



FEBRUARY
2021



CYCLING
SPECIAL BEARINGS



SEEING IT, ISN'T THE MOST IMPORTANT THING
IT'S THAT YOU FEEL IT
RESISTANCE, PERFORMANCE, RELIABILITY



ISB

GET TO KNOW US

ISB GROUP



ISB Group, specialized in the power transmission sector, has been present in the market since 1981. Internationally, is one of the most relevant Groups in the sector, with a presence in more than 90 countries through Delegations and Distributors, also counting with several own manufacturing centers.

One of the major competitive advantages of the ISB Group comes from the logistical capacity and the volumes of stock that it handles from the different strategic points.

It has 2 divisions: the industrial one, **ISB INDUSTRIES**, whose Headquarters are located in Italy, and the sports division **ISB SPORT**, the latter managed from the headquarters in Spain (Barcelona)



Industrial and sports division



Present in more than 90 countries



+ 70,000 references available (bearings and components)



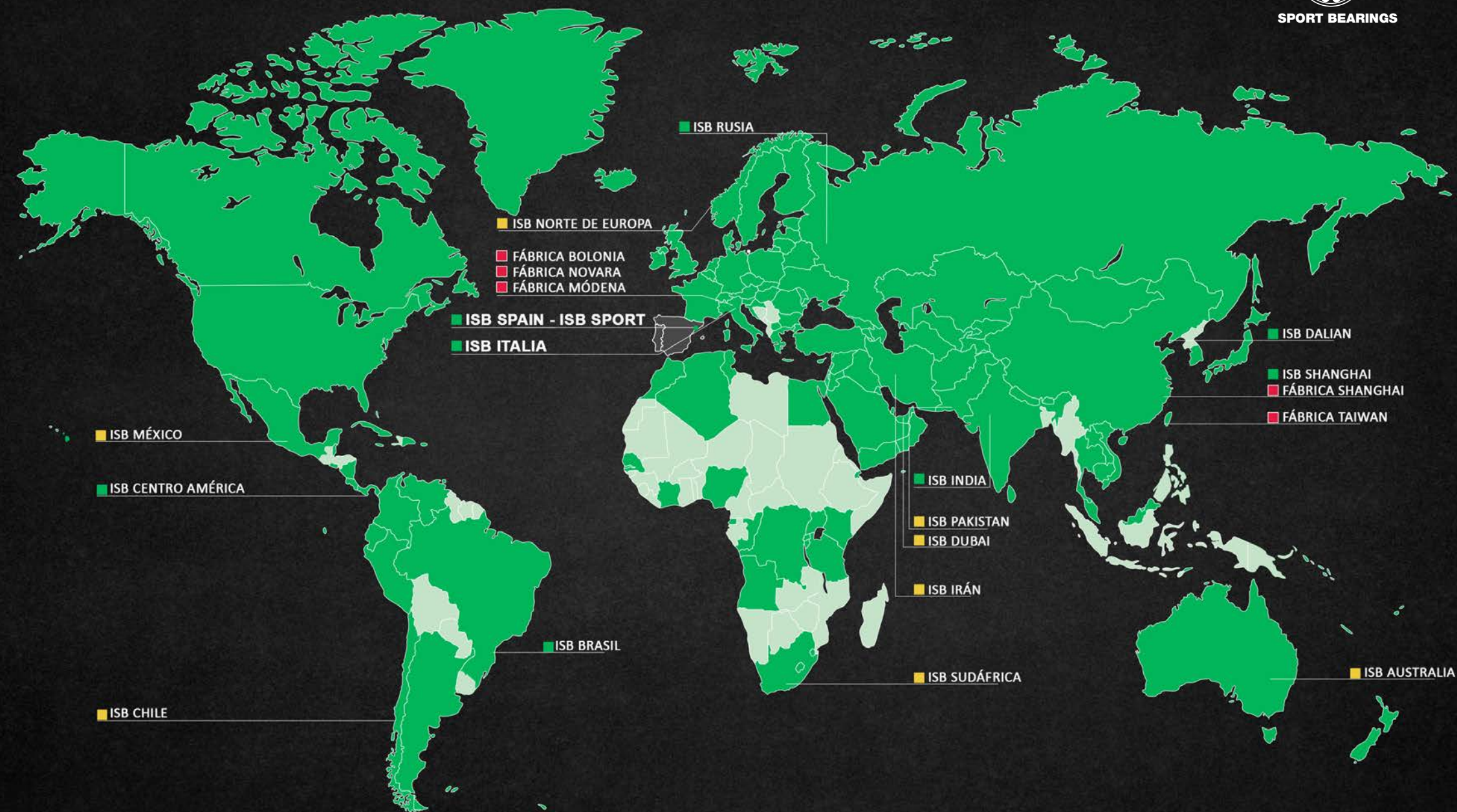
22,000m2 Logistics Hub with 12,000m2 of automated warehouses



Own manufacturing centers (Europe and Asia)



Engineering and Quality Control Departments



ISB SPORT, BEARINGS FOR SPORT APPLICATIONS



We have transferred all our experience in the industrial sector to a new range of specially designed bearings and components for sports applications.

- **CYCLING bearings:** bicycle, wheelchair, handbike ...
- **ROLLER bearings:** skateboard, scooter ...
- **FISHING bearings:** range for fishing
- **ENGINE components:** components for motorcycle, kart, quad ...

ISB Sport collaborations and sponsorships with ambassadors and first level events allow us to test the products in the more demanding environments of the highest competitions to be able to take the public final bearings and components that stand out for their resistance, performance and reliability



**"HISTORY IS NOT MECHANICAL
BECAUSE MEN ARE FREE
TO TRANSFORM IT"** - Ernesto Sábato -

For 3 Generations we have lived the world of cycling from within, competing, winning titles, managing teams, stores and velodromes. Now, 80 years later, we have combined this passion and our profession creating the bearings for cycling leaders

vegetariano sub-campeón
mundo de veteranos
revista a SANTIAGO MOSTAJO





ISB

CYCLING SPECIAL BEARINGS

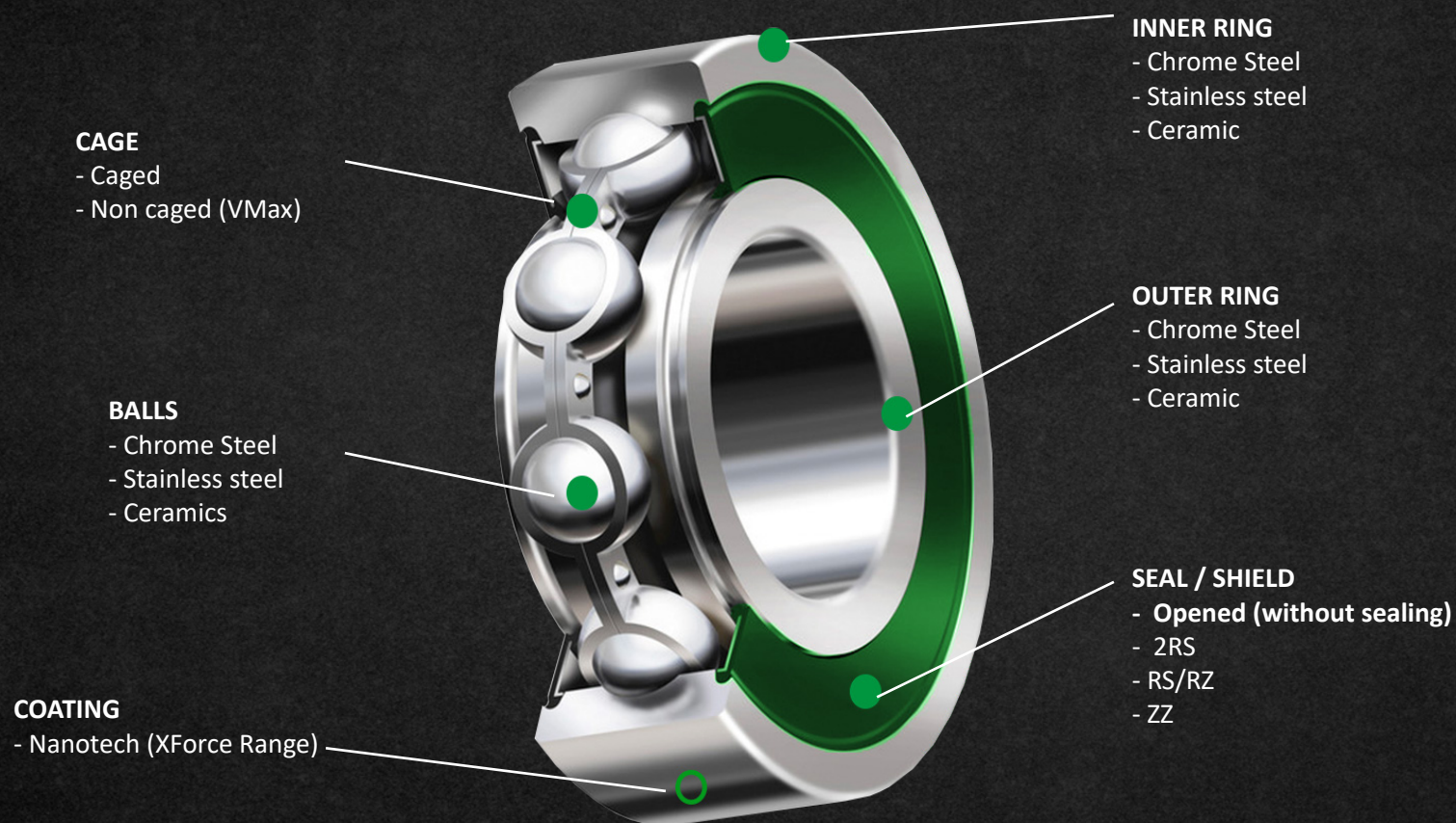
EACH TYPE OF BEARING COVERS DIFFERENT NEEDS

Resistance? Steel bearings
Less friction? Ceramic bearings
Higher performance? XForce bearings



THE BEARINGS

In general, bearings are basically made up of two rings or rolling elements (in the case of ISB bicycle bearings, these would be balls) and a cage. Some of these elements are those that will serve, among others, to classify them based on their differences in design and structure. The diagram details the main components in ISB cycling bearings and their different variables:



FEATURES AND MATERIALS

Despite not being visible, the bearings are a fundamental component for the proper functioning of the bicycle, since the performance of the bicycle depends largely on them. They are found in different key parts: in the headset, wheel hubs, bottom bracket, suspension pivots ... and their function is to allow the turning movement between two unit parts by rolling, unlike friction bushings that they do so by displacement of the contact surfaces. This allows a smoother turn with less friction, being able to turn at a higher speed.

These characteristics mean that we find different types of bearings for the different rolling points that we can have on the bicycle since the functional requirements are quite different: high speed in the wheel hubs, high loads capacities and slow speed in the joints of the suspension pivot frame system, angular contact bearings for headset ... At ISB Sport we have developed a range of products that covers the needs of both the location of the bearings and the application to which they are intended (MTB, road bikes ...)



WHEEL HUB AND BOTTOM BRACKET BEARINGS

- Steel Series
- CB Ceramic Series
- SC Ceramic Series
- Full Ceramic Series
- Xforce Series
- XForce Ceramic Series

SUSPENSION BEARINGS

- VMax Series

HEADSET BEARINGS

- Headset Series

FEATURES AND MATERIALS



SEAL

Mostly, ISB bicycle bearings are sealed on both sides, this preventing the entry of contaminating particles into the bearing. The execution of these seals can be made of metal or rubber.

RS Type Seal

A contact seal that provides optimal protection for the bearing, but limits the potential rolling speed generating friction

RZ Type Seal

Low friction non-contact rubber seal that guarantees optimal bearing protection even at high rolling speed without creating friction

Z Type Seal

Metal seal that provides basic bearing protection without creating friction or limiting rolling speed

In the case of ISB bearings, they are sealed on both sides:

- 2RS: one RS type rubber shield on both sides
- RS/RZ: high precision sealing with a rubber seal type RS on one side (black contact seal to be installed on the outside) and a rubber seal type RZ (green non-contact seal to be installed on the inside)
- ZZ: metal seals on both sides



FEATURES AND MATERIALS

LUBRICATION

Lubricant is a vital component for the optimal performance of ball and roller bearings. The choice of the correct lubricant, in its appropriate quantity, is essential for the noise, temperature and useful life of that bearing.

Most **ISB cycling bearings** are lubricated with grease, with exceptions such as **HSP bearings**. In this ones, grease has been replaced by oil, to further reduce friction (necessary for example in the case of competition wheelchairs). Currently HSP bearings can be found in the SC Ceramic hybrid series and in the XForce Ceramic range.

Full ceramic bearings are also lubricated with oil instead of grease.





WHEEL HUB AND BOTTOM BRACKET BEARINGS

STEEL SERIES

CERAMIC SERIES

XFORCE SERIES

XFORCE CERAMIC SERIES



WHEEL HUB AND
BOTTOM BRACKET BEARINGS



SUSPENSION
BEARINGS



HEADSET
BEARINGS



WHEEL HUB AND BOTTOM BRACKET
BEARINGS

STEEL BEARINGS



WHEEL HUB AND
BOTTOM BRACKET BEARINGS

SUSPENSION
BEARINGS

HEADSET
BEARINGS

FEATURES AND MATERIALS



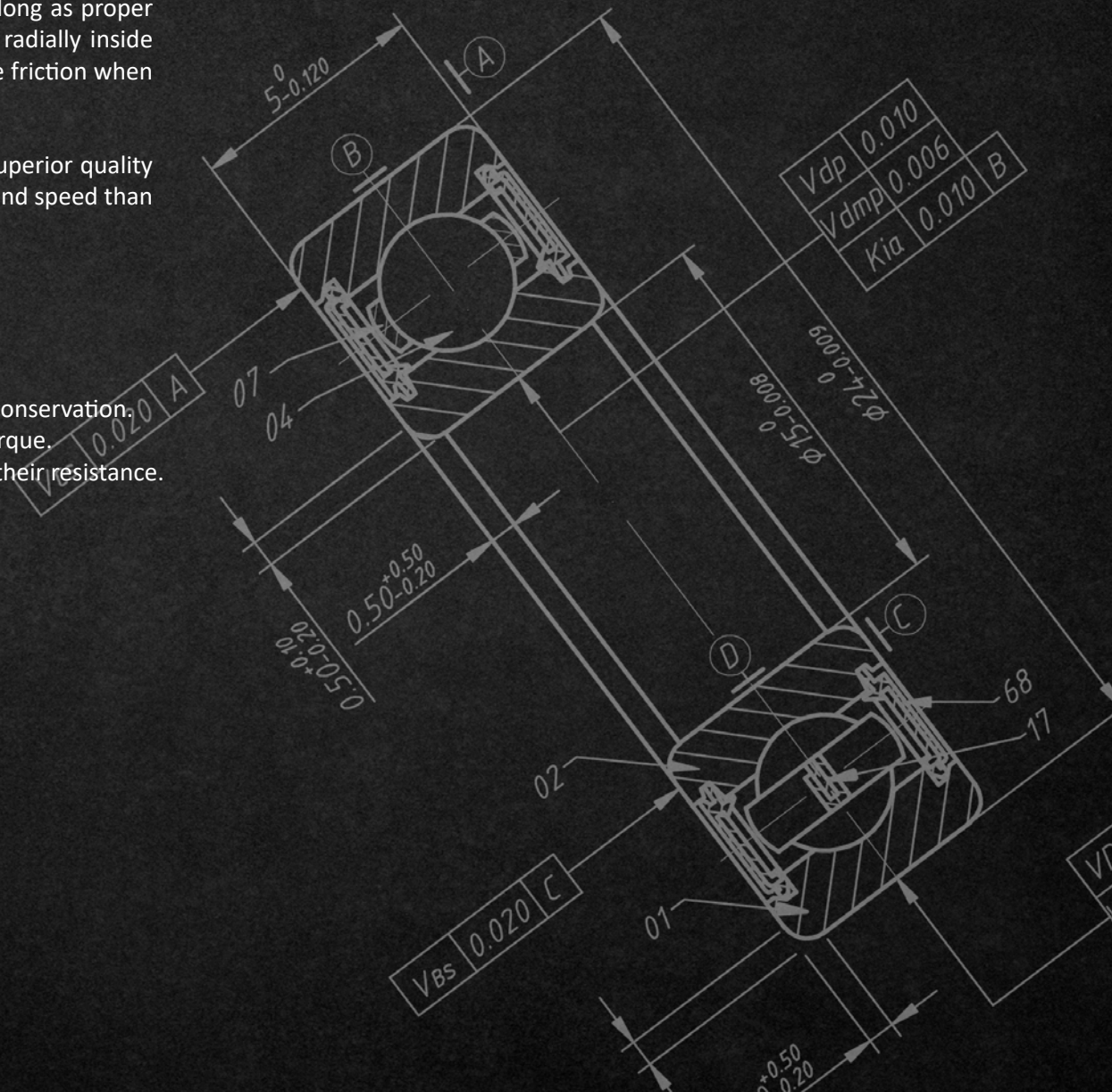
Steel bearings are the most common in bicycles as they are very durable as long as proper cleaning and good lubrication are maintained. They have steel balls located radially inside the rings or raceways. They are really very effective, and significantly decrease friction when rolling compared to other systems such as bushings.

In the case of ISB steel bearings, the tests carried out show that the use of superior quality materials in these bearings makes their average life (in equal load conditions and speed than standard) is up to 1.5 times higher than standard.

Other characteristics of ISB steel bearings:

- Greater resistance to sudden impact loads
- Greater smoothness and ease of rolling to reduce resistance and energy conservation.
- Superior balance between good sealing performance and lower rolling torque.
- Exclusive heat treatment, to reduce deformation of the rings and ensure their resistance.

Steel bearings can be Chrome Steel or Stainless Steel
(in this case the reference will include the suffix SS)





WHEEL HUB AND BOTTOM BRACKET BEARINGS

STEEL BEARINGS

		DIMENSIONS (mm)		
Code	Reference	Inner	Outer	Width
13019645	686-2RS P6 ISB	6	13	5
90070313	R-4-2RS ISB	6.350	15.857	4.978
13000229	688-2RS P6 ISB	8	16	5
13000262	618/8-2RS P6 ISB	8	16	5
13019945	698-2RS P6 ISB	8	19	6
13000545	608-2RS P6 ISB	8	22	7
13000549	SS 608-2RS P6 ISB	8	22	7
13019705	689-2RS P6 ISB	9	17	5
13000565	609-2RS P6 ISB	9	24	7
90070314	R-6-2RS ISB	9.525	22.225	7.143
13025005	6700-2RS ISB	10	15	3
13000010	6800-RS/RZ ISB	10	19	5
13984500	3800-2RSV ISB Dual Row	10	19	8
13000110	6900-RS/RZ ISB	10	22	6
13000622	6000-2RS P6 ISB	10	26	8
13003201	16100-ZZ P6 ISB	10	28	8
13001471	6200-2RS P6 ISB	10	30	9
13025010	6701-2RS ISB	12	18	4
13000012	6801-RS/RZ ISB	12	21	5
13984505	3801-2RSV ISB Dual Row	12	21	8
13000112	6901-RS/RZ ISB	12	24	6
13000647	6001-2RS P6 ISB	12	28	8
13001496	6201-2RS P6 ISB	12	32	10
90030504	SS R-8 ZZ ISB	12.7	28.57	7.93
90070315	R-8-2RS ISB	12.700	28.575	7.938
13983209	6802-2RS-14 ISB	14	24	5
13025015	6702-2RS ISB	15	21	4



WHEEL HUB AND
BOTTOM BRACKET BEARINGS



SUSPENSION
BEARINGS



HEADSET
BEARINGS



WHEEL HUB AND BOTTOM BRACKET BEARINGS

STEEL BEARINGS

		DIMENSIONS (mm)		
Code	Reference	Inner	Outer	Width
13000015	6802-RS/RZ ISB	15	24	5
13981200	MR 15267-2RS ISB	15	26	7
13981205	MR 15268-2RS ISB	15	26	8
13984100	DR152610-2RSV ISB Dual Row	15	26	10
13000115	6902-RS/RZ ISB	15	28	7
13000676	6002-2RS P6 ISB	15	32	9
13001526	6202-2RS P6 ISB	15	35	11
13981250	MR 16277-2RS ISB	16	27	7
13981255	MR 16287-2RS ISB	16	28	7
13984010	163110-2RS ISB	16	31	10
13025020	6703-2RS ISB	17	23	4
13000017	6803-RS/RZ ISB	17	26	5
13983705	3803-2RSC3V ISB	17	26	10
13981260	MR 17287-2RSC0V ISB	17	28	7
13000117	6903-RS/RZ ISB	17	30	7
13984560	3903-2RSV ISB Dual Row	17	30	10
13000701	6003-2RS P6 ISB	17	35	10
13981300	MR 18307-2RS ISB	18	30	7
13983220	6804-2RS-19 (MR 129) ISB	19	32	7
13983504	MR 1937-2RS (6904/19,05-2RS) ISB	19.05	37	9
90070261	6704-2RS ISB	20	27	4
13984110	DR203013-2RS ISB Dual Row	20	30	13
13000020	6804-RS/RZ ISB	20	32	7
13013593	6904-2RS P6 ISB	20	37	9
13000726	6004-2RS P6 ISB	20	42	12
13981310	MR 22237-2RS ISB	22.2	37	8/11.5
13981315	MR 22237B-2RS ISB	22.2	37	8/11.5



WHEEL HUB AND
BOTTOM BRACKET BEARINGS



SUSPENSION
BEARINGS



HEADSET
BEARINGS



WHEEL HUB AND BOTTOM BRACKET BEARINGS

STEEL BEARINGS

		DIMENSIONS (mm)		
Code	Reference	Inner	Outer	Width
13981280	MR 23327-2RSV ISB	23	32	7
13983505	MR 2437-2RS ISB	24	37	7
13981325	SS MR 2437-2RS ISB	24	37	7
13983506	MR 2437H8-2RSV ISB	24	37	8
13025030	6705-2RS ISB	25	32	4
13000025	6805-RS/RZ ISB	25	37	7
13984000	7805-2RSV ISB Contacto Angular	25	37	7
13013604	6905-2RS P6 ISB	25	42	9
13981340	MR 27537-2RSV ISB	27.5	37	7
90070357	SS 6806/29-2RS ISB DUB	29	42	7
13025035	6706-2RS ISB	30	37	4
13000030	6806-RS/RZ ISB	30	42	7
13000039	SS 6806-2RS P6 ISB	30	42	7
13013622	6906-2RS P6 ISB	30	47	9
13985000	FD 6806-2RSV ISB con valona	31	41/44	11.2
13981330	MR 31437-2RSV ISB	31	43	7
13981335	MR 314357-2RSV ISB	31	43.5	7
13025040	6707-2RS ISB	35	44	5
13000128	6807-2RS P6 ISB	35	47	7
13025045	6708-2RS ISB	40	50	6
13000139	6808-2RS P6 ISB	40	52	7
13025047	6709-2RS ISB	45	55	6
13000091	6809-2RS P6 ISB	45	58	7
13025050	6710-2RS ISB	50	62	6
13000094	6810-2RS P6 ISB	50	65	7



WHEEL HUB AND
BOTTOM BRACKET BEARINGS



SUSPENSION
BEARINGS



HEADSET
BEARINGS



WHEEL HUB AND BOTTOM BRACKET BEARINGS

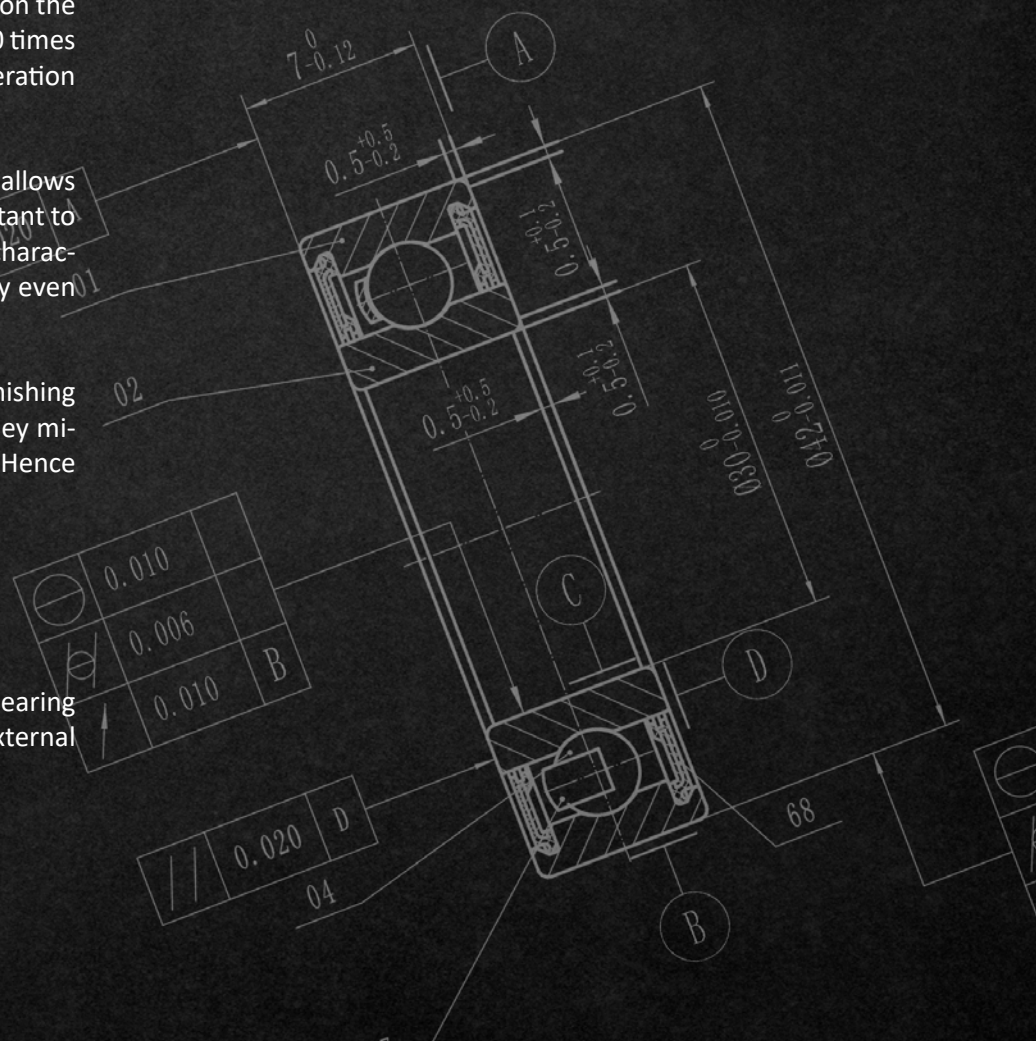
CERAMIC BEARINGS



WHEEL HUB AND
BOTTOM BRACKET BEARINGS

SUSPENSION
BEARINGS

HEADSET
BEARINGS





WHEEL HUB AND BOTTOM BRACKET BEARINGS

CERAMIC BEARINGS

Chrome Steel and Ceramic balls

		DIMENSIONS (mm)		
Code	Reference	Inner	Outer	Width
13981345	MR 22237-2RS-CB ISB	22.2	37	8/11.5
13981320	MR 2437-2RS-CB ISB	24	37	7
13981350	MR 31437-2RS-CB ISB	31	43	7



WHEEL HUB AND
BOTTOM BRACKET BEARINGS



SUSPENSION
BEARINGS



HEADSET
BEARINGS



WHEEL HUB AND BOTTOM BRACKET BEARINGS

CERAMIC BEARINGS

Stainless Steel and Ceramic balls

		DIMENSIONS (mm)		
Code	Reference	Inner	Outer	Width
13980002	SC 608-2RS ISB	8	22	7
13983202	SC 6800-2RS ISB	10	19	5
13983302	SC 6900-2RS ISB	10	22	6
13983102	SC 6000-2RS ISB	10	26	8
13983152	SC 6200-2RS ISB	10	30	9
13983157	SC 6201-2RS ISB	10	32	10
13983207	SC 6801-2RS ISB	12	21	5
13983307	SC 6901-2RS ISB	12	24	6
13983107	SC 6001-2RS ISB	12	28	8
13983108	SC 6001-2RS HSP ISB	12	28	8
13983212	SC 6802-2RS ISB	15	24	5
13983214	SC 6802-2RS HSP ISB	15	24	5
13983312	SC 6902-2RS ISB	15	28	7
13983162	SC 6202-2RS ISB	15	35	11
13984003	SC 6803-2RS ISB	17	26	5
13994003	SC 6903-2RS ISB	17	30	7
13984004	SC 6804-2RS ISB	20	32	7
13983322	SC 6904-2RS ISB	20	37	9
13984005	SC 6805N-2RS ISB	25	37	6
13983227	SC 6805-2RS ISB	25	37	7
13983232	SC 6806-2RS ISB	30	42	7



WHEEL HUB AND
BOTTOM BRACKET BEARINGS



SUSPENSION
BEARINGS



HEADSET
BEARINGS



WHEEL HUB AND BOTTOM BRACKET BEARINGS

FULL CERAMIC BEARINGS

100% ceramic

		DIMENSIONS (mm)		
Code	Reference	Inner	Outer	Width
13983213	6802-RS ISB Full Ceramic ZrO2	15	24	5
13983217	6803-RS ISB Full Ceramic ZrO2	17	26	5
13983218	6803-2RS ISB Full Ceramic ZrO2	17	26	5
13983233	6806-RS ISB Full Ceramic ZrO2	30	42	7



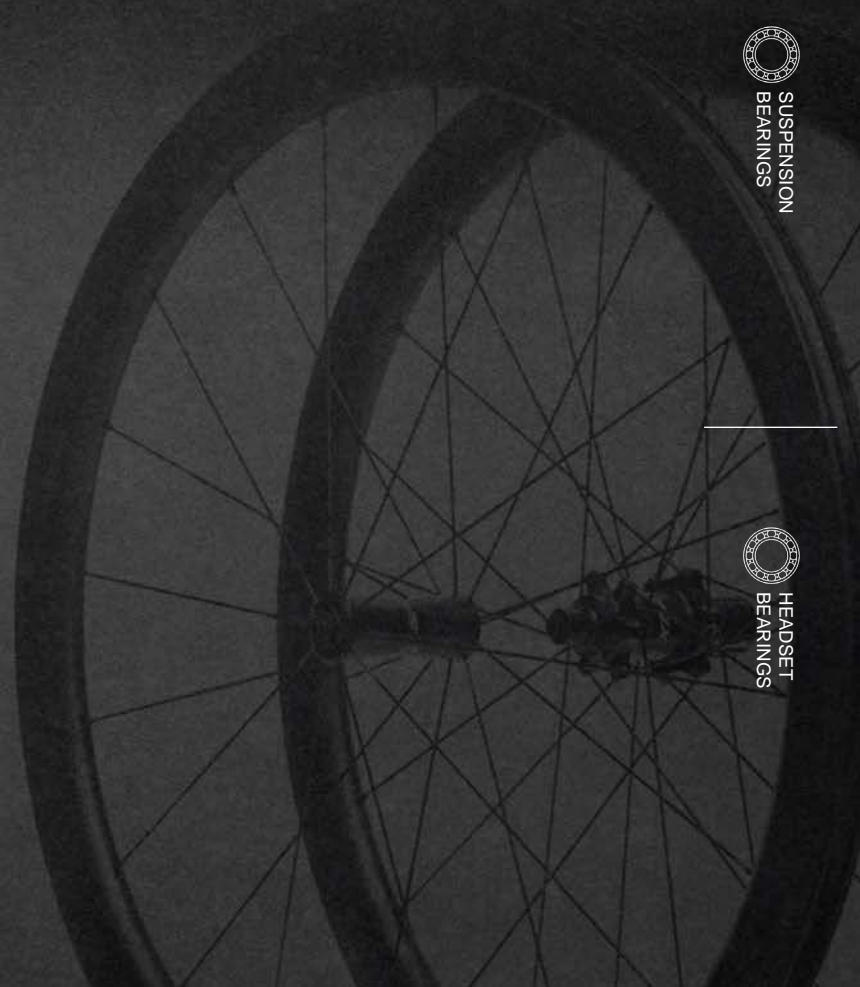
WHEEL HUB AND
BOTTOM BRACKET BEARINGS



SUSPENSION
BEARINGS



HEADSET
BEARINGS





WHEEL HUB AND BOTTOM BRACKET BEARINGS

XFORCE BEARINGS



WHEEL HUB AND
BOTTOM BRACKET BEARINGS

SUSPENSION
BEARINGS

HEADSET
BEARINGS

FEATURES AND MATERIALS



XForce BEARINGS

XForce bearings are the Premium range of the ISB brand, evolved through a nano-technological coating process that makes them one of the most revolutionary and competitive bearings on the market

The NanoTech is based on a nanotechnological process that increases the rolling fluidity obtaining an extremely smooth and silent movement. The process modifies the nanostructure of its surface, obtaining superior performance and highly visible improvements in relation to conventional products. The chemical transformation of the surface is produced through the use of atoms and molecules that, through this exclusive process, provide spectacular results, according to the tests carried out by professional cycling teams. At the same time, the possible effects of corrosion and abrasion are reduced by decreasing the intensity of friction and providing a longer life.

Main advantages:

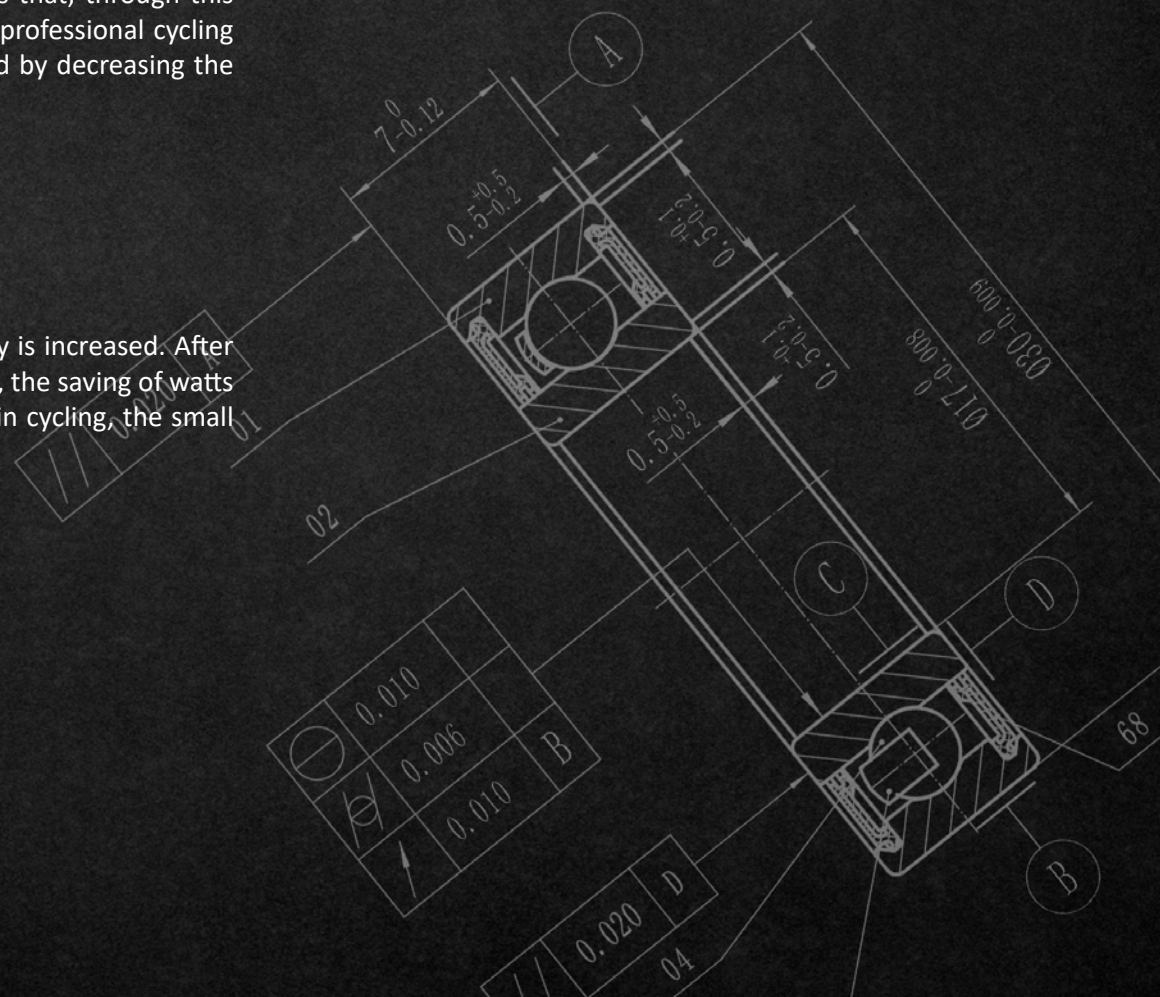
- 88% - 90% reduction in friction
- Power savings of 7.15 to 9.45 watts
- Corrosion resistance tested up to 1,500 hours

With the NanoTech coating, the rotation of the balls is optimized and their durability is increased. After the tests carried out by the Mapei Sport Research Center with an SRM potentiometer, the saving of watts is decisive to stand out compared to other steel bearings, showing once again that in cycling, the small details make the difference.

This Premium Bearing range includes two series of bearings::

XForce: composed by steel bearings

XForce Ceramic: composed by hybrid ceramic bearings





WHEEL HUB AND BOTTOM BRACKET BEARINGS

XFORCE BEARINGS
with NanoTech coating

		DIMENSIONS (mm)		
Code	Reference	Inner	Outer	Width
90070234	6800-RS/RZ Xforce ISB	10	19	5
90070242	6802-RS/RZ Xforce ISB	15	24	5
90070512	MR 15267-2RS Xforce ISB	15	26	7
90070240	6902-RS/RZ Xforce ISB	15	28	7
90070238	6803-RS/RZ Xforce ISB	17	26	5
90070246	MR 17287-2RSC0V Xforce ISB	17	28	7
90070236	6903-RS/RZ Xforce ISB	17	30	7
90070247	MR 2437-2RS Xforce ISB	24	37	7
90070247	SS 6806-2RS ISB Xforce ISB	30	42	7



WHEEL HUB AND
BOTTOM BRACKET BEARINGS



SUSPENSION
BEARINGS



HEADSET
BEARINGS



WHEEL HUB AND BOTTOM BRACKET BEARINGS

XFORCE CERAMIC BEARINGS
Hybrid ceramic with NanoTech coating

		DIMENSIONS (mm)		
Code	Reference	Inner	Outer	Width
90070621	SC 608-2RS Xforce Ceramic ISB	8	22	7
90070235	SC 6800-2RS Xforce Ceramic ISB	10	19	5
90070622	SC 6900-2RS Xforce Ceramic ISB	10	22	6
90070623	SC 6000-2RS Xforce Ceramic ISB	10	26	8
90070624	SC 6200-2RS Xforce Ceramic ISB	10	30	9
90070625	SC 6201-2RS Xforce Ceramic ISB	10	32	10
90070626	SC 6801-2RS Xforce Ceramic ISB	12	21	5
90070627	SC 6901-2RS Xforce Ceramic ISB	12	24	6
90070513	SC 6001-2RS Xforce Ceramic ISB	12	28	8
90070628	SC 6001-2RS HSP Xforce Ceramic ISB	12	28	8
90070243	SC 6802-2RS Xforce Ceramic ISB	15	24	5
90070629	SC 6802-2RS HSP Xforce Ceramic ISB	15	24	5
90070241	SC 6902-2RS Xforce Ceramic ISB	15	28	7
90070630	SC 6202-2RS Xforce Ceramic ISB	15	35	11
90070239	SC 6803-2RS Xforce Ceramic ISB	17	26	5
90070237	SC 6903-2RS Xforce Ceramic ISB	17	30	7
90070631	SC 6804-2RS Xforce Ceramic ISB	20	32	7
90070632	SC 6904-2RS Xforce Ceramic ISB	20	37	9
90070633	SC 6805N-2RS Xforce Ceramic ISB	25	37	6
90070634	SC 6805-2RS Xforce Ceramic ISB	25	37	7
90070245	SC 6806-2RS Xforce Ceramic ISB	30	42	7



WHEEL HUB AND
BOTTOM BRACKET BEARINGS



SUSPENSION
BEARINGS



HEADSET
BEARINGS

SERIES COMPARATIVE: ex. BB-30

The 6806-2RS bottom bracket bearing, also known as BB-30, is one of the best sellers on the market since its measurements 30mm x 42mm x 7mm are one of the most used in cycling designs.

The main structural characteristics of this bearing in the different series in which it is available from the ISB brand are detailed below:



6806-RS/RZ



SS 6806-2RS



SC 6806-2RS



6806-RS Full Ceramic



6806-RS/RZ XForce



SC 6806-2RS XForce Ceramic

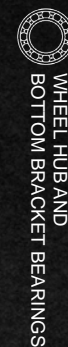
RINGS:	Chrome Steel	Stainless Steel	Stainless Steel	Ceramic	Chrome Steel	Stainless Steel
BALLS:	Chrome Steel	Stainless Steel	Ceramic	Ceramic	Chrome Steel	Ceramic
SEAL:	Rubber RS/RZ	Rubber 2RS	Rubber 2RS	Ceramic	Rubber RS/RZ	Rubber 2RS
LUBRICATION:	Grease	Grease	Grease	Oil	Grease	Grease
COATING:	-	-	-	-	NanoTech	Nanotech





SUSPENSION BEARINGS

VMAX SERIES





SUSPENSION
BEARINGS

VMAX SERIES



WHEEL HUB AND
BOTTOM BRACKET BEARINGS

SUSPENSION
BEARINGS

HEADSET
BEARINGS

FEATURES AND MATERIALS



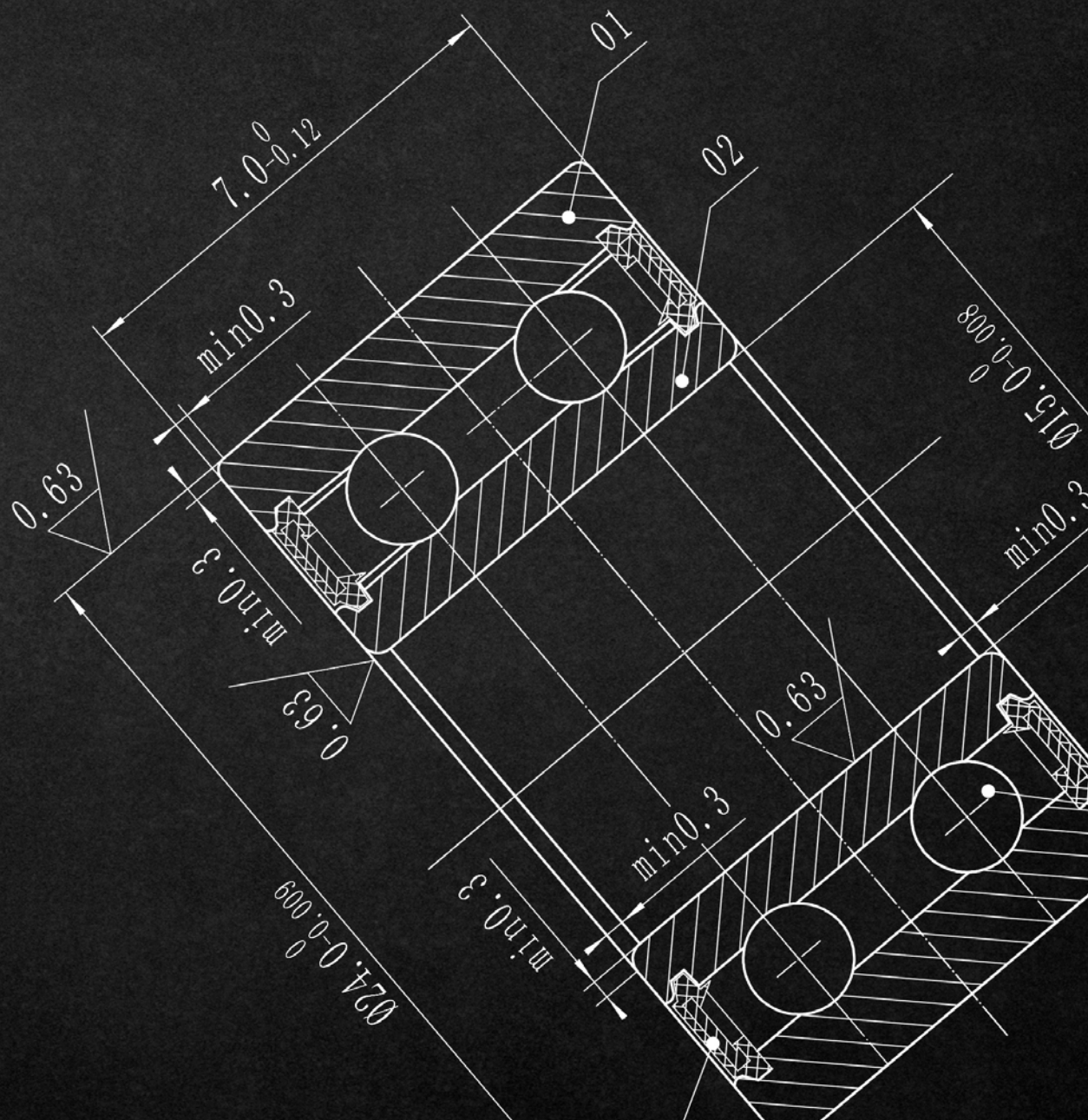
VMAX BEARINGS

For the suspension area, bearings have been developed to support certain levels of load, without involving a significant increase in weight or size. These are the VMax series bearings that have been specially designed for the entire suspension pivots, connecting rod and shock absorber, to withstand tight turns.

Its main characteristic resides in its special “full ball” design, which consists in the elimination of the usual internal cage or retainer that separates the balls and then allows the insertion of the maximum possible number of balls. The race grooves are deeper on these bearings for more lateral support for the twisting and multiple forces associated with suspension pivots, especially mountain bike.

In addition, in these bearings the amount of grease with which they are lubricated is maximized to avoid “the suspension squeaking”. VMax ISB bearings use Mobil XHP-222 grease and fill from 40% (on some double row models) to 80%, depending on bearing measurements.

VMax bearings have up to 35% -40% higher load capacity than ISB’s standard series steel bearings.



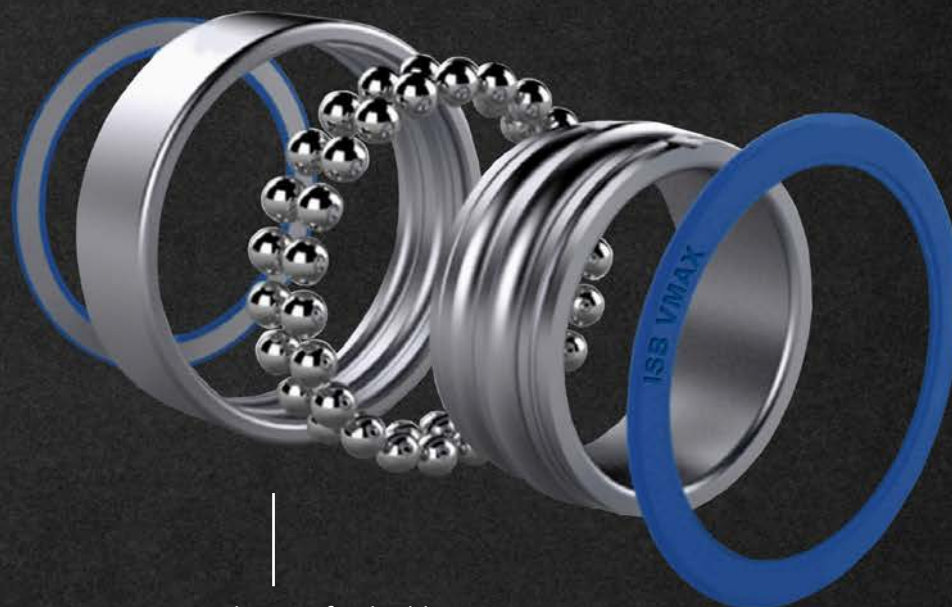


SUSPENSION
BEARINGS

VMAX SERIES



3D design of an standard single row
VMAX bearing



3D design of a double row
VMAX bearing

WHEEL HUB AND
BOTTOM BRACKET BEARINGS

SUSPENSION
BEARINGS

HEADSET
BEARINGS



SUSPENSION
BEARINGS

VMAX SERIES

non caged / max number of balls

Code	Reference	DIMENSIONS (mm)		
		Inner	Outer	Width
13983005	688-2RSC3 VMAX ISB	8	16	5
13983006	688-2RSC3 EVMAX ISB	8	16	5/6,5
13983011	698-2RSC3 VMAX ISB	8	19	6
13983010	698-2RSC3 EVMAX ISB	8	19	6/7,5
13983015	398-2RS EVMAX ISB Dual Row	8	19	10/11
13983000	608-2RSC3 VMAX ISB	8	22	7
13983200	6800-2RSC3 VMAX ISB	10	19	5
13983800	63800-2RSC3 VMAX ISB	10	19	7
13983300	6900-2RSC3 VMAX ISB	10	22	6
13983400	7900-2RSC3 VMAX ISB Contacto Angular	10	22	6
13983100	6000-2RSC3 VMAX ISB	10	26	8
13983205	6801-2RSC3 VMAX ISB	12	21	5
13983305	6901-2RSC3 VMAX ISB	12	24	6
13983405	7901-2RSC3 VMAX ISB Contacto Angular	12	24	6
13983105	6001-2RSC3 VMAX ISB	12	28	8
13983210	6802-2RSC3 VMAX ISB	15	24	5
13983700	3802-2RSC3 VMAX ISB Dual Row	15	24	7
13983310	6902-2RSC3 VMAX ISB	15	28	7
13983410	7902-2RSC3 VMAX ISB Contacto Angular	15	28	7
13983215	6803-2RSC3 VMAX ISB	17	26	5
13983815	63803-2RSC3 VMAX ISB	17	26	7
13983600	17286-2RSC3 VMAX ISB	17	28	6
13983605	17287-2RSC3 VMAX ISB	17	28	7
13983315	6903-2RSC3 VMAX ISB	17	30	7
13983320	6904-2RSC3 VMAX ISB	20	37	9
13983500	MR 215317-2RSC3 VMAX ISB	21.5	31	7
13984115	2153114-2RSC3 VMAX ISB Dual Row	21.5	31	14



WHEEL HUB AND
BOTTOM BRACKET BEARINGS



SUSPENSION
BEARINGS



HEADSET
BEARINGS



SUSPENSION BEARINGS

VMAX SERIES

non caged / max number of balls

		DIMENSIONS (mm)		
Code	Reference	Inner	Outer	Width
13983225	6805-2RSC3 VMAX ISB	25	37	7
13983240	6808-2RSC3 VMAX ISB	40	52	7
13983245	6809-2RSC3 VMAX ISB	45	58	7



HEADSET BEARINGS



WHEEL HUB AND
BOTTOM BRACKET BEARINGS



SUSPENSION
BEARINGS



HEADSET
BEARINGS



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SUSPENSION
BEARINGS

HEADSET
BEARINGS

FEATURES AND MATERIALS



HEADSET BEARINGS

The steering of the bicycle is the mechanism housed between the fork and the frame that in turn houses the bearings that allow the fork tube to rotate, allowing the lateral movement of the front wheel and therefore, the change of direction of the bicycle.

To know what type of bearing to use, it is necessary to know that there are 2 types of directions depending on the way it is attached to the frame and the type of power used.

The named “threaded” and the “non-threaded” (threadless) or ahead where the fork tube is completely smooth, without any thread.

When talking about the different types of ahead directions, reference is made to the different ways of housing the bearings in the frame, depending on how it is built, to the headset pipe

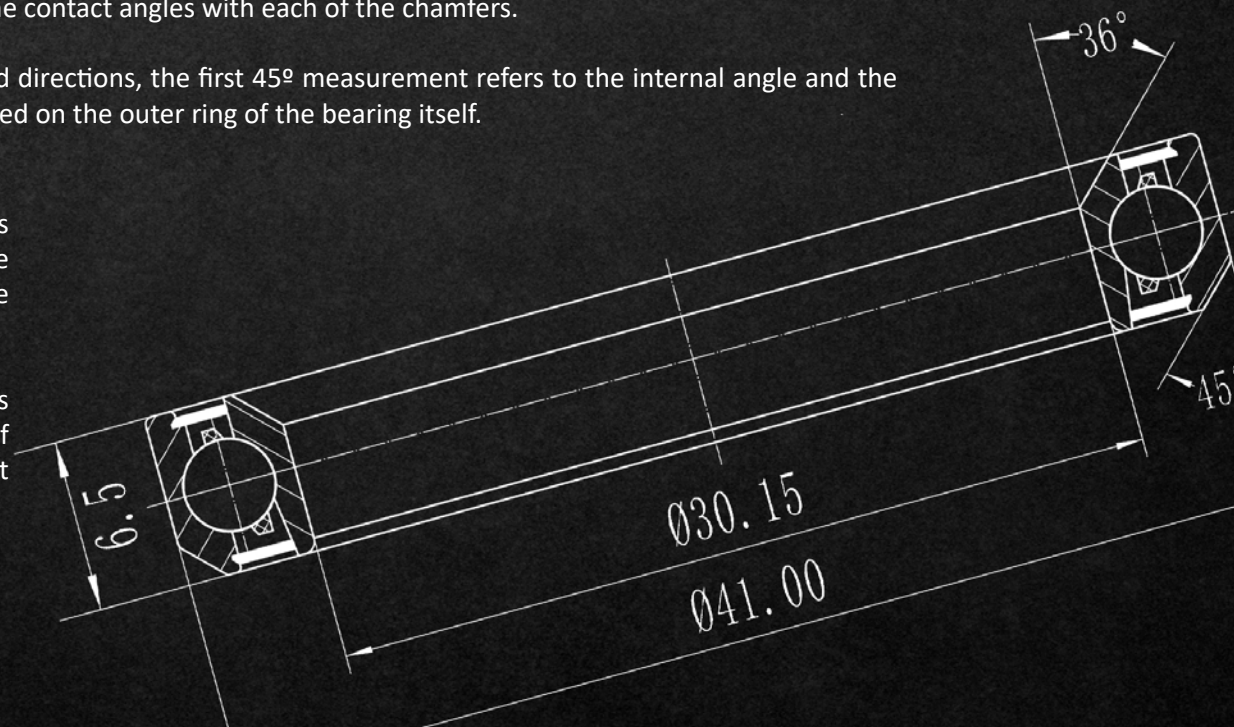
- Conventional directions: in frames without internal space to place the cups in which case the bearings are mounted in the external cups
- Semi-integrated directions: in frames that do allow the steering cups and the bearings to be mounted.
- Integrated directions: in which the bearings are mounted directly, without resorting to the use of cups.

These bearings have a special design different from the conventional one that visibly incorporates slight chamfers both inside and outside, whose measurements are determined by the different angles degrees. Therefore, to choose the most suitable bearings for our headset, it is necessary to take into account the measurements of the inner diameter, the outer diameter, the height and the contact angles with each of the chamfers.

If we take, for example, the ISB 45° / 45° MH-P08 bearings indicated for ahead directions, the first 45° measurement refers to the internal angle and the second 45° to the external angle. In any case, this information is usually engraved on the outer ring of the bearing itself.

Bearings located in these types of directions are usually sealed. This avoids recurring maintenance since the grease remains inside, preventing wear on the balls and extending their useful life. The sealing protects them in addition to the usual pollutants, temperature, dust, humidity, etc ...

Despite the fact that the bicycle market includes a large number of options for different types of directions, the ISB brand offers a wide selection of measurements and contact angles that place it among the favorites of the most demanding specialist workshops.





HEADSET
BEARINGS

DIMENSIONS (mm)

Code	Reference	Inner	Outer	Width	° Grades
13980092	MH-P09H6.3 ISB	27.15	38	6.3	45°/45°
13980040	MH-P04 (TH-870G) ISB	30.15	39	6.5	45°/45°
13980030	MH-P03 ISB	30.15	41	6.5	45°/45°
13980035	MH-P03K (TH-873) ISB	30.15	41	6.5	36°/45°
13980600	MR 345 ISB	30.15	41	6.5	90°/90°
13980080	MH-P08 (ACB418) ISB	30.15	41.8	6.5	45°/45°
13980684	MR 845 ISB	30.15	41.8	6.5	90°/90°
13980081	ACB845H8-2RS ISB	30.15	41.8	8	45°/45°
13980083	MH-P08F (TH-870E) ISB	30.5	41.8	8	45°/45°
13980082	MH-P08H8 (TH-870) ISB	30.5	41.8	8	45°/45°
13980695	MR 136 (ACB418H6) ISB	32.8	41.8	6	45°/45°
13980643	MR 438 ISB	33.05	43.8	7	90°/90°
13980172	MH-P17 ACB468 ISB	34.1	46.8	7	45°/45°
13980170	MH-P22 (ACB469) ISB	34.1	46.9	7	45°/45°
13980700	MR 137 ISB	37	46.9	7	45°/45°
13980720	ACB 3748H7-2RS ISB	37	48	7	45°/90°
13980213	SS MH-P21 ACB3749S ISB	37	49	7	45°/45°
13983900	B543-2RSC3 VMAX ISB	39.7	50.8	7.14	90°/90°
13980400	ACB518K (TH-073) ISB	40	51.8	8	36°/45°
13980651	MR 518H8 ISB	40	51.8	8	90°/90°
13980606	MR 4052H6.5 ISB	40	52	6.5	90°/90°
13980162	MH-P16K ISB	40	52	7	36°/45°
13980160	MH-P16 (TH-070) ISB	40	52	7	45°/45°
13980607	MR 4052H7 ISB	40	52	7	90°/90°
13980161	MH-P16H8 (ACB52) ISB	40	52	8	45°/45°
13980500	T808 ISB	40	52	12	45°/45°



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We design and manufacture our bearings
to optimize and guarantee its performance in each application





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