ 25**

Product No.

Shaft Dia

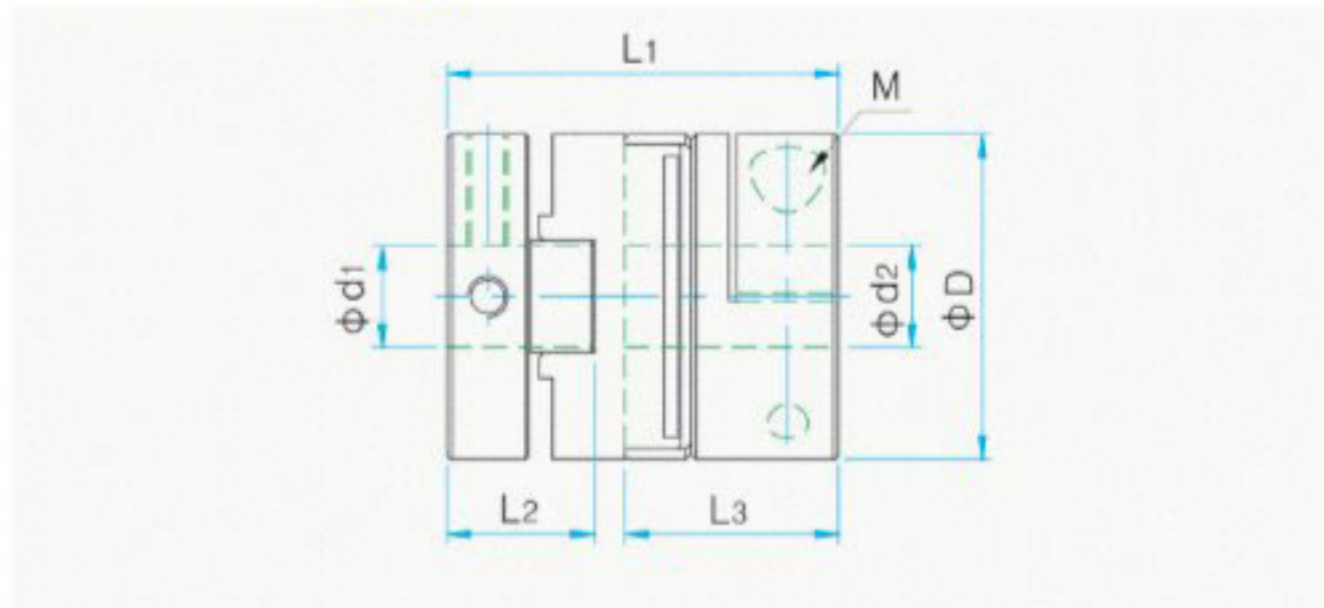
Shaft Dia

※ Please, specify the diameters of both shaft ends in the order form.

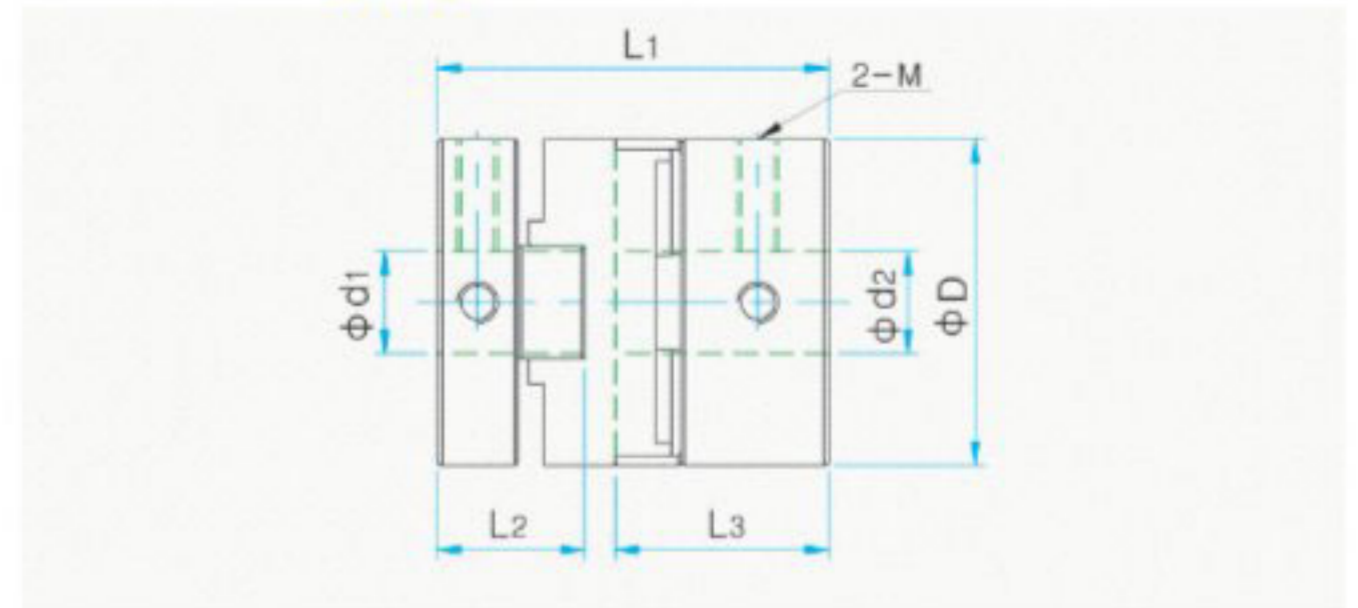
# SOH Series Zero Backlash Oldham Coupling

※ Please, download CAD DATA on [www.sungilfa.com](http://www.sungilfa.com)

## SOH - ■ ■ SC



## SOH - ■ ■ S



## Standards & Performance

Product Number	DIMENSION(mm)(±0.3)				Bolt M	mass (g)	Max Torque (N·m)	Rated Torque (N·m)	Torsional Stiffness (N·m/rad)	Moment of inertia (kg·m <sup>2</sup> )	Max·RPM (min <sup>-1</sup> )	Errors of Misalignment		
	D	L1	L2	L3								Angle(°)	Parallel(mm)	End-Play(mm)
SOH-16S	16	21	8	11	M3	12.7	2	1	65	2.7 × 10 <sup>-7</sup>	8,000	2	1	0.1
SOH-20S	20	22.8	8.9	11.8	M4	16	3	1.5	120	9.0 × 10 <sup>-7</sup>	7,000	2	1.5	0.1
SOH-25S	25.5	28.8	11.6	14.8	M4	19.1	5	2.5	200	2.6 × 10 <sup>-6</sup>	6,000	2	2	0.1
SOH-32S	32	38.5	14.5	21	M5	22.2	14	7	620	1.1 × 10 <sup>-5</sup>	4,800	2	2.5	0.2
SOH-16SC	16	21	8	11	M3	7.5	2	1	65	2.9 × 10 <sup>-7</sup>	8,000	2	1	0.1
SOH-20SC	20	22.8	8.9	11.8	M4	15.5	3	1.5	120	9.0 × 10 <sup>-7</sup>	7,000	2	1.5	0.1
SOH-25SC	25.5	28.8	11.6	14.8	M4	27	5	2.5	200	2.6 × 10 <sup>-6</sup>	6,000	2	2	0.1
SOH-32SC	32	38.5	14.5	21	M5	70	14	7	620	1.1 × 10 <sup>-5</sup>	4,800	2	2.5	0.2

## Standard Inner diameter

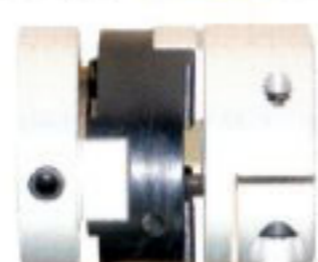
Product Number	(d <sub>1</sub> d <sub>2</sub> ) Standard INNER Diameter (mm)																								
	3	4	5	6	6.35	8	9.525	10	11	12	14	15	16	18	19	20	22	24	25	25.4	28	30	32	35	40
SOH-16	●	●	●	●																					
SOH-20		●	●	●	●	●																			
SOH-25			●	●	●	●	●	●																	
SOH-32				●	●	●	●	●	●	●	●	●													
SOH-43						●	●	●	●	●	●	●	●	●	●										
SOH-53								●	●	●	●	●	●	●	●	●	●	●	●						
SOH-57												●	●	●	●	●	●	●	●	●	●	●			
SOH-70														●	●	●	●	●	●	●	●	●	●	●	●
SOH-16C	●	●	●	●																					
SOH-20C		●	●	●	●	●																			
SOH-25C			●	●	●	●	●	●																	
SOH-32C				●	●	●	●	●	●	●	●	●													
SOH-43C						●	●	●	●	●	●	●	●	●	●										
SOH-53C								●	●	●	●	●	●	●	●	●	●	●	●						
SOH-57C												●	●	●	●	●	●	●	●	●	●	●	●	●	●
SOHM-70C														●	●	●	●	●	●	●	●	●	●	●	●

- ☑ INNER diameter INCH type is also available.
- ☑ The inner diameter of SOH-□□S and SOH-□□SC is same with above table
- ☑ The inner diameter of SOH-□□C and SOHM-□□C is same
- ☑ Non standard inner diameter product is also available
- ☑ KEY TYPE is also available

SOH - ■ ■



SOH - ■ ■ SC



SOH - ■ ■ S



# SD Series

## Zero Backlash Disk Coupling

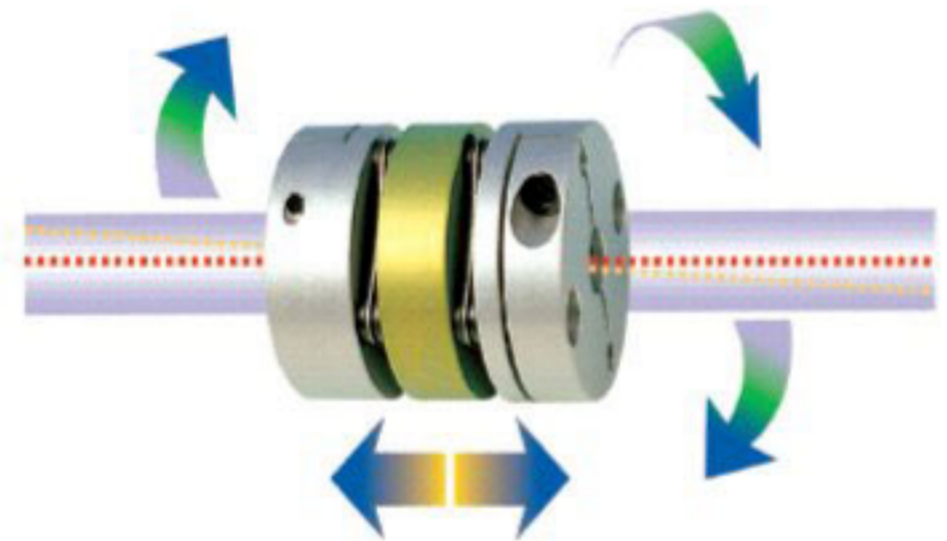


DISK COUPLING of SI is built-in coupling which provides big torsion rigidity and superior mobility, and it is high precision coupling that has nearly permanent lifespan.

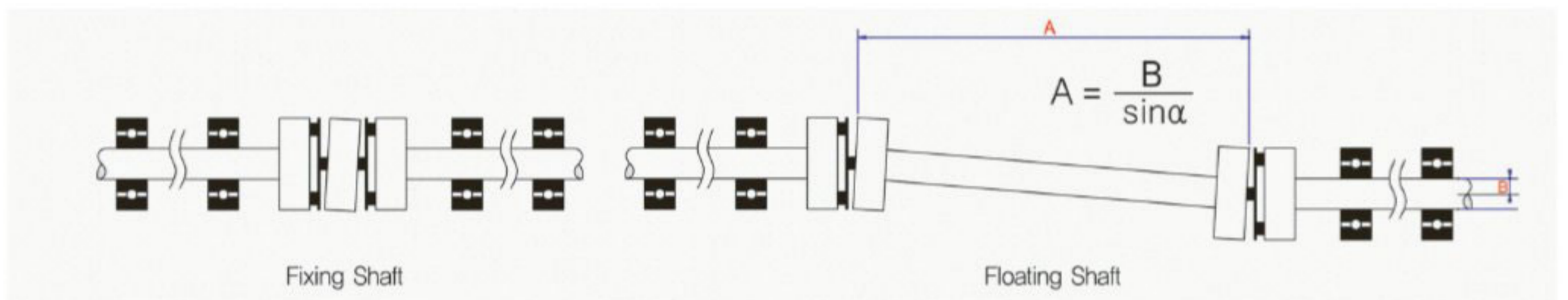
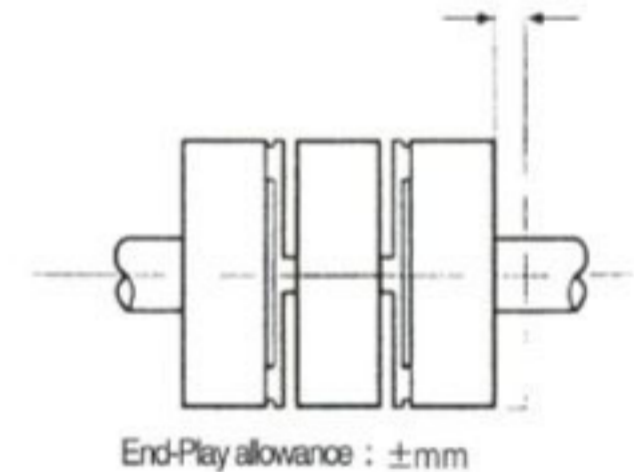
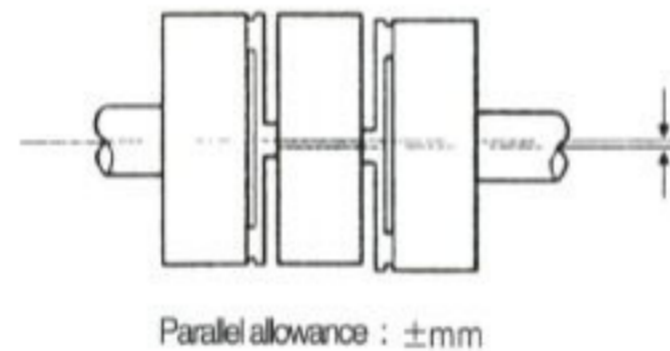
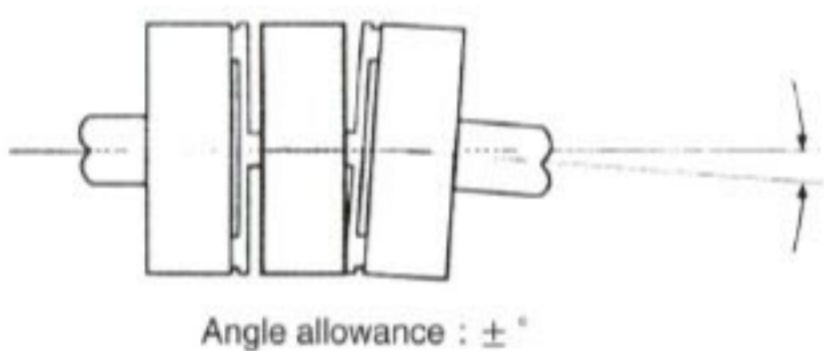
DISK COUPLING of SI can rotate with high speed in one or two directions and is often used mainly in high-precision measuring equipments, high speed movement control system, critical weight, dynamometer, precision encoder and so forth.

### Features

- Designed with high torsion rigidity
- Not affected by backlash and has semi permanent lifespan
- Accept amplitude, eccentricity and misalignment between shafts
- Single-stage and double-stage types
- Built-in metal structure
- Low inertia
- High-precision position controlling system
- Identical regular and reverse rotational characteristics
- Maintenance free and excellent resistance against oil



### Misalignment



### Application

- Servo motor, stepping motor, precision motor and so forth
- High precision encoder and dynamometer drive
- High speed and high precision position controlling system, centrifugal separator
- Copy machine, information, communication and audio equipment

### How to order product

**SDW□ – 31C**

$\phi 6$

×

$\phi 8$

Product No.

Shaft Dia

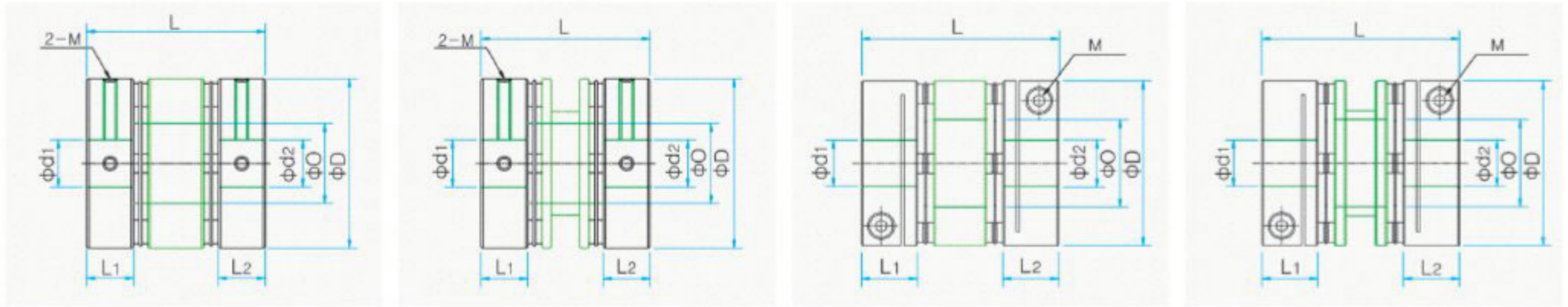
Shaft Dia

※ Please, specify the diameters of both shaft ends in the order form.

# SD Series Zero Backlash Disk Coupling

※ Please, download CAD DATA on [www.sungilfa.com](http://www.sungilfa.com)

**SDW** - ■ ■ ■ (SET SCREW TYPE)  
 **SDA** - ■ ■ ■ (SET SCREW TYPE)  
 **SDW** - ■ ■ ■ C (CLAMP TYPE)  
 **SDA** - ■ ■ ■ C (CLAMP TYPE)



## Standards & Performance

Product Number	DIMENSION(mm)(±0.3)					mass (g)	Rated Torque (N·m)	Max Torque (N·m)	Torsional Stiffness (N·m/rad)	Max·RPM (min <sup>-1</sup> )	Moment of inertia (kg·m <sup>2</sup> )	Errors of Misalignment		
	φ D	L1L2	L	M	O							Angle(°)	Parallel(mm)	End-Play(mm)
SDWA-16	16	5.1	15.6	2.5	6.2	6	0.5	1	200	12,000	2.2 × 10 <sup>-7</sup>	3	0.2	0.2
SDWB-16	16	5.1	17.6	2.5	6.2	7	0.5	1	200	12,000	2.6 × 10 <sup>-7</sup>	3	0.2	0.2
SDWA-16C	16	7.8	21	2	6.2	9	0.5	1	200	10,000	3.3 × 10 <sup>-7</sup>	3	0.2	0.2
SDWB-16C	16	7.8	23	2	6.2	10	0.5	1	200	10,000	3.7 × 10 <sup>-7</sup>	3	0.2	0.2
SDWA-19	19	6.1	18	3	8.2	10	0.9	1.8	300	12,000	5.3 × 10 <sup>-7</sup>	3	0.2	0.2
SDWB-19	19	6.1	21	3	8.2	11	0.9	1.8	300	12,000	5.8 × 10 <sup>-7</sup>	3	0.2	0.2
SDWA-19C	19	8.7	23	2.6	8.2	14	0.9	1.8	300	10,000	7.4 × 10 <sup>-7</sup>	3	0.2	0.2
SDWB-19C	19	8.7	26.2	2.6	8.2	15	0.9	1.8	300	10,000	7.9 × 10 <sup>-7</sup>	3	0.2	0.2
SDWA-22	22.2	6.2	20	3	9	16	1.1	2.2	400	12,000	1.0 × 10 <sup>-6</sup>	3	0.2	0.2
SDWB-22	22.2	6.2	22.2	3	9	17	1.1	2.2	400	12,000	1.1 × 10 <sup>-6</sup>	3	0.3	0.2
SDA-22	22.2	6.2	28.2	3	8.3	18	1.1	2.2	400	12,000	1.3 × 10 <sup>-6</sup>	3	0.4	0.2
SDWA-22C	22.2	8.7	25	2.6	9	18	1.1	2.2	400	10,000	1.3 × 10 <sup>-6</sup>	3	0.2	0.2
SDWB-22C	22.2	8.7	27	2.6	9	19	1.1	2.2	400	10,000	1.4 × 10 <sup>-6</sup>	3	0.3	0.2
SDA-22C	22.2	8.7	33	2.6	8.3	20	1.1	2.2	400	10,000	1.5 × 10 <sup>-6</sup>	3	0.4	0.2

☑ Please check beside figure that is the length of single type

SDS 16 = 11.9    SDS 19 = 14    SDS 22 = 14.7  
 SDS 16C = 17.4    SDS 19C = 19.2    SDS 22C = 19.6

## Standard Inner diameter

Product Number	(d <sub>1</sub> , d <sub>2</sub> ) Standard INNER Diameter (mm)									
	2	3	4	4.5	5	6	7	8	9	10
SDWA-16		●	●	●	●					
SDWA-16C		●	●	●	●					
SDWA-19		●	●	●	●	●				
SDWA-19C		●	●	●	●	●				
SDWA-22		●	●	●	●	●	●	●	●★	●★
SDWA-22C		●	●	●	●	●	●	●	●★	●★

☑ INNER diameter INCH type is also available.

☑ Non standard inner diameter product is also available

☑ KEY TYPE is also available

☑ The inner diameter that is marked ★ is not available by shaft through type

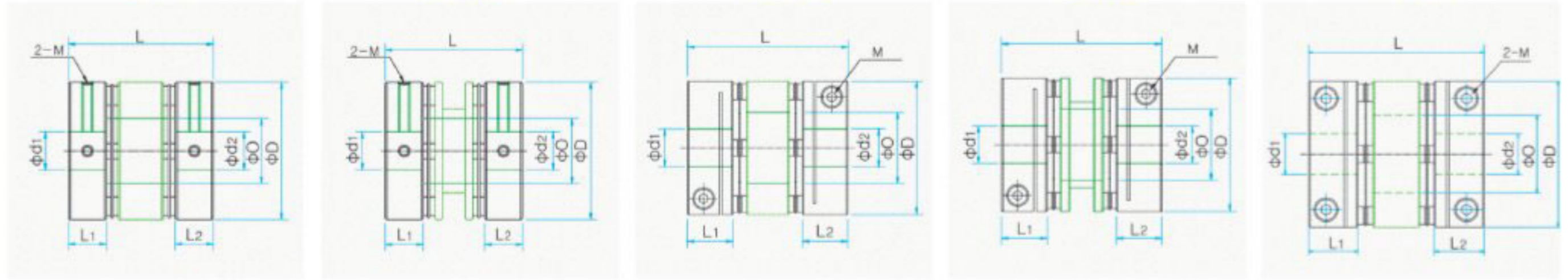


※ Hub design can be changed according to diameter size



# SD Series Zero Backlash Disk Coupling

 **SDW** - ■ ■ ■ (SET SCREW TYPE)  
  **SDA** - ■ ■ ■ (SET SCREW TYPE)  
  **SDW** - ■ ■ ■ C (CLAMP TYPE)  
  **SDA** - ■ ■ ■ C (CLAMP TYPE)  
  **SDWB(C)** - ■ ■ ■ C (CLAMP TYPE)



## Standards & Performance

Product Number	DIMENSION(mm)(±0.3)					mass (g)	Rated Torque (N·m)	Max Torque (N·m)	Torsional Stiffness (N·m/rad)	Max·RPM (min <sup>-1</sup> )	Moment of inertia (kg·m <sup>2</sup> )	Errors of Misalignment		
	φ D	L1/L2	L	M	O							Angle(°)	Parallel(mm)	End-Play(mm)
SDWA-26	26.6	7.3	26	4	12.2	28	1.5	3.0	600	10,000	2.3 × 10 <sup>-6</sup>	3	0.3	0.3
SDA-26	26.6	7.3	31.5	4	10.5	32	1.5	3.0	600	10,000	3.2 × 10 <sup>-6</sup>	3	0.4	0.3
SDWA-26C	26.6	10.7	32.6	3	12.2	34	1.5	3.0	600	9,000	3.4 × 10 <sup>-6</sup>	3	0.3	0.3
SDA-26C	26.6	10.7	38.5	3	10.5	39	1.5	3.0	600	9,000	3.9 × 10 <sup>-6</sup>	3	0.4	0.3
SDWA-31	31.8	7.2	24.5	4	14.5	30	3.0	6.0	1,300	9,000	4.3 × 10 <sup>-6</sup>	3	0.2	0.4
SDWB-31	31.8	7.2	29.5	4	14.5	38	3.0	6.0	1,300	9,000	5.5 × 10 <sup>-6</sup>	3	0.3	0.4
SDA-31	31.8	7.2	36	4	12.5	38	3.0	6.0	1,300	9,000	5.5 × 10 <sup>-6</sup>	3	0.4	0.4
SDWA-31C	31.8	11.6	33.5	3	14.5	52	3.0	6.0	1,300	8,500	7.5 × 10 <sup>-6</sup>	3	0.2	0.4
SDWB-31C	31.8	11.6	38.5	3	14.5	60	3.0	6.0	1,300	8,500	8.8 × 10 <sup>-6</sup>	3	0.3	0.4
SDA-31C	31.8	11.6	44.7	3	12.5	60	3.0	6.0	1,300	8,500	8.8 × 10 <sup>-6</sup>	3	0.4	0.4
SDWA-39C	39	13.6	39	4	17	95	5	10	1,800	8,000	2.1 × 10 <sup>-5</sup>	3	0.2	0.4
SDWC-39C	39	13.6	44.8	4	17	110	5	10	1,800	8,000	2.4 × 10 <sup>-5</sup>	3	0.3	0.4
SDA-39C	39	13.6	56.2	4	17	120	5	10	1,800	8,000	3.0 × 10 <sup>-5</sup>	3	0.4	0.4
SDWC-42C	42.5	13.6	46	4	18	120	6	12	2,000	8,000	3.3 × 10 <sup>-5</sup>	3	0.3	0.5
SDWC-47C	47	16	50	4	20.4	160	10	20	4,000	7,000	5.5 × 10 <sup>-5</sup>	3	0.4	0.5
SDWB-54C	54	19	52	5	25	250	22	44	7,000	6,000	1.1 × 10 <sup>-4</sup>	3	0.3	0.5
SDWC-54C	54	19	58	5	25	280	22	44	7,000	6,000	1.2 × 10 <sup>-4</sup>	3	0.4	0.5

▶ Please check beside figure that is the length of single type  
 SDS 26 = 17.5   SDS 31 = 17.7  
 SDS 39C = 31   SDS 26C = 24.1   SDS 31C = 26.5

## Standard Inner diameter

Product Number	(d <sub>1</sub> , d <sub>2</sub> ) Standard INNER Diameter (mm)													
	4	5	6	6. <sup>35</sup>	7	8	9	9. <sup>525</sup>	10	11	12	12.7	14	15
SDWA-26	●	●	●	●	●	●	●	●	●					
SDWA-26C	●	●	●	●	●	●	●	●	●					
SDWA-31				●	●	●	●	●	●	●	●	●	●	●★
SDWA-31C				●	●	●	●	●	●	●	●	●	●	●★

Product Number	(d <sub>1</sub> , d <sub>2</sub> ) Standard INNER Diameter (mm)																							
	4	4.5	5	6	6. <sup>35</sup>	7	8	9	9. <sup>525</sup>	10	11	12	12.7	14	15	15. <sup>875</sup>	16	17	18	19	20	24	25	
SDWA-39C			●	●	●	●	●	●	●	●	●	●	●	●	●	●	●							
SDWC-42C				●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●★	●★				
SDWC-47C							●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
SDWC-54C										●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

▶ INNER diameter INCH type is also available.

▶ Non standard inner diameter product is also available

▶ KEY TYPE is also available

▶ The inner diameter that is marked ★ is not available by shaft through type

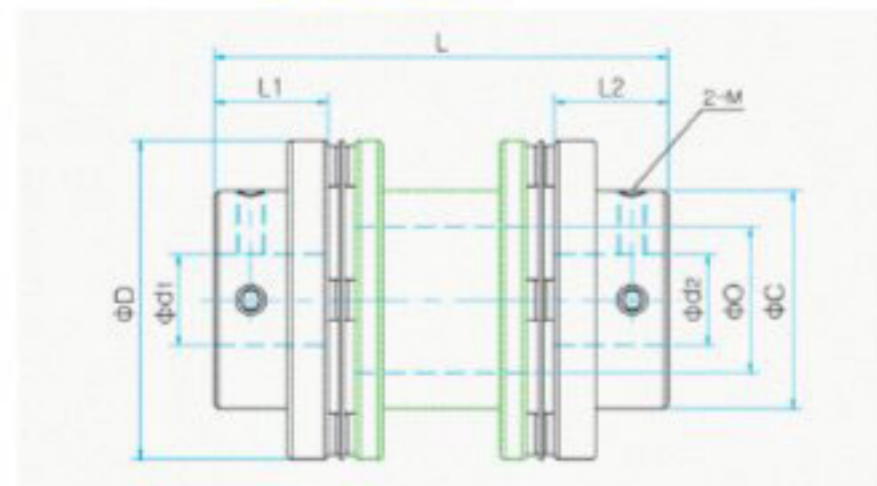
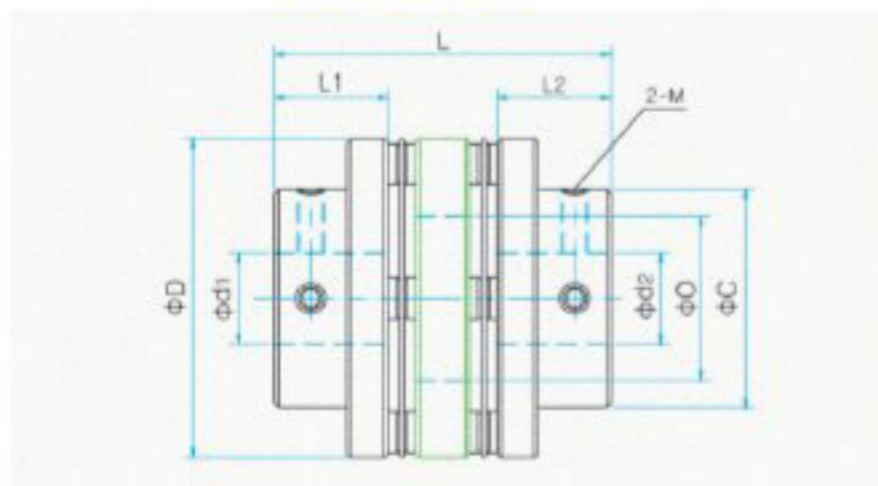
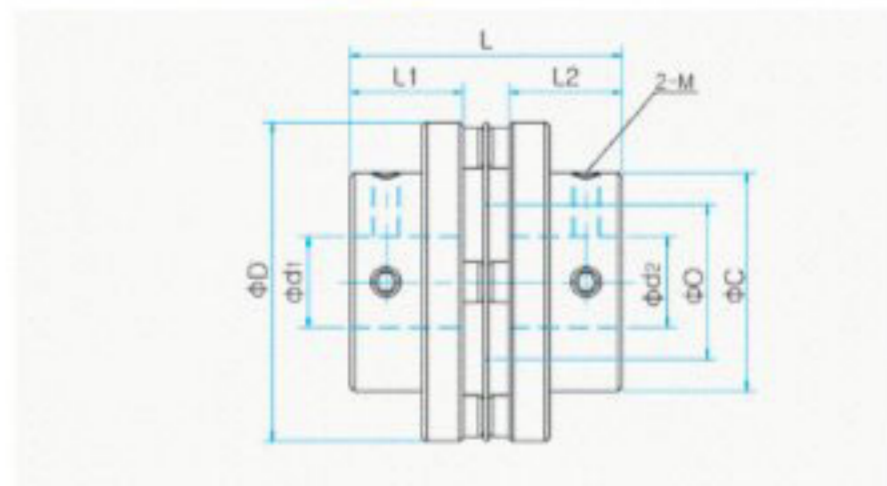
# SD Series Zero Backlash Disk Coupling

※ Please, download CAD DATA on [www.sungilfa.com](http://www.sungilfa.com)

 **SDS** - ■ ■ (SET SCREW TYPE)

 **SDW** ■ - ■ ■ (SET SCREW TYPE)

 **SDA** ■ - ■ ■ (SET SCREW TYPE)



## Standards & Performance

Product Number	DIMENSION(mm)(±0.3)						mass (g)	Rated Torque (N·m)	Max Torque (N·m)	Torsional Stiffness (N·m/rad)	Max·RPM (min <sup>-1</sup> )	Moment of inertia (kg·m <sup>2</sup> )	Errors of Misalignment		
	φ D	φ C	L1 L2	L	M	O							Angle(°)	Parallel(mm)	End-Play(mm)
SDS-42	42.5	29.2	13.5	31	4	18	65	6	12	2,800	8,000	1.7 × 10 <sup>-5</sup>	1.5	0	0.2
SDWA-42	42.5	29.2	13.5	39.7	4	18	84	6	12	2,000	8,000	2.1 × 10 <sup>-5</sup>	3	0.2	0.5
SDWB-42	42.5	29.2	13.5	44.2	4	18	94	6	12	2,000	8,000	2.4 × 10 <sup>-5</sup>	3	0.3	0.5
SDAA-42	42.5	29.2	13.5	50	4	18	105	6	12	2,000	8,000	2.7 × 10 <sup>-5</sup>	3	0.4	0.5
SDAB-42	42.5	29.2	13.5	58	4	18	110	6	12	2,000	8,000	2.8 × 10 <sup>-5</sup>	3	0.5	0.5
SDAC-42	42.5	29.2	13.5	67.2	4	18	115	6	12	2,000	8,000	2.9 × 10 <sup>-5</sup>	3	0.6	0.5
SDS-47	47	33	14	31.7	5	20.4	91	10	20	6,000	8,000	2.7 × 10 <sup>-5</sup>	1.5	0	0.2
SDWA-47	47	33	14	40	5	20.4	115	10	20	4,000	8,000	3.4 × 10 <sup>-5</sup>	3	0.2	0.5
SDWB-47	47	33	14	46	5	20.4	120	10	20	4,000	8,000	3.6 × 10 <sup>-5</sup>	3	0.4	0.5
SDAA-47	47	33	14	58.5	5	20	140	10	20	4,000	8,000	4.2 × 10 <sup>-5</sup>	3	0.5	0.5
SDAB-47	47	33	14	85	5	20	160	10	20	4,000	8,000	4.7 × 10 <sup>-5</sup>	3	0.8	0.5
SDS-54	54	38.5	19	42.2	5	25	130	22	44	11,000	7,500	4.9 × 10 <sup>-5</sup>	1.5	0	0.2
SDWA-54	54	38.5	19	55.5	5	25	177	22	44	7,000	7,500	6.7 × 10 <sup>-5</sup>	3	0.2	0.5
SDAA-54	54	38.5	19	71	5	24	230	22	44	7,000	7,500	9.0 × 10 <sup>-5</sup>	3	0.5	0.5
SDAB-54	54	38.5	19	85	5	24	250	22	44	7,000	7,500	1.1 × 10 <sup>-4</sup>	3	0.7	0.5
SDS-64	64	48	26	58	8	25.5	292	31	62	20,000	7,000	1.8 × 10 <sup>-4</sup>	1.5	0	0.2
SDWA-64	64	48	26	74	8	25.5	373	31	62	11,000	7,000	2.2 × 10 <sup>-4</sup>	3	0.3	0.5
SDA-64	64	48	26	89.5	8	25.5	450	31	62	11,000	7,000	2.7 × 10 <sup>-4</sup>	3	0.5	0.5

## Standard Inner diameter

Product Number	(d <sub>1</sub> , d <sub>2</sub> ) Standard INNER Diameter (mm)																										
	5	6	6.3 <sup>5</sup>	7	8	9	9.5 <sup>25</sup>	10	11	12	12.7	14	15	15.8 <sup>75</sup>	16	18	19	20	21	22	24	25	26	28	30	35	
SDW-42		●	●	●	●	●	●	●	●	●	●	●	●														
SDW-42C		●	●	●	●	●	●	●	●	●	●	●	●														
SDW-47					●	●	●	●	●	●	●	●	●	●	●	●	●										
SDW-47C					●	●	●	●	●	●	●	●	●	●	●	●	●										
SDW-54								●	●	●	●	●	●	●	●	●	●	●									
SDW-54C								●	●	●	●	●	●	●	●	●	●	●									
SDW-64										●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
SDW-64C										●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

Product Number	(d <sub>1</sub> , d <sub>2</sub> ) Standard INNER Diameter (mm)																									
	15	16	18	19	20	22	24	25	28	30	32	35														
SDS-80C	●	●	●	●	●	●	●	●	●	●	●															
SDW-80C	●	●	●	●	●	●	●	●	●	●	●															
SDS-90C					●	●	●	●	●	●	●	●														
SDW-90C					●	●	●	●	●	●	●	●														
SDS-100C					●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
SDW-100C					●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

▶ INNER diameter INCH type is also available.

▶ Non standard inner diameter product is also available

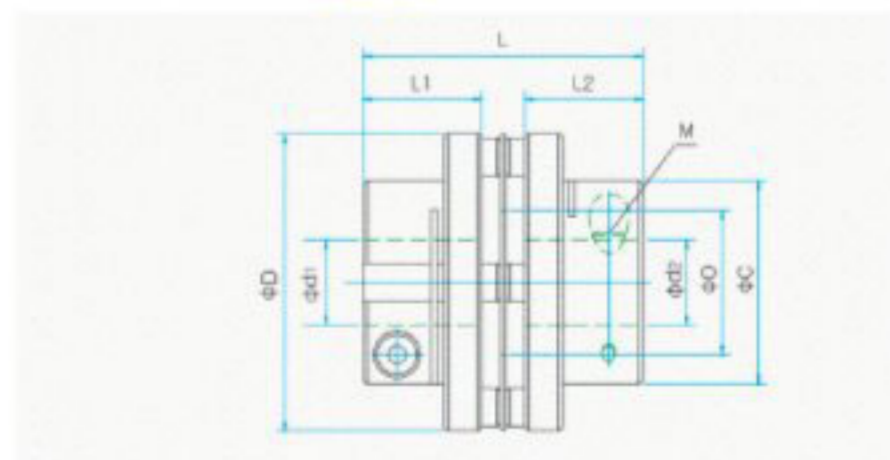
▶ KEY TYPE is also available

▶ The inner diameter that is marked ★ is not available by shaft through type

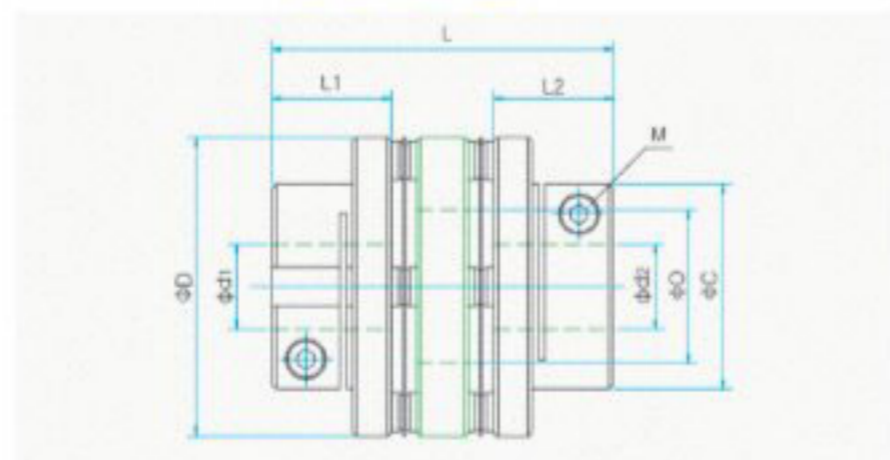
# SD Series Zero Backlash Disk Coupling

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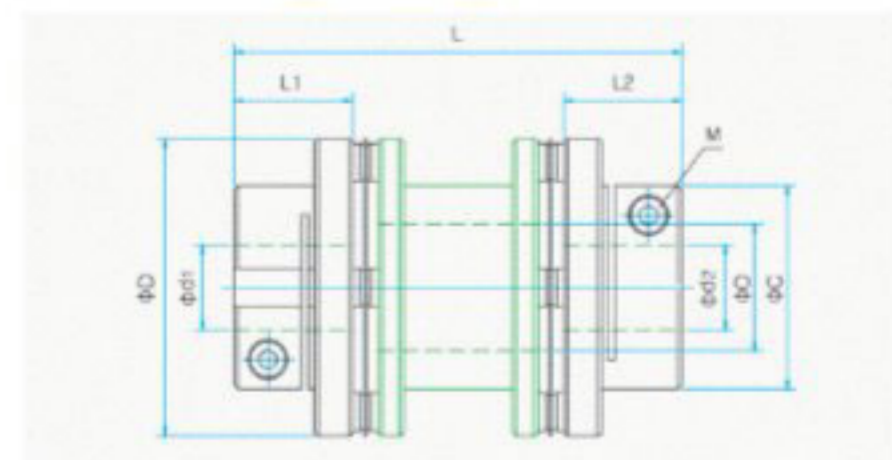
SDS - ■ ■ C (CLAMP TYPE)



SDW - ■ ■ C (CLAMP TYPE)



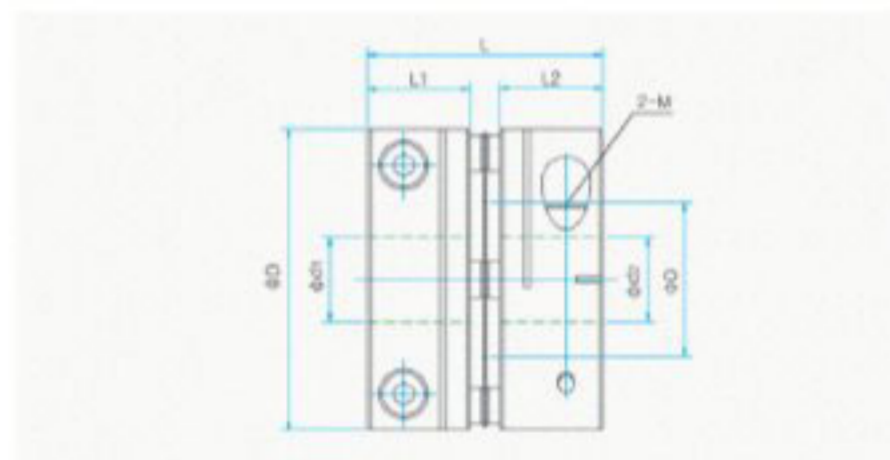
SDA - ■ ■ C (CLAMP TYPE)



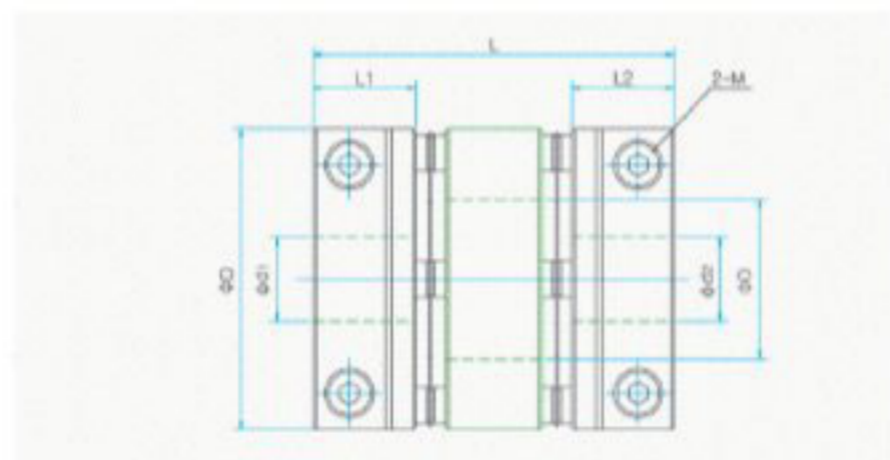
## Standards & Performance

Product Number	DIMENSION(mm)(±0.3)						mass (g)	Rated Torque (N·m)	Max Torque (N·m)	Torsional Stiffness (N·m/rad)	Max·RPM (min <sup>-1</sup> )	Moment of inertia (kg·m <sup>2</sup> )	Errors of Misalignment		
	φ D	φ C	L1 L2	L	M	O							Angle(°)	Parallel(mm)	End-Play(mm)
SDS-42C	42.5	29.2	13.5	31	3	18	65	6	12	2,800	8,000	1.7 × 10 <sup>-5</sup>	1.5	0	0.2
SDWA-42C	42.5	29.2	13.5	39.7	3	18	84	6	12	2,000	8,000	2.1 × 10 <sup>-5</sup>	3	0.2	0.5
SDWB-42C	42.5	29.2	13.5	44.2	3	18	94	6	12	2,000	8,000	2.4 × 10 <sup>-5</sup>	3	0.3	0.5
SDAA-42C	42.5	29.2	13.5	50	3	18	105	6	12	2,000	8,000	2.7 × 10 <sup>-5</sup>	3	0.4	0.5
SDAB-42C	42.5	29.2	13.5	58	3	18	110	6	12	2,000	8,000	2.8 × 10 <sup>-5</sup>	3	0.5	0.5
SDAC-42C	42.5	29.2	13.5	67.2	3	18	115	6	12	2,000	8,000	2.9 × 10 <sup>-5</sup>	3	0.6	0.5
SDS-47C	47	33	16.7	37	4	20.4	108	10	20	6,000	7,500	3.2 × 10 <sup>-5</sup>	1.5	0	0.2
SDWA-47C	47	33	16.7	45.5	4	20.4	120	10	20	4,000	7,500	3.6 × 10 <sup>-5</sup>	3	0.2	0.5
SDWB-47C	47	33	16.7	51.3	4	20.4	132	10	20	4,000	7,500	3.9 × 10 <sup>-5</sup>	3	0.4	0.5
SDAA-47C	47	33	16.7	63.7	4	20	152	10	20	4,000	7,500	4.5 × 10 <sup>-5</sup>	3	0.5	0.5
SDAB-47C	47	33	16.7	90.5	4	20	172	10	20	4,000	7,500	5.1 × 10 <sup>-5</sup>	3	0.8	0.5
SDS-54C	54	38.5	21.5	47	5	25	145	22	44	11,000	7,000	5.5 × 10 <sup>-5</sup>	1.5	0	0.2
SDWA-54C	54	38.5	21.5	60.5	5	25	192	22	44	7,000	7,000	7.2 × 10 <sup>-5</sup>	3	0.2	0.5
SDAA-54C	54	38.5	21.5	75.6	5	24	240	22	44	7,000	7,000	9.0 × 10 <sup>-5</sup>	3	0.5	0.5
SDAB-54C	54	38.5	21.5	89.5	5	24	266	22	44	7,000	7,000	1.1 × 10 <sup>-4</sup>	3	0.7	0.5
SDS-64C	64	48	26	58	6	25.5	292	31	62	20,000	6,500	1.8 × 10 <sup>-4</sup>	1.5	0	0.2
SDWA-64C	64	48	26	74	6	25.5	373	31	62	11,000	6,500	2.2 × 10 <sup>-4</sup>	3	0.3	0.5
SDA-64C	64	48	26	89.5	6	25.5	450	31	62	11,000	6,500	2.7 × 10 <sup>-4</sup>	3	0.5	0.5

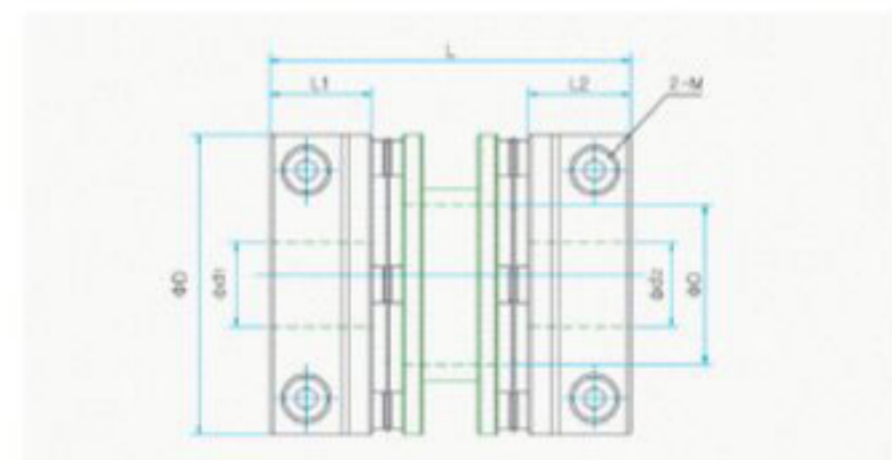
SDS - ■ ■ C (CLAMP TYPE)



SDW - ■ ■ C (CLAMP TYPE)



SDA - ■ ■ C (CLAMP TYPE)



## Standards & Performance

Product Number	DIMENSION(mm)(±0.3)					mass (g)	Rated Torque (N·m)	Max Torque (N·m)	Torsional Stiffness (N·m/rad)	Max·RPM (min <sup>-1</sup> )	Moment of inertia (kg·m <sup>2</sup> )	Errors of Misalignment		
	φ D	L1 L2	L	M	O							Angle(°)	Parallel(mm)	End-Play(mm)
SDS-80C	80	30	66.8	8	35	800	75	150	32,000	6,000	7.5 × 10 <sup>-4</sup>	2	0	0.3
SDW-80C	80	30	82.5	8	35	900	75	150	16,000	6,000	8.4 × 10 <sup>-4</sup>	2	0.4	0.6
SDA-80C	80	30	98.5	8	32	1,000	75	150	16,000	6,000	9.5 × 10 <sup>-4</sup>	2	0.5	0.6
SDS-90C	94.5	30.4	68.5	8	41.6	930	150	300	150,000	6,000	1.2 × 10 <sup>-3</sup>	2	0	0.4
SDW-90C	94.5	30.4	98	8	41.6	1,350	150	300	70,000	6,000	1.8 × 10 <sup>-3</sup>	2	0.4	0.8
SDS-100C	104.5	30.6	71	8	47	1,300	220	440	200,000	6,000	2.2 × 10 <sup>-3</sup>	2	0	0.4
SDW-100C	104.5	30.6	102.5	8	47	1,700	220	440	100,000	6,000	2.9 × 10 <sup>-3</sup>	2	0.4	0.8

# SHD Series

## High Torque Flexible Disk Coupling



### New Ideal and Best Suited Design Ideal-Realization of Servo System

**New developed** flexible disk coupling realized the servo system perfectly by securing the flexibility and increase the number of mounting hole and maximizing the mobility space of sus disk plate.

We consider each component most carefully and make the disk together with bush by one package in order to long life time of disk.

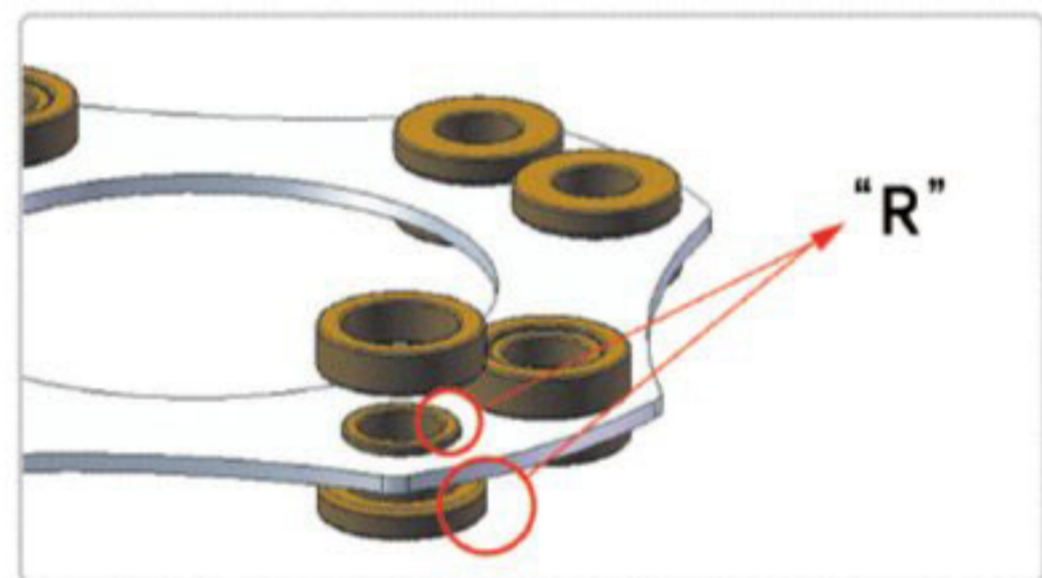
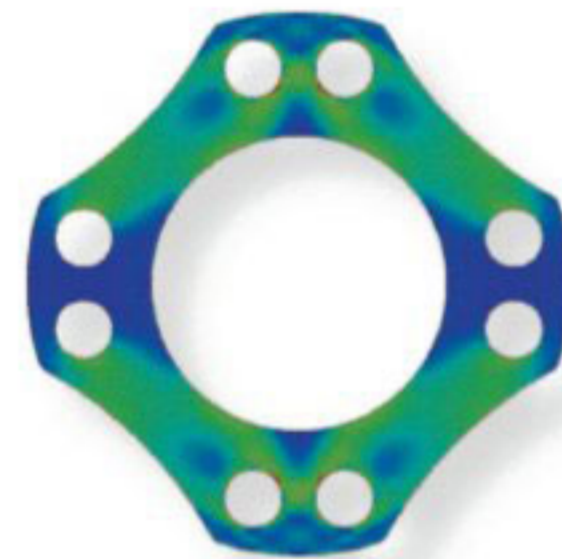
The outside diameter size of bush is bigger than outside diameter size of hole and disk shape is similar with shape of R. so this product has durability about big torsion because of these features.

New flexible disk coupling is constructed by package of some sus disk and bush. This product is protected from load and the form of disk is not changed by making into one package.

We assemble new flexible disk coupling perfectly.

We measure and adjust concentricity every process so new flexible disk coupling of SI is assembled completely by adjusting concentricity perfectly.

There is a hole in outside diameter part in order to assemble easily and prevent the coupling moving when you assembly the taper clamp type



#### Material

AL 7075-T6 and Anodizing



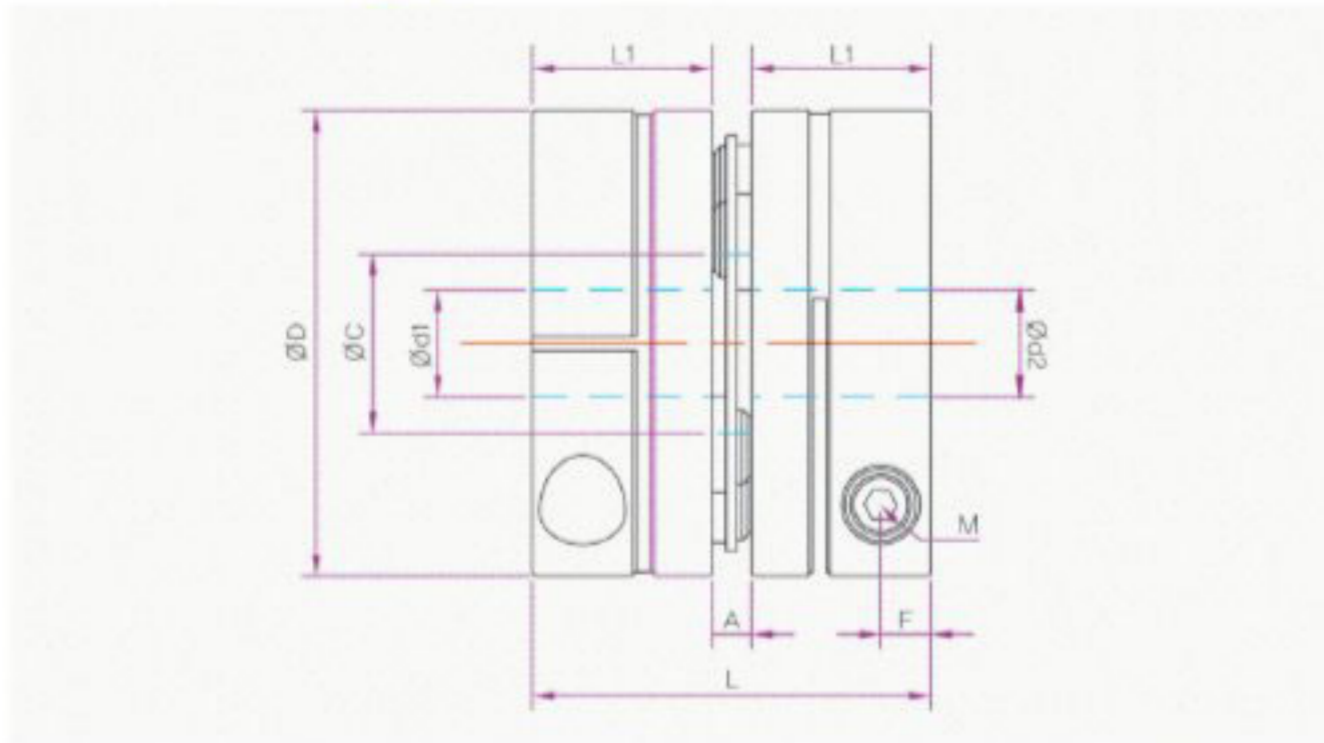
#### Features

- \* Application of new developed and high quality disk file
- \* Compact Design
- \* High Speed
- \* High Torque
- \* High Torsion Rigidity
- \* Zero Backlash
- \* Low Inertia Moment
- \* Retain of 1/10 Taper Bushing

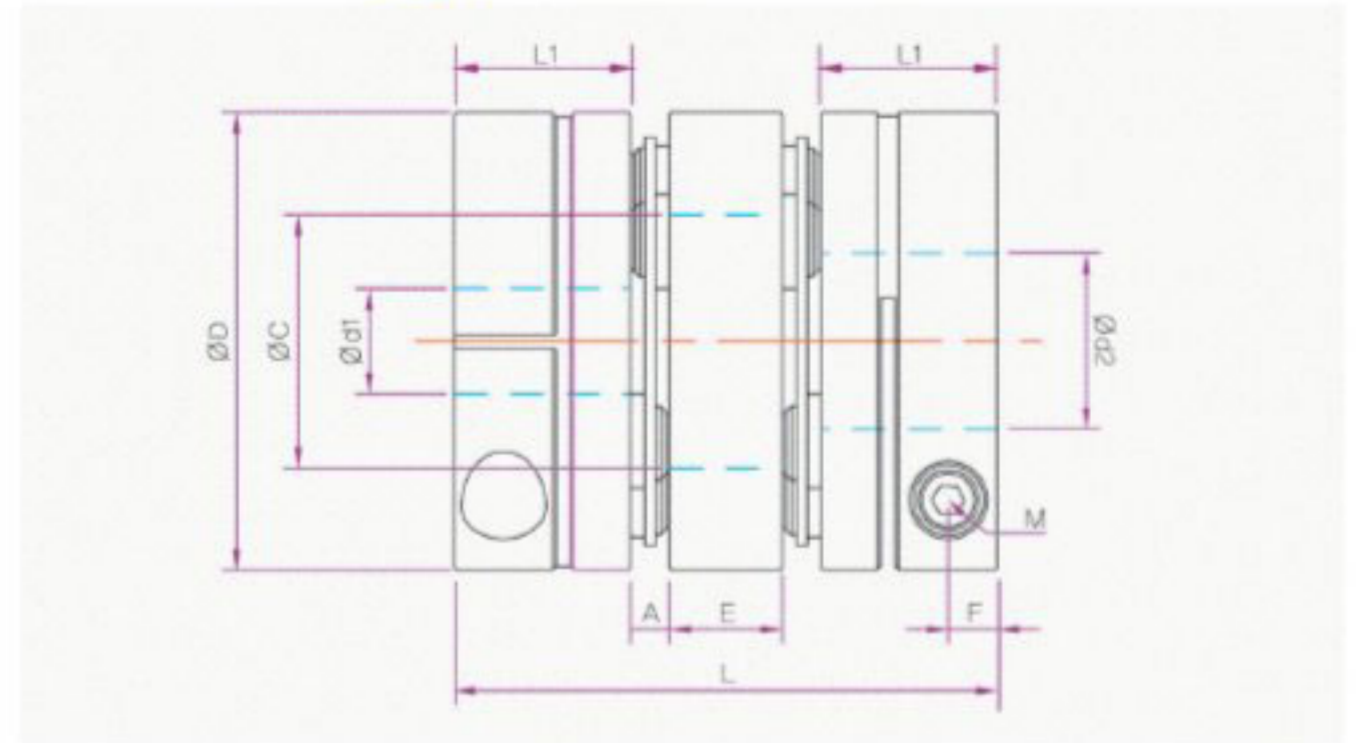


# SHD Series High Torque Flexible Disk Coupling

## SHDS - ■■C (CLAMP TYPE)



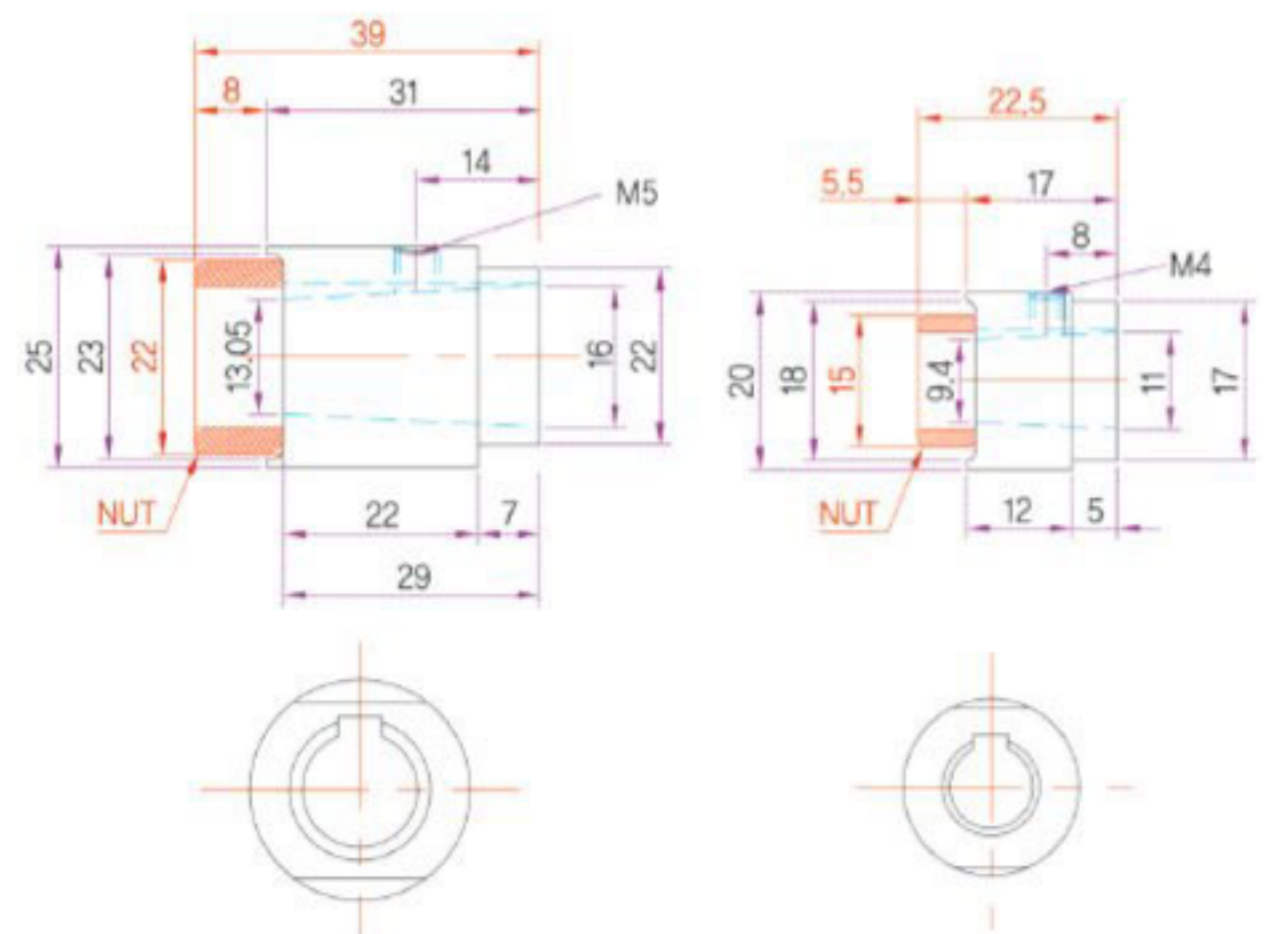
## SHDW - ■■C (CLAMP TYPE)



## Standards & Performance

Product Number	SHDS - 56C	SHDW - 56C	SHDS - 66C	SHDW - 66C	SHDS - 88C	SHDW - 88C
Ø D	56	56	66	66	88	88
Ø d1, d2	10 ~ 25	10 ~ 25	15 ~ 32	15 ~ 32	20 ~ 45	20 ~ 45
L1	19.5	19.5	24.5	24.5	30	30
A	5.2	5.2	7.5	7.5	9.6	9.6
L	44.2	60.5	56.5	80	69.5	99.2
F	6.5	6.5	7	7	9	9
Ø C	28	28	33	33	45	45
E		11		16		20
M	M6	M6	M6	M6	M8	M8
Wrench Torque(N • m)	15	15	15	15	27	27
Rated Torque(N • m)	30	30	60	60	120	120
Max Torque(N • m)	60	60	120	120	200	200
Max · RPM(r/min)	7,700	7,700	7,000	7,000	6,000	6,000
Moment of inertia(Kg • m <sup>2</sup> )	4.0 × 10 <sup>-5</sup>	5.8 × 10 <sup>-5</sup>	1.0 × 10 <sup>-4</sup>	1.4 × 10 <sup>-4</sup>	4.3 × 10 <sup>-4</sup>	5.7 × 10 <sup>-4</sup>
Torsional Stiffness(N • m/rad)	2.0 × 10 <sup>4</sup>	1.0 × 10 <sup>4</sup>	8.0 × 10 <sup>4</sup>	4.0 × 10 <sup>4</sup>	2.6 × 10 <sup>5</sup>	1.3 × 10 <sup>5</sup>
mess(g)	210	300	380	520	900	1200
Allowance Angle(°)	0.7	1	0.7	1	0.7	1
Allowance Parallel(±mm)	0	0.3	0	0.3	0	0.3
Allowance End-Play±(mm)	0.2	0.3	0.2	0.3	0.2	0.3

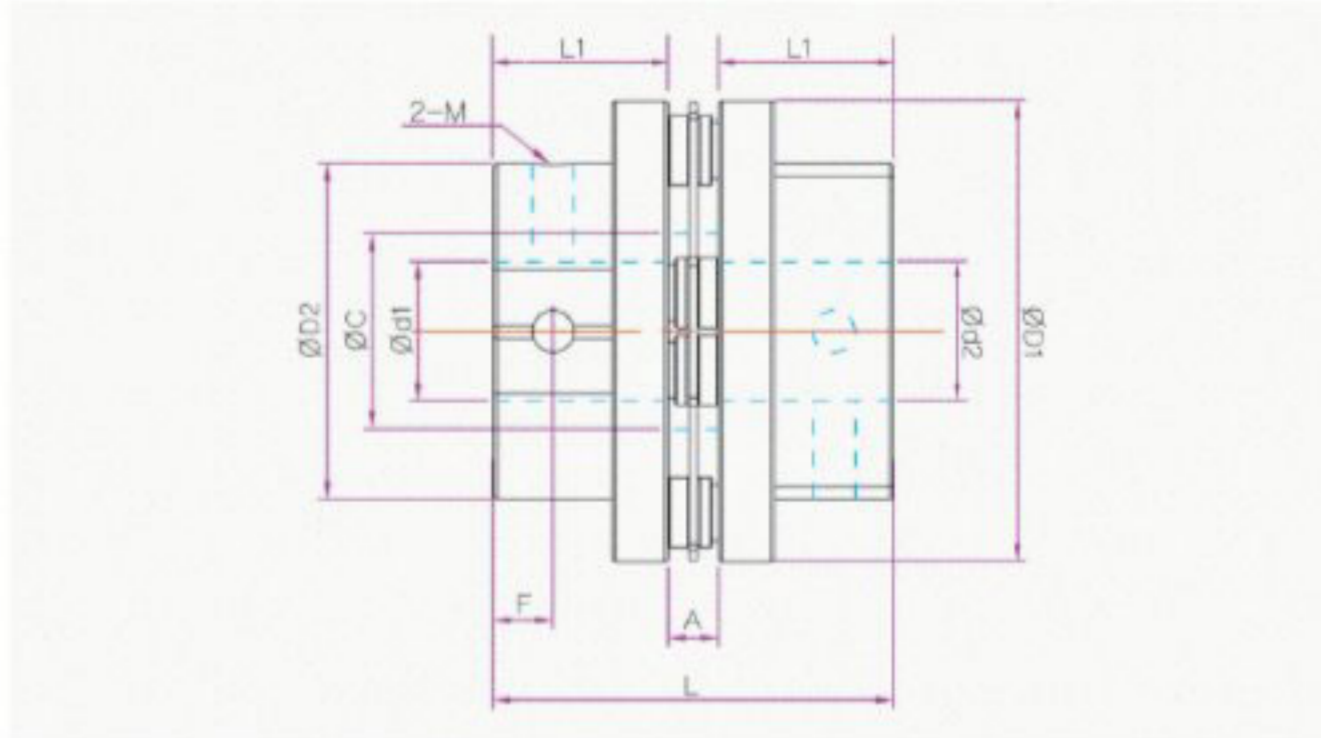
## 1/10 Taper Bushing



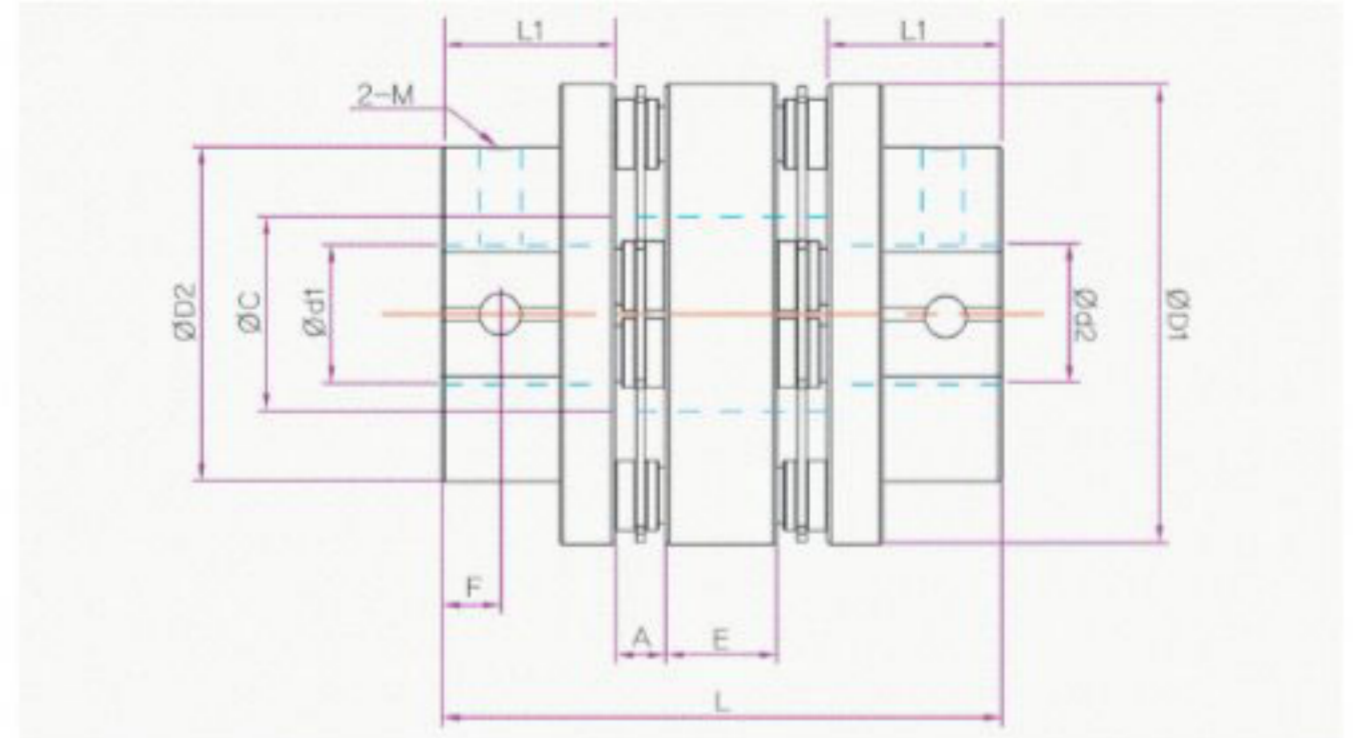
# SHD Series High Torque Flexible Disk Coupling

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## SHDS - ■■ (SET SCREW)



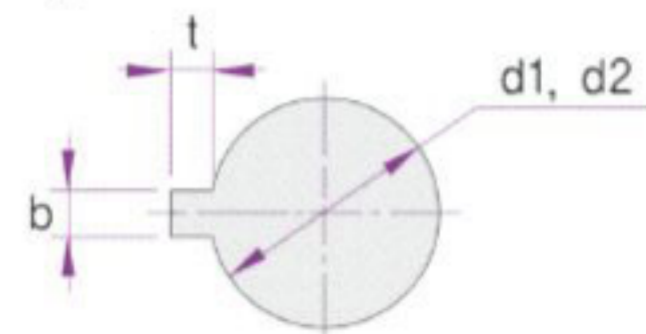
## SHDW - ■■ (SET SCREW)



## Standards & Performance

Product Number	SHDS - 56	SHDW - 56	SHDS - 66	SHDW - 66	SHDS - 88	SHDW - 88
Ø D1	56	56	66	66	88	88
Ø D2	39	39	46	46	63	63
Ø d1, d2	10 ~ 25	10 ~ 25	15 ~ 32	15 ~ 32	20 ~ 45	20 ~ 45
F	6.5	6.5	7.5	7.5	9.5	9.5
L1	19.5	19.5	24.5	24.5	30	30
A	5.2	5.2	7.5	7.5	9.6	9.6
L	44.2	60.5	56.5	80	69.5	99.2
Ø C	28	28	33	33	45	45
E		11		16		20
M	M6	M6	M8	M8	M8	M8
Wrench Torque(N • m)	6	6	15.7	15.7	28	28
Rated Torque(N • m)	30	30	60	60	120	120
Max Torque(N • m)	60	60	120	120	200	200
Max • RPM(r/min)	8,200	8,200	7,500	7,500	6,500	6,500
Moment of inertia(Kg • m <sup>2</sup> )	2.9 × 10 <sup>-5</sup>	4.6 × 10 <sup>-5</sup>	8.0 × 10 <sup>-5</sup>	1.2 × 10 <sup>-4</sup>	2.9 × 10 <sup>-4</sup>	4.3 × 10 <sup>-4</sup>
Torsional Stiffness(N • m/rad)	2.0 × 10 <sup>4</sup>	1.0 × 10 <sup>4</sup>	8.0 × 10 <sup>4</sup>	4.0 × 10 <sup>4</sup>	2.6 × 10 <sup>5</sup>	1.3 × 10 <sup>5</sup>
mess(g)	150	240	300	440	600	900
Allowance Angle(°)	0.7	1	0.7	1	0.7	1
Allowance Parallel(±mm)	0	0.3	0	0.3	0	0.3
Allowance End-Play(±mm)	0.2	0.3	0.2	0.3	0.2	0.3

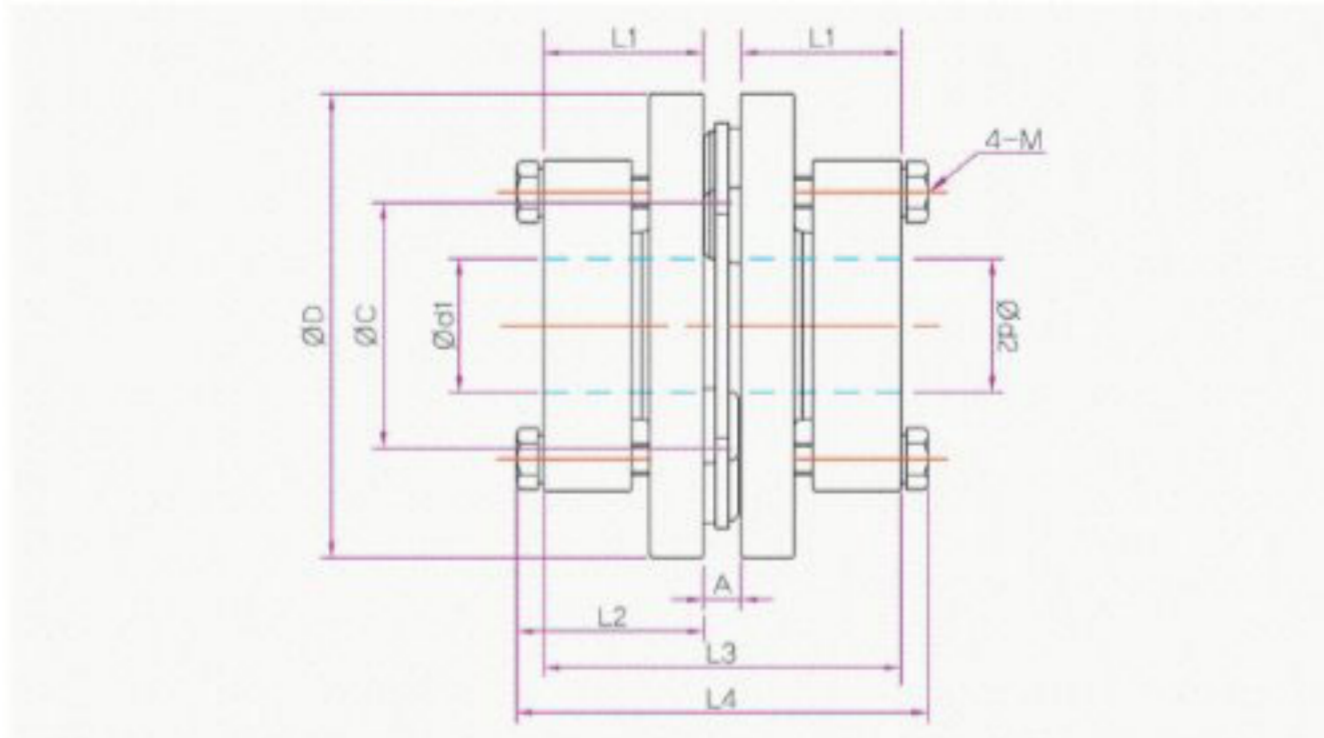
## Standard Key Groove Size



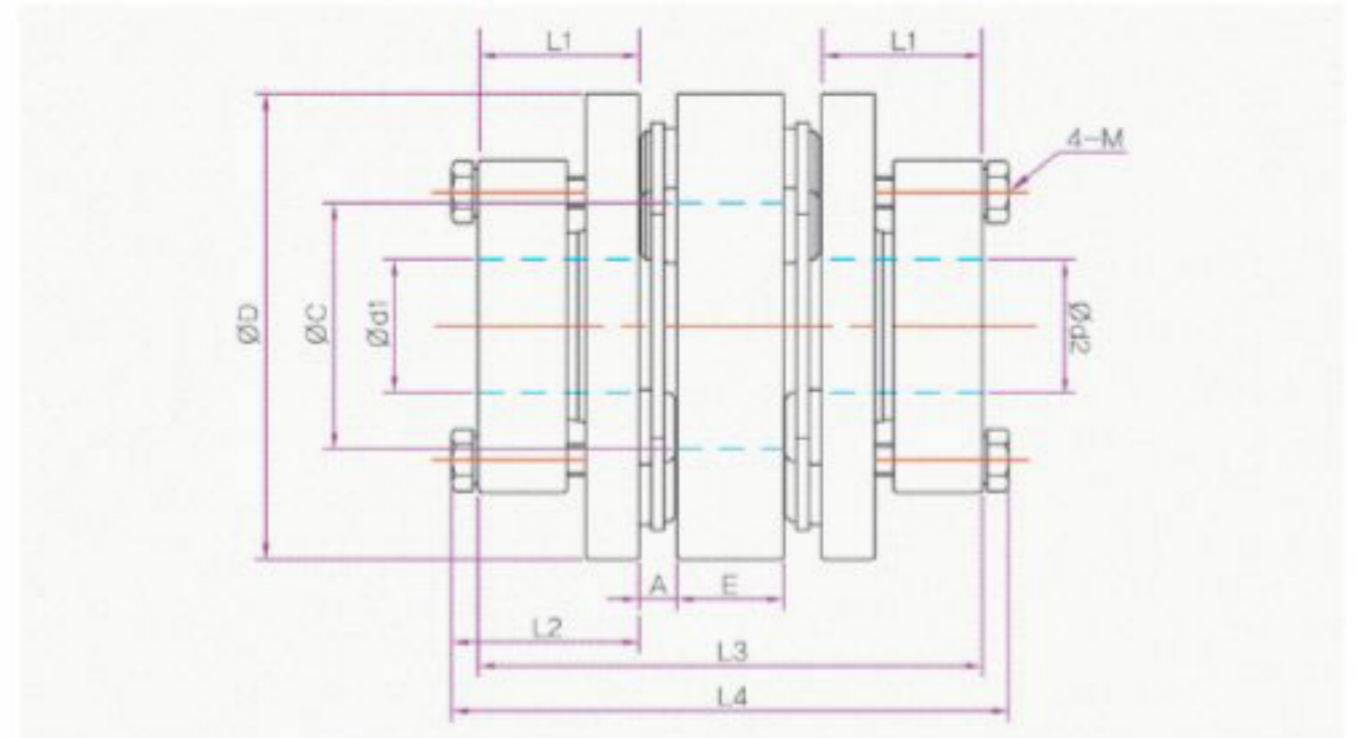
Diameter (d1, d2)	b		t		Key Size b x h
	Standard Size	Permissible Level	Standard Size	Permissible Level	
Ø 10	3	±0.0125	1.4	+0.1	3 x 3
Ø 12	4	±0.015	1.8		4 x 4
Ø 14,15,16	5		2.3	0	5 x 5
Ø 18,20,22	6		2.8		6 x 6
Ø 24,25,30	8	±0.018	3.3	+0.2	8 x 8
Ø 35	10		3.3	0	10 x 10

# SHD Series High Torque Flexible Disk Coupling

SHDS - ■■T (TAPER TYPE)



SHDW - ■■T (TAPER TYPE)



## Standards & Performance

Product Number	SHDS - 56T	SHDW - 56T	SHDS - 66T	SHDW - 66T	SHDS - 88T	SHDW - 88T
Ø D	56	56	66	66	88	88
Ø d1, d2	10 ~ 25	10 ~ 25	15 ~ 32	15 ~ 32	20 ~ 45	20 ~ 45
L1	20	20	25	25	30	30
L2	25	25	30.5	30.5	35.5	35.5
A	5.2	5.2	7.5	7.5	9.6	9.6
L3	45.2	61.4	57.5	81	69.5	99.2
L4	55	71	68.5	92	80	110
Ø C	28	28	33	33	45	45
E		11		16		20
M	M5	M5	M6	M6	M6	M6
Wrench Torque(N • m)	6.5	6.5	16	16	16	16
Rated Torque(N • m)	30	30	60	60	120	120
Max Torque(N • m)	60	60	120	120	200	200
Max • RPM(r/min)	7,700	7,700	7,000	7,000	6,000	6,000
Moment of inertia(Kg • m <sup>2</sup> )	3.6 × 10 <sup>-5</sup>	5.4 × 10 <sup>-5</sup>	8.6 × 10 <sup>-5</sup>	1.2 × 10 <sup>-4</sup>	3.2 × 10 <sup>-4</sup>	4.6 × 10 <sup>-4</sup>
Torsional Stiffness(N • m/rad)	1.4 × 10 <sup>4</sup>	0.7 × 10 <sup>4</sup>	6.5 × 10 <sup>4</sup>	3.3 × 10 <sup>4</sup>	2.0 × 10 <sup>5</sup>	1.0 × 10 <sup>5</sup>
mess(g)	190	280	320	460	670	970
Allowance Angle(°)	0.7	1	0.7	1	0.7	1
Allowance Parallel(±mm)	0	0.3	0	0.3	0	0.3
Allowance End-Play(±mm)	0.2	0.3	0.2	0.3	0.2	0.3



# SRG Series

## Miniature Rigid Coupling



The compact accurate RIGID COUPLING of SI is one-piece structure. RIGID COUPLING can be used as joint to connect with two shafts. The major characteristic of RIGID COUPLING is that it provides perfect efficiency at any condition that is low and high speed and high torque but that is not flexible. RIGID COUPLING is not accepted amplitude eccentricity and misalignment between one shaft and the other shaft. Therefore please arrange the shaft perfectly for protection of coupling and machinery.

### Features

- Zero backlash
- Maintenance free and excellent resistance against oil and chemicals.
- Light weight, extremely low inertia.
- Can be used as a joint to connect with two shafts



### Structure & Material

SRG - ■ ■



(SET SCREW TYPE)

SRG - ■ ■ C



(CLAMP TYPE)

SRGL - ■ ■ C



(LONG CLAMP TYPE)

Body : Aluminum Alloy and Anodizing

### How to order product

SRG - 25C

$\phi 6$  ×  $\phi 8$

Product No.

Shaft Dia

Shaft Dia

※ Please, specify the diameters of both shaft ends in the order form.





# SCJ Series

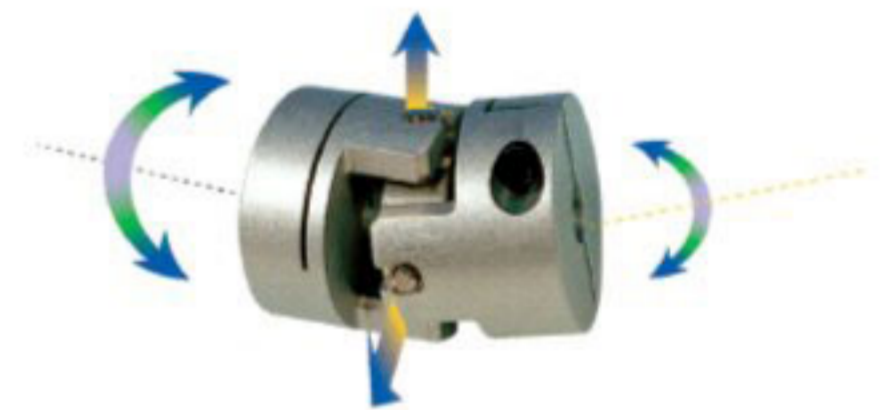
## Micro Cross Joint Coupling



The precision calibration coupling of the cross joint type, which can easily absorb eccentricity and amplitude instrumentally, is a coupling of unique structure combining both oldham and universal joint that inhibit resisting force delicately and absorb intake tolerances, and Sungil manufactures the product by simple design in such a way that it increases resonance frequency through high rigidity and low inertia and enhances stoppage extent and responsiveness of precision position deciding instrument.

### Features

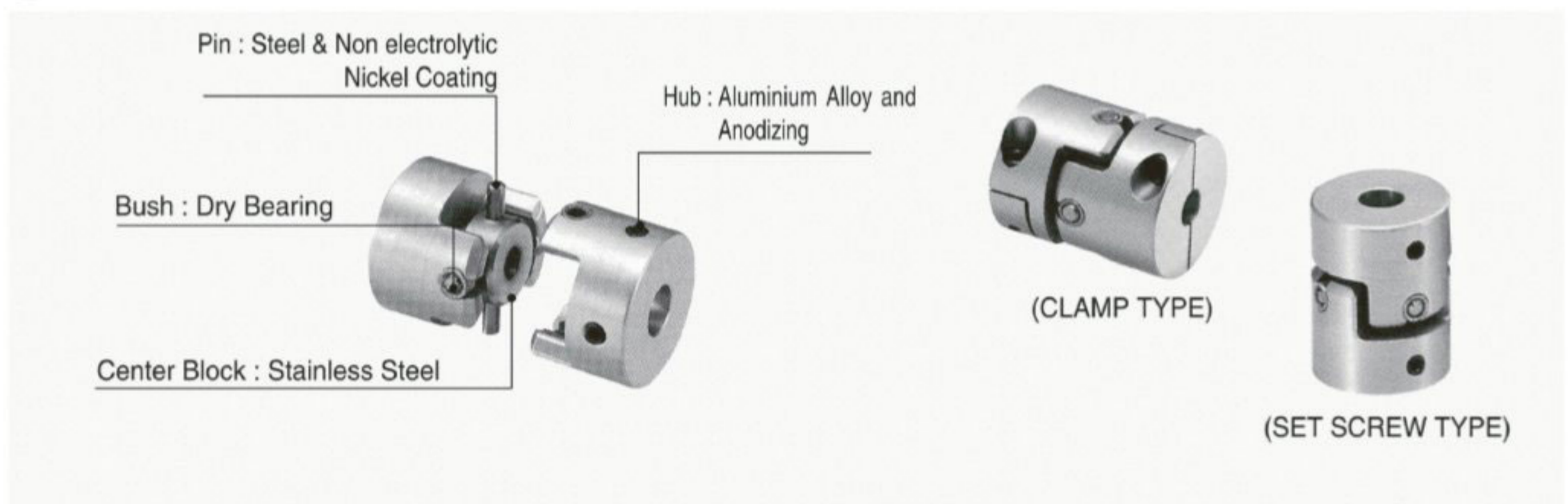
- Regular direction and reverse direction are identical, and uniform revolution is available.
- Has excellent durability and resistance against chemical and oil
- Bearing built in the hub and pin in the center block easily absorb large eccentricity and amplitude.
- Pin and bearing are assembled in high level to minimize backlash.
- Minimize the generation of resisting force with high torsion rigidity and low inertia.
- Deliver control unit angle swiftly in high level.
- Various sizes are available.



### Application

- Robot, X-Y Table
- Semiconductor related instruments and laser processor
- NC, MC machine tool and precision measuring instrument
- NC woodworking machinery, medical equipment and OA machine
- Optical instrument, measuring instrument and aspheric grinder

### Structure & Material



### How to order product

SCJ – 20	$\phi 6$	$\times$	$\phi 8$
Product No.	Shaft Dia		Shaft Dia

※ Please, specify the diameters of both shaft ends in the order form.

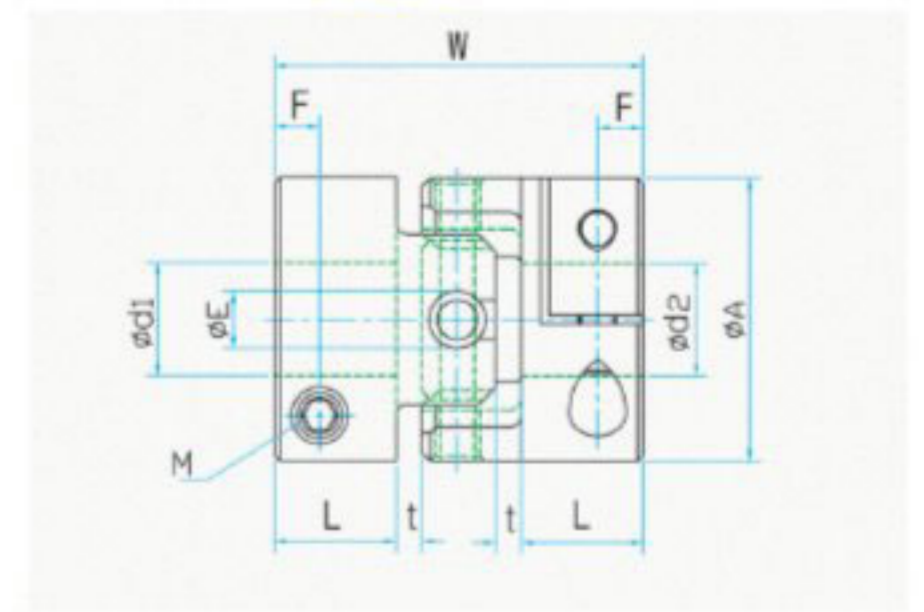
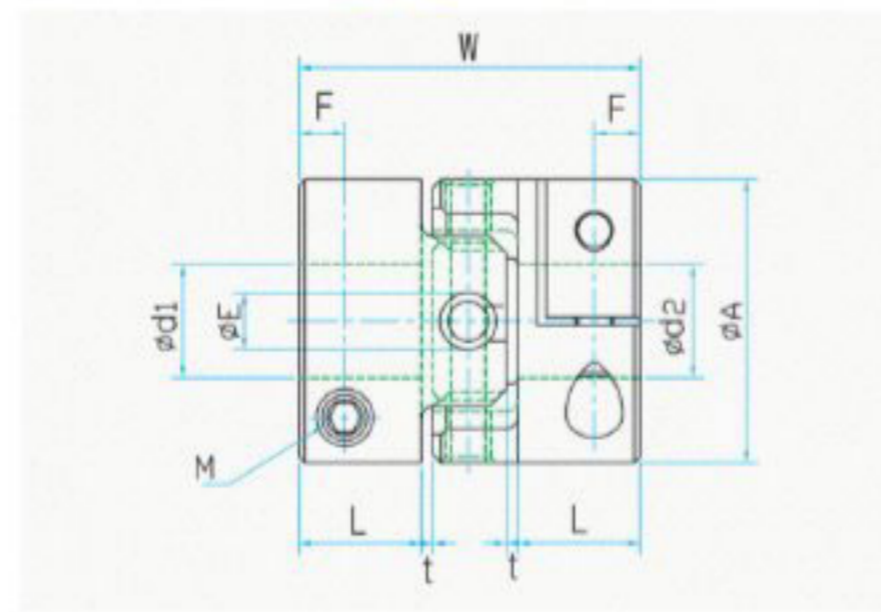
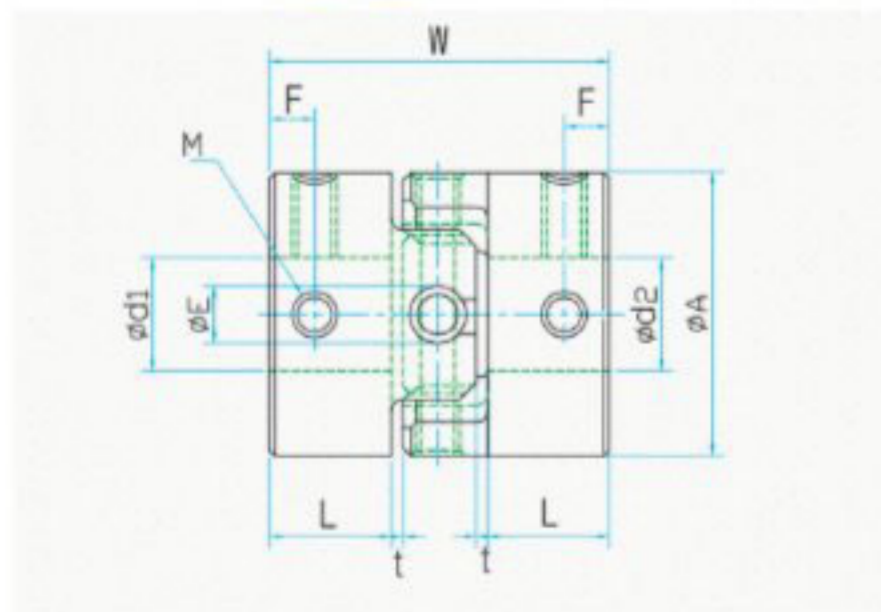
# SCJ Series Micro Cross Joint Coupling

※ Please, download CAD DATA on [www.sungilfa.com](http://www.sungilfa.com)

 **SCJ - ■ ■ (SET SCREW TYPE)**

 **SCJA- ■ ■ C (CLAMP TYPE)**

 **SCJB- ■ ■ C (CLAMP TYPE)**



## Performance

Product Number	Rated Torque (N·m)	Max Torque (N·m)	Max·RPM (min <sup>-1</sup> )	Moment of inertia (kg·m <sup>2</sup> )	Torsional Stiffness (N·m/rad)	Parallel (mm)	Angle (°)	mass (g)
SCJA-12C	0.15	0.3	6,000	1.0 × 10 <sup>-7</sup>	110	0.3	3	4.5
SCJA-15C	0.25	0.5	6,000	3.3 × 10 <sup>-7</sup>	220	0.3	3	9
SCJA-20C	0.5	1	6,000	1.2 × 10 <sup>-6</sup>	350	0.5	3	19
SCJA-25C	1	2	6,000	3.3 × 10 <sup>-6</sup>	800	0.5	3	34
SCJA-32C	2	4	5,000	1.1 × 10 <sup>-5</sup>	1,000	0.5	3	72
SCJA-40C	5	10	4,000	3.2 × 10 <sup>-5</sup>	1,400	0.5	3	140
SCJB-12C	0.15	0.3	6,000	1.0 × 10 <sup>-7</sup>	100	0.3	7	4.5
SCJB-15C	0.25	0.5	6,000	3.5 × 10 <sup>-7</sup>	200	0.3	7	10
SCJB-20C	0.5	1	5,000	1.3 × 10 <sup>-6</sup>	300	0.5	7	20
SCJB-25C	1	2	5,000	3.4 × 10 <sup>-6</sup>	700	0.5	7	35
SCJB-32C	2	4	4,500	1.2 × 10 <sup>-5</sup>	950	0.5	7	75
SCJB-40C	5	10	3,500	3.3 × 10 <sup>-5</sup>	1,200	0.5	7	145
SCJ-12	0.15	0.3	6,000	1.0 × 10 <sup>-7</sup>	100	0.3	3	4.5
SCJ-15	0.25	0.5	6,000	3.3 × 10 <sup>-7</sup>	200	0.3	3	9
SCJ-20	0.5	1	6,000	1.3 × 10 <sup>-6</sup>	450	0.5	3	20
SCJ-25	1	2	6,000	3.4 × 10 <sup>-6</sup>	800	0.5	3	35
SCJ-32	2	4	5,000	1.2 × 10 <sup>-5</sup>	1,000	0.5	3	75
SCJ-40	5	10	4,000	3.3 × 10 <sup>-5</sup>	1,300	0.5	3	145

## Standards & Standard Inner diameter

Product Number	A	L	W	t	E	F	M	(d <sub>1</sub> , d <sub>2</sub> ) Standard INNER Diameter (mm)											
								3	4	5	6	6.35	8	10	11	12	14	15	
SCJA-12C	12.7	7.2	20.2	0.7	2	2.4	2	●	●	●									
SCJA-15C	15	8	22.4	0.8	2.5	3	2.6	●	●	●	●								
SCJA-20C	20	8	23.6	0.8	4	3	2.6		●	●	●	●							
SCJA-25C	25	10.5	30.6	1.3	5	3.6	3			●	●	●	●						
SCJA-32C	32	13.5	39	1.6	8	4.5	4				●	●	●	●	●	●	●	●	●
SCJA-40C	40	16	45.6	1.9	10	6	5						●	●	●	●	●	●	●
SCJB-12C	12.7	7.2	22.1	1.5	2	2.4	2	●	●	●									
SCJB-15C	15	8	24.2	1.8	2.5	3	2.6	●	●	●	●	●							
SCJB-20C	20	8	26.5	2.2	4	3	2.6		●	●	●	●	●						
SCJB-25C	25	10.5	33.5	2.8	5	3.6	3			●	●	●	●	●					
SCJB-32C	32	13.5	43	3.6	8	4.5	4				●	●	●	●	●	●	●	●	●
SCJB-40C	40	16	51	4.5	10	6	5						●	●	●	●	●	●	●
SCJ-12	12.7	7.2	20.2	0.7	2	2.4	2.5	●	●	●									
SCJ-15	15	8	22.4	0.8	2.5	3.8	3	●	●	●	●	●							
SCJ-20	20	8	23.6	0.8	4	3.8	3		●	●	●	●	●						
SCJ-25	25	10.5	30.6	1.3	5	5	4			●	●	●	●	●					
SCJ-32	32	13.5	39	1.6	8	6.5	5				●	●	●	●	●	●	●	●	●
SCJ-40	40	16	45.6	1.9	10	8	5						●	●	●	●	●	●	●

▶ INNER diameter INCH type is also available. ▶ KEY TYPE is also available ▶ Non standard inner diameter product is also available

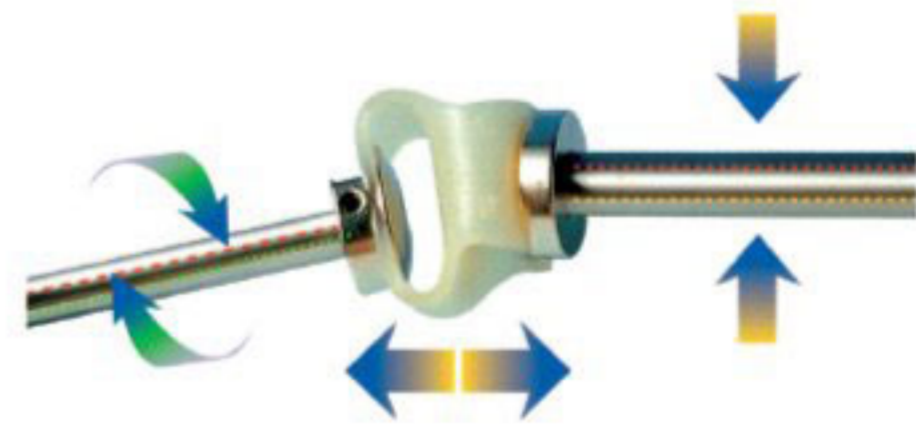
# SFC Series

## Micro Flexible Coupling

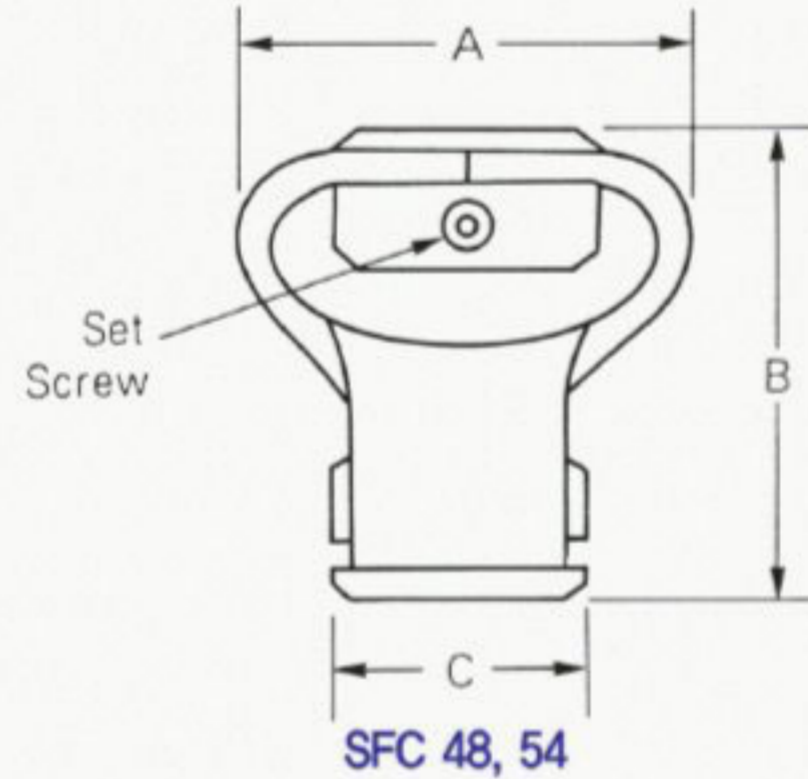
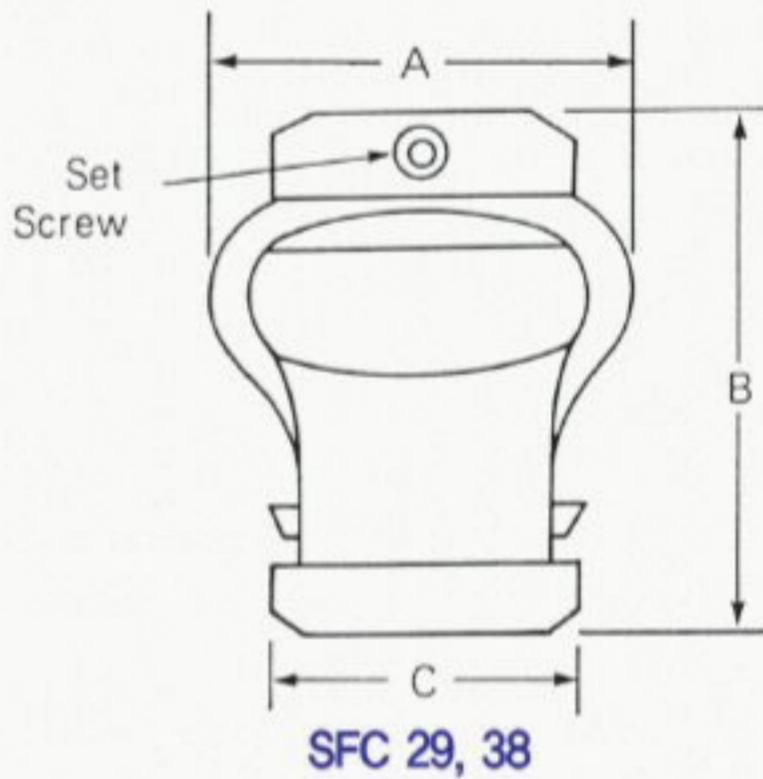


### Features

- Absorb large amplitude, eccentricity and end play simultaneously
- Absorb shock and vibration perfectly
- No lubrication and low inertia moment



### Standards & Performance



Product Number	DIMENSION(mm)(±0.3)			mass (g)	Max · RPM (min <sup>-1</sup> )	Max Torque (N · m)	Angle (°)	Parallel (mm)	End-Play (mm)
	A	B	C						
SFC 29	29	28	18	19	3,000	0.35	10	2	1.5
SFC 38	38	35	22.5	38	3,000	1.35	10	2.5	2
SFC 48	48	50	26	60	3,000	1.8	12	2.5	2
SFC 54	54	58	29.5	140	3,000	4.5	12	3	2

### Standard Inner diameter

Product Number	(d <sub>1</sub> , d <sub>2</sub> ) Standard INNER Diameter (mm)									
	4	5	6	8	10	12	14	15	16	
SFC 29	●	●	●	●	●					
SFC 38			●	●	●	●				
SFC 48				●	●	●	●			
SFC 54					●	●	●	●	●	

Please contact us when you order the product without standard inner diameter

### How to order product

<b>SFC – 29</b>	<b>φ 6</b>	<b>×</b>	<b>φ 8</b>
Product No.	Shaft Dia		Shaft Dia

※ Please, specify the diameters of both shaft ends in the order form.

# SJC Series

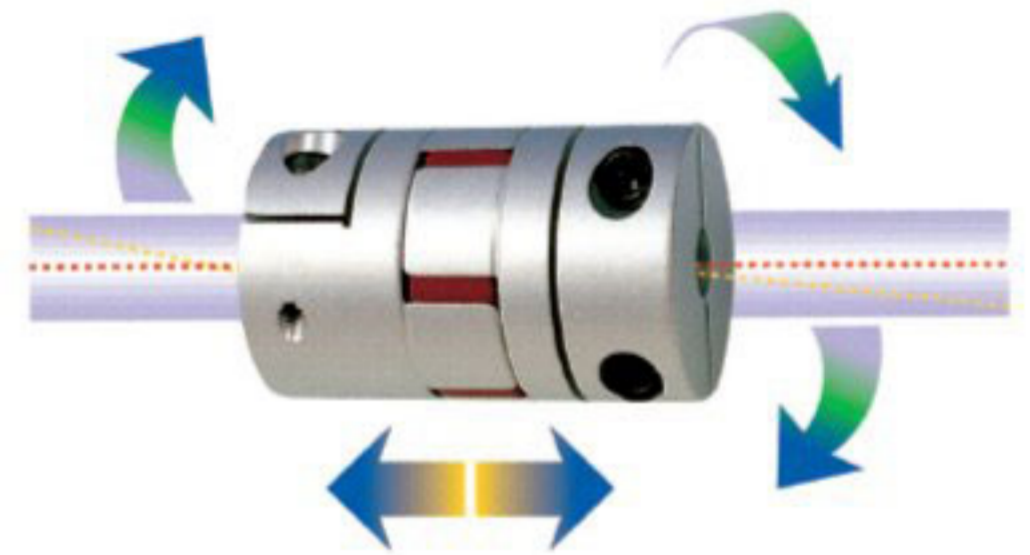
## Zero Backlash Jaw Coupling



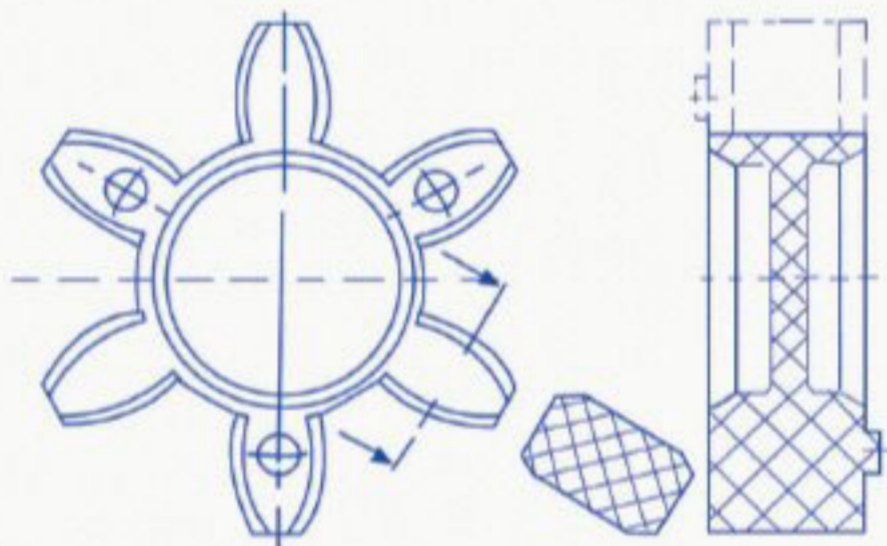
JAW COUPLING of SI has such characteristic that can not be found in other couplings because of its unique construction. It means that the coupling has compound features such as the characteristic of zero backlash metal spring coupling and the characteristic of coupling with common rubber elastic material.

### Features

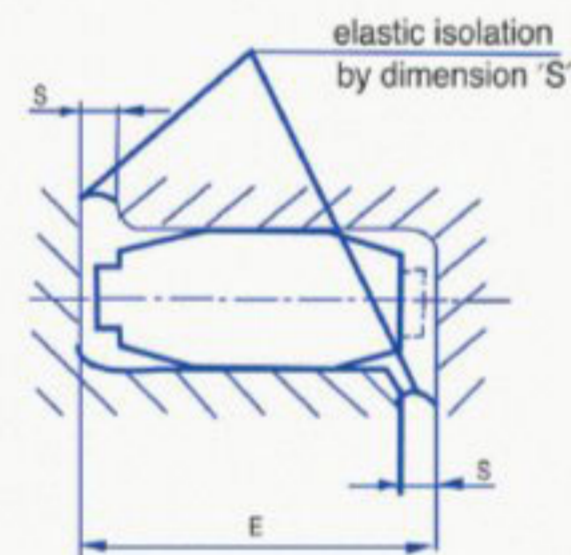
- Zero backlash coupling
- Excellent durability and rigidity against high torsion
- Maintenance and repair are unnecessary and lubrication is not required
- Elastic spider reduces impact of pit load
- Identical regular and reverse rotational characteristics
- Resistance against oil and insulation against electricity
- Operational temperature: -20°C ~ 70°C



### Sleeve



SI sleeve is made into non through sleeve that is unique. And teeth of sleeve are made into crown type order to easy assembly. The column of sleeve is longer than that of other products, so assembly of this product is not loose.  
\*There is the through sleeve that is processed after injection molding in order to easy assembly



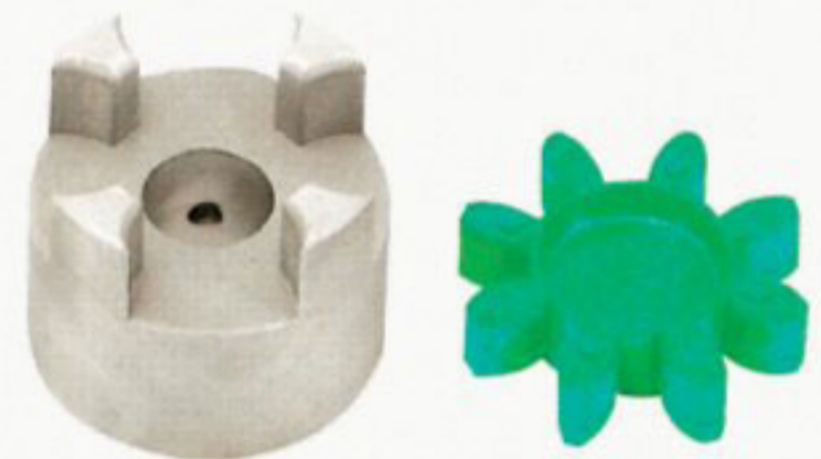
※ elastic isolation by dimension when the coupling is assembled



(Outside Diameter  $\phi$  14~  $\phi$  30)



(Outside Diameter  $\phi$  40)



(Outside Diameter  $\phi$  55~  $\phi$  100)

### Application

- Electric motor
- Position controlling - positioning
- Robot system
- Direct drive of boring and grinding machine
- Machining center (machine tool)
- Medical equipment
- Servo Motor
- X-Y and X-Y-Z axle driving
- Deceleration Motor

### Structure & Material



# SJC Series Zero Backlash Jaw Coupling

## Selection Method of SJC Series

Therefore, SJC Series coupling can be divided into 2 purposes of zero backlash method to deliver rotation angle and method to deliver torque mainly. Since each sleeve with different hardness has different characteristic, select appropriate coupling.









### 1. Main purpose is to deliver zero backlash

When using coupling in low torque range in order to deliver rotation angle, same zero backlash characteristic that metal spring coupling offers can be used. In addition, it has the function of absorbing torsion vibration that common coupling can not offer.

When it is used for zero backlash, rotation transfer torque becomes less than the torque listed in the table. Please refer to the table below. Even though torque limit for zero backlash torque is same in 2 sleeves, a sleeve with higher hardness can get higher performance concerning the necessary responsiveness to deliver rotation angle accurately.

### 2. Main purpose to deliver torque

SJC type coupling can be used for higher torque than metal coupling in that it delivers torque by contracting the sleeve. Therefore, it can be applied to general industrial machine such as pump that does not need zero backlash. Even though SJC couplings are standardized in different sleeves, green sleeve with lower hardness has lower usual torque and maximum torque while red sleeve with higher hardness has higher usual torque and maximum torque. On the contrary, misalignment limit is larger in green sleeve and smaller in red sleeve. Please, select proper sleeve for use.

Sleeve		Attachment	
Hardness(JIS A)	Color	SET SCREW TYPE	CLAMP TYPE
92	Green	SJC -   - GR	SJC -   C - GR
98	Red	SJC -   - RD	SJC -   C - RD

Product Number	Sleeve (JIS A)	Zero Backlash (N.m)	Rated Torque (N·m)	Max Torque (N·m)	Twisting Hardness (N.m/rad)	Parallel (mm)	Angle (°)	End-Play (mm)
SJC-14	GR	92	1.2	2.4	14	0.1	1.0	+0.6 0
	RD	98	2	4	22	0.1		
SJC-20	GR	92	3	6	29	0.15	1.0	+0.8 0
	RD	98	5	10	55	0.15		
SJC-25	GR	92	5	10	45	0.15	1.0	+1.0 0
	RD	98	9	18	80	0.1		
SJC-30	GR	92	7.5	15	73	0.15	1.0	+1.0 0
	RD	98	12.5	25	130	0.1		
SJC-40	GR	92	10	20	570	0.1	1.0	+1.2 0
	RD	98	17	34	1.200	0.1		
SJC-55	GR	92	35	70	1.600	0.15	1.0	+1.4 0
	RD	98	60	120	2.600	0.1		
SJC-65	GR	92	95	190	3.000	0.15	1.0	+1.5 0
	RD	98	160	320	4.900	0.1		
SJC-80	GR	92	190	380	6.500	0.15	1.0	+1.5 0
	RD	98	320	640	11.000	0.1		
SJC-100	GR	92	300	600	7.000	0.15	1.0	+2.0 0
	RD	98	600	1.200	30.000	0.1		

## How to order product

**SJC - 20 - GR**

**φ 6**

**×**

**φ 8**

Product No.

Shaft Dia

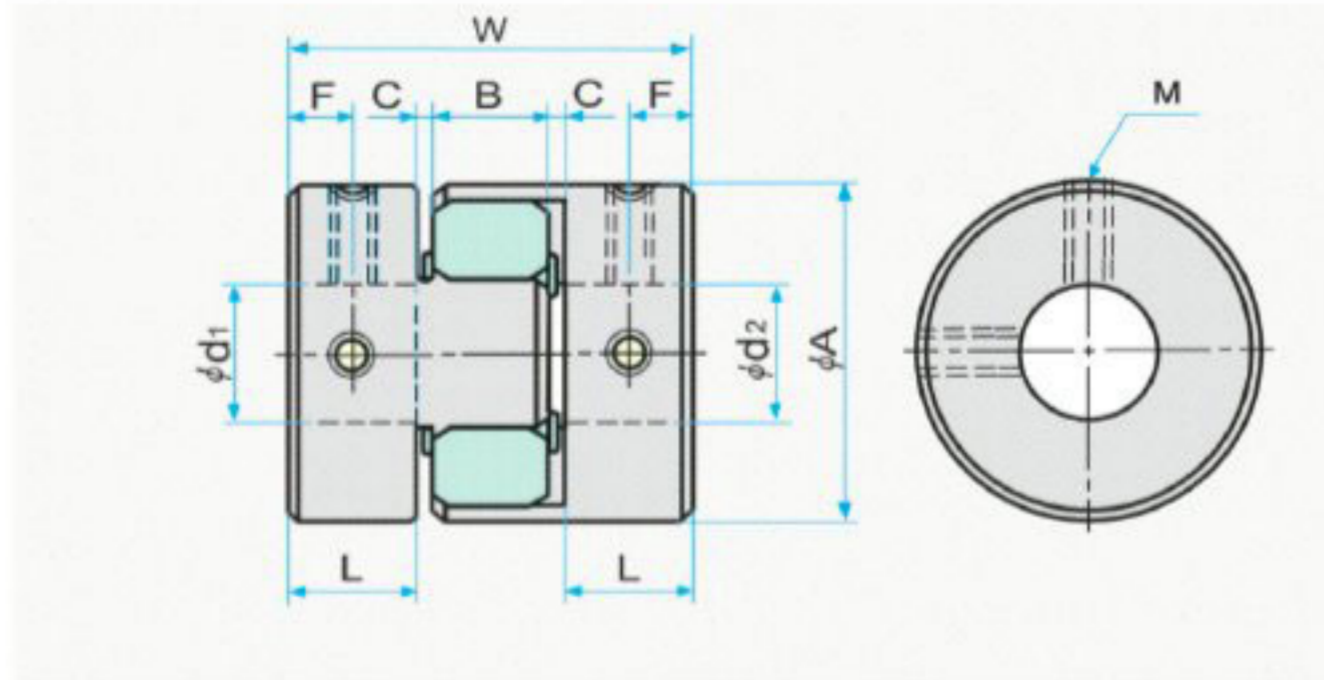
Shaft Dia

※ Please, specify the diameters of both shaft ends in the order form.

# SJC Series Zero Backlash Jaw Coupling

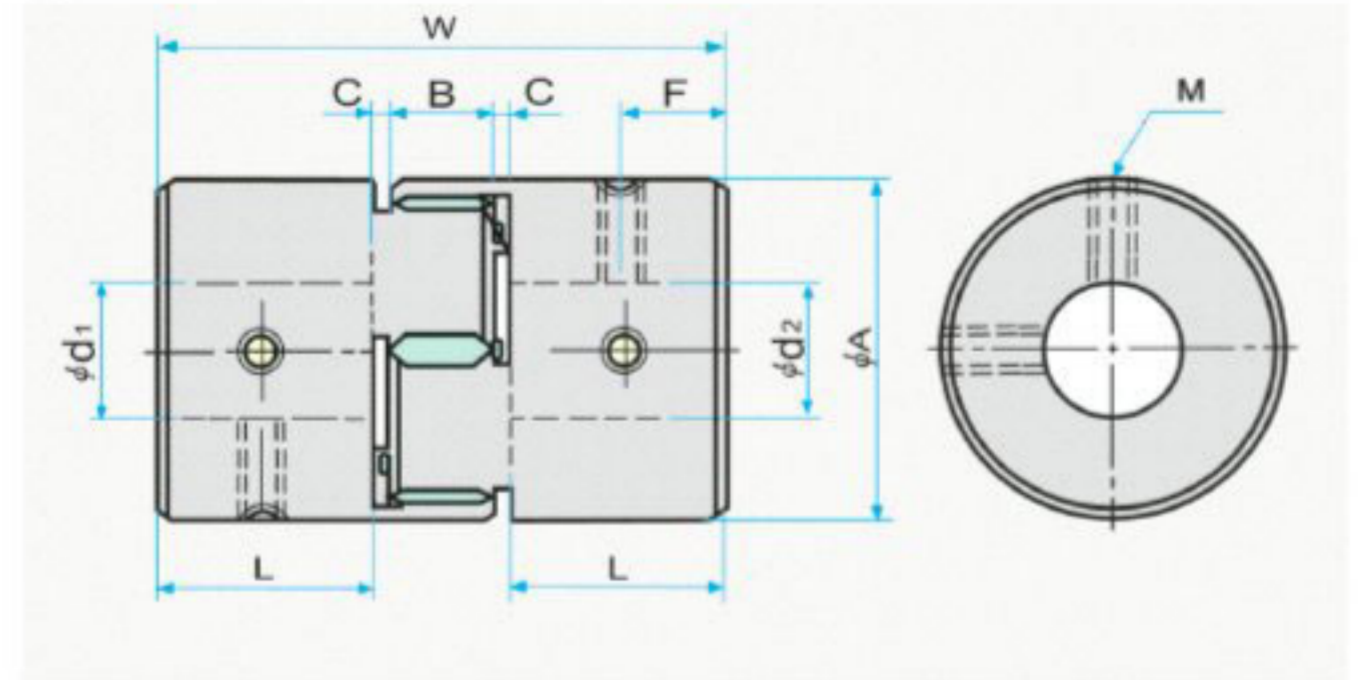
※ Please, download CAD DATA on [www.sungilfa.com](http://www.sungilfa.com)

## ○ (SET SCREW TYPE)



(Outside Diameter φ 14~φ 30)

## ○ (SET SCREW TYPE)



(Outside Diameter φ 40)

## ○ Standards & Performance

Product Number	A	L	W	B	C	F	M	Wrench Torque (N.m)	Max·Bore (mm)	Rated Torque (N·m)	Max Torque (N·m)	Max·RPM (min <sup>-1</sup> )	Moment of inertia (kg·m <sup>2</sup> )	Static Torsional Stiffness (N.m/rad)	Parallel (mm)	Angle (°)	End-Play (mm)	mass (g)
SJC-14 GR	14	7	22	6	1	3.5	M3	0.6	6.35	1.2	2.4	27,000	2.1 × 10 <sup>-7</sup>	14	0.15	1.0	+0.6 0	7.3
SJC-20 GR	20	10	30	8	1	5	M3	0.6	9.525	3	6	19,000	1.0 × 10 <sup>-6</sup>	29	0.15	1.0	+0.8 0	18
SJC-25 GR	25	10	32.5	9	1.25	5	M4	1.7	12	5	10	15,000	2.4 × 10 <sup>-6</sup>	45	0.15	1.0	+1.0 0	25
SJCA-30 GR	30	11.3	35	10	1.5	5.5	M4	1.7	14	7.5	15	13,000	5.9 × 10 <sup>-6</sup>	73	0.15	1.0	+1.0 0	46
SJCB-30 GR	30	15.8	44	10	1.5	7.7	M4	1.7	14	7.5	15	13,000	7.2 × 10 <sup>-6</sup>	73	0.15	1.0	+1.0 0	53
SJCA-40 GR	40	19.5	55	12	2	9	M5	4	18	10	20	9,600	3.1 × 10 <sup>-5</sup>	570	0.1	1.0	+1.2 0	125
SJCB-40 GR	40	25	66	12	2	11.5	M5	4	18	10	20	9,600	4.0 × 10 <sup>-5</sup>	570	0.1	1.0	+1.2 0	150
SJC-14 RD	14	7	22	6	1	3.5	M3	0.6	6.35	2	4	27,000	2.1 × 10 <sup>-7</sup>	22	0.1	1.0	+0.6 0	7.3
SJC-20 RD	20	10	30	8	1	5	M3	0.6	9.525	5	10	19,000	1.0 × 10 <sup>-6</sup>	55	0.1	1.0	+0.8 0	18
SJC-25 RD	25	10	32.5	9	1.25	5	M4	1.7	12	9	18	15,000	2.4 × 10 <sup>-6</sup>	80	0.1	1.0	+1.0 0	25
SJCA-30 RD	30	11.3	35	10	1.5	5.5	M4	1.7	14	12.5	25	13,000	5.9 × 10 <sup>-6</sup>	130	0.1	1.0	+1.0 0	46
SJCB-30 RD	30	15.8	44	10	1.5	7.7	M4	1.7	14	12.5	25	13,000	7.2 × 10 <sup>-6</sup>	130	0.1	1.0	+1.0 0	53
SJCA-40 RD	40	19.5	55	12	2	9	M5	4	18	17	34	9,600	3.1 × 10 <sup>-5</sup>	1200	0.1	1.0	+1.2 0	125
SJCB-40 RD	40	25	66	12	2	11.5	M5	4	18	17	34	9,600	4.0 × 10 <sup>-5</sup>	1200	0.1	1.0	+1.2 0	150

## ○ Standard Inner diameter

Product Number	(d <sub>1</sub> , d <sub>2</sub> ) Standard INNER Diameter (mm)																	
	3	4	4.5	5	6	6.35	7	8	9.525	10	11	12	14	15	16	18	19	20
SJC-14	●	●	●	●														
SJC-20		●	●	●	●	●	●	●										
SJC-25				●	●	●	●	●	●	●								
SJC-30					●	●	●	●	●	●	●	●	●					
SJC-40								●	●	●	●	●	●	●	●	●	●	●

☑ INNER diameter INCH type is also available.

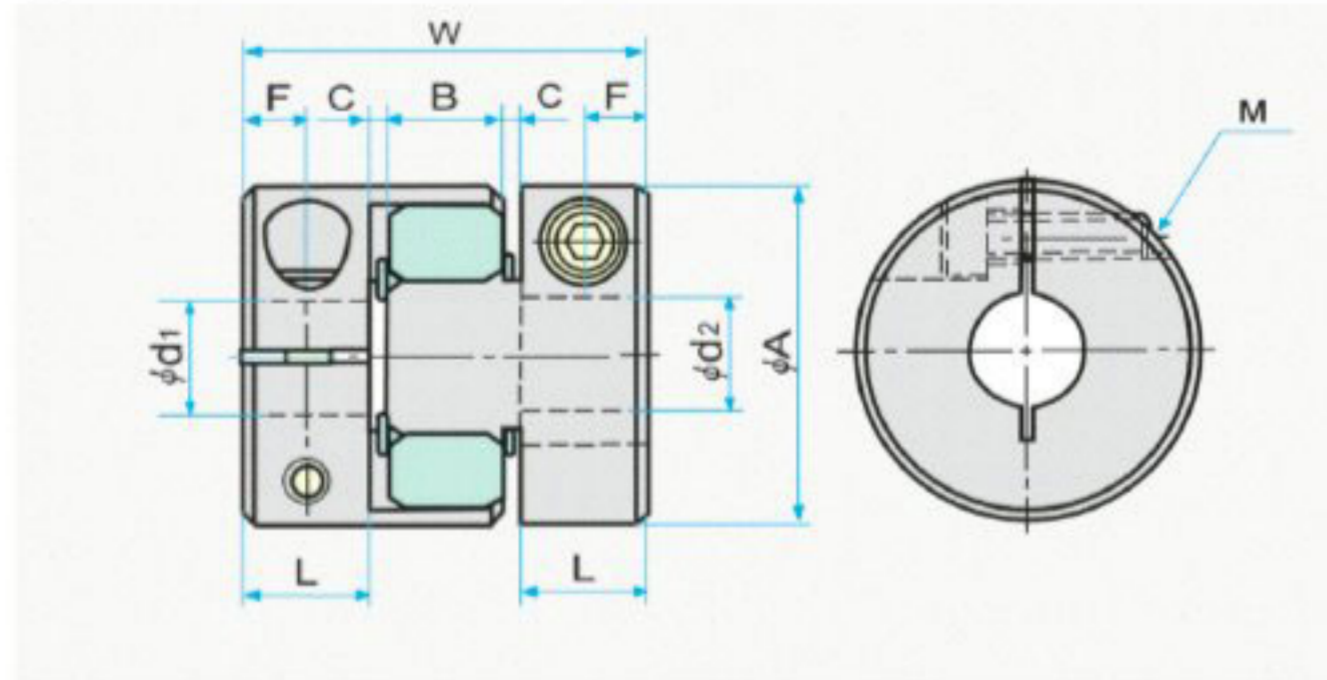
☑ Non standard inner diameter product is also available

☑ KEY TYPE is also available

# SJC Series Zero Backlash Jaw Coupling

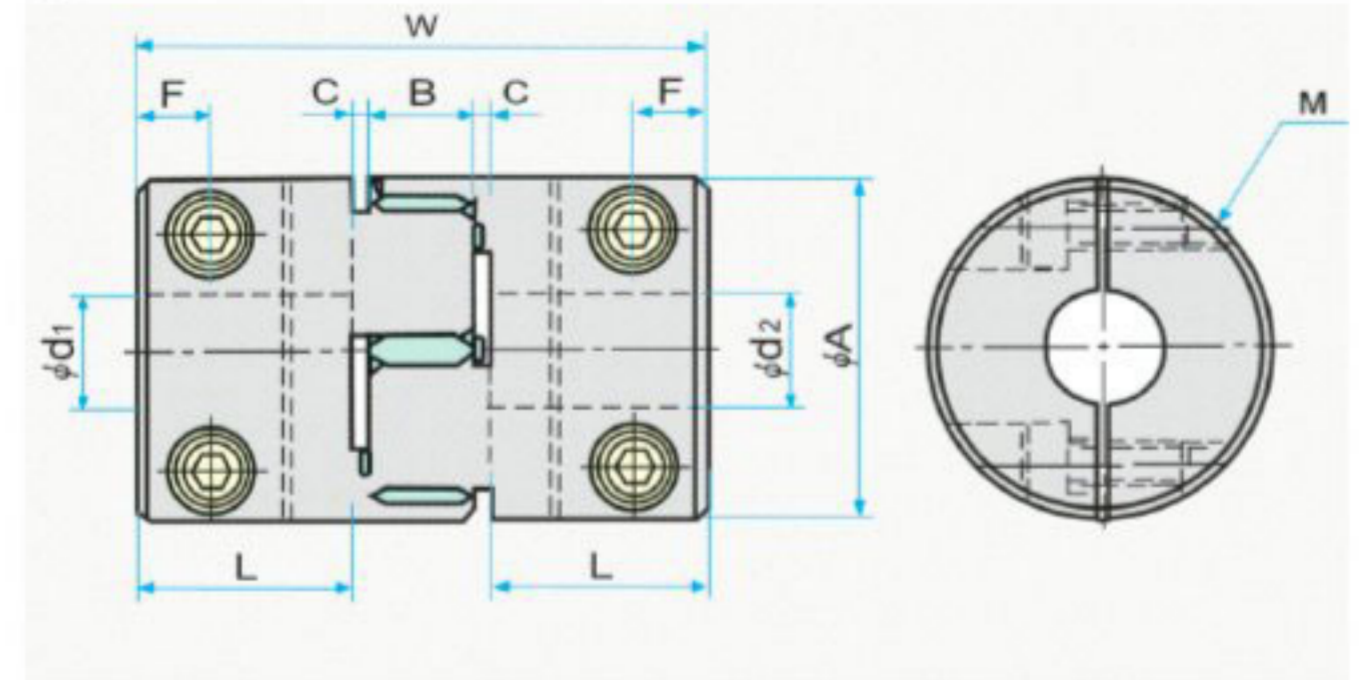


## (CLAMP TYPE)



(Outside Diameter  $\phi 14 \sim \phi 30$ )

## (CLAMP TYPE)



(Outside Diameter  $\phi 40$ )

## Standards & Performance

Product Number	A	L	W	B	C	F	M	Wrench Torque (N.m)	Max · Bore (mm)	Rated Torque (N·m)	Max Torque (N·m)	Max · RPM (min <sup>-1</sup> )	Moment of inertia (kg · m <sup>2</sup> )	Static Torsional Stiffness (N.m/rad)	Parallel (mm)	Angle (°)	End-Play (mm)	mass (g)
SJC-14C GR	14	7	22	6	1	3.5	M2	0.5	5	1.2	2.4	11,000	$1.6 \times 10^{-7}$	14	0.15	1.0	$+0.6_0$	6
SJC-20C GR	20	10	30	8	1	5	M2.6	1	8	3	6	7,600	$1.1 \times 10^{-6}$	29	0.15	1.0	$+0.8_0$	19
SJC-25C GR	25	10	32.5	9	1.25	5	M3	1.8	12	5	10	6,200	$2.4 \times 10^{-6}$	45	0.15	1.0	$+1.0_0$	25
SJCA-30C GR	30	11.3	35	10	1.5	5.5	M4	5	14	7.5	15	5,100	$6.2 \times 10^{-6}$	73	0.15	1.0	$+1.0_0$	50
SJCB-30C GR	30	15.8	44	10	1.5	5.5	M4	5	14	7.5	15	5,100	$7.5 \times 10^{-6}$	73	0.15	1.0	$+1.0_0$	55
SJCA-40C GR	40	19.5	55	12	2	6.7	M5	9	18	10	20	3,800	$3.1 \times 10^{-5}$	570	0.1	1.0	$+1.2_0$	135
SJCB-40C GR	40	25	66	12	2	8.5	M5	9	18	10	20	3,800	$3.9 \times 10^{-5}$	570	0.1	1.0	$+1.2_0$	160
SJC-14C RD	14	7	22	6	1	3.5	M2	0.5	5	2	4	11,000	$1.6 \times 10^{-7}$	22	0.1	1.0	$+0.6_0$	6
SJC-20C RD	20	10	30	8	1	5	M2.6	1	8	5	10	7,600	$1.1 \times 10^{-6}$	55	0.1	1.0	$+0.8_0$	19
SJC-25C RD	25	10	32.5	9	1.25	5	M3	1.8	12	9	18	6,200	$2.4 \times 10^{-6}$	80	0.1	1.0	$+1.0_0$	25
SJCA-30C RD	30	11.3	35	10	1.5	5.5	M4	5	14	12.5	25	5,100	$6.2 \times 10^{-6}$	130	0.1	1.0	$+1.0_0$	50
SJCB-30C RD	30	15.8	44	10	1.5	5.5	M4	5	14	12.5	25	5,100	$7.5 \times 10^{-6}$	130	0.1	1.0	$+1.0_0$	55
SJCA-40C RD	40	19.5	55	12	2	6.7	M5	9	18	17	34	3,800	$3.1 \times 10^{-5}$	1200	0.1	1.0	$+1.2_0$	135
SJCB-40C RD	40	25	66	12	2	8.5	M5	9	18	17	34	3,800	$3.9 \times 10^{-5}$	1200	0.1	1.0	$+1.2_0$	160

## Standard Inner diameter

Product Number	(d <sub>1</sub> , d <sub>2</sub> ) Standard INNER Diameter (mm)																
	3	4	4.5	5	6	6.35	7	8	9.525	10	11	12	14	15	16	18	19
SJC-14C	●	●	●	●													
SJC-20C		●	●	●	●	●	●	●									
SJC-25C				●	●	●	●	●	●	●							
SJC-30C					●	●	●	●	●	●	●	●	●				
SJC-40C								●	●	●	●	●	●	●	●	●	●

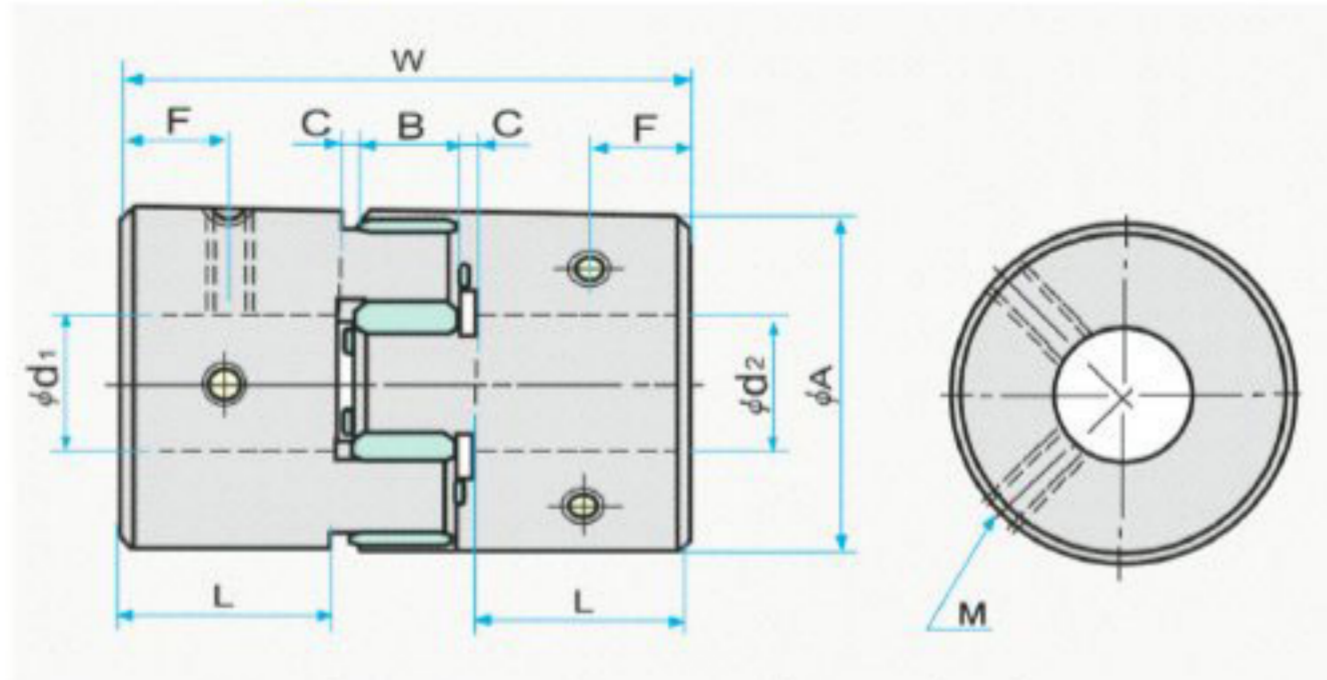
☑ INNER diameter INCH type is also available.  
☑ KEY TYPE is also available

☑ Non standard inner diameter product is also available



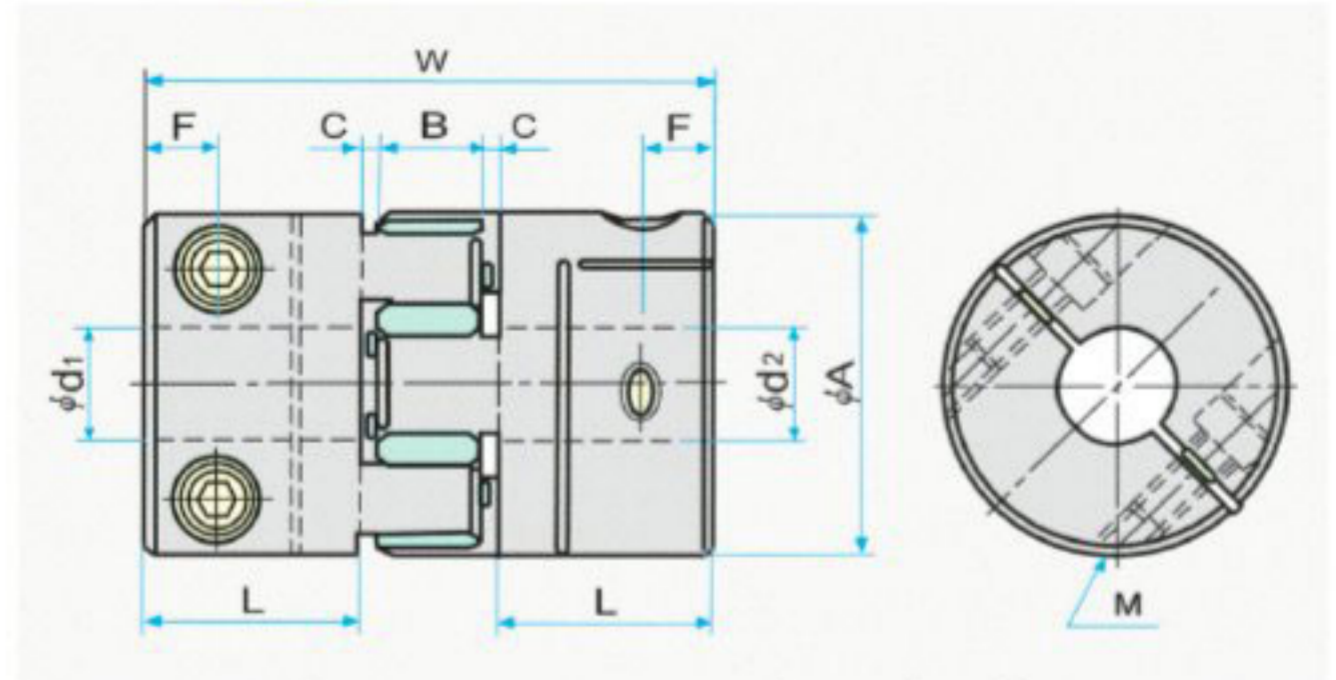
# SJC Series Zero Backlash Jaw Coupling

 **SJC-■■-GR(RD)** (SET SCREW TYPE)



(Outside Diameter Ø55~Ø100)

 **SJC-■■C-GR(RD)** (CLAMP TYPE)



(Outside Diameter Ø55~Ø100)

 **Standards**

Product Number	A	L	W	B	C	F	M	Wrench Torque (N.m)
SJC-55 GR	55	30	78	14	2	14	6	7
SJC-65 GR	65	35	90	15	2.5	17	8	17
SJC-80 GR	80	45	114	18	3	22	8	17
SJC-100 GR	104	56	140	21	3.5	27	10	30
SJC-55C GR	55	30	78	14	2	10.5	6	15
SJC-65C GR	65	35	90	15	2.5	13	8	35
SJC-80C GR	80	45	114	18	3	15	8	35
SJC-100C GR	104	56	140	21	3.5	20	12	120
SJCM-55C GR	55	21	59	14	2	10.5	6	15
SJCM-65C GR	65	22	63	15	2.5	11	8	35
SJCM-80C GR	80	32	88	18	3	16	10	70
SJCM-100C GR	104	34	94	21	3.5	17.5	12	120
SJC-55 RD	55	30	78	14	2	14	6	7
SJC-65 RD	65	35	90	15	2.5	17	8	17
SJC-80 RD	80	45	114	18	3	22	8	17
SJC-100 RD	104	56	140	21	3.5	27	10	30
SJC-55C RD	55	30	78	14	2	10.5	6	15
SJC-65C RD	65	35	90	15	2.5	13	8	35
SJC-80C RD	80	45	114	18	3	15	8	35
SJC-100C RD	104	56	140	21	3.5	20	12	120
SJCM-55C RD	55	21	59	14	2	10.5	6	15
SJCM-65C RD	65	22	63	15	2.5	11	8	35
SJCM-80C RD	80	32	88	18	3	16	10	70
SJCM-100C RD	104	34	94	21	3.5	17.5	12	120

 **Standard Inner diameter**

Product Number	(d <sub>1</sub> , d <sub>2</sub> ) Standard INNER Diameter (mm)																			
	10	12	14	15	16	18	19	20	22	24	25	26	28	30	32	35	40	45	50	60
SJC-55, 55C		●	●	●	●	●	●	●	●	●	●	●	●							
SJC-65, 65C				●	●	●	●	●	●	●	●	●	●	●	●	●				
SJC-80, 80C				●	●	●	●	●	●	●	●	●	●	●	●	●	●	●		
SJC-100, 100C							●	●	●	●	●	●	●	●	●	●	●	●	●	●

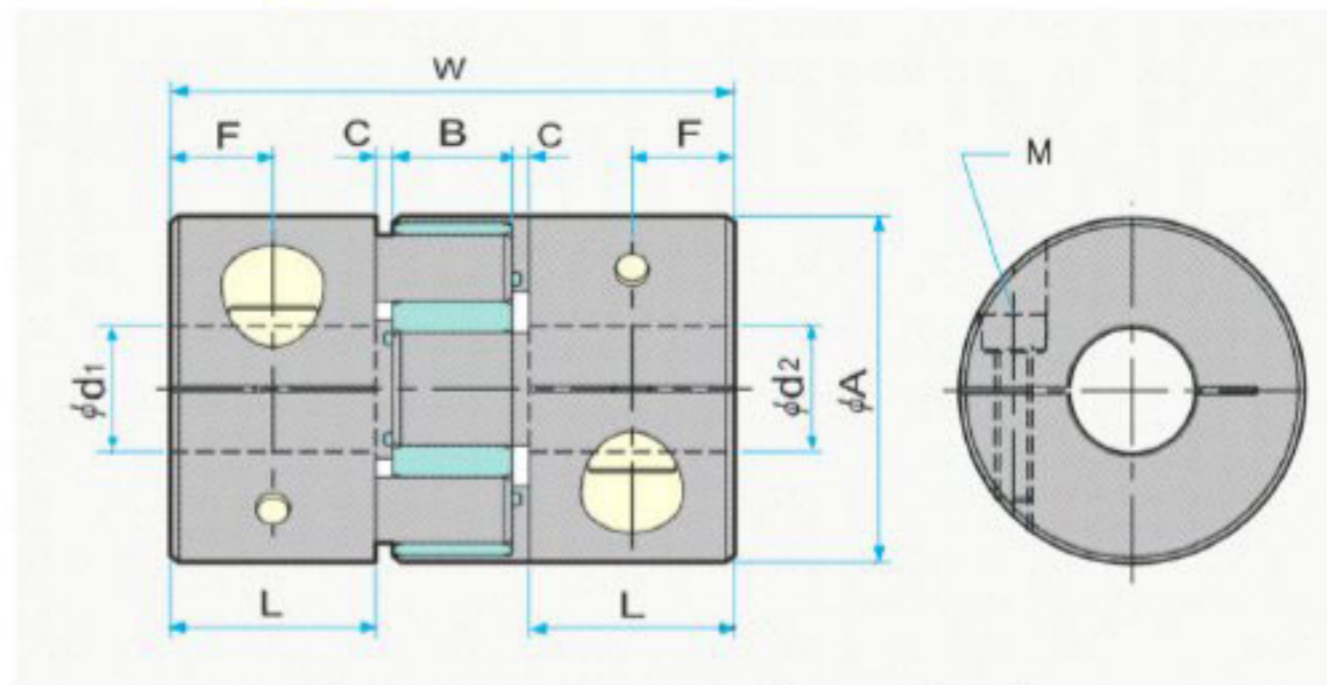
☑ INNER diameter INCH type is also available.  
☑ KEY TYPE is also available

☑ Non standard inner diameter product is also available

# SJC Series Zero Backlash Jaw Coupling

※ Please, download CAD DATA on [www.sungilfa.com](http://www.sungilfa.com)

## **SJCM-■ ■ C-GR(RD)** (CLAMP TYPE)

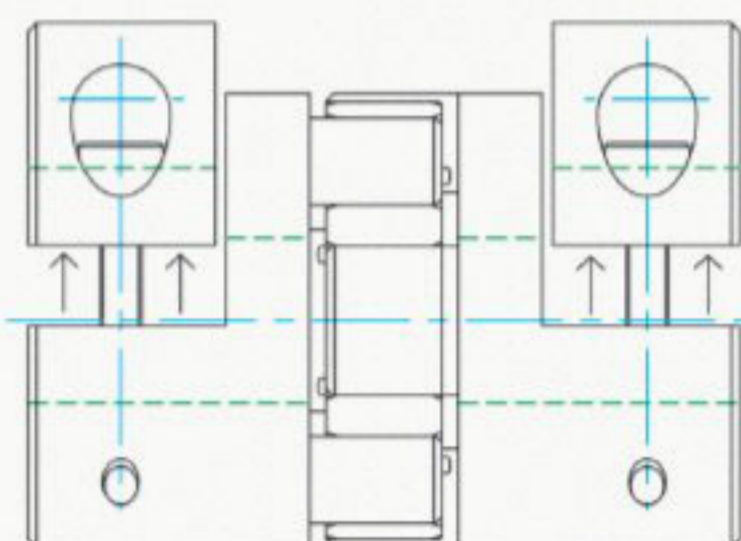


**(SJCM CLAMP)**

(Outside Diameter Ø55~Ø100)

## **Performance**

Product Number	Max · Bore (mm)	Rated Torque (N · m)	Max Torque (N · m)	Max · RPM (min <sup>-1</sup> )	Moment of inertia (kg · m <sup>2</sup> )	Static Torsional Stiffness (N.m/rad)	Parallel (mm)	Angle (°)	End-Play (mm)	mass (g)
SJC-55 GR	30	35	70	7,000	1.7 × 10 <sup>-4</sup>	1.600	0.15	1	+1.4 0	350
SJC-65 GR	35	95	190	6,000	3.9 × 10 <sup>-4</sup>	3.000	0.15	1	+1.5 0	570
SJC-80 GR	45	190	380	5,000	1.1 × 10 <sup>-3</sup>	6.500	0.15	1	+1.5 0	1,150
SJC-100 GR	60	300	600	4,000	4.8 × 10 <sup>-3</sup>	7.000	0.15	1	+2.0 0	2,650
SJC-55C GR	30	35	70	3,200	1.6 × 10 <sup>-4</sup>	1.600	0.15	1	+1.4 0	330
SJC-65C GR	35	95	190	2,700	3.8 × 10 <sup>-4</sup>	3.000	0.15	1	+1.5 0	560
SJC-80C GR	45	190	380	2,200	1.0 × 10 <sup>-3</sup>	6.500	0.15	1	+1.5 0	1,050
SJC-100C GR	60	300	600	3,000	4.6 × 10 <sup>-3</sup>	7.000	0.15	1	+2.0 0	2,550
SJCM-55C GR	30	35	70	4,000	1.3 × 10 <sup>-4</sup>	1.600	0.15	1	+1.4 0	280
SJCM-65C GR	35	95	190	3,500	2.6 × 10 <sup>-4</sup>	3.000	0.15	1	+1.5 0	400
SJCM-80C GR	45	190	380	3,000	8.7 × 10 <sup>-4</sup>	6.500	0.15	1	+1.5 0	860
SJCM-100C GR	60	300	600	3,000	3.1 × 10 <sup>-3</sup>	7.000	0.15	1	+2.0 0	1,700
<hr/>										
SJC-55 RD	30	60	120	7,000	1.7 × 10 <sup>-4</sup>	2.600	0.1	1	+1.4 0	350
SJC-65 RD	35	160	320	6,000	3.9 × 10 <sup>-4</sup>	4.900	0.1	1	+1.5 0	570
SJC-80 RD	45	320	640	5,000	1.1 × 10 <sup>-3</sup>	11.000	0.1	1	+1.5 0	1,150
SJC-100 RD	60	600	1,200	4,000	4.8 × 10 <sup>-3</sup>	30.000	0.1	1	+2.0 0	2,650
SJC-55C RD	30	60	120	3,200	1.6 × 10 <sup>-4</sup>	2.600	0.1	1	+1.4 0	330
SJC-65C RD	35	160	320	2,700	3.8 × 10 <sup>-4</sup>	4.900	0.1	1	+1.5 0	560
SJC-80C RD	45	320	640	2,200	1.0 × 10 <sup>-3</sup>	11.000	0.1	1	+1.5 0	1,050
SJC-100C RD	60	600	1,200	3,000	4.6 × 10 <sup>-3</sup>	30.000	0.1	1	+2.0 0	2,550
SJCM-55C RD	30	60	120	4,000	1.3 × 10 <sup>-4</sup>	2.600	0.1	1	+1.4 0	280
SJCM-65C RD	35	160	320	3,500	2.6 × 10 <sup>-4</sup>	4.900	0.1	1	+1.5 0	400
SJCM-80C RD	45	320	640	3,000	8.7 × 10 <sup>-4</sup>	11.000	0.1	1	+1.5 0	860
SJCM-100C RD	60	600	1,200	3,000	3.1 × 10 <sup>-3</sup>	30.000	0.1	1	+2.0 0	1,700



※It is possible to order the CLAMP Split Type in Outside Diameter Ø55~Ø100

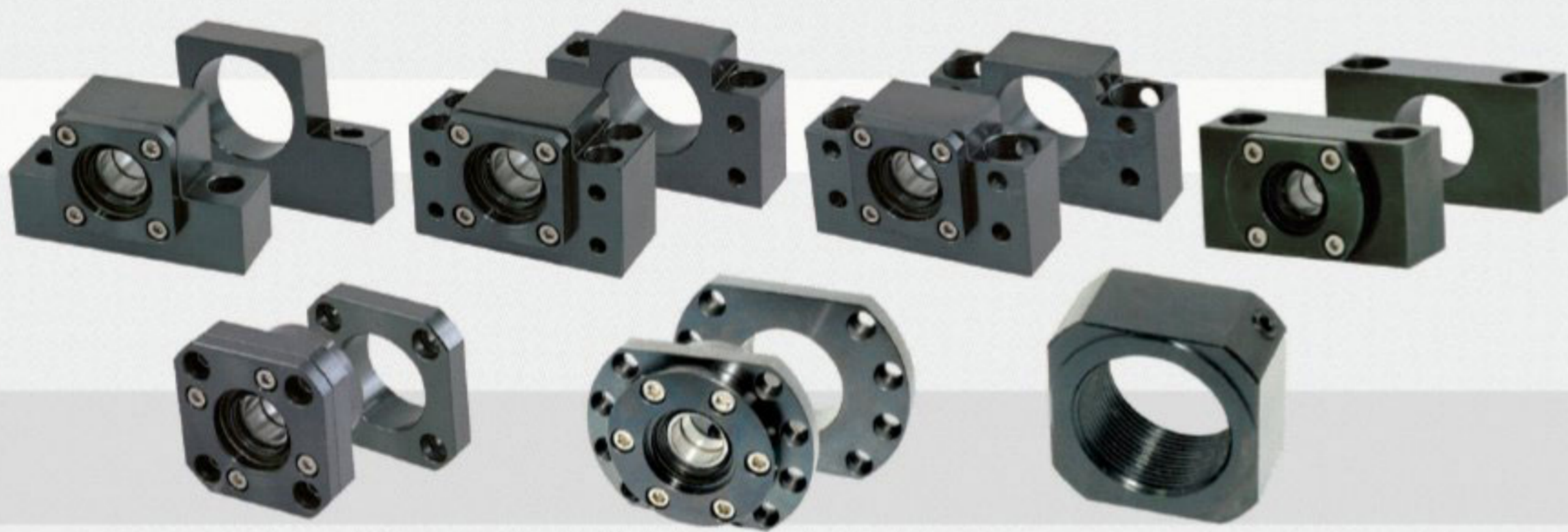


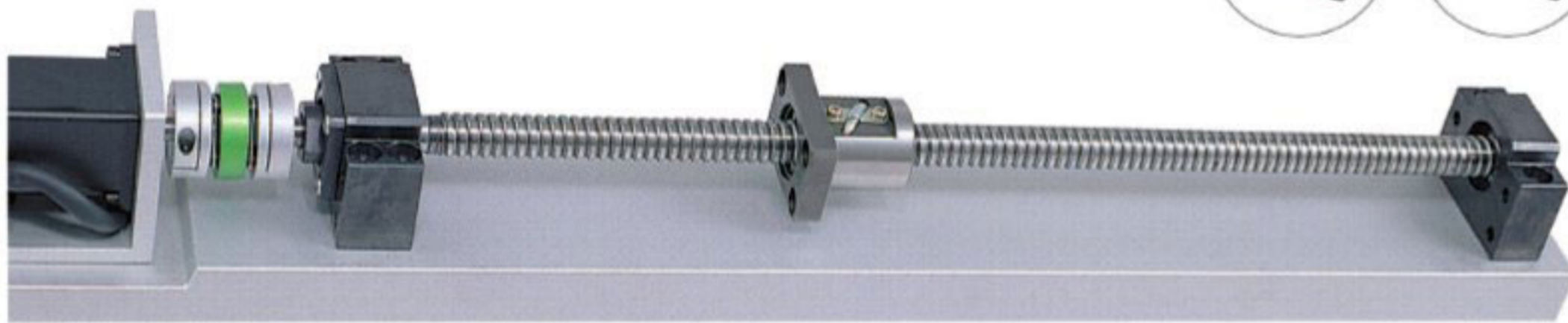
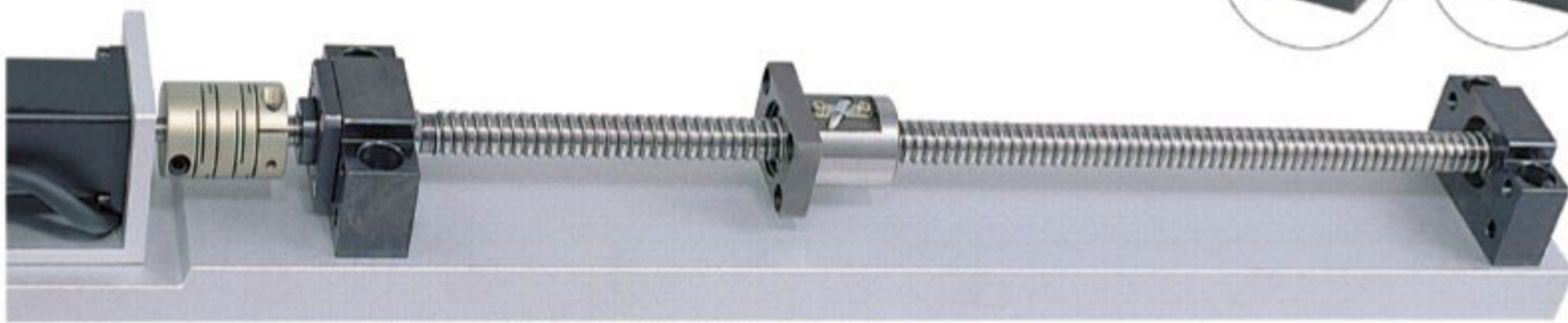
**(CLAMP Split Type)**



**(SJC CLAMP)**

## Support Units & FA Units



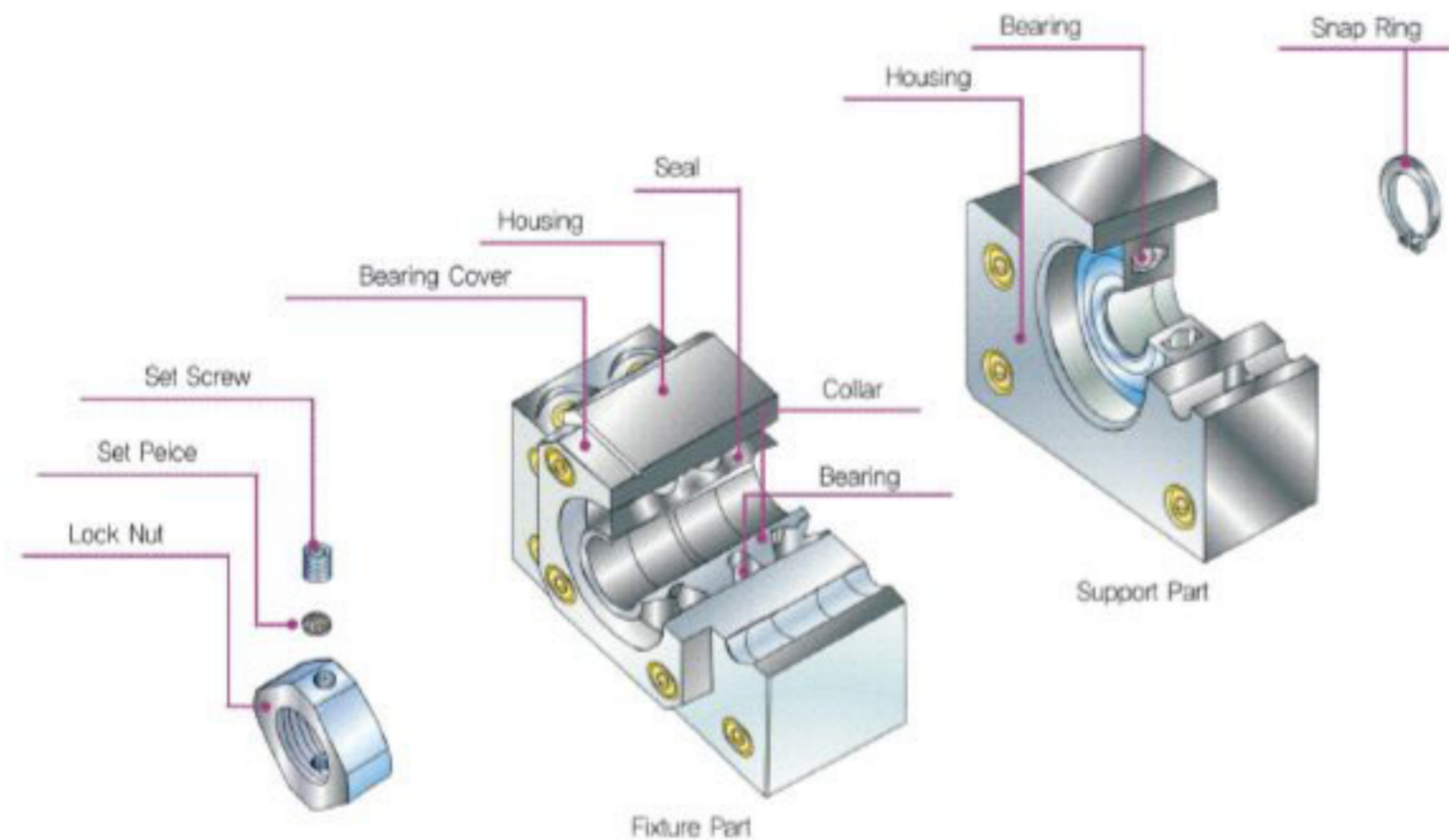
**EK, EF Type Support Units****BK, BF Type Support Units****AK, AF Type Support Units****FK, FF Type Support Units**

# Characteristics of SI Support Units

The Support Units of SI Machinery are precisely standardized in order to accurately maintain, firmly fix and support the rotational movement of ball screw or sliding screw that is used for power transmission of linear motion.

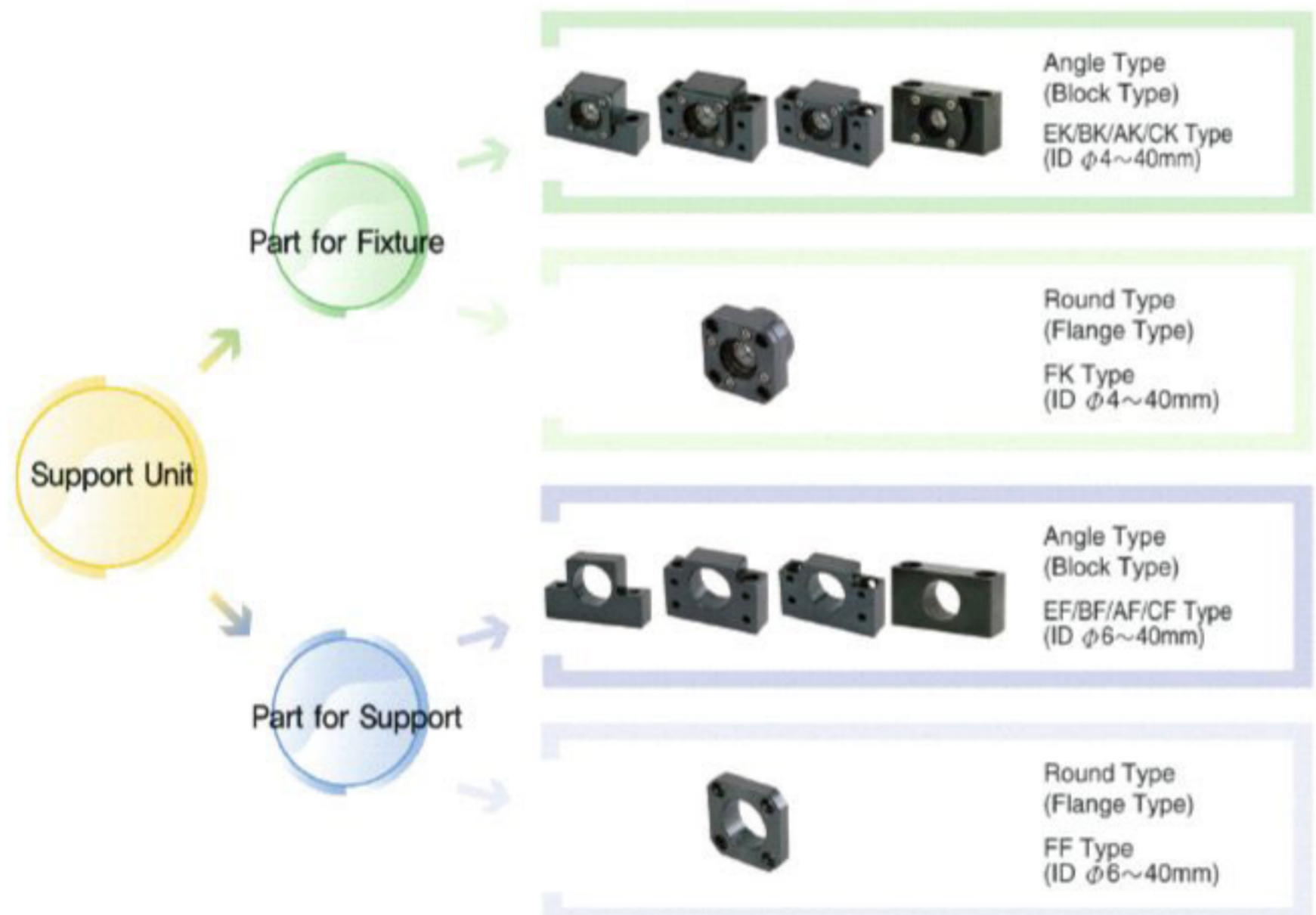
## Structure

The support unit for fixture part is assembled by angular ball bearing with high rigidity and low torque in face-to-face duplex format that is appropriate to the dynamic property of rotation shaft. In addition, it can achieve highly accurate rotation capability through precise adjustment on preload. The support unit for support part uses deep groove ball bearing. There is oil seal framed in the unit, and it prevents the grease from leaking. It prevents the influx of fine dusts or foreign substances and allows longtime use.



## Shape and Classification

There are two types of units that are available for different conditions of installation and use. One employs angle type (block type) structure where the unit is fixed on the base surface, and the other employs round type (flange type) structure where the unit is inserted into a hole for fixation. The unit is also divided into two parts depending on the position of power transmission shaft - the part for fixture (motor) on one side and the part for support on the other side.



## Features

### Simplicity of Design and Assembly

Standardization of product allows highly effective design. Additional assembly process is not required, and the stability of assembly precision can be easily improved as bearing of the support unit is assembled at optimal preload condition. Moreover, the standardized product ensures superior compatibility.

### High Precision

Angular contact ball bearing is precisely assembled in face-to-face duplex format. The influence by assembly error is minimized and the precision of rotation shaft is maintained as the product structure is designed to absorb parallel error between rotational shaft and guide about the center of the shaft.

### Dust-Proof Effect

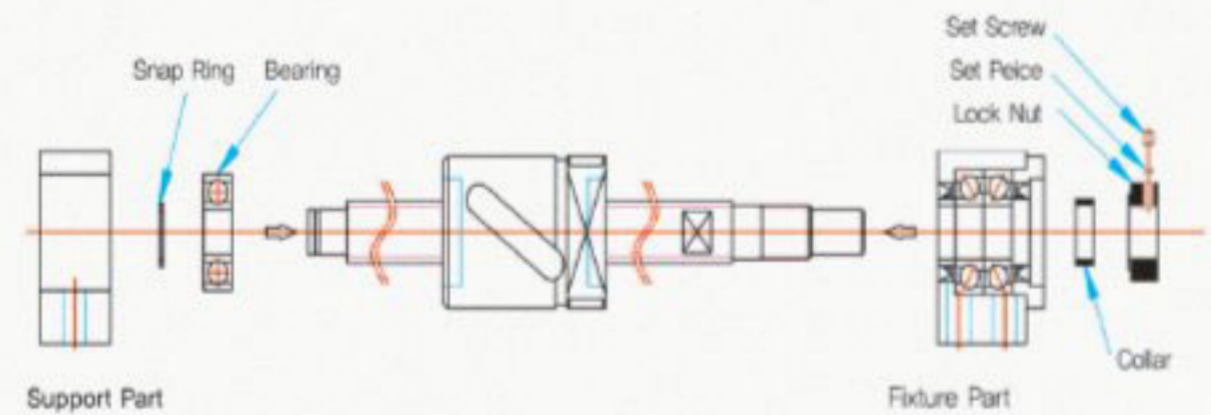
The support unit is framed with oil seal to prevent the influx of fine dusts or foreign substances and thus enhances operation precision. Furthermore, it allows longtime use as grease leakage is prevented by minimizing the tolerance between the oil seal and the rotation shaft.

# Characteristics of SI Support Units

## Steps to install the Support Unit

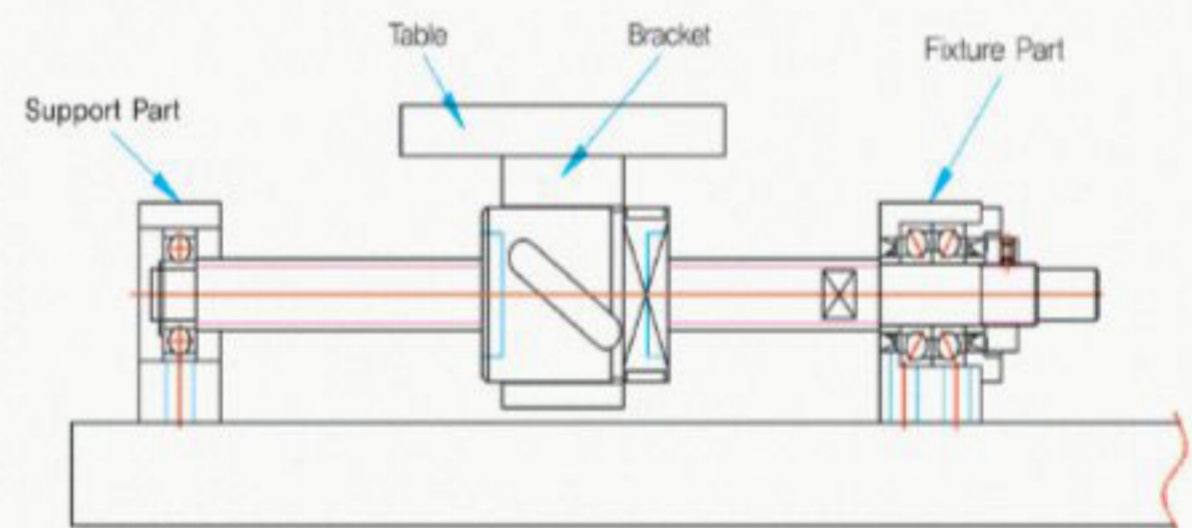
### 1. Assemble to Support Units

- 1) Connect the unit for fixture part to ball screw
  - It is not allowed to disassemble the unit as its preload has been already controlled
  - The wing part of the oil seal should not be folded when ball screw is inserted into the unit.
- 2) After inserting the ball screw into the unit, put the collar and couple and adjust the locknut. Then place the set piece in the stop screw part of the locknut and tighten the stop screw (see page 60)
  - Adhesive can be used to prevent the locknut from being loosened.
- 3) Mount the nut bracket on ball screw.
- 4) After connecting the unit ball bearing for support part to the ball screw, fix the snap ring and assemble to the housing.



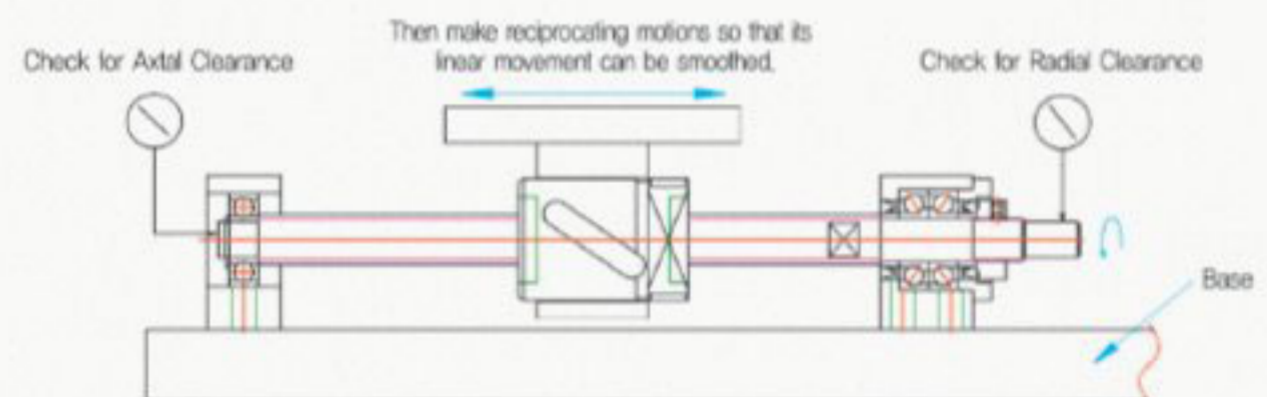
### 2. Assemble to Table and Base

- 1) Connect table to the nut bracket of ball screw.
- 2) Preassemble the support unit for fixture part to the designed position of the base.
  - When the unit for fixture part is the standard, adjust to have clearance in external diameter of the nut and internal diameter of the table or bracket.
  - When the table is the standard, adjust the height of angle type unit. For flange type, adjust to have clearance in external diameter and internal diameter.
- 3) Connect the unit housing for support part to ball screw and preassemble to the designed position of the base.



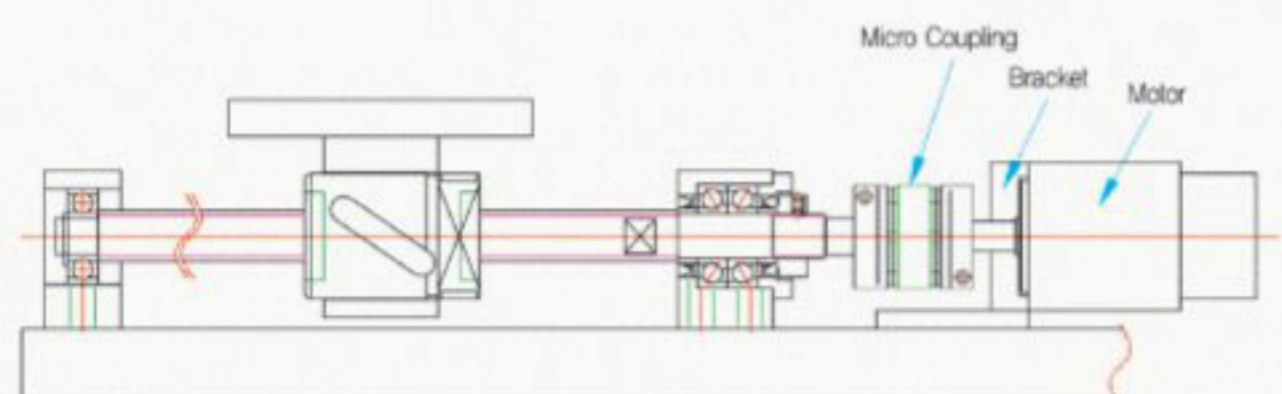
### 3. Precision of Rotation Shaft and Coupling

- 1) Move the table connected to the ball screw toward the center of the shaft in order to place the center of the shaft properly. Make alternating motion so that its linear movement can become smooth.
- 2) While measuring the tolerance toward the direction of the shaft and the vibration at the end of the rotational shaft of the ball screw, measure the center of the shaft and couple in the order of nut bracket and table, the unit for fixture part, the unit for support part and base.



### 4. Drive Motor and Assembly

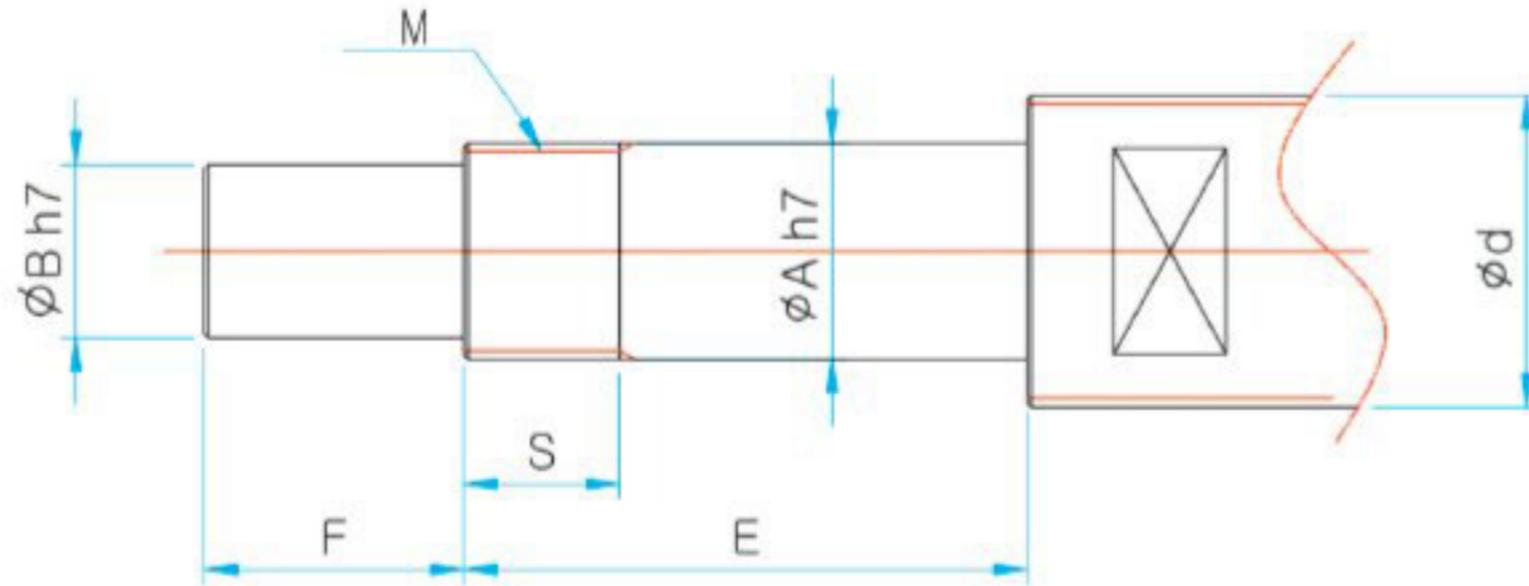
- 1) Precisely connect the bracket installed on the motor to the base by matching it with the shaft center of the ball screw.
- 2) Connect the coupling to the motor and the shaft for fixture part.
  - Careful attention is necessary during assembly as the assembly condition of the motor bracket and the coupling affects the positioning of table.
- 3) Check the precision of the shaft center by conducting enough test operation while driving the motor at slow speed.



# Characteristics of SI Support Units

## Recommendable Shape for Ball Screw

### Application of Support Unit EK, BK, AK, FK Type



Unit : mm

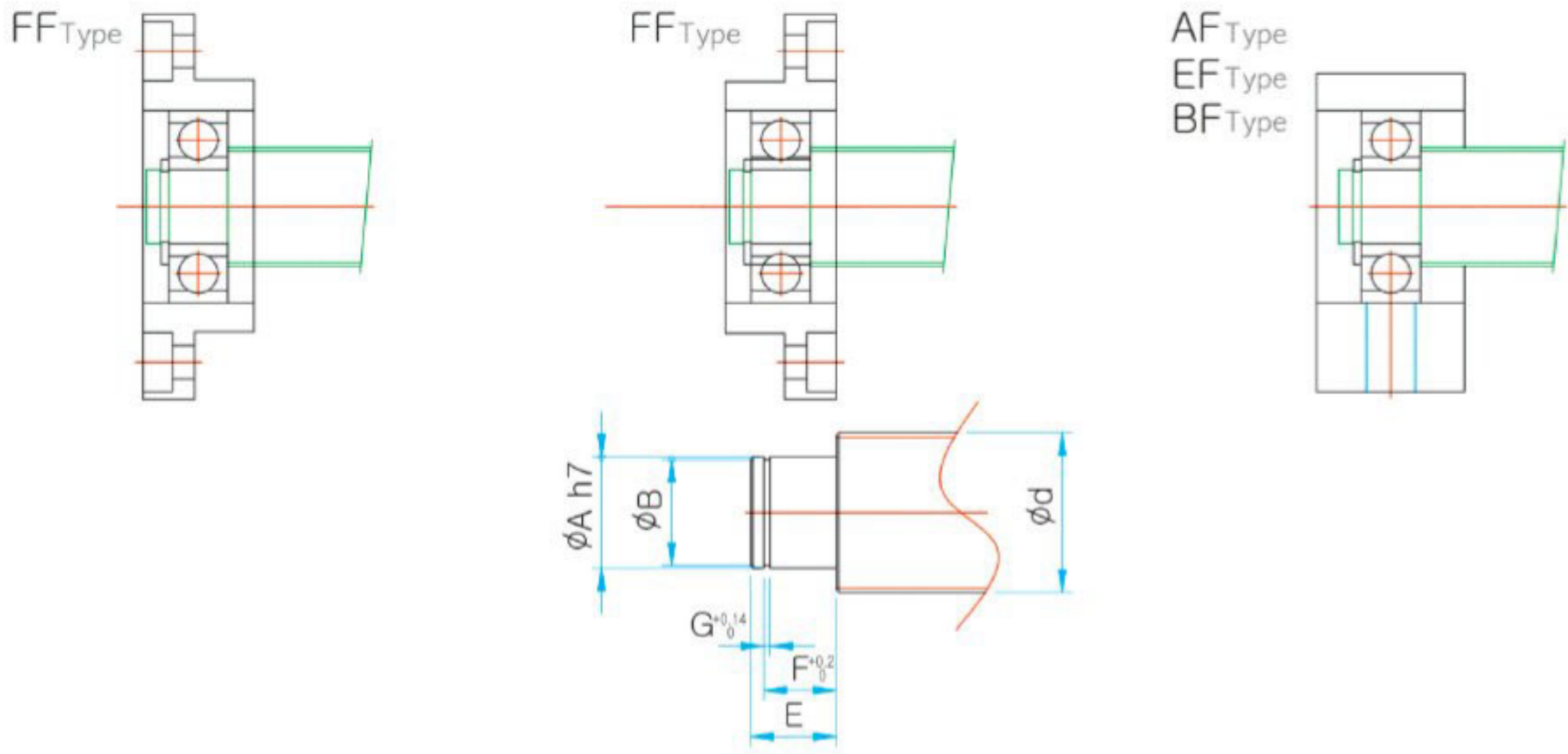
Model No.			OD of Ball Screw	ID of Bearing	Dimension			Meter Screw	
FK Type	EK Type	AK Type	d	A	B	E	F	M	S
FK4	EK4		6	4	3	23	5	M4×0.5	8
FK5	EK5		8	5	4	25	6	M5×0.5	8
FK6	EK6		8	6	4	30	8	M6×0.75	8
FK8	EK8(AK8)		12	8	6	35(30)	9	M8×1/0.75	10
FK10	EK10		14/15	10	8	36	15	M10×1/0.75	11
FK12	EK12		16/18	12	10	36	15	M12×1	11
FK15	EK15		20/25	15	12	49	20	M15×1	13
FK17	-		25	17	15	53	27	M17×1	14
FK20	EK20		28/30/32	20	17	59	25	M20×1	17
FK25	EK25		36	25	20	76	30	M25×1.5	20
FK30	-		40	30	25	72	38	M30×1.5	25
FK35	-		45	35	30	83	45	M35×1.5	28
FK40	-		50/55	40	35	98	50	M40×1.5	35
BK6	-		8	6	4	30	8	M6×0.75	8
BK8	-		12	8	6	35	9	M8×1/0.75	10
BK10	AK10		14/15	10	8	39	15	M10×1	16
BK12	AK12		16/18	12	10	39	15	M12×1	14
BK15	AK15		20	15	12	40	20	M15×1	12
BK17	-		25	17	15	53	23	M17×1	17
BK20	AK20		28/30/32	20	17	53	25	M20×1	16
BK25	-		36	25	20	65	30	M25×1.5	19
BK30	-		40	30	25	72	38	M30×1.5	25
BK35	-		45	35	30	83	45	M35×1.5	28
BK40	-		50/55	40	35	98	50	M40×1.5	35

# Characteristics of SI Support Units

※ Please, download CAD DATA on [www.sungilfa.com](http://www.sungilfa.com)

## Recommendable Shape for Ball Screw

### Application of Support Unit EF, BF, AF, FF Type



Unit : mm

Model No.				OD of Ball Screw	ID of Bearing		Snap Ring Dimension		
AF Type	FF Type	EF Type	BF Type	d	A	E	B	F	B
-	FF6	EF6	BF6	8	6	9	5.6	6.9	0.9
AF8	FF8	EF8	BF8	12	6	9	5.6	6.9	0.9
AF10	FF10	EF10	BF10	14	8	10	7.6	7.9	0.9
AF10	FF10	EF10	BF10	15	8	10	7.6	7.9	0.9
AF12	FF12	EF12	BF12	16	10	11	9.6	9.15	1.15
AF12	FF12	EF12	BF12	18	10	11	9.6	9.15	1.15
AF15	FF15	EF15	BF15	20	15	13	14.3	10.15	1.15
AF15	FF15	EF15	BF15	25	15	13	14.3	10.15	1.15
-	FF17	-	BF17	25	17	16	16.2	13.15	1.15
AF20	FF20	EF20	BF20 <sup>(1)</sup>	28	20	19(16)	19	15.35(13.35)	1.35
-	FF20	EF20	BF20 <sup>(1)</sup>	30	20	19(16)	19	15.35(13.35)	1.35
-	FF20	EF20	BF20 <sup>(1)</sup>	32	20	19(16)	19	15.35(13.35)	1.35
-	FF25	-	BF25	36	25	20	23.9	16.35	1.35
-	FF30	-	BF30	40	30	21	28.6	17.75	1.75
-	-	-	BF35	45	35	22	33	18.75	1.75
-	-	-	BF40	50	40	23	38	19.95	1.95
-	-	-	BF40	55	40	23	38	19.95	1.95

※ ( )marks BF 20's dimension

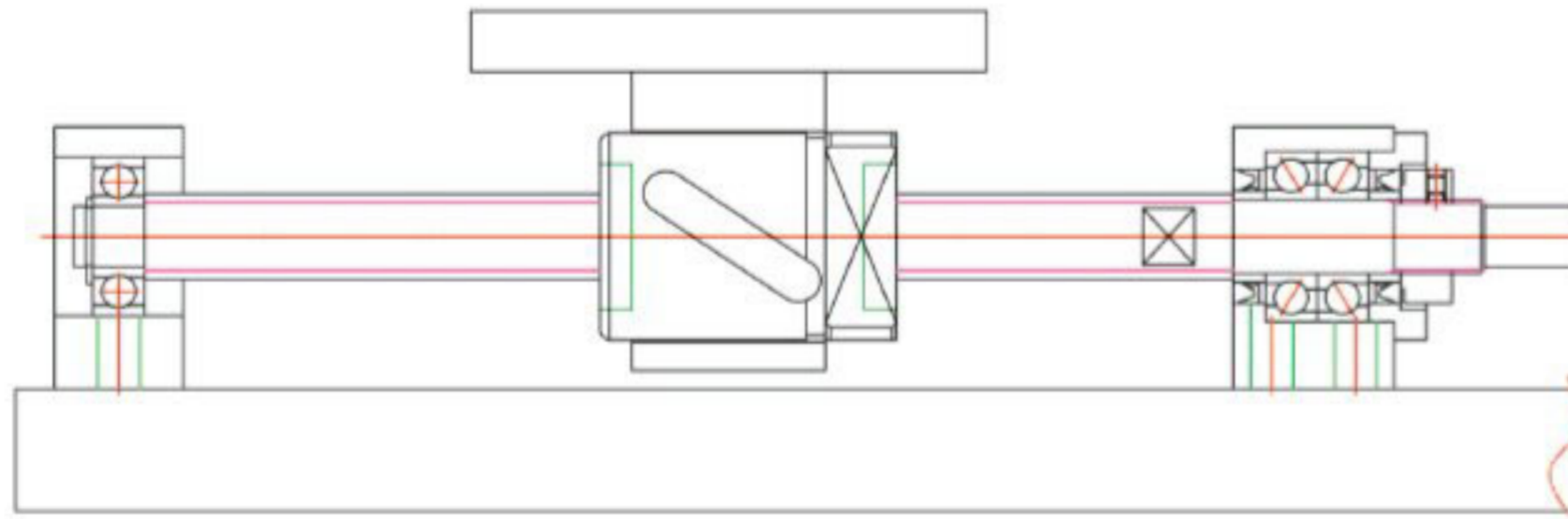


# EK Type Support Unit

Angle Type for Fixture

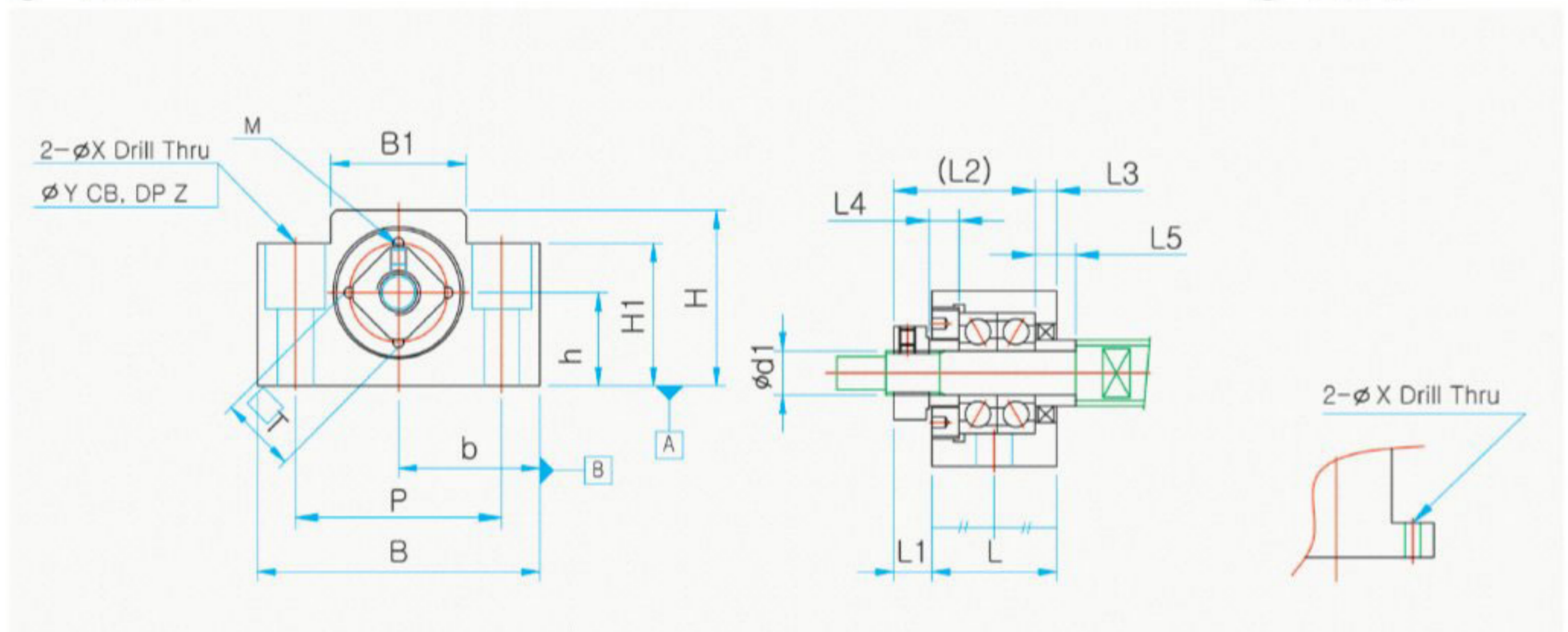


## Example



## EK 6~8

## EK 4,5



Model No.	d1	L	L1	L2	L3	B	H	b±0.02	h±0.02	B1	H1
● EK4	4	15	5.5	18.5	2	34	19	17	10	18	7
● EK5	5	16.5	6.5	19.5	3.5	36	21	18	11	20	8
● EK6	6	20	5.5	22	3.5	42	25	21	13	18	20
● EK8	8	23	7	26	4	52	32	26	17	25	26
● EK10	10	24	6	29.5	6	70	43	35	25	36	24
● EK12	12	24	6	29.5	6	70	43	35	25	36	24
● EK15	15	25	6	36	5	80	50	40	30	41	25
● EK20	20	42	10	50	10	95	58	47.5	30	56	25
● EK25	25	48	13	59	14	105	68	52.5	35	66	25

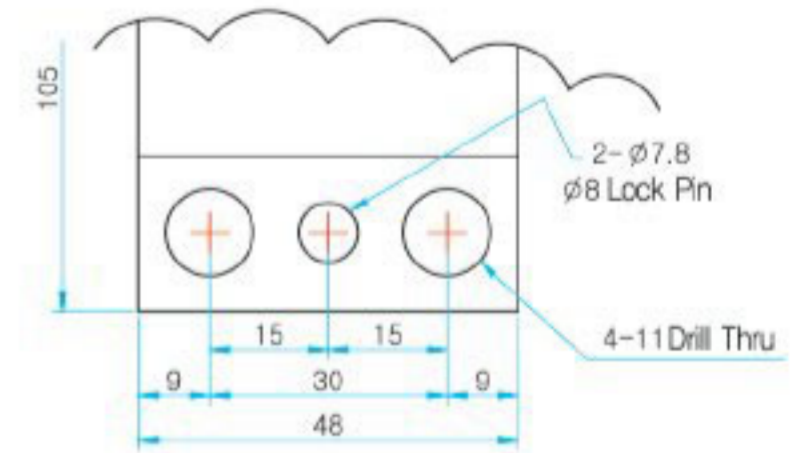
# EK Type Support Unit Angle Type for Fixture

※ Please, download CAD DATA on [www.sungilfa.com](http://www.sungilfa.com)

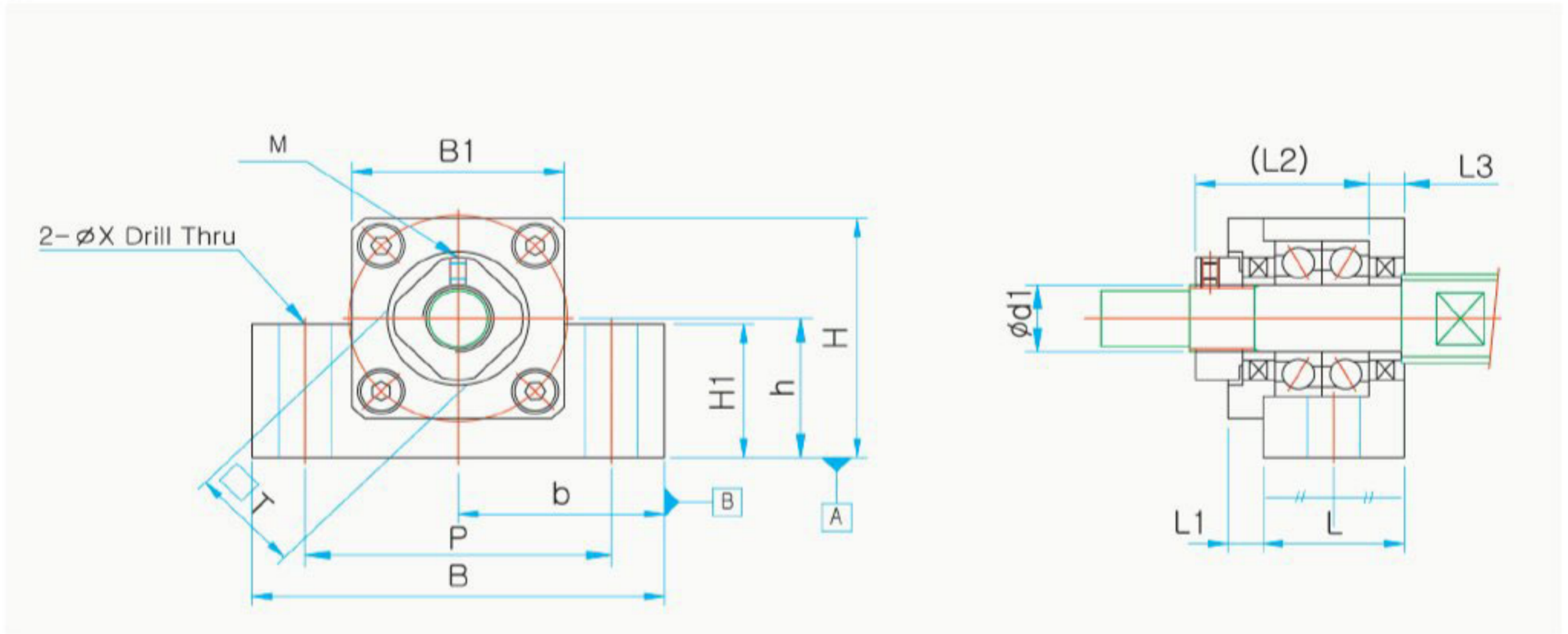
## NOTE

1. Installation can be conducted based on the surface of A and B. Please, use the spacer of accurate size when adjustment of height or length is necessary.
2. It is not allowed to disassemble the support unit as the preload of the bearing has been already controlled.
3. Precise amount of grease is filled in the support unit.
4. Tighten the setscrew after connecting the locknut to ball screw and performing adjustment.
5. EK-4~EK-5 general types use radial ball bearing have axial clearance. Apply to light load.
6. EK-10~EK-25 general typew use angular contact ball bearing have axial clearance without preload. (0.018mm)
7. Preload type(C7), Precision type(P5) adjusted preload and axial clearance is 0.  
Please, refer to page 60 about attachment torque of the locknut.

### EK 25 Reference



## EK 10~20



Unit : mm

P	X	Y	Z	L4	M	□T	Bearing		
							Precision(P5)	General(P0)	Preload(C7)
26	4.5	-	-	3.5	M3 × 0.5	10	-	634ZZ	-
28	4.5	-	-	4.5	M3 × 0.5	11	-	625ZZ	-
30	5.5	9.5	11	5 7	M3 × 0.5	12	706ATYNDFMP5	-	-
38	6.6	11	12	5.5 7.5	M3 × 0.5	14	708ATYNDFMP5	EN8	-
52	9	-	-	5.5	M4 × 0.7	16	7000ATYNDFMP5	7000AW	7000AWDFM
52	9	-	-	5.5	M4 × 0.7	19	7001ATYNDFMP5	7001AW	7001AWDFM
60	11	-	-	10	M4 × 0.7	22	7002ATYNDFMP5	7002AW	7002AWDFM
75	11	-	-	11	M4 × 0.7	30	7204ATYNDFMP5	7204AW	7204AWDFM
85	Refer to Drawing(EK25 Reference)			14	M6 × 1	35	7205ATYNDFMP5	7205AW	7205AWDFM

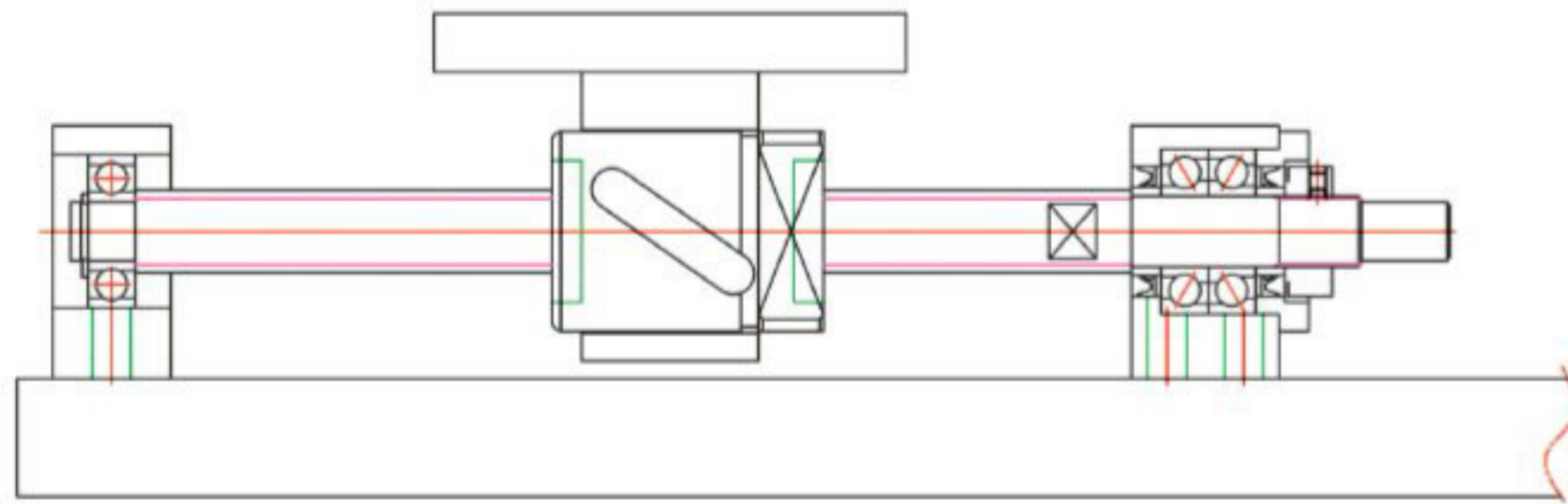
※ There is also AL 7075-T6 material in the product that marked ●

# EF Type Support Unit

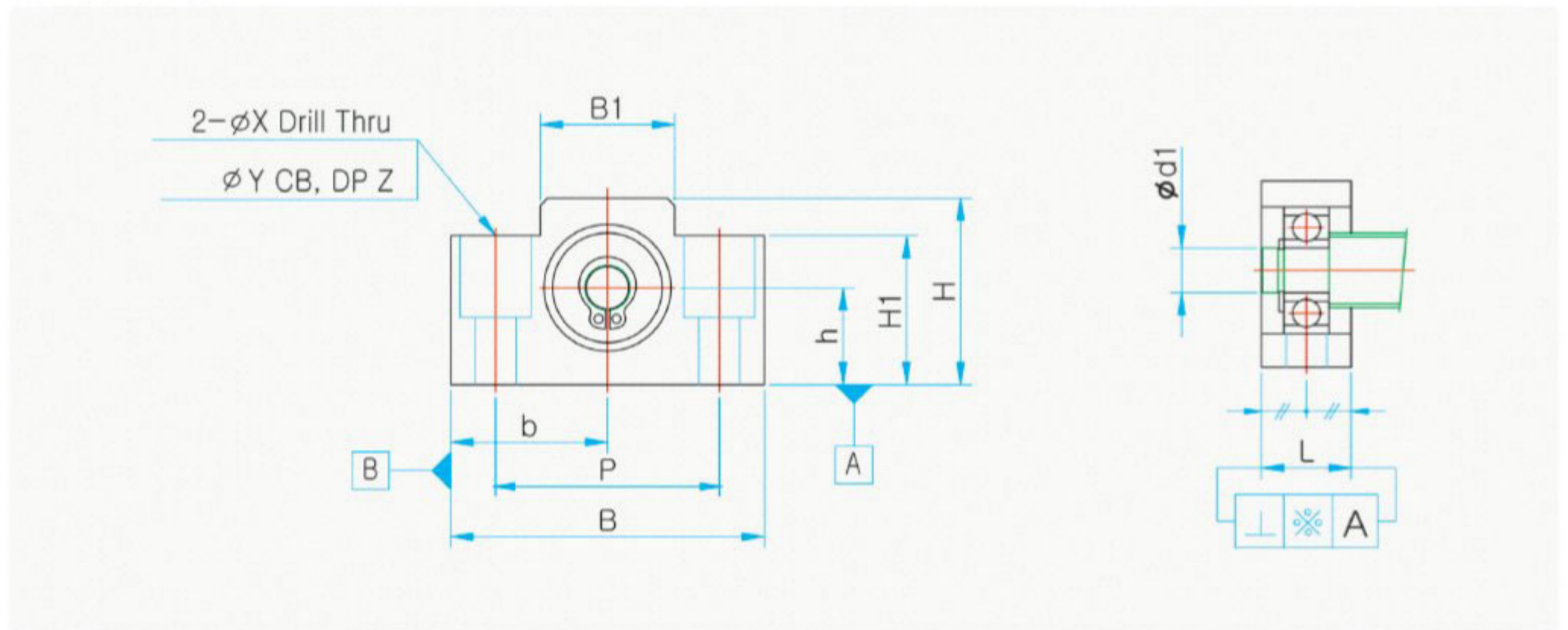
## Angle Type for Support



### Example



### EF 6~8



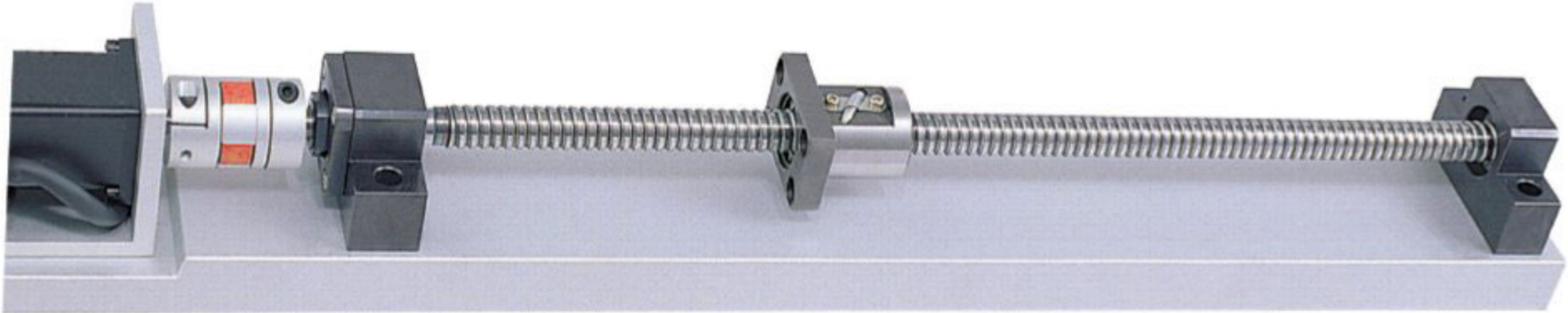
Model No.	d1	L	B	H	b±0.02	h±0.02	B1
● EF6	6	12	42	25	21	13	18
● EF8	6	14	52	32	26	17	25
● EF10	8	20	70	43	35	25	36
● EF12	10	20	70	43	35	25	36
● EF15	15	20	80	50	40	30	41
● EF20	20	26	95	58	47.5	30	56
EF25	25	30	105	68	52.5	35	66

# EF Type Support Unit Angle Type for Support

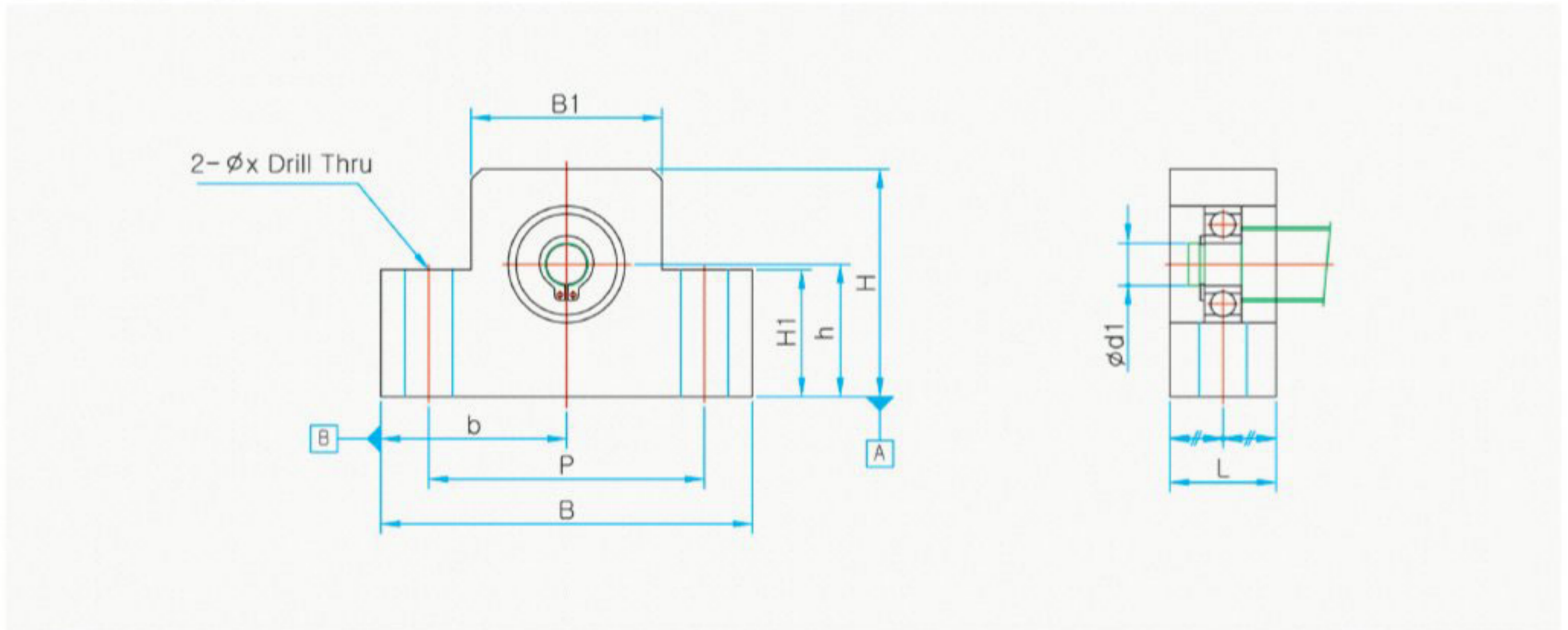
※ Please, download CAD DATA on [www.sungilfa.com](http://www.sungilfa.com)

## NOTE

1. Installation can be conducted based on the surface of A and B.  
Please, use the spacer of accurate size when adjustment of height or length is necessary.



## EF 10 ~ 25



Unit : mm

H1	P	X	Y	Z	Bearing	Snap Ring
20	30	5.5	9.5	11	606ZZ	C6
26	38	6.6	11	12	606ZZ	C6
24	52	9	-	-	608ZZ	C8
24	52	9	-	-	6000ZZ	C10
25	60	9	-	-	6002ZZ	C15
25	75	11	-	-	6204ZZ	C20
25	85	11	-	-	6205ZZ	C25

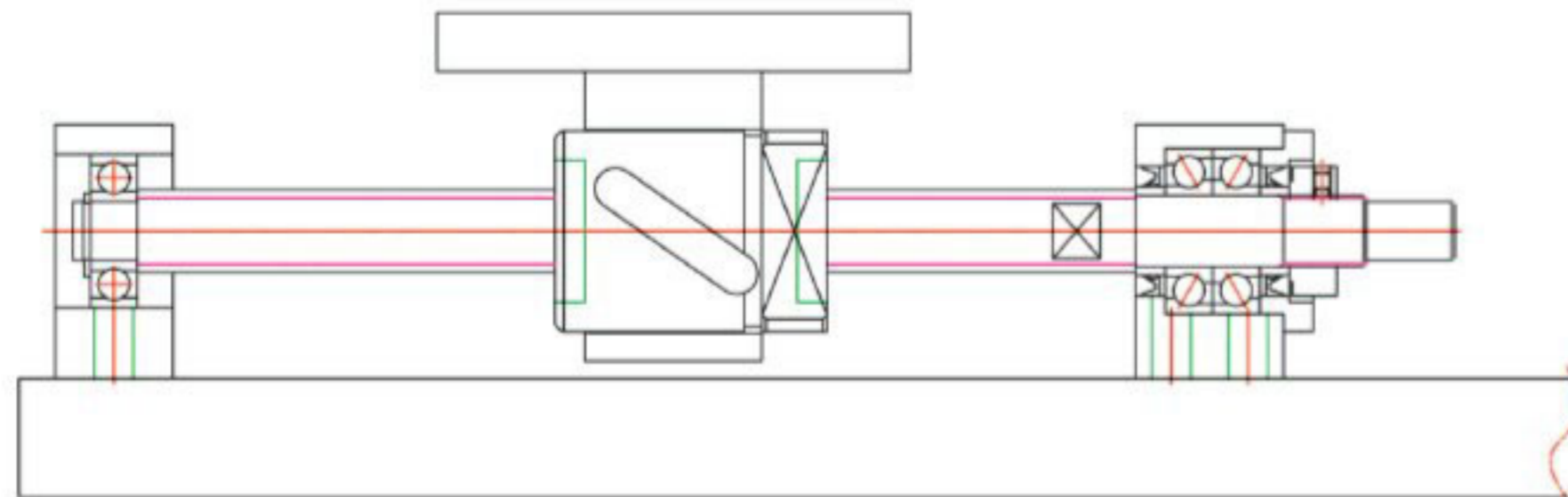
※ There is also AL 7075-T6 material in the product that marked ●



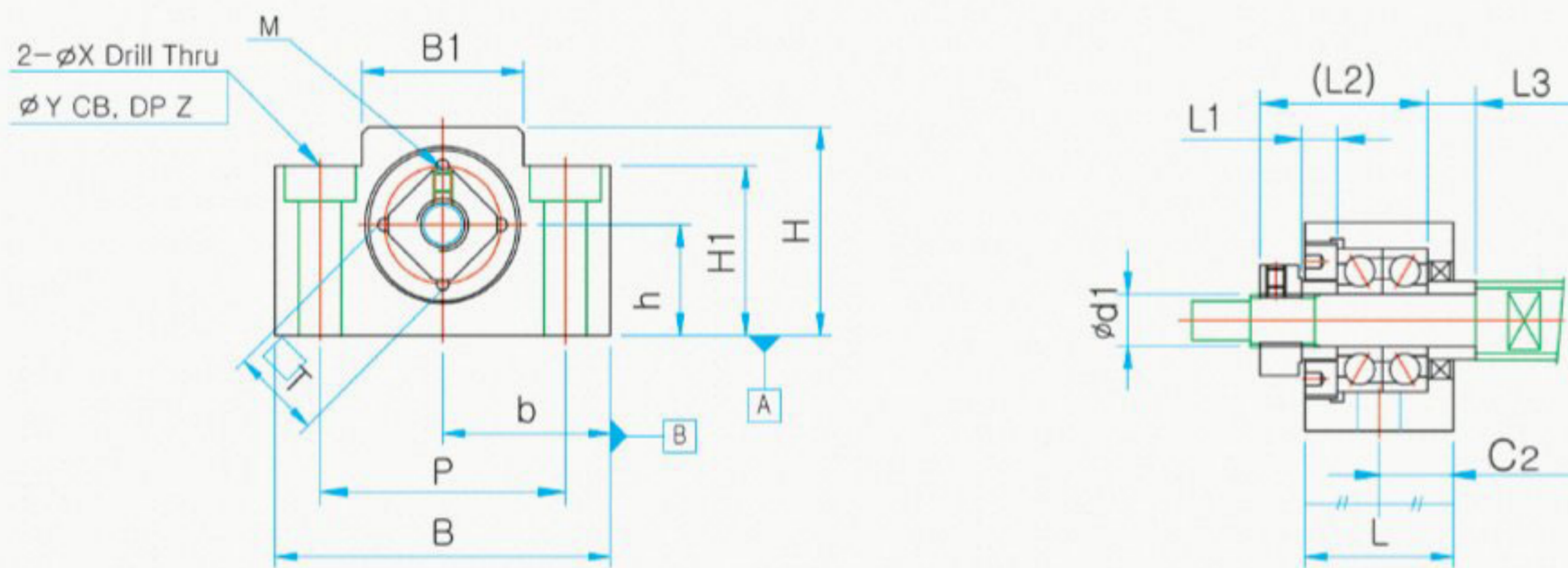
# BK Type Support Unit

## Angle Type for Fixture

### Example



### BK 6~8



Model No.	d1	L	L1	L2	L3	B	H	b±0.02	h±0.02	B1	H1	E	P
● BK6	6	23	5	24	5	52	32	26	17	25	26	-	38
● BK8	8	23	5.5	26	7.5	52	32	26	17	25	26	-	38
● BK10	10	25	5	29	5	60	39	30	22	34	32.5	15	46
● BK12	12	25	5	29	5	60	43	30	25	34	35	18	46
● BK15	15	27	6	32	6	70	48	35	28	40	38	18	54
● BK17	17	35	9	44	7	86	64	43	39	50	55	28	68
● BK20	20	35	8	43	8	88	60	44	34	52	50	22	70
BK25	25	42	12	54	9	106	80	53	48	64	70	33	85
BK30	30	45	14	61	9	128	89	64	51	76	78	33	102
BK35	35	50	14	67	12	140	96	70	52	88	79	35	114
BK40	40	61	18	76	15	160	110	80	60	100	90	37	130

# BK Type Support Unit Angle Type for Fixture

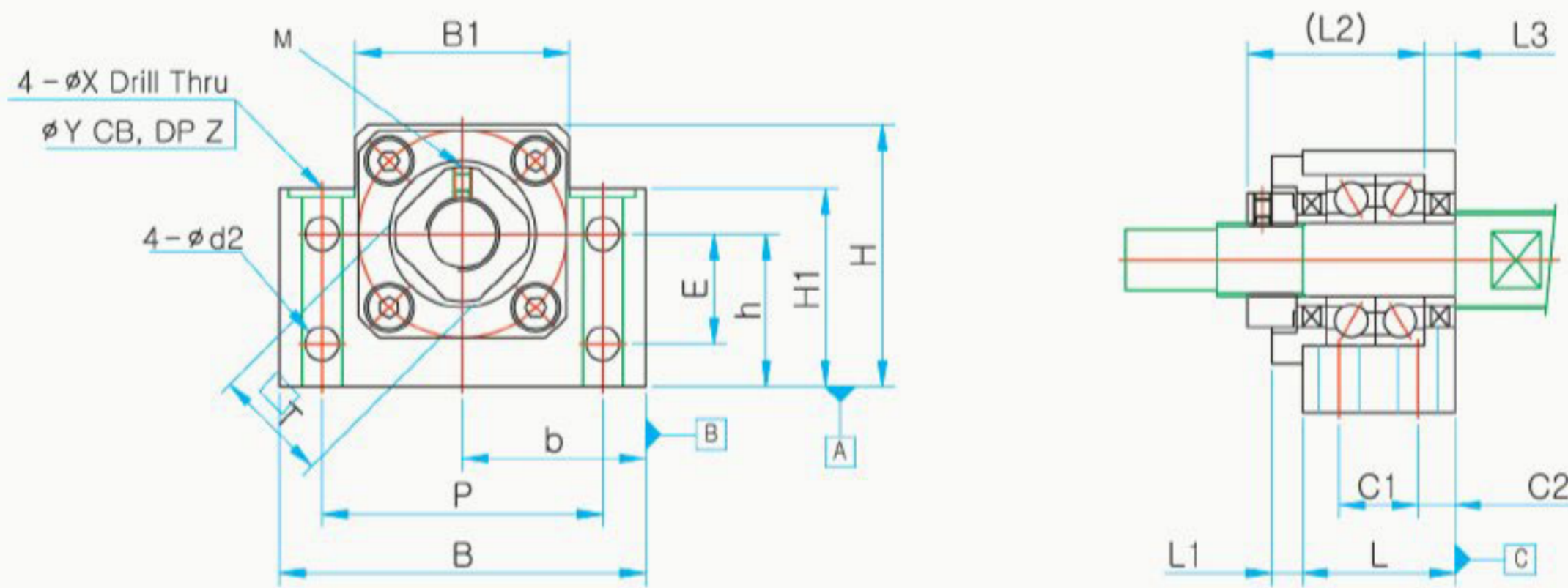
※ Please, download CAD DATA on [www.sungilfa.com](http://www.sungilfa.com)

## NOTE

1. Installation can be conducted based on the surface of A, B or C. Please, use the spacer of accurate size when adjustment of height or length is necessary.
2. It is not allowed to disassemble the support unit as the preload of bearing has been already controlled.
3. Precise amount of grease is filled in the support unit.
4. Tighten the setscrew after connecting the locknut to ball screw and performing adjustment.
5. BK-10~BK-40 general types use angular contact ball bearing have axial clearance without preload. (0.018mm)
6. Preload type(C7), Precision type(P5) adjusted preload and axial clearance is 0.

Please, refer to page 60 about attachment torque of the locknut.

## BK10~40



Unit : mm

C1	C2	d2	X	Y	Z	M	□T	Bearing		
								Precision(P5)	General(P0)	Preload(C7)
-	11.5	-	6.6	11	6	M3 × 0.5	12	-	EN6	-
-	11.5	-	6.6	11	6	M3 × 0.5	14	-	EN8	-
13	6	5.5	6.6	10.8	5	M4 × 0.7	16	7000ATYNDFMP5	7000AW	7000AWDFM
13	6	5.5	6.6	10.8	6	M4 × 0.7	19	7001ATYNDFMP5	7001AW	7001AWDFM
15	6	5.5	6.6	10.8	6	M4 × 0.7	22	7002ATYNDFMP5	7002AW	7002AWDFM
19	8	6.6	9	14	8.5	M4 × 0.7	24	7203ATYNDFMP5	7203AW	7203AWDFM
19	8	6.6	9	14	8.5	M4 × 0.7	30	7004ATYNDFMP5	7004AW	7004AWDFM
22	10	9	11	17.5	11	M5 × 0.8	35	7205ATYNDFMP5	7205AW	7205AWDFM
23	11	11	14	20	13	M6 × 1	40	7206ATYNDFMP5	7206AW	7206AWDFM
26	12	11	14	20	13	M8 × 1.25	50	7207ATYNDFMP5	7207AW	7207AWDFM
33	14	14	18	26	17.5	M8 × 1.25	50	7208ATYNDFMP5	7208AW	7208AWDFM

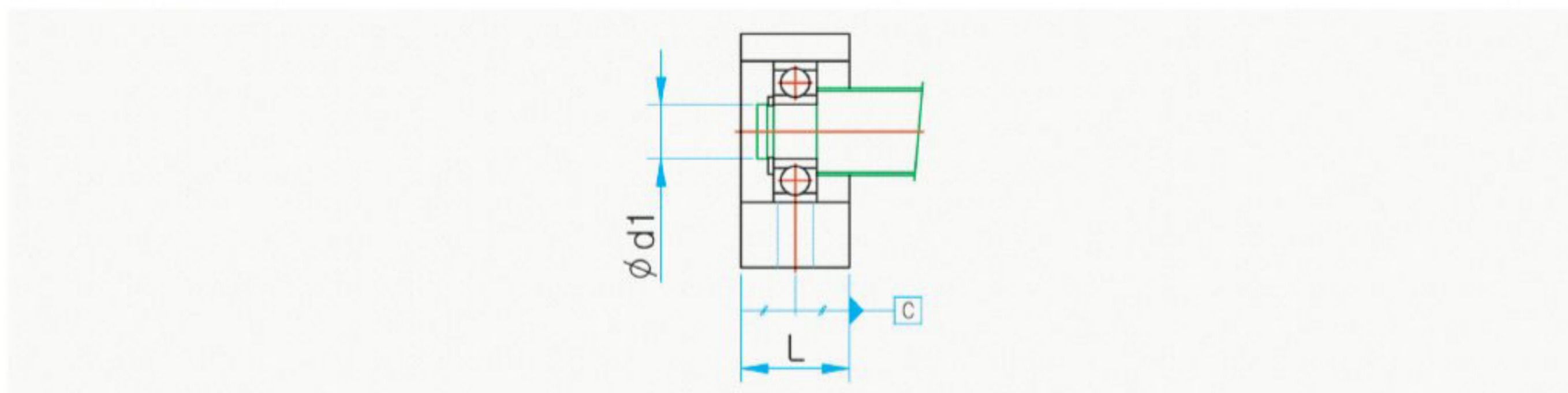
※ There is also AL 7075-T6 material in the product that marked ●



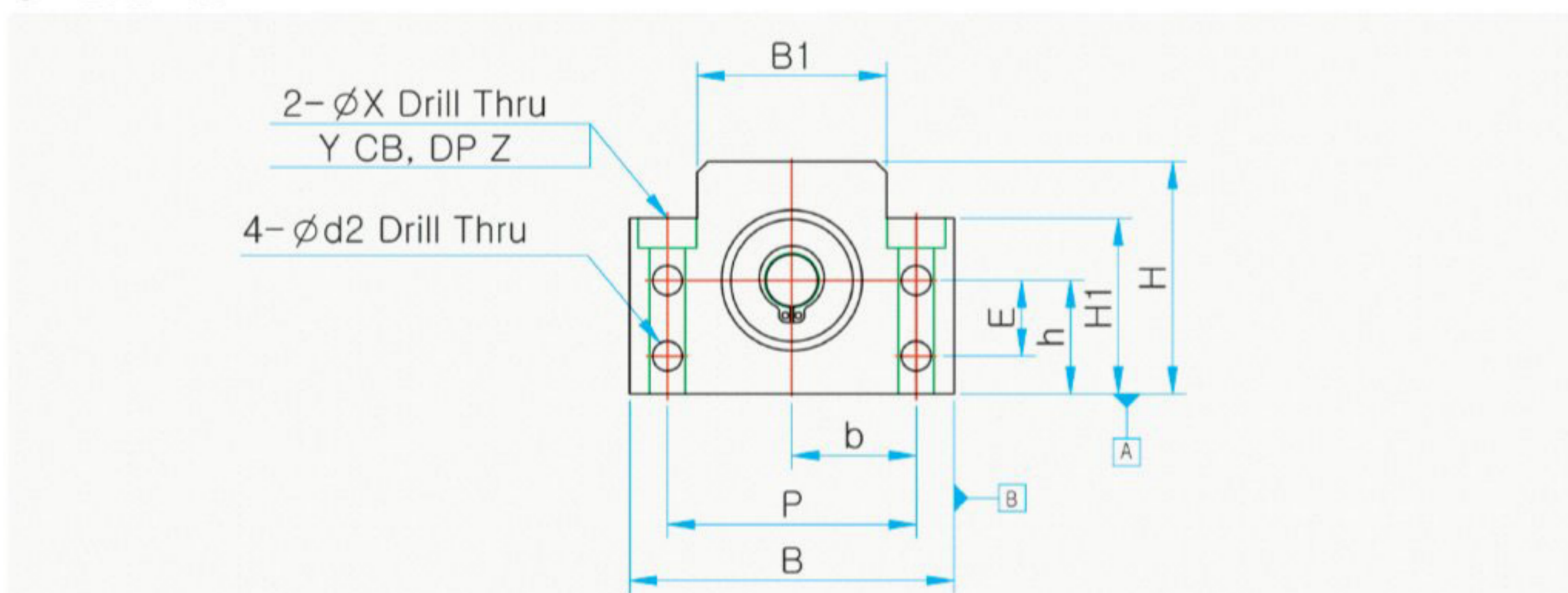
# BF Type Support Unit

Angle Type for Support

 BF6 ~ 40



 BF6 ~ 40



Model No.	d1	L	B	H	b±0.02	h±0.02	B1
● BF6/8	6	14	52	32	26	17	25
● BF10	8	20	60	39	30	22	34
● BF12	10	20	60	43	30	25	34
● BF15	15	20	70	48	35	28	40
● BF17	17	23	86	64	43	39	50
● BF20	20	26	88	60	44	34	52
BF25	25	30	106	80	53	48	64
BF30	30	32	128	89	64	51	76
BF35	35	32	140	96	70	52	88
BF40	40	37	160	110	80	60	100

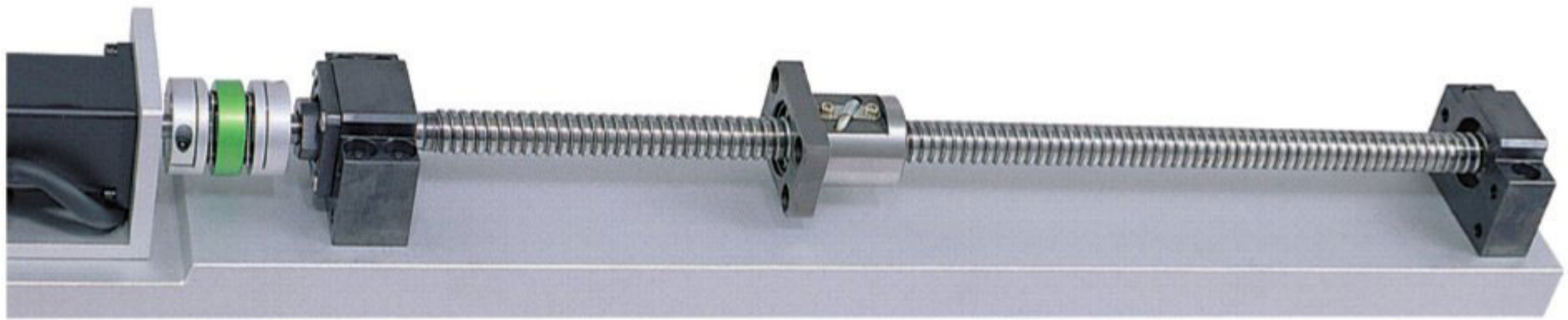
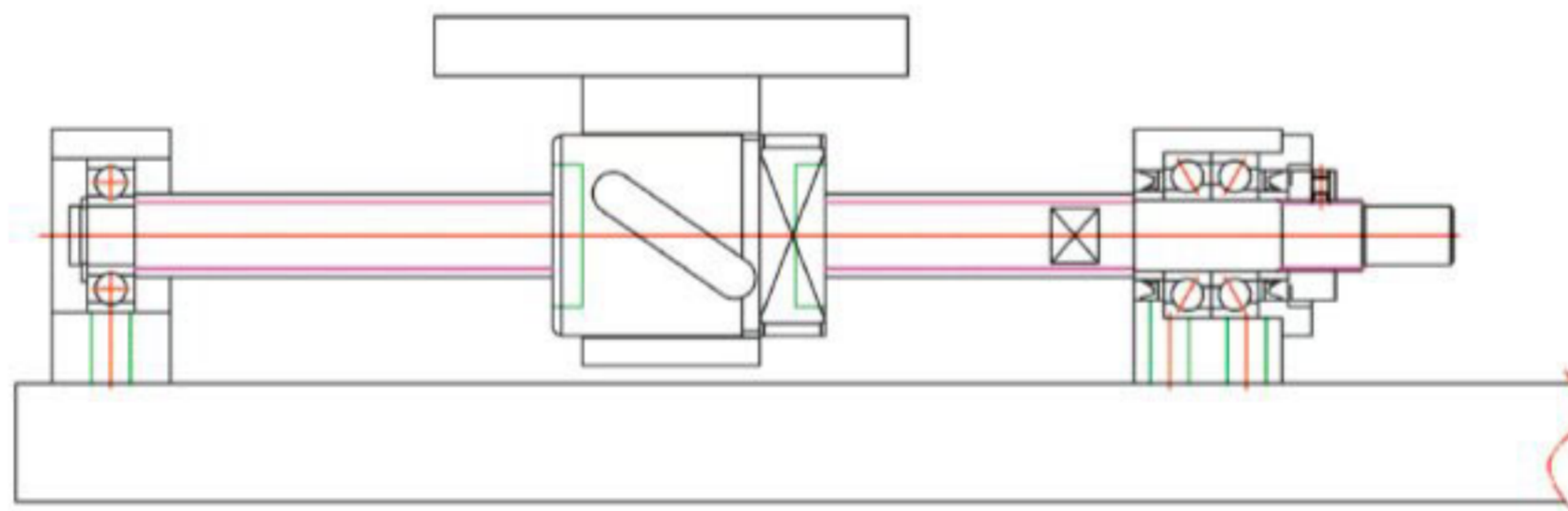
# BF Type Support Unit Angle Type for Support

※ Please, download CAD DATA on [www.sungilfa.com](http://www.sungilfa.com)

## NOTE

1. Installation can be conducted based on the surface of A, B, or C. Please, use the spacer of accurate size when adjustment of height or length is necessary.

## Example



Unit : mm

H1	E	P	d2	X	Y	Z	Bearing	Snap Ring
26	-	38	-	6.6	11	12	606ZZ	C6
32.5	15	46	5.5	6.6	10.8	5	608ZZ	C8
35	18	46	5.5	6.6	10.8	6.5	6000ZZ	C10
38	18	54	5.5	6.6	10.8	6.5	6002ZZ	C15
55	28	68	6.6	9	14	8.5	6203ZZ	C17
50	22	70	6.6	9	14	8.5	6004ZZ	C20
70	33	85	9	11	17.5	11	6205ZZ	C25
78	33	102	11	14	20	13	6206ZZ	C30
79	35	114	11	14	20	13	6207ZZ	C35
90	37	130	14	18	26	17.5	6208ZZ	C40

※ There is also AL 7075-T6 material in the product that marked ●

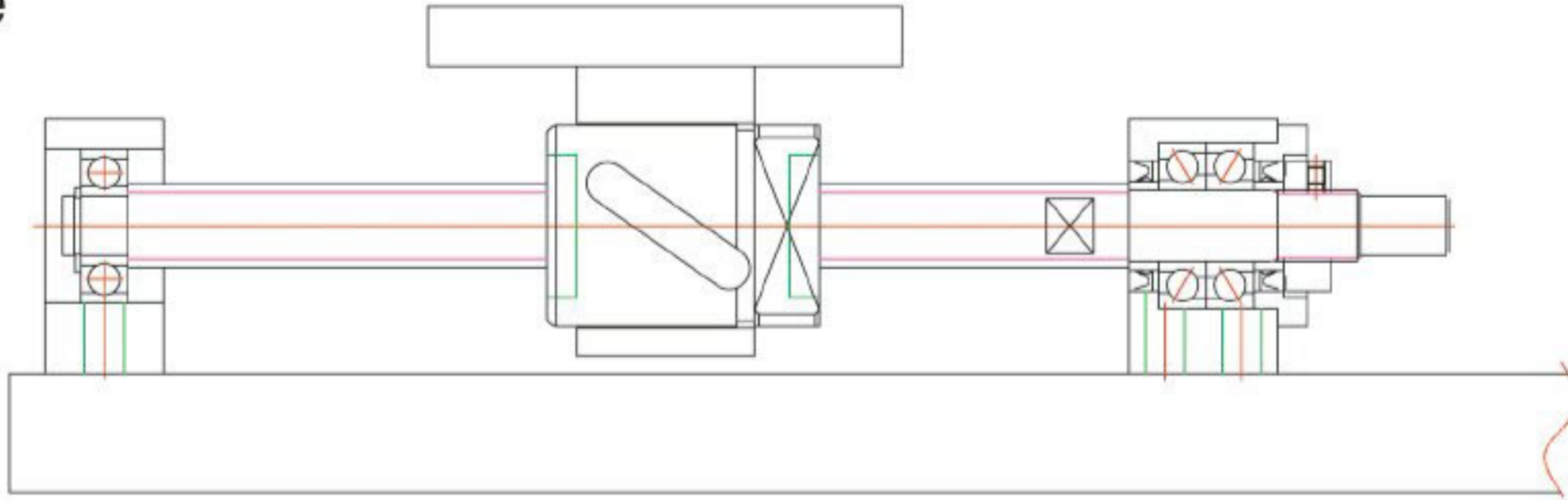


# AK Type Support Unit

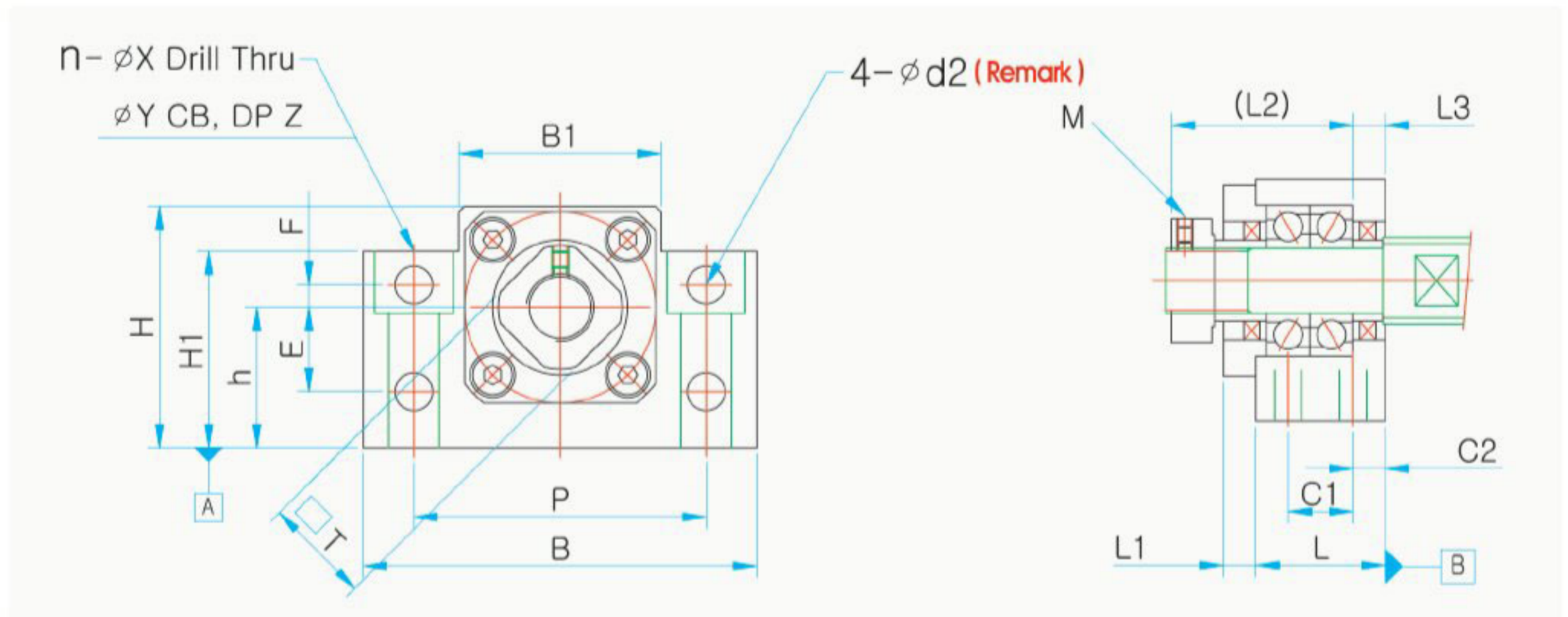
## Angle Type for Fixture



### Example



### AK 8~20



※ Remark : AK20 is no Hole

### NOTE

1. Installation can be conducted based on the surface of A and B. Please, use the spacer of accurate size when adjustment of height or length is necessary.
2. It is not allowed to disassemble the support unit as the preload of bearing has been already controlled.
3. Precise amount of grease is filled in the support unit.
4. Tighten the setscrew after connecting the locknut to the ball screw and performing adjustment.
5. AK-10~AK-20 general types use angular contact ball bearing have axial clearance without preload. (0.018mm)
6. Preload type(C7), Precision type(P5) adjusted preload and axial clearance is 0.

Please, refer to page 60 about attachment torque of the locknut.

Unit : mm

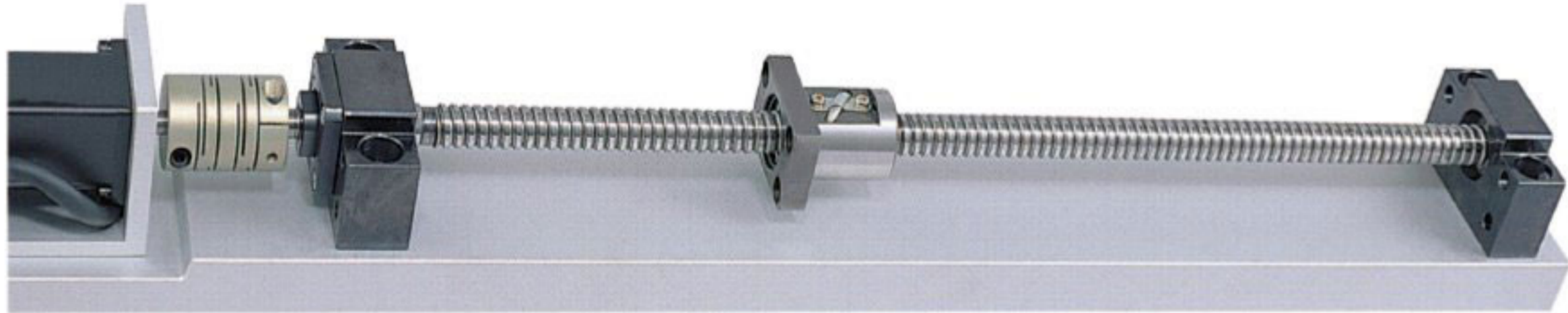
Model No.	d1	L	L1	L2	L3	B	H	h±0.02	B1	H1	E	F	P	C1	C2	d2	n	X	Y	Z	NutP	M	□T	Bearing		
																								Precision(P5)	General(P0)	Preload(C7)
● AK8	8	20	3	24	4	52	32	17	25	26	10	4	38	-	10	5.5	2	6.6	11	12	M8×0.75/1	M3 × 0.5	14	708ATYNDMP5	-	-
● AK10	10	24	6	29.5	6	70	43	25	36	35	15	4	52	-	12	6.6	2	9	14	11	M10×0.75/1	M4 × 0.7	16	7000ATYNDMP5	7000AW	7000AWDFM
● AK12	12	24	6	29.5	6	70	43	25	36	35	15	4	52	-	12	6.6	2	9	14	11	M12×1.0	M4 × 0.7	19	7001ATYNDMP5	7001AW	7001AWDFM
● AK15	15	25	6	36	5	80	50	30	41	40	15	4	60	-	12.5	6.6	2	11	17	15	M15×1.0	M4 × 0.7	22	7002ATYNDMP5	7002AW	7002AWDFM
● AK20	20	42	10	50	10	95	58	30	56	45	-	-	75	22	10	-	4	11	17	15	M20×1.0	M4 × 0.7	30	7204ATYNDMP5	7204AW	7204AWDFM

※ There is also AL 7075-T6 material in the product that marked ●

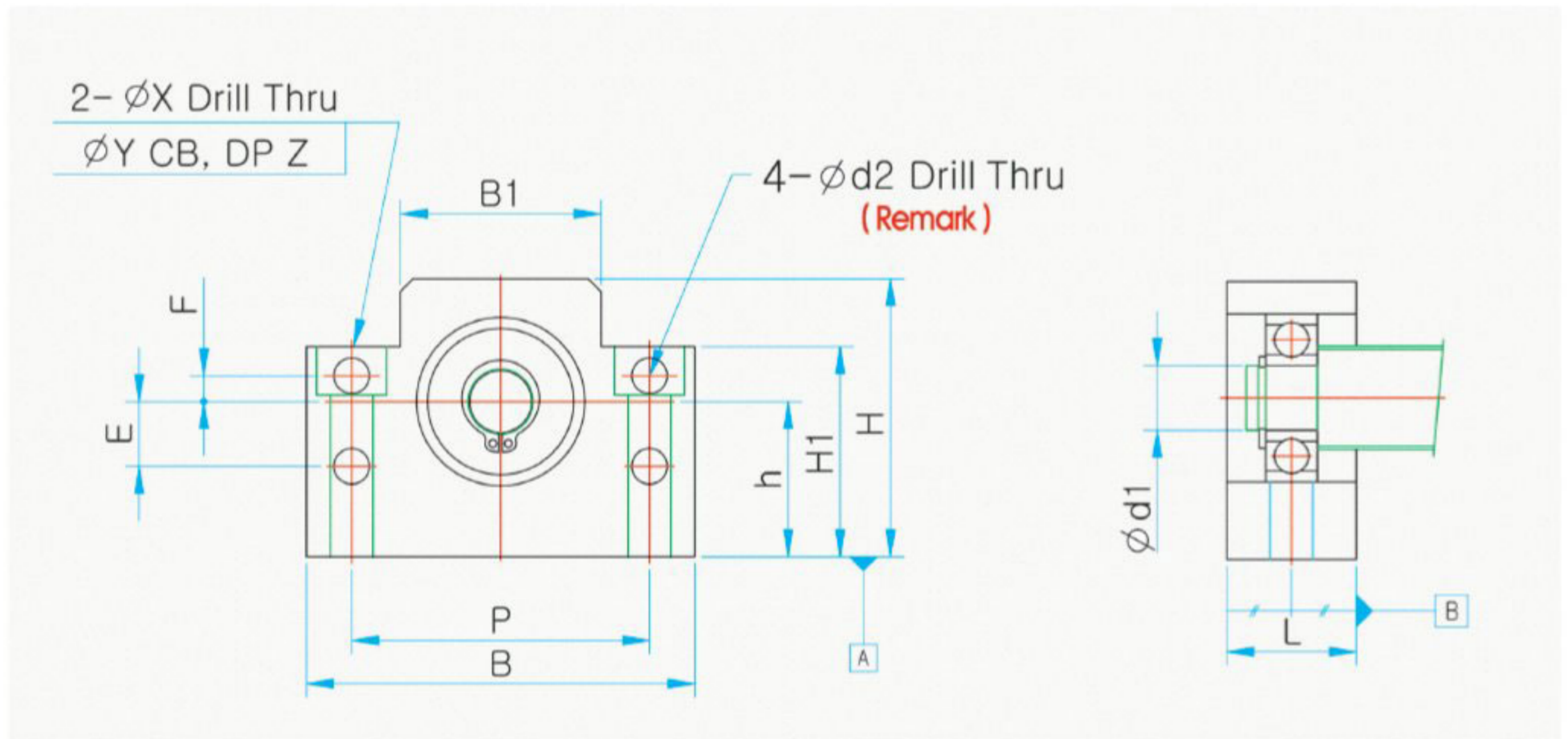


# AF Type Support Unit

Angle Type for Support



## AF 8 ~ 20



※ Remark : AF20 is no Hole

## NOTE

1. Installation can be conducted based on the surface of A and B. Please, use the spacer of accurate size when adjustment of height or length is necessary.

Unit : mm

Model No.	d1	L	B	H	h±0.02	B1	H1	E	F	P	d2	X	Y	Z	Bearing	Snap Ring
● AF8	6	15	52	32	17	25	26	10	4	38	5.5	6.6	11	12	606ZZ	C6
● AF10	8	20	70	43	25	36	35	15	4	52	6.6	9	14	11	608ZZ	C8
● AF12	10	20	70	43	25	36	35	15	4	52	6.6	9	14	11	6000ZZ	C10
● AF15	15	20	80	50	30	41	40	15	4	60	6.6	9	14	11	6002ZZ	C15
● AF20	20	26	95	58	30	56	45	-	-	75	-	11	17	15	6204ZZ	C20

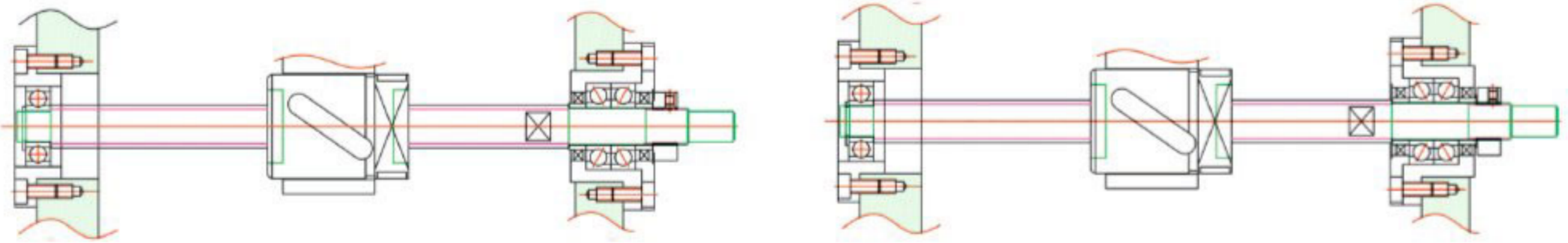
※ There is also AL 7075-T6 material in the product that marked ●



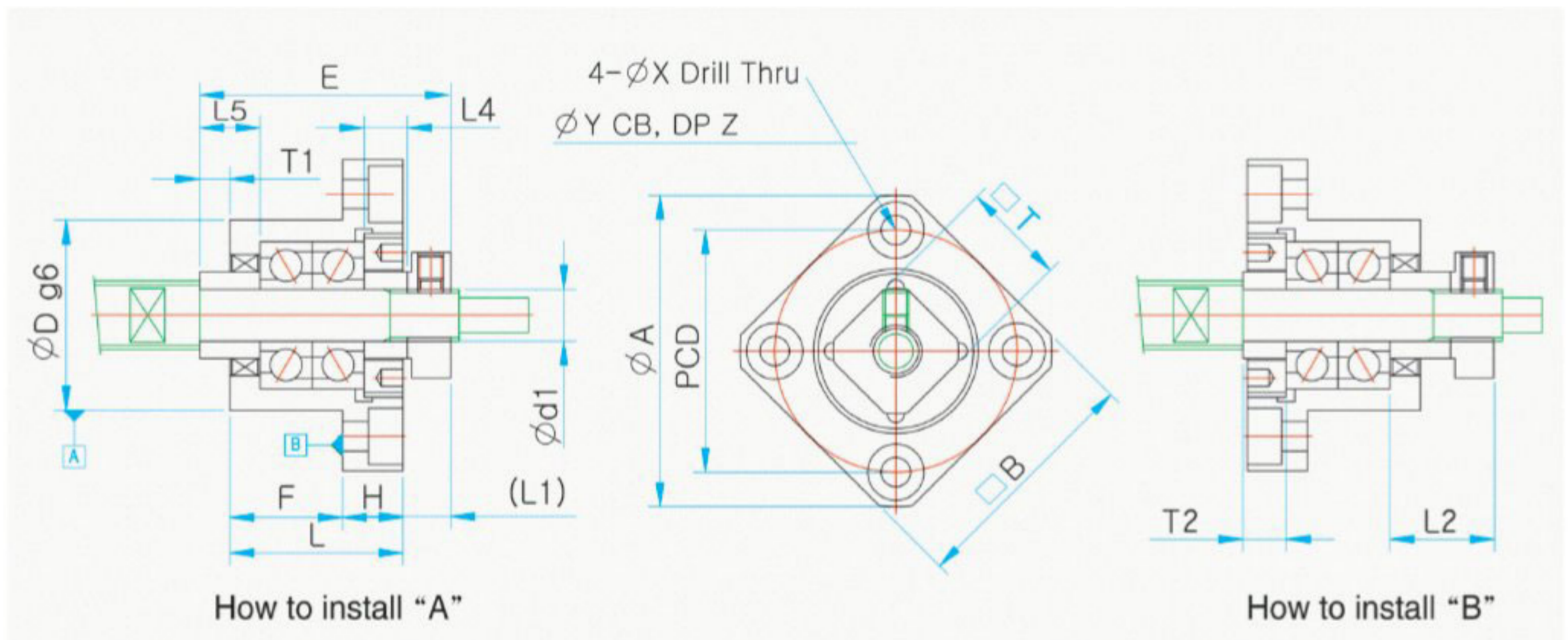
# FK Type Support Unit

## Round Type for Fixture

### Example



### FK4~8



Model No.	d1	L	H	F	E	D	A	PCD	□ B	How to install "A"	
										L1	T1
● FK4	4	15	6	9	22	18 <sup>-0.006</sup> <sub>-0.017</sub>	32	24	25	5.5	1.5
● FK5	5	16.5	6	10.5	24	20 <sup>-0.006</sup> <sub>-0.020</sub>	34	26	26	6.5	1
● FK6	6	20	7	13	29	22 <sup>-0.006</sup> <sub>-0.020</sub>	36	28	28	5.5	3.5
● FK8	8	23	9	14	33.5	28 <sup>-0.006</sup> <sub>-0.020</sub>	43	35	35	7	3.5
● FK10	10	27	10	17	29.5	34 <sup>-0.009</sup> <sub>-0.025</sub>	52	42	42	7.5	5
● FK12	12	27	10	17	29.5	36 <sup>-0.009</sup> <sub>-0.025</sub>	54	44	44	7.5	5
● FK15	15	32	15	17	36	40 <sup>-0.009</sup> <sub>-0.025</sub>	63	50	52	10	6
● FK17	17	45	22	23	46	50 <sup>-0.009</sup> <sub>-0.025</sub>	77	62	61	10	9
● FK20	20	52	22	30	50	57 <sup>-0.010</sup> <sub>-0.029</sub>	85	70	68	8	10
● FK25	25	57	27	30	60	63 <sup>-0.010</sup> <sub>-0.029</sub>	98	80	79	13	10
● FK30	30	62	30	32	61	75 <sup>-0.010</sup> <sub>-0.029</sub>	117	95	93	11	12

# FK Type Support Unit Round Type for Fixture

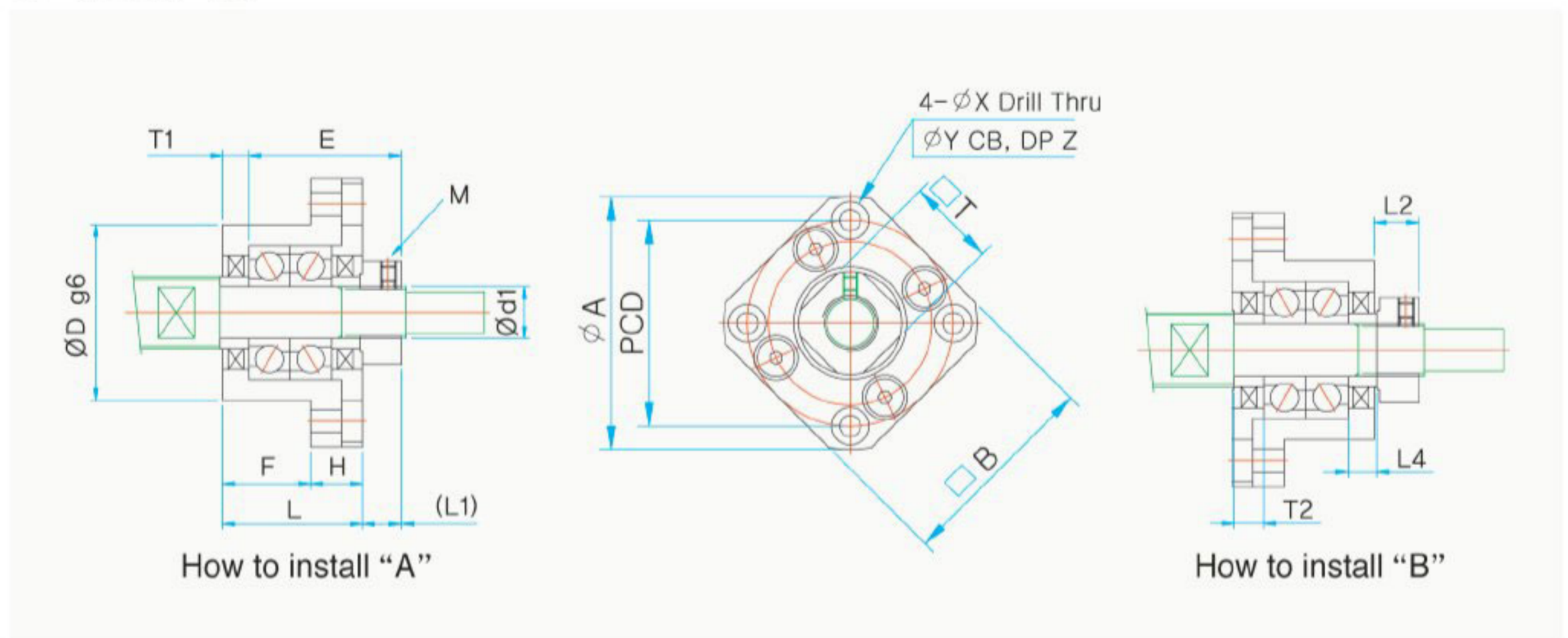
※ Please, download CAD DATA on [www.sungilfa.com](http://www.sungilfa.com)

## NOTE

1. Installation can be conducted based on the surface of A and B. Please, use the spacer of accurate size when adjustment of height or length is necessary.
2. It is not allowed to disassemble the support unit as the preload of bearing has been already controlled.
3. Precise amount of grease is filled in the support unit.
4. Tighten the setscrew after connecting the locknut to the ball screw and performing adjustment.
5. FK-4~FK-5 general types use angular contact ball bearing have axial clearance without preload.
6. FK-10~FK-30 general types use angular contact ball bearing have axial clearance without preload. (0.018mm)
7. Preload type(C7), Precision type(P5) adjusted preload and axial clearance is 0.

Please, refer to page 60 about attachment torque of the locknut.

## FK 10~30



Unit : mm

How to install "B"		X	Y	Z	L4	M	□ T	Bearing		
L2	T2							L5	Precision(P5)	General(P0)
8.5	3.5	3.4	6	4	3.5	M3 × 0.5	10	-	634ZZ	-
9.5	4.5	3.4	6.5	4	4.5	M3 × 0.5	11	-	625ZZ	-
12	5	3.4	6.5	4	5/7	M3 × 0.5	12	706ATYNDFMP5	EN6	-
14	5.5	3.4	6.5	4	5.5/7.5	M3 × 0.5	14	708ATYNDFMP5	EN8	-
8.5	5.5	4.5	8	4	5.5	M4 × 0.7	16	7000ATYNDFMP5	7000AW	7000AWDFM
8.5	5.5	4.5	8	4	5.5	M4 × 0.7	19	7001ATYNDFMP5	7001AW	7001AWDFM
12	10	5.5	9.5	6	10	M4 × 0.7	22	7002ATYNDFMP5	7002AW	7002AWDFM
13	9	6.6	11	10	9	M4 × 0.7	24	7203ATYNDFMP5	7203AW	7203AWDFM
12	11	6.6	11	10	11	M4 × 0.7	30	7204ATYNDFMP5	7204AW	7204AWDFM
20	15	9	15	13	15	M5 × 0.8	35	7205ATYNDFMP5	7205AW	7205AWDFM
17	9	11	17.5	15	9	M6 × 1	40	7206ATYNDFMP5	7206AW	7206AWDFM

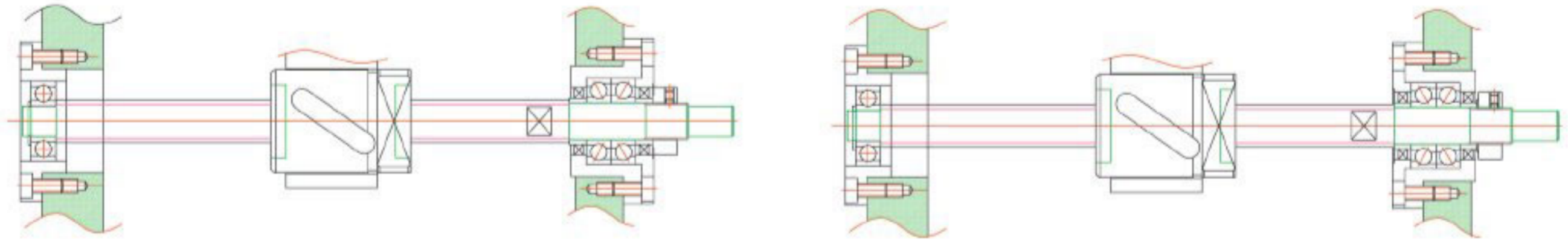
※ There is also AL 7075-T6 material in the product that marked ●

# FK Type Support Unit

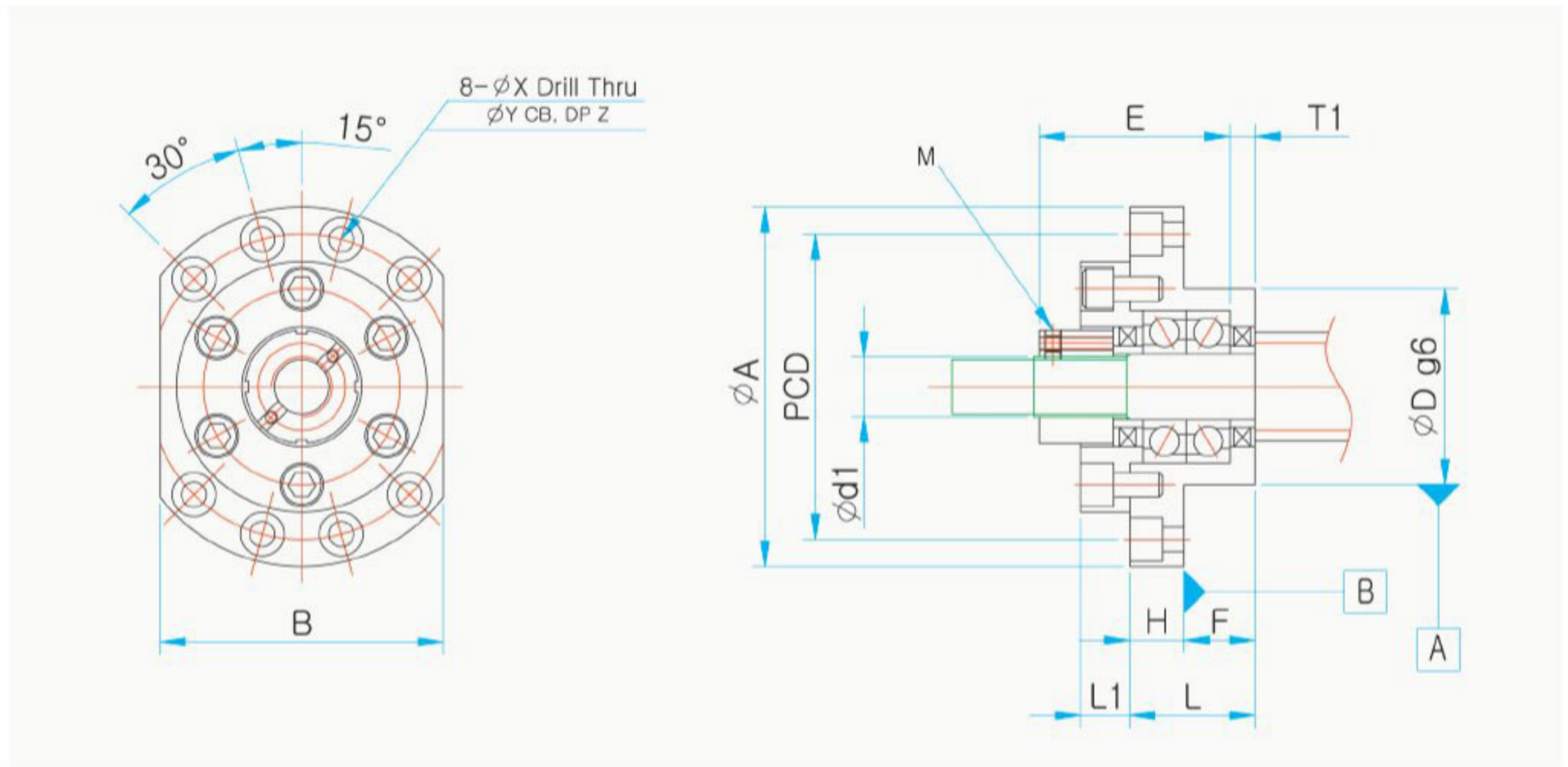
Round Type for Fixture



## Example



## FK 35~40



Unit : mm

Model No.	d1	L	H	F	E	D	A	PCD	B	How to install		X	Y	Z	Collar Dimension	M	T	Bearing		
										L1	L2							Precision(P5)	General(P0)	Preload(C7)
FK35	35	48	16	32	67	100 <sup>-0.012</sup> <sub>-0.034</sub>	154	132	120	14	12	11	17.5	11	12	M8 × 1.25	50	7207ATYNDFMP5	7207AW	7207AWDFM
FK40	40	61	18	43	76	120 <sup>-0.012</sup> <sub>-0.034</sub>	176	150	128	18	16	14	20	13	15	M8 × 1.25	50	7208ATYNDFMP5	7208AW	7208AWDFM

# FK Type Support Unit Round Type for Fixture

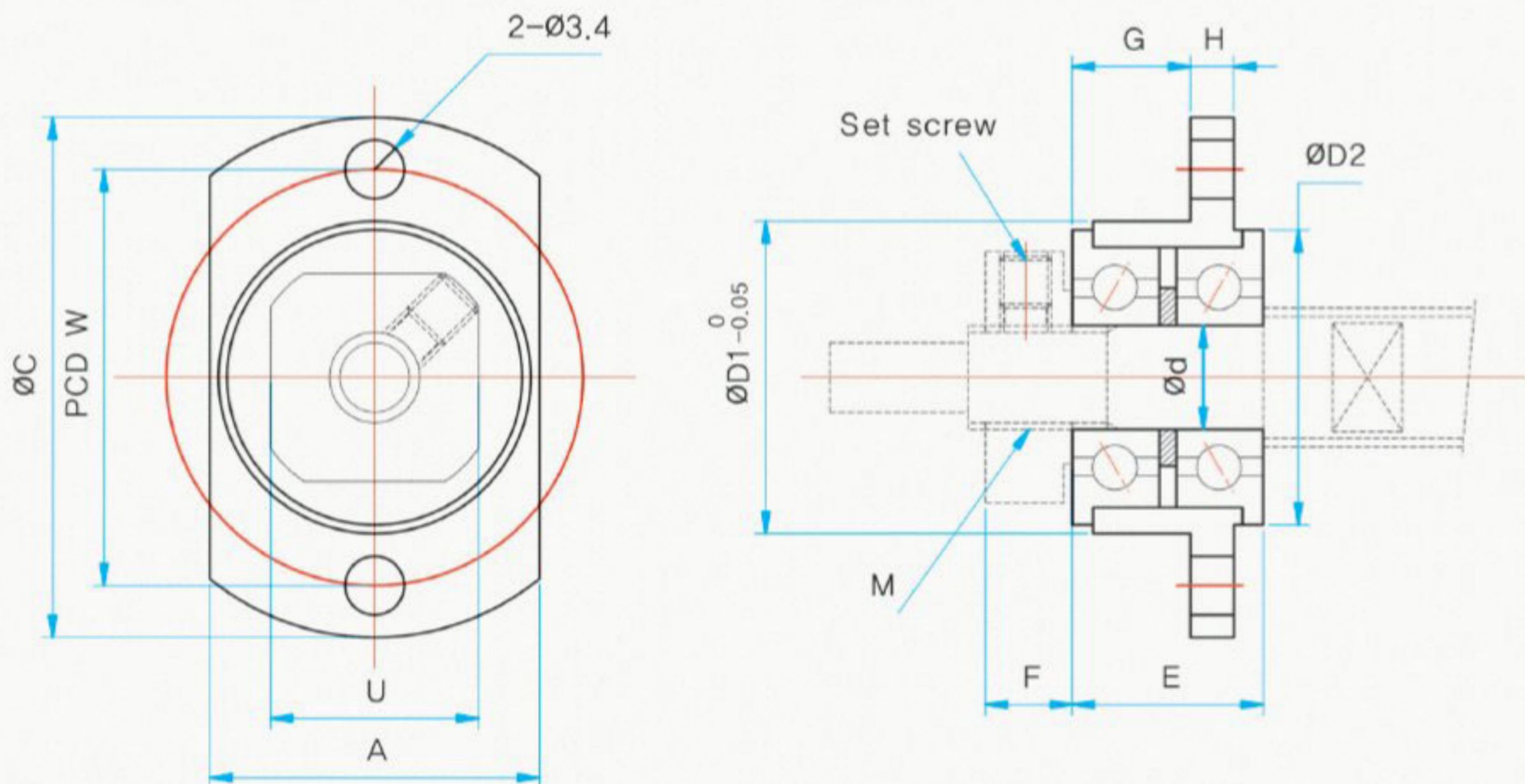
※ Please, download CAD DATA on [www.sungilfa.com](http://www.sungilfa.com)

## NOTE

1. Installation can be conducted based on the surface of A and B. Please, use the spacer of accurate size when adjustment of height or length is necessary.
2. It is not allowed to disassemble the support unit as the preload of bearing has been already controlled.
3. Precise amount of grease is filled in the support unit.
4. Tighten the setscrew after connecting the locknut to ball screw and performing adjustment.
5. FK-35~FK-40 general types use angular contact ball bearing have axial clearance without preload.
6. Preload type(C7), Precision type(P5) adjusted preload and axial clearance is 0.  
Please, refer to page 60 about attachment torque of the locknut.

## WBK TYPE (Miniature Support Unit)

- Support unit can be applied when precision miniature ball screw is used.



Unit : mm

Model No.	D1	A	C	D1	D2	E	F	G	H	W	U	M	Space
WBK04	4	14	25	13	12.5	9	5	5	2.5	19	10	M4×0.5	∅ 8 × ∅ 4 × 1 - 1EA
WBK06	6	19	30	18	17	11	5	6.8	2.5	24	12	M6×0.75	∅ 9.1 × ∅ 6 × 1 - 1EA

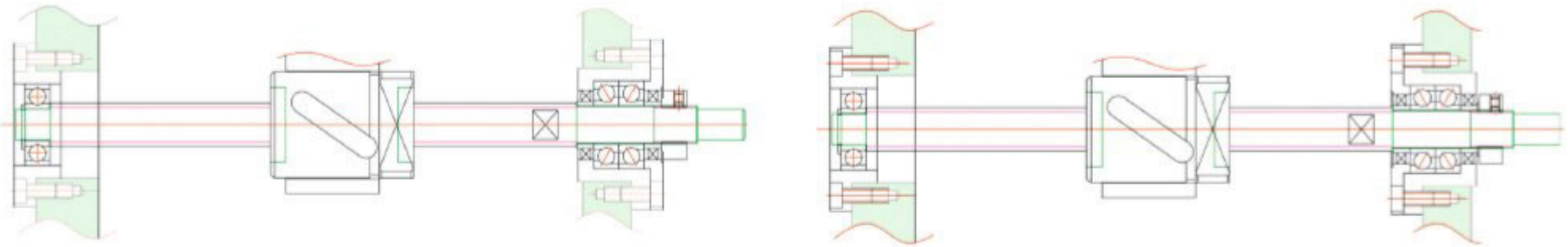
- Note** : 1. Tighten locknut as flange type miniature ball bearing can be slightly detached from surface due to vibration during operation.  
2. A WBK type is assembled by bolt for delivery.



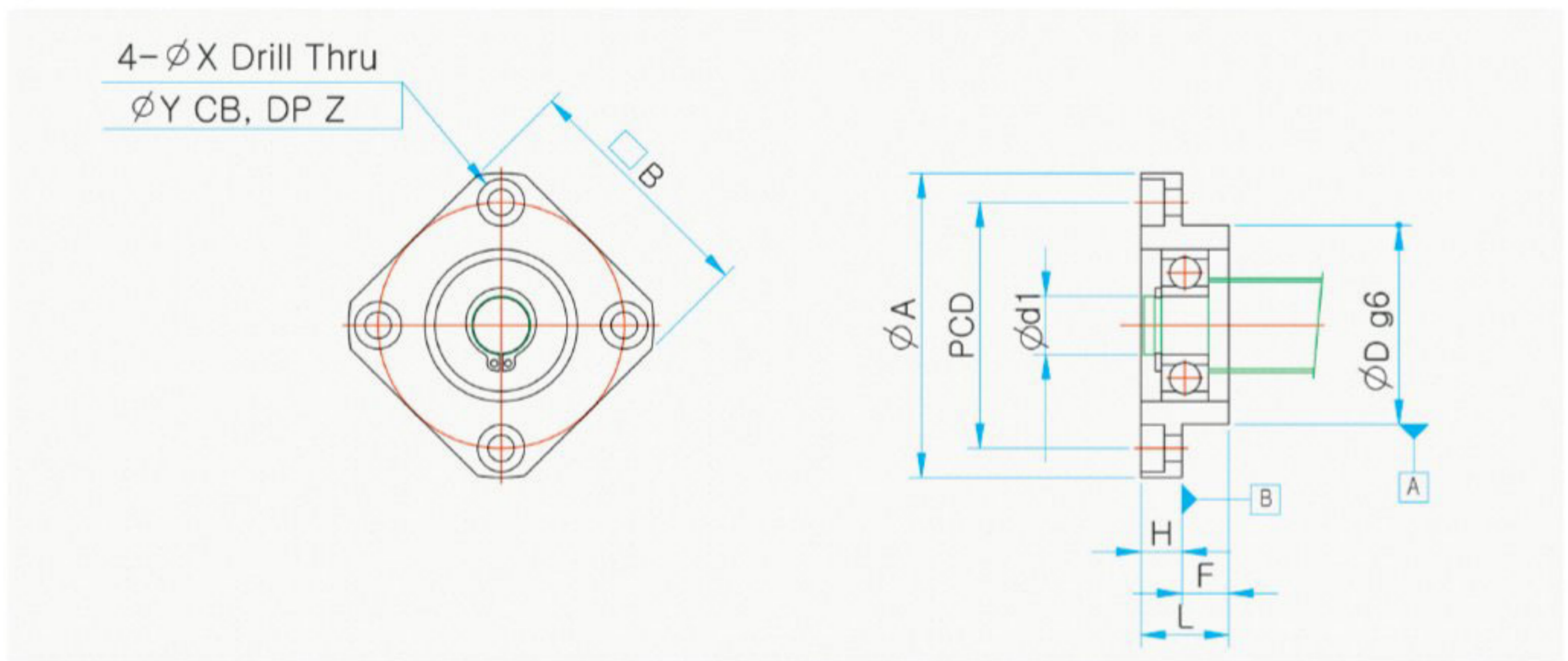
# FF Type Support Unit

## Round Type for Support

### Example



### FF 6 ~ 30



### NOTE

1. Installation can be conducted based on the surface of A and B. Please, use the spacer of accurate size when adjustment of height or length is necessary.

Unit : mm

Model No.	d1	L	H	F	D	A	PCD	B	X	Y	Z	Bearing	Snap Ring
● FF6-8	6	10	6	4	22 <sup>-0.007</sup> <sub>-0.020</sub>	36	28	28	3.4	6.5	3	606ZZ	C6
● FF10	8	12	7	5	28 <sup>-0.007</sup> <sub>-0.020</sub>	43	35	35	3.4	6.5	4	608ZZ	C8
● FF12	10	15	7	8	34 <sup>-0.009</sup> <sub>-0.025</sub>	52	42	42	4.5	8	4	6000ZZ	C10
● FF15	15	17	9	8	40 <sup>-0.009</sup> <sub>-0.025</sub>	63	50	52	5.5	9.5	5.5	6002ZZ	C15
● FF17	17	20	11	9	50 <sup>-0.009</sup> <sub>-0.025</sub>	77	62	61	6.5	11	6.5	6203ZZ	C17
● FF20	20	20	11	9	57 <sup>-0.010</sup> <sub>-0.029</sub>	85	70	68	6.6	11	6.5	6204ZZ	C20
FF25	25	24	14	10	63 <sup>-0.010</sup> <sub>-0.029</sub>	98	80	79	9	14	8.5	6205ZZ	C25
FF30	30	27	18	9	75 <sup>-0.010</sup> <sub>-0.029</sub>	117	95	93	11	17.5	11	6206ZZ	C30

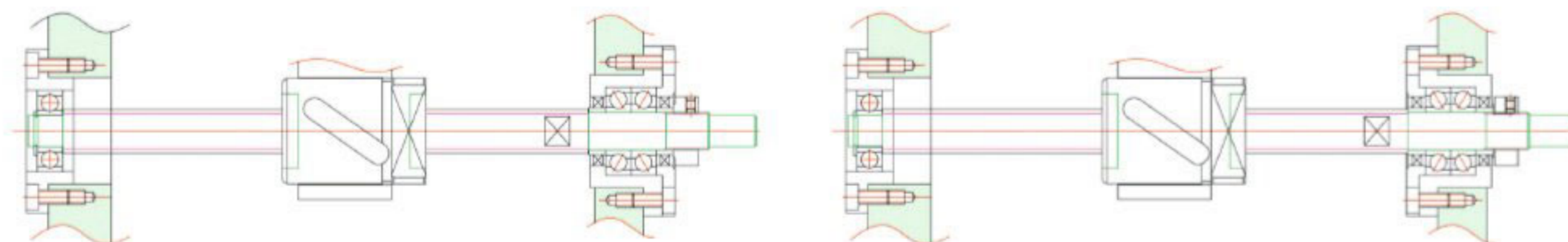
※ There is also AL 7075-T6 material in the product that marked ●



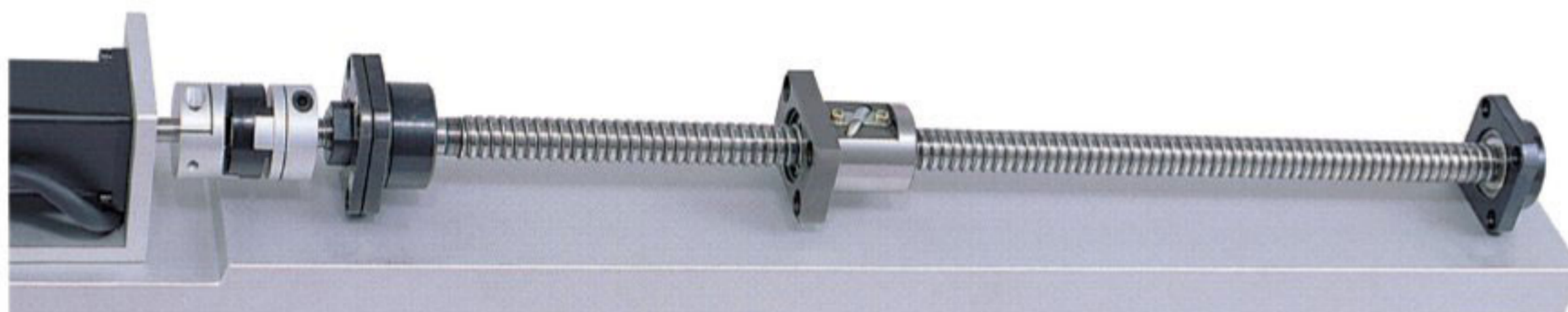
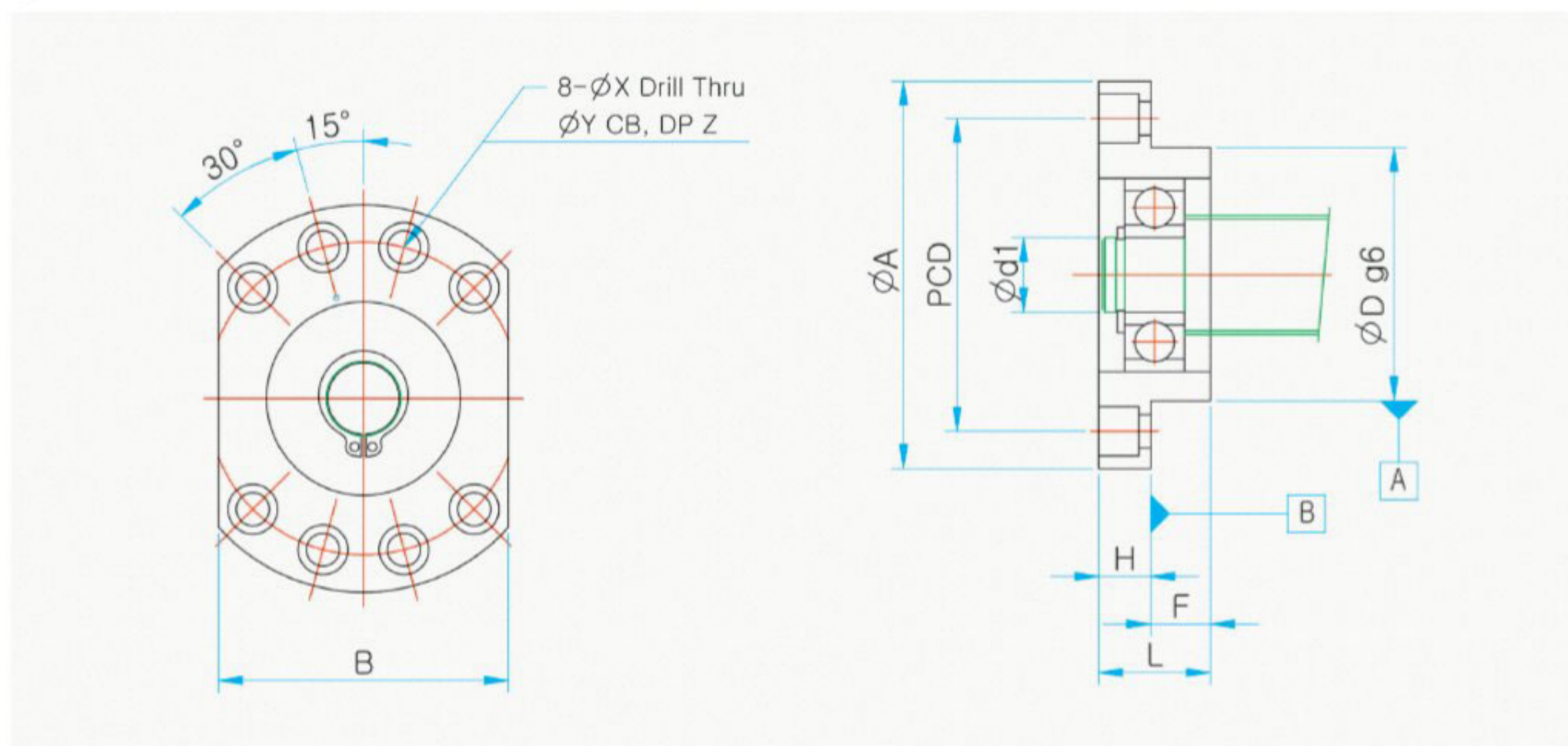
# FF Type Support Unit

## Round Type for Support

### Example



### FF 35 ~ 40



### NOTE

1. Installation can be conducted based on the surface of A and B. Please, use the spacer of accurate size when adjustment of height or length is necessary.

Unit : mm

Model No.	d1	L	H	F	D	A	PCD	B	X	Y	Z	Bearing	Snap Ring
FF35	35	34	15	19	100 <sup>-0.012</sup> <sub>-0.034</sub>	154	132	120	11	17.5	11	6207ZZ	C35
FF40	40	36	18	18	120 <sup>-0.012</sup> <sub>-0.034</sub>	176	150	128	14	20	13	6208ZZ	C40

※ There is also AL 7075-T6 material in the product that marked ●

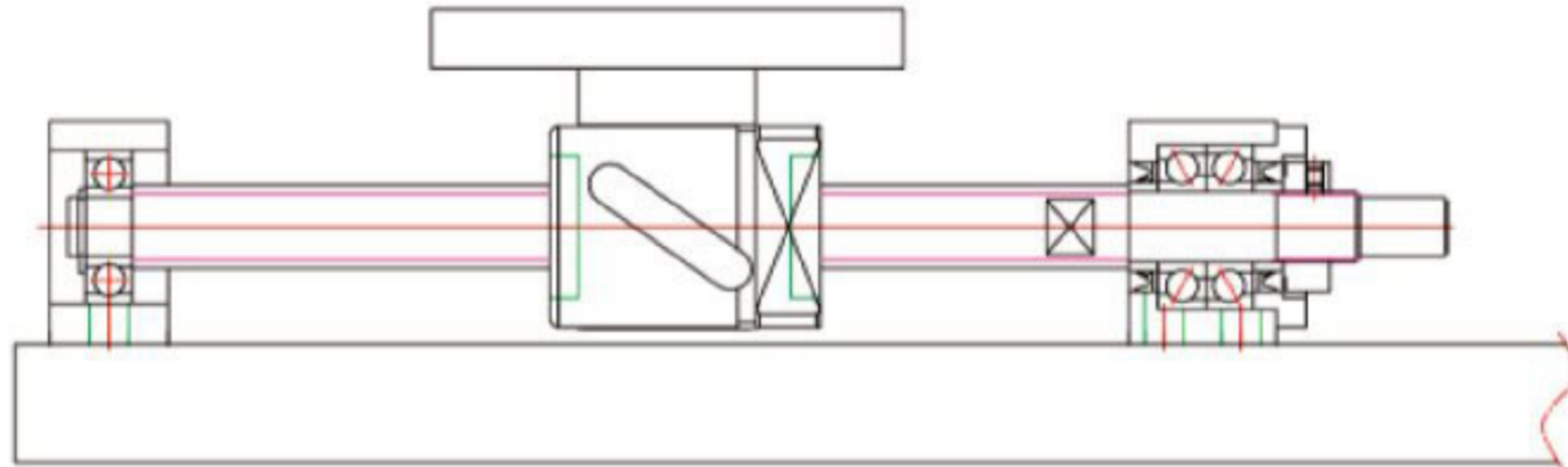


# CK Type Support Unit

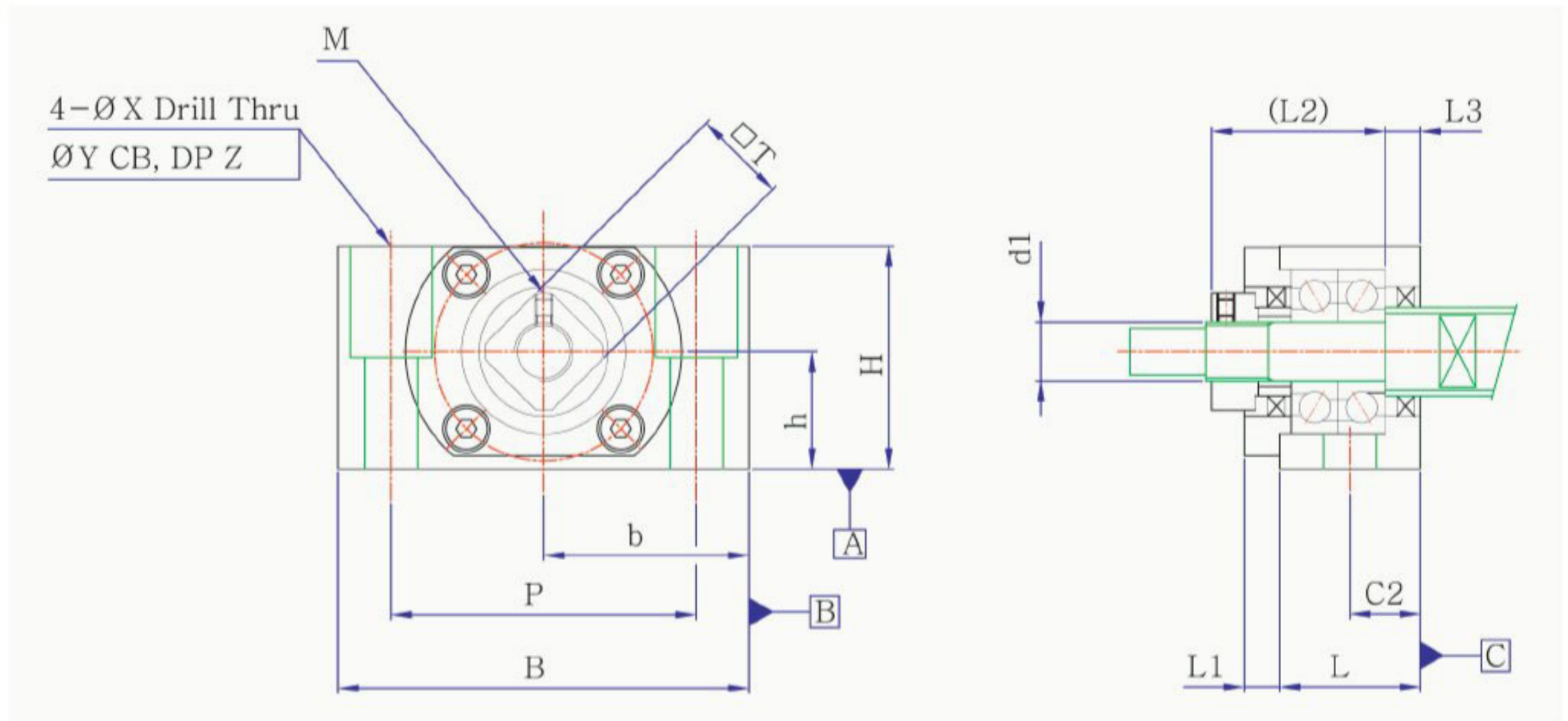
Low Center Type for Fixture



## Example



## CK8~15



## NOTE

1. Installation can be conducted based on the surface of A and B. Please, use the spacer of accurate size when adjustment of height or length is necessary.
2. It is not allowed to disassemble the support unit as the preload of bearing has been already controlled.
3. Precise amount of grease is filled in the support unit.
4. Tighten the setscrew after connecting the locknut to ball screw and performing adjustment.
5. Preload type(C7), Precision type(P5) adjusted preload and axial clearance is 0.  
Please, refer to page 60 about attachment torque of the locknut.

Unit : mm

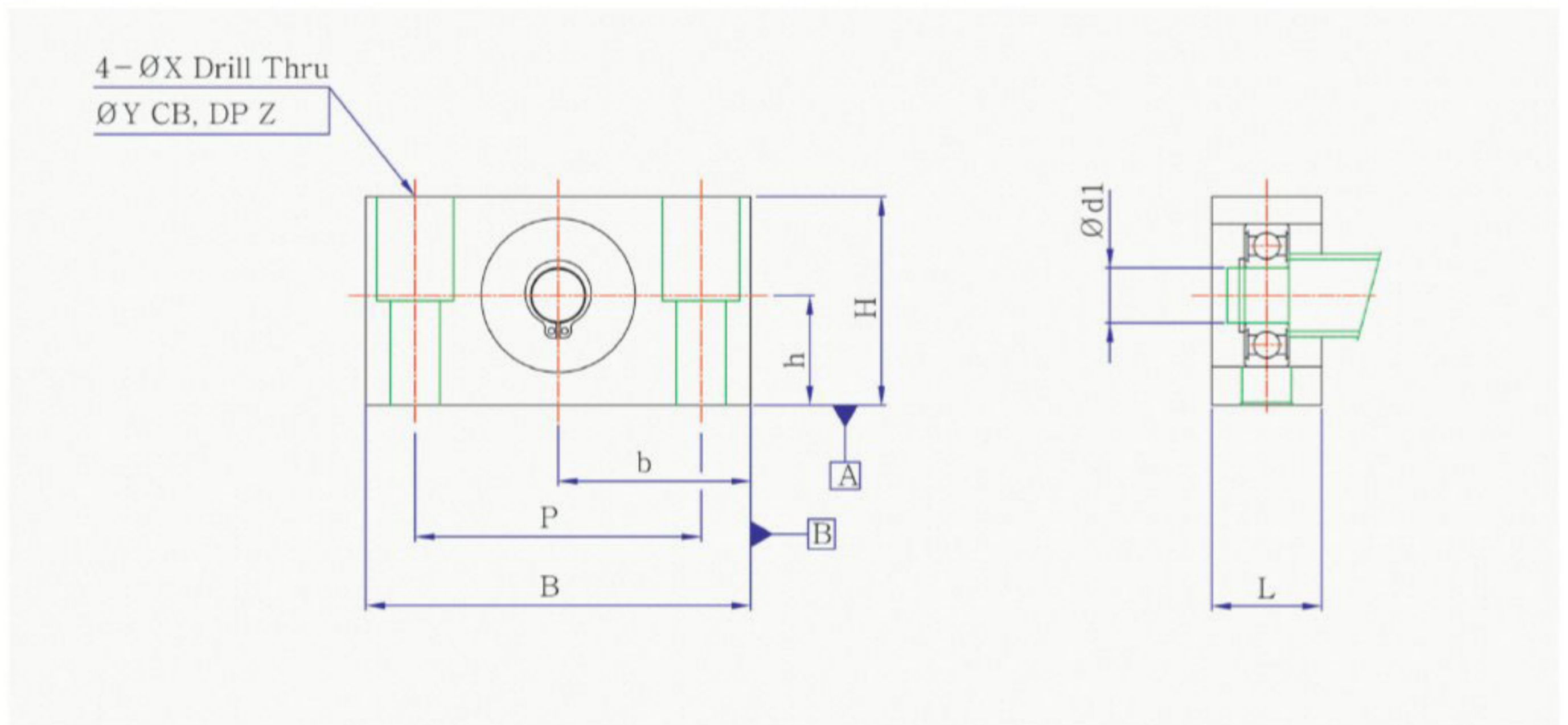
Model No.	d1	L	L1	L2	L3	B	H	b±0.02	h±0.02	P	C2	X	Y	Z	M	□ T	Bearing		
																	Precision(P5)	General(P0)	Preload(C7)
CK8	8	21.5	4	26.5	3.5	62	31	31	15.5	46	11	9	14	18	M3x0.5	14	708ATYNDFMP5	EN8	-
CK10	10	24	6	29.5	6	70	38	35	20	52	12	9	14	19	M4x0.7	16	7000ATYNDFMP5	7000AW	7000AWDFM
CK12	12	24	6	29.5	6	70	38	35	20	52	12	9	14	19	M4x0.7	19	7001ATYNDFMP5	7001AW	7001AWDFM
CK15	15	25	6	38	5	80	42	40	22	60	12.5	11	17	23	M4x0.7	22	7002ATYNDFMP5	7002AW	7002AWDFM

# CF Type Support Unit

Low Center Type for Support



## CF 8~15



## NOTE

1. Installation can be conducted based on the surface of A and B. Please, use the spacer of accurate size when adjustment of height or length is necessary.

Unit : mm

Model No.	d1	L	B	H	b±0.02	h±0.02	P	X	Y	Z	Bearing	Snap Ring
CF8	6	16	62	31	31	15.5	46	9	14	18	606ZZ	C6
★ CF12	10	20	70	38	35	20	52	9	14	19	6000ZZ	C10
CF15	15	20	80	42	40	22	60	9	14	23	6002ZZ	C15

★CF12 is used to the CK10, CK12 into the common support unit.

# SJU Type Joint Unit

## Support Unit + Servo Motor Mount Plate

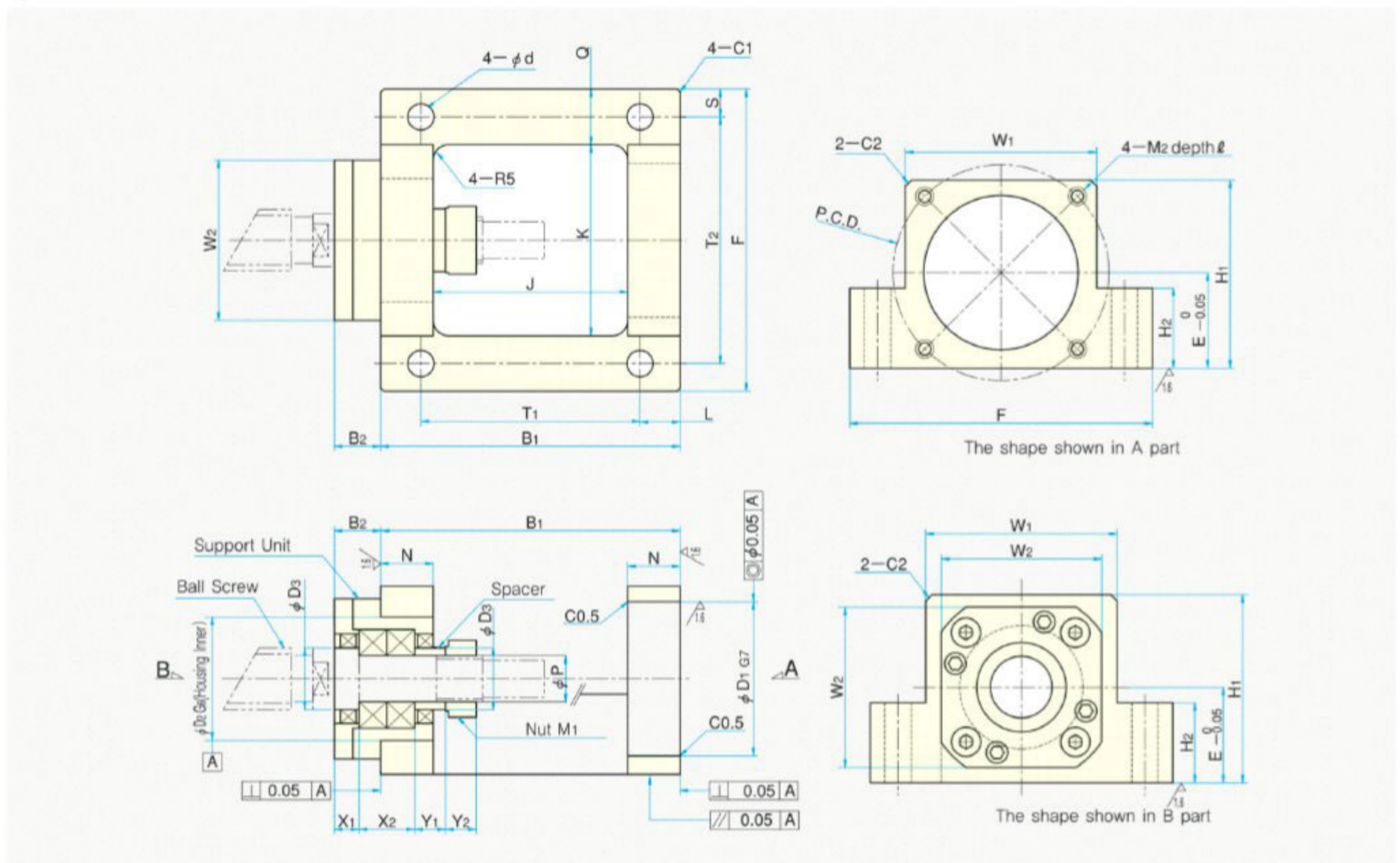


### Feature

- Simple assembly: It is easy to assembly the motor by joint because of built-in servo unit.
- High precision: Some error of each shaft can be eliminated because ball screw part and motor part is monolithic structure.

※ Notice : There are two kinds of PCD according to servo motor specification. Therefore please check this part when you order.

### SJU 8 ~ 15



Unit : mm

Model Name	Model No.	P	B1	B2	D1	D2	D3	E	F	H1	H2	J	K	L	N	Q	S	T1	T2	W1	W2	X1	X2	Y1	Y2	PCD	M1	M2	d	ℓ	Support Unit
SJU	8A	8	67	9	30	28	11	21	64	41	19	43	40	10	12	12	6	47	52	40	35	5	14	5.5	6.5	45	M8×1	M3	5.5	8	FK8
	8B	8	67	9	30	28	11	21	64	41	19	43	40	10	12	12	6	47	52	40	35	5	14	5.5	6.5	46	M8×1	M4	5.5	10	FK8
	10A	10	74	13	30	34	14	25	70	46	23	46	42	10	14	14	7	54	56	42	42	8	16	5.5	8	45	M10×1	M3	6.5	8	FK10
	10B	10	74	13	30	34	14	25	70	46	23	46	42	10	14	14	7	54	56	42	42	8	16	5.5	8	46	M10×1	M4	6.5	10	FK10
SJU	12A	12	74	13	30	36	15.1	25	72	47	23	46	44	10	14	14	7	54	58	44	44	8	16	5.5	8	45	M12×1	M3	6.5	8	FK12
	12B	12	74	13	30	36	15.1	25	72	47	23	46	44	10	14	14	7	54	58	44	44	8	16	5.5	8	46	M12×1	M4	6.5	10	FK12
SJU	15	15	97	15	50	40	20	31	98	61	26	63	62	13	17	18	9	71	80	62	52	8	18	10	8	70	M15×1	M5	8.5	13	FK15

※ Please refer to catalog if you want to find SI coupling that is compatible with SI Joint Unit.

# SBJU Type Joint Unit

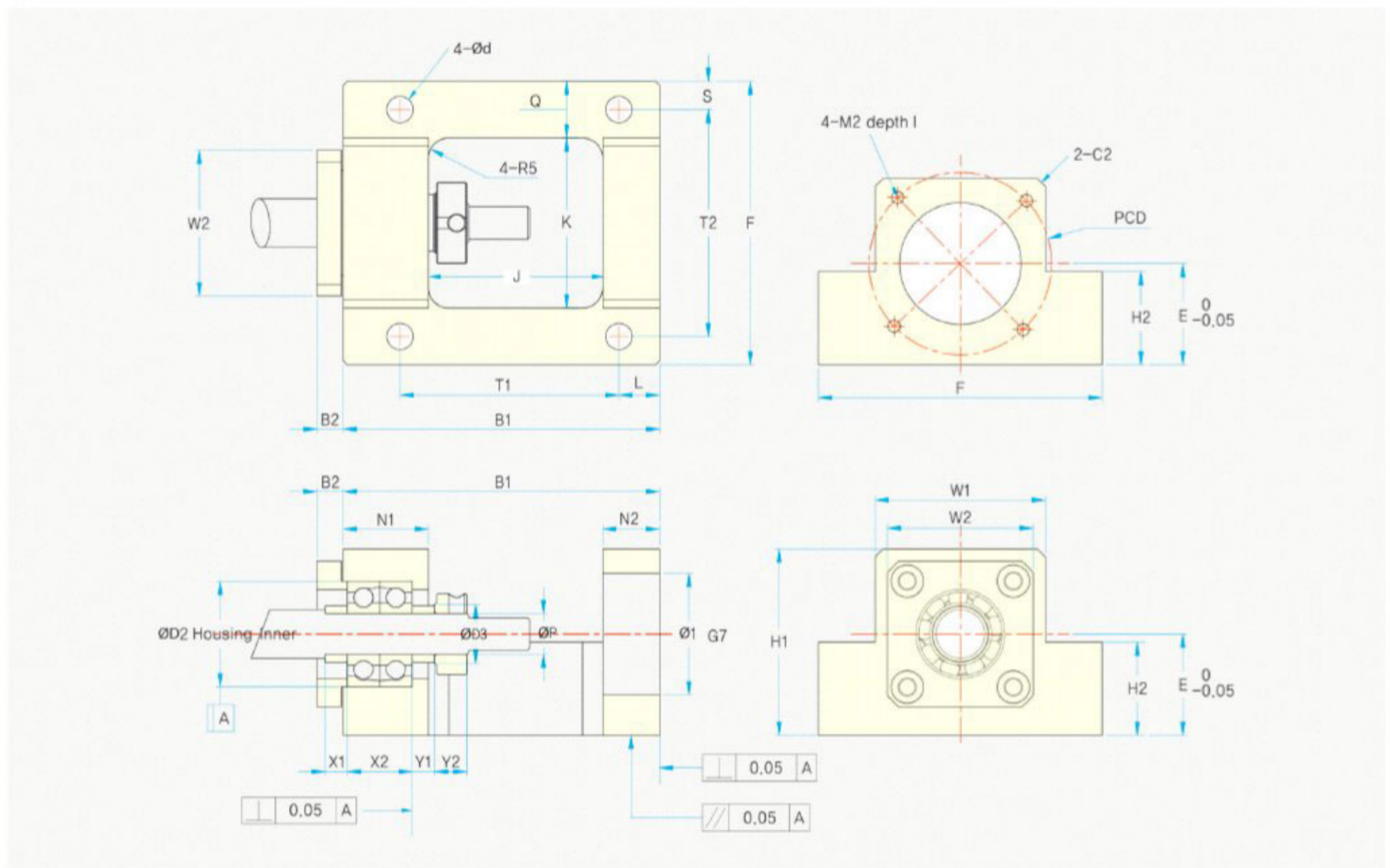
## Support Unit + Servo Motor Mount Plate



### Feature

- Simple assembly : It is easy to assembly the motor by joint because of built-in servo unit.
  - High precision : Some error of each shaft can be eliminated because ball screw part and motor part is monolithic structure.  
There is angular bearing inside joint unit.
- ※ Notice : There are two kinds of PCD according to servo motor specification. Therefore please check this part when you order.

### SBJU 8 ~ 15



Uni : mm

Model Name	Model No.	P	B1	B2	D1	D2	D3	E	F	H1	H2	J	K	L	N1	N2	Q	S	T1	T2	W1	W2	X1	X2	Y1	Y2	PCD	M1	M2	d	ℓ
SBJU	8A	8	73	6.5	30	24	11	21	64	41	19	42	40	10	19	12	12	6	47	52	40	34	7.5	14	5.5	6.5	45	M8×1	M3	5.5	8
	(22)					46																					M4		10		
	10A	10	79	6.5	30	26	14	25	70	46	23	44	42	10	21	14	14	7	54	56	42	36	5.5	16	5.5	8	45	M10×1	M3	5.5	8
	10B					46																					M4		10		
12A	12	79	6.5	30	28	15.1	25	72	47	23	44	44	10	21	14	14	7	54	58	44	36	5.5	16	5.5	8	45	M12×1	M3	5.5	8	
12B					46																					M4		10			
	15	15	105	6.5	50	32	20	31	98	61	26	65	62	13	23	17	18	9	71	80	62	40	10	18	10	8	70	M15×1	M5	8.5	13

※ Please refer to catalog if you want to find SI coupling that is compatible with SI Joint Unit.

# Lock Nut

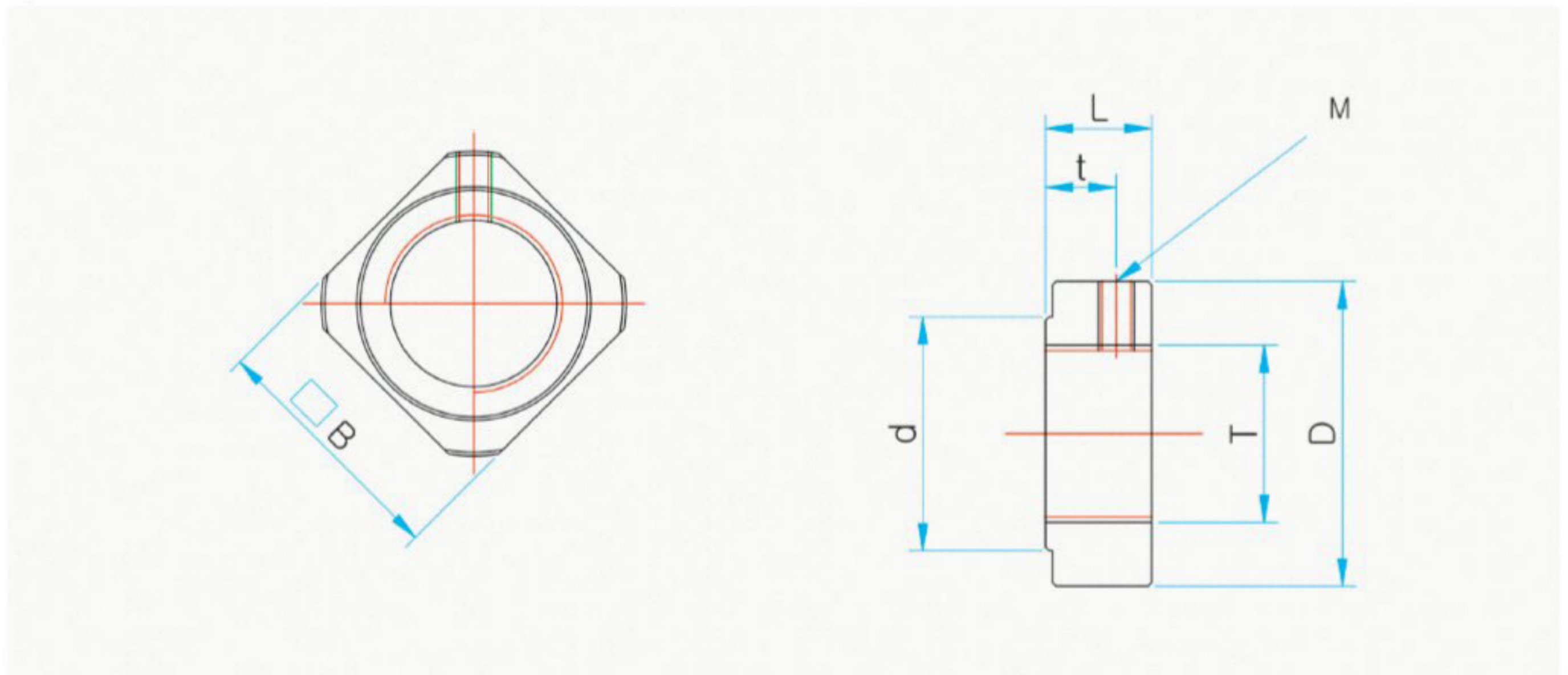
※ Please, download CAD DATA on [www.sungilfa.com](http://www.sungilfa.com)



## NOTE

1. Locknut can be used by connecting ball screw to bearing with high accuracy.
2. The set piece connected to the stop screw ensures tight connection while preventing locknut from being loosened.

## LOCK NUT



Unit : mm

Model No.	T	M	D	d	L	t	□ B	Attachment Torque (reference)
RN4	M4 × 0.5	M3 × 0.5	11	8.5	5	2.7	10	16
RN5	M5 × 0.5	M3 × 0.5	13	9	5	2.7	11	20
RN6	M6 × 0.75	M3 × 0.5	14.5	10	5	2.7	12	25
RN8	M8 × 1	M3 × 0.5	17	13	6.5	4	14	50
	★ M8 × 0.75							
RN10	M10 × 1	M4 × 0.7	20	15	8	5.5	16	95
	★ M10 × 0.75							
RN12	M12 × 1	M4 × 0.7	22	17	8	5.5	19	140
RN15	M15 × 1	M4 × 0.7	25	21	8	4.5	22	240
RN17	M17 × 1	M4 × 0.7	30	25	13	9	24	350
RN20	M20 × 1	M4 × 0.7	35	26	11	7	30	480
RN25	M25 × 1.5	M5 × 0.8	43	33	15	10	35	860
RN30	M30 × 1.5	M6 × 1	48	39	20	14	40	1280
RN35	M35 × 1.5	M8 × 1.25	60	46	21	14	50	1920
RN40	M40 × 1.5	M8 × 1.25	63	51	25	18	50	2560

※ The product marked ★ is order specification.

# NOVIN Support Units

Ball Bearing

## HOW TO ORDER

Fixture	Support
<p><b>BK10</b></p> <p><b>P5</b> (Grade : Precision) <b>P0</b> (Grade : General) <b>C7</b> (Grade : Preload)</p> <p>Fixture Model No. (EK, BK, AK, FK)</p>	<p><b>BF10</b></p> <p>Support Model No. (EF, BF, AF, FF)</p>

Please, note that the type names and numbers for support part (EF, BF, AF, FF (No. 8, 10, 12)) do not correspond to the internal diameter of bearing. (Please, refer to page 39, 61)

Type name and number ≠ Internal diameter of bearing (EF, BF, AF, FF8=φ6, EF, BF, AF, FF10=φ8, EF, BF, AF, FF12=φ10)

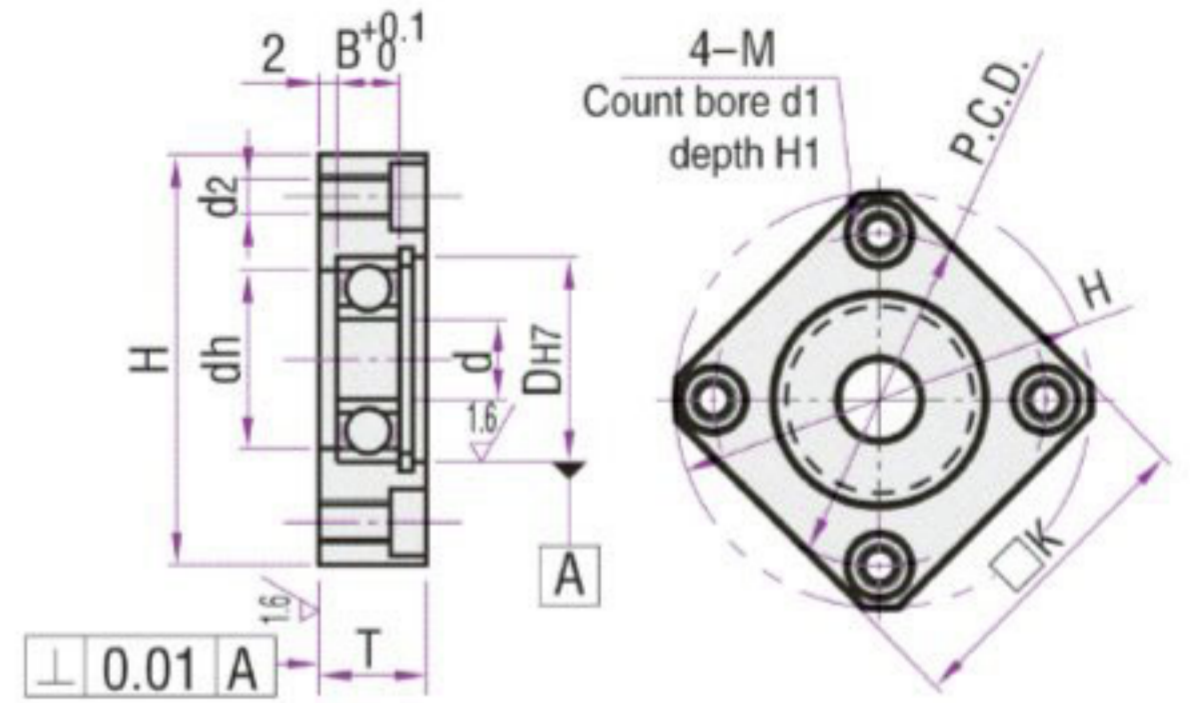
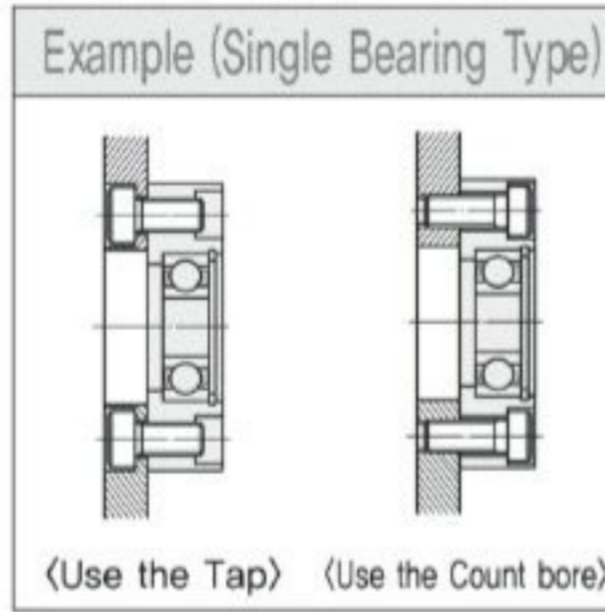
## Kinds of Support Units and Outside Diameter of Applied Screw

Inner Diameter of Fixture(mm)	Application of Fixture Model No.	Inner Diameter of Support(mm)	Application of Support Model No.	Outside diameter of applied Screw(mm)
4	EK4	-	-	φ 6
	FK4			
5	EK5	-	-	φ 8
	FK5			
6	BK6	6	BF6	φ 8
	EK6		EF6	
	FK6		FF6	
8	AK8	6	AF8	φ 10, φ 12
	BK8		BF8	
	EK8		EF8	
	FK8		FF8	
10	AK10	8	AF10	φ 14, φ 15
	BK10		BF10	
	EK10		EF10	
	FK10		FF10	
12	AK12	10	AF12	φ 16, φ 18
	BK12		BF12	
	EK12		EF12	
	FK12		FF12	
15	AK15	15	AF15	φ 20, φ 25
	BK15		BF15	
	EK15		EF15	
	FK15		FF15	
17	BK17	17	BF17	φ 25
	FK17		FF17	
20	AK20	20	AF20	φ 28, φ 30, φ 32
	BK20		BF20	
	EK20		EF20	
	FK20		FF20	
25	BK25	25	BF25	φ 36
	EK25		EF25	
	FK25		FF25	
30	BK30	30	BF30	φ 40, φ 45
	FK30		FF30	
35	BK35	35	BF35	φ 45
	FK35		FF35	
40	BK40	40	BF40	φ 50, φ 55
	FK40		FF40	

# Bearing Unit

## NOVIN Bearing Type

### SBS - ■ ■ ■

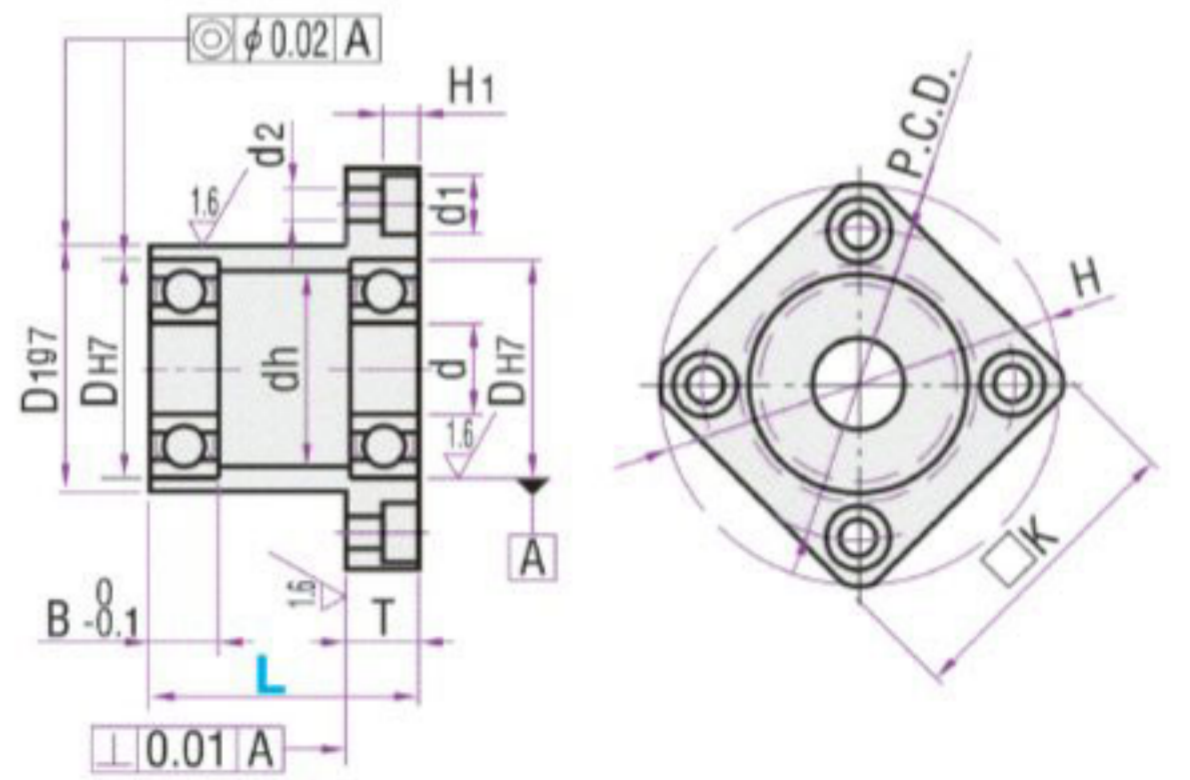
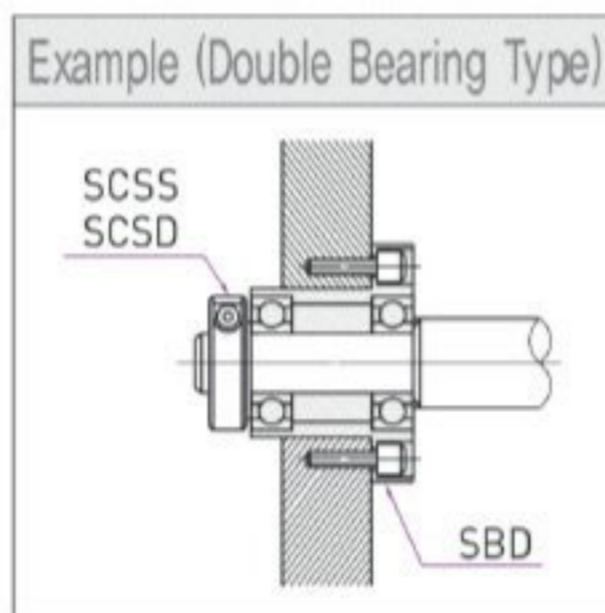


### Standards

Model No.	∅ d	∅ D H7	B	∅ H	□ K	T	dh	PCD	M	∅ d2	∅ d1	H1	Bearing
SBS-8	8	22	7	45	36	12	18	35	5	4.3	8	4.4	608ZZ
SBS-10	10	26	8	50	39	13	22	40	5	4.3	8	4.4	6000ZZ
SBS-12	12	28	8	52	40	13	24	42	5	4.3	8	4.4	6001ZZ
SBS-15	15	32	9	60	46	14	28	48	6	5.2	9.5	5.4	6002ZZ
SBS-17	17	40	12	72	54	18	34	60	6	5.2	9.5	5.4	6203ZZ
SBS-20	20	42	12	77	59	18	36	64	8	6.8	11	6.5	6004ZZ
SBS-25	25	52	15	94	72	22	45	78	10	8.5	14	8.6	6205ZZ
SBS-30	30	62	16	104	79	23	55	88	10	8.5	14	8.6	6206ZZ

## Double Bearing Type

### SBD - ■ ■ ■



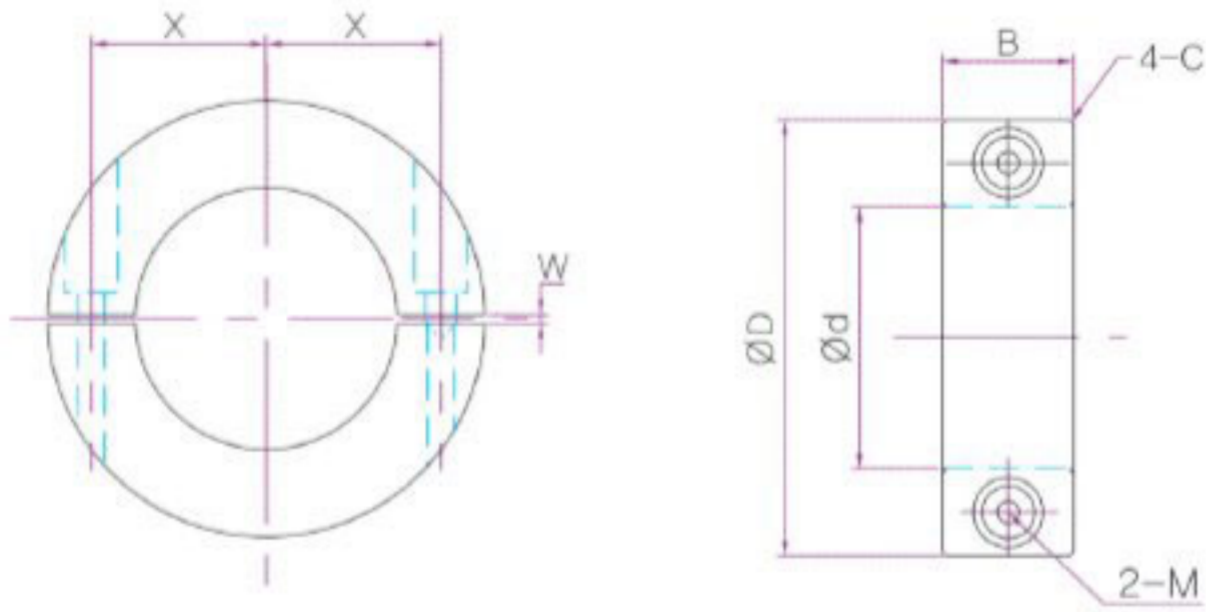
### Standards

Model No.	∅ d	∅ D H7	∅ D1 g7	B	L	∅ H	□ K	T	dh	PCD	∅ d2	∅ d1	H1	Bearing
SBD-8	8	22	27	7	25	45	36	8	18	35	4.3	8	4.4	608ZZ
SBD-10	10	26	32	8	30	50	39	8	22	40	4.3	8	4.4	6000ZZ
SBD-12	12	28	34	8	30	52	40	8	24	42	4.3	8	4.4	6001ZZ
SBD-15	15	32	38	9	35	60	46	10	28	48	5.2	9.5	5.4	6002ZZ
SBD-17	17	40	48	12	45	72	54	10	34	60	5.2	9.5	5.4	6203ZZ
SBD-20	20	42	50	12	45	77	59	11	36	64	6.8	11	6.5	6004ZZ
SBD-25	25	52	60	15	45	94	72	13	45	78	8.5	14	8.6	6205ZZ
SBD-30	30	62	70	16	50	104	79	13	55	88	8.5	14	8.6	6206ZZ

# Set Collars

## Set Collars-Split Type

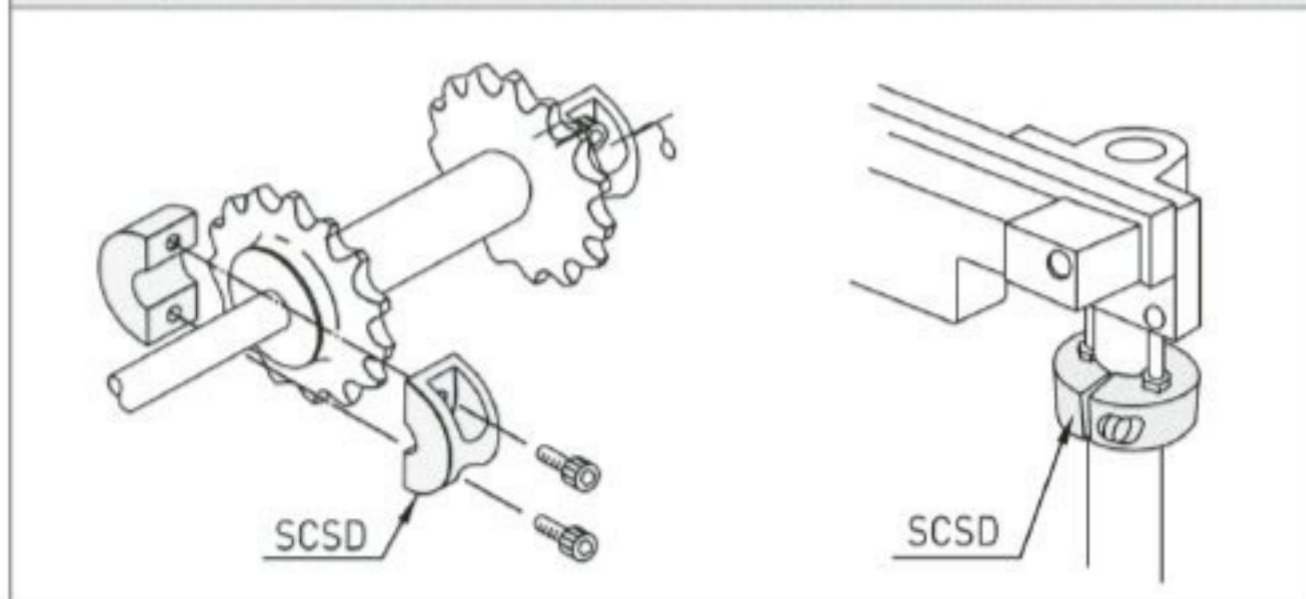
### SCSD - ■ ■



### Standards

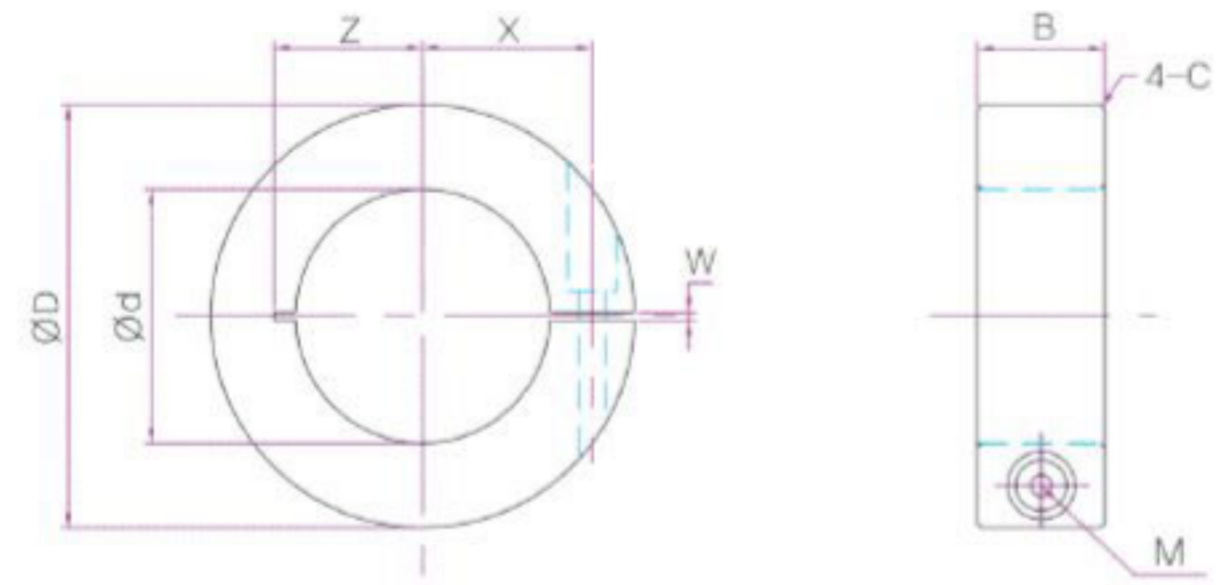
Model No.	$\varnothing d$	$\varnothing D$	B	C	W	M	X
SCSD-6	6	20	8	0.3	1	M3	6
SCSD-8	8	25	10	0.3	1	M4	8
SCSD-10	10	35	12	0.3	1.5	M5	10
SCSD-12	12	35	15	0.5	1.5	M6	11
SCSD-13	13	35	15	0.5	1.5	M6	11.5
SCSD-15	15	40	15	0.5	1.5	M6	13
SCSD-16	16	40	15	0.5	1.5	M6	13
SCSD-17	17	40	15	0.5	1.5	M6	13
SCSD-18	18	40	15	0.5	1.5	M6	15
SCSD-20	20	45	15	0.5	1.5	M6	15
SCSD-25	25	50	15	0.5	1.5	M6	18
SCSD-30	30	55	15	1	1.5	M6	20

### Example (Set Collars – Split Type)



## Set Collars-Slit Type

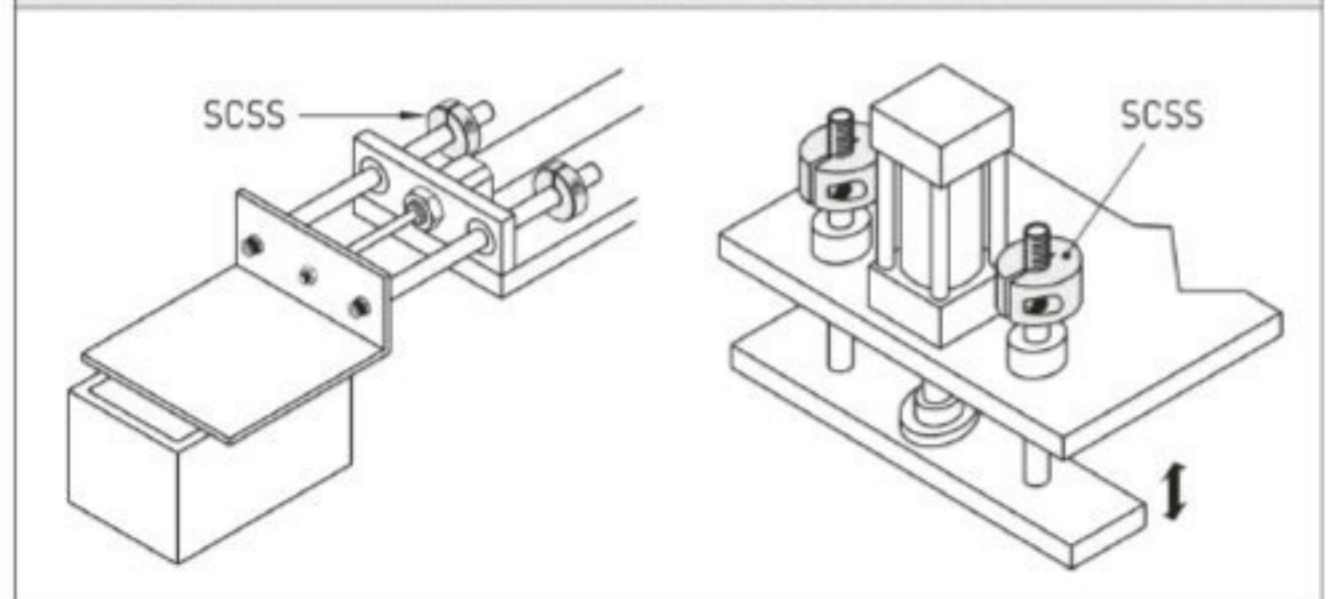
### SCSS - ■ ■



### Standards

Model No.	$\varnothing d$	$\varnothing D$	B	C	W	M	X	Z
SCSS-6	6	20	8	0.3	1	M3	6	6-6.5
SCSS-8	8	25	10	0.3	1	M4	8	7-9
SCSS-10	10	35	12	0.3	1.5	M5	10	8-10
SCSS-12	12	35	15	0.5	1.5	M6	11	10-12
SCSS-13	13	35	15	0.5	1.5	M6	11.5	10-12
SCSS-15	15	40	15	0.5	1.5	M6	13	11-13
SCSS-16	16	40	15	0.5	1.5	M6	13	11-13
SCSS-17	17	40	15	0.5	1.5	M6	13	11-13
SCSS-18	18	40	15	0.5	1.5	M6	15	13-15
SCSS-20	20	45	15	0.5	1.5	M6	15	13-15
SCSS-25	25	50	15	0.5	1.5	M6	18	16-18
SCSS-30	30	55	15	1	1.5	M6	20	18-20

### Example (Set Collars – Slit Type)





\* FA Units



\* Support Units



\* Micro Couplings



\*Product designs and specifications are subject to change without notice for product improvement.

## NOVIN Ball Bearing

آدرس : تهران ، خیابان سعدی جنوبی ، خیابان اکباتان ، کوچه ناظم الاطبا ، پلاک ۱۵۱

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