



Product Brochure

# Set screw mounted ball bearings





We provide motors, generators and mechanical power transmission products, services and expertise to save energy and improve customers' processes over the total lifecycle of our products, and beyond.

# Set screw mounted ball bearings

For many years, Dodge® has provided innovative solutions for the industry's toughest mounted bearing applications. This experience led to the design of the most advanced mounted ball bearing product line in the industry. Dodge ball bearings are built using the latest manufacturing technologies to produce the highest quality product available on the market today.

SC        Setscrew Normal Duty  
SCM      Setscrew Medium Duty  
SCED     Setscrew Extreme Duty  
SCMED   Setscrew Extreme Medium Duty

- 65° set screw locking system
- Precision-hardened and honed inner and outer rings
- Grade 10 balls
- Wide inner ring design
- Available sizes 17mm - 85mm (1/2" - 3-1/2")
- Housing styles:
  - Pillow Block
  - Tapped Base
  - Flange - 2-Bolt, 3-Bolt, and 4-Bolt
  - Piloted Flange
  - Flange Bracket
  - Screw Conveyor Hanger Bearing
  - Hanger Bearing
  - Cylindrical Unit
  - Take-Up
  - ER-SC





# SC/SCM

## Value added features

### Superior locking force

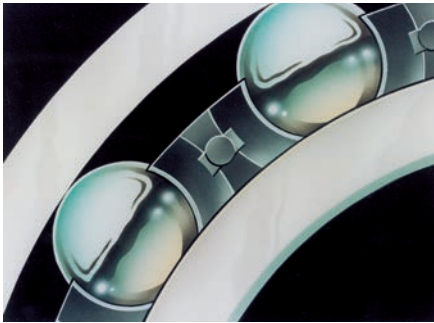
Dodge® uses 65° spacing for setscrews. This unique design offers an optimum balance between locking force and inner ring stress.



Superior locking force

### Stronger, more flexible cage

The SC/SCM uses a ball cage that is made of heat stabilized nylon with fiber-glass reinforcement for added strength. The nylon material provides a natural lubricity for longer life. Fiberglass reinforcement allows higher operating temperatures than plain nylon, is more resistant to fatigue than metallic cages, and prevents the cage from retaining moisture in wet environments. Short fiberglass allows greater flexibility than steel or normal fiberglass, especially under misalignment. That means longer life in applications where some degree of misalignment is unavoidable.



Stronger, more flexible cage

### Simplified anti-rotation device

An anti-rotation pin prevents rotation of the outer race within the housing. Simple and effective, it makes system inserts easier to replace. There is no need to remove and replace grease fittings, location pins or other devices.



Simplified anti-rotation device

### Patented DualGuard seal

Dodge SC/SCM products use the patented Dualguard sealing system that offers maximum protection in tough environments. The DualGuard seal consists of two patented features that are unique to Dodge bearings.

#### Features of the patented DualGuard seal:

##### Land-riding single lip seal

- Made of nitrile rubber.
- Provides positive contact with the inner ring.
- Assures uniform lip contact to keep contaminants out and seal in lubricant.
- Mechanical seal retention allows for grease purge without the possibility of seal dislodgement.

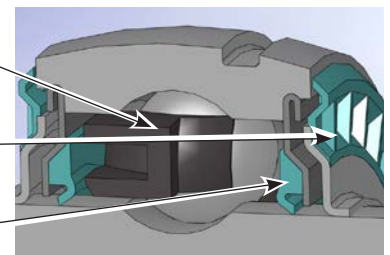
##### Rubberized flinger

- Industry's first and only patented design.
- Rubber extension on the metal flinger provides positive contact with the fall of the outer ring during operation. This design closes the gap between the external environment and the inside of the bearing, offering greater protection against contamination.
- Baffle design of the rubber on the external surface of the flinger enhances the removal of liquid during rotation.
- Rubber baffles create a turbulent airflow around the seal to help protect against airborne contaminants.
- Grease chambers on the internal surface prevent lubricants from exiting the bearing.
- Superior design increases service life in dirty environments thus leading to extended uptime.

Fiberglass reinforced  
nylon cage

Patented rubberized  
flinger

Mechanically retained  
lip seal



# SCED/SCMED Extreme duty

The Dodge® SCED/SCMED Extreme Duty mounted ball bearing offers extended life in the toughest industrial applications. Incorporating patented Dodge-only features such as the QuadGuard sealing system and the MaxLife ball cage, the Dodge SCED/SCMED bearing outperforms the competition in demanding environments where increasing equipment uptime is critical to success. Extreme conditions require highly-engineered products that will last. The Dodge Extreme Duty mounted ball bearing is up to the challenge.

## Patented QuadGuard seal

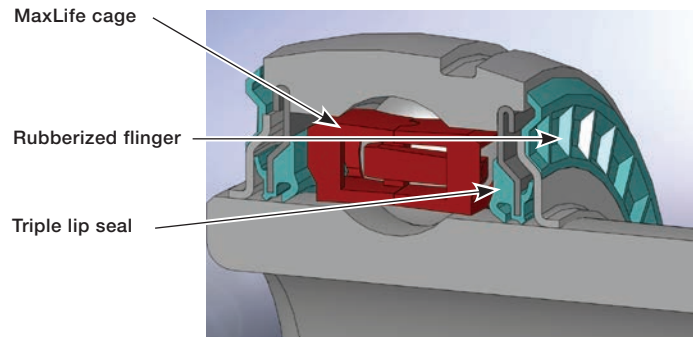
The SCED/SCMED uses our patented QuadGuard sealing system that offers superior protection in tough environments where there is significant risk of contamination. Industries such as aggregates, agriculture, cement, paper, wood products and metals require a sealing system that will extend the life of the bearing in harsh conditions. There are two major components to the QuadGuard design:

### Triple-lip seal

- Patented design.
- Mechanically retained seal with two contact points on the inner ring and one contact point that rides against flinger surface.
- Three points of contact guard against contamination and help retain lubrication.
- Maximizes sealing without a significant speed rating reduction compared to a single lip design.

### Rubberized flinger

- Patented design (first in the industry).
- Rubber extension on the metal flinger provides positive contact with the fall of the outer ring during operation. This design closes the gap between the external environment and the inside of the bearing, offering greater protection against contamination.
- Baffle design of the rubber on the external surface of the flinger enhances the removal of liquid as it rotates.
- Grease chambers on the internal surface prevent lubricants from exiting the bearing.
- Superior design increases service life in dirty environments, thus leading to extended uptime



# SCED/SCMED

## Patented MaxLife ball cage

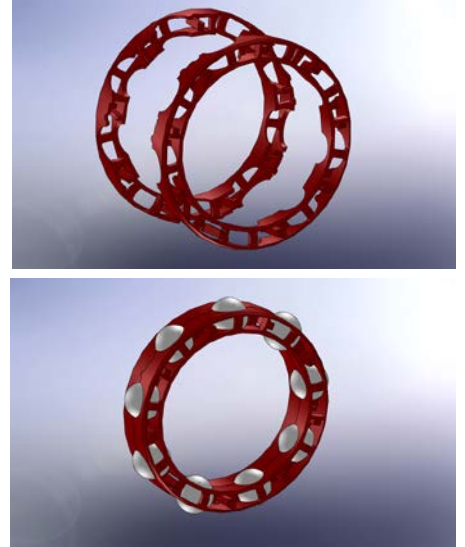
### Enhanced lubrication retention

The SCED/SCMED incorporates an innovative cage design that is unique to Dodge®. The MaxLife cage is the product of extensive research and development in retainer technology and industry leading engineering.

- Two-piece design that creates a grease compartment around each of the rolling elements.
- Compartments allow balls to be constantly in contact with grease, insuring that an oil film will always exist to prevent wear and minimize friction and heat.
- Relative motion between the components and the grease is reduced, resulting in lower operating temperatures and extended life.
- Compartmental construction of the cage helps hold in the grease and prevents it from being washed out in extremely wet or dirty conditions.
- Exclusive design extends life with less frequency of re-lubrication than standard designs.

### Synthetic grease standard

The SCED/SCMED utilizes the latest in synthetic grease technology to provide lower operating temperatures, extended grease life, and maximum time between re-lubrication. The extreme duty ball bearing from Dodge offers the ultimate in engineering and innovation to provide a product that requires less maintenance and will last longer in demanding environments.



# Dodge® snap-on end covers

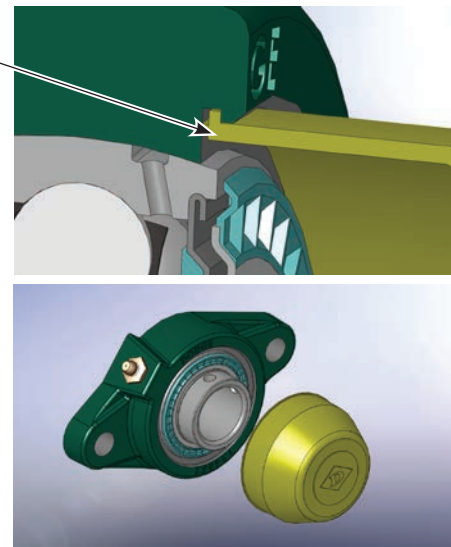
## Enhanced sealing/safer work environment

### Housing designed for snap-on end cover

Many housing styles of the SC/SCM and SCED/SCMED bearings include a machined groove in the housing to accommodate a snap-on style polymer end cover. The end cover provides additional protection from contamination and creates a safer working environment for employees maintaining equipment. The snap-on style end cover incorporates a lip on the mounting surface for a secure fit within the housing, thus providing enhanced sealing. The design is more durable than a bolt-on style that uses the grease fitting to secure the cover in place and can be easily knocked off during operation. Closed and open end covers are available.

- Available as a standard feature for SC/SCM and SCED/SCMED products in the following housing styles:
  - Two-bolt pillow block
  - Two-bolt flange
  - Four-bolt flange
  - Flange cartridge
- Machined groove in housing accommodates snap-on style polymer end cover.
- Extended lip on the outer diameter of end cover provides a secure fit and positive sealing.
- Provides additional layer of protection in harsh environments.
- Creates a safer work environment for employees.
- Yellow and white end covers available.
- Closed and open end covers available.

Extended lip provides  
a secure fit and  
positive sealing





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