SKF Y-bearings units – versatile and cost effective

Although the Y-bearing unit concept was introduced to the market many decades ago, progress in manufacturing techniques and the development of new materials have enabled SKF Y-bearing units to maintain their worldwide lead in terms of versatility and value for money.

The range of SKF Y-bearing units offer the performance features and the ease of fitting asked for by today’s designers; together with the product availability and convenience demanded by today’s bearing purchasers.

The basic features of the Y-bearing unit remain the same:
- Enhanced range – wider choice
- Quick and easy installation
- Superior seal options for longer life
- Minimum maintenance
- Metric or imperial option

The Y-bearing unit contains a sealed, single row deep groove ball bearing with a convex spherered outside diameter and locking device on the inner ring, supported in a housing with a corresponding concave spherered seating. The housings are made either of cast iron, pressed steel or a composite polyamide (Y-TECH).

The spherered seating surfaces enable initial errors of alignment between the shaft and housing to be compensated for. But, the units do not permit axial displacement and are therefore unsuitable for non-locating bearing arrangements.

The bearings and housings are normally supplied complete, but may also be ordered as separate components.

Y-bearing units with cast iron housings

Features
- 12mm (1/2”) to 100mm (4”) bore diameter
- -30°C to +110°C operating temperature
- One piece housing
- End covers optional
- Relubrication facility

Housing design options
- Plummer (pillow) block unit with 2 attachment holes
- Plummer (pillow) block unit with short base containing 2 attachment holes
- Square flanged unit with 4 attachment holes
- Round flanged unit with 4 attachment holes
- Oval flanged unit with 2 attachment holes
- Take-up units
Y-bearing units with pressed steel housings

**Features**
- 12mm (5/8”) to 50mm (1-15/16”) bore diameter
- Passivated zinc plated
- Light duty applications
- Two piece housing
- Sealed for life

**Housing design options**
- Plummer (pillow) block unit with 2 attachment holes
- Round flanged unit with 3 attachment holes
- Triangular flanged unit with 3 attachment holes
- Oval flanged unit with 2 attachment holes

Y-TECH bearing units (composite polyamide)

**Features**
- 20mm (3/4”) to 40mm (1-9/16”) bore diameter
- -30°C to +110°C operating temperature
- Lightweight and strong
- Maintenance free and lubricated for life
- Interchangeable with cast iron units
- Resistant to most chemicals
- One piece composite housing
- Corrosion resistant, easy to clean
- Heavy duty seals as standard
- End covers optional

**Housing design options**
- Plummer (pillow) block unit with 2 attachment holes
- Square flanged unit with 4 attachment holes
- Oval flanged unit with 2 attachment holes

Y-bearings (insert bearing)

**Options**
- Grub (set) screw locking
- Stainless steel with grub screw locking
- Eccentric locking collar
- Adapter sleeve
- Extended inner ring on standard adapter sleeve
- Standard inner ring
- Extended standard inner ring
Seals

Options
Super agri seal
- Highly efficient protection in normal applications
- Pressed steel shields with vulcanised lip seals

Super agri seal plus plain flinger
- Superior sealing at no extra cost

Super agri seal plus rubberised flinger
- Six part sealing system – maximum effectiveness
- Out-performs standard tri-ply alternatives
- Operates effectively at lower running temperatures and at all speeds
- Extended seal life - seal lips grease lubricated
- Fitted as standard on all Y-TECH units

Extreme temperature Y-bearing units

Features
- -150°C to +350°C operating temperature
- 20mm (3/4”) to 60mm (2-7/16”) bore diameter
- Lubricated for life
- Cast iron housing with special galvanised coating
- Choice of two bearing inserts – normal (-40°C to +250°C) or extreme (-150°C to +350°C) operating conditions

Housing design options
- Plummer (pillow) block unit with 2 attachment holes
- Square flanged unit with 4 attachment holes
- Oval flanged unit with 2 attachment holes
Typical Y-bearing unit applications

Agricultural machinery
- Combine harvesters
- Harvesters (peas, tomatoes, etc.)
- Mowing machines
- Round balers/forage presses
- Disc harrows
- Grape pickers
- Manure spreaders
- Sugar beet harvesters/processors

Conveyor systems
- Airport luggage systems
- Cement and concrete industry
- Quarries and mines
- Ceramic and pottery industry

Food processing
- Bakery plants
- Packaging machines
- Canning plants
- Bottling plants
- Fans and blowers
- Sludge and waste water treatment plants
A wide choice

The right bearing is often governed by one or more criteria such as initial cost, maintenance requirements, or resistance to the given environmental conditions. Throughout the course of development of the Y-bearing unit and Y-TECH ranges, many variants have been added to satisfy the market demand.

The following are some of the main optional features included in today’s product range:

- **Heavy duty seals**
  to protect against solid and liquid contamination

- **Rubberised flingers**
  for conditions of extreme contamination by dust

- **Grub screw inner ring fixing**
  for either constant or variable direction of rotation

- **Eccentric locking collar**
  for fixed direction or rotation

- **Zinc plated insert**
  corrosion resistance at low cost

- **Stainless steel bearing**
  virtually complete corrosion protection

- **Pressed steel housing**
  where cost is more important than load considerations

- **White colour finish**
  super clean appearance

- **Y-TECH (composite polyamide)**
  lightweight, strong, corrosion resistant and maintenance-free