

MagTecta-S™

Magnetic Single Face Bearing Protector Range



- Patented Design
- Eliminate over 50% of bearing failures
- Improve your plant uptime
- Reduce premature bearing failures
- Reduce your maintenance costs

Bearing Protection — The most cost effective reliability upgrade for your rotating equipment

MagTecta-S™

The MagTecta-S™ range can eliminate the cause of 52% of your bearing failures.

Through its magnetically energized contacting faces and incorporated labyrinth seal technology, the MagTecta-S™ protects your equipment from both external contamination and loss of lubrication.

MagTecta-S™ Applications

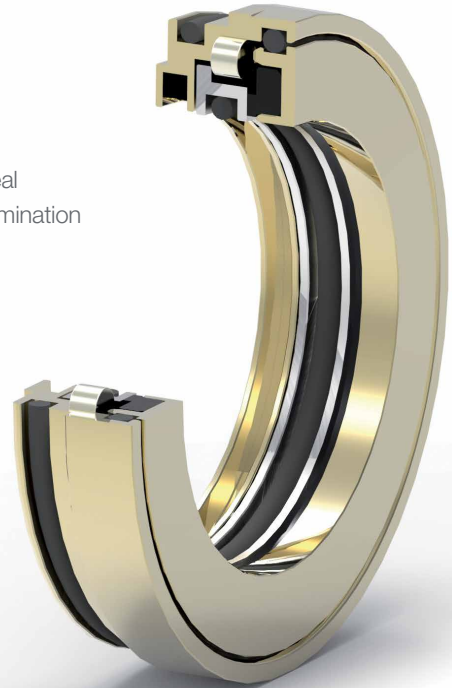
Lubrication Conditions:

- Oil Splash
- Oil Mist*
- Marginal Lubrication

Shaft speed: up to 20m/s (3940 ft/min)

(For faster shaft speed applications, contact the Bearing Protection Division)

Operating Process Temperature range: -20°C to 180°C (-4°F to 356°F)



* subject to individual application technical review

“Water ingress can have a disastrous effect on bearing life.”

Reducing Bearing Failure

52% of bearing failures are due to contamination of the bearing oil*. This represents 20.8% of all rotating equipment failures.

A major study into equipment reliability has shown 48% of all bearing failures are due to particle contamination of the bearing oil, with an additional 4% due to corrosion caused by contamination of the bearing oil.

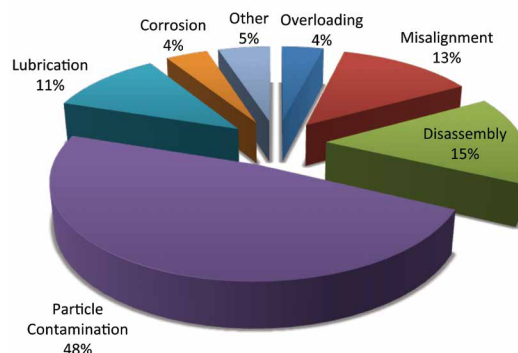
Reducing Water Contamination

Research conducted by a major academic institution has shown that water contamination as low as 0.002% (20ppm) in some oils can reduce bearing life by as much as 48%.

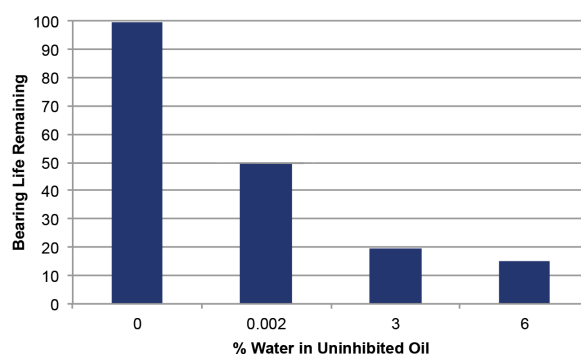
MagTecta-S™ reduces bearing failure by:

- Preventing water ingress
- Preventing dust ingress
- Eliminating shaft damage due to rubbing

Causes of Bearing Failure



Water Contamination Reduces Bearing Life Significantly



* Bloch, Heinz; "Pump Users Handbook: Life Extension" 2011.

“52% of Bearing failures are due to contamination of the bearing oil*”

The effect of water contamination





The Problem with Lip-Seals – What is the True Cost?

Extensive testing shows conclusively that lip-seals cannot effectively protect your bearing oil. Recognized problems with lip-seals include:

- Have a short effective lifespan
- Ineffectiveness at keeping contamination from bearing housings
- Serious wear of shafts, causing extensive equipment damage and added cost
- The loss of lubrication, leading to catastrophic bearing and equipment failure

For these reasons API 610 11th edition, section 6.10.2.6 states “Lip-type seals shall not be used”

Comparison of Lip-Seal versus MagTecta-S™

Requirement	Lip Seal	MagTecta-S™
Ability to keep oil in bearing	✗	✓
Protection against water ingress	✗	✓
Protection against ingress of particles	✗	✓
Prevents shaft wear	✗	✓

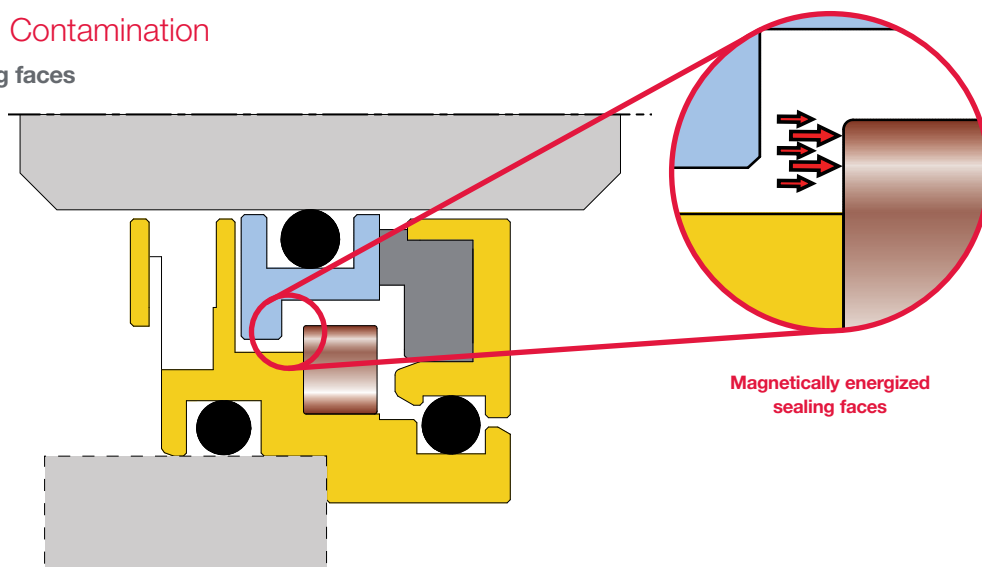
MagTecta-S™ Features & Benefits

- **Contacting Seal Face** - Prevents loss of oil from the bearing chamber and also prevents ingress of water and particles
- **Velocity Reducing Cavity** - Prevents loss of oil from the bearing chamber
- **Non-wearing** - Eliminates shaft wear in operation
- **Maintenance-free** - No routine maintenance required

Protection from External Contamination

Magnetically energized sealing faces

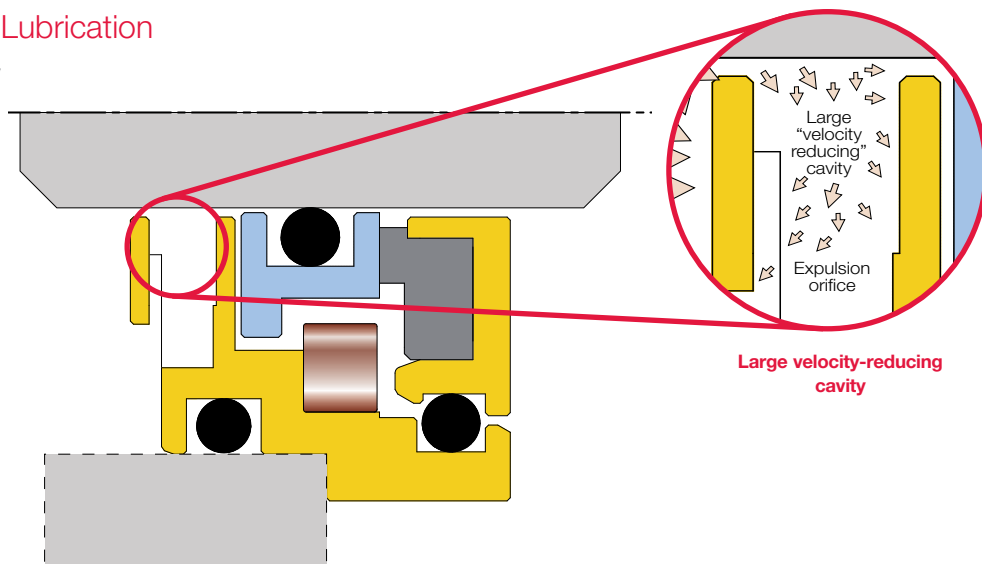
The unique design of the MagTecta-S™ creates a magnetically energized positive seal between two flat faces. This positive seal offers protection from the ingress of external contamination such as harmful liquids, moisture and debris.



Protection from Loss of Lubrication

Large velocity-reducing cavity

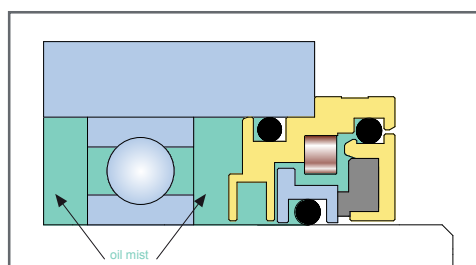
Incorporating existing AESSEAL® LabTecta®66 technology within the MagTecta-S™ offers field proven oil retention via the velocity-reducing cavity. Oil splash from the bearing housing is expelled back through the velocity-reducing cavity and expulsion orifice.



Oil Mist Applications*

The MagTecta-S™ is suitable for use in oil mist applications. The positive seal created by the magnetically energized contacting faces offers effective sealing of oil mist, preventing the loss of bearing lubrication.

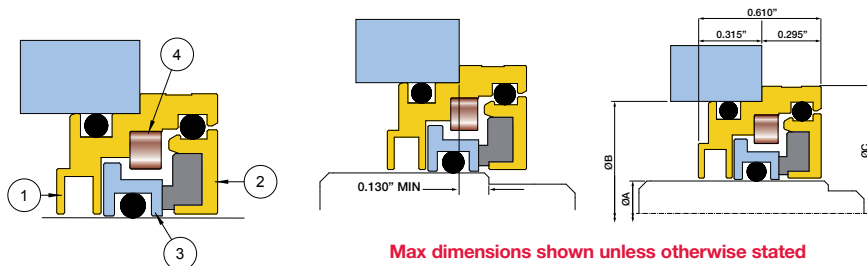
* subject to individual application technical review



MagTecta-S™ Dimensions — 0.750" - 5.875"



Item	Description	Material
1	Body	Phosphor Bronze
2	Stationary Face	PTFE / Phosphor Bronze
3	Rotary Face	Stainless Steel
4	Magnet(s)	Neodymium



Max dimensions shown unless otherwise stated

DIM A	DIM B	DIM C	STOCK CODE	DIM A	DIM B	DIM C	STOCK CODE	DIM A	DIM B	DIM C	STOCK CODE	DIM A	DIM B	DIM C	STOCK CODE
0.750	1.500	1.625	J1106-SC-001-I12-	2.125	2.875	3.000	J1117-SC-001-I23-	3.500	4.250	4.375	J1128-SC-001-I34-	4.875	5.625	5.750	J1139-SC-001-I45-
	1.625	1.750	J1106-SC-001-I13-		3.000	3.125	J1117-SC-001-I24-		4.375	4.500	J1128-SC-001-I35-		5.750	5.875	J1139-SC-001-I46-
	1.750	1.875	J1106-SC-001-I14-		3.125	3.250	J1117-SC-001-I25-		4.500	4.625	J1128-SC-001-I36-		5.875	6.000	J1139-SC-001-I47-
	1.875	2.000	J1106-SC-001-I15-		3.250	3.375	J1117-SC-001-I26-		4.625	4.750	J1128-SC-001-I37-		6.000	6.125	J1139-SC-001-I48-
0.875	1.625	1.750	J1107-SC-001-I13-	2.250	3.000	3.125	J1118-SC-001-I24-	3.625	4.375	4.500	J1129-SC-001-I35-	5.000	5.750	5.875	J1140-SC-001-I46-
	1.750	1.875	J1107-SC-001-I14-		3.125	3.250	J1118-SC-001-I25-		4.500	4.625	J1129-SC-001-I36-		5.875	6.000	J1140-SC-001-I47-
	1.875	2.000	J1107-SC-001-I15-		3.250	3.375	J1118-SC-001-I26-		4.625	4.750	J1129-SC-001-I37-		6.000	6.125	J1140-SC-001-I48-
	2.000	2.125	J1107-SC-001-I16-		3.375	3.500	J1118-SC-001-I27-		4.750	4.875	J1129-SC-001-I38-		6.125	6.250	J1140-SC-001-I49-
1.000	1.750	1.875	J1108-SC-001-I14-	2.375	3.125	3.250	J1119-SC-001-I25-	3.750	4.500	4.625	J1130-SC-001-I36-	5.125	5.875	6.000	J1141-SC-001-I47-
	1.875	2.000	J1108-SC-001-I15-		3.250	3.375	J1119-SC-001-I26-		4.625	4.750	J1130-SC-001-I37-		6.000	6.125	J1141-SC-001-I48-
	2.000	2.125	J1108-SC-001-I16-		3.375	3.500	J1119-SC-001-I27-		4.750	4.875	J1130-SC-001-I38-		6.125	6.250	J1141-SC-001-I49-
	2.125	2.250	J1108-SC-001-I17-		3.500	3.625	J1119-SC-001-I28-		4.875	5.000	J1130-SC-001-I39-		6.250	6.375	J1141-SC-001-I50-
1.125	1.875	2.000	J1109-SC-001-I15-	2.500	3.250	3.375	J1120-SC-001-I26-	3.875	4.625	4.750	J1131-SC-001-I37-	5.250	6.000	6.125	J1142-SC-001-I48-
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	2.250	2.375	J1109-SC-001-I18-		3.625	3.750	J1120-SC-001-I29-		5.000	5.125	J1131-SC-001-I40-		6.375	6.500	J1142-SC-001-I51-
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	2.375	2.500	J1111-SC-001-I19-		3.750	3.875	J1122-SC-001-I30-		5.125	5.250	J1133-SC-001-I41-		6.500	6.625	J1144-SC-001-I52-
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	2.625	2.750	J1113-SC-001-I21-		4.000	4.125	J1124-SC-001-I32-		5.375	5.500	J1135-SC-001-I43-		6.750	6.875	J1146-SC-001-I54-
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	2.750	2.875	J1115-SC-001-I22-		4.125	4.250	J1126-SC-001-I33-		5.500	5.625	J1137-SC-001-I44-				
	2.875	3.000	J1115-SC-001-I23-		4.250	4.375	J1126-SC-001-I34-		5.625	5.750	J1137-SC-001-I45-				
	3.000	3.125	J1115-SC-001-I24-		4.375	4.500	J1126-SC-001-I35-		5.750	5.875	J1137-SC-001-I46-				
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	3.125	3.250	J1116-SC-001-I25-		4.500	4.625	J1127-SC-001-I36-		5.875	6.000	J1138-SC-001-I47-				

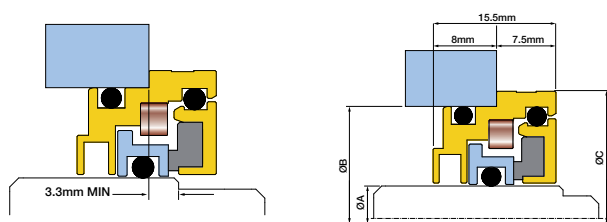
Dimensional Information (inches)

Not all sizes are inventoried. Contact the Bearing Protection team for details

UK: Email: sales@labtecta.com Phone: +44 (0) 1709 369966 Fax: +44 (0) 1709 720788

USA: Email: usales@labtecta.com Phone: +1 865 531 0192 Fax: +1 865 531 0571

MagTecta-S™ Dimensions — 16.0mm - 145.0mm



Max dimensions shown unless otherwise stated

DIM A	DIM B	DIM C	STOCK CODE
16	36	39	J1M016SC-001-M036
	41	44	J1M016SC-001-M041
	34	38	J1M016SC-001-M034
	38	41	J1M016SC-001-M038
18	38	41	J1M018SC-001-M038
	43	46	J1M018SC-001-M043
	36	40	J1M018SC-001-M036
	40	43	J1M018SC-001-M040
20	40	43	J1M020SC-001-M040
	45	48	J1M020SC-001-M045
	38	42	J1M020SC-001-M038
	42	45	J1M020SC-001-M042
22	42	45	J1M022SC-001-M042
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	44	47	J1M022SC-001-M044
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	46	50	J1M028SC-001-M046
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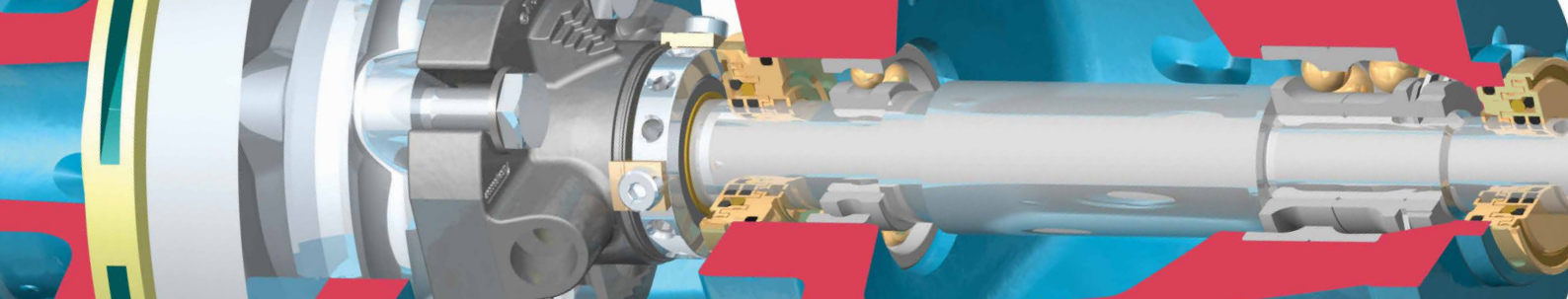
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	65	68	J1M043SC-001-M065
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	70	73	J1M045SC-001-M070
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	73	76	J1M048SC-001-M073
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	88	91	J1M058SC-001-M088

DIM A	DIM B	DIM C	STOCK CODE
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DIM A	DIM B	DIM C	STOCK CODE
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	135	138	J1M105SC-001-M135
110	130	133	J1M110SC-001-M130
	135	138	J1M110SC-001-M135
	136	139	J1M110SC-001-M136
	140	143	J1M110SC-001-M140
115	135	138	J1M115SC-001-M135
	140	143	J1M115SC-001-M140
	141	144	J1M115SC-001-M141
	145	148	J1M115SC-001-M145
120	140	143	J1M120SC-001-M140
	145	148	J1M120SC-001-M145
	146	149	J1M120SC-001-M146
	150	153	J1M120SC-001-M150
125	145	148	J1M125SC-001-M145
	150	153	J1M125SC-001-M150
	151	154	J1M125SC-001-M151
	155	158	J1M125SC-001-M155
130	150	153	J1M130SC-001-M150
	155	158	J1M130SC-001-M155
	156	159	J1M130SC-001-M156
	160	163	J1M130SC-001-M160
135	155	158	J1M135SC-001-M155
	160	163	J1M135SC-001-M160
	161	164	J1M135SC-001-M161
	165	168	J1M135SC-001-M165
140	160	163	J1M140SC-001-M160
	165	168	J1M140SC-001-M165
	166	169	J1M140SC-001-M166
	170	173	J1M140SC-001-M170
145	165	168	J1M145SC-001-M165
	170	173	J1M145SC-001-M170
	171	174	J1M145SC-001-M171
	175	178	J1M145SC-001-M175

Dimensional Information (mm)

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