



## Data Specs

### SFU1605 Ball Screw Kit

A **ball screw** is a mechanical linear actuator that translates rotational motion to linear motion with little friction. A threaded shaft provides a helical raceway for ball bearings which act as a precision screw. As well as being able to apply or withstand high thrust loads, they can do so with minimum internal friction. They are made to close tolerances and are therefore suitable for use in situations in which high precision is necessary. The ball assembly acts as the nut while the threaded shaft is the screw. In contrast to conventional lead screws, ball screws tend to be rather bulky, due to the need to have a mechanism to re-circulate the balls bearing.



**SKU:** [MCH1527](#)

#### Brief Data:

- Accuracy rating: C7 Rolled Ball Screw.
- Industrial Part No: SFU1605-500.
- Diameter of Ball Screw Rod: Ø16mm
- Lead: 5mm.
- Ball diameter Ø2.381mm.
- Flange Diameter: Ø42mm.
- Flange Barrel: Ø22mm.
- Flange flats (surface to surface): 34mm.
- Length of nut: 36mm.
- 6 mounting holes on the flange nut, use M4 hardware.

### **Application:**

- 3D Printer
- CNC Machine
- Robotics
- Linear Motion

### **Package Include:**

- 1x 1605 Ball Screw Length 500mm .
- 1x 1605 Ball Screw Flange Nut.
- 1x 1605 Ball Screw Nut Housing.
- 1x Jaw type Shaft Coupling, Ø8mm to Ø6.35mm.
- 1x BF12 Floating Ball Screw End Support Bracket.
- 1x BK12 Ball Screw Fixing Support.
- 1x Ball Screw End Tighten Nut with Set Screw.
- 1x Ball Screw End Circlip.

### **Reminder:**

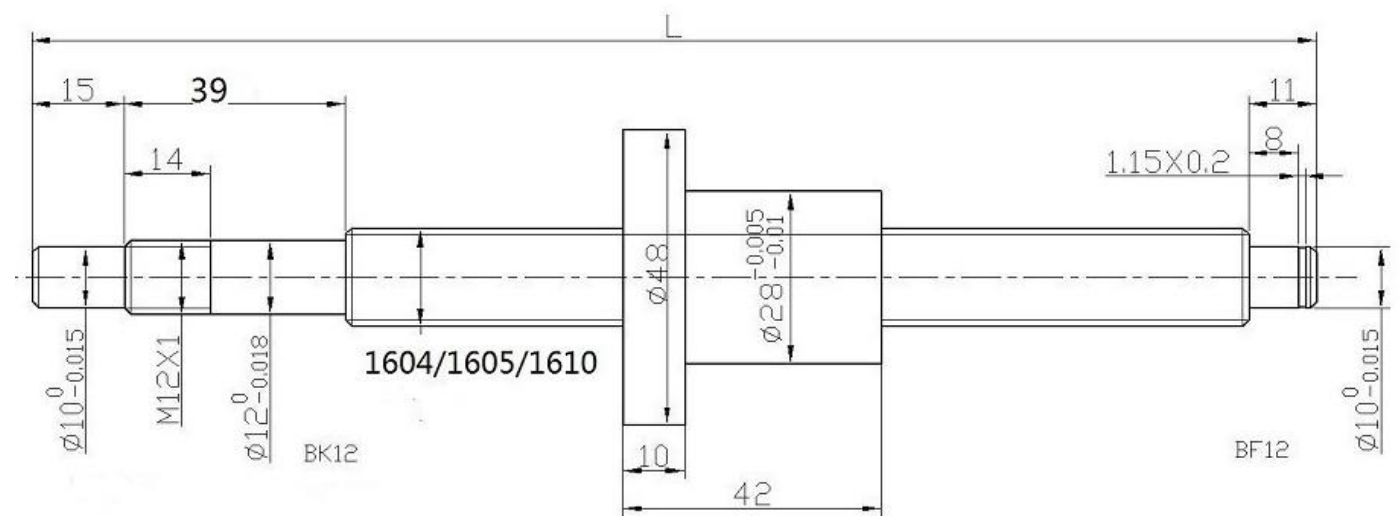
***DO NOT TURN OUT THE BALL SCREW NUT OUT FROM THE SHAFT, OTHERWISE THE BALL BEARING WILL DROPPED OFF AND NEED TO SEND BACK TO FACTORY TO FIX IT BACK !***

## Mechanical Dimension:

### 1204 Ball Screw:



### 1605



### **1605 Ball Screw Nut:**

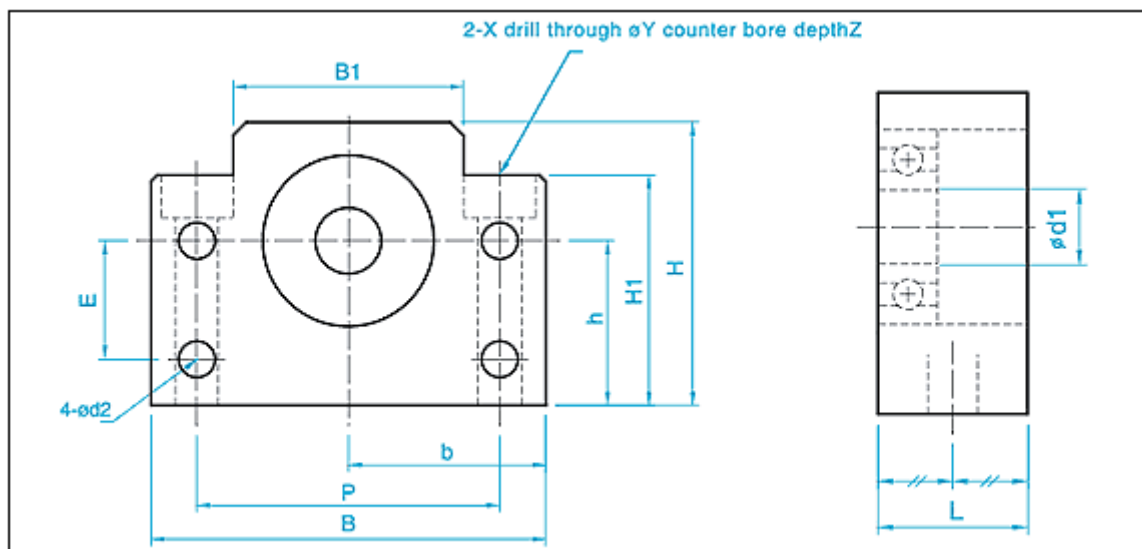


### **Ball Screw Nut Housing:**



## **Ball Screw Support Bearing Block:**

Both ends of a ball screw need to be supported by a bearing. This bearing is used on the drive end of the screw. The nut that is included is used to secure the bearing in place on the screw. There is a set screw in the nut but this is only recommended for permanent installations as this will permanently deform the threads on the ball screw and seal the nut in place. For more temporary solutions you can use a thread locking fluid like Loctite (we recommend blue). This bearing block is for 12mm ball screws.

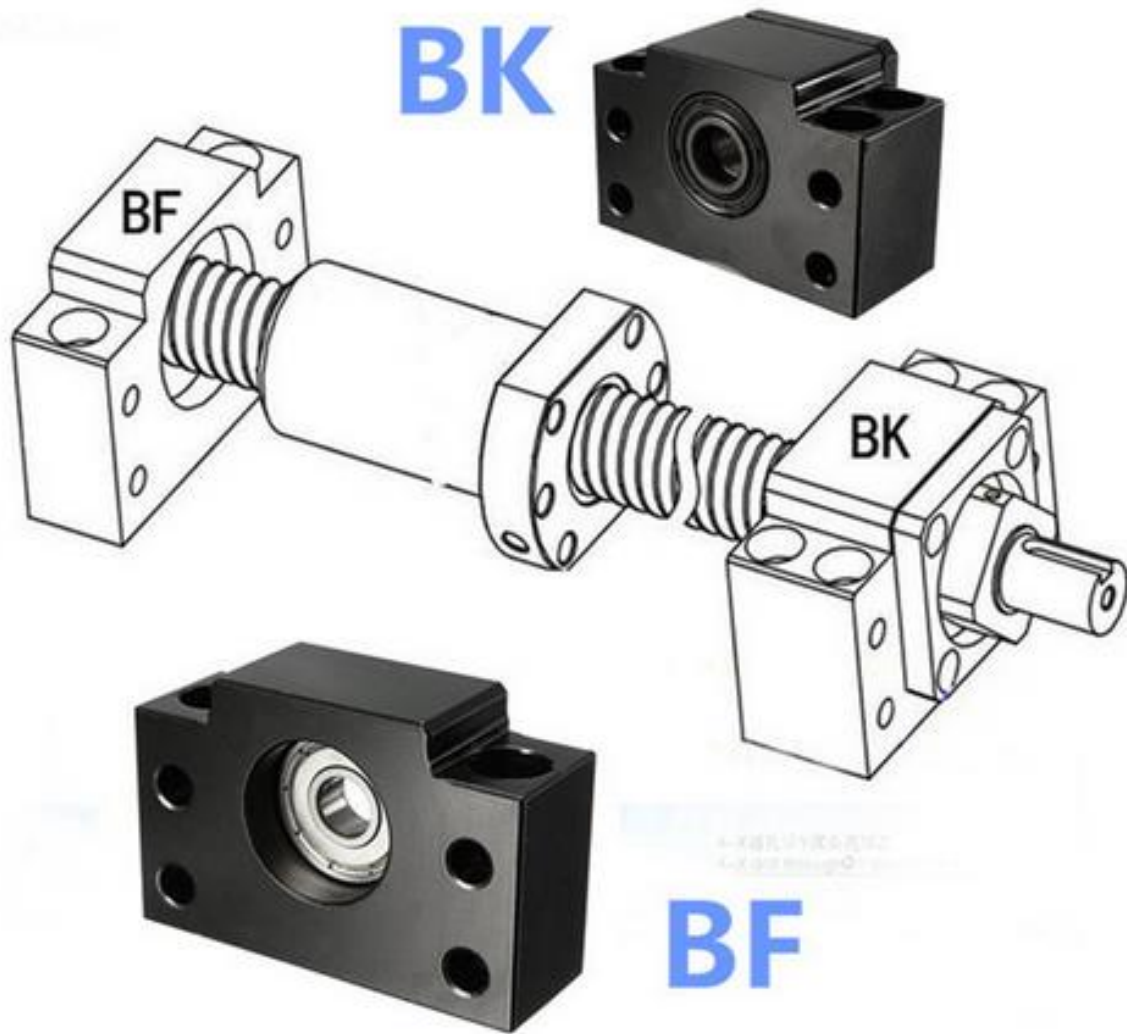


| Model No. | d1 | L  | B   | H   | b  | h  | B1  | H1   | E  | P   | d2  | X   | Y    | Z    |
|-----------|----|----|-----|-----|----|----|-----|------|----|-----|-----|-----|------|------|
| BF 10     | 8  | 20 | 60  | 39  | 30 | 22 | 34  | 32.5 | 15 | 46  | 5.5 | 6.6 | 10.8 | 5    |
| BF 12     | 10 | 20 | 60  | 43  | 30 | 25 | 35  | 32.5 | 18 | 46  | 5.5 | 6.6 | 10.8 | 1.5  |
| BF 15     | 15 | 20 | 70  | 48  | 35 | 28 | 40  | 38   | 18 | 54  | 5.5 | 6.6 | 11   | 6.5  |
| BF 17     | 17 | 23 | 86  | 64  | 43 | 39 | 50  | 55   | 28 | 68  | 6.6 | 9   | 14   | 8.5  |
| BF 20     | 20 | 26 | 88  | 60  | 44 | 34 | 52  | 50   | 22 | 70  | 6.6 | 9   | 14   | 8.5  |
| BF 25     | 25 | 30 | 106 | 80  | 53 | 48 | 64  | 70   | 33 | 85  | 9   | 11  | 17.5 | 11   |
| BF 30     | 30 | 32 | 128 | 89  | 64 | 51 | 76  | 78   | 33 | 102 | 11  | 14  | 20   | 13   |
| BF 35     | 35 | 32 | 140 | 96  | 70 | 52 | 88  | 79   | 35 | 114 | 11  | 14  | 20   | 13   |
| BF 40     | 40 | 37 | 160 | 110 | 80 | 60 | 100 | 90   | 37 | 130 | 14  | 18  | 26   | 17.5 |

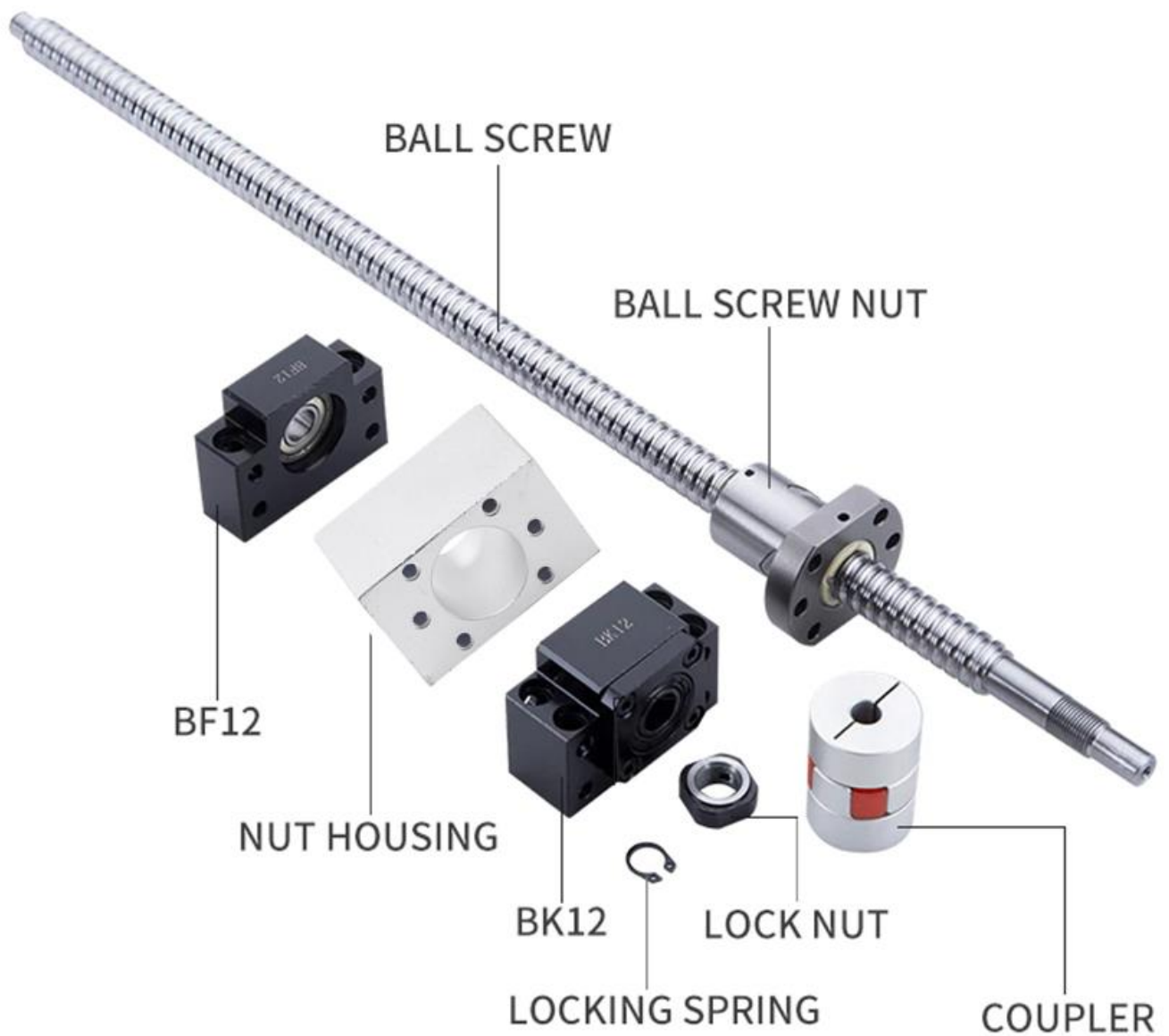
### **Jaw Type Shaft Coupling:**



Assembly Diagram:



## 1605 Ball Screw Kit Standard Components:







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