

Cam Clutch Installation and Maintenance Instruction

*BREU30(K), BREU35(K), BREU40(K), BREU45(K), BREU50(K), BREU60(K), BREU70(K),
BREU80(K), BREU90(K), BREU100(K), BREU130(K), BREU150(K)*



Thank you for buying Cam Clutch products.

Before installing or working on the product, confirm it is the correct size by checking its label and make sure you have the complete set of parts. If any part is missing, contact your distributor immediately.



This manual should be considered an essential part of the unit and remain with the unit when redistributed.

SAFETY

- Your Cam Clutch is a high quality, sophisticated unit which should be handled by experienced engineers only.
 - For safety purposes, make sure this manual is easily accessible by the user at all times.
- Safety precautions in this manual are classified into two categories: "WARNING" and "CAUTION". These are defined as follows:

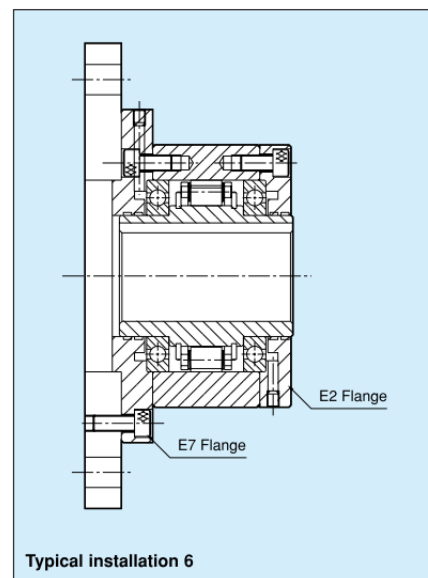
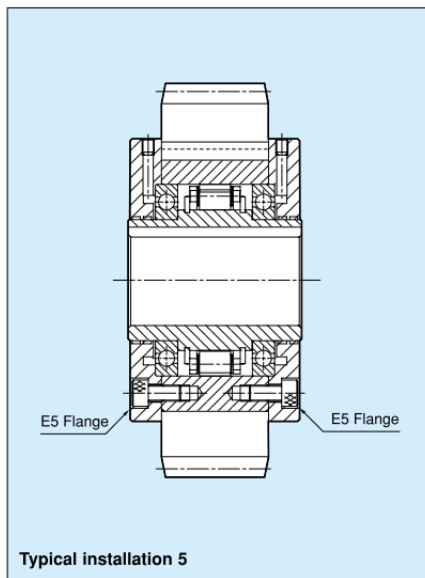
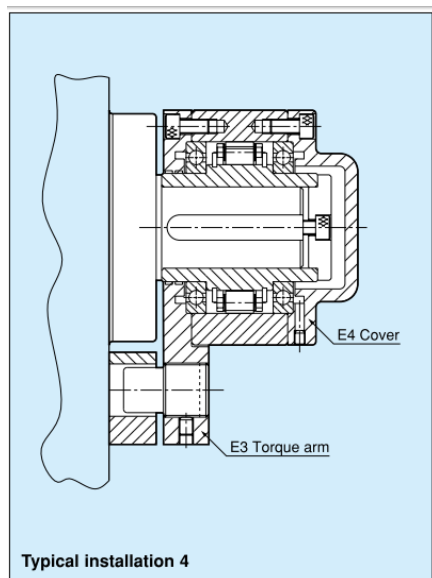
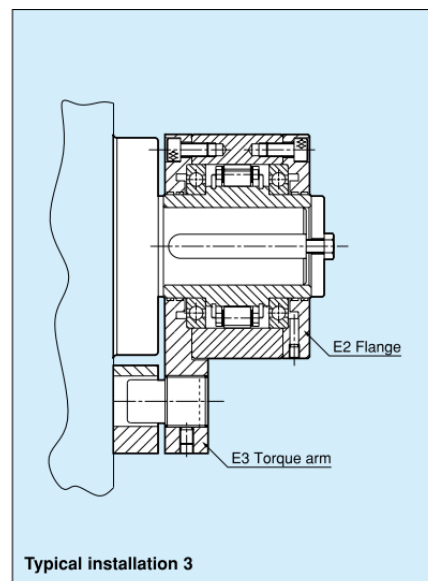
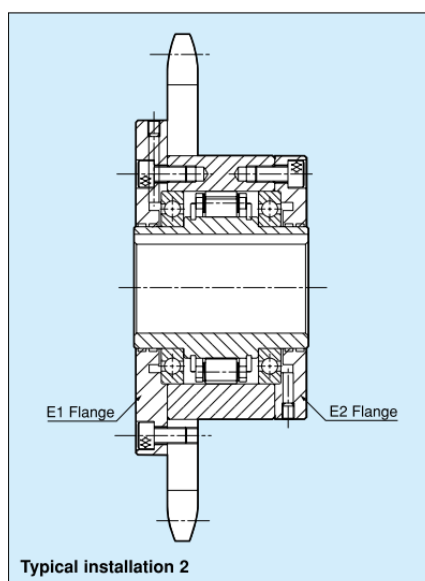
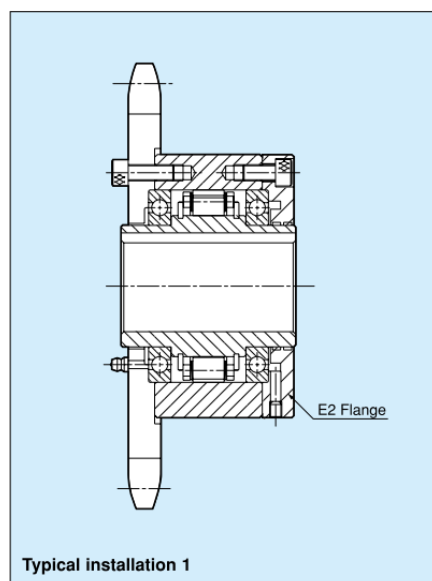
 WARNING	Death or serious injury may result from misusing the product without following the instructions.
 CAUTION	Minor or moderate injury, as well as damage to the product may result from misusing the product without following the instructions.

Notice that although categorized under "CAUTION", subjects discussed may lead to serious results depending on the situation.

 WARNING
<ul style="list-style-type: none"> ● Make sure turning forces are not applied to Cam Clutch or turning shaft of the equipment when conducting inspection or maintenance. Pay special attention to the back stopping application to prevent accidents. ● Frequent starting and stopping will apply excessive force on the mounting. Verify mounting strength. ● Inaccurate installation and mounting, various load conditions, wear and tear of parts, and life expectancy can all affect the performance of a Cam Clutch. Inspect and maintain periodically and install a safety device on your equipment. ● Comply with Ordinance on Labor Safety and Hygiene 2-1-1 general standards.
 CAUTION
<ul style="list-style-type: none"> ● To ensure safety and optimal performance, carefully read this instruction manual in its entirety. ● Confirm rotational direction prior to installing.

■ Installation and usage

1. BREU series is a modular type Cam Clutch which is delivered as a BREU series Basic type or BREU-K series with option parts (E1, E2, E5, E7 flanges, E3 Torque arm and E4 cover) which are required as separate parts.
2. All models are pre-greased. The operational temperature range is -40°C to $+40^{\circ}\text{C}$.
Too much additional grease to both bearing inhibits the basic Cam Clutch function. Refer to the maintenance.
3. We recommend a Shaft tolerance of h7, and DIN6885.1 keyway is standard.
Align the key to slide through the keyway smoothly before installation.
4. We recommend tolerance of H7 or H8 for sprockets, gears and other fitted parts.
5. Clean the surface of both end of the outer race and the contact surfaces of the flanges, torque arm and cover.
6. Verify the direction of rotation and attach the flanges, torque arm or cover.
7. When installing sprocket, gear, and other equipment to the clutch, fit them on the surface of the flange by using hexagon socket cap screws.
8. By installing each option part on the opposite side, the direction of rotation can be changed.
9. Fix the grease nipple and set screw to the option parts.
10. When mounting the clutch onto the shaft, apply pressure to the inner race but never to the outer race. Tap the inner race lightly with a soft hammer moving around the race circumference so the Cam Clutch moves slowly and uniformly onto the end of the shaft.
11. Do not use grease that contains EP additives.



■ Lubrication

BREU series Cam Clutches need periodic maintenance and lubrication to both bearing to provide maximum performance throughout their service life. Lack of prescribed maintenance and lubrication will shorten the Service life of Cam Clutch and may cause unnecessary mechanical damage.

Recommended Grease

Brand	Ambient Temperature	
	-5°C ~ +40°C	-40°C ~ +40°C
Esso	—	Beacon 325
Mobil	—	Mobil temp SHC100
Shell	Alvania Grease S2	Alvania Grease RA
BP	Energrease LS2	Enargrease LT2
TOTAL	Multis 2	Aerogrease 22

Note: Do not use Grease that contains EP additives.

E1~E7 options are supplied with bolts for installation, and the grease nipple.

■ Maintenance

BREU series Cam Clutches are pre-greased at the factory and should be re-greased every three months for both bearings after installation. Follow the procedure below.

1. Remove the set screw at the flange, torque arm or cover.
2. Inject equal amounts of grease into the bearing from the grease nipple. Refer to the grease volume table for the correct amount.
3. Run the Cam Clutch disengaged for from 20 to 30 minutes with the set screw removed. Excess of grease in the clutch area will flow out of the tapped holes. Be careful to avoid over greasing. Too much grease in the clutch will cause it to run hot, interfere with the clutch action, and may lead to mechanical damage.
4. Wipe off excess of grease and re-install the set screw.

Grease volume table

Model	Each bearing (g)
BREU30	10
BREU35	10
BREU40	15
BREU45	20
BREU50	30
BREU55	30

Model	Each bearing (g)
BREU60	40
BREU70	50
BREU80	80
BREU90	90
BREU100	160
BREU130	260
BREU150	460

■ Warranty

Tsubakimoto Chain Co.: hereinafter referred to as "Seller"

Customer: hereinafter referred to as "Buyer"

Goods sold or supplied by Seller to Buyer: hereinafter referred to as "Goods"

1. Warranty period without charge

18 months effective the date of shipment or 12 months effective the first use of Goods, including installation of Goods to Buyer's equipment or machines - whichever comes first.

2. Warranty coverage

Should any damage or problem with the Goods arise within the warranty period, given that the Goods were operated and maintained under instructions provided in the manual, Seller would repair and replace at no charge once the Goods are returned to Seller. The following are excluded from the warranty.

- 1) Any costs related to removing Goods from the Buyer's equipment or machines to repair or replace parts.
- 2) Costs to transport Buyer's equipment or machines to the Buyer's repair shop.
- 3) Costs to reimburse any profit loss due to any repair or damage and consequential losses caused by the Buyer.

3. Warranty with charge

Seller will charge any investigation and repair of Goods caused by:

- 1) Improper installation by failing to follow the instruction manual.
- 2) Insufficient maintenance or improper operation by the Buyer.
- 3) Incorrect installation of Goods to other equipment or machines.

4) Any modifications or alterations of Goods by the Buyer.

5) Any repair by engineers other than the Seller or those designated by the Seller.

6) Operation in an inappropriate environment not specified in the manual.

7) Force Majeure or forces beyond the Seller's control such as natural disasters and injustice done by a third party.

8) Secondary damage or problem incurred by the Buyer's equipment or machines.

9) Defected parts supplied, or specified by the Buyer.

10) Incorrect wiring or parameter setting by the Buyer.

11) The end of life cycle of the Goods under normal usage.

12) Loss or damage not liable to the Seller.

4. Dispatch Service

Service to dispatch a Seller's engineer to investigate, adjust or trial test Seller's Goods is at the Buyer's expense.

5. Disclaimer

1) In our constant efforts to improve, Tsubakimoto Chain Co. may change the contents of this document without notice.

2) Considerable effort has been made to ensure that the contents of this document are free from errors. However, Tsubakimoto Chain Co. makes no warranties with respect to the accuracy of information described herein. In the mean time, we would appreciate comments or reports on any inaccuracies or omissions found in this document to help us make timely amendments as necessary. Your cooperation is greatly appreciated.



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