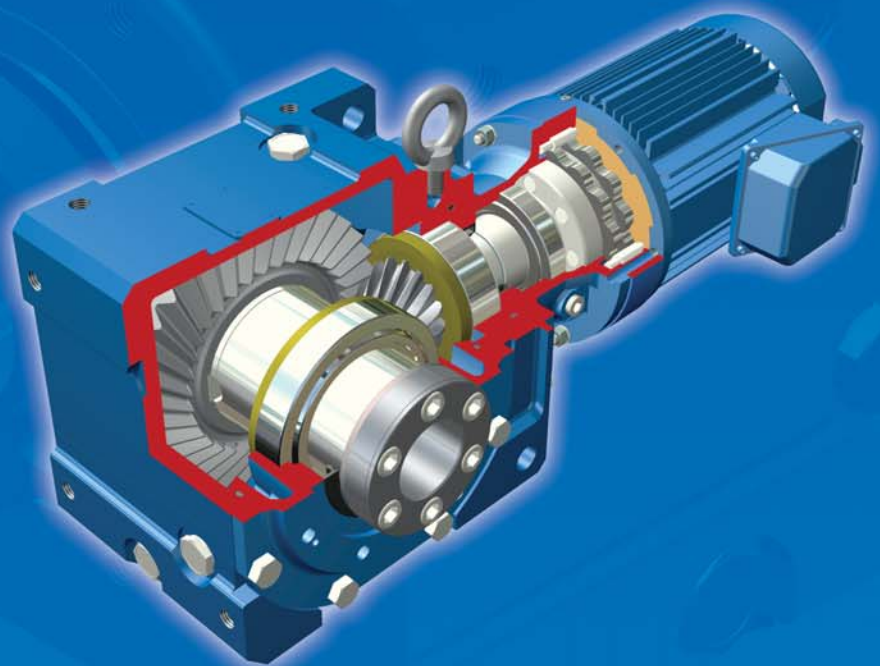


Sumitomo Drive Technologies
Always on the Move

Cyclo[®] BBB



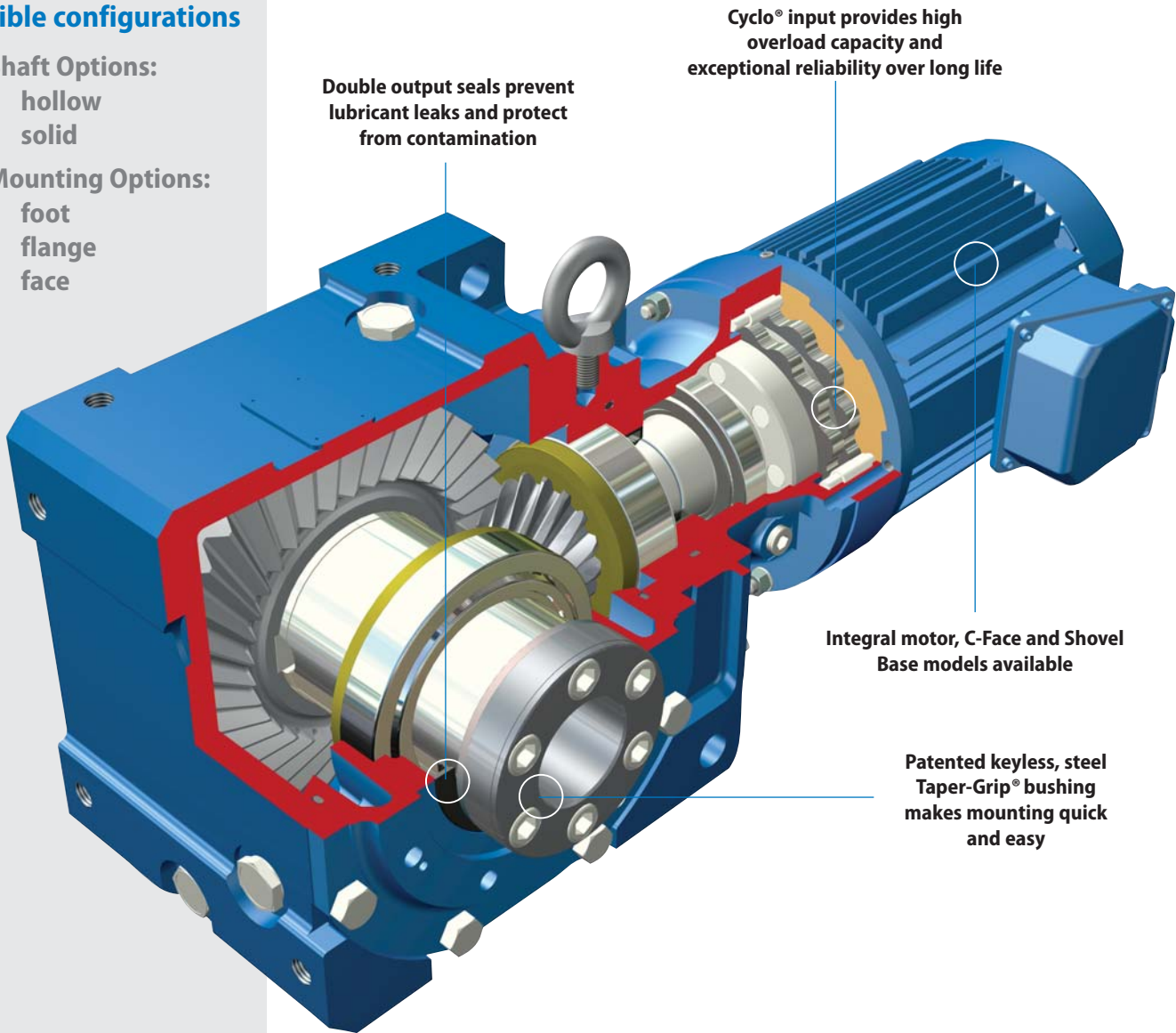
► Right Angle Spiral Bevel Gearbox with Cyclo[®] Reducer Input

Cyclo[®] BBB

Bevel Buddybox
Right Angle Spiral Bevel Gearbox with Cyclo[®] Reducer Input

► Flexible configurations

- Shaft Options:
hollow
solid
- Mounting Options:
foot
flange
face



Double output seals prevent lubricant leaks and protect from contamination

Cyclo[®] input provides high overload capacity and exceptional reliability over long life

Integral motor, C-Face and Shovel Base models available

Patented keyless, steel Taper-Grip[®] bushing makes mounting quick and easy

Cyclo[®] Quality and Reliability, Right Angle Design

- High performance steel gearing components deliver **up to 94% efficiency**



Product Description

Sumitomo's Cyclo® Bevel Buddybox (Cyclo® BBB) speed reducers and gearmotors are the **ultimate right angle drives for challenging applications**. The Cyclo® BBB combines the quiet, efficient and reliable performance of the Cyclo® technology input with the **rugged spiral bevel** gearbox output. The **modular design** provides a compact, torque-dense product with the most flexible range of output speed and torque combinations available. The Cyclo® BBB easily adapts to shaft-mounted as well as solid shaft mounting arrangements. Sumitomo's patented Taper Grip® bushing system enhances the Cyclo® BBB value by offering a simple shaft-mounting device that **provides self-aligning, backlash-free torque transmission** to the driven shaft. The Cyclo® BBB and Taper Grip® bushing system provide solutions for the most demanding applications.

Features & Benefits

- **Cycloidal speed reduction technology**
 - ~ Quiet, efficient and reliable operation with high torque density and compact size
- **Modular design**
 - ~ Interchangeable cast iron housings in foot, flanged or face mount configurations
- **High performance steel spiral bevel gearing**
 - ~ Deliver efficiencies of up to 94% across the entire product range
- **Double output seals**
 - ~ Virtually leak-free operation and optimal protection from lubrication contamination
- **Taper Grip® Bushing**
 - ~ Simple, steel, keyless shaft mounting system resists fretting and eases unit installation and removal from driven shaft

Specifications Summary

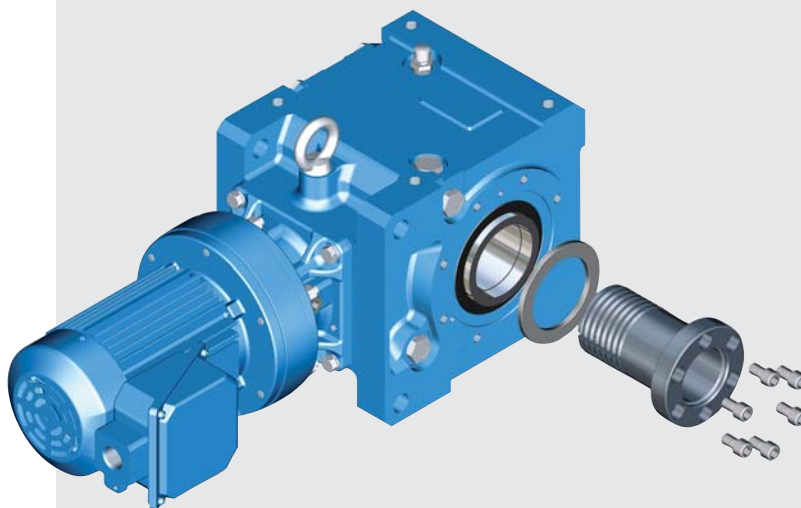
| | |
|-------------------------|---|
| Ratios: | 11:1 to 26,000:1 and greater |
| Torque Capacity: | 94,700 in. lbs. |
| HP: | 1/8 to 40 |
| Mounting: | Hollow Shaft, Solid Shaft with Foot, Flange, Face |
| Options: | Integral Motor, C-Face and Shovel Base |
| Motor Standards: | NEMA, IEC, JIS, UL, CSA, CE |

► Keyless, steel Taper-Grip® bushing makes mounting of hollow shaft units easy and economical

The Sumitomo **Taper-Grip®** bushing is a keyless, torque transmission device integrated into the shaft mounted, right angle Cyclo® BBB reducer and gearmotor product lines.

The **unique, patented design** has a number of benefits:

- Easy mounting and removal of the unit to and from the driven shaft
- Standard bore sizes require no shaft preparation such as a keyway, undercut, or keeper plate
- Backlash free torque transmission
- Works with standard shafting, no special tolerances required
- Automatic shaft center alignment
- Resistant to fretting and corrosion
- Multiple stock bore sizes for quick delivery.



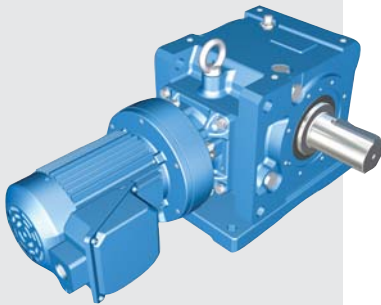
► Applications

- Material Handling
- Asphalt Mixers
- Capstan Drive
- Rolling Mill Table
- Wire Drawing Machines
- Food Processing
- Belt Filter Presses
- Shredders/Compactors

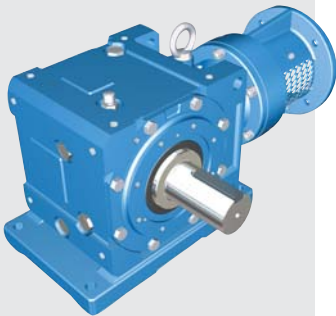
Cyclo[®] BBB Bevel Buddybox

Right Angle Spiral Bevel Gearbox with Cyclo[®] Reducer Input

► **Product Range**
Standard Motor
and Reducer
Combinations



Solid shaft, foot-mounted models available



Single Reduction Ratios 11 – 417

Combinations with 1750 RPM motor

| Ratio | 11 | 18 | 21 | 28 | 39 | 46 | 53 | 60 | 74 | 88 | 102 | 123 | 151 | 179 | 207 | 249 | 305 | 417 | |
|--------------------------|-----|------|------|------|------|----|----|------|------|------|------|------|------|-----|------|------|------|------|--|
| Output Speed RPM (60 Hz) | 159 | 97.2 | 83.3 | 62.5 | 44.9 | 38 | 33 | 29.2 | 23.6 | 19.9 | 17.2 | 14.2 | 11.6 | 9.8 | 8.45 | 7.03 | 5.74 | 4.20 | |
| 1/4 | | | | | | | | | | | | | | | | | | | |
| 1/3 | | | | | | | | | | | | | | | | | | | |
| 1/2 | | | | | | | | | | | | | | | | | | | |
| 3/4 | | | | | | | | | | | | | | | | | | | |
| 1 | | | | | | | | | | | | | | | | | | | |
| 1.5 | | | | | | | | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | |
| 7.5 | | | | | | | | | | | | | | | | | | | |
| 10 | | | | | | | | | | | | | | | | | | | |
| 15 | | | | | | | | | | | | | | | | | | | |
| 20 | | | | | | | | | | | | | | | | | | | |
| 25 | | | | | | | | | | | | | | | | | | | |
| 30 | | | | | | | | | | | | | | | | | | | |
| 40 | | | | | | | | | | | | | | | | | | | |

Double Reduction Ratios 364 – 10658

Combinations with 1750 RPM motor

| Ratio | 364 | 424 | 501 | 578 | 683 | 809 | 956 | 1117 | 1320 | 1656 | 1957 | 2272 | 2559 | 2944 | 3511 | 4365 | 5177 | 7228 | 10658 |
|--------------------------|------|------|-----|------|------|------|------|------|------|------|-------|------|-------|-------|-------|-------|-------|-------|-------|
| Output Speed RPM (60 Hz) | 4.81 | 4.13 | 3.5 | 3.03 | 2.56 | 2.16 | 1.83 | 1.57 | 1.33 | 1.06 | 0.894 | 0.77 | 0.684 | 0.595 | 0.499 | 0.401 | 0.338 | 0.242 | 0.164 |
| 1/8 | | | | | | | | | | | | | | | | | | | |
| 1/4 | | | | | | | | | | | | | | | | | | | |
| 1/3 | | | | | | | | | | | | | | | | | | | |
| 1/2 | | | | | | | | | | | | | | | | | | | |
| 3/4 | | | | | | | | | | | | | | | | | | | |
| 1 | | | | | | | | | | | | | | | | | | | |
| 1.5 | | | | | | | | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | | | | | | | | |
| 3 | | | | | | | | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | | | | | | | | |
| 7.5 | | | | | | | | | | | | | | | | | | | |

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