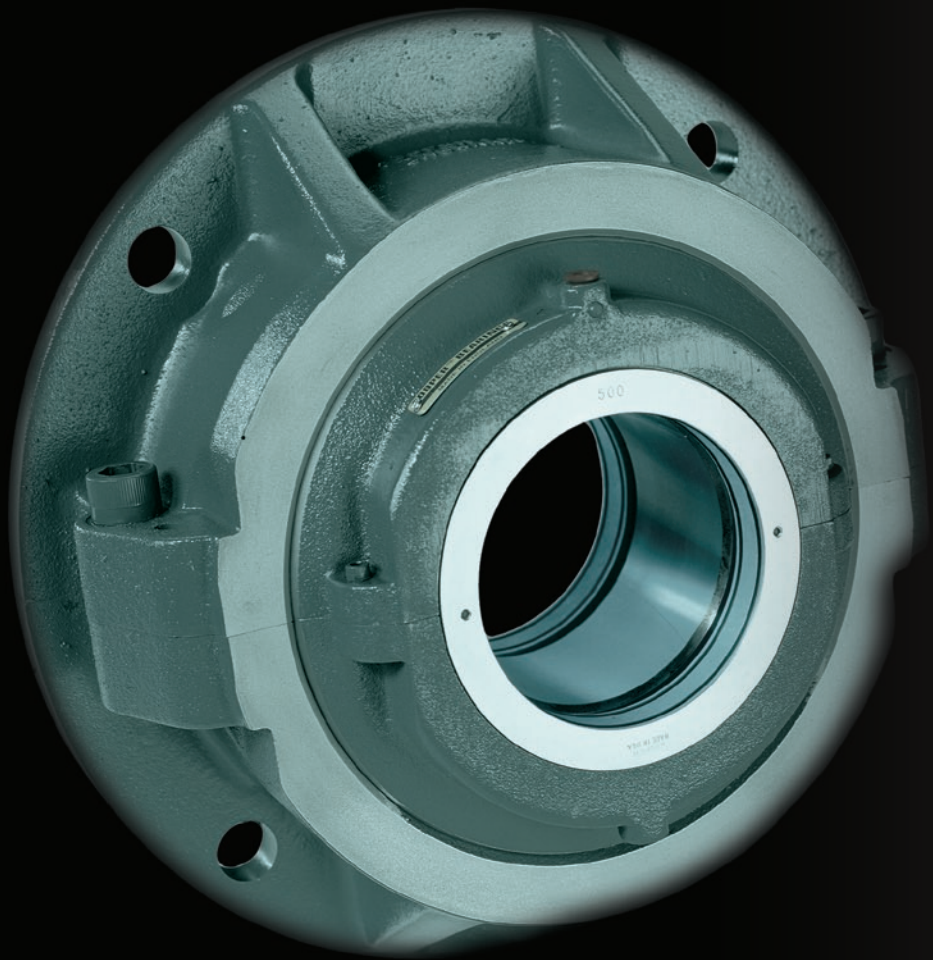


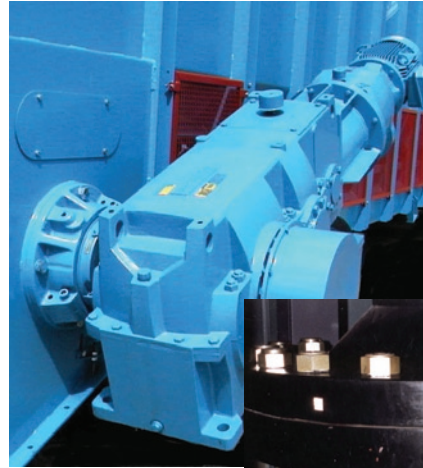
FLANGE UNITS



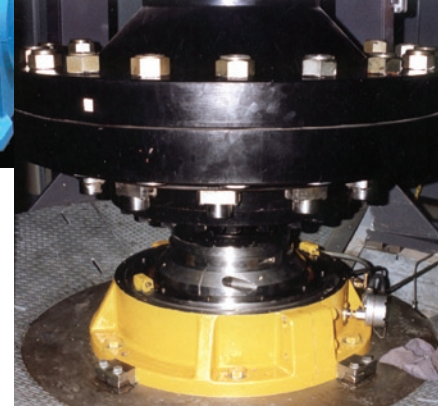
**COOPER**  
SPLIT ROLLER BEARINGS

## INTRODUCTION

Flange housings provide a simple means of mounting a Cooper split roller bearing against a vertical or horizontal face or bulkhead. They offer all the unique advantages of Cooper bearings. The swivel cartridge accommodates misalignment of the shaft and mounting axes and provides superior sealing, with the seals remaining concentric to the shaft at all times. The split-to-the-shaft technology cuts inspection and maintenance downtime to a minimum. It all adds up to uninterrupted operation of the equipment and significant cost savings for the customer.



Helical gear drive on a conveyor - Cooper flange trapped



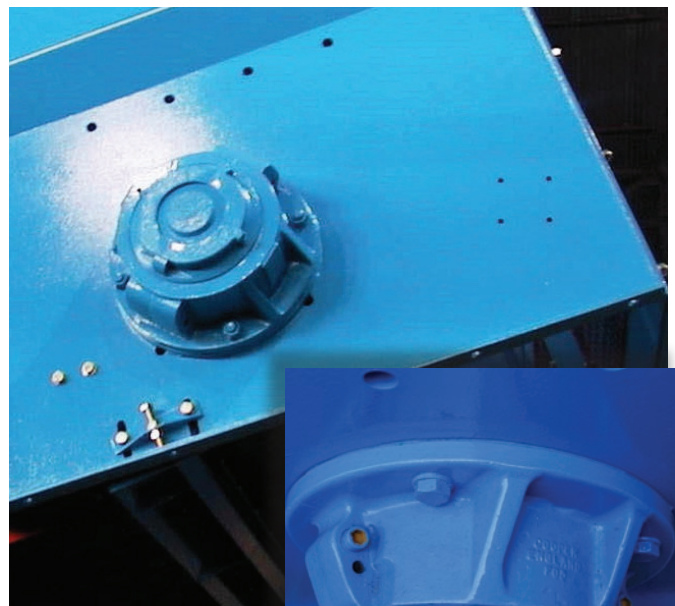
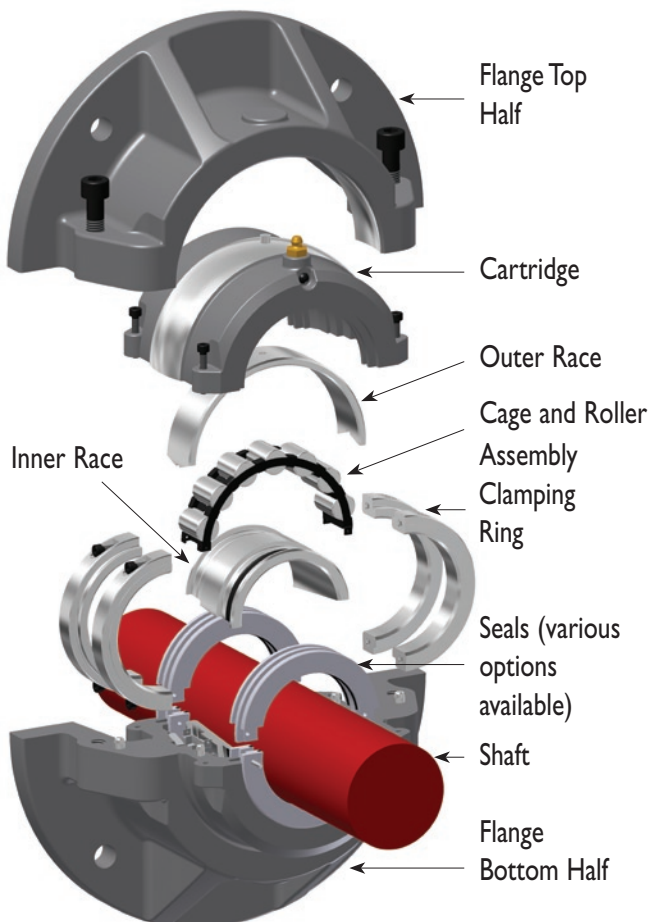
Cooper flange on a vertical sewage pump

### Simplified mounting

With the flange housing, the usual plumber block mounting bracket alongside the conveyor is no longer required. The effective bearing support distance on the shaft is therefore reduced, as is the bending deflection.

### State-of-the-art split technology

The construction of the Cooper flange is very simple. It utilises split-to-the-shaft technology so, when dismantling the bearings for servicing, there is no need to remove or disturb adjacent machinery. The top halves of both the flange and the cartridge can be lifted for inspection of the rolling surfaces or for replacement.



Cooper flange on a ship loading conveyor

## Sealing solutions second to none

Thanks to unique sealing, the complete unit is also protected from the outside environment efficiently, so no part of the shaft is exposed to harsh conditions.

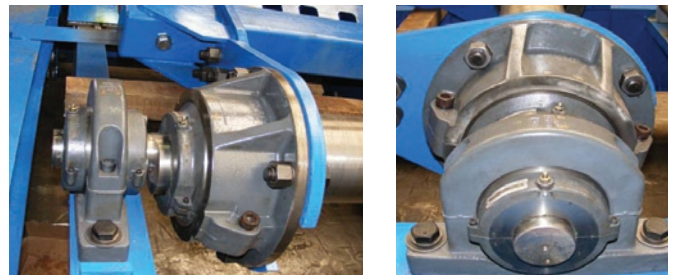
Cooper offers an extensive range of sealing solutions and can assist in choosing the most suitable for any given application and environment. Even abrasive or wet substances such as slurry can be handled effectively. That's why typical Cooper applications include the most demanding industries, such as Coal, Cement, Limestone, Sugar and many more.



*A Cooper square flange bearing arrangement in the dusty environment on a grain elevator*



*A Cooper square flange in a trapped drive position*



*A Cooper round flange and pedestal bearing arrangement on a vibratory screen*

## Compact design

The simplified, extra-compact design has the additional advantage of having one of the seals housed and protected within the unit. This means reduced shaft material, with a corresponding reduction in cost, and fewer sealing issues. For very compact designs, a range of square flanges is also available.

In addition, using flanges instead of pillow blocks makes the whole conveyor drive assembly more compact, as the bearing centre distance can be reduced without limiting accessibility.

## Unrestricted design

The Cooper flange housing promotes freedom of design. Bearing performance is not threatened by contact with the material being processed. This is because the superior sealing protects the bearing from any ingress of contaminants. With conventional designs, such protection is not possible, leading inevitably to bearing failure.

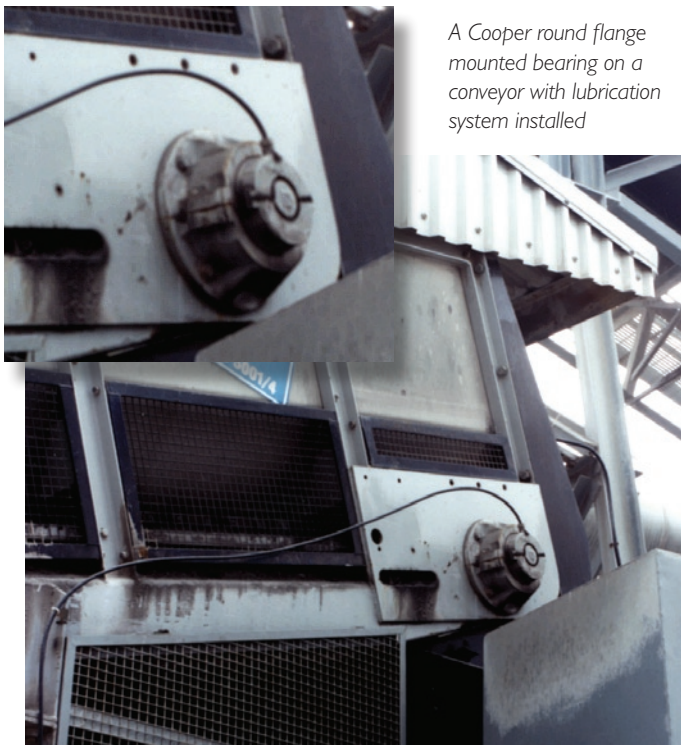
Conventional systems often require a designer to include a gland in the specification. However, glands are not very efficient at accommodating shaft deflection. Along with the greater offset distance from the support bearing, this leads to movement within the gland, and hence to leakage. The Cooper approach makes the gland redundant, giving the designer greater freedom. Elimination of the gland also cuts down power losses and reduces shaft wear.



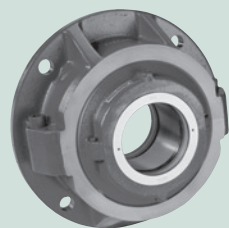
*Cooper round flange in a trapped location*

## Special applications

For vertical or inclined shafts, shock loads or other extreme conditions, special arrangements such as modified construction, custom seals and special lubrication recommendations can be offered. With their vast experience and expertise, our technical department can provide individual suggestions and advice on the best configurations and solutions, guaranteeing trouble-free and cost-effective operation of your equipment.

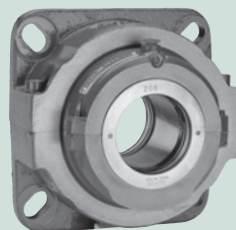


*A Cooper round flange mounted bearing on a conveyor with lubrication system installed*



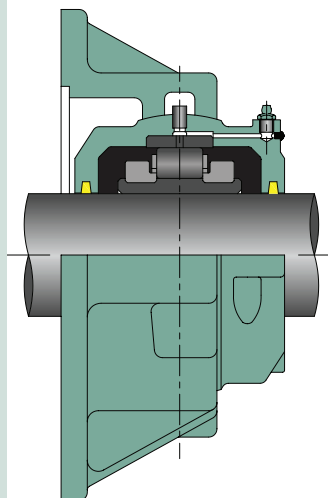
### Round Flange Units

35mm/1 3/16" to 460mm/18"



### Square Flange Units

50mm/1 1/16" to 75mm/3"



Flange mounting options

Section through round flange

### Key Cooper features:

- Split-to-the-shaft bearing technology.
- Swivel cartridge with self-aligning sealing.
- User-friendly: factory pre-set clearances; no need for adapter sleeves.
- Simplified and compact design; no access issues.
- Assured productivity: longer life, less downtime.

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