Flexible Flanged Shaft Coupling

- Full bore alteration service capability. We modify for individual shaft requirement that will allow for immediate use.
- The most popular flexible shaft coupling in Japan that is compliant with JIS B 1452 - 1991 "Flexible Flanged Shaft Couplings".
- Simple structure comprised of a flange and coupling bolts. Easy-to-mount.
- Bushings can be replaced just by removing coupling bolts. This makes maintenance and service easy.
- While it absorbs misalignment such as eccentricity and argument, it prevents noise by absorbing torsional vibration. It will not transmit thrust load, either.
- Two types are available: Cast Iron FCL and Carbon Steel FCLS.

### Structure

- Nut
- Bolt
- Spring Washer
- Bush
- Joint Main Unit
- Washer

### Material/Finish

- **FCL**
  - Joint Main Unit: PC30 or more
  - Nut: Equivalent to SS400
  - Washer: Trivalent Chromate Treatment
  - Bolt: Trivalent Chromate Treatment
- **FCLS**
  - Joint Main Unit: DC5C or more
  - Nut: Equivalent to SS400
  - Washer: Trivalent Chromate Treatment
  - Bolt: Trivalent Chromate Treatment

### Product Standard

- The product standard of the flexible flanged shaft couplings is compliant with JIS B 1452 - 1991 "Flexible Flanged Shaft Couplings".
- Allowable value of the run-out of the joint outer diameter to the shaft hole center, and that of the joint surface near the outer diameter is 0.03mm.
- Allowance of the bolt hole pitch circle diameter and the bushing insertion hole pitch circle diameter, allowance of the pitch, and the run-out tolerance to the shaft bore center.

### Dimensional allowance of each part of the joint

- Joint Outside Diameter
- Bolt Hole and Bolt
- Washer
- Bushing
- Bushing Insertion Hole
- Bolt Bushing Insertion Area Length

### Alignment adjustment

1. Although the flexible flanged shaft coupling permits misalignment and transmits torque, if the misalignment exceeds the allowable value, vibration may occur or the life may be rapidly shortened. Be sure to perform alignment adjustment.
2. Shaft center misalignment includes eccentricity (parallel error of both shaft centers), argument (angle error of both shaft centers), and end-play (shaft direction movement of the shaft). Adjust the shaft alignment so that it will not exceed the allowable value listed in the Dimension/Performance table in this catalog.
3. The allowable values of the misalignment listed in the Dimension/Performance table are for the case where any one of eccentricity, argument, and end-play occurs independently. Mixing of two or more misalignment causes each of the allowable values to be reduced to half.
4. Misalignment may occur not only in assembling into the device but also due to vibration, thermal expansion, and shaft bearing abrasion during operation. Therefore, it is recommended to keep the misalignment one third of the allowable value or less.

### Eccentricity, Parallel Offset Misalignment

- Argument, Angular Misalignment
- End-Play

### Performance of the Bushing

- Characteristics Item
- NBR (Nitrile rubber)
  - Machine oil: Excellent
  - Gasoline: Excellent
  - Benzene: Impossible
  - Ketone: Impossible
  - Alcohol: Excellent
  - Acid resistance: Weak acid
  - Strong acid: Good
  - Impact resistance: Good
  - Abrasion resistance: Excellent
  - Aging Resistance: Excellent
  - Tensile strength: Excellent
  - Heat resistance: Max. operating temperature, regular use: 90℃
  - Cold resistance: Min. operating temperature, regular use: -20℃