



CERAMIC BEARING

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// CEMA'S CERAMIC BALLS
ARE USED BY SOME OF
THE BIGGEST BEARING
MANUFACTURERS IN THE WORLD



ROLLING SUCCESS FOR CEMA BEARING WORLDWIDE

A Taiwan manufacturer of high-quality ceramic bearings

What started in 2005 with the idea that ceramic bearing characteristics would increase efficiency and sustainability in industrial process applications has now grown into a company producing bearing components and assembling high-quality ceramic bearings for various industries and cycling.

With years of experience building FULL ceramic and PEEK ceramic bearings for chemical, vacuum and high-temperature environments, improving drivetrain efficiency in cycling became our main focus.

CEMA's SRC (Speed Racing Ceramic) bearing for cycling was born.

Growing numbers in cycling

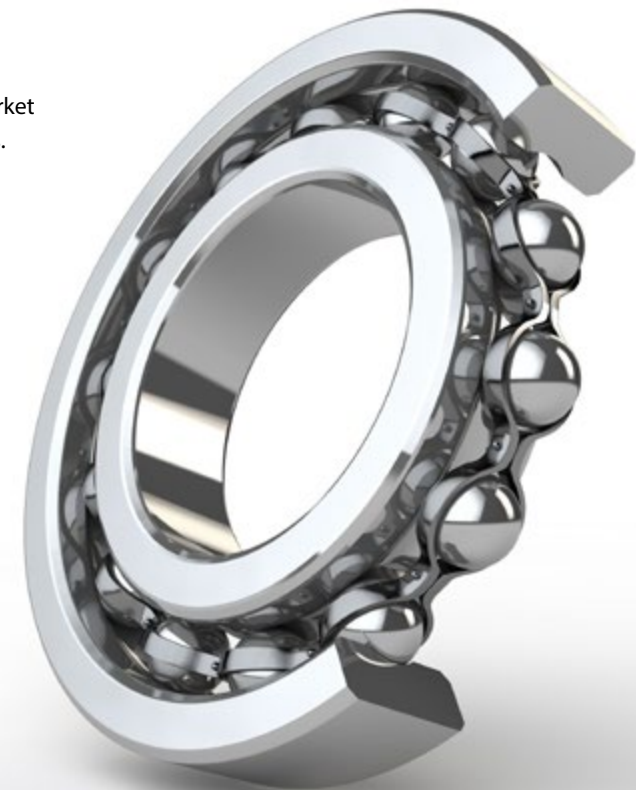
The success of CEMA's SRC bearing in the cycling industry has been growing rapidly. By participating in leading bicycle fairs worldwide, CEMA Bearing managed to increase their distribution network. With a European office in Belgium and distributors worldwide, a growing number of bike shops and cycling enthusiasts are now experiencing the quality of our high-end ceramic bearings made in Taiwan.

Cycling professionals

Our bearings and components are used by various professional cycling teams competing at the highest level of cycling, the UCI World Tour. With wins in the Classics during spring as well as in the big stage races, our bearings have proven its worth! CEMA Bearing takes on the challenge of athletes performing at the highest level and making the highest demand on their equipment!

Markets

CEMA Bearing sells their product range on the aftermarket but also provides their products to OEM manufacturers.



READY FOR HIGH SPEED APPLICATIONS

SRC Ceramic balls

Because of excellent mechanical properties, ceramic balls are often used on high-speed applications, chemical, vacuum or high-temperature environments.

Because of their resistance to corrosion, they work well in low-lubrication applications.

TYPE	DIMENSION	PACKAGING
CB238	3/32" or 2,38 mm	50 OR 100 Pack
CB318	1/8" or 3,18 mm	50 OR 100 Pack
CB397	5/32" or 3,97 mm	50 OR 100 Pack
CB476	3/16" or 4,76 mm	50 OR 100 Pack
CB595	15/64" or 5,95 mm	50 OR 100 Pack
CB635	1/4" or 6,35 mm	50 OR 100 Pack

Production process

Ceramic balls are manufactured in a complex process where CIP formed balls are sintered under high pressure and at high temperature. After the sintering process, balls are shaped and ground to perfect roundness. Because all these processes are highly controlled, CEMA ceramic balls meet all the demands of industrial applications and cycling.

Material properties

Ceramic balls are manufactured in different materials and various dimensions and grades. The intended use of the bearing will determine which type of ceramic material should be used. Because of excellent material properties like hardness and low thermal expansion, we use Si₃N₄ Ceramic balls to build our SRC bearings. Si₃N₄ Ceramic balls are resistant to corrosion.



NEED FOR SPEED CERAMIC BEARINGS

Speed Racing Ceramic

CEMA hybrid ceramic SRC bearings are specially designed for bicycle-related applications and are dedicated to high performance. The high roundness and hardness of the ceramic balls reduce friction and increase the bearings' lifetime.

Bearing components

The combination and quality of components used to build a bearing will determine its performance and lifetime. CEMA made a selection of premium components to produce a bearing which meets all expectations of cycling. A polyamide cage holds the G5 Si₃N₄ Ceramic balls in place between hardened steel rings that are polished to perfection. All bearings have a double-sided seal design to prevent dust and dirt entering the bearing. Excellent low-friction lubrication guarantees a durable and longer lifetime.

Extended product range

Besides a full range of hybrid ceramic bearings, CEMA offers a range of chrome steel bearings for wheels and an all stainless steel bearing for bottom brackets. Except for the ceramic balls, CEMA's steel and stainless steel bearings use components similar to the SRC bearings.



Wheel bearing series



BEARING NO.	ID (MM)	OD (MM)	W (MM)	N/W (G)	BEARING TYPE
608	8	22	7	10.8	⚙️ ⚙️
699	9	20	6	6.8	⚙️ ⚙️
609	9	24	7	12.8	⚙️ ⚙️
9227	9	22	7	10.4	⚙️ ⚙️
R6	9 525	22 225	7 142	9.8	⚙️ ⚙️
6000	10	26	8	17.1	⚙️ ⚙️
6800	10	19	5	5.1	⚙️ ⚙️
6900	10	22	6	8.8	⚙️ ⚙️
6001	12	28	8	18.8	⚙️ ⚙️
6801	12	21	5	5.8	⚙️ ⚙️
6901	12	24	6	10.0	⚙️ ⚙️
6802	15	24	5	6.7	⚙️ ⚙️
6902	15	28	7	15.0	⚙️ ⚙️
15267	15	26	7	11.8	⚙️ ⚙️
15268	15	26	8	13.5	⚙️ ⚙️
6803	17	26	5	7.3	⚙️ ⚙️
6903	17	30	7	15.3	⚙️ ⚙️
17287	17	28	7	12.9	⚙️ ⚙️
18307	18	30	7	16.7	⚙️ ⚙️
6804	20	32	7	16.7	⚙️ ⚙️

⚙️ CERAMIC
⚙️ STEEL

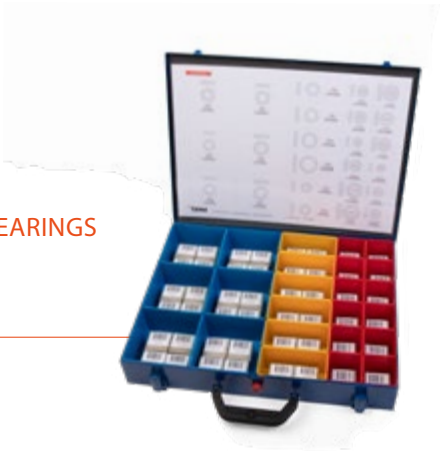
Assorted Box - Wheel bearings

CEMA offers the bicycle shop handy and firm quality workshop boxes filled with the most common used bearings. Every box includes a product sheet and handy compartments for clever bearing management. Convenient to carry out any repair or maintenance, suitable for every professional workshop.

ASSORTED BOX - WHEEL BEARINGS
PROFESSIONAL

Full range wheel bearings

BX005 (chrome steel)



ASSORTED BOX - WHEEL BEARINGS

Common used wheel bearings

BX001 (ceramic) - BX002 (chrome steel)



Headset bearing series



ID (MM)	OD (MM)	W (MM)	ANGULATION	BEARING TYPE	BEARING NO.
27,1	38	6,5	36/45	⚙️	SRC-HS-JS10
27,1	38	6,5	45/45	⚙️	SRC-HS-JS06
30,1	39	6,5	45/45	⚙️	SRC-HS-JS07
30,1	41	6,5	36/45	⚙️	SRC-HS-JS08
30,1	41	6,5	45/45	⚙️	SRC-HS-JS01
30,1	41,8	6,5	45/45	⚙️	SRC-HS-JS09
30,1	44	8	45/45	⚙️	SRC-HS-JS14
30,5	41	7,7	45/45	⚙️	SRC-HS-JS11
30,5	41,8	7,7	45/45	⚙️	SRC-HS-JS13
30,5	41,8	8	45/45	⚙️	SRC-HS-JS02
32,7	41,8	6	45/45	⚙️	SRC-HS-JS12
34,1	46,9	7	45/45	⚙️	SRC-HS-JS05
35	47	8	45/45	⚙️	SRC-HS-JS15
40	51,8	8	36/45	⚙️	SRC-HS-JS16
40	51,8	8	45/45	⚙️	SRC-HS-JS03
40	52	7	36/45	⚙️	SRC-HS-JS17
40	52	7	45/45	⚙️	SRC-HS-JS04

Bottom bracket bearing series



24377	24	37	7	20.8	⚙️ ⚙️ ⚙️
6805	25	37	7	18.8	⚙️ ⚙️ ⚙️
6805Z-N	25	37	6	15.7	⚙️
6806	30	42	7	21.5	⚙️ ⚙️ ⚙️
6810	50	65	7	48.5	⚙️ ⚙️

⚙️ CERAMIC
 ⚙️ STEEL
 ⚙️ STAINLESS STEEL

LINKING BEARINGS TO COMPONENTS

A matching bracket for every frame

A Bottom Bracket is the connection between the crank set and the frame and is one of the most important components of a bicycle's drivetrain. CEMA offers a wide variety of bottom brackets and adapters and is working continuously to extend the range further.

To reduce friction and increase drivetrain performance, CEMA places SRC bearings in CNC machined aluminium cups. For most bottom bracket types, an all stainless steel bearing option is available as well.



CEMA bottom bracket advantages

- Interlock design for Press Fit avoids noise issues and offers extreme rigidity
- Easy to install with an external bottom bracket wrench
- Double O-ring design to prevent water from entering the frame and to create a buffer between the frame and the bottom bracket
- 24 mm bearing ID design to directly transfer pedalling power
- Aluminium seals for easily maintaining bearings and adding grease
- A wide range of 30 to 24 mm adapters
- Compatible to most cranks available in the market
- Equipped with CEMA SRC ceramic or all stainless steel bearings
- Excellent tolerance control, thanks to CNC manufacturing

Interlock design for Press Fit

CEMA Press Fit bottom brackets are designed with an Interlock system to optimise power transfer and avoid noise issues and cracking. Both sides of the Press Fit bracket are threaded together inside the frame. This design will increase rigidity and optimise the power transfer of the rider.

ASSORTED BOX - BOTTOM BRACKETS

Common used bottom brackets & spare parts

BX003 (stainless) - BX004 (ceramic)



INTERLOCK PRESS FIT SERIES



FRAME TYPE	BRACKET WIDTH	FRAME ID	CRANK TYPE	SPINDLE	COLOUR	TYPE	BEARING TYPE
BB86/92	86,5	41	SHIMANO	24	●	BB86CBPR	⚙️ ⚙️
					●	BB86CRPR	⚙️ ⚙️
			SRAM GXP	24/22	●	BB86CBRPR	⚙️ ⚙️
					●	BB86CRRPR	⚙️ ⚙️
	CAMPA UT		25	●	BB8625UB	⚙️	
	92		SHIMANO	24	●	BB86CBPR	⚙️ ⚙️
					●	BB86CRPR	⚙️ ⚙️
			SRAM GXP	24/22	●	BB86CBRPR	⚙️ ⚙️
●		BB86CRRPR			⚙️ ⚙️		

BB30	68/73	42	SHIMANO	24	●	BB3024B	⚙️ ⚙️
					●	BB3024R	⚙️
			SRAM GXP	24/22	●	BB3024BR	⚙️ ⚙️
					●	BB3024RR	⚙️
			PRAXIS M30	28/30	●	BB30386MB	⚙️ ⚙️
			SRAM DUB	29	●	BB30386DB	⚙️ ⚙️
	ROTOR 30		30	●	BB30386B	⚙️ ⚙️	
	68		CAMPA UT	25	●	BB3025UB	⚙️

⚙️ CERAMIC
⚙️ STAINLESS STEEL

BOTTOM BRACKETS

24



FRAME TYPE	BRACKET WIDTH	FRAME ID	CRANK TYPE	SPINDLE	COLOUR	TYPE	BEARING TYPE
PF30	68/73	46	SHIMANO	24	●	PF3024B	⚙️ ⚙️
					●	PF3024R	⚙️
			SRAM GXP	24/22	●	PF3024BR	⚙️ ⚙️
					●	PF3024RR	⚙️
			PRAXIS M30	28/30	●	PF30386MB	⚙️ ⚙️
			SRAM DUB	29	●	PF30386DB	⚙️ ⚙️
			ROTOR 30	30	●	PF30386B	⚙️ ⚙️
	PF30		30	●	PF30B	⚙️ ⚙️	
	68			CAMPA UT	25	●	PF3025UB

24



BB386	86,5	46	SHIMANO	24	●	BB38624B	⚙️ ⚙️
			SRAM GXP	24/22	●	BB38624BR	⚙️ ⚙️
			PRAXIS M30	28/30	●	BB386MB	⚙️ ⚙️
			SRAM DUB	29	●	BB386DB	⚙️ ⚙️
			ROTOR 30	30	●	BB386B	⚙️ ⚙️

24



OSBB	61	46	SHIMANO	24	●	OSPF3024B	⚙️ ⚙️
			SRAM GXP	24/22	●	OSPF3024BR	⚙️ ⚙️

CERAMIC
 STAINLESS STEEL



FRAME TYPE	BRACKET WIDTH	FRAME ID	CRANK TYPE	SPINDLE	COLOUR	TYPE	BEARING TYPE
BBRIGHT BB30	79	42	SHIMANO	24	●	RBB3024BS	⚙️ ⚙️
			SRAM GXP	24/22	●	RBB3024BR	⚙️ ⚙️



BBRIGHT PF30	79	46	SHIMANO	24	●	RPF3024BS	⚙️ ⚙️
			SRAM GXP	24/22	●	RPF3024BR	⚙️ ⚙️



BB30A (Cannondale road)	73	42	SHIMANO	24	●	BB30A24B	⚙️ ⚙️
			SRAM GXP	24/22	●	BB30A24BR	⚙️ ⚙️



PF30A (Cannondale road)	73	46	SHIMANO	24	●	PF30A24B	⚙️ ⚙️
			SRAM GXP	24/22	●	PF30A24BR	⚙️ ⚙️

⚙️ CERAMIC
⚙️ STAINLESS STEEL

PRESS FIT AND DIRECT FIT BEARING SERIES



FRAME TYPE	BRACKET WIDTH	FRAME ID	TYPE	SPINDLE	COLOUR	TYPE	BEARING TYPE
BB86/92	86,5	41	SHIMANO	24	●	86PS	⚙
			SRAM	24/22	●	86PR	⚙
	92		SHIMANO	24	●	86PS	⚙
			SRAM	24/22	●	86PR	⚙



FRAME TYPE	BRACKET WIDTH	FRAME ID	CRANK TYPE	SPINDLE	TYPE	BEARING TYPE
BB30	68	42	BB30	30	BC30	⚙
	73				BS30S	⚙
BB30A CANNONDALE	73				BS30	⚙
BB65	90	65	ZED	50	BC65	⚙
BB86/92	86,5/92	41	PRAXIS M30	28/30	BC86386MB	⚙
					BS86386MB	⚙
			SRAM DUB	29	BC86386DB	⚙
					BS86386DB	⚙
			ROTOR 30	30	BC86386	⚙
					BS86386	⚙
BB90/95	90,5	37	SHIMANO	24	BB90CS	⚙
					BB90SS	⚙
					BB90JS	⚙
	95		SRAM GXP	24/22	BB90CR	⚙
					BB90SR	⚙
					BB90JR	⚙



⚙ CERAMIC
 ⚙ STEEL
 ⚙ STAINLESS STEEL

THREADED SERIES



FRAME TYPE	THREAD TYPE	BRACKET WIDTH	CRANK TYPE	SPINDLE	COLOUR	TYPE	BEARING TYPE
BSA	1.37" X 24	68/73	SHIMANO	24	●	BSA24B	⚙️ ⚙️
					●	BSA24R	⚙️
			SRAM GXP	24/22	●	BSA24BR	⚙️ ⚙️
					●	BSA24RR	⚙️
			PRAXIS M30	28/30	●	BSA386MB	⚙️ ⚙️
			SRAM DUB	29	●	BSA386DB	⚙️ ⚙️
			ROTOR 30	30	●	BSA386B	⚙️ ⚙️
ITA	36 mm x 24 T	70	SHIMANO	24	●	ITA24B	⚙️ ⚙️
			SRAM GXP	24/22	●	ITA24BR	⚙️ ⚙️
			PRAXIS M30	28/30	●	ITA386MB	⚙️ ⚙️
			SRAM DUB	29	●	ITA386DB	⚙️ ⚙️
			ROTOR 30	30	●	ITA386B	⚙️ ⚙️
T45	M45 X 1	82,5	SHIMANO	24	●	T4724B	⚙️ ⚙️
			SRAM GXP	24/22	●	T4724BR	⚙️ ⚙️
T47	M47 X 1	68/73	SHIMANO	24	●	T4724B	⚙️ ⚙️
			SRAM GXP	24/22	●	T4724BR	⚙️ ⚙️
			PRAXIS M30	28/30	●	T47386MB	⚙️ ⚙️
			SRAM DUB	29	●	T47386DB	⚙️ ⚙️
			ROTOR 30	30	●	T47386B	⚙️ ⚙️
		68	CAMPA UT	25	●	T4725UB	⚙️
T47 - TREK	M47 X 1	85,5	SHIMANO	24	●	T4724TB	⚙️ ⚙️
			SRAM GXP	24/22	●	T4724TBR	⚙️ ⚙️
			PRAXIS M30	28/30	●	T47386TMB	⚙️ ⚙️
			SRAM DUB	29	●	T47386TDB	⚙️ ⚙️
			ROTOR 30	30	●	T47386TB	⚙️ ⚙️

⚙️ CERAMIC
⚙️ STAINLESS STEEL

SMALL IN SIZE, BUT OF GREAT IMPORTANCE

Pulley upgrade

Derailleur pulleys play a big role in drivetrain performance. These small wheels have the fastest spinning bearings of a bicycle. No need to say, the quality of the bearing is key to the performance of the pulley.

Near to frictionless

To guarantee the lowest friction possible, we installed the fastest spinning bearing we had available for industrial customers: CEMA's Zr02 Full ceramic bearing. Because Zr02 material properties do not require grease or seals, the bearings can spin freely and are near-frictionless with a lifetime exceeding any other bearing type.

Bearing choice

Besides the Zr02 Full ceramic bearing option, all pulleys are available with our high-quality SRC ceramic bearing or all stainless steel bearing and come with a choice of plastic or aluminium body.

COMPATIBILITY	DISCIPLINE	SPEED	TOOTH PULLEY	MATERIAL	COLOUR	TYPE	BEARING TYPE
SHIMANO	ROAD	9 - 10 - 11	11 - 11	PA66 PLASTIC	●	PR01	⚙️⚙️⚙️
				ALUMINIUM	●	B001	⚙️⚙️⚙️
		●	R001		⚙️⚙️⚙️		
	10 - 11	12 - 14 (OS)	ALUMINIUM	●	B024	⚙️⚙️⚙️	
	MTB	9 - 10 - 11	11 - 11	PA66 PLASTIC	●	PR01	⚙️⚙️⚙️
				ALUMINIUM	●	B001	⚙️⚙️⚙️
					●	R001	⚙️⚙️⚙️
		12	12 - 14	ALUMINIUM	●	B024E	⚙️⚙️⚙️
SRAM	ROAD	9 - 10 - 11	11 - 11	PA66 PLASTIC	●	PR01	⚙️⚙️⚙️
				ALUMINIUM	●	B001	⚙️⚙️⚙️
					●	R001	⚙️⚙️⚙️
	MTB	10 - 11	12 - 12	PA66 PLASTIC	●	PR02	⚙️⚙️⚙️
		12	12 - 14	ALUMINIUM	●	B024E	⚙️⚙️⚙️
CAMPAGNOLO	ROAD	11	11 - 11	PA66 PLASTIC	●	PR01	⚙️⚙️⚙️

⚙️ STAINLESS STEEL
⚙️ CERAMIC
⚙️ FULL CERAMIC



BICYCLE PROFESSIONALS ONLY

Installation and removal

To avoid bearings and components getting damaged during installation, it is essential they are installed carefully using the right tools. CEMA offers cycling professionals a helping hand through a set of professional workshop quality bearing replacement tools.

Only a proper installation and fit of the bearings guarantees optimum performance and longest lifetime.

Professional and durable

All tools come in a high-quality box for protection and easy storage and are an asset for every bicycle mechanic.



BOTTOM BRACKET
REPLACEMENT
TOOL B006D

Removal and installation
of BB30/BB86/
BB386/PF30/BB90



BEARING PULLER B004
Removal of wheel bearings



HUB BEARING PRESS B008
Installation of wheel bearings



Want to become a dealer or distributor
or just need more information?
Get in touch with us!

Middenweg 8 - Unit 10 • B-3930 Hamont - Achel
T +32 (0) 11 64 71 81
info@cemabearing.eu • www.cemabearing.eu

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