

# Backstopping Clutches

## RSBW

### Backstopping Sleeve Bearing Supported, Sprag Clutches



Model RSBW is a DC sprag type back-stop. It is self-contained, centered by plain bearings for low rotational speeds and sealed using shield protected O-Rings.

Unit is shipped grease lubricated ready for installation in either a horizontal or vertical position.

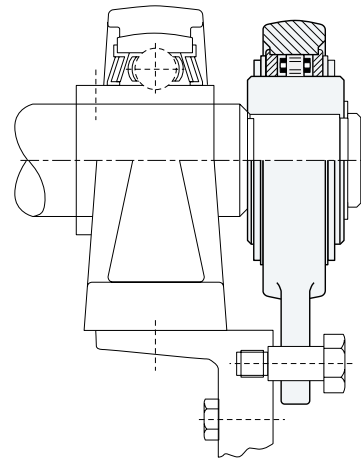
Primarily used as a backstop, this model provides high torque capacity with a minimum space requirement.

A bolt, secured to a fixed part of the machine and passing through the slot in the torque arm, provides the rotational stop. Radial clearance on this bolt should be equal to 1% of the slot width. The torque arm must not be rigidly mounted.

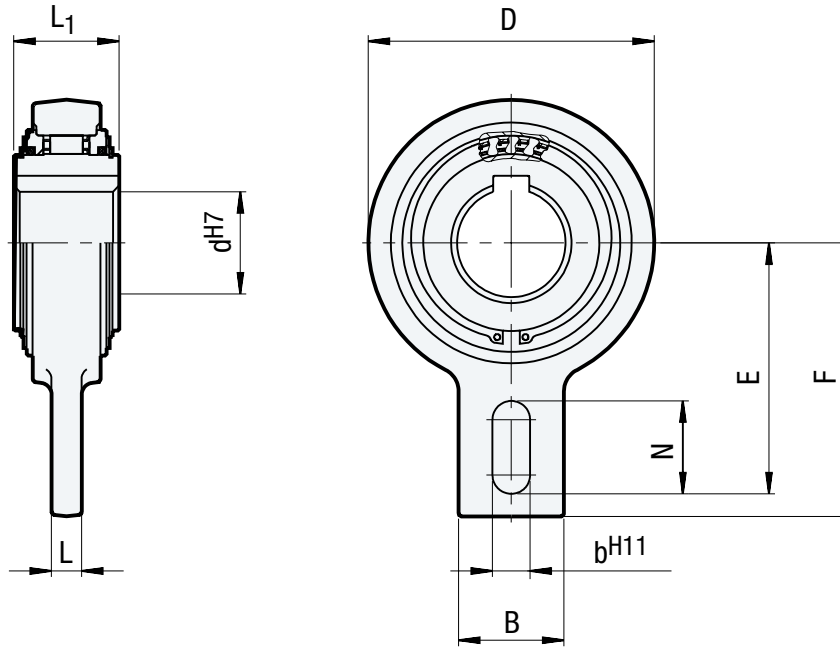
### Specifications

| Size | Torque Capacity<br>lb.ft.<br>(Nm) | Overrunning Speed<br>Max. RPM<br>Inner Race | Lubrication | Shipping Weight<br>lb.<br>(kg) |
|------|-----------------------------------|---|-------------|--------------------------------|
| 20   | 276<br>(375)                      | 400   | Grease      | 4.5<br>(2)                     |
| 25   | 447<br>(606)                      | 400   | Grease      | 5.73<br>(2.6)                  |
| 30   | 447<br>(606)                      | 400   | Grease      | 5.51<br>(2.5)                  |
| 35   | 447<br>(606)                      | 400   | Grease      | 5.29<br>(2.4)                  |
| 40   | 956<br>(1295)                     | 300   | Grease      | 10.14<br>(4.6)                 |
| 45   | 956<br>(1295)                     | 300   | Grease      | 9.92<br>(4.5)                  |
| 50   | 956<br>(1295)                     | 300   | Grease      | 9.92<br>(4.5)                  |
| 55   | 956<br>(1295)                     | 300   | Grease      | 9.70<br>(4.4)                  |
| 60   | 1,882<br>(2550)                   | 250   | Grease      | 14.33<br>(6.5)                 |
| 70   | 1,882<br>(2550)                   | 250   | Grease      | 14.11<br>(6.4)                 |
| 80   | 3,598<br>(4875)                   | 200   | Grease      | 21.83<br>(9.9)                 |
| 90   | 3,598<br>(4875)                   | 200   | Grease      | 21.61<br>(9.8)                 |

### Typical Mounting Arrangement



The Model RSBW clutches must be axially restrained on the shaft to avoid binding of the torque arm.



**Dimensions** inches (mm)

| Size | D             | L <sub>1</sub> | F             | E               | B            | N            | L            | b <sup>H11</sup> |
|------|---------------|----------------|---------------|-----------------|--------------|--------------|--------------|------------------|
| 20   | 4.17<br>(106) | 1.38<br>(35)   | 4.45<br>(113) | 4.04<br>(102.5) | 1.57<br>(40) | 1.38<br>(35) | 0.59<br>(15) | 0.71<br>(18)     |
| 25   | 4.17<br>(106) | 1.89<br>(48)   | 4.45<br>(113) | 4.04<br>(102.5) | 1.57<br>(40) | 1.38<br>(35) | 0.59<br>(15) | 0.71<br>(18)     |
| 30   | 4.17<br>(106) | 1.89<br>(48)   | 4.45<br>(113) | 4.04<br>(102.5) | 1.57<br>(40) | 1.38<br>(35) | 0.59<br>(15) | 0.71<br>(18)     |
| 35   | 4.17<br>(106) | 1.89<br>(48)   | 4.45<br>(113) | 4.04<br>(102.5) | 1.57<br>(40) | 1.38<br>(35) | 0.59<br>(15) | 0.71<br>(18)     |
| 40   | 5.20<br>(132) | 2.05<br>(52)   | 4.92<br>(125) | 4.53<br>(115)   | 2.36<br>(60) | 1.38<br>(35) | 0.59<br>(15) | 0.71<br>(18)     |
| 45   | 5.20<br>(132) | 2.05<br>(52)   | 4.92<br>(125) | 4.53<br>(115)   | 2.36<br>(60) | 1.38<br>(35) | 0.59<br>(15) | 0.71<br>(18)     |
| 50   | 5.20<br>(132) | 2.05<br>(52)   | 4.92<br>(125) | 4.53<br>(115)   | 2.36<br>(60) | 1.38<br>(35) | 0.59<br>(15) | 0.71<br>(18)     |
| 55   | 5.20<br>(132) | 2.05<br>(52)   | 4.92<br>(125) | 4.53<br>(115)   | 2.36<br>(60) | 1.38<br>(35) | 0.59<br>(15) | 0.71<br>(18)     |
| 60   | 6.34<br>(161) | 2.13<br>(54)   | 5.51<br>(140) | 5.12<br>(130)   | 2.76<br>(70) | 1.38<br>(35) | 0.59<br>(15) | 0.71<br>(18)     |
| 70   | 6.34<br>(161) | 2.13<br>(54)   | 5.51<br>(140) | 5.12<br>(130)   | 2.76<br>(70) | 1.38<br>(35) | 0.59<br>(15) | 0.71<br>(18)     |
| 80   | 7.48<br>(190) | 2.76<br>(70)   | 6.50<br>(165) | 5.91<br>(150)   | 2.76<br>(70) | 1.77<br>(45) | 0.79<br>(20) | 0.98<br>(25)     |
| 90   | 7.48<br>(190) | 2.76<br>(70)   | 6.50<br>(165) | 5.91<br>(150)   | 2.76<br>(70) | 1.77<br>(45) | 0.79<br>(20) | 0.98<br>(25)     |

**Bore sizes and keyseats**

inches (mm)

| Size | d <sup>H7</sup><br>Bore Size | Keyseat*   |
|------|------------------------------|------------|
| 20   | 0.78<br>(20)                 | (6 X 2.8)  |
| 25   | 0.98<br>(25)                 | (8 X 3.3)  |
| 30   | 1.18<br>(30)                 | (8 X 3.3)  |
| 35   | 1.38<br>(35)                 | (10 X 3.3) |
| 40   | 1.57<br>(40)                 | (12 X 3.3) |
| 45   | 1.77<br>(45)                 | (14 X 3.8) |
| 50   | 1.97<br>(50)                 | (16 X 4.3) |
| 55   | 2.17<br>(55)                 | (16 X 4.3) |
| 60   | 2.36<br>(60)                 | (18 X 4.4) |
| 70   | 2.76<br>(70)                 | (20 X 4.9) |
| 80   | 3.15<br>(80)                 | (22 X 5.4) |
| 90   | 3.54<br>(90)                 | (25 X 5.4) |

\* For keyseat sizes see DIN 6885.1 table on page 127.