



Marine & Offshore

Certificate number: 47692/B0 BV

File number: LSA 5338/41

Product code: 6026H

This certificate is not valid when presented without the full attached schedule composed of 7 sections

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TYPE APPROVAL CERTIFICATE

*This certificate is issued to***SURVITEC GROUP LIMITED**
DUNMURRY - UNITED KINGDOM*for the type of product***MARINE EVACUATION SYSTEMS (M.E.S.)**

Marine Evacuation System MES SIS

Trademarks: SURVITEC ESR, ENDURA, ENDURA R, CREWSAVER, ELLIOT, DSB, SURVITECZODIAC, RFD, R-F-D, SSP, BRUDE

Requirements:

SOLAS 74 Convention as amended, Reg. III/4, X/3, III/15, III/26 & III/34

IMO Res. MSC.48(66) -(LSA Code)- amended by MSC.207(81), MSC.218(82), MSC.272(85), MSC.293(87), MSC.320(89), MSC.368(93), MSC.425(98), MSC.459(101) and MSC.485(103) IMO Res. MSC.36(63) -(1994 HSC Code)- as amended, 8

IMO Res. MSC.97(73) -(2000 HSC Code)- as amended, 8

IMO Res. MSC.81(70) amended by MSC.200(80), MSC.226(82), MSC.274(85), MSC.295(87), MSC.321(89), MSC.323(89), MSC.378(93), MSC.427(98), MSC.472(101) and MSC.488(103)

IMO MSC/Circ.980, MSC.1/Circ.1632

Transport Canada Requirements:

Transport Canada Life Saving Equipment Regulations, TP14475 and TP14612

*This certificate is issued to attest that Bureau Veritas Marine & Offshore did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.***This certificate will expire on: 21 Jul 2027****For Bureau Veritas Marine & Offshore,**

At BV LONDON, on 21 Jul 2022,

Spencer Yule

This certificate was created electronically and is valid without signature

This certificate is recognized by Transport Canada

This certificate remains valid until the date stated above, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are complied with and the product remains satisfactory in service. This certificate will not be valid if the applicant makes any changes or modifications to the approved product, which have not been notified to, and agreed in writing with Bureau Veritas Marine & Offshore. Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply. This certificate is issued within the scope of the General Conditions of Bureau Veritas Marine & Offshore available on the internet site www.veristar.com. Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against Bureau Veritas Marine & Offshore for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION:

Trademark	SURVITEC ESR, ENDURA, ENDURA R, CREWSAVER, ELLIOT, DSB, SURVITECZODIAC, RFD, R-F-D, SSP, BRUDE
Type	Marine Evacuation System MES SIS

Marine Evacuation System MES SIS is a Small Inflatable Slide giving access of persons from an embarkation station directly into associated liferaft restrained by bowing system.

Five version of small inflatable slide (SIS) may be used.

Version	1,7 m	2,2 m	2,7 m	3,2 m	3,8 m
Length	2340 mm	3250 mm	3850 mm	4450 mm	5000 mm
Width	1150 mm				
Width of the track	650 mm				
Height	500 mm				
Design working pressure	206 mb	206 mb	206 mb	206 mb	276 mb

The SIS is packed in a valise. This valise contains also the connection snap hooks to be fastened onto the deck (binding attachment points located near the evacuation door).

Each one of the Small Inflatable Slides can be associated with the following liferaft:

BV Type Examination certificate	Designation	Description
47241/.. BV	50 TO	50 man throw-overboard SOLAS A and B pack inflatable liferaft
47242/.. BV	50 TOSR	50 man throw-overboard self-righting SOLAS A and B pack inflatable liferaft
47228/.. BV	100 TOSR	100 man throw-overboard self-righting SOLAS A and B pack inflatable liferaft
48122/.. BV	150 TOSR V	150 man throw-overboard self-righting SOLAS B pack inflatable liferaft
42913/.. BV	150 TOSR	150 man throw overboard self-righting SOLAS A and B pack inflatable liferaft
49251/.. BV	ORIL 30	30 man Open Reversible Inflatable Liferaft - HSC pack
49252/.. BV	ORIL 50	50 man Open Reversible Inflatable Liferaft - HSC pack
48257/.. BV	ORIL 100V	100 man Open Reversible Inflatable Liferaft - HSC pack
48256/.. BV	ORIL 151V	151 man Open Reversible Inflatable Liferaft - HSC pack

The liferaft is fitted with two webbing straps on the floor enabling the connection of the liferaft to the Small Inflatable Slide.

2. DOCUMENTS AND DRAWINGS:

2.1 Drawing and specifications

The constructional arrangements, details and materials of the marine evacuation system shall be in accordance with the following manufacturer's drawings and specifications:

2.1.1 General Design Record:

Number	Title	Issue	Date
CHXBE 330	Evacuation system with direct passage through an inclined inflatable passage into a liferaft 50 TO, 50 TOSR, 100 TOSRV, 150 TOSRV, 150 TOSR or an HSC 30, 50, 100V, 151V	D	09/05/2022
-	BRANDS FILE	A	25/02/2016

2.1.2 Small Inflatable Slide

Version	1,7 m	2,2 m	2,7 m	3,2 m	3,8 m
Design record	CHX BE 332	CHX BE 248	CHX BE 267	CHX BE 271	CHX BE 354
Issue	E	H	I	H	F
Date	05/06/2020	05/06/2020	05/06/2020	05/06/2020	05/04/2020

2.1.3 Associated liferafts

2.1.3.1 Throw-overboard inflatable liferafts

Type	50 TO
Design record	CHX BE 221TC
Issue	G
Date	24/08/2021

2.1.3.2 Throw-overboard inflatable automatically self-righting liferafts

Type	50 TOSR	100 TOSR	150 TOSR	150 TOSR V
Design record	CHX BE 281TC	CHX BE 352TC	CHX BE 277TC	CHX BE 378TC
Issue	B	D	F	B
Date	24/08/2021	10/12/2021	03/11/2020	10/12/2021

2.1.3.3 Open reversible inflatable liferafts

Type	ORIL 30	ORIL 50	ORIL 100V	ORIL 151V
Design record	CHX BE 294TC	CHX BE 260TC	CHX BE 302TC	CHX BE 328TC
Issue	H	J	E	F
Date	03/05/2022	09/05/2022	19/11/2021	18/11/2021

2.2 Material and components :

Number	Title	Issue	Date
D.I.F 01	Suppliers file MES SIS	K	16/06/2021
D.I.F.01 Annexe TC	Suppliers file CCG SIS Specific items	A	16/06/2021

No departure from these documents is permitted without the prior consent of the Society.

2.3 Manual(s) for installation use and maintenance

Manual for installation, use and maintenance (to be in English and in French):

Based on the MES owner's manual Version 1 dated January 2004

An owner's manual is supplied for each MES installation.

In addition of the owner's manual, Survitec SAS supplies an installation manual dedicated to the corresponding installation

3. TEST REPORTS:

Version	1,7 m	2,2 m	2,7 m	3,2 m	3,8 m
Test report N° <i>Date</i>	BE 024/2008 26/03/2008	BE 066/2003 22/12/2003	BE 063/2003 18/12/2003	BE 068/2003 22/12/2003	BE 001/2008 09/01/2008
Test report N° <i>Date</i>		BE 070/2012 18/12/2012	BE 067/2003 22/12/2003		BE 066/2012 23/10/2012
Test report N° <i>Date</i>			BE 066/2012 23/10/2012		

4. APPLICATION / LIMITATION:**4.1 Application / Limit of use**

- As per requirements stated on front page of this certificate.
- Marine Evacuation systems using open reversible liferafts are restricted to the use permissible within the HSC code as amended.
- Extended service intervals of the inflatable liferaft is subjected to an authorization of the ship's flag administration as per SOLAS Chapter III-Regulation 20.
- Lifejackets intended to be used with this Marine Evacuation System should be demonstrated not to hamper a safe descent through the Marine Evacuation System and safe access to and entry into the associated liferafts.

4.2 Evacuation capacity

The capacity of the Marine evacuation system is equivalent to capacity of the associated liferaft.

$$230 + [(150-1) \times 3,5] = 752 \text{ Seconds (12 minutes 32 seconds)}$$

230s = Time required to prepare the MES and to cut free the liferaft

150 = Carrying capacity of the associated liferaft

1 = One person enters the associated liferaft during the preparation of the MES

3.5s = Mean evacuation time per passenger

4.3 Calculation of the number of persons that can be evacuated in any specified period

$$[(T-230)/3,5]+1$$

T = Specified period expressed in seconds

230s = Preparation of the MES and cut free of the liferaft

3.5s = Mean evacuation time per passenger

1 = One person enters the associated liferaft during the preparation of the MES

Example: 10 minutes $[(600-230)/3,5]+1 = 106$ persons

4.4 Maximum freeboard

	Small Inflatable Slide				
	1,7 m	2,2 m	2,7 m	3,2 m	3,8 m
Freeboard	From 1,5 meters to 1,7 meters	From 1,7meters to 2,2 meters	From 2,2 meters to 2,7 meters	From 2,7 meters to 3,2 meters	From 3,2 meters to 3,8 meters

4.5 On board installation requirements

- As per requirements stated on front page of the certificate.
- Installation of the Marine Evacuation system is to be in accordance with the requirement of MSC.48 (66) §6.2.2.1.5
- Maximum stowage height of the liferaft according to the limitation indicated on the BV type approval certificate of the associated liferaft.
- Installation tests to be carried out in accordance with IMO Resolution MSC.81 (70) Part 2 § 7.

4.6 Maintenance requirements

The maintenance of the liferaft and of the slide shall be carried out in accordance with per Chapter III – Regulation 20 of SOLAS 74 Convention as amended and IMO Resolution MSC.81 (70), Part 2, §7.1.2 and instructions stated in the Manual(s).

5. PRODUCTION SURVEY REQUIREMENTS:

5.1 - The Marine Evacuation System are to be supplied by **Survitec** in compliance with the type described in this certificate.

5.2 - This type of product is within the category HBV of Bureau Veritas Rule Note NR320 and as such does not require a BV product certificate.

5.3 - **Survitec** has to make the necessary arrangements to have its works recognised by Bureau Veritas in compliance with the requirements of NR320 for HBV products.

5.4 - The manufacturer shall institute a quality control procedure to ensure that the Marine Evacuation System are produced to the same standard as the approved prototype and shall keep records of any production tests carried out in accordance with instructions given in IMO Resolution MSC.81 (70) Part 2.

Each equipment, or batch of equipment, is to be supplied with its Manual(s) for Installation, use & maintenance and instructions for servicing stations for frequency and tests to be carried out according to IMO Resolution A.761(18).

The servicing stations must be approved by a Recognized Organisation of Transport Canada and must be recognized by the manufacturer according to IMO Resolution A.761(18), for their competences to service and repack such Marine Evacuation System.

Each Marine Evacuation System intended to be fitted onboard a ship registered to a National register adhering to the Directive shall be delivered with a Declaration of Conformity.

6. MARKING OF PRODUCT:

Instructions, Diagrams, Markings illustrating the use of the **Marine Evacuation Systems** shall be printed indelibly (to be both in English and in French)

Launching and operating instructions shall be marked on or in the vicinity of the container

Marking on container	Marking on Marine Evacuation System
Maker's name or trade mark	
Serial number	
Name of approving authority	
BV type approval certificate number	
Date of manufacture (month and year)	
The capacity of the system	
Date and place of the last serviced	Name and place of the servicing station where it was last serviced and the date of the servicing
Stowage position on board	
Maximum permitted stowage height above waterline	
SOLAS (when the MES is associated with TO liferafts)	
Non-SOLAS reversible (when the MES is associated with ORIL liferafts)	

7. OTHERS:

It is **Survitec** responsibility to inform shipbuilders or their sub-contractors of the proper methods of fitting, use and general maintenance of the approved equipment and the conditions of this approval.

This certificate supersedes the previous Type Approval Certificate N° 47692/A0 BV issued on 06/04/2017 by the Society

*** END OF CERTIFICATE ***