

BAIER

SINCE 1947

*Marine
Company. Inc.*

Hatches ✦ Deck Fittings

BACKGROUND

Baier is the first name associated with marine hatches, having set the standard for the industry since 1947. Baier invented and patented the first flush hatch, was the original designer and supplier of flush hatches to the military, and was the first flush hatch manufacturer to receive American Bureau of Shipping (ABS) and U.S. Coast Guard certification for their product. The Baier hatch is used on all types of fishing boats, tugs, barges, work boats, rescue boats, and other marine vessels in both the military and private sectors.



Photo Courtesy of the United States Coast Guard



Photo Courtesy of Munson Boats

UNIQUE DESIGN

Most Baier Hatches use the patented strongback system of securing the hatch cover to the deck. It is superior to other more complicated hatch closure systems because:

- It is **SIMPLE**. Only two moving parts insure many more trouble free years of operation. Simplicity equals safety when at sea
- It is **STRONG**. No other closure system is as rugged or durable. Stronger is better.
- It is more reliably **WATERTIGHT**.
- It is **SERVICEABLE**. Baier stocks a complete inventory of parts with same day shipment. Simply remove the old part and replace with the new. No need to send the hatch back to the manufacturer for repairs.
- All these features add up to **LOW MAINTENANCE**.

CERTIFICATION AND APPROVAL

Baier Hatches have been approved and used by the American Bureau of Shipping (ABS), U.S. Coast Guard, U.S. Army Corps of Engineers, and the Canadian Department of Transport. Since 1947, Baier's long list of satisfied customers is the best testimonial to our products. Baier would not be here today without their loyalty.

QUALITY MATERIALS

The Baier flush hatch product line is available in cast aluminum and cast heat-treated galvanized steel.



Photo Courtesy of Mooney Boats. Ltd.



Photo Courtesy of Munson Boats

WIDE PRODUCT LINE

Baier quick opening, positive locking hatches are available in round, oval, lift-out, hinged, and coaming configurations.

Baier is the only hatch available in steel (versus iron). Steel is more durable than iron. Steel hatches have up to 300% greater impact resistance, energy absorption, and ductility versus iron hatches (especially at low temperatures).





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Baier Classic HEX-Bolt Strongback

Our simplest and most popular hatch featuring the proven Baier strongback system and the classic Hex wrench mode operation. The simple mechanical design ensures operation without fail and has set the standard for marine hatches in the market since 1947.



CLASSIC
HEX

Round - Lift Out	Series BFHR Specs.	Clear Opening	Drawing #	AL	ST	
	Model BFHR14, 16, 18, 20	14, 16, 18, 20 Ø	# 286-1	X		6
	Model BFHR24	24" Ø	# 630	X	X	7
Round - Hinged	Series BFHHR Specs.					11
	Model BFHHR22	22" Ø	# 625	X	X	12
Oval - Lift Out	Series BFHO Specs.					9
	Model BFHO15x24	15" x 24"	# 541	X	X	10
Oval - Hinged	Series BFHHO Specs.					11
	Model BFHHO15x24	15" x 24"	# 543-1	X	X	13

Baier T-Handle Strongback

A best of both world solutions. Still featuring the strength and simplicity of the Baier strongback system but with the added convenience of a built-in recessed T-Handle. Never lose wrenches needed for operation with this completely self-contained hatch.



T-HANDLE
STRONGBACK

Round - T-handle Lift Out	Series BFHRTH Specs.	Clear Opening	Drawing #	AL	ST	
	Model BFHRTH8	6.625" Ø	# 670	X		15
	Model BFHRTH20	20" Ø	# 200	X		18
Oval - T-handle Lift Out	Series BFHOTH Specs.					19
	Model BFHOTH15x24	15" x 24"	# 500	X		20
Oval - T-handle Hinged	Series BFHHOTH Specs.					23
	Model BFHHOTH15x24	15" x 24"	# 525	X		24
Square - T-handle Lift Out	Series BFHSQ Specs.					21
	Model BFHSQ24x24	24" x 24"	# 700	X		22
Square - T-handle Hinged	Series BFHHSQ Specs.					23
	Model BFHHSQ24x24	24" x 24"	# 725	X		25

Baier Quick-Acting 4 Dog

Based on an industry standard this Quick Acting flush hatch also features the built-in recessed T-handle with the added function of 4-dog engagement. This proven design allows for positive verification of engagement and easy quarter-turn operation.



QUICK
ACTING

Round - QA 4-Dog Lift Out	Series BFHQTH Specs.	Clear Opening	Drawing #	AL	ST	
	Model BFHQTH20	20" Ø	# 810	X		27
Oval - QA 4-Dog Lift Out	Series BFHQTH Specs.					28
	Model BFHQTH15x24	15" x 24"	# 800	X		29
Oval - QA 4-Dog Lift Out Type F	Series BFHQTHF Specs.					30
	Model BFHQTHF15x24	15" x 24"	# 800	X		29
						30

Baier Hatch Options

Coamings - Standard	Series BCHHO Specs.	Clear Opening	Drawing #	AL	ST	
	Model BCHHR22	22" Ø	# 627	X	X	31
	Model BCHHHO15x24	15" x 24"	# 542-1	X	X	32
Escape Handles	Optional Handle Available					33
	Model UP-HNDWHL for Strongback		08863-238A	X		16
	Model UP-HNDWHL For QA 4-dog		08864-212A	X		28
Cast Steel Options	Cast Steel Specs.					63
	Models Cast Steel Flush Hatches					64
	FEA Comparison (Finite Element Analysis)					64



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Steel Multi-Bolt Manhole Covers

Our manholes are a great alternative to flush hatches for applications of non-frequent access. Baier offers a complete line of manholes with a configuration and hardware combination to fit your need. Please find out more about the configuration on our manhole product pages.



Oval - 15X23 - 20 Bolt	Series BMHC15X23 Specs.	Clear Opening	Drawing #	37
	Model BMHC15X23D - TAP RING	15" x 23"	08866-101D	40
	Model BMHC15X23F - FLUSH SCREW	15" x 23"	08866-101F	40
	Model BMHC15X23S - WELD STUD	15" x 23"	08866-101S	40
	Model BMHC15X23Z - 3" NPT PLUG	15" x 23"	08866-101Z	40
	Model BMHC15X23BZ - WELD BOLT	15" x 23"	02590-101A	40
	Model BMHC15X23BS - WELD BOLT	15" x 23"	02590-105A	40
	Model BMHC15X23x2.5BZ - RAISED	15" x 23"	02570-101A, 101S, 105S	40
Oval - 15X23 - 26 Bolt	Series BMHC15X23-26 Specs.			38
	Model BMHC15X23-26D TAP RING	15" x 23"	02590-102SA	40
	Model BMHC15X23-26F FLUSH SCREW	15" x 23"	02610-101A	40
Oval - 18X24	Series BMHC18X24 Specs.			38
	Model BMHC18X24BZ NO WELD	18" x 24"	02600-101A	40
	Model BMHC18X24X RAISED	18" x 24"	02580-101A	40
Round - 14	Series BMHC14 Specs.			38
	Model BMHC14BR - RAISED 2 1/2"	14" Ø	08451-101A,B,102B	40
	Model BMHC14SS-4.5 - RAISED 4 1/2"	14" Ø	08451-112B	40
Round - 18	Series BMHC18 Specs.			38
	Model BMHC18BR - RAISED 2 1/2"	18" Ø	08450-101A,B,102B	40
	Model BMHC18SS-9 - RAISED 9 1/2"	18" Ø	08450-121B, 122B	40

For Complete Listing of Manholes - SEE MANHOLE FEATURE WORKSHEET

40

Universal Steel Hatches

Other industry standard steel hatches available. Baier now offers a complete line of universal hatches to fit your need. These hatches are a great value.



Round - T-Bolt ¹	Series UMC-430 Specs.	Clear Opening	Drawing #	43
	Model UMC-430-18	18" Ø	01210-101A	44
	Model UMC-430-24	24" Ø	01220-101A	44
Round - Single Bolt ²	Series UMC-301 Specs.			43
	Model UMC-301-20	20" Ø	08380-101A	44
	Model UMC-301-22	22" Ø	08381-101A	44
Round - Twist Lock ³	Series UMC-474 Specs.			45
	Model UMC-474 Flush	18.6" Ø	08640-101A	46
	Model UMC-474 5" Coaming	18.6" Ø x 5"	08641-101A	46
Round - 8" Ullage ⁴	Series UMC-114 Specs.			45
	Model UMC-114 - 7/8" Coaming	8" Ø x 7/8"	01242-102A	46
	Model UMC-114 - 5" Coaming	8" Ø x 5"	01242-104B	46
Round - 10" Ullage	Series UMC-569 Specs.			45
	Model UMC-569 - 5" Coaming	20" Ø	01243-101A	46
Round - 12" & 19" Multi-Dog ⁵	Series UMC-Multi Spec.			47
	Model UMC-456-5 - 12" 3 Dog 5" Coaming	12" Ø x 5"	03410-101A	48
	Model UMC-343-5 - 19" 4 Dog 5" Coaming	19" Ø x 5"	01230-101A	48
Oval - 15X23 Multi-Dog	Series UMC-174 Specs.			47
	Model UMC-174-5-RC - 4 Dog 5" Coaming	15" x 23" x 5"	01240-102A	48
	Model UMC-274-5 - 2 Dog 5" Coaming	15" x 23" x 5"	01241-105A	48
Oval - 18X24 Multi-Dog	Series UMC-464 Specs.			47
	Model UMC-464-5 - 4 Dog 5" Coaming	18" x 24" x 5"	03800-101A	48
	Model UMC-464-5/14 - 4 Dog w/ 8" Ullage	18" x 24" x 5"	03800-135K	49

STEEL MANHOLES

UNIVERSAL STEEL HATCH



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Universal Steel Water-Tight Doors

Reliable easy-access water-tight doors are another product line that Baier Marine now offers to the industry. All of our doors are built using high quality hardware and are available in both left and right-hand models to suit your needs.

4-Dog	Series UMC-WTD-4D Specs.	Clear Opening	Drawing #	
<i>Right Hand</i>	Model UMC-WTD-4D-26X54R	26" x 54"	06111-101A	51
	Model UMC-WTD-4D-26X60R	26" x 60"	06111-101C	51
	Model UMC-WTD-4D-30X60R	30" x 60"	06111-101E	51
<i>Left Hand</i>	Model UMC-WTD-4D-26X54L	26" x 54"	06111-101B	51
	Model UMC-WTD-4D-26X60L	26" x 60"	06111-101D	51
	Model UMC-WTD-4D-30X60L	30" x 60"	06111-101F	51
6-Dog¹	Series UMC-WTD-6D Specs.			
<i>Right Hand</i>	Model UMC-WTD-6D-26X60R	26" x 60"	06121-101C	51
	Model UMC-WTD-6D-30X60R	30" x 60"	06121-101E	51
	Model UMC-WTD-6D-30X66R	30" x 66"	06121-101G	51
	Model UMC-WTD-6D-30X72R	30" x 72"	06121-101I	51
<i>Left Hand</i>	Model UMC-WTD-6D-26X60L	26" x 60"	06121-101D	51
	Model UMC-WTD-6D-30X60L	30" x 60"	06121-101F	51
	Model UMC-WTD-6D-30X66L	30" x 66"	06121-101H	51
	Model UMC-WTD-6D-30X72L	30" x 72"	06121-101J	51
Quick Acting²	Series UMC-WTD-QA Specs.			
<i>Right Hand</i>	Model UMC-WTD-QA-26X60R	26" x 60"	06122-101C	53
	Model UMC-WTD-QA-30X60R	30" x 60"	06122-101E	53
	Model UMC-WTD-QA-30X66R	30" x 66"	06122-101G	53
	Model UMC-WTD-QA-30X72R	30" x 72"	06122-101I	53
<i>Left Hand</i>	Model UMC-WTD-QA-26X60L	26" x 60"	06122-101D	53
	Model UMC-WTD-QA-30X60L	30" x 60"	06122-101F	53
	Model UMC-WTD-QA-30X66L	30" x 66"	06122-101H	53
	Model UMC-WTD-QA-30X72L	30" x 72"	06122-101J	53



6 Dog Door



QA Door

UNIVERSAL W/T DOOR

Universal Steel Kevels, Chocks, & Bitts

Standard marine industry steel casting made from ASTM A27-70-36 steel. These deck fitting are available in all sizes from small to large to suit your needs and built to handle the toughest conditions and heaviest of loads.

Kevels	Series UMC-Kevels Specs.	Drawing #	56
	Model Kevels 12", 18", 36", 42", 48", & 60"	See Details	56
	Model Kevel Chocks 24", 30", 36", 42" & 48" ¹	See Details	56
Bitts	Series UMC-Bitt Specs.	Drawing #	60
	Model Single Bitt 8" & 10" ²	See Details	60
	Model Single Bitt - Thru Deck 8" & 10"	See Details	60
	Model Double Bitt 8", 10", & 12" ³	See Details	61
	Model Double Bitt w/ Horns 8" & 10"	See Details	61
Chocks	Series UMC-Chocks Specs.	Drawing #	57
	Model Button Chock 6", 8", & 10" ⁴	See Details	57
	Model Closed Chock 9", 12", & 14" ⁵	See Details	58
	Model Open Chock 9" & 12" ⁶	See Details	58
	Model Panama Chock 10"x14" & 12"x18"	See Details	59
	Model Mooring Eyes 8"x12" & 12"x18"	See Details	59
Roller Buttons	Series UMC-Roller Buttons Specs.	Drawing #	62
	Model Roller Button Welded 12", 16", & 14"	See Details	62
	Model Roller Button Welded 17"	See Details	62
	Model Roller Chock 13"	See Details	62
Roller Buttons	Series D-Ring Specs.	Drawing #	60
	Model D-Ring	See Details	60



Kevels

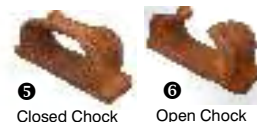


Single Bitts

Double Bitts



Button Chocks



Closed Chock

Open Chock

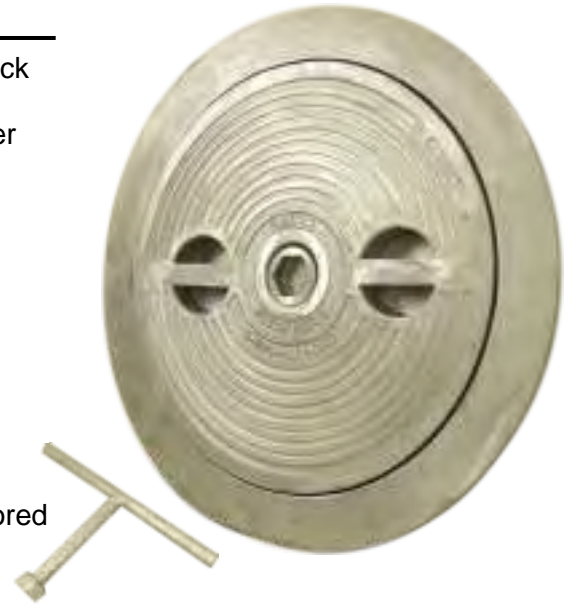
UNIVERSAL DECK FITTING

BFHR Series Round - Lift Out

The popular "Classic" Baier Flush Hatch™ is the flush-mounted, quick release, lift-out hatch with grab handles as shown. It has long been standard equipment on fishboats, tugs, barges, workboats, and other marine vessels, as well as many U.S. Navy and U.S. and Canadian Coast Guard vessels.

FEATURES

- Cast Hatch Cover
- Cast Strongback
- Stainless Steel Hex Centerbolt and hardware
- Neoprene Cover Gasket and Washers (Buna-N optional)
- Cast / fabricated matching Deck Ring
- Every unit shipped with an underside escape turning bar for safety (turning wheel optional)
- Detachable Hex wrench used for quick operation, can be stored separately for security



CLASSIC
HEX

STRENGTH, SIMPLICITY and SECURITY

The ultimate in strength and simplicity, Baier's original patented strongback system has only two moving parts to secure the hatch cover to the deck. It is superior to other more complicated hatch closure systems in that it is simpler, stronger, more reliably watertight, infinitely adjustable from topside, and more easily serviced (parts are readily available and replaced in the field). Importantly, the recessed hex centerbolt and grab handles offer no snags for nets, lines or hardware.

MATERIALS

The majority of the Classic Model BFH hatch cover product line is available in both cast aluminum and cast steel. Steel Cover assemblies and deck rings are hot dip galvanized for superior corrosion resistance. No other flush hatch is available in cast steel (which is stronger, more durable, and more impact resistant when compared to iron hatches, especially in cold climates). The deck ring is available in galvanized mild steel (for welding into steel decks), or cast aluminum (for welding into aluminum decks or bolting to fiberglass or wood decks). Fabricated stainless deck rings are available by special order.

SEE FLUSH HATCH PRODUCT MATRIX P. 35

Hatch Model	Clear (A) Opening	Cover (B) Diameter	Technical Drawing
BFHR14	14"(356mm)	16" (406mm)	#286-1
BFHR16	16"(406mm)	18" (457mm)	#286-1
BFHR18	18"(457mm)	20" (508mm)	#286-1
BFHR20	20"(508mm)	22" (559mm)	#286-1
BFHR24	24"(610mm)	26" (660mm)	#630



BFHR16A/A with Cast Aluminum Deck Ring

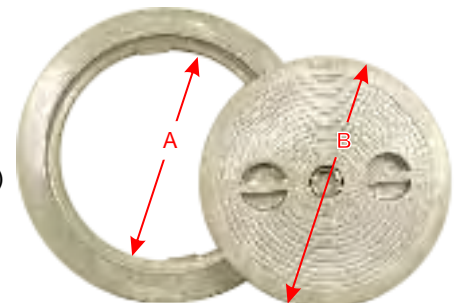


BFHR16A/S with Galvanized Steel Deck Ring

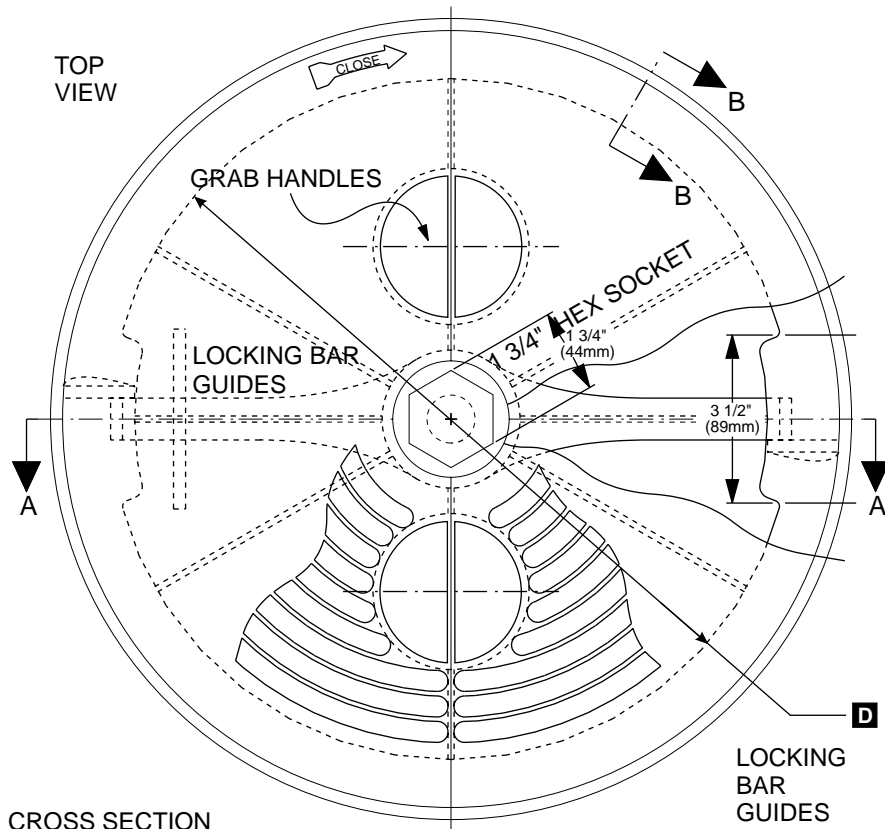
When ordering, please specify:

Cover Material:
cast aluminum or cast steel
(14" aluminum only)

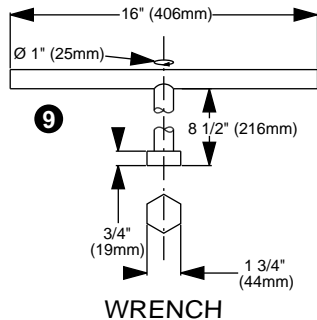
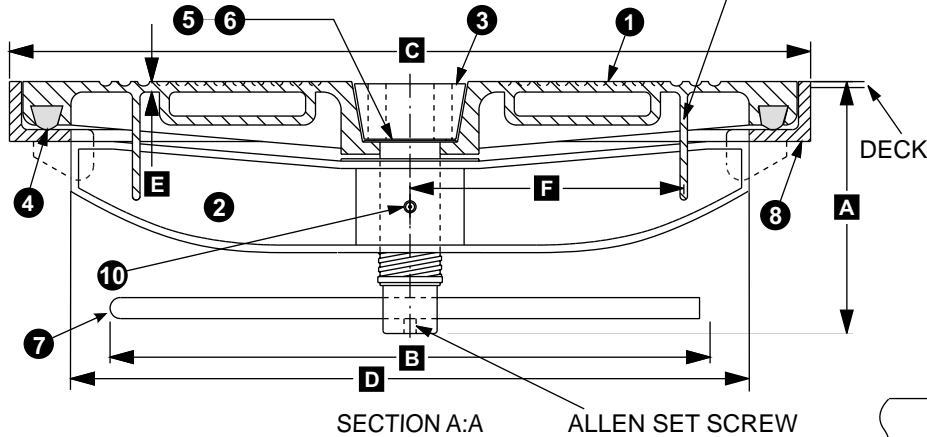
Ring Material:
cast aluminum or galvanized steel



Hatch Covers Available Separately



CROSS SECTION PROFILE

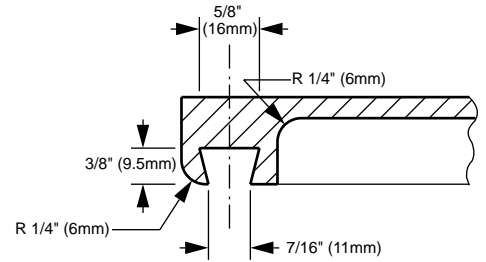


IMPORTANT:
WHEN ORDERING, PLEASE SPECIFY OUTSIDE
DIAMETER (C) OR CLEAR OPENING (D).
UNITS ARE IDENTIFIED BY CLEAR OPENING.

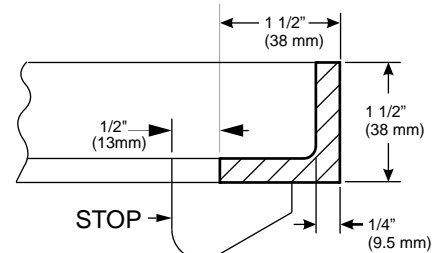
BILL OF MATERIAL: #286-1

PC.NO.	DESCRIPTION	MATERIAL
1	COVER	***
2	STRONGBACK	***
3	BOLT (1 1/2" Ø)	STAINLESS STEEL
4	GASKET	NEOPRENE
5	WASHER	STAINLESS STEEL
6	WASHER	NEOPRENE
7	ROD (1/2" Ø)	GALVANIZED STEEL
8	DECK RING	***
9	WRENCH HANDLE	GALVANIZED STEEL
10	LUBE ZERK	ANODIZE STEEL

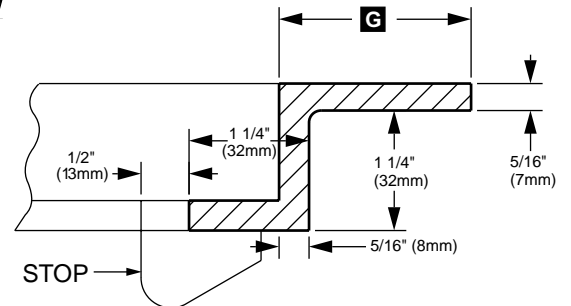
NOTE:
*** CORROSION RESISTANT ALUMINUM, OR GALVANIZED STEEL



GASKET GROOVE,
SECTION B:B



GALVANIZED STEEL
DECK RING



CAST ALUMINUM
DECK RING

HATCH WEIGHTS LBS. (KGMS)								
Model Number	BFHR20		BFHR18		BFHR16		BFHR14	
Material	AL	ST	AL	ST	AL	ST	AL	ST
Cover	30 (13.6)	81 (36.7)	27 (12.2)	62 (28)	22 (10)	56 (25.4)	20 (9.1)	NA
Deck Ring	11 (5)	11 (5)	10 (4.5)	10 (4.5)	8 (3.6)	9 (4.1)	7 (3.2)	8 (3.6)

DIMENSIONS INCHES (mm)								
Model	A	B	C	D	E	F	G	
BFHR20	5 1/4 (133)	12 1/2 (318)	22 11/16 (576)	20 (508)	7/32 (5.6)	8 1/2 (216)	2 (51)	
BFHR18	5 1/4 (133)	12 1/2 (318)	20 11/16 (525)	18 (457)	7/32 (5.6)	7 1/4 (184)	2 (51)	
BFHR16	5 1/4 (133)	12 1/2 (318)	18 11/16 (475)	16 (406)	7/32 (5.6)	6 1/4 (159)	2 1/2 (64)	
BFHR14	5 1/4 (133)	12 1/2 (318)	16 11/16 (424)	14 (356)	7/32 (5.6)	6 1/4 (159)	2 1/2 (64)	

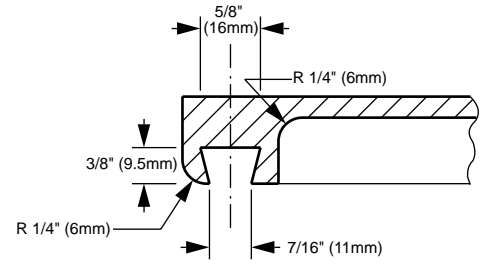
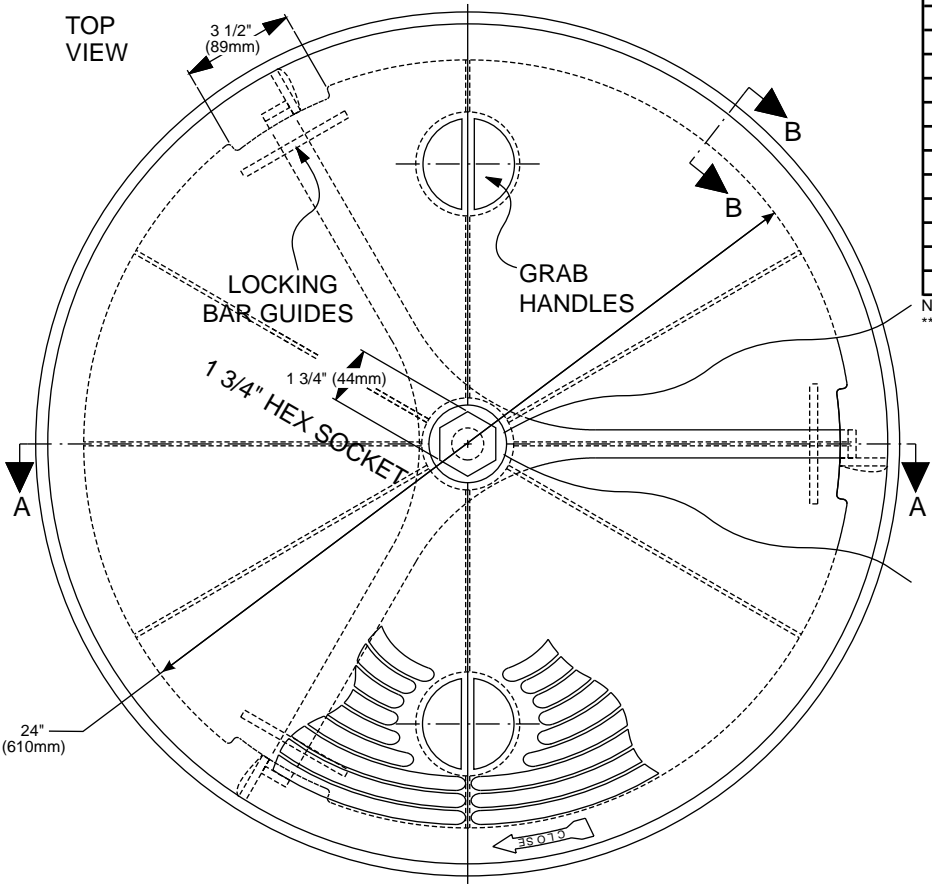
BAIER Marine Company, Inc.
1-800-455-3917
206-632-2441 (FAX)
sales@baiermarine.com

BAIER FLUSH HATCH
LIFT-OUT PLAIN DOGGED TYPE
WITH GRAB HANDLES
TYPE "C" POSITIVE LOCKING
MODEL BFHR20, 18, 16, AND 14

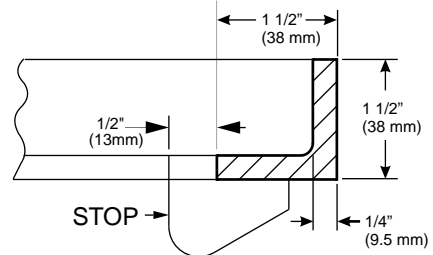
BILL OF MATERIAL: #630

PC.NO.	DESCRIPTION	MATERIAL
1	COVER	***
2	STRONGBACK	***
3	BOLT (1 1/2" Ø)	STAINLESS STEEL
4	GASKET	NEOPRENE
5	WASHER	STAINLESS STEEL
6	WASHER	NEOPRENE
7	ROD (1/2" Ø)	GALVANIZED STEEL
8	DECK RING	***
9	WRENCH	GALVANIZED STEEL
10	LUBE ZERK	ANODIZED STEEL
11	SPRING	STAINLESS STEEL

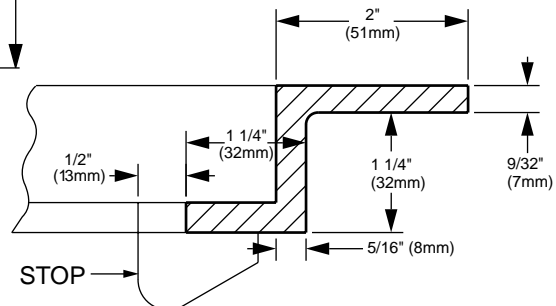
NOTE:
*** CORROSION RESISTANT ALUMINUM, OR GALVANIZED STEEL



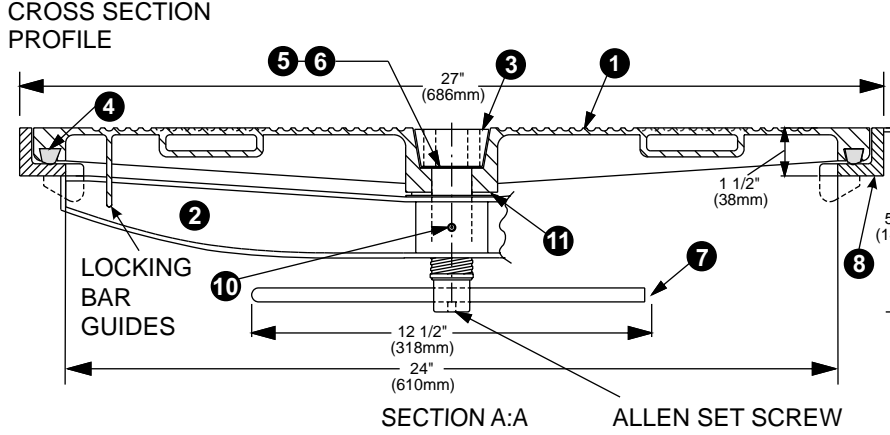
GASKET GROOVE, SECTION B:B



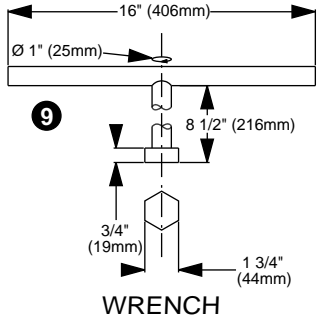
GALVANIZED STEEL DECK RING



CAST ALUMINUM DECK RING



SECTION A:A ALLEN SET SCREW



WRENCH

IMPORTANT:
WHEN ORDERING, PLEASE SPECIFY OUTSIDE DIAMETER (C) OR CLEAR OPENING (D).
UNITS ARE IDENTIFIED BY CLEAR OPENING.

HATCH WEIGHTS LBS.(KGMS)	
Model Number	BFHR24
Material	AL ST
Cover	45 (20.4) 127 (57.5)
Deck Ring	15 (6.8) 15 (6.8)

BAIER Marine Company, Inc.
1-800-455-3917
206-632-2441 (FAX)
sales@baiermarine.com

BAIER FLUSH HATCH
LIFT-OUT PLAIN DOGGED TYPE
WITH GRAB HANDLES
TYPE "C" POSITIVE LOCKING
MODEL BFHR24

DWG. NO. 630

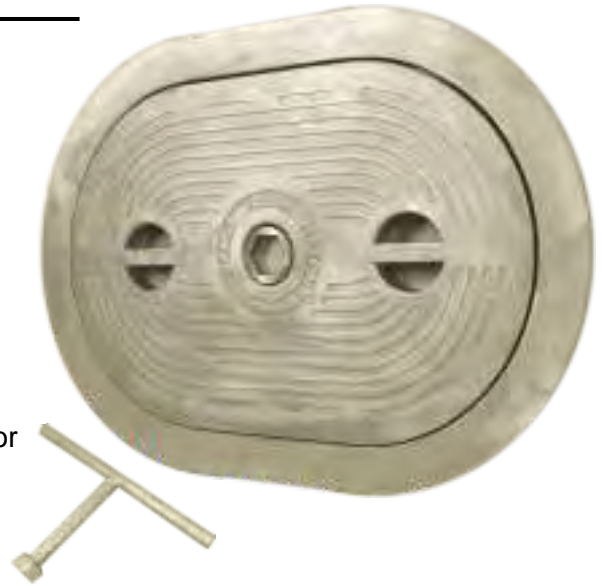
CLASSIC
HEX

BFHO Series Oval - Lift Out

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- Cast Hatch Cover
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- Stainless Steel Hex Centerbolt and hardware
- Neoprene Cover Gasket and Washers (Buna-N optional)
- Cast / fabricated matching Deck Ring
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- Detachable Hex wrench used for quick operation, can be stored separately for security



STRENGTH, SIMPLICITY and SECURITY

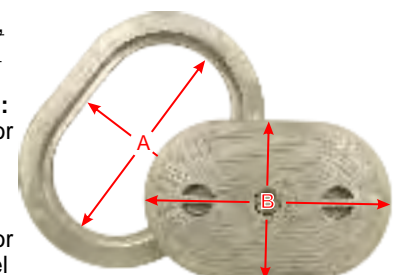
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The majority of the Classic Model BFH hatch cover product line is available in both cast aluminum and cast steel. Steel Cover assemblies and deck rings are hot dip galvanized for superior corrosion resistance. No other flush hatch is available in cast steel (which is stronger, more durable, and more impact resistant when compared to iron hatches, especially in cold climates). The deck ring is available in galvanized mild steel (for welding into steel decks), or cast aluminum (for welding into aluminum decks or bolting to fiberglass or wood decks). Fabricated stainless deck rings are available by special order.

SEE FLUSH HATCH PRODUCT MATRIX P. 35

Canadian Patent 772,905. United States Patent 3,209,663

Hatch Model	BFHO15x24
Clear (A) Opening	15" x 24" (381 mm x 610 mm)
Cover (B) Dimension	17" x 26" (432 mm x 660 mm)
Technical Drawing	#541
<p><u>When ordering, please specify:</u></p> <p>Cover Material: cast aluminum or cast steel</p> <p>Ring Material: cast aluminum or galvanized steel</p>  <p>Hatch Covers Available Separately</p>	



BFHO15X24A/A with Cast Aluminum Deck Ring

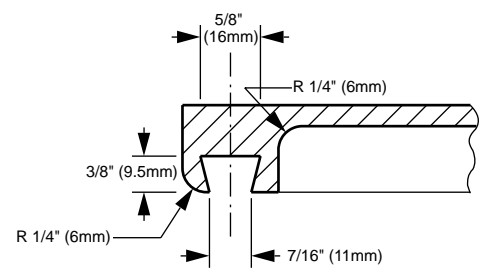
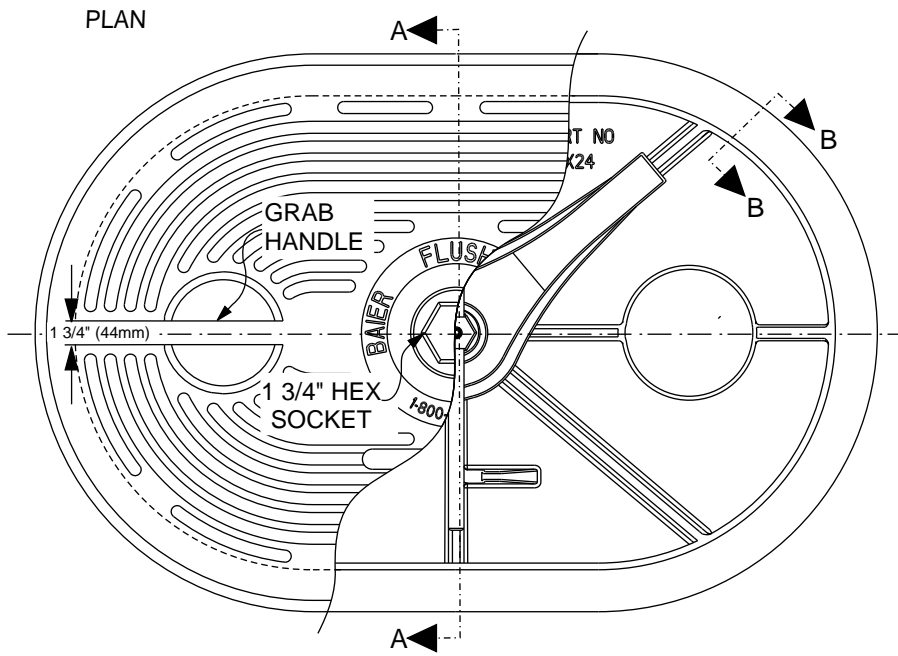


BFHRO15X24A/S with Galvanized Steel Deck Ring

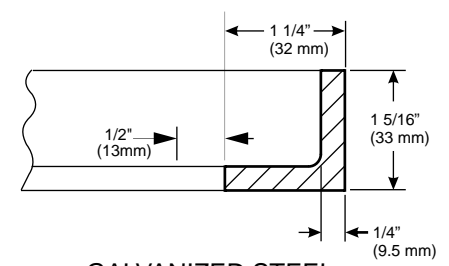
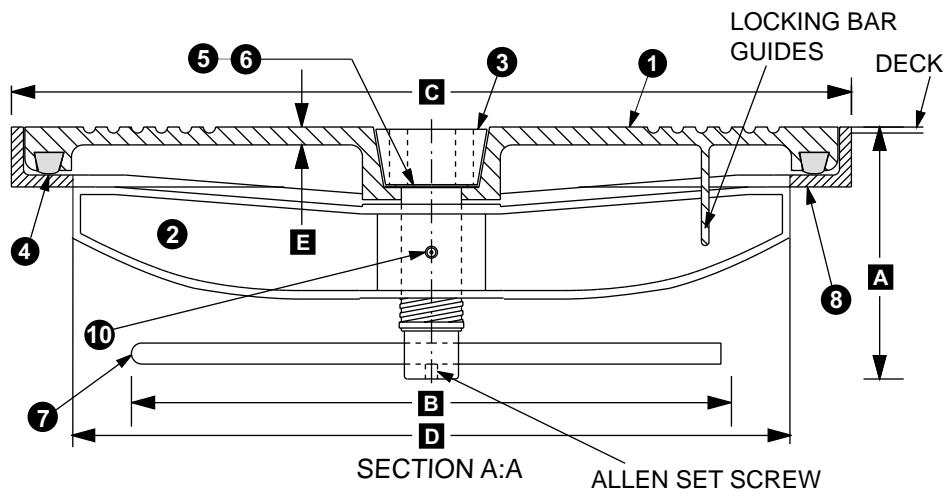
BILL OF MATERIAL: #541

PC.NO.	DESCRIPTION	MATERIAL
1	COVER	***
2	STRONGBACK	***
3	BOLT (1 1/2" Ø)	STAINLESS STEEL
4	GASKET	NEOPRENE
5	WASHER	STAINLESS STEEL
6	WASHER	NEOPRENE
7	ROD (1/2" Ø)	GALVANIZED STEEL
8	DECK RING	***
9	WRENCH	GALVANIZED STEEL
10	LUBE ZERK	ANODIZE STEEL

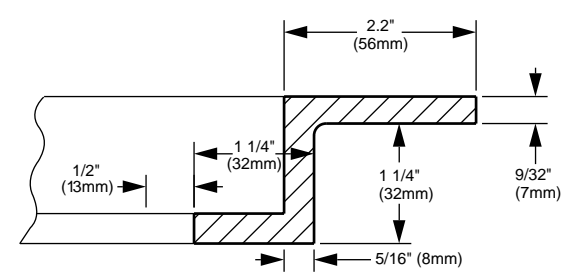
NOTE:
*** CORROSION RESISTANT ALUMINUM, OR GALVANIZED STEEL



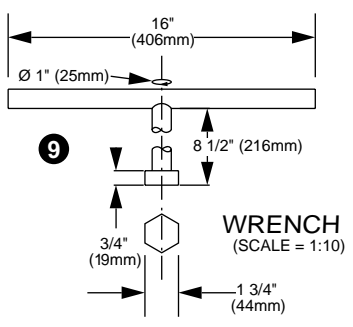
GASKET GROOVE, SECTION B:B



GALVANIZED STEEL DECK RING



CAST ALUMINUM DECK RING



HATCH WEIGHTS LBS. (KGMS)	
Model Number	BFHO15x24
Material	AL ST
Cover	31 (14) 79 (35.8)
Deck Ring	9 (4.1) 12 (5.4)

IMPORTANT: WHEN ORDERING, PLEASE SPECIFY OUTSIDE DIAMETER (C) OR CLEAR OPENING (D). UNITS ARE IDENTIFIED BY CLEAR OPENING.

Model Number	DIMENSIONS INCHES (mm)						
	A	B	C(L)	C(W)	D(L)	D(W)	G
BFHO15X24	5 1/4 (133)	12 1/2 (318)	26 1/2 (673)	17 1/2 (445)	24 (610)	15 (381)	7/16 (11)

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 1-800-455-3917
 206-632-2441 (FAX)
 sales@baiermarine.com

BAIER FLUSH HATCH
 LIFT-OUT PLAIN DOGGED TYPE
 WITH GRAB HANDLES
 TYPE "C" POSITIVE LOCKING
 MODEL BFHO15X24

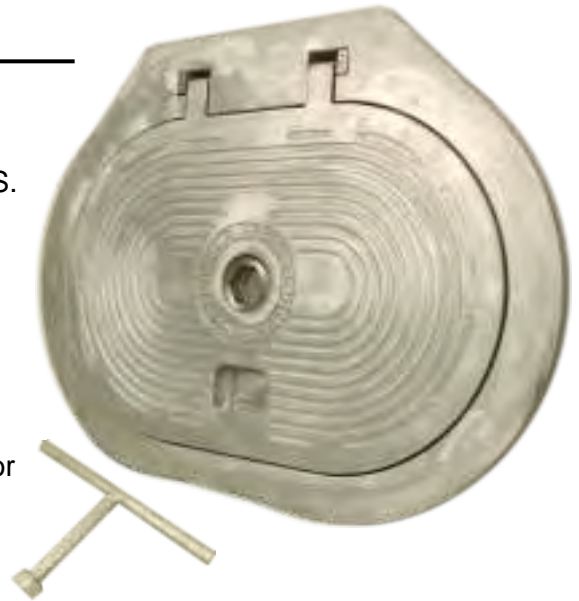
DWG. NO. 541

BFHHR Series Round - Hinged BFHHO Series Oval - Hinged

The popular "Classic" Baier Flush Hinged Hatch™ is the flush-mounted, quick release, hinged hatch with grab handles as shown. It has long been standard equipment on fishboats, tugs, barges, workboats, and other marine vessels, as well as many U.S. Navy and U.S. and Canadian Coast Guard vessels.

FEATURES

- Cast Hatch Cover
- Cast Strongback
- Stainless Steel Hex Centerbolt and hardware
- Neoprene Cover Gasket and Washers (Buna-N optional)
- Cast / fabricated matching Deck Ring
- Every unit shipped with an underside escape turning bar for safety (turning wheel optional)
- Detachable Hex wrench used for quick operation, can be stored separately for security



STRENGTH, SIMPLICITY and SECURITY

The ultimate in strength and simplicity, Baier's original patented strongback system has only two moving parts to secure the hatch cover to the deck. It is superior to other more complicated hatch closure systems in that it is simpler, stronger, more reliably watertight, infinitely adjustable from topside, and more easily serviced (parts are readily available and replaced in the field). Importantly, the recessed hex centerbolt and grab handles offer no snags for nets, lines or hardware.

MATERIALS

The majority of the Classic Model BFH hatch cover product line is available in both cast aluminum and cast steel. Steel Cover assemblies and deck rings are hot dip galvanized for superior corrosion resistance. No other flush hatch is available in cast steel (which is stronger, more durable, and more impact resistant when compared to iron hatches, especially in cold climates). The deck ring is available in galvanized mild steel (for welding into steel decks), or cast aluminum (for welding into aluminum decks or bolting to fiberglass or wood decks). Fabricated stainless deck rings are available by special order.

SEE FLUSH HATCH PRODUCT MATRIX P. 35

Canadian Patent 772,905. United States Patent 3,209,663

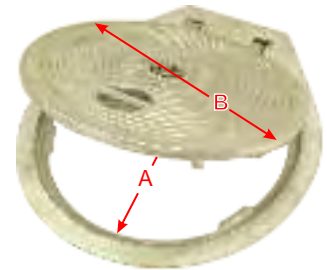


BFHR22A/A with Cast Aluminum Deck Ring

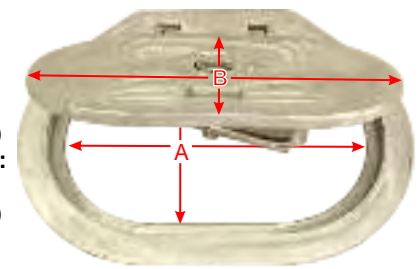


BFHHR15X24A/A with Cast Aluminum Deck Ring

Hatch Model:
BFHHR22
Clear Opening (A):
22" Ø (559 mm)
Cover Diameter (B):
24" Ø (610 mm)
Technical Drawing:
#625



Hatch Model:
BFHHR15x24
Clear Opening (A):
15" x 24"
(381 mm x 610 mm)
Cover Dimension (B):
17" x 26"
(432 mm x 660 mm)
Technical Drawing:
#543

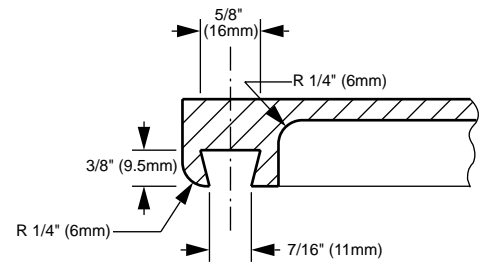
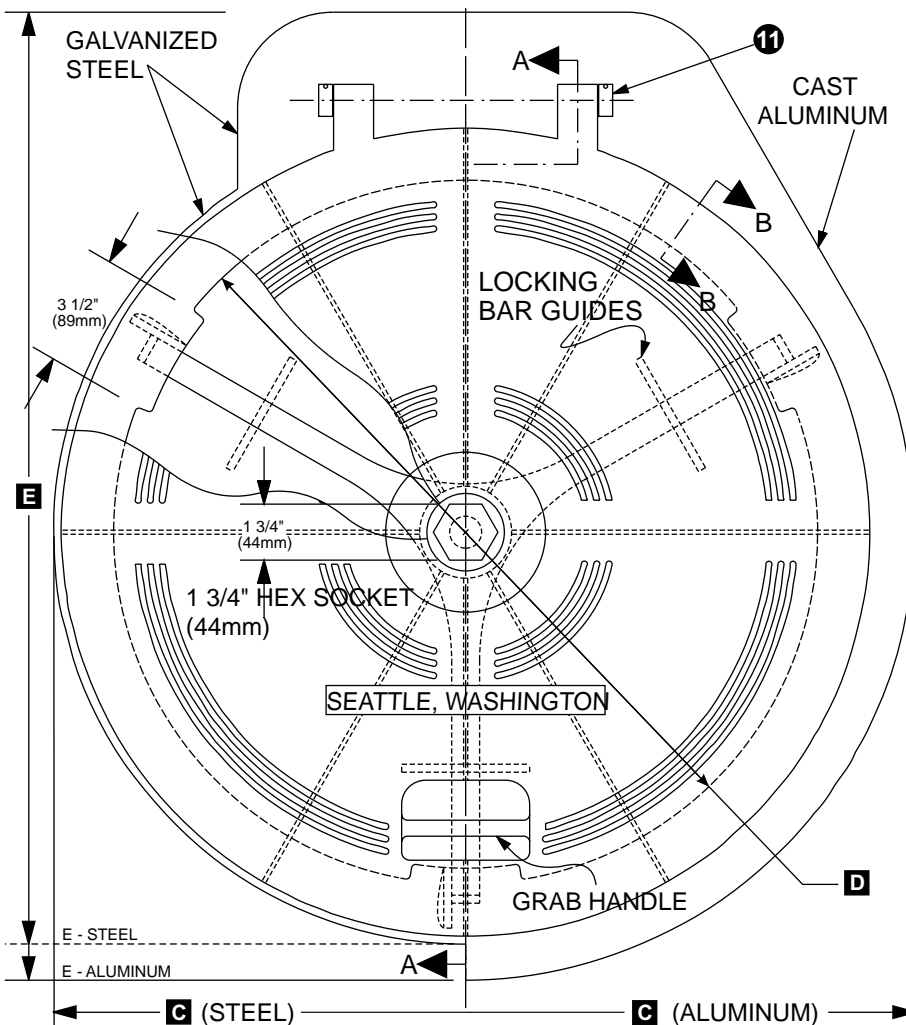


Hatch Covers Available Separately

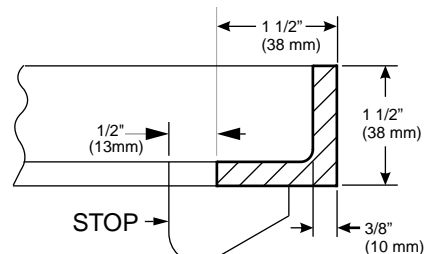
BILL OF MATERIAL: #625

PC.NO.	DESCRIPTION	MATERIAL
1	COVER	***
2	STRONGBACK	***
3	BOLT (1 1/2" Ø)	STAINLESS STEEL
4	GASKET	NEOPRENE
5	WASHER	STAINLESS STEEL
6	WASHER	NEOPRENE
7	ROD (1/2" Ø)	GALVANIZED STEEL
8	DECK RING	***
9	WRENCH	GALVANIZED STEEL
10	LUBE ZERK	ANODIZED STEEL
11	HINGE PIN	STAINLESS STEEL
12	SPRING	STAINLESS STEEL

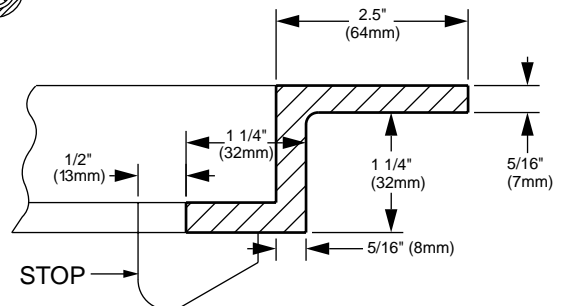
NOTE:
*** CORROSION RESISTANT ALUMINUM, OR GALVANIZED STEEL



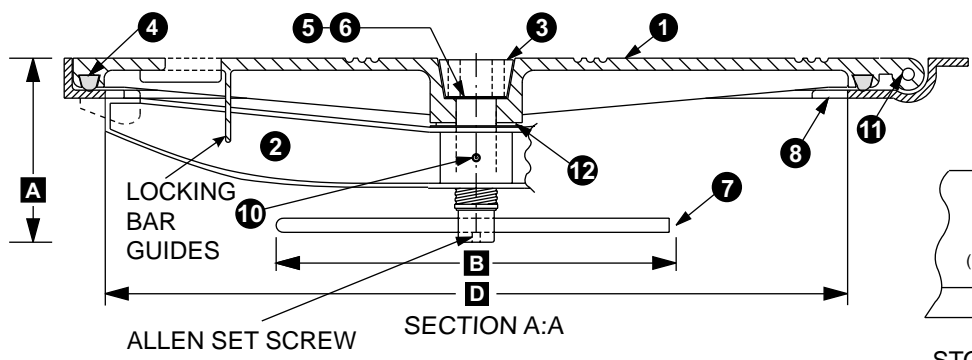
GASKET GROOVE, SECTION B:B



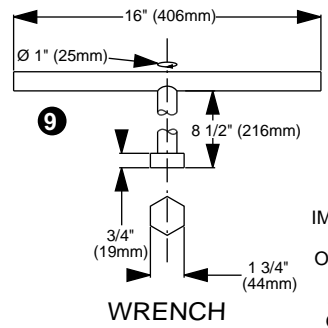
GALVANIZED STEEL DECK RING



CAST ALUMINUM DECK RING



SECTION A:A



WRENCH

HATCH WEIGHTS LBS. (KGMS)	
Model Number	BFHHR22
Material	AL ST
Cover	37 (16.8) 99 (44.8)
Deck Ring	13 (5.9) 27 (12.2)

NOTE: BUTT WELD ON STEEL AND ALUMINUM DECKS. BOLT DOWN ON WOOD AND FIBERGLASS DECKS (FLANGES SUPPLIED BLIND -- SHIPYARD TO DRILL TO SUIT).

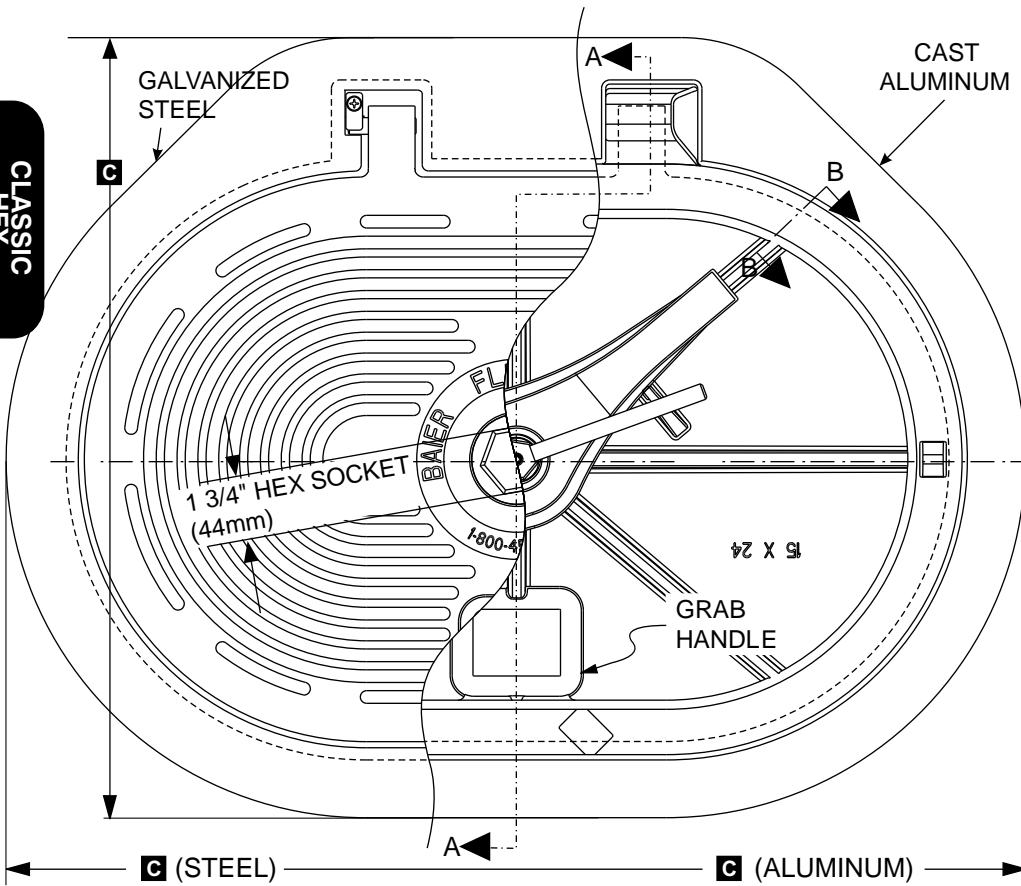
Model Number	DIMENSIONS INCHES (mm)						
	A	B	C (ST)	C (AL)	D	E (ST)	E (AL)
BFHHR22	5 3/4 (146)	12 1/2 (318)	25 3/4 (654)	28 (711)	22 (559)	30 1/4 (768)	30 1/4 (768)

IMPORTANT: WHEN ORDERING, PLEASE SPECIFY OUTSIDE DIAMETER (C) OR CLEAR OPENING (D). UNITS ARE IDENTIFIED BY CLEAR OPENING.

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206-632-2441 (FAX)
sales@baiermarine.com

BAIER FLUSH HATCH
LIFT-OUT PLAIN DOGGED TYPE
WITH GRAB HANDLES
TYPE "C" POSITIVE LOCKING
MODEL BFHHR22

**CLASSIC
HEX**

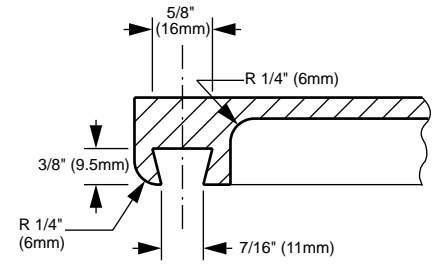


BILL OF MATERIAL: #543-1

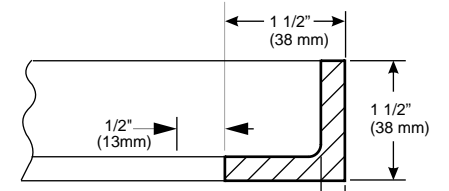
PC.NO.	DESCRIPTION	MATERIAL
1	COVER	***
2	STRONGBACK	***
3	BOLT (1 1/2" Ø)	STAINLESS STEEL
4	GASKET	NEOPRENE
5	WASHER	STAINLESS STEEL
6	WASHER	NEOPRENE
7	ROD (1/2" Ø)	GALVANIZED STEEL
8	DECK RING	***
9	WRENCH	GALVANIZED STEEL
10	LUBE ZERK	ANODIZED STEEL
11	HINGE PIN	STAINLESS STEEL

NOTE: *** CORROSION RESISTANT ALUMINUM, OR GALVANIZED STEEL

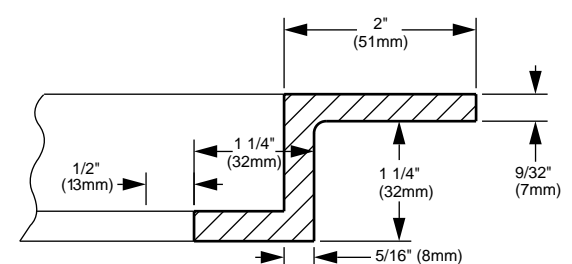
NOTE: BUTT WELD ON STEEL AND ALUMINUM DECKS. BOLT DOWN ON WOOD AND FIBERGLASS DECKS (FLANGES SUPPLIED BLIND - SHIPYARD TO DRILL TO SUIT)



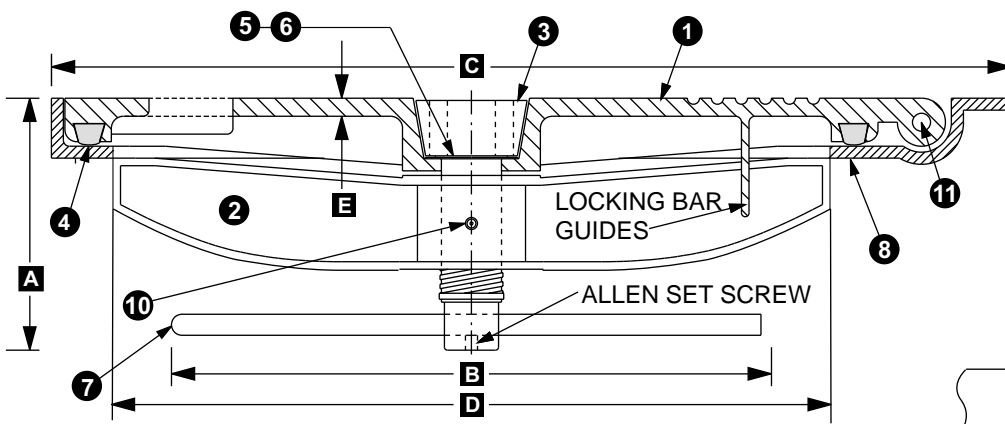
GASKET GROOVE, SECTION B:B



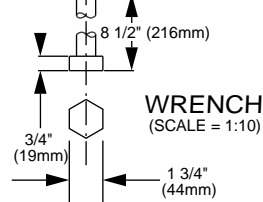
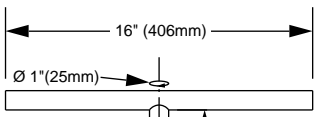
GALVANIZED STEEL DECK RING



CAST ALUMINUM DECK RING



SECTION A:A



HATCH WEIGHTS (LBS.)	
Model Number	BFHHO15x24
Material	AL ST
Cover	32 (14.5) 76 (34.4)
Deck Ring	10 (4.5) 27 (12.2)

IMPORTANT: WHEN ORDERING, PLEASE SPECIFY OUTSIDE DIAMETER (C) OR CLEAR OPENING (D). UNITS ARE IDENTIFIED BY CLEAR OPENING.

Model Number	DIMENSIONS INCHES (mm)					
	A	B	C (ST)	C (AL)	D	E
BFHHO15X24	5 1/4 (133)	12 1/2 (318)	30 7/8 x 22 7/16 (784 x 570)	30 1/2 x 23 3/8 (775 x 593)	24 x 15 (610 x 381)	7/32 (5.6)

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 206-632-2441 (FAX)
 sales@baiermarine.com

BAIER FLUSH HATCH
 HINGED DOGGED TYPE WITH GRAB HANDLES
 TYPE "C" POSITIVE LOCKING
 MODEL BFHHO15X24

DWG. NO. 543-1

BAIER



Hatches ♦ Deck Fittings

**T-HANDLE
STRONGBACK**

1-800-455-3911

FLUSH HATCH
BAIER

T-Handle Strongback Flush Hatch

BFHRTH Series Round - Lift Out

This popular strongback hatch design series adds the convenience of a built-in recessed Stainless Steel T-handle to the flush-mounted, quick release, lift-out hatch. The design is especially popular on aluminum boats, fishing and other workboats, as well as many U.S. Navy and U.S. and Canadian Coast Guard vessels.



FEATURES

Unique:

- Cast Hatch Cover (unique no grab handles)
- Stainless Steel Centerbolt and hardware
- Built-in Stainless Steel T-Handle used for quick engagement as well as lifting

Shares with Classic HEX-Bolt Series:

- Cast Strongback
- Cast / fabricated matching Deck Ring
- Neoprene Cover Gasket and Washers (Buna-N optional)
- Every unit shipped with an underside escape turning bar for safety
- Turning wheel optional

STRENGTH, SIMPLICITY and CONVENIENCE

The T-Handle Strongback system has only three moving parts to secure the hatch cover to the deck. Like the Classic HEX it is simple, strong, reliably watertight, infinitely adjustable from topside, and easily serviced (parts are readily available and replaced in the field).

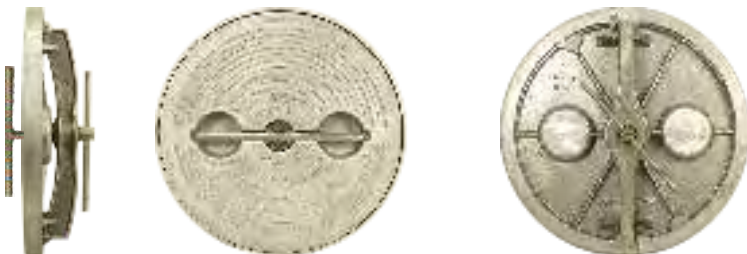
MATERIALS

The T-Handle Strongback hatch cover product line is available only in cast aluminum. The deck rings used are the same as the Classic HEX and are available in galvanized mild steel (for welding into steel decks), or cast aluminum (for welding into aluminum decks or bolting to fiberglass or wood decks). Stainless deck rings are available by special order.

SEE FLUSH HATCH PRODUCT MATRIX p. 35



BFHRTH20A/A with Cast Aluminum Deck Ring



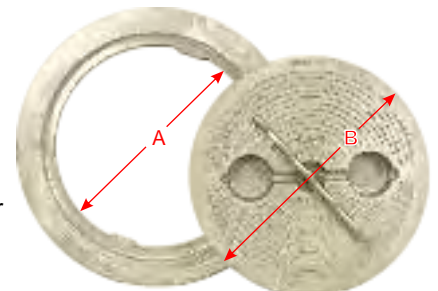
BFHRTH20A/S with Galvanized Steel Deck Ring

Hatch Model	BFHRTH20
Clear (A) Opening	20" Ø (508 mm) Ø
Cover (B) Diameter	22" Ø (559 mm) Ø
Technical Drawing	#200

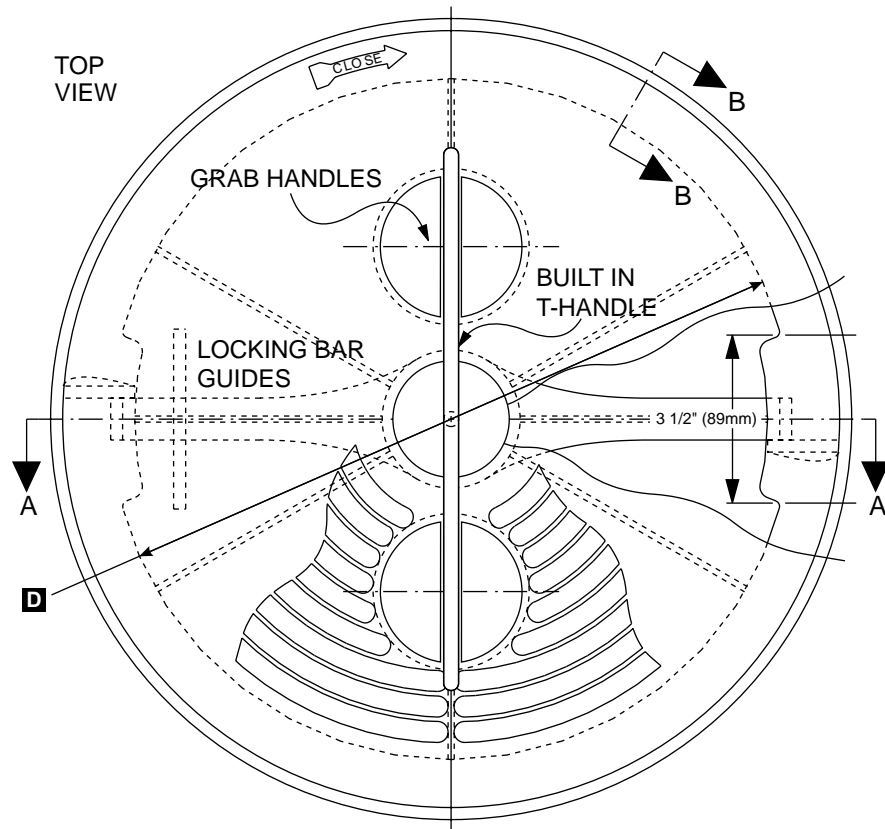
When ordering, please specify:

Cover Material:
cast aluminum

Ring Material:
cast aluminum or
galvanized steel



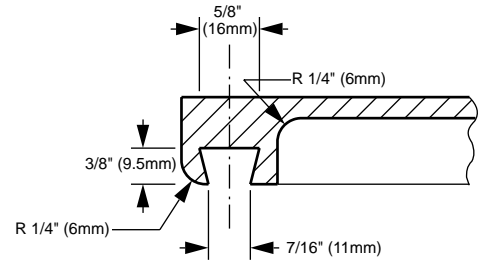
Hatch Covers Available Separately



BILL OF MATERIAL: #200

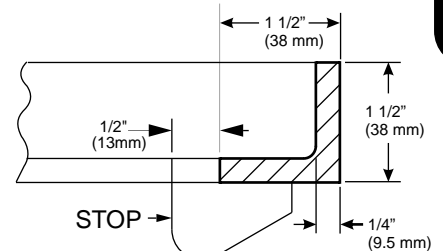
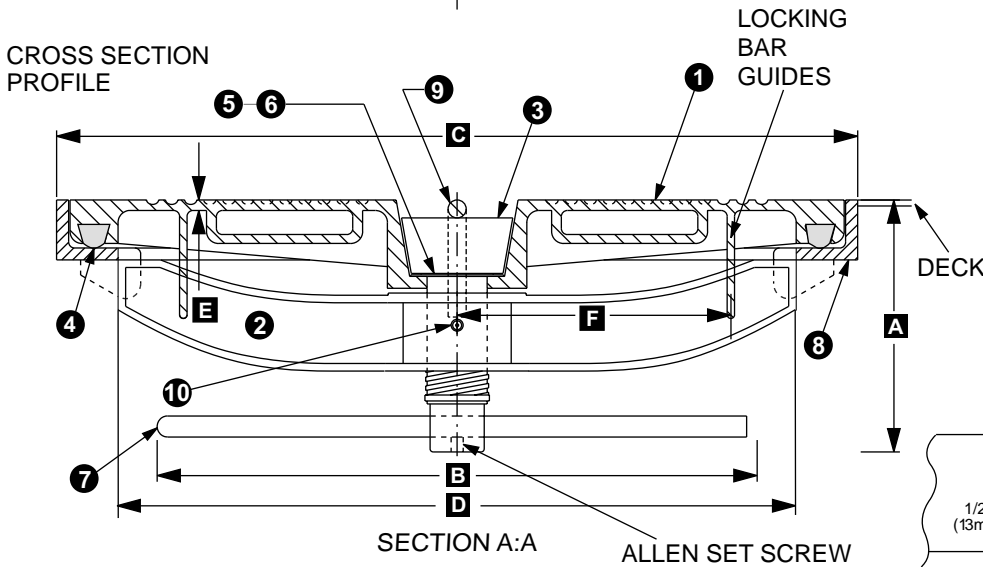
PC.NO.	DESCRIPTION	MATERIAL
1	COVER	ALUMINUM ONLY
2	STRONGBACK	ALUMINUM ONLY
3	BOLT (1 1/2" Ø)	STAINLESS STEEL
4	GASKET	NEOPRENE
5	WASHER	STAINLESS STEEL
6	WASHER	NEOPRENE
7	ROD (1/2" Ø)	GALVANIZED STEEL
8	DECK RING	***
9	T-HANDLE	STAINLESS STEEL
10	LUBE ZERK	ANODIZED STEEL

NOTE:
 *** CORROSION RESISTANT ALUMINUM, OR GALVANIZED STEEL

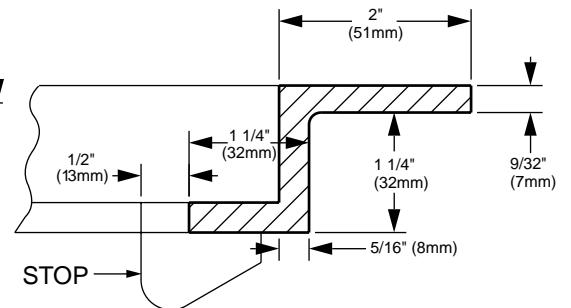


GASKET GROOVE, SECTION B:B

CROSS SECTION PROFILE



GALVANIZED STEEL DECK RING



CAST ALUMINUM DECK RING

T-HANDLE STRONGBACK

HATCH WEIGHTS LBS. (KGMS)		
Model Number	BFHRT20	
Material	AL	ST
Cover	30 (13.6)	N/A
Deck Ring	11 (5)	11 (5)

IMPORTANT: WHEN ORDERING, PLEASE SPECIFY OUTSIDE DIAMETER (C) OR CLEAR OPENING (D). UNITS ARE IDENTIFIED BY CLEAR OPENING.

Model Number	DIMENSIONS INCHES (mm)					
	A	B	C	D	E	F
BFHRT20	5 1/4 (133)	12 1/2 (318)	22 11/16 (576)	20 (508)	7/32 (5.6)	8 1/2 (216)

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 1-800-455-3917
 206-632-2441 (FAX)
 sales@baiermarine.com

BAIER FLUSH HATCH
 LIFT-OUT PLAIN DOGGED TYPE
 WITH BUILT-IN T-HANDLE
 TYPE "C" POSITIVE LOCKING
 MODEL BFHRT20

BFHRT8 Series Round - Lift Out

This popular strongback hatch design series adds the convenience of a built-in recessed Stainless Steel T-handle to the flush-mounted, quick release, lift-out hatch. This design is especially popular on aluminum boats, fishing and other workboats, as well as many U.S. Navy and U.S. and Canadian Coast Guard vessels.

FEATURES

- Cast Hatch Cover
- Stainless Steel Centerbolt and hardware
- Built-in Stainless Steel T-Handle used for quick engagement as well as lifting
- Cast Strongback
- Cast / Fabricated Matching Deck Ring
- Neoprene Cover Gasket and Washers(Oil Resistant BUNA-N Available)



BFHRT8 - With built-in T-handle. Available in cast Aluminum.

T-HANDLE STRONGBACK

STRENGTH, SIMPLICITY and CONVENIENCE

The T-Handle Strongback system has only three moving parts to secure the hatch cover to the deck. Like the Classic HEX it is simple, strong, reliably watertight, infinitely adjustable from topside, and easily serviced (parts are readily available and replaced in the field).

MATERIALS

The T-Handle Strongback hatch cover product line is available only in cast aluminum. The deck rings used are the same as the Classic HEX and are available in galvanized mild steel (for welding into steel decks), or cast aluminum (for welding into aluminum decks or bolting to fiberglass or wood decks). Stainless Steel deck rings are available by special order.

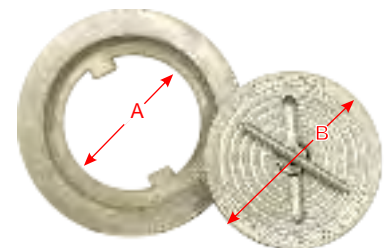
SEE FLUSH HATCH PRODUCT MATRIX p. 35

Hatch Model	BFHRT8
Clear (A) Opening	6.6" Ø (168 mm) Ø
Cover (B) Diameter	8" Ø (203 mm) Ø
Technical Drawing	#670

When ordering, please specify:

Cover Material:
cast aluminum or galvanized steel

Ring Material:
cast aluminum or galvanized steel

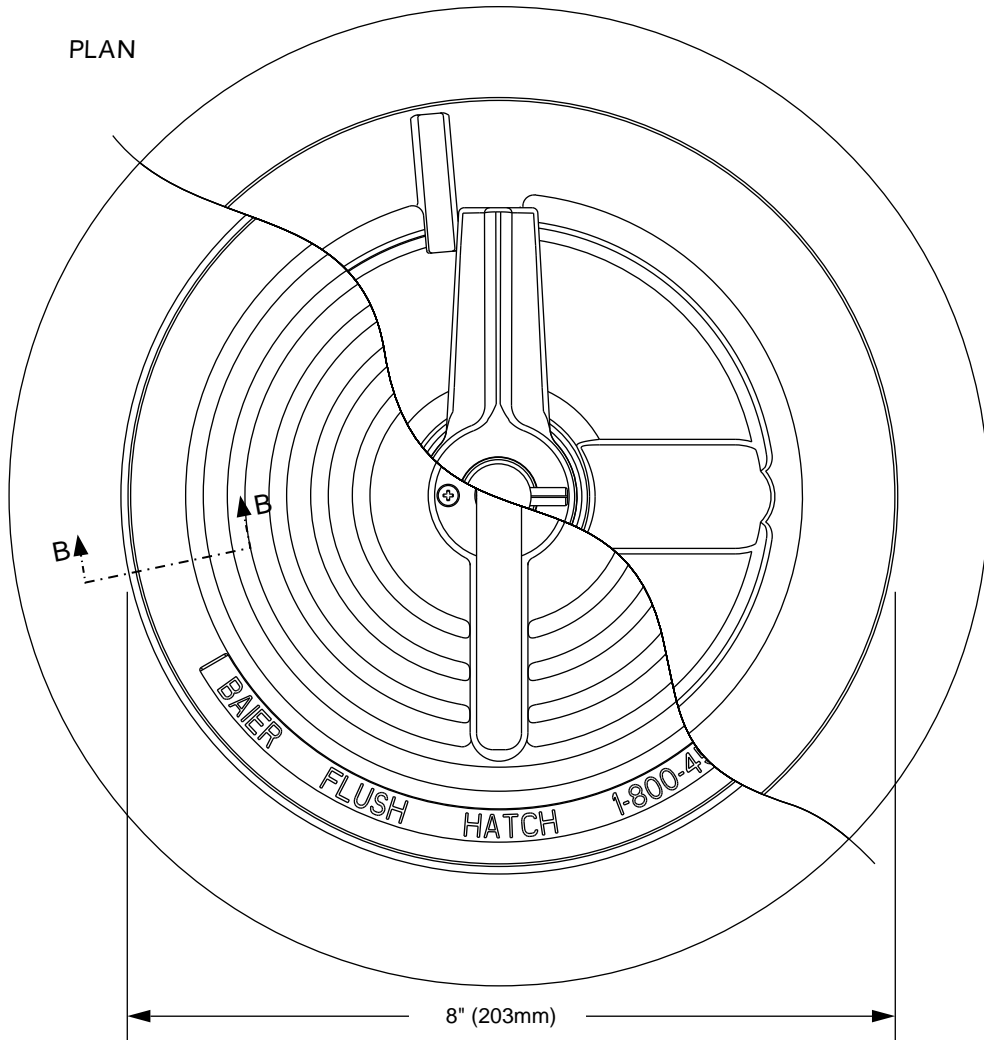


Hatch Covers Available Separately



BFHRT8A/A with Cast Aluminum Deck Ring

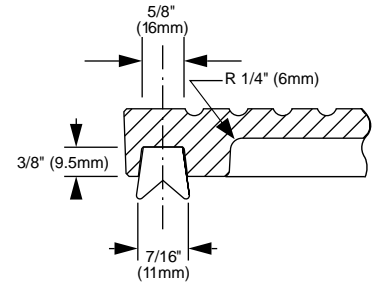
PLAN



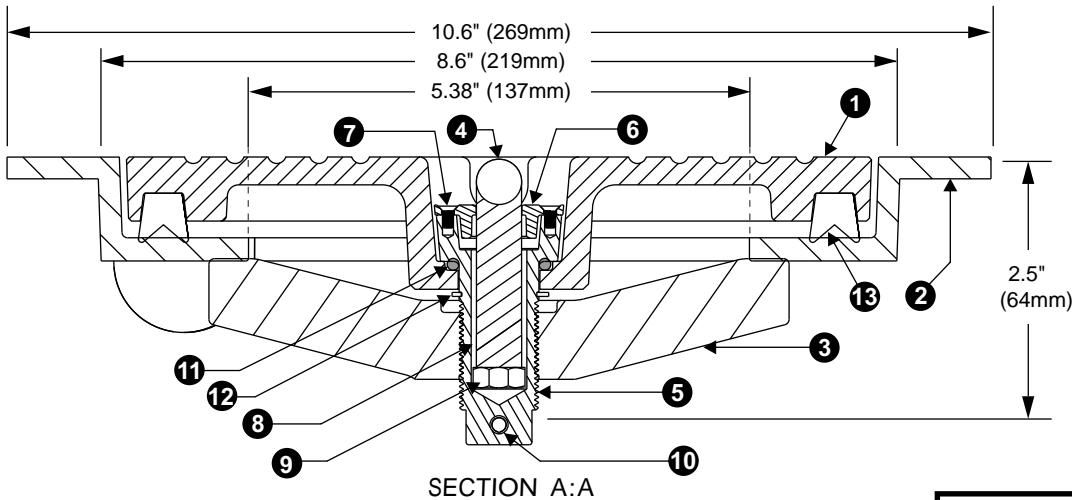
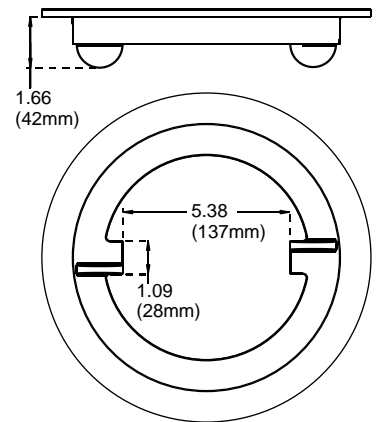
BILL OF MATERIAL: #670

PC.NO.	DESCRIPTION	MATERIAL
1	COVER	ALUMINUM ONLY
2	DECK RING	ALUMINUM
3	STRONGBACK	ALUMINIUM
4	T-HANDLE	STAINLESS STEEL
5	CENTER BOLT	STAINLESS STEEL
6	COVER PLATE	STAINLESS STEEL
7	PAN SCREW (X4)	S.S (M3 x .5)
8	SPRING PIN	S.S. (3 mm x 12 mm)
9	BOLT, M8	S.S. (M8 x 1.25)
10	SPRING PIN	S.S (5 mm x 35 mm)
11	O-RING	NEOPRENE
12	RETAINER RING	S.S. (22 mm)
13	GASKET	NEOPRENE

NOTE: *** CORROSION RESISTANT ALUMINUM, OR GALVANIZED STEEL



GASKET GROOVE, SECTION B:B



SECTION A:A

T-HANDLE STRONGBACK

HATCH WEIGHTS LBS. (KGMS)		
Model Number	BFHRT8	
Material	AL	ST
Cover	4 (1.8)	N/A
Deck Ring	2 (0.9)	6 (3)

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 1-800-455-3917
 206-632-2441 (FAX)
 sales@baiermarine.com

BAIER FLUSH HATCH
 LIFT-OUT PLAIN DOGGED TYPE
 WITH BUILT-IN T-HANDLE
 TYPE "C" POSITIVE LOCKING
 MODEL BFHRT8

DWG. NO. 670

BFHOTH Series Oval - Lift Out

This popular strongback hatch design series adds the convenience of a built-in recessed Stainless Steel T-handle to the flush-mounted, quick release, lift-out hatch. The design is especially popular on aluminum boats, fishing and other workboats, as well as many U.S. Navy and U.S. and Canadian Coast Guard vessels.

FEATURES

Unique:

- Cast Hatch Cover (unique no grab handles)
- Stainless Steel Centerbolt and hardware
- Built-in Stainless Steel T-Handle used for quick engagement as well as lifting

Shares with Classic HEX-Bolt Series:

- Cast Strongback
- Cast / fabricated matching Deck Ring
- Neoprene Cover Gasket and Washers (Buna-N optional)
- Every unit shipped with an underside escape turning bar for safety
- Turning wheel optional



STRENGTH, SIMPLICITY and CONVENIENCE

The T-Handle Strongback system has only three moving parts to secure the hatch cover to the deck. Like the Classic HEX it is simple, strong, reliably watertight, infinitely adjustable from topside, and easily serviced (parts are readily available and replaced in the field).

MATERIALS

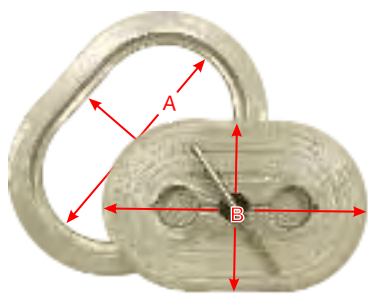
The T-Handle Strongback hatch cover product line is available only in cast aluminum. The deck rings used are the same as the Classic HEX and are available in galvanized mild steel (for welding into steel decks), or cast aluminum (for welding into aluminum decks or bolting to fiberglass or wood decks). Stainless deck rings are available by special order.

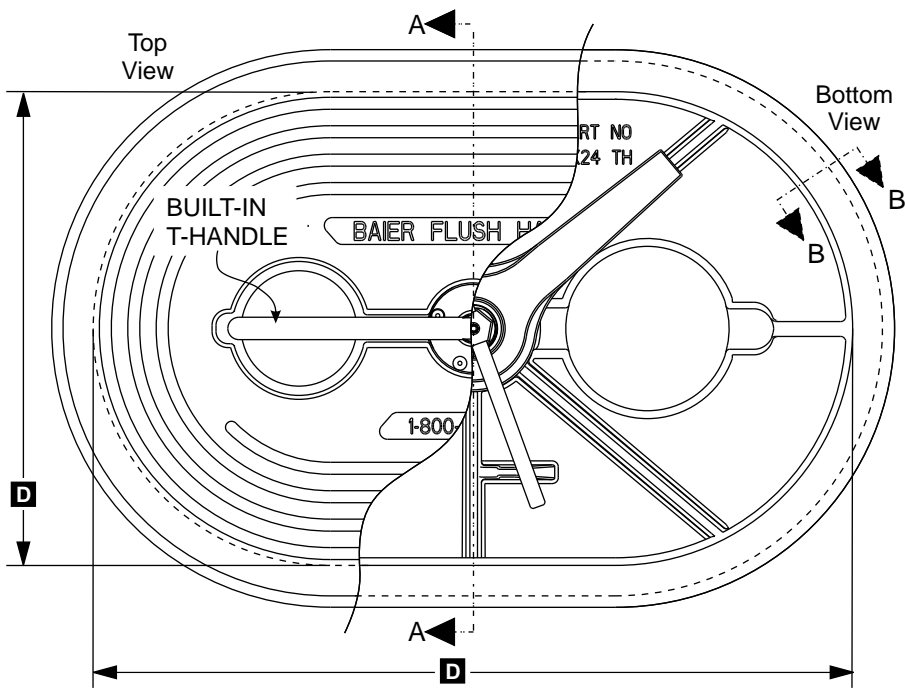
SEE FLUSH HATCH PRODUCT MATRIX p. 35



BFHOTH15X24A/A with Cast Aluminum Deck Ring

BFHOTH15X24A/S with Galvanized Steel Deck Ring

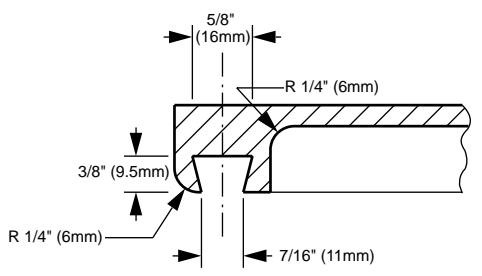
Hatch Model	BFHOTH15x24
Clear (A) Opening	15" x 24" (381 mm x 610 mm)
Cover (B) Dimensions	17" x 26" (432 mm x 660 mm)
Technical Drawing	#500
When ordering, please specify:	
Cover Material: cast aluminum	
Ring Material: cast aluminum or galvanized steel	
Hatch Covers Available Separately	



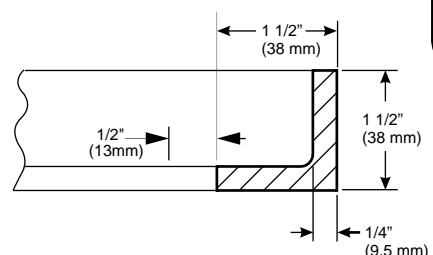
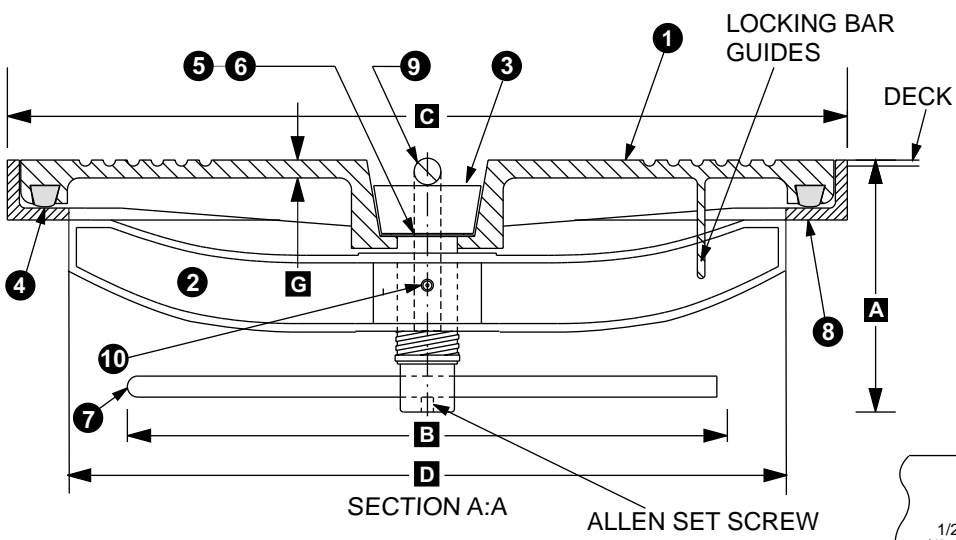
BILL OF MATERIAL: #500

PC.NO.	DESCRIPTION	MATERIAL
1	COVER	ALUMINUM ONLY
2	STRONGBACK	ALUMINUM ONLY
3	BOLT (1 1/2" Ø)	STAINLESS STEEL
4	GASKET	NEOPRENE
5	WASHER	STAINLESS STEEL
6	WASHER	NEOPRENE
7	ROD (1/2" Ø)	GALVANIZED STEEL
8	DECK RING	***
9	T-HANDLE	STAINLESS STEEL
10	LUBE ZERK	ANODIZED STEEL

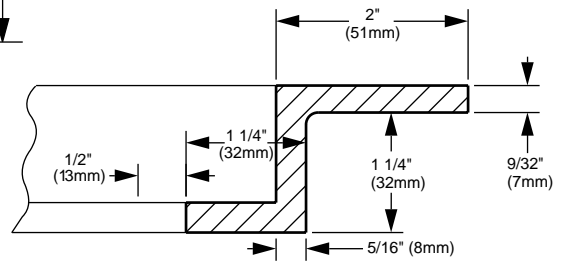
NOTE:
 *** CORROSION RESISTANT ALUMINUM, OR GALVANIZED STEEL



GASKET GROOVE, SECTION B:B



GALVANIZED STEEL DECK RING



CAST ALUMINUM DECK RING

T-HANDLE STRONGBACK

HATCH WEIGHTS LBS. (KGMS)

Model Number	BFHO15X24 TH
Material	AL
Cover	31 (14)
Deck Ring	9 (4.1)

IMPORTANT: WHEN ORDERING, PLEASE SPECIFY OUTSIDE DIAMETER (C) OR CLEAR OPENING (D). UNITS ARE IDENTIFIED BY CLEAR OPENING.

Model Number	DIMENSIONS INCHES (mm)								
	A	B	C(L)	C(W)	D(L)	D(W)	E	F	G
BFHOTH15X24	5 1/4 (133)	12 1/2 (318)	26 1/2 (673)	17 1/2 (445)	24 (610)	15 (381)	1 1/4 (32)	1/4 (6)	3/8 (9.5)

BAIER Marine Company, Inc.
 1-800-455-3917
 206-632-2441 (FAX)
 sales@baiermarine.com

BAIER FLUSH HATCH
 LIFT-OUT DOGGED TYPE WITH BUILT-IN T-HANDLE
 TYPE "C" POSITIVE LOCKING
 MODEL BFHOTH15x24

DWG. NO. 500

BFHSQ Series Square - Lift Out

This popular strongback hatch design series adds the convenience of a built-in recessed Stainless Steel T-handle to the flush-mounted, quick release, lift-out hatch. The design is especially popular on aluminum boats, fishing and other workboats, as well as many U.S. Navy and U.S. and Canadian Coast Guard vessels.

FEATURES

Unique:

- Cast Hatch Cover (unique no grab handles)
- Stainless Steel Centerbolt and hardware
- Built-in Stainless Steel T-Handle used for quick engagement as well as lifting

Shares with Classic HEX-Bolt Series:

- Cast Strongback
- Cast / fabricated matching Deck Ring
- Neoprene Cover Gasket and Washers (Buna-N optional)
- Every unit shipped with an underside escape turning bar for safety
- Turning wheel optional

STRENGTH, SIMPLICITY and CONVENIENCE

The T-Handle Strongback system has only three moving parts to secure the hatch cover to the deck. Like the Classic HEX it is simple, strong, reliably watertight, infinitely adjustable from topside, and easily serviced (parts are readily available and replaced in the field).

MATERIALS

The T-Handle Strongback square hatch cover product line is available only in cast aluminum. The deck rings used are the same as the Classic HEX and are available in galvanized mild steel (for welding into steel decks), or cast aluminum (for welding into aluminum decks or bolting to fiberglass or wood decks). Stainless deck rings are available by special order.

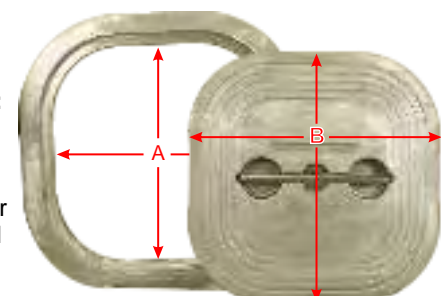
SEE FLUSH HATCH PRODUCT MATRIX p. 35

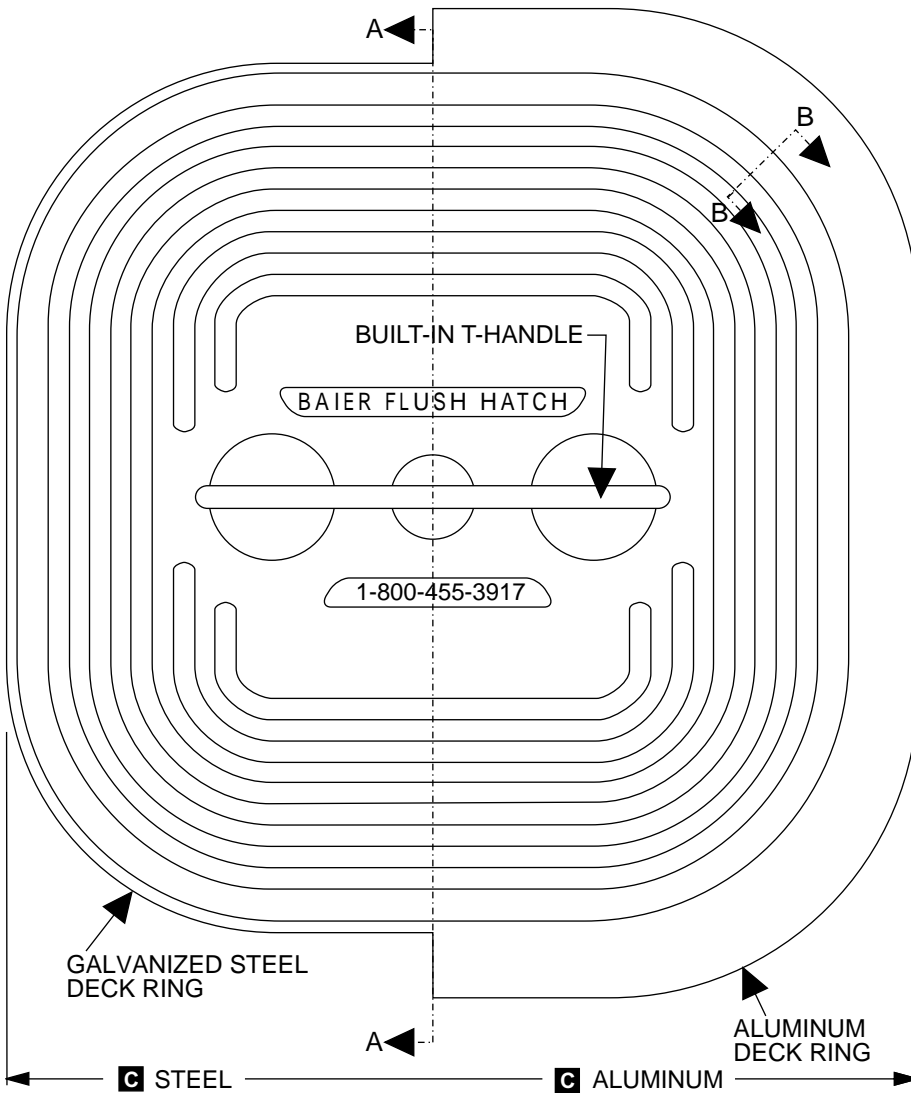


BFHSQTH24X24A/A with Cast Aluminum Deck Ring



BFHSQTH24X24A/S with Galvanized Steel Deck Ring

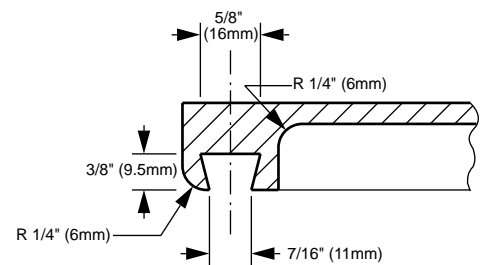
Hatch Model	BFHSQ24X24
Clear (A) Opening	24" x 24" (610 mm x 610 mm)
Cover (B) Dimensions	26" x 26" (660 mm x 660 mm)
Technical Drawing	#700
When ordering, please specify:	
Cover Material: cast aluminum	
Ring Material: cast aluminum or galvanized steel	
Hatch Covers Available Separately	



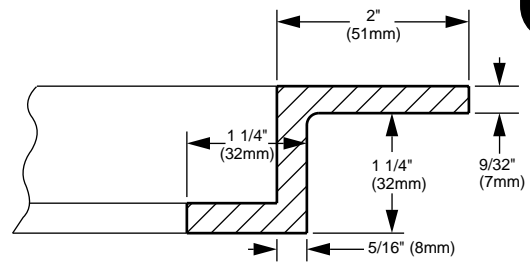
BILL OF MATERIAL: #700

PC.NO.	DESCRIPTION	MATERIAL
1	COVER	ALUMINUM ONLY
2	STRONGBACK	ALUMINUM ONLY
3	BOLT (1 1/2" Ø)	STAINLESS STEEL
4	GASKET	NEOPRENE
5	WASHER	STAINLESS STEEL
6	WASHER	NEOPRENE
7	ROD (1/2" Ø)	GALVANIZED STEEL
8	DECK RING	***
9	T-HANDLE	STAINLESS STEEL
10	LUBE ZERK	ANODIZED STEEL
11	SPRING	STAINLESS STEEL

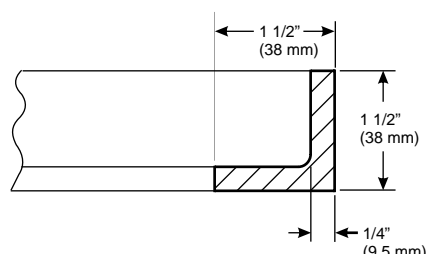
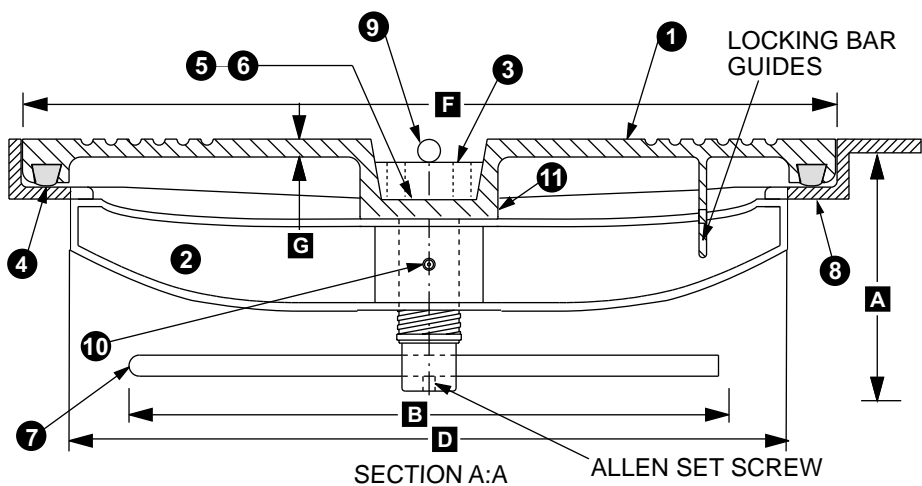
NOTE:
 *** CORROSION RESISTANT ALUMINUM, OR GALVANIZED STEEL



GASKET GROOVE, SECTION B:B



CAST ALUMINUM DECK RING



GALVANIZED STEEL DECK RING

HATCH WEIGHTS LBS. (KGMS)	
Model Number	BFHSQTH24X24
Material	AL ST
Cover	50 (22.7) N/A
Deck Ring	12 (5.4) 15 (6.8)

IMPORTANT: WHEN ORDERING, PLEASE SPECIFY OUTSIDE DIAMETER (C) OR CLEAR OPENING (D). UNITS ARE IDENTIFIED BY CLEAR OPENING.

Model Number	DIMENSIONS INCHES (mm)						
	A	B	C(ST)	C(AL)	D	F	G
BFHSQ24X24	6 (152)	12 1/2 (318)	26 11/16 (677)	30 1/2 (774)	24 (610)	26 (660)	3/8 (9.5)

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 1-800-455-3917
 206-632-2441 (FAX)
 sales@baiermarine.com

BAIER FLUSH HATCH
 HINGED DOGGED TYPE WITH BUILT-IN T-HANDLE
 TYPE "C" POSITIVE LOCKING
 MODEL BFHSQ24X24
 DWG. NO. 700

T-HANDLE STRONGBACK

BFHHOTH Series Oval - Hinged BFHHSQ Series Square - Hinged

This popular strongback hinged hatch design series adds the convenience of a built-in recessed Stainless Steel T-handle to the flush-mounted, quick release, hinged hatch. The design is especially popular on aluminum boats, fishing and other workboats, as well as many U.S. Navy and U.S. and Canadian Coast Guard vessels.

FEATURES

Unique:

- Cast Hatch Cover (unique no grab handles)
- Stainless Steel Centerbolt and hardware
- Built-in Stainless Steel T-Handle used for quick engagement as well as lifting

Shares with Classic HEX-Bolt Series:

- Cast Strongback
- Cast / fabricated matching Deck Ring
- Neoprene Cover Gasket and Washers (Buna-N optional)
- Every unit shipped with an underside escape turning bar for safety
- Turning wheel optional

STRENGTH, SIMPLICITY and CONVENIENCE

The T-Handle Strongback system has only three moving parts to secure the hatch cover to the deck. Like the Classic HEX it is simple, strong, reliably watertight, infinitely adjustable from topside, and easily serviced (parts are readily available and replaced in the field).

MATERIALS

The T-Handle Strongback hatch cover product line is available only in cast aluminum. The deck rings used are the same as the Classic HEX and are available in galvanized mild steel (for welding into steel decks), or cast aluminum (for welding into aluminum decks or bolting to fiberglass or wood decks). Stainless deck rings are available by special order.



T-HANDLE
STRONGBACK



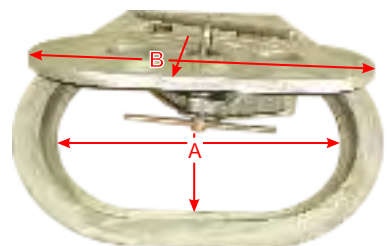
BFHHOTH15X24A/A with Cast Aluminum Deck Ring



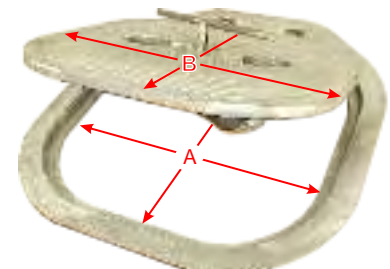
BFHHSQ24X24A/S with Galvanized Steel Deck Ring

SEE FLUSH HATCH PRODUCT MATRIX P.

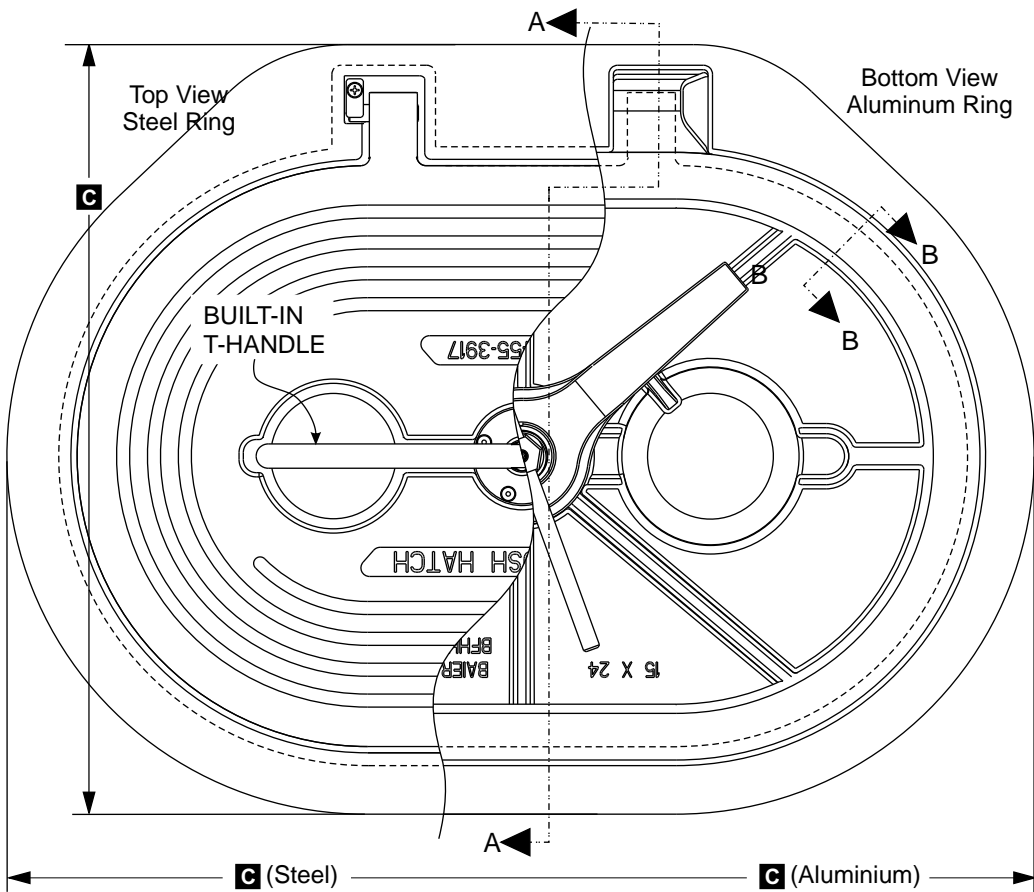
Hatch Model:
BFHHOTH15X24
Clear Opening (A):
15" x 24"
(381 mm X 610 mm)
Cover Dimensions (B):
17" x 26"
(432 mm x 660 mm)
Technical Drawing:
#525



Hatch Model:
BFHHSQ24x24
Clear Opening (A):
24" x 24"
(610 mm x 610 mm)
Cover Dimensions (B):
26" x 26"
(660 mm x 660 mm)
Technical Drawing:
#725



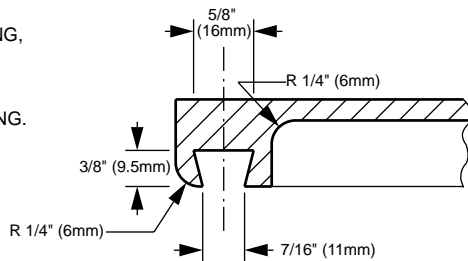
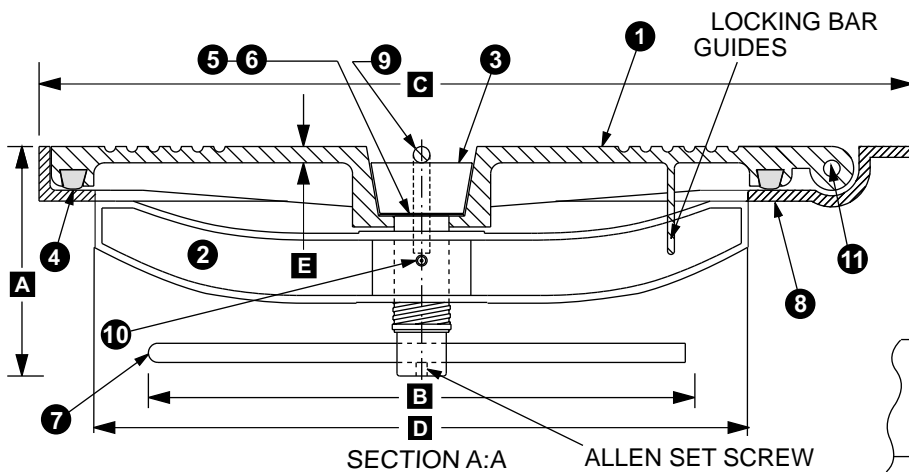
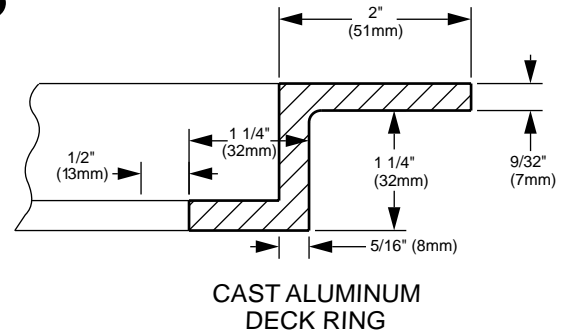
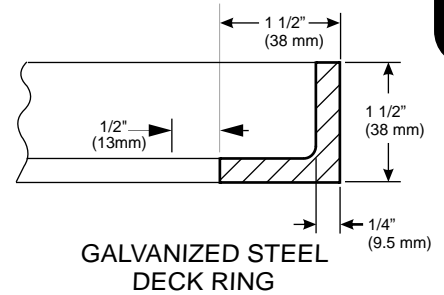
Hatch Covers Available Separately



BILL OF MATERIAL: #525		
PC.NO.	DESCRIPTION	MATERIAL
1	COVER	ALUMINUM ONLY
2	STRONGBACK	ALUMINUM ONLY
3	BOLT (1 1/2" Ø)	STAINLESS STEEL
4	GASKET	NEOPRENE
5	WASHER	STAINLESS STEEL
6	WASHER	NEOPRENE
7	ROD (1/2" Ø)	GALVANIZED STEEL
8	DECK RING	***
9	T-HANDLE	STAINLESS STEEL
10	LUBE ZERK	ANNODIZED STEEL
11	HINGE PIN	STAINLESS STEEL

NOTE: *** CORROSION RESISTANT ALUMINUM, OR GALVANIZED STEEL

NOTE: BUTT WELD ON STEEL AND ALUMINUM DECKS. BOLT DOWN ON WOOD AND FIBERGLASS DECKS (FLANGES SUPPLIED BLIND - SHIPYARD TO DRILL TO SUIT)



IMPORTANT: WHEN ORDERING, PLEASE SPECIFY OUTSIDE DIAMETER (C) OR CLEAR OPENING (D). UNITS ARE IDENTIFIED BY CLEAR OPENING.

HATCH WEIGHTS (LBS.)	
Model Number	BFHHOTH15X24
Material	AL ST
Cover	32 (14.5) 76 (34.4)
Deck Ring	10 (4.5) 27 (12.2)

Model Number	DIMENSIONS INCHES (mm)					
	A	B	C(ST)	C(AL)	D	E
BFHHOTH15X24	5 1/4 (133)	12 1/2 (318)	30 7/8 x 22 7/16 (784 x 570)	30 1/2 x 23 3/8 (775 x 593)	24 x 15 (610 x 381)	7/32 (5.6)

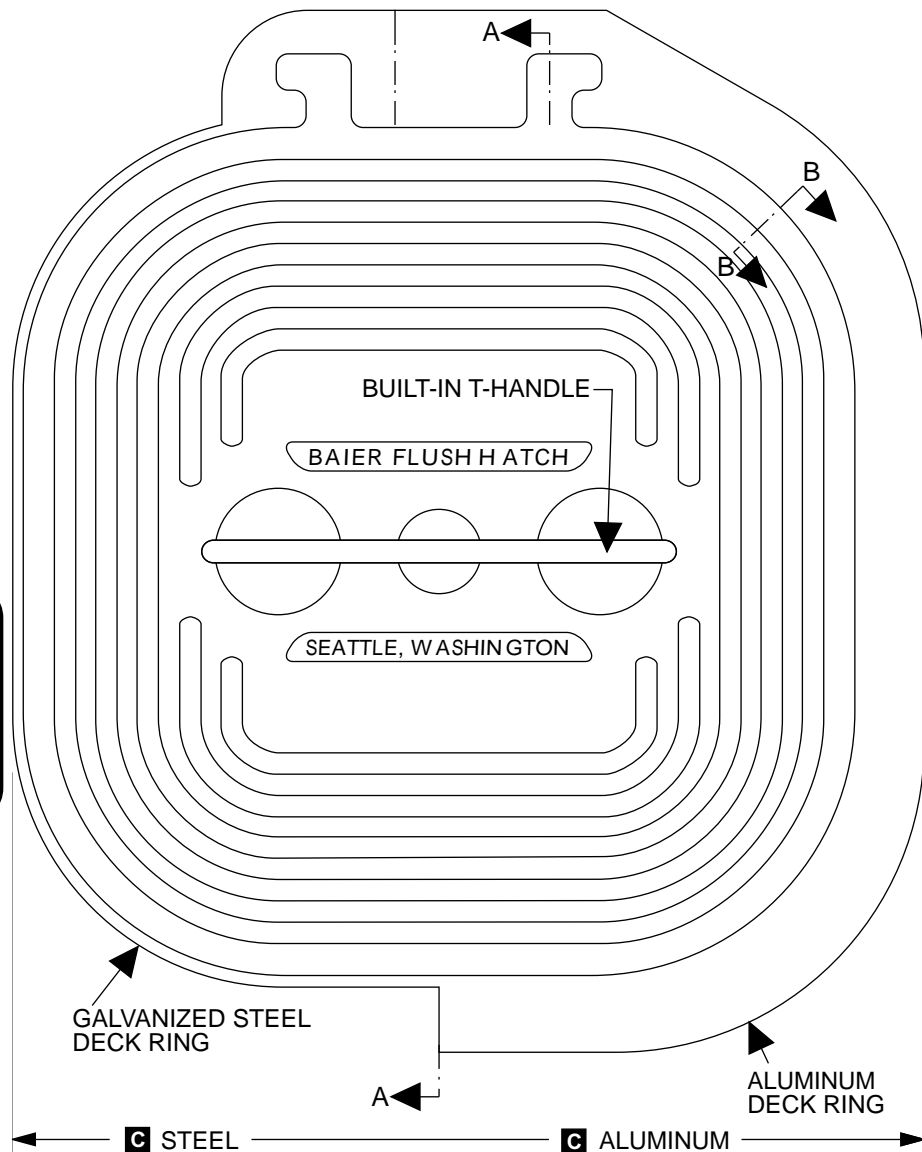
BAIER Marine Company, Inc.
 1-800-455-3917
 206-632-2441 (FAX)
 sales@baiermarine.com

BAIER FLUSH HATCH
 HINGED DOGGED TYPE WITH
 BUILT-IN T-HANDLE
 TYPE "C" POSITIVE LOCKING
 MODEL BFHHOTH15X24

DWG. NO. 525

T-HANDLE
STRONGBACK

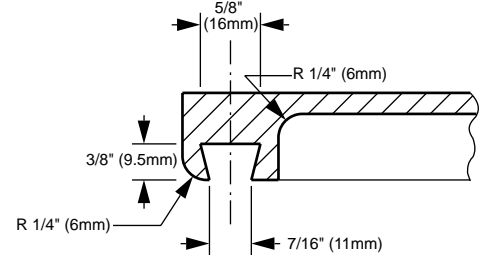
**T-HANDLE
STRONGBACK**



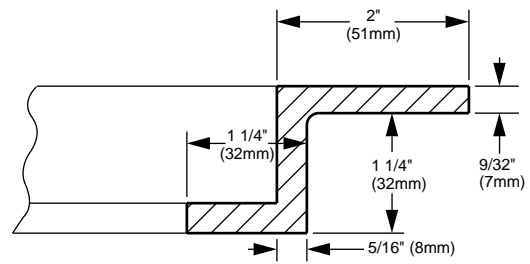
BILL OF MATERIAL: #725

PC.NO.	DESCRIPTION	MATERIAL
1	COVER	ALUMINUM ONLY
2	STRONGBACK	ALUMINUM ONLY
3	BOLT (1 1/2" Ø)	STAINLESS STEEL
4	GASKET	NEOPRENE
5	WASHER	STAINLESS STEEL
6	WASHER	NEOPRENE
7	ROD (1/2" Ø)	GALVANIZED STEEL
8	DECK RING	***
9	T-HANDLE	STAINLESS STEEL
10	LUBE ZERK	ANODIZED STEEL
11	SPRING	STAINLESS STEEL
12	HINGE PINS	STAINLESS STEEL

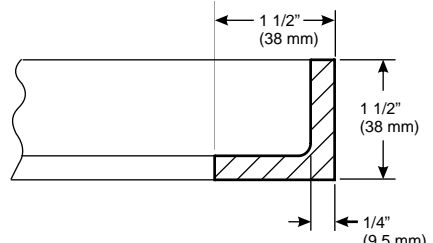
NOTE:
*** CORROSION RESISTANT ALUMINUM, OR GALVANIZED STEEL



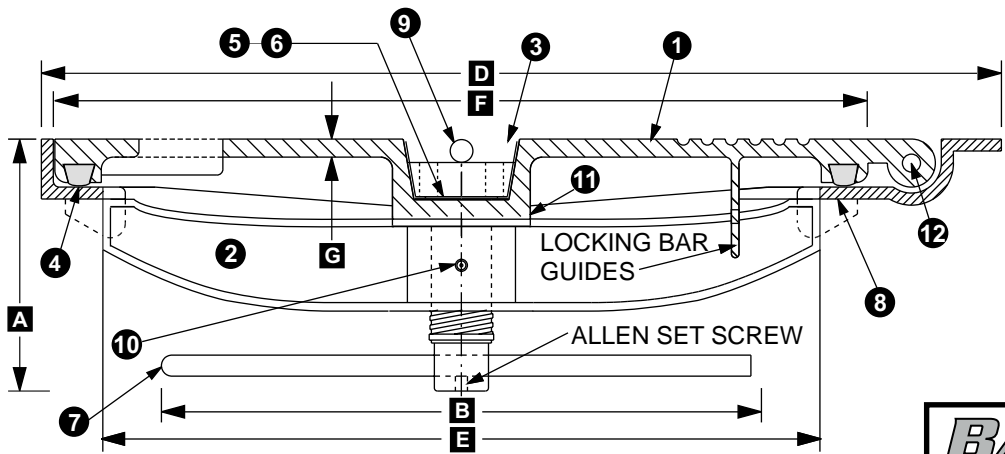
**GASKET GROOVE,
SECTION B:B**



**CAST ALUMINUM
DECK RING**



**GALVANIZED STEEL
DECK RING**



SECTION A:A

HATCH WEIGHTS LBS. (KGMS)

Model Number	BFSQHTH24X24
Material	AL ST
Cover	51(23.1) N/A
Deck Ring	14 (6.3) 26 (11.8)

IMPORTANT: WHEN ORDERING,
PLEASE SPECIFY OUTSIDE
DIAMETER (C) OR CLEAR
OPENING (D). UNITS ARE
IDENTIFIED BY CLEAR OPENING.

Model Number	DIMENSIONS INCHES (mm)								
	A	B	C (ST)	C (AL)	D(ST)	D(AL)	E	F	G
BFHHSQ24X24	6 (152)	12 1/2 (318)	26 11/16 (677)	30 1/2 (774)	30.5 (774)	32 1/2 (826)	1 1/4 (32)	26 (660)	3/8 (9.5)

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1-800-455-3917
206-632-2441 (FAX)
sales@baiermarine.com

BAIER FLUSH HATCH
HINGED DOGGED TYPE WITH
BUILT-IN T-HANDLE
TYPE "C" POSITIVE LOCKING
MODEL BFHHSQ24X24

DWG. NO. 725

BAIER



Hatches ♦ Deck Fittings



QUICK
ACTING

Quick-Acting 4-Dog Hatch

BFHQ Series Round - Lift Out Style

These light-weight, quick-acting 4-dog models are ideal for high-traffic closures where speed and ease are paramount, and/or where positive engagement must be visually verifiable at a glance.

DESIGN

Multi-dog "Cam-Lock" positive engagement locking system features:

- Adjustable Dog Tensioners that provide equal tension on all points, ensure a water-tight seal
- Built-in "Never Lose" handle
- A simple 1/8th-turn of the handle provides smooth, easy and secure engagement
- Thicker Dog Arms for superior strength
- Positive visual verification: When the handle is down, the hatch is secured
- Inside escape bar on all units (optional inside turning wheel available)
- Subtle design improvements make the BFHQ stronger, more water-tight than our competitors' similar units



LIGHTWEIGHT BUT STRONG:

- Cast from high-grade corrosion-resistant 356 aluminum alloy (ASTM B26)
- Maximum durability, stronger deck strength and impact resistance
- Stainless steel T-handle and operating hardware
- Dissimilar metals isolated by neoprene and nylon

WATER-TIGHT:

- Machined surfaces and superior casting processes control tolerances
- Neoprene cover gasket and sealing ring ensure tight seal

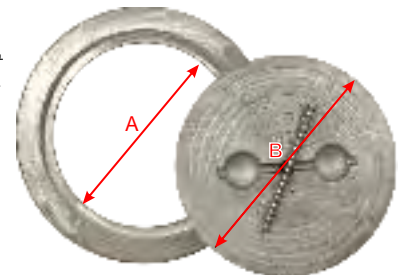
MATERIALS

Currently, the 4-dog BFHQ series hatch cover assemblies are available only in cast aluminum. However, the deck rings for the BFHQ are the same size as the Strongback models, and are available in galvanized mild steel or cast aluminum. Stainless Steel deck rings are available by special order.

Hatch Model	BFHQTH20
Clear (A) Opening	20" Ø (508 mm) Ø
Cover (B) Diameter	22" Ø (559 mm) Ø
Technical Drawing	#810

When ordering, please specify:

Ring Material:
cast aluminum
or
galvanized steel



Hatch Covers Available Separately

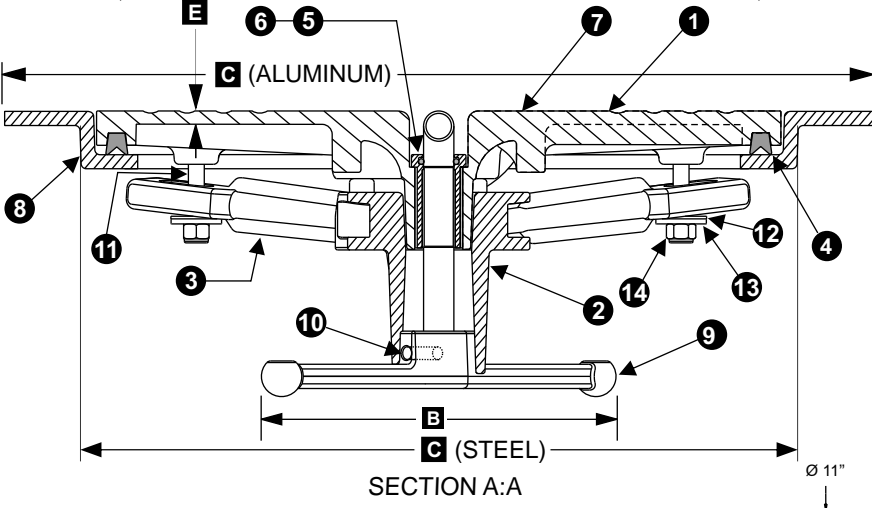
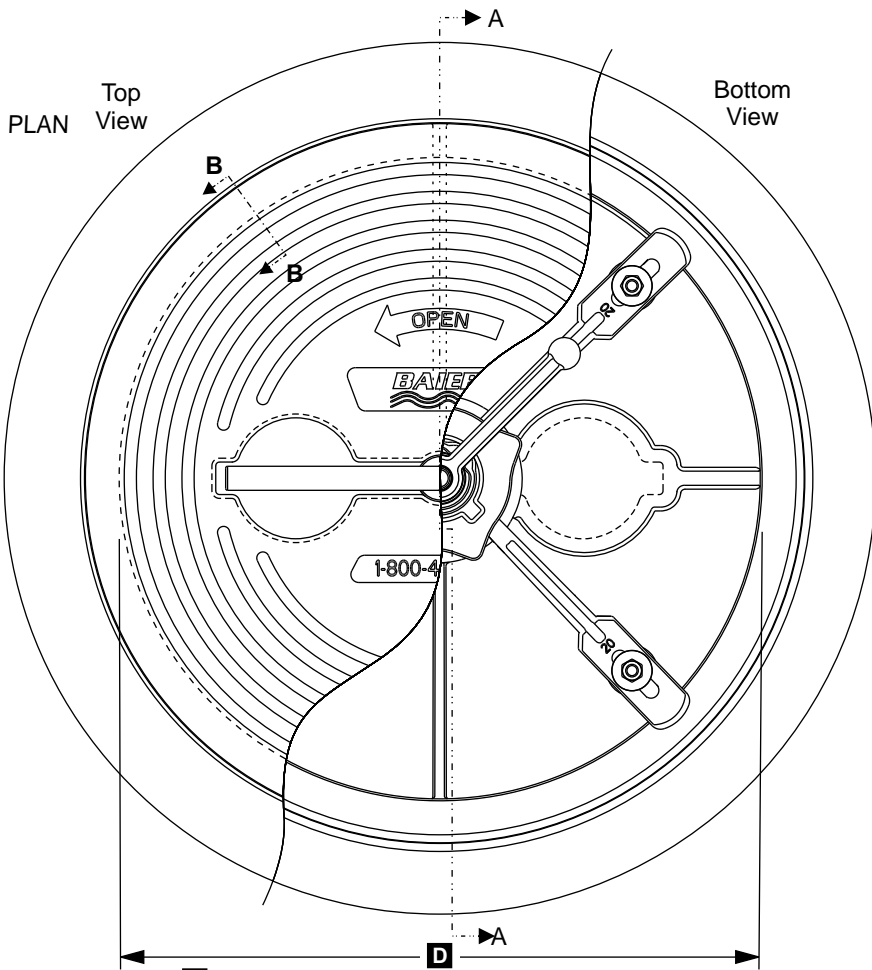
QUICK ACTING



BFHQTH20A/A with Cast Aluminum Deck Ring and Standard Turn-bar

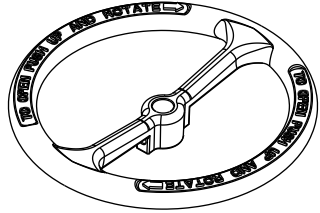
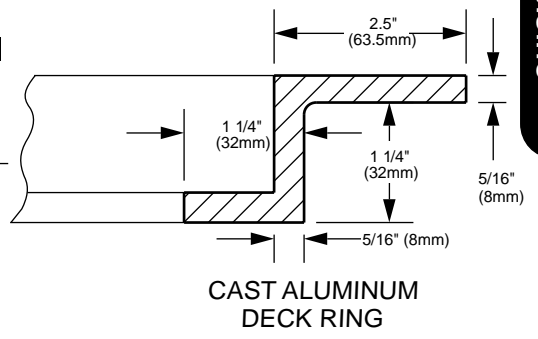
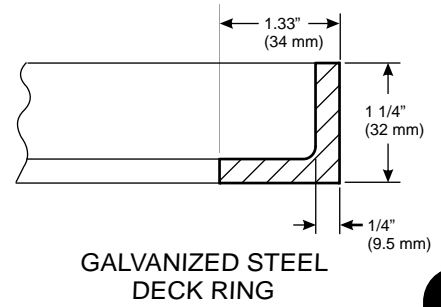
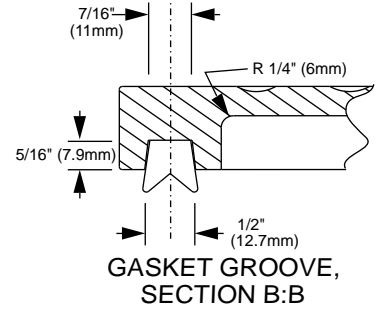


BFHQTH20A/A with Optional Handwheel



BILL OF MATERIAL: #810		
PC.NO.	DESCRIPTION	MATERIAL
1	COVER	ALUMINUM ONLY
2	DOG HUB ASSY	ALUMINUM
3	DOG ARM	ALUMINIUM
4	GASKET	NEOPRENE
5	BUSHING	S.S. W/ NYLON INSRT
6	O-RING	NEOPRENE
7	T-HANDLE	STAINLESS STEEL
8	DECK RING	***
9	ESCAPE HANDLE	ALUMINIUM
10	HANDLE PIN	STAINLESS STEEL
11	THREADED POST	STAINLESS STEEL
12	WASHER	STAINLESS STEEL
13	WASHER	UHMW POLY
14	NYLOCK NUT	STAINLESS STEEL

NOTE: *** CORROSION RESISTANT ALUMINUM, OR GALVANIZED STEEL



OPTIONAL: ESCAPE HANDWHEEL
(REPLACES ESCAPE HANDLE)
IMPORTANT: WHEN ORDERING, PLEASE SPECIFY
OUTSIDE DIAMETER (C) OR CLEAR OPENING (D).
UNITS ARE IDENTIFIED BY CLEAR OPENING.

HATCH WEIGHTS LBS. (KGMS)*		
Model Number	BFHQTH20	
Material	AL	ST
Cover	27 (12.2)	N/A
Deck Ring	10 (4.5)	11 (5)

Model Number	DIMENSIONS INCHES (mm)					
	A	B	C (ST)	C (AL)	D	E
BFHQTH20	7 1/16 (179)	12 (305)	22 11/16 (576)	27 3/16 (691)	20 (508)	5/16 (8)

BAIER Marine Company, Inc.
1-800-455-3917
206-632-2441 (FAX)
sales@baiermarine.com

BAIER FLUSH HATCH
LIFT-OUT MULTI-DOGGED TYPE
WITH BUILT-IN T-HANDLE
TYPE "D" QUICK ACTING
POSITIVE LOCK
MODEL BFHQTH20
DWG. NO.810

QUICK ACTING

BFHQ Series Oval - Lift Out Style

These light-weight, quick-acting 4-dog models are ideal for high-traffic closures where speed and ease are paramount, and/or where positive engagement must be visually verifiable at a glance.

DESIGN

Multi-dog "Cam-Lock" positive engagement locking system features:

- Adjustable Dog Tensioners that provide equal tension on all points, ensure a water-tight seal
- Built-in "Never Lose" handle
- A simple 1/8th-turn of the handle provides smooth, easy and secure engagement
- Thicker Dog Arms for superior strength
- Positive visual verification: When the handle is down, the hatch is secured
- Inside escape bar on all units (optional inside turning wheel available)
- Subtle design improvements make the BFHQ stronger, more water-tight than our competitors' similar units
- Replacement Type F model interchangeable with competitor hatches

LIGHTWEIGHT BUT STRONG:

- Cast from high-grade corrosion-resistant 356 aluminum alloy (ASTM B26)
- Maximum durability, stronger deck strength and impact resistance
- Stainless steel T-handle and operating hardware
- Dissimilar metals isolated by neoprene and nylon

WATER-TIGHT:

- Machined surfaces and superior casting processes control tolerances
- Neoprene cover gasket and sealing ring ensure tight seal

MATERIALS

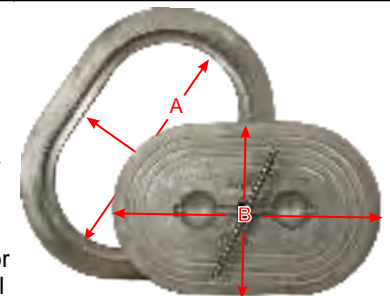
Currently, the 4-dog BFHQ series hatch cover assemblies are available only in cast aluminum. However, the deck rings for the BFHQ are the same size as the Strongback models, and are available in galvanized mild steel or cast aluminum. Stainless Steel deck rings are available by special order.



Hatch Model	BFHQTH15x24
Clear (A) Opening	15" x 24" (381 mm x 610 mm)
Cover (B) Dimensions	17" x 26" (432 mm x 660 mm)
Hatch Model	BFHQTH15x24-F Cover Only - Replacement for Competitive Model
Cover (B) Dimensions	16.88" x 25.75" (429 mm x 654 mm)
Technical Drawing	#800

When ordering, please specify:

Ring Material:
cast aluminum or galvanized steel



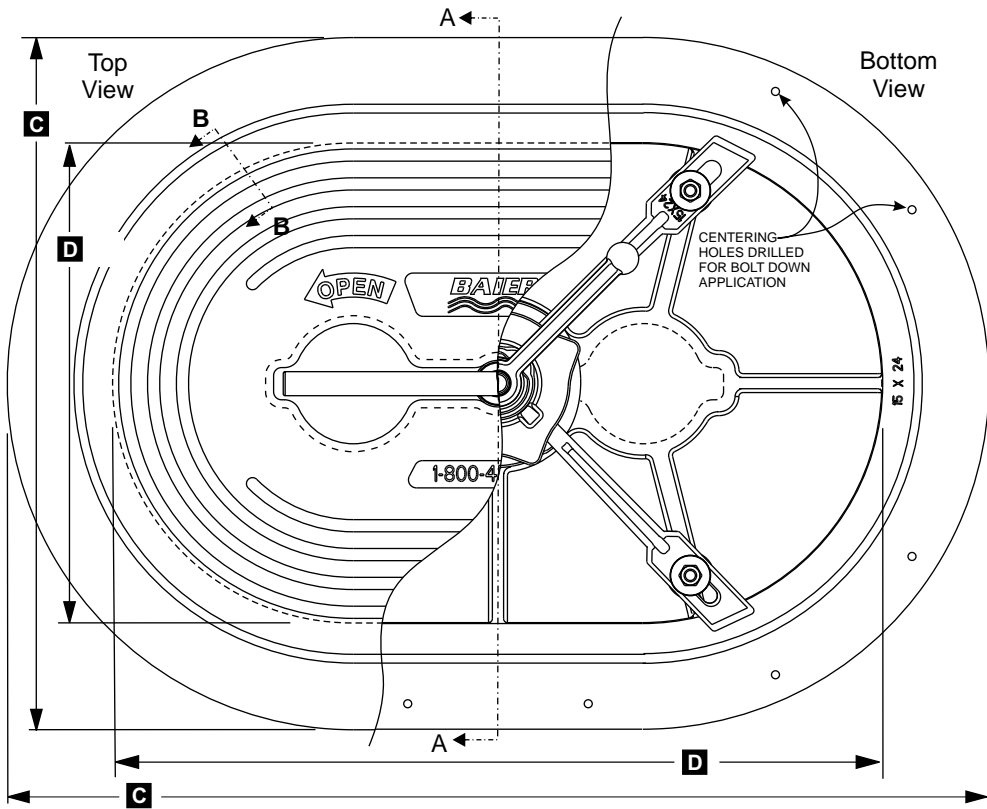
Hatch Covers Available Separately



BFHQTH15X24A/A with Cast Aluminum Deck Ring and Standard Turn-bar

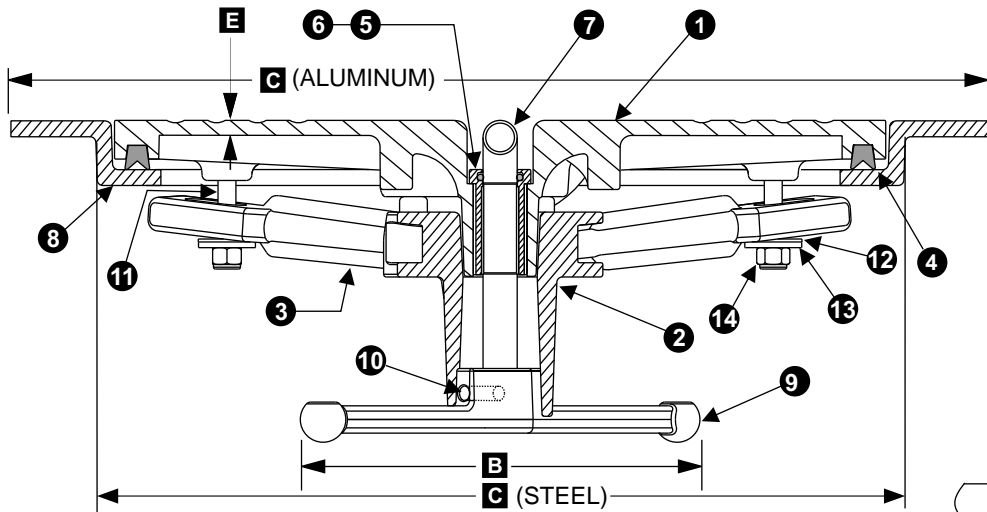
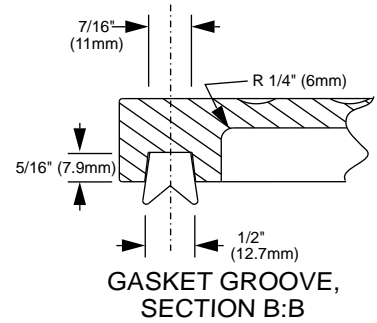


BFHQTH15X24A/A with Optional Handwheel

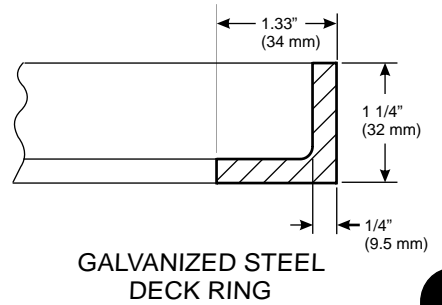


BILL OF MATERIAL: #800		
PC.NO.	DESCRIPTION	MATERIAL
1	COVER	ALUMINUM ONLY
2	DOG HUB ASSY	ALUMINUM
3	DOG ARM	ALUMINUM
4	GASKET	NEOPRENE
5	BUSHING	S.S. W/ NYLON INSR
6	O-RING	NEOPRENE
7	T-HANDLE	STAINLESS STEEL
8	DECK RING	***
9	ESCAPE HANDLE	ALUMINUM
10	HANDLE PIN	STAINLESS STEEL
11	THREADED POST	STAINLESS STEEL
12	WASHER	STAINLESS STEEL
13	WASHER	UHMW POLY
14	NYLOCK NUT	STAINLESS STEEL

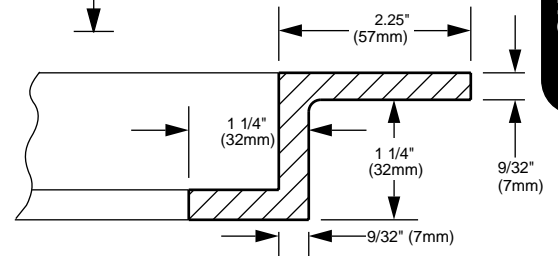
NOTE: *** CORROSION RESISTANT ALUMINUM, OR GALVANIZED STEEL



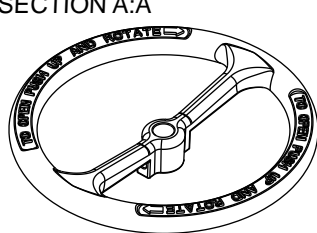
SECTION A:A



GALVANIZED STEEL DECK RING



CAST ALUMINUM DECK RING



OPTIONAL ESCAPE HANDWHEEL (REPLACES ESCAPE HANDLE)

IMPORTANT: WHEN ORDERING, PLEASE SPECIFY OUTSIDE DIAMETER (C) OR CLEAR OPENING (D). UNITS ARE IDENTIFIED BY CLEAR OPENING.

HATCH WEIGHTS LBS. (KGMS)*	
Model Number	BFHQTH15X24
Material	AL ST
Cover	25.8 (11.7) N/A
Deck Ring	9 (4.1) 12 (5.4)

Model Number	DIMENSIONS INCHES (mm)					
	A	B	C (AL)	C (ST)	D	E
BFHQTH15X24	7 1/16 (179)	12 (305)	30 7/16 x 21 7/16 (777 x 548)	26 1/2 x 17 1/2 (673 x 445)	24 x 15 (610 x 381)	1/4 (6)
BFHQTHF15X24 Cover Assembly Only	7 1/16 (179)	12 (305)	N/A	N/A	N/A	1/4 (6)

(Cover Dimension 25.75" x 16.88") Cover Only - Replacement for similar competitive models

BAIER Marine Company, Inc.
 1-800-455-3917
 206-632-2441 (FAX)
 sales@baiermarine.com

BAIER FLUSH HATCH

LIFT-OUT MULTI-DOGGED TYPE WITH BUILT-IN T-HANDLE
 TYPE "D" QUICK ACTING
 POSITIVE LOCK
 MODEL BFHQTH15X24

DWG. NO. 800

QUICK ACTING

BFHQ Series Square - Lift Out Style

These light-weight, quick-acting 4-dog models are ideal for high-traffic closures where speed and ease are paramount, and/or where positive engagement must be visually verifiable at a glance.

DESIGN

Multi-dog "Cam-Lock" positive engagement locking system features:

- Adjustable Dog Tensioners that provide equal tension on all points, ensure a water-tight seal
- Built-in "Never Lose" handle
- A simple 1/8th-turn of the handle provides smooth, easy and secure engagement
- Thicker Dog Arms for superior strength
- Positive visual verification: When the handle is down, the hatch is secured
- Inside escape bar on all units (optional inside turning wheel available)
- Subtle design improvements make the BFHQ stronger, more water-tight than our competitors' similar units
- Replacement Type F model interchangeable with competitor hatches

LIGHTWEIGHT BUT STRONG:

- Cast from high-grade corrosion-resistant 356 aluminum alloy (ASTM B26)
- Maximum durability, stronger deck strength and impact resistance
- Stainless steel T-handle and operating hardware
- Dissimilar metals isolated by neoprene and nylon

WATER-TIGHT:

- Machined surfaces and superior casting processes control tolerances
- Neoprene cover gasket and sealing ring ensure tight seal

MATERIALS

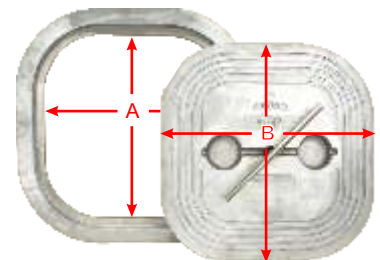
Currently, the 4-dog BFHQ series hatch cover assemblies are available only in cast aluminum. However, the deck rings for the BFHQ are the same size as the Strongback models, and are available in galvanized mild steel or cast aluminum. Stainless Steel deck rings are available by special order.



Hatch Model	BFHQTH24x24
Clear (A) Opening	24" x 24" (610 mm x 610 mm)
Cover (B) Dimensions	26" x 26" (660 mm x 660 mm)
Technical Drawing	#820

When ordering, please specify:

Ring Material:
cast aluminum or galvanized steel



Hatch Covers Available Separately

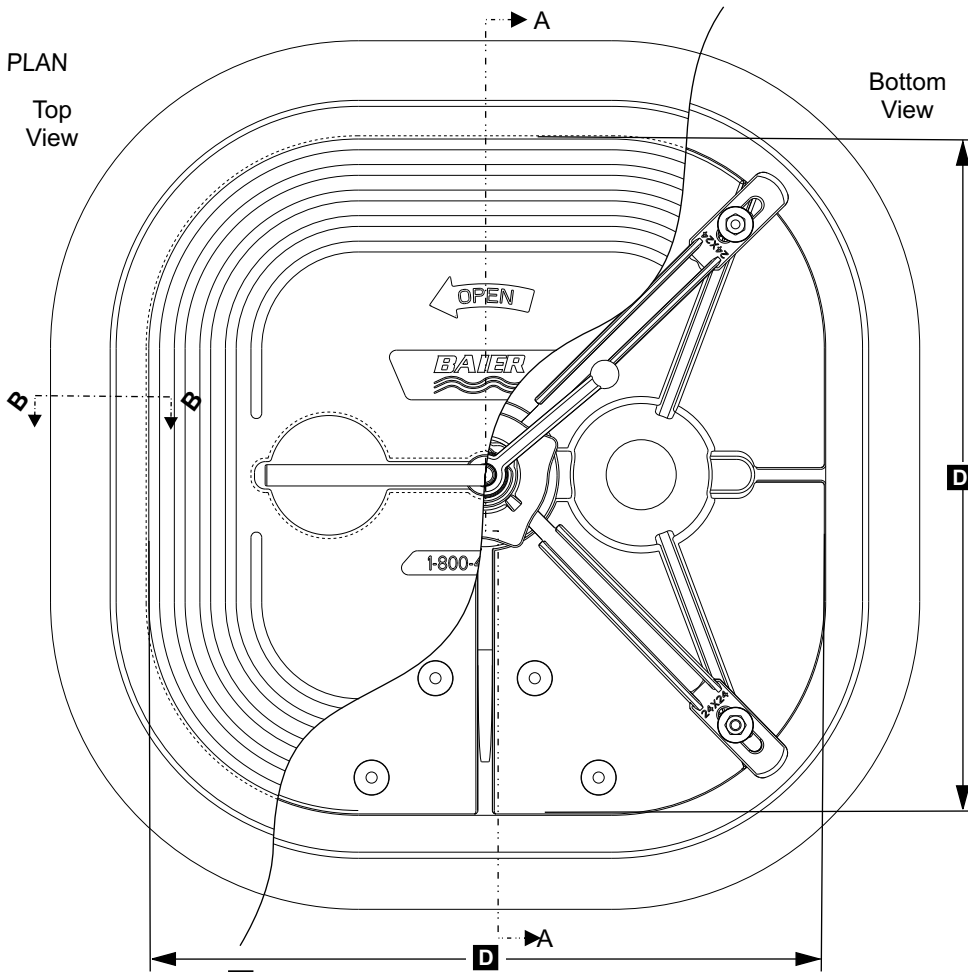


BFHQTH24X24A/A with Cast Aluminum Deck Ring and Standard Turn-bar



BFHQTH24X24A/A with Optional Handwheel

PLAN
Top
View

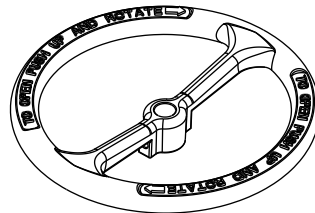
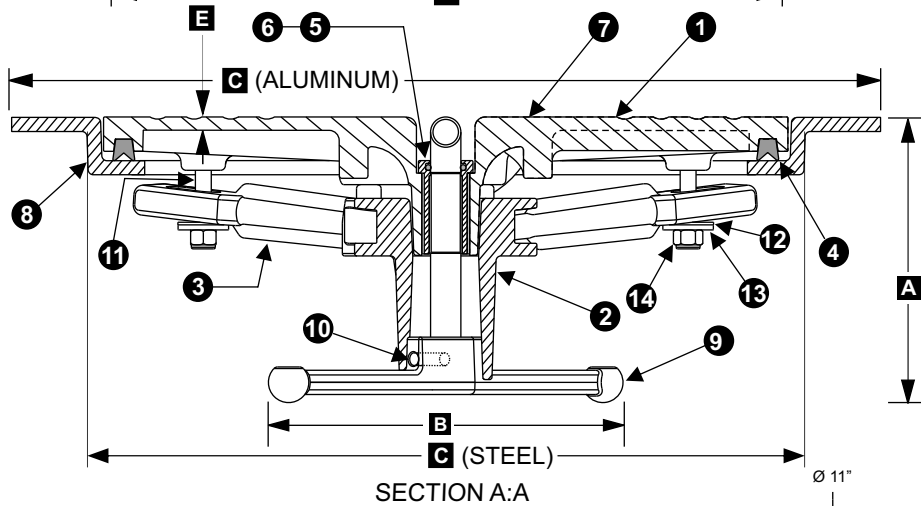
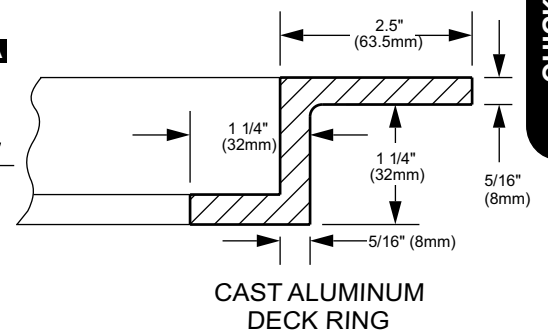
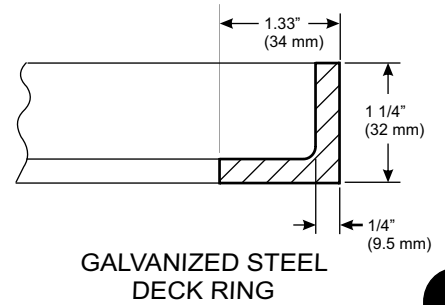
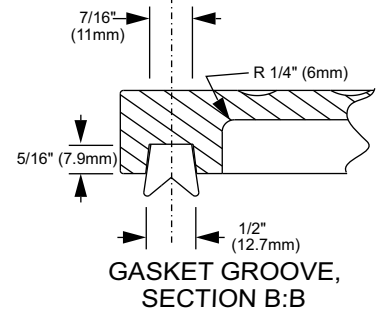


Bottom
View

BILL OF MATERIAL: #820

PC.NO.	DESCRIPTION	MATERIAL
1	COVER	ALUMINUM ONLY
2	DOG HUB ASSY	ALUMINUM
3	DOG ARM	ALUMINIUM
4	GASKET	NEOPRENE
5	BUSHING	S.S. W/ NYLON INSRT
6	O-RING	NEOPRENE
7	T-HANDLE	STAINLESS STEEL
8	DECK RING	***
9	ESCAPE HANDLE	ALUMINIUM
10	HANDLE PIN	STAINLESS STEEL
11	THREADED POST	STAINLESS STEEL
12	WASHER	STAINLESS STEEL
13	WASHER	UHMW POLY
14	NYLOCK NUT	STAINLESS STEEL

NOTE: *** CORROSION RESISTANT ALUMINIUM, OR GALVANIZED STEEL



OPTIONAL: ESCAPE HANDWHEEL
(REPLACES ESCAPE HANDLE)

IMPORTANT: WHEN ORDERING, PLEASE SPECIFY
OUTSIDE DIAMETER (C) OR CLEAR OPENING (D).
UNITS ARE IDENTIFIED BY CLEAR OPENING.

HATCH WEIGHTS LBS. (KGMS)*	
Model Number	BFHQTH24X24
Material	AL ST
Cover	44 (20) N/A
Deck Ring	12 (5.4) 15 (6.8)

Model Number	DIMENSIONS INCHES (mm)					
	A	B	C (ST)	C (AL)	D	E
BFHQTH20	7 1/16 (179)	12 (305)	26 11/16 (677)	30 1/2 (774)	24 (610)	5/16 (8)

QUICK
ACTING

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1-800-455-3917
206-632-2441 (FAX)
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BAIER FLUSH HATCH

LIFT-OUT MULTI-DOGGED TYPE
WITH BUILT-IN T-HANDLE
TYPE "D" QUICK ACTING
POSITIVE LOCK
MODEL BFHQTH24X24

DWG. NO.820

COAMINGS

Baier coamings are available in various heights for any of our three lines of flush hatches. Coamings are available for both our lift-out and hinged model hatches. All Coamings are fabricated from mild steel, welded to a steel deck ring.

COAMING HEIGHTS

Standard height coamings are: 6" 12" 18" 24"
Custom heights available – Please allow 6-10 working days.

Baier stocks steel coamings for the following hatches:

CLASSIC HEX-BOLT STYLE

BFHR14A	N/A	BFHHR22A	BFHHR22S
BFHR16A	BFHR16S	BFHO15X24A	BFHO15X24S
BFHR18A	BFHR18S	BFHHO15X24A	BFHHO15X24S
BHFR20A	BFHR20S		
BFHR24A	BFHR24S		

T-HANDLE STRONGBACK STYLE

BFHRTH8A	BFHOTH15X24A	BFHSQ24X24A
BFHRTH20A	BFHHOTH15X24A	BFHHSQ24X24A

QUICK ACTING 4-DOG STYLE

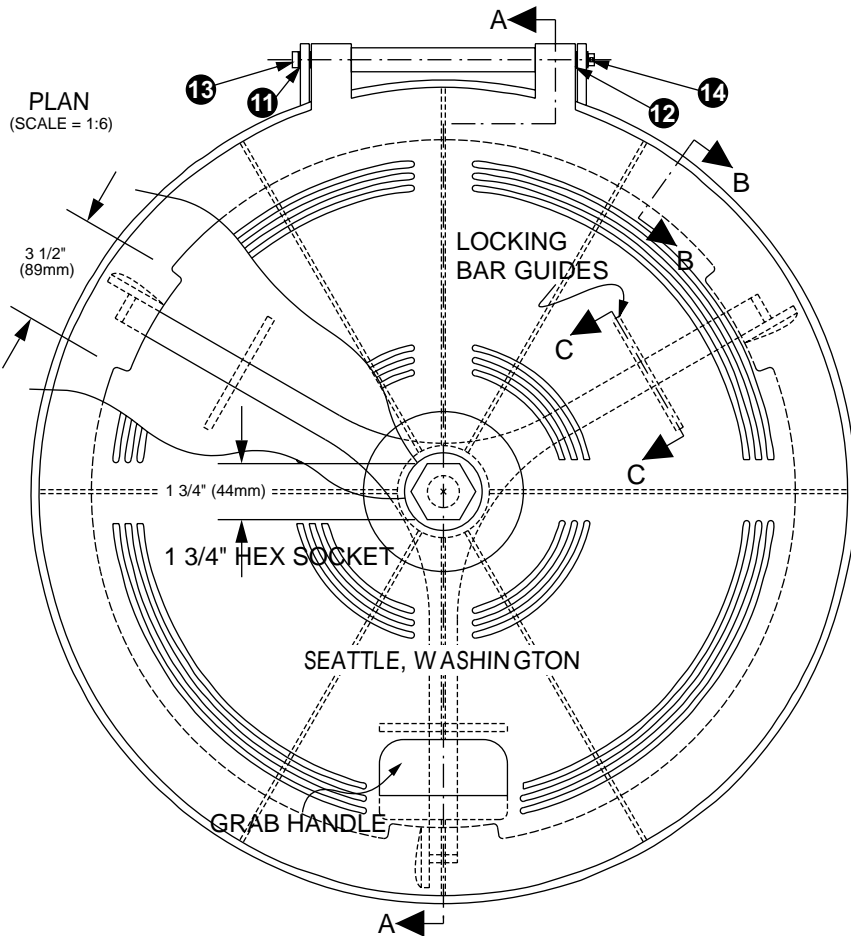
BFHQA20A	BHFQA15X24A
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STANDARD SIZES:

Several styles and sizes are listed as standard hatch assembly models complete with coaming.

	Aluminum Cover	Steel Cover
6" Coaming	BCHHR22A/6S	BCHHR22S/6S
12" Coaming	BCHHR22A/12S	BCHHR22S/12S
18" Coaming	BCHHR22A/18S	BCHHR22S/18S
24" Coaming	BCHHR22A/24S	BCHHR22S/24S
6" Coaming	BCHHO15X24A/6S	BCHHO15X24S/6S
12" Coaming	BCHHO15X24A/12S	BCHHO15X24S/12S
18" Coaming	BCHHO15X24A/18S	BCHHO15X24S/18S
24" Coaming	BCHHO15X24A/24S	BCHHO15X24S/24S



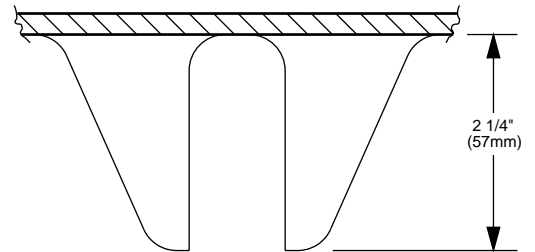


BILL OF MATERIAL: #627

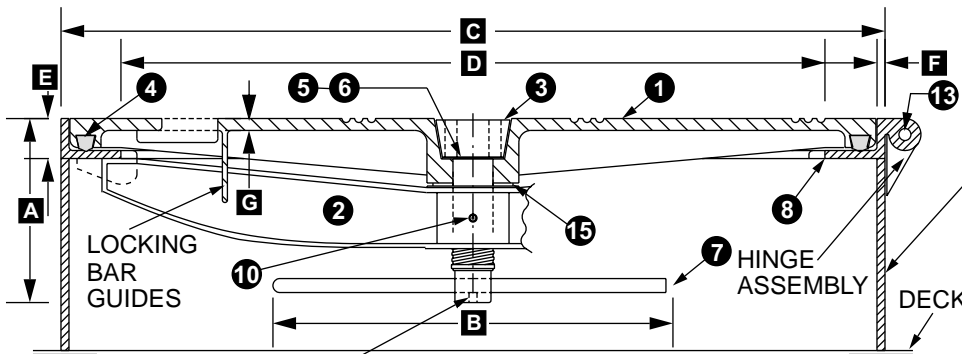
PC.NO.	DESCRIPTION	MATERIAL
1	COVER	***
2	SPIDER	***
3	BOLT (1 1/2" Ø)	STAINLESS STEEL
4	GASKET	NEOPRENE
5	WASHER	STAINLESS STEEL
6	WASHER	NEOPRENE
7	ROD (1/2" Ø)	GALVANIZED STEEL
8	DECK RING	***
9	WRENCH	GALVANIZED STEEL
10	LUBE ZERK	ANODIZED STEEL
11	WASHER	STAINLESS STEEL
12	WASHER	STAINLESS STEEL
13	HINGE PIN	STAINLESS STEEL
14	COTTER PIN	STAINLESS STEEL
15	SPRING	STAINLESS STEEL

NOTE:
*** CORROSION RESISTANT ALUMINUM, OR GALVANIZED STEEL

IMPORTANT: WHEN ORDERING, PLEASE SPECIFY OUTSIDE DIAMETER (C) OR CLEAR OPENING (D). UNITS ARE IDENTIFIED BY CLEAR OPENING.

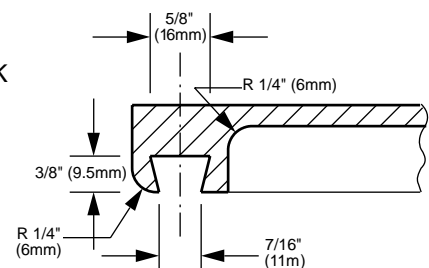


LOCKING BAR GUIDES,
SECTION C:C
(SCALE = 1:2)

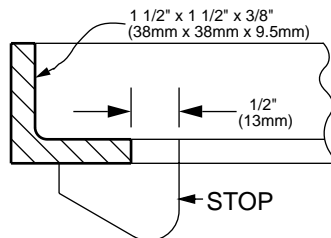
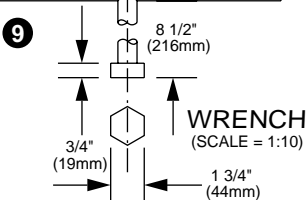
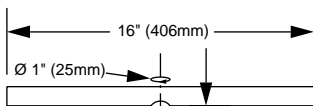


ALLEN SET SCREW
SECTION A:A
(SCALE = 1:6)

COAMINGS AVAILABLE IN:
6" (152mm), 12" (305mm),
18" (457mm), or 24" (610mm)
HEIGHTS



GASKET GROOVE,
SECTION B:B
(SCALE = 1:2)



GALVANIZED STEEL DECK RING
(EXCEPT HINGE)
(SCALE = 1:2)

HATCH WEIGHTS LBS. (KGMS)*		
Model Number	BCHHR22	
Material	AL	ST
Cover	37 (16.8)	99 (44.8)
Deck Ring	N/A	11(5)

NOTE: * EXCLUDES COAMING

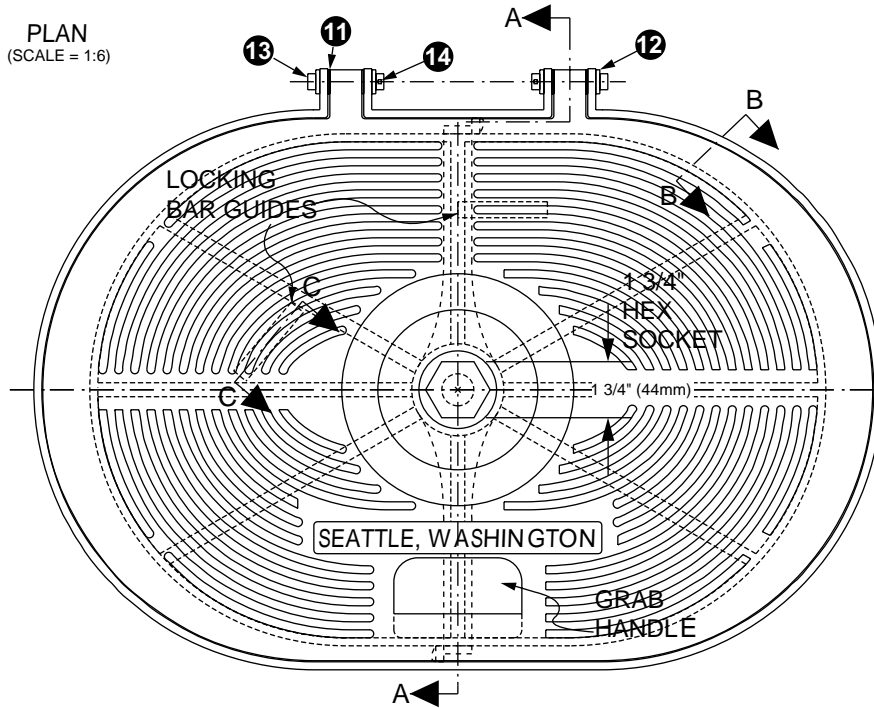
Model Number	DIMENSIONS (mm)						
	A	B	C	D	E	F	G
BCHHR22	5 3/4 (146)	12 1/2 (318)	25 1/2 (648)	22 (559)	1 1/4 (32)	1/4 (6)	3/8 (9.5)

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sales@baiermarine.com

BAIER COAMING HATCH
HINGED DOGGED TYPE WITH
GRAB HANDLES
TYPE "C" POSITIVE LOCKING
MODEL BCHHR22

DWG. NO. 627

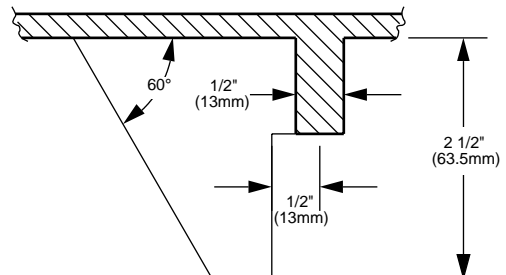
PLAN
(SCALE = 1:6)



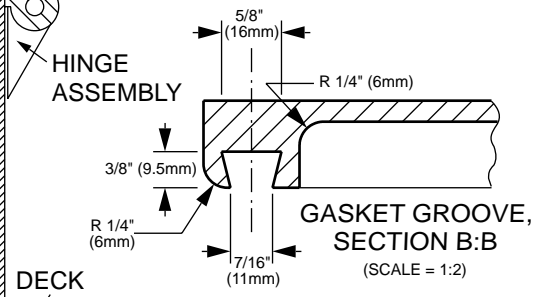
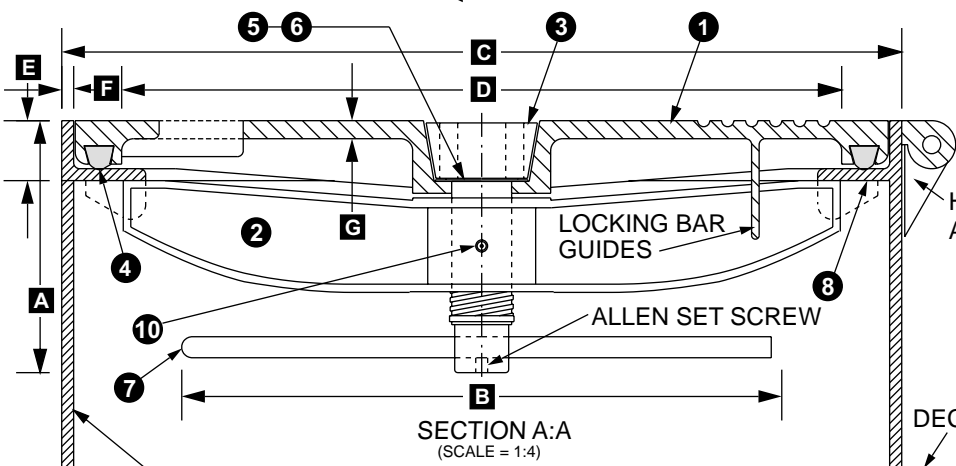
BILL OF MATERIAL: #542-1

PC.NO.	DESCRIPTION	MATERIAL
1	COVER	***
2	SPIDER	***
3	BOLT (1 1/2" Ø)	STAINLESS STEEL
4	GASKET	NEOPRENE
5	WASHER	STAINLESS STEEL
6	WASHER	NEOPRENE
7	ROD (1/2" Ø)	GALVANIZED STEEL
8	DECK RING	***
9	WRENCH	GALVANIZED STEEL
10	LUBE ZERK	ANODIZED STEEL
11	WASHER	STAINLESS STEEL
12	WASHER	STAINLESS STEEL
13	HING PIN	STAINLESS STEEL
14	COTTER PIN	STAINLESS STEEL

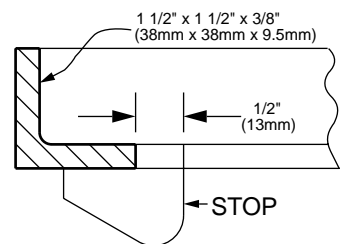
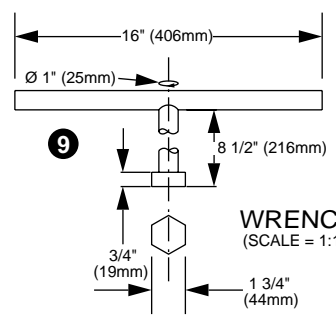
NOTE:
*** CORROSION RESISTANT ALUMINUM, OR GALVANIZED STEEL



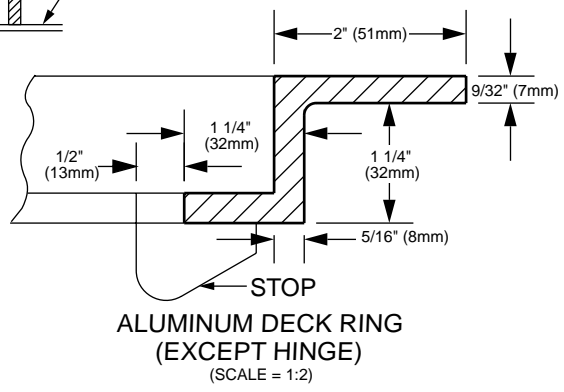
LOCKING BAR GUIDES,
SECTION C:C
(SCALE = 1:2)



COAMINGS AVAILABLE IN:
6"(152mm), 12"(305mm),
18"(457mm), or 24"(610mm)
HEIGHTS



GALVANIZED STEEL DECK RING
(EXCEPT HINGE)
(SCALE = 1:2)



HATCH WEIGHTS LBS. (KGMS)*

Model Number	BCHHO15X24
Material	AL ST
Cover	31 (14) 79 (35.8)
Deck Ring	9 (4.1) 12 (5.4)

NOTE: * EXCLUDES COAMING

IMPORTANT: WHEN ORDERING, PLEASE SPECIFY
OUTSIDE DIAMETER (C) OR CLEAR OPENING (D).
UNITS ARE IDENTIFIED BY CLEAR OPENING.

Model Number	DIMENSIONS INCHES (mm)								
	A	B	C(L)	C(W)	D(L)	D(W)	E	F	G
BCHHO15X24	5 1/4 (133)	12 1/2 (318)	26 1/2 (673)	17 1/2 (445)	24 (610)	15 (381)	1 1/4 (32)	1/4 (6)	3/8 (9.5)

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BAIER COAMING HATCH
HINGED DOGGED TYPE WITH
GRAB HANDLES
TYPE C POSITIVE LOCKING
MODEL BCHHO15X24
DWG. NO. 542-1

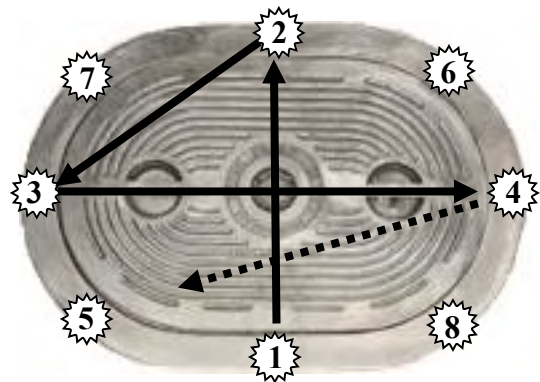
Baier Marine Company, Inc.
WELDING INSTALLATION TIPS
FOR FLUSH-HATCH DECK RINGS

Your **Baier Hatch**, with its unique design, is simple and easily-serviceable. Proper installation will ensure the integrity of the hatch and provide you with long lasting and reliable operation. *Two things we want to prevent are deck-ring cracking and also deck ring distortion*, since these will not allow a positive weather-tight seal.

1. POSITION the HATCH. It is important to install the hatch ring in proper alignment into its location. The ring must remain flat in all applications for the gasket to form a good seal. To find the cut out dimension for your specific hatch, please refer to our catalog and/or scribe your cutout from the actual piece.

2. TACK-WELD the DECK RING in a “STAR” SEQUENCE. From below deck, after positioning the ring, uniformly tack-weld the ring to the deck with 1” or shorter welds. These welds *must* be made in the sequence shown here to avoid heat-distortion.

Start your short tack-welds at position #1 (see right). Then tack-weld at position #2 across from #1 . Tack at position #3 and so on. Continue tack welding, as far as possible from the last tack and in the order shown at right. Also see note at bottom: BLANK COVER



Tack-weld in a “Star” sequence.

This diagram is an example only — to demonstrate the principle.
Each size hatch will vary.

Heat build-up caused by weld-filling a gap can cause the ring to distort. Tack-welding, a necessary preliminary step in installation of your hatch, performed correctly, can help achieve optimal results from the final weld and can prevent distortion. Each tack should be 1” or less. Tack-welding is complete when the welds are 6” apart along the entire perimeter of the ring. This alternating spacing is critical to prevent distortion of the ring.

3. SKIP-WELD OUTER EDGE of DECK RING to DECK from topside — also using a “star” pattern with your skip-welds to minimize heat-generated distortion. Fully weld the perimeter of the ring on top using skip welds. Many shops will also completely weld the underside of the deck ring as well to ensure deck integrity.

Further NOTES and TIPS:

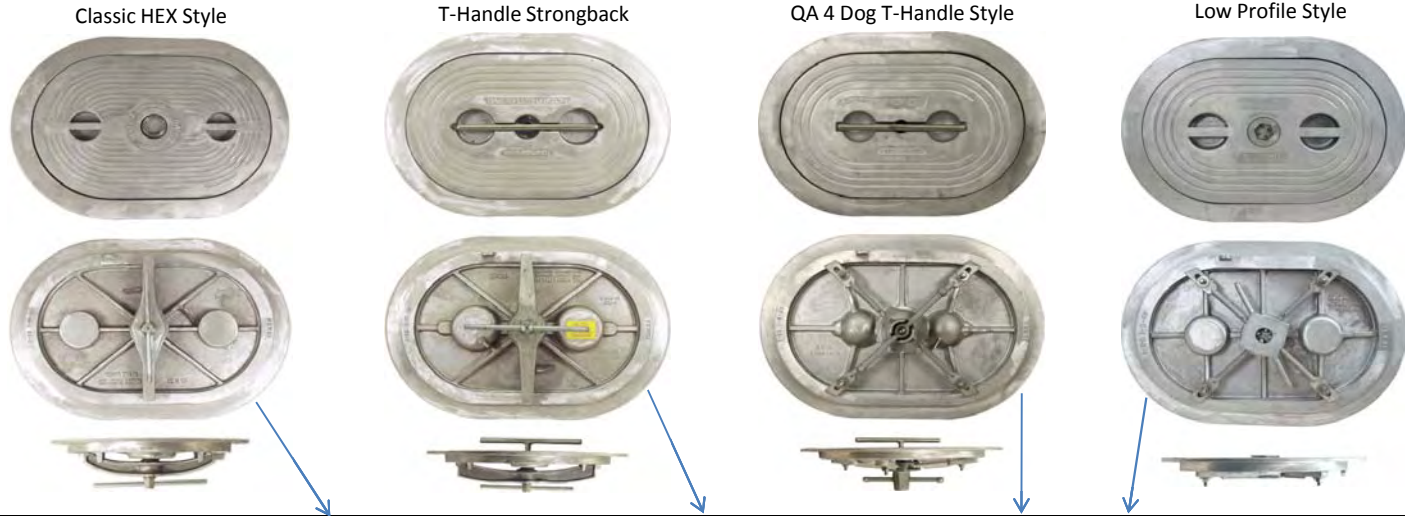
- Let ring and deck cool naturally. Do not quench with cool water.
- ALUMINUM RING REPAIR: If aluminum deck ring should crack for any reason, notch out the crack and use ER 4043 MIG welding wire to effect a repair. The ring is cast from ASTM-B26 Alloy 356 aluminum and will not respond well to a harder (e.g. ER 5356) welding wire which you might be using on deck plate.
- BLANK COVER: Some builders will use a “blank” hatch cover with the neoprene outer gasket removed to clamp into the deck ring and keep the ring flatter while it is being tacked into the deck cutout.

If you have further Questions, give Baier a call at 1-800-455-3917

www.baiermarine.com



FLUSH HATCH PRODUCT MATRIX



CLEAR OPENING DIMENSION	LIFT-OUT	HINGED	CENTERBOLT STYLE		BUILT-IN T-HANDLE STYLE			LOW-PROFILE STYLE	DECK RING OPTIONS			
			CLASSIC HEX		STRONGBACK		QA 4-DOG		MATERIAL			
			L-O	HNGD	AL	ST	AL		ST	AL	AL	/A
OVALS												
15 X 24	L-O		BFHO15X24A	BFHO15X24S	BFHOTH15X24A		BFHQTH15X24A	BFHLP15X24A	/A	/S	/SS	
15 X 24		HNGD	BFHHO15X24A	BFHHO15X24S	BFHHOTH15X24A				/A	/S	/SS	
15 X 24		HIDDEN HINGE					BFHHQTH15X24A	< NEW!	/A	/S		
ROUNDS												
8	L-O				BFHRTH8A				/A	/S	/SS	
14	L-O		BFHR14A	BFHR14S					/A	/S	/SS	
16	L-O		BFHR16A	BFHR16S					/A	/S	/SS	
18	L-O		BFHR18A	BFHR18S					/A	/S	/SS	
20	L-O		BFHR20A	BFHR20S	BFHRTH20A		BFHQTH20A	BFHLP20A (PLANNED)	/A	/S	/SS	
20		HIDDEN HINGE					BFHHQTH20A	< NEW!	/A	/S		
22		HNGD	BFHHR22A	BFHHR22S					/A	/S		
24	L-O		BFHR24A	BFHR24S					/A	/S	/SS	
SQUARES												
24 X 24	L-O				BFHSQ24X24A				/A	/S	/SS	
24 X 24	L-O						BFHQTH24X24A	< NEW! 4-DOG	/A	/S	/SS	
24 X 24		HNGD			BFHHSQ24X24A				/A	/S		
24 X 24		HIDDEN HINGE					BFHHQTH24X24A	< NEW!	/A	/S		

COAMINGS available standard heights: 6" 12" 18" 24"

NEW - Internal Hidden Hinge Hatch

Locks Open



Lays Flat

15x23 20-Bolt Series Oval - Manholes

Baier's complete line of multi-bolt manholes serves as a great inexpensive option for applications where frequent access is not required. Ideal for tank top covers, fuel and water tank access, inspection access to ship voids, barges, sanitary and digester tanks, clean outs and more. These water-tight manholes feature simple designs and utilize high strength steel.

Baier offers a complete line of manholes with configurations and hardware combinations to meet your requirements. These industry-standard manholes are used on workboats, and equipment worldwide. Baier's simply-designed manholes have served the industrial marine and fishing industries for the past 60 years.

FEATURES:

- High strength carbon steel construction
- Hardware combinations of dissimilar metal prevent galling and corrosion (Not available on all models - see Manhole Matrix for details)
- High-quality neoprene rubber gaskets ensure water tight seal (oil resistant Buna-N Optional)
- Neoprene Gasket material is UV resistant to prevent cracking and memory fatigue
- Flush screw-down models offer a smooth-surfaced manhole that prevents catching and snagging
- Speciality features such as 3" NPT fill points and handles available on some models
- Raised coamings available on certain models (See Coaming Section p. 31)

For more details about all of the manholes available please see the complete feature set matrix available on the technical drawing.



Model: BMHC15X23F - Flush Screw



Model: BMHC15X23S - Weld Stud



Model: BMHC15X23BZ - Weld Bolt, Combo B



Model: BMHC15X23Z - Weld Stud, Combo A



Model: BMHC15X23# - Raised Coaming, Combo B
See Additional Models on Manhole Matrix. (P. 40)

10" Round Series

Round - Clean-Out Hatches

The round manholes are also sometimes referred to as clean-out hatches. See the complete line of these round manholes on the technical drawing page and manhole matrix. (P. 40)



STEEL
MANHOLES

15x23 26 Bolt Series Oval - Manholes

26 bolt manholes are another industry standard model offered by Baier Marine. Typically used for specific application of increased air or water pressure. All of our manholes meet the ABS (American Bureau of Shipping) requirements for design and materials.



Model: BMHC15X23#-26 - Flush Screw, 26 Bolt
See Additional Models on Manhole Matrix. (p. 40)

18x24 24 Bolt Series Oval - Manholes

The 18" x 24" manholes feature many of the same configuration and hardware combinations featured on the standard size manhole. See the complete line of 18" x 26" manholes on the manhole product matrix. (P. 40)



Model: BMHC18X24#-24 - Weld Bolt, Combo B
See Additional Models on Manhole Matrix. (p. 40)

14" & 18" Round Series Round - Clean-Out Hatches

The round manholes are also sometimes referred to as clean-out hatches. These hatches all feature raised coamings available in various heights. See the complete line of these round manholes on the technical drawing page and manhole matrix. (P. 40)

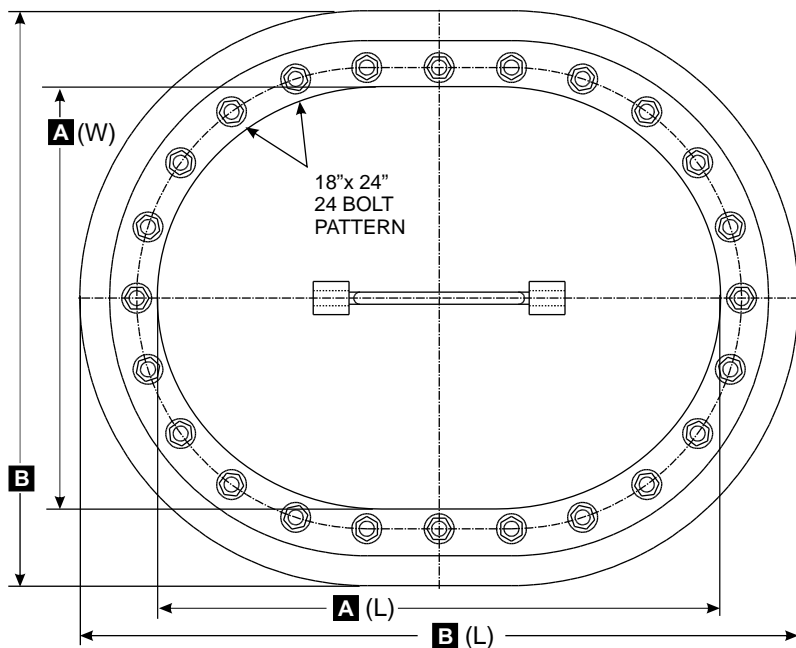
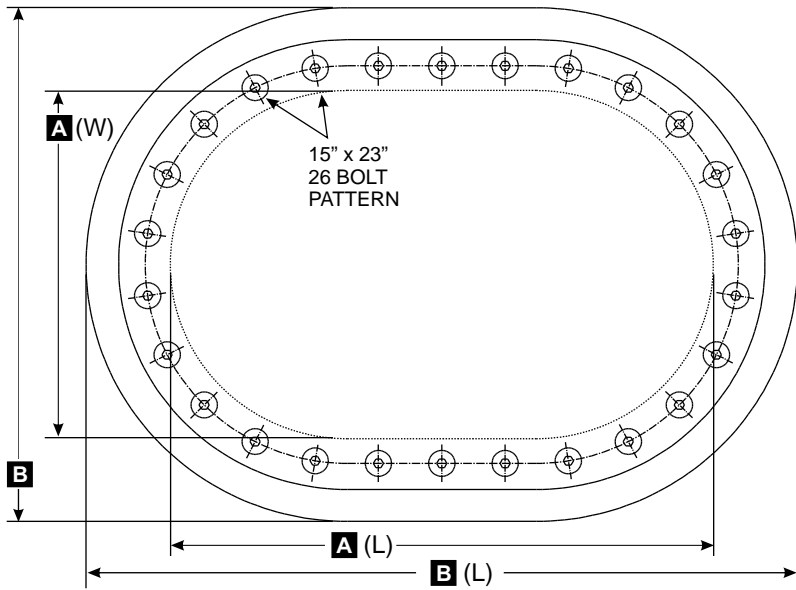
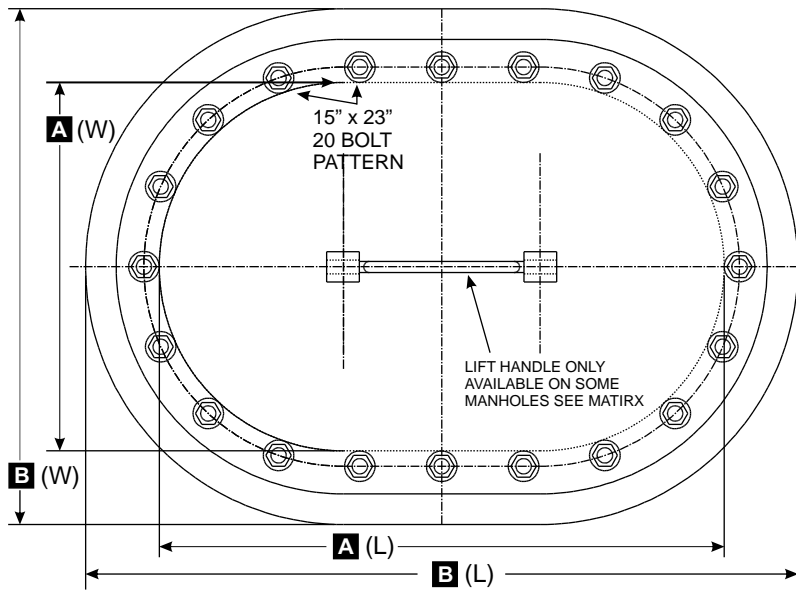


Model: BMHC14 - Raised Coaming, Combo A
See Additional Models on Manhole Matrix. (p. 40)

Standard Hardware Configurations

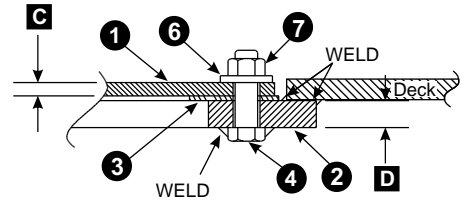
<p>FLUSH SCREW</p> <p>Flush Hex Bolt: Stainless Steel Tapped Steel Ring</p>	<p>WELD BOLT - Combo A</p> <p>Welded Bolt: Stainless Steel Washer: Bronze Nut: Bronze</p>	<p>RAISED COAMING - Combo A</p> <p>Raised Coaming Bolt: Stainless Steel Washer: Bronze Nut: Bronze</p>
<p>WELD STUD</p> <p>Washer: Stainless Steel Nut: Bronze Stud: Flush Welded: Stainless Steel</p>	<p>WELD BOLT - Combo B</p> <p>Welded Bolt: Steel Washer: Bronze Nut: Stainless Steel</p>	<p>RAISED COAMING - Combo B</p> <p>Raised Coaming Bolt: Zinc Plated Steel Washer: Bronze Nut: Stainless Steel</p>

STEEL MANHOLES

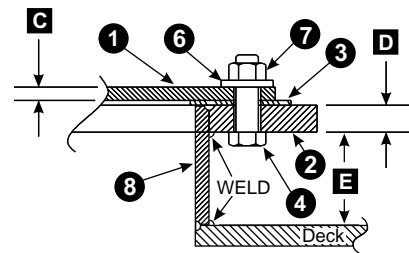


BILL OF MATERIAL: BMHC		
PC.NO.	DESCRIPTION	MATERIAL
1	COVER	STEEL (PRIMED)
2	DECK RING	STEEL (PRIMED)
3	GASKET	BUNA
4	BOLT	SEE MATIRX
5	STUD	SEE MATIRX
6	WASHER	SEE MATIRX
7	NUT	SEE MATIRX
8	COAMING	STEEL (PRIMED)

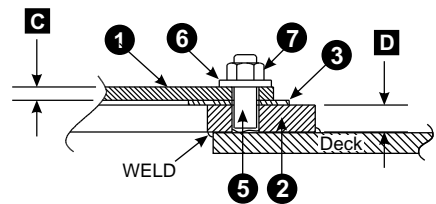
EXAMPLE: WELD BOLT



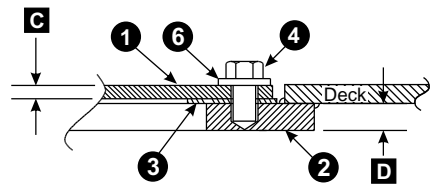
EXAMPLE: NON-WELD



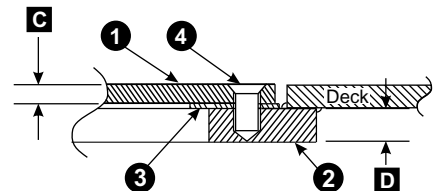
EXAMPLE: STUD WELD



EXAMPLE: TAP RING



EXAMPLE: FLUSH SCREW



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BAIER MANHOLE COVER
STEEL MULTI-BOLT MANHOLE
MODEL BMHCxxxxxxx

DWG. NO. 725

Manhole Product Matrix

BAIER P/N P/N	DRAWING #	MODEL #	BOLT TYPE	BOLT TYPE	BOLT LGNTH	A(W)	A(L)	B(W)	B(L)	C	D	E	WGHT LBS	BOLT/ STUD	NUT	WSHR	GSKT	HNDL Y/N
15" x 23"	20 Bolt Flush																	
BMHC15X23BZ	02590-101A	UMC-503	WELD BOLT	5/8-11	2.25	15	23	21	29	.393	.787	N/A	95	ZN	SS	BR	BUNA	Y
BMHC15X23DD	02590-103S		TAP RING	5/8-11	1	15	23	21	29	.393	.787	N/A	95	SS		BR	BUNA	N
BMHC15X23BS	02590-105A	UMC-503	WELD BOLT	5/8-11	2.25	15	23	21	29	.393	.787	N/A	95	SS	BR	BR	BUNA	Y
BMHC15X23D	08866-101D		TAP RING	3/4-10	1.375	15	23	21	29	.393	.787	N/A	102	SS		SS	BUNA	N
BMHC15X23F	08866-101F		FLUSH SCREW	1/2-13	.9375	15	23	21	29	.393	.787	N/A	98	SS			BUNA	N
BMHC15X23S	08866-101S		STUD WELD	3/4-10	2.25	15	23	21	29	.393	.787	N/A	104	SS	BR	SS	BUNA	N
15" x 23" w/ 3" NPT	20 Bolt Flush	3" NPT PLUG																
BMHC15X23Z	08866-101Z	RAISED PLUG	STUD WELD	3/4-10	2.25	15	23	21	29	.393	.787	N/A	125	SS	BR	SS	BUNA	N
BMHC15X23Z	08866-101H	FLUSH PLUG	STUD WELD	3/4-10	2.25	15	23	21	29	.393	.787	N/A	125	SS	BR	SS	BUNA	N
15" x 23"	26 Bolt Flush																	
BMHC15X23-26F	02610-101A	UMC-505	FLUSH SCREW	5/8-11	1.25	15	23	22	30	.51	1.125	N/A	160	SS			BUNA	N
BMHC15X23-26D	02590-102SA		TAP RING	5/8-11	1	15	23	21	29	.393	.787	N/A	95	SS		BR	BUNA	N
15" x 23"	20 Bolt Raised																	
BMHC15X23X2.5BZ	02570-101A	UMC-501	NON WELD	5/8-11	1.75	15	23	20	28	.393	.375	2.5	85	ZN	SS	BR	BUNA	N
BMHC15X23X4BS	02570-105A		NON WELD	5/8-11	1.75	15	23	20	28	.393	.375	4	95	SS	BR	BR	BUNA	N
18" x 24"	24 Bolt Flush																	
BMHC18X24BZ	02600-101A	UMC-504	WELD BOLT	5/8-11	2.25	18	24	24	30	.393	.787	N/A	112	ZN	ZN	BR	BUNA	Y
18" x 24"	24 Bolt Raised																	
BMHC18X24X2.5BZ	02580-101A	UMC-502	NON-WELD	5/8-11	1.75	18	24	23	29	.393	.375	2.5	106	ZN	SS	BR	BUNA	N
18" Round	Raised																	
BMHC18BR	08450-101A	UMC-154-18	NON WELD	5/8-11	2	18	18	23	23	.393	.393	2.5	78	ZN	BR		BUNA	N
BMHC18SS-FLAX	08450-101B	UMC-154-18	NON WELD	5/8-11	2	18	18	23	23	.393	.393	2.5	78	SS	SS		FLAX	N
BMHC18SS	08450-102B	UMC-154-18	NON WELD	5/8-11	2	18	18	23	23	.393	.393	2.5	78	SS	SS		NONE	N
BMHC18SS-9	08450-121B	UMC-154-18	NON WELD	5/8-11	2	18	18	23	23	.393	.393	9	85	SS	SS		FLAX	N
14" Round	Raised																	
BMHC14BR	08451-101A	UMC-154-14	NON WELD	5/8-11	2	14	14	19	19	.393	.393	2.5	55	ZN	BR		BUNA	N
BMHC14BR-FLAX	08451-101B	UMC-154-14	NON WELD	5/8-11	2	14	14	19	19	.393	.393	2.5	55	SS	SS		FLAX	N
BMHC14SS	08451-102B	UMC-154-14	NON WELD	5/8-11	2	14	14	19	19	.393	.393	2.5	55	SS	SS		BUNA	N
BMHC14SS-4.5	08451-112B	UMC-154-14	NON WELD	5/8-11	2	14	14	19	19	.393	.393	4	68	SS	SS		BUNA	N
10" Round	12 Bolt Flush																	
BMHC10U	08866-110A		WELD BOLT	5/5-11	2.25	10	10	16	16	.393	.787	N/A	48	SS	BR	SS	BUNA	N

STEEL MANHOLES

T-Bolt Style Round - 18" & 24"

This industry standard steel enclosure is based on the proven strongback style hatch and is operated by a single T-handle bolt. Its easy operation facilitates its convenient use while maintaining a near flush profile.

Features:

- Made from high strength 3/8" steel for better impact resistance
- No tools required single bolt T-handle for secure engagement
- Stainless steel T-Handle and Brass Thread block uses dissimilar metals to prevent galling and ensure trouble free operation
- Nitrile rubber gaskets ensure water tight design



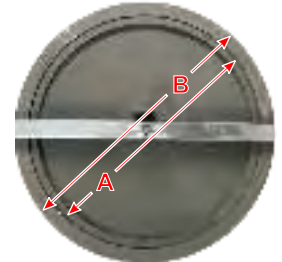
Hatch Model	Clear (A) Opening	Outside (B) Diameter	Technical Drawing
UMC-430-18	18" (457mm)	20.75" (527mm)	01210-101A
UMC-430-24	24" (508mm)	26.75" (679mm)	01220-101A

HATCH MATERIAL:

Steel (ASTM A36)
Painted Primer Grey

HARDWARE:

Tee Bolt - Stainless Steel
Thread Block - Brass
Strongback - Galvanized Steel
Gasket - Nitrile Rubber
Washer - Brass
Handle Gasket - Nitrile Rubber



UMC-430-18 Steel Hatch with Stainless Steel Hardware

Single Bolt Style Round - 20" & 22"

This industry standard steel enclosure is also based on the proven strongback style hatch and is operated by a single 7/8" Stainless steel bolt. The simple design provides a secured hatch and flush deck profile.

Features:

- Made from high strength 3/8" steel for better impact resistance
- 1-5/16" wrench required for single bolt secure engagement
- Stainless steel bolt and steel strongback provide dissimilar metals to prevent galling and ensure trouble free operation
- Nitrile rubber gaskets ensure Water tight design
- Stainless steel chain ensures covers stay attached and never get lost



Hatch Model	Clear (A) Opening	Outside (B) Diameter	Technical Drawing
UMC-301-20	17.75"(451mm)	20" (508mm)	08380-101A
UMC-301-22	19.75"(502mm)	22" (559mm)	08381-101A

HATCH MATERIAL:

Steel (ASTM A36)
Painted Primer Grey

HARDWARE:

Bolt 7/8-9 - Stainless Steel
Chain - Stainless Steel
Hinge Pin - Stainless Steel
Cotter Pin - Stainless Steel
Washer - Brass
Bolt Gasket - Nitrile Rubber

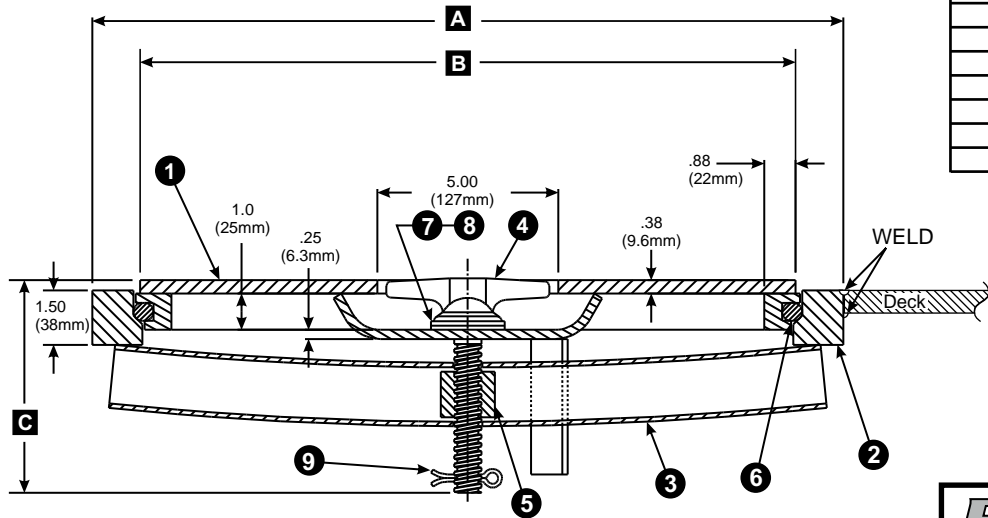


UMC-301-20 Steel Hatch with Stainless Steel Hardware

UNIVERSAL STEEL HATCH

BILL OF MATERIAL: UMC-430

PC.NO.	DESCRIPTION	MATERIAL
1	COVER	STEEL
2	DECK RING	STEEL
3	STRONGBACK	GALVANIZED STEEL
4	T-HANDLE	STAINLESS STEEL
5	NUT SQUARE	BRASS
6	GASKET	NITRILE RUBBER
7	WSHER	BRASS
8	HANDLE GASKET	NITRILE RUBBER
9	COTTER PIN	STAINLESS



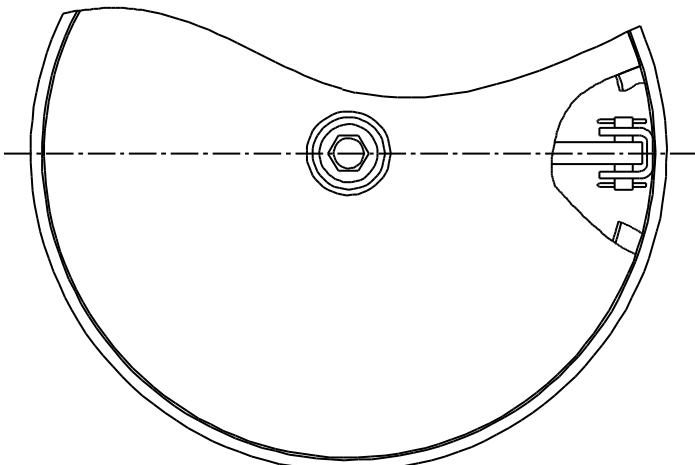
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 sales@baiermarine.com

UNIVERSAL FLUSH HATCH

SINGLE BOLT T-HANDLE STYLE
 18" & 24" ROUGH OPENING
 MODEL 01210-101A - UMC-430-18
 MODEL 01220-101A - UMC-430-24

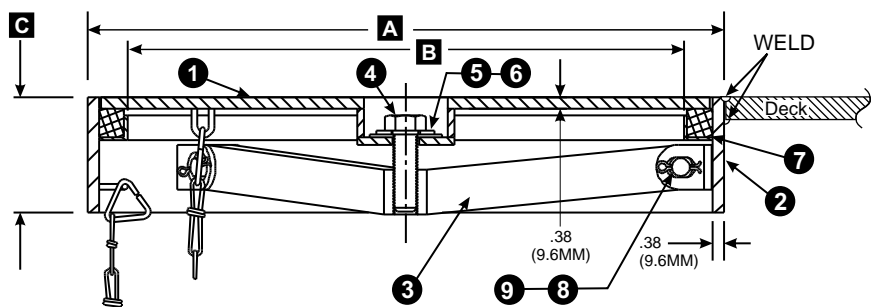
DWG. NO. UMC-430

Model Number	Part Number	DIMENSIONS INCHES (MM)			Weight LBS (KGS)
		A	B	C	
UMC-430-18	01210-101A	20.76 (527)	18.13 (460)	5.89 (150)	81 (37)
UMC-430-24	01220-101A	26.76 (679)	24 (610)	5.76 (150)	120 (55)



BILL OF MATERIAL: UMC-301

PC.NO.	DESCRIPTION	MATERIAL
1	COVER	STEEL
2	COAMING	STEEL
3	STRONGBACK	STEEL
4	BOLT 7/8-9	STAINLESS STEEL
5	WASHER	BRASS
6	BOLT GASKET	NITRILE RUBBER
7	GASKET	NITRILE RUBBER
8	PIN	STEEL
9	COTTER PIN	STAINLESS



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UNIVERSAL FLUSH HATCH

SINGLE BOLT ROUND MANHOLE
 20" & 22" OUTSIDE DIAMETER
 MODEL 08380-101A - UMC-301-20
 MODEL 08381-101A - UMC-301-22

DWG. NO. UMC-301

Model Number	Part Number	DIMENSIONS INCHES (MM)			Weight LBS (KGS)
		A	B	C	
UMC-301-20	08380-101A	20 (508)	17.75 (450)	4 (102)	70 (32)
UMC-301-22	08381-101A	22 (559)	19.75 (502)	4 (102)	75 (34)

UNIVERSAL STEEL HATCH

Twist Lock Style Round - Flush & Coaming

The Twist Lock hatch is a simple proven design for hatch enclosures. The twist engagement method for securing this hatch makes this the simplest hatch to operate. This hatch is made from high strength 3/8" cast steel with reinforced ribs. Built-in Lift-out handles are molded into the cover plate for convenience.

Features:

- Low cost - high strength cast steel construction
- Lift-out grab handles Molded into cover casting
- Reinforced steel ribs on cover to provide greater impact resistance
- Galvanized steel chain ensures the cover stays attached and will never get lost



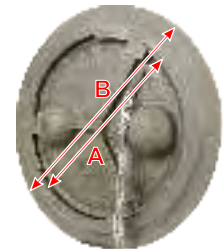
Hatch Model	Clear (A) Opening	Outside (B) Diameter	Technical Drawing
UMC-474	18.6" (472mm)	24" (610mm)	08640-101A
UMC-474-5*	Available w/ 5" Coaming		08641-101A

HATCH MATERIAL:

Steel (ASTM A36)
Painted Primer Grey

HARDWARE:

Gasket -	Nitrile Rubber
Chain -	Galvanized Steel
Coaming* -	Steel



* Coaming Model Not Pictured



UMC-474 Cast Steel Hatch with Cast Steel Deck Ring

Ullage Style Round - 8" & 10"

The Ullage hatch is a strong and secure method of enclosing a tank compartment while still providing easy single bolt operation for inspection or measuring of cargo. Available in 8" and 10" diameters.

Features:

- Low cost - high strength cast steel construction.
- Cast Steel and Stainless Steel Dog handles (grease zerks Optional)
- Bronze tumble bolts for corrosion resistance and trouble free operation
- Bolts and nuts made from dissimilar metals to prevent galling and corrosion
- Simple Ullage arm hinge design allows for simple and clear access to port



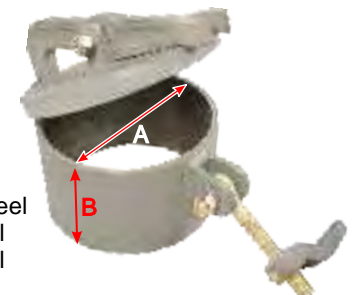
Hatch Model	Clear (A) Opening	Coaming Height (B)	Technical Drawing
UMC-144	8" (203mm)	7/8" (22mm)	01242-102A
UMC-144-5	8" (203mm)	5" (127mm)	01242-104B
UMC-569-5	10" (254mm)	5" (127mm)	01243-101A

HATCH MATERIAL:

Steel (ASTM A36)
Painted Primer Grey

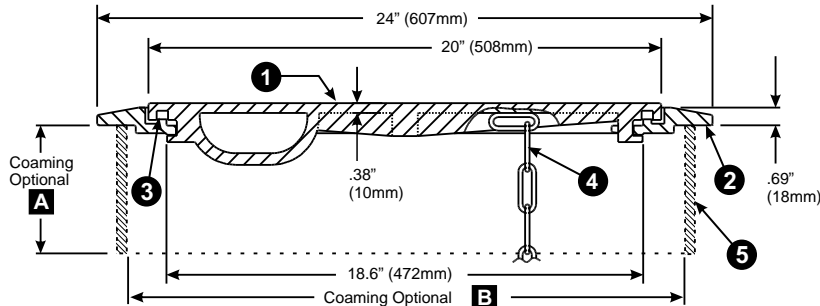
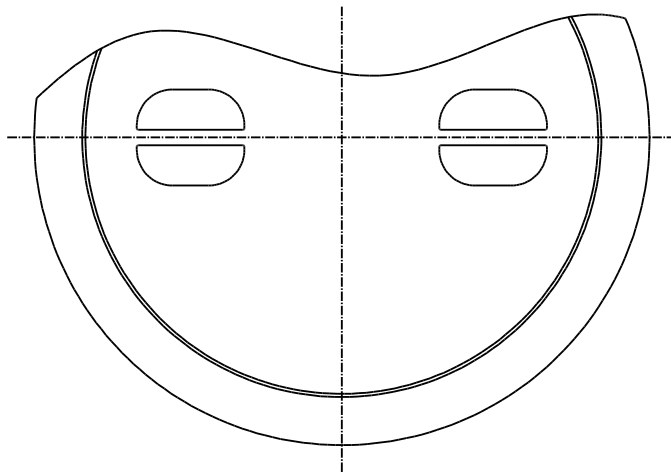
HARDWARE:

Tumble Bolt -	Bronze
Dog Handle -	Steel
Ullage Arm -	Steel
Bolt 5/8-11 -	Zinc Plated Steel
Nut 5-8-11 -	Stainless Steel
Washer -	Stainless Steel
Gasket -	Nitrile Rubber



08380-101A Steel Hatch with Stainless Steel Hardware

UNIVERSAL STEEL HATCH



Model Number	Part Number	DIMENSIONS INCHES (MM)		Weight LBS (KGS)
		A	B	
UMC-474	08640-101A	N/A	N/A	85 (39)
UMC-474-5	08641-101A	5" (127)	21.75" (552)	118 (54)

BILL OF MATERIAL: UMC-474

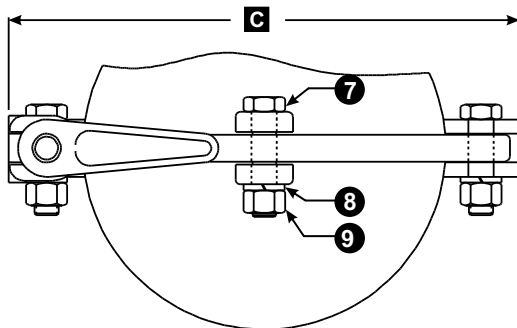
PC.NO.	DESCRIPTION	MATERIAL
1	COVER	STEEL
2	DECK RING	STEEL
3	GASKET	NITRILE RUBBER
4	CHAIN	STAINLESS STEEL
5	COAMING	STEEL



UNIVERSAL FLUSH HATCH

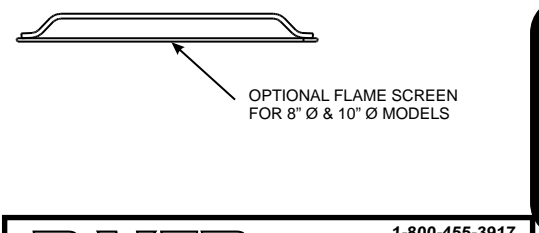
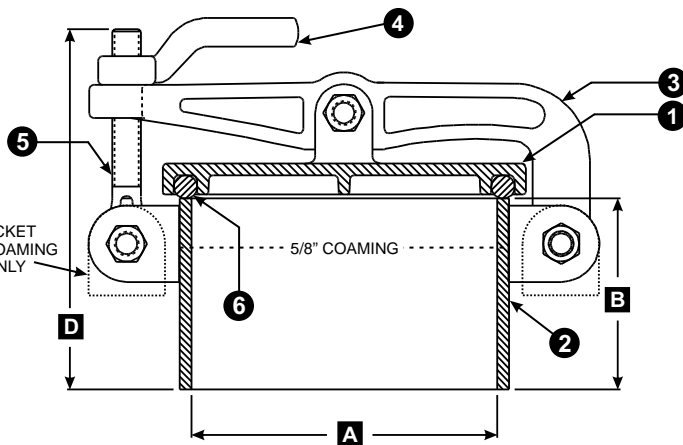
STEEL TWIST LOCK HATCH
 24" ROUND OVERALL DAIMETER
 MODEL 08640-101A - UMC-474
 MODEL 08641-101A - UMC-474-5

DWG. NO. UMC-474



BILL OF MATERIAL: UMC-144

PC.NO.	DESCRIPTION	MATERIAL
1	COVER	STEEL
2	COAMING	STEEL
3	ULLAGE HANDLE	STEEL
4	DOG HANDLE	STEEL
5	TUMBLE BOLT	BRONZE
6	GASKET	NITRILE RUBBER
7	BOLT 5/8-11	ZINC PLATED STEEL
8	NUT 5/8-11	STAINLESS STEEL
9	WASHER 5/8	STAINLESS STEEL



UNIVERSAL RAISED HATCH

SINGLE BOLT ULLAGE HATCH
 8" & 10" ROUGH OPENING
 MODEL 01242-102A - UMC-144
 MODEL 01242-104B - UMC-144-5
 MODEL 01243-101A - UMC-569-5

DWG. NO. UMC-144

Model Number	Part Number	DIMENSIONS INCHES (MM)				Weight LBS (KGS)
		A	B	C	D	
UMC-144	01242-102A	8" (203)	5/8" (16)	14" (356)	6.63" (168)	70(32)
UMC-144-5	01242-104B	8" (203)	5" (127)	14" (356)	9.44" (240)	70(32)
UMC-569-5	01243-101A	10" (254)	5" (127)	15.23"(387)	9.31" (236)	75(34)

UNIVERSAL STEEL HATCH

Multi-Dog Style Round - 4 Dog & 3 Dog

Multi-Dog Raised hatches are a strong and secure working enclosure system. They are universally used hardware on all kinds of commercial vessels from small workboats to ocean going cargo ships. Their simple design and quality steel construction help them meet the long range trouble free service requirements in the harshest environments.

Features:

- Low cost - high strength cast steel construction
- Cast Steel and Stainless Steel Dog handles (available with grease zerks optional)
- Bronze tumble bolts for corrosion resistance and trouble free operation
- Bolts and nuts made from dissimilar metals to prevent galling and corrosion



Hatch Model	Clear (A) Opening	Number of Dogs	Technical Drawing
UMC-456-5	12" (305mm)	3 Dog	03410-101A
UMC-343-5	19" (305mm)	4 Dog	01230-101A

HATCH MATERIAL:

Steel (ASTM A36)
Painted Primer Grey

HARDWARE:

Tumble Bolt - Bronze
Dog Handle - Steel
Bolt 5/8-11 - Zinc Plated Steel
Nut 5-8-11 - Stainless Steel
Gasket - Nitrile Rubber



UMC-456-5 Steel Hatch 4-Dog

Multi-Dog Style Oval - 2 Dog & 4 Dog

Multi-Dog Raised hatches are a strong and secure enclosure system. They are universally used hardware on all kinds of commercial vessels.

Features:

- Cast Steel and Stainless Steel dog handles (available with grease zerks optional)
- Bronze tumble bolts for corrosion resistance and trouble free operation
- Bolts and nuts made from dissimilar metals to prevent galling and corrosion



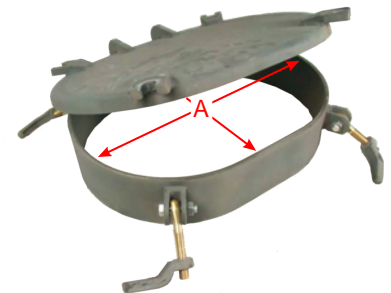
Hatch Model	Clear (A) Opening	Number of Dogs	Technical Drawing
UMC-274-5	15" x 23" (381 x 548 mm)	2 Dog	01241-105A
UMC-174-5	15" x 23" (381 x 548 mm)	4 Dog	01240-102A
UMC-464-5	18" x 24" (457 x 609 mm)	4 Dog	03800-101A

HATCH MATERIAL:

Steel (ASTM A36)
Painted Primer Grey

HARDWARE:

Tumble Bolt - Bronze
Dog Handle - Steel
Bolt 5/8-11 - Zinc Plated Steel
Nut 5-8-11 - Stainless Steel
Gasket - Nitrile Rubber

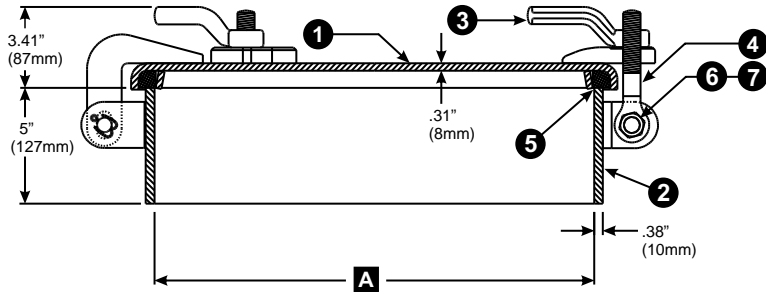
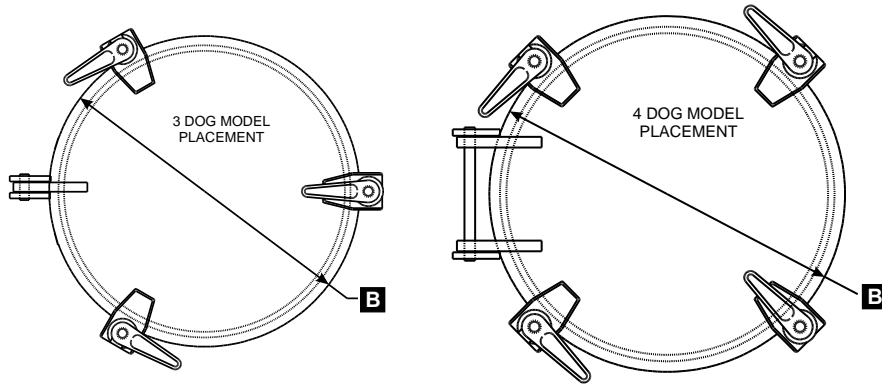


UMC-274-5 Steel Hatch 2-Dog



UMC-46-5 Steel Hatch 4-Dog

UNIVERSAL STEEL HATCH



Model Number	Part Number	DIMENSIONS INCHES (MM)		# OF DOGS	Weight LBS (KGS)
		A	B		
UMC-456-5	03410-101A	12" (305)	13.75" (349)	3 DOG	85 (39)
UMC-343-5	01230-101A	19" (483)	21" (533)	4 DOG	92 (42)

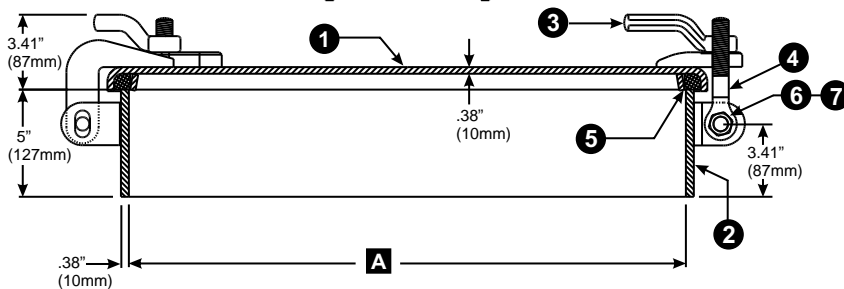
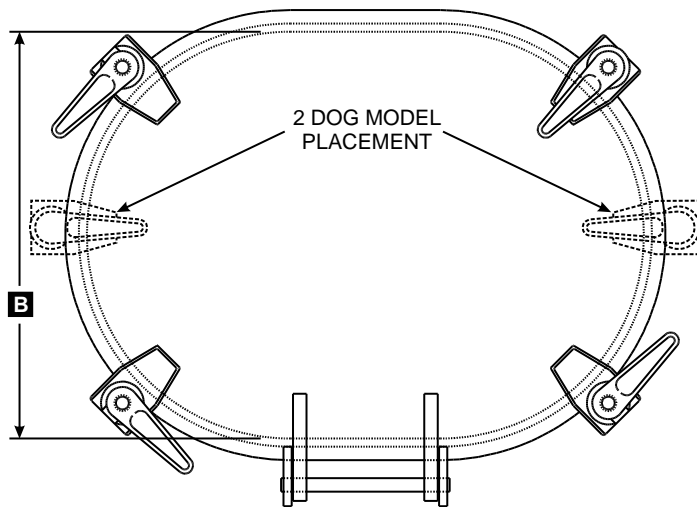
BILL OF MATERIAL: UMC-343

PC.NO.	DESCRIPTION	MATERIAL
1	COVER	STEEL
2	COAMING	STEEL
3	DOG HANDLE	STEEL
4	TUMBLE BOLT	BRASS
5	GASKET	NITRILE RUBBER
6	BOLT 5/8-11	ZINC PLATED STEEL
7	NUT 5/8-11	STAINLESS STEEL

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UNIVERSAL RAISED HATCH
 MULTI-DOG RAISED HATCH
 22" ROUGH OPENING
 MODEL 03410-101A - UMC-456-5
 MODEL 01230-101A - UMC-343-5

DWG. NO. UMC-343



Model Number	Part Number	DIMENSIONS INCHES (MM)		# OF DOGS	Weight LBS (KGS)
		A	B		
UMC-274-5	01241-105A	15" (382)	23" (584)	2 DOG	91(41.2)
UMC-174-5	01240-102A	15" (382)	23" (584)	4 DOG	97(44)
UMC-464-5	03800-101A	18.25" (457)	24.25" (607)	4 DOG	106(48)

BILL OF MATERIAL: UMC-174

PC.NO.	DESCRIPTION	MATERIAL
1	COVER	STEEL
2	COAMING	STEEL
3	DOG HANDLE	STEEL
4	TUMBLE BOLT	BRASS
5	GASKET	NITRILE RUBBER
6	BOLT 5/8-11	ZINC PLATED STEEL
7	NUT 5/8-11	STAINLESS STEEL

BAIER Marine Company, Inc.
 1-800-455-3917
 206-632-2441 (FAX)
 sales@baiermarine.com

UNIVERSAL RAISED HATCH
 MULTI-DOG RAISED HATCH
 15"X23" & 18"X24" ROUGH OPENING
 MODEL 01241-105A - UMC-274-5
 MODEL 01240-102A - UMC-174-5
 MODEL 03800-101A - UMC-464-5

DWG. NO. UMC-174

OPTIONAL FLAME SCREEN FOR 18" X 24" MODELS

UNIVERSAL STEEL HATCH



Multi-Dog Combo Hatch Oval - 4 Dog w/ Ullage

Multi-Dog Raised hatches are a strong and secure working enclosure system. The added Ullage hatch is likewise a strong and secure method of enclosing a tank compartment while still providing easy single-bolt operation for inspection or measuring of cargo.



Features:

- Low cost - high strength cast steel construction
- Cast Steel and Stainless Steel Dog handles (grease zerks optional)
- Bronze tumble bolts for corrosion resistance and trouble free operation
- Bolts and nuts made from dissimilar metals to prevent galling and corrosion

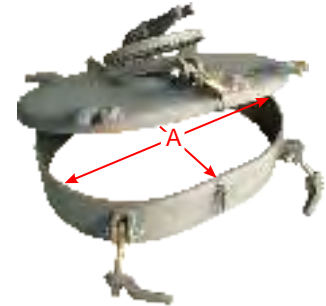
Hatch Model	Clear (A) Opening	Number of Dogs	Technical Drawing
UMC-464-5 w/144Ullage	18" x 24" (457 x 609 mm) Ullage - 7" (178 mm)	4 Dog 1 Dog	03800-135K

HATCH MATERIAL:

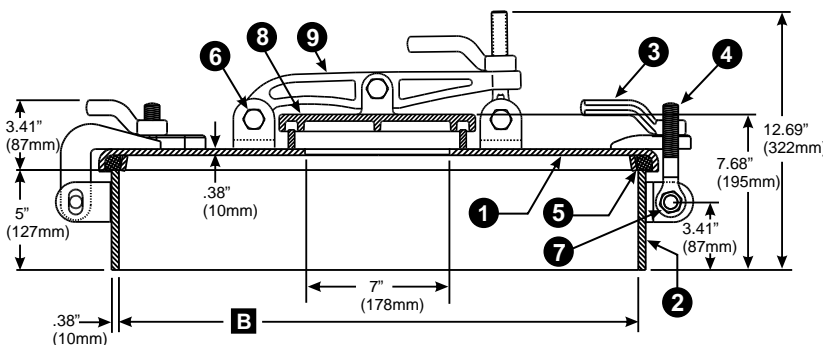
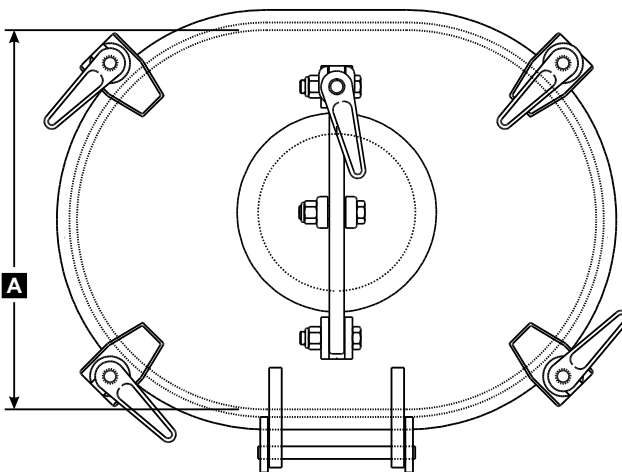
Steel (ASTM XXXX)
Painted Primer Grey

HARDWARE:

Tumble Bolt - Bronze
Dog Handle - Steel
Ullage Arm - Steel
Bolt 5/8-11 - Zinc Plated Steel
Nut 5/8-11 - Stainless Steel
Washer - Stainless Steel
Gasket - Nitrile Rubber

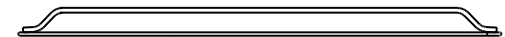


UMC-464-5 Steel Hatch 4-Dog with 8" Ullage Inspection



BILL OF MATERIAL: UMC-464/144

PC.NO.	DESCRIPTION	MATERIAL
1	COVER	STEEL
2	COAMING	STEEL
3	DOG HANDLE	STEEL
4	TUMBLE BOLT	BRASS
5	GASKET	NITRILE RUBBER
6	BOLT 5/8-11	ZINC PLATED STEEL
7	NUT 5/8-11	STAINLESS STEEL
8	ULLAGE COVER	STEEL
9	ULLAGE ARM	STEEL



OPTIONAL FLAME SCREEN FOR 18" X 24" MODELS

UNIVERSAL STEEL HATCH

BAIER Marine Company, Inc.
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 206-632-2441 (FAX)
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UNIVERSAL RAISED HATCH
 MUTI-DOG RAISED HATCH
 18"X24" ROUGH OPENING W/ 8" ULLAGE
 MODEL 03800-135K - UMC-464-5/144

Model Number	Part Number	DIMENSIONS INCHES (MM)		# OF DOGS	Weight LBS (KGS)
		A	B		
UMC-464-5/144	03800-135K	18.31" (465)	24.25" (616)	5 DOG	126 (57)

DWG. NO. UMC-174/144

Watertight Door 4-dog Style

Baier's line of Water-tight doors are fabricated from high quality 1/4" plate steel. These doors are built to provide continuous trouble-free use on all kinds of industrial marine applications. Various standard sizes are available with alternate handle placement.



UMC-WTD-4D-30X60-R- Right-Handed door

MODEL #	DESCRIPTION	PART #	WEIGHT	DIMENSIONS		
				"A"	"B"	
UMC-WTD-4D 26x54-R	4-Dog Door 26" x 54" Right Hand	06111-101A	200 lbs	RH	26"	54"
UMC-WTD-4D 26x54-L	4-Dog Door 26" x 54" Left Hand	06111-101B	200 lbs	LH	26"	54"
UMC-WTD-4D 26x60-R	4-Dog Door 26" x 60" Right Hand	06111-101C	220 lbs	RH	26"	60"
UMC-WTD-4D 26x60-L	4-Dog Door 26" x 60" Left Hand	06111-101D	220 lbs	LH	26"	60"
UMC-WTD-4D 30x60-R	4-Dog Door 30" x 60" Right Hand	06111-101E	250 lbs	RH	30"	60"
UMC-WTD-4D 30x60-L	4-Dog Door 30" x 60" Left Hand	06111-101F	250 lbs	LH	30"	60"

DOOR MATERIAL:

Steel (ASTM A36)
Painted Primer Grey

Door handing can be determined by standing on the outside of the compartment with the door swinging toward you. Right-handed doors will have the hinges on the right from this perspective. Conversely, a left-handed door will have the hinges on the left.

UNIVERSAL W/T DOOR

Watertight Door 6-dog Style

Baier's line of Water-tight doors are fabricated from high quality 1/4" plate steel. These doors are built to provide continuous trouble-free use on all kinds of industrial marine applications. Various standard sizes are available with alternate handle placement.



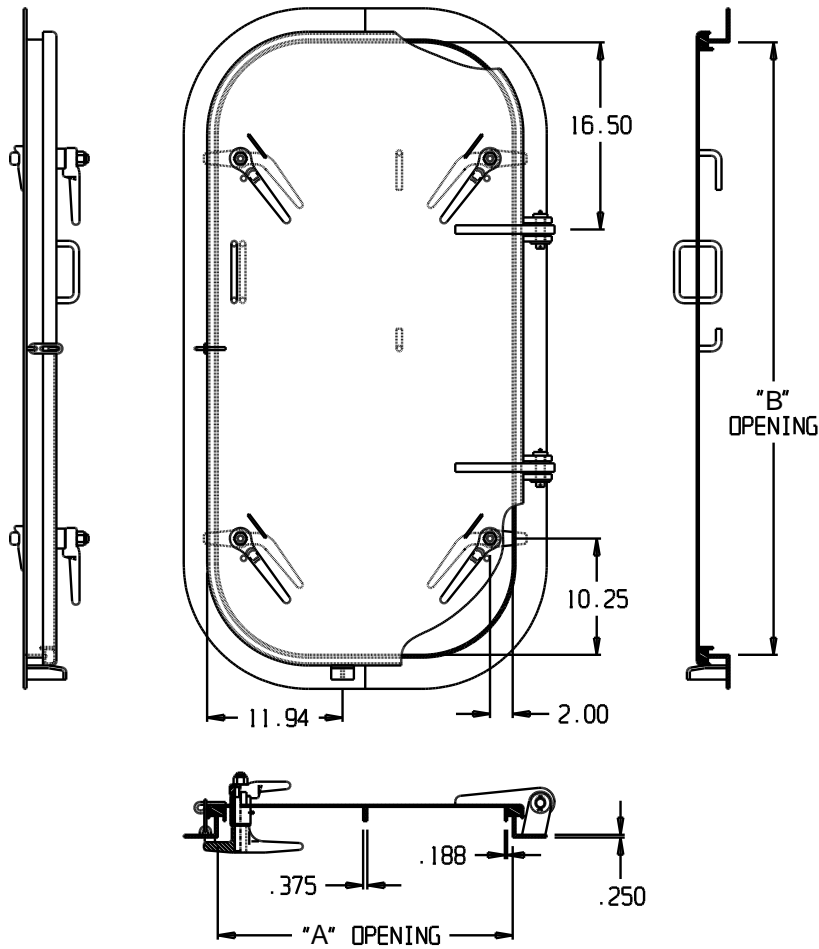
UMC-WTD-6D-30X72-R- Right-Handed door

MODEL #	DESCRIPTION	PART #	WEIGHT	DIMENSIONS		
				"A"	"B"	
UMC-WTD-6D 26x60-R	6-Dog Door 26" x 60" Right Hand	06121-101C	270 lbs	RH	26"	60"
UMC-WTD-6D 26x60-L	6-Dog Door 26" x 60" Left Hand	06121-101D	270 lbs	LH	26"	60"
UMC-WTD-6D 30x60-R	6-Dog Door 30" x 60" Right Hand	06121-101E	300 lbs	RH	30"	60"
UMC-WTD-6D 30x60-L	6-Dog Door 30" x 60" Left Hand	06121-101F	300 lbs	LH	30"	60"
UMC-WTD-6D 30x66-R	6-Dog Door 30" x 66" Right Hand	06121-101G	330 lbs	RH	30"	66"
UMC-WTD-6D 30x66-L	6-Dog Door 30" x 66" Left Hand	06121-101H	330 lbs	LH	30"	66"
UMC-WTD-6D 30x72-R	6-Dog Door 30" x 72" Right Hand	06121-101I	350 lbs	RH	30"	72"
UMC-WTD-6D 30x72-L	6-Dog Door 30" x 72" Left Hand	06121-101J	350 lbs	LH	30"	72"

DOOR MATERIAL:

Steel (ASTM A36)
Painted Primer Grey

Door handing can be determined by standing on the outside of the compartment with the door swinging toward you. Right-handed doors will have the hinges on the right from this perspective. Conversely, a left-handed door will have the hinges on the left.



BILL OF MATERIAL: UMC-WTD-4D

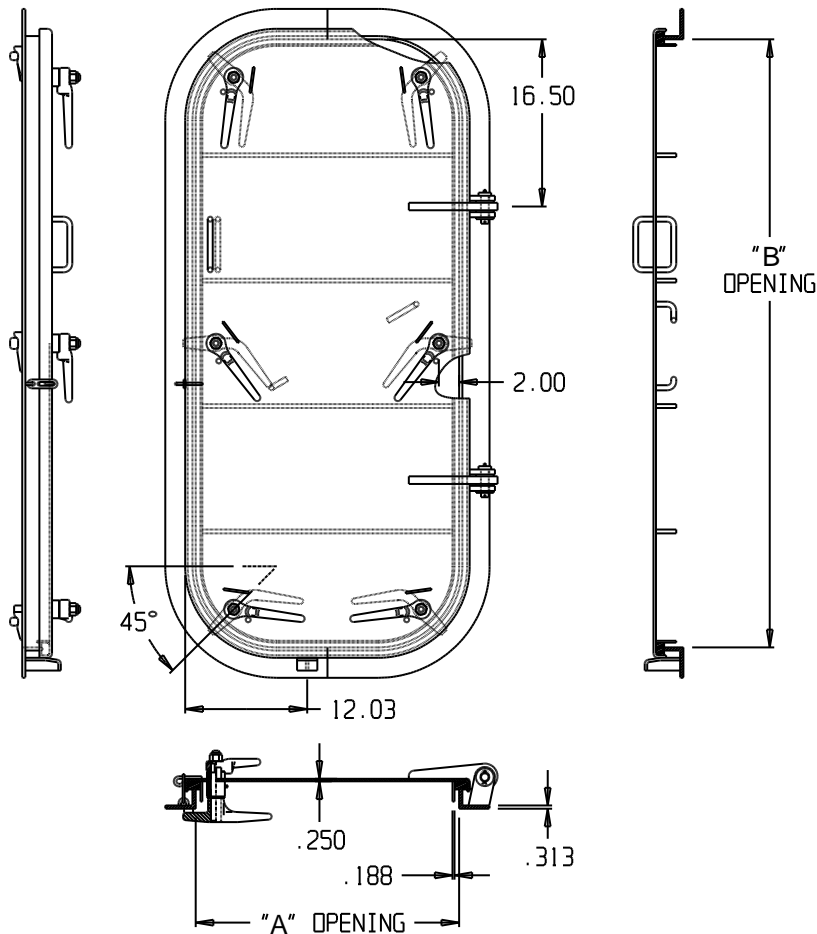
PC.NO.	DESCRIPTION	MATERIAL
1	DOOR	STEEL
2	COAMING	STEEL
3	HANDLE ASSY	MISC. SEE DETAIL
4	HINGE PIN	BRASS
5	WASHER	BRASS
6	COTTER PIN	STAINLESS STEEL
7	GASKET	NITRILE RUBBER
8	LUBE ZERK	BRASS
9	HASP	STEEL

BAIER Marine Company, Inc.
 1-800-455-3917
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 sales@baiermarine.com

WATERTIGHT DOOR
 4 DOG HANDLE LH/RH OPTION
 VARIOUS STANDARD SIZES
 MODEL SERIES UMC-WTD-4D
 PART NUMBER 06111-XXXX

DWG. NO. UMC-WTD-4D

UNIVERSAL W/T DOOR



BILL OF MATERIAL: UMC-WTD-6D

PC.NO.	DESCRIPTION	MATERIAL
1	DOOR	STEEL
2	COAMING	STEEL
3	HANDLE ASSY	MISC. SEE DETAIL
4	HINGE PIN	BRASS
5	WASHER	BRASS
6	COTTER PIN	STAINLESS STEEL
7	GASKET	NITRILE RUBBER
8	LUBE ZERK	BRASS
9	HASP	STEEL

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WATERTIGHT DOOR
 6 DOG HANDLE LH/RH OPTION
 VARIOUS STANDARD SIZES
 MODEL SERIES UMC-WTD-6D
 PART NUMBER 06121-XXXX

DWG. NO. UMC-WTD-6D

Watertight Door Quick Acting Style

Baier's line of Water-tight doors are fabricated from high quality 1/4" plate steel. These doors are built to provide continuous trouble-free use on all kinds of industrial marine applications. Various standard sizes are available with alternate handle placement.

MODEL #	DESCRIPTION	PART #	WEIGHT	DIMENSIONS		
				"A"	"B"	
UMC-WTD-QA-26x60-R	Quick Acting Door Right Hand 26" x 60"	06122-101C	320 lbs	RH	26"	60"
UMC-WTD-QA-26x60-L	Quick Acting Door Left Hand 26" x 60"	06122-101D	320 lbs	LH	26"	60"
UMC-WTD-QA-30x60-R	Quick Acting Door Right Hand 30" x 60"	06122-101E	350 lbs	RH	30"	60"
UMC-WTD-QA-30x60-L	Quick Acting Door Left Hand 30" x 60"	06122-101F	350 lbs	LH	30"	60"
UMC-WTD-QA-30x66-R	Quick Acting Door Right Hand 30" x 66"	06122-101G	385 lbs	RH	30"	66"
UMC-WTD-QA-30x66-L	Quick Acting Door Left Hand 30" x 66"	06122-101H	385 lbs	LH	30"	66"
UMC-WTD-QA-30x72-R	Quick Acting Door Right Hand 30" x 72"	06122-101I	410 lbs	RH	30"	72"
UMC-WTD-QA-30x72-L	Quick Acting Door Left Hand 30" x 72"	06122-101J	410 lbs	LH	30"	72"



UMC-WTD-QA-30X72-R- Right Handed door

DOOR MATERIAL:

Steel (ASTM A36)
Painted Primer Grey

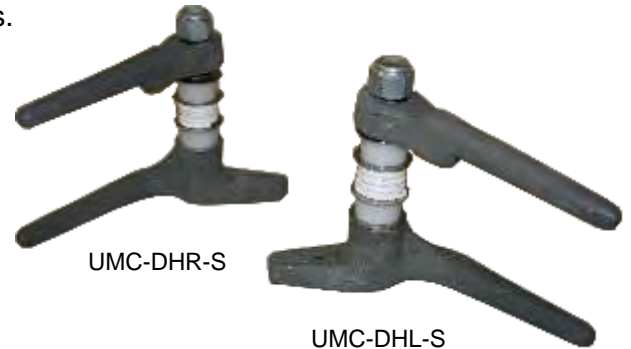
Door handing can be determined by standing on the outside of the compartment with the door swinging toward you. Right handed doors will have the hinges on the right from this perspective. Conversely a left handed door will have the hinges on the left.

UNIVERSAL W/T DOOR

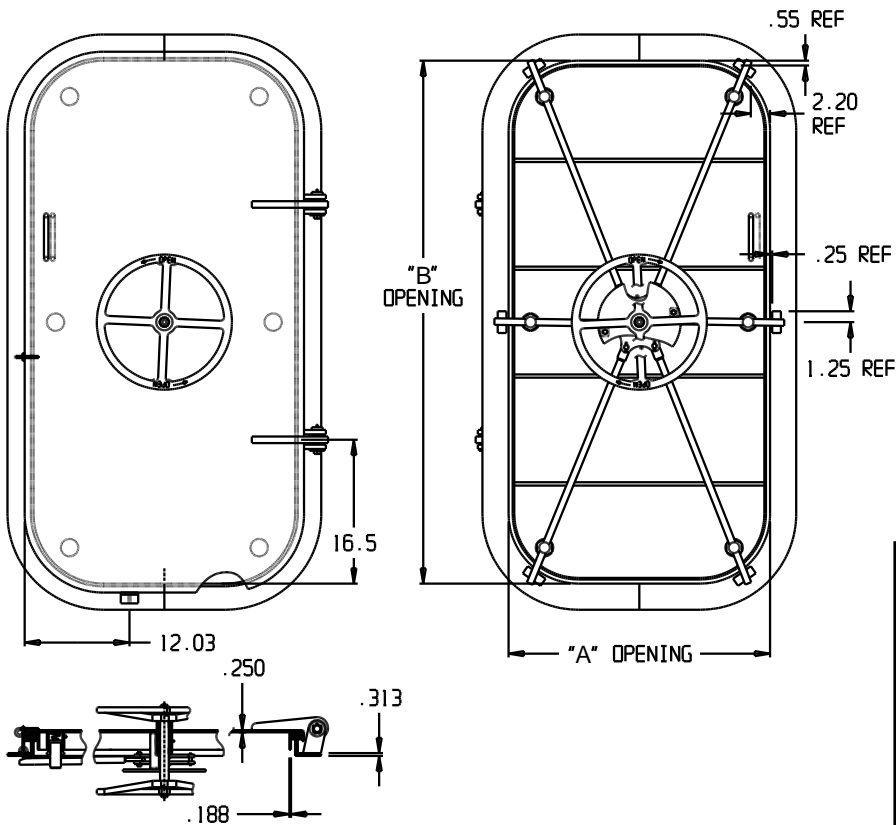
Handle Assy Steel and Aluminium

Replacement door handles are available in cast steel and cast aluminum. These handles fit all Baier Universal Multi-dog Doors.

MODEL #	DESCRIPTION	PART #	WEIGHT	HANDLE
UMC-DHR-A	Handle Assy, Door Right Hand Aluminum	08340-105A	2.2 lbs	RH
UMC-DHL-A	Handle Assy, Door Left Hand Aluminum	08340-105B	2.2 lbs	LH
UMC-DHR-S	Handle Assy, Door Right Hand Steel	08340-101A	6 lbs	RH
UMC-DHL-S	Handle Assy, Door Left Hand Steel	08340-101B	6 lbs	LH



Door handing can be determined by standing on the outside of the compartment with the door swinging toward you. Right handed doors will have the hinges on the right from this perspective. Conversely a left handed door will have the hinges on the left.



BILL OF MATERIAL: UMC-WTD-QA

PC.NO.	DESCRIPTION	MATERIAL
1	DOOR	STEEL
2	COAMING	STEEL
3	HANDLE ASSY	MISC. SEE DETAIL
4	HINGE PIN	BRASS
5	WASHER	BRASS
6	COTTER PIN	STAINLESS STEEL
7	GASKET	NITRILE RUBBER
8	LUBE ZERK	BRASS
9	HASP	STEEL

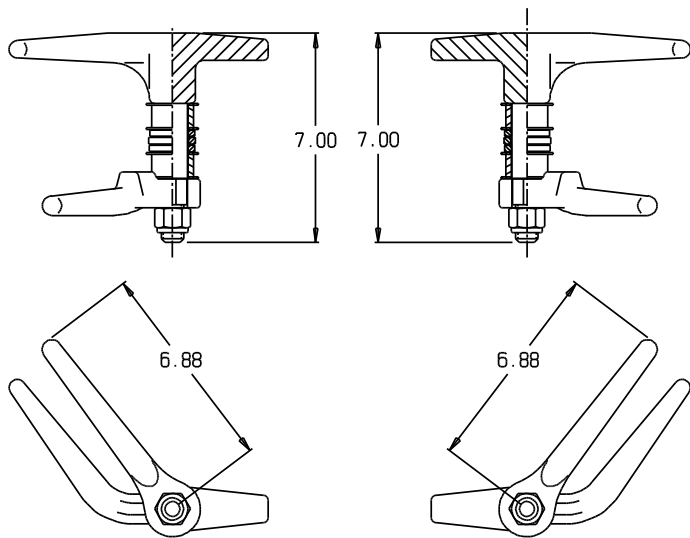
BAIER Marine Company, Inc.
 1-800-455-3917
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WATERTIGHT DOOR
 QUICK ACTING LH/RH OPTION
 VARIOUS STANDARD SIZES
 MODEL SERIES UMC-WTD-QA
 PART NUMBER 06122-XXXX

DWG. NO. UMC-WTD-QA

BILL OF MATERIAL: UMC-DH

PC.NO.	DESCRIPTION	MATERIAL
1	HANDLE	STEEL
2	HANDLE BACKING	STEEL
3	BUSHINGS	NYLON
4	WASHER	STAINLESS STEEL
5	PACKING CHORD	FLAX
6	NYLOCK NUT	STAINLESS STEEL



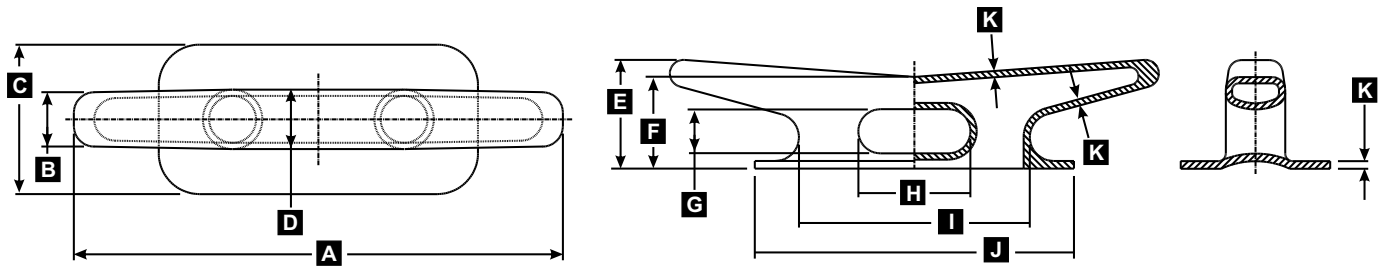
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 sales@baiermarine.com

WATERTIGHT DOOR HANDLE
 STEEL AND ALUMINUM LH/RH OPTION
 STEEL RH 08340-101A - UMC-DHR-S
 STEEL LH 08340-101B - UMC-DHL-S
 ALUMINIUM RH 08340-105A - UMC-DHR-A
 ALUMINIUM LH 08340-105B - UMC-DHL-A

DWG. NO. UMC-DH

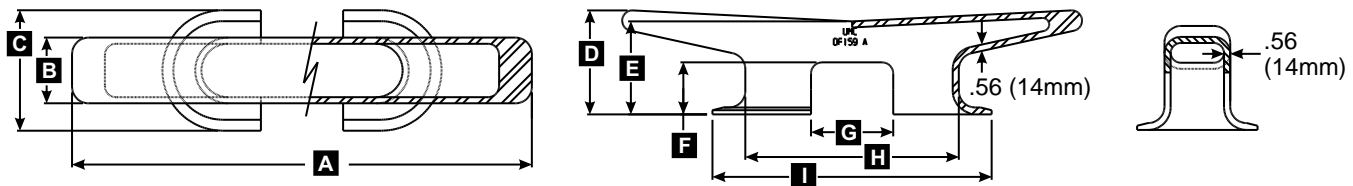
UNIVERSAL
WT DOOR

Kevel Chocks ASTM A27-70-36 Cast Steel



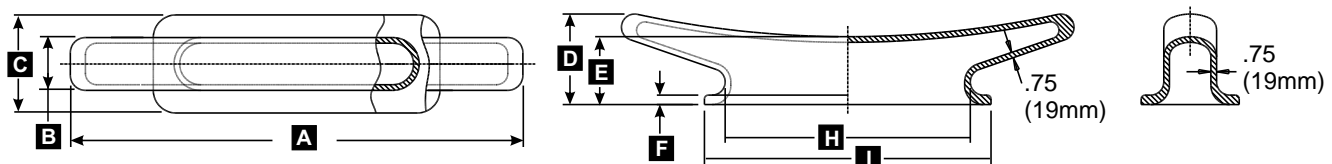
MODEL	DESCRIPTION	PART #	DIMENSIONS IN INCHES (MM)											LBS (KGS)
			A	B	C	D	E	F	G	H	I	J	K	
UMC-30	KEVEL CHOCK, 24"	02990-301A	24" (610)	3" (76)	7.5" (190)	4" (101)	5.63" (143)	5.13" (130)	2.25" (57)	3.25" (83)	9" (229)	10.5" (267)	.5" (13)	50 (23)
UMC-KC30	KEVEL CHOCK, 30"	01081-301A	30" (762)	3.25" (83)	9.5" (241)	4" (101)	7" (178)	5.62" (143)	2.38" (60)	6.88" (175)	14" (356)	20.25" (514)	.5" (127)	75 (34)
UMC-482	KEVEL CHOCK, 36"	01080-301A	36" (914)	4" (101)	11" (279)	5" (127)	8" (203)	6.75" (171)	3.25" (83)	8.25" (210)	17" (432)	23.5" (572)	.56" (127)	98 (44)
UMC-483	KEVEL CHOCK, 42"	01090-301A	42" (1066)	4.75" (121)	12.5" (318)	6" (152)	9" (229)	7.88" (200)	4.13" (104)	9.63" (245)	20" (508)	26.75" (679)	.53" (13)	168 (76)
UMC-484	KEVEL CHOCK, 48"	01100-301A	48" (1219)	5.5" (140)	14" (356)	7" (178)	10" (254)	9" (229)	5" (127)	11" (279)	23" (584)	30" (762)	.65" (17)	220 (100)

Large Kevels ASTM A27-70-36 Cast Steel



MODEL	DESCRIPTION	PART #	DIMENSIONS IN INCHES (MM)									LBS (KGS)
			A	B	C	D	E	F	G	H	I	
UMC-48A	KEVEL, 36"	01050-301A	36" (914)	5" (127)	10" (254)	7.13" (181)	5.88" (149)	3.5" (89)	5" (127)	16.5" (419)	22.5" (572)	81 (37)
UMC-36A	KEVEL, 42"	01060-301A	42" (1067)	6" (152)	11" (279)	7.5" (191)	6.5" (165)	3.25" (83)	7.5" (191)	19.5" (495)	25.5" (648)	114 (52)
UMC-159A	KEVEL, 48"	01070-301A	48" (1219)	6.5" (165)	11" (279)	10" (254)	8.75" (222)	5" (127)	8" (203)	21" (533)	27" (686)	175 (79)

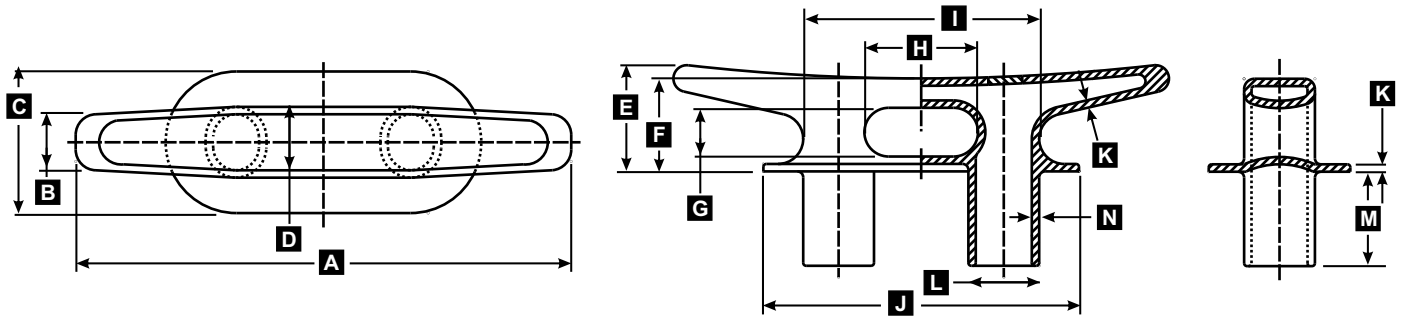
X-Large Kevels ASTM A27-70-36 Cast Steel



MODEL #	DESCRIPTION	PART #	DIMENSIONS IN INCHES (MM)								LBS (KGS)	
			A	B	C	D	E	F	G	H		I
UMC-KC60	KEVEL, 60"	01101-301A	60" (1524)	7" (178)	11.5" (292)	12" (305)	9" (229)	1.25" (32)	N/A (N/A)	32.5" (826)	38" (965)	390 (177)

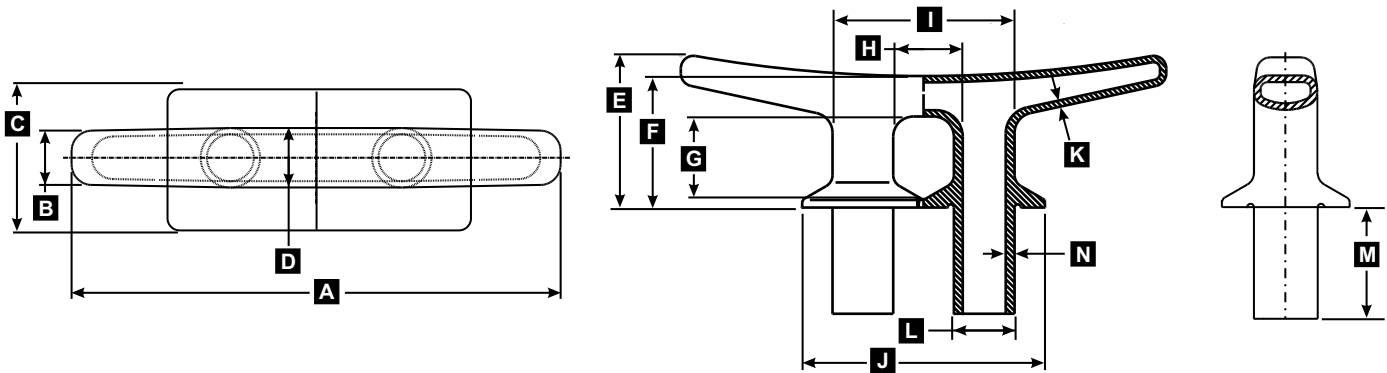
UNIVERSAL DECK FITTING

Kevel Chock, 42" Thru deck ASTM A27-70-36 Cast Steel



MODEL	DESCRIPTION	PART #	DIMENSIONS IN INCHES (MM)													LBS (KGS)
			A	B	C	D	E	F	G	H	I	J	K	L	M	
01091-301A	Kevel Chock 42" THRU DECK	42" (1067)	4.75" (121)	12" (305)	6" (152)	9" (229)	7.88" (200)	4.13" (105)	9.63 (245)	20" (508)	26.75" (679)	.63" (16)	6" Ø (152)	8" (203)	.63" (16)	220 (99.7)

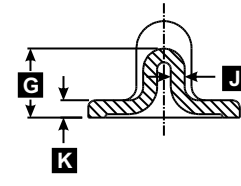
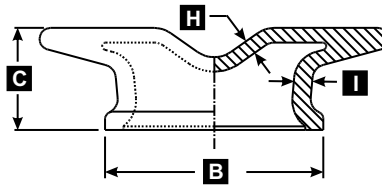
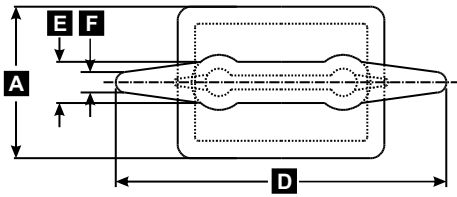
Kevel Chock, 48" Thru deck ASTM A27-70-36 Cast Steel



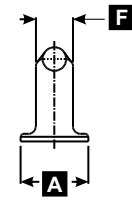
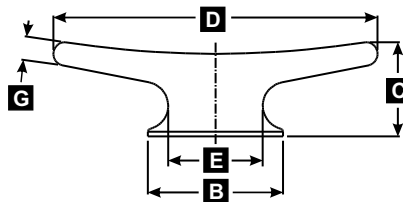
MODEL	DESCRIPTION	PART #	DIMENSIONS IN INCHES (MM)													LBS (KGS)
			A	B	C	D	E	F	G	H	I	J	K	L	M	
01102-301A	Kevel Chock 48" THRU DECK	48" (1219)	6" (152)	12" (305)	6" (152)	15" (381)	13" (330)	8.25" (210)	6" (152)	18" (457)	24" (607)	.63" (16)	6" Ø (152)	10.5" (267)	.875" (22)	380 (172)



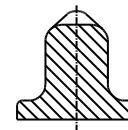
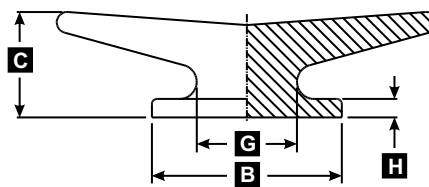
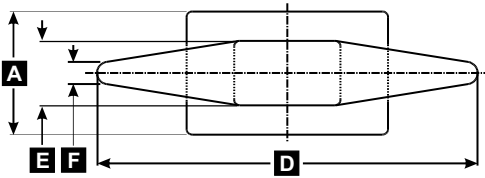
Small Kevels ASTM A27-70-36 Cast Steel



MODEL	DESCRIPTION	PART #	DIMENSIONS IN INCHES (MM)										LBS (KGS)	
			A	B	C	D	E	F	G	H	I	J		K
UMC-K12B	KEVEL, 12" LARGE BASE	08740-301A	5.5" (140)	7.5" (191)	3.5" (89)	12" (305)	1.5" (38)	.75" (19)	2.5" (64)	.5" (13)	.63" (16)	.5" (13)	.63" (16)	12 (5.4)

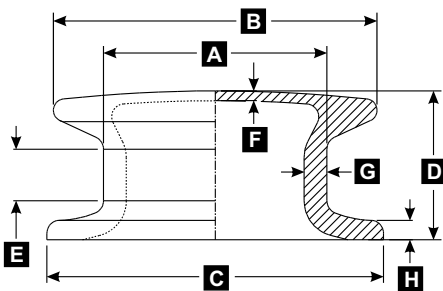


MODEL	DESCRIPTION	PART #	DIMENSIONS IN INCHES (MM)							LBS (KGS)
			A	B	C	D	E	F	G	
UMC-K12A	KEVEL, CLEAT 12" SMALL BASE	08720-301A	2.5" (64)	5" (127)	3.5" (89)	12" (305)	3.5" (89)	1.38" (35)	.88" (22)	7.6 (3.4)



MODEL	DESCRIPTION	PART #	DIMENSIONS IN INCHES (MM)								LBS (KGS)
			A	B	C	D	E	F	G	H	
UMC-518	KEVEL, 18"	02720-301A	5.5" (140)	9" (2904)	5" (127)	18" (457)	2.88" (73)	1" (25)	4.75" (121)	.88" (22)	34 (15.4)

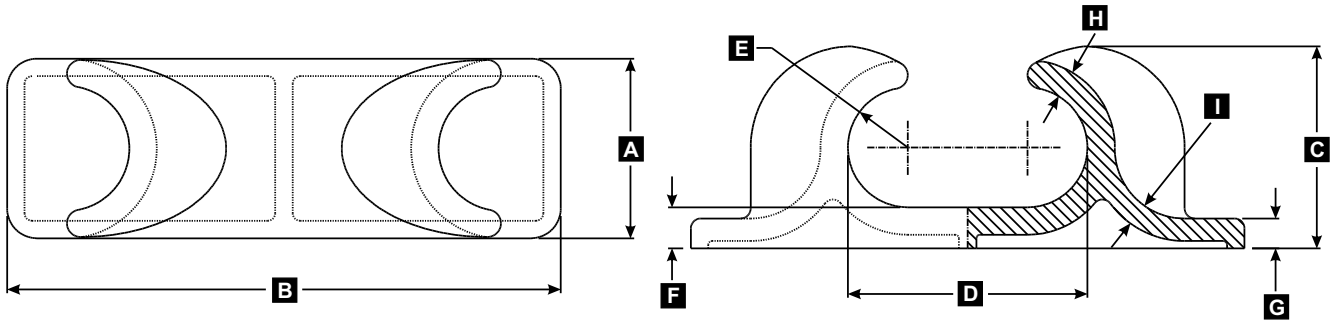
Button Chocks ASTM A27-70-36 Cast Steel



MODEL	DESCRIPTION	PART #	DIMENSIONS IN INCHES (MM)								LBS (KGS)
			A	B	C	D	E	F	G	H	
UMC-192	BUTTON CHOCK, 6"	01160-301A	6" Ø (152)	8.5" Ø (216)	12" Ø (305)	4.13" (181)	1.13" R (105)	.75" (89)	.75" (19)	.52" (13)	38 (17)
UMC-473	BUTTON CHOCK, 8"	01180-301A	8.6" Ø (218)	12.5" Ø (318)	13" Ø (330)	5.75" (146)	2" (51)	.38" (10)	.88" (22)	.75" (19)	75 (34)
UMC-185	BUTTON CHOCK, 10"	01170-301A	10" Ø (254)	15" Ø (381)	17" Ø (432)	8.5" (216)	N/A (N/A)	.5" (13)	1" (25)	.63" (16)	144 (65)

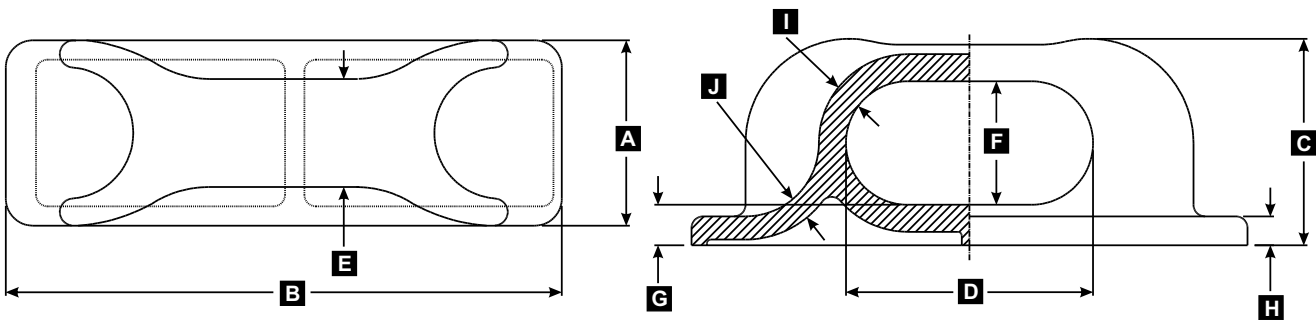
UNIVERSAL DECK FITTING

Open Chocks ASTM A27-70-36 Cast Steel



MODEL	DESCRIPTION	PART #	DIMENSIONS IN INCHES (MM)									LBS (KGS)
			A	B	C	D	E	F	G	H	I	
UMC-485	OPEN CHOCK, 9"	07870-301A	9" (229)	27.75" (705)	10.13" (257)	12" (305)	3" R (76)	2.06" (52)	1.5" (38)	1.375" (35)	1.125" (29)	176 (80)
UMC-489	OPEN CHOCK, 12"	06242-301A	12" (305)	36" (914)	13.38" (340)	16" (406)	4" R (101)	2.63" (67)	2.63" (67)	1.75" (44)	1.5" (38)	435 (197)

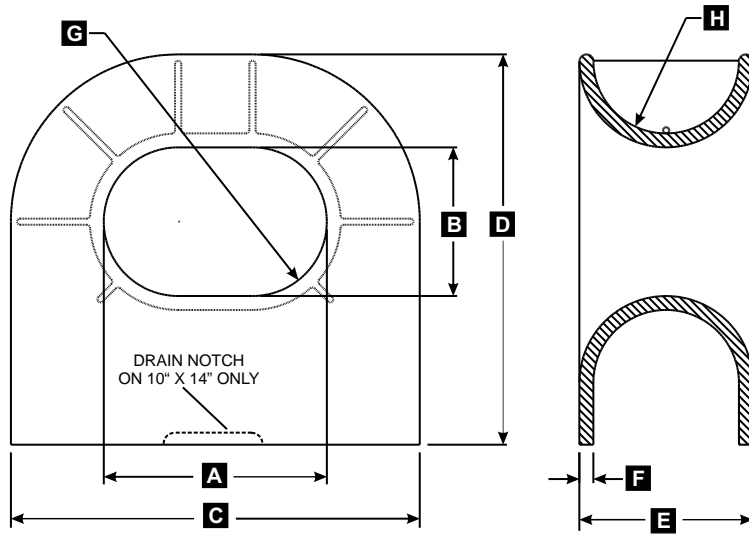
Closed Chocks ASTM A27-70-36 Cast Steel



MODEL	DESCRIPTION	PART #	DIMENSIONS IN INCHES (MM)										LBS (KGS)
			A	B	C	D	E	F	G	H	I	J	
UMC-480	CLOSED CHOCK, 9"	04610-301A	9" (229)	27.75" (705)	10.13" (257)	12" (305)	5.25" (133)	6" (152)	2.06" (52)	1.5" (38)	1.375" (35)	1.125" (29)	176 (80)
UMC-490	CLOSED CHOCK, 12"	06240-301A	12" (305)	36" (914)	13.38" (340)	16" (406)	7" (178)	8" (203)	2.63" (67)	1.88" (48)	1.75" (44)	1.5" (38)	455 (206)
UMC-14	CLOSED CHOCK, 14"	06241-301A	14" (356)	42" (1066)	15.63" (397)	18.75" (476)	8.17" (208)	9.38" (239)	3.06" (78)	2.19" (56)	2" (51)	1.75" (44)	725 (329)

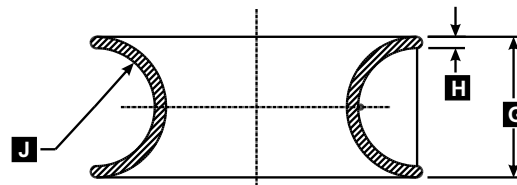
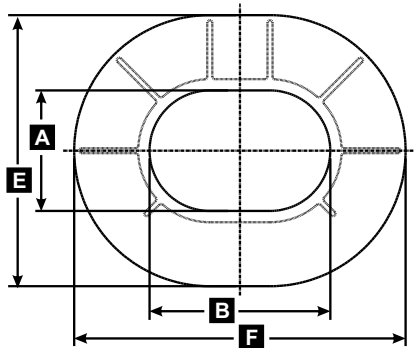
UNIVERSAL DECK FITTING

Panama Chocks ASTM A27-70-36 Cast Steel

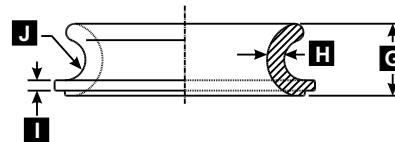
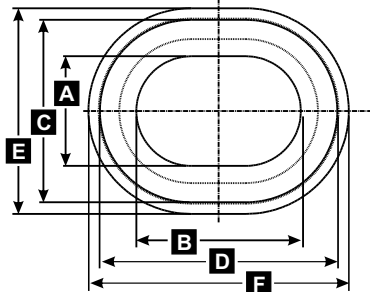


MODEL	DESCRIPTION	PART #	DIMENSIONS IN INCHES (MM)								LBS (KGS)
			A	B	C	D	E	F	G	H	
UMC-1014	PANAMA CHOCK, 10" X 14"	08370-301A	10" (152)	14" (210)	28" (305)	27.25" (181)	14" (105)	.75" (89)	5" R (19)	5.5" R (13)	335 (17)
UMC-1218	PANAMA CHOCK, 12" X 18"	08372-301A	12" (218)	18" (318)	33" Ø (330)	31.5" (146)	14" (51)	1.13" (10)	6" R (22)	5.88" R (19)	583 (34)

Mooring Eyes ASTM A27-70-36 Cast Steel



UMC-1218E - Mooring Eye 12" x 18"

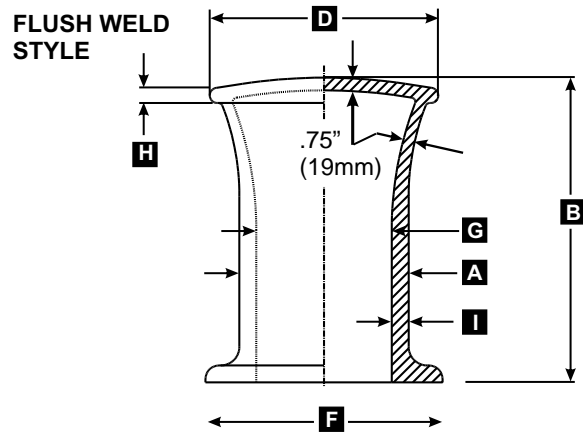
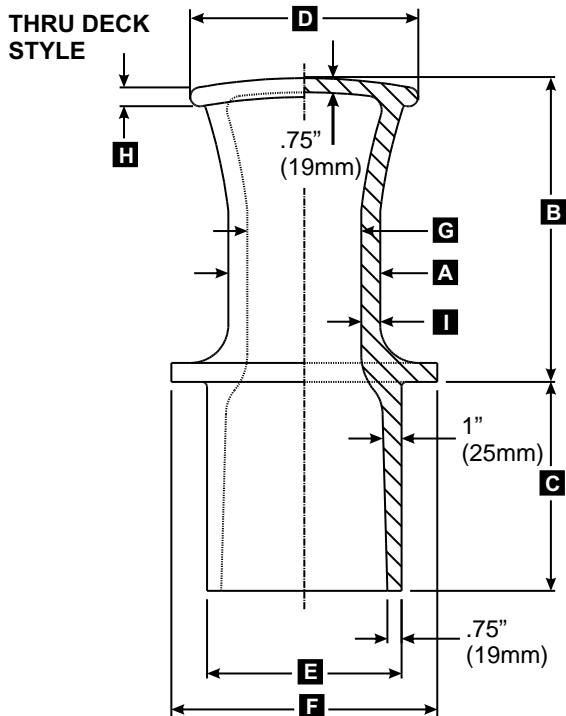


UMC-M812 - Mooring Eye 8" x 12"

MODEL	DESCRIPTION	PART #	DIMENSIONS IN INCHES (MM)										LBS (KGS)
			A	B	C	D	E	F	G	H	I	J	
UMC-1218E	MOORING EYE 12X18"	08371-301A	12" (229)	18" (705)	N/A	N/A	27" (133)	33" (152)	14" (52)	1.13" (38)	N/A	5.88" R (29)	467 (80)
UMC-M812	MOORING EYE 8X12"	08750-301A	8" (305)	12" (914)	13.31" (340)	19" (483)	15" (178)	17.5" (203)	5.25" (67)	1.25" (48)	.75" (44)	1.5" R (38)	102 (206)

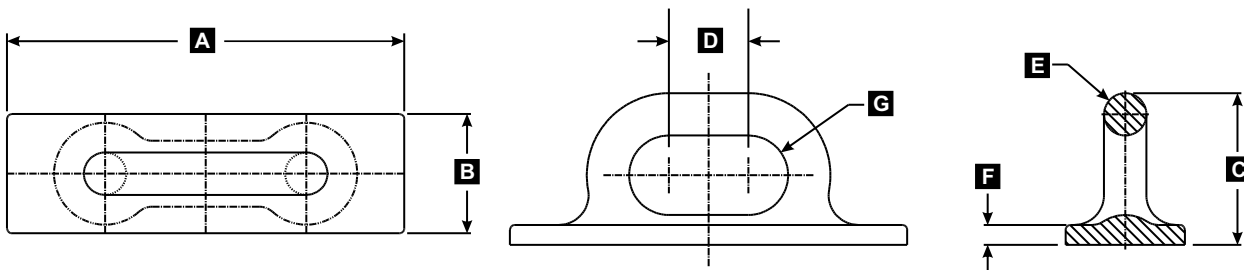
UNIVERSAL DECK FITTING

Single Bitts **ASTM A27-70-36 Cast Steel**



MODEL	DESCRIPTION	STYLE	PART #	DIMENSIONS IN INCHES (MM)								LBS (KGS)	
				A	B	C	D	E	F	G	H		I
UMC-492	SINGLE BITT 8" SQUARE BASE	THRU DECK HEAVY DUTY	03720-301A	8" Ø (203)	21" (533)	12" (305)	12" Ø (305)	9.63" Ø (245)	14" (356)	5" Ø (127)	1" (25)	1.5" (38)	370 (168)
UMC-530	SINGLE BITT 8" ROUND BASE	THRU DECK	08000-301B	8" Ø (203)	16" (406)	11" (279)	12" Ø (305)	10.25" Ø (260)	14" Ø (356)	6" (152)	1" (25)	1" (25)	260 (117)
UMC-SB10-T	SINGLE BITT 10" ROUND BASE	THRU DECK	01142-301A	10" Ø (254)	18" (457)	12" (305)	13.5" Ø (343)	10" Ø (254)	14" Ø (356)	8" (203)	1.46" (37)	1" (25)	293 (132)
UMC-SB10	SINGLE BITT 10" ROUND BASE	FLUSH WLD	01140-301A	10" Ø (254)	18" (457)	N/A	13.5" Ø (343)	N/A	14" Ø (356)	8" (203)	1.46" (37)	1" (25)	190 (86)

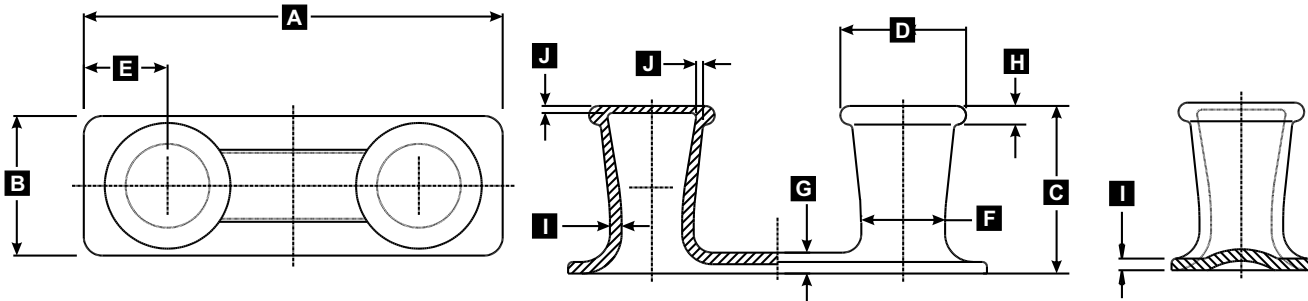
D-Rings **ASTM A27-70-36 Cast Steel**



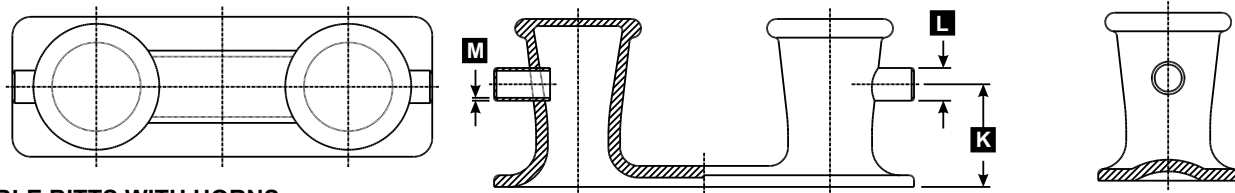
MODEL	DESCRIPTION	PART #	DIMENSIONS IN INCHES (MM)							WEIGHT
			A	B	C	D	E	F	G	
UMC-196	D-RING	01190-301A	20" (508)	6" (152)	7.63" (194)	4" (102)	2.13" Ø (54)	1" (25)	2" R (51)	60 (27)

UNIVERSAL DECK FITTING

Double Bitts ASTM A27-70-36 Cast Steel



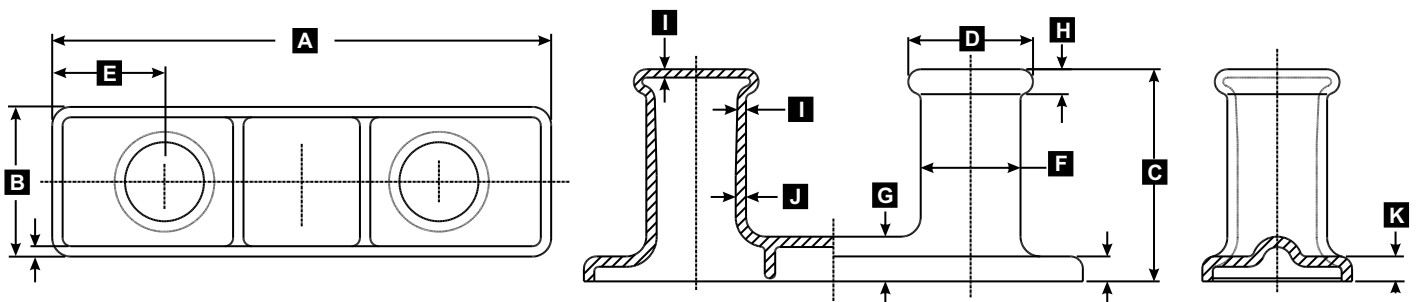
MODEL	DESCRIPTION	PART #	DIMENSIONS IN INCHES (MM)										LBS (KGS)
			A	B	C	D	E	F	G	H	I	J	
UMC-2	DOUBLE BITT 8"	01110-301A	40" (1016)	14" (336)	16" (406)	11" Ø (279)	8" (203)	7" Ø (177)	2" (51)	2" (51)	1.25" (32)	.72" (18)	320 (145)
UMC-40	DOUBLE BITT 10"	01120-301A	45" (1143)	15" (381)	18" (457)	13.5" Ø (343)	9" (228)	9" Ø (228)	2.25" (57)	2" (51)	1.25" (32)	.75" R (19)	574 (260)



DOUBLE BITTS WITH HORNS

MODEL	DESCRIPTION	PART #	DIMENSIONS IN INCHES (MM)				LBS (KGS)		
			K	L	M				
UMC-2A	DOUBLE BITT 8" WITH HORNS	04200-301A	SEE DIMENSIONS FOR UMC-2 ABOVE			10" (254)	3.5" Ø (89)	.3" (8)	331 (150)
UMC-40A	DOUBLE BITT 10" WITH HORNS	03760-301A	SEE DIMENSIONS FOR UMC-40 ABOVE			11" (279)	3.5" Ø (89)	.3" (8)	579 (262)

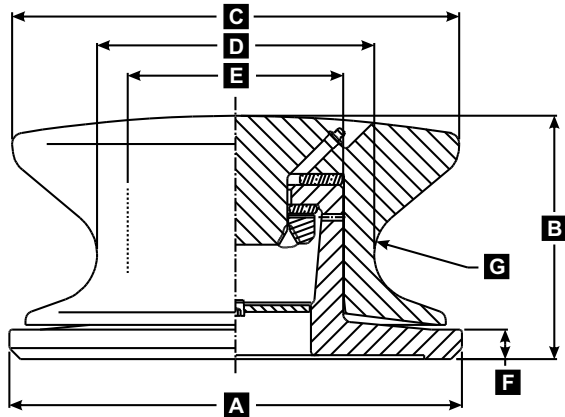
Large Double Bitt ASTM A27-70-36 Cast Steel



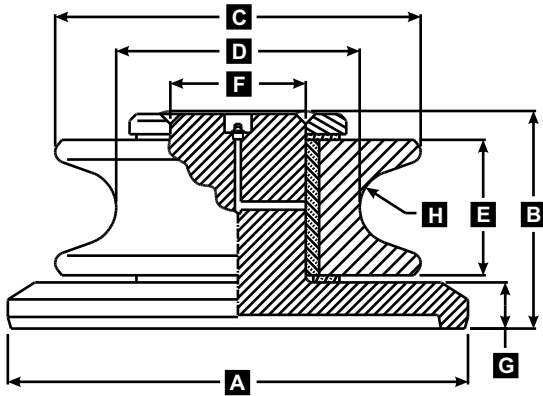
MODEL	DESCRIPTION	PART #	DIMENSIONS IN INCHES (MM)										LBS (KGS)	
			A	B	C	D	E	F	G	H	I	J		K
UMC-491	DOUBLE BITT 12"	05970-301A	60" (1524)	18" (457)	25.5" (647)	15" Ø (381)	13.5" (343)	12" Ø (305)	5.4" (137)	3" (83)	1" (25)	1.25" (32)	3" (76)	1045 (474)
UMC-14	DOUBLE BITT 14"	01121-301A	66" (1676)	21" (533)	26.25" (667)	17.5" Ø (445)	13" (343)	14" Ø (356)	5.7" (145)	3.5" (89)	1" (25)	1.5" (38)	3.5" (89)	1596 (724)

UNIVERSAL DECK FITTING

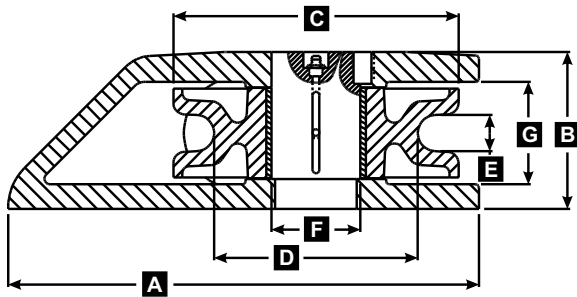
Roller Buttons ASTM A27-70-36 Cast Steel



MODEL	DESCRIPTION	PART #	DIMENSIONS IN INCHES (MM)							LBS (KGS)
			A	B	C	D	E	F	G	
UMC-50	ROLLER BUTTON, WELDED 11"	08670-152A	12.5" Ø (317)	5.29" (134)	11" Ø (279)	8" Ø (203)	5.5" Ø (138)	1" (25)	.78" R (20)	100 (45)
UMC-75	ROLLER BUTTON, WELDED 12.5"	08671-152A	16.65" Ø (423)	6.8" (173)	12.5" Ø (316)	7.75" Ø (197)	6" Ø (152)	.83" (21)	1.33" R (34)	136 (62)
UMC-100	ROLLER BUTTON, WELDED 15.5"	08672-152A	14.86" Ø (377)	7.88" (200)	15" Ø (381)	9.25" Ø (235)	7" Ø (178)	1" (25)	1.56" R (40)	235 (107)



MODEL	DESCRIPTION	PART #	DIMENSIONS IN INCHES (MM)								LBS (KGS)
			A	B	C	D	E	F	G	H	
UMC-1048	ROLLER BUTTON WELDED	08674-101A	17" Ø (432)	8.03" (204)	13.5" Ø (343)	9" Ø (229)	5" (127)	5" Ø (127)	1.7" (43)	1.38" R (35)	250 (113)



MODEL	DESCRIPTION	PART #	DIMENSIONS IN INCHES (MM)							LBS (KGS)
			A	B	C	D	E	F	G	
UMC-927	ROLLER CHOCK	08830-101A	13" (330)	4.33" (109)	7.88" Ø (194)	5.63" Ø (143)	1" (25)	2.44" Ø (62)	2.83" (72)	50 (23)



BFHR18S - Steel Cover with Steel Strongback and Stainless Steel Center Bolt



BFHO15x24S/S - Steel Hatch Assembly with Steel Deck Ring



BFHHR22S/S - Hinged Steel Hatch Assembly with Steel Deck Ring



BFHHO15x24S/S - Hinged Steel Hatch Assembly with Steel Deck Ring

BAIER'S EXCLUSIVE STEEL HATCH

Baier is the only manufacturer of quality cast steel flush hatches (versus iron hatches). Many of the Baier's complete line of round and oval lift-out and hinged flush hatches are available in Grade 7036 ASTM A27 cast steel alloy and **hot-dip galvanized** for corrosion resistance. Cast stainless steel hatches are available on a special order basis. Coamings are available in a wide array of heights. (See Coaming Section p. 31)

STEEL IS MORE DURABLE THAN IRON

Steel hatches have up to 300% greater impact resistance, energy absorption, and ductility versus iron (especially at low temperatures). Simply stated, a steel hatch can take considerably more.

APPLICATIONS

The Baier Steel Hatch was originally designed for King Crab fishing vessels operating in the cold climes of Alaska. Because of its superior strength in frozen operating conditions, no other hatch is better suited than the Baier Steel Hatch for this purpose.

In addition, the steel hatch is used on vehicle traffic areas of ferries (see Strength Test Results of the 15" x 24" (381mm x 610mm) steel hatch, and any other applications requiring unparallel strength, deflection, and load requirements.

Aluminum hatches can be replaced with Baier Steel Hatches for those applications where greater strength is required for any reason. The benefit is obvious - **A steel hatch will last a lifetime.**

	Model Number	Clear Opening	Technical Drawing	Cover Weight Lbs (Kgs)	Deck Ring Weight Lbs (Kgs)
Round Lift Out	BFHR16S	16" (406mm)	#286-1	56 (25.4)	9 (4.1)
	BFHR18S	18" (457mm)	#286-1	68(30.8)	10 (4.5)
	BFHR20S	20" (508mm)	#286-1	81 (36.7)	11 (5)
	BFHR24S	24" (610mm)	#630	127 (57.5)	15 (6.8)
Round Hinged	BFHHR22S	22" (559mm)	#625	99 (44.8)	27 (12.2)
Oval Lift Out	BFHO15X24S	15"x24" (381mm x 521mm)	#541	79 (35.8)	12 (5.4)
Oval Hinged	BFHHO15x24S	15"x24" (381mm x 521mm)	#543-1	76 (34.4)	27 (12.2)

Steel Hatch FEA Test Results

Material Data

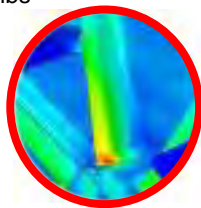
ASTM A27 / A27M
Standard Specification for Steel Castings
Grade: 70-36

Yield Stress: 36 ksi
Tensile Strength: 70 ksi
Elongation: 24 Percent

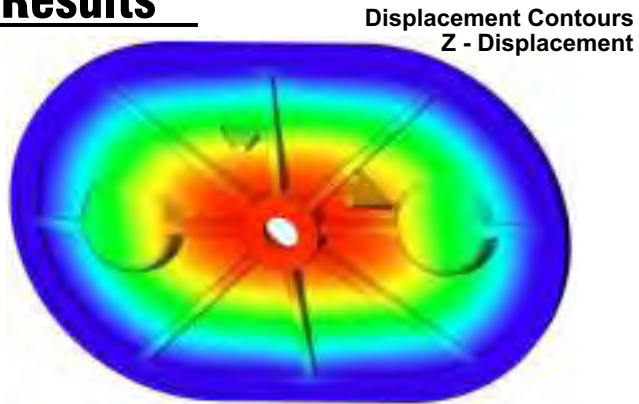
Typical Design Load: 8500 lbs over 100 square inches at Center

Maximum Deflection: 0.008 Inches

Weight: 79 lbs

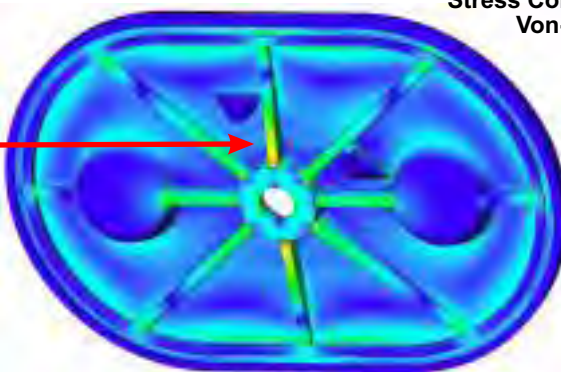


Analysis Performed at 2:1 Safety Factor



Displacement Contours
Z - Displacement

Scientific	Equiv.
- 7.743e-003	.0077"
- 7.098e-003	.0071"
- 6.453e-003	.0065"
- 5.808e-003	.0058"
- 5.162e-003	.0052"
- 4.517e-003	.0045"
- 3.872e-003	.0039"
- 3.226e-003	.0032"
- 2.581e-003	.0026"
- 1.936e-003	.0019"
- 1.291e-003	.0013"
- 6.453e-004	.0006"



Stress Contours
Von-Mises

Scientific	Equiv.
- 1.800e+004	18 ksi
- 1.650e+004	16 ksi
- 1.500e+004	15 ksi
- 1.530e+004	13 ksi
- 1.200e+004	12 ksi
- 1.050e+004	10 ksi
- 9.000e+003	9 ksi
- 7.500e+003	7 ksi
- 6.000e+003	6 ksi
- 4.500e+003	4 ksi
- 3.000e+003	3 ksi
- 1.500e+003	1 ksi

* FEA Results for comparison purposes only.

** Subject to change without notice

Aluminum Hatch FEA Test Results

Material Data

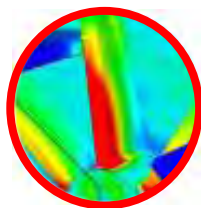
ASTM A26 356 Alloy
Standard Specification for Steel Castings

Yield Stress: 9.5 ksi
Tensile Strength: 19 ksi
Elongation: 24 Percent

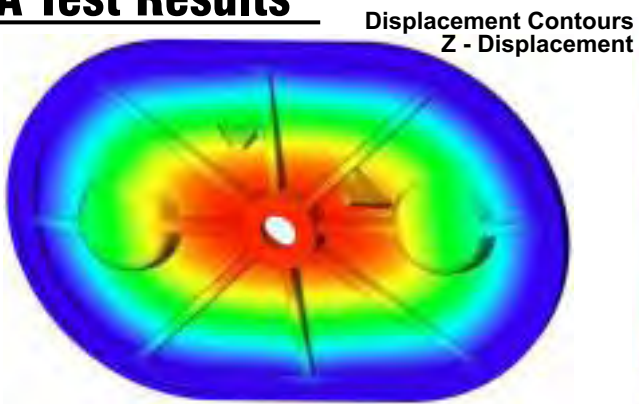
Typical Design Load: 8500 lbs over 100 square inches at Center

Maximum Deflection: 0.022 Inches

Weight: 31 lbs

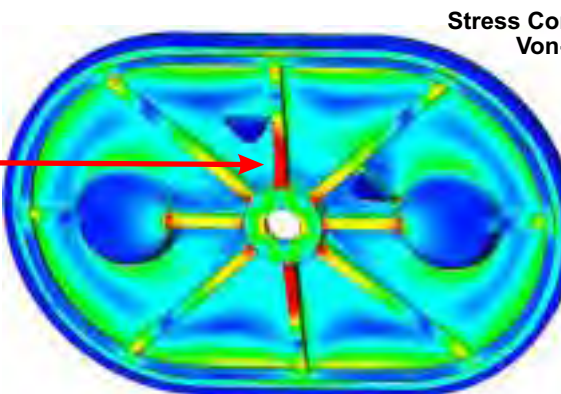


Peak Stress Levels not fully Penetrating Reinforcement Rib.



Displacement Contours
Z - Displacement

Scientific	Equiv.
- 2.237e-002	.022"
- 2.050e-002	.021"
- 1.864e-002	.019"
- 1.678e-002	.018"
- 1.491e-002	.015"
- 1.305e-002	.013"
- 1.118e-002	.011"
- 9.320e-003	.009"
- 7.456e-003	.007"
- 5.592e-003	.006"
- 3.728e-003	.004"
- 1.864e-003	.002"



Stress Contours
Von-Mises

Scientific	Equiv.
- 9.500e+003	9.5 ksi
- 8.708e+003	8.7 ksi
- 7.917e+003	7.9 ksi
- 7.125e+003	7.1 ksi
- 6.334e+003	6.3 ksi
- 5.542e+003	5.5 ksi
- 4.750e+003	4.7 ksi
- 3.959e+003	3.9 ksi
- 3.167e+003	3.1 ksi
- 2.375e+003	2.3 ksi
- 1.584e+003	1.5 ksi
- 7.922e+002	0.7 ksi

* FEA Results for comparison purposes only.

** Subject to change without notice