

AQUALUBE

RANGE OF NITRILE RUBBER BEARINGS

Our Product:

The Aqualube range of rubber sleeved bearings are designed for marine and industrial applications. The Bearings feature a specially formulated nitrile rubber which offers outstanding resistance to abrasion and wear.

Michigan Wheel USA's comprehensive range of standard brass shell bearings, with tolerances suited for American shaft and strut standards, will be stocked in shaft diameter sizes 1" through 10".

Principle of Operation:

Rubber and water make the perfect combination for a bearing material and a lubricant. The natural resilience of rubber gives the bearing its shock, vibration and noise absorption properties.

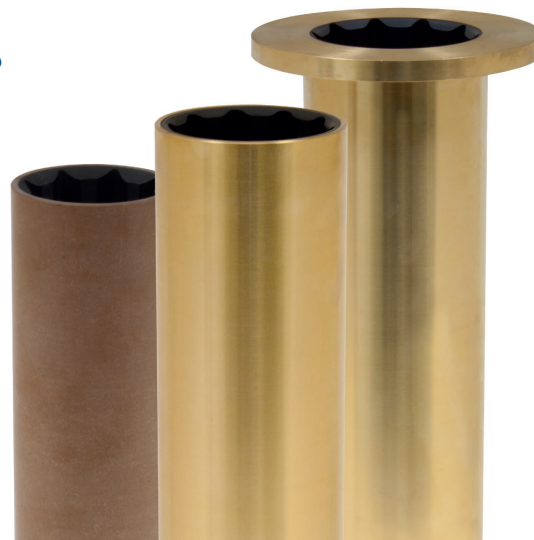
The unique shape of the Aqualube bearing strips allow a hydrodynamic water wedge to form between shaft and bearing, even at low shaft speeds.

We can also quote, upon request, an expanded range of bearings including:

- Sizes for shafting up to 10" in diameter.
- Metric sizes from 20mm through 260mm.
- Flanged, non-metallic (phenolic) shelled, and spiral fluted bearings.

Inquiries for the above are welcomed.

Water is the perfect lubrication medium, particularly for marine craft. When the water enters the bearing through the longitudinal grooves it moves radially between the propeller shaft and the bearing face in a thin film. Once this film, or wedge, has developed, the shaft will not come into contact with the bearing.

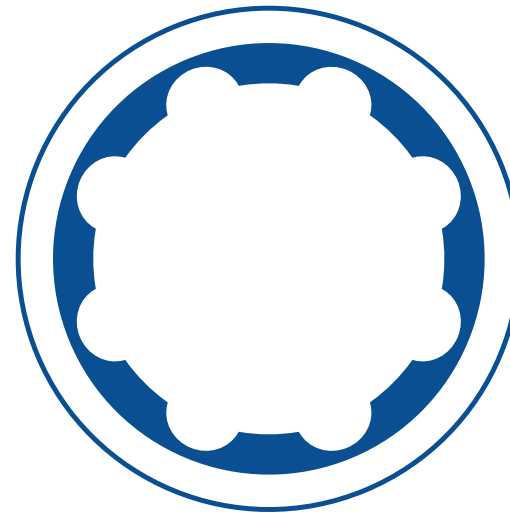


Why choose the Michigan AQUALUBE?

- [CONSISTENT HIGH QUALITY](#)
- [HIGH RESISTANCE TO ABRASION](#)
- [HIGH GRADE MATERIALS](#)
- [HYDRODYNAMIC WEDGE FORMATION](#)
- [ENGINEERING EXCELLENCE](#)
- [LARGE WAREHOUSE INVENTORY](#)
- [100% INSPECTION PROCEDURE](#)

AQUALUBE

HIGH PERFORMANCE WATER LUBRICATED BEARINGS



MICHIGAN WHEEL MARINE – EUROPE

Decoy Industrial Estate Silverhills Rd
 Newton Abbot TQ12 5ND
 United Kingdom
 Tel: + 44 1626 351723 Fax: +44 1626 351724
 E-mail: admin@miwheel-europe.com
www.miwheel-europe.com

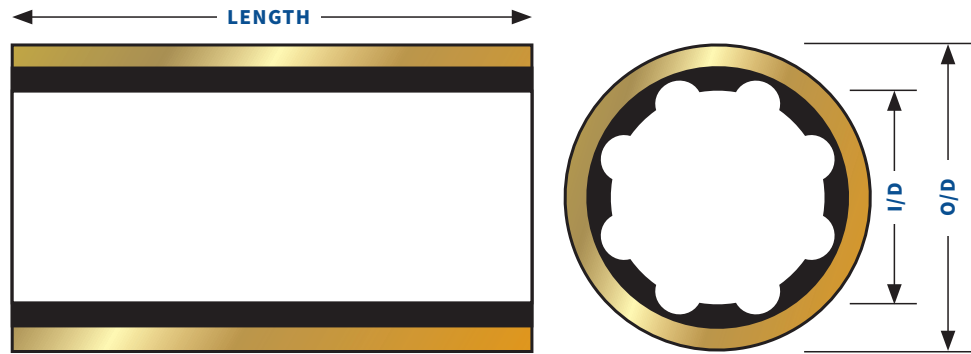


HIGH PERFORMANCE WATER LUBRICATED BEARINGS

Construction of AQUALUBE Bearings:

Aqualube bearings are molded from a specially compounded oil and chemical resistant nitrile rubber. The nitrile rubber demonstrates an excellent resistance to wear and abrasion and is also tough and durable. Bonding techniques developed by Michigan Wheel ensure that the strength of the bond to the shell is at least equal to the strength of the rubber itself.

The finished product has a smooth, shiny surface to the rubber lining which, when compared with similar products on the market, provides visual testament to the quality of the bearing. Aqualube bearing shells are manufactured from either centrifugally cast superior marine bronze or non-metallic (phenolic) material. Aqualube bearings can be supplied with integral cast flanges.



Abrasion Resistance:

The unique shape of the Aqualube bearing gives it an excellent resistance to abrasion. This helps to reduce wear on the bearing surfaces in environments where sand and other abrasive particles are held in suspension, as found in shallow water. The bearing is designed to let these abrasive particles pass over its surface and into the grooves where it is flushed out by the water feed pressure. This system prevents the particles from getting embedded into the bearing surface and causing severe wear on the propeller shaft.

Lubrication - Wear and Durability:

All types of water lubricated rubber bearings will eventually experience wear in service, even bearings operating in clean water. It is recommended that bearings should be inspected for wear whenever the vessel is hauled for storage or service. In cases where the bearing is operating in shallow water an annual inspection is recommended. Bearings fitted to struts and completely immersed pump bearings have adequate lubrication. However, where bearings are installed in a position where the water flow is marginal, they should be lubricated by a forced water flow system. This also applies to bearings which have to cope with low shaft speed and high loads.

Shaft Speed:

The minimum to maximum operating speed of an Aqualube bearing is in the range of 100 - 6,900 feet per minute (0.5 - 35 meters per second). For applications outside these parameters the Michigan Wheel technical department should be consulted as special provision for lubrication may be required.

Load and Deflection:

Aqualube water lubricated bearings have a Shore hardness of 70±3 and are suitable for operation in a temperature range of -13°F to 185°F (-25°C to 85°C). For temperatures above 86°F (30°C) bearing to shaft clearances may need to be adjusted. The load which can be carried by an Aqualube bearing is dependent upon the quality of the lubricating water, shaft tolerance and deflection of the shaft. A normal working load of 36 psi (2.5kgs/cm2) is acceptable.

Inspection:

Prior to shipping each bearing is subject to a 100% inspection procedure. Bearings are thoroughly inspected for dimensional accuracy, rubber hardness and integrity of bond between rubber and shell.

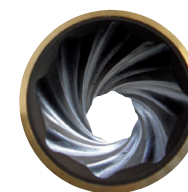
IMPERIAL SERIES

IMPERIAL BEARINGS

IMPERIAL BRASS & PHENOLIC					IMPERIAL BRASS & PHENOLIC				
BRASS PART NUMBER	PHENOLIC PART NUMBER	ID	OD	LENGTH	BRASS PART NUMBER	PHENOLIC PART NUMBER	ID	OD	LENGTH
907501	961020	3/4"	1-1/4"	3"	932501	962720	3-1/4"	4"	13"
908751	961060	7/8"	1-1/4"	3-1/2"	932502	962740	3-1/4"	4-1/4"	13"
908752	961070	7/8"	1-3/8"	3-1/2"	933750		3-3/8"	4-1/8"	13-1/2"
908753	961080	7/8"	1-1/2"	3-1/2"	933751	962780	3-3/8"	4-1/2"	13-1/2"
910001	961102	1"	1-1/4"	4"	935001	962820	3-1/2"	4-1/4"	14"
910002	961110	1"	1-3/8"	4"	935002	962840	3-1/2"	4-1/2"	14"
910003	961120	1"	1-1/2"	4"	935005		3-1/2"	5"	15"
910004	961130	1"	1-5/8"	4"	936251	962880	3-5/8"	4-1/2"	14-1/2"
910005	961150	1"	2"	4"	937501	962920	3-3/4"	4-1/2"	15"
910008		1"	1-1/4"	6"	937502	962940	3-3/4"	5"	15"
911251	961300	1-1/8"	1-1/2"	4-1/2"	937504	962960	3-3/4"	5-1/4"	15"
911252	961320	1-1/8"	1-5/8"	4-1/2"	938751	962980	3-7/8"	5-1/4"	15-1/2"
911253	961340	1-1/8"	1-3/4"	4-1/2"	940001	963020	4"	5"	16"
911254	961360	1-1/8"	2"	4-1/2"		963030	4"	5"	16-1/4"
912501	961500	1-1/4"	1-1/2"	5"	940002	963040	4"	5-1/4"	16"
912502	961520	1-1/4"	1-5/8"	5"	941251	963060	4-1/8"	5-1/4"	16-1/2"
912503	961540	1-1/4"	1-3/4"	5"	942501	963080	4-1/4"	5-1/2"	17"
912505	961560	1-1/4"	2"	5"	943750		4-3/8"	5-1/2"	17-1/2"
912507	961580	1-1/4"	2-1/8"	5"	943751	963100	4-3/8"	5-3/4"	17-1/2"
913751	961700	1-3/8"	1-7/8"	5-1/2"	945002	963120	4-1/2"	5-1/2"	18"
913752	961720	1-3/8"	2"	5-1/2"	945003		4-1/2"	5-5/8"	18"
913754	961740	1-3/8"	2-1/8"	5-1/2"	945004	963140	4-1/2"	5-3/4"	18"
913756	961760	1-3/8"	2-3/8"	5-1/2"	946251	963180	4-5/8"	6-1/8"	18-1/2"
915001	961800	1-1/2"	2"	6"	947500		4-3/4"	6"	19"
915004	961820	1-1/2"	2-3/8"	6"	947501	963200	4-3/4"	6-1/8"	19"
916251	961860	1-5/8"	2-1/8"	6-1/2"	948751	963220	4-7/8"	6-1/8"	19-1/2"
916255	961870	1-5/8"	2-5/8"	6-1/2"	950001	963320	5"	6-1/8"	20"
917501	961900	1-3/4"	2-3/8"	7"	950002	963340	5"	6-1/2"	20"
917502	961920	1-3/4"	2-5/8"	7"	950004		5"	6-1/4"	20"
917503	961940	1-3/4"	2-1/2"	7"	952501	963360	5-1/4"	6-3/4"	21"
918251	961960	1-7/8"	2-5/8"	7-1/2"	952502	963370	5-1/4"	7"	21"
918252	961970	1-7/8"	2-15/16"	7-1/2"		963400	5-3/8"	6-3/4"	21-1/2"
920001	962000	2"	2-5/8"	8"	953752		5-3/8"	7"	22"
920002	962010	2"	2-3/4"	8"	953753	963410	5-3/8"	7"	21-1/2"
920003	962020	2"	3"	8"	955001	963420	5-1/2"	7"	22"
921250	962060	2-1/8"	2-3/4"	8-1/2"	955003	963440	5-1/2"	7-1/4"	22"
921252	962070	2-1/8"	2-15/16"	8-1/2"	956251	963500	5-5/8"	7"	22-1/2"
921253		2-1/8"	3"	8-1/2"	957501	963620	5-3/4"	7"	23"
921254		2-1/8"	3-1/8"	8-1/2"	958751	963660	5-7/8"	7-1/2"	24"
922501	962100	2-1/4"	2-15/16"	9"	960001	963720	6"	7-1/2"	24"
922502	962120	2-1/4"	3"	9"	960008		6"	7-3/4"	24-1/2"
922503	962140	2-1/4"	3-1/8"	9"	960022		6-1/4"	8"	25"
922505	962160	2-1/4"	3-3/8"	9"	965000		6-1/2"	8-3/8"	26"
923751		2-3/8"	3"	9-1/2"	965001		6-1/2"	8-3/8"	30"
923752		2-3/8"	3-1/8"	9-1/2"	960062		7"	9-1/8"	13-3/4"
923753		2-3/8"	3-1/4"	9-1/2"	960066		7"	9-1/8"	26-3/8"
923754	962220	2-3/8"	3-3/8"	9-1/2"					
925001		2-1/2"	3"	10"					
925002	962320	2-1/2"	3-1/8"	10"					
925003	962330	2-1/2"	3-1/4"	10"					
925004	962340	2-1/2"	3-3/8"	10"					
925005	962350	2-1/2"	3-1/2"	10"					
926252	962420	2-5/8"	3-3/8"	10-1/2"					
926254		2-5/8"	3-1/2"	10-1/2"					
927501	962520	2-3/4"	3-3/8"	11"					
927502	962530	2-3/4"	3-1/2"	11"					
927503	962540	2-3/4"	3-3/4"	11"					
927700	962580	2-7/8"	3-1/2"	11-1/2"					
927701		2-7/8"	3-3/4"	11-1/2"					
930001	962620	3"	3-3/4"	12"					
930002	962640	3"	4"	12"					
931251	962680	3-1/8"	4-1/4"	12-1/2"					
931002		3-1/8"	4-1/2"	12-1/2"					

AVAILABLE FOR SPECIAL ORDER

Above is a list of our standard range of sizes, if you require a custom built size not shown, please inquire.



AQUALUBE SPIRAL BEARINGS
available for order.

METRIC SERIES

METRIC BEARINGS

METRIC BRASS & PHENOLIC					METRIC BRASS & PHENOLIC				
BRASS PART NUMBER	PHENOLIC PART NUMBER	ID	OD	LENGTH	BRASS PART NUMBER	PHENOLIC PART NUMBER	ID	OD	LENGTH
915008		1-1/2"	55MM	102MM	AMB070	AMNM070	70MM	90MM	280MM
915009		1-1/2"	55MM	6"		AMNM075	75MM	95MM	300MM
957490		5-3/4"	175MM	23"	AMB075B		75MM	96MM	300MM
AMBO25A		25MM	35MM	100MM		AMNM075A	75MM	100MM	300MM
AMB025	AMNM025	25MM	40MM	100MM	AMB075C		75MM	110MM	300MM
AMB028	AMNM028	28MM	42MM	112MM	AMIB075		75MM	4"	300MM
AMB030A	AMNM030A	30MM	40MM	120MM	AMB075		75MM	95MM	300MM
AMB030	AMNM030	30MM	45MM	120MM	AMB080	AMNM080	80MM	100MM	320MM
AMB032	AMNM032	32MM	45MM	128MM	AMIB080		80MM	4"	320MM
AMIB035		35MM	1-7/8"	140MM	AMB085	AMNM085	85MM	105MM	340MM
AMB035	AMNM035	35MM	50MM	140MM	AMIB085		85MM	4-1/2"	340MM
	AMNM035B	35MM	55MM	140MM	AMIB090	AMNM090	90MM	110MM	360MM
AMB038	AMNM038	38MM	55MM	152MM	AMB090C	AMNM090C	90MM	115MM	360MM
AMIB040		40MM	2-1/8"	160MM	AMIB090		90MM	4-1/2"	360MM
	AMNM040A	40MM	50MM	160MM	AMB095	AMNM095	95MM	115MM	380MM
AMB040	AMNM040	40MM	55MM	160MM	AMB095B		95MM	120MM	380MM
AMIB045		45MM	2-3/8"	180MM	AMB100	AMNM100	100MM	125MM	400MM
AMB045	AMNM045	45MM	65MM	180MM	AMIB100		100MM	5-1/4"	400MM
AMB050		50MM	2-5/8"	200MM	AMB105	AMNM105	105MM	130MM	420MM
AMB050B		50MM	65MM	200MM	AMB110	AMNM110	110MM	135MM	440MM
AMB050	AMNM050	50MM	70MM	200MM	AMB115A		115MM	140MM	460MM
AMIB055		55MM	3"	220MM	AMB115	AMNM115	115MM	145MM	460MM
AMB055B		55MM	73MM	220MM	AMB120A	AMNM120A	120MM	155MM	480MM
AMB055	AMNM055	55MM	75MM	220MM	AMB130	AMNM130	130MM	170MM	520MM
AMIB060A		60MM	3"	240MM	AMB135		135MM	175MM	540MM
AMIB060	AMINM060	60MM	3-1/4"	240MM	AMB140	AMNM140	140MM	180MM	560MM
AMB060	AMNM060	60MM	80MM	240MM	AMB170E		170MM	210MM	680MM
AMB060B		60MM	85MM	240MM	AMB170D		170MM	213.9MM	680MM
AMIB065B		65MM	3-3/8"	260MM	AMB170C		170MM	214.1MM	680MM
AMB065	AMNM065	65MM	85MM	260MM	AMB170B		170MM	218.6MM	680MM
AMIB070A		70MM	3-3/4"	11"	AMB170A		170MM	218.7MM	680MM

BRASS FLANGED BEARINGS

IMPERIAL BRASS FLANGED					IMPERIAL BRASS FLANGED						
PART NUMBER	ID	OD	LENGTH	FLANGE SIZE		PART NUMBER	ID	OD	LENGTH	FLANGE SIZE	
				DIAMETER	THICKNESS					DIAMETER	THICKNESS
650610	3-3/4"	5"	15"	7-3/4"	1/2"	957506	7"	9-1/8"	25-1/2"	11-5/8"	9/16"
935006	3-1/2"	5"	15"	7-1/2"	1"	958752	7-1/4"	9-1/4"	26-1/2"	11-7/8"	9/16"
953302	3-1/2"	4-7/8"	14"	7-3/8"	1/2"	975001	7-1/2"	9-5/8"	17-1/2"	14-1/2"	5/8"
953352	3-3/4"	5-1/4"	15"	7-3/4"	1/2"	960002	7-1/2"	9-5/8"	27-1/2"	12-3/4"	9/16"
953402	4"	5-1/2"	16"	8"	1/2"	960102	7-3/4"	9-7/8"	28-1/2"	12-1/2"	9/16"
953452	4-1/4"	5-3/4"	17"	8-1/4"	1/2"	960112	8"	10-1/4"	29-1/2"	13-1/4"	5/8"
953502	4-1/2"	6"	18"	8-7/8"	1/2"	960114	8"	10-1/2"	29-1/2"	13-1/4"	5/8"
953552	4-3/4"	6-1/4"	19"	9-1/8"	1/2"	960140	8-1/4"	10-1/2"	30-1/2"	13-1/2"	5/8"
953602	5"	6-3/4"	19"	9-5/8"	1/2"	960202	8-1/2"	10-3/4"	31-1/2"	13-3/4"	5/8"
953604	5"	6-3/4"	20"	9-5/8"	9/16"	960242	8-3/4"	11"	32-1/2"	14"	5/8"
953654	5-1/4"	6-7/8"	21"	9-7/8"	9/16"	960402	9"	11-1/4"	33-1/2"	14-1/4"	3/4"
953754	5-3/4"	7-1/4"	23"	10-1/4"	9/16"	960406	9"	11-1/2"	33-3/8"	15"	3/4"
953780	5-1/2"	7-1/4"	22"	9-7/8"	9/16"	960502	9-1/4"	11-1/2"	34-1/2"	14-5/8"	3/4"
953782	5-1/2"	7									