

SKF insert bearings and ball bearing units for agricultural applications

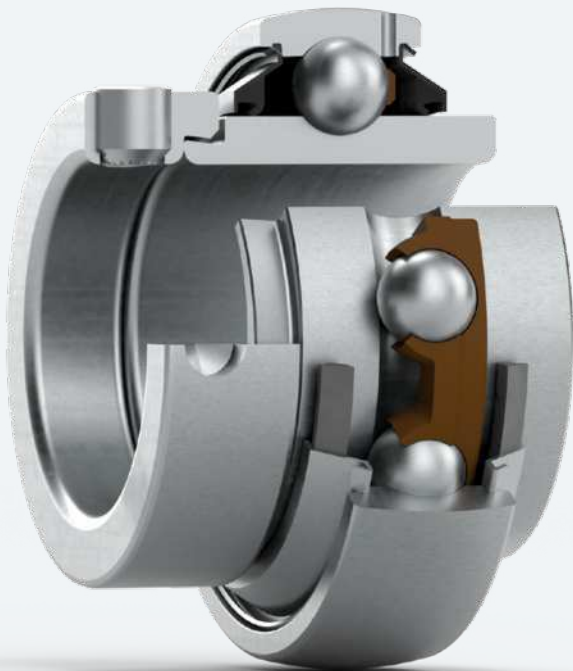
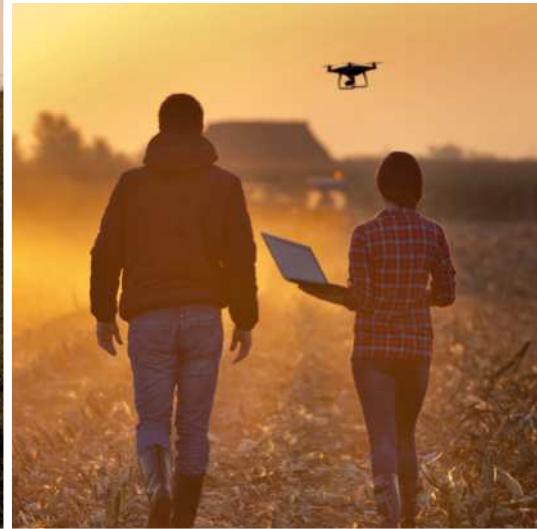
Increase productivity and profitability of farming operations with high-performance bearing arrangements



- **Increase productivity and profitability**
- **Easy to maintain**



Agriculture-specific features



- Corrosion resistant plating on inner rings and collars
- High-performance sealing systems

Meet modern farming challenges with application-specific bearings that go the distance

Today's farmers are under increasing pressure to stay productive for longer. However, crop residue, grain, dust, and moisture can take a heavy toll on the bearings normally used in agricultural applications. Contaminant ingress and corrosion from unsuitable seals often lead to premature bearing failures. On the other hand, equipment manufacturers and design engineers seek

cost-effective solutions that offer higher product quality and reliability, supporting maximum uptime for the farm operator.

Sustainability is also a growing concern for OEMs, as companies look to maximize machine efficiency, limit grease points and usage, and reduce maintenance. These sustainability efforts can provide a competitive advantage.

What if there was a bearing that could improve uptime and efficiency simultaneously?

Agricultural manufacturers and service providers continually look to satisfy – if not exceed – customer expectations. As machines continuously become more complex, SKF has the application expertise and machine knowledge to identify key product requirements and develop tailored bearing solutions that will limit downtime and shorten any necessary maintenance cycles.

The SKF insert bearings and ball bearing units described in this brochure complement a large variety of farming equipment. Our proven expertise in optimizing such machinery with innovative rotating equipment solutions enables OEMs to shift their focus to research and develop-

ment. Our global partner network enables the speedy acquisition of spare parts and a unitized bearing design helps reduce assembly costs.

Your benefits at a glance

- Increased equipment life
- Reduced ownership costs
- Reduced downtime
- Solutions designed specifically for agriculture environments

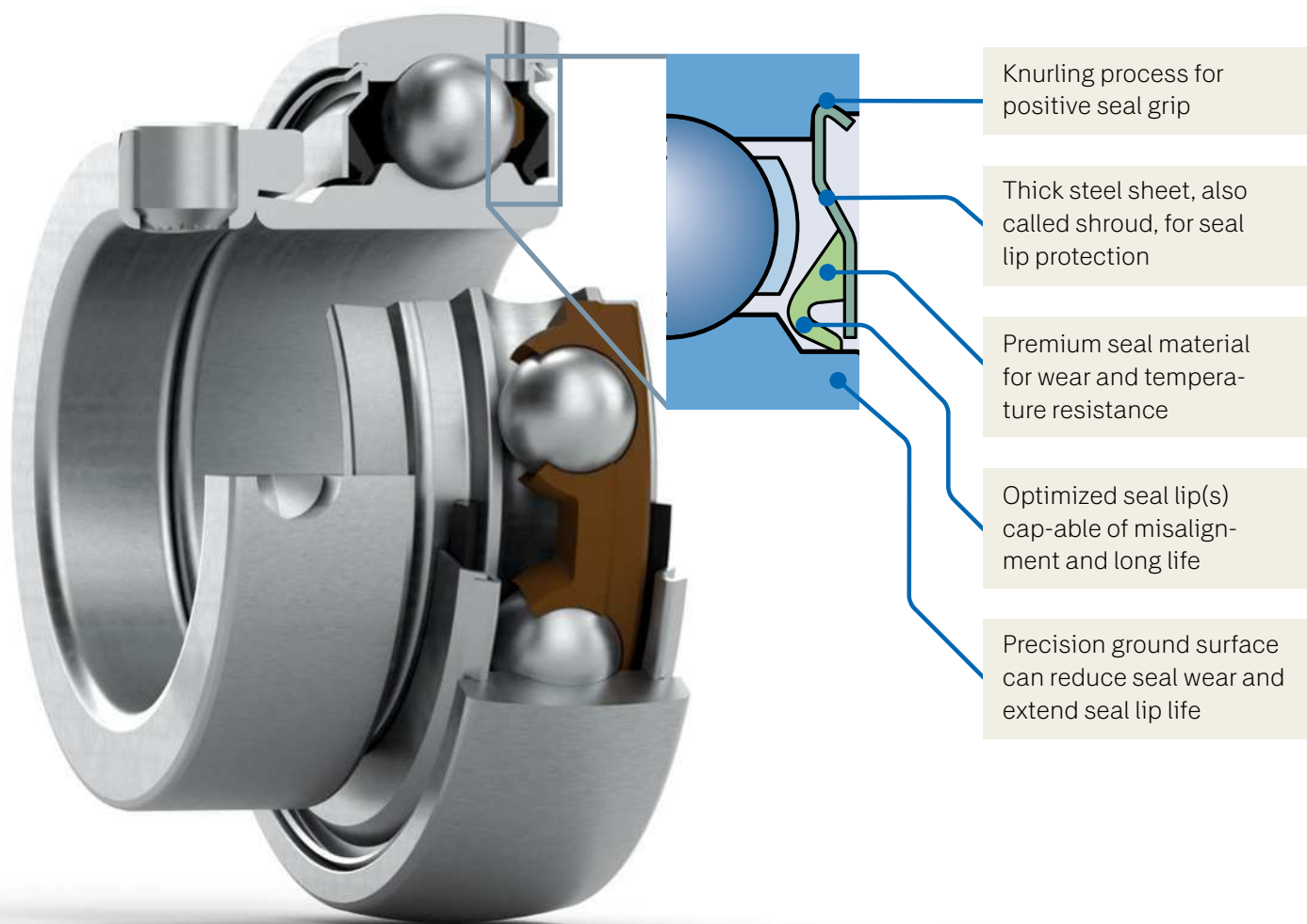
Current insert bearings on the market are used in several industries, including agriculture, HVAC, material handling, and many more. The problem with these general solutions is a lack of performance in demanding oper-

ating environments that require specific features for maximum machine life. Fortunately, SKF's range of insert bearings and ball bearing units have specific features designed for agriculture-specific equipment.

Seals for top farming performance and machine reliability

Out in the field, substandard sealing solutions can lead to several costly problems, such as unplanned downtime and lost productivity in the field, as well as

expensive repair bills. The robust sealing technology on SKF insert bearings can help withstand the severe contamination common in agricultural applications.

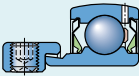
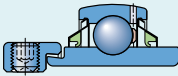
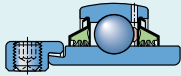
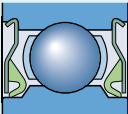
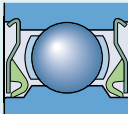
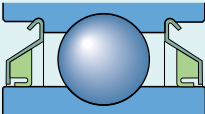
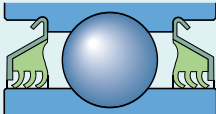


Designed with your operation in mind

SKF has extended its product portfolio to offer unique solutions which can combat the challenges relating to many agricultural tasks. Given our application knowledge, solutions, and flexibility, we can offer high quality, tailored solutions for our customers.

SKF's new bearing unit range for the agriculture industry can improve farming operations in a number of ways. All solutions are interchangeable with existing arrangements and can be installed quickly and easily.

Agriculture insert bearings range with specific seals

Bearing	DGBB with spherical OD	Narrow inner ring insert bearing with eccentric collar	Wide inner ring insert bearing with eccentric collar	Wide inner ring insert bearing with eccentric collar and triple lip seal
Bearing type				
Bearing designation	XG2..NPPB	XGGRAE*...XGRAE XGGRA*...XGRA	XGGE*...XGE XGG1*...XG1	XGGE*...XGE XGG1*...XG1
Seal type	F	F	G	3 lip LS
Seal cross section				
Shaft diameter range	17 to 50 mm	20 to 60 mm $\frac{3}{4}$ – $2\frac{7}{16}$ in.	20 to 60 mm $\frac{3}{4}$ – $2\frac{7}{16}$ in.	20 to 60 mm $\frac{3}{4}$ – $2\frac{7}{16}$ in.
Features and benefits	- Spherical outer diameter to accommodate static misalignment between shaft and housing - Heavy duty agricultural seals for long wear life and contamination resistance Premium nitrile/NBR seal material Ground seal contact surface with improved surface finish and concentricity - Increased grease fill (60 to 80%) to lubricate the rolling surfaces and add extra protection against contamination and corrosion - Corrosion resistant plating on inner ring and lock collar can reduce fretting corrosion between inner ring and shaft as well as reduce corrosion of the seal running surface ¹⁾ - Eccentric locking collar to provide simple locking of the inner ring to the shaft ¹⁾ - Grease holes in the outer ring are only applicable for designations beginning with XGG*...			

¹⁾ Does not apply to XG2..NPPB series bearings.

Validation tests

Mud slurry testing: Accelerated contamination evaluation

All SKF insert bearings for the agricultural industry have undergone rigorous testing in both the laboratory and the field to validate their integrity in a variety of agricultural machines and applications. Mud slurry testing accelerates the effects that contaminants and debris have on a sealing system. To achieve a valid test result, bearings are partially submerged in a mixture of abra-

sive test dust, water, and fertilizer which simulates your machine's operating conditions.

The results of the mud slurry test demonstrate that the range of SKF insert bearings with agriculture-specific seals performed much better than those of a competitor commonly used in agriculture applications.

Test Details

- Slurry mix: coarse test dust, water, fertilizer
- Speed: 500 r/min
- Slurry filled to bearing centerline

Mud slurry test rig

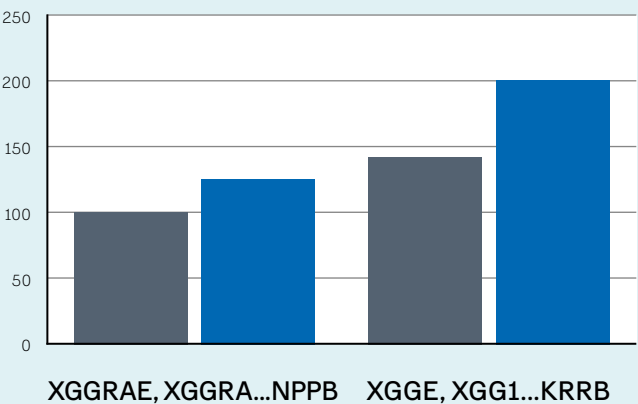


Bearing life comparison SKF insert bearings vs. commonly used bearings (in mud slurry testing)

Competitor SKF

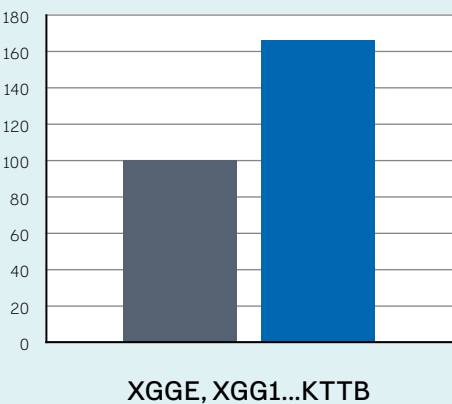
Bearings with single lip seals

Relative seal performance in mud slurry test [Percentage]



Bearings with triple lip seals

Relative seal performance in mud slurry test [Percentage]



Salt spray testing: Accelerated corrosion evaluation

Salt spray tests – or salt fog corrosion tests – can prove how corrosion resistant a material is. The materials found in SKF insert bearings for agriculture applications were subjected to corrosive attack, after which the sam-

ples were evaluated for oxidation and wear. The results of the salt spray test confirmed that the SKF insert bearings have greater corrosion-resistance properties than those of our competitors.

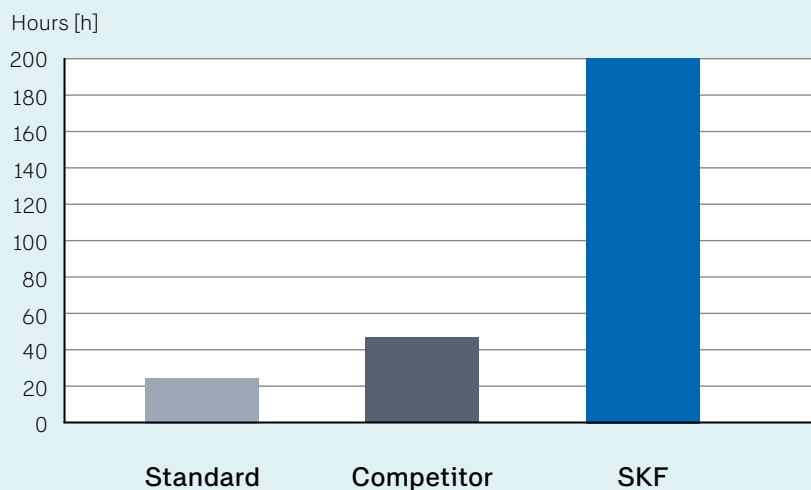
Test Details

- Temperature: 35 °C
- Solution: 5% Sodium Chloride (pH 6.5 to 7.2)
- 24h time intervals

SKF inner ring after 160 hours of salt spray with minimal red rust

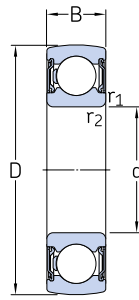


Comparison SKF insert bearings vs. standard and competitor bearings

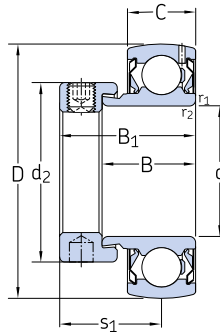


Insert bearings (Y-bearings) metric shafts*

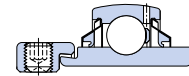
d 17 – 60 mm



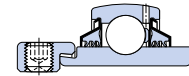
NPPB



XGGRAE..NPPB / XGRAE..NPPB



XGGE...KRRB/
XGE...KRRB



XGGE...KTTB/
XGE...KTTB

Dimensions								Basic load ratings		Fatigue	Mass	Designation
								dynamic	static	load limit		
d	D	B	B ₁	C	d ₂	s ₁	r _{1,2} min	C	C ₀	P _u		
mm								kN		kN	kg	-
17	40	12	-	12	-	-	0,6	9 570	479	285	0.06	XG203NPPB
20	47	14.0	-	14	-	-	1	12 840	6 650	285	0.10	XG204NPPB
	47	21.4	30.9	15	32	23.4	1	12 840	6 650	285	0.16	XGGRAE20NPPB
	47	21.4	30.9	15	32	23.4	1	12 840	6 650	285	0.16	XGRAE20NPPB
	47	34.0	43.5	15	32	26.5	1	12 840	6 650	285	0.19	XGGE20KRRB
	47	34.0	43.5	15	32	26.5	1	12 840	6 650	285	0.19	XGE20KRRB
	47	34.0	43.5	15	32	26.5	1	12 840	6 650	285	0.20	XGGE20KTTB
	47	34.0	43.5	15	32	26.5	1	12 840	6 650	285	0.20	XGE20KTTB
25	52	15.0	-	15	-	-	1	14 020	7 880	335	0.12	XG205NPPB
	52	21.5	31.0	15	38.1	23.5	1	14 020	7 880	335	0.19	XGGRAE25NPPB
	52	21.5	31.0	15	38.1	23.5	1	14 020	7 880	335	0.19	XGRAE25NPPB
	52	34.8	44.3	15	38.1	26.9	1	14 020	7 880	335	0.24	XGGE25KRRB
	52	34.8	44.3	15	38.1	26.9	1	14 020	7 880	335	0.24	XGE25KRRB
	52	34.8	44.3	15	38.1	26.9	1	14 020	7 880	335	0.24	XGGE25KTTB
	52	34.8	44.3	15	38.1	26.9	1	14 020	7 880	335	0.24	XGE25KTTB
30	62	16.0	-	16	-	-	1	19 500	11 300	480	0.19	XG206NPPB
	62	23.8	35.7	18	44.5	26.7	1	19 500	11 300	480	0.31	XGGRAE30NPPB
	62	23.8	35.7	18	44.5	26.7	1	19 500	11 300	480	0.31	XGRAE30NPPB
	62	36.4	48.3	18	44.5	30.1	1	19 500	11 300	480	0.37	XGGE30KRRB
	62	36.4	48.3	18	44.5	30.1	1	19 500	11 300	480	0.37	XGE30KRRB
	62	36.4	48.3	18	44.5	30.1	1	19 500	11 300	480	0.38	XGGE30KTTB
	62	36.4	48.3	18	44.5	30.1	1	19 500	11 300	480	0.38	XGE30KTTB
35	72	17.0	-	17	-	-	1.1	25 670	15 300	655	0.27	XG207NPPB
	72	25.4	38.9	19	55.6	29.4	1.1	25 670	15 300	655	0.51	XGGRAE35NPPB
	72	25.4	38.9	19	55.6	29.4	1.1	25 670	15 300	655	0.51	XGRAE35NPPB
	72	37.6	51.1	19	55.6	32.3	1.1	25 670	15 300	655	0.59	XGGE35KRRB
	72	37.6	51.1	19	55.6	32.3	1.1	25 670	15 300	655	0.59	XGE35KRRB
	72	37.6	51.1	19	55.6	32.3	1.1	25 670	15 300	655	0.60	XGGE35KTTB
	72	37.6	56.3	22	60.3	32.3	1.1	25 670	15 300	655	0.60	XGE35KTTB
40	80	18.0	-	18	-	-	1.1	32 600	20 000	850	0.34	XG208NPPB
	80	30.2	43.7	22	60.3	32.7	1.1	32 600	20 000	850	0.63	XGGRAE40NPPB
	80	30.2	43.7	22	60.3	32.7	1.1	32 600	20 000	850	0.63	XGRAE40NPPB
	80	42.8	56.3	22	60.3	34.9	1.1	32 600	20 000	850	0.74	XGGE40KRRB
	80	42.8	56.3	22	60.3	34.9	1.1	32 600	20 000	850	0.74	XGE40KRRB
	80	42.8	56.3	22	60.3	34.9	1.1	32 600	20 000	850	0.75	XGGE40KTTB
	80	4.8	56.3	22	60.3	34.9	1.1	32 600	20 000	850	0.75	XGE40KTTB

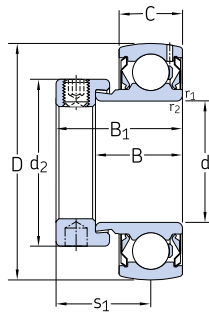
* Grease holes in the outer ring are only applicable for designations beginning with XGG*...

Dimensions								Basic load ratings		Fatigue load limit	Mass	Designation
d	D	B	B ₁	C	d ₂	s ₁	r _{1,2} min	C	C ₀	P _u		
mm								kN		kN	kg	-
45	85	19.0	-	19	-	-	1.1	32 710	20 460	865	0.38	XG209NPPB
	85	30.2	43.7	22	63.5	32.7	1.1	32 710	20 460	865	0.66	XGGRAE45NPPB
	85	30.2	43.7	22	63.5	32.7	1.1	32 710	20 460	865	0.66	XGRAE45NPPB
	85	42.8	56.3	22	63.5	34.9	1.1	32 710	20 460	865	0.79	XGGE45KRRB
	85	42.8	56.3	22	63.5	34.9	1.1	32 710	20 460	865	0.79	XGE45KRRB
	85	42.8	56.3	22	63.5	34.9	1.1	32 710	20 460	865	0.81	XGGE45KTTB
	85	42.8	56.3	22	63.5	34.9	1.1	32 710	20 460	865	0.81	XGE45KTTB
50	90	20.0	-	20	-	-	1.1	35 100	23 200	980	0.43	XG210NPPB
	90	30.2	43.7	22	69.9	32.7	1.1	35 100	23 200	980	0.74	XGGRAE50NPPB
	90	30.2	43.7	22	69.9	32.7	1.1	35 100	23 200	980	0.74	XGRAE50NPPB
	90	49.2	62.7	22	69.9	38.1	1.1	35 100	23 200	980	0.93	XGGE50KRRB
	90	49.2	62.7	22	69.9	38.1	1.1	35 100	23 200	980	0.93	XGE50KRRB
	90	49.2	62.7	22	69.9	38.1	1.1	35 100	23 200	980	0.95	XGGE50KTTB
	90	49.2	62.7	22	69.9	38.1	1.1	35 100	23 200	980	0.95	XGE50KTTB
55	100	32.5	48.5	25	76.2	36.0	1.5	43 400	29 200	1 250	1.05	XGGRAE55NPPB
	100	32.5	48.5	25	76.2	36.0	1.5	43 400	29 200	1 250	1.05	XGRAE55NPPB
	100	55.4	56.2	25	76.2	43.7	1.5	43 400	29 200	1 250	1.35	XGGE55KRRB
	100	55.4	56.2	25	76.2	43.7	1.5	43 400	29 200	1 250	1.35	XGE55KRRB
	100	55.4	56.2	25	76.2	43.7	1.5	43 400	29 200	1 250	1.35	XGGE55KTTB
	100	55.4	56.2	25	76.2	43.7	1.5	43 400	29 200	1 250	1.35	XGE55KTTB
60	110	33.5	49.5	27	84.1	36.0	1.5	52 440	36 060	1 530	1.35	XGGRAE60NPPB
	110	33.5	49.5	27	84.1	36.0	1.5	52 440	36 060	1 530	1.35	XGRAE60NPPB
	110	61.8	77.8	27	84.1	46.9	1.5	52 440	36 060	1 530	1.75	XGGE60KRRB
	110	61.8	77.8	27	84.1	46.9	1.5	52 440	36 060	1 530	1.75	XGE60KRRB
	110	61.8	77.8	27	84.1	46.9	1.5	52 440	36 060	1 530	1.80	XGGE60KTTB
	110	61.8	77.8	27	84.1	46.9	1.5	52 440	36 060	1 530	1.80	XGE60KTTB

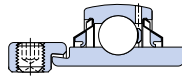
* Grease holes in the outer ring are only applicable for designations beginning with XGG*...

Insert bearings (Y-bearings) inch shafts*

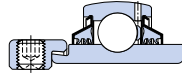
d 19,05 – 61,9125 mm



XGGRA...NPPB / XGRA...NPPB



XGG1...KRRB/
XG1...KRRB



XGG1...KTTB/
XG1...KTTB

Dimensions								Basic load ratings		Fatigue	Mass	Designation
								dynamic	static	load limit		
d	D	B	B ₁	C	d ₂	s ₁	r _{1,2} min	C	C ₀	P _u		
mm								kN		kN	kg	-
19.05	47	21.4	30.9	15	32	23.4	1	12 840	6 650	285	0.16	XGGRA012NPPB
	47	21.4	30.9	15	32	23.4	1	12 840	6 650	285	0.16	XGRA012NPPB
	47	34.0	43.5	15	32	26.5	1	12 840	6 650	285	0.2	XGG1012KRRB
	47	34.0	43.5	15	32	26.5	1	12 840	6 650	285	0.2	XG1012KRRB
	47	34.0	43.5	15	32	26.5	1	12 840	6 650	285	0.21	XGG1012KTTB
	47	34.0	43.5	15	32	26.5	1	12 840	6 650	285	0.21	XG1012KTTB
22.225	52	21.5	31.0	15	38.1	23.5	1	14 020	7 880	335	0.22	XGGRA014NPPB
	52	21.5	31.0	15	38.1	23.5	1	14 020	7 880	335	0.22	XGRA014NPPB
	52	34.8	44.3	15	38.1	26.9	1	14 020	7 880	335	0.28	XGG1014KRRB
	52	34.8	44.3	15	38.1	26.9	1	14 020	7 880	335	0.28	XG1014KRRB
	52	34.8	44.3	15	38.1	26.9	1	14 020	7 880	335	0.28	XGG1014KTTB
	52	34.8	44.3	15	38.1	26.9	1	14 020	7 880	335	0.28	XG1014KTTB
23.8125	52	21.5	31.0	15	38.1	23.5	1	14 020	7 880	335	0.2	XGGRA015NPPB
	52	21.5	31.0	15	38.1	23.5	1	14 020	7 880	335	0.2	XGRA015NPPB
	52	34.8	44.3	15	38.1	26.9	1	14 020	7 880	335	0.26	XGG1015KRRB
	52	34.8	44.3	15	38.1	26.9	1	14 020	7 880	335	0.26	XG1015KRRB
	52	34.8	44.3	15	38.1	26.9	1	14 020	7 880	335	0.26	XGG1015KTTB
	52	34.8	44.3	15	38.1	26.9	1	14 020	7 880	335	0.26	XG1015KTTB
25.4	52	21.5	31.0	15	38.1	23.5	1	14 020	7 880	335	0.19	XGGRA100NPPB
	52	21.5	31.0	15	38.1	23.5	1	14 020	7 880	335	0.19	XGRA100NPPB
	52	34.8	44.3	15	38.1	26.9	1	14 020	7 880	335	0.24	XGG1100KRRB
	52	34.8	44.3	15	38.1	26.9	1	14 020	7 880	335	0.24	XG1100KRRB
	52	34.8	44.3	15	38.1	26.9	1	14 020	7 880	335	0.24	XGG1100KTTB
	52	34.8	44.3	15	38.1	26.9	1	14 020	7 880	335	0.24	XG1100KTTB
28.575	62	23.8	35.7	18	44.5	26.7	1	19 500	11 300	480	0.33	XGGRA102NPPB
	62	23.8	35.7	18	44.5	26.7	1	19 500	11 300	480	0.33	XGRA102NPPB
	62	36.4	48.3	18	44.5	30.1	1	19 500	11 300	480	0.39	XGG1102KRRB
	62	36.4	48.3	18	44.5	30.1	1	19 500	11 300	480	0.39	XG1102KRRB
	62	36.4	48.3	18	44.5	30.1	1	19 500	11 300	480	0.4	XGG1102KTTB
	62	36.4	48.3	18	44.5	30.1	1	19 500	11 300	480	0.4	XG1102KTTB
30.1625	62	23.8	35.7	18	44.5	26.7	1	19 500	11 300	480	0.31	XGGRA103NPPB
	62	23.8	35.7	18	44.5	26.7	1	19 500	11 300	480	0.31	XGRA103NPPB
	62	36.4	48.3	18	44.5	30.1	1	19 500	11 300	480	0.37	XGG1103KRRB
	62	36.4	48.3	18	44.5	30.1	1	19 500	11 300	480	0.37	XG1103KRRB
	62	36.4	48.3	18	44.5	30.1	1	19 500	11 300	480	0.37	XGG1103KTTB
	62	36.4	48.3	18	44.5	30.1	1	19 500	11 300	480	0.37	XG1103KTTB

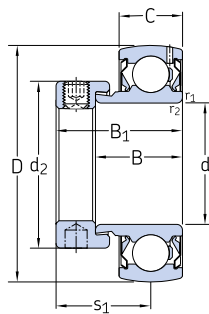
* Grease holes in the outer ring are only applicable for designations beginning with XGG*...

Dimensions								Basic load ratings		Fatigue load limit	Mass	Designation
d	D	B	B ₁	C	d ₂	s ₁	r _{1,2} min	C	C ₀	P _u	kg	-
mm								kN		kN		
31.75	62	23.8	35.7	18	44.5	26.7	1	19 500	11 300	480	0.29	XGGRA104-206-NPPB
	62	23.8	35.7	18	44.5	26.7	1	19 500	11 300	480	0.29	XGRA104-206-NPPB
	62	36.4	48.3	18	44.5	30.1	1	19 500	11 300	480	0.34	XGG1104-206-KRRB
	62	36.4	48.3	18	44.5	30.1	1	19 500	11 300	480	0.34	XG1104-206-KRRB
	62	36.4	48.3	18	44.5	30.1	1	19 500	11 300	480	0.34	XGG1104-206-KTTB
	62	36.4	48.3	18	44.5	30.1	1	19 500	11 300	480	0.34	XG1104-206-KTTB
	72	25.4	38.9	19	55.6	29.4	1.1	25 670	15 300	655	0.56	XGGRA104NPPB
	72	25.4	38.9	19	55.6	29.4	1.1	25 670	15 300	655	0.56	XGRA104NPPB
	72	37.6	51.1	19	55.6	32.3	1.1	25 670	15 300	655	0.66	XGG1104KRRB
	72	37.6	51.1	19	55.6	32.3	1.1	25 670	15 300	655	0.66	XG1104KRRB
	72	37.6	51.1	19	55.6	32.3	1.1	25 670	15 300	655	0.66	XGG1104KTTB
	72	37.6	56.3	22	60.3	32.3	1.1	25 670	15 300	655	0.66	XG1104KTTB
34.925	72	25.4	38.9	19	55.6	29.4	1.1	25 670	15 300	655	0.51	XGGRA106NPPB
	72	25.4	38.9	19	55.6	29.4	1.1	25 670	15 300	655	0.51	XGRA106NPPB
	72	37.6	51.1	19	55.6	32.3	1.1	25 670	15 300	655	0.59	XGG1106KRRB
	72	37.6	51.1	19	55.6	32.3	1.1	25 670	15 300	655	0.59	XG1106KRRB
	72	37.6	51.1	19	55.6	32.3	1.1	25 670	15 300	655	0.6	XGG1106KTTB
	72	37.6	56.3	22	60.3	32.3	1.1	25 670	15 300	655	0.6	XG1106KTTB
36.5125	72	25.4	38.9	19	55.6	29.4	1.1	25 670	15 300	655	0.48	XGGRA107NPPB
	72	25.4	38.9	19	55.6	29.4	1.1	25 670	15 300	655	0.48	XGRA107NPPB
	72	37.6	51.1	19	55.6	32.3	1.1	25 670	15 300	655	0.56	XGG1107KRRB
	72	37.6	51.1	19	55.6	32.3	1.1	25 670	15 300	655	0.56	XG1107KRRB
	72	37.6	51.1	19	55.6	32.3	1.1	25 670	15 300	655	0.56	XGG1107KTTB
	72	37.6	56.3	22	60.3	32.3	1.1	25 670	15 300	655	0.56	XG1107KTTB
38.1	80	30.2	43.7	22	60.3	32.7	1.1	32 600	20 000	850	0.67	XGGRA108NPPB
	80	30.2	43.7	22	60.3	32.7	1.1	32 600	20 000	850	0.67	XGRA108NPPB
	80	42.8	56.3	22	60.3	34.9	1.1	32 600	20 000	850	0.8	XGG1108KRRB
	80	42.8	56.3	22	60.3	34.9	1.1	32 600	20 000	850	0.8	XG1108KRRB
	80	42.8	56.3	22	60.3	34.9	1.1	32 600	20 000	850	0.8	XGG1108KTTB
	80	42.8	56.3	22	60.3	34.9	1.1	32 600	20 000	850	0.8	XG1108KTTB
41.275	80	30.2	43.7	22	60.3	32.7	1.1	32 600	20 000	850	0.75	XGGRA110NPPB
	80	30.2	43.7	22	60.3	32.7	1.1	32 600	20 000	850	0.75	XGRA110NPPB
	80	42.8	56.3	22	60.3	34.9	1.1	32 600	20 000	850	0.9	XGG1110KRRB
	80	42.8	56.3	22	60.3	34.9	1.1	32 600	20 000	850	0.9	XG1110KRRB
	80	42.8	56.3	22	60.3	34.9	1.1	32 600	20 000	850	0.92	XGG1110KTTB
	80	42.8	56.3	22	60.3	34.9	1.1	32 600	20 000	850	0.92	XG1110KTTB

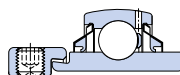
* Grease holes in the outer ring are only applicable for designations beginning with XGG*...

Insert bearings (Y-bearings) inch shafts*

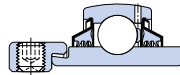
d 19,05 – 61,9125 mm



XGGRA...NPPB / XGRA...NPPB



XGGRA...NPPB



XGRA...NPPB

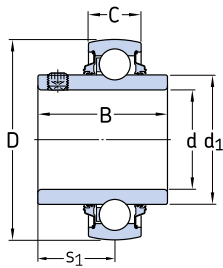
Dimensions								Basic load ratings		Fatigue	Mass	Designation
d	D	B	B ₁	C	d ₂	s ₁	r _{1,2} min	C	C ₀	P _u		
								dynamic	static	load limit		
								kN		kN	kg	-
42.8625	80	30.2	43.7	22	60.3	32.7	1.1	32 600	20 000	850	0.71	XGGRA111NPPB
	80	30.2	43.7	22	60.3	32.7	1.1	32 600	20 000	850	0.71	XGRA111NPPB
	80	42.8	56.3	22	60.3	34.9	1.1	32 600	20 000	850	0.86	XGG1111KRRB
	80	42.8	56.3	22	60.3	34.9	1.1	32 600	20 000	850	0.86	XG1111KRRB
	80	42.8	56.3	22	60.3	34.9	1.1	32 600	20 000	850	0.87	XGG1111KTTB
	80	42.8	56.3	22	60.3	34.9	1.1	32 600	20 000	850	0.87	XG1111KTTB
44.45	80	30.2	43.7	22	60.3	32.7	1.1	32 600	20 000	850	0.67	XGGRA112NPPB
	80	30.2	43.7	22	60.3	32.7	1.1	32 600	20 000	850	0.67	XGRA112NPPB
	80	42.8	56.3	22	60.3	34.9	1.1	32 600	20 000	850	0.81	XGG1112KRRB
	80	42.8	56.3	22	60.3	34.9	1.1	32 600	20 000	850	0.81	XG1112KRRB
	80	42.8	56.3	22	60.3	34.9	1.1	32 600	20 000	850	0.82	XGG1112KTTB
	80	42.8	56.3	22	60.3	34.9	1.1	32 600	20 000	850	0.82	XG1112KTTB
49.2125	90	30.2	43.7	22	69.9	32.7	1.1	35 100	23 200	980	0.76	XGGRA115NPPB
	90	30.2	43.7	22	69.9	32.7	1.1	35 100	23 200	980	0.76	XGRA115NPPB
	90	49.2	62.7	22	69.9	38.1	1.1	35 100	23 200	980	0.96	XGG1115KRRB
	90	49.2	62.7	22	69.9	38.1	1.1	35 100	23 200	980	0.96	XG1115KRRB
	90	49.2	62.7	22	69.9	38.1	1.1	35 100	23 200	980	0.98	XGG1115KTTB
	90	49.2	62.7	22	69.9	38.1	1.1	35 100	23 200	980	0.98	XG1115KTTB
50.8	90	30.2	43.7	22	69.9	32.7	1.1	35 100	23 200	980	0.77	XGGRA200NPPB
	90	30.2	43.7	22	69.9	32.7	1.1	35 100	23 200	980	0.77	XGRA200NPPB
	90	49.2	62.7	22	69.9	38.1	1.1	35 100	23 200	980	0.9	XGG1200KRRB
	90	49.2	62.7	22	69.9	38.1	1.1	35 100	23 200	980	0.9	XG1200KRRB
	90	49.2	62.7	22	69.9	38.1	1.1	35 100	23 200	980	0.91	XGG1200KTTB
	90	49.2	62.7	22	69.9	38.1	1.1	35 100	23 200	980	0.91	XG1200KTTB
55.5625	100	32.5	48.5	25	76.2	36	1.5	43 400	29 200	1250	1	XGGRA203NPPB
	100	32.5	48.5	25	76.2	36	1.5	43 400	29 200	1250	1	XGRA203NPPB
	100	55.4	56.2	25	76.2	43.7	1.5	43 400	29 200	1250	1.3	XGG1203KRRB
	100	55.4	56.2	25	76.2	43.7	1.5	43 400	29 200	1250	1.3	XG1203KRRB
	100	55.4	56.2	25	76.2	43.7	1.5	43 400	29 200	1250	1.3	XGG1203KTTB
	100	55.4	56.2	25	76.2	43.7	1.5	43 400	29 200	1250	1.3	XG1203KTTB
61.9125	110	33.5	49.5	27	84.1	36	1.5	52 440	36 060	1530	1.25	XGGRA207NPPB
	110	33.5	49.5	27	84.1	36	1.5	52 440	36 060	1530	1.25	XGRA207NPPB
	110	61.8	77.8	27	84.1	46.9	1.5	52 440	36 060	1530	1.65	XGG1207KRRB
	110	61.8	77.8	27	84.1	46.9	1.5	52 440	36 060	1530	1.65	XG1207KRRB
	110	61.8	77.8	27	84.1	46.9	1.5	52 440	36 060	1530	1.65	XGG1207KTTB
	110	61.8	77.8	27	84.1	46.9	1.5	52 440	36 060	1530	1.65	XG1207KTTB

* Grease holes in the outer ring are only applicable for designations beginning with XGG*...

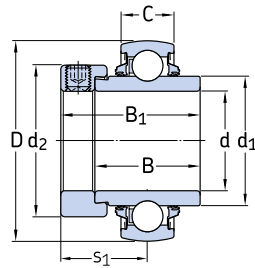


Insert bearings (Y-bearings), metric and inch shafts*

d 20 – 50 mm



YAR



YEL

Dimensions								Basic load ratings		Fatigue load limit	Mass	Designation
d	D	B	B ₁	C	d ₂	s ₁	r _{1,2} min	C	C ₀			
mm								kN		kN	kg	-
20	47	31.0	-	14	-	18.3	0.6	12 700	6 550	280	0.15	YAR 204-2DW/AG
	47	31.0	-	14	-	18.3	0.6	12 700	6 550	280	0.15	YAR 204-2RF
	47	34.2	43.7	14	33.3	26.6	0.6	12 700	6 550	280	0.20	YEL 204-2DW/AG
	47	34.2	43.7	14	32.4	26.6	0.6	12 700	6 550	280	0.02	YEL 204-2RF/VL065
25	52	34.1	-	15	-	19.8	0.6	14 000	7 800	335	0.19	YAR 205-2DW/AG
	52	34.1	-	15	-	19.8	0.6	14 000	7 800	335	0.19	YAR 205-2RF
	52	34.9	44.4	15	38.1	26.9	0.6	14 000	7 800	335	0.24	YEL 205-2DW/AG
	52	34.9	44.4	15	37.4	26.9	0.6	14 000	7 800	335	0.25	YEL 205-2RF/VL065
25.4	52	34.1	-	15	-	19.8	0.6	14 000	7 800	335	0.18	YAR 205-100-2DW/AG
	52	34.9	44.4	15	38.1	26.9	0.6	14 000	7 800	335	0.23	YEL 205-100-2DW/AG
28.575	62	36.5	48.4	18	44.5	30.1	0.6	19 500	11 200	475	0.40	YEL 206-102-2DW/AG
	62	38.1	-	18	-	22.2	0.6	19 500	11 200	475	0.32	YAR 206-102-2DW/AG
30	62	36.5	48.4	18	44.5	30.1	0.6	19 500	11 200	475	0.38	YEL 206-2DW/AG
	62	36.5	48.4	18	44.1	30.1	0.6	19 500	11 200	475	0.38	YEL 206-2RF/VL065
	62	38.1	-	18	-	22.2	0.6	19 500	11 200	475	0.30	YAR 206-2DW/AG
	62	38.1	-	18	-	22.2	0.6	19 500	11 200	475	0.31	YAR 206-2RF
30.1625	62	36.5	48.4	18	44.5	30.1	0.6	19 500	11 200	475	0.37	YEL 206-103-2DW/AG
	62	38.1	-	18	-	22.2	0.6	19 500	11 200	475	0.30	YAR 206-103-2DW/AG
31.75	62	38.1	-	18	-	22.2	0.6	19 500	11 200	475	0.27	YAR 206-104-2DW/AG
	72	37.6	51.1	19	55.6	32.3	1.0	25 500	15 300	655	0.60	YEL 207-104-2DW/AG
	72	42.9	-	19	-	25.4	1.0	25 500	15 300	655	0.49	YAR 207-104-2DW/AG
34.925	72	37.6	51.1	19	55.6	32.3	1	25 500	15 300	655	0.54	YEL 207-106-2DW/AG
	72	42.9	-	19	-	25.4	1	25 500	15 300	655	0.44	YAR 207-106-2DW/AG
35	72	37.6	51.1	19	55.6	32.3	1	25 500	15 300	655	0.53	YEL 207-2DW/AG
	72	37.6	51.1	19	51.1	32.3	1	25 500	15 300	655	0.54	YEL 207-2RF/VL065
	72	42.9	-	19	-	25.4	1	25 500	15 300	655	0.44	YAR 207-2DW/AG
	72	42.9	-	19	-	25.4	1	25 500	15 300	655	0.45	YAR 207-2RF

* Designations listed on pages 14 and 15 are separate SKF offerings that are not described on the previous pages.

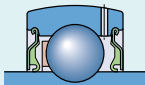
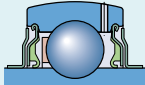
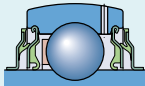
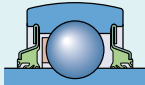
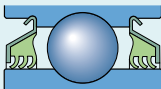
Dimensions								Basic load ratings		Fatigue load limit	Mass	Designation
d	D	B	B ₁	C	d ₂	s ₁	r _{1,2} min	C	C ₀	P _u		
mm								kN		kN	kg	-
36.7665	72	37.6	51.1	19	55.6	32.3	1	25 500	15 300	655	0.50	YEL 207-107-2DW/AG
	72	42.9	-	19	-	24.4	1	25 500	15 300	655	0.41	YAR 207-107-2DW/AG
38.1	80	42.75	56.3	21	60.3	34.9	1	30 700	19 000	800	0.74	YEL 208-108-2DW/AG
	80	49.20	-	21	-	30.2	1	30 700	19 000	800	0.63	YAR 208-108-2DW/AG
40	80	42.75	56.3	21	60.3	34.9	1	30 700	19 000	800	0.69	YEL 208-2DW/AG
	80	42.75	56.3	21	56.5	34.9	1	30 700	19 000	800	0.71	YEL 208-2RF/VL065
	80	49.20	-	21	-	30.2	1	30 700	19 000	800	0.59	YAR 208-2DW/AG
	80	49.20	-	21	-	30.2	1	30 700	19 000	800	0.60	YAR 208-2RF
41.275	85	49.2	-	22	-	30.2	1	33 200	21 600	915	0.075	YAR 209-110-2DW/AG
42.8625	85	42.75	56.3	22	63.5	34.9	1	33 200	21 600	915	0.840	YEL 209-111-2DW/AG
	85	49.20	-	22	-	30.2	1	33 200	21 600	915	0.071	YAR 209-111-2DW/AG
44.45	85	42.75	56.3	22	63.5	34.9	1	33 200	21 600	915	0.80	YEL 209-112-2DW/AG
45	85	42.75	56.3	22	63.5	34.9	1	33 200	21 600	915	0.78	YEL 209-2DW/AG
	85	49.20	-	22	-	30.2	1	33 200	21 600	915	0.66	YAR 209-2DW/AG
	85	49.20	-	22	-	30.2	1	33 200	21 600	915	0.67	YAR 209-2RF
49.2125	90	49.15	62.7	22	69.9	38.1	1	35 100	23 200	980	0.93	YEL 210-115-2DW/AG
	90	51.60	-	22	-	32.6	1	35 100	23 200	980	0.77	YAR 210-115-2DW/AG
50	90	49.15	62.7	22	69.9	38.1	1	35 100	23 200	980	0.90	YEL 210-2DW/AG
	90	51.60	-	22	-	32.6	1	35 100	23 200	980	0.74	YAR 210-2DW/AG
	90	51.60	-	22	-	32.6	1	35 100	23 200	980	0.77	YAR 210-2RF

* Designations listed on pages 14 and 15 are separate SKF offerings that are not described on the previous pages.

Agri-specific solutions for every application

This publication highlights the new range of SKF insert bearings and their sealing solutions designed specifically for

combine harvesters and balers. If you are looking for another solution for your application, the table summarizes SKF's complete product offering and seal designs.

SKF's insert bearings range		
Seals type	Seal cross section	Application max. speed (r/min)
Single lip (1-lip R)		4 000
Single lip (1-lip RS1)		4 000
Single lip with flinger (1-lip 2F)		4 000
Single lip (1-lip F) ¹⁾		4 000
Single lip (1-lip G) ¹⁾		4 000
Single lip with rubberized flinger (1-lip RF)		2 000
3-lip high speed (3-lip HS)		1 000
3-lip low speed (3-lip LS) ¹⁾		600

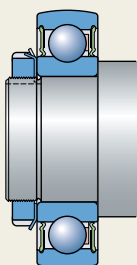
¹⁾ SKF Insert ball bearings with specific features designed for agriculture-specific equipment

Locked in, season-long performance

The SKF insert bearings for agriculture applications can be fortified even further with different locking methods – of which set screws, or an eccentric locking collar is the most commonly used. Combined with the sealing solutions offered, they define a wide assortment of unit series available to meet agricultural application requirements in terms of loads, speeds, and environmental conditions.

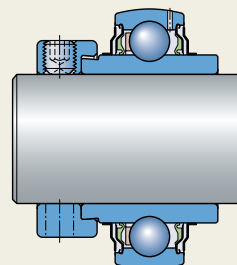
Interference fit

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



Eccentric locking collar

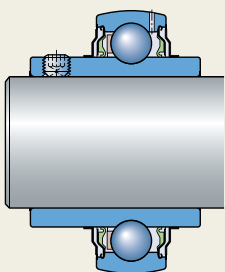
This locking method is the most commonly used in agriculture applications. This method, allowing an easy and quick mounting and dismounting, is provided by a locking collar acting on the eccentric extension made on one side of the inner ring. The locking is achieved by turning the locking collar in the direction of rotation until 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 also be used for alternating directions especially when loads and speeds are low.



In addition to the locking methods included in the agricultural range, SKF also offers other locking methods including:

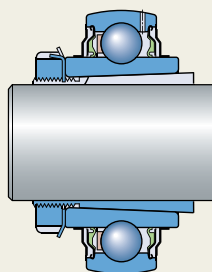
Grub screws

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 the direction of rotation.



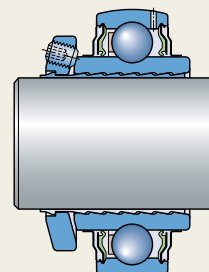
Adapter sleeve locking

This method enables a concentric locking of the insert bearing unit. The 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 insert bearing series: this feature can be exploited when larger bearing rating loads are needed while keeping the same shaft diameter. The bearing limiting speeds are not affected by the shaft tolerance and maximum values can be achieved using commercial grade shafts.

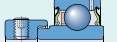


SKF ConCentra locking

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

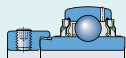


SKF ball bearing units for agricultural applications

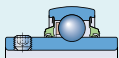
Bearing								
	XG...RAE, XG...RA...NPPB	XG...E...KRRB, XG...1...KRRB	XG...E...KTTB, XG...1...KTTB	YEL 2...-2F	YEL 2...-2F/VL065 1)	YEL 2...-2DW/AG	YET 2...	YAR 2...-2F
Housings / Cast iron								
	SY	XGPASE...SY 20–60 mm 3/4–2 7/16 in.	XGRASE...SY 20–60 mm 3/4–2 7/16 in.	XGTASE...SY 20–60 mm 3/4–2 7/16 in.	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 1/2–2 15/16 in.
	SYJ							SYJ.. TF 20–200 mm 3/4–2 1/2 in.
	SYF						SYF.. FM 20–50 mm	SYF.. TF 20–50 mm
	FY	XGPCJ...FY 20–60 mm 3/4–2 7/16 in.	XGRCJ...FY 20–60 mm 3/4–2 7/16 in.	XGTCJ...FY 20–60 mm 3/4–2 7/16 in.	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 1/2–2 7/16 in.
	FYJ							FYJ.. TF 20–200 mm
	FYTB	XGPCJT...FYTB 20–60 mm 3/4–2 7/16 in.	XGRCJT...FYTB 20–60 mm 3/4–2 7/16 in.	XGTCJT...FYTB 20–60 mm 3/4–2 7/16 in.	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.
	FYTJ							FYTJ.. TF 20–50 mm 3/4–1 3/4 in.
	FYC	XGPME...FYC 20–60 mm 3/4–2 7/16 in.	XGRME...FYC 20–60 mm 3/4–2 7/16 in.	XGTME...FYC 20–60 mm 3/4–2 7/16 in.				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
Housings / Composite								
	SYK							SYK.. TF 20–40 mm
	FYK				FYK.. WR/VL065 20–40 mm			FYK.. TF 20–40 mm
	FYTBK							FYTBK.. TF 20–35 mm

SKF insert bearings for agricultural applications

Sealing systems								
	2RS1	Standard seal	2F	F	2RF	G	3 Lip HS	3 Lip LS
Insert bearings								
	YEL 2 XG...E XG...1		20–60 mm 1/2–1 3/8 in.		20–40 mm 1)	20–60 mm* 3/4–2 7/16 in.	20–50 mm 2) 1–1 15/16 in.	20–60 mm* 3/4–2 7/16 in.
	YET 2 XG...RAE XG...RA	15–60 mm 1/2–1 3/8 in.		20–60 mm* 3/4–2 7/16 in.				
	YAR 2		12–100 mm 1/2–2 in.		20–65 mm 3/4–2 in.		20–50 mm 2) 1–1 15/16 in.	
	YSP 2		25–60 mm 1–2 11/16 in.				25–50 mm 2) 1–1 15/16 in.	
	YAT 2	17–50 mm 5/8–2 in.			17–50 mm 5/8–2 in.			
	YSA 2		25–65 mm 3/4–2 3/8 in.					
	17262(00) XG2...*	17–60 mm		17–50 mm*				
	17263(00)	25–50 mm						



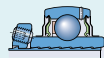
YAR 2...-2RF



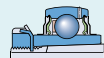
YAR 2...-2DW/AG



YSP 2...-2DW/AG



YSP 2...SB-2F



YSA 2...-2FK

SY.. TR
20–60 mm

SY.. TDW
20–50 mm
1–1¹⁵/₁₆ in.

SY .. LDW
25–50 mm
1–1¹⁵/₁₆ in.

SY .. LF
25–60 mm
1–2¹¹/₁₆ in.

SYJ.. KF
20–60 mm

FY.. TR
20–60 mm

FY.. TDW
20–50 mm
1–1¹⁵/₁₆ in.

FY .. LDW
25–50 mm
1–1¹⁵/₁₆ in.

FY .. LF
25–60 mm
1–2¹¹/₁₆ in.

FYJ.. KF
20–60 mm

FYTB.. TR
20–50 mm

FYTB.. TDW
20–50 mm
1–1¹⁵/₁₆ in.

FYTB .. LDW
25–50 mm
1–1¹⁵/₁₆ in.

FYTB .. LF
25–60 mm
1–2³/₁₆ in.

FYTJ.. KF
20–45 mm
3/4 –1 3/4 in.

SYK.. TR
20–40 mm

FYK.. TR
20–40 mm

FYTBK .. TR
20–35 mm

- WF** Insert bearing with an eccentric locking collar, YEL 2 series, -2F seals
- WR** Insert bearing with an eccentric locking collar, YEL 2 series, -2RF seals
- WDW** Insert bearing with an eccentric locking collar, YEL 2DW/AG series, 3-lip HS seals
- FM** Insert bearing with an eccentric locking collar, YET 2 series, standard seals
- TF** Insert bearing with grub screws, YAR 2 series, -2F seals
- TR** Insert bearing with grub screws, YAR 2 series, -2RF seals
- TDW** Insert bearing with grub screws, YAR 2DW/AG series, 3-lip HS seals
- LDW** Insert bearing with SKF ConCen-tra YSP 2DW/AG series, 3-lip HS seals
- LF** Insert bearing with SKF ConCen-tra locking, YSP 2 SB series, -2F seals
- KF** Insert bearing with a tapered bore, YSA 2K series, -2F seals
- 1) VL065: zinc coated inner bore and side faces
- 2) No relubrication hole, relubrication free offer



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