

# 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.

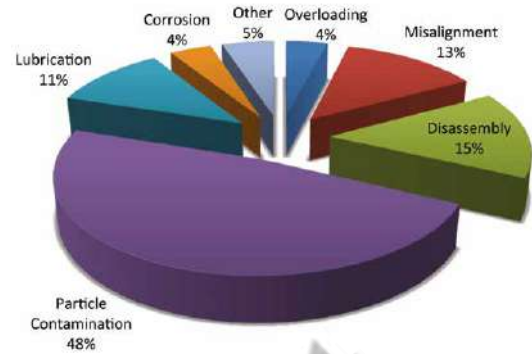
## Reducing Water Contamination

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%.

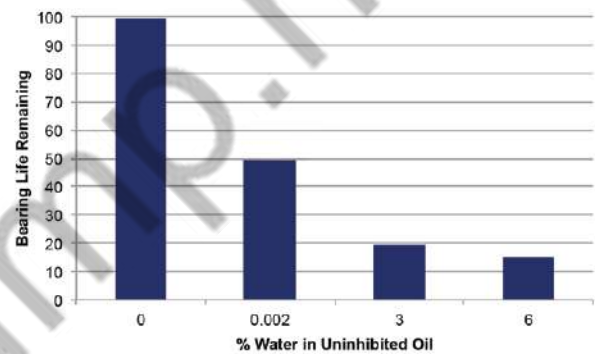
MagTecta-S™ reduces bearing failure by:

- 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	X	✓
Protection against water ingress	X	✓
Protection against ingress of particles	X	✓
Prevents shaft wear	X	✓

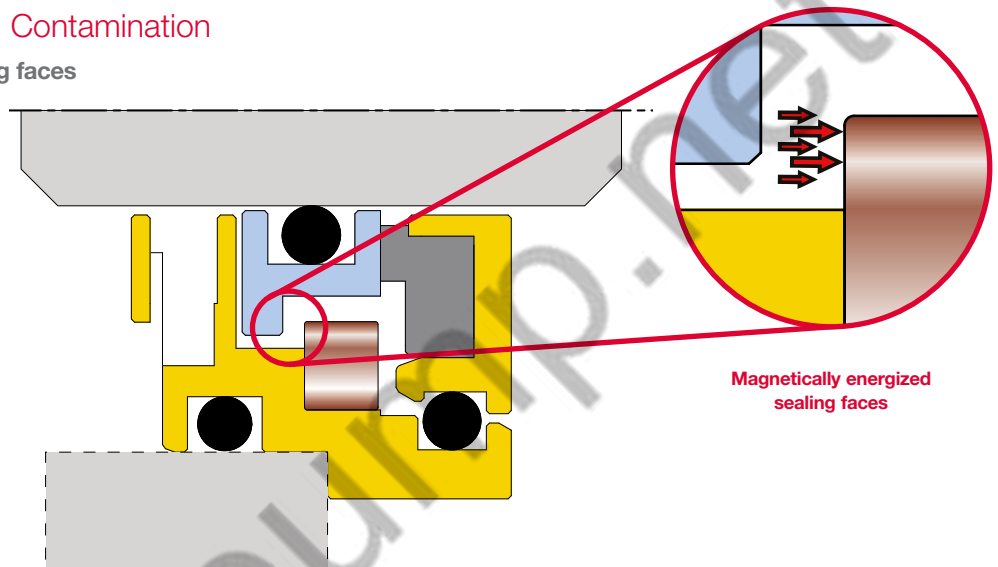
# MagTecta-S™ Features & Benefits

- **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

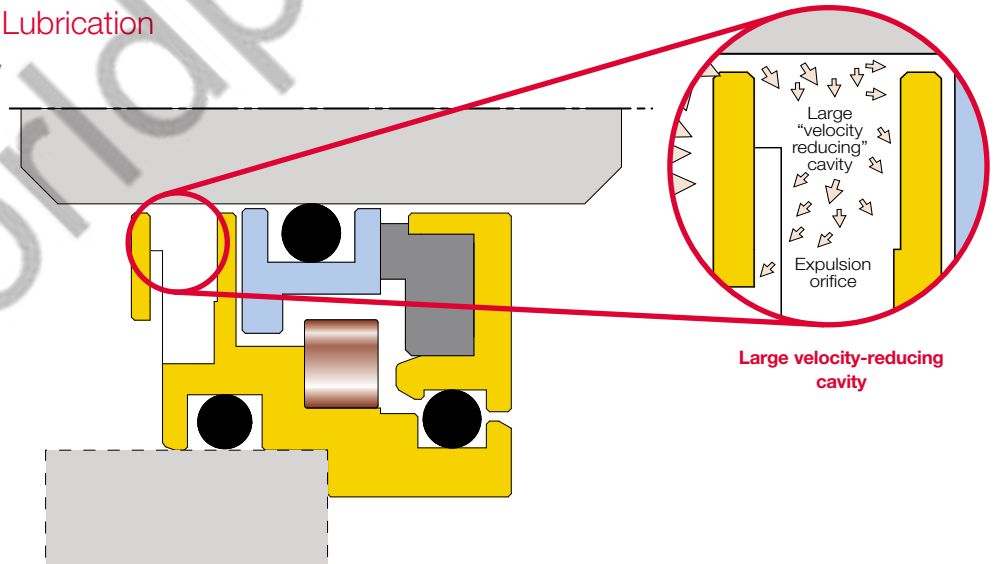
The unique design of the MagTecta-S™ creates a magnetically energized positive seal between two flat faces. This positive seal offers protection from the ingress of external contamination such as harmful liquids, moisture and debris.



## Protection from Loss of Lubrication

### Large velocity-reducing cavity

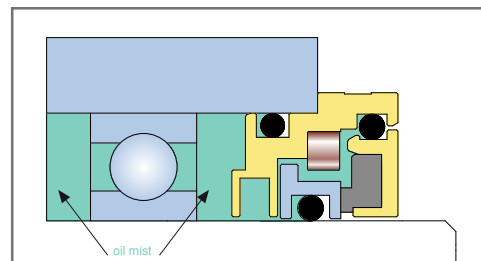
Incorporating existing AESSEAL® LabTecta®66 technology within the MagTecta-S™ offers field proven oil retention via the velocity-reducing cavity. Oil splash from the bearing housing is expelled back through the velocity-reducing cavity and expulsion orifice.



## 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.

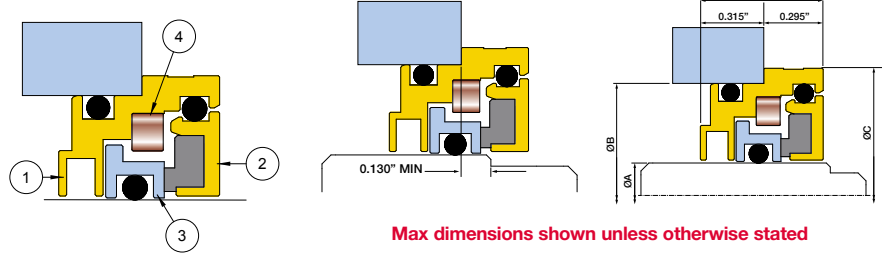
\* subject to individual application technical review



# 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
<b>0.750</b>	1.500	1.625	J1106-SC-001-112-	<b>2.125</b>	2.875	3.000	J1117-SC-001-123-	<b>3.500</b>	4.250	4.375	J1128-SC-001-134-	<b>4.875</b>	5.625	6.750	J1139-SC-001-145-
	1.625	1.750	J1106-SC-001-113-		3.000	3.125	J1117-SC-001-124-		4.375	4.500	J1128-SC-001-135-		5.750	5.875	J1139-SC-001-146-
	1.750	1.875	J1106-SC-001-114-		3.125	3.250	J1117-SC-001-125-		4.500	4.625	J1128-SC-001-136-		5.875	6.000	J1139-SC-001-147-
	1.875	2.000	J1106-SC-001-115-		3.250	3.375	J1117-SC-001-126-		4.625	4.750	J1128-SC-001-137-		6.000	6.125	J1139-SC-001-148-
<b>0.875</b>	1.625	1.750	J1107-SC-001-113-	<b>2.250</b>	3.000	3.125	J1118-SC-001-124-	<b>3.625</b>	4.375	4.500	J1129-SC-001-135-	<b>5.000</b>	5.750	5.875	J1140-SC-001-146-
	1.750	1.875	J1107-SC-001-114-		3.125	3.250	J1118-SC-001-125-		4.500	4.625	J1129-SC-001-136-		5.875	6.000	J1140-SC-001-147-
	1.875	2.000	J1107-SC-001-115-		3.250	3.375	J1118-SC-001-126-		4.625	4.750	J1129-SC-001-137-		6.000	6.125	J1140-SC-001-148-
	2.000	2.125	J1107-SC-001-116-		3.375	3.500	J1118-SC-001-127-		4.750	4.875	J1129-SC-001-138-		6.125	6.250	J1140-SC-001-149-
<b>1.000</b>	1.750	1.875	J1108-SC-001-114-	<b>2.375</b>	3.125	3.250	J1119-SC-001-125-	<b>3.750</b>	4.500	4.625	J1130-SC-001-136-	<b>5.125</b>	5.875	6.000	J1141-SC-001-147-
	1.875	2.000	J1108-SC-001-115-		3.250	3.375	J1119-SC-001-126-		4.625	4.750	J1130-SC-001-137-		6.000	6.125	J1141-SC-001-148-
	2.000	2.125	J1108-SC-001-116-		3.375	3.500	J1119-SC-001-127-		4.750	4.875	J1130-SC-001-138-		6.125	6.250	J1141-SC-001-149-
	2.125	2.250	J1108-SC-001-117-		3.500	3.625	J1119-SC-001-128-		4.875	5.000	J1130-SC-001-139-		6.250	6.375	J1141-SC-001-150-
<b>1.125</b>	1.875	2.000	J1109-SC-001-115-	<b>2.500</b>	3.250	3.375	J1120-SC-001-126-	<b>3.875</b>	4.625	4.750	J1131-SC-001-137-	<b>5.250</b>	6.000	6.125	J1142-SC-001-148-
	2.000	2.125	J1109-SC-001-116-		3.375	3.500	J1120-SC-001-127-		4.750	4.875	J1131-SC-001-138-		6.125	6.250	J1142-SC-001-149-
	2.125	2.250	J1109-SC-001-117-		3.500	3.625	J1120-SC-001-128-		4.875	5.000	J1131-SC-001-139-		6.250	6.375	J1142-SC-001-150-
	2.250	2.375	J1109-SC-001-118-		3.625	3.750	J1120-SC-001-129-		5.000	5.125	J1131-SC-001-140-		6.375	6.500	J1142-SC-001-151-
<b>1.250</b>	2.000	2.125	J1110-SC-001-116-	<b>2.625</b>	3.375	3.500	J1121-SC-001-127-	<b>4.000</b>	4.750	4.875	J1132-SC-001-138-	<b>5.375</b>	6.125	6.250	J1143-SC-001-149-
	2.125	2.250	J1110-SC-001-117-		3.500	3.625	J1121-SC-001-128-		4.875	5.000	J1132-SC-001-139-		6.250	6.375	J1143-SC-001-150-
	2.250	2.375	J1110-SC-001-118-		3.625	3.750	J1121-SC-001-129-		5.000	5.125	J1132-SC-001-140-		6.375	6.500	J1143-SC-001-151-
	2.375	2.500	J1110-SC-001-119-		3.750	3.875	J1121-SC-001-130-		5.125	5.250	J1132-SC-001-141-		6.500	6.625	J1143-SC-001-152-
<b>1.375</b>	2.125	2.250	J1111-SC-001-117-	<b>2.750</b>	3.500	3.625	J1122-SC-001-128-	<b>4.125</b>	4.875	5.000	J1133-SC-001-139-	<b>5.500</b>	6.250	6.375	J1144-SC-001-150-
	2.250	2.375	J1111-SC-001-118-		3.625	3.750	J1122-SC-001-129-		5.000	5.125	J1133-SC-001-140-		6.375	6.500	J1144-SC-001-151-
	2.375	2.500	J1111-SC-001-119-		3.750	3.875	J1122-SC-001-130-		5.125	5.250	J1133-SC-001-141-		6.500	6.625	J1144-SC-001-152-
	2.500	2.625	J1111-SC-001-120-		3.875	4.000	J1122-SC-001-131-		5.250	5.375	J1133-SC-001-142-		6.625	6.750	J1144-SC-001-153-
<b>1.500</b>	2.250	2.375	J1112-SC-001-118-	<b>2.875</b>	3.625	3.750	J1123-SC-001-129-	<b>4.250</b>	5.000	5.125	J1134-SC-001-140-	<b>5.625</b>	6.375	6.500	J1145-SC-001-151-
	2.375	2.500	J1112-SC-001-119-		3.750	3.875	J1123-SC-001-130-		5.125	5.250	J1134-SC-001-141-		6.500	6.625	J1145-SC-001-152-
	2.500	2.625	J1112-SC-001-120-		3.875	4.000	J1123-SC-001-131-		5.250	5.375	J1134-SC-001-142-		6.625	6.750	J1145-SC-001-153-
	2.625	2.750	J1112-SC-001-121-		4.000	4.125	J1123-SC-001-132-		5.375	5.500	J1134-SC-001-143-		6.750	6.875	J1145-SC-001-154-
<b>1.625</b>	2.375	2.500	J1113-SC-001-119-	<b>3.000</b>	3.750	3.875	J1124-SC-001-130-	<b>4.375</b>	5.125	5.250	J1135-SC-001-141-	<b>5.750</b>	6.500	6.625	J1146-SC-001-152-
	2.500	2.625	J1113-SC-001-120-		3.875	4.000	J1124-SC-001-131-		5.250	5.375	J1135-SC-001-142-		6.625	6.750	J1146-SC-001-153-
	2.625	2.750	J1113-SC-001-121-		4.000	4.125	J1124-SC-001-132-		5.375	5.500	J1135-SC-001-143-		6.750	6.875	J1146-SC-001-154-
	2.750	2.875	J1113-SC-001-122-		4.125	4.250	J1124-SC-001-133-		5.500	5.625	J1135-SC-001-144-		6.875	7.000	J1146-SC-001-155-
<b>1.750</b>	2.500	2.625	J1114-SC-001-120-	<b>3.125</b>	3.875	4.000	J1125-SC-001-131-	<b>4.500</b>	5.250	5.375	J1136-SC-001-142-	<b>5.875</b>	6.625	6.750	J1147-SC-001-153-
	2.625	2.750	J1114-SC-001-121-		4.000	4.125	J1125-SC-001-132-		5.375	5.500	J1136-SC-001-143-		6.750	6.875	J1147-SC-001-154-
	2.750	2.875	J1114-SC-001-122-		4.125	4.250	J1125-SC-001-133-		5.500	5.625	J1136-SC-001-144-		6.875	7.000	J1147-SC-001-155-
	2.875	3.000	J1114-SC-001-123-		4.250	4.375	J1125-SC-001-134-		5.625	5.750	J1136-SC-001-145-		7.000	7.125	J1147-SC-001-156-
<b>1.875</b>	2.625	2.750	J1115-SC-001-121-	<b>3.250</b>	4.000	4.125	J1126-SC-001-132-	<b>4.625</b>	5.375	5.500	J1137-SC-001-143-	<b>6.000</b>	6.875	7.000	J1148-SC-001-154-
	2.750	2.875	J1115-SC-001-122-		4.125	4.250	J1126-SC-001-133-		5.500	5.625	J1137-SC-001-144-				
	2.875	3.000	J1115-SC-001-123-		4.250	4.375	J1126-SC-001-134-		5.625	5.750	J1137-SC-001-145-				
	3.000	3.125	J1115-SC-001-124-		4.375	4.500	J1126-SC-001-135-		5.750	5.875	J1137-SC-001-146-				
<b>2.000</b>	2.750	2.875	J1116-SC-001-122-	<b>3.375</b>	4.125	4.250	J1127-SC-001-133-	<b>4.750</b>	5.500	5.625	J1138-SC-001-144-				
	2.875	3.000	J1116-SC-001-123-		4.250	4.375	J1127-SC-001-134-		5.625	5.750	J1138-SC-001-145-				
	3.000	3.125	J1116-SC-001-124-		4.375	4.500	J1127-SC-001-135-		5.750	5.875	J1138-SC-001-146-				
	3.125	3.250	J1116-SC-001-125-		4.500	4.625	J1127-SC-001-136-		5.875	6.000	J1138-SC-001-147-				

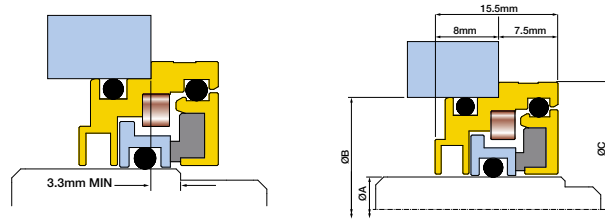
Dimensional Information (inches)

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: usasales@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
	47	50	J1M022SC-001-M047
	40	44	J1M022SC-001-M040
	44	47	J1M022SC-001-M044
24	44	47	J1M024SC-001-M044
	49	52	J1M024SC-001-M049
	42	46	J1M024SC-001-M042
	46	49	J1M024SC-001-M046
25	45	48	J1M025SC-001-M045
	50	53	J1M025SC-001-M050
	43	47	J1M025SC-001-M043
	47	50	J1M025SC-001-M047
28	48	51	J1M028SC-001-M048
	53	56	J1M028SC-001-M053
	46	50	J1M028SC-001-M046
	50	53	J1M028SC-001-M050
30	50	53	J1M030SC-001-M050
	55	58	J1M030SC-001-M055
	48	52	J1M030SC-001-M048
	52	55	J1M030SC-001-M052
32	52	55	J1M032SC-001-M052
	57	60	J1M032SC-001-M057
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	54	57	J1M032SC-001-M054
33	53	56	J1M033SC-001-M053
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	51	55	J1M033SC-001-M051
	55	58	J1M033SC-001-M055
35	55	58	J1M035SC-001-M055
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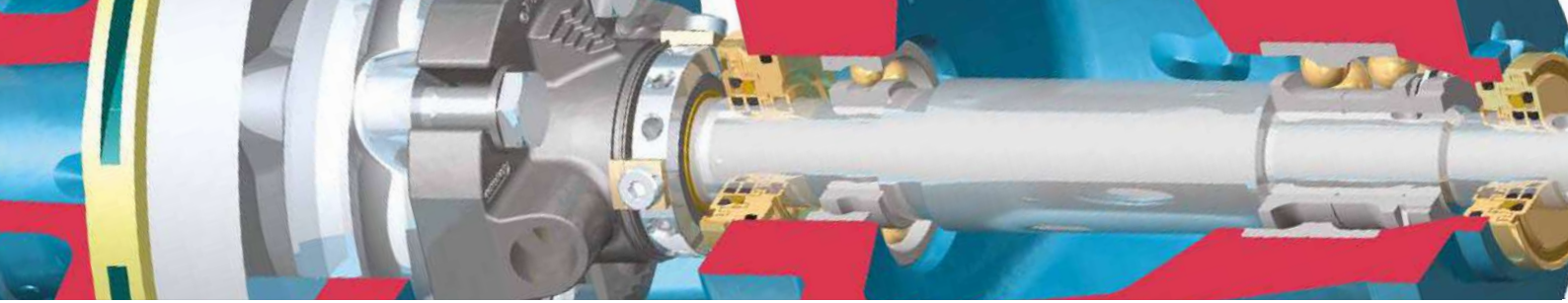
DIM A	DIM B	DIM C	STOCK CODE
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	63	66	J1M038SC-001-M063
	56	60	J1M038SC-001-M056
	60	63	J1M038SC-001-M060
40	60	63	J1M040SC-001-M060
	65	68	J1M040SC-001-M065
	58	62	J1M040SC-001-M058
	62	65	J1M040SC-001-M062
42	62	65	J1M042SC-001-M062
	67	70	J1M042SC-001-M067
	60	64	J1M042SC-001-M060
	64	67	J1M042SC-001-M064
43	63	66	J1M043SC-001-M063
	68	71	J1M043SC-001-M068
	61	65	J1M043SC-001-M061
	65	68	J1M043SC-001-M065
45	65	68	J1M045SC-001-M065
	70	73	J1M045SC-001-M070
	71	74	J1M045SC-001-M071
	75	78	J1M045SC-001-M075
48	68	71	J1M048SC-001-M068
	73	76	J1M048SC-001-M073
	74	77	J1M048SC-001-M074
	78	81	J1M048SC-001-M078
50	70	73	J1M050SC-001-M070
	75	78	J1M050SC-001-M075
	76	79	J1M050SC-001-M076
	80	83	J1M050SC-001-M080
52	72	75	J1M052SC-001-M072
	77	80	J1M052SC-001-M077
	78	81	J1M052SC-001-M078
	82	85	J1M052SC-001-M082
53	73	76	J1M053SC-001-M073
	78	81	J1M053SC-001-M078
	79	82	J1M053SC-001-M079
	83	86	J1M053SC-001-M083
55	75	78	J1M055SC-001-M075
	80	83	J1M055SC-001-M080
	81	84	J1M055SC-001-M081
	85	88	J1M055SC-001-M085
58	78	81	J1M058SC-001-M078
	83	86	J1M058SC-001-M083
	84	87	J1M058SC-001-M084
	88	91	J1M058SC-001-M088

DIM A	DIM B	DIM C	STOCK CODE
60	80	83	J1M060SC-001-M080
	85	88	J1M060SC-001-M085
	86	89	J1M060SC-001-M086
	90	93	J1M060SC-001-M090
63	83	86	J1M063SC-001-M083
	88	91	J1M063SC-001-M088
	89	92	J1M063SC-001-M089
	93	96	J1M063SC-001-M093
65	85	88	J1M065SC-001-M085
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	95	98	J1M065SC-001-M095
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	98	101	J1M068SC-001-M098
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	95	98	J1M070SC-001-M095
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	100	103	J1M070SC-001-M100
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	100	103	J1M075SC-001-M100
	101	104	J1M075SC-001-M101
	105	108	J1M075SC-001-M105
80	100	103	J1M080SC-001-M100
	105	108	J1M080SC-001-M105
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	125	128	J1M095SC-001-M125
100	120	123	J1M100SC-001-M120
	125	128	J1M100SC-001-M125
	126	129	J1M100SC-001-M126
	130	133	J1M100SC-001-M130

DIM A	DIM B	DIM C	STOCK CODE
105	125	128	J1M105SC-001-M125
	130	133	J1M105SC-001-M130
	131	134	J1M105SC-001-M131
	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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- Wear protective clothing



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