Because of their versatility and cost effectiveness, Y-bearing units are typically found in the following applications: agricultural machinery, construction equipment, conveyor systems, textile machines and fans as well as in machines for food and beverage processing and packaging.

Bearing terminology

For a better understanding of the information in this catalog, see the next two pages for frequently used bearing terms and their definitions for the following products:

- Y-bearings
- Y-bearing plummer block units
- Flanged Y-bearing units
- Y-bearing take-up units

Essentially, these terms are in accordance with those in the following ISO standards:

- ISO 3228:1993 *Rolling bearings – Cast and pressed housings for insert bearings*
- ISO 9628:2006 *Rolling bearings – Insert bearings and eccentric locking collars*

A detailed collection of bearing specific terms and definitions are also listed in ISO 5593:1997 *Rolling bearings – Vocabulary*.

Fig. 3

Fig. 4

Selection of Y-bearing unit type

The SKF Y-bearing unit assortment is extensive. It includes three designs with a choice of three different materials for the housing and a variety of Y-bearings that can be locked onto the shaft in very different ways. Because of their design, each Y-bearing unit exhibits characteristic features that make it more or less suitable for a specific application.

For example, Y-bearing units with a pressed steel housing are not capable of supporting heavy loads, can only run at moderate speeds and can not be relubricated. However, they are economical and easy to mount. On the other hand, housings made of grey cast iron can withstand significantly heavier radial, axial and shock loads. In addition, cast housings have a grease fitting for relubrication, making them a good choice for applications with somewhat higher speeds.

Since, in many cases, several factors have to be considered when selecting a suitable Y-bearing unit, there is no way to provide a list of general rules. However, important factors that should be considered include:

- location on the shaft
- loads
- seals
- permissible operating temperatures
- speeds

Keep in mind that the total cost of a bearing arrangement and inventory considerations could also influence the final choice.

Other important criteria for designing a bearing arrangement, such as load carrying capacity and rating life, lubrication, etc., will be dealt with in detail in the corresponding chapters.

Flanged Y-TECH units

Flanged Y-TECH units have housings made of composite material. They were developed for bearing arrangements that must operate reliably in difficult environments for extended periods without maintenance. There are two standard series available:

- FYK series (→ **fig. 4**) with a square flange and four bolt holes
- FYTBK series (→ **fig. 5**) with an oval flange and two bolt holes

For additional information about Y-TECH flanged units for the food industry, refer to **page 252**.

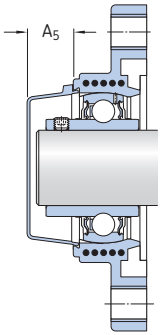
Flanged Y-TECH units in the FYK series are fitted with Y-bearings in the:

- YAR 2-2F series, unit designation suffix TF
- YAR 2-2RF series, unit designation suffix TR

These units, which are attached to the shaft with grub screws, are in the standard SKF assortment.

Fig. 4

Fig. 5



Designations Bearing unit	Separate components Housing	Bearing	**Mass** Bearing unit	**Appropriate end cover** Designation	Dimension A_5
–			kg	–	mm
FYTBK 20 TF	FYTBK 504	YAR 204-2F	0,24	ECY 204	18,5
FYTBK 20 TR	FYTBK 504	YAR 204-2RF	0,24	ECY 204	18,5
FYTBK 25 TF	FYTBK 505	YAR 205-2F	0,29	ECY 205	18
FYTBK 25 TR	FYTBK 505	YAR 205-2RF	0,29	ECY 205	18
FYTBK 30 TF	FYTBK 506	YAR 206-2F	0,44	ECY 206	20
FYTBK 30 TR	FYTBK 506	YAR 206-2RF	0,44	ECY 206	20
FYTBK 35 TF	FYTBK 507	YAR 207-2F	0,61	ECY 207	22
FYTBK 35 TR	FYTBK 507	YAR 207-2RF	0,61	ECY 207	22