

# BINMASTER®

## BMRX Ultimate Guide



### BMRX-300 with Status Light

BinMaster's BMRX-300 rotary level switch features true fail-safe operation and a built-in LED indicator light. The bright LED changes from green to red when the paddle stops turning when the bin is full or empty.



### BMRX-200 with Power Failure Protection

The BMRX-200 includes relay outputs that are designed to be "fail safe" in case of power failure. If power fails to the rotary, the relays will default to the output deemed "safe" for a high-level or low-level indicator application.



### BMRX-100 with Mechanical Operation

The BMRX-100 features a reliable mechanical design. It doesn't have electronic components or fail safe features. This unit goes "back to basics" for rotary level design.

	BMRX-300	BMRX-200	BMRX-100	MINI
Operation	Digital PCB	Digital PCB	Mechanical	Mechanical
Fail-Safe	True	Power failure	No	No
Switch	DPDT	DPDT	SPDT	SPDT
LED Indicator	Yes	No	No	No
Approvals	Hazardous	Hazardous	Hazardous	Ordinary
Time Delays	Yes	Yes	No	No
Screw-Off Cap	Yes	Yes	Yes	Yes
Warranty	2 Year	2 Year	2 Year	2 Year

# ROTARY CONFIGURATION

**Rotary** Before placing an order, validate your selections with a sales representative, as not all options are offered for every configuration

Model Type										
BMRX-100	.									BMRX-100 Mechanical
BMRX-200	.									BMRX-200 Electromechanical
BMRX-300	.									BMRX-300 Fail-Safe
Certifications										
X										Non-hazardous, ordinary locations (available on all models)
D										CSA C/US (DIP) Class II, Groups E, F & G hazardous locations (available on all models)
A										IECEX/ATEX Zone 20, 20/21 Hazardous Locations + CSA Class II (available on all models)
E										CSA C/US (EX) Class I, Group C & D and Class II, Groups E, F & G Hazardous Locations (available on BMRX-200, BMRX-300)
F										IECEX/ATEX Zone 20, 20/21 Hazardous Locations (available on BMRX-300 only)
Power Supply										
1										115 VAC (available on BMRX-100, BMRX-200)
2										220 VAC (available on BMRX-100, BMRX-200)
3										24 VAC (available on BMRX-100, BMRX-200)
4										24 VDC (available on BMRX-200, BMRX-300)
5										90-264 VAC (available on BMRX-300)
Light										
X										X - No light (all models)
L										L - Lid with light ring (BMRX-300 only)
Process Connections										
1-1/4" Process Connections										
AA										AA - 1-1/4" NPT Aluminum process connection fitting
AC										AC - 1-1/4" NPT Aluminum process connection fitting with internal 1.0" NPS
SC										SC - 1-1/4" 304 Stainless steel process connection fitting with internal 1.0" NPT
SA										SA - 1-1/4" 304 Stainless steel process connection fitting
PA										PA - 1-1/4" 304 Stainless steel fertilizer process connections fitting
1-1/2" Process Connections										
AB										AB - 1-1/2" NPT Aluminum process connection fitting
AD										AD - 1-1/2" NPT Aluminum process connection fitting with internal 1.0" NPS
AE										AE - 1-1/2" R BSPT Aluminum process connection fitting
SB										SB - 1-1/2" 304 Stainless steel process connection fitting
SS										SS - 1-1/2" 304 Stainless steel Tri-Clover connection
SD										SD - 1-1/2" 304 Stainless steel process connection fitting with internal 1.0" NPT
PB										PB - 1-1/2" 304 Stainless steel fertilizer process connection fitting
Shaft or Extension Type										
B										Bearing End - 3/8" stainless steel shaft extension
H										Flexible Hanging - 5/16" 316 SS
F										FDA Hanging - 5/16" 316 SS with FDA approved plastic coating
Shaft or Hanging Extension Length (see listing for available lengths)										
XXX										In. of Bearing End - 3/8" stainless steel shaft extension
XXX										Ft. of Flexible Hanging - 5/16" 316 SS
XXX										Ft. of FDA Hanging - 5/16" 316 SS with FDA approved plastic coating
Guard Type & Length (see listing for available lengths)										
XXX										None
AXX										In. of 1" Aluminum guard pipe
SXX										In. of 1" Stainless steel guard pipe
BMRX-100	.	D	1	X	AA	B	012	A12		Example Part Number

# ROTARY CONFIGURATION MOUNTING

## 1. Side or top mounting?

Side mounted units should never be extended, unless you use the special configuration that has a 1" guard pipe with a bearing at the end to support the shaft extension. Side mounted rotaries should use a solid shaft coupler, or a direct connect paddle.

Top mounted rotaries should use a flexible coupler, and usually have a shaft extension to extend the paddle down to the correct sensing point. Our pipe extensions come with the female 1/4" NPT coupler that connects the paddle to the extension. Any extension over 24" should be used in conjunction with a guard pipe to protect the shaft extension from damage.

## 2. Bulk density and material characteristics tell us what paddle to use?

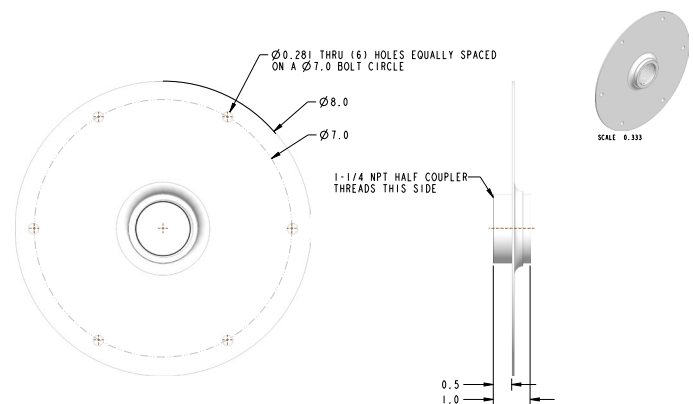
Bulk Density Guide - <https://www.binmaster.com/bulk-density>

Paddle Selection Guide - <https://www.binmaster.com/amfile/file/download/file/242/category/189/>

## 3. What about mounting plates or insertable paddles?

Side mounted rotaries should use a half coupling mounting plate. Top mounted units should use a full coupling mounting plate to support the use of a guard pipe, should one be necessary. Should you consider a coupling or welded coupling in the bin?

Rotary units can be screwed into mount plates or into 1 1/4" couplings welded directly to the bin. Insertable paddles are designed to be inserted through a 1 1/4" coupling. 3-vane paddles must use a mounting plate (so you can cut a larger hole that the paddle will fit through) or be attached from inside the bin.

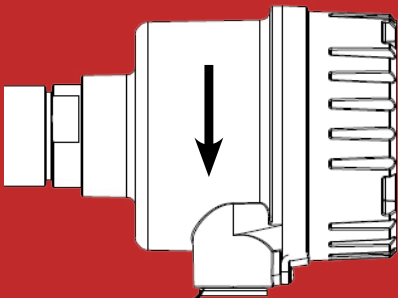


## 4. Do you need hazardous location approvals?

BinMaster offers units with and without hazardous location approvals. Approvals are usually required for indoor applications where combustible dust, gas or liquids are present. Hazardous location approvals are usually not required outdoors regardless of the materials present. Consult with your safety or engineering staff to determine if hazardous location approvals are necessary.

## SIDE MOUNTING

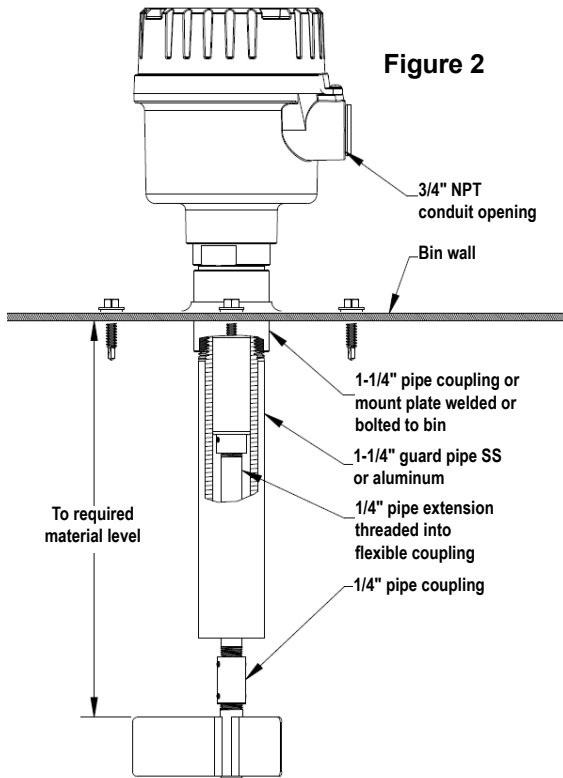
To prevent moisture or humidity from entering the unit, the rotary MUST be mounted with the conduit entries facing down.



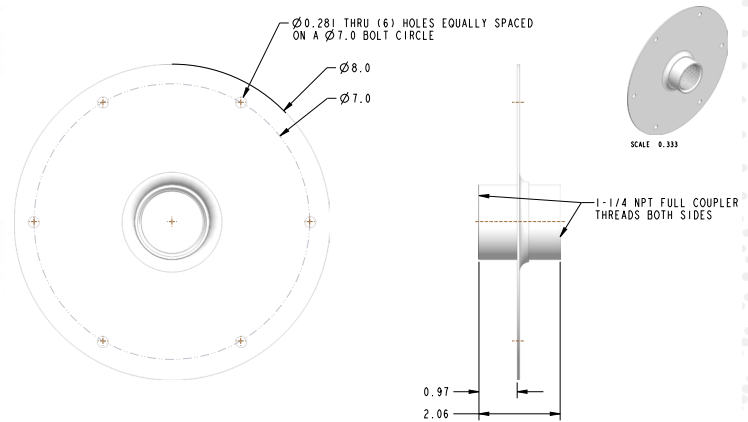
Half Coupling, Side Mount 1-1/4	
730-0020	GRMP-1 - 0° Mild carbon steel half coupling 1-1/4", with black neoprene gasket
730-0021	GRMP-3 - 0° Stainless steel half coupling 1-1/4" mounting plate with black neoprene gasket
730-0567	GRMP-14 - 0° Mild carbon steel half coupling 1-1/4", with white silicone gasket
Half Coupling, Side Mount 1-1/2	
730-0298	GRMP-6 - 0° 1-1/2 NPT powder coated carbon steel mounting plate with half coupling
730-0469	GRMP-8 - 0° 1-1/2" NPT stainless steel mounting plate with half coupling

# ROTARY CONFIGURATION MOUNTING

## TOP MOUNTING



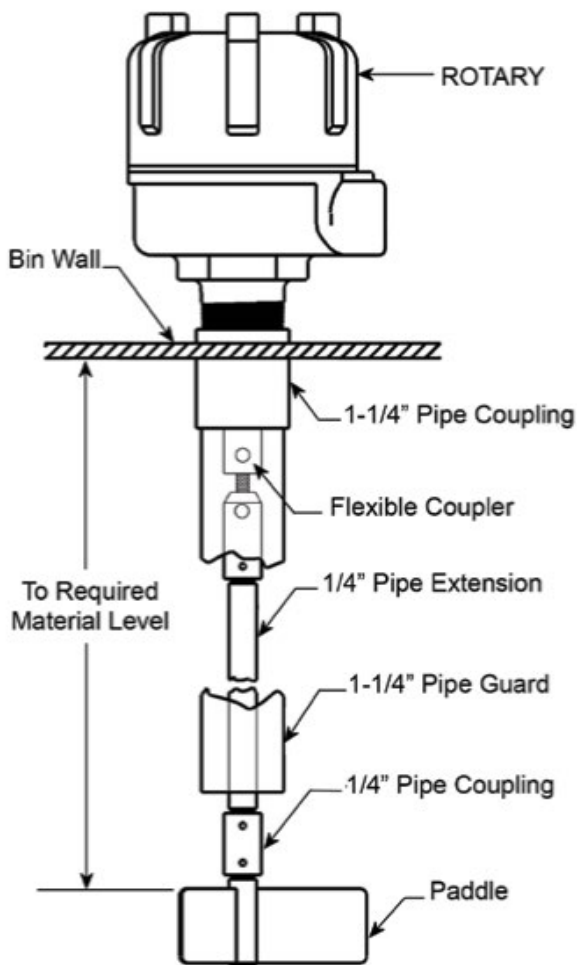
## FULL COUPLING MOUNT



	Full Coupling, Top Mount
730-0022	GRMP-2 - 0° Mild carbon steel full coupling 1-1/4", powder coated with black neoprene gasket
730-0023	GRMP-4 - 0° Stainless steel full coupling 1-1/4" with black neoprene gasket
730-0489	GRMP-9 - 10° Mild carbon steel full coupling 1-1/4", powder coated with black neoprene gasket
730-0508	GRMP-13 - 30° Mild carbon steel full coupling 1-1/4", powder coated with black neoprene gasket
730-0568	GRMP-15 - 0° Stainless steel full coupling 1-1/4" with white silicone gasket
730-0663	GRMP-16 - 20° Mild carbon steel full coupling 1-1/4", powder coated with black neoprene gasket

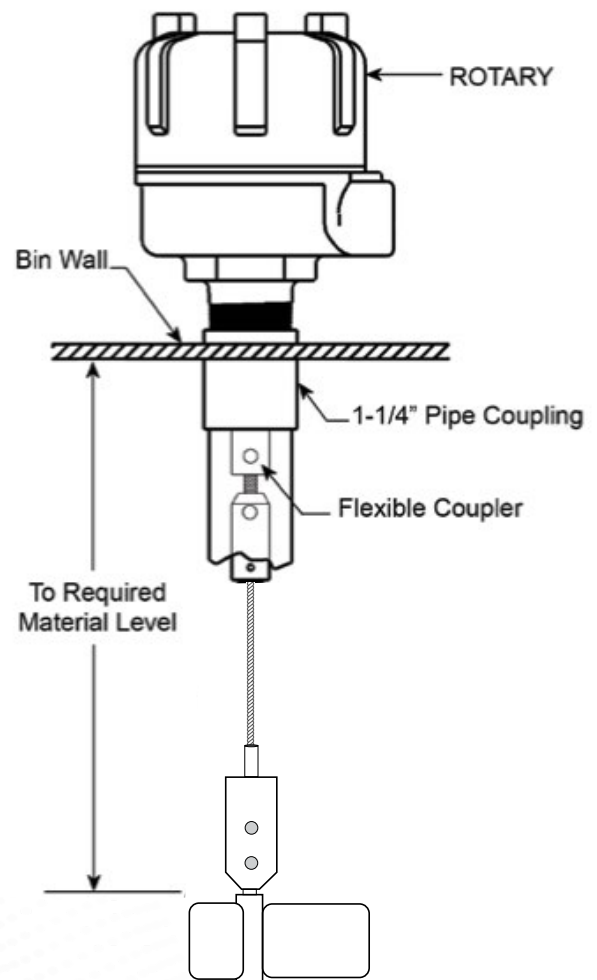
# ROTARY EXTENSIONS

## STANDARD EXTENDED VERTICAL MOUNT



Standard mounted rotary for straight vertical installations. Angled mounting plates are available for sloped roof installations. The pipe guards and extensions are available in both galvanized or stainless steel.




## FLEXIBLE HANGING CABLE EXTENSIONS



A flexible 8 mm steel cable from 4' to 14' long can be used in place of pipe extensions. This eliminates the need for a guard pipe to protect the shaft. Cable extensions should be considered in physically demanding applications, like mining and aggregates.

# EXTENSIONS

BinMaster extensions allow the rotary to adapt to tailored point level detection needs. Vertically oriented extensions measure further down into the bin to prevent overfilling or to protect valuable sensors at the top of the bin. Horizontal extensions enable mounting through thick bin sidewalls.

	<p><b>Horizontal Extensions</b></p> <p>Side mount through thick concrete walls using a 6", 8", or 12" extended drive shaft and protective shaft guard with a sealed bearing end to support the shaft and prevent packing.</p>
	<p><b>Sealed Extensions</b></p> <p>Protective bearings form a seal between the shaft and shaft guard to prevent false alarms caused by material packing.</p>
	<p><b>Flexible Extensions(left)</b></p> <p>A flexible 8 mm steel cable from 4" to 14' long can be used in place of pipe extensions. This eliminates the need for a guard pipe to protect the shaft. Cable extensions should be considered in physically demanding applications, like mining and aggregates.</p> <p><b>Vertical Extensions (right)</b></p> <p>Get high-level alerts and specify headroom with a top-mounted rotary with a custom extension up to 144".</p>

## ROTARY PART NUMBER, DESCRIPTION



Rotaries are a common point level indicator used for high, mid and low-level material detection in bins, tanks, and silos. Rotaries are wired to a horn, alarm or light panel to send an alert when material reaches the desired level. BinMaster's standard and fail-safe rotaries can be fit with a wide assortment of paddles and mounting plates, plus a compact mini-rotary is offered for constrained spaces. Extended rotaries for top mounting applications for high level detection, extensions for side mounting through thick bin walls, and stainless steel process connections for corrosive material ensure BinMaster has the right rotary for challenging applications.

Description	CODE	Part No.
<b>BMRX POWER PACS</b>		
BMRX-100 - Rotary level indicator power pac featuring a screw-off cover, 3/4" NPT dual conduit entries, SPDT mechanical switch, and FDA-recognized powder coat finish.	416-0814	Standard: 416-0814
BMRX-200 - Rotary level indicator power pac featuring a screw-off cover, 3/4" NPT dual conduit entries, DPDT relay contacts, fail-safe protection for power loss, and FDA-recognized powder coat finish.	416-0814	Standard:416-0814
BMRX-300 - Fail-safe rotary level indicator power pac featuring a two-color light ring for monitoring paddle rotation, paddle covered, and fault conditions, solid-state relay for PLC monitoring, a screw-off cover, 3/4" NPT dual conduit entries, DPDT relay contacts, and FDA recognized powder coat finish.	416-0815	Standard: 416-0814

# ROTARY PART NUMBER, DESCRIPTION

Description	CODE	Part No.
<b>CERTIFICATIONS</b>		
For use in non-hazardous, ordinary locations	X	
Certified for CSA C/US (DIP) Class II, Groups E, F & G hazardous locations	D	
Certified for IECEx/ATEX Zone 20, 20/21 Hazardous Locations + CSA Class II	A	
Certified for CSA C/US (EX) Class I, Group C & D and Class II, Groups E, F & G Hazardous Locations	E	
Certified for IECEx/ATEX Zone 20, 20/21 Hazardous Locations	F	
<b>POWER SUPPLY</b>		
115 VAC (available on BMRX-100, BMRX-200)	1	
220 VAC (available on BMRX-100, BMRX-200)	2	
24 VAC (available on BMRX-100, BMRX-200)	3	
24 VDC (available on BMRX-200, BMRX-300)	4	
90-264 VAC (available on BMRX-300)	5	
<b>PROCESS CONNECTIONS 1-1/4"</b>		
AA - 1-1/4" NPT Aluminum process connection fitting	AA	416-0804
AC - 1-1/4" NPT Aluminum process connection fitting with internal 1.0" NPS	AC	416-0808
SC - 1-1/4" 304 Stainless steel process connection fitting with internal 1.0" NPT	SC	416-0806
SA - 1-1/4" 304 Stainless steel process connection fitting	SA	416-0785
PA - 1-1/4" 304 Stainless steel fertilizer process connection fitting	PA	416-0817
<b>PROCESS CONNECTIONS 1-1/2"</b>		
AB - 1-1/2" NPT Aluminum process connection fitting	AB	416-0805
AD - 1-1/2" NPT Aluminum process connection fitting with internal 1.0" NPS	AD	416-0809
AE - 1-1/2" R BSPT Aluminum process connection fitting	AE	416-0826
SB - 1-1/2" 304 Stainless steel process connection fitting	SB	416-0803
SS - 1-1/2" 304 Stainless steel Tri-Clover connection	SS	416-0825
<b>DESCRIPTION</b>		
SD - 1-1/2" 304 Stainless steel process connection fitting with internal 1.0" NPT	SD	416-0807
PB - 1-1/2" 304 Stainless steel fertilizer process connection fitting	PB	416-0818
<b>SHAFT TYPE</b>		
B - Bearing End - 3/8" Stainless Steel Shaft Extension	B	530-XXXX
H - Hanging rotary extension 5/16" 316 SS	H	530-0843
F - Hanging Rotary Extension 5/16" 316 SS with FDA-approved Coating	F	530-0749
<b>GUARD TYPE &amp; LENGTH</b>		
XXX-None	XXX	530-0749
XXA - inches of 1" Aluminum Guard Pipe	XXA	056-0004
XXS - inches of 1" Stainless Steel Guard Pipe	XXS	056-0005
<b>SHAFT LENGTH</b>		
XX - inches of Bearing End - 3/8" Stainless Steel Shaft Extension	XX	530-XXXX
XXX - Feet of Hanging Rotary Extension 5/16" 316 SS	XXX	213-0024
XXX - Feet of Hanging Rotary Extension 5/16" 316 SS with FDA approval	XXX	213-0026
<b>HEAT TUBE</b>		
X - None	X	
A - 8" Aluminum Heat Tube	A	299-0728
B - 8" Stainless Steel Heat Tube	B	299-0721

# ROTARY PART NUMBER, DESCRIPTION

Description	CODE	Part No.
<b>HEAT TUBE COUPLING</b>		
None		
1-1/4" SS Rotary Heat Tube Coupling		175-0200
1-1/4" AL Rotary Heat Tube Coupling		175-0201
<b>LIGHT</b>		
X - No light (all models)	X	220-0480
L - Lid with light ring (BMRX-300 only)	L	416-0816
<b>EXTENSIONS</b>		
Bearing End - in. of 3/8" stainless steel shaft extension, includes paddle coupling.	B	
Flexible Hanging - ft. of vertical mounted flexible hanging rotary extension, single flexible Ø 5/16" (8 mm) 316 stainless steel cable with counterweight and coupler to attach power pac shaft. Counterweight includes shaft to connect paddle. Custom length, maximum length 15 ft.	H	213-0024
FDA Hanging - ft. of vertical mounted flexible hanging rotary extension, single flexible Ø 5/16" (8 mm) 316 stainless steel cable covered in FDA Grade Nylon with counterweight and coupler to attach power pac shaft. Counterweight includes shaft to connect paddle. Custom length, maximum length 15 ft.	F	213-0026
<b>MOUNTING PLATES-HALF COUPLING, SIDE-MOUNTED 1.25"</b>		
GRMP-1 - 0° Mild carbon steel half coupling 1-1/4" with black neoprene gasket		730-0020
GRMP-3 - 0° Stainless steel half coupling 1-1/4" mounting plate with black neoprene gasket		730-0021
GRMP-14 - 0° Mild carbon steel half coupling 1-1/4" with white silicone gasket		730-0567
<b>MOUNTING PLATES-HALF COUPLING, SIDE-MOUNTED 1.5"</b>		
GRMP-6 - 0° 1-1/2" NPT Powder coated carbon steel mounting plate with half coupling		730-0298
GRMP-8 - 0° 1-1/2" NPT Stainless steel mounting plate with half coupling		730-0469
<b>MOUNTING PLATES-FULL COUPLING, TOP-MOUNTED</b>		
GRMP-2 - 0° Mild carbon steel full coupling 1-1/4", powder coated with black neoprene gasket		730-0022
GRMP-4 - 0° Stainless steel full coupling 1-1/4" with black neoprene gasket		730-0023
GRMP-9 - 10° Mild carbon steel full coupling 1-1/4", powder coated with black neoprene gasket		730-0489
GRMP-13 - 30° Mild carbon steel full coupling 1-1/4", powder coated with black neoprene gasket		730-0508
GRMP-15 - 0° Stainless steel full coupling 1-1/4" with white silicone gasket		730-0568
GRMP-16 - 20° Mild carbon steel full coupling 1-1/4", powder coated with black neoprene gasket		730-0663
<b>COUPLINGS</b>		
GRSS-1 - Solid shaft, stainless steel side mount coupler		299-0004
GRFC-1 - Flexible stainless steel top mount coupler		416-0155
GRFS-1 - Molded neoprene, flexible stainless steel top mount coupler		416-0283
BSA - Bindicator stainless steel shaft adapter		416-0294
Roll pin for BMRX rotary		150-5004
<b>GALVANIZED SHAFT EXTENSIONS 1/4" DIAMETER</b>		
6" x 1/4"Ø Galvanized shaft extension, includes paddle coupling		299-0407
12" x 1/4"Ø Galvanized shaft extension, includes paddle coupling		299-0404
15" x 1/4"Ø Galvanized shaft extension, includes paddle coupling		299-0907
18" x 1/4"Ø Galvanized shaft extension, includes paddle coupling		299-0409
24" x 1/4"Ø Galvanized shaft extension, includes paddle coupling		299-0410
30" x 1/4"Ø Galvanized shaft extension, includes paddle coupling		299-0682
36" x 1/4"Ø Galvanized shaft extension, includes paddle coupling		299-0411
48" x 1/4"Ø Galvanized shaft extension, includes paddle coupling		299-0412

# ROTARY PART NUMBER, DESCRIPTION

Description	CODE	Part No.
60" x 1/4"Ø Galvanized shaft extension, includes paddle coupling		299-0609
63" x 1/4"Ø Galvanized shaft extension, includes paddle coupling		299-0610
72" x 1/4"Ø Galvanized shaft extension, includes paddle coupling		299-0611
84" x 1/4"Ø Galvanized shaft extension, includes paddle coupling		299-0612
XX x 1/4"Ø Custom galvanized shaft extension, includes paddle coupling. \$25 minimum on custom shaft lengths.		999-1000-XX

## STAINLESS STEEL SHAFT EXTENSIONS 1/4" DIAMETER

6" x 1/4"Ø Stainless steel shaft extension, includes paddle coupling		299-0413
12" x 1/4"Ø Stainless steel shaft extension, includes paddle coupling		299-0414
15" x 1/4"Ø Stainless steel shaft extension, includes paddle coupling		299-0508
18" x 1/4"Ø Stainless steel shaft extension, includes paddle coupling		299-0415
24" x 1/4"Ø Stainless steel shaft extension, includes paddle coupling		299-0416
30" x 1/4"Ø Stainless steel shaft extension, includes paddle coupling		299-0735
36" x 1/4"Ø Stainless steel shaft extension, includes paddle coupling		299-0417
48" x 1/4"Ø Stainless steel shaft extension, includes paddle coupling		299-0418
60" x 1/4"Ø Stainless steel shaft extension, includes paddle coupling		299-0634
72" x 1/4"Ø Stainless steel shaft extension, includes paddle coupling		299-0636
84" x 1/4"Ø Stainless steel shaft extension, includes paddle coupling		200-0637
XX x 1/4"Ø Custom stainless steel shaft extension, includes paddle coupling. \$25 minimum on custom shaft lengths.		999-1001-XX

## GUARD EXTENSIONS 1-1/4" DIAMETER GALVANIZED GUARD

6" x 1-1/4" Diameter Galvanized shaft guard		299-0909
12" x 1-1/4" Diameter Galvanized shaft guard		299-0919

Description	CODE	Part No.
15" x 1-1/4" Diameter Galvanized shaft guard		299-0911
18" x 1-1/4" Diameter Galvanized shaft guard		299-0681
24" x 1-1/4" Diameter Galvanized shaft guard		299-0419
30" x 1-1/4" Diameter Galvanized shaft guard		299-0736
36" x 1-1/4" Diameter Galvanized shaft guard		299-0420
48" x 1-1/4" Diameter Galvanized shaft guard		299-0421
60" x 1-1/4" Diameter Galvanized shaft guard		288-0613
63" x 1-1/4" Diameter Galvanized shaft guard		299-0614
72" x 1-1/4" Diameter Galvanized shaft guard		299-0615
84" x 1-1/4" Diameter Galvanized shaft guard		299-0616
XX x 1-1/4" Diameter custom length galvanized shaft guard. \$25 minimum on custom guard lengths.		999-1002-XX

## GUARD EXTENSIONS 1-1/4" STAINLESS STEEL SHAFT GUARD

6" x 1-1/4" Diameter Stainless steel shaft guard		299-0912
12" x 1-1/4" Diameter Stainless steel shaft guard		299-0913
15" x 1-1/4" Diameter Stainless steel shaft guard		299-0914
18" x 1-1/4" Diameter Stainless steel shaft guard		299-0737
24" x 1-1/4" Diameter Stainless steel shaft guard		299-0422
30" x 1-1/4" Diameter Stainless steel shaft guard		299-0738
36" x 1-1/4" Diameter Stainless steel shaft guard		299-0423
48" x 1-1/4" Diameter Stainless steel shaft guard		299-0424

# ROTARY PART NUMBER, DESCRIPTION

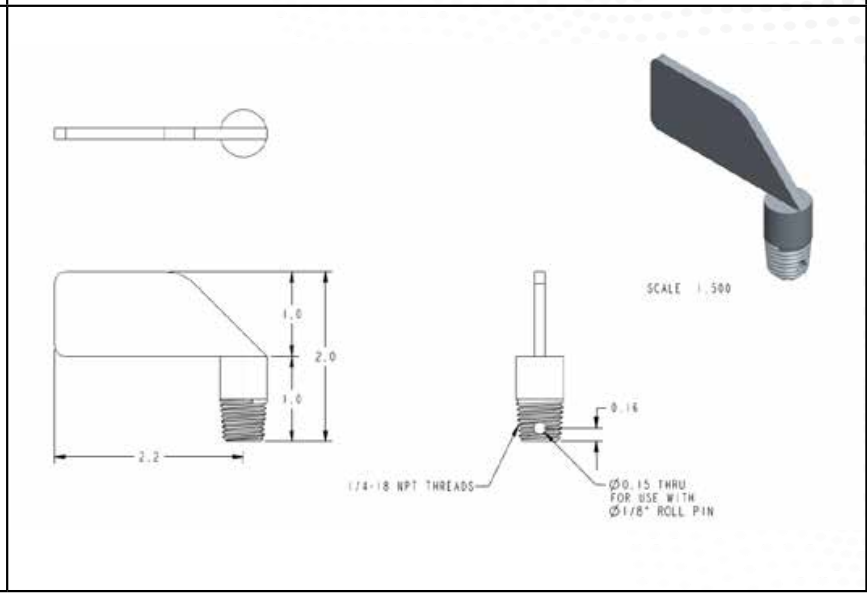
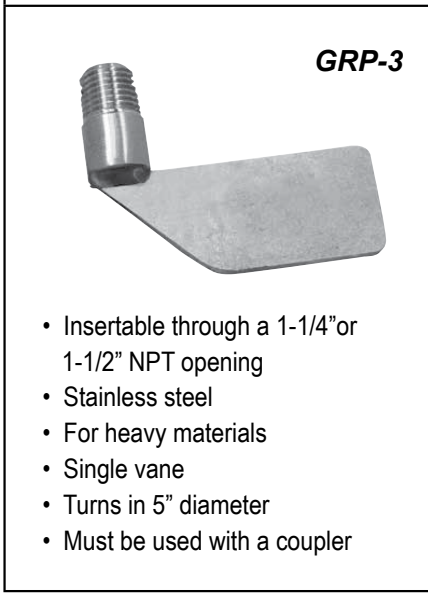
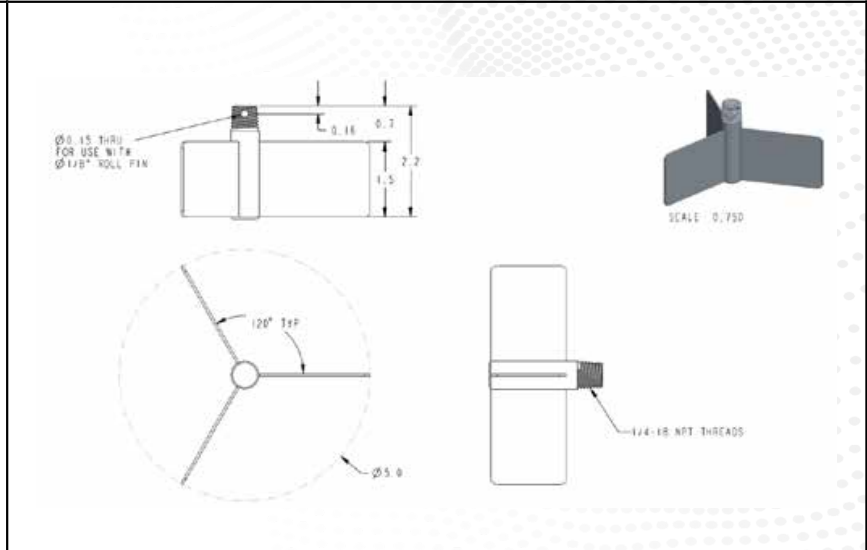
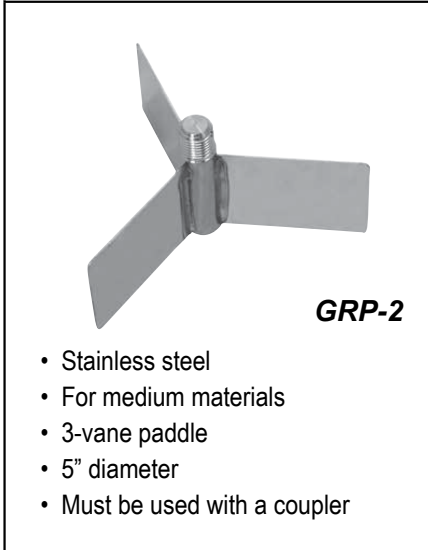
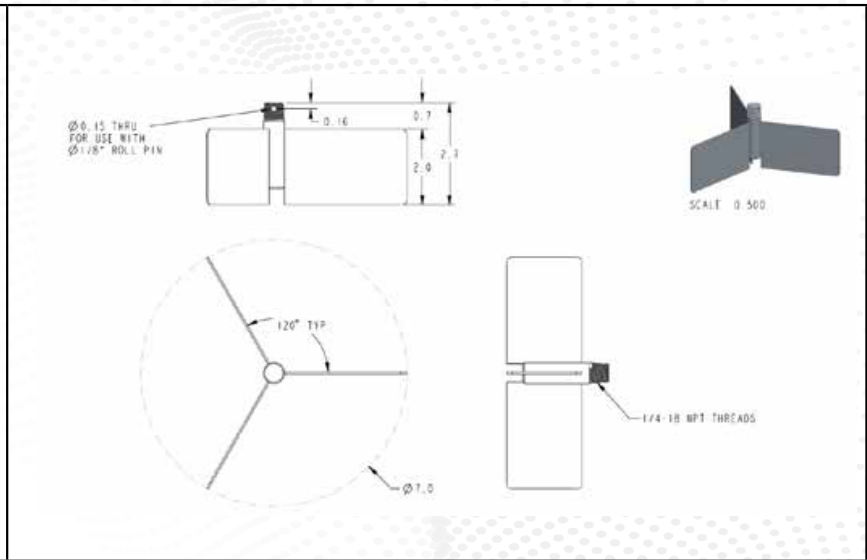
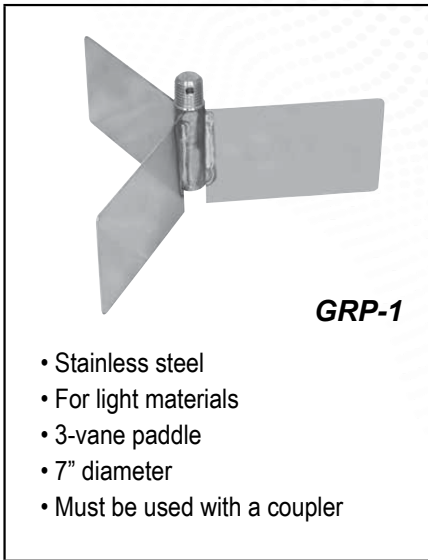
Description	CODE	Part No.
60" x 1-1/4" Diameter Stainless steel shaft guard		299-0638
72" x 1-1/4" Diameter Stainless steel shaft guard		299-0640
84" x 1-1/4" Diameter Stainless steel shaft guard		299-0641
XX x 1-1/4" Diameter custom length stainless steel shaft guard. \$25 minimum on custom guard lengths.		999-1003-XX
<b>1" DIAMETER GALVANIZED GUARDS</b>		
4" x 1" Diameter Galvanized shaft guard (why 4" guard if no 4" shaft)		299-0915
6" x 1" Diameter Galvanized shaft guard		299-0916
8" x 1" Diameter Galvanized shaft guard		299-0917
10" x 1" Diameter Galvanized shaft guard		299-0918
12" x 1" Diameter Galvanized shaft guard		299-0919
15" x 1" Diameter Galvanized shaft guard		299-0920
18" x 1" Diameter Galvanized shaft guard		299-0921
24" x 1" Diameter Galvanized shaft guard		299-0922
30" x 1" Diameter Galvanized shaft guard		299-0923
36" x 1" Diameter Galvanized shaft guard		299-0924
48" x 1" Diameter Galvanized shaft guard		299-0925
60" x 1" Diameter Galvanized shaft guard		299-0926
72" x 1" Diameter Galvanized shaft guard		299-0927
XX x 1" Diameter custom length galvanized shaft guard. \$25 minimum on custom guard lengths.		299-0928-XX
<b>1" DIAMETER STAINLESS STEEL GUARD (NO 4", 8", 10" AS WITH GALVANIZED)</b>		
6" x 1" Diameter Stainless steel shaft guard		299-0760
12" x 1" Diameter Stainless steel shaft guard		299-0761
<b>ACCESSORIES-FITTINGS</b>		
Rotary fitting to allow 1" guard pipe extensions to be adjusted for variable insertion lengths. The fitting threads into BinMaster 1-1/4" mounting plate and has set screws to allow variable height adjustments.		416-0641
1-1/4" Galvanized NPT female coupler to attach guard pipes together		201-9010
1-1/4" Stainless steel NPT female coupler to attach guard pipes together		201-9033
1" Aluminum NPT female coupler to attach guard pipes together		201-9034
1" Stainless steel NPT female coupler to attach guard pipes together		201-9035
1/4" Galvanized NPT female coupler to attach paddle to shaft extensions or shaft extensions together		201-9028
1/4" SS NPT female coupler to attach paddle to shaft extensions or shaft extensions together		201-9029
1/4" Aluminum NPT female coupler to attach paddle to shaft extensions or shaft extensions together		201-9036
1/4" NPT galvanized coupling for shaft extensions (undrilled, unpinned)		201-9011
<b>ACCESSORIES-QUICK CONNECTORS</b>		
M12 Eurofast male quick disconnect connection installed into the sensor's conduit opening and pre wired to the control board.		530-0871
7/8" Minifast male quick disconnect connection installed into the sensor's conduit opening and pre wired to the control board.		530-0872
Field wireable M12 Eurofast straight female connector, plastic (PBT Or Nylon)		318-0236
Field wireable 7/8" minifast straight female connector, glass-filled nylon body.		318-0237
4/18 AWG YELLOW PVC; bulk cable, coil, w/ yellow polyvinyl chloride outer jacket, wire complement: altogether 4X18 AWG wires. Non-returnable. Sold by the foot.		398-0585

# PADDLE SELECTION

BinMaster offers a wide selection of paddle for very light to heavy materials. Select paddles will collapse to fit through a 1.25" to 1.5" opening allowing installation without entering the vessel. For some applications, a direct connect paddle option will not require a coupler.

Model	Type	Construction	Turning Diameter	Insertion Depth	Blade Height	Connection	Material Denisty
GRP-1	3-Vane	Stainless Steel	7.0"	2.7"	2.0"	Coupler	Light
GRP-2	3-Vane	Stainless Steel	5.0"	2.2"	1.5"	Coupler	Medium
GRP-3	Single Vane Insertable	Stainless Steel	4.4375"	2.0"	1.0"	Coupler	Heavy
GRP-11	3-Vane	Nylon	7.0"	2.6"	1.9375"	Coupler	Light
GRP-12	3-Vane	Nylon	5.0"	2.1"	1.4375"	Coupler	Medium
GRP-22	3-Vane	Stainless Steel	5.0"	2.2"	1.0"	Coupler	Heavy
GRP-23	Bayonet	Stainless Steel	6.4"	6.2"	1.2"	Coupler	Medium
GRP-24	Belt	Belting	1.5"	13.2"	12.0"	Coupler	Heavy with Large Particle Size
GRP-25	3-Vane	Stainless Steel	5.4"	5.7"	5.0"	Coupler	Very Light
GRP-26	3-Vane	Stainless Steel	7.0"	3.5"	2.0"	Direct	Light
GRP-27	Bayonet	Stainless Steel	6.4"	8.0"	1.2"	Direct	Medium
GRP-28	3-Vane	Stainless Steel	7.0"	5.7"	5.0"	Coupler	Very Light
GRP-29	3-Vane	Stainless Steel	5.4375"	5.7"	5.0"	Direct	Very Light
GRP-30	3-Vane	Stainless Steel	5.0"	4.0"	1.5"	Direct	Medium
GRP-31	Single Vane	Stainless Steel	7.0"	2.25"	1.625"	Coupler	Heavy
GRP-34	Single Vane	Stainless Steel Collapsible to 1.5" NPT	8.0"	4.7"	1.375"	Direct	Medium to Heavy
GRP-35	Double Vane	Stainless Steel Collapsible to 1.5" NPT	8.0"	4.8"	1.375"	Direct	Medium to Heavy
GRP-36	Single Vane	Stainless Steel Collapsible to 1.5" NPT	8.0"	4.8"	1.375"	Coupler	Medium to Heavy
GRP-37	Double Vane	Stainless Steel Collapsible to 1.5" NPT	8.0"	4.8"	1.375"	Coupler	Medium to Heavy

# PADDLE

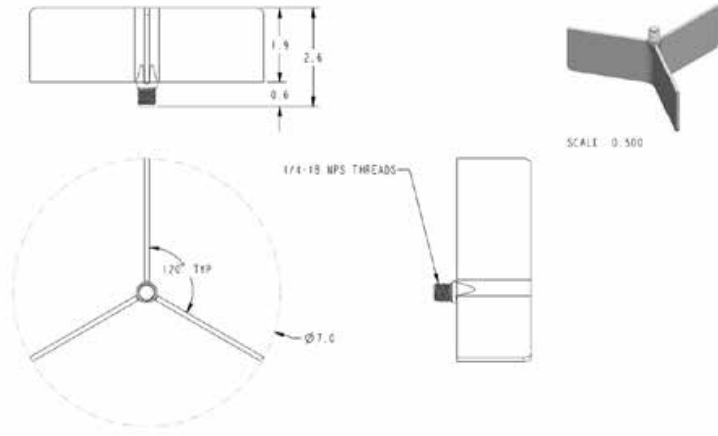


# PADDLE



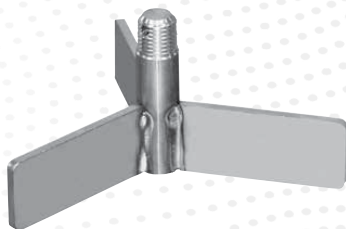
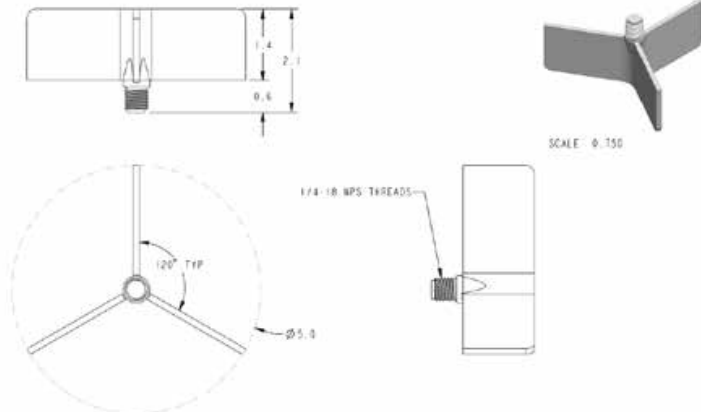
**GRP-11**

- Economical, nylon paddle
- For light materials
- 3-vane
- 7" diameter
- Must be used with a coupler



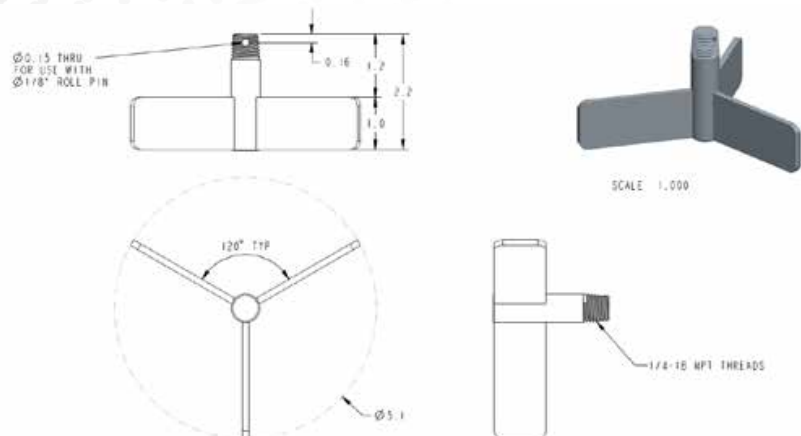
**GRP-12**

- Economical, nylon paddle
- For medium materials
- 3-vane paddle
- 5" diameter
- Must be used with a coupler


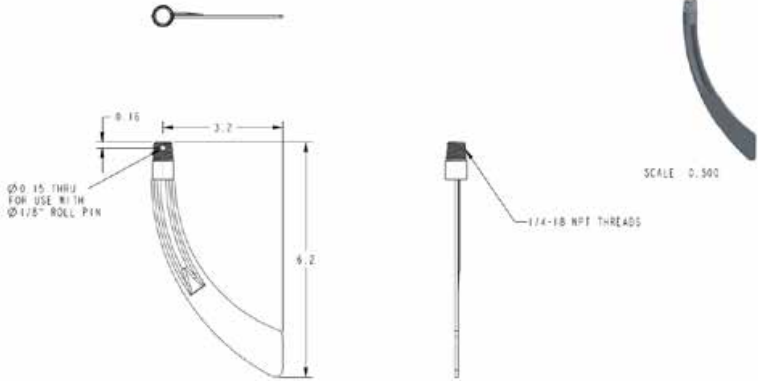

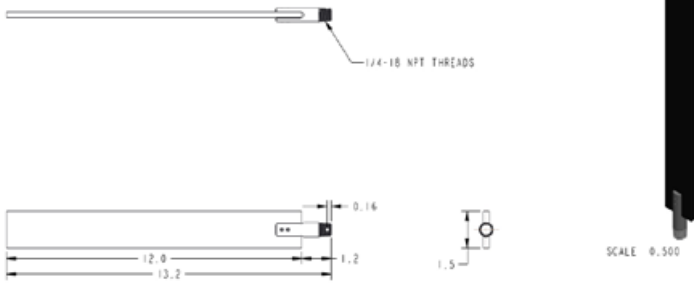

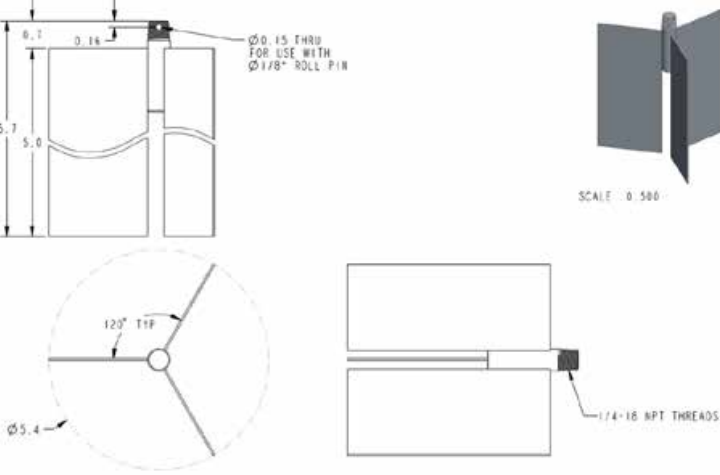


**GRP-22**

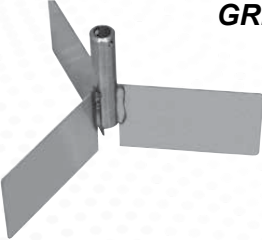
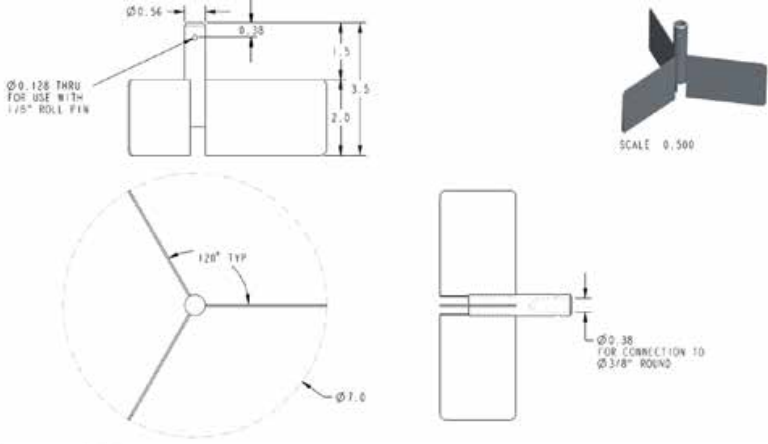

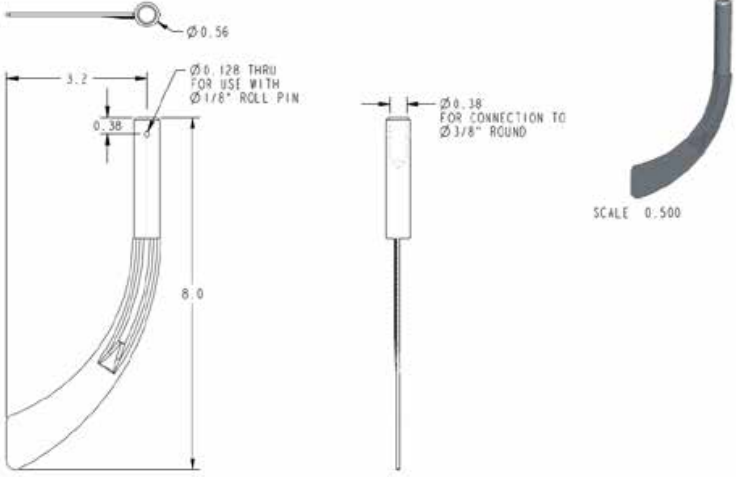
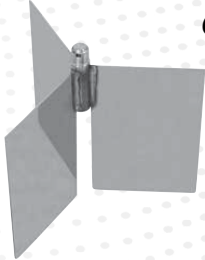
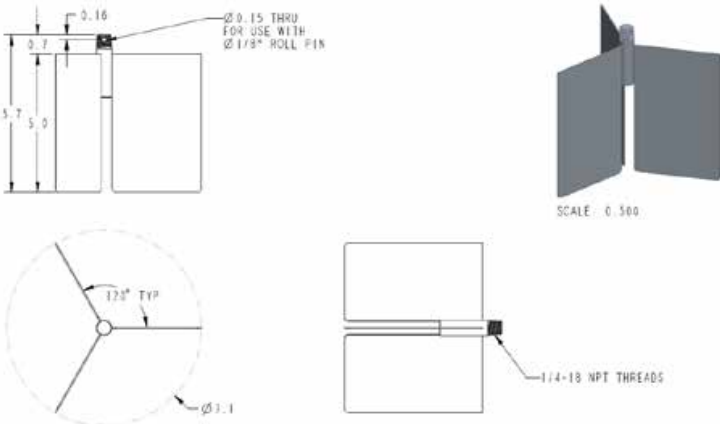
- Stainless steel
- For heavy materials
- 3-vane
- 5" diameter
- Must be used with a coupler



# PADDLE

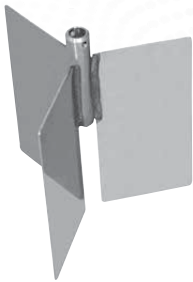
 <p><b>GRP-23</b></p> <ul style="list-style-type: none"> <li>• Insertable through 1-1/4" or 1-1/2"</li> <li>• NPT opening</li> <li>• Stainless steel</li> <li>• For medium materials</li> <li>• Single bayonet style</li> <li>• Turns in 5" diameter</li> <li>• Must be used with a coupler</li> </ul>	 <p>SCALE 0.500</p>
 <p><b>GRP-24</b></p> <ul style="list-style-type: none"> <li>• 12" belt paddle</li> <li>• For use in heavy materials</li> <li>• Used in large particulate size such as rock, coal or aggregate</li> <li>• Must be used with a coupler</li> </ul>	 <p>SCALE 0.500</p>
 <p><b>GRP-25</b></p> <ul style="list-style-type: none"> <li>• Stainless steel</li> <li>• For very light materials</li> <li>• 3-vane</li> <li>• Paddles are 5" tall and 1/16" thick to increase resistance in light materials</li> <li>• Must be used with a coupler</li> </ul>	 <p>SCALE 0.500</p>

# PADDLE

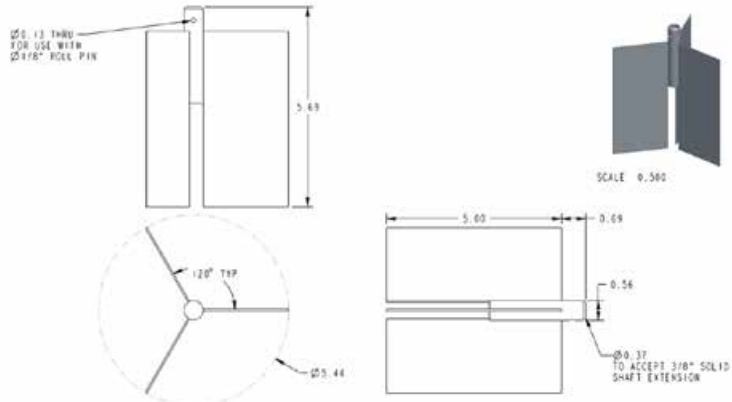
 <p><b>GRP-26</b></p> <ul style="list-style-type: none"> <li>• Direct connect version of GRP-1</li> <li>• Does not require use of coupler</li> <li>• Should be used when side mounting only</li> <li>• For light materials</li> <li>• 3-vane, stainless steel</li> <li>• 7" diameter, blades are 2' wide</li> </ul>	 <p>SCALE 0.500</p>
 <p><b>GRP-27</b></p> <ul style="list-style-type: none"> <li>• Direct connect version of GRP-23</li> <li>• Does not require use of coupler</li> <li>• Should be used when side mounting only</li> <li>• For medium materials</li> <li>• Insertable, single bayonet style, stainless steel</li> <li>• Blade is 1/8" thick and 1" wide</li> </ul>	 <p>SCALE 0.500</p>
 <p><b>GRP-28</b></p> <ul style="list-style-type: none"> <li>• For extremely light materials</li> <li>• 3-vane, stainless steel</li> <li>• 7" diameter for added resistance</li> <li>• Blades are 5" tall and 1/16" thick to increase resistance in light materials</li> </ul>	 <p>SCALE 0.500</p>

# PADDLE

**GRP-29**



- Direct connect version of GRP-25
- Does not require use of coupler
- Should be used when side mounting only
- 3-vane, stainless steel paddle
- For very light materials
- Paddles are 5" tall and 1/16" thick to increase resistance in light materials

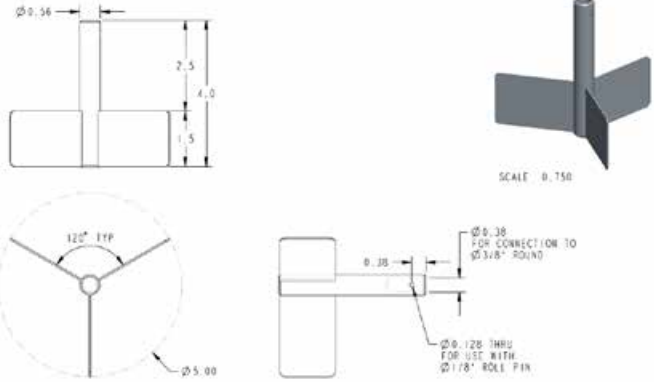


$\varnothing 0.13$  THRU FOR USE WITH  $\varnothing 1/8"$  ROLL PIN  
 5.00  
 $120^\circ$  TIP  
 $\varnothing 0.44$   
 5.00  
 0.09  
 0.56  
 $\varnothing 0.37$  TO ACCEPT 3/8" SOLID SHAFT EXTENSION  
 SCALE 0.500

**GRP-30**



- Direct connect version of GRP-2
- Does not require use of coupler
- Should be used when side mounting only
- For medium materials
- 3-vane paddle, stainless steel
- 5" diameter

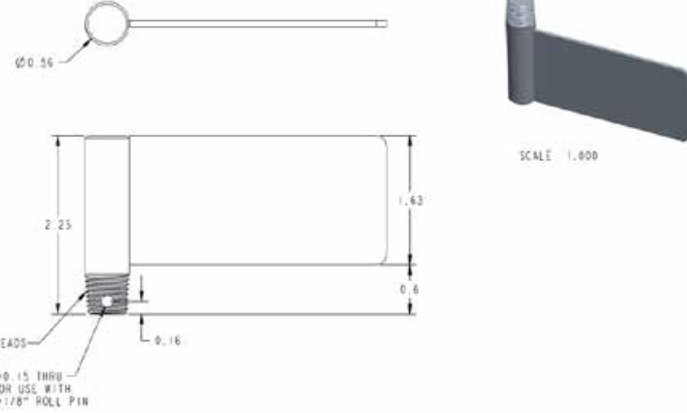


$\varnothing 0.36$   
 2.5  
 4.0  
 1.5  
 $120^\circ$  TIP  
 $\varnothing 5.00$   
 0.38  
 $\varnothing 0.38$  FOR CONNECTION TO  $\varnothing 3/8"$  ROUND  
 $\varnothing 0.128$  THRU FOR USE WITH  $\varnothing 1/8"$  ROLL PIN  
 SCALE 0.750

**GRP-31**



- Single blade
- Stainless steel
- 3-1/4" long for heavy materials
- Turns in 6-1/2" diameter
- Blade is 1/8" thick and 1.63" wide
- Must be used with a coupler



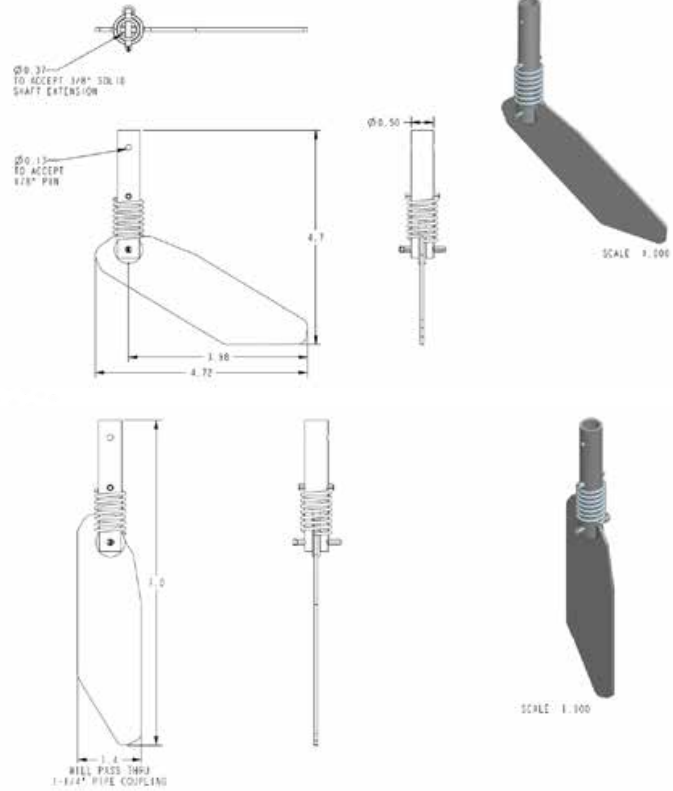
$\varnothing 0.56$   
 3.25  
 1.63  
 0.6  
 0.16  
 1/4-18 NPT THREADS  
 $\varnothing 0.15$  THRU FOR USE WITH  $\varnothing 1/8"$  ROLL PIN  
 SCALE 1.000

# PADDLE

## GRP-34



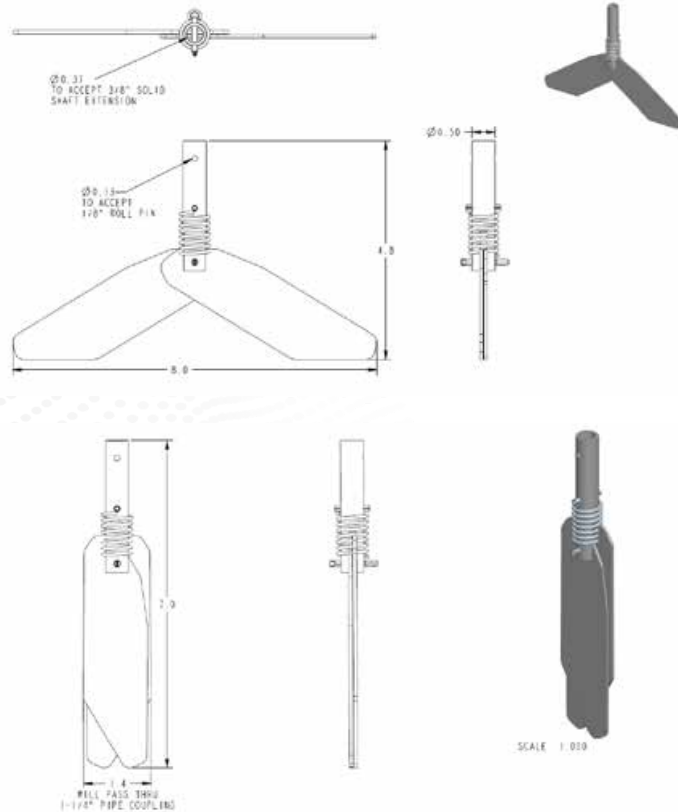
- Direct connect version of GRP-36
- Single bladed, insertable paddle
- Folds to insert through a 1-1/4" or 1-1/2" NPT opening
- Stainless steel
- Turns in 7-1/2" diameter
- Paddle blades are 1-1/2" wide



## GRP-35



- Direct connect version of GRP-37
- Double bladed, insertable paddle
- Folds to insert through a 1-1/4" or 1-1/2" NPT opening
- Stainless steel
- Turns in 7-1/2" diameter
- Paddle blades are 1-1/2" wide

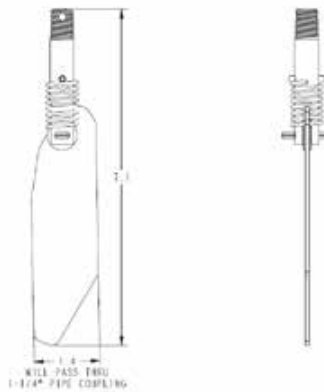
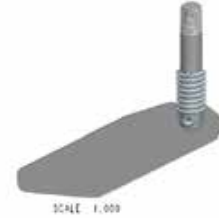
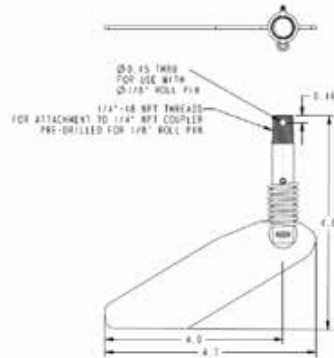


# PADDLE

**GRP-36**



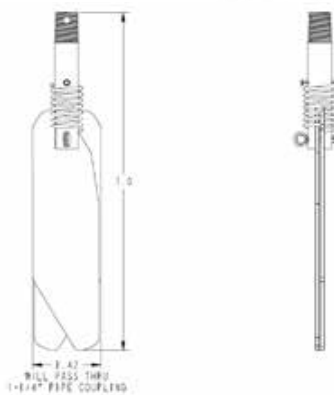
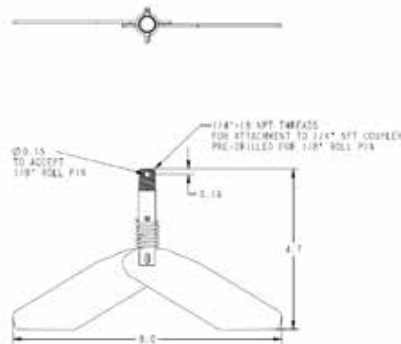
- Single bladed, insertable paddle
- Folds to insert through a 1-1/4" or 1-1/2" NPT opening
- Stainless steel
- Turns in 7-1/2" diameter
- Paddle blades are 1-1/2" wide
- Must be used with a coupler



**GRP-37**

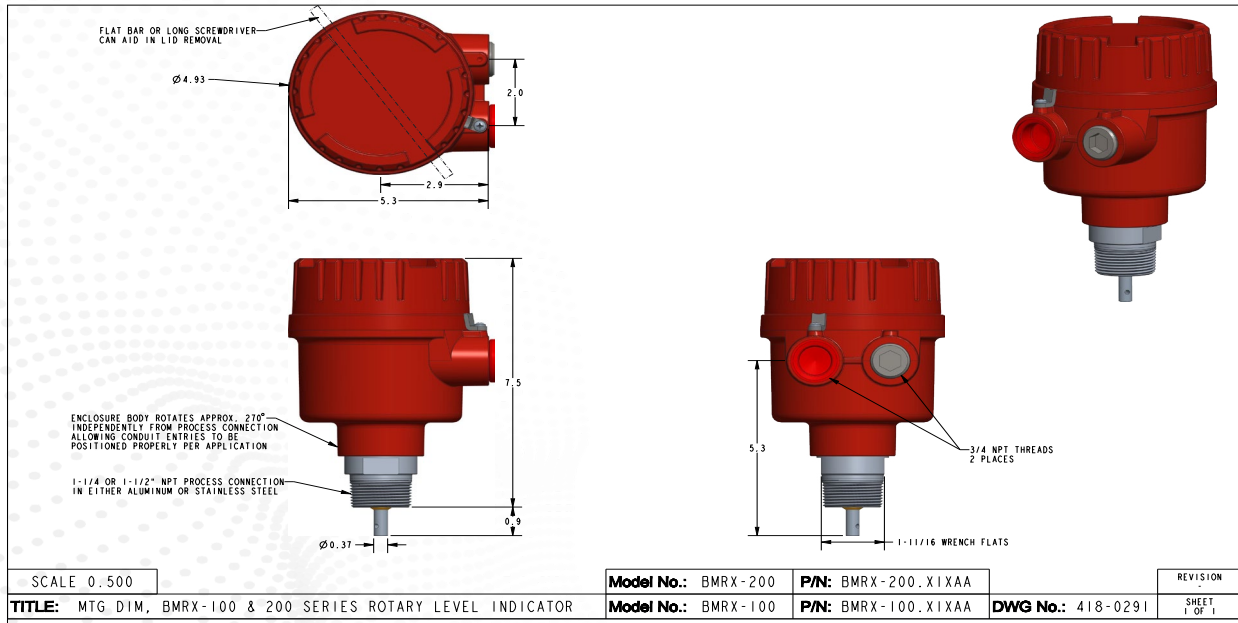


- Double bladed, insertable paddle
- Folds to insert through a 1-1/4" or 1-1/2" NPT opening
- Stainless steel
- Turns in 7-1/2" diameter
- Paddle blades are 1-1/2" wide
- Must be used with a coupler

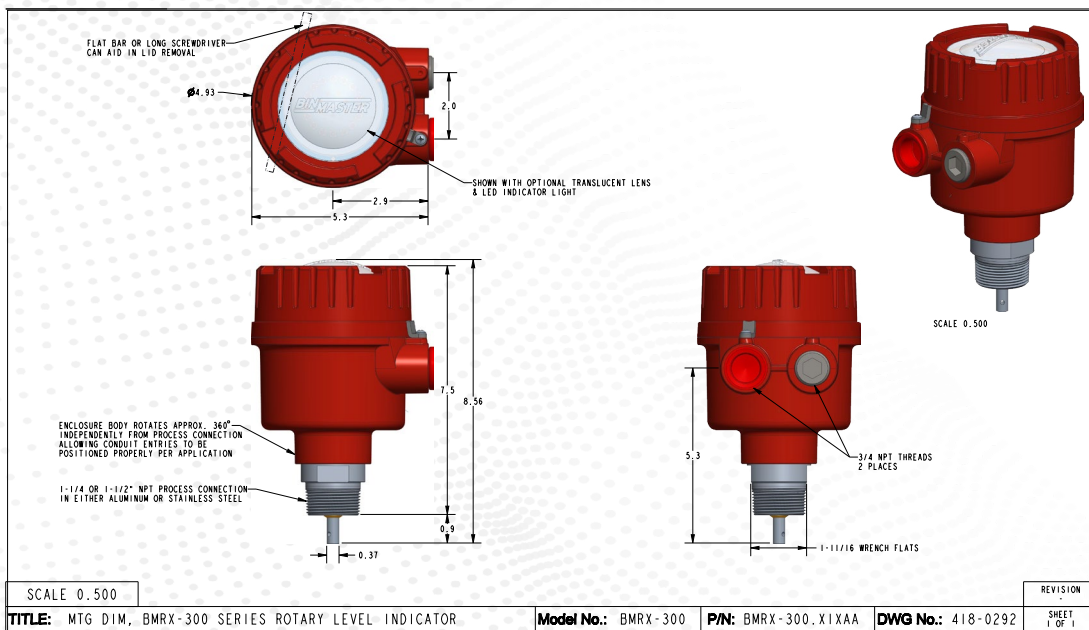


# MODELS

## BMRX 100, BMRX 200



## BMRX 300



# ACCESSORIES

Aggressive, corrosive, or sanitary conditions require custom process connections. Get aluminum or stainless steel connections in 1-1/4" and 1-1/2" sizes with an internal 1.0" NPT option.



	<p><b>Heat Tubes</b></p> <p>Distance the electronics from the heat source when external temperatures exceed 140° F (60°C) with 6", 8", or 12" aluminum or stainless-steel extensions that can be side or top-mounted.</p>
	<p><b>Adjustable Couplings</b></p> <p>Vary the depth of a top-mounted rotary from 6" to 72" without entering the vessel using a sliding extension.</p>
	<p><b>Tri-Clover Connections</b></p> <p>Stainless steel mounts, connections, and clean-in-place features for food, feed, and pharmaceutical use.</p>
	<p><b>Stainless Steel Process Connections</b></p> <p>1-1/4" or 1-1/2" stainless steel process connections stand up in corrosive or food processing applications like corrosive, fertilizer, or food processing applications.</p>