

# SKF Y-bearings for agricultural applications

A full range to enhance performance and reduce management and ownership cost



# Growing opportunities in agriculture

With the expanded range of SKF Y-bearings

*Discover what you can achieve with SKF Y-bearings – developed specifically for agricultural applications. The expanded range includes the ideal solution for each application and specific machine design, making it possible to build more value into the machine design, reduce warranty costs, reduce the number of suppliers – and stay ahead of the competition.*



## Improve performance and farm productivity

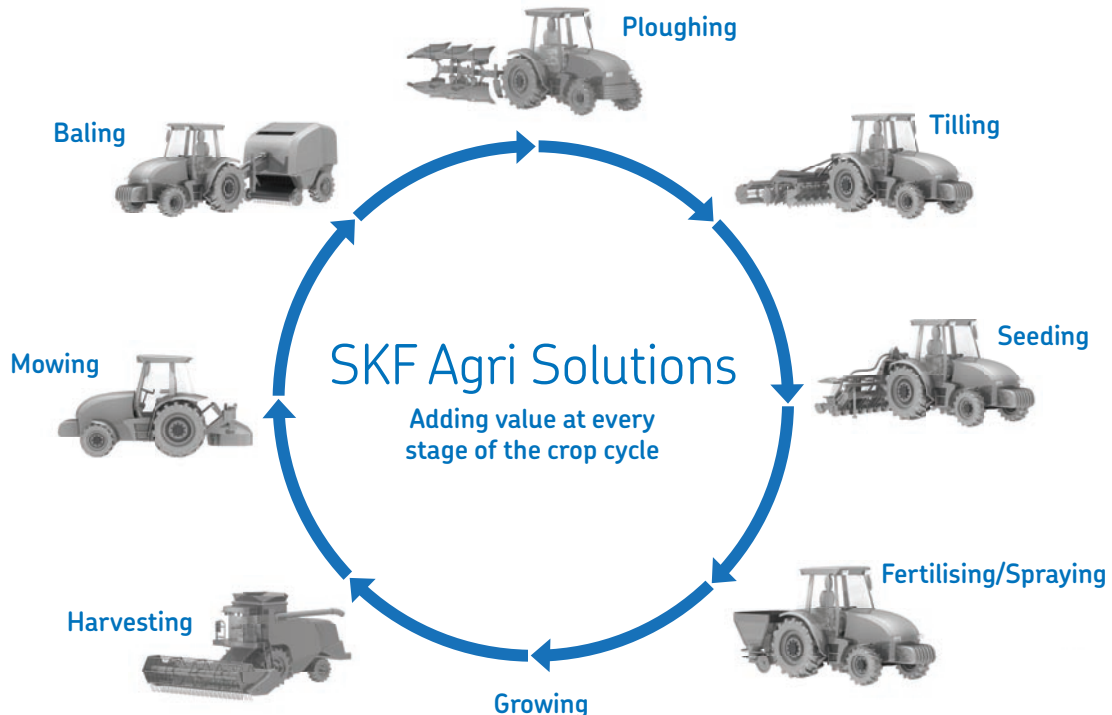
- Dedicated solutions for agricultural applications
- Long and reliable component service life
- High performance sealing solutions – tested and well proven
- Built in reliability helps extend warranty periods
- Enhances your brand image on the market

## Reduce management cost
























- Reduce warranty cases and associated costs
- Fewer service engineers in the field and call backs to distributors
- Wide, dedicated range reduces engineering and development time and costs
- Fewer suppliers for greater efficiency and cost-effectiveness

## Reduce machine ownership cost

- Reduce replacement time and repair costs
- Plug & play unit with fewer components for quick and easy mounting
- Less unplanned downtime
- Increase farm productivity and profitability



## SKF Y-bearing units for agricultural applications



















		Bearings											
													
		YEL 2 -2F	YEL 2-2RF/VL065	YELAG 2	YET 2	YAR 2-2F	YAR 2 -2RF	YARAG 2	YSPAG 2	YSP 2 SB -2F	YSA 2-2FK		
Housings	Cast iron	 SY	SY.. WF 20-60 mm 1 7/16-1 15/16 in.		SY.. WDW 20-50 mm 1-1 15/16 in.	SY.. FM 15-60 mm	SY.. TF 12-65 mm 3/2-2 15/16 in.	SY.. TR 20-60 mm	SY.. TDW 20-50 mm 1-1 15/16 in.	SY.. LDW 25-50 mm 1-1 15/16 in.	SY.. LF 25-60 mm 1-2 11/16 in.		
		 SYJ					SYJ.. TF 20-100 mm 3/4-2 3/4 in.					SYJ.. KF 20-60 mm	
		 SYF				SYF.. FM 20-50 mm	SYF.. TF 20-50 mm						
		 FY	FY.. WF 20-60 mm 1-2 7/16 in.		FY.. WDW 20-50 mm 1-1 15/16 in.	FY.. FM 15-60 mm	FY.. TF 12-65 mm 3/2-2 15/16 in.	FY.. TR 20-60 mm	FY.. TDW 20-50 mm 1-1 15/16 in.	FY.. LDW 25-50 mm 1-1 15/16 in.	FY.. LF 25-60 mm 1-2 11/16 in.		
		 FYJ					FYJ.. TF 20-100 mm						FYJ.. KF 20-60 mm
		 FYTB	FYTB.. WF 20-50 mm		FYTB.. WDW 20-50 mm 1-1 15/16 in.	FYTB.. FM 15-50 mm	FYTB.. TF 12-50 mm 3/4-1 3/4 in.	FYTB.. TR 20-50 mm	FYTB.. TDW 20-50 mm 1-1 15/16 in.	FYTB.. LDW 25-50 mm 1-1 15/16 in.	FYTB.. LF 25-60 mm 1-2 3/16 in.		
		 FYTJ					FYTJ.. TF 20-50 mm 3/4-1 3/4 in.						FYTJ.. KF 20-45 mm 3/4-1 3/4 in.
		 FYC					FYC.. TF 20-65 mm						
		 TU				TU.. FM 20-55 mm	TU.. TF 20-55 mm 3/4-2 3/16 in.						
	 TUJ					TUJ.. TF 20-60 mm							
	Composite	 SYK					SYK.. TF 20-40 mm	SYK.. TR 20-40 mm					
		 FYK		FYK.. WR/VL065 20-40 mm			FYK.. TF 20-40 mm	FYK.. TR 20-40 mm					
		 FYTBK					FYTBK.. TF 20-35 mm	FYTBK.. TR 20-35 mm					

### Note:

- pressed steel housings available as spare parts.
- where not indicated separate housings/bearings available on demand.

WF Y-bearing with an eccentric locking collar, YEL 2 series, -2F seals  
 WR Y-bearing with an eccentric locking collar, YEL 2 series, -2RF seals  
 WDW Y-bearing with an eccentric locking collar, YELAG 2 series, 5-lip seals  
 FM Y-bearing with an eccentric locking collar, YET 2 series, standard seals  
 TF Y-bearing with grub screws, YAR 2 series, -2F seals  
 TR Y-bearing with grub screws, YAR 2 series, -2RF seals  
 TDW Y-bearing with grub screws, YARAG 2 series, 5-lip seals  
 LDW Y-bearing with SKF ConCentra locking, YSPAG 2 series, 5-lip seals  
 LF Y-bearing with SKF ConCentra locking, YSP 2 SB series, -2F seals  
 KF Y-bearing with a tapered bore, YSA 2K series, -2F seals  
 (1) VL065: zinc coated inner bore and side faces

## SKF Y-bearings for agricultural applications

		Sealing systems				
						
		2RS1	Standard seal	2F	2RF	Five-lip seal
		Sizes	Sizes	Sizes	Sizes	Sizes
Y-series	 YEL 2			20-60 mm 3/2-1 3/8 in.	20-40 mm (2)	
	 YET 2		15-60 mm 3/2-1 3/8 in.			
	 YAR 2			12-100 mm 3/2-2 in.	20-65 mm 3/4-2 in.	
	 YARAG 2					20-50 mm (1) 1-1 15/16 in.
	 YELAG 2					20-50 mm (1) 1-1 15/16 in.
	 YSPAG 2					25-50 mm (1) 1-1 15/16 in.
	 YSP 2 SB			25-60 mm 1-2 11/16 in.		
	 YAT 2			17-50 mm 5/8-2 in.		
	 YSA 2K				25-65 mm 3/4-2 3/8 in.	
	 17262(00)	17-60 mm				
	 17262(00) relub			17-60 mm (3)		
	 17263(00)	25-50 mm				
	 17263(00) relub			25-50 mm (3)		

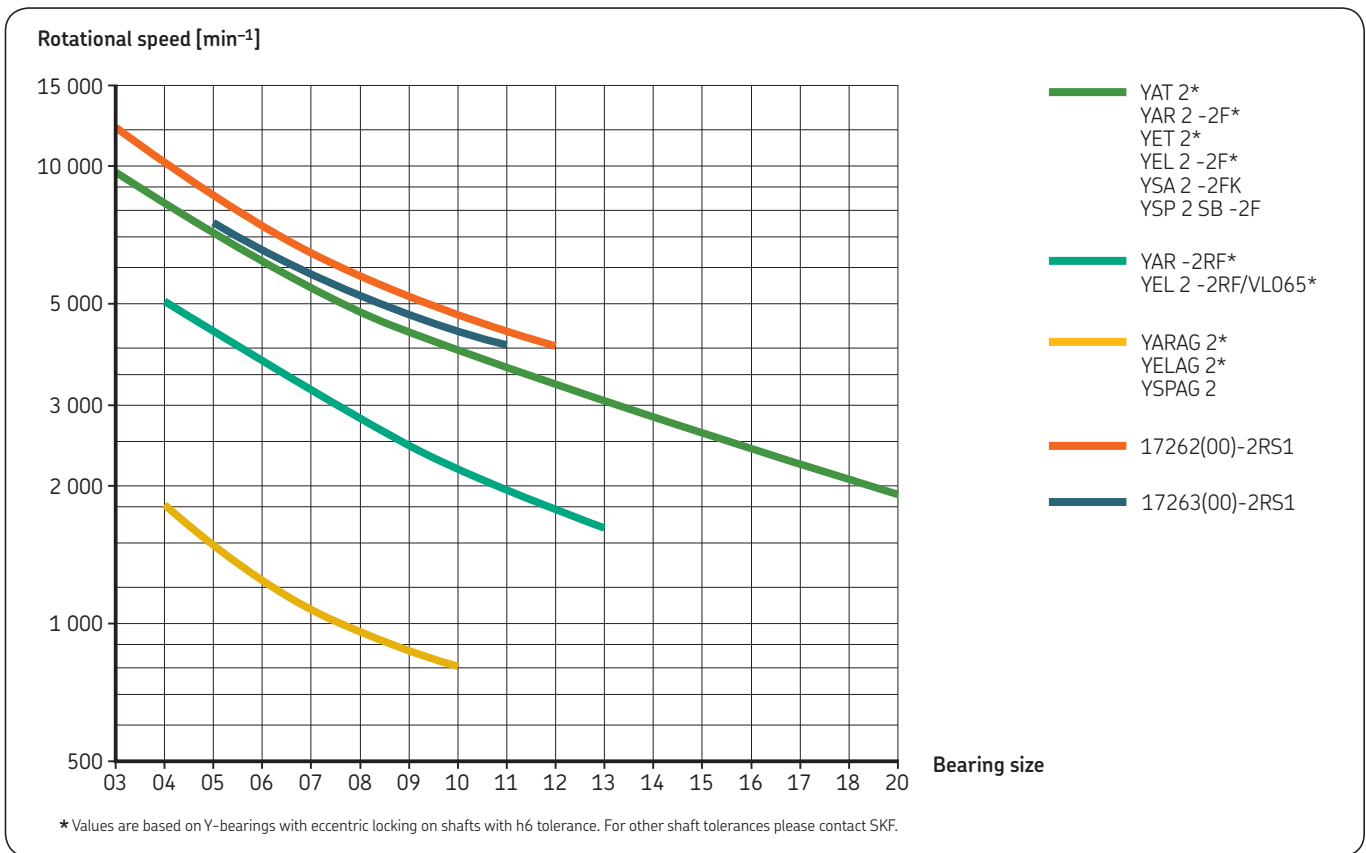
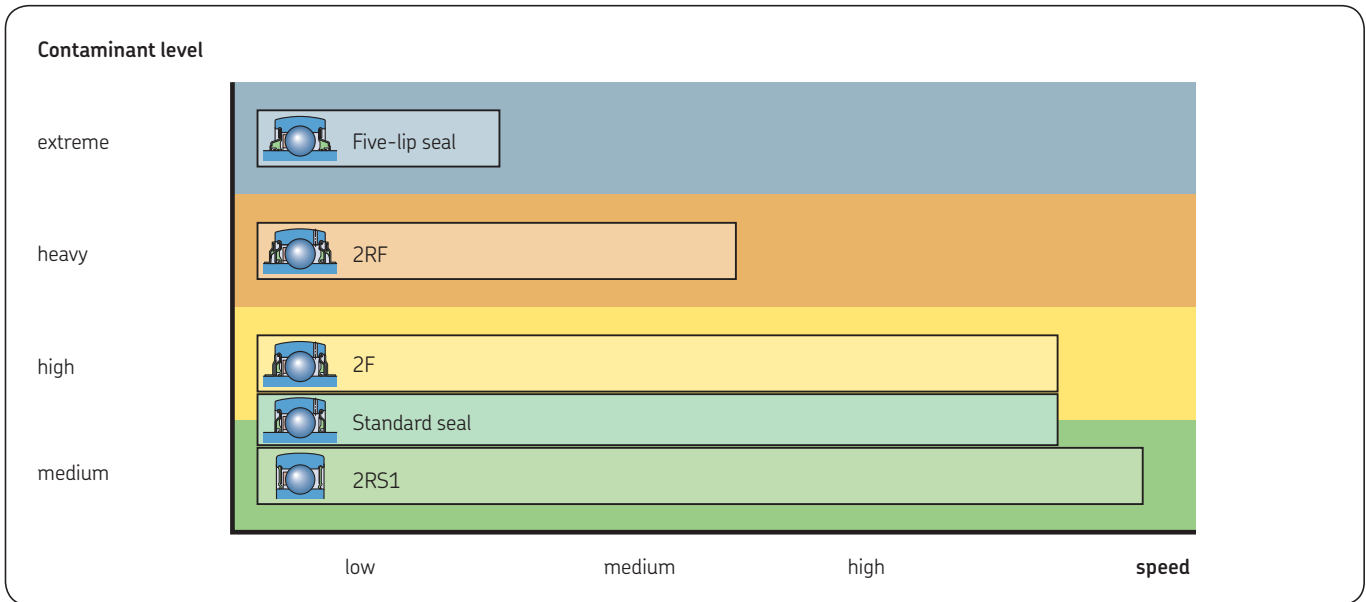
For more information about the full range of SKF Agri Solutions for the agriculture industry, contact your SKF representative, or visit [www.skf.com/agrisolutions](http://www.skf.com/agrisolutions)

- no relubrication hole, maintenance free offer
- VL065 suffix, zinc coated inner bore and side faces
- suffix -2RS1/VP274

**Note:** Other bearing variants available.  
 C suffix = OR cylindrical  
 W suffix = no lubrication hole  
 U suffix = no locking collar  
 VL244 = zinc coated rings

# We've got you covered

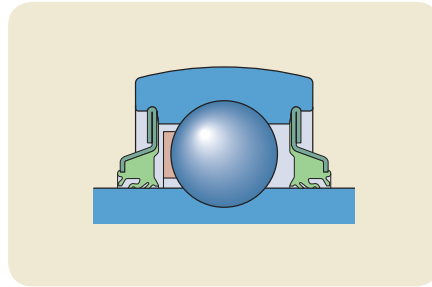
This guide shows the scope of the SKF Y-bearing range and gives an indication of the intended applications. For the optimal solution for your specific application, be sure to contact your local SKF representative. As your engineering and design partner, we look forward to working together with you and provide support in every way possible.



# SKF seals for agriculture applications

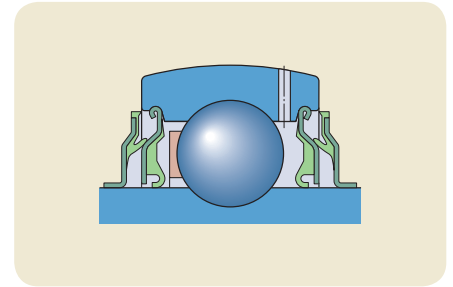
## Sealing solutions designed and tested for high performance

SKF high performance sealing solutions provide proven reliability in tough working environments – helping to reduce ownership costs and enhance farm productivity.



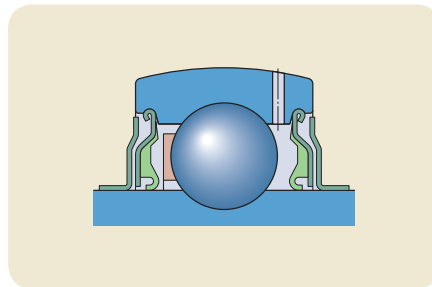
### **Five-lip seal**

The five-lip seal within SKF agricultural Y-bearing units is suitable for extreme contaminated environment and where long service life is required. It consists of a stamped steel insert, with a vulcanized five-lip patented seal made from a low friction compound.



### **2RF seal**

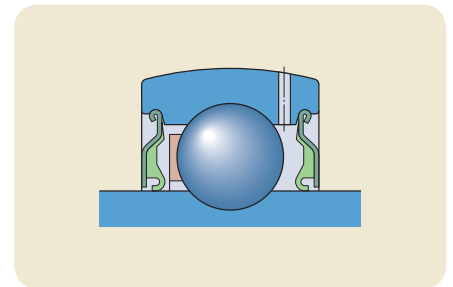
Where operating conditions are heavily contaminated and long service life is required, Y-bearing units with the highly efficient multiple seal are recommended. Here, the sealing efficiency of the standard integral seal is reinforced by a steel flinger with a vulcanized sealing lip.



### **2F seal**

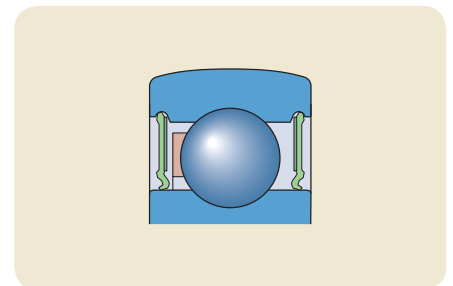
For high contaminated conditions, Y-bearing units fitted with plain steel flingers outside the integral seal should be used.

The flingers have an interference fit on the inner ring and considerably enhance the sealing effect without increasing friction.



### **Standard seal**

Suitable for medium to high contaminated conditions the standard integral seal used in SKF Y-bearing units provides good protection against moisture and contaminants and also provides reliable retention of the lubricant.

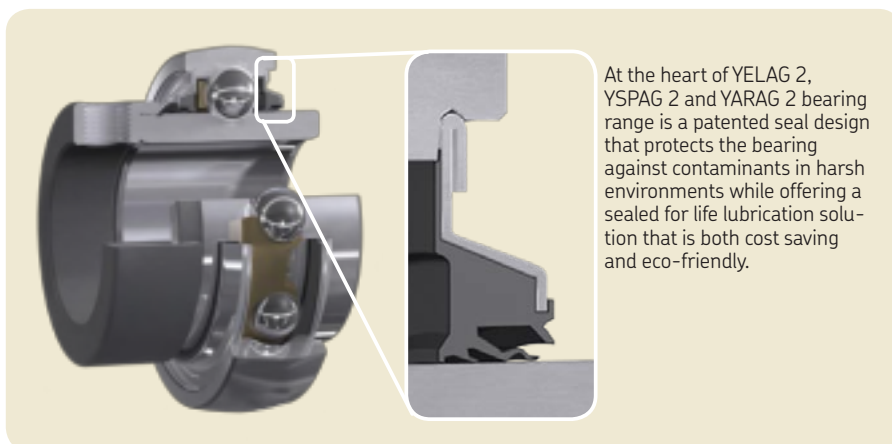


### **2RS1 seal**

The 2RS1 seal is recommended for medium contaminated conditions and allows the highest speed among the seals available for SKF Y-bearings for agricultural applications. This contacting seal is integral to Y-bearings with a normal inner ring in the 17262(00)-2RS1 and 17263(00)-2RS1 series.

## Five-lip seals deliver several benefits

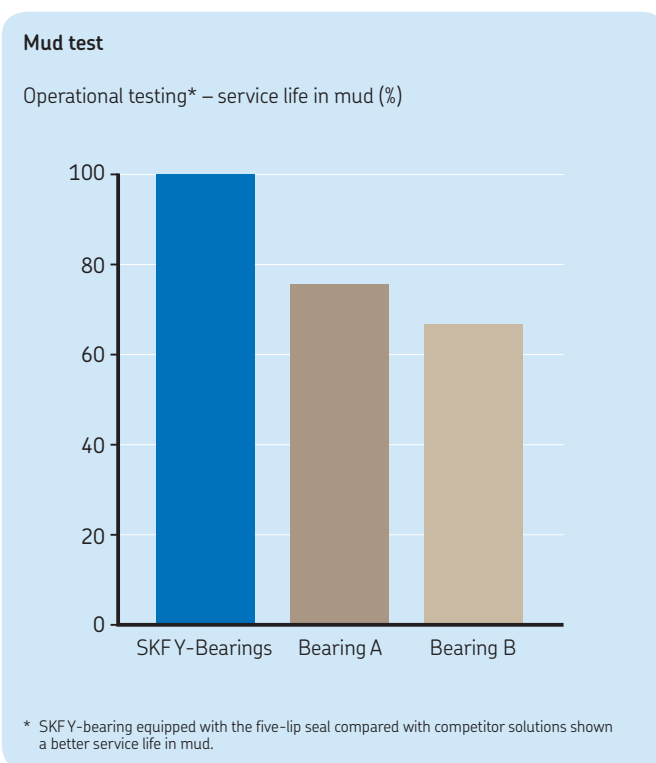
- The steel insert protects the bearings from solid contaminants, anchoring the complete, vulcanized seal to the bearing outer ring.
- Each lip of the vulcanized seal features a different design to provide superior sealing performance in response to different operating conditions, including ring misalignment.
- The outermost and innermost lips act as a labyrinth, preventing contaminant ingress and grease leakage, respectively.
- The three inner lips retain constant contact with the inner ring shoulder.



## Testing results

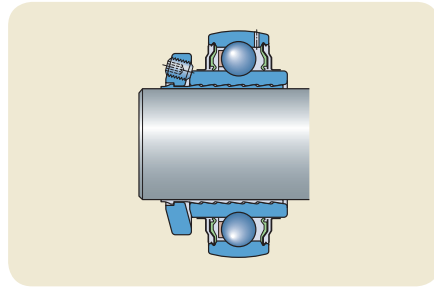
SKF agricultural Y-bearings with the five-lip seal are subjected to a series of extensive laboratory and field tests.

Test type	Purpose	Passed
	Check seal performance against	
Mud	Extreme wet contaminated conditions	✓
Dust	Fine and dry particles	✓
Vegetable fibre	Processed media	✓
Sand and stones	Heavy and dry particles	✓
Friction	Rotational speed	✓
Climatic cell	Diverse speed and running temperature	✓
High pressure water	Machine cleaning conditions	✓
High air pressure	Machine cleaning conditions	✓



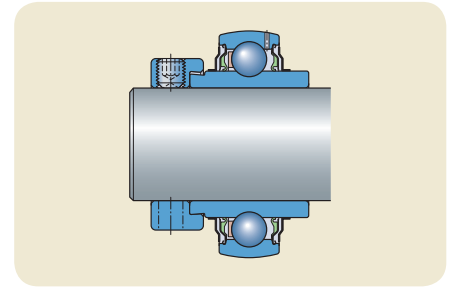
# Locking methods

The SKF Y-bearings for agriculture applications are offered with five different locking methods. Combined with the sealing systems offered, they define a very wide range of solutions able to meet all the agricultural application requirements in term of loads, speeds and environment conditions.



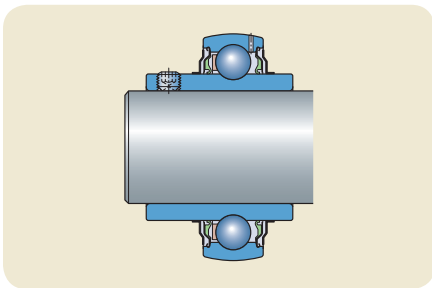
## SKF ConCentra locking

*This SKF patented method, enables a true concentric locking on the shaft. It allows an easy, quick and reliable mounting and it is recommended for demanding applications in term of loads and speeds. The SKF ConCentra method, is the best solution to solve locking issues like fretting corrosion or locking loosening. Thanks to the true concentric locking the bearing limiting speeds are not affected by the shaft tolerance and the maximum values can be achieved even using commercial grade shafts obtaining always low levels of both vibration and noise.*



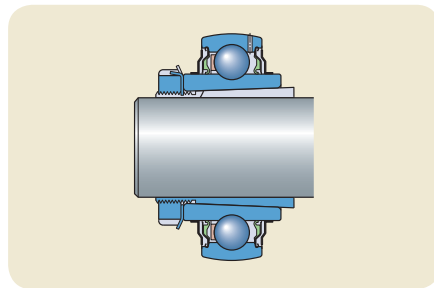
## Eccentric locking collar

*This locking method is the most commonly used in agriculture applications. This method, allowing an easy and quick mounting and dismounting, is provided by a locking collar acting on the eccentric extension made on one side of the inner ring. The locking is achieved by turning the locking collar in the direction of rotation till the system is locked. A single grub screw further secures the locking collar to the shaft. Even if the eccentric locking collar is preferably used for applications where the shaft rotates in one direction only, It can be used for alternating directions as well especially when loads and speeds are low.*



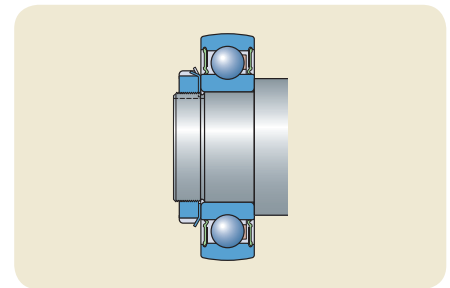
## Grub screws

*This locking method, well known in agriculture applications, is based on two grub screws positioned 120° apart on the inner ring. The locking is achieved by tightening the two cup point hexagonal grub screws with the recommended torques. This method enables very easy mounting and dismounting, even if space is limited. This locking method is typically used in applications where the shaft alternates direction of rotation.*



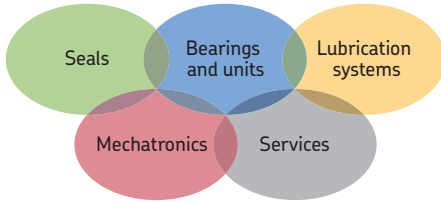
## Adapter sleeve locking

*This method enables a concentric locking of the Y-bearing unit. The bearing tapered bearing bore (taper 1:12) acts against an appropriate standard adapter sleeve in the H23 series. Provided the same shaft diameter, the bearings with adapter sleeve locking are one size larger than the other Y-bearing series: this features can be exploited when larger bearing rating loads are needed keeping the same shaft diameter.*



## Interference fit

*This locking method is used for Y-bearings in the 17262(00)-2RS1 and 17263(00)-2RS1 series. It is recommended for applications where the direction of the load is alternates and a very smooth running is a key operational parameter.*



### The Power of Knowledge Engineering

Drawing on five areas of competence and application-specific expertise amassed over more than 100 years, SKF brings innovative solutions to OEMs and production facilities in every major industry worldwide. These five competence areas include bearings and units, seals, lubrication systems, mechatronics (combining mechanics and electronics into intelligent systems), and a wide range of services, from 3-D computer modelling to advanced condition monitoring and reliability and asset management systems. A global presence provides SKF customers uniform quality standards and worldwide product availability.

© SKF is a registered trademark of the SKF Group.

© SKF Group 2012

The contents of this publication are the copyright of the publisher and may not be reproduced (even extracts) unless prior written permission is granted. Every care has been taken to ensure the accuracy of the information contained in this publication but no liability can be accepted for any loss or damage whether direct, indirect or consequential arising out of the use of the information contained herein.

PUB 46/P2 11655/2 EN · July 2012

Certain image(s) used under license from Shutterstock.com

