



MAN SHIP
MARINE SPECIALTIES

Distributor List



Canada

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Richmond, BC V7A 5H5
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Fax:888.828.5765
Email:sales@vertex-marine.com
Web:www.vertex-marine.com



USA

Hood Yacht Systems
7712 Cheri Court
Tampa, Fla 33634
TEL:(603)826-5791
Hood customer service:
Hoodyachtsystems@pompanette.com
website:hoodyachtsystems.com/pompanette.com

Showroom and Parts Locations:

Florida:
1515 Southeast 16th Street
Fort Lauderdale, Florida 33316
Phone:(603)826-5791



USA

MARINE DEPOT DIRECT
Online Retailer
Chino, CA 91710
TEL:(855)215-4211
www.marinedepotdirect.com

WHITE WATER MARINE HARDWARE

OEM Wholesaler & showroom
13663 Automobile Blvd, Clearwater, FL 33762
TEL:(727)572-8871
www.whitewaterm.com



USA Service (Repair and Solution)

Select Plastics 219 Liberty Square East
Norwalk CT 06855
TEL:203-886-3767
FAX:203-886-3948
www.selectplastics.com



England

C-Quip LTD
8-Fulcrum One
Solent Way Whiteley Hampshire
UK-PO157FE
TEL:44(0)845-2266 953
44(0)845-2266 954
FAX:44(0)845-2269 133
E-mail:info@cquip.com



France

Greement Import
BP284, 13 Rue Du chene lasse 44803
Saint Herblain France.
TEL:(33)228-030101
FAX:(33)228-031991
E-mail:commande@greementimport.fr



Italy

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FAX:39 0185 700900
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New Zealand

SO-PAC Marine LTD
41c William Pickering Drive, Albany
Auckland 0632, New Zealand.
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E-mail:sales@sopac.co.nz
Web:www.sopac.co.nz



UAE

**BROOK MARINE EQUIPMENT TRADING
COMPANY LLC**
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FAX:+971 4 324 4845
Mob:+971 52 8000909,+971 50 634 8533
E-mail:venu@brookmarine.com
www.brookmarine.com



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FAX:+49-(0)40-822994-70
E-mail:Info@sailtec.de



Sweden

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Granbua 221 473 96 Henan Sweden
TEL:46(0)304-360 30
E-mail:info@italnordic.se
www.italnordic.se



Holland

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Krommewetering 61A3543 AM
Utrecht, The Netherlands
TEL:31 30 240 8040
FAX:31 30 241 0832
E-mail:team@belship.nl



Turkey

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Batl Mah. Sahil Yolu
Istanbul City port Marinturk Marina B-11
34890 Pendik/Istanbul
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FAX:+90 216 511 2124



FROM MAN SHIP

Man Ship Machinery and Hardware Co., Ltd. is a well-known and respected manufacturer of chandlery and hardware for the international boatbuilding industry and watersport markets since 1982.

We are proud to say that Man Ship's quality fittings are found on many of the luxury pleasure boats that are exported from Taiwan each year.

In addition to supplying the O.E.M. market in Taiwan with marine chandlery, we also manufacture exclusive lines for many US based firms, as well as carry an expanding line of our own products.

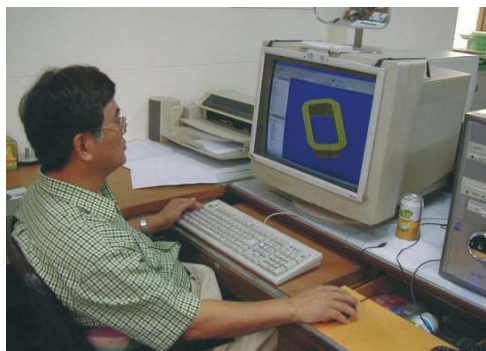
Our expanding product line includes stainless hatches, stainless portholes, stainless dorades, aluminum boat windows, and yacht fittings.

Our skilled craftsmen are fully experienced in producing one-off custom orders in stainless steel (grade 304 or 316), aluminum extrusions, aluminum castings, zinc and bronze castings.

Man Ship Machinery and Hardware is proud to back its products with a five years warranty for defective material and workmanship to the original consumer purchaser, provided the product has not been misused, altered, or damaged by an accident.

Should you have any questions about our product line, or want to discuss a specialized order, please contact our International Sales team or one of the local distributors nearest you.

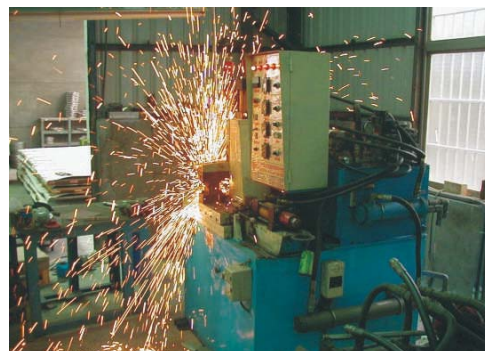
Ali Huang
Managing Director



Adopt the latest engineering Auto CAD software.



Use of advanced technique on Tungsten Inert Gas Welding.



Butt welding to ensure excellent welding results.



Strict quality inspection.



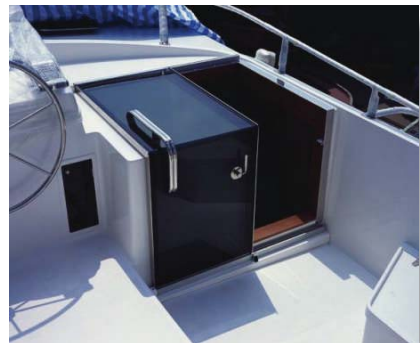
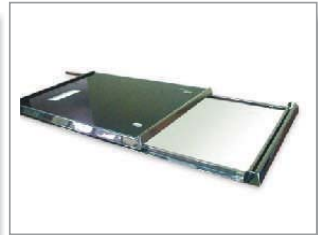
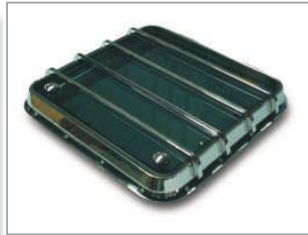
Expert craftsmen during the welding process.



Skilled & rigid glue work.

MULTI FUNCTION STAINLESS STEEL HATCHES

- Man Ship has the unique capability and skill to custom make stainless steel deck hatches of any shape and dimension.
- With just providing the cut-out size required and descriptions, we can provide technical drawings based on your information. Please contact your local distributor for more information.



SPECIAL SHAPE PORTLIGHTS

- Man Ship has the unique capability and skill to custom make stainless steel deck hatches of any shape and dimension.
- With just providing the cut-out size required and descriptions, we can provide technical drawings based on your information. Please contact your local distributor for more information.



FRICATIVE HINGE DECK HATCH



FRICATIVE HINGE PATENT IN MANY COUNTRIES

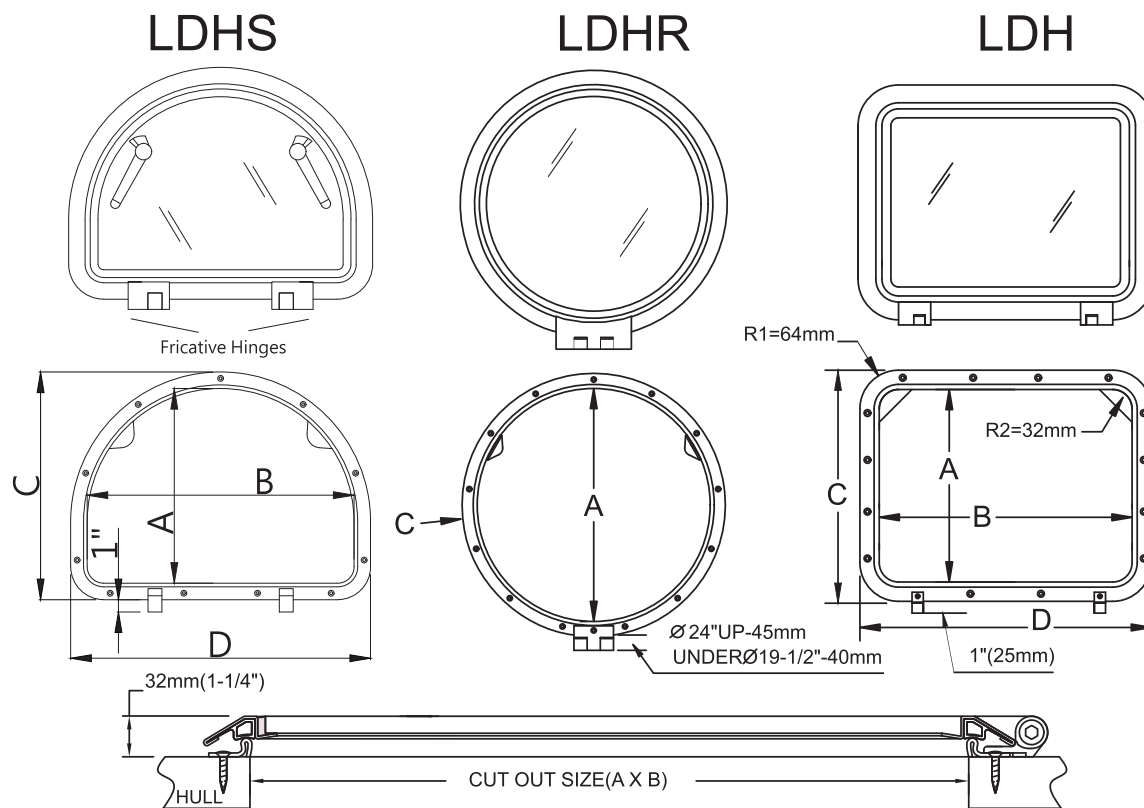
New patented design. Unique S/S 316 hinge.
Hatch can be opened at any degree without hatch arm support.
Easy open or close, water-tight, elegance & durability.

FEATURES

- **CE Approved. According to ISO/DIS 12216**
Deck Hatches are approved for Area II, III, and IV, designs for craft type "any" .
- No bolt holes showing, when hatch is closed.
- 316 stainless steel frames, hatch, and hinges. Hand polished and electro-polished to protect against corrosion. Frames and hatches are made from machine rolled stock to ensure strength and low weight.
- Tough, glare resistant grey acrylic tops.
- Gaskets are oil resistant Sanplane.
- Off-white powder coating are available.



Replace or adjust hatch hinge shaft:
First, pls use 1/8" spanner loosen two set screw inside hinge three turn.
Then use 10mm spanner to adjust both end of hinge patented screw.
After retighten to avoid shake.



● HATCHES SHOULD BE FITTED TO A FLAT SURFACE
WITH A MAXIMUM TOLERANCE OF $\pm 2\text{MM}$.

LDHR



◎ ANY SIZE FOR "A" 16½ - 31"

LDHS



◎ ANY SIZE FOR "B" 16½ - 31"

LDH-N



◎ ANY SIZE ARE AVAILABLE,
IF R=1¼" (32MM) REMAIN UNCHANGED

INSIDE OPENING

PART No.	SIZE		CUTOUT SIZE A		OVERALL SIZE C		ACRYLIC THICKNESS	WEIGHT
LDHR-40-I	16½	419	16½	419	19	483	½ 12	6.5KG
LDHR-50-I	19½	495	19½	495	22	559	½ 12	7.8KG
LDHR-60-I	24	610	24	610	26½	674	½ 12	10.4KG
LDHR-70-I	31	788	31	788	33½	852	½ 12	15.8KG

IN/MM

IN/OUTSIDE OPENING

PART No.	SIZE		CUTOUT SIZE A		OVERALL SIZE C		ACRYLIC THICKNESS	WEIGHT
LDHR-40-O	16½	419	16½	419	19	483	½ 12	6.6KG
LDHR-50-O	19½	495	19½	495	22	559	½ 12	7.9KG
LDHR-60-O	24	610	24	610	26½	674	½ 12	10.6KG
LDHR-70-O	31	788	31	788	33½	852	½ 12	16.0KG

IN/MM

INSIDE OPENING

PART No.	SIZE		A x B	C x D	ACRYLIC THICKNESS	WEIGHT
LDHS-50-I	20½	518mm	378mm x 518mm	442mm x 582mm	12mm	7KG
LDHS-60-I	21	530mm	430mm x 530mm	494mm x 594mm	12mm	8KG

IN/MM

IN/OUTSIDE OPENING

PART No.	SIZE		CUTOUT SIZE		OVERALL SIZE		ACRYLIC THICKNESS	WEIGHT
			A	B	C	D		
LDHS-50-O	20½	518mm	378mm x 518mm		442mm x 582mm		12mm	7.5KG
LDHS-60-O	21	530mm	430mm x 530mm		494mm x 594mm		12mm	9.5KG

IN/MM

INSIDE OPENING

PART No.	SIZE		CUTOUT SIZE				OVERALL SIZE				ACRYLIC THICKNESS		WEIGHT
			A		B		C		D				
LDH-N08-I	8 1⁄8 x 13 3⁄4	206 x 349	8 1⁄8	206	13 3⁄4	349	10 5⁄8	270	16 1⁄4	413	1 1⁄2	12	4.5KG
LDH-N10-I	10 x 10	254 x 254	10	254	10	254	12 1⁄2	318	12 1⁄2	318	1 1⁄2	12	4.2KG
LDH-N20-I	12 1⁄2 x 17 1⁄2	318 x 444	12 1⁄2	318	17 1⁄2	444	15	382	20	508	1 1⁄2	12	7.0KG
LDH-N30-I	14 1⁄2 x 19 1⁄2	369 x 495	14 1⁄2	369	19 1⁄2	495	17	433	22	559	1 1⁄2	12	8.0KG
LDH-N40-I	16 1⁄2 x 16 1⁄2	419 x 419	16 1⁄2	419	16 1⁄2	419	19	483	19	483	1 1⁄2	12	7.9KG
LDH-N50-I	19 1⁄2 x 19 1⁄2	495 x 495	19 1⁄2	495	19 1⁄2	495	22	559	22	559	1 1⁄2	12	10KG
LDH-N60-I	24 x 24	610 x 610	24	610	24	610	26 1⁄2	674	26 1⁄2	674	1 1⁄2	12	12.8KG
LDH-N70-I	31 x 31	788 x 788	31	788	31	788	33 1⁄2	852	33 1⁄2	852	1 1⁄2	12	19KG

IN/MM

IN/OUTSIDE OPENING

PART No.	SIZE		CUTOUT SIZE				OVERALL SIZE				ACRYLIC THICKNESS		WEIGHT
			A		B		C		D				
LDH-N08-O	8 ¹ / ₈ x 13 ³ / ₄	206 x 349	8 ¹ / ₈	206	13 ³ / ₄	349	10 ⁵ / ₈	270	16 ¹ / ₄	413	1 ¹ / ₂	12	4.6KG
LDH-N10-O	10 x 10	254 x 254	10	254	10	254	12 ¹ / ₂	318	12 ¹ / ₂	318	1 ¹ / ₂	12	4.3KG
LDH-N20-O	12 ¹ / ₂ x 17 ¹ / ₂	318 x 444	12 ¹ / ₂	318	17 ¹ / ₂	444	15	382	20	508	1 ¹ / ₂	12	7.1KG
LDH-N30-O	14 ¹ / ₂ x 19 ¹ / ₂	369 x 495	14 ¹ / ₂	369	19 ¹ / ₂	495	17	433	22	559	1 ¹ / ₂	12	8.5KG
LDH-N40-O	16 ¹ / ₂ x 16 ¹ / ₂	419 x 419	16 ¹ / ₂	419	16 ¹ / ₂	419	19	483	19	483	1 ¹ / ₂	12	8.3KG
LDH-N50-O	19 ¹ / ₂ x 19 ¹ / ₂	495 x 495	19 ¹ / ₂	495	19 ¹ / ₂	495	22	559	22	559	1 ¹ / ₂	12	10.4KG
LDH-N60-O	24 x 24	610 x 610	24	610	24	610	26 ¹ / ₂	674	26 ¹ / ₂	674	1 ¹ / ₂	12	13.0KG
LDH-N70-O	31 x 31	788 x 788	31	788	31	788	33 ¹ / ₂	852	33 ¹ / ₂	852	1 ¹ / ₂	12	19.2KG

IN/MM

LOW PROFILE DECK HATCH

FEATURES Patent no. 111103

- **CE Approved. According to ISO/DIS 12216**
Deck Hatches are approved for Area II , III , and IV ,
designs for craft type "any" .
- Low profile & elegant appearance.
- No bolt holes showing, when hatch is closed.
- 316 stainless steel frames, hatch, hatch arms and hinges. Hand polished and electro-polished to protect against corrosion. Frames and hatches are made from machine rolled stock to ensure strength and low weight.
- Positive easy to operate stainless arms allowing full 180 degree opening with pull-turn knobs to hold hatch open.
- Adjustable injection molded Nylon 66 handles.
- Set screw adjustment in each hinge to avoid hinge pins coming out.
- Tough, UV resistance of acrylics are available in grey (standard), clear and tint green
- Inside opening, inside/outside opening and double opening available.
- Inside/outside models with 100% Stainless Steel snag free handle.
- Double opening models with quick snap-release dogs and 100% stainless fast pins for easy and quick change of hinge location.
- Gaskets are oil resistant Sanplane.
- Off-white powder coating are available.
- Standard Arm can be changed to Gas arm if needed.

INSIDE OPENING



IN/OUTSIDE OPENING HATCH WITH LOCK



Acrylic colors available



Grey



Clear



Tint Green

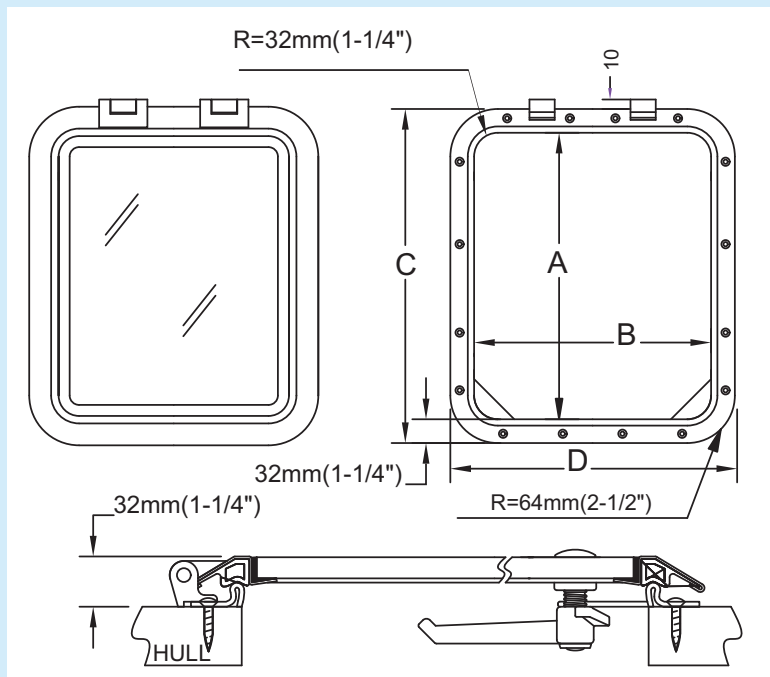
LOW PROFILE DECK HATCH



IN/OUTSIDE OPENING



DOUBLE OPENING



- ANY SIZE FOR "A" AND "B" AVAILABLE, IF $R = 1\frac{1}{4}$ " (32MM) REMAIN UNCHANGED.
- HATCHES SHOULD BE FITTED TO A FLAT SURFACE WITH A MAXIMUM TOLERANCE OF ± 2 MM.

INSIDE OPENING

PART No.	SIZE		CUTOUT SIZE		OVERALL		ACRYLIC THICKNESS	WEIGHT
			A	B	C	D		
LDH-08-I	8 $\frac{1}{8}$ x 13 $\frac{3}{4}$	206X349	8 $\frac{1}{8}$ 206	13 $\frac{3}{4}$ 349	10 $\frac{5}{8}$ 270	16 $\frac{1}{4}$ 413	$\frac{1}{2}$ 12	4.7KG
LDH-10-I	10 x 10	254X254	10 254	10 254	12 $\frac{1}{2}$ 318	12 $\frac{1}{2}$ 318	$\frac{1}{2}$ 12	4.4KG
LDH-20-I	12 $\frac{1}{2}$ x 17 $\frac{1}{2}$	318X444	12 $\frac{1}{2}$ 318	17 $\frac{1}{2}$ 444	15 382	20 508	$\frac{1}{2}$ 12	7.1KG
LDH-30-I	14 $\frac{1}{2}$ x 19 $\frac{1}{2}$	369X495	14 $\frac{1}{2}$ 369	19 $\frac{1}{2}$ 495	17 433	22 559	$\frac{1}{2}$ 12	8.1KG
LDH-40-I	16 $\frac{1}{2}$ x 16 $\frac{1}{2}$	419X419	16 $\frac{1}{2}$ 419	16 $\frac{1}{2}$ 419	19 483	19 483	$\frac{1}{2}$ 12	7.9KG
LDH-50-I	19 $\frac{1}{2}$ x 19 $\frac{1}{2}$	495X495	19 $\frac{1}{2}$ 495	19 $\frac{1}{2}$ 495	22 559	22 559	$\frac{1}{2}$ 12	10.0KG
LDH-60-I	24 x 24	610X610	24 610	24 610	26 $\frac{1}{2}$ 674	26 $\frac{1}{2}$ 674	$\frac{1}{2}$ 12	13.0KG
LDH-70-I	31 x 31	788X788	31 788	31 788	33 $\frac{1}{2}$ 852	33 $\frac{1}{2}$ 852	$\frac{1}{2}$ 12	19.2KG

IN/MM

IN/OUTSIDE OPENING

PART No.	SIZE		CUTOUT SIZE		OVERALL		ACRYLIC THICKNESS	WEIGHT
			A	B	C	D		
LDH-30-O	14 $\frac{1}{2}$ x 19 $\frac{1}{2}$	369X495	14 $\frac{1}{2}$ 369	19 $\frac{1}{2}$ 495	17 433	22 559	$\frac{1}{2}$ 12	8.3KG
LDH-40-O	16 $\frac{1}{2}$ x 16 $\frac{1}{2}$	419X419	16 $\frac{1}{2}$ 419	16 $\frac{1}{2}$ 419	19 483	19 483	$\frac{1}{2}$ 12	8.1KG
LDH-50-O	19 $\frac{1}{2}$ x 19 $\frac{1}{2}$	495X495	19 $\frac{1}{2}$ 495	19 $\frac{1}{2}$ 495	22 559	22 559	$\frac{1}{2}$ 12	10.2KG
LDH-60-O	24 x 24	610X610	24 610	24 610	26 $\frac{1}{2}$ 674	26 $\frac{1}{2}$ 674	$\frac{1}{2}$ 12	13.2KG
LDH-70-O	31 x 31	788X788	31 788	31 788	33 $\frac{1}{2}$ 852	33 $\frac{1}{2}$ 852	$\frac{1}{2}$ 12	19.6KG

*Please indicate inside locking or outside locking or w/o outside locker while ordering.

IN/MM

DOUBLE OPENING

PART No.	SIZE		CUTOUT SIZE		OVERALL		ACRYLIC THICKNESS	WEIGHT
			A	B	C	D		
LDH-50-D	19 $\frac{1}{2}$ x 19 $\frac{1}{2}$	495X495	19 $\frac{1}{2}$ 495	19 $\frac{1}{2}$ 495	22 559	22 559	$\frac{1}{2}$ 12	10.8KG
LDH-60-D	24 x 24	610X610	24 610	24 610	26 $\frac{1}{2}$ 674	26 $\frac{1}{2}$ 674	$\frac{1}{2}$ 12	14.3KG
LDH-70-D	31 x 31	788X788	31 788	31 788	33 $\frac{1}{2}$ 852	33 $\frac{1}{2}$ 852	$\frac{1}{2}$ 12	20.4KG

IN/MM

DECK HATCH



FEATURES

- **CE Approved. According to ISO/DIS 12216**
Deck Hatches are approved for Area II, III, and IV, designs for craft type "any".

- 316 stainless steel frames, hatch, hatch arms and hinges. Hand polished and electro-polished to protect against corrosion. Frames and hatches are made from machine rolled stock to ensure strength and low weight.
- Positive easy to operate stainless arms allowing full 180 degree opening with pull-turn knobs to hold hatch open.
- Adjustable injection molded Nylon 66 handles.
- Set screw adjustment in each hinge to adjust the proper pressure against the gasket.
- Tough, UV resistance of acrylics are available in grey (standard), clear and tint green.
- Inside opening, inside/outside opening and double opening available.
- Inside/outside models with 100% Stainless Steel snag free handle.
- Double opening models with quick snap-release dogs and 100% stainless fast pins for easy and quick change of hinge location.
- Gaskets are oil resistant Sanplane.
- Custom Deck Hatches are available.
- Off-white powder coating are available.



Luxury deck hatch with gas arm just opened to 90 degree



Stainless arm fasten easily just opened to 90 degree



Adjustable handle to ensure tightness



Set screw adjustable in hinge for tightness

INSIDE OPENING



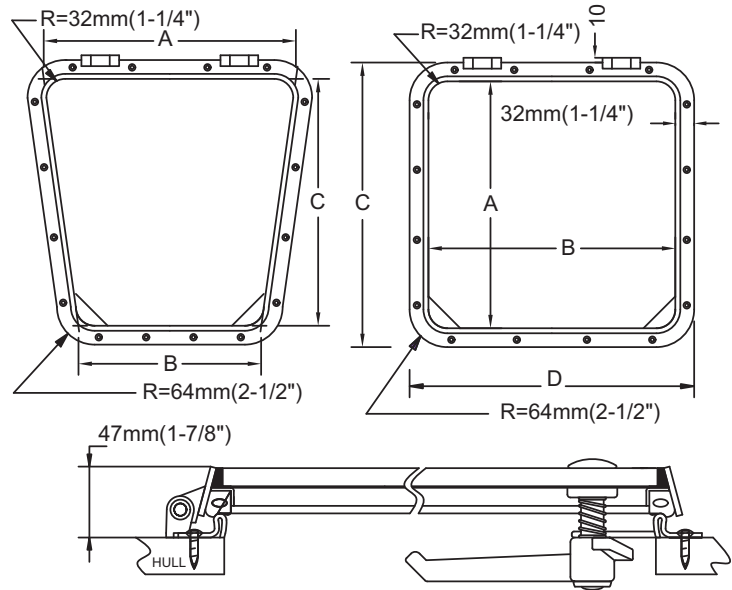
IN/OUTSIDE OPENING



DOUBLE OPENING



ROUND DECK HATCH INSIDE OPENING



- ANY SIZE ARE AVAILABLE, IF $R=1\frac{1}{4}$ " (32MM) REMAIN UNCHANGED
- HATCHES SHOULD BE FITTED TO A FLAT SURFACE WITH A MAXIMUM TOLERANCE OF ± 2 MM.

INSIDE OPENING

PART No.	SIZE	CUTOUT SIZE		OVERALL		ACRYLIC THICKNESS	WEIGHT
		A	B	C	D		
DH-08-I	$8\frac{1}{8} \times 13\frac{3}{4}$ 206X349	$8\frac{1}{8}$ 206	$13\frac{3}{4}$ 349	$10\frac{5}{8}$ 270	$16\frac{1}{4}$ 413	$\frac{5}{16}$ 8	4.4KG
DH-10-I	10 X10 254X254	10 254	10 254	$12\frac{1}{2}$ 318	$12\frac{1}{2}$ 318	$\frac{5}{16}$ 8	4.1KG
DH-20-I	$12\frac{1}{2} \times 17\frac{1}{2}$ 318X444	$12\frac{1}{2}$ 318	$17\frac{1}{2}$ 444	15 382	20 508	$\frac{1}{2}$ 12	7.6KG
DH-30-I	$14\frac{1}{2} \times 19\frac{1}{2}$ 369X495	$14\frac{1}{2}$ 369	$19\frac{1}{2}$ 495	17 433	22 559	$\frac{1}{2}$ 12	9.0KG
DH-40-I	$16\frac{1}{2} \times 16\frac{1}{2}$ 419X419	$16\frac{1}{2}$ 419	$16\frac{1}{2}$ 419	19 483	19 483	$\frac{1}{2}$ 12	8.6KG
DH-50-I	$19\frac{1}{2} \times 19\frac{1}{2}$ 495X495	$19\frac{1}{2}$ 495	$19\frac{1}{2}$ 495	22 559	22 559	$\frac{1}{2}$ 12	10.8KG
DH-60-I	24 X24 610X610	24 610	24 610	$26\frac{1}{2}$ 674	$26\frac{1}{2}$ 674	$\frac{1}{2}$ 12	13.8KG
DH-70-I	31 X31 788X788	31 788	31 788	$33\frac{1}{2}$ 852	$33\frac{1}{2}$ 852	$\frac{1}{2}$ 12	19.8KG

IN/MM

IN/OUTSIDE OPENING

PART No.	SIZE	CUTOUT SIZE		OVERALL		ACRYLIC THICKNESS	WEIGHT
		A	B	C	D		
DH-30-O	$14\frac{1}{2} \times 19\frac{1}{2}$ 369X495	$14\frac{1}{2}$ 369	$19\frac{1}{2}$ 495	17 433	22 559	$\frac{1}{2}$ 12	9.2KG
DH-40-O	$16\frac{1}{2} \times 16\frac{1}{2}$ 419X419	$16\frac{1}{2}$ 419	$16\frac{1}{2}$ 419	19 483	19 483	$\frac{1}{2}$ 12	8.8KG
DH-50-O	$19\frac{1}{2} \times 19\frac{1}{2}$ 495X495	$19\frac{1}{2}$ 495	$19\frac{1}{2}$ 495	22 559	22 559	$\frac{1}{2}$ 12	11KG
DH-60-O	24 X24 610X610	24 610	24 610	$26\frac{1}{2}$ 674	$26\frac{1}{2}$ 674	$\frac{1}{2}$ 12	14KG
DH-70-O	31 X31 788X788	31 788	31 788	$33\frac{1}{2}$ 852	$33\frac{1}{2}$ 852	$\frac{1}{2}$ 12	20KG

*Please indicate inside locking or outside locking or w/o outside locker while ordering.

IN/MM

DOUBLE OPENING

PART No.	SIZE	CUTOUT SIZE		OVERALL		ACRYLIC THICKNESS	WEIGHT
		A	B	C	D		
DH-50-D	$19\frac{1}{2} \times 19\frac{1}{2}$ 495X495	$19\frac{1}{2}$ 495	$19\frac{1}{2}$ 495	22 559	22 559	$\frac{1}{2}$ 12	12KG
DH-60-D	24 X24 610X610	24 610	24 610	$26\frac{1}{2}$ 674	$26\frac{1}{2}$ 674	$\frac{1}{2}$ 12	15KG
DH-70-D	31 X31 788X788	31 788	31 788	$33\frac{1}{2}$ 852	$33\frac{1}{2}$ 852	$\frac{1}{2}$ 12	21KG

IN/MM

ROUND DECK HATCH INSIDE OPENING

PART No.	SIZE		CUTOUT SIZE A		OVERALL C		ACRYLIC THICKNESS		WEIGHT
DHR-50-I	19 1/2	495	19 1/2	495	22	559	1/2	12	9KG
DHR-60-I	24	610	24	610	26 1/2	674	1/2	12	11.9KG

IN/MM



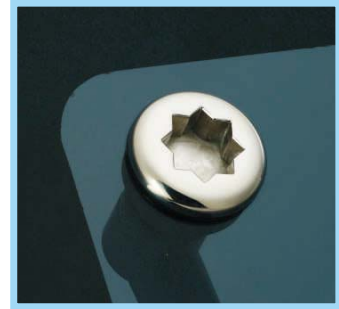
FRICATIVE HINGE FLUSH HATCH

Developed to withstand the effects of weather such as sun exposure, temperature fluctuations, rain, etc.

A modern hatch with an elegant stainless steel outer frame to strengthen and enclose the acrylic lens. Acrylic naturally warps under heat, but Man Ship's hatch will stand the test of time

NEW design & structure for Flush Hatch

- Outstanding resistance to long-term exposure to sunlight and weathering
- A sleek hatch option that is flush to your deck
- All stainless construction is grade Stainless Steel 316
- 12mm acrylic with UV resistivity, smoke grey, tanned, and clear colour options.
- Watertight hatch seal withstand a pressure of 5Mpa.
- Custom sizes available.(radius fixed)
- Max.size 24-11/16"x24-11/16"(627x627mm)

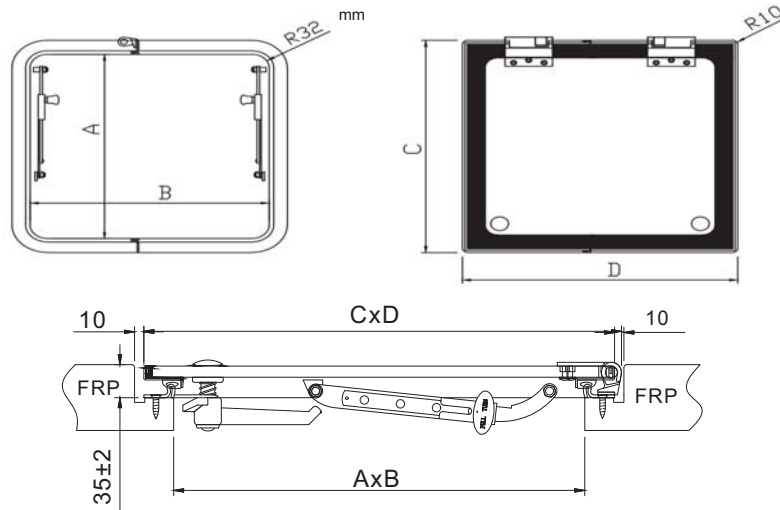


Star-shaped handle is available for inside/outside opening

INSIDE OPENING



IN/OUTSIDE OPENING



INSIDE OPENING

PART No.	CUTOUT SIZE		OVERALL		ACRYLIC THICKNESS	WEIGHT (Kg)
	A	B	C	D		
FDHA-15-I	15 ⁷ / ₁₆ 392mm	19 ⁵ / ₁₆ 507mm	18 ³ / ₁₆ 462mm	22 ¹¹ / ₁₆ 577mm	1/2 12	9
FDHA-17-I	17 ³ / ₈ 442mm	17 ³ / ₈ 442mm	20 ³ / ₁₆ 512mm	20 ³ / ₁₆ 512mm	1/2 12	9
FDHA-20-I	19 ¹⁵ / ₁₆ 507mm	19 ¹⁵ / ₁₆ 507mm	22 ¹¹ / ₁₆ 577mm	22 ¹¹ / ₁₆ 577mm	1/2 12	11
FDHA-24-I	24 ¹¹ / ₁₆ 627mm	24 ¹¹ / ₁₆ 627mm	27 1/2 697mm	27 1/2 697mm	1/2 12	13

IN/OUTSIDE OPENING

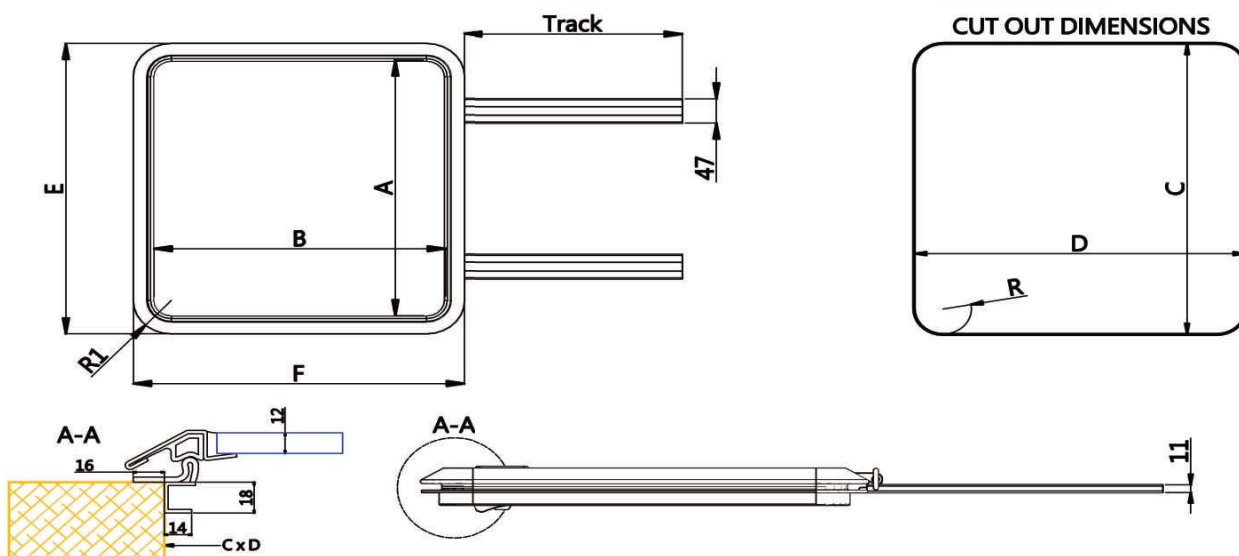
PART No.	CUTOUT SIZE		OVERALL		ACRYLIC THICKNESS	WEIGHT (Kg)
	A	B	C	D		
FDHA-15-O	15 ⁷ / ₁₆ 392mm	19 ⁵ / ₁₆ 507mm	18 ³ / ₁₆ 462mm	22 ¹¹ / ₁₆ 577mm	1/2 12	9
FDHA-17-O	17 ³ / ₈ 442mm	17 ³ / ₈ 442mm	20 ³ / ₁₆ 512mm	20 ³ / ₁₆ 512mm	1/2 12	9
FDHA-20-O	19 ¹⁵ / ₁₆ 507mm	19 ¹⁵ / ₁₆ 507mm	22 ¹¹ / ₁₆ 577mm	22 ¹¹ / ₁₆ 577mm	1/2 15	11
FDHA-24-O	24 ¹¹ / ₁₆ 627mm	24 ¹¹ / ₁₆ 627mm	27 1/2 697mm	27 1/2 697mm	1/2 15	13



PILOT HATCH

The Pilot Hatch is for the wheelhouse or cockpit canopy of a power craft, and the styling similar to Man Ship Low Profile Deck Hatch and Deck Hatch.

- 316 stainless steel Material.
- UV resistant acrylic.
- Opens up enclosed steering positions.
- Handle never moves out of reach
- Operated with a (sliding) handlebar to open/close.
- Can be opened with a 5cm gap when full ventilation is not required.
- Available in a range of acrylic colour and frame finishes for powder coating or polishing.
- Custom sizes available.



INSIDE OPENING

PART No.	MODEL A	MODEL B	CUT OUT C	CUT OUT D	R	OVERALL E	OVERALL F	R1	ACRYLIC	TRACK
SLDH-16	15 ⁵ / ₁₆ 389mm	15 ⁵ / ₁₆ 389mm	16 ⁹ / ₁₆ 421mm	16 ⁹ / ₁₆ 421mm	48mm	17 ⁷ / ₈ 453mm	17 ⁷ / ₈ 453mm	64mm	12mm	236mm
SLDH-19	18 ¹¹ / ₁₆ 475mm	18 ¹¹ / ₁₆ 475mm	19 ¹⁵ / ₁₆ 507mm	19 ¹⁵ / ₁₆ 507mm	48mm	21 ² / ₈ 539mm	21 ² / ₈ 539mm	64mm	12mm	322mm
SLDH-24	23 ⁷ / ₁₆ 595mm	23 ⁷ / ₁₆ 595mm	24 ¹¹ / ₁₆ 627mm	24 ¹¹ / ₁₆ 627mm	48mm	25 ¹⁵ / ₁₆ 659mm	25 ¹⁵ / ₁₆ 659mm	64mm	12mm	442mm
SLDH-30	27 ¹ / ₁₆ 688mm	29 ¹ / ₁₆ 738mm	28 ³ / ₈ 720mm	30 ⁵ / ₁₆ 770mm	48mm	29 ⁵ / ₈ 752mm	31 ⁹ / ₁₆ 802mm	64mm	12mm	585mm

IN/MM

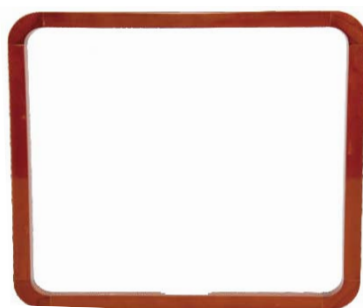


HATCH SKYSCREEN

- Hatch skyscreen is composed of an Aluminum 6061T5 frame, with rollers to choose between 2 cover options: a full fabric or a full insect screen cover.
- The fabric side is waterproof, blocks insects, and has 80% heat reflective properties.
- The insect screen will give maximum ventilation while preventing bugs and mosquitoes for entering the cabin.
- The dimensions follow standard Man Ship Frigate Hinge, Low Profile, and standard Deck Hatches, including some special dimensions.



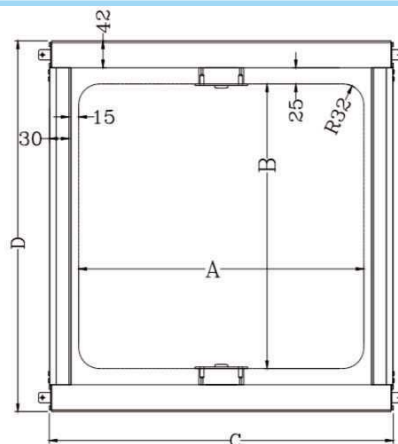
Hatch sky screen body



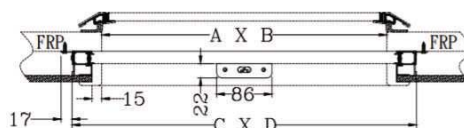
**Elegant wooden flange
(color available)**



Pull off/back motion button



OUTSIDE VIEW



INSIDE VIEW

PART No.	SIZE	CUTOUT SIZE		OVERALL SIZE	
		A	B	C	D
08	8 1/8 x 13 3/4	206 x 349	8 1/8 x 13 3/4	206 x 349	11 5/8 x 19
10	10 x 10	254 x 254	10 x 10	254 x 254	13 9/16 x 15 1/4
20	12 1/2 x 17 1/2	318 x 444	12 1/2 x 17 1/2	318 x 444	16 1/16 x 22 3/4
30	14 1/2 x 19 1/2	369 x 495	14 1/2 x 19 1/2	369 x 495	18 1/16 x 24 3/4
40	16 1/2 x 16 1/2	419 x 419	16 1/2 x 16 1/2	419 x 419	20 1/16 x 21 3/4
50	19 1/2 x 19 1/2	495 x 495	19 1/2 x 19 1/2	495 x 495	23 x 24 3/4
60	24 x 24	610 x 610	24 x 24	610 x 610	27 9/16 x 29 5/16
70	31 x 31	788 x 788	31 x 31	788 x 788	34 9/16 x 36 5/16

HATCH SPARE PARTS

HANDLE for inside / double open hatch		HANDLE for in / outside hatch	
H 101 DH H 101 LDH H 102 12mm H 103 H 104S DH H 104L LDH H 105R H 105L H 106 H 107	inside handle assy 12 H 105R H 105L	H 201-1 DH H 201-1 LDH H 201 DH H 201 LDH H 202 12mm H 203 H 204-1 (3-5pcs) Acrylic Thickness H 204 H 205R H 205L H 106 H 107	In/outside Handle Assy H 205R H 205L
H 209 HINGE PIN for hatch double open		H 201 - 1 (LDH) H 201 (LDH) H 201 - 1 (DH) H 201 (DH)	
H 109 HINGE PIN for hatch inside open		H 301L H 301R H 302R H 303R	
HATCH Pneumatic rod 343mm 146mm 8.5			
LBS	APPLIED TO HATCHES		
12NA	14 ¹ / ₂ " x 19 ¹ / ₂ " (369x419mm) 16 ¹ / ₂ " x 16 ¹ / ₂ " (419x419mm)		
15NA	19 ¹ / ₂ " x 19 ¹ / ₂ " (495x495mm) 24" x 24" (610x610mm)		
20NA	31" x 31" (788x788mm)		
Hatch Rubber	LDH	DH	FDH
DH / FDH / Provide foot for full-length			
LENGTH	APPLIED TO LDH HATCHES		
2400 mm	8 ¹ / ₈ " x 13 ³ / ₄ " (206x349mm)=0.5pcs 24 ¹ / ₂ " x 24 ¹ / ₂ " (610x610mm)=1pcs 10" x 10" (254x254mm)=0.5pcs 24" (Ø 610mm)=1pcs		
1990 mm	14 ¹ / ₂ " x 19 ¹ / ₂ " (369x419mm)=1pcs 19 ¹ / ₂ " x 19 ¹ / ₂ " (495x495mm)=1pcs Ø16 ¹ / ₂ " (Ø 419mm)=1pcs		
1730 mm	16 ¹ / ₂ " x 16 ¹ / ₂ " (787x787mm)=1pcs 12 ¹ / ₂ " x 12 ¹ / ₂ " (318x445mm)=1pcs 31" x 31" (787x787mm)=2pcs Ø16 ¹ / ₂ " (Ø 419mm)=1pcs		

PORTLIGHTS



LS, LSO, LSR, LO, LE, LR (Model No.0512-0818) adopt Anti-UV, Anti-rubbing. Polycarbonate sheet clear 8mm without storm cover that meet with CE approval. Then its part no. will become PLS, PLSO, PLSR, PLO, PLE, PLR for ordering. According to ISO/DIS 12216 for Area I II III IV designs for craft type "any".

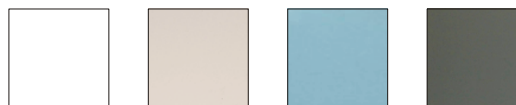
- **CE Approved. According to ISO/DIS 12216**
LS, LSO, LSR type are approved for Area III, IV, designs for craft type "any".
CLS, CLSO, CLSR type approved for Area I, II, III, and IV, designs for craft type "any".

- 316 stainless steel machined rolled frames hand polished and electro polished to provide long lasting protection against corrosion.
- Cast 316 stainless steel hinges with set screw to adjust gasket pressure.
- Weather resistant thermo-plastic Sanplane gasket.
- High Strength tempered clear glass.
- Optional fiberglass screens with rubber gaskets to ensure a tight fit on the inside of the opening port.
- Straight or angled spigots available.
- Off-white powder coating available.
- Standard ports are with plastic black knob as closing handle. This handle can be changed into s/s ring.
- Fixed or removable storm cover available.



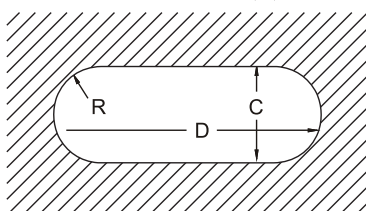
Additional "STAY" can be added, if you like.

Glass colors available

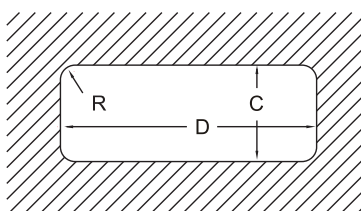


(Standard) Clear Tanned Tint blue Tint Grey

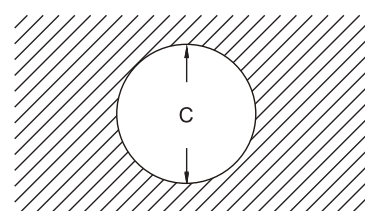
C x D-CUTOUT SIZE



OVAL PORTHOLES



RECTANGULAR PORTHOLES

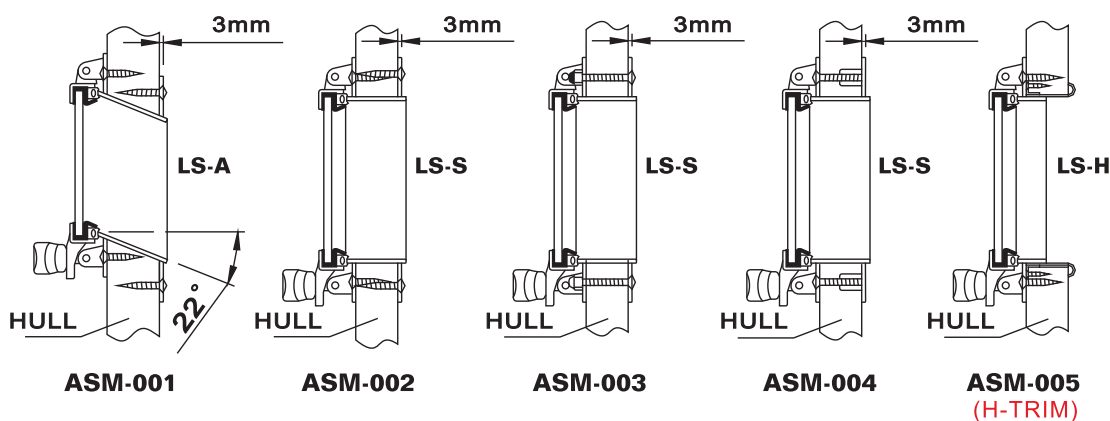


ROUND PORTHOLES



HOW TO FIX THE PORTLIGHT

- These are options for models LS, LSO, LSR, CLS, CLSO, CLSR, FLS, FLSO, & FLSR
- For LS-H, CLS-H, LSO-H, CLSO-H, CSR-H, CLSR-H must installed via ASM-005 only



※ To order Man Ship portlights, please take note below

1. All the models in catalog are standard. Pls advise model no, and spigot G when ordering.
2. For custom portlights, cut-out sizes and the spigot (G) dimension are required
3. Optional items, please indicate preferences when ordering:
 - A. Standard installation method is ASM-001 or ASM-002. Upgrade options: ASM-003 or ASM-004
 - B. Colored glass: tanned, tint blue, tint green (Standard glass: clear)
 - C. Parts-(a) Stainless steel ring dog (b) Stay (c) Screen
 - D. Powder coating (off-white/pure white/black) or Titanium plated (Golden color)

OPTIONAL PARTS (for ports)

Pls inform the size A x B of ports while ordering. We will offer suitable parts to your need.



(a) Stainless steel ring dog.



(b) "Stay" can be opened at any degree.
If order Stay, pls must advise the dimensions of ports.



(c) Screen



FRICATIVE HINGE PORTLIGHTS

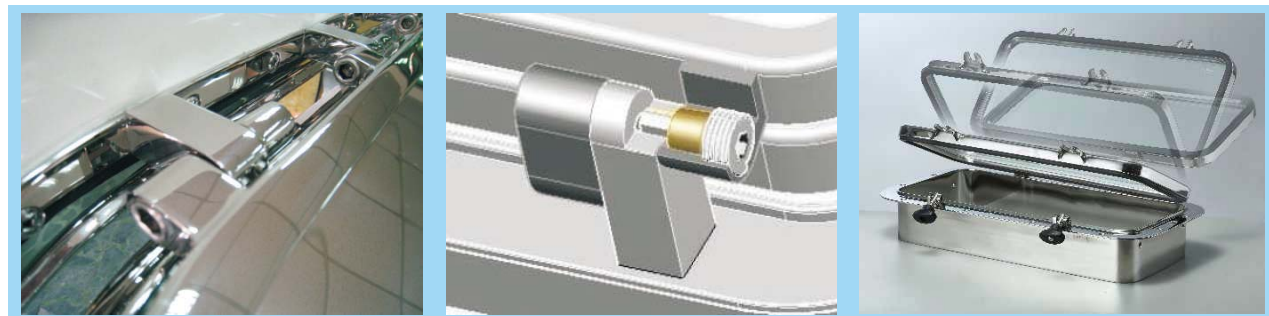
please note hinge in the order

FRICATIVE HINGE PATENT IN MANY COUNTRIES



If you order the portlight with fricative hinge,
No need to install a stay or port hook
to keep your portlight open

- New patented design: unique SS 316 fricative hinge.
- New portlight can be opened at any degree, including an impressive 180 degree, without a hatch arm or port hook for a clean and elegant look.
- Storm cover easily installed and removed. It also can be adjusted for gasket water tightness.



Fricative hinges can be applied to the following model and dimensions
Modern portlight can be applied in the following model and dimension.

- Opening ports: LS, LSO, LSR, CLS, CLSO, CLSR
TLS, TLSO, TLSR, CTLS, CTLSO, CTLSR
LS-H, LSO-H, LSR-H, CLS-H, CLSO-H
CLSR-H, LO, CLO
- Dimension: Small portlight Model Number 0512-0818
Big portlight Model Number 1020-1228
Special dimension: If there is no portlight models size in the catalogue,
Please inform the Model No, the dimension and spigot.

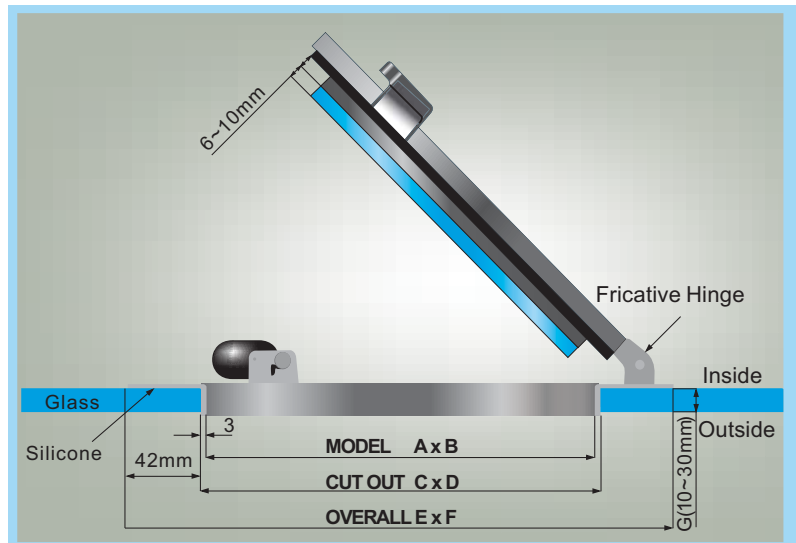
GLASS IN GLASS PORTLIGHT (CUSTOM MADE)



Man Ship has developed a new flush portlight which can be installed inset and flush within a glass window. Designed to give an elegant touch without any visible screws.

Features

- All Stainless steel 316 material with high quality mirror polish.
- With certificate of grant of Patent-Man ship Fricative Hinge.
- Glass portlight flush design which can be installed directly inset within a glass window.
- Wide range of size and shape available.
- Watertight function which passed the watertight test for 6 meter level.



RECTANGULAR OPENING PORTS



Rectangular opening ports



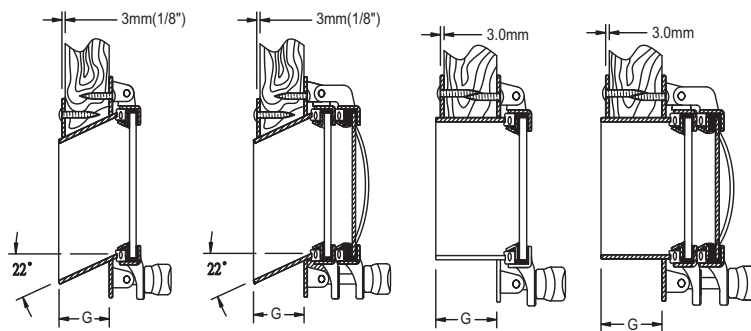
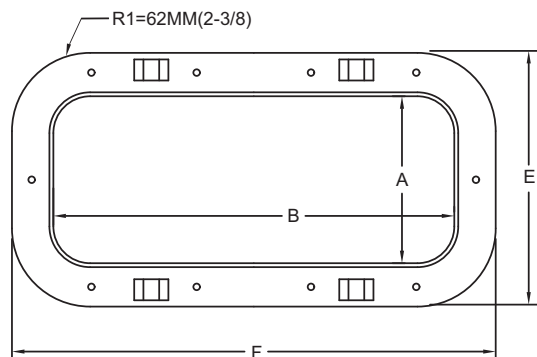
LS Rect. Portholes / boat outside view



Rect port with storm cover.

RECTANGULAR OPENING PORTS - ANGLED SPIGOT

MODEL No.		A x B MODEL	C x D CUT OUT SIZE		E x F OVERALL		R	R1	GLASS THICKNESS
W/O COVER	W/COVER								
LS-0512A		5X12 127X305	5 1/4 X 12 1/8	133x307	7 5/8 X 14 1/2	193x368	1 1/4 32	2 3/8 62	1/4 6
LS-0714A		7X14 178X356	7 1/4 X 14 1/4	184x362	9 5/8 X 16 5/8	244x422	1 1/4 32	2 3/8 62	1/4 6
LS-0716A	CLS-0716A	7X16 178X406	7 1/4 X 16 1/4	184x413	9 5/8 X 18 5/8	244x473	1 1/4 32	2 3/8 62	1/4 6
LS-0718A	CLS-0718A	7X18 178X457	7 1/4 X 18 1/4	184x464	9 5/8 X 20 5/8	244x524	1 1/4 32	2 3/8 62	1/4 6
LS-0816A	CLS-0816A	8X16 203X406	8 1/4 X 16 1/4	210x413	10 5/8 X 18 5/8	269x473	1 1/4 32	2 3/8 62	1/4 6
LS-0818A	CLS-0818A	8X18 203X457	8 1/4 X 18 1/4	210x464	10 5/8 X 20 5/8	269x524	1 1/4 32	2 3/8 62	1/4 6
LS-1020A	CLS-1020A	10X20 254X508	10 3/8 X 20 3/8	262x516	12 7/8 X 22 7/8	327x581	1 1/4 32	2 1/2 65	3/8 10
LS-1024A	CLS-1024A	10X24 254X609	10 3/8 X 24 3/8	262x617	12 7/8 X 26 7/8	327x682	1 1/4 32	2 1/2 65	3/8 10
LS-1224A	CLS-1224A	12X24 305X609	12 3/8 X 24 3/8	313x617	14 7/8 X 26 7/8	378x682	1 1/4 32	2 1/2 65	3/8 10
LS-1228A	CLS-1228A	12X28 305X710	12 3/8 X 28 3/8	313x718	14 7/8 X 30 7/8	378x784	1 1/4 32	2 1/2 65	3/8 10



RECTANGULAR OPENING PORTS - STRAIGHT SPIGOT

MODEL No.		A x B MODEL	C x D CUT OUT SIZE		E x F OVERALL		R	R1	GLASS THICKNESS
W/O COVER	W/COVER								
LS-0512S		5X12 127X305	5 1/4 X 12 1/8	133x307	7 5/8 X 14 1/2	193x368	1 1/4 32	2 3/8 62	1/4 6
LS-0714S		7X14 178X356	7 1/4 X 14 1/4	184x362	9 5/8 X 16 5/8	244x422	1 1/4 32	2 3/8 62	1/4 6
LS-0716S	CLS-0716S	7X16 178X406	7 1/4 X 16 1/4	184x413	9 5/8 X 18 5/8	244x473	1 1/4 32	2 3/8 62	1/4 6
LS-0718S	CLS-0718S	7X18 178X457	7 1/4 X 18 1/4	184x464	9 5/8 X 20 5/8	244x524	1 1/4 32	2 3/8 62	1/4 6
LS-0816S	CLS-0816S	8X16 203X406	8 1/4 X 16 1/4	210x413	10 5/8 X 18 5/8	269x473	1 1/4 32	2 3/8 62	1/4 6
LS-0818S	CLS-0818S	8X18 203X457	8 1/4 X 18 1/4	210x464	10 5/8 X 20 5/8	269x524	1 1/4 32	2 3/8 62	1/4 6
LS-1020S	CLS-1020S	10X20 254X508	10 3/8 X 20 3/8	262x516	12 7/8 X 22 7/8	327x581	1 1/4 32	2 1/2 65	3/8 10
LS-1024S	CLS-1024S	10X24 254X609	10 3/8 X 24 3/8	262x617	12 7/8 X 26 7/8	327x682	1 1/4 32	2 1/2 65	3/8 10
LS-1224S	CLS-1224S	12X24 305X609	12 3/8 X 24 3/8	313x617	14 7/8 X 26 7/8	378x682	1 1/4 32	2 1/2 65	3/8 10
LS-1228S	CLS-1228S	12X28 305X710	12 3/8 X 28 3/8	313x718	14 7/8 X 30 7/8	378x784	1 1/4 32	2 1/2 65	3/8 10

IN/MM

- Standard angled spigot size "G" available 1 1/4" 32mm · 1 1/2" 38mm · 2" 51mm · 2 1/2" 63mm · 3" 76mm · 3 1/2" 89mm
- Special spigot size "G" available from 1" 25.4mm ~ 5" 127mm
- Custom sizes available if Radius (R & R1) are kept unchanged.
- The spigot height are needed, while ordering.
- CLS-0716~CLS-1228 are with elegant arc storm cover.

OVAL OPENING PORTHOLES



Oval opening portholes.



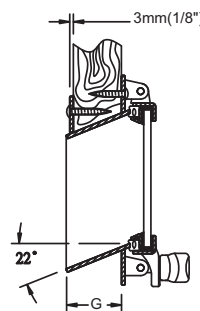
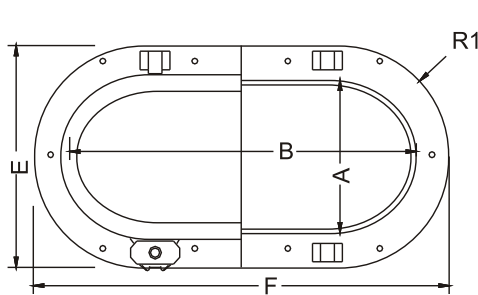
LSO Oval portholes / boat outside view



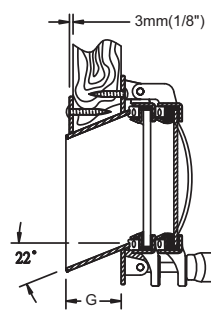
Oval opening portlight with storm cover.

OVAL OPENING PORTS - ANGLED SPIGOT

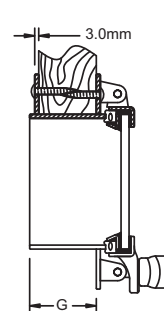
MODEL No.		A x B		C x D		E x F		R	R1	GLASS THICKNESS
W/O COVER	W/COVER	MODEL		CUT OUT SIZE		OVERALL				
LSO-0512A		5X12	127X305	5 1/4 X 12 1/8	133x307	7 5/8 X 14 1/2	193x368	2 5/8 67	3 7/8 98	5/16 8
LSO-0714A		7X14	178X356	7 1/4 X 14 1/4	184x362	9 5/8 X 16 5/8	244x422	3 5/8 92	4 7/8 124	5/16 8
LSO-0716A	CLSO-0716A	7X16	178X406	7 1/4 X 16 1/4	184x413	9 5/8 X 18 5/8	244x473	3 5/8 92	4 7/8 124	5/16 8
LSO-0718A	CLSO-0718A	7X18	178X457	7 1/4 X 18 1/4	184x464	9 5/8 X 20 5/8	244x524	3 5/8 92	4 7/8 124	5/16 8
LSO-0816A	CLSO-0816A	8X16	203X406	8 1/4 X 16 1/4	210x413	10 5/8 X 18 5/8	269x473	4 1/8 104	5 3/8 137	5/16 8
LSO-0818A	CLSO-0818A	8X18	203X457	8 1/4 X 18 1/4	210x464	10 5/8 X 20 5/8	269x524	4 1/8 104	5 3/8 137	5/16 8
LSO-1020A	CLSO-1020A	10X20	254X508	10 3/8 X 20 3/8	262x516	12 7/8 X 22 7/8	327x581	5 1/8 131	6 3/8 164	3/8 10
LSO-1024A	CLSO-1024A	10X24	254X609	10 3/8 X 24 3/8	262x617	12 7/8 X 26 7/8	327x682	5 1/8 131	6 3/8 164	3/8 10
LSO-1224A	CLSO-1224A	12X24	305X609	12 3/8 X 24 3/8	313x617	14 7/8 X 26 7/8	378x682	6 1/8 157	7 3/8 190	3/8 10
LSO-1228A	CLSO-1228A	12X28	305X710	12 3/8 X 28 3/8	313x718	14 7/8 X 30 7/8	378x784	6 1/8 157	7 3/8 190	3/8 10



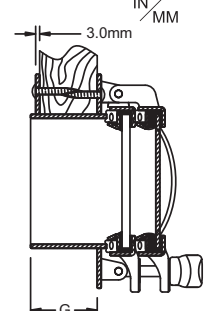
LSO-XXXXA



CLSO-XXXXA



LSO-XXXXS



CLSO-XXXXS

IN/MM

OVAL OPENING PORTS - STRAIGHT SPIGOT

MODEL No.		A x B		C x D		E x F		R	R1	GLASS THICKNESS
W/O COVER	W/COVER	MODEL		CUT OUT SIZE		OVERALL				
LSO-0512S		5X12	127X305	5 1/4 X 12 1/8	133x307	7 5/8 X 14 1/2	193x368	2 5/8 67	3 7/8 98	5/16 8
LSO-0714S		7X14	178X356	7 1/4 X 14 1/4	184x362	9 5/8 X 16 5/8	244x422	3 5/8 92	4 7/8 124	5/16 8
LSO-0716S	CLSO-0716S	7X16	178X406	7 1/4 X 16 1/4	184x413	9 5/8 X 18 5/8	244x473	3 5/8 92	4 7/8 124	5/16 8
LSO-0718S	CLSO-0718S	7X18	178X457	7 1/4 X 18 1/4	184x464	9 5/8 X 20 5/8	244x524	3 5/8 92	4 7/8 124	5/16 8
LSO-0816S	CLSO-0816S	8X16	203X406	8 1/4 X 16 1/4	210x413	10 5/8 X 18 5/8	269x473	4 1/8 104	5 3/8 137	5/16 8
LSO-0818S	CLSO-0818S	8X18	203X457	8 1/4 X 18 1/4	210x464	10 5/8 X 20 5/8	269x524	4 1/8 104	5 3/8 137	5/16 8
LSO-1020S	CLSO-1020S	10X20	254X508	10 3/8 X 20 3/8	262x516	12 7/8 X 22 7/8	327x581	5 1/8 131	6 3/8 164	3/8 10
LSO-1024S	CLSO-1024S	10X24	254X609	10 3/8 X 24 3/8	262x617	12 7/8 X 26 7/8	327x682	5 1/8 131	6 3/8 164	3/8 10
LSO-1224S	CLSO-1224S	12X24	305X609	12 3/8 X 24 3/8	313x617	14 7/8 X 26 7/8	378x682	6 1/8 157	7 3/8 190	3/8 10
LSO-1228S	CLSO-1228S	12X28	305X710	12 3/8 X 28 3/8	313x718	14 7/8 X 30 7/8	378x784	6 1/8 157	7 3/8 190	3/8 10

IN/MM

- Standard angled spigot size "G" available 1 1/4" 32mm · 1 1/2" 38mm · 2" 51mm · 2 1/2" 63mm · 3" 76mm · 3 1/2" 89mm
- Special spigot size "G" available from 1" 25.4mm ~ 5" 127mm
- Custom sizes available if Radius (R & R1) are kept unchanged.
- The spigot height are needed, while ordering.
- CLS-0716~CLS-1228 are with elegant arc storm cover.

ROUND OPENING PORTHOLES



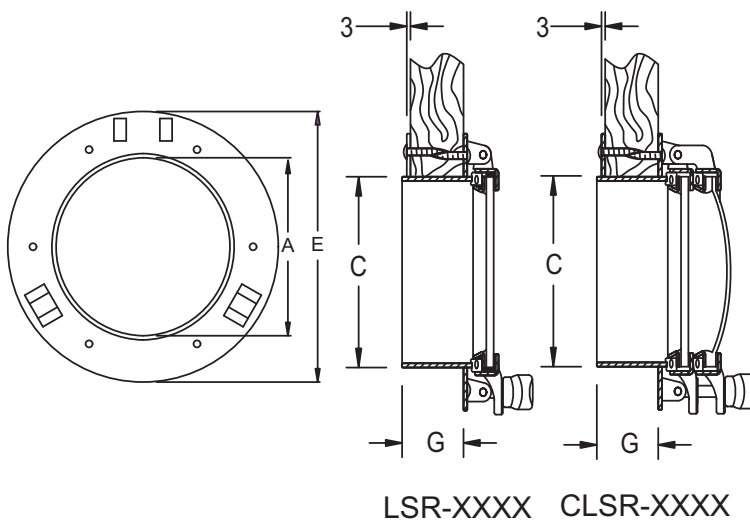
Round opening ports



LSR Round Portholes / boat outside view



Round ports with storm cover



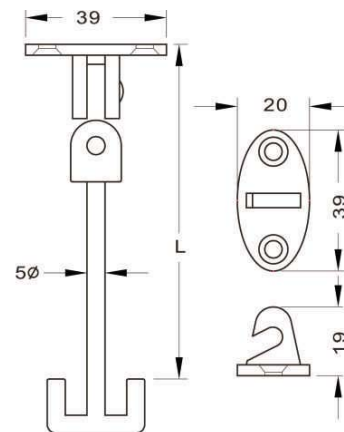
ROUND OPENING PORTHOLES

MODEL No.	A		C		E		GLASS THICKNESS
	W/O COVER	W/COVER	MODEL	CUT OUT SIZE	OVERALL		
LSR-0700	7	178	7 1/4	184	9 5/8	244	5/16 8
LSR-0800	8	203	8 1/4	210	10 5/8	269	5/16 8
LSR-1000	10	254	10 3/8	262	12 7/8	327	3/8 10
LSR-1200	12	305	12 3/8	311	14 7/8	378	3/8 10
LSR-1400	14	356	14 3/8	365	16 7/8	431	3/8 10

IN/MM

1. Standard spigot size
"G" available 1 1/4" · 1 1/2" · 2" · 2 1/2" · 3" · 3 1/2"
2. Special spigot size "G" available from 1"~5"
3. The spigot height are needed, while ordering.
4. CLSR-0700~CLSR-1400 are with elegant arc storm cover.

PORT HOOK

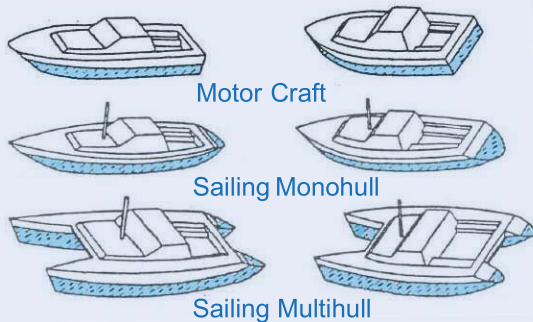


Standard size (L): 3", 4", 5", 6" & custom size available.

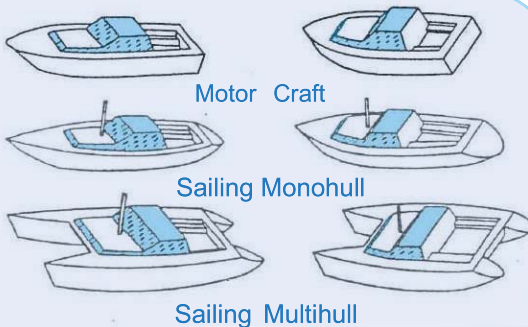
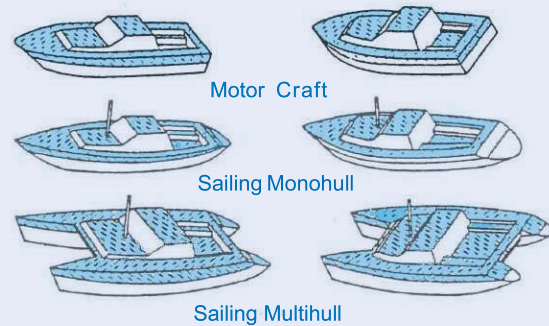
HATCH & PORTLIGHT CE REGULATIONS

CE AREAS

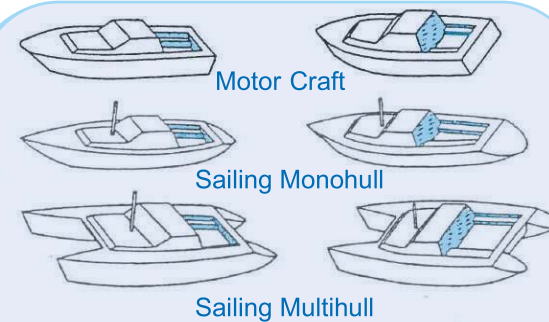
CE Areas1 Part of the hull sides situated above the waterline.



CE Areas2 Any Area other than Area 1 where persons are liable to walk or step.



CE Areas3 Any Area other than Area 1 or 2. For example superstructures.



CE Areas4 Parts of Area 3 protected from the impact of sea or assault waves. For example cockpit sides and rear faces of superstructures.

CE APPROVAL

- The CE Regulations apply to craft up to 24m in length that are sold in the European Union. Although the regulations may not apply to your boat, they are a useful guide for small craft throughout the world.
- ManSHIP warranty portlights and hatches are installed in CE areas 1.2.3.4, Can't be installed in unexpected places, otherwise the warranty is invalid.
- ManSHIP hatches and portlights are both apply to Design Category A (Ocean Sailing) or Design Category B (Offshore Sailing). It's manufactured according to CE regulations and passed DNV CE certification, The regulations divide up the hull and deck into four specific "Areas".
 - A. Hatches and portlights which is suitable for fitting to an area "1" "that the product is suitable for installation in any area.
 - B. The product that is approved for area 2 may also fitted to area 3, and 4, not area 1
- All sailboats, machine ships, ocean sailing boats (Category A) and offshore sailing boats (Category B) . No glass or tempered glass should be used for portlights installed in areas 1, 2 (unless it is bulletproof glass) It must be equipped with a standard metal explosion-proof cover before it can be used in areas 1, 2
- Hatch material in CE has special regulations, do not use glass or tempered glass (unless it is bulletproof glass)

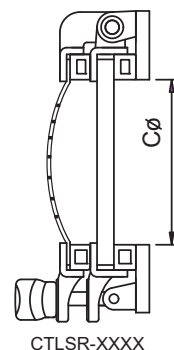
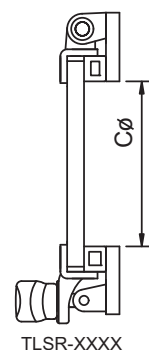
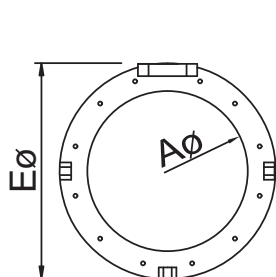
HEAVY DUTY PORTS

Suitable for steel boat and Aluminum boat.

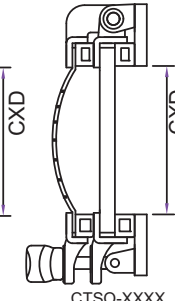
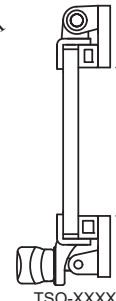
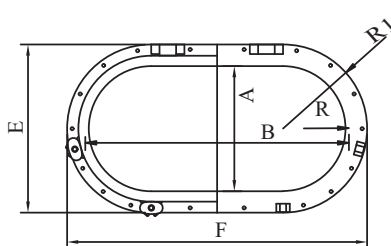
- **CE Approved. According to ISO / DIS 12216**

TLS, TLSO, TLSR type are applied to Area III, IV. Designs for craft type "any".

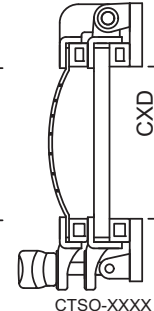
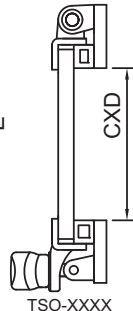
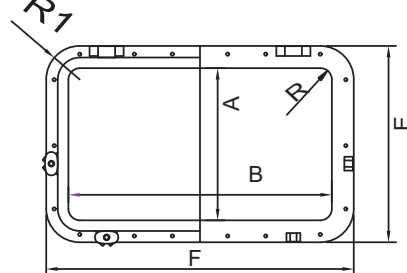
CTLS, CTLSO, CTLSR type are applied to Area I, II, III, IV. Designs for craft type "any".



MODEL No.		A x B MODEL	C x D CUT OUT SIZE		E x F OVERALL		GLASS THICKNESS	
W/O COVER	W/COVER							
TLSR-1000	CTLSR-1000	10 254	10	254	13 5/16	338	3/8	10
TLSR-1200	CTLSR-1200	12 305	12	305	15 5/16	389	3/8	10
TLSR-1400	CTLSR-1400	14 356	14	356	17 5/16	440	3/8	10



MODEL No.		A x B MODEL	C x D CUT OUT SIZE		E x F OVERALL		R	R1	GLASS THICKNESS
W/O COVER	W/COVER								
TLSO-1020	CTLSO-1020	10X20 254X508	10X20	254X508	13 5/16 X 23 5/16	338x592	5 127	6 5/8 169	3/8 10
TLSO-1024	CTLSO-1024	10X24 254X609	10X24	254X609	13 5/16 X 27 5/16	338x694	5 127	6 5/8 169	3/8 10
TLSO-1224	CTLSO-1224	12X24 305X609	12X24	305X609	15 5/16 X 27 5/16	389x694	6 152	7 5/8 194	3/8 10
TLSO-1228	CTLSO-1228	12X28 305X710	12X28	305X710	15 5/16 X 31 5/16	389x795	6 152	7 5/8 194	3/8 10

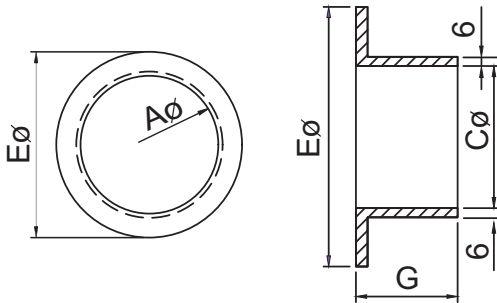


MODEL No.		A x B MODEL	C x D CUT OUT SIZE		E x F OVERALL		R	R1	GLASS THICKNESS
W/O COVER	W/COVER								
TLS-1020	CTLS-1020	10X20 254X508	10X20	254X508	13 5/16 X 23 5/16	338x592	2" 50	3 5/8 92	3/8 10
TLS-1024	CTLS-1024	10X24 254X609	10X24	254X609	13 5/16 X 27 5/16	338x694	2" 50	3 5/8 92	3/8 10
TLS-1224	CTLS-1224	12X24 305X609	12X24	305X609	15 5/16 X 27 5/16	389x694	2" 50	3 5/8 92	3/8 10
TLS-1228	CTLS-1228	12X28 305X710	12X28	305X710	15 5/16 X 31 5/16	389x795	2" 50	3 5/8 92	3/8 10

IN/MM

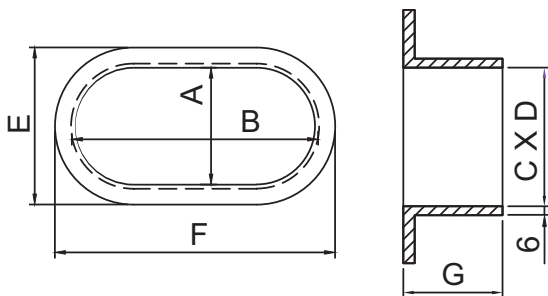
HEAVY DUTY PORTS (G)

1. Install with heavy duty ports spigot and weld on the hull spigot (G). Stainless Steel (316) and Aluminum (5052) are available.
2. Standard angled spigot size "G" available 1-1/4" (32mm), 1-1/2" (38mm), 2" (51mm), 2-1/2" (63mm), 3" (76mm), 3-1/2" (89mm).
3. Special spigot size "G" available form 1" (25.4mm)~6" (152mm).
4. Custom sizes available if Radius (R&R1) are kept unchanged.
5. The spigot height are needed, while ordering.



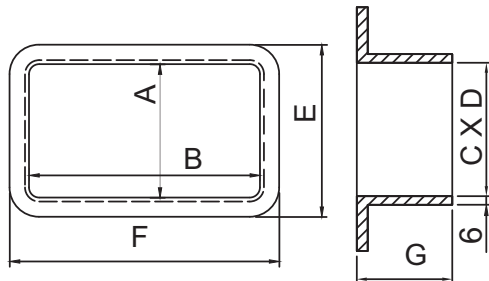
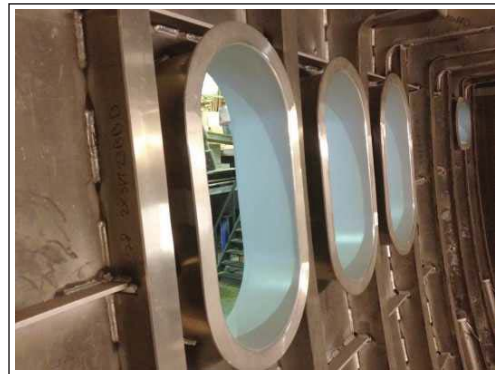
MODEL NO .		A MODEL		E OVER ALL	
TLSR-1000G	CTLSR-1000G	10	254	13-5/16	338
TLSR-1200G	CTLSR-1200G	12	305	15-5/16	389
TLSR-1400G	CTLSR-1400G	14	356	17-5/16	440

IN/MM



MODEL NO .		A x B MODEL		E x F OVER ALL	
TLSO-1020G	CTLSO-1020G	10X20	254X508	13-5/16X23-5/16	338X592
TLSO-1024G	CTLSO-1024G	10X24	254X609	13-5/16X27-5/16	338X694
TLSO-1224G	CTLSO-1224G	12X24	305X609	15-5/16X27-5/16	389X694
TLSO-1228G	CTLSO-1228G	12X28	305X710	15-5/16X31-5/16	389X795

IN/MM



MODEL NO .		A x B MODEL		E x F OVER ALL	
TLS-1020G	CTLS-1020G	10X20	254X508	13-5/16X23-5/16	338X592
TLS-1024G	CTLS-1024G	10X24	254X609	13-5/16X27-5/16	338X694
TLS-1224G	CTLS-1224G	12X24	305X609	15-5/16X27-5/16	389X694
TLS-1228G	CTLS-1228G	12X28	305X710	15-5/16X31-5/16	389X795



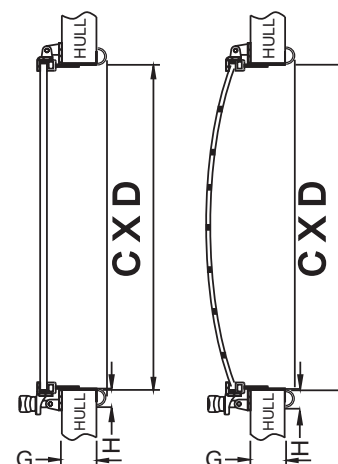
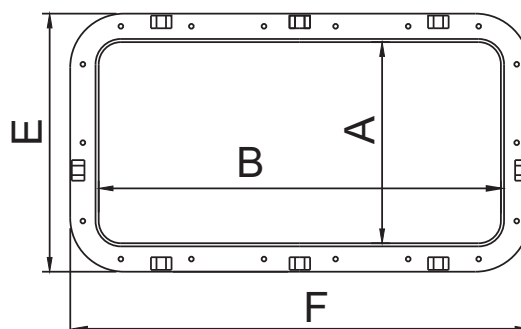
OPENING PORTS (H-TRIM)

H-Trim: 316 stainless steel material, the appearance is elegant, not the same as traditional frames.

LS-H



LS-H · CLS-H OPENING PORTHOLE



LS-H, CLS-H

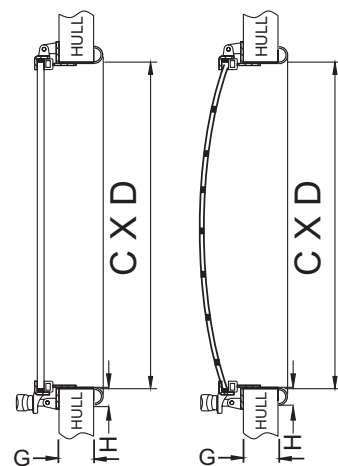
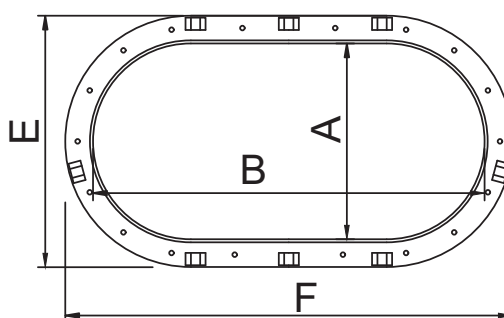
MODEL No.		A x B MODEL	C x D CUT OUT SIZE		E x F OVERALL		H	R	R1	GLASS THICKNESS
W/O COVER	W/COVER									
LS-0512H		5X12 127X305	5 1/2 X 12 3/8	139X313	7 5/8 X 14 1/2	193X368	5/8 15	1 1/4 32	2 3/8 62	1/4 6
LS-0714H		7X14 178X356	7 1/2 X 14 1/2	190X368	9 5/8 X 16 5/8	244X422	5/8 15	1 1/4 32	2 3/8 62	1/4 6
LS-0716H	CLS-0716H	7X16 178X406	7 1/2 X 16 1/2	190X419	9 5/8 X 18 5/8	244X473	5/8 15	1 1/4 32	2 3/8 62	1/4 6
LS-0718H	CLS-0718H	7X18 178X457	7 1/2 X 18 1/2	190X470	9 5/8 X 20 5/8	244X524	5/8 15	1 1/4 32	2 3/8 62	1/4 6
LS-0816H	CLS-0816H	8X16 203X406	8 1/2 X 16 1/2	216X419	10 5/8 X 18 5/8	269X473	5/8 15	1 1/4 32	2 3/8 62	1/4 6
LS-0818H	CLS-0818H	8X18 203X457	8 1/2 X 18 1/2	216X470	10 5/8 X 20 5/8	269X524	5/8 15	1 1/4 32	2 3/8 62	1/4 6
LS-1020H	CLS-1020H	10X20 254X508	10 5/8 X 20 5/8	268X522	12 7/8 X 22 7/8	327X581	3/4 20	1 1/4 32	2 1/2 65	3/8 10
LS-1024H	CLS-1024H	10X24 254X609	10 5/8 X 24 5/8	268X623	12 7/8 X 26 7/8	327X682	3/4 20	1 1/4 32	2 1/2 65	3/8 10
LS-1224H	CLS-1224H	12X24 305X609	12 5/8 X 24 5/8	319X623	14 7/8 X 26 7/8	378X682	3/4 20	1 1/4 32	2 1/2 65	3/8 10
LS-1228H	CLS-1228H	12X28 305X710	12 5/8 X 28 5/8	319X724	14 7/8 X 30 7/8	378X784	3/4 20	1 1/4 32	2 1/2 65	3/8 10

IN/MM

CLSO-H



LSO-H · CLSO-H OPENING PORTHOLE



LSO-H, CLSO-H

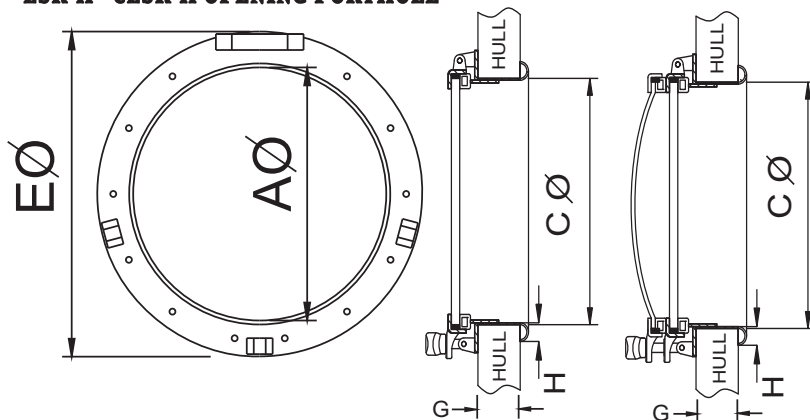
MODEL No.		A x B MODEL	C x D CUT OUT SIZE		E x F OVERALL		H	R	R1	GLASS THICKNESS
W/O COVER	W/COVER									
LSO-0512H		5X12 127X305	5 1/2 X 12 3/8	139X313	7 5/8 X 14 1/2	193X368	5/8 15	1 1/4 32	2 3/8 62	1/4 6
LSO-0714H		7X14 178X356	7 1/2 X 14 1/2	190X368	9 5/8 X 16 5/8	244X422	5/8 15	1 1/4 32	2 3/8 62	1/4 6
LSO-0716H	CLSO-0716H	7X16 178X406	7 1/2 X 16 1/2	190X419	9 5/8 X 18 5/8	244X473	5/8 15	1 1/4 32	2 3/8 62	1/4 6
LSO-0718H	CLSO-0718H	7X18 178X457	7 1/2 X 18 1/2	190X470	9 5/8 X 20 5/8	244X524	5/8 15	1 1/4 32	2 3/8 62	1/4 6
LSO-0816H	CLSO-0816H	8X16 203X406	8 1/2 X 16 1/2	216X419	10 5/8 X 18 5/8	269X473	5/8 15	1 1/4 32	2 3/8 62	1/4 6
LSO-0818H	CLSO-0818H	8X18 203X457	8 1/2 X 18 1/2	216X470	10 5/8 X 20 5/8	269X524	5/8 15	1 1/4 32	2 3/8 62	1/4 6
LSO-1020H	CLSO-1020H	10X20 254X508	10 5/8 X 20 5/8	268X522	12 7/8 X 22 7/8	327X581	3/4 20	1 1/4 32	2 1/2 65	3/8 10
LSO-1024H	CLSO-1024H	10X24 254X609	10 5/8 X 24 5/8	268X623	12 7/8 X 26 7/8	327X682	3/4 20	1 1/4 32	2 1/2 65	3/8 10
LSO-1224H	CLSO-1224H	12X24 305X609	12 5/8 X 24 5/8	319X623	14 7/8 X 26 7/8	378X682	3/4 20	1 1/4 32	2 1/2 65	3/8 10
LSO-1228H	CLSO-1228H	12X28 305X710	12 5/8 X 28 5/8	319X724	14 7/8 X 30 7/8	378X784	3/4 20	1 1/4 32	2 1/2 65	3/8 10

IN/MM

CLSR-H



LSR-H · CLSR-H OPENING PORTHOLE



LSR-H, CLSR-H

MODEL No.		A		C		E		H		GLASS THICKNESS	
W/O COVER	W/COVER	MODEL	CUT OUT SIZE	CUT OUT SIZE	CUT OUT SIZE	OVERALL	OVERALL				
LSR-1000H	CLSR-1000H	10	254	10 1/2	267	12 7/8	327	3/4	20	3/8	10
LSR-1200H	CLSR-1200H	12	305	12 1/2	318	14 7/8	378	3/4	20	3/8	10
LSR-1400H	CLSR-1400H	14	356	14 1/2	368	16 7/8	429	3/4	20	3/8	10

IN/MM

1. Standard angled spigot size "G" available 1 1/4" 32mm · 1 1/2" 38mm · 2" 51mm · 2 1/2" 63mm · 3" 76mm · 3 1/2" 89mm
2. Special spigot size "G" available from 1" 25.4mm ~ 5" 127mm
3. Custom sizes available if Radius (R & R1) are kept unchanged.
4. The spigot height are needed, while ordering.

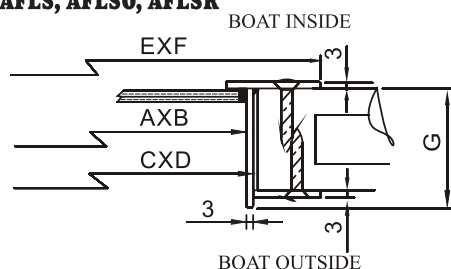


FIXED PORTS

AFLS



AFLS, AFLSO, AFLSR



BFLS



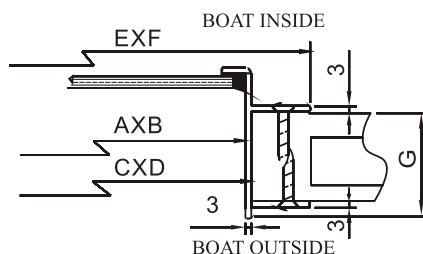
MODEL No.		A x B MODEL		C x D CUT OUT SIZE		E x F OVERALL		R	R1	GLASS THICKNESS
AFLS-0512	BFLS-0512	5X12	127X305	5 1⁄4 X 12 1⁄8	133x307	7 5⁄8 X 14 1⁄2	193x368	1 1⁄4 32	2 3⁄8 62	1⁄4 6
AFLS-0714	BFLS-0714	7X14	178X356	7 1⁄4 X 14 1⁄4	184x362	9 5⁄8 X 16 5⁄8	244x424	1 1⁄4 32	2 3⁄8 62	1⁄4 6
AFLS-0716	BFLS-0716	7X16	178X406	7 1⁄4 X 16 1⁄4	184x413	9 5⁄8 X 18 5⁄8	244x473	1 1⁄4 32	2 3⁄8 62	1⁄4 6
AFLS-0718	BFLS-0718	7X18	178X457	7 1⁄4 X 18 1⁄4	184x464	9 5⁄8 X 20 5⁄8	244x524	1 1⁄4 32	2 3⁄8 62	1⁄4 6
AFLS-0816	BFLS-0816	8X16	203X406	8 1⁄4 X 16 1⁄4	210x413	10 5⁄8 X 18 5⁄8	269x473	1 1⁄4 32	2 3⁄8 62	1⁄4 6
AFLS-0818	BFLS-0818	8X18	203X457	8 1⁄4 X 18 1⁄4	210x464	10 5⁄8 X 20 5⁄8	269x524	1 1⁄4 32	2 3⁄8 62	1⁄4 6
AFLS-1020	BFLS-1020	10X20	254X508	10 5⁄16 X 20 5⁄16	262x516	12 7⁄8 X 22 7⁄8	327x581	1 1⁄4 32	2 1⁄2 65	3⁄8 10
AFLS-1024	BFLS-1024	10X24	254X609	10 5⁄16 X 24 5⁄16	262x617	12 7⁄8 X 26 7⁄8	327x682	1 1⁄4 32	2 1⁄2 65	3⁄8 10
AFLS-1224	BFLS-1224	12X24	305X609	12 5⁄16 X 24 5⁄16	313x617	14 7⁄8 X 26 7⁄8	378x682	1 1⁄4 32	2 1⁄2 65	3⁄8 10
AFLS-1228	BFLS-1228	12X28	305X710	12 5⁄16 X 28 5⁄16	313x718	14 7⁄8 X 30 7⁄8	378x783	1 1⁄4 32	2 1⁄2 65	3⁄8 10
AFLS-1230	BFLS-1230	12X30	305X762	12 5⁄16 X 30 5⁄16	313x762	14 7⁄8 X 30 7⁄8	378x783	1 1⁄4 32	2 1⁄2 65	3⁄8 10

IN/MM

AFLSO



BFLS, BFLSO, BFLSR



BFLSO



MODEL No.		A x B MODEL		C x D CUT OUT SIZE		E x F OVERALL		R	R1	GLASS THICKNESS		
AFLSO-0512	BFLSO-0512	5X12	127X305	5 1⁄4	12 1⁄8	133x307	7 5⁄8	14 1⁄2	193x368	2 5⁄8 67	3 7⁄8 98	1⁄4 6
AFLSO-0714	BFLSO-0714	7X14	178X356	7 1⁄4	14 1⁄4	184x362	9 5⁄8	16 5⁄8	244x424	3 5⁄8 92	4 7⁄8 124	1⁄4 6
AFLSO-0716	BFLSO-0716	7X16	178X406	7 1⁄4	16 1⁄4	184x413	9 5⁄8	18 5⁄8	244x473	3 5⁄8 92	4 7⁄8 124	1⁄4 6
AFLSO-0718	BFLSO-0718	7X18	178X457	7 1⁄4	18 1⁄4	184x464	9 5⁄8	20 5⁄8	244x524	3 5⁄8 92	4 7⁄8 124	1⁄4 6
AFLSO-0816	BFLSO-0816	8X16	203X406	8 1⁄4	16 1⁄4	210x413	10 5⁄8	18 5⁄8	269x473	4 1⁄8 104	5 3⁄8 137	1⁄4 6
AFLSO-0818	BFLSO-0818	8X18	203X457	8 1⁄4	18 1⁄4	210x464	10 5⁄8	20 5⁄8	269x524	4 1⁄8 104	5 3⁄8 137	1⁄4 6
AFLSO-1020	BFLSO-1020	10X20	254X508	10 5⁄16	20 5⁄16	262x516	12 7⁄8	22 7⁄8	327x581	5 1⁄8 131	6 3⁄8 164	3⁄8 10
AFLSO-1024	BFLSO-1024	10X24	254X609	10 5⁄16	24 5⁄16	262x617	12 7⁄8	26 7⁄8	327x682	5 1⁄8 131	6 3⁄8 164	3⁄8 10
AFLSO-1224	BFLSO-1224	12X24	305X609	12 5⁄16	24 5⁄16	313x617	14 7⁄8	26 7⁄8	378x682	6 1⁄8 157	7 3⁄8 190	3⁄8 10
AFLSO-1228	BFLSO-1228	12X28	305X710	12 5⁄16	28 5⁄16	313x718	14 7⁄8	30 7⁄8	378x783	6 1⁄8 157	7 3⁄8 190	3⁄8 10
IN/MM												

IN/MM

AFLSR



MODEL No.		A		C		E		GLASS THICKNESS	
		MODEL		CUT OUT SIZE		OVERALL			
AFLSR-0500	BFLSR-0500	5	127	5 1/4	133	7 5/8	193	1/4	6
AFLSR-0600	BFLSR-0600	6	152	6 1/4	158	8 5/8	218	1/4	6
AFLSR-0700	BFLSR-0700	7	178	7 1/4	184	9 5/8	244	1/4	6
AFLSR-0800	BFLSR-0800	8	203	8 1/4	210	10 5/8	269	1/4	6
AFLSR-1000	BFLSR-1000	10	254	10 5/16	262	12 7/8	327	3/8	10
AFLSR-1200	BFLSR-1200	12	305	12 5/16	313	14 7/8	378	3/8	10
AFLSR-1400	BFLSR-1400	14	356	14 5/16	364	16 7/8	428	3/8	10

IN/MM

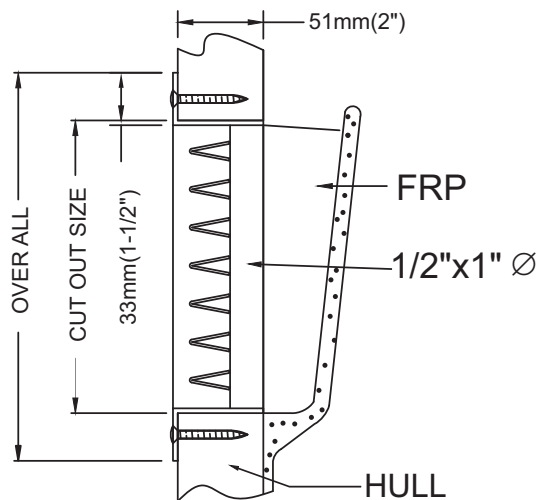
BFLSR



VENTILATOR

- 316 stainless steel machined rolled frames. Hand polishing to protect against corrosion.
- Powder coating either off white or black available.
- All cut out sizes C X D are same as Rectangular / Round / Oval / Elliptical port's, pls refer it to LS / LR / LO / LE type.

(LS) RECTANGULAR VENTILATOR



(LS-H) RECTANGULAR VENTILATOR



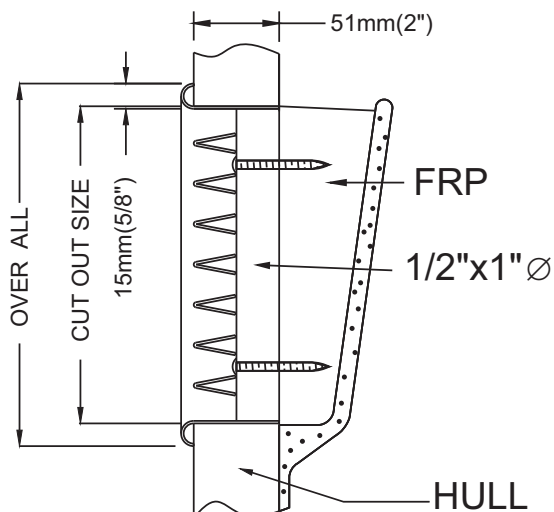
(LO) OVAL VENTILATOR



(LE) ELLIPTICAL VENTILATOR



(LR) ROUND VENTILATOR



ELLIPTICAL, OVAL AND ROUND OPENING PORTS (H-TRIM)

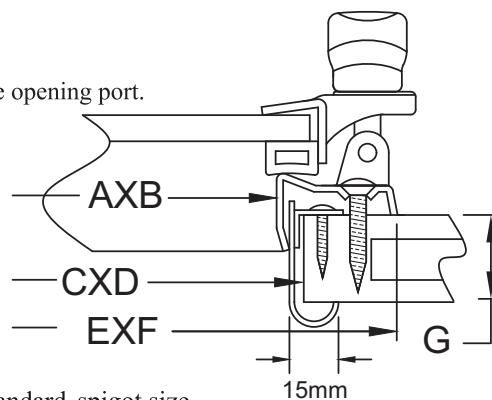
- **CE Approved. According to ISO / DIS 12216**
LE, LO & LR type are supplied to Area III, IV. Designs for craft type "any".
- 316 stainless steel machined rolled ports. 316 stainless steel machine stamped frames.
Hand Polished and electro polished to provide long lasting protection against corrosion.
- Weather resistant thermo-plastic Sanplane gasket.
- High Strength tempered glass.
- Optional fiberglass screens with rubber gaskets to ensure a tight fit on the opening port.



MODEL No.	A x B MODEL	C x D CUT OUT	E x F OVERALL	GLASS THICKNESS
LE-0718	7 x 17 3/4 178x451	7 3/8 x 18 187x458	9 5/8 x 20 3/8 244x518	5/16 8 IN/MM



MODEL No.	A x B MODEL	C x D CUT OUT	E x F OVERALL	GLASS THICKNESS
LO-0512	5 X 12 127x305	5 5/8 X 12 5/8 143x321	7 7/8 X 14 7/8 200x378	5/16 8
LO-0614	6 X 14 153x356	6 5/8 X 14 5/8 168x371	8 7/8 X 16 7/8 225x429	5/16 8
LO-0714	7 X 14 178x356	7 5/8 X 14 5/8 194x371	9 7/8 X 16 7/8 251x429	5/16 8
LO-0716	7 X 16 178x406	7 5/8 X 16 5/8 194x422	9 7/8 X 18 7/8 251x479	5/16 8
LO-0718	7 X 18 178x457	7 5/8 X 18 5/8 194x473	9 7/8 X 20 7/8 251x530	5/16 8
LO-0816	8 X 16 203x406	8 5/8 X 16 5/8 219x422	10 7/8 X 18 7/8 276x479	5/16 8
LO-0818	8 X 18 203x457	8 5/8 X 18 5/8 219x473m	10 7/8 X 20 7/8 276x530	5/16 8 IN/MM



1. Standard spigot size
"G" available 1 1/4" 32mm · 1 1/2" 38mm · 2" 51mm · 2 1/2" 63mm · 3" 76mm · 3 1/2" 89mm
2. Special spigot size "G" available from 1" 25mm ~ 5" 125mm
3. The spigot height are needed, while ordering.



MODEL No.	A MODEL	C CUT OUT	F OVERALL	GLASS THICKNESS
LR-0500	5 127mm	5 5/8 143	7 7/8 200	5/16 8
LR-0600	6 153mm	6 5/8 168	8 7/8 225	5/16 8
LR-0700	7 178mm	7 5/8 194	9 7/8 251	5/16 8
LR-0800	8 203mm	8 5/8 219	10 7/8 276	5/16 8 IN/MM



LO Oval portholes
LE Elliptical portholes
boat outside view

OPENING PORTS (H-TRIM) WITH STORM COVERS

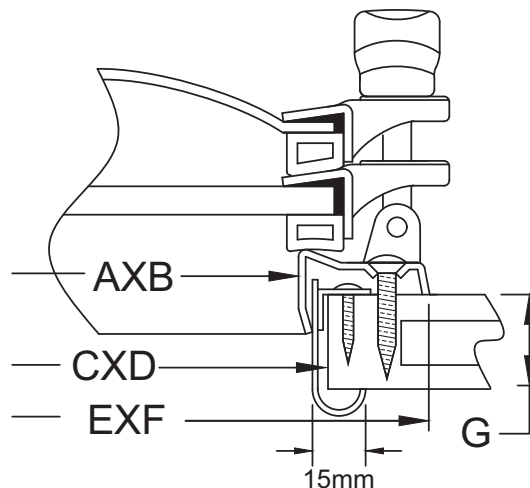
- **CE Approved. According to ISO / DIS 12216**
CLE, CLR & CLO type are applied to Area I, II, III, IV. Designs for craft type "any".
- Each cover is machine stamped 316 stainless steel. Hand Polished and electro polished to provide long lasting protection against corrosion.
- All other features are the same as our **RECTANGULAR OPENING PORTS**.



MODEL No.	A x B MODEL	C x D CUT OUT	E x F OVERALL	GLASS THICKNESS
CLE-0718	7 X 17 ³ / ₄ 178x451	7 ³ / ₈ X 18 187x458	9 ⁵ / ₈ X 20 ³ / ₈ 244x518	5 ¹ / ₈ 8

IN/MM

- Fixed or removable storm cover available.



1. Standard spigot size
"G" available 1 ¹/₄" 32mm · 1 ¹/₂" 38mm · 2" 51mm · 2 ¹/₂" 63mm · 3" 76mm · 3 ¹/₂" 89mm
2. Special spigot size "G" available from 1" 25mm ~ 5" 125mm
3. The spigot height are needed, while ordering.



MODEL No.	A x B MODEL	C x D CUT OUT	E x F OVERALL	GLASS THICKNESS
CLO-0716	7 X 16 178x406	7 ⁵ / ₈ X 16 ⁵ / ₈ 194x422	9 ⁷ / ₈ X 18 ⁷ / ₈ 251x479	5 ¹ / ₈ 8
CLO-0718	7 X 18 178x457	7 ⁵ / ₈ X 18 ⁵ / ₈ 194x473	9 ⁷ / ₈ X 20 ⁷ / ₈ 251x530	5 ¹ / ₈ 8
CLO-0816	8 X 16 203x406	8 ⁵ / ₈ X 16 ⁵ / ₈ 219x422	10 ⁷ / ₈ X 18 ⁷ / ₈ 276x479	5 ¹ / ₈ 8
CLO-0818	8 X 18 203x457	8 ⁵ / ₈ X 18 ⁵ / ₈ 219x473	10 ⁷ / ₈ X 20 ⁷ / ₈ 276x530	5 ¹ / ₈ 8

IN/MM



MODEL No.	A MODEL	C CUT OUT	F OVERALL	GLASS THICKNESS
CLR-0800	8 203	8 ⁵ / ₈ 219	10 ⁷ / ₈ 276	5 ¹ / ₈ 8

IN/MM

ECONOMY OPENING PORTS (H-TRIM)

• CE Approved. According to ISO / DIS 12216

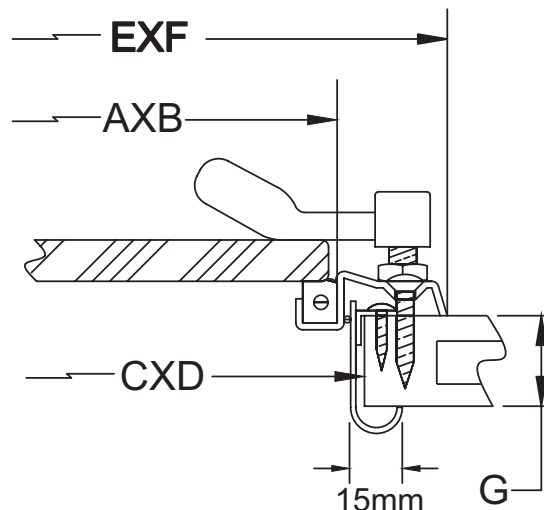
EE, EO & ER type are applied to Area III, IV. Designs for craft type "any".

- 316 stainless steel machine stamped frames, ports and hinges. Hand Polished and electro polished to provide long lasting protection against corrosion.
- Wing type nylon closures.
- Weather resistant thermo-plastic Sanplane gasket.
- Clear or Tanned Acrylic.



MODEL No.	A x B MODEL	C x D CUT OUT	E x F OVERALL	ACRYLIC THICKNESS
EE-0718	7 X 17 ³ / ₄ 178x459	7 ³ / ₈ X 18 188x458	9 ⁵ / ₈ X 20 ³ / ₈ 244x518	1 ¹ / ₂ 12

IN/MM



1. Standard spigot size

"G" available 1¹/₄" 32mm • 1¹/₂" 38mm • 2" 51mm • 2¹/₂" 63mm • 3" 76mm • 3¹/₂" 89mm

2. Special spigot size "G" available from 1¹/₂mm ~ 5¹/₂mm

3. The spigot height are needed, while ordering.



MODEL No.	A x B MODEL	C x D CUT OUT	E x F OVERALL	ACRYLIC THICKNESS
EO-0512	5 X 12 127x305	5 ³ / ₈ X 12 ³ / ₈ 137x315	7 ⁷ / ₈ X 14 ⁷ / ₈ 200x378	1 ¹ / ₂ 12
EO-0614	6 X 14 153x356	6 ³ / ₈ X 14 ³ / ₈ 162x365	8 ⁷ / ₈ X 16 ⁷ / ₈ 225x429	1 ¹ / ₂ 12
EO-0714	7 X 14 178x356	7 ³ / ₈ X 14 ³ / ₈ 188x365	9 ⁷ / ₈ X 16 ⁷ / ₈ 251x429	1 ¹ / ₂ 12
EO-0716	7 X 16 178x406	7 ³ / ₈ X 16 ³ / ₈ 188x416	9 ⁷ / ₈ X 18 ⁷ / ₈ 251x479	1 ¹ / ₂ 12
EO-0718	7 X 18 178x457	7 ³ / ₈ X 18 ³ / ₈ 188x467	9 ⁷ / ₈ X 20 ⁷ / ₈ 251x530	1 ¹ / ₂ 12
EO-0816	8 X 16 203x406	8 ³ / ₈ X 16 ³ / ₈ 213x416	10 ⁷ / ₈ X 18 ⁷ / ₈ 276x479	1 ¹ / ₂ 12
EO-0818	8 X 18 203x457	8 ³ / ₈ X 18 ³ / ₈ 213x467	10 ⁷ / ₈ X 20 ⁷ / ₈ 276x530	1 ¹ / ₂ 12

IN/MM

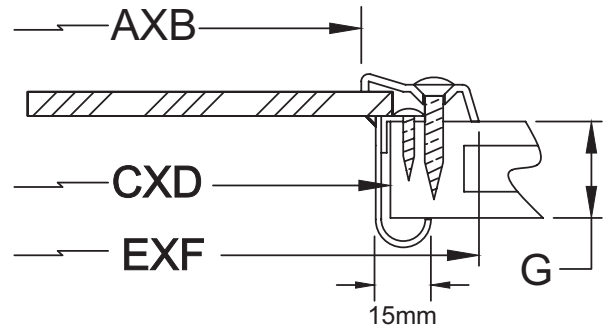


MODEL No.	A MODEL	C CUT OUT	F OVERALL	ACRYLIC THICKNESS
ER-0500	5 127	5 ³ / ₈ 137	7 ⁷ / ₈ 200	1 ¹ / ₂ 12
ER-0600	6 153	6 ³ / ₈ 162	8 ⁷ / ₈ 225	1 ¹ / ₂ 12
ER-0700	7 178	7 ³ / ₈ 188	9 ⁷ / ₈ 251	1 ¹ / ₂ 12
ER-0800	8 203	8 ³ / ₈ 213	10 ⁷ / ₈ 276	1 ¹ / ₂ 12

IN/MM

FIXED TYPE PORTHOLES (H-TRIM)

- 316 machined stamped stainless steel frames and trim rings. Hand Polished and electro polished to provide long lasting protection against corrosion.
- High Strength tempered glass.
- Additional fixed or removable storm cover available.



MODEL No.	A x B MODEL	C x D CUT OUT	E x F OVERALL	GLASS THICKNESS
FE-0718	7 x 17 3/4 178 x 451	7 3/8 x 18 188 x 458	9 5/8 x 20 3/8 244 x 518	1/4 6

IN/MM

1. Standard spigot size

"G" available 1 1/4" 32mm · 1 1/2" 38mm · 2" 51mm · 2 1/2" 63mm · 3" 76mm · 3 1/2" 89mm

2. Special spigot size "G" available from 1" 25mm ~ 5" 125mm

3. The spigot height are needed, while ordering.



MODEL No.	A x B MODEL	C x D CUT OUT	E x F OVERALL	GLASS THICKNESS
FO-0512	5 x 12 127 x 305	5 3/8 x 12 3/8 137 x 315	7 7/8 x 14 7/8 200 x 378	1/4 6
FO-0614	6 x 14 153 x 356	6 3/8 x 14 3/8 162 x 365	8 7/8 x 16 7/8 225 x 429	1/4 6
FO-0714	7 x 14 178 x 356	7 3/8 x 14 3/8 188 x 365	9 7/8 x 16 7/8 251 x 429	1/4 6
FO-0716	7 x 16 178 x 406	7 3/8 x 16 3/8 188 x 416	9 7/8 x 18 7/8 251 x 479	1/4 6
FO-0718	7 x 18 178 x 457	7 3/8 x 18 3/8 188 x 467	9 7/8 x 20 7/8 251 x 530	1/4 6
FO-0816	8 x 16 203 x 406	8 3/8 x 16 3/8 213 x 416	10 7/8 x 18 7/8 276 x 479	1/4 6
FO-0818	8 x 18 203 x 457	8 3/8 x 18 3/8 213 x 467	10 7/8 x 20 7/8 276 x 530	1/4 6

IN/MM

MODEL No.	A MODEL	C CUT OUT	F OVERALL	GLASS THICKNESS
FR-0500	5 127	5 3/8 137	7 7/8 200	1/4 6
FR-0600	6 153	6 3/8 162	8 7/8 225	1/4 6
FR-0700	7 178	7 3/8 188	9 7/8 251	1/4 6
FR-0800	8 203	8 3/8 213	10 7/8 276	1/4 6

IN/MM

STAINLESS STEEL BOAT WINDOW

(CUSTOM MADE)

- Easy dismount and reassemble glass for repair.
- S/S 316, mirror polished, anti-corrosion.
- Fixed, one fixed one sliding and two sliding windows available.
- No exposed seams or fasteners.
- Fixed window ensure water tightness.
- Drain channels of sliding window ensured drainage.
- Tempered glass 6mm, 10mm for fixed windows.
- Tempered glass 6mm for sliding windows.



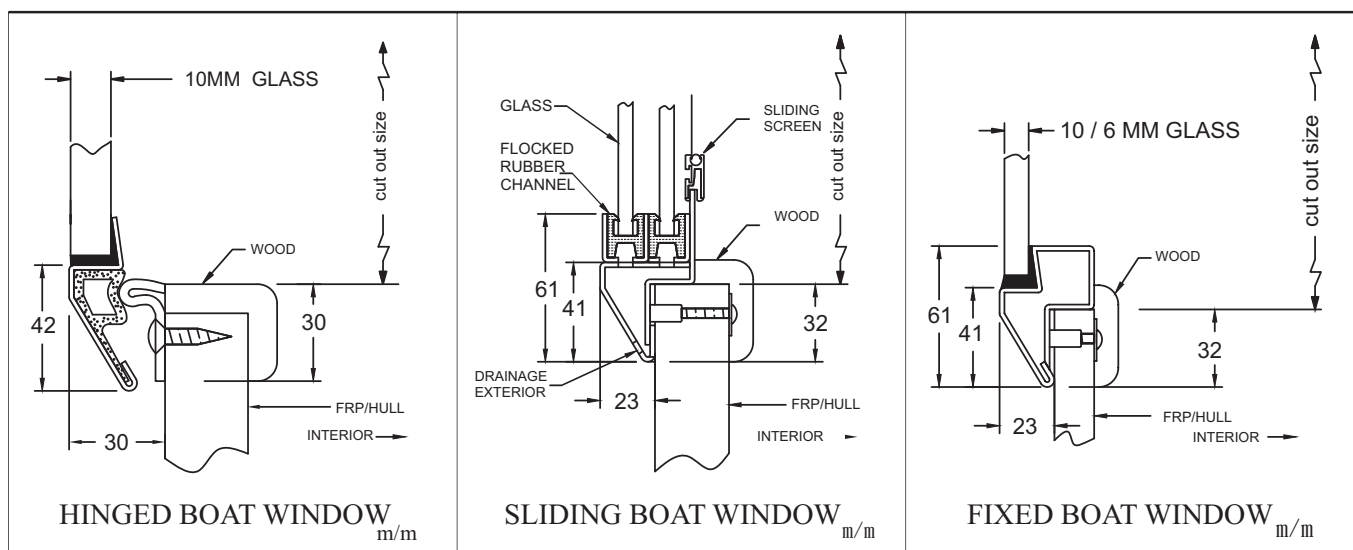
FIXED BOAT WINDOW



HINGED BOAT WINDOW



SLIDING BOAT WINDOW



ALUMINUM BOAT WINDOWS

(CUSTOM MADE)

Aluminum Windows are made of 6063-T5 extruded aluminum alloy, clear or tanned tempered glass & weather-resistant Sanplane gasket.

Easy installation, attractive surface and water-resistant.

- Any shaped windows are available for sliding windows or fixed windows.
- Either in metallic anodized or off-white/black powder coating.
- Will assure better anti-corrosion.
- We can produce custom windows if drawings of window shape, corner degrees and cutout sizes are offered.



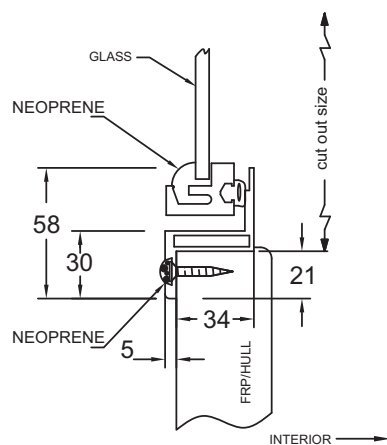
HINGED BOAT WINDOW



FIXED BOAT WINDOW

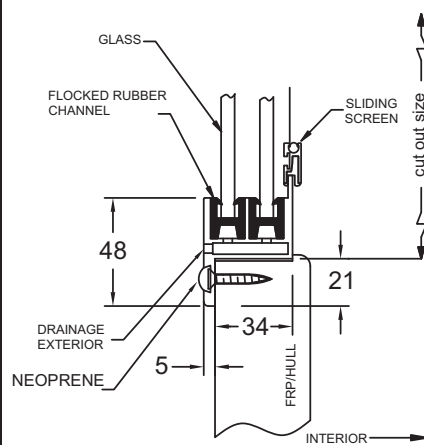


SLIDING BOAT WINDOW



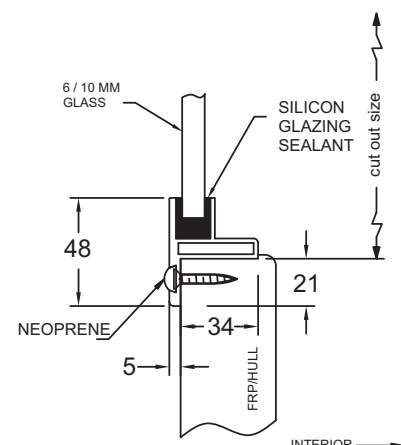
HINGED BOAT WINDOW

m/m



SLIDING BOAT WINDOW

m/m



FIXED BOAT WINDOW

m/m

ALUMINUM HINGED, SLIDING & FIXED PORTS

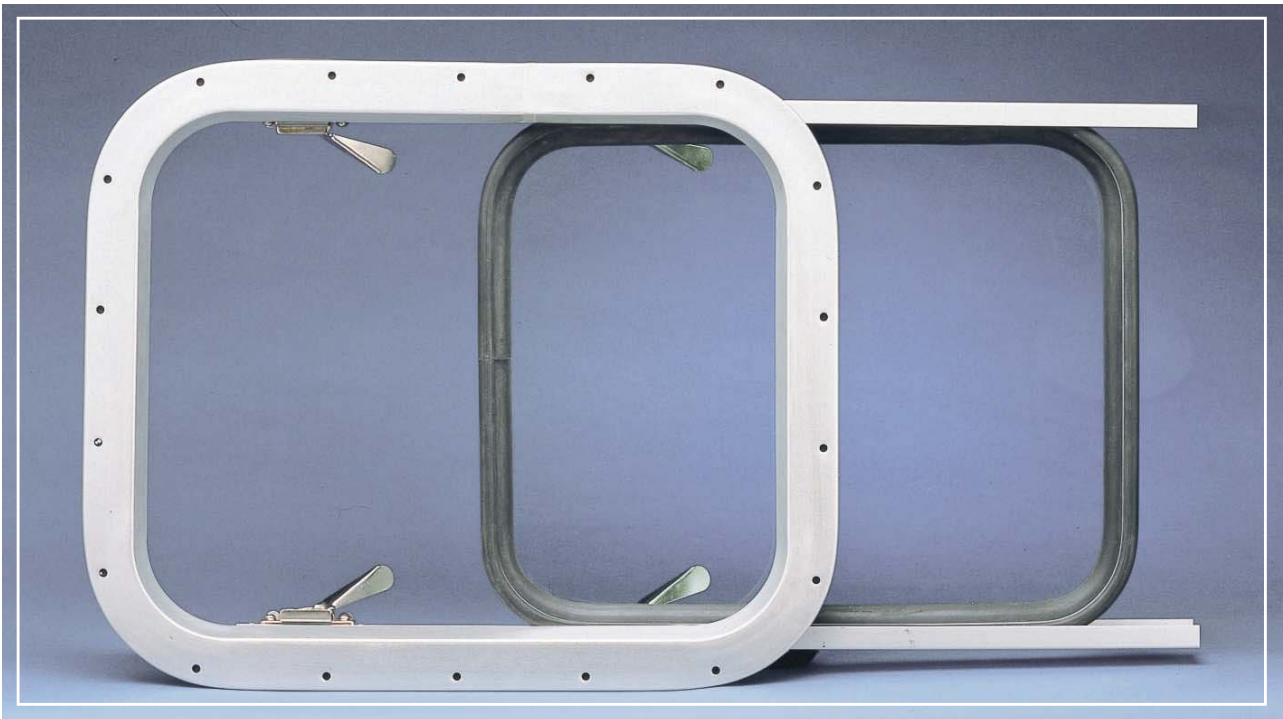
- Man Ship portholes are manufactured from 6063 T5 extruded aluminum alloy and are attractively engineered for both safety and durability.
- Our easy to operate positive locking system ensures excellent water-tight characteristics.
- All our ports are heavily anodized to protect against corrosion and are available in either metallic or black and are fitted with tempered glass.
- We can manufacture custom sizes provided the corner radius remains unaltered.



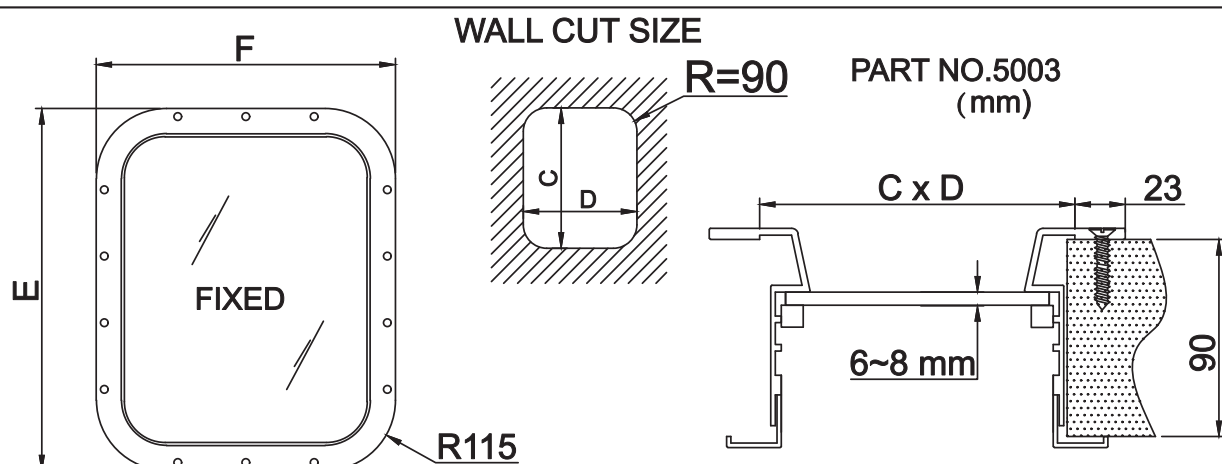
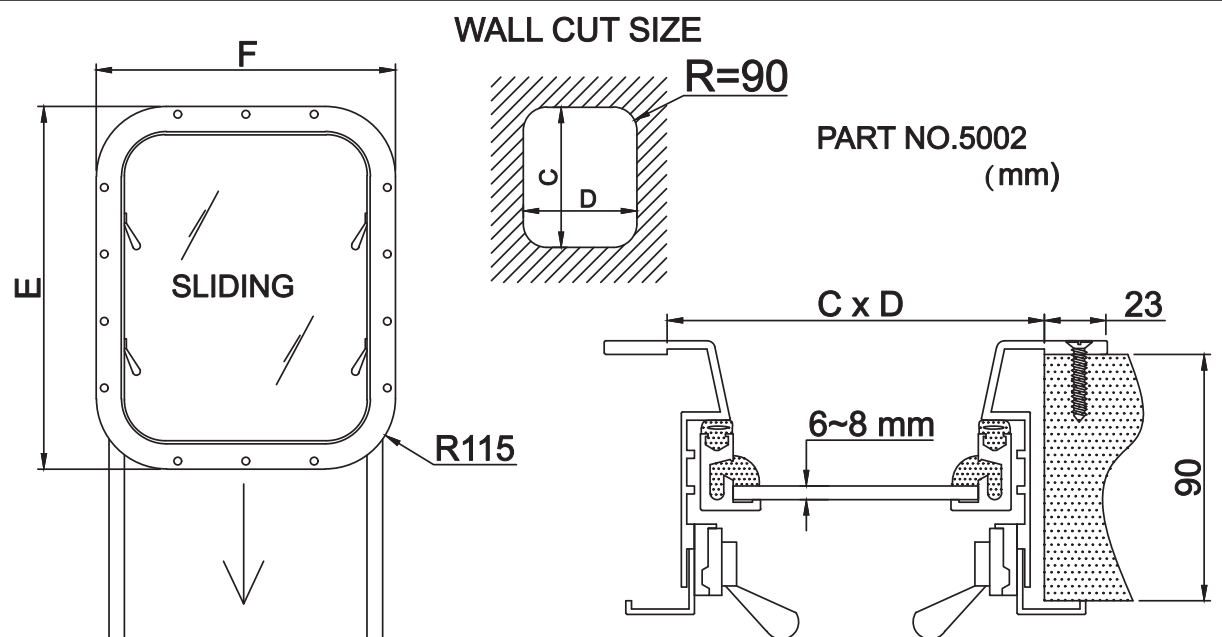
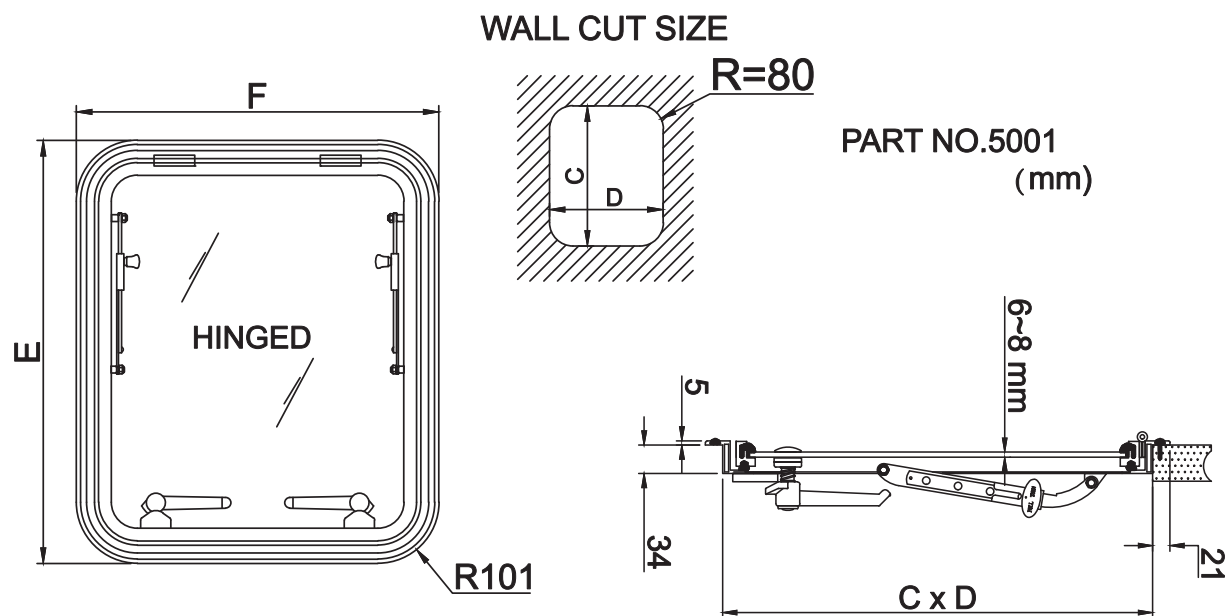
5001



5003



5002



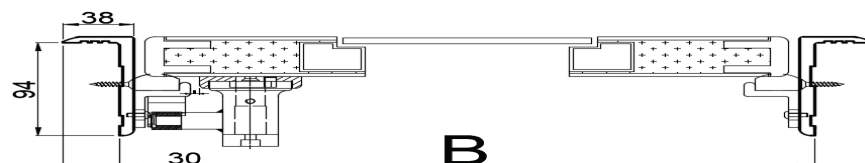
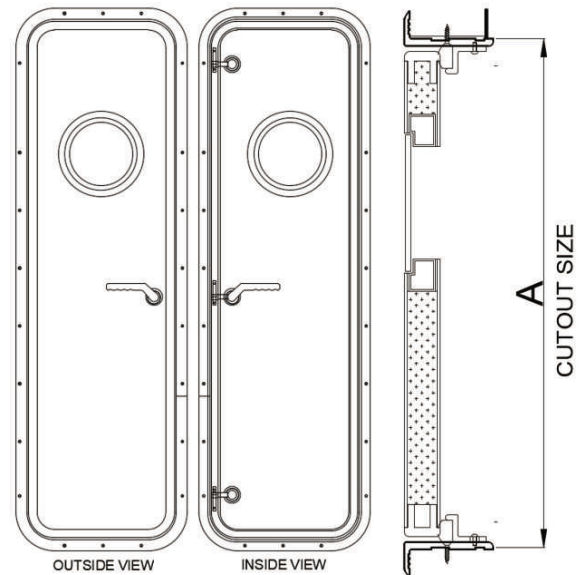
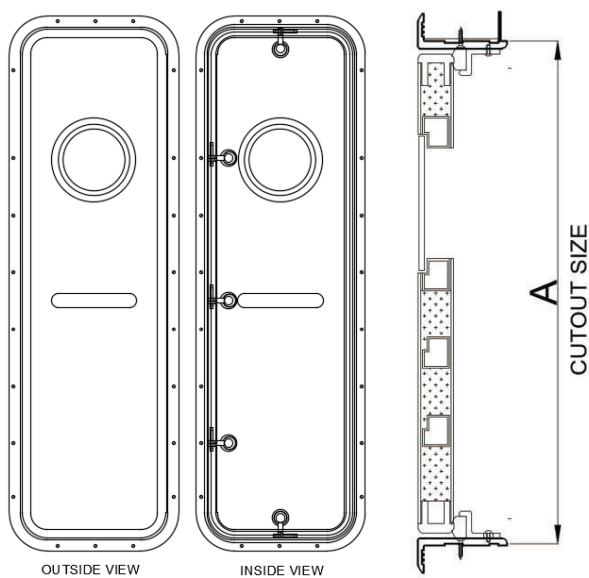
ALUMINUM HINGED ENTRY DOOR



WEATHERTIGHT DOOR (201 SERIES)



WATERTIGHT DOOR (202 SERIES)



Rugged, durable, suitable for luxury yachts and military and commercial ships.

All materials are aluminum 6063, 5052, Stainless steel

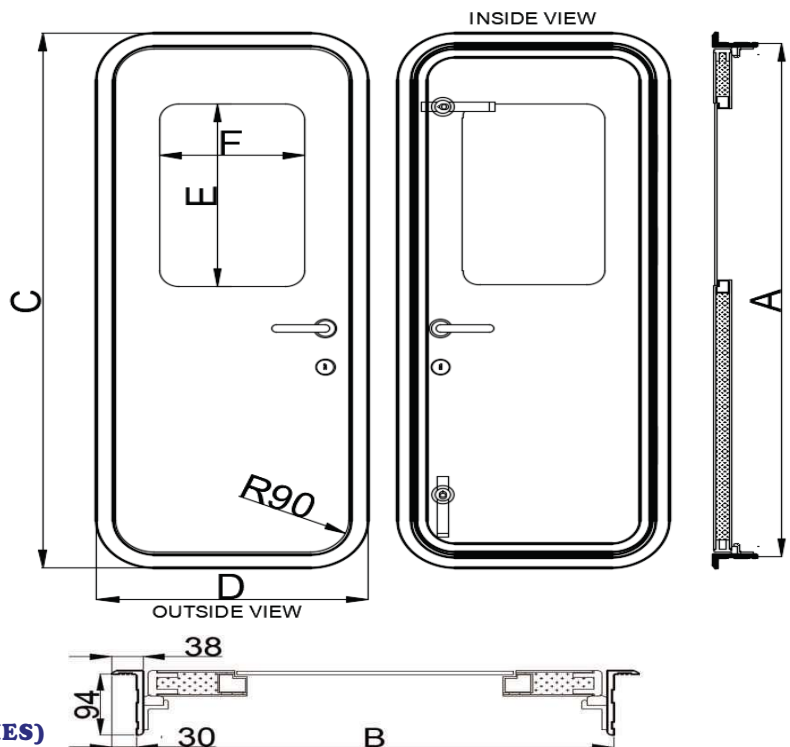
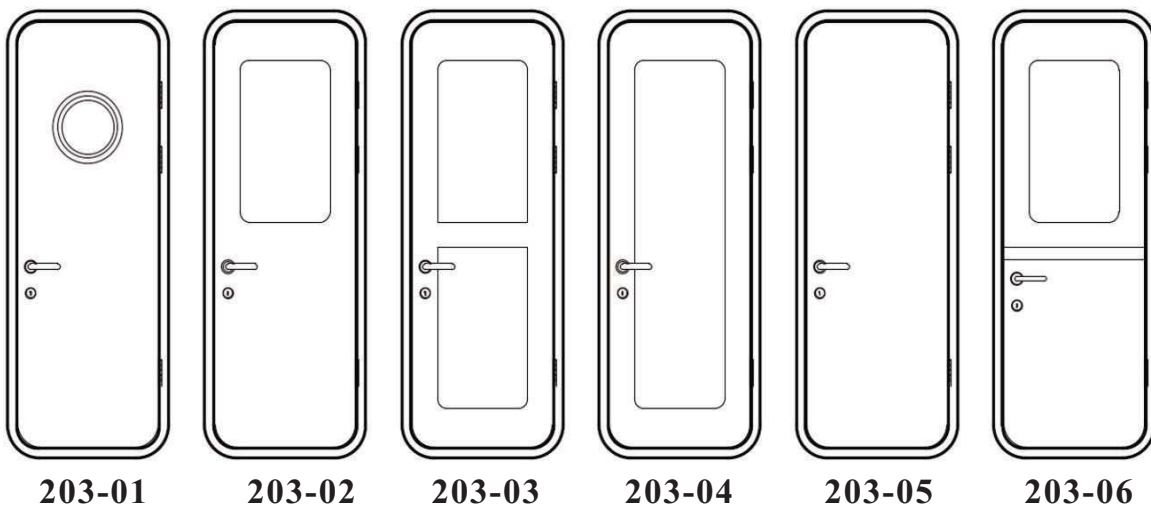
The surface has anodized anti-corrosion treatment, and the surface can be painted with PU, which is suitable for ocean environment

- 201 Each door mounted with 5 dogs, The dogs will react synchronous when door open and close, The door is 3M height water approved.
- 202 Each door mounted with 3 dogs, The dogs will react synchronous when door open and close.
- 203 Each door enclosed a stainless steel Marine used Lock, and two manual dogs to compes door for water light.

Features

- Adjustable gasket is for the function of watertight-proof.
- Fill door with Rigid Foam Cove can be sound-proof, heat-proof and make it stronger.

SOME STYLE OPTIONS (203 SERIES)



ECONOMY ENTRY DOOR (203SERIES)

STAINLESS STEEL SALOON DOOR

- S/S 316, mirror polished, anti-corrosion.
- Tempered 8mm glass, Color available.
- Excellent & elegant v-ingcard locking system.
- Adjustable bronze rollers, anti-corrosion, slide smooth.
- Knock-down frame, easy transport & assemble.
- Design of door available for various layout option.
- Door panel fully welded, strong and ensured water tightness.
- S/S 316 sliding insect screen for comfort.
- Single sliding, two sliding, one fixed one sliding, two fixed two sliding door available.



(CUSTOM MADE)



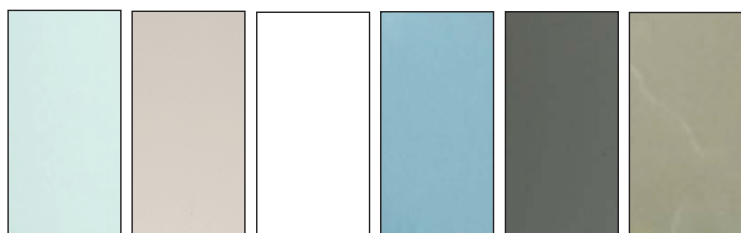
Four adjustable rollers installed in every saloon door, and the door can do some slightly adjustment for smooth moving.



- Stainless steel saloon Door
The structure is strong enough and has the function of weatherproof.



- Stainless Steel Saloon Door
Use marine door lock ASSA ABLOY and S/S 316 handle



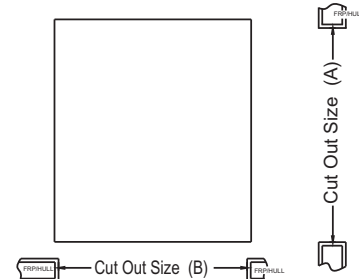
Tint green Tanned Clear (Standard) Tint blue Grey Light grey

- Stainless Steel Saloon Door
Install standard transparent 6mm tempered glass.
Or you can also choose other colors and thickness

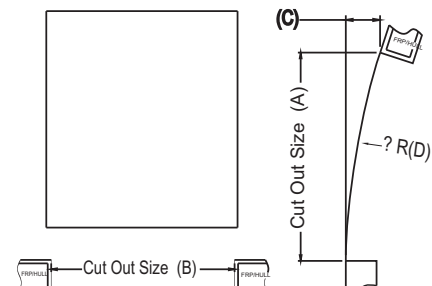
THE NOTES FOR ORDERING SALOON DOOR

- Please advise the saloon door model number, and the open/close function.
(one fixed, one sliding, or two fixed, two sliding)
- Please provide cutout size: A, B, C, D, R dimension and model number.

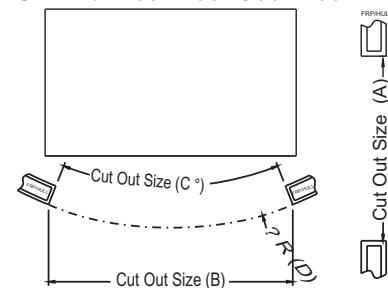
MODEL: F100F200F300F400



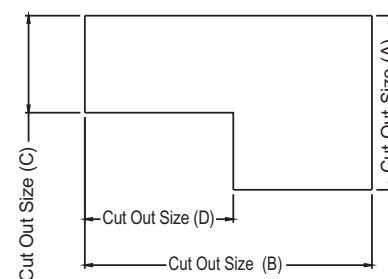
MODEL: A200A300A400



MODEL: R100R200R300R400

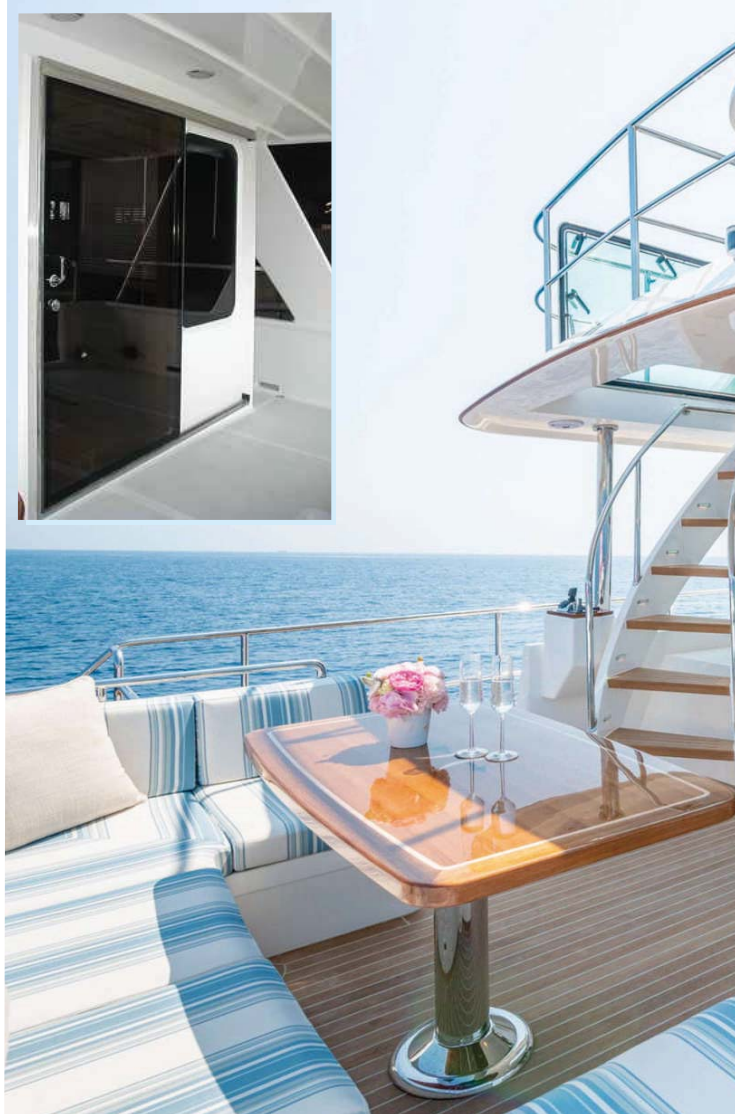
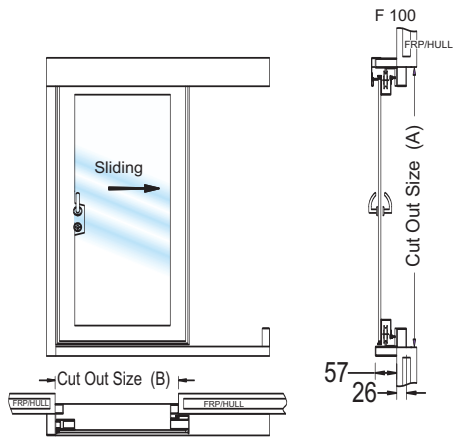


MODEL: SFL100OL100

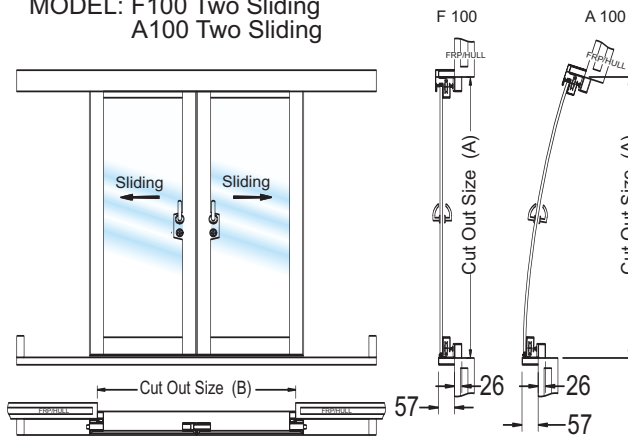


STAINLESS STEEL FLUSH AVC GLASS STAINLESS DOOR (CUSTOM MADE)

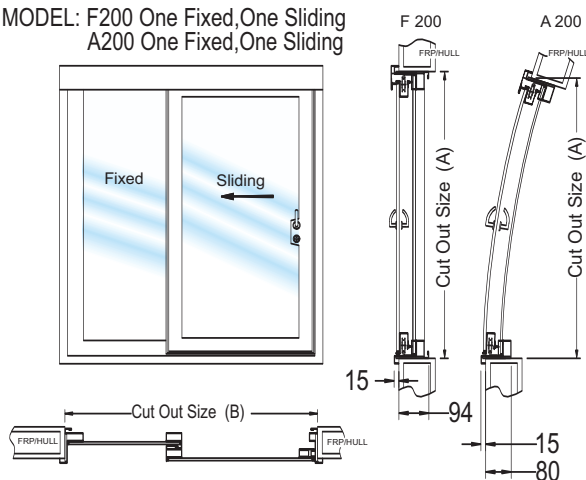
MODEL: F100 Single Sliding



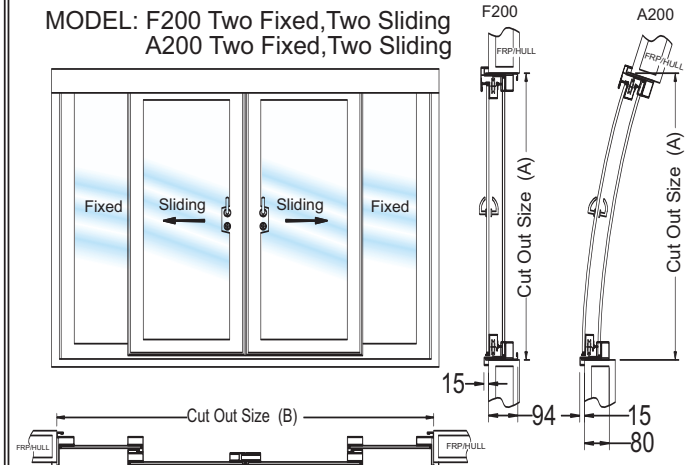
MODEL: F100 Two Sliding
A100 Two Sliding

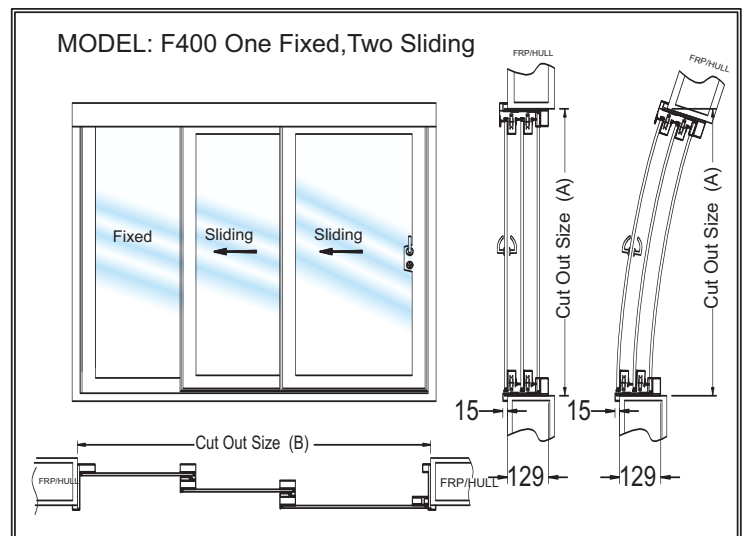


MODEL: F200 One Fixed, One Sliding
A200 One Fixed, One Sliding



MODEL: F200 Two Fixed, Two Sliding
A200 Two Fixed, Two Sliding

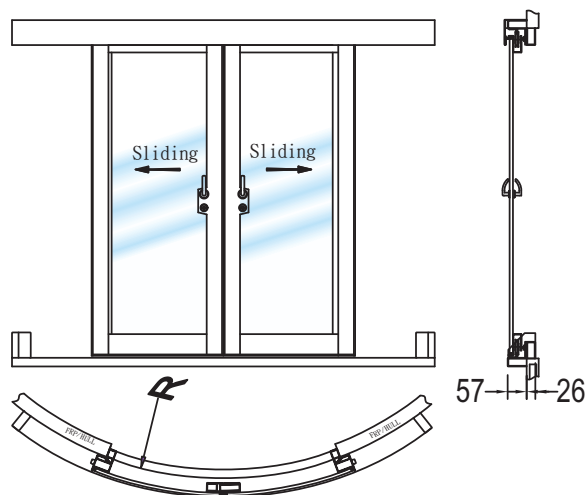




STAINLESS STEEL CURVED GLASS SALOON DOOR

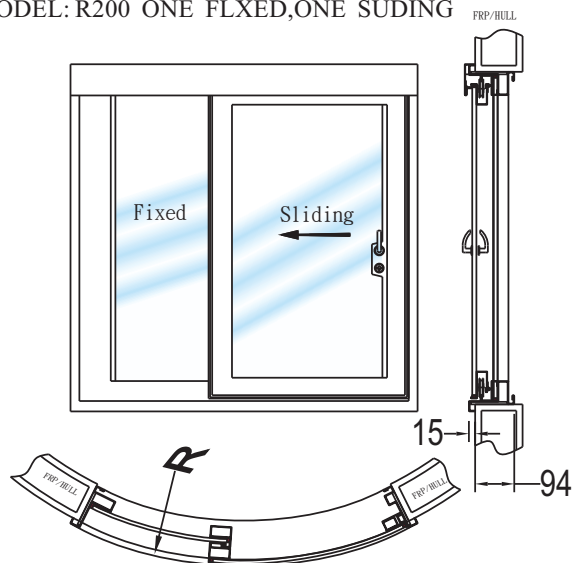


MODEL: R100 TWO SLIDING

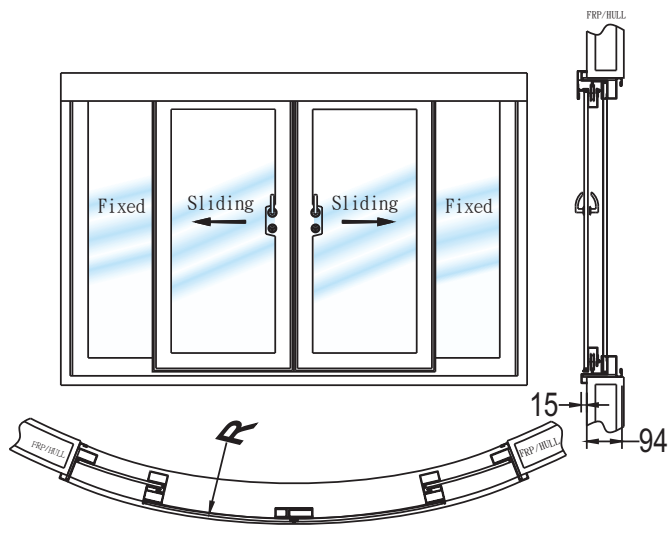


- S/S 316, surface treatment, mirror polished
- Tempered glass 8mm, glass color available
- Elegant marine locking included
- Saloon door is water proof
- Design of saloon door available for various layout option
- Screen door can be chosen circular arc screen door (one sliding and two sliding available)

MODEL: R200 ONE FIXED, ONE SLIDING



MODEL: R200 TWO FIXED, TWO SLIDING

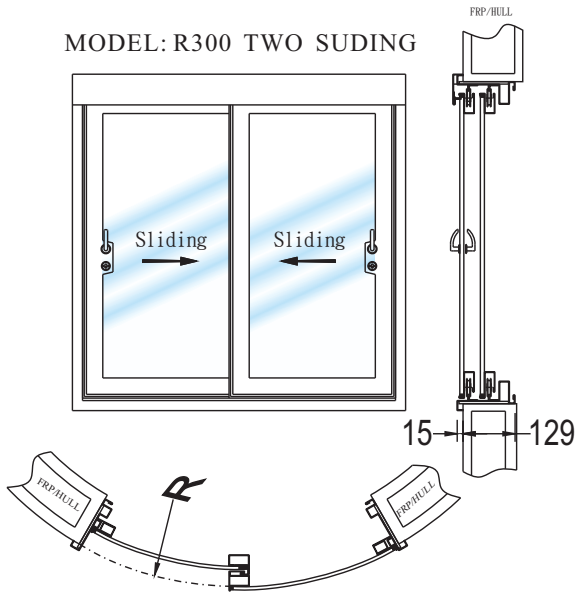


(CUSTOM MADE)

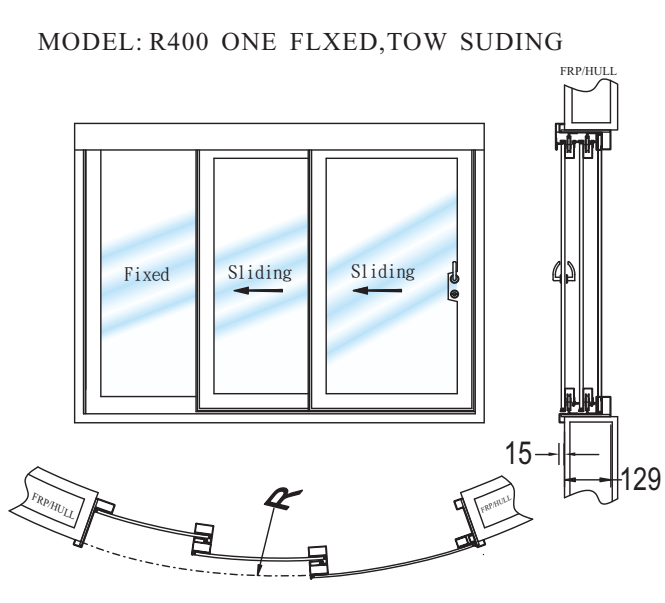


Screendoor(two sliding)

MODEL: R300 TWO SUDING



MODEL: R400 ONE FLXED,TOW SUDING



STAINLESS STEEL HINGE GLASS SALOON DOOR

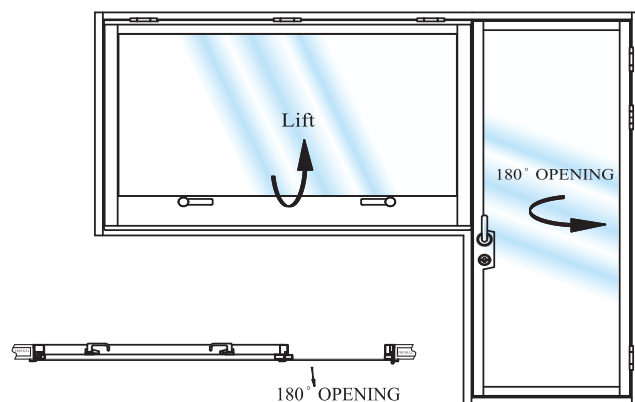


STAINLESS STEEL ELECTRIC SALOON DOOR

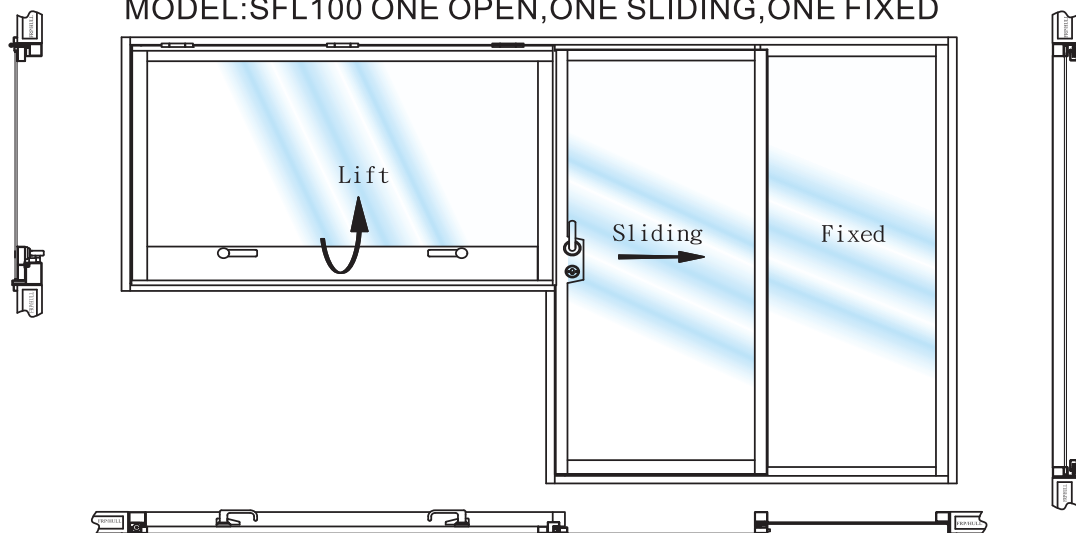


(CUSTOM MADE)

MODEL: OL100 TWO OPEN



MODEL: SFL100 ONE OPEN, ONE SLIDING, ONE FIXED



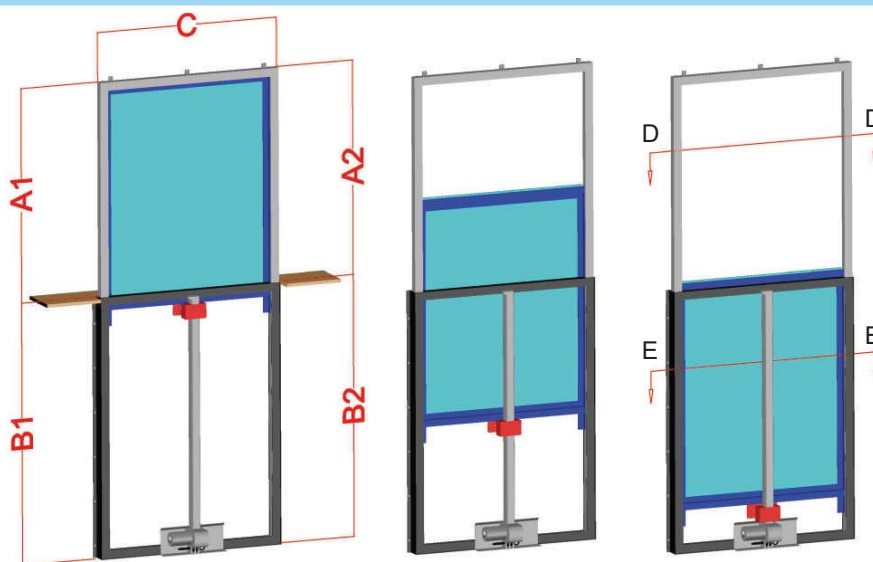
(CUSTOM MADE)



ELECTRIC SLIDING WINDOW (CUSTOM MADE)



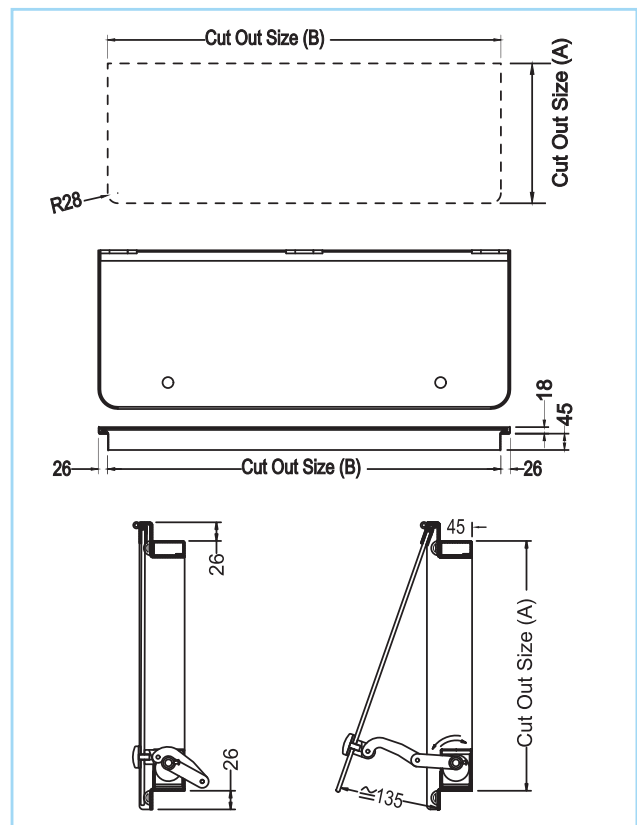
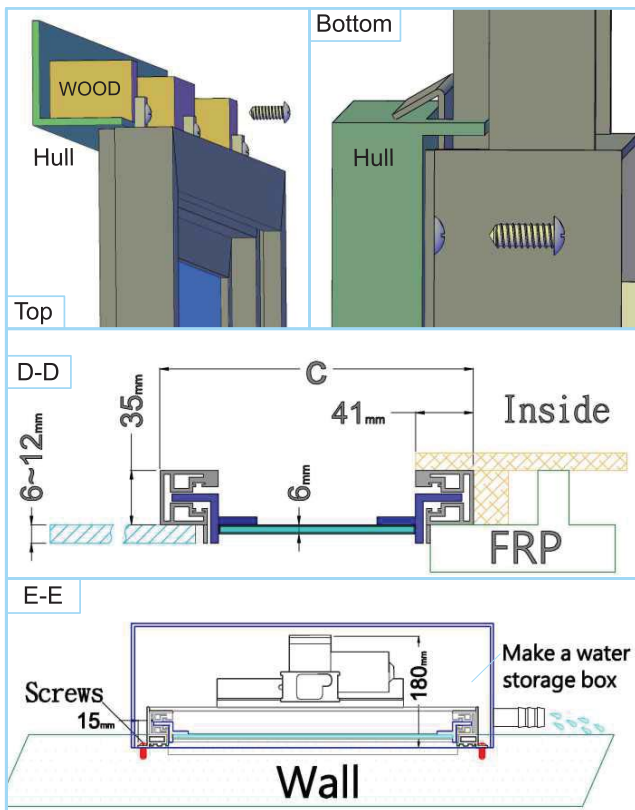
- Main material is 6061T5 aluminum with surface powder coating. black and milky white(cream color)option
Start with electric arm 24V, 6 m / m tempered glass slides up and down
- Power sliding window is designed can support the torsion of the ship during sailing and 100% weather tight feature and has the drain function.
- Tempered glass and accessories are easy to repair without removing the whole window
A.Tempered glass can be removed and installed from the outside
B.Internal accessories can be repaired from the inspection hole
- Please provide the following information when ordering powered sliding window
(A1 ∙ A2)+(B1 ∙ B2)+C digging dimensions, then we will provide drawings and quotes.
- Remarks: If the size of the hold digging exceeds 1000mm / m, because the glass weight is too heavy, you must add one more electric arm (two electric arms)



ELECTRIC OPENING WINDOW (CUSTOM MADE)



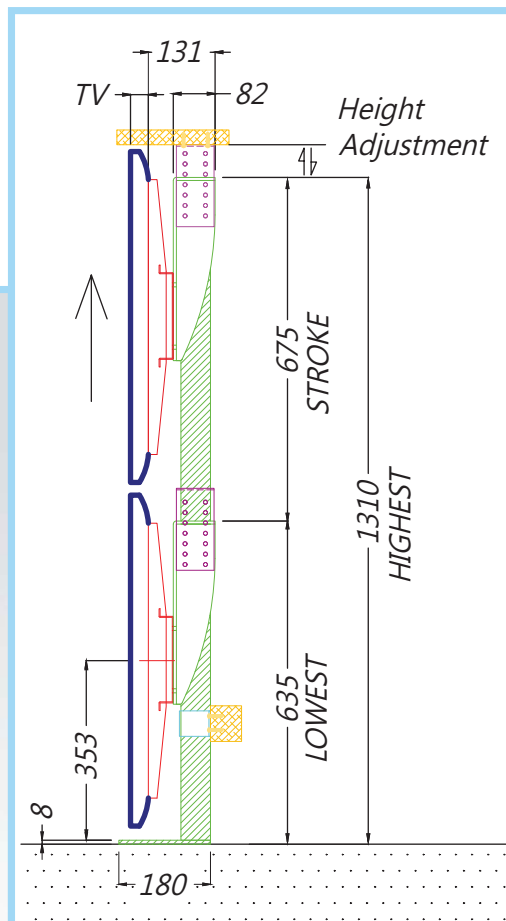
New developed base material is stainless steel 316, and colors are available: stainless steel primary, white and black powder coating.
Automatic opening window is installed in front of wheelhouse.
The open distance is 135mm with ventilation function.
Two arms moved by 24-12V motor.
5mm tempered glass with 100% watertight, strong and elegant.
Please advise A and B cutout size.
Manship will provide the drawing and quote.



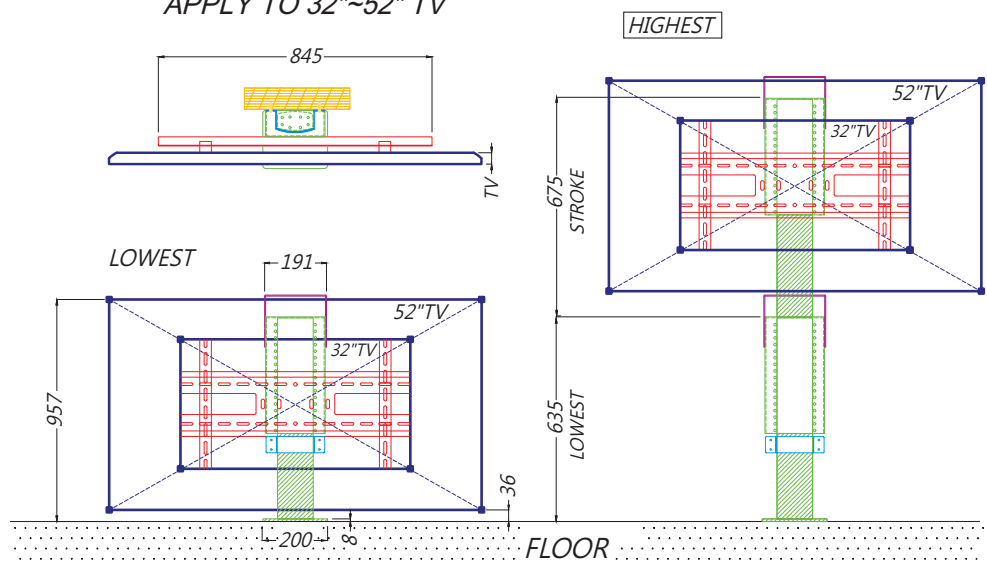
TV LIFT

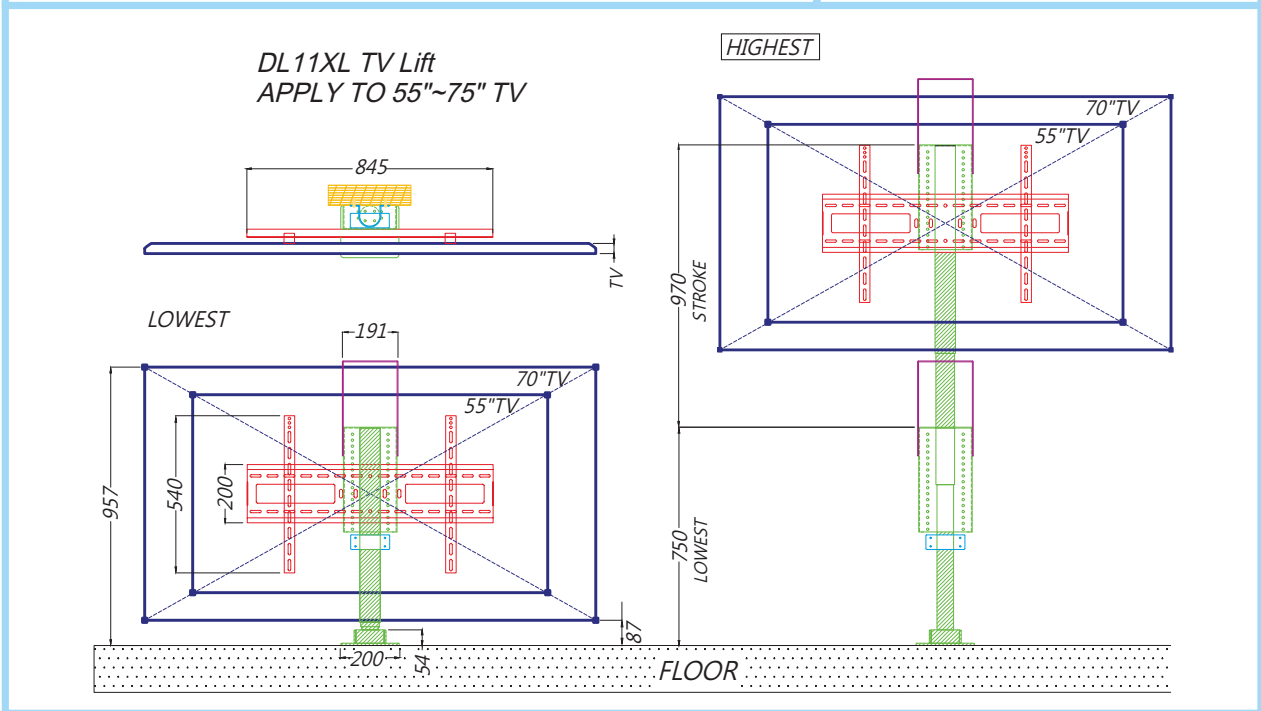
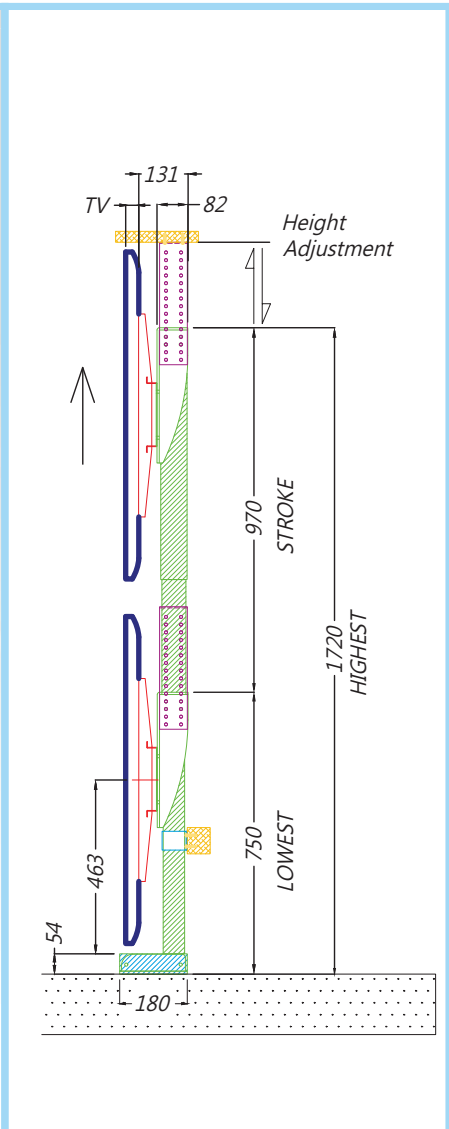
FEATURES

- MAN SHIP uses LINAK DESKLIFT DL4, DL11XL (two kinds of TV lift models) with 3-part telescopic column design combines to MANSHIP TV seat, compact and easily be installed.
- The power only can be used 120VAC/60Hz, 230VAC/50Hz.
- Low and uniform noise level.
- Hall sensor enables parallel drive with CBD4, up to 16 legs in a multiparallel system.
- Double acting brake for increased self-locking.
- Approved according to EN 60335-4 and UL 962.
- **MANSHIP also can custom make per customer's request and design TV lift spin function manually (180 degree).**



DL4 TV Lift
APPLY TO 32"~52" TV

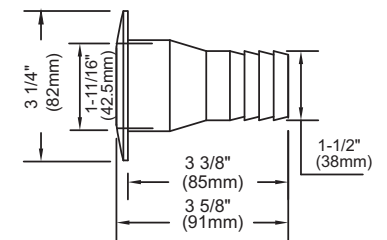
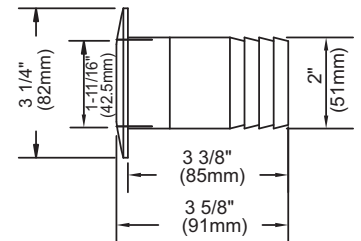
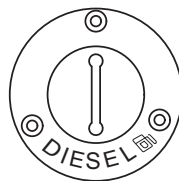




DECK FILLS



- 316 stainless steel. Hand polished and electro-polished to protect against corrosion.
- Each Deck Fill is marked with either: DIESEL, WATER, WASTE or ESSENCE.
- DIESEL Deck Fills come with a stainless steel tang for easy attachment of grounding wire.
- Each Deck Fill has an o-ring gasket for a tight seal.
- Your choice of Deck Fill cap: Standard type which opens with a key provided or Sailing yacht type which opens with any standard winch handle.



PART No.	PIPE SIZE	TYPE	MARK	PART No.	PIPE SIZE	TYPE	MARK
6546-11	1 1/2 38	★	WATER	6547-11	1 1/2 38	—●—	WATER
6546-12	1 1/2 38	★	DIESEL	6547-12	1 1/2 38	—●—	DIESEL
6546-13	1 1/2 38	★	WASTE	6547-13	1 1/2 38	—●—	WASTE
6546-14	1 1/2 38	★	ESSENCE	6547-14	1 1/2 38	—●—	ESSENCE
6546-21	2 51	★	WATER	6547-21	2 51	—●—	WATER
6546-22	2 51	★	DIESEL	6547-22	2 51	—●—	DIESEL
6546-23	2 51	★	WASTE	6547-23	2 51	—●—	WASTE
6546-24	2 51	★	ESSENCE	6547-24	2 51	—●—	ESSENCE

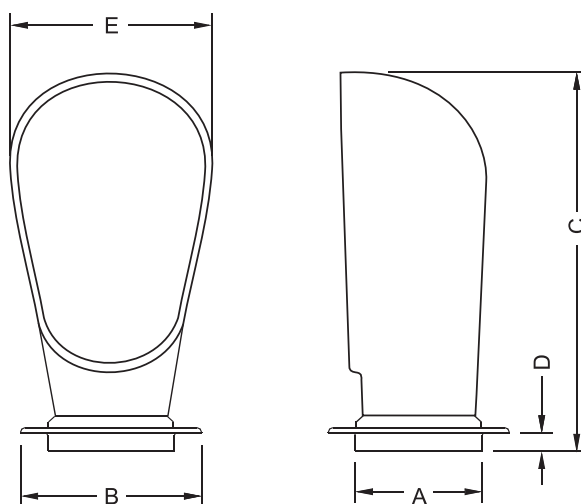
IN/MM

DORADES



FEATURES

- 18-8 non-magnetic stainless steel. Hand polished and electro-polished chrome plating to protect against corrosion.
- Snag-free design.
- Low profile with tear drop opening to allow maximum air to enter the dorade box.
- Stainless steel Deck Plate provided with O-ring.
- White or blue colored epoxy paint standard for the inside of the Dorade. Custom colors available on request by special order.



PART No.	A		B		C		D		E	
6500-31	3 1/2	90	5	120	10 1/2	267	5/8	16	5 3/4	145
6500-41	4 3/8	112	6 1/4	160	13 5/8	346	5/8	16	7 1/8	180
6500-51	5 7/8	150	7 7/8	200	15 3/4	400	7/8	22	7 1/2	190
6500-71	7	180	10	256	19 3/4	500	1	26	10 1/4	260

IN/MM

DOOR CABINET LATCH PUSH BUTTON



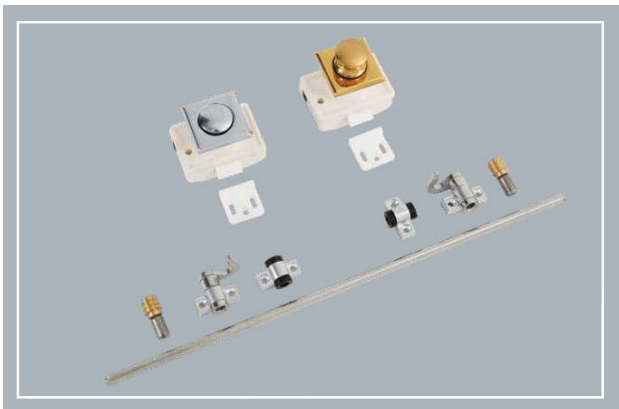
• Cabinet Latch 7100



• Door Latch 7200



• Cabinet Latch 7300



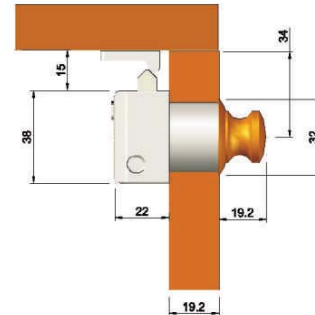
• Door Latch 7400

FEATURES

- Easy to install, safe, and attractive outline.
- Button trim and interior spring are made of stainless steel to avoid corrosion.
- Can be used for thickness from 1/2" to 1". Standard thickness is 3/4".
- Dual action latch positive locking with button fully depressed. (7100.7300.7500)
- It will hold the door without locking. To depress button will link s/s shaft with clamp to hook up s/s tap for positive locking. (7200.7400.7600)
- Optional colors: silver/chrome, gold/titanium plated.

CAUTION:

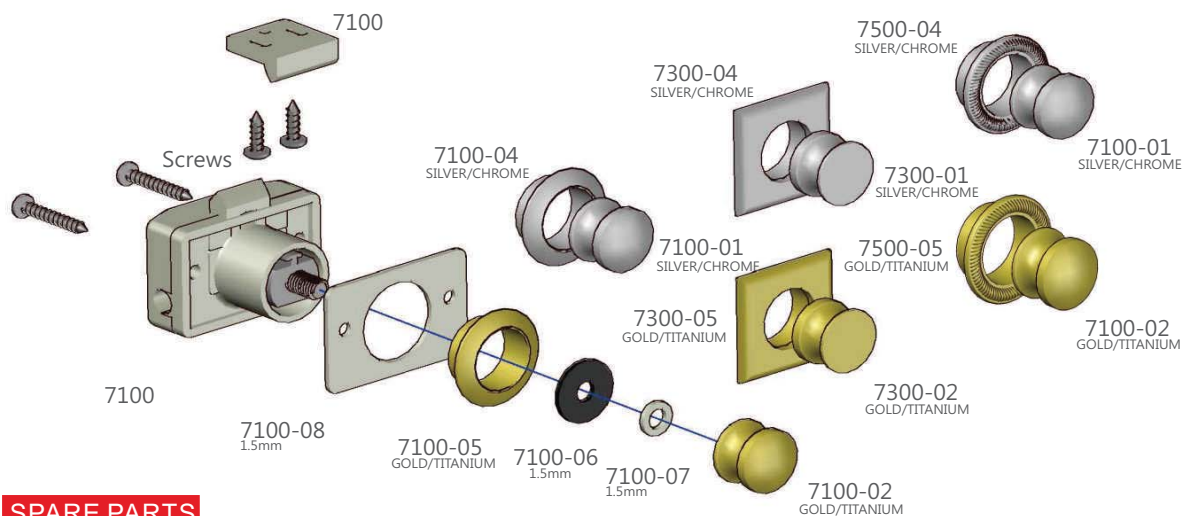
To prevent breakage or damage. Do not activate the latch before the door has closed.



• Door Latch 7500



• Door Latch 7600



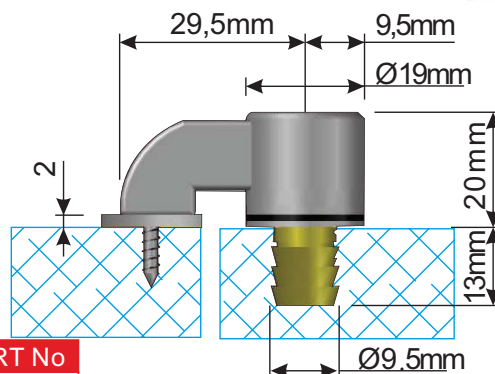
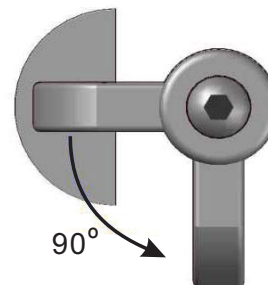
SPARE PARTS
7100 7300 7500

DOOR LATCH

- Material: 316 stainless steel
- Surface: mirror polish
- Function: on/off spin 90 degrees



PART No.8000



PART No
8000-01

SPARE PARTS
7200 7400 7600



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