



MBA

2018

Precision Miniature Bearings

MBA are distributors for many types of bearings. One major range of bearings offered by MBA is the "Miniature Precision Bearings" range manufactured by **myonic**. World leaders in the miniature precision bearing industry, **myonic** forms the cornerstone of the range offered by MBA.

The chart inside this brochure is a general conversion for the basic bearing number offered by competitors, however there are many qualities that must also be defined when ordering miniature precision bearings. These extra aspects of the bearing are defined by the addition of suffixes, too many to list here. A full suffix conversion sheet can be provided as a pdf file on request.

myonic Bearings for Severe Conditions

The extreme conditions of the aviation and aerospace industries, including meticulous documentation and traceability of all component and production steps, are understood and implemented by **myonic**...

- extreme temperatures
- long standby periods
- low friction torque
- optimized stiffness
- rapid acceleration
- vacuum conditions
- vibrations

Bearing Applications in Aerospace and Defence

- fuel control systems
- gyroscopic and navigation instruments
- air conditioning and fans
- mechanical systems for satellites
- cooling systems and cryotechnologies
- measuring equipment on space stations
- space and combat missile aiming systems
- night vision systems
- optical equipment
- infrared seekers
- actuators



Bearing Applications in Dental, Medical and High Tech Industrial

- bearings and complete turbine assemblies for dental handpieces
- x-ray diagnostics & computer tomography
- machine tool spindles
- high precision electric motors
- turbo molecular pumps
- optical systems

Miniature Bearings Cross Reference

Imperial Sizes (Basic Part Number)

NHBB	NMB	MPB (Timken)	BARDEN	myonic (RMB)	Old NHBB	MBA
SSRI-2	DDRI-2	S2C	SR0-9	UL1304X	SR09	SR09
SSRI-2 1/2	DDRI-2 1/2	S2 1/2C	SR0	UL1505X	SR0	SR0
SSRI-2 1/2ZZ	DDRI-2 1/2ZZ	S2 1/2CHH	SR0SS	ULZ1505X	SR0PP	SR0A-ZZ
SSRI-3	DDRI-3	S3C	SR1	R1706X	SR1	SR1
SSRI-3ZZ	DDRI-3ZZ	S3CHH	SR1SS	RF1706X	SR1PP	SR1B-ZZ
SSRI-4	DDRI-4	S4C	SR1-4	R2508X	SR1-4	SR1-4
SSRI-4ZZ	DDRI-4ZZ	S4CHH	SR1-4SS	RF2508X	SR1-4PP	SR1-4B-ZZ
SSRI-3332	DDRI-3332	S3332C	SR133	UL3006X	SR133	SR133
SSRI-3332ZZ	DDRI-3332ZZ	S3332CHH	SR133SS	ULZ3006X	SR133PP	SR133A-ZZ
SSRI-5	DDRI-5	S5C	SR1-5	R3010X	SR1-5	SR1-5
SSRI-5ZZ	DDRI-5ZZ	S5CHH	SR1-5SS	RF3010X	SR1-5PP	SR1-5A-ZZ
SSRI-418	DDRI-418	S418C	SR144	UL4008X	SR144	SR144
SSRI-418ZZ	DDRI-418ZZ	S418CHH	SR144SS	ULZ4008X	SR144PP	SR144A-ZZ
SSRI-518	DDRI-518	S518C	SR2-5	R4010X	SR2-5	SR2-5
SSRI-518ZZ	DDRI-518ZZ	S518CHH	SR2-5SS	RF4010X	SR2-5PP	SR2-5A-ZZ
SSRI-618	DDRI-618	S618C	SR2-6		SR2-6	SR2-6
SSRI-618ZZ	DDRI-618ZZ	S618CHH	SR2-6SS		SR2-6PP	SR2-6A-ZZ
SSR-2	DDR-2	SR2C	SR2	R4012X	SR2	SR2
SSR-2ZZ	DDR-2ZZ	SR2CHH	SR2SS	RF4012X	SR2PP	SR2-ZZ
SSR-2A	DDR-2A	SR2AC	SR2A		SR2A	SR2-8A
SSR-2ZZA	DDR-2ZZA	SR2ACHH			SR2APP	SR2-8A-ZZ
SSRI-5532	DDRI-5532	S5532C	SR155	UL5010X	SR155	SR155
SSRI-5532ZZ	DDRI-5532ZZ	S5532CHH	SR155SS	UL5010Z	SR155PP	SR155A-ZZ
SSRI-5632	DDRI-5632	S5632C	SR156	UL6010X	SR156	SR156
SSRI-5632ZZ	DDRI-5632ZZ	S5632CHH	SR156SS	ULZ6010X	SR156PP	SR156A-ZZ
SSRI-6632	DDRI-6632	S6316C	SR166	UL6012X	SR166	SR166
SSRI-6632ZZ	DDRI-6632ZZ	S6316CHH	SR166SS	ULZ6012X	SR166PP	SR166-ZZ
SSR-3	DDR-3	SR3R	SR3	R6016X	SR3	SR3
SSR-3ZZ	DDR-3ZZ	SR3RHH	SR3SS	RF6016X	SR3PP	SR3C-ZZ
SSRI-614	DDRI-614	S614C	SR168	UL8012X	SR168	SR168
SSRI-614ZZ	DDRI-614ZZ	S614CHH	SR168SS	ULZ8012X	SR168PP	SR168-ZZ
SSRI-814	DDRI-814	S814C	SR188	UL8016X	SR188	SR188
SSRI-814ZZ	DDRI-814ZZ	S814CHH	SR188SS	ULZ8016X	SR188PP	SR188A-ZZ
SSR-4	DDR-4	SR4C	SR4	R8020X	SR4	SR4
SSR-4ZZ	DDR-4ZZ	SR4CHH	SR4SS	RF8020X	SR4PP	SR4-ZZ
SSRI-1214	DDRI-1214	SR4AR		SR4A	SR4AD	SR4-12A
SSRI-1214ZZ	DDRI-1214ZZ	SR4ARHH	SR4ASS		SR4APPD	SR4-12B-ZZ
SSRI-8516	DDRI-8516	S8516R	SR1810		SR1810	SR1810
SSRI-8516ZZ	DDRI-8516ZZ	S8516RHH	SR1810SS		SR1810PP	SR1810-ZZ
SSRI-1438	DDRI-1438	SR6R	SR6		SR6D	SR6
SSRI-1438ZZ	DDRI-1438ZZ	SR6RHH	SR6SS		SR6PPD	SR6A-ZZ
SSRI-1812	DDRI-1812	SR8R	SR8		SR8D	SR8
SSRI-1812ZZ	DDRI-1812ZZ	SR8RHH	SR8SS		SR8PPD	SR8A-ZZ
SSRIF-2	DDRIF-2	S2FC	SFR09	ULK1304X	SFR09	SFR09
SSRIF-2 1/2	DDRIF-2 1/2	S2 1/2FC	SFR0	ULK1505X	SFR0	SFR0
SSRIF-2 1/2ZZ	DDRIF-2 1/2ZZ	S2 1/2FCHH	SFR0SS	ULKZ1505X	SFR0PP	SFR0A-ZZ
SSRF-3	DDRIF-3	S3FC	SFR1	RK1706X	SFR1	SFR1
SSRF-3ZZ	DDRIF-3ZZ	S3FCHH	SFR1SS	RKF1706X	SFR1PP	SFR1B-ZZ
SSRIF-4	DDRIF-4	S4FC	SFR1-4	RK2508X	SFR1-4	SFR1-4
SSRIF-4ZZ	DDRIF-4ZZ	S4FCHH	SFR1-4SS	RKF2508X	SFR1-4PP	SFR1-4B-ZZ
SSRIF-3332	DDRIF-3332	S3332FC	SFR133	ULK3006X	SFR133	SFR133
SSRIF-3332ZZ	DDRIF-3332ZZ	S3332FCHH	SFR133SS	ULKZ3006X	SFR133PP	SFR133A-ZZ
SSRIF-5	DDRIF-5	S5FC	SFR1-5	RK3010X	SFR1-5	SFR1-5
SSRIF-5ZZ	DDRIF-5ZZ	S5FCHH	SFR1-5SS	RKF3010X	SFR1-5PP	SFR1-5A-ZZ
SSRIF-418	DDRIF-418	S418FC	SFR144	ULK4008X	SFR144	SFR144
SSRIF-418ZZ	DDRIF-418ZZ	S418FCHH	SFR144SS	ULKZ4008X	SFR144PP	SFR144A-ZZ
SSRIF-518	DDRIF-518	S518FC	SFR2-5	RK4010X	SFR2-5	SFR2-5
SSRIF-518ZZ	DDRIF-518ZZ	S518FCHH	SFR2-5SS	RKF4010X	SFR2-5PP	SFR2-5A-ZZ
SSRIF-618	DDRIF-618	S618FC	SFR2-6		SFR2-6	SFR2-6

NHBB	NMB	MPB (Timken)	BARDEN	myonic (RMB)	Old NHBB	MBA
SSRIF-618ZZ	DDRIF-618ZZ	S618FCHH	SFR2-6SS		SFR2-6PP	SFR2-6A-ZZ
SSRF-2	DDRIF-2	SR2FC	SFR2	RK4012X	SFR2	SFR2
SSRF-2ZZ	DDRIF-2ZZ	SR2FCHH	SFR2SS	RKF4012X	SFR2PP	SFR2-ZZ
SSRIF-5532	DDRIF-5532	S5532FC	SFR155	ULK5010X	SFR155	SFR155
SSRIF-5532ZZ	DDRIF-5532ZZ	S5532FCHH	SFR155SS	ULKZ5010X	SFR155PP	SFR155A-ZZ
SSRIF-5632	DDRIF-5632	S5632FC	SFR156	ULK6010X	SFR156	SFR156
SSRIF-5632ZZ	DDRIF-5632ZZ	S5632CHH	SFR156SS	ULKZ6010X	SFR156PP	SFR156A-ZZ
SSRIF-6632	DDRIF-6632	S6316FC	SFR166	ULK6012X	SFR166	SFR166
SSRIF-6632ZZ	DDRIF-6632ZZ	S6316FCHH	SFR166SS	ULKZ6012X	SFR166PP	SFR166-ZZ
SSRF-3	DDRIF-3	SR3FC	SFR3X3		SFR3C	SFR3
SSRF-3ZZ	DDRIF-3ZZ	SR3FCHH	SFR3SS	RKF6016X	SFR3PP	SFR3C-ZZ
SSRIF-614	DDRIF-614	S614FC	SFR168	ULK8012X	SFR168	SFR168
SSRIF-614ZZ	DDRIF-614ZZ	S614FCHH	SFR168SS	ULKZ8012X	SFR168PP	SFR168-ZZ
SSRIF-814	DDRIF-814	S814FC	SFR188	ULK8016X	SFR188	SFR188
SSRIF-814ZZ	DDRIF-814ZZ	S814FCHH	SFR188SS	ULKZ8016X	SFR188PP	SFR188A-ZZ
SSRF-4	DDRIF-4	SR4FC	SFR4	RK8020X	SFR4	SFR4
SSRF-4ZZ	DDRIF-4ZZ	SR4FCHH	SFR4SS	RKF8020X	SFR4PP	SFR4-ZZ
SSRIF-8516	DDRIF-8516	S8516FC	SFR1810		SFR1810	SFR1810
SSRIF-8516ZZ	DDRIF-8516ZZ	S8516FCHH	SFR1810SS		SFR1810PP	SFR1810-ZZ
SSRIF-1438	DDRIF-1438		SFR6X5		SFR6DC	SFR6
SSRIF-1438ZZ	DDRIF-1438ZZ	SR6FRHH	SFR6SS		SFR6PPD	SFR6A-ZZ

Customised Properties

High precision miniature bearings are used in a variety of specialised applications. This means that **myonic** bearings can be custom ordered to suit your application. Some typical modifications include...

- Radial clearance (reduced or increased)
- Axial clearance (reduced or increased)
- Special lubricants
- High precision grades including ISO P4, P5, ABEC 9, ABEC 7 and ABEC 5
- Tolerance matched batches



myonic optimyn Dental Bearings – Available on Special Order

Bearings for Dental Instruments

A dental instrument is one of the most demanding applications for a ball bearing. Not only the mechanical but also the environmental stresses contribute to the challenge.

- speeds up to 500.000 rpm
- sterilization, e.g. autoclave or thermal disinfection
- cleaning solutions

optimyn – Uncompromising Reliability at a Competitive Price

The optimyn brand of dental handpiece replacement bearings eliminates the compromise between quality and price by introducing a new line of standardized replacement bearings that cover most common dental applications.

Dental repair businesses face a constant challenge of satisfying the performance requirements of the end use customer, the dentist, while remaining competitive in a price-sensitive market. As a result, many aftermarket customers have been reluctant to buy high quality bearings from market leaders like myonic and our sister company, NHBB, opting instead for lower quality solutions.

Now, there's no need to look past the market leaders for cost-effective aftermarket bearings. The optimyn product line satisfies the need for a reliable solution at a lower price point by combining component standardization with high volume production resources available through MinebeaMitumi, the world's leading vertically integrated manufacturer of miniature precision ball bearings. It's the kind of solution that only market leaders with a global manufacturing footprint can deliver.



optimyn Product Line



bore size	Ø3,175 mm .125"								
OD size	Ø6,35 mm .25" - 418							Ø7,938 mm .3125" - 518	
width	2,381 mm .0937" - narrow	2,778 mm .1094" - wide			2,381/2,778 mm .0937/.1094" - narrow		3,572 mm .1406"		
comment	straight	stepped	straight	stepped	standard flange Ø7,518mm .296"	unique flange Ø7,518mm .296"	straight extended inner ring	stepped extended inner ring	straight bigger size
basic	418NA	418NAS	418WI	418WIS	418WIF	418WIFU	418NAE	418NASE	518

OPTIMYN - 418 WI F - CER - PHE - single

Reference example shows a wide flanged bearing with ceramic balls, phenolic retainer and single packaging.

