



Couplings

Model No. Introduction

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|          |  |

INDLOGY CO..LTC

| А | С | Е |     | Ø40R | 10*10 |
|---|---|---|-----|------|-------|
| А | С | Н | - S | Ø32  | 6*8   |
|   |   |   |     |      |       |

| F                       | А  | С  | E   |                                   | Ø40R   | 10*10   | Custom Made   |
|-------------------------|--|--|---|-----------------------------------|--|---|---|
| F                       | А  | С  | н   | S                                 | Ø32  | 6*8   | LK  |
| Туре                    | Material   | Axis Fixing  | Coupling Model  | Length                            | O.D. /<br>(Jaw Type<br>Option)   | Ød1*Ød2   | Key way   |
| F: Flexible<br>R: Rigid | A: Aluminum<br>S: Stainless Steel<br>C: Carbon steel | M: Set screw fixing<br>C: Clamping fixing<br>B: 2 Pieces<br>S: Zero backlash<br>type | S: Spiral beam type(for servo motor)<br>M: Spiral beam type (for stepping motor)<br>C: Metal disk with high rigid design<br>H: Metal disk in straight type<br>T: Metal disk in steps type<br>B: Bellows design<br>G: Oldham type - phosphor bronze spacer<br>P: Oldham type - phosphor bronze spacer<br>J: Oldham type - carbon resin spacer<br>J: Oldham type - Black POM spacer<br>N: Oldham type - POM spacer<br>E: Jaw type<br>U: Aluminum spacer | L: Long design<br>S: Short design | <ul> <li>Refer to<br/>dimension<br/>table to decide<br/>the O.D.</li> <li>Jaw Spider<br/>options:<br/>B: Blue<br/>(80 ShoreA)<br/>W: White<br/>(92 ShoreA)<br/>R: Red<br/>(98 ShoreA)</li> </ul> | Bore<br>diameter of<br>two sides of<br>the coupling | <ul> <li>LK: left side Ød1</li> <li>RK: right side Ød2</li> <li>WK: Both sides<br/>(Ød1 &amp; Ød2)</li> </ul> |

Note : • Material AL, surface in anodized finished.

- Accessories are clamping screws and set screws.
- Shaft dia. Ød1, Ød2 accepted by custom sizes.(Within specified Max. bore dimensions)
- SFT coupling series are all processed in cryogenic treatment.( Refer to P.0453)

#### Linear Motion Component O Couplings

Couplings Introduction

LK

Product Introduction

- Coupling is a mechanism device, connecting transmission between two shafts and transmitting safety torque.
- Coupling divided into "Flexible type" and "Rigidity type".
- To apply flexible couplings timing in case of power transmission, two shafts are not easy to set in alignment, or to simplify two shafts installation. It contains shock buffer to absorb parallelism, deflection, axial displacement, deviation improvement, and improvement of traditional transmission power, so few deviation would not cause any unusual situation on bearing. It's widly applied to current markets.
- Rigidity coupling is an unit causing non-eccentric, non-deflection, and make two connected shafts fixed in one unit. Users must do the best to have motor running and axis of load in alignment due to high requirement of concentricity, also means of axis has to be calibrated strictly; otherwise, the rotating shaft would be broken caused by mechanism fatigue, also the bearing would be thermal abrasion due to eccentric load, those were brought by continuous vibration of the axis during long term running of the motor. The advantage of rigidity coupling is to transmit transmission torque precisely.

Coupling Selection & Character Comparison

equipment you are going to use.

Coupling Selection & Character Comparison

Screw Fixing Type

Clamp Fixing Type

2-Piece Type

Low Inertial Torque

Torque Range(N-m)

Product Character

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•

0.3~4

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•

0.3~2

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•

0.3~4

Coupling having frequently powerful shaft-combination.
 Having no allowable offset applys to condition in axial side absorbing angular deviation.
 To install lock screw on coupling secures the shaft well.

| (4) Max. to<br>continue      | ( 4 ) Max. torque is double of allowable torque in coupling, and torque produced in continuous rotation shall not exceed to allowable torque. |   |  |  |  |  |  |           |           |           |  |  |  |  |  |
|------------------------------|---|---|--|--|--|--|--|-----------|-----------|-----------|--|--|--|--|--|
|                              | Spiral Beam type  |   |  |  |  |  |  |           |           |           |  |  |  |  |  |
| <b>-</b>                     | FAMS  | FACS  | FAMML  | FAMMS                                      | FSMML  | FSMMS  | FACML  | FACMS     | FSCML     | FSCMS     |  |  |  |  |  |
| Coupling                     |   | S.  | · Mi   |  | ·Mi  | ·  | all .  | and the   | · Ille    | all'a     |  |  |  |  |  |
| page                         | P.12  | P.13  | P.14   | P.15                                       | P.16   | P.17   | P.18   | P.19      | P.20      | P.21      |  |  |  |  |  |
| Zero Backlash                | Excellent   | Excellent   | Excellent  | Excellent                                  | Excellent  | Excellent  | Excellent  | Excellent | Excellent | Excellent |  |  |  |  |  |
| High Torque Rigidity         | Excellent   | Excellent   | Good   | Good                                       | Good   | Good   | Good   | Good      | Good      | Good      |  |  |  |  |  |
| High Torque                  | Good  | Good  | Good   | Good                                       | Good   | Good   | Good   | Good      | Good      | Good      |  |  |  |  |  |
| Allowable Axis Deviation     |   |   | Good   |  | Good   |  | Good   |           | Good      |           |  |  |  |  |  |
| Flexibility                  |   |   | ٠  |  | •  |  | •  |           | •         |           |  |  |  |  |  |
| Complete Miniature           | •   | •   |  | •  |  | •  |  | ٠         |           | ٠         |  |  |  |  |  |
| Stainless Steel              |   |   |  |  | •  | •  |  |           | •         | ٠         |  |  |  |  |  |
| Constant Velocity            |   |   |  |  |  |  |  |           |           |           |  |  |  |  |  |
| Screw Fixing Type            | •   |   | •  | •  | •  | •  |  |           |           |           |  |  |  |  |  |
| Clamp Fixing Type            |   | •   |  |  |  |  | •  | •         | •         | •         |  |  |  |  |  |
| Allowable Angular Deflection | •   | •   | •  | •  | •  | •  | •  | •         | •         | •         |  |  |  |  |  |
| Allowable Parallel Offset    | •   | •   | •  | •  | •  | •  | •  | •         | •         | •         |  |  |  |  |  |
| Low Inertial Torque          | •   | •   | •  | •  | •  | •  | •  | •         | •         | •         |  |  |  |  |  |
| Torque Range(N·m)            | 0.5~3   | 0.5~3   | 0.1~4  | 0.1~8                                      | 0.1~8  | 0.1~4  | 0.4~8  | 0.4~4     | 0.4~8     | 0.4~4     |  |  |  |  |  |
| Product Character            |   | <ul> <li>Coupling slitted</li> <li>Difference of ma</li> <li>Due to zero bac</li> </ul> | in aluminum or sta<br>aterial and beam ty<br>klash required in h | ainless steel mater<br>pes cause variation | ial is as structure a<br>on in transmitting to<br>acy, meanwhile, po | as spiral beam type<br>orque and allowabl<br>osition accuracy me | e allowable offset.<br>e offset.<br>eets the same requ | uirement. |           |           |  |  |  |  |  |

(1) Coupling is a mechanism unit used in transmitting torque and rotating angle. Each model is purposed. Please select as your requirement from the table below. (2) Take spec and hole size on the list for reference to select product you need.

(3) Confirm rated torque, Max. speed and dimension of selected coupling matched with the

|       | Oldham type                  |  |  |  |   |   | Jaw  | type  |            | (Large shaft diameter use)  | Zero Backlash ty   | ype(Spindle use)   |
|-------|------------------------------|--|--|--|---|---|--|---|------------|---|--|--|
|       |                              | FACPL  | FACPS  | FAMN   | FACU  | FAME  | FAMK   | FACE  | FACK       | FACE  | FASE   | FCSE   |
|       | Flexible<br>Coupling         |  | S.   |  | 1.3   | · ···   | .7.  |   | .7.        | 0,151   | OF D   |  |
|       | Page                         | P.38   | P.39   | P.40   | P.41  | P.45  | P.46   | P.47  | P.48       | P.49  | P.50   | P.50   |
|       | Zero Backlash                |  |  |  | Good  | Good  | Good   | Good  | Good       | Good  | 1 Zero rotation backlash   | 1 Zero rotation backlash   |
| Se C  | High Torque Rigidity         | Good   | Good   | Good   | Excellent   | Excellent   | Excellent  | Excellent   | Excellent  | Excellent   | 2. Hight torsion   | 2. Hight torsion   |
| Itage | High Torque                  | Excellent                                    | Good   | Good   | Good  | Excellent   | Excellent  | Excellent   | Excellent  | Excellent   | 3. High torque   | 3. High torque   |
| mpa   | Allowable Axis Deviation     | Excellent                                    | Excellent  | Excellent  | Good  | Good  | Good   | Good  | Good       | Good  | 4. Low Inertia   | 4. Low Inertia   |
| ĕ S   | Vibration Absorbability      | Good   | Good   | Good   |   | Good  | Good   | Good  | Good       | Good  | 5. High rigidity<br>6. Variation resistance  | 5. High rigidity<br>6. Variation resistance  |
|       | Isolation                    | Excellent                                    | Excellent  | Excellent  | Excellent   | Excellent   | Excellent  | Excellent   | Excellent  | Excellent   | 7. High fricition  | 7. High fricition  |
|       | Flexibility                  |  |  |  |   | ٠   | ٠  | ٠   | ٠          | •   | 8. Intergrated clamping  | 8. Intergrated clamping  |
|       | Complete Miniature           | ٠  | •  | •  |   |   |  |   |            |   | nut for bolt assembly  | nut for bolt assembly  |
|       | Screw Fixing Type            |  |  | •  |   | ٠   | •  |   |            |   | easily   | easily   |
|       | Clamp Fixing Type            | ٠  | •  |  | ٠   |   |  | ٠   | ٠          | •   |  |  |
| than  | Key Way Type                 |  |  |  |   |   | •  |   | ٠          | •   |  |  |
|       | Allowable Angular Deflection | •  | •  | •  | •   | •   | •  | •   | •          | •   |  |  |
|       | Allowable Parallel Offset    | •  | •  | •  | •   | •   | •  | •   | •          | •   |  |  |
|       | Low Inertial Torque          | •  | •  | •  | •   | •   | •  | •   | •          | •   |  |  |
|       | Torque Range(N⋅m)            | 0.7~9  | 0.2~2.8  | 0.7~9  | 0.3~6   | 0.7~17  | 4~17   | 0.7~17  | 4~17       | 60~190  | <ul> <li>Usage temperature: -20°C ~ 90°C</li> </ul>  | <ul> <li>Usage temperature: -20°C ~ 90°C</li> </ul>  |
|       | Product Character            | <ul> <li>Oldham</li> <li>Jaw type</li> </ul> | type Fe<br>(E<br>Lig<br>an<br>Pr<br>to<br>Pr<br>an<br>as | w friction r<br>x: braking r<br>ght torque o<br>gular devia<br>ess-in type<br>make diffe<br>ess-in type<br>d equippeo<br>well. | esistance, a<br>mechanism,<br>corresponds<br>titon.<br>• of the PU i<br>rence of vib<br>• applied in I<br>d with good | apply to brain<br>relay shfat)<br>to larger particular<br>nsert; select<br>ration absort<br>ow torque n<br>adjustment | king system<br>arallel offse<br>t hardness<br>bability tec<br>nakes zero<br>of vibration | t and<br>through Po<br>hnically.<br>backlash,<br>absorbabil | lyurethane | <ul> <li>Usage temperature: -20°C - 90°C</li> <li>Offset of angular and axial<br/>deviation<br/>are individual allowed values. Thus,<br/>the coupling unit allowable value<br/>will be reduced in case couple<br/>reasons of axial offset appearing at<br/>the same time.</li> <li>Available to make key ways on<br/>request. Refer to P.2 for Key way</li> </ul> | <ul> <li>Unser of anguar and avaid deviation<br/>are individual allowed values. Thus,<br/>the coupling unit allowed by value wal-<br/>of avaid offset appearing at the<br/>same time.</li> <li>No rotation backlash, high accuracy<br/>clamping prestress design.</li> <li>Light aluminum shaft bushing offers<br/>small inertia.</li> <li>Tight clamping force to bring high<br/>finition moment.</li> <li>Stable incidion to parform a high</li> </ul> | <ul> <li>Unser or anguar and basid deviation<br/>are individual allowed values. Thus,<br/>the coupling unit allowable value will<br/>be reduced in case couple reasons<br/>of axial offiser appearing at the<br/>same time.</li> <li>No rotation basklash, high accuracy<br/>clamping presenses design.</li> <li>Tight clamping force to bring high<br/>findiom moment.</li> <li>Stable rotation to perform a high<br/>linear speed Amis.</li> </ul> |

|   |  | Metal D  | Disk type      | 9                  |                        |           | Bellov    | vs type   |           |                                     |   | Oldha  | am typ  | е   |  |
|---|--|--|----------------|--------------------|------------------------|-----------|-----------|-----------|-----------|-------------------------------------|---|--|---|---|--|
| FACCL   | FACCS  | FACHL  | FACHS          | FACTL              | FACTS                  | FAMB      | FSMB      | FACB      | FSCB      | FSMG                                | FSCG  | FSMP   | FSCP  | FAMJ  | FACJ                                       |
| ()  | 3  | i.   |                | D:                 | 9                      | 5         | . Infi    | 1         | · ME      | 1                                   | 1   | T.   | 0   | ).  | S.   |
| P.22  | P.23   | P.24   | P.25           | P.26               | P.27                   | P.28      | P.29      | P.30      | P.31      | P.32                                | P.33  | P.34   | P.35  | P.36  | P.37                                       |
| Excellent   | Excellent  | Excellent  | Excellent      | Excellent          | Excellent              | Excellent | Excellent | Excellent | Excellent |                                     |   |  |   |   |  |
| Excellent   | Good   | Excellent  | Excellent      | Good               | Good                   | Good      | Good      | Good      | Good      | Excellent                           | Excellent                                     | Good   | Good  | Good  | Good                                       |
| Good  | Good   | Good   | Excellent      | Good               | Good                   | Good      | Good      | Good      | Good      | Excellent                           | Excellent                                     | Good   | Good  | Good  | Good                                       |
| Good  |  | Good   |                | Good               |                        | Good      | Good      | Good      | Good      | Excellent                           | Excellent                                     | Excellent  | Excellent   | Excellent   | Excellent                                  |
| •   |  | •  |                | •                  |                        |           |           |           |           |                                     |   |  |   |   |  |
|   | •  |  | •              |                    | •                      |           |           |           |           | ]                                   |   |  |   |   |  |
|   |  |  |                |                    |                        |           | •         |           | •         |                                     |   |  |   |   |  |
|   |  |  |                |                    |                        | •         | •         | •         | •         | •                                   |   | •  |   | •   |  |
|   |  |  |                |                    |                        | •         |           | •         |           |                                     | •   |  | •   |   | •  |
| •   | •  | •  | •              | •                  | •                      |           | •         |           | •         | •                                   | •   | •  | •   | •   |  |
| •   | •  | •  | •              | •                  | •                      | •         | •         | •         | •         | •                                   | •   | •  | •   | •   | •  |
| •   | •  | •  | •              | •                  | •                      | •         | •         | •         | •         | •                                   | •   | •  | •   | •   | •  |
| •   | •  | •  | •              | •                  | •                      | •         | •         | •         | •         | ٠                                   | •   | •  | •   | •   | •  |
| 1.2~25  | 1.2~25   | 0.7~9  | 0.7~9          | 2~10               | 2~10                   | 0.3~2     | 0.5~3     | 0.3~2     | 0.5~3     | 3~50 3~50 0.3~28 1.6~18 30~80 26~72 |   |  |   |   |  |
| <ul> <li>Due to ze<br/>meets the</li> <li>Widely rar<br/>and mater</li> </ul> | ro backlash requ<br>same requirem<br>ges from standa<br>ials for disc. | vired in rotation a<br>ent.<br>rd to high torque | accuracy, mear | while, position ac | curacy<br>f dimesnions |           |           |           |           | <ul> <li>Jaw type</li> </ul>        | ani<br>Pre<br>thr<br>vib<br>Pre<br>zer<br>adj | d angular de<br>ess-in type o<br>ough Polyur<br>ration absoi<br>ess-in type a<br>o backlash,<br>ustment of | viation.<br>If the PU ins<br>ethane to m<br>bability tech<br>applied in lo<br>and equipp<br>vibration abs | sert; select h<br>nake differen<br>nnically.<br>w torque ma<br>ed with goo<br>sorbability a | nardness<br>ice of<br>ikes<br>d<br>s well. |
| Riq<br>Co   | Rigidity<br>Coupling   |  |                |                    | RA                     | ics       | RSCS      |           | RAB       | RSB RACL                            |   |  |   | RSC   |  |
|   | Page         P.53         P.54   |  | P.t            | 55                 | P.56                   |           | P.57      | P.5       | B         | P.59                                | 9   | P.60   |   |   |  |
| Zero  | Backlash   | Excell   | ent            | Excellent          | Exc                    | ellent    | Excellent | E         | xcellent  | Exce                                | llent   | Exce   | llent   | Excel   | lent                                       |
| High Ri   | gidity Torque  | Excel  | ent            | Excellent          | Exo                    | ellent    | Excellent | E         | xcellent  | Exce                                | llent   | Exce   | llent   | Excel   | lent                                       |
| Hig   | h Torque   | Goo  | d              | Good               | G                      | bod       | Good      |           | Good      | Go                                  | od  | Go   | bd  | Goo   | d  |
| Stair   | aless Steel  |  |                |                    | 1                      |           |           |           |           |                                     |   |  |   |   |  |

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Product Introduction

#### Linear Motion Component O Couplings

Fixing

- (1) There are five ways to fix coupling onto shaft as below. Please select coupling as your demand.
- (2) Set screw or clamping screw (hexagonal countersink screw) shall be secured by screw driver or torque wrench.Securing torque refer to product specifications.



#### Set Screw Fixing

This fixing in low cost is the most traditional. Front of screw contacting with shaft directly may cause damage or difficult disassembly.



#### **Clamping Fixing**

Use sink screw securing to narrow the slit for clamping shaft tightly. Clamped fix and easy disassembly won't cause damage of shaft.



#### **Separation Fixing**

Use separated bushings to fix and disassemble without moving your equipment.



#### **Key Way Fixing**

This type is also traditonal, like set screw fixing, suits for transmission in higher torque. Prevent from parallel movement, it's usually used with set screw fixing and clamp fixing together.



#### Zero Backlash Type

Zero backlash type coupling is designed to be equipped high precision clamping nut as one unit, performs high friction moment and reliable movement which is suitable for spindle transmission of the machine. Linear Motion Component O Couplings

Installation

To maintain installation completeness of all kinds of couplings, it's recommended to install as follow charts to avoid direct contact of two shafts and to have a regular run.

#### **Oldham Type**



#### **Bellows Type**



#### **Spiral Beam Type**



#### Metal Disk Type



#### **Rigidity Coupling**



#### Zero Backlash Type



Deviation Adjustment

Linear Motion Component Couplings

#### **Coupling - Deviation Adjustment**

- (1) Flexible coupling transmits torque and rotation angle, and absorb deviation from shaft installation. It may cause vibration or shortening life hours of coupling, while deviation is over allowed range. Thus, make sure and take perfect adjustment for deviaiton.
- (2) There are three deviation for shaft, as parallel deviation, angular deviation and axial deviation. Please adjust deviation lower than allowed range listed in the product spec offered by our catalog.
- (3) The max. allowable deviation listed in our catalog is in case of only one deviation existing. While two or more deviation existing at same time, allowable range shall be lower than 1/2 x max. deviation listed in the spec of catalog.
- (4) Deviaiton happened not only on equipment installation, but caused by vibration in running progress, heated expansion, bearing abrasion. Thus, it's recommended to adjust axial deviation lower than 1/3 x Max. range.



# A B A#B



#### Torque

In physics, torque is defined as "force in vertical" x "distance to rotating center", metric unit (N·m), divided by acceleration of gravity 9.8m/ sec<sup>2</sup>, unit could be converted to famillar (kg-m). Imperial unit lb-ft, in case of conversion to metric unit, just take lb-ft divided by 7.22. Torque we called is not force unit, but a kind of the moment of force, which means capacity of energy transforming, We could see the connection from normal unit used in calculating torque (Kgm), and generally judging from words: Kgm stands for the capacity of rising an object weighed 1 kg in 1 meter movement. This is a kind of the moment of force, so inappropriate to call it force. Motor producing force per time unit is decided by RPM and torque of motor, and REC out shown in motor, (W) shown in Japan, (HP) power output shown in USA and Europe. (1HP=746w=0.746kw )

#### **Coupling - Allowed Torque**

Transmitted torque occurs in allowed speed range rotating continuously.

#### Max. Torque in Driven Side

Max. torque in driven side being hitted in the moment, ex: torque produced while breaking.

#### Allowable Angular (Deflection)

The deflection between two shafts while connecting two shafts.

#### **Allowable Axial Deviaiton Displacement**

Displacement caused in axial while connecting two shafts.

#### **Inertial Torque**

It's not easy to change running status of object with big mass (whether from static to running or running to static); equally, rotating inertial or inertial torque is to show keeping object in running status, bigger inertia torque makes tough rotation.

#### **Static Torsional Stiffness**

Required (N  $\cdot$  m) to rotate 1 radian.

Product Introduction

Product Introduction

Motor Reference

#### Motor

#### Induction Motor

- (1) More than triple torque occurs in case of running momently.
- (2) Shaft axis center of the motor has ±1.5mm movement back and forth while running, and it's not recommended to use spiral beam type.
- (3) DC motor could be used in working environment with dust.

#### **Stepping Motor**

- (1) Without triple torque in case of running momently, but max. rated torque of motor occurs.
- (2) Larger torque in low speed than servo motor in same level.
- (3) Higher RPM, smaller torque in motor.
- (4) Motor have temperature rise in case of running continuously. (to improve by using disk type coupling) \* Force output in stepping motor is smaller than servo motor.

#### **Servo Motor**

- (1) More than triple torque occurs in case of running momently.
- (2) Under rated RPM range, cause rated torque.
- (3) Same torque produce in low speed and high speed
- (4) Temperature rise is small in case of running continuously.

#### Encoder

- (1) Built-in in servo motor, has tiny driven torque.
- (2) Or connected to stepping motor. (optional)

Product Introduction

Rigidity Standard

#### **Bellows type - Rigidity Standard**





#### **Spiral Beam Type - Rigidity Standard**



High torque rigidity, light and complete miniature.

FAMMS FACMS

FAMML

FACML

These flexible couplings apply to servo motor.

Torque rigidity and flexibility -Balance acquired among incompatible functions. These flexible couplings apply to stepping motor.

#### **Character Comparison**



Zero backlash.

parallel, and axial misalignment.

#### Flexible | Spiral Beam Coupling





· Rotation character of clockwise or anti-clockwise are exactly the same.

• The flexure allowed by the beam portion of the couping is capable of accommodating angular,



| Material       | Surface Finish | Accessories |
|----------------|----------------|-------------|
| Aluminum Alloy | Anodized       | Set screw   |

| Dimens    | ions | C 11  |   | Ød2 |      |   |   |       |    |    |    |    |    |    |       |      | _    |     |
|-----------|------|-------|---|-----|------|---|---|-------|----|----|----|----|----|----|-------|------|------|-----|
| Model No. | ØD   | 1 201 | 5 | 6   | 6.35 | 7 | 8 | 9.525 | 10 | 11 | 12 | 14 | 15 | 16 |       |      | F    | IVI |
|           | 40   | 5     | • | •   |      |   |   |       |    |    |    |    |    |    | 47.4  | 6    | 0    |     |
|           | 10   | 6     |   | •   |      |   |   |       |    |    |    |    |    |    | 117.4 | 0    | 3    | 3   |
|           |      | 5     | • | •   |      | • | • |       |    |    |    |    |    |    |       |      |      |     |
|           |      | 6     |   | •   | •    | • | • |       |    |    |    |    |    |    |       |      |      |     |
|           | 19   | 6.35  |   |     | •    |   | • |       |    |    |    |    |    |    | 20    | 6.8  | 3.4  | 3   |
|           |      | 8     |   |     |      |   | • |       | •  |    |    |    |    |    |       |      |      |     |
|           |      | 10    |   |     |      |   |   |       | •  |    |    |    |    |    |       |      |      |     |
|           |      | 6     |   | •   |      |   |   |       | •  |    |    |    |    |    |       |      |      |     |
|           |      | 6.35  |   |     | •    |   | • |       | •  |    |    |    |    |    |       |      |      |     |
|           |      | 7     |   |     |      |   | • |       |    |    |    |    |    |    |       | 8.5  | 4.25 | 4   |
| FAMS      | 24   | 8     |   |     |      |   | • | •     | •  |    |    |    |    |    | 25    |      |      |     |
|           | 24   | 9.525 |   |     |      |   |   |       | •  |    |    |    |    |    | 23    |      |      |     |
|           |      | 10    |   |     |      |   |   |       | •  | •  | •  |    |    |    |       |      |      |     |
|           |      | 11    |   |     |      |   |   |       |    |    | •  |    |    |    |       |      |      |     |
|           |      | 12    |   |     |      |   |   |       |    |    | •  |    |    |    |       |      |      |     |
|           |      | 8     |   |     |      |   | • |       | •  | •  | •  |    |    |    |       |      |      |     |
|           | 20   | 10    |   |     |      |   |   |       | •  | •  | •  | •  |    |    | 20    | 10.2 | 51   | 4   |
|           | 23   | 11    |   |     |      |   |   |       |    |    | •  | •  |    |    | 50    | 10.2 | 0.1  | -   |
|           |      | 12    |   |     |      |   |   |       |    |    | •  | •  |    |    |       |      |      |     |
|           |      | 10    |   |     |      |   |   |       |    |    |    | •  |    |    |       |      |      |     |
|           |      | 11    |   |     |      |   |   |       |    |    |    | •  |    |    |       |      |      |     |
|           | 34   | 12    |   |     |      |   |   |       |    |    | •  | •  |    | •  | 35    | 12   | 6    | 5   |
|           |      | 14    |   |     |      |   |   |       |    |    |    | •  | •  | •  | 00    | 12   |      | 5   |
|           |      | 15    |   |     |      |   |   |       |    |    |    |    | •  | •  |       |      |      |     |
|           |      | 16    |   |     |      |   |   |       |    |    |    |    |    | •  |       |      |      |     |

#### \*Moment of inertial torque and weight calculated by maximum diameter.

| Specific  | ation | Allowable<br>Wrench | Allowa         | able Misa        | lignment      | Static<br>Torsional    | Max.                   | * Moment             | Screw<br>Fixing | * Weight |
|-----------|-------|---------------------|----------------|------------------|---------------|------------------------|------------------------|----------------------|-----------------|----------|
| Model No. | ØD    | Torque<br>(N⋅m)     | Angular<br>(°) | Parallel<br>(mm) | Axial<br>(mm) | Stiffness<br>(N·m/rad) | (r/min <sup>-1</sup> ) | (kg·m²)              | Torque<br>(N⋅m) | (g)      |
|           | 16    | 0.5                 |                |                  |               | 200                    | 24000                  | 2.8*10 <sup>-7</sup> | 0.7             | 7        |
|           | 19    | 1                   |                |                  | ±0.1          | 270                    | 20000                  | 6.2*10 <sup>-7</sup> | 0.7             | 10       |
| FAMS      | 24    | 1.5                 | 0.5            | 0.05             |               | 790                    | 16000                  | 2.0*10 <sup>-6</sup> | 47              | 22       |
|           | 29    | 2                   |                |                  |               | 1400                   | 13000                  | 5.2*10 <sup>-6</sup> | 1.7             | 40       |
|           | 34    | 3                   |                |                  |               | 2200                   | 11000                  | 1.1*10 <sup>-5</sup> | 4               | 64       |

100 PCS

#### Linear Motion Component O Couplings

Zero backlash.

Flexible | Spiral Beam Coupling





• The flexure allowed by the beam portion of the coupling is capable of accommodating

· Offset, deflection, shaft deviation are individual allowed value, so couple reasons of axial offset

· Rotation character of clockwise or anti-clockwise are exactly the same.

appearing at same time would reduce the unit allowable value.

\*Ød3=Ød2+0.5

angular, parallel, and axial misalignment.

· Free maintenance, oil-resist and anti-corrosiveness.

| Material       | Surface Finish | Accessories    |
|----------------|----------------|----------------|
| Aluminum Alloy | Anodized       | Clamping screw |



#### \*Moment of inertial torque and weight calculated by maximum diameter.

| Specific  | ation | Allowable       | Allowa         | wable Misalignment |               | Static<br>Torsional    | Max.                          | * Moment                           | Screw<br>Fixing | * Weight |  |
|-----------|-------|-----------------|----------------|--------------------|---------------|------------------------|-------------------------------|------------------------------------|-----------------|----------|--|
| Model No. | ØD    | Torque<br>(N·m) | Angular<br>(°) | Parallel<br>(mm)   | Axial<br>(mm) | Stiffness<br>(N⋅m/rad) | RPM<br>(r/min <sup>-1</sup> ) | of Inertia<br>(kg·m <sup>2</sup> ) | Torque<br>(N⋅m) | (g)      |  |
| -         | 16    | 0.5             |                |                    | ±0.1          | 200                    | 9500                          | 2.5*10 <sup>-7</sup>               | 0.5             | 7        |  |
|           | 19    | 1               |                |                    |               | 270                    | 8000                          | 5.8*10 <sup>-7</sup>               | 0.5             | 12       |  |
| FACS      | 24    | 1.5             | 0.5            | 0.05               |               | 790                    | 6300                          | 1.8*10 <sup>-6</sup>               | 4               | 23       |  |
| _         | 29    | 2               | ]              |                    |               | 1400                   | 5200                          | 4.7*10 <sup>-6</sup>               | I               | 41       |  |
|           | 34    | 3               | ]              |                    |               | 2200                   | 4400                          | 1.1*10 <sup>-5</sup>               | 1.5             | 62       |  |



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#### Linear Motion Component O Couplings

#### Flexible | Spiral Beam Coupling



#### \*Moment of inertial torque and weight calculated by maximum diameter.

| Specific   | ation    | Allowable<br>Wrench | Allowa | able Misalignment |         | Static<br>Torsional    | Max.                   | * Moment             | Screw<br>Fixing | ★ Weight |
|------------|----------|---------------------|--------|-------------------|---------|------------------------|------------------------|----------------------|-----------------|----------|
| Model No.  | ØD       | Torque<br>(N⋅m)     | (°)    | (mm)              | (mm)    | Stiffness<br>(N⋅m/rad) | (r/min <sup>-1</sup> ) | (kg·m²)              | Torque<br>(N⋅m) | (g)      |
|            | 8        | 0.1                 |        |                   | ±0.2    | 25                     | 48000                  | 1.2*10 <sup>-8</sup> | 0.3             | 1.4      |
|            | 12       | 0.4                 |        | 0.10              | ±0.3    | 45                     | 32000                  | 8.3*10 <sup>-8</sup> | 0.5             | 3.7      |
|            | 16       | 0.5                 | 2      | 0.10              | ±0.4    | 80                     | 24000                  | 3.3*10 <sup>-7</sup> | 0.7             | 8.1      |
| FAMML      | 20       | 1                   |        |                   |         | 170                    | 19000                  | 9.0*10 <sup>-7</sup> | 0.7             | 14       |
|            | 25       | 2                   | ]      | 0.15              |         | 380                    | 15000                  | 2.6*10 <sup>-6</sup> | 17              | 27       |
|            | 32       | 4                   |        | 0.15              | ±0.5    | 500                    | 12000                  | 9.6*10 <sup>-6</sup> |                 | 60       |
|            | 40       | 8                   |        | 0.20              |         | 600                    | 9600                   | 3.2*10 <sup>-5</sup> | 4               | 130      |
| Ordering E | Example: | FAMML2              | 5 10   | * 12              | 100 PCS |                        |                        |                      |                 |          |

 FAMML25
 10
 12
 100 PCS

 Model no.
 Ød1
 Ød2
 Q'ty

#### Linear Motion Component O Couplings

Flexible | Spiral Beam Coupling





\*Ød3=Ød2+0.5 \*When Ød1 < 4 and Ød2 > 5, there would be 3 set screws. When Ød1 and Ød2 both smaller than 4, there would be 2 set screws.

| Material       | Surface Finish | Accessories |
|----------------|----------------|-------------|
| Aluminum Alloy | Anodized       | Set screw   |

| Dimens    | ions | 0141 |   |   |   |   | Ø | d2 |   |    |    |    |    | 14   | NA                     | _   |
|-----------|------|------|---|---|---|---|---|----|---|----|----|----|----|------|------------------------|-----|
| Model No. | ØD   | Ødi  | 2 | 3 | 4 | 5 | 6 | 7  | 8 | 10 | 12 | 14 | L  |      | IVI<br>Rough<br>thread | F   |
|           | 8    | 2    | • |   |   |   |   |    |   |    |    |    | 10 | 31   | 2                      | 17  |
|           | 0    | 3    |   | • |   |   |   |    |   |    |    |    | 10 | 3.4  | 2                      | 1.7 |
|           | 12   | 4    |   |   | • | • |   |    |   |    |    |    | 1/ | 52   | 25                     | 25  |
|           | 12   | 5    |   |   |   | • |   |    |   |    |    |    | 14 | J.2  | 2.0                    | 2.5 |
|           | 16   | 5    |   |   |   | • | • |    |   |    |    |    | 10 | 6.9  |                        |     |
|           | 10   | 6    |   |   |   |   | • |    |   |    |    |    | 10 | 0.0  |                        |     |
|           | 20   | 5    |   |   |   |   | • | •  | • |    |    |    |    |      | 3                      | 3   |
|           |      | 6    |   |   |   |   | • |    |   |    |    |    | 20 | 7.65 |                        |     |
| FAMMS     |      | 8    |   |   |   |   |   |    |   |    |    |    |    | 1.00 |                        |     |
|           |      | 5    |   |   |   |   |   |    |   |    |    |    |    |      |                        |     |
| 1         |      | 6    |   |   |   |   |   |    | • | •  |    |    |    |      |                        |     |
|           | 25   | 6.35 |   |   |   |   |   |    |   |    |    |    | 25 | 9.6  |                        | 4   |
| 1         |      | 8    |   |   |   |   |   |    | • | •  |    |    | ]  |      |                        |     |
|           |      | 10   |   |   |   |   |   |    |   |    |    |    |    |      | 4                      |     |
|           |      | 8    |   |   |   |   |   |    | • | •  |    |    |    |      |                        |     |
|           | 32   | 10   |   |   |   |   |   |    |   |    |    |    | 32 | 12.6 |                        | 6   |
|           |      | 12   |   |   |   |   |   |    |   |    |    | •  |    |      |                        |     |

#### \*Moment of inertial torque and weight calculated by maximum diameter.

| Specific  | ation                       | Allowable<br>Wrench | Allowable      | Misalignment  | Static<br>Torsional    | Max.                   | * Moment              | Screw<br>Fixing | ★ Weight |
|-----------|-----------------------------|---------------------|----------------|---------------|------------------------|------------------------|-----------------------|-----------------|----------|
| Model No. | D. ØD Torque Ang<br>(N·m) ( |                     | Angular<br>(°) | Axiai<br>(mm) | Stiffness<br>(N·m/rad) | (r/min <sup>-1</sup> ) | of Inertia<br>(kg⋅m²) | Torque<br>(N·m) | (g)      |
|           | 8                           | 0.1                 |                | +0.1          | 24                     | 48000                  | 1.0*10 <sup>-8</sup>  | 0.3             | 1        |
|           | 12                          | 0.4                 |                | 10.1          | 80                     | 32000                  | 7.0*10 <sup>-8</sup>  | 0.5             | 3.1      |
| EANING    | 16                          | 0.5                 | 1              |               | 180                    | 24000                  | 2.8*10 <sup>-7</sup>  | 0.7             | 7.4      |
| FAIVIIVIS | 20                          | 1                   | 1              | ±0.2          | 200                    | 19000                  | 7.5*10 <sup>-7</sup>  | 0.7             | 12       |
|           | 25                          | 2                   |                |               | 780                    | 15000                  | 2.3*10 <sup>-6</sup>  | 17              | 24       |
|           | 32                          | 4                   |                |               | 1100                   | 12000                  | 8.0*10 <sup>-6</sup>  | 1.1             | 50       |

| Ordering Example: | FAMMS25   | 8   | * 10  | 100 PCS |
|-------------------|-----------|-----|-------|---------|
|                   | Model no. | Ød1 | Ød2 - | Q'ty    |

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#### Flexible | Spiral Beam Coupling



#### \*Moment of inertial torque and weight calculated by maximum diameter.

| Specific  | ation | Allowable<br>Wrench | Allowa         | ble Misalio      | gnment        | Static<br>Torsional  | Max.  | ★ Moment              | Screw<br>Fixing      | ★ Weight |    |
|-----------|-------|---------------------|----------------|------------------|---------------|--|-------|-----------------------|----------------------|----------|----|
| Model No. | ØD    | Torque<br>(N·m)     | Angular<br>(°) | Parallel<br>(mm) | Axial<br>(mm) | Axial Stiffness RPM<br>(mm) (N·m/rad) (r/min <sup>-1</sup> ) |       | of Inertia<br>(kg⋅m²) | Torque<br>(N⋅m)      | (g)      |    |
|           | 8     | 0.2                 |                |                  | ±0.2          | 50   | 48000 | 3.1*10 <sup>-8</sup>  | 0.3                  | 3        |    |
|           | 12    | 0.3                 |                | 0.10             | ±0.3          | 64   | 32000 | 2.1*10 <sup>-7</sup>  | 0.5                  | 9.3      |    |
|           | 16    | 0.5                 |                | 0.10             |               | 85   | 24000 | 8.4*10 <sup>-7</sup>  | 0.7                  | 21       |    |
| FSMML     | 20    | 1                   | 2              |                  |               | 250  | 19000 | 2.4*10 <sup>-6</sup>  | 0.7                  | 38       |    |
|           | 25    | 2                   |                | 0.15 ±0.4        | 0.15          | ±0.4   | 330   | 15000                 | 6.8*10 <sup>-6</sup> | 17       | 71 |
|           | 32    | 3.5                 | ]              |                  | +0.5          | 850  | 12000 | 2.6*10 <sup>-5</sup>  | 1.7                  | 160      |    |
|           | 40    | 8                   | 0.20           |                  | ±0.0          | 1000   | 9600  | 9.7*10 <sup>-5</sup>  | 4                    | 350      |    |
|           |       | 501414              |                |                  |               |  |       |                       |                      |          |    |

FSMML25 8 10 100 PCS ering Examp Model no. Ød1 Ød2 Q'ty

#### Linear Motion Component O Couplings

Product Specification

Flexible | Spiral Beam Coupling





\*Ød3=Ød2+0.5 \*When Ød1 < 4 and Ød2 > 5, there would be 3 set screws. When Ød1 and Ød2 both smaller than 4, there would be 2 set screws.

| Material | Accessories |
|----------|-------------|
| SUS303   | Set screw   |

| Dimens    | ions | Ød1  |   |   |   |   | Ø | d2 |   |    |    |    |    | 14   | М               | E   |
|-----------|------|------|---|---|---|---|---|----|---|----|----|----|----|------|-----------------|-----|
| Model No. | ØD   | bui  | 2 | 3 | 4 | 5 | 6 | 7  | 8 | 10 | 12 | 14 |    |      | Rough<br>thread | Г   |
|           | 8    | 2    | • |   |   |   |   |    |   |    |    |    | 10 | 34   | 2               | 17  |
|           | Ŭ    | 3    |   |   |   |   |   |    |   |    |    |    | 10 | 0.1  | -               |     |
|           | 12   | 4    |   |   | • | • |   |    |   |    |    |    | 14 | 52   | 25              | 2.5 |
|           |      | 5    |   |   |   |   |   |    |   |    |    |    |    | 0.2  | 2.0             | 2.0 |
|           | 16   | 5    |   |   |   |   |   |    |   |    |    |    | 18 | 6.8  |                 |     |
|           |      | 6    |   |   |   |   |   |    |   |    |    |    | 10 | 0.0  |                 |     |
|           |      | 5    |   |   |   |   | • | •  | • |    |    |    |    |      | 3               | 3   |
| FSMMS     | 20   | 6    |   |   |   |   | • | •  | • |    |    |    | 20 | 7.65 |                 |     |
|           |      | 8    |   |   |   |   |   |    | • |    |    |    |    |      |                 |     |
|           |      | 5    |   |   |   |   | • |    |   |    |    |    |    |      |                 |     |
|           |      | 6    |   |   |   |   | • |    | • | •  |    |    |    |      |                 |     |
|           | 25   | 6.35 |   |   |   |   |   |    |   |    |    |    | 25 | 9.6  |                 | 4   |
|           |      | 8    |   |   |   |   |   |    | • | •  |    |    |    |      | 4               |     |
|           |      | 10   |   |   |   |   |   |    |   |    |    |    |    |      | - T             |     |
|           |      | 8    |   |   |   |   |   |    |   |    |    |    |    |      |                 |     |
|           | 32   | 10   |   |   |   |   |   |    |   |    |    |    | 32 | 12.6 |                 | 6   |
|           |      | 12   |   |   |   |   |   |    |   |    | •  | •  |    |      |                 |     |

#### \*Moment of inertial torque and weight calculated by maximum diameter.

| Specific<br>Model No. | øD     | Allowable<br>Wrench<br>Torque<br>(N·m) | Allowable M<br>Angular<br>(°) | lisalignment<br>Axial<br>(mm) | Static<br>Torsional<br>Stiffness<br>(N·m/rad) | Max.<br>RPM<br>(r/min <sup>-1</sup> ) | ★ Moment<br>of Inertia<br>(kg·m <sup>2</sup> ) | Screw<br>Fixing<br>Torque<br>(N·m) | ★ Weight<br>(g) |
|-----------------------|--------|--|-------------------------------|-------------------------------|---|---------------------------------------|--|------------------------------------|-----------------|
|                       | 8      | 0.2                                    |                               |                               | 49  | 48000                                 | 2.4*10 <sup>-8</sup>                           | 0.3                                | 2.7             |
|                       | 12     | 0.3                                    |                               | .0.1                          | 140   | 32000                                 | 1.8*10 <sup>-7</sup>                           | 0.5                                | 7.8             |
| FSMMS                 | 16     | 0.5                                    | 1                             | ±0.1                          | 240   | 24000                                 | 7.2*10 <sup>-7</sup>                           | 0.7                                | 18              |
|                       | S 20 1 | ] '                                    |                               | 330                           | 19000   | 2.0*10 <sup>-6</sup>                  | 0.7  | 32                                 |                 |
|                       | 25 2   |  | +0.2                          | 720                           | 15000   | 6.1*10 <sup>-6</sup>                  | 17   | 63                                 |                 |
|                       | 32     | 3.5                                    |                               |                               | 1300  | 12000                                 | 2.1*10 <sup>-5</sup>                           |                                    | 130             |

| Ordering Example: | FSMMS25   | 8   | 10  | 100 PCS |
|-------------------|-----------|-----|-----|---------|
|                   | Model no. | Ød1 | Ød2 | Q'ty    |

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FACML

**Product Specification** 

#### Linear Motion Component O Couplings

Ød1H8

#### Flexible | Spiral Beam Coupling

. The flexure allowed by the beam portion of the couping is capable of accommodating angular parallel, and axial misalignment. Rotation character of clockwise or anti-clockwise are exactly the same. · Free maintenance, oil-resist and anti-corrosiveness. · Offset of angular, parallel, or axial deviation are individual allowed value, so couple reasons of axial

offset appearing at same time would reduce the unit allowable value.





Ma Alumir

\*Ød3=Ød2+0.5

| iterial  | Surface Finish | Accessories    |
|----------|----------------|----------------|
| um Alloy | Anodized       | Clamping screw |

| Dimens    | sions |       |   |   |   |          |   | Ø | ðd2   |    |    |    |    |    |    |      |     |                      |     |       |
|-----------|-------|-------|---|---|---|----------|---|---|-------|----|----|----|----|----|----|------|-----|----------------------|-----|-------|
| Model No. | ØD    | Ød1   | 4 | 5 | 6 | 6.35     | 7 | 8 | 9.525 | 10 | 11 | 12 | 14 | 15 | 16 | L    | L1  | M<br>Rough<br>thread | A   | F     |
|           | 12    | 4     | • | • |   |          |   |   |       |    |    |    |    |    |    | 18.5 | 5   | 2                    | 4   | 2.5   |
|           |       | 5     |   |   |   |          |   |   |       |    |    |    |    |    |    |      |     | -                    |     | 2.0   |
|           | 16    | 5     |   | • | • |          |   |   |       |    |    |    |    |    |    | 23   | 6.5 |                      | 5   | 3.25  |
|           | 10    | 6     |   |   | • |          |   |   |       |    |    |    |    |    |    | -    |     | -                    |     |       |
|           |       | 5     |   |   | • | •        | • | • |       |    |    |    |    |    |    | -    |     | 2.5                  |     |       |
|           | 20    | 6     |   |   | • | •        | • | • |       |    |    |    |    |    |    | 26   | 7.5 |                      | 6.5 | 3.75  |
|           | 20    | 6.35  |   |   |   | <u> </u> |   |   |       |    |    |    |    |    |    | -    |     |                      |     |       |
| -         |       | 8     |   |   |   |          |   |   |       |    |    |    |    |    |    |      |     |                      | 9   | 4.25  |
|           |       | 5     |   |   |   |          |   |   |       |    |    |    |    |    |    | -    |     |                      |     |       |
|           | 25    | 6     |   |   |   | •        |   |   |       | •  |    |    |    |    |    | -    |     |                      |     |       |
|           |       | 6.35  |   |   |   | L        |   | • |       | •  |    |    |    |    |    | 21   | 9.5 | 2                    |     |       |
| FACML     |       | 8     |   |   |   |          |   | • | •     | •  |    |    |    |    |    | 31   | 8.5 | 3                    |     |       |
|           |       | 9.525 |   |   |   |          |   |   |       |    |    |    |    |    |    | 1    |     |                      |     |       |
|           |       | 10    |   |   |   |          |   |   |       | •  |    |    |    |    |    |      |     |                      |     |       |
|           |       | 8     |   |   |   |          |   |   | •     |    |    | •  |    |    |    |      |     |                      |     |       |
|           | 32    | 9.525 |   |   |   |          |   |   |       |    |    | •  |    |    |    | 41   | 12  | 4                    | 11  | 6     |
|           | 02    | 10    |   |   |   |          |   |   |       |    | •  | •  |    |    |    |      | 1.2 | ·                    |     | ľ     |
|           |       | 12    |   |   |   |          |   |   |       |    |    | •  |    |    |    |      |     |                      |     |       |
|           |       | 8     |   |   |   |          |   | • |       | •  |    |    |    |    |    |      |     |                      |     |       |
|           |       | 10    |   |   |   |          |   |   |       | •  |    |    |    |    |    |      |     |                      |     |       |
|           | 40    | 12    |   |   |   |          |   |   |       |    |    | •  | •  |    |    | 56   | 17  | 6                    | 14  | 0 5   |
|           | -10   | 14    |   |   |   |          |   |   |       |    |    |    | ٠  |    | •  | 50   | 17  | 5                    | 14  | 4 8.5 |
|           |       | 15    |   |   |   |          |   |   |       |    |    |    |    | ٠  |    |      |     |                      |     |       |
|           |       | 16    |   |   |   |          |   |   |       |    |    |    |    |    | •  | 1    |     |                      |     |       |

#### \*Moment of inertial torque and weight calculated by maximum diameter.

| Specific  | cation | Allowable<br>Wrench | Allowa         | ble Misalio      | gnment        | Static<br>Torsional    | Max.                          | * Moment              | Screw<br>Fixing | ★ Weight |
|-----------|--------|---------------------|----------------|------------------|---------------|------------------------|-------------------------------|-----------------------|-----------------|----------|
| Model No. | ØD     | Torque<br>(N⋅m)     | Angular<br>(°) | Parallel<br>(mm) | Axial<br>(mm) | Stiffness<br>(N·m/rad) | RPM<br>(r/min <sup>-1</sup> ) | of Inertia<br>(kg⋅m²) | Torque<br>(N·m) | (g)      |
|           | 12     | 0.4                 |                |                  | ±0.3          | 45                     | 12000                         | 7.8*10 -8             | 0.5             | 3.6      |
|           | 16     | 0.5                 |                | 0.10             | .0.4          | 80                     | 9500                          | 3.4*10 <sup>-7</sup>  | 4               | 9.2      |
| EACM      | 20     | 1                   | 2              |                  | ±0.4          | 170                    | 7600                          | 9.1*10 <sup>-7</sup>  |                 | 16       |
| FACIVIL   | 25     | 2                   | 2              |                  |               | 380                    | 6100                          | 2.6*10 <sup>-6</sup>  | 1.5             | 28       |
|           | 32     | 4                   | ]              | 0.15             | ±0.5          | 500                    | 4800                          | 9.7*10 <sup>-6</sup>  | 2.5             | 64       |
|           | 40     | 8                   |                | 0.20             |               | 600                    | 3800                          | 3.3*10 -5             | 4               | 140      |

| Example: | FACML32 |     | 10    |    | 12  |   | 1 |
|----------|---------|-----|-------|----|-----|---|---|
| Example. | Madalaa | 1.1 | CX-14 | 14 | 040 | - |   |

Model no. Ød1 Ød2 Q'ty

#### Linear Motion Component O Couplings

SF TECHNOLOGY CO..LTD

Flexible | Spiral Beam Coupling





\*Ød3=Ød2+0.5

| Material       | Surface Finish | Accessories    |
|----------------|----------------|----------------|
| Aluminum Alloy | Anodized       | Clamping screw |

| Dimens    | ions | Ød1 |   |   |   |   |   | м  | •  | -  |    |      |                        |     |     |
|-----------|------|-----|---|---|---|---|---|----|----|----|----|------|------------------------|-----|-----|
| Model No. | ØD   | bui | 4 | 5 | 6 | 7 | 8 | 10 | 12 | 14 | L  | LI   | IVI<br>Rough<br>thread | A   | Г   |
|           | 10   | 4   |   | • |   |   |   |    |    |    | 14 | 5.0  | 2                      | 4   | 26  |
|           | 12   | 5   |   | • |   |   |   |    |    |    | 14 | 5.2  | 2                      | 4   | 2.0 |
|           | 40   | 5   |   | • |   |   |   |    |    |    | 10 | 6.0  |                        | F   | 2.4 |
|           | 16   | 6   |   |   | • |   |   |    |    |    | 10 | 0.0  |                        | 5   | 5.4 |
|           | 20   | 5   |   |   |   |   | • |    |    |    |    |      | 2.5                    | 6.5 |     |
|           |      | 6   |   |   | • | • | • |    |    |    | 20 | 7.65 |                        |     | 3.8 |
| FACMS     |      | 8   |   |   |   |   | • |    |    |    |    |      |                        |     |     |
|           |      | 5   |   |   | • |   |   |    |    |    |    |      |                        |     |     |
|           | 05   | 6   |   |   | • |   | • | •  |    |    | 05 |      |                        |     | 4.0 |
|           | 25   | 8   |   |   |   |   | • | •  |    |    | 25 | 9.6  | 3                      | 9   | 4.8 |
|           |      | 10  |   |   |   |   |   | •  |    |    |    |      |                        |     |     |
|           |      | 8   |   |   |   |   | • | •  |    |    |    |      |                        |     |     |
|           | 32   | 10  |   |   |   |   |   | •  | •  | •  | 32 | 12.6 | 4                      | 11  | 6.3 |
|           |      | 12  |   |   |   |   |   |    | •  | •  |    |      |                        |     |     |

| Specific  | cation | Allowable                               | Allowable N    | lisalignment  | Static                 | Max.                          | ★ Moment              | Screw           | ★ Weight |
|-----------|--------|---|----------------|---------------|------------------------|-------------------------------|-----------------------|-----------------|----------|
| Model No. | ØD     | Torque<br>(N·m)                         | Angular<br>(°) | Axial<br>(mm) | Stiffness<br>(N·m/rad) | RPM<br>(r/min <sup>-1</sup> ) | of Inertia<br>(kg⋅m²) | Torque<br>(N·m) | (g)      |
|           | 12     | 12         0.4           16         0.5 |                | ±0.1          | 80                     | 12000                         | 6.4*10 <sup>-8</sup>  | 0.5             | 3        |
|           | 16     |   |                |               | 180                    | 9500                          | 2.9*10 <sup>-7</sup>  |                 | 8        |
| FACMS     | 20     | 1                                       | 1              |               | 200                    | 7600                          | 7.5*10 <sup>-7</sup>  | 1               | 13       |
|           | 25     | 2                                       |                | ±0.2          | 780                    | 6100                          | 2.3*10 <sup>-6</sup>  | 1.5             | 25       |
|           | 32     | 4                                       |                |               | 1100                   | 4800                          | 8.1*10 <sup>-6</sup>  | 2.5             | 53       |

8 10 Model no. Ød1 Ød2 Q'ty

**FSCML** 

**Product Specification** 

#### Linear Motion Component O Couplings

and axial misalignment.

#### Flexible | Spiral Beam Coupling

 Rotation character of clockwise or anti-clockwise are exactly the same. Free maintenance, oil-resist and anti-corrosiveness. · Offset of angular, parallel, or axial deviation are individual allowed value, so couple reasons of axial offset appearing at same time would reduce the unit allowable value. 203 -Fi-Iød1H8  $\bigcirc$ ⊚ \*Ød3=Ød2+0.5 \*1pc clamping screw in ØD12~DØ32 of stainless steel type. Material Accessories Clamping screw SUS303 Dimensions Ød2 Ød1 L1 Μ А F Model No. ØD 8 9.525 10 11 12 14 15 4 6 6.35 7 16 5 4 • 12 18.5 5 2 4 2.5 5 . 5 • 16 23 6.5 5 3.25 6 • 5 • • • • 2.5 6 • • • • 20 26 7.5 6.5 3.75 6.35 8 5 • 6 • 6.35 9 25 31 8.5 3 4.25 FSCML 8 ٠ • 9.525 10 • 8 • • • • 9.525 • • 32 41 12 4 11 6 10 • • • • 12 • • 8 • ٠ 10 12 • 40 56 17 5 14 8.5 14 ٠ • 15 • 16 ٠

#### \*Moment of inertial torque and weight calculated by maximum diameter.

. The flexure allowed by the beam portion of the couping is capable of accommodating angular, parallel,

| Specific  | Specification Allowable Allowable Misalignm |   | gnment | Static<br>Torsional    | Max.                   | * Moment                           | Screw<br>Fixing | ★ Weight             |     |     |
|-----------|---|---|--------|------------------------|------------------------|------------------------------------|-----------------|----------------------|-----|-----|
| Model No. | ØD  | D Torque Angular Parallel Axial (N·m) (°) (mm) (mm) |        | Stiffness<br>(N·m/rad) | (r/min <sup>-1</sup> ) | of Inertia<br>(kg·m <sup>2</sup> ) | Torque<br>(N⋅m) | (g)                  |     |     |
|           | 12  | 0.3   |        |                        | ±0.2                   | 64                                 | 12000           | 2.2*10 <sup>-7</sup> | 0.5 | 10  |
|           | 16  | 0.5   | ]      | 0.10                   | ±0.3                   | 85                                 | 9500            | 9.0*10 <sup>-7</sup> | 1   | 25  |
| ESCM      | 20  | 1   | 2      |                        |                        | 250                                | 7600            | 2.5*10 <sup>-6</sup> |     | 43  |
| FSCIVIL   | 25  | 2   | 2      | 0.15                   | ±0.4                   | 330                                | 6100            | 7.1*10 <sup>-6</sup> | 1.5 | 78  |
|           | 32  | 3.5   |        | 0.15                   | +0.5                   | 850                                | 4800            | 2.7*10 <sup>-5</sup> | 2.5 | 170 |
|           | 40  | 8   | 0.20   |                        | ±0.5                   | 1000                               | 3800            | 9.0*10 <sup>-5</sup> | 4   | 370 |

#### Linear Motion Component O Couplings

. Zero backlash.

and axial misalignment.

· No accommodating to parallel misalignment.

Free maintenance, oil-resist and anti-corrosiveness.
 FSCMS can't allow axial deviation caused by offset

. High wrench torque rigidity and sensitivity.

Product Specification

Flexible | Spiral Beam Coupling

# FSCMS



· Offset of angular, parallel, or axial deviation are individual allowed value, so couple reasons of axial

• The flexure allowed by the beam portion of the couping is capable of accommodating angular,

· Rotation character of clockwise or anti-clockwise are exactly the same.

\*Ød3=Ød2+0.5 \*1pc clamping screw in ØD12~DØ32 of stainless steel type.

| Material | Accessories    |
|----------|----------------|
| SUS303   | Clamping screw |

| Dimens    | sions | Ød1 | Ød1 Ød2 |   |   |   |   |    |    |    | -  |      |                      |     |     |
|-----------|-------|-----|---------|---|---|---|---|----|----|----|----|------|----------------------|-----|-----|
| Model No. | ØD    |     | 4       | 5 | 6 | 7 | 8 | 10 | 12 | 14 | L  | L1   | M<br>Rough<br>thread | A   | F   |
|           | 10    | 4   | •       | • |   |   |   |    |    |    |    | 5.0  | -                    |     | 0.0 |
|           | 12    | 5   |         |   |   |   |   |    |    |    | 14 | 5.2  | 2                    | 4   | 2.6 |
|           | 16    | 5   |         | • | • |   |   |    |    |    | 10 | 6.0  |                      | F   | 2.4 |
|           | 10    | 6   |         |   | • |   |   |    |    |    | 18 | 6.8  |                      | 5   | 3.4 |
|           |       | 5   |         |   | • | • | • |    |    |    |    |      | 2.5                  |     |     |
|           | 20    | 6   |         |   | • | • | • |    |    |    | 20 | 7.65 |                      | 6.5 | 3.8 |
| FSCMS     |       | 8   |         |   |   |   | • |    |    |    |    |      |                      |     |     |
|           |       | 5   |         |   | • |   |   |    |    |    |    |      |                      |     |     |
|           | 25    | 6   |         |   | • |   | • | •  |    |    | 25 | 9.6  | 3                    | q   | 4.8 |
|           | 25    | 8   |         |   |   |   | • | •  |    |    | 20 | 0.0  | Ŭ                    |     | 4.0 |
|           |       | 10  |         |   |   |   |   | •  |    |    |    |      |                      |     |     |
|           |       | 8   |         |   |   |   | • | •  |    |    |    |      |                      |     |     |
|           | 32    | 10  |         |   |   |   |   | •  | •  | •  | 32 | 12.6 | 12.6 4               |     | 6.3 |
|           |       | 12  |         |   |   |   |   |    | •  | •  |    |      |                      |     |     |

| Specific  | cation | Allowable<br>Wrench | Allowable M | isalignment | Static<br>Torsional | Max.                   | * Moment             | Screw<br>Fixing  | ★ Weight |
|-----------|--------|---------------------|-------------|-------------|---------------------|------------------------|----------------------|------------------|----------|
| Model No. | ØD     | Torque<br>(N⋅m)     | (°)         | (mm)        | (N·m/rad)           | (r/min <sup>-1</sup> ) | (kg·m²)              | l orque<br>(N⋅m) | (g)      |
|           | 12     | 0.3                 |             | +0.1        | 140                 | 12000                  | 1.8*10 <sup>-7</sup> | 0.5              | 8.5      |
|           | 16     | 0.5                 | 0.5         |             | 240                 | 9500                   | 7.8*10 <sup>-7</sup> | 1                | 21       |
| FSCMS     | 20     | 1                   | 1           |             | 330                 | 7600                   | 2.1*10 <sup>-6</sup> | I                | 36       |
|           | 25     | 2                   |             | ±0.2        | 720                 | 6100                   | 6.3*10 <sup>-6</sup> | 1.5              | 69       |
|           | 32     | 3.5                 |             |             | 1300                | 4800                   | 2.2*10 <sup>-5</sup> | 2.5              | 150      |

| Ordering Example: | FSCMS25   | - 6   | 8   | 100 PCS |
|-------------------|-----------|-------|-----|---------|
|                   | Model no. | Ød1 * | Ød2 | Q'ty    |

FACCL

**Product Specification** 

#### Flexible | Disk Coupling

High wrench torque load, high wrench torque rigidity capacity and excellent sensibility.
 Zero backlash.
 The flexure allowed by the stainless steel disk portion of the couping is capable of accommodating angular, parallel, and axial misalignment.
 Clockwise character is exactly the same as anti-clockwise one.
 Free maintenance, oil-resist and anti-corrosiveness.

Free maintenance, oil-resist and anti-corrosiveness.
 Teethless screw to lock disks.

 Offset of angular, parallel, or axial deviation are individual allowed value, so couple reasons of axial offset appearing at same time would reduce the unit allowable value.



|  |  |  | 00ZH8 |
|--|--|--|-------|
|--|--|--|-------|

| Component  | Material       | Surface Finish | Accessories    |
|------------|----------------|----------------|----------------|
| Main frame | Aluminum Alloy | Anodized       | Clamping scrow |
| Disk       | SUS303         | _              | Clamping Screw |

| Dimens    | sions |   |   | $\emptyset$ d1& $\emptyset$ d2 selection * $\emptyset$ d1 $\leq \emptyset$ d2 |   |   |    |    |    |    |    |    |    |    |    |    |    | l .  | 11   | Δ    | F   | Clampi | ng screv            |
|-----------|-------|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|------|------|------|-----|--------|---------------------|
| Model No. | ØD    | 4 | 5 | 6   | 8 | 9 | 10 | 11 | 12 | 14 | 15 | 17 | 19 | 20 | 22 | 24 | 25 | L    | LI   | A    | F   | М      | Lock torqu<br>(N·m) |
|           | 21    | • | • | •   | • | • |    |    |    |    |    |    |    |    |    |    |    | 24.5 | 7    | 7    | 3.5 | M2.5   | 1.2                 |
|           | 28    |   | • | •   | • | • | •  |    |    |    |    |    |    |    |    |    |    | 32   | 9    | 9.5  | 4   | M3     | 1.5                 |
| FACCL     | 34    |   |   | •   | • | • | •  | •  | •  | •  |    |    |    |    |    |    |    | 35   | 9.8  | 12   | 5   | M3     | 1.5                 |
|           | 46    |   |   |   | • | • | •  | •  | •  | •  | •  | •  | •  |    |    |    |    | 44   | 12.6 | 16.5 | 6   | M4     | 3.5                 |
|           | 55    |   |   |   |   |   |    |    | •  | •  | •  | •  | •  | •  | •  | •  | •  | 55   | 16   | 20.5 | 7   | M5     | 6                   |

#### \*Moment of inertial torque and weight calculated by maximum diameter.

| Specific  | cation | Allowable<br>Wrench | Allowa         | ble Misali       | gnment        | Static<br>Torsional    | Max.                   | * Moment              | *Weight |
|-----------|--------|---------------------|----------------|------------------|---------------|------------------------|------------------------|-----------------------|---------|
| Model No. | ØD     | Torque<br>(N⋅m)     | Angular<br>(°) | Parallel<br>(mm) | Axial<br>(mm) | Stiffness<br>(N⋅m/rad) | (r/min <sup>-1</sup> ) | of Inertia<br>(kg·m²) | (g)     |
|           | 21     | 1.2                 | 1.0            | 0.10             |               | 1000                   |                        | 1.11*10 <sup>-6</sup> | 17      |
|           | 28     | 1.6                 | 1.2            | 0.15             | ±0.20         | 1300                   |                        | 4.68*10 <sup>-6</sup> | 42      |
| FACCL     | 34     | 4                   |                | 0.20             |               | 2800                   | 10000                  | 1.10*10 -5            | 65      |
|           | 46     | 10                  | 1.5            | 0.25             | .0.20         | 6200                   |                        | 4.70*10 <sup>-5</sup> | 151     |
|           | 55     | 25                  |                | 0.25             | ±0.30         | 12000                  |                        | 1.19*10 <sup>-4</sup> | 260     |

### ample: FACCL46 10 12 100 PCS

Model no. Ød1 Ød2 Q'ty

#### Linear Motion Component O Couplings

Flexible | Disk Coupling

FACCS







| Component  | Material       | Surface Finish | Accessories    |
|------------|----------------|----------------|----------------|
| Main frame | Aluminum Alloy | Anodized       | Clamping scrow |
| Disk       | SUS303         | _              | Clamping Sciew |

| Dimens    | ions |   |   |   | Ç | Ød18 | &Ød2 | 2 sele | ectior | י ו | Ød1 | ≦ Ø | íd2 |    |    |    |    | 1    | 14   |      | _   | Clampir | ng screw             |
|-----------|------|---|---|---|---|------|------|--------|--------|-----|-----|-----|-----|----|----|----|----|------|------|------|-----|---------|----------------------|
| Model No. | ØD   | 4 | 5 | 6 | 8 | 9    | 10   | 11     | 12     | 14  | 15  | 17  | 19  | 20 | 22 | 24 | 25 | L    | LI   | A    | F   | М       | Lock torque<br>(N·m) |
|           | 21   | • | • | • | • | •    |      |        |        |     |     |     |     |    |    |    |    | 16.7 | 7    | 7    | 3.5 | M2.5    | 1.2                  |
|           | 28   |   | • | • | • | •    | •    |        |        |     |     |     |     |    |    |    |    | 21   | 9    | 9.5  | 4   | M3      | 1.5                  |
| FACCS     | 34   |   |   | • | • | •    | •    | •      | •      | •   |     |     |     |    |    |    |    | 23.3 | 9.8  | 12   | 5   | M3      | 1.5                  |
|           | 46   |   |   |   | • | •    | •    | •      | •      | •   | •   | •   | •   |    |    |    |    | 29.8 | 12.6 | 16.5 | 6   | M4      | 3.5                  |
|           | 55   |   |   |   |   |      |      |        | •      | •   | •   | •   | •   | •  | •  | •  | •  | 37.2 | 16   | 20.5 | 7   | M5      | 6                    |

#### \*Moment of inertial torque and weight calculated by maximum diameter.

| Specific  | ation | Allowable       | Allowable      | Misalignment  | Static<br>Torsional    | Max.                          | ★ Moment              | ★ Weight |
|-----------|-------|-----------------|----------------|---------------|------------------------|-------------------------------|-----------------------|----------|
| Model No. | ØD    | Torque<br>(N·m) | Angular<br>(°) | Axial<br>(mm) | Stiffness<br>(N·m/rad) | RPM<br>(r/min <sup>-1</sup> ) | of Inertia<br>(kg⋅m²) | (g)      |
|           | 21    | 1.2             | 1.0            |               | 1500                   |                               | 7.90*10 <sup>-7</sup> | 12       |
|           | 28    | 1.6             | 1.2            | ±0.10         | 1800                   |                               | 3.24*10 <sup>-6</sup> | 30       |
| FACCS     | 34    | 4               |                |               | 3600                   | 10000                         | 7.60*10 <sup>-6</sup> | 45       |
|           | 46    | 10              | 1.5            | +0.15         | 10000                  |                               | 3.23*10 ⁻⁵            | 105      |
|           | 55    | 25              |                | ±0.15         | 20000                  |                               | 8.19*10 -5            | 180      |

| Ordering Example: | FACCS34   |   | 10  |   | 14  |   | 100 PCS |
|-------------------|-----------|---|-----|---|-----|---|---------|
|                   | Model no. | - | Ød1 | ľ | Ød2 | - | Q'ty    |

#### Flexible | Disk Coupling

Product Specification



FACHL

- · High wrench torque load, high wrench torque rigidity capacity and excellent sensibility. Zero backlash.
- The flexure allowed by the stainless steel disks portion of the couping is capable of accommodating angular, parallel, and axial misalignment.
- Clockwise character is exactly the same as anti-clockwise one.
- Free maintenance, oil-resist and anti-corrosiveness. · Offset of angular, parallel, or axial deviation are individual allowed value, so couple reasons of axial
- offset appearing at same time would reduce the unit allowable value.





| Linear | Motion    | Component  | C | Couplinas |
|--------|-----------|------------|---|-----------|
| Linour | 101011011 | Componioni |   | Coupinigo |

Flexible | Disk Coupling

# FACHS







| Component  | Material       | Surface Finish | Accessories    |
|------------|----------------|----------------|----------------|
| Main frame | Aluminum Alloy | Anodized       | Clamping scrow |
| Disk       | SUS301         | _              | Clamping Sciew |

| Dimens    | ions |   |     |   |   | Ø    | ðd1a | \$Ø | d2 s  | elec | tion | *  | Ød1 | ≦  | Øď | 2  |    |    |    |    |    |    |    | 14   | -   | ^   | Clampi | ng screw             |
|-----------|------|---|-----|---|---|------|------|-----|-------|------|------|----|-----|----|----|----|----|----|----|----|----|----|----|------|-----|-----|--------|----------------------|
| Model No. | ØD   | 4 | 4.5 | 5 | 6 | 6.35 | 7    | 8   | 9.525 | 10   | 11   | 12 | 14  | 15 | 16 | 17 | 18 | 19 | 20 | 22 | 24 | 25 | L  | 20 8 | F   | A   | М      | Lock torque<br>(N·m) |
|           | 19   | • | •   | • | • | •    | •    | •   |       |      |      |    |     |    |    |    |    |    |    |    |    |    | 20 | 8    | 2.5 | 6.5 | 2      | 0.5                  |
|           | 25   |   |     |   | • | •    | •    | •   | •     | •    | •    | •  |     |    |    |    |    |    |    |    |    |    | 24 | 10   | 3.5 | 9   | 2.5    | 1                    |
| FACHS     | 32   |   |     |   |   |      |      | •   | •     | •    | •    | •  | •   | •  |    |    |    |    |    |    |    |    | 29 | 12   | 4   | 11  | 3      | 1.5                  |
|           | 40   |   |     |   |   |      |      | •   | •     | •    | •    | •  | •   | •  | •  | •  | •  | •  | •  |    |    |    | 33 | 14   | 5   | 15  | 4      | 2.5                  |
|           | 50   |   |     |   |   |      |      |     |       |      |      |    | •   | ٠  | •  | •  | •  | ٠  | ٠  | •  | •  | •  | 42 | 18   | 6   | 18  | 5      | 7                    |

#### \*Moment of inertial torque and weight calculated by maximum diameter.

| Specific  | cation | Allowable       | Allowable      | Misalignment  | Static<br>Torsional    | Max.                          | ★ Moment                           | ★ Weight |
|-----------|--------|-----------------|----------------|---------------|------------------------|-------------------------------|------------------------------------|----------|
| Model No. | ØD     | Torque<br>(N·m) | Angular<br>(°) | Axial<br>(mm) | Stiffness<br>(N·m/rad) | RPM<br>(r/min <sup>-1</sup> ) | of Inertia<br>(kg·m <sup>2</sup> ) | (g)      |
|           | 19     | 0.7             |                |               | 280                    | 10000                         | 6.3*10 <sup>-7</sup>               | 9        |
|           | 25     | 1               |                |               | 630                    | 8000                          | 2.1*10 -6                          | 19       |
| FACHS     | 32     | 2.5             | 0.7            | ±0.2          | 1600                   | 6000                          | 7.2*10 -6                          | 41       |
|           | 40     | 3.5             |                |               | 2600                   | 5000                          | 1.3*10 <sup>-5</sup>               | 68       |
|           | 50     | 9               |                |               | 3100                   | 4000                          | 6.1*10 <sup>-5</sup>               | 140      |

| Ordering Example: | FACHS40   | 10  | * 12 | 100 PCS |
|-------------------|-----------|-----|------|---------|
|                   | Model no. | Ød1 | Ød2  | Q'ty    |

SF TECHNOLOGY CO..LTD

Component Material Surface Finish Accessories Main frame Aluminum Alloy Anodized Clamping screw Disk SUS301 \_

| Dimens    | sions |   |     |   |   |      | Ød | 1&0 | Ød2   | sel | ecti | on | *0 | ðd1 | ≦  | Øď | 2  |    |    |    |    |    |    | 14 | 42   | A E | E   | Clampi | ng screv            |
|-----------|-------|---|-----|---|---|------|----|-----|-------|-----|------|----|----|-----|----|----|----|----|----|----|----|----|----|----|------|-----|-----|--------|---------------------|
| Model No. | ØD    | 4 | 4.5 | 5 | 6 | 6.35 | 7  | 8   | 9.525 | 10  | 11   | 12 | 14 | 15  | 16 | 17 | 18 | 19 | 20 | 22 | 24 | 25 |    | LI | us   | A   |     | М      | Lock torqu<br>(N·m) |
|           | 19    | • | •   | • | • | •    | •  | •   |       |     |      |    |    |     |    |    |    |    |    |    |    |    | 27 | 8  | 8.5  | 6.5 | 2.5 | 2      | 0.5                 |
|           | 25    |   |     |   | • | •    | •  | •   | •     | •   | •    | •  |    |     |    |    |    |    |    |    |    |    | 31 | 10 | 12.5 | 9   | 3.5 | 2.5    | 1                   |
| FACHL     | 32    |   |     |   |   |      |    | •   | •     | •   | •    | •  | •  | •   |    |    |    |    |    |    |    |    | 40 | 12 | 16   | 11  | 4   | 3      | 1.5                 |
|           | 40    |   |     |   |   |      |    | •   | •     | •   | •    | •  | •  | •   | •  | •  | •  | •  | •  |    |    |    | 44 | 14 | 21   | 15  | 5   | 4      | 2.5                 |
|           | 50    |   |     |   |   |      |    |     |       |     |      |    | •  | •   | •  | •  | •  | •  | •  | •  | •  | •  | 57 | 18 | 26   | 18  | 6   | 5      | 7                   |

| Specific  | cation | Allowable<br>Wrench | Allowa         | ble Misaliç      | gnment        | Static<br>Torsional    | Max.                   | * Moment                           | * Weight |
|-----------|--------|---------------------|----------------|------------------|---------------|------------------------|------------------------|------------------------------------|----------|
| Model No. | ØD     | Torque<br>(N⋅m)     | Angular<br>(°) | Parallel<br>(mm) | Axial<br>(mm) | Stiffness<br>(N·m/rad) | (r/min <sup>-1</sup> ) | of Inertia<br>(kg·m <sup>2</sup> ) | (g)      |
|           | 19     | 0.7                 |                | 0.12             |               | 200                    | 10000                  | 8.7*10 <sup>-7</sup>               | 18       |
|           | 25     | 1                   | ]              | 0.12             |               | 450                    | 8000                   | 2.7*10 <sup>-6</sup>               | 25       |
| FACHL     | 32     | 2.5                 | 1.5            |                  | ±0.5          | 1100                   | 6000                   | 9.6*10 <sup>-6</sup>               | 60       |
|           | 40     | 3.5                 | ]              | 0.15             |               | 1400                   | 5000                   | 1.9*10 <sup>-5</sup>               | 100      |
|           | 50     | 9                   | ]              |                  |               | 2200                   | 4000                   | 8.1*10 <sup>-5</sup>               | 210      |

| mole.  | FACHL40   | 10  |   | 12  | 100 PCS |  |
|--------|-----------|-----|---|-----|---------|--|
| impic. | Model no. | Ød1 | ~ | Ød2 | Q'ty    |  |

#### Flexible | Disk Coupling



FACTL

· High wrench torque load, high wrench torque rigidity capacity and excellent sensibility. · Zero backlash. • Dual stainless steel rings to correct radial > angular and axial deviation.

- · Clockwise character is exactly the same as anti-clockwise one.
- Free maintenance, oil-resist and anti-corrosiveness. · Offset of angular, parallel, or axial deviation are individual allowed value, so couple reasons of axial offset appearing at same time would reduce the unit allowable value.





| Linear I | Motion | Component | 0 | Couplings |
|----------|--------|-----------|---|-----------|
|----------|--------|-----------|---|-----------|

ØD1

Ød1H8

Flexible | Disk Coupling

# FACTS



 Hard torque load 
 high torque rigidity and excellent sensibility. Zero backlash. · Miniature coupling has short length. Dual stainless steel disk to correct angular and axial deviation. · No correction for radial deviation. · Clockwise character is exactly the same as anti-clockwise one. • Free maintenance, oil-resist and anti-corrosiveness. · FACH-S can't allow axial deviation caused by offset. · Offset, deflection, shaft deviation are individual allowed value.



| Component  | Material       | Surface Finish | Accessories    |
|------------|----------------|----------------|----------------|
| Main frame | Aluminum Alloy | Anodized       | Clamping scrow |
| Disk       | SUS301         | —              |                |

| Dimens    | sions |     |   | $\emptyset$ d1& $\emptyset$ d2 selection * $\emptyset$ d1 $\leq \emptyset$ d2 |   |    |    |    |    |    |    |    | 1  | 14 | 1.2 | A  | F    | Clampii | ng screw |   |   |                      |
|-----------|-------|-----|---|---|---|----|----|----|----|----|----|----|----|----|-----|----|------|---------|----------|---|---|----------------------|
| Model No. | ØD    | וטש | 6 | 7   | 8 | 10 | 11 | 12 | 14 | 15 | 16 | 18 | 19 | 20 | 25  | L  | LI   | LZ      | A        | Г | М | Lock torque<br>(N·m) |
|           | 32    | 22  | • | •   | • | •  |    |    |    |    |    |    |    |    |     | 32 | 13.7 | 9       | 8        | 4 | 3 | 1.5                  |
| EACTO     | 40    | 28  |   | •   | • | •  | •  | •  | •  |    |    |    |    |    |     | 38 | 16.5 | 12      | 10.5     | 6 | 4 | 2.5                  |
| FACIS     | 50    | 39  |   |   |   |    |    | •  | •  | •  | •  | •  | •  | •  |     | 44 | 19.4 | 15      | 14.8     | 7 | 5 | 7                    |
|           | 63    | 45  |   |   |   |    |    |    |    | •  | •  | •  | •  | •  | •   | 50 | 22.3 | 18      | 17       | 8 | 6 | 12                   |

#### \*Moment of inertial torque and weight calculated by maximum diameter.

| Specific  | cation | Allowable       | Allowable      | Misalignment  | Static<br>Torsional    | Max.                          | * Moment              | ★ Weight |
|-----------|--------|-----------------|----------------|---------------|------------------------|-------------------------------|-----------------------|----------|
| Model No. | ØD     | Torque<br>(N·m) | Angular<br>(°) | Axial<br>(mm) | Stiffness<br>(N·m/rad) | RPM<br>(r/min <sup>-1</sup> ) | of Inertia<br>(kg·m²) | (g)      |
|           | 32     | 2               |                |               | 1300                   | 4800                          | 4.5*10 <sup>-6</sup>  | 38       |
| FACTO     | 40     | 4               |                | .0.0          | 2800                   | 3800                          | 1.2*10 <sup>-5</sup>  | 66       |
| FACIS     | 50     | 7.5             |                | ±0.2          | 3700                   | 3100                          | 3.7*10 <sup>-5</sup>  | 120      |
|           | 63     | 10              |                |               | 5000                   | 2400                          | 8.4*10 <sup>-5</sup>  | 190      |

| Component  | Material       | Surface Finish | Accessories    |
|------------|----------------|----------------|----------------|
| Main frame | Aluminum Alloy | Anodized       |                |
| Disk       | SUS301         | _              | Clamping Screw |
|            |                |                |                |

| Dimens    | mensions $\emptyset$ d1& $\emptyset$ d2 selection $*\emptyset$ d1 $\leq \emptyset$ d2 |     |   |   |   |    |    |    |    |    |    | 14 | 10 | Δ  | E  | Clamping scre |      |    |      |   |   |                    |
|-----------|---|-----|---|---|---|----|----|----|----|----|----|----|----|----|----|---------------|------|----|------|---|---|--------------------|
| Model No. | ØD  | וטש | 6 | 7 | 8 | 10 | 11 | 12 | 14 | 15 | 16 | 18 | 19 | 20 | 25 |               | LI   | LZ | A    | F | М | Lock torq<br>(N·m) |
|           | 32  | 22  | • | • | • | •  |    |    |    |    |    |    |    |    |    | 40            | 13.7 | 9  | 8    | 4 | 3 | 1.5                |
| FAOTI     | 40  | 28  |   | • | • | •  | •  | •  | •  |    |    |    |    |    |    | 46            | 16.5 | 12 | 10.5 | 6 | 4 | 2.5                |
| FACIL     | 50  | 39  |   |   |   |    |    | •  | •  | •  | •  | •  | •  | •  |    | 52            | 19.4 | 15 | 14.8 | 7 | 5 | 7                  |
|           | 63  | 45  |   |   |   |    |    |    |    | •  | •  | •  | •  | •  | •  | 58            | 22.3 | 18 | 17   | 8 | 6 | 12                 |

| Specification |    | Allowable       | Allowa         | ble Misali       | gnment        | Static<br>Torsional    | Max.                          | ★ Moment                           | * Weight |
|---------------|----|-----------------|----------------|------------------|---------------|------------------------|-------------------------------|------------------------------------|----------|
| Model No.     | ØD | Torque<br>(N⋅m) | Angular<br>(°) | Parallel<br>(mm) | Axial<br>(mm) | Stiffness<br>(N·m/rad) | RPM<br>(r/min <sup>-1</sup> ) | of Inertia<br>(kg·m <sup>2</sup> ) | (g)      |
|               | 32 | 2               |                | 0.15             | ±0.4          | 1000                   | 4800                          | 6.2*10 <sup>-6</sup>               | 48       |
|               | 40 | 4               | 2              | 0.2              | ±0.5          | 1500                   | 3800                          | 1.6*10 <sup>-5</sup>               | 81       |
| FACIL         | 50 | 7.5             |                | 0.2              | ±0.6          | 2000                   | 3100                          | 4.6*10 <sup>-5</sup>               | 150      |
|               | 63 | 10              |                | 0.3              | ±0.8          | 2500                   | 2400                          | 1.1*10 <sup>-4</sup>               | 230      |

#### Flexible | Bellows Coupling

FAMB



· Offset of angular, parallel, or axial deviation are individual allowed value, so couple reasons of axial

offset appearing at same time would reduce the unit allowable value.

| Component  | Material       | Surface Finish | Accessories |
|------------|----------------|----------------|-------------|
| Main frame | Aluminum Alloy | Anodized       | Sot scrow   |
| Bellows    | C5191          | _              | Gersciew    |

| Dimens    | sions |   | $\emptyset$ d1& $\emptyset$ d2 selection * $\emptyset$ d1 $\leq \emptyset$ d2 |   |   |      |   |       |    |    |    |      | 11   | E   | Set screw |                      |
|-----------|-------|---|---|---|---|------|---|-------|----|----|----|------|------|-----|-----------|----------------------|
| Model No. | ØD    | 3 | 4   | 5 | 6 | 6.35 | 8 | 9.525 | 10 | 12 | 14 |      | LI   |     | М         | Lock torque<br>(N·m) |
|           | 12    | • | •   | • | • | •    |   |       |    |    |    | 23.5 | 7.5  | 2.5 | 2.5       | 0.5                  |
|           | 16    |   | •   | • | • | •    | • |       |    |    |    | 26.5 | 9    | 3   |           | 0.7                  |
| FAMB      | 20    |   |   | • | • | •    | • | •     | •  |    |    | 32   | 10   | 3.5 | 3         | 0.7                  |
|           | 25    |   |   |   | • | •    | • | •     | ٠  | •  |    | 36.5 | 12   | 4.5 | 4         | 4.7                  |
|           | 32    |   |   |   | • | •    | • | •     | •  | •  | •  | 42   | 13.5 | 5.5 | 4         | 1.7                  |

#### $\bigstar Moment of inertial torque and weight calculated by maximum diameter.$

| Specific  | cation | Allowable       | Allo           | wable Misa       | alignment     | Static<br>Torsional    | Max.                          | ★ Moment              | 🔹 Weight |  |
|-----------|--------|-----------------|----------------|------------------|---------------|------------------------|-------------------------------|-----------------------|----------|--|
| Model No. | ØD     | Torque<br>(N·m) | Angular<br>(°) | Parallel<br>(mm) | Axial<br>(mm) | Stiffness<br>(N·m/rad) | RPM<br>(r/min <sup>-1</sup> ) | of Inertia<br>(kg⋅m²) | (g)      |  |
|           | 12     | 0.3             | 15             | 0.10             | +0.4          | 82                     | 32000                         | 9.0*10 <sup>-8</sup>  | 4        |  |
|           | 16     | 0.5             | 1.5            | 0.10             | -1.2          | 110                    | 24000                         | 3.5*10 <sup>-7</sup>  | 9        |  |
| EAND      | 20     | 0.8             |                | 0.15             | +0.6          | 180                    | 19000                         | 9.9*10 <sup>-7</sup>  | 16       |  |
| FAMB      | 25     | 1.3             | 2              | 0.15             | -1.8          | 240                    | 15000                         | 3.1*10 <sup>-6</sup>  | 32       |  |
|           | 32     | 2               |                | 0.20             | +0.8<br>-2.5  | 330                    | 12000                         | 9.2*10 <sup>-6</sup>  | 57       |  |

#### Ordering Example: FAMB20 6 8 100 PCS Model no. Ød1 Ød2 Q'ty

Flexible | Bellows Coupling

**FSMB** 



\*When Ød1<4 and Ød2>5, there would be 3 set screws. \*When Ød1 and Ød2 both smaller than 4, there would be 2 set screws.

| Component  | Material | Accessories |
|------------|----------|-------------|
| Main frame | SUS303   | Setscrew    |
| Bellows    | SUS316   | Corsciew    |

| Dimens    | sions |   | $\emptyset$ d1& $\emptyset$ d2 selection * $\emptyset$ d1 $\leq \emptyset$ d2 |   |   |      |   |       |    |    |    |      | 14   | _   | Set screw |                      |  |
|-----------|-------|---|---|---|---|------|---|-------|----|----|----|------|------|-----|-----------|----------------------|--|
| Model No. | ØD    | 3 | 4   | 5 | 6 | 6.35 | 8 | 9.525 | 10 | 12 | 14 |      | LI   | F   | М         | Lock torque<br>(N·m) |  |
|           | 12    | • | •   | • | • | •    |   |       |    |    |    | 23.5 | 7.5  | 2.5 | 2.5       | 0.5                  |  |
|           | 16    |   | •   | • | • | •    | • |       |    |    |    | 26.5 | 9    | 3   |           | 0.7                  |  |
| FSMB      | 20    |   |   | • | • | •    | • | •     | •  |    |    | 32   | 10   | 3.5 | 3         | 0.7                  |  |
|           | 25    |   |   |   | • | •    | • | •     | •  | •  |    | 36.5 | 12   | 4.5 | 4         | 4.7                  |  |
|           | 32    |   |   |   | • | •    | • | •     | •  | •  | •  | 42   | 13.5 | 5.5 | 4         | 1.7                  |  |

#### \*Moment of inertial torque and weight calculated by maximum diameter.

| Specific  | ation | Allowable       | All            | owable Mis       | alignment     | Static                 | Max.                          | ★ Moment              | ★ Weight |
|-----------|-------|-----------------|----------------|------------------|---------------|------------------------|-------------------------------|-----------------------|----------|
| Model No. | ØD    | Torque<br>(N·m) | Angular<br>(°) | Parallel<br>(mm) | Axial<br>(mm) | Stiffness<br>(N·m/rad) | RPM<br>(r/min <sup>-1</sup> ) | of Inertia<br>(kg·m²) | (g)      |
|           | 12    | 0.5             | 4.5            | 0.40             | +0.4          | 100                    | 32000                         | 2.1*10 <sup>-7</sup>  | 9        |
|           | 16    | 1               | 1.5            | 0.10             | -1.2          | 150                    | 24000                         | 8.0*10 <sup>-7</sup>  | 20       |
|           | 20    | 1.5             |                | 0.45             | +0.6          | 220                    | 19000                         | 2.3*10 <sup>-6</sup>  | 37       |
| FSMB      | 25    | 2               | 2              | 0.15             | -1.8          | 330                    | 15000                         | 7.0*10 <sup>-6</sup>  | 73       |
| 32        |       | 3               | 2              | 0.20             | +0.8<br>-2.5  | 490                    | 12000                         | 2.1*10 <sup>-5</sup>  | 130      |



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<sup>\*</sup>When Ød1<4 and Ød2>5, there would be 3 set screws. \*When Ød1 and Ød2 both smaller than 4, there would be 2 set screws.

#### Flexible | Bellows Coupling

· Offset of angular, parallel, or axial deviation are individual allowed value, so couple reasons of axial offset appearing at same time would reduce the unit allowable value.



FACB



| Component  | Material       | Surface Finish | Accessories    |
|------------|----------------|----------------|----------------|
| Main frame | Aluminum Alloy | Anodized       |                |
| Bellows    | C5191          | _              | Clamping Sciew |

2-M

| Dimer    | isions |   | Ç | Ød1&Ø | 0d2 sel | ection | *Ød1  | $\leq \text{Ød}$ | 2  |    |      | 14   | F   |     | Clampir | ng screw             |
|----------|--------|---|---|-------|---------|--------|-------|------------------|----|----|------|------|-----|-----|---------|----------------------|
| Model No | . ØD   | 4 | 5 | 6     | 6.35    | 8      | 9.525 | 10               | 12 | 14 |      | LI   | Г   | A   | М       | Lock torque<br>(N·m) |
|          | 12     | • | • |       |         |        |       |                  |    |    | 23.5 | 7.5  | 2.3 | 4   | 2       | 0.5                  |
|          | 16     | • | • | •     | •       |        |       |                  |    |    | 26.5 | 9    | 3   | 5   | 0.5     |                      |
| FACB     | 20     |   | • | •     | •       | •      |       |                  |    |    | 32   | 10   | 3.5 | 6.5 | 2.5     | 1                    |
|          | 25     |   |   | •     | •       | •      | •     | •                |    |    | 36.5 | 12   | 4.5 | 9   | 3       | 1.5                  |
|          | 32     |   |   |       |         | •      | •     | •                | •  | •  | 42   | 13.5 | 5   | 11  | 4       | 2.5                  |

#### \*Moment of inertial torque and weight calculated by maximum diameter.

| Specific  | cation | Allowable       | Allov          | wable Misa       | lignment      | Static                 | Max.                          | ★ Moment              | * Weight |      |      |     |      |                      |    |
|-----------|--------|-----------------|----------------|------------------|---------------|------------------------|-------------------------------|-----------------------|----------|------|------|-----|------|----------------------|----|
| Model No. | ØD     | Torque<br>(N·m) | Angular<br>(°) | Parallel<br>(mm) | Axial<br>(mm) | Stiffness<br>(N·m/rad) | RPM<br>(r/min <sup>-1</sup> ) | of Inertia<br>(kg⋅m²) | (g)      |      |      |     |      |                      |    |
|           | 12     | 0.3             | 1 5            | 0.10             | +0.4          | 82                     | 13000                         | 9.7*10 <sup>-8</sup>  | 4        |      |      |     |      |                      |    |
|           | 16 0.5 |                 | 1.5            | 0.10             | -1.2          | 110                    | 9500                          | 3.7*10 <sup>-7</sup>  | 10       |      |      |     |      |                      |    |
| FACE      | 20     | 0.8             |                | 0.15             | +0.6          | 180                    | 7700                          | 1.0*10 <sup>-6</sup>  | 16       |      |      |     |      |                      |    |
| FACE      | 25     | 1.3             | 1.3            | 1.3              | 1.3           | 1.3                    | 1.3                           | 1.3                   | 2        | 0.15 | -1.8 | 240 | 6100 | 3.1*10 <sup>-6</sup> | 32 |
|           | 32     | 2               | 2              | 0.20             | +0.8<br>-2.5  | 330                    | 4800                          | 9.6*10 <sup>-6</sup>  | 58       |      |      |     |      |                      |    |

#### Linear Motion Component O Couplings

Flexible | Bellows Coupling





| Component  | Material | Accessories    |
|------------|----------|----------------|
| Main frame | SUS303   | Clamping screw |
| Bellows    | SUS316   | Clamping Screw |

| Dimens    | ions |   | Ç | Ød1&@ | 0d2 sel | ection | *Ød1  | $\leq \text{Ød}$ | 2  |    |      | 14   | F   | ^   | Clampir | ng screw             |
|-----------|------|---|---|-------|---------|--------|-------|------------------|----|----|------|------|-----|-----|---------|----------------------|
| Model No. | ØD   | 4 | 5 | 6     | 6.35    | 8      | 9.525 | 10               | 12 | 14 |      |      | F   | A   | М       | Lock torque<br>(N·m) |
|           | 12   | • | • |       |         |        |       |                  |    |    | 23.5 | 7.5  | 2.3 | 4   | 2       | 0.5                  |
|           | 16   | • | • | •     | •       |        |       |                  |    |    | 26.5 | 9    | 3   | 5   | 0.5     |                      |
| FSCB      | 20   |   | • | •     | •       | ٠      |       |                  |    |    | 32   | 10   | 3.5 | 6.5 | 2.5     | 1                    |
|           | 25   |   |   | •     | •       | •      | •     | •                |    |    | 36.5 | 12   | 4.5 | 9   | 3       | 1.5                  |
|           | 32   |   |   |       |         | •      | •     | •                | •  | •  | 42   | 13.5 | 5   | 11  | 4       | 2.5                  |

| Specific  | cation | Allowable       | All            | owable Mis       | alignment     | Static<br>Torsional    | Max.                          | 🖈 Moment              | 🖈 Weiaht |     |      |                      |    |
|-----------|--------|-----------------|----------------|------------------|---------------|------------------------|-------------------------------|-----------------------|----------|-----|------|----------------------|----|
| Model No. | ØD     | Torque<br>(N·m) | Angular<br>(°) | Parallel<br>(mm) | Axial<br>(mm) | Stiffness<br>(N·m/rad) | RPM<br>(r/min <sup>-1</sup> ) | of Inertia<br>(kg·m²) | (g)      |     |      |                      |    |
|           | 12     | 0.5             | 4.5            | 0.40             | +0.4          | 100                    | 13000                         | 2.1*10 <sup>-7</sup>  | 9        |     |      |                      |    |
|           | 16     |                 | 1.5            | 0.10             | -1.2          | 150                    | 9500                          | 8.1*10 <sup>-7</sup>  | 22       |     |      |                      |    |
| FROD      | 20     | 1.5             |                | 0.15             | +0.6          | 220                    | 7700                          | 2.3*10 <sup>-6</sup>  | 38       |     |      |                      |    |
| FSCB      | 25     | 2               | 2              | 2                | 2             | 2                      | 2                             | 0.15                  | -1.8     | 330 | 6100 | 6.9*10 <sup>-6</sup> | 74 |
|           | 32     | 3               | 2              | 0.20             | +0.8<br>-2.5  | 490                    | 4800                          | 2.1*10 <sup>-5</sup>  | 130      |     |      |                      |    |



#### Flexible | Oldham Coupling

Product Specification



FSMG



- rotation numbers
- Available options for key way per inner diameter is bigger than 6mm. (Refer to page 42)



FSMGLK (key way Ød1 side) FSMGRK (key way Ød2 side) FSMGWK (key way Ød1 and Ød2 side)

| Component  | Material        | Accessories |
|------------|-----------------|-------------|
| Main frame | SUS303 Alloy    | Sotoorow    |
| Spacer     | Aluminum bronze | Gersciew    |

| Dimen     | sions |   |   | $\emptyset$ d1& $\emptyset$ d2 selection * $\emptyset$ d1 $\leq \emptyset$ d2 |      |   |   |       |    |    |    |    |    |    |    |    |      |      | ~~~ |      | 14  | _   | Set | screw               |
|-----------|-------|---|---|---|------|---|---|-------|----|----|----|----|----|----|----|----|------|------|-----|------|-----|-----|-----|---------------------|
| Model No. | ØD    | 4 | 5 | 6   | 6.35 | 7 | 8 | 9.525 | 10 | 11 | 12 | 14 | 15 | 16 | 18 | 20 | ספן  | וטש  | 003 |      | LI  |     | М   | Lock torqu<br>(N·m) |
|           | 15    | • | • | •   | •    | • | • |       |    |    |    |    |    |    |    |    | 14.5 | 15   | 7.2 | 16   | 5.4 | 2.6 | 3   | 0.7                 |
|           | 17    |   | • | •   | •    | • | • |       |    |    |    |    |    |    |    |    | 16.8 | 17.5 | 8.2 | 19.8 | 6.7 | 3.2 |     |                     |
|           | 20    |   |   | •   | •    | • | • | •     | •  | •  | •  |    |    |    |    |    | 20   | 21   | 9   | 21.6 | 7   | 3.4 | 4   | 17                  |
| FSMG      | 26    |   |   | •   | •    | • | • | •     | •  | •  | •  | •  |    |    |    |    | 26   | 27   | 12  | 25.6 | 9   | 4   |     |                     |
|           | 30    |   |   |   |      |   | • |       | •  |    | •  | •  |    |    |    |    | 30   | 31   | 14  | 33   | 12  | 6   |     |                     |
|           | 34    |   |   |   |      |   |   |       | •  | •  | •  | •  | •  | •  |    |    | 34   | 35   | 14  | 34   | 13  | 5.5 | 5   | 10                  |
|           | 38    |   |   |   |      |   |   |       | •  |    | •  | •  | •  | •  | •  | •  | 38   | 41   | 17  | 39.5 | 15  | 7   |     | 4.0                 |

#### \*Moment of inertial torque and weight calculated by maximum diameter.

| Specific  | cation | Allowable       | Allov          | wable Misal      | ignment       | Static<br>Torsional    | Max.                          | ★ Moment              | * Weight |     |     |     |      |      |      |                    |      |                    |      |      |                      |     |
|-----------|--------|-----------------|----------------|------------------|---------------|------------------------|-------------------------------|-----------------------|----------|-----|-----|-----|------|------|------|--------------------|------|--------------------|------|------|----------------------|-----|
| Model No. | ØD     | Torque<br>(N·m) | Angular<br>(°) | Parallel<br>(mm) | Axial<br>(mm) | Stiffness<br>(N·m/rad) | RPM<br>(r/min <sup>-1</sup> ) | of Inertia<br>(kg⋅m²) | (g)      |     |     |     |      |      |      |                    |      |                    |      |      |                      |     |
|           | 15     | 3               |                | 0.5              | ±0.1          | 800                    | 8000                          | 4*10 <sup>-8</sup>    | 15       |     |     |     |      |      |      |                    |      |                    |      |      |                      |     |
|           | 17     | 5               |                | 0.5              | ±0.1          | 1000                   | 7000                          | 1*10 <sup>-7</sup>    | 25       |     |     |     |      |      |      |                    |      |                    |      |      |                      |     |
|           | 20     | 7               | 1.5            | 0.5              | ±0.1          | 2200                   | 6000                          | 2*10 <sup>-6</sup>    | 37       |     |     |     |      |      |      |                    |      |                    |      |      |                      |     |
| FSMG      | 26     | 10              |                | 1.5              | 1.5           | 1.5                    | 1.5                           | 1.5                   | 1.5      | 1.5 | 1.5 | 0.8 | ±0.2 | 4000 | 5000 | 6*10 <sup>-6</sup> | 79   |                    |      |      |                      |     |
|           | 30     | 30              |                |                  |               |                        |                               |                       |          |     |     |     | 1    |      |      |                    | 1    | ±0.3               | 5500 | 5000 | 2.5*10 <sup>-5</sup> | 120 |
|           | 34     | 32              |                |                  |               |                        |                               |                       |          |     |     |     |      | 1    | ±0.2 | 8000               | 4000 | 4*10 <sup>-5</sup> | 180  |      |                      |     |
|           | 38     | 50              |                | 1                | ±0.3          | 11000                  | 4000                          | 1*10 <sup>-4</sup>    | 256      |     |     |     |      |      |      |                    |      |                    |      |      |                      |     |

#### Linear Motion Component O Couplings

Flexible | Oldham Coupling



· Offset of angular, parallel, or axial deviation are individual allowed value, so couple reasons of axial offset appearing at same time would reduce the unit allowable value. Suit for high wrench torque, high rotation.

. In case of parallel deviation over 0.1, abrasion of the insert is direct ration to load torque, offset, and rotation numbers.

Available options for key way per inner diameter is bigger than 6mm. (Refer to page 42)



Ød1





Øds

FSCGLK (key way Ød1 side) FSCGRK (key way Ød2 side) FSCGWK (key way Ød1 and Ød2 side)

 $\oplus$ 

| Component  | Material        | Accessories    |
|------------|-----------------|----------------|
| Main frame | SUS303 Alloy    | Clamping corow |
| Spacer     | Aluminum bronze | Clamping screw |

| Dimens    | sions |   |   |   | Ød1  | 1&Ø | d2 | selec | tion | *0 | ðd1 | $\leq Q$ | ðd2 |    |    |    |      |      | apo | <i>a</i> |      | 14   | _    | -   | Clampi | ng screw             |
|-----------|-------|---|---|---|------|-----|----|-------|------|----|-----|----------|-----|----|----|----|------|------|-----|----------|------|------|------|-----|--------|----------------------|
| Model No. | ØD    | 4 | 5 | 6 | 6.35 | 7   | 8  | 9.525 | 10   | 11 | 12  | 14       | 15  | 16 | 18 | 20 | םש   | וטש  | 200 | 600      |      | LI   | A    | г   | М      | Lock torque<br>(N·m) |
|           | 15    | • | • | • |      |     |    |       |      |    |     |          |     |    |    |    | 14.5 | 15   | 16  | 7.2      | 18.4 | 6.6  | 4.5  | 3.2 | 2.5    | 1.0                  |
|           | 17    |   | • | • | •    |     |    |       |      |    |     |          |     |    |    |    | 16.8 | 17.5 | 19  | 8.2      | 24.4 | 9    | 5    | 4   | 3      | 1.8                  |
|           | 20    |   |   | • | •    | •   | •  | •     | •    |    |     |          |     |    |    |    | 20   | 21   | 23  | 9        | 27.2 | 10   | 7    | 4.5 |        | 1.0                  |
| FSCG      | 26    |   |   | • | •    | •   | •  | •     | •    | •  | •   |          |     |    |    |    | 26   | 27   | 29  | 12       | 30.4 | 11.5 | 8.4  | 5   | 4      | 3.0                  |
|           | 30    |   |   |   |      |     | •  |       | •    |    | •   | •        |     |    |    |    | 30   | 31   | 32  | 14       | 33   | 12   | 9    | 6   | 4      | 4.5                  |
|           | 34    |   |   |   |      |     |    |       | •    | •  | •   | ٠        | •   | •  |    |    | 34   | 35   | 37  | 17       | 34   | 13   | 11   | 0   | -      |                      |
|           | 38    |   |   |   |      |     |    |       | •    |    | •   | •        | •   | •  | •  | •  | 38   | 41   | 41  | 17       | 39.5 | 15   | 13.7 | 7   | 5      | 0.0                  |

#### \*Moment of inertial torque and weight calculated by maximum diameter.

| Specific  | cation | Allowable       | All            | owable Mis       | alignment     | Static                 | Max.                          | * Moment              | 🔹 Weight |
|-----------|--------|-----------------|----------------|------------------|---------------|------------------------|-------------------------------|-----------------------|----------|
| Model No. | ØD     | Torque<br>(N·m) | Angular<br>(°) | Parallel<br>(mm) | Axial<br>(mm) | Stiffness<br>(N·m/rad) | RPM<br>(r/min <sup>-1</sup> ) | of Inertia<br>(kg·m²) | (g)      |
|           | 15     | 3               |                | 0.5              | ±0.1          | 800                    | 8000                          | 6*10 <sup>-7</sup>    | 17       |
|           | 17     | 5               |                | 0.5              | ±0.1          | 1000                   | 7000                          | 1.2*10 <sup>-6</sup>  | 30       |
|           | 20     | 7               |                | 0.5              | ±0.1          | 2200                   | 6000                          | 3*10 <sup>-6</sup>    | 48       |
| FSCG      | 26     | 10              | 1.5            | 0.8              | ±0.2          | 4000                   | 5000                          | 1*10 <sup>-5</sup>    | 90       |
|           | 30     | 30              |                | 1                | ±0.3          | 5500                   | 5000                          | 2.5*10 <sup>-5</sup>  | 120      |
|           | 34     | 32              |                | 1                | ±0.2          | 8000                   | 4000                          | 4*10 <sup>-5</sup>    | 172      |
|           | 38     | 50              |                | 1                | ±0.3          | 11000                  | 4000                          | 1*10 <sup>-4</sup>    | 246      |



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Мо

Product Specification

#### Linear Motion Component O Couplings

#### Flexible | Oldham Coupling

**FSMP** 









|           |       |         |              |               |                |               |             |      |          |     |     |       |        | -   |                 |       | ·   |       | ,  |    |         |      |      |        |       |     | _       |                     |
|-----------|-------|---------|--------------|---------------|----------------|---------------|-------------|------|----------|-----|-----|-------|--------|-----|-----------------|-------|-----|-------|----|----|---------|------|------|--------|-------|-----|---------|---------------------|
|           |       | ۷*<br>s | Vher<br>mall | n Øc<br>er tl | l1 ar<br>han - | nd Ø<br>4. th | 0d2<br>iere | bot  | h<br>uld | F   | SMF | PWK   | (key   | way | Ød <sup>.</sup> | 1 and | dØd | 2 sid | e) | N  | lain fr | ame  | SU   | S303   | Alloy |     | Sot cor | 0.00                |
|           |       | b       | e 2          | set           | scre           | ws.           |             |      |          |     |     |       |        |     |                 |       |     |       |    |    | Spac    | er   | Ca   | rbon ı | resin | ]   | 361 301 | ew                  |
|           |       |         |              |               |                |               |             |      |          |     |     |       |        |     |                 |       |     |       |    |    |         |      |      |        |       |     |         |                     |
| Dimens    | sions |         |              |               | Ø              | d18           | Ød          | 2 se | electi   | ion | *(  | Ød1   | $\leq$ | Øď  | 2               |       |     |       |    |    |         |      | a    |        | 14    | _   | Set s   | crew                |
| lodel No. | ØD    | 1       | 1.5          | 2             | 3              | 4             | 5           | 6    | 6.35     | 7   | 8   | 9.525 | 10     | 11  | 12              | 14    | 15  | 16    | 18 | 20 | ספ      | ויםש | Ø03  | L      | LI    | F   | М       | Lock torqu<br>(N·m) |
|           | 6     | •       | •            | •             |                |               |             |      |          |     |     |       |        |     |                 |       |     |       |    |    | 6       | 6.2  | 2.4  | 8.4    | 3     | 1.5 | 1.0     | 0.45                |
|           | 8     | •       |              | •             | •              |               |             |      |          |     |     |       |        |     |                 |       |     |       |    |    | 8       | 8.2  | 3.4  | 9.6    | 3.5   | 1.7 | 1.0     | 0.15                |
|           | 10    |         |              | •             | •              | •             |             |      |          |     |     |       |        |     |                 |       |     |       |    |    | 10      | 10.2 | 4.4  | 10.2   | 3.7   | 1.8 | 2       | 0.3                 |
|           | 12    |         |              |               | •              | •             | ٠           |      |          |     |     |       |        |     |                 |       |     |       |    |    | 12      | 12.5 | 4.0  | 14.2   | 5.2   | 2.5 | 2       | 0.7                 |
|           | 15    |         |              |               |                | •             | ٠           | •    | •        | •   | ٠   |       |        |     |                 |       |     |       |    |    | 14.5    | 15   | 5.0  | 16     | 5.4   | 2.6 | 3       | 0.7                 |
| FSIVIP    | 17    |         |              |               |                |               | •           | •    | •        | •   | •   |       |        |     |                 |       |     |       |    |    | 16.8    | 17.5 | 7.2  | 19.8   | 6.7   | 3.2 |         |                     |
|           | 20    |         |              |               |                |               |             |      |          | ٠   | ٠   | ٠     | •      | •   |                 |       |     |       |    |    | 20      | 21   | 8.2  | 21.4   | 7     | 3.4 | 4       | 17                  |
|           | 26    |         |              |               |                |               |             | •    | •        | •   | •   | •     | •      | •   | •               | •     |     |       |    |    | 26      | 27   | 12.0 | 25.6   | 9     | 4   | -       | 1.7                 |
|           | 30    |         |              |               |                |               |             |      |          |     | ٠   |       | •      |     |                 | •     |     |       |    |    | 30      | 31   | 13.0 | 33     | 12    | 6   |         |                     |
|           | 34    |         |              |               |                |               |             |      |          |     |     |       | •      | •   | •               | •     | •   | ٠     |    |    | 34      | 35   | 13.0 | 34.2   | 13    | 5.5 | 5       | 10                  |
|           | 38    |         |              |               |                |               |             |      |          |     |     |       | ٠      |     | ٠               | •     | ٠   | ٠     | ٠  | ٠  | 38      | 41   | 17.0 | 40     | 15    | 7   | 3       | 4.0                 |

#### \*Moment of inertial torque and weight calculated by maximum diameter.

Accessories

| Specific  | cation | Allowable       | Allov          | wable Misa       | lignment      | Static                 | Max.                          | * Moment                           | ★ Weight |
|-----------|--------|-----------------|----------------|------------------|---------------|------------------------|-------------------------------|------------------------------------|----------|
| Model No. | ØD     | Torque<br>(N·m) | Angular<br>(°) | Parallel<br>(mm) | Axial<br>(mm) | Stiffness<br>(N·m/rad) | RPM<br>(r/min <sup>-1</sup> ) | of Inertia<br>(kg·m <sup>2</sup> ) | (g)      |
|           | 6      | 0.3             |                | 0.3              | ±0.25         | 9                      |                               | 1.5*10 <sup>-8</sup>               | 1.5      |
|           | 8      | 0.5             |                | 0.4              | ±0.3          | 13                     | 10000                         | 2.2*10 <sup>-8</sup>               | 2.5      |
|           | 10     | 0.8             |                | 0.4              | ±0.32         | 21                     | 12000                         | 3.6*10 <sup>-8</sup>               | 4        |
|           | 12     | 1               |                | 0.5              | ±0.35         | 44                     |                               | 1.6*10 <sup>-7</sup>               | 8        |
|           | 15     | 1.6             |                | 0.8              | ±0.45         | 90                     | 10000                         | 3.5*10 <sup>-7</sup>               | 11       |
| FSMP      | 17     | 2.2             | 3              | 1                | ±0.55         | 250                    | 10000                         | 7.8*10 <sup>-7</sup>               | 18       |
|           | 20     | 3.2             |                | 1.5              |               | 340                    | 8000                          | 1.7*10 <sup>-6</sup>               | 29       |
|           | 26     | 6               | 1              | 2                |               | 420                    | 6500                          | 6.2*10 <sup>-6</sup>               | 65       |
|           | 30     | 15              |                | 2                | ±0.6          | 1200                   | 6200                          | 2*10 <sup>-5</sup>                 | 100      |
|           | 34     | 16              | 1              | 2.5              |               | 2400                   | 6000                          | 2.5*10 <sup>-5</sup>               | 155      |
|           | 38     | 28              |                | 2.5              |               | 3500                   | 5800                          | 8*10 <sup>-5</sup>                 | 240      |

#### Linear Motion Component O Couplings

Flexible | Oldham Coupling



#### Operating temperature : -40°C~90°C

· Offset of angular, parallel, or axial deviation are individual allowed value, so couple reasons of axial offset appearing at same time would reduce the unit allowable value. • FSCP lock torque of clamping screw is 5.4 (N · m) based on shaft dia (Ød1, Ød2) over Ø16. Available options for key way per inner diameter is bigger than 6mm. (Refer to page 42)









FSMPLK (key way Ød1 side) FSMPRK (key way Ød2 side) FSMPWK (key way Ød1 and Ød2 side)

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| Component  | Material     | Accessories    |
|------------|--------------|----------------|
| Main frame | SUS303 Alloy | Clamping scrow |
| Spacer     | Carbon resin | Clamping Sciew |

| Dimens    | ions |   |   |   | Ø    | d18 | Ød | 2 se  | lecti | ion | *Ø | ðd1 | ≦ ( | Ød2 |    |    |      | aD4  | apa | a lo         |      | 14   |      | -   | Clampi | ng screw             |
|-----------|------|---|---|---|------|-----|----|-------|-------|-----|----|-----|-----|-----|----|----|------|------|-----|--------------|------|------|------|-----|--------|----------------------|
| Model No. | ØD   | 4 | 5 | 6 | 6.35 | 7   | 8  | 9.525 | 10    | 11  | 12 | 14  | 15  | 16  | 18 | 20 | סש   | יטש  | 002 | Ø <b>0</b> 3 |      | LI   | A    | F   | М      | Lock torque<br>(N·m) |
|           | 15   | • | • | • |      |     |    |       |       |     |    |     |     |     |    |    | 14.5 | 15   | 16  | 5.0          | 18.4 | 6.6  | 4.5  | 3.2 | 2.5    | 1.0                  |
|           | 17   |   | • | • | •    |     |    |       |       |     |    |     |     |     |    |    | 16.8 | 17.5 | 19  | 7.2          | 24.4 | 9    | 5    | 4   | 3      | 1.8                  |
|           | 20   |   |   | • | •    | •   | •  | •     | •     |     |    |     |     |     |    |    | 20   | 21   | 23  | 8.2          | 27.2 | 10   | 7    | 4.5 |        | 1.0                  |
| FSCP      | 26   |   |   | • | •    | •   | •  | •     | •     | •   | •  |     |     |     |    |    | 26   | 27   | 29  | 12           | 30.4 | 11.5 | 8.4  | 5   | 4      | 3.0                  |
|           | 30   |   |   |   |      |     | •  |       | •     |     | •  | •   |     |     |    |    | 30   | 31   | 32  | 13           | 33   | 12   | 9    | 0   | 4      | 4.5                  |
|           | 34   |   |   |   |      |     |    |       | •     | •   | •  | •   | •   | •   |    |    | 34   | 35   | 37  | 13           | 34   | 13   | 11   | 6   | _      |                      |
|           | 38   |   |   |   |      |     |    |       | •     |     | •  | •   | •   | •   | •  | •  | 38   | 41   | 41  | 17           | 40   | 15   | 13.7 | 7   | ] )    | 8.0                  |

#### \*Moment of inertial torque and weight calculated by maximum diameter.

| Specific  | cation | Allowable       | All            | owable Mis       | alignment     | Static<br>Torsional    | Max.                          | 🖈 Moment              | 🖈 Weight |
|-----------|--------|-----------------|----------------|------------------|---------------|------------------------|-------------------------------|-----------------------|----------|
| Model No. | ØD     | Torque<br>(N·m) | Angular<br>(°) | Parallel<br>(mm) | Axial<br>(mm) | Stiffness<br>(N·m/rad) | RPM<br>(r/min <sup>-1</sup> ) | of Inertia<br>(kg·m²) | (g)      |
|           | 15     | 1.6             |                | 0.8              | ±0.45         | 90                     | 10000                         | 5.0*10 <sup>-7</sup>  | 15       |
|           | 17     | 2.2             |                | 1                | ±0.55         | 250                    | 10000                         | 1.0*10 <sup>-6</sup>  | 28       |
|           | 20     | 3.2             |                | 1.5              |               | 340                    | 8000                          | 2.4*10 <sup>-6</sup>  | 40       |
| FSCP      | 26     | 6               | 3              | 2                |               | 420                    | 6500                          | 8.0*10 <sup>-6</sup>  | 85       |
|           | 30     | 15              |                | 2                | ±0.6          | 1200                   | 6200                          | 2.0*10 <sup>-5</sup>  | 100      |
|           | 34     | 16              |                | 25               |               | 2400                   | 6000                          | 2.5*10 <sup>-5</sup>  | 155      |
|           | 38     | 18              |                | 2.0              |               | 3500                   | 5800                          | 8.0*10 <sup>-5</sup>  | 240      |

#### ©FSMP&FSCP spacer selection, please refer to P.42 FSCP26

10 12

Model no. Ød1 Ød2 Q'ty

100 PCS

#### Flexible | Oldham Coupling





FAMJ

 Operating temperature : -20°C~80°C · Offset of angular, parallel, or axial deviation are individual allowed value, so couple reasons of axial offset appearing at same time would reduce the unit allowable value. • Available options for key way per inner diameter is bigger than 6mm. (Refer to page 43)

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FAMJLK(key way Ød1 side) FAMJRK (key way Ød2 side) FAMJWK (key way Ød1 and Ød2 side)

| Component  | Material       | Surface Finish | Accessories |
|------------|----------------|----------------|-------------|
| Main frame | Aluminum Alloy | Anodized       | Sot scrow   |
| Spacer     | Black (POM)    | _              | Sersciew    |

| Dimen     | sions |    |    | Ød18 | kØd2 | selecti | on * | Ød1 | ≦ Ød2 | 2  |    |    |    | ada  |    | 14 | E    | Set | t screw              |
|-----------|-------|----|----|------|------|---------|------|-----|-------|----|----|----|----|------|----|----|------|-----|----------------------|
| Model No. | ØD    | 14 | 15 | 16   | 18   | 20      | 22   | 25  | 26    | 28 | 30 | 35 | 38 | 003  | L  |    |      | М   | Lock torque<br>(N·m) |
|           | 44    | •  | •  | •    | •    | •       | •    |     |       |    |    |    |    | 22.5 | 46 | 15 | 7.5  | 6   | 7.0                  |
| FAMJ      | 55    |    |    |      | •    | •       | •    | •   | •     |    |    |    |    | 28   | 57 | 19 | 9.5  | 8   | 15.0                 |
|           | 70    |    |    |      |      |         | •    | •   |       | •  | •  | •  | •  | 39   | 77 | 25 | 12.5 | 10  | 30.0                 |

#### \*Moment of inertial torque and weight calculated by maximum diameter.

| Specific  | cation | Allowable       | Allowable N    | lisalignment     | Static                 | Max.                          | * Moment                           | * Weight |
|-----------|--------|-----------------|----------------|------------------|------------------------|-------------------------------|------------------------------------|----------|
| Model No. | ØD     | Torque<br>(N·m) | Angular<br>(°) | Parallel<br>(mm) | Stiffness<br>(N·m/rad) | RPM<br>(r/min <sup>-1</sup> ) | of Inertia<br>(kg·m <sup>2</sup> ) | (g)      |
|           | 44     | 30              |                | 1                | 1500                   | 12000                         | 4*10 <sup>-5</sup>                 | 140      |
| FAMJ      | 55     | 45              | 2              | 1.5              | 2800                   | 10000                         | 11*10 <sup>-5</sup>                | 260      |
|           | 70     | 80              |                | 2                | 4800                   | 8000                          | 40*10 <sup>-5</sup>                | 450      |



Linear Motion Component O Couplings

Flexible | Oldham Coupling





#### Operating temperature : -20°C~80°C

· Offset of angular, parallel, or axial deviation are individual allowed value, so couple reasons of axial offset appearing at same time would reduce the unit allowable value. · Select bigger lock torque of clamping screw than listed values on catalogs when shaft diameter is too small.

· List torque tightness values are only for general standard.

• Available options for key way per inner diameter is bigger than 6mm. (Refer to page 43)







FACJLK (key way Ød1 side) FACJRK (key way Ød2 side) FACJWK(key way Ød1 and Ød2 side)

Φ

| Component  | Material       | Surface Finish | Accessories    |
|------------|----------------|----------------|----------------|
| Main frame | Aluminum Alloy | Anodized       |                |
| Spacer     | Black (POM)    | 1              | Clamping screw |

| Dimens    | sions |    | $\emptyset$ d1& $\emptyset$ d2 selection * $\emptyset$ d1 $\leq \emptyset$ d2 |    |    |    |    |    |    |    |    | Ød3  |    | 14 | F    | Δ    | Clamp | ing screw            |
|-----------|-------|----|---|----|----|----|----|----|----|----|----|------|----|----|------|------|-------|----------------------|
| Model No. | ØD    | 14 | 15  | 16 | 18 | 20 | 22 | 25 | 28 | 30 | 35 | Dus  |    | LI | Г    | A    | М     | Lock torque<br>(N·m) |
|           | 44    | ٠  | •   | •  | ٠  | ٠  |    |    |    |    |    | 22.5 | 46 | 15 | 7.5  | 14.5 | 5     | *8.4                 |
| FACJ      | 55    |    |   |    | •  | ٠  | •  | ٠  |    |    |    | 28   | 57 | 19 | 9.5  | 17   | 6     | *14.4                |
|           | 70    |    |   |    |    |    | •  | •  | •  | •  | •  | 39   | 77 | 25 | 12.5 | 24   | 8     | *30.0                |

#### \*Moment of inertial torque and weight calculated by maximum diameter.

| Specific    | cation | Allowable | Allowable I | Visalignment | Static     | Max.    | ★ Moment            | 🖈 Weiaht |
|-------------|--------|-----------|-------------|--------------|------------|---------|---------------------|----------|
| Model No. Ø | ØD     | Torque    | Angular     | Parallel     | Stiffness  | RPM     | of Inertia          | (g)      |
|             |        | (N·m)     | ( ° )       | (mm)         | (IN-m/rad) | (r/min) | (Kg·m²)             |          |
|             | 44     | 26        |             | 1            | 1500       | 12000   | 4*10 <sup>-5</sup>  | 140      |
| FACJ        | 55     | 40        | 2           | 1.5          | 2800       | 10000   | 11*10 <sup>-5</sup> | 260      |
|             | 70     | 72        |             | 2            | 4800       | 8000    | 40*10 <sup>-5</sup> | 450      |

#### ©FAMJ&FACJ spacer selection, please refer to P.43

Model no. Ød1 Ød2 Q'ty

% www.sflinear.com.tw

ød3 ød1H8

• Operating temperature : -20°C~80°C

#### Flexible Oldham Coupling





· Offset of angular, parallel, or axial deviation are individual allowed value, so couple reasons of axial

offset appearing at same time would reduce the unit allowable value.



| Component  | Material       | Surface Finish | Accessories    |
|------------|----------------|----------------|----------------|
| Main frame | Aluminum Alloy | Anodized       |                |
| Spacer     | (POM)          | _              | Clamping Sciew |

| Dimen     | sions |   |   |   | Ød1a | &Ød2 | 2 sele | ection | *Ø | d1 ≦ | Ød2 |    |    |    | Maa  | L  | 11 | т | E   | _   | Clamp | ing screw           |
|-----------|-------|---|---|---|------|------|--------|--------|----|------|-----|----|----|----|------|----|----|---|-----|-----|-------|---------------------|
| Model No. | ØD    | 4 | 5 | 6 | 6.35 | 7    | 8      | 9.525  | 10 | 11   | 12  | 14 | 15 | 16 | Dus  | L  |    | 1 |     | A   | Μ     | Lock torqu<br>(N·m) |
|           | 16    | • | • | • |      |      |        |        |    |      |     |    |    |    | 7    | 29 | 13 | 3 | 2   | 5   | 25    |                     |
|           | 20    |   | • | • | •    | •    | •      |        |    |      |     |    |    |    | 9    | 33 | 14 | 5 | 3   | 6.5 |       |                     |
| FACPL     | 25    |   |   | • | •    | •    | •      | •      | •  |      |     |    |    |    | 11   | 39 | 17 | 5 | 3.8 | 9   | 3     | 1.5                 |
|           | 32    |   |   |   |      |      | •      | •      | •  | •    | •   | ٠  |    |    | 14.5 | 45 | 19 | 7 | 4.5 | 11  | 4     | 2.5                 |
|           | 40    |   |   |   |      |      |        |        |    |      | •   | •  | •  | •  | 17   | 50 | 23 | 4 | 7   | 13  | 5     | 4                   |

#### \*Moment of inertial torque and weight calculated by maximum diameter.

| Specific  | cation | Allowable<br>Wrench | Allowable M    | lisalignment     | Static<br>Torsional    | Max.                          | * Moment              | ★ Weight |
|-----------|--------|---------------------|----------------|------------------|------------------------|-------------------------------|-----------------------|----------|
| Model No. | ØD     | Torque<br>(N⋅m)     | Angular<br>(°) | Parallel<br>(mm) | Stiffness<br>(N·m/rad) | RPM<br>(r/min <sup>-1</sup> ) | of Inertia<br>(kg·m²) | (g)      |
|           | 16     | 0.7                 |                | 1.0              | 31                     | 9500                          | 5.8*10 <sup>-7</sup>  | 12       |
|           | 20     | 1.2<br>2 3          |                | 1.5              | 60                     | 7600                          | 1.5*10 <sup>-6</sup>  | 19       |
| FACPL     | 25     |                     |                | 2.0              | 140                    | 6100                          | 4.4*10 <sup>-6</sup>  | 36       |
|           | 32     | 4.5                 |                | 2.5              | 280                    | 4800                          | 1.4*10 <sup>-5</sup>  | 69       |
|           | 40     | 9                   |                | 3.0              | 540                    | 3800                          | 4.1*10 <sup>-5</sup>  | 130      |

#### Linear Motion Component O Couplings

Flexible Oldham Coupling



 Operating temperature : -20°C~80°C · Offset of angular, parallel, or axial deviation are individual allowed value, so couple reasons of axial offset appearing at same time would reduce the unit allowable value.





| Component  | Material | Surface Finish | Accessories    |
|------------|----------|----------------|----------------|
| Main frame | AL 7075  | Anodized       |                |
| Spacer     | (POM)    | _              | Clamping Screw |

| Dimens    | ions |   |   | Q | Ød1&0 | ðd2 se | electio | n *Ø | Ød1 ≦ | Ød2 |    |    |    | <b>0</b> 40 |      | 14     | F   | Δ   | Clampi | ing screw            |
|-----------|------|---|---|---|-------|--------|---------|------|-------|-----|----|----|----|-------------|------|--------|-----|-----|--------|----------------------|
| Model No. | ØD   | 3 | 4 | 5 | 6     | 6.35   | 7       | 8    | 9.525 | 10  | 11 | 12 | 14 | 003         | L    | LI     | Г   | A   | М      | Lock torque<br>(N·m) |
|           | 12   | • | • | • |       |        |         |      |       |     |    |    |    | 6           | 14.9 | 5      | 2.5 | 4   | 2      | 0.5                  |
| FACPS     | 16   | • | • | • | •     |        |         |      |       |     |    |    |    | 8           | 21   | 7      | 35  | 5   | 25     | 1                    |
|           | 20   |   |   | • | •     | •      | •       | •    |       |     |    |    |    | 10          | 22   | 22 7 3 | 5.5 | 6.5 | 2.5    |                      |
|           | 25   |   |   |   |       | •      | •       | •    | •     | ٠   |    |    |    | 14          | 27.2 | 8      | 4   | 9   | 3      | 1.5                  |
|           | 32   |   |   |   |       |        | •       | •    | •     | •   | •  | •  | •  | 18          | 33.3 | 10     | 5   | 11  | 4      | 2.5                  |

#### \*Moment of inertial torque and weight calculated by maximum diameter.

| Specifi   | cation | Allowable                   | Allowable M | lisalignment     | Static                 | Max.                          | ★ Moment              | ★ Weight |
|-----------|--------|-----------------------------|-------------|------------------|------------------------|-------------------------------|-----------------------|----------|
| Model No. | ØD     | Torque Angular<br>(N·m) (°) |             | Parallel<br>(mm) | Stiffness<br>(N·m/rad) | RPM<br>(r/min <sup>-1</sup> ) | of Inertia<br>(kg⋅m²) | (g)      |
|           | 12     | 0.2                         |             | 0.6              | 9                      | 13000                         | 7.1*10 <sup>-8</sup>  | 3        |
|           | 16     | 0.4                         |             | 1.0              | 30                     | 9500                          | 3*10 <sup>-7</sup>    | 8        |
| FACPS     | 20     | 0.7 2                       |             | 1.3              | 47                     | 7600                          | 7.4*10 <sup>-7</sup>  | 13       |
|           | 25     | 1.2                         | 1.2         |                  | 85                     | 6100                          | 2.2*10 <sup>-6</sup>  | 24       |
|           | 32     | 2.8                         |             | 2.0              | 190                    | 4800                          | 7.3*10 <sup>-6</sup>  | 48       |

#### © FACPL&FACPS spacer selection, please refer to P.44

|                 |           |   | , թ |     |         |  |
|-----------------|-----------|---|-----|-----|---------|--|
| dering Example: | FACPS25   |   | 8   | 10  | 100 PCS |  |
|                 | Model no. | - | Ød1 | Ød2 | Q'ty    |  |

SF

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#### Flexible | Oldham Coupling

Product Specification







| Component  | Material       | Surface Finish | Accessories |
|------------|----------------|----------------|-------------|
| Main frame | Aluminum Alloy | Anodized       | Sot corow   |
| Spacer     | (POM)          | _              | SetSciew    |

| Dimens    | ions |   |   |   | Ød1 | &Ød2 | 2 sele | ction | *Ø    | d1 ≦ | Ød2 |    |    |    |    | - Ød3 L |    | 1.4 | т | E   | Se | t screw             |
|-----------|------|---|---|---|-----|------|--------|-------|-------|------|-----|----|----|----|----|---------|----|-----|---|-----|----|---------------------|
| Model No. | ØD   | 3 | 4 | 5 | 6   | 6.35 | 7      | 8     | 9.525 | 10   | 11  | 12 | 14 | 15 | 16 | 003     | L  | LI  | 1 | F   | М  | Lock torqu<br>(N·m) |
|           | 16   | • | • | • | •   | •    |        |       |       |      |     |    |    |    |    | 7       | 18 | 7   | 4 | 3.5 | 3  | 0.7                 |
|           | 20   |   | • | • | •   | •    | •      | •     |       |      |     |    |    |    |    | 9       | 23 | 9   | 5 | 4.5 | 4  | 1.7                 |
| FAMN      | 25   |   |   | • | •   | •    | •      | •     | •     | •    |     |    |    |    |    | 11      | 28 | 11  | 6 | 5.5 | 5  | 4                   |
|           | 32   |   |   |   |     |      |        | •     | •     | •    | •   | •  | •  |    |    | 14.5    | 33 | 13  | 7 | 6.5 | 6  | 7                   |
|           | 40   |   |   |   |     |      |        | •     | •     | •    | •   | •  | •  | •  | •  | 17      | 32 | 14  | 4 | 7   | 0  | · /                 |

#### \*Moment of inertial torque and weight calculated by maximum diameter.

| Specific  | cation | Allowable       | Allowable M    | isalignment      | Static<br>Torsional    | Max.                          | ★ Moment                           | ★ Weight |
|-----------|--------|-----------------|----------------|------------------|------------------------|-------------------------------|------------------------------------|----------|
| Model No. | ØD     | Torque<br>(N⋅m) | Angular<br>(°) | Parallel<br>(mm) | Stiffness<br>(N·m/rad) | RPM<br>(r/min <sup>-1</sup> ) | of Inertia<br>(kg·m <sup>2</sup> ) | (g)      |
|           | 16     | 0.7             |                | 1.0              | 31                     | 9500                          | 3.2*10 <sup>-7</sup>               | 7        |
|           | 20     | 1.2             |                | 1.5              | 60                     | 7600                          | 1.0*10 <sup>-6</sup>               | 14       |
| FAMN      | 25     | 2 3             |                | 2.0              | 140                    | 6100                          | 3.0*10 <sup>-6</sup>               | 27       |
|           | 32     | 32 4.5          |                | 2.5              | 280                    | 4800                          | 9.5*10 <sup>-6</sup>               | 50       |
|           | 40     | 9               |                | 3.0              | 540                    | 3800                          | 2.3*10 -5                          | 80       |

#### Linear Motion Component O Couplings

Flexible | Oldham Coupling



· Offset of angular, parallel, or axial deviation are individual value, so couple reasons of axial offset appearing at same time would reduce the unit allowable value. Suitable applied for high torque rigidity and low vibration needs.







| Component  | Material                | Surface Finish | Accessories    |
|------------|-------------------------|----------------|----------------|
| Main frame | Aluminum Alloy          | Anodized       |                |
| Spacer     | Aluminum Alloy          | Anodized       |                |
| Pin        | SUJ-2                   | _              | Clamping screw |
| Bearing    | Aluminum<br>+<br>Teflon | _              |                |

| Dimens    | ions |   |   | Ød1 | &Ø | d2 s | elect | tion | *  | Ød1 | ≦ ! | Ød2 |    |    |    |    |     | <b>0</b> 40 |    | 14   | Δ    | F   | Clampi | ng screw             |
|-----------|------|---|---|-----|----|------|-------|------|----|-----|-----|-----|----|----|----|----|-----|-------------|----|------|------|-----|--------|----------------------|
| Model No. | ØD   | 3 | 4 | 5   | 6  | 8    | 10    | 11   | 12 | 14  | 15  | 16  | 18 | 19 | 20 | עש | וספ | ba3         | L  | LI   | A    | Г   | М      | Lock torque<br>(N·m) |
|           | 15   | • | • | •   | •  |      |       |      |    |     |     |     |    |    |    | 15 | 16  | $\searrow$  | 18 | 6    | 5.2  | 2.5 | M2     | 0.5                  |
|           | 20   |   | • | •   | •  | •    |       |      |    |     |     |     |    |    |    | 20 | 22  | 4           | 20 | 7    | 6.5  | 2.7 | M2     | 0.5                  |
|           | 25   |   |   | ٠   | ٠  | ٠    | ٠     | •    | ٠  |     |     |     |    |    |    | 25 | 27  | 7           | 27 | 9    | 9    | 3.5 | M2.5   | 1                    |
| FACU      | 30   |   |   |     | •  | •    | •     | •    | •  | •   |     |     |    |    |    | 30 | 32  | 8           | 30 | 9.5  | 10.5 | 4   | M3     | 1.5                  |
|           | 35   |   |   |     |    | •    | •     | •    | ٠  | •   | •   | •   |    |    |    | 35 | 37  | 13          | 35 | 11.5 | 12.5 | 5   | M4     | 2.5                  |
|           | 40   |   |   |     |    | •    | •     | •    | •  | •   | •   | •   | •  | •  | •  | 40 | 42  | 13          | 40 | 12.5 | 15   | 5.5 | M4     | 2.5                  |

#### \*Moment of inertial torque and weight calculated by maximum diameter.

| Specif    | ication | Allowable Wr         | rench Torque        | Allowable N    | lisalignment     | Static                 | Max.                          | * Moment              | * Woight |
|-----------|---------|----------------------|---------------------|----------------|------------------|------------------------|-------------------------------|-----------------------|----------|
| Model No. | ØD      | Rated torqe<br>(N·m) | Max. torqe<br>(N·m) | Angular<br>(°) | Parallel<br>(mm) | Stiffness<br>(N·m/rad) | RPM<br>(r/min <sup>-1</sup> ) | of Inertia<br>(kg⋅m²) | (g)      |
|           | 15      | 0.3                  | 0.6                 |                |                  | 200                    | 42000                         | 2.3*10 <sup>-7</sup>  | 8        |
|           | 20      | 0.6                  | 1.2                 | ]              |                  | 400                    | 31000                         | 8.1*10 <sup>-6</sup>  | 16       |
| -         | 25      | 1.2                  | 2.4                 | 1              | 0.2              | 900                    | 25000                         | 2.7*10 <sup>-6</sup>  | 33       |
| FACU      | 30      | 2.4                  | 4.8                 |                | 0.2              | 1300                   | 21000                         | 6.2*10 <sup>-5</sup>  | 53       |
|           | 35      | 4                    | 8                   | 1              |                  | 2200                   | 18000                         | 1.3*10 <sup>-5</sup>  | 81       |
|           | 40      | 6                    | 12                  | 1              |                  | 2300                   | 4000                          | 2.6*10 <sup>-5</sup>  | 120      |

| Ordering Example: | FACU25    |   | 10  |    | 12  |   | 100 PCS |  |
|-------------------|-----------|---|-----|----|-----|---|---------|--|
|                   | Model no. | - | Ød1 | 25 | Ød2 | - | Q'ty    |  |

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#### Oldham Spacer | Black Carbon Resin

#### FS-PC

SFT

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| Space     | r      |      |     |      |     | Materi | al : carbon resin |
|-----------|--------|------|-----|------|-----|--------|-------------------|
| Dime      | nsions |      | т   | Ød3  | W   | 7      | Coupling          |
| Model No. | ØD     | 001  |     | Dus  | vv  | 2      | Coupinig          |
|           | 6      | 6.2  | 2.2 | 2.4  | 1.3 | 1.3    | FSMP6             |
|           | 8      | 8.2  | 2.4 | 3.4  | 1.6 | 1.5    | FSMP8             |
|           | 10     | 10.2 | 2.6 | 4.4  | 1.6 | 1.6    | FSMP10            |
|           | 12     | 12.5 | 3.8 | 4.0  | 3   | 1.8    | FSMP12            |
|           | 15     | 15   | 4.8 | 5.0  | 3.4 | 2.3    | FSMP15<br>FSCP15  |
|           | 17     | 17.5 | 6   | 7.2  | 4.6 | 2.9    | FSMP17<br>FSCP17  |
| F3-FC     | 20     | 21   | 6.6 | 8.2  | 5.8 | 3.2    | FSMP20<br>FSCP20  |
|           | 26     | 27   | 7   | 12.0 | 7   | 4      | FSMP26<br>FSCP26  |
|           | 30     | 31   | 8.5 | 13.0 | 7   | 4      | FSMP30<br>FSCP30  |
|           | 34     | 35   | 7   | 13.0 | 7   | 4      | FSMP34<br>FSCP34  |
|           | 38     | 41   | 9.5 | 16.0 | 7   | 4      | FSMP38<br>FSCP38  |

• W dimension is made in strict standard, and inter-inlaid adjustment.



FS-PC 26 Model no. ØD



(Reference for FSMG, FSCG, FSMP, FSCP)

| Shaft dia. | v               | v                   | ŀ               | Kou dimonsiona W/*H |     |  |
|------------|-----------------|---------------------|-----------------|---------------------|-----|--|
| Ød1 · Ød2  | Datum dimension | Allowable Tolerance | Datum dimension | Allowable tolerance |     |  |
| 6~7.9      | 2               | .0.0125             | 1.0             |                     | 2*2 |  |
| 8~10       | 3               | ±0.0125             | 1.4             |                     | 3*3 |  |
| 10.1~12    | 4               |                     | 1.8             | +0.1                | 4*4 |  |
| 12.1~17    | 5               | ±0.0150             | 2.3             | 0                   | 5*5 |  |
| 17.1~20    | 6               |                     | 2.8             |                     | 6*6 |  |

#### Linear Motion Component O Couplings

Oldham Spacer | Black POM





| <ul> <li>Space</li> </ul> | Spacer Material : Polyacetel (POM) |      |    |       |      |      |          |  |  |  |  |  |
|---------------------------|------------------------------------|------|----|-------|------|------|----------|--|--|--|--|--|
| Dimensions                |                                    |      | т  | (742) | 147  | 7    | Coupling |  |  |  |  |  |
| Model No.                 | ØD                                 | וטש  | I  | 003   | VV   | 2    | Coupling |  |  |  |  |  |
|                           | 11                                 | 44.2 | 14 | 22.5  | 10.4 | 0    | FAMJ44   |  |  |  |  |  |
|                           | 44                                 | 44.5 | 14 | 22.5  | 10.4 | 9    | FACJ44   |  |  |  |  |  |
| FS-PP                     |                                    | F FF | 47 | 20    | 12   | 11   | FAMJ55   |  |  |  |  |  |
|                           | 55                                 | 55   | 17 | 28    | 13   | 11   | FACJ55   |  |  |  |  |  |
|                           | 70                                 | 60   | 25 | 00    | 15   | 16 5 | FAMJ70   |  |  |  |  |  |
|                           | 70                                 | 69   | 25 | - 39  | 15   | 10.5 | FACJ70   |  |  |  |  |  |

ød3

ØD1





#### (Reference for FAMJ, FACJ)

| Shaft dia. | ١                         | N       | ł               | 4                   | Ver dimensione M/#11 |  |
|------------|---------------------------|---------|-----------------|---------------------|----------------------|--|
| Ød1 · Ød2  | Ød1 · Ød2 Datum dimension |         | Datum dimension | Allowable tolerance |                      |  |
| 14~17      | 5                         | .0.0150 | 2.3             | +0.1                | 5*5                  |  |
| 17.1~22    | 6                         | ±0.0150 | 2.8             | 0                   | 6*6                  |  |
| 22.1~30    | 8                         | 10.0190 | 2.2             | +0.2                | 8*7                  |  |
| 30.1~38    | 10                        | ±0.0100 | 3.3             | 0                   | 10*8                 |  |

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#### Linear Motion Component O Couplings

#### Oldham Insert POM





Spacer

Material : Polycetal (POM)

| Dimen     | sions | ØD1 | т  | (042) | 14/ | 7   | Coupling          |  |
|-----------|-------|-----|----|-------|-----|-----|-------------------|--|
| Model No. | ØD    | ועש | I  | 003   | vv  | 2   | Coupling          |  |
|           | 16    | 16  | 12 | 7     | 8   | 4.5 | FAMN16<br>FACPL16 |  |
|           | 20    | 20  | 15 | 9     | 10  | 5.5 | FAMN20<br>FACPL20 |  |
| FA-PB     | 25    | 25  | 18 | 11    | 12  | 6.5 | FAMN25<br>FACPL25 |  |
|           | 32    | 32  | 21 | 14.5  | 15  | 7.5 | FAMN32<br>FACPL32 |  |
|           | 40    | 40  | 18 | 17    | 19  | 7.5 | FAMN40<br>FACPL40 |  |
|           |       |     |    |       |     |     | FA-PB 32          |  |

Model no. ØD

FA-PG





Spacer

| <ul> <li>Space</li> </ul> | er |     |      |       |     | Material : F   | Polycetal (POM)              |  |
|---------------------------|----|-----|------|-------|-----|----------------|------------------------------|--|
| Dimensions                |    |     | т    | (Xd2) | 10/ | 7              | Coupling                     |  |
| Model No.                 | ØD | וטש | I    | Dus   | VV  | 2              | Couping                      |  |
|                           | 12 | 12  | 4.9  | 6     | 4   | 2.5            | FACPS12                      |  |
|                           | 16 | 16  | 7    | 8     | 5   | 3.5            | FACPS16                      |  |
| FA-PG                     | 20 | 20  | 8    | 10    | 7   | 4              | FACPS20                      |  |
|                           | 25 | 25  | 11.2 | 14    | 9   | 5.5            | FACPS25                      |  |
|                           | 32 | 32  | 13.3 | 18    | 10  | 6.5            | FACPS32                      |  |
|                           |    |     |      |       |     | Ordering Examp | le: FA-PG 32<br>Model no. ØD |  |

D  $\sim$ 

#### Linear Motion Component O Couplings

Flexible | Jaw Coupling



FAME ØD=40

| Component  | Material       | Surface Finish | Accessories |
|------------|----------------|----------------|-------------|
| Main frame | Aluminum Alloy | Anodized       | Sotscrow    |
| Spider     | Urethane(PU)   | _              | Gersciew    |

★ Dimension "C", must be previously reserved while assemly by users, otherwise it would affect allowed deflection, accelerating shaft and coupling damage.

| Dimensi   | Dimensions |                   |   | $\emptyset$ d1& $\emptyset$ d2 selection * $\emptyset$ d1 $\leq \emptyset$ d2 |   |   |      |   |   |       |    |    |    |    |    |    |    | 1.4 | Б  |     | F    | Se | t screw              |
|-----------|------------|-------------------|---|---|---|---|------|---|---|-------|----|----|----|----|----|----|----|-----|----|-----|------|----|----------------------|
| Model No. | ØD         | (color selection) | 3 | 4   | 5 | 6 | 6.35 | 7 | 8 | 9.525 | 10 | 11 | 12 | 14 | 15 | 16 |    | LI  | В  |     | F    | М  | Lock torque<br>(N·m) |
| FAME      | 14         | B (Blue)          | • | •   | • | • |      |   |   |       |    |    |    |    |    |    | 22 | 7   | 6  |     | 3.5  | 0  | 0.7                  |
|           | 20         | B (Blue)          |   |   | • | • | •    | • | • | •     |    |    |    |    |    |    | 30 | 10  | 8  |     | 5    | 3  | 0.7                  |
|           | 30         | VV (VVIIILE)      |   |   |   |   |      | • | • | •     | •  | ٠  | •  | ٠  |    |    | 35 | 11  | 10 | 1.5 | 5.5  | 4  | 1.7                  |
|           | 40         | R (Red)           |   |   |   |   |      |   |   |       | •  | •  | •  | •  | •  | •  | 66 | 25  | 12 | 2   | 12.5 | 5  | 4                    |

#### \*Moment of inertial torque and weight calculated by maximum diameter.

|          |        |     |                |          |         |        |                |        |           |         |                   |           | -         |                      |                 |
|----------|--------|-----|----------------|----------|---------|--------|----------------|--------|-----------|---------|-------------------|-----------|-----------|----------------------|-----------------|
| Specifi  | cation | AI  | lowat<br>Vrenc | ole<br>h | A       | llowat | ole Mi         | salign | iment     | Т       | Statio            | :<br>nal  | Max       | * Momont             |                 |
| Model No | ØD     |     | Torqu<br>(N∙m) | e        | Angular | P      | aralle<br>(mm) |        | Axial     | )<br>(N | Stiffne<br>V·m/ra | ss<br>id) | RPM       | of Inertia           | ★ Weight<br>(g) |
|          | 00     | В   | W              | R        |         | В      | W              | R      | (mm)      | В       | W                 | R         | (1/11111) | (Kg·m-)              |                 |
|          | 14     | 0.7 | 1.2            | 2        |         | 0.15   | 0.10           |        | +0.6<br>0 | 8       | 14                | 22        | 27000     | 2.1*10 <sup>-7</sup> | 7.3             |
| EAME     | 20     | 1.8 | 3              | 5        | 1.0     | 0.20   | 0.15           | 0.10   | +0.8<br>0 | 16      | 29                | 55        | 19000     | 1.0*10 <sup>-6</sup> | 18              |
| FAIVIE   | 30     | 4   | 7.5            | 12.5     | 1.0     | 0.20   | 0.15           | 0.10   | +1.0<br>0 | 46      | 73                | 130       | 13000     | 5.9*10 <sup>-6</sup> | 46              |
|          | 40     | 4.9 | 10             | 17       | -       | 0.15   | 0.10           |        | +1.2<br>0 | 380     | 570               | 1200      | 9600      | 4.0*10 <sup>-5</sup> | 150             |

| Ordering Example: FAME30 | 10 * 12 100 PCS |
|--------------------------|-----------------|
| Model no.                | Ød1 * Ød2 Q'ty  |

(R)

ød1H8

Ød1H8

#### Flexible | Jaw Coupling

FAMK

 Operating temperature : -20°C~60°C · Offset of angular, parallel, or axial deviation are individual allowed value, so couple reasons of axial offset appearing at same time would reduce the unit allowable value.





(R)





FAMK ØD=40

| Component  | Material       | Accessories |          |
|------------|----------------|-------------|----------|
| Main frame | Aluminum Alloy | Anodized    | Sotscrow |
| Spider     | Urethane(PU)   | -           | Sersciew |

4-M

★ Dimension "C", must be previously reserved while assemly by users, otherwise it would affect allowed deflection, accelerating shaft and coupling damage.

| Dimens    | Dimensions |                      | Ø  | d1&Ød2 | 2 selecti | on *Ø | $id1 \leq Q$ | ðd2 |    | 14 | Р  | 6   | F    | Se | et screw            |
|-----------|------------|----------------------|----|--------|-----------|-------|--------------|-----|----|----|----|-----|------|----|---------------------|
| Model No. | ØD         | (color selection)    | 10 | 11     | 12        | 14    | 15           | 16  |    | LI | В  |     | F    | М  | Lock torqu<br>(N·m) |
| FAMK -    | 30         | B (Blue)             | •  | •      | •         | •     |              |     | 35 | 11 | 10 | 1.5 | 5.5  | 4  | 1.7                 |
|           | 40         | W (White)<br>R (Red) | ٠  | •      | ٠         | ٠     | •            | •   | 66 | 25 | 12 | 2   | 12.5 | 5  | 4                   |

#### \*Moment of inertial torque and weight calculated by maximum diameter.

| Specific  | Specification |                   |     |         | A       | llowat | ole Mi         | salign | ment       | Т    | Statio            | ;<br>nal  | Max                           | * Momont             |                 |
|-----------|---------------|-------------------|-----|---------|---------|--------|----------------|--------|------------|------|-------------------|-----------|-------------------------------|----------------------|-----------------|
| Model No  | ØD            | _ Torque<br>(N⋅m) |     | ie<br>) | Angular | P      | aralle<br>(mm) | I      | Axial      | S (1 | Stiffne<br>N∙m/ra | ss<br>ad) | RPM<br>(r/min <sup>-1</sup> ) | of Inertia           | ★ Weight<br>(g) |
| woder no. | עש            | В                 | W   | R       |         | В      | W              | R      | (11111)    | В    | W                 | R         | (1/11111)                     | (kg·m-)              |                 |
| FAMK      | 30            | 4                 | 7.5 | 12.5    | 10      | 0.20   | 0.15           | 0.10   | +1.00<br>0 | 46   | 73                | 130       | 5100                          | 5.8*10 <sup>-6</sup> | 45              |
|           | 40            | 4.9               | 10  | 17      | 1.0     | 0.15   | 0.10           | 0.10   | +1.20      | 380  | 570               | 1200      | 3800                          | 3.8*10 <sup>-5</sup> | 150             |

©FAME&FAMK spider selection and installation remark please refer to P.55



#### Linear Motion Component O Couplings

(B)

(W)

(R)

Flexible | Jaw Coupling

FACE



\_\_\_\_.

 $\bigcirc$ 

Ød1H8







FACE ØD=40

| <ul> <li>Operating temperature : -20°C~60°C</li> </ul>    |
|---|
| <ul> <li>Offset of angular, parallel, or axial</li> </ul> |
| deviation are individual allowed value, so                |
| couple reasons of axial offset appearing at               |
| same time would reduce the unit allowable                 |
| value.  |

| Component  | Material       | Surface Finish | Accessories    |
|------------|----------------|----------------|----------------|
| Main frame | Aluminum Alloy | Anodized       | Clamping scrow |
| Spider     | Urethane(PU)   | -              | Clamping Screw |

★ Dimension "C", must be previously reserved while assemly by users, otherwise it would affect allowed deflection, accelerating shaft and coupling damage.

| Dimens    | Dimensions Spider |                   |   | $\emptyset$ d1& $\emptyset$ d2 selection * $\emptyset$ d1 $\leq \emptyset$ d2 |   |   |      |   |   |       |    |    |    |    |    |    |    | 14 | Б  | 6   | F   | Δ   | Clamp | oing screw           |
|-----------|-------------------|-------------------|---|---|---|---|------|---|---|-------|----|----|----|----|----|----|----|----|----|-----|-----|-----|-------|----------------------|
| Model No. | ØD                | (color selection) | 3 | 4   | 5 | 6 | 6.35 | 7 | 8 | 9.525 | 10 | 11 | 12 | 14 | 15 | 16 | L  | LI | D  | C   | Г   | A   | М     | Lock torque<br>(N·m) |
| FACE      | 14                | B (Blue)          | • | •   | • |   |      |   |   |       |    |    |    |    |    |    | 22 | 7  | 6  | 1   | 3.5 | 4   | 2     | 0.5                  |
|           | 20                | W (White)         |   |   | • | • | •    | • | ٠ |       |    |    |    |    |    |    | 30 | 10 | 8  |     | 5   | 6.5 | 2.5   | 1                    |
|           | 30                | VV (VVIIILE)      |   |   |   |   |      | • | ٠ | •     | •  | •  | •  |    |    |    | 35 | 11 | 10 | 1.5 | 5.5 | 10  | 4     | 2.5                  |
|           | 40                | R (Red)           |   |   |   |   |      |   |   |       | ٠  | ٠  | •  | ٠  | ٠  | ٠  | 66 | 25 | 12 | 2   | 8.5 | 14  | 5     | 4                    |

| Specific  | cation | A   | lowat         | ole     | A       | llowat | ole Mi          | salign | ment                                    | т   | Static             |          |             |  |                 |
|-----------|--------|-----|---------------|---------|---------|--------|-----------------|--------|---|-----|--------------------|----------|-------------|--|-----------------|
| Model No  | ØD     |     | Torqu<br>(N∙m | ie<br>) | Angular | F      | Paralle<br>(mm) | el     | Axial                                   | (N  | Stiffnes<br>V·m/ra | ss<br>d) | Max.<br>RPM | <ul> <li>Moment</li> <li>of Inertia</li> <li>(kg m<sup>2</sup>)</li> </ul> | ★ Weight<br>(g) |
| model He. | 00     | В   | W             | R       |         | В      | W               | R      | ((((((((((((((((((((((((((((((((((((((( | В   | W                  | R        |             | (Kg·III-)  |                 |
|           | 14     | 0.7 | 1.2           | 2       |         | 0.15   | 0.10            |        | +0.6<br>0                               | 8   | 14                 | 22       | 11000       | 1.6*10 <sup>-7</sup>   | 6               |
| EACE      | 20     | 1.8 | 3             | 5       | 1.0     | 0.20   | 0.15            | 0 10   | +0.8<br>0                               | 16  | 29                 | 55       | 7600        | 1.1*10 <sup>-6</sup>   | 19              |
| FACE      | 30     | 4   | 7.5           | 12.5    | 1.0     | 0.20   | 0.20 0.15       |        | +1.0<br>0                               | 46  | 73                 | 130      | 5100        | 6.2*10 <sup>-6</sup>   | 50              |
|           | 40     | 4.9 | 10            | 17      |         | 0.15   | 0.10            |        | +1.2<br>0                               | 380 | 570                | 1200     | 3800        | 3.9*10 <sup>-5</sup>   | 160             |



#### Linear Motion Component O Couplings

Ød1H8

201HB

#### Flexible | Jaw Coupling





FACK ØD=14.20.30



(R)

 Operating temperature : -20°C~60°C · Offset, deflection, shaft deviation are individual allowed values, so axial offsets in all reasons appearing at same time

would reduce values.



| Component  | Material       | Surface Finish | Accessories    |
|------------|----------------|----------------|----------------|
| Main frame | Aluminum Alloy | Anodized       | Clamping scrow |
| Spider     | Urethane(PU)   | _              | Clamping Sciew |

Dimension "C", must be previously reserved while assemly by users, otherwise it would affect allowed deflection, accelerating shaft and coupling damage.

| Dimens    | Dimensions |                   | Ø  | 0d1&Ød | 2 select | tion *( | Ød1 ≦ | Ød2 |    | 14 | Б  | 6   | F   | _  | Clam | ping screw           |
|-----------|------------|-------------------|----|--------|----------|---------|-------|-----|----|----|----|-----|-----|----|------|----------------------|
| Model No. | ØD         | (color selection) | 10 | 11     | 12       | 14      | 15    | 16  |    |    | D  |     |     | A  | М    | Lock torque<br>(N·m) |
| FACK      | 30         | B (Blue)          | ٠  | •      | ٠        |         |       |     | 35 | 11 | 10 | 1.5 | 5.5 | 10 | 4    | 2.5                  |
| FACK      | 40         | R (Red)           | •  | •      | •        | ٠       | •     | •   | 66 | 25 | 12 | 2   | 8.5 | 14 | 5    | 4                    |

#### \*Moment of inertial torque and weight calculated by maximum diameter.

| Specific  | ration | AI              | llowat | ole     | A       | llowat       | ole Mi | saligr | iment          |     | Static | ;<br>al     |  |                      |     |
|-----------|--------|-----------------|--------|---------|---------|--------------|--------|--------|----------------|-----|--------|-------------|--|----------------------|-----|
| Model No  |        | Torque<br>(N·m) |        | ie<br>) | Angular | Angular (mm) |        | Axial  | kial (N·m/rad) |     |        | Max.<br>RPM | <ul> <li>Moment</li> <li>of Inertia</li> <li>(ka m<sup>2</sup>)</li> </ul> | ★ Weight<br>(g)      |     |
| model No. | 00     | В               | W      | R       |         | В            | W      | R      | (mm)           | В   | W      | R           | (1/11)   | (kg·m²)              |     |
| EACK      | 30     | 4               | 7.5    | 12.5    | 1.0     | 0.20         | 0.15   | 0.10   | +1.0<br>0      | 46  | 73     | 130         | 5100   | 4.2*10 <sup>-6</sup> | 50  |
| FACK      | 40     | 4.9             | 10     | 17      | 1.0     | 0.15         | 0.10   | 0.10   | +1.2           | 380 | 570    | 1200        | 3800   | 3.7*10 <sup>-5</sup> | 160 |

©FACE&FACK spider selection and installation remark please refer to P.55

| ing Example: | FACK30    |   | 10  | <br>12 | 100 PCS |  |
|--------------|-----------|---|-----|--------|---------|--|
| ing Example. | Model no. | 1 | Ød1 | Ød2    | Q'ty    |  |

#### Linear Motion Component O Couplings

Flexible | Jaw Coupling



(R)



FACE D=55,65,80

| Component  | Material     | Surface Finish | Accessories |
|------------|--------------|----------------|-------------|
| Main frame | AL6061T651   | Anodized       | Clamping    |
| Spider     | Urethane(PU) | —              | Clamping    |

| Key way   |           | W                  |           | Н                  | Key way dimension W |  |
|-----------|-----------|--------------------|-----------|--------------------|---------------------|--|
| Ød1 . Ød2 | Dimension | Alloable tolerance | Dimension | Alloable tolerance |                     |  |
| 6~7       | 2         | +0.015             | 1.0       |                    | 2*2                 |  |
| 8~10      | 3         | ±0.015             | 1.4       |                    | 3*3                 |  |
| 11~12     | 4         |                    | 1.8       |                    | 4*4                 |  |
| 13~16     | 5         | ±0.02              | 2.3       | ±0.1               | 5*5                 |  |
| 18~22     | 6         |                    | 2.8       |                    | 6*6                 |  |
| 24~30     | 8         | +0.025             | 2.0       |                    | 8*8                 |  |
| 32~42     | 10        | 10.020             | 3.3       |                    | 10*10               |  |

| Siz   | е  | Spider                      |    | Ød | 11&Ød2 | options * Øc | d1≦Ød | 12 |    |     |    |    |     |      |    | Clampi | ng screw                |
|-------|----|-----------------------------|----|----|--------|--------------|-------|----|----|-----|----|----|-----|------|----|--------|-------------------------|
| Model | ØD | Elestic strength<br>(Color) | 16 | 20 | 24     | 32           | 35    | 40 | 42 | L   | L1 | B  | С   | F    | A  | М      | Lock<br>Torque<br>(N.m) |
|       | 55 |                             | •  | •  | •      |              |       |    |    | 78  | 30 | 14 | 2   | 10.5 | 20 | M6     | 10.5                    |
| FACE  | 65 | 92sh A(W)<br>98sh A(R)      | ٠  | •  | •      | •            | •     |    |    | 90  | 35 | 15 | 2.5 | 11.5 | 25 | M8     | 25                      |
| 1     | 80 | 303174(11)                  | •  | •  | •      | •            | •     | •  | •  | 114 | 45 | 18 | 3   | 15.5 | 25 | M8     | 30                      |

| Specif | ications | Allowabl<br>(N | e Torque<br>∙m) | Allowable<br>Angle Mis- | Allowabl<br>Mis-align | e Parallel<br>ment (mm) | Allowable<br>Axile Mis- | Static to<br>stiffness ( | orsional<br>N.m/rad) | Max. RPM | Moment<br>of inertia | Weight |
|--------|----------|----------------|-----------------|-------------------------|-----------------------|-------------------------|-------------------------|--------------------------|----------------------|----------|----------------------|--------|
| Model  | ØD       | R              | W               | alignment               | R                     | W                       | (mm)                    | R                        | W                    |          | (kg∙m)               | (9)    |
|        | 55       | 60             | 35              |                         |                       |                         | 1.2                     | 2600                     | 1600                 | 8650     | 1.6*10 <sup>-4</sup> | 330    |
| FACE   | 65       | 160            | 95              | 0.9°                    | 0.1                   | 0.1                     | 1.2                     | 4900                     | 3000                 | 7350     | 3.8*10 <sup>-4</sup> | 560    |
|        | 80       | 325            | 190             | ]                       |                       |                         | 1.2                     | 6500                     | 5300                 | 5950     | 1.0*10 <sup>-3</sup> | 560    |



#### Flexible | Jaw Coupling

SF TECHNOLOGY CO...LTC





| Specifications |    | Allowable<br>Torque<br>(N·m) |     | Allowable<br>Angle | Parallel<br>Misalignment<br>(mm) |     | Allowable<br>Axile<br>Misalignment | Static Torsional<br>Stiffness<br>(N·m/rad) |      | Max. RPM<br>(r/min <sup>-1</sup> ) | Moment of Inertia<br>(kg⋅m) | Weight<br>(q) |
|----------------|----|------------------------------|-----|--------------------|----------------------------------|-----|------------------------------------|--|------|------------------------------------|-----------------------------|---------------|
| Model          | ØD | R                            | W   | modigrimorit       | R                                | W   | (mm)                               | R  | W    |                                    |                             | (0)           |
|                | 55 | 60                           | 35  |                    |                                  |     | 1.2                                | 2600                                       | 1600 | 6950                               | 1.91*10 <sup>-4</sup>       | 399           |
| FCSE           | 65 | 160                          | 95  | 0.00               | 0.1                              | 0.1 | 1.2                                | 2600                                       | 1600 | 5850                               | 4.18*10 <sup>-4</sup>       | 592           |
| TOOL           | 80 | 325                          | 190 | 0.5                | 0.1                              | 0.1 | 1.2                                | 4900                                       | 3000 | 4758                               | 12.9*10 <sup>-4</sup>       | 1225          |
|                | 95 | 450                          | 265 |                    |                                  |     | 1.2                                | 2600                                       | 1600 | 4000                               | 31.7*10-4                   | 2300          |

#### Key way dimensions



Ød1&Ød2

#### Jaw Spider

| Model No.    | ØD | Cou              | pling            | Shape diagram | Colour             | Hardness<br>JIS A<br>(Shore A standard) |
|--------------|----|------------------|------------------|---------------|--------------------|---|
|              | 14 | FAME14           | FACE14           | *             |                    |   |
| ES-B         | 20 | FAME20           | FACE20           | 83            | B= Blue            | B=80                                    |
| FS-W<br>FS-R | 30 | FAME30<br>FACE30 | FAMK30<br>FACK30 |               | W= White<br>R= Red | W=92<br>R=98                            |
|              | 40 | FAME40<br>FACE40 | FAMK40<br>FACK40 | ***<br>***    |                    |   |



Spiders are available used for set screw type and clamping type.

- Larger hardness has better sensibility in angular transmission. Smaller hardness has better vibration absorbability.
- Additional remark of installation of Flexible couplings integrated with Jaw Spiders :

Flexible couplings (integrated with Jaw Spiders), model number FAME, FAMK, FACE, FACK series need to reserve "C" dimension while assembling.

This would ensure coupling the function and usage life of Jaw Spiders, as well as keeping isoltion feature of the coupling.



TECHNOLOGY COLLTC

Polyacetal(Abbr. POM), also called Plastic steel.

POM character : Polyoxymethylene is a kind of thermal plasticity polymer, having good physical, mechanical and chemical functions. It has high hardness, rigidity in very wide range of temperature. Secondarily, resisted strength, fatigue resistance, creep resistance are excellent as well, especially outstanding dimension stability and durability; besides, polyoxymethylene has advantages of small friction factor, good durability, dispens-able lubricant, good organci solvent-resistance, low absorbent ability etc..., Long-term using in the range of -40~104°C. In addition, polyoxymethylene has better corro-sion resistance.



\*\*\*\*

#### Urethane(PU)

#### PU glue is also called polyurethane

Polyurethane application is kind of flexible polymer, used as elastic resilience and damping in shock absorber. Generally, polyurethane suits for terrains with collision from small to medium level most, and adjustable polyurethane makes perfect effect. Urethane glue is water-resistant, abrasion-resist, high mechanism strength, and product hardness adjusted by purposes, high elasticity, good shock absorbability, no hurting machine tools, a excelent anti-collision material,

#### Highly wear-resisting copper alloy

Highly wear-resisting copper alloy(aluminum bronze(C6161)) High tensile-resist strength, wear-resistance, and offer various extruded materials, forged materials, centrifugal rolls, and applied to gear, bearing, bushing, slide panel, plastic mould, electrode heads....etc.



#### Character chart for plastic material

|  | Material Specific gravity |             | Thermal distortion | Flammability | Feat   | Purpose  |  |
|--|---------------------------|-------------|--------------------|--------------|--|--|--|
|  |                           | gravity     | temperature        |              | Advantage  | Defect   |  |
|  |                           |             |                    |              | 1. Tough 	flexible   | 1. Low anti-ultraviolet  | 1. Parts in industry load  |
|  |                           |             |                    |              | <ol> <li>CLIP character          <ul> <li>excelent fatigue resistance</li> </ul> </li> </ol> | <ol> <li>Heat dissolution and formald-<br/>ehyde gas produced</li> </ol>                 | 2. Automobile > electric parts                                   |
|  | POM                       | 1.14 ~ 1.43 | Homopolymer        | Flammable    | <ol> <li>Self-lubricity, low abrasion-<br/>resistance</li> </ol>                             | 3. Low anti-acid   | 3. toy parts   |
|  |                           |             |                    |              | 4. Drug tolerance  |  | 4. Substitute for metal  |
|  |                           |             |                    |              | 5. Good heat-resistance  |  |  |
|  |                           |             |                    |              | 1. Good abrasion-resistance  | <ol> <li>Softness in low level , easily stuck<br/>while demolding and shrink.</li> </ol> | 1. Shoes and sports utilities                                    |
|  |                           |             |                    |              | <ol> <li>Climate-resistant and low<br/>temperature-resistant (-35°C~50°C)</li> </ol>         | 2. Long dried time for materials   | <ol> <li>Shock absorb, noise<br/>elimination, bushing</li> </ol> |
|  | PU 1.11 ~ 1.2             |             | point              | Flammable    | 3. anti-oxygen, ozone aging characters   |  | <ol> <li>Grip and grasp with soft-touch<br/>feeling</li> </ol>   |
|  |                           |             | -                  | -            | 4. Good tensile rate of bending strength   |  |  |
|  |                           |             |                    |              | 5. Adjustable toughness  |  |  |

Remark of plastic spacer corrosponding to environment temperature.

Plastic spacer series include rubber or plastic parts. These model no, must be used in operating temperature range indicated on our catalogs. If temperature over 30°C, max. torque and allowable torque shall be corrected by factors as listed below.

| Environment temperature | Corrective factor |
|-------------------------|-------------------|
| -20°C ~ 30°C            | 1.00              |
| 30°C ~ 40°C             | 0.80              |
| 40°C ~ 60°C             | 0.70              |
| 60°C ~ 100°C            | 0.55              |

#### Linear Motion Component O Couplings



 Light, very low inertial and high sensibility. · Maintenance free, super anti-oil and corrosion-resistance.





\*When Ød1<4 and Ød2>5, there would be 3 set screws. \*When Ød1 and Ød2 both smaller than 4, there would be 2 set screws.



| Dimens    | sions |   | $Ød1\&Ød2$ selection $*Ød1 \leq Ød2$ |   |   |   |    |    |    |    |    |    |    | E  | М  |      |                        |  |
|-----------|-------|---|--------------------------------------|---|---|---|----|----|----|----|----|----|----|----|----|------|------------------------|--|
| Model No. | ØD    | 3 | 4                                    | 5 | 6 | 8 | 10 | 11 | 12 | 14 | 15 | 16 | 18 | 20 | L  | Г    | IVI<br>Rough<br>thread |  |
|           | 16    | • | •                                    | • | • |   |    |    |    |    |    |    |    |    | 24 | 6    | 2                      |  |
|           | 20    |   |                                      | • | • | • | •  |    |    |    |    |    |    |    | 30 | 7    | 3                      |  |
| RAM       | 25    |   |                                      |   |   | • | •  | •  | •  |    |    |    |    |    | 36 | 9    | 4                      |  |
|           | 32    |   |                                      |   |   |   |    |    | •  | •  | •  | •  |    |    | 41 | 10   | 4                      |  |
|           | 40    |   |                                      |   |   |   |    |    |    |    | •  | •  | •  | •  | 44 | 10.5 | 5                      |  |

#### \*Moment of inertial torque and weight calculated by maximum diameter.

Surface Finish

Anodized

Accessories

Set screw

| Specific  | cation | Allowable<br>Wrench | Max.                   | * Moment                   | Screw<br>Fixing | 🖈 Weight |
|-----------|--------|---------------------|------------------------|----------------------------|-----------------|----------|
| Model No. | ØD     | Torque<br>(N⋅m)     | (r/min <sup>-1</sup> ) | (kg⋅m²)                    | Torque<br>(N⋅m) | (g)      |
|           | 16     | 0.3                 | 24000                  | 4.4*10 -7                  | 0.7             | 11       |
|           | 20     | 0.5                 | 19000                  | 19000 1.3*10 <sup>-6</sup> | 0.7             | 20       |
| RAM       | 25     | 1                   | 15000                  | 3.9*10 <sup>-6</sup>       | 47              | 39       |
|           | 32     | 2                   | 12000                  | 1.2*10 -5                  | 1.7             | 71       |
|           | 40     | 4                   | 4000                   | 1.5*10 <sup>-5</sup>       | 4               | 120      |



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· Light, very low inertial and high sensibility.

Maintenance free, super anti-oil and corrosion-resistance.

#### **Rigidity Coupling**



RSM



\*When Ød1<4 and Ød2>5, there would be 3 set screws. \*When Ød1 and Ød2 both smaller than 4, there would be 2 set screws.



| Material | Accessories |
|----------|-------------|
| SUS303   | Set screw   |

| Dimens    | sions | $\emptyset$ d1& $\emptyset$ d2 selection * $\emptyset$ d1 $\leq \emptyset$ d2 |   |   |   |   |    |    |    |    |    |    | -  | М  |                 |
|-----------|-------|---|---|---|---|---|----|----|----|----|----|----|----|----|-----------------|
| Model No. | ØD    | 3   | 4 | 5 | 6 | 8 | 10 | 11 | 12 | 14 | 15 | 16 |    |    | Rough<br>thread |
|           | 16    | •   | • | • | • |   |    |    |    |    |    |    | 24 | 6  |                 |
| PSM       | 20    |   |   | • | • | • | •  |    |    |    |    |    | 30 | 7  | 3               |
| RSM       | 25    |   |   |   |   | • | •  | •  | •  |    |    |    | 36 | 9  | 4               |
|           | 32    |   |   |   |   |   |    |    | •  | •  | •  | •  | 41 | 10 | 4               |

#### \*Moment of inertial torque and weight calculated by maximum diameter.

| Specific  | cation | Allowable<br>Wrench | Max.                   | * Moment             | Screw<br>Fixing | ★ Weight |  |
|-----------|--------|---------------------|------------------------|----------------------|-----------------|----------|--|
| Model No. | ØD     | Torque<br>(N⋅m)     | (r/min <sup>-1</sup> ) | (kg·m²)              | Torque<br>(N⋅m) | (g)      |  |
|           | 16     | 0.3                 | 24000                  | 1.2*10 <sup>-6</sup> | 0.7             | 28       |  |
| DOM       | 20     | 0.5                 | 19000                  | 3.5*10 <sup>-6</sup> | 0.7             | 54       |  |
| RSM -     | 25     | 1                   | 15000                  | 1.0*10 <sup>-5</sup> | 17              | 100      |  |
|           | 32 2   |                     | 12000                  | 3.1*10 <sup>-5</sup> | 1.7             | 190      |  |



#### Linear Motion Component O Couplings

**Rigidity Coupling** 





0.03 A

| Dimens    | Dimensions         Ød1&Ød2 selection         *Ød1 $\leq$ Ød2 |   |   |   |    |    |    |    |    |    | Ŧ  | F   | N/  |      |                 |
|-----------|--|---|---|---|----|----|----|----|----|----|----|-----|-----|------|-----------------|
| Model No. | ØD   | 5 | 6 | 8 | 10 | 12 | 14 | 15 | 16 | 18 |    | A   | I   |      | Rough<br>thread |
|           | 16   | • | • |   |    |    |    |    |    |    | 16 | 5   |     | 3.75 | 2.5             |
|           | 20   |   | • | • |    |    |    |    |    |    | 20 | 6.5 | 4   | 4.75 |                 |
| RACS      | 25   |   |   | • | •  |    |    |    |    |    | 25 | 9   | I   | 6    | 3               |
|           | 32   |   |   |   | •  | •  | •  |    |    |    | 32 | 11  |     | 7.75 | 4               |
|           | 40   |   |   |   |    |    | •  | •  | •  | •  | 44 | 13  | 1.5 | 10.5 | 5               |

|           | Specific | ation | Allowable<br>Wrench | Max.                   | * Moment             | Screw<br>Fixing | 🖈 Weight |  |
|-----------|----------|-------|---------------------|------------------------|----------------------|-----------------|----------|--|
| Model No. |          | ØD    | Torque<br>(N⋅m)     | (r/min <sup>-1</sup> ) | (kg⋅m²)              | Torque<br>(N⋅m) | (g)      |  |
|           |          | 16    | 0.3                 | 9500                   | 3.0*10 -7            |                 | 9        |  |
|           |          | 20    | 0.5                 | 7600                   | 8.7*10 <sup>-7</sup> | 1               | 15       |  |
|           | RACS     | 25    | 1                   | 6100                   | 2.7*10 -6            | 1.5             | 29       |  |
|           |          | 32    | 2                   | 4800                   | 7.1*10 <sup>-6</sup> | 2.5             | 61       |  |
|           |          | 40    | 4                   | 4000                   | 1.5*10 <sup>-5</sup> | 7               | 120      |  |



#### Linear Motion Component O Couplings

#### **Rigidity Coupling**

RSCS

· Light, very low inertial and high sensibility. Maintenance free, super anti-oil and corrosion-resistance. · Beam type with no allowable offset almost, please show the axis entirely in operating.



Accessories SUS303 Clamping screw

| Dimen     | sions |   | Ød1&0 | Ød2 selecti | on *Ød1 | $\leq Ød2$ |    |    | Δ   | - | _    | M                      |
|-----------|-------|---|-------|-------------|---------|------------|----|----|-----|---|------|------------------------|
| Model No. | ØD    | 5 | 6     | 8           | 10      | 12         | 14 |    | A   | I | Г    | IVI<br>Rough<br>thread |
|           | 16    | • | •     |             |         |            |    | 16 | 5   |   | 3.75 | 2.5                    |
| Dece      | 20    |   | •     | •           |         |            |    | 20 | 6.5 | 1 | 4.75 | 2.0                    |
| KSC3      | 25    |   |       | •           | •       |            |    | 25 | 9   |   | 6    | 3                      |
|           | 32    |   |       |             | •       | •          | •  | 32 | 11  | ] | 7.75 | 4                      |

#### \*Moment of inertial torque and weight calculated by maximum diameter.

| Specifica<br>Madal Na | cation | Allowable<br>Wrench | Max.                   | * Moment             | Screw<br>Fixing | ★ Weight |
|-----------------------|--------|---------------------|------------------------|----------------------|-----------------|----------|
| Model No.             | ØD     | Torque<br>(N⋅m)     | (r/min <sup>-1</sup> ) | (kg·m <sup>2</sup> ) | Torque<br>(N⋅m) | (g)      |
|                       | 16     | 0.3                 | 9500                   | 8.0*10 -7            | 1               | 22       |
| Dece                  | 20     | 0.5                 | 7600                   | 2.4*10 -6            |                 | 41       |
| RSCS                  | 25     | 1                   | 6100                   | 7.3*10 <sup>-6</sup> | 1.5             | 80       |
|                       | 32     | 2                   | 4800                   | 2.5*10 -5            | 2.5             | 160      |



#### Linear Motion Component O Couplings

#### **Rigidity Coupling**





\*Ød1&Ød2 tolerance are defined before machining.

| Material       | Surface Finish | Accessories    |  |  |  |
|----------------|----------------|----------------|--|--|--|
| Aluminum Alloy | Anodized       | Clamping screw |  |  |  |

| Dimensions $\emptyset$ d1& $\emptyset$ d2 selection* $\emptyset$ d1 $\leq$ $\emptyset$ d2 |    |   |   |   |    |    |    |    |     | - | M   |
|---|----|---|---|---|----|----|----|----|-----|---|-----|
| Model No.   | ØD | 5 | 6 | 8 | 10 | 12 | 14 |    | A   | F | IVI |
|   | 16 | • | • |   |    |    |    | 16 | 5   | 4 | 2.5 |
|   | 20 |   | • | • |    |    |    | 20 | 6.5 | 5 | 2.5 |
| KAD   | 25 |   |   | • | •  |    |    | 25 | 9   | 6 | 3   |
|   | 32 |   |   |   | •  | •  | •  | 32 | 11  | 8 | 4   |

| Specifica<br>Model No. |     | cation | Allowable<br>Wrench | Max.                   | * Moment             | Screw<br>Fixing | ★ Weight |
|------------------------|-----|--------|---------------------|------------------------|----------------------|-----------------|----------|
|                        |     | ØD     | Torque<br>(N⋅m)     | (r/min <sup>-1</sup> ) | (kg·m <sup>2</sup> ) | Torque<br>(N⋅m) | (g)      |
|                        |     | 16     | 0.3                 | 9500                   | 3.2*10 <sup>-7</sup> |                 | 8.8      |
|                        |     | 20     | 0.5                 | 7600                   | 8.7*10 <sup>-7</sup> |                 | 15       |
|                        | RAB | 25     | 1                   | 6100                   | 2.7*10 <sup>-6</sup> | 1.5             | 29       |
|                        |     | 32     | 2                   | 4800                   | 9.3*10 <sup>-6</sup> | 2.5             | 61       |

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#### SFI SF TECHNOLOGY CO.,LTD

#### Linear Motion Component O Couplings

· Light, very low inertial and high sensibility.

Maintenance free, super anti-oil and corrosion-resistance.

· Beam type with no allowable offset almost, please show the axis entirely in operating.

#### Rigidity Coupling

Product Specification

RSB





\*Ød1&Ød2 tolerance are defined before machining.

| Material | Accessories    |
|----------|----------------|
| SUS303   | Clamping screw |
|          |                |

| Dimens    | sions |   | Ød1&Ød | 2 selection | *Ød1 $\leq$ | Ød2 |    | L A |     | - | М   |
|-----------|-------|---|--------|-------------|-------------|-----|----|-----|-----|---|-----|
| Model No. | ØD    | 5 | 6      | 8           | 10          | 12  | 14 |     | A   | F | IVI |
|           | 16    | • | •      |             |             |     |    | 16  | 5   | 4 | 2.5 |
| PSB       | 20    |   | •      | •           |             |     |    | 20  | 6.5 | 5 | 2.0 |
| I NOD     | 25    |   |        | •           | •           |     |    | 25  | 9   | 6 | 3   |
|           | 32    |   |        |             | •           | •   | •  | 32  | 11  | 8 | 4   |

#### \*Moment of inertial torque and weight calculated by maximum diameter.

| Specification |    | Allowable<br>Wrench | Max.                   | * Moment             | Screw<br>Fixing  | ★ Weight |  |
|---------------|----|---------------------|------------------------|----------------------|------------------|----------|--|
| Model No.     | ØD | I orque<br>(N·m)    | (r/min <sup>-1</sup> ) | (kg·m²)              | l orque<br>(N⋅m) | (g)      |  |
|               | 16 | 0.3                 | 9500                   | 8.2*10 <sup>-7</sup> | 1                | 22       |  |
| DCD           | 20 | 0.5                 | 7600                   | 2.4*10 <sup>-6</sup> | I                | 41       |  |
| K2R           | 25 | 1                   | 6100                   | 7.3*10 <sup>-6</sup> | 1.5              | 80       |  |
|               | 32 | 2                   | 4800                   | 2.5*10-5             | 2.5              | 160      |  |

#### RSB20 6 8 100 PCS Model no. Ød1 Ød2 Q'ty 100 PCS Ordering Example

#### Linear Motion Component O Couplings

#### **Rigidity Coupling**

# RACL

· Light, very low inertial and high sensibility. Maintenance free, super anti-oil and corrosion-resistance. . Beam type with no allowable offset almost, please show the axis entirely in operating.





\*Ød1&Ød2 tolerance are defined before machining.

| Material       | Surface Finish | Accessories    |  |  |
|----------------|----------------|----------------|--|--|
| Aluminum Alloy | Anodized       | Clamping screw |  |  |

| Dimensions |    | $Ød1\&Ød2$ selection $*Ød1 \leq Ød2$ |   |   |    |    |    |    | Δ  | <b>E4</b> | 50  | NA  |
|------------|----|--------------------------------------|---|---|----|----|----|----|----|-----------|-----|-----|
| Model No.  | ØD | 5                                    | 6 | 8 | 10 | 12 | 14 | L  | A  | FI        | ΓZ  | IVI |
| RACL       | 16 | •                                    | • |   |    |    |    | 22 | 5  | 0.5       | 5.5 | - 2 |
|            | 20 |                                      | • | • |    |    |    | 24 | 7  | 2.5       | 6   |     |
|            | 25 |                                      |   | • | •  |    |    | 36 | 9  | 4.5       | 9   | 2.5 |
|            | 32 |                                      |   |   | •  | •  | ٠  | 40 | 11 | 4         | 10  | 3   |

|  | Specific  | cation | Allowable<br>Wrench | Max.                   | * Moment             | Screw<br>Fixing | ★ Weight<br>(g) |  |
|--|-----------|--------|---------------------|------------------------|----------------------|-----------------|-----------------|--|
|  | Model No. | ØD     | Torque<br>(N⋅m)     | (r/min <sup>-1</sup> ) | (kg·m <sup>2</sup> ) | Torque<br>(N⋅m) |                 |  |
|  |           | 16     | 0.3                 | 9000                   | 3.4*10 <sup>-7</sup> | 0.5             | 10              |  |
|  | BACI      | 20     | 0.5                 | 7000                   | 9.2*10 <sup>-7</sup> | 0.5             | 18              |  |
|  | RACL      | 25     | 1                   | 6000                   | 3.4*10 <sup>-6</sup> | 1               | 38              |  |
|  | 32        | 2      | 4500                | 1.0*10 <sup>-5</sup>   | 1.5                  | 70              |                 |  |

| Ordering Example: | RACL25    | 8   | 10  | 100 PCS |
|-------------------|-----------|-----|-----|---------|
|                   | Model no. | Ød1 | Ød2 | Q'ty    |

#### Rigidity Coupling

RSCL

Light, very low inertial and high sensibility.
Maintenance free, super anti-oil and corrosion-resistance.
Beam type with no allowable offset almost, please show the axis entirely in operating.





\*Ød1&Ød2 tolerance are defined before machining.

| Material | Accessories    |
|----------|----------------|
| SUS303   | Clamping screw |

| Dimens    | sions | $Ød1\&Ød2$ selection $*Ød1 \leq Ød2$ |   |   |    |    |    |    |    | E4  | E2  | M   |
|-----------|-------|--------------------------------------|---|---|----|----|----|----|----|-----|-----|-----|
| Model No. | ØD    | 5                                    | 6 | 8 | 10 | 12 | 14 | L  | A  |     | F2  | IVI |
|           | 16    | •                                    | • |   |    |    |    | 22 | 5  | 2.5 | 5.5 | - 2 |
| BSCI      | 20    |                                      | • | • |    |    |    | 24 | 7  |     | 6   |     |
| RSCL      | 25    |                                      |   | • | •  |    |    | 36 | 9  | 4.5 | 9   | 2.5 |
|           | 32    |                                      |   |   | •  | •  | •  | 40 | 11 | 4   | 10  | 3   |

\*Moment of inertial torque and weight calculated by maximum diameter.

| Specification |    | Allowable<br>Wrench | Max.                   | * Moment             | Screw<br>Fixing | * Weight |  |
|---------------|----|---------------------|------------------------|----------------------|-----------------|----------|--|
| Model No.     | ØD | Torque<br>(N·m)     | (r/min <sup>-1</sup> ) | (kg·m²)              | Torque<br>(N⋅m) | (g)      |  |
| RSCL          | 16 | 0.3                 | 9000                   | 8.9*10 <sup>-7</sup> | 0.5             | 25       |  |
|               | 20 | 0.5                 | 7000                   | 2.5*10 <sup>-6</sup> | 0.5             | 45       |  |
|               | 25 | 1                   | 6000                   | 9.2*10 <sup>-6</sup> | 1               | 100      |  |
|               | 32 | 2                   | 4500                   | 2.7*10 <sup>-5</sup> | 1.5             | 180      |  |



# SF TECHNOLOGY CO., LTD

Precaution

Installation Precaution & Operation Precaution

#### Linear Motion Component O Couplings

#### Installation Notice :

- (1) To avoid mistakenly operating driver, please be sure to cut off main power and start installation after security confirmation.
- (2) Please clear out miscellaneous, dust and oil...etc attached on the shafts and inner of coupling. Especially for the grease with molybdenum disulfide and extreme pressure additive which affect friction factor substantially, please proceed defatting treatment entirely.
- (3) In order to perform coupling functions completely, please proceed installing as range of max. allowable offset in the spec list. Installation error in the list is top value occuring individually, so please take below half of allowed values in multiple cases into account.
- (4) Please take the ruler against to outer body while centering, with around 90° to proceed checking two departed points. Centering accuracy has huge affection to life hours of unit.
- (5) Please set safety cover after installating this product. Otherwise, it might get hurt by touching products in operating.
- ( 6 ) To lock screw, please be sure to use corrected torque wrench and refer to the torque value of clamping lock screw in the spec list to secure.
- (7) Installing by using wrong connecting ways would cause too much vibration, abnormal running or inaccurate center, overloaded defelction to damage motor, coupling...etc mechanism units. It's recommended to notice accuracy balance correction to extend unit life while assembling mechanically.

#### **Operation Notice :**

- (1) Considering safety, please set protective jacket on the turning parts of device surrounding couplings.
- (2) If allowable offset is set over limited range or too much torque, it might cause distortion of coupling possible to shorten life.
- (3) If any noise (metal sound) in running, please stop operating, and check any interference to centering and shafts, and screw loosened or not.
- (4) If load variation of device is too much, please put adhensive or adjust one level higher of coupling model to avoid screw loose.

#### Safety Notice :

In order to work safetly, please read description as below, and keep the instruction to recheck the points if necessary.



Following acts might cause danger or harmful damage if using mistakenly.

- For safety work, coupling and related rotating parts must be protected by covers.
   You might be hurt if touching these parts in operating.
- ◆ To avoid danger, protection device must be installed.
- Power off is necessary while assembling and disassembling.
- Lock screw and counter bore screw must be secured by using screwdriver, wrench or torque wrench fitly.
- Operating speed of product never over top speed.
- No disassembling or recombinating products.

## Warning

Following acts might cause body hurt or wealth loss if using mistakenly.

- Please operate in allowable deviation range. It might cause damage of coupling if deviation is out of allowed range and probably affect coupling system badly.
- Torque produced by continuously operating can't exceed rated torque. Otherwise, coupling might be damaged, or affect coupling system badly.
- While securing, please use screws (lock screw and counter bore screw) appointed by SFT, not any ones else.
- No operating in the environment affecting products badly.
- Please stop operation of rotating machine if hearing abnormal noise. Check deviation of machine, any interference between shafts, screws loosened or not...etc.
- If the rotating machine you use operates in bigger load variation, please use antiloosen glue on screws to avoid coming off, or use one-size larger coupling.
- Please ask experts to deal with these products to avoid damage to environment while product abandon.
- Never touch coupling after completing operation. You might be burned by high temperature caused by coupling system.









Technical Information **Couplings** 

4-

**Technical Infoomation** 

Coupling Testing Facility

Coupling Testing Facility

#### •Exclusive use for coupling test

(1) For use durability test.(2) For mass production inspection in development process.

| Coupling Test Report Test Item : General Test  | SFT                           | Tester              |                  | 2013                   |
|--|-------------------------------|---------------------|------------------|------------------------|
| Model Number : FACE Type of space ring : R   | Test Day                      | 2012/02             | 2/13 16:4        | 3:47                   |
| ${\sf Outer \ diameter: 40} \qquad {\sf Inner \ diameter \ d1: 10}  {\sf Inner \ diameter \ d2: 10}$ | (N.m)                         |                     |                  |                        |
| Test Parameger   | 18.00                         |                     |                  |                        |
| Deflection : -1.08° Eccentricity : -0.10 mm  | 14.00                         |                     |                  |                        |
| Planned testing time : 480 min 0 sec   | 10.00                         |                     |                  |                        |
| Forward rotation : 0 min 10 sec  | 6.00                          |                     |                  |                        |
| Pause: 2 sec   | 2.00                          |                     |                  |                        |
| Inverse rotation : 0 min 10 sec  | 0.0 48.0 96.0                 | 144.0 192.0 240.0 2 | 288.0 336.0 384. | o 432.0 480.0<br>(min) |
| Present torgue : 16.50 (N.m)   | Remark:                       |                     |                  |                        |
| Zeroed torgue : 0.00 (N.m)   |                               |                     |                  |                        |
|  |                               |                     |                  |                        |
| Machine operating time : 480 min 0 sec   | Serial NO. 20120213-FACE40R-8 |                     |                  |                        |
| Revolution Test : 200 rpm / min  | Back to Back to Print FAUSE   |                     |                  | STOP                   |