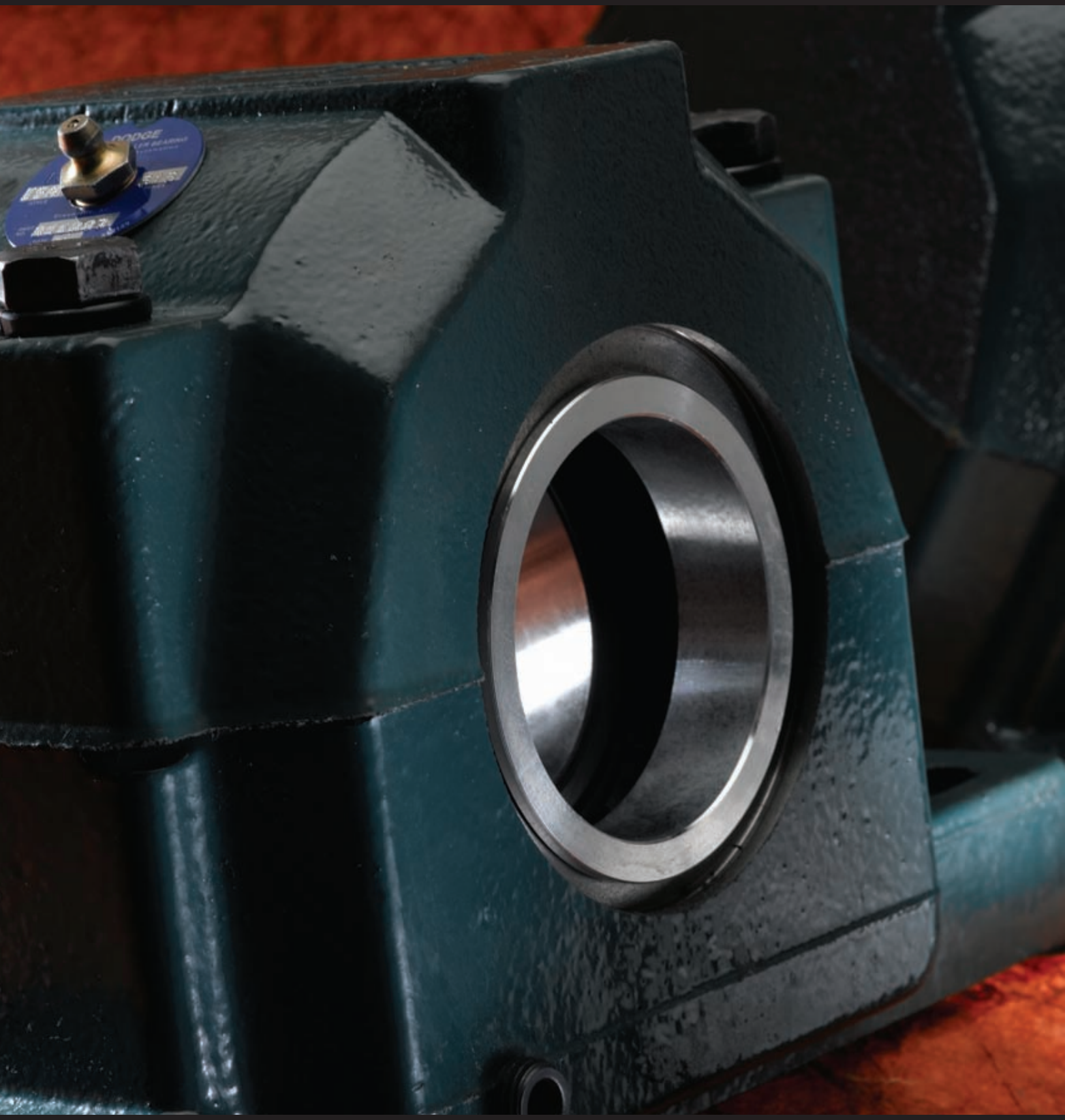
# Dodge USAF Bearings

DODGE®



BALDOR®

# THE BEST ONLY GET BETTER.

For more than 125 years, the DODGE® brand has been synonymous with the best the industry has to offer. Bearing users throughout the world recognize that, with DODGE, they have access to the highest quality and best selection of mounted bearings in the industry.

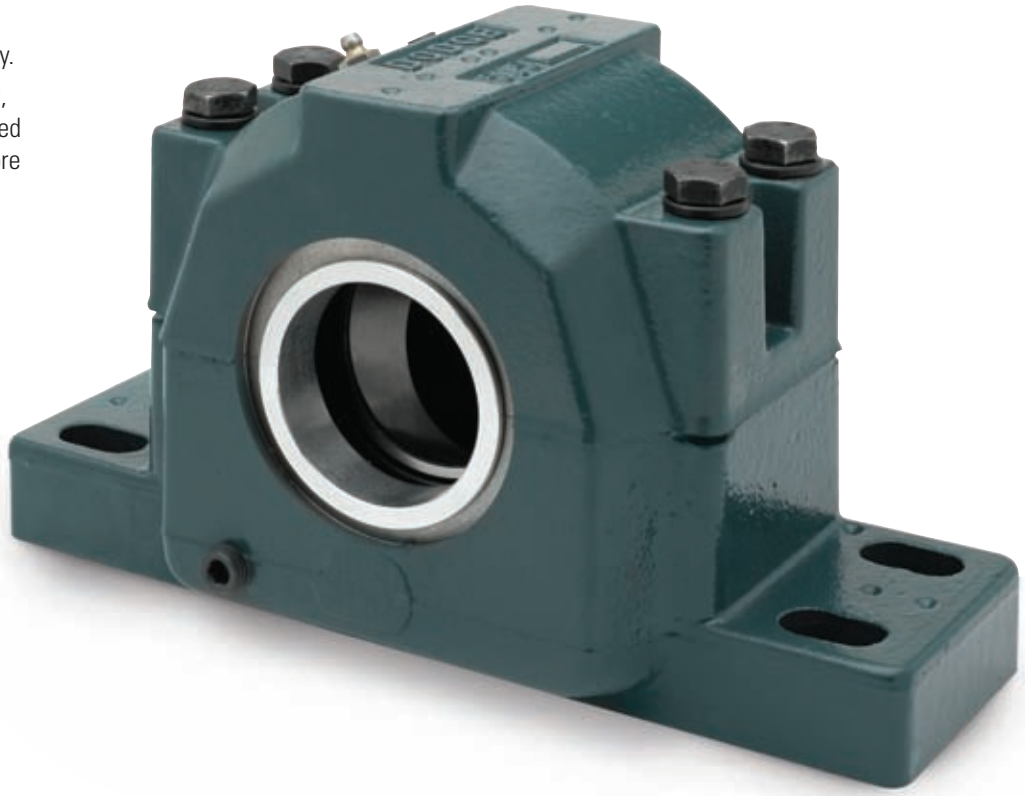
Plus, you get built-in advancements. With DODGE UNIFIED SAF (USAF) pillow blocks, you benefit from a housing that has capabilities for harsh environments that competitive pillow blocks do not have. USAF housings also match standard dimensions to assure interchangeability.

Available bearing series include 22200, 22300, 23000, 23100 and 23200, tapered bore for adapter mount and straight bore for direct mount.

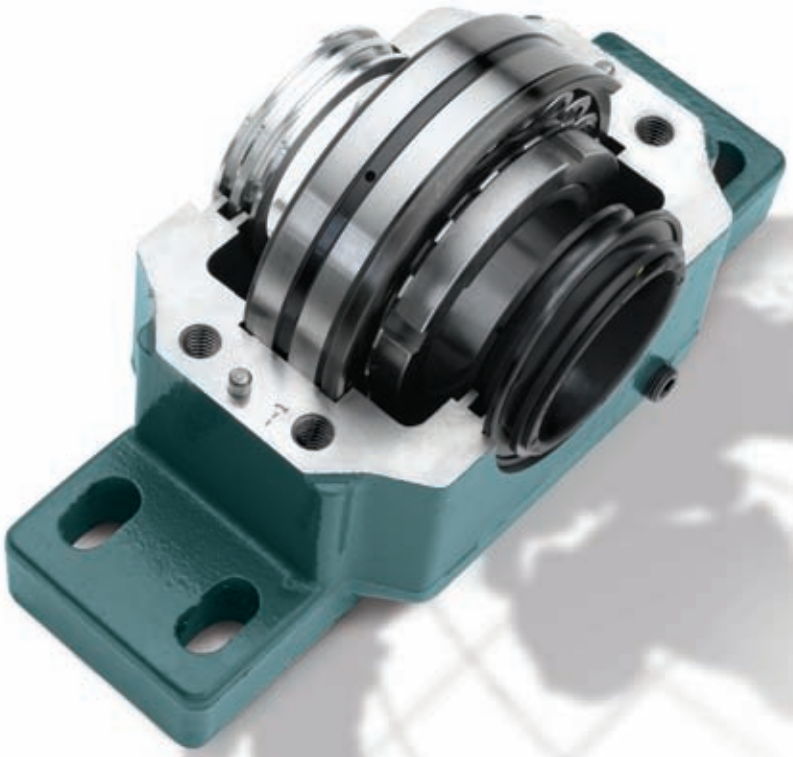
The SPLIT-SPHER™ bearing offers a complete split replacement for an adapter mounted 22200.

Multiple seal designs offer effective protection against contaminants in a variety of applications.

Available for shaft sizes 1-7/16" – 15-3/4" and 40 mm-140 mm in adapter mount. Additional sizes offered in direct mount. Pillow blocks are available in 200, 300, 500 and 600 series.



# Dodge USAF Product Overview



## Maximum Application Flexibility With A Minimum Number of Components

### Styles
- UNIFIED SAF (USAF) A.B.M.A. conformance

### Bearings
- Cylindrical (direct mounted) or tapered bore (adaptor mounted) spherical roller bearings
- 22200, 22300, 22200K, 22300K, 22200 SPLIT-SPHER™ and 23000K are all offered as standard
- Air handling 22200K series with steel cage
- 1200 series double row ball bearings

### Housings
ISO H7 housing fit to minimize noise and vibration.

Suitable for oil or grease lubrication.

### 500 Series
- Adaptor mounted 22200K Series bearings
- Used for normal loads
- 1-7/16" – 8" (USAF) bores
- Also accommodates SPLIT-SPHER bearings

### 600 Series
- Adaptor mounted 22300K Series bearings
- Used for heavier loads
- 1-7/16" – 7" (USAF) bores

### 200 Series
- Direct mounted 22200 Series bearings
- Used for normal loads and size reduction vs. 500 Series
- 75 mm to 220 mm (USAF) bearing bores

### 300 Series
- Direct mounted 22300 Series bearings
- Used for heavier loads and size reduction vs. 600 Series
- 40 mm to 190 mm (USAF) bearing bores

### Large Bore
- Adaptor mounted 23000K, 23100K, 23200K Series bearings
- Offered in bores 8-7/16" – 15-3/4"
- SDAF dimensions



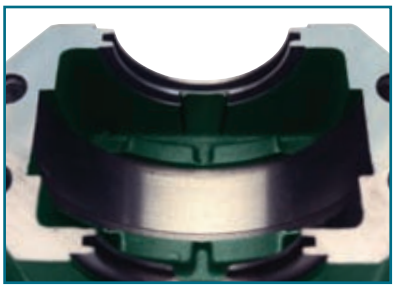


Solid cast iron feet increase strength in both two-and four-bolt styles.

Housing base is threaded to accept four Grade 5 cap bolts for added strength. Cap bolts match four-bolt base bolts for one-wrench installation.



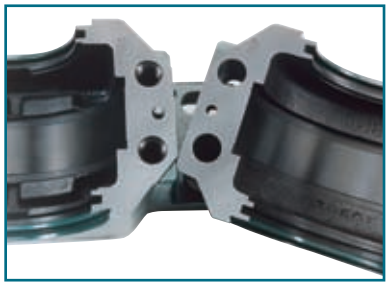
Standard modifications for wet and harsh environments include nylon coating, epoxy paints and nickel plating, as well as stainless steel hardware.



USAF Bearings are suitable for oil lubrication. Oil return slots are cast into the interior seal grooves to keep lubricants in. This allows oil in the seal grooves to return to the oil sump instead of leaking.



Cast-closed housings enhance safety and reduce seal-related bearing failures by 50%. Allows for optional factory installed zero speed switch.



Offset dowels with matched numbers on cap and base joint simplify correct assembly.

Pry slots allow easy separation of the pillow block.

Cast-in dimples locate drill holes for dowels and optional drilled mounting holes.



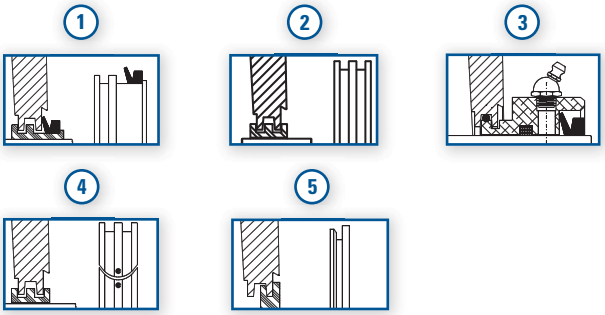
Optional vibration, temperature and speed sensors provide feedback to allow predictable maintenance.



# Seals For Every Environment

## Seal Options



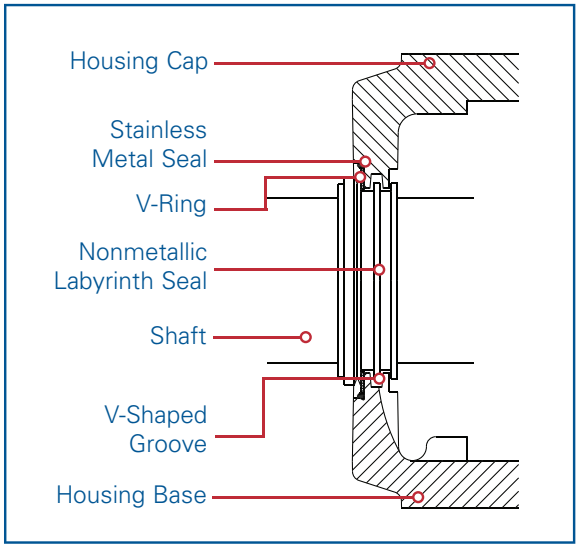

## Patented,* Drop-In TRIPLE-TECT™ Seal

The drop-in TRIPLE-TECT seal assembly consists of a seal ring, V-ring Seal and stainless metal seal with rubber bead. While lowering the shaft- bearing and seal assembly into the housing base, the stainless metal seal with rubber bead fits in the outboard v-shaped housing groove. The stainless metal seal gives superior sealing surface for the V-ring and positions the V-ring for easy cap-to-base housing assembly.

- Excellent sealing for wet or dirty environments
- Has original TRIPLE-TECT features
- Offers three times the sealing action of labyrinth seals
- Pre-assembled at the factory for quick, easy field assembly.

*Patent No. 5,259,628






### 1 TRIPLE-TECT Seal

- General purpose seal for wet or dirty environments

### 2 LER Seal

- High speed seal for relatively clean or hot environments
- Provides metal labyrinth protection and easy installation

### 3 Auxiliary Taconite Seal

- For dusty environments

### 4 Split Seal

- Permits easy installation in hard-to-reach applications without removing the bearing
- Provides elastomeric labyrinth protection

### 5 End Cover Seal

- Rigid construction seals against sides of grooves, not at bottom of grooves
- Allows use of open shaft housing as closed-end

# Other Options and Related Products



### ISAF
- Sizes 1-7/16" – 7"
- Exclusive IMPERIAL adaptor mounting system
- Interchangeable with SAF style pillow blocks
- Factory sealed, assembled and shaft ready
- Superior DODGE TRIDENT triple lip labyrinth sealing system



### TAF
- Sizes 1-7/16" – 7"
- Set screw mount tapered roller bearing
- SAF dimensions
- Fast and simple installation
- Factory assembled, adjusted and sealed



### Hydraulic ISAF
- Patented integral hydraulically assisted mounting/dismounting
- Clearance setting without the use of feeler gauges
- Tandem seals LOR and triple lip
- Four-bolt pillow blocks, 5-7/16" – 15"



### SAF-XT Spherical Roller Bearings
- Sizes 1-7/16" – 10-1/2"
- Adapter mount 22200K spherical bearing
- Offset center line puts bearing closer to the load
- Shorter length through bore than USAF

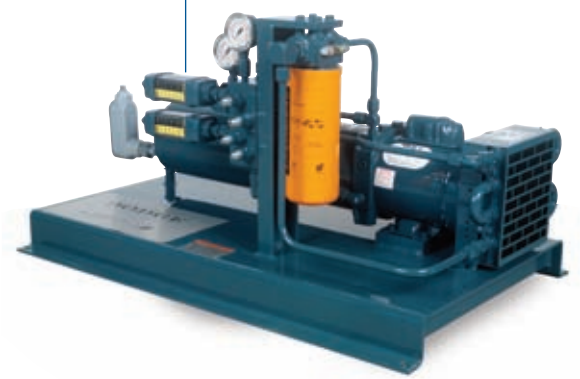


### SAFS
- Sizes 1-7/16" – 8"
- Adapter mount 22200K spherical bearing
- Cast steel housings
- Grease or oil lube
- Multiple seal options



### USDAF
- Sizes 8-15/16" – 15-3/4"
- Adapter mount with 230, 231 and 232 spherical bearings
- Cast iron housings
- LER, TRIPLE-TECT, or Auxiliary Taconite seal options

## The DODGE® Cool Lube System



Enhance your DODGE USAF spherical roller bearing and hydrodynamic bearing operation by continuous oil cooling, filtration, and proper oil level maintenance. The DODGE Cool Lube System allows for reduced maintenance costs and increased uptime by providing:

- Bearing temperature reduction
- Oil filtration
- Adjustable flow control

This system can be utilized on most fan applications where bearing temperatures and contamination are an issue. The system is designed for use in harsh environments. One Cool Lube System can service two mounted roller bearing products.

DODGE Part Numbers:

- 058530 for single phase ½ HP motor
- 067669 for three phase 1 HP motor

For more information, see FL3002



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