



TIMKEN SOLID-BLOCK MOUNTED SPHERICAL ROLLER BEARING SECONDARY SEALING



SECONDARY SEALS

In many circumstances, bearings become damaged in housings due to premature primary seal wear. This is usually the result of harsh operating environments or lubrication issues. Timken offers secondary sealing options that provide an additional barrier to protect the primary seal. These economical secondary seals and covers are easily outfitted on virtually all solid-block mounted bearings.

STEEL COVERS

Labyrinth Seals – Non-Contacting, Non-Purging, All Speeds

A labyrinth seal uses a winding passageway to accomplish a reduction in flow instead of trying to form a seal with a single strong barrier. Seal friction and wear is reduced.

- **T Seal** – This seal, which is used in the open-end steel covers, consists of a DuPont Teflon ring pressed onto the shaft that floats between two pieces of formed steel to accommodate misalignment. Developed for higher-speed applications involving dirty conditions or moisture-affected areas, it is able to operate at higher temperatures and is impervious to most chemicals, while avoiding shaft damage.

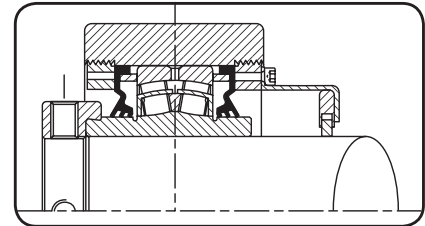
URETHANE COVERS

DR Triple-Lip Secondary Seal – Low Speeds

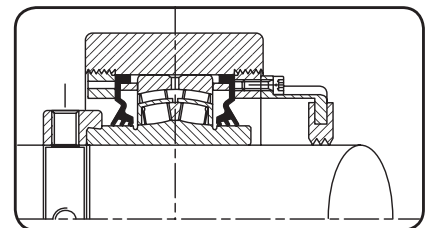
The DR seal is the standard triple-lip seal adapted for use on the open-end covers and piloted flange cartridge backing plates (HSY). This seal can move within the cover or backing plate opening to accommodate misalignment while maintaining full contact to the shaft for positive sealing.

VR Viton Ring Secondary Seal – High Speeds

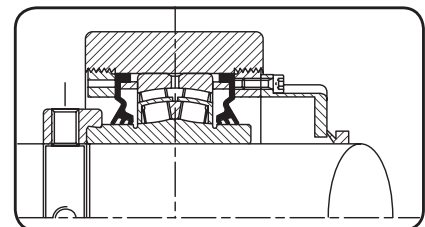
The VR seal, made of nitrile rubber, rides on the shaft and seals against the open-end covers and flange block backing plates (UFP).



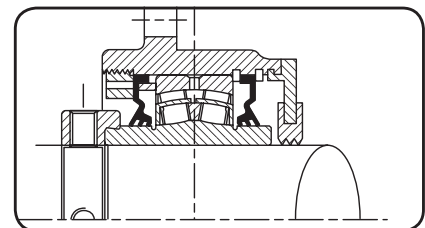
Open-end steel cover
with T seal.



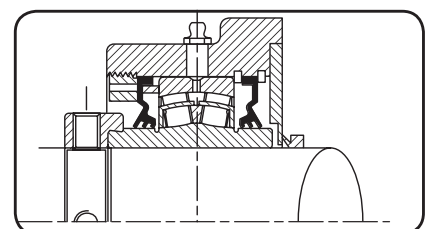
Open-end urethane cover
with DR seal.



Open-end urethane cover
with VR seal.



HSY backing plate
with DR seal.



UFP backing plate
with VR seal.

STEEL COVERS

OPEN-END COVER

CJ

18

T

085

S

Locking Style

CA – concentric lock
CJ – eccentric lock
CV – V-Lock
CK – tapered adapter lock

Seal Type

T seal only

Steel Cover

Shaft Size

In inch (i.e., 207 = 2⁷/₈ in.) and metric (i.e., 050 = 50 mm) sizes

Bearing Insert Bore Series

222XX (i.e., 13 = 22213)
232XX (i.e., 30 = 23230)
(for size 30 and 34 EC locking bearings only)
231XX (i.e., 48 = 23148)
(for size 32 and larger tapered adapter locking bearings only)

CLOSED-END COVER

CS

18

STEEL

Closed-End Cover

Steel Cover

Bearing Insert Bore Series

222XX (i.e., 13 = 22213)
232XX (i.e., 30 = 23230)
(for size 30 and 34 EC locking bearings only)
231XX (i.e., 48 = 23148)
(for size 32 and larger tapered adapter locking bearings only)



URETHANE COVERS

OPEN-END COVER WITH DR SEAL

CJ

DR

207

Locking Style

CJ – eccentric lock and concentric lock
CK – tapered adapter lock

Shaft Size

In inch (i.e., 207 = 2⁷/₈ in.) and metric (i.e., 050 = 50 mm) sizes

Triple-Lip Secondary Seal

V-LOCK OPEN-END COVER WITH DR SEAL

CV

DR

14

207

Locking Style

CV – V-Lock

Bearing Insert Series

222XX (i.e., 14 = 22214)
232XX (for size 30 and 34 bearing only)

Triple-Lip Secondary Seal

Shaft Size

In inch (i.e., 207 = 2⁷/₈ in.) and metric (i.e., 050 = 50 mm) sizes

OPEN-END COVER WITH VR SEAL

CJ

VR

13

Locking Style

CJ – eccentric lock and concentric lock
CK – tapered adapter lock
CV – V-lock

VR ring

Bearing Insert Series

222XX (i.e., 13 = 22213)
232XX (for size 30 and 34 bearing only)

CLOSED-END COVER

CS

13

Closed-End Cover

Bearing Insert Series

222XX (i.e., 13 = 22213)
232XX (for size 30 and 34 bearing only)



URETHANE BACKING PLATES

CL AND EC SERIES (QA AND QM)

UFP

**Square Flange
Urethane Backing
Plate with VR Seal**

207

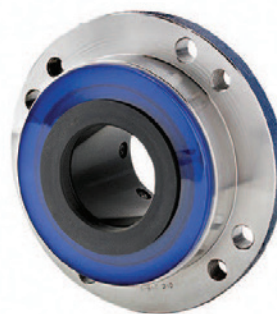
Shaft Size
In inch (i.e., 207 = 2⁷/₁₆ in.) and metric
(i.e., 050 = 50 mm) sizes

HSY

**Piloted Flange
Urethane
Backing Plate
with DR Seal**

207

Shaft Size
In inch (i.e., 207 = 2⁷/₁₆ in.) and metric
(i.e., 050 = 50 mm) sizes



HIGH-PERFORMANCE STEEL BACKING PLATES

CL AND EC SERIES (QA AND QM)

BP

**Square Flange
Backing Plate**

10

Bearing Insert Series
222XX (i.e., 10 = 22210)

T

Seal Type
T – T seal (DuPont
Teflon labyrinth)

115

Shaft Size
In inch (i.e., 207 = 2⁷/₁₆ in.) and
metric (i.e., 050 = 50 mm) sizes

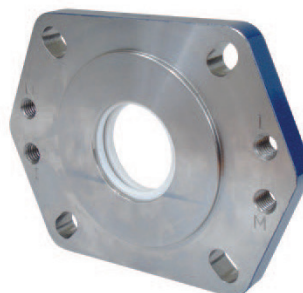
S

Steel

W

Withdrawal Holes

BLANK (No letter) – No withdrawal holes
W – Withdrawal holes



TIMKEN

The Timken team applies their know-how to improve the reliability and performance of machinery in diverse markets worldwide. The company designs, makes and markets bearings, gear drives, automated lubrication systems, belts, brakes, clutches, chain, couplings, linear motion products and related industrial motion rebuild and repair services.

Stronger. By Design.

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