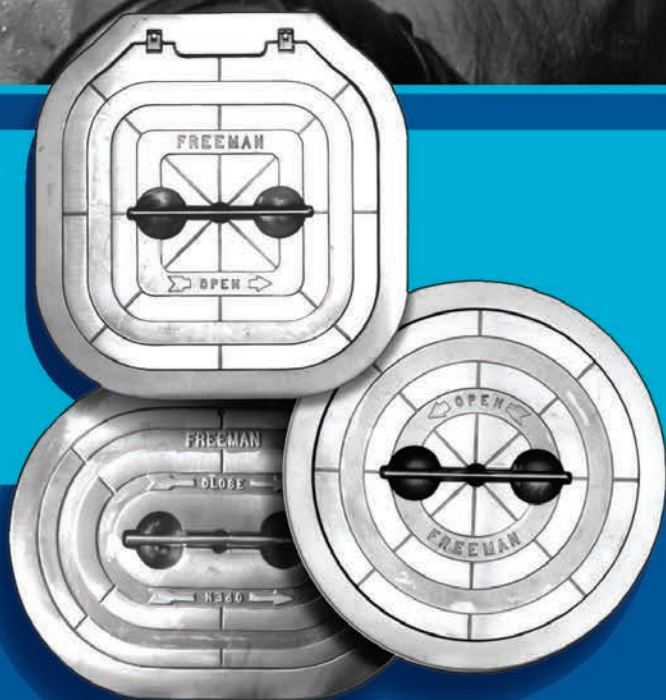




**OPENING THE FUTURE
TO SECURITY AT SEA**



FREEMAN
MARINE EQUIPMENT
An AdvanTec Company

**The first name in
PERFORMANCE, EXPERIENCE & SERVICE
for watertight deck hatches...**

CERTIFICATES AND ACCEPTANCES

Freeman Marine's cast hatch line has various approvals and certifications. Recently granted American Bureau of Shipping (ABS) Product Design Assessment Certification for 109 different models. Each of these models can be used on a number of ABS classed vessels in locations specified in the design assessment.

FREEMAN MARINE constantly monitors maritime regulations, standards and classification society activities related to closure approvals.

Freeman closures have received specific intended use acceptance by:

- ABS - American Bureau of Shipping
- DNV - Det Norske Veritas
- LR - Lloyds Register of Shipping
- GL - Germanischer Lloyd
- BV - Bureau Veritas
- MCA - Maritime Coastguard Agency
- RS - Russian Maritime Register of shipping
- RINA - RINA S.P.A., Italy
- CRS - Croatian Registry of Shipping
- USCG - US Coast Guard
- CCG - Canadian Coast Guard (Transport Canada)
- ABYC - American Boat & Yacht Council

• APPROVALS AT A GLANCE

**ABS - type approval,
certificate no. 13-HS1082451-PDA**

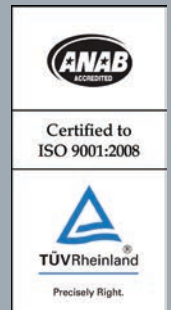
**Lloyd's Register - type approval
certificate no. 03/00088 & 9/60003(E1)**

U.S. Coast Guard,
CE, ISO-12216 compliant.

Approvals have been awarded and may be obtained for specific intended uses. FREEMAN Cast Hatches are currently in use on Coast Guard vessels and Naval craft of all types.

Freeman Marine can assist with specific intended use applications.

Compliance with ISO
9001:2008
Certified by TÜV Rheinland
Of North America, Inc.



Freeman Marine Equipment QUALITY. CAPABILITY.

FREEMAN MARINE QUALITY POLICY STATEMENT

- Consistently meet or exceed our customer's expectation for product quality and performance.
- Consistently meet or exceed our customer's expectation for product and service delivery.
- Continuously improve our processes and systems.
- Provide employee training to better serve our customers and to support personal growth.

FREEMAN MARINE CAPABILITIES

- Commercial, Fishing, Passenger, Supply, Military, and Mega-Yacht Projects
- Comprehensive In-house Capabilities – Design, Engineering, Tooling, Foundry, Machining, Fabrication, Assembly, Paint, Testing, Service, Parts
- Specified by Leading Naval Architects and Builders Worldwide
- International Standards – Recognized by Leading Agencies and Societies
- Marine, Rail, Civil, Industrial

ISO 9001:2008



Over 350 self righting vessels 100% completely outfitted with Freeman hatches, doors, windows & portlights. The people you trust, trust Freeman.

FREEMAN MARINE HAS MORE QUICK-ACTING FLUSH HATCH EXPERIENCE, MODELS AND FEATURES THAN ANY MANUFACTURER

Freeman hatches are used on a wide variety of fishing boats, tugs, barges, research vessels, offshore tenders, rescue craft and other workboats. The FREEMAN hatch is designed for new boats, for replacing other hatches in standard openings, or for improving existing craft.

The hatches are fast acting and easy to use. Simply grasp the handle and pull, the shaft slides into place, and with less than a quarter turn, completely disengages the locking mechanism. The dogs and linked handle do the work smoothly in just a second.

Our easy lift system allows simple removal. With the locking mechanism disengaged, the hatch is resting on the deck ring and can be lifted out with one hand.

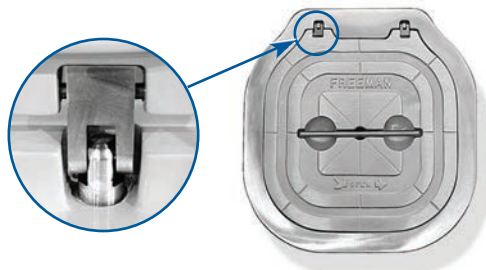
- **TOP VALUE**
- **RELIABLE**
- **VERSATILE**
- **EASY LIFT**
- **FAST ACTING**
- **LOW MAINTENANCE**

- Evenly spaced dogging arms exert uniform force on the cover plate.
- Handle position shows when dogging arms are engaged or disengaged.
- Handle is always attached. Hatch and handle fit flush with the deck with the handle in a recessed locked position.
- Watertight hatches are designed to seal up to 30 foot intermittent head, the double-sealing gasket seals tighter under pressure.
- Versatile installation, hatches can be installed in steel, aluminum, wood, or fiber glass decks.
- Complete units include aluminum or steel mounting rings for bolt-in or weld-in installations.
- Dogging mechanism assures smooth consistent action; no binding or jamming.
- Quick-acting dogging eliminates over or under tightening; hatch operates the same each time.

Freeman Marine Equipment SERVICE. VALUE. EXPERIENCE.

HINGED HATCHES

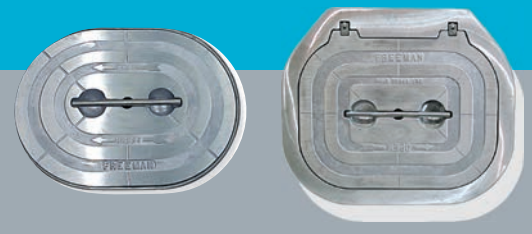
For hinged models the unique hinging device allows the hatch to be opened more than 180° and "floats" when the hatch is closed to facilitate a tighter seal. Round hatches 18" and larger, and all oval and square hatches with aluminum covers are available hinged from the factory.



Close-up view of standard Freeman "floating" hinge installed on hatch assembly.



• **CONCEALED YOKE HINGE**
(optional, selected models)



• **LIFT OUT**

• **SURFACE HINGES**

✓ **Buy America Act Compliant** (52.225-1)

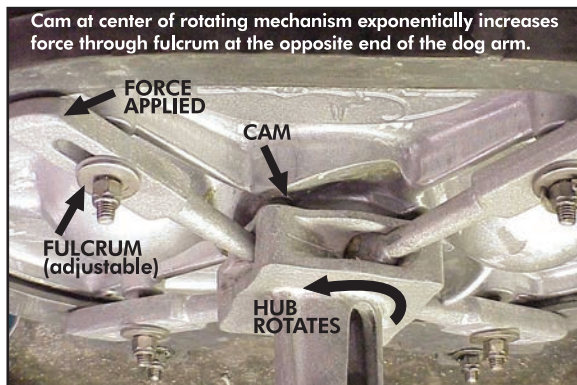


ISO 9001:2008

TWO IMPORTANT FEATURES DISTINGUISH THE FREEMAN CAST HATCH FROM OTHER DESIGNS

- Built in T-handle
- Easy Operating Dogging Mechanism

The standard pocketed, stainless steel T-handle is built in, permanently part of the hatch. Grasp the handle and pull, the shaft slides up into place, and with less than a quarter of a turn the locking mechanism completely disengages. The alignment of the handle shows when dogging arms are engaged or disengaged.



Evenly spaced dogging arms (either 3, 4 or 8 depending on size of hatch) exert uniform sealing pressure on the cover plate. The unique design, fit, and adjustability of FREEMAN'S dogging mechanism assure smooth, consistent action; no binding or jamming of parts.

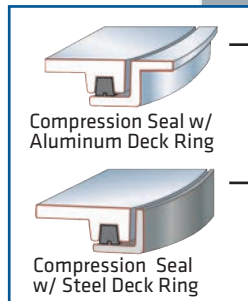


Adjusted to proper tension, a FREEMAN hatch can't be over or under tightened by mistake.

KNIFE-EDGE OR COMPRESSION SEALING?

• Compression Seal 2400 Series Hatches

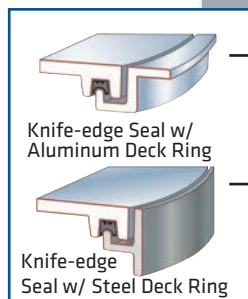
These hatches have easy-to-clean spigots, feature long gasket life, and are economical to purchase.



- Aluminum Deck Rings are intended to be weld installed into aluminum decks and bolt installed into other deck materials.
- Steel Deck Rings are to be weld installed into steel decks only.
- Watertight seal to 30 foot intermittent head, continuous 10 foot head top-loaded pressure (on properly installed and adjusted hatch assemblies).

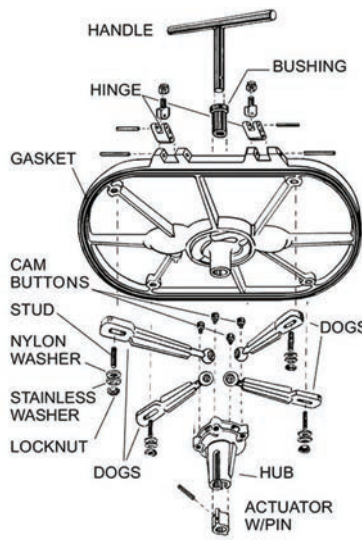
• Knife-edge Seal 2400 Series Hatches

These hatches feature a coaming with drain gutter and an aggressive sealing rim edge. A drain fitting can be installed to minimize water from entering enclosure when hatch is initially opened.



- Aluminum Deck Rings are intended to be weld installed into aluminum decks and bolt installed into other deck materials.
- Steel Deck Rings are to be weld installed into steel decks only.

TYPICAL HATCH COVER ASSEMBLY



• Stainless Steel Deck Rings

Available on most models, see steel deck rings for dimensions.

• Replacement Parts

Gaskets for periodic scheduled maintenance or parts to repair a damaged hatch are always available. FREEMAN MARINE and its distributors keep substantial inventories of parts for immediate shipment.

Parts information and where-to-buy:

www.freemanmarine.com
www.advantecstore.com

Shape and optional hinge vary by model



15" x 24" Oval lift-out,
Aluminum ring



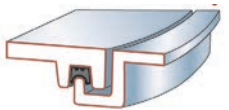
15" x 24" Oval hinged,
Steel ring, Inside view



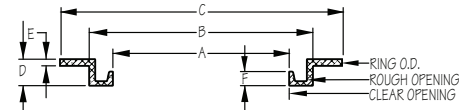
15" x 24" Oval lift-out,
Steel ring



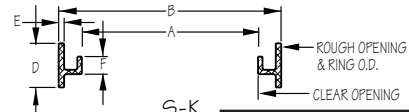
15" x 24" Oval hinged,
Steel ring



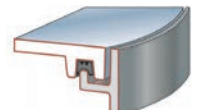
Knife Edge Seal w/
Aluminum Deck Ring
A-K



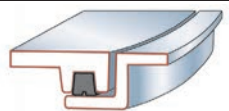
Aluminum Deck Ring, Knife Edge Seal



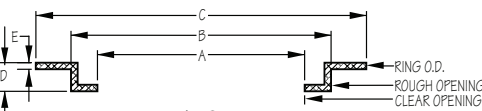
Steel Deck Ring, Knife Edge Seal



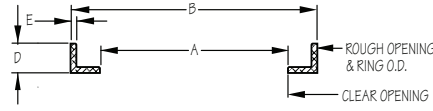
Knife Edge Seal w/
Steel Deck Ring
S-K



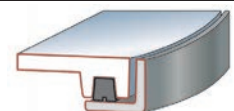
Compression Seal w/
Aluminum Deck Ring
A-C



Aluminum Deck Ring, Compression Seal



Steel Deck Ring, Compression Seal



Compression Seal w/
Steel Deck Ring
S-C

PART NO	SIZE	SHAPE	STYLE	RING	DIMENSIONS														MECHANISM		ASSEMBLY WEIGHT		
					CLEAR OPENING		ROUGH OPENING*		OVERALL				COVER		OVERALL								
					A (in)	A (mm)	B (in)	B (mm)	C (in)	C (mm)	D	E	F		THICKNESS	(in)	(mm)	STD MATERIAL	DOG Qty	LBS	KGS		
2431-0002	12"x18"	Oval	Lift-Out	A-C	12.0x18.0	305x457	15.0x21.0	381x533	18.8x24.8	478x630	1.5	0.31		ALUM	0.28	14.1x20.3	358x516	ALUM ALLOY	4	29	13.2		
2431-0003	12"x18"	Oval	Lift-Out	S-C	12.0x18.0	305x457	14.8x19.8	376x503			1.3	0.25		ALUM	0.29	14.1x20.3	358x516	ALUM ALLOY	4	30	13.6		
2471-0002	12"x18"	Oval	Hinged	A-C	12.0x18.0	305x457	15.0x21.0	381x533	18.8x24.8	478x630	1.5	0.31		ALUM	0.28	14.1x20.3	358x516	ALUM ALLOY	4	31	14.1		
2471-0003	12"x18"	Oval	Hinged	S-C	12.0x18.0	305x457	14.8x20.6	376x503			1.3	0.25		ALUM	0.29	14.1x20.3	358x516	ALUM ALLOY	4	31	14.1		
2433-0002	15"x24"	Oval	Lift-Out	A-C	14.8x23.7	376x603	17.7x26.7	450x677	21.3x30.3	541x770	1.5	0.25		ALUM	0.22	16.3x25.9	414x658	ALUM ALLOY	4	35	15.9		
2433-0003	15"x24"	Oval	Lift-Out	S-C	14.8x23.7	376x603	17.4x26.5	442x673			1.3	0.25		ALUM	0.22	16.3x25.9	414x658	ALUM ALLOY	4	37	16.8		
2434-0002	15"x24"	Oval	Lift-Out	A-K	15.2x24.2	386x615	17.9x26.9	455x684	21.0x30.0	533x762	1.6	0.31	0.6	ALUM	0.21			ALUM ALLOY	4	35	15.9		
2434-0003	15"x24"	Oval	Lift-Out	S-K	15.2x24.2	386x615	17.7x26.7	450x678			2.5	0.31	0.25	ALUM	0.21			ALUM ALLOY	4	54	24.5		
2473-0002	15"x24"	Oval	Hinged	A-C	14.6x23.5	371x597	17.6x26.5	447x673	21.6x30.5	549x775	1.5	0.31		ALUM	0.2	16.3x25.9	414x658	ALUM ALLOY	4	37	16.8		
2473-0003	15"x24"	Oval	Hinged	S-C	14.6x23.5	371x597	17.6x26.5	447x673			1.3		0.25	ALUM	0.2	16.3x25.9	414x658	ALUM ALLOY	4	38	17.2		
2474-0002	15"x24"	Oval	Hinged	A-K	15.2x24.2	388x615	17.2x26.2	437x665	21.0x30.0	533x762	1.6	0.31	0.6	ALUM	0.21			ALUM ALLOY	4	35	15.9		
2474-0003	15"x24"	Oval	Hinged	S-K	15.2x24.2	388x615	17.9x26.69*	454x678*			2.5	0.31	0.25	ALUM	0.21			ALUM ALLOY	4	60	27.2		
2483-0107	15"x24"	Oval	Lift-Out	S-K	15.1x24.1	384x613	17.5x26.5	445x673			1.5	0.25		DUCT IRON	0.38	16.9x25.6	429x650	ALUM ALLOY	4	85	28.6		
2435-0002	19"x26"	Oval	Lift-Out	A-K	19.2x26.2	488x665	21.2x28.2	538x716	25.0x32.0	635x813	1.6	0.31	0.6	ALUM	0.29			ALUM ALLOY	4	43	19.5		
2435-0003	19"x26"	Oval	Lift-Out	S-K	19.2x26.2	488x665	21.7x28.7	551x729			2.5	0.31	0.25	ALUM	0.29			ALUM ALLOY	4	61	27.7		
2475-0002	19"x26"	Oval	Hinged	A-K	19.2x26.2	488x665	21.2x28.2	538x716	27.2x32.4	691x823	1.6	0.31	0.6	ALUM	0.29			ALUM ALLOY	4	44	20		
2475-0003	19"x26"	Oval	Hinged	S-K	19.2x26.2	488x665	21.7x28.7	551x729			2.5	0.31	0.25	ALUM	0.29			ALUM ALLOY	4	67	30		

*DOES NOT INCLUDE HINGE POCKETS



30" Round lift-out,
Steel ring



8" Round lift-out, Aluminum ring



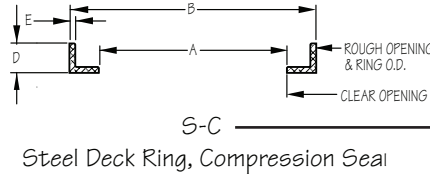
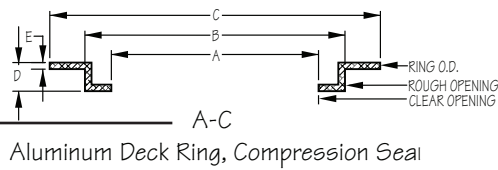
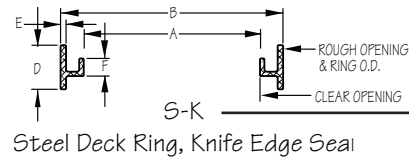
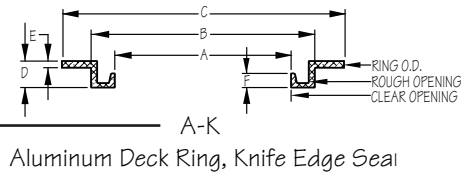
18" Round lift-out,
Steel ring



22" Round hinged,
Aluminum ring

PART NO	SIZE	SHAPE	STYLE	RING	DIMENSIONS													MECHANISM		ASSEMBLY WEIGHT		
					CLEAR OPENING		ROUGH OPENING*		OVERALL							OVERALL						
					A (in)	A (mm)	B (in)	B (mm)	C (in)	C (mm)	D	E	F	MTRL	THKNSS	in	mm	STD MATERIAL	DOG Qty	LBS	KGS	
2401-0002	8"	Round	Lift-Out	A-C	7.9	201	10.3	262	12	305	1	0.31		ALUM	0.23	9.8	249	ALLUM ALLOY	3	8	3.6	
2402-0002	12"	Round	Lift-Out	A-C	11.9	302	14.8	376	17.4	442	1.3	0.31		ALUM	0.19	13.9	353	ALLUM ALLOY	3	13	5.9	
2402-0003	12"	Round	Lift-Out	S-C	11.9	302	14.5	368			1.3	0.25		ALUM	0.19	13.9	353	ALLUM ALLOY	3	16	7.3	
2403-0002	15"	Round	Lift-Out	A-C	15	381	17.8	452	12.5	546	1.3	0.31		ALUM	0.29	17	432	ALLUM ALLOY	3	23	10.4	
2403-0003	15"	Round	Lift-Out	S-C	15	381	17.6	447			1.3	0.25		ALUM	0.29	17	432	ALLUM ALLOY	3	26	11.8	
2404-0002	18"	Round	Lift-Out	A-C	18	457	20.9	530	24.5	622	1.4	0.31		ALUM	0.26	20	508	ALLUM ALLOY	3	30	13.6	
2404-0003	18"	Round	Lift-Out	S-C	18	457	20.5	521			1.3	0.25		ALUM	0.26	20	508	ALLUM ALLOY	3	32	14.5	
2405-0002	18"	Round	Lift-Out	A-K	18	457	20	508	24	607	1.5	0.38	0.8	ALUM	0.24			ALLUM ALLOY	3	38	17.2	
2405-0003	18"	Round	Lift-Out	S-K	18	457	20.6	523			2.5	0.31	1	ALUM	0.24			ALLUM ALLOY	3	36	16.3	
2441-0002	18"	Round	Hinged	A-C	18	457	20.9	530	24.5	622	1.6	0.27		ALUM	0.38	20	508	ALLUM ALLOY	3	35	15.9	
2441-0003	18"	Round	Hinged	S-C	18	457	20.8	528			1.3	0.25		ALUM	0.38	20	508	ALLUM ALLOY	3	38	17.2	
2442-0002	18"	Round	Hinged	A-K	18	457	20	508	24	607	1.5	0.38	0.8	ALUM	0.24			ALLUM ALLOY	3	39	17.7	
2442-0003	18"	Round	Hinged	S-K	18	457	20.6	523			2.5	0.31	1	ALUM	0.24			ALLUM ALLOY	3	42	19.1	
2481-0107	18"	Round	Lift-Out	S-C	18	457	20.5	521			1.5	0.25		DUCT IRON	0.41	19.9	505	STAIN STEEL	3	75	34	
2406-0002	20"	Round	Lift-Out	A-C	19.8	503	22.8	579	26.5	673	1.3	0.31		ALUM	0.26	21.9	556	ALLUM ALLOY	4	36	16.3	
2406-0003	20"	Round	Lift-Out	S-C	19.8	503	22.4	569			1.3	0.25		ALUM	0.26	21.9	556	ALLUM ALLOY	4	37	16.8	
2407-0002	20"	Round	Lift-Out	A-K	20	508	22	559	26	660	1.4	0.38	0.7	ALUM	0.35			ALLUM ALLOY	4	44	20	
2407-0003	20"	Round	Lift-Out	S-K	20	508	22.6	574			2.5	0.31	1	ALUM	0.35			ALLUM ALLOY	4	41	18.6	
2443-0002	20"	Round	Hinged	A-C	19.6	498	22.8	579	26.5	673	1.7	0.4		ALUM	0.29	21.9	556	ALLUM ALLOY	4	44	20	
2443-0003	20"	Round	Hinged	S-C	19.6	498	22.4	569			1.3	0.25		ALUM	0.29	21.9	556	ALLUM ALLOY	4	47	21.3	
2444-0002	20"	Round	Hinged	A-K	20	508	22	559	26	660	1.4	0.38	0.7	ALUM	0.35			ALLUM ALLOY	4	45	20.4	
2444-0003	20"	Round	Hinged	S-K	20	508	22.6	579			2.5	0.31	1	ALUM	0.35			ALLUM ALLOY	4	48	21.8	

*DOES NOT INCLUDE HINGE POCKETS



PART NO	SIZE	SHAPE	STYLE	RING	DIMENSIONS								COVER				MECHANISM		ASSEMBLY WEIGHT		
					CLEAR OPENING		ROUGH OPENING*		OVERALL												
					A (in)	A (mm)	B (in)	B (mm)	C (in)	C (mm)	D	E	F	MTRL	THKNSS	in	mm	STD MATERIAL	DOG QTY	LBS	KGS
2408-0002	22"	ROUND	LIFT-OUT	A-C	22	559	24.8	630	28.5	724	1.6	0.31		ALUM	0.31	24	610	ALUM ALLOY	4	39	17.7
2408-0003	22"	ROUND	LIFT-OUT	S-C	22	559	24.6	625			1.5	0.25		ALUM	0.31	24	610	ALUM ALLOY	4	40	18.1
2411-0002	24"	ROUND	LIFT-OUT	A-C	23.3	592	26.6	676	30.5	775	1.4	0.31		ALUM	0.37	25.8	665	ALUM ALLOY	4	52	23.6
2411-0003	24"	ROUND	LIFT-OUT	S-C	23.3	592	26.5	673			1.5	0.25		ALUM	0.37	25.8	665	ALUM ALLOY	4	54	24.5
2412-0002	24"	ROUND	LIFT-OUT	A-K	24.1	612	26.1	663	30.6	777	1.6	0.38	0.6	ALUM	0.42			ALUM ALLOY	4	65	29.5
2412-0003	24"	ROUND	LIFT-OUT	S-K	24.1	612	26.7	678			2.5	0.31	1.0	ALUM	0.42			ALUM ALLOY	4	59	28.8
2447-0002	24"	ROUND	HINGED	A-C	23.4	594	26.4	671	30.5	775	1.7	0.4		ALUM	0.41	25.8	665	ALUM ALLOY	4	59	28.8
2447-0003	24"	ROUND	HINGED	S-C	23.4	594	26.5	673			1.5	0.25		ALUM	0.41	25.8	665	ALUM ALLOY	4	62	28.1
2448-0002	24"	ROUND	HINGED	A-K	24.1	612	26.1	663	30.6	777	1.6	0.38	0.6	ALUM	0.42			ALUM ALLOY	4	66	29.9
2448-0003	24"	ROUND	HINGED	S-K	24.1	612	26.7	678			2.5	0.31	1.0	ALUM	0.42			ALUM ALLOY	4	65	29.5
2482-0107	24"	ROUND	LIFT-OUT	S-C	23.3	592	26.5	673			1.5	0.25		DUCT IRON	0.36	25.8	655	STAIN STEEL	4	110	49.9
2415-0006	30"	ROUND	LIFT-OUT	A-C	30	762	33.5	851	37.3	947	1.4	0.31		ALUM	0.41	32.5	826	STAIN STEEL	4	81	36.7
2415-0007	30"	ROUND	LIFT-OUT	S-C	30	762	33.3	846			1.3	0.25		ALUM	0.39	32.5	826	STAIN STEEL	4	87	39.5
2452-0006	30"	ROUND	HINGED	A-C	30	762	33.5	851	37.3	947	1.7	0.4		ALUM	0.46	32.5	826	STAIN STEEL	4	82	37.2
2452-0007	30"	ROUND	HINGED	S-C	30	762	33.3	846			1.5	0.25		ALUM	0.49	32.5	826	STAIN STEEL	4	118	53.5

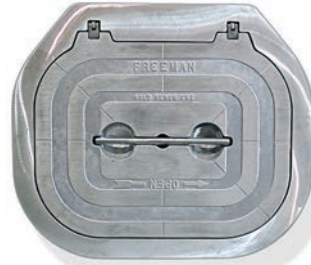
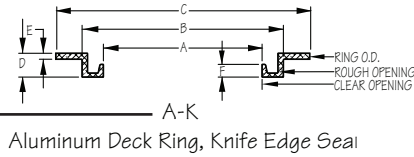
*DOES NOT INCLUDE HINGE POCKETS



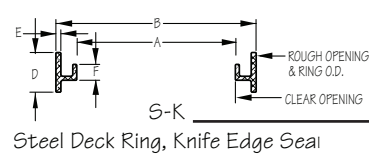
photo by Alicia Myrick



22" Square hinged, Inside view

22" Square hinged,
Steel ring18" x 24" Rectangular
Hinged, Aluminum ring22" Square hinged,
Aluminum ringKnife Edge Seal w/
Aluminum Deck Ring
A-K

Aluminum Deck Ring, Knife Edge Seal



Steel Deck Ring, Knife Edge Seal

Knife Edge Seal w/
Steel Deck Ring
S-K

PART NO	SIZE	SHAPE	STYLE	RING	DIMENSIONS											MECHANISM		ASSEMBLY WEIGHT		
					CLEAR OPENING		ROUGH OPENING*		OVERALL				COVER							
					A (in)	A (mm)	B (in)	B (mm)	C (in)	C (mm)	D	E	F	MTRL	THKNESS	STD MATERIAL	DOC QTY	LBS	KGS	
2421-0002	18"x24"	Rectangle	Lift-Out	A-K	18.0x24.0	457x610	20.5x26.5	521x673	24.5x30.5	622x775	1.6	0.38	0.7	ALUM	0.22	ALUM ALLOY	4	36	16.3	
2421-0003	18"x24"	Rectangle	Lift-Out	S-K	18.0x24.0	457x610	20.5x26.5	521x673			2.5	0.31	0.9	ALUM	0.22	ALUM ALLOY	4	61	27.7	
2461-0002	18"x24"	Rectangle	Hinged	A-K	18.0x24.0	457x610	20.5x26.5	521x673	24.5x30.5	622x775	1.6	0.38	0.7	ALUM	0.22	ALUM ALLOY	4	36	16.3	
2461-0003	18"x24"	Rectangle	Hinged	S-K	18.0x24.0	457x610	20.5x26.4	521x673			2.5	0.31	0.9	ALUM	0.22	ALUM ALLOY	4	61	27.7	
2436-0002	24"x28"	Rectangle	Lift-Out	A-K	24.6x28.6	625x727	27.5x31.5	699x799	31.2x35.2	793x894	1.6	0.38	0.7	ALUM	0.22	ALUM ALLOY	4	61	27	
2436-0003	24"x28"	Rectangle	Lift-Out	S-K	24.6x28.6	625x727	27.5x31.5	699x799			2.5	0.31	0.9	ALUM		ALUM ALLOY	4	83	37.4	
2476-0002	24"x28"	Rectangle	Hinged	A-K	24.6x28.4	629x724	29.6x31.4	752x797	33.1x34.9	840x887	1.6	0.38	0.7	ALUM		ALUM ALLOY	4	62	28.1	
2476-0003	24"x28"	Rectangle	Hinged	S-K	24.6x28.4	629x724	29.6x31.4	752x797			2.5	0.31	0.9	ALUM		ALUM ALLOY	4	84	37.9	
2429-0002 0001**	30"x36"	Rectangle	Lift-Out	A-K	30.5x36.5	775x927	32.8x38.8	834x987	36.3x42.3	923x1075	2.5	0.31	0.9	ALUM	0.3	ALUM ALLOY	8	102	46.3	
2429-0003 0001**	30"x36"	Rectangle	Lift-Out	S-K	30.5x36.5	775x927	33.5x39.5	850x1003			2.5	0.31	0.9	ALUM	0.3	ALUM ALLOY	8	119	54	
2469-0002 0001**	30"x36"	Rectangle	Hinged	A-K	30.6x36.6	776x930	32.8x38.8	834x987	38.1x42.3	967x1075	1.6	0.38	0.7	ALUM		ALUM ALLOY	8	93	42.4	
2469-0003 0001**	30"x36"	Rectangle	Hinged	S-K	30.0x36.0	762x914	33.5x39.5	850x1003			2.5	0.31	0.9	ALUM		ALUM ALLOY	8	130	59	
2422-0002	20"x20"	Square	Lift-Out	A-K	20.3x20.3	517x517	22.8x22.8	579x579	26.8x26.8	681x681	1.6	0.38	0.7	ALUM		ALUM ALLOY	4	43	19.5	
2422-0003	20"x20"	Square	Lift-Out	S-K	20.3x20.3	517x517	22.8x22.8	579x579			2.5	0.31	0.9	ALUM	0.2	ALUM ALLOY	4	74	33.6	
2462-0002	20"x20"	Square	Hinged	A-K	20.3x20.3	517x517	22.8x22.8	579x579	26.8x26.8	681x681	1.6	0.38	0.7	ALUM	0.2	ALUM ALLOY	4	45	20.4	
2462-0003	20"x20"	Square	Hinged	S-K	20.3x20.3	517x517	22.8x22.8	579x579			2.5	0.31	0.9	ALUM	0.2	ALUM ALLOY	4	76	34.5	
2423-0002	22"x22"	Square	Lift-Out	A-K	22.0x22.0	559x559	24.5x24.5	622x622	28.5x28.5	724x724	1.6	0.38	0.7	ALUM	0.2	ALUM ALLOY	4	45	20.4	
2423-0003	22"x22"	Square	Lift-Out	S-K	22.0x22.0	559x559	24.5x24.5	622x622			2.5	0.31	0.9	ALUM	0.2	ALUM ALLOY	4	92	41.7	
2463-0002	22"x22"	Square	Hinged	A-K	22.0x22.0	559x559	24.5x24.5	622x622	28.5x28.5	724x724	1.6	0.38	0.7	ALUM	0.2	ALUM ALLOY	4	46	20.9	
2463-0003	22"x22"	Square	Hinged	S-K	22.0x22.0	559x559	24.5x24.5	622x622			2.5	0.31	0.9	ALUM	0.2	ALUM ALLOY	4	92	41.7	
2423-0002	22"x22"	Square	Lift-Out	A-K	22.0x22.0	559x559	24.5x24.5	622x622	28.5x28.5	724x724	1.6	0.38	0.7	ALUM	0.2	ALUM ALLOY	4	45	20.4	
2423-0003	22"x22"	Square	Lift-Out	S-K	22.0x22.0	559x559	24.5x24.5	622x622			2.5	0.31	0.9	ALUM	0.2	ALUM ALLOY	4	92	41.7	
2424-0002	24"x24"	Square	Lift-Out	A-K	24.5x24.5	622x622	27.0x27.0	686x686	31.0x31.0	787x787	1.6	0.38	0.7	ALUM	0.28	ALUM ALLOY	4	57	25.9	
2424-0003	24"x24"	Square	Lift-Out	S-K	24.5x24.5	622x622	27.0x27.0	686x686			2.5	0.31	0.9	ALUM	0.28	ALUM ALLOY	4	96	43.5	

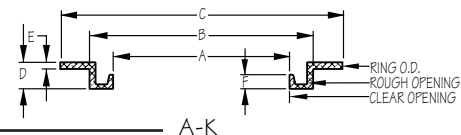
*DOES NOT INCLUDE HINGE POCKETS

**REQUIRES ESCAPE HANDLE AS STANDARD

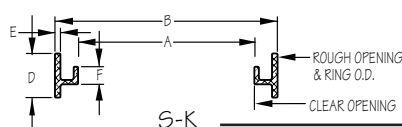
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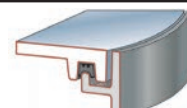
Knife Edge Seal w/
Aluminum Deck Ring
A-K



Aluminum Deck Ring, Knife Edge Seal



Steel Deck Ring, Knife Edge Seal



Knife Edge Seal w/
Steel Deck Ring
S-K

PART NO	SIZE	SHAPE	STYLE	RING	DIMENSIONS												MECHANISM	ASSEMBLY WEIGHT		
					CLEAR OPENING		ROUGH OPENING*		OVERALL						COVER					
					A (in)	A (mm)	B (in)	B (mm)	C (in)	C (mm)	D	E	F	MTRL	THICKNESS	STD MATERIAL	DOC QTY	LBS	KGS	
2480-0106	24"x24"	Square	Hinged	A-K	24.8x24.8	630x630	27.3x29.2	693x742	31.2x35.2	793x894	1.6	0.38	0.7	D I		DUCT IRON	4	133	60.3	
2480-0107	24"x24"	Square	Hinged	S-K	24.8x24.8	630x630	27.3x29.2	693x742			2.5	0.31	0.9	D I		DUCT IRON	4	155	70.3	
2464-0002	24"x24"	Square	Hinged	A-K	24.5x24.5	622x622	27.0x27.0	686x686	31.0x31.0	787x787	1.6	0.38	0.7	ALUM	0.28	ALUM ALLOY	4	58	26.3	
2464-0003	24"x24"	Square	Hinged	S-K	24.5x24.5	622x622	27.0x27.0	686x686			2.5	0.31	0.9	ALUM	0.28	ALUM ALLOY	4	97	44	
2427-0002	27"x27"	Square	Lift-Out	A-K	27.2x27.2	690x690	29.6x29.6	752x752	33.6x33.6	854x854	1.6	0.32	0.8	ALUM	0.35	ALUM ALLOY	4	63	28.6	
2427-0003	27"x27"	Square	Lift-Out	S-K	27.2x27.2	690x690	29.6x29.6	750x750			2.5	0.31	1.9	ALUM	0.35	ALUM ALLOY	4	85	38.6	
2426-0006	30"x30"	Square	Lift-Out	A-K	30.0x30.0	762x762	32.5x32.5	826x826	36.5x36.5	927x927	1.6	0.25	0.7	ALUM	0.25	ALUM ALLOY	4	75	31	
2426-0007	30"x30"	Square	Lift-Out	S-K	30.0x30.0	762x762	32.5x32.5	826x826			2.5	0.31	0.9	ALUM	0.25	ALUM ALLOY	4	113	51.3	
2466-0006	30"x30"	Square	Hinged	A-K	30.0x30.0	762x762	32.5x32.5	826x826	36.5x36.5	927x927	1.6	0.25	0.7	ALUM	0.25	ALUM ALLOY	4	78	35.4	
2466-0007	30"x30"	Square	Hinged	S-K	30.0x30.0	762x762	32.5x32.5	826x826			2.5	0.31	0.9	ALUM	0.25	ALUM ALLOY	4	114	51.7	
2428-0002 0001**	36"x36"	Square	Lift-Out	A-K	36.0x36.0	914x914	39.3x39.3	998x998	42.0x42.0	1067x1067	2.5	0.31	0.9	ALUM	0.38	ALUM ALLOY	8	104	48	
2428-0003 0001**	36"x36"	Square	Lift-Out	S-K	36.0x36.0	914x914	39.3x39.3	998x998			2.5	0.31	0.9	ALUM	0.38	ALUM ALLOY	8	134	60.8	
2468-0002 0001**	36"x36"	Square	Hinged	A-K	36.0x36.0	914x914	39.3x39.3	998x998	42.0x42.0	1067x1067	2.5	0.31	0.9	ALUM	0.38	ALUM ALLOY	8	119	54	
2468-0003 0001**	36"x36"	Square	Hinged	S-K	36.0x36.0	914x914	39.3x39.3	998x998			2.5	0.31	0.9	ALUM	0.38	ALUM ALLOY	8	149	67.6	

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