Marine & Offshore

Certificate number: 47691/B0 BV
File number: LSA 1626/78
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.)

SURVITECZODIAC MES MIS

Marine Evacuation System with Medium Inflatable Slide 4.8 m or 6.2 m or 7.7 m or 9.3 m or 10.9m or 12.5 m and liferafts 100 TOSR V or 150 TOSR V or ORIL 100V or ORIL 151V

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) I, IV
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: 22 Sep 2027

For Bureau Veritas Marine & Offshore,
At BV LONDON, on 22 Sep 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:

SURVITECZODIAC Marine Evacuation System MES MIS (Medium Inflatable Slide) is an Inclined Inflatable passage with twin track giving the access of persons from an embarkation station directly into a primary liferaft.

Type : SURVITECZODIAC MES MIS 4.8 (or 6.2, or 7.7, or 9.3 or 10.9 or 12.5) 100TO SR V
SURVITECZODIAC MES MIS 4.8 (or 6.2, or 7.7, or 9.3 or 10.9 or 12.5) 150TO SR V
SURVITECZODIAC MES MIS 4.8 (or 6.2, or 7.7, or 9.3 or 10.9 or 12.5) ORIL 151 V
SURVITECZODIAC MES MIS 4.8 (or 6.2, or 7.7, or 9.3 or 10.9 or 12.5) ORIL 100 V

Characteristics of the slides:

Version of MIS	4.8 m	6.2m	7.7 m	9.3m	10.9m	12.5m
Length	6640 mm	9014 mm	11760 mm	14500 mm	17244 mm	19986 mm
Number of tracks	2	2	2	2	2	2
Width of each tracks	700 mm	700 mm	700 mm	700 mm	700 mm	700 mm
Height	2693 mm	2690 mm	2690 mm	2693 mm	2690 mm	2690 mm
Design working pressure	239 mb/ 290 mb	239 mb/ 290 mb	240 mb/361mb/ 473mb/601mb	239 mb/361mb/ 473mb	240 mb/361mb/ 473mb/601mb	240 mb/361mb/ 473mb/601mb

Characteristics of the MES:Connection between slide and primary liferaft already done before packing
Evacuation system with direct pasage through an inclined inflatable passage into a primary liferaft type Throw-Over (TO) or type Open Reversible Inflatable Liferaft (ORIL) and associated liferafts

	Throw-over liferaft	Throw-over liferaft	Open Reversible Inflatable Liferaft	Open Reversible Inflatable Liferaft
Primary liferaft	150 TO SR V	100 TO SR V	ORIL 151V*	ORIL 100 V*
Associated liferaft or additional liferaft	150 TO SR V 100 TO SR V 50 TO SR 50 TO	100 TO SR V 50 TO SR 50 TO	ORIL 151V* ORIL 100V	ORIL 100 V*

* For ORIL of same capacity primary liferaft and associated liferaft are packed in the same container
On one side the escape slide is connected to the cradle and on the other side the escape slide is connected to the primary liferaft. The cradle is fixed on the deck. The primary liferaft is packed in a container and the escape slide is rolled up around the container. The container is fitted on the cradle. The whole is to be situated on the deck in an arranged room with a door to allow the deployment of the system.
Additional associated liferafts are fitted independently on cradles.

2. DOCUMENTS AND DRAWINGS:

2.1 Drawings and Specifications
The constructional arrangements, details and materials of the Marine Evacuation System shall be in accordance with the manufacturer's drawings and specifications:

2.1.1 MES MIS General Design Record: CHXBE 331/MES TC – Issue C – Dated 04/04/2022

2.1.2 Medium Inflatable Slide: Design Record

Designation	Design record	BV Type Examination Certificate
Medium Inflatable Slide 4.8 m	CHXBE 358 Issue : D Dated : 25/09/2020	47691/..BV
Medium Inflatable Slide 6.2 m	CHXBE 366 Issue : C Dated : 25/09/2020	47691/..BV
Medium Inflatable Slide 7.7 m	CHXBE 364 Issue : D Dated : 10/12/2021	47691/..BV
Medium Inflatable Slide 9.3 m	CHXBE 331/slide Issue : E Dated : 16/03/2020	47691/..BV
Medium Inflatable Slide 10.9 m	CHXBE 365 Issue : B Dated : 25/09/2020	47691/..BV
Medium Inflatable Slide 12.5 m	CHXBE 367 Issue : C Dated : 25/09/2020	47691/..BV

2.1.3 Liferafts: Design Record

Designation	Design record	BV Type Examination Certificate
150TO SR V	CHXBE 378TC Issue : B Dated : 10/12/2021	48122/..BV
100 TO SR V	CHXBE 352TC Issue : D Dated : 10/12/2021	47228/.. BV
ORIL HSCR 151 V	CHXBE 328TC Issue : F Dated : 18/11/2021	48256/.. BV
ORIL HSCR 100 V	CHXBE 302TC Issue : E Dated : 19/11/2021	48257/.. BV
50 TO	CHXBE 221TC Issue : G Dated : 24/08/2021	47241/.. BV
50 TO SR	CHXBE 281TC Issue : B Dated : 24/08/2021	47242/.. BV

2.2 Material

Number	Title	Issue	Date
D.I.F.03	Supplier Files MES MIS	J	22/11/2021
D.I.F. 03 annexe	Suppliers File CCG MES MIS Specific Items	B	20/11/2021

2.3 Brand File

Number	Title	Issue	Date
---	Brand File	A	25/02/2016

2.4 Manual(s) for installation use and maintenance (to be both in English and in French):
Based on the MES owner's manual Version 1 dated 07/04/2014 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

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

3. TEST REPORTS:

MARINE EVACUATION SYSTEM TYPE TESTS

Number	Title	Issue	Date
---	Tests performed on the liferaft	C	10/12/2021

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 (ORIL) is restricted to the use permissible within the HSC code as amended.
- The system inclined passage used in conjunction with two associated liferafts packed in the same container is strictly restricted to the use with this MES with a maximum evacuation height appropriate to the type of Medium Inflatable Slide used.
- An extended service interval of the inflatable associated 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 of MES MIS up to 9.3 m

The capacity of the Marine Evacuation System is equivalent to the capacity of the liferaft

230 + (151X 2.08) = 544 seconds = 9 minutes 04 second

230s = Time required to prepare the MES
151 = Carring capacity of the liferaft
2.08 = Average evacuation time per passager including time to marshal the liferaft

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

Configuration - SOLAS	number of evacuated persons	Total number of evacuated persons	Cumulated time
Escape slide with primary	150	150	6mn 45
Transfer to the first associated liferaft	0	150	8mn 33
Evacuation in the 2nd associated liferaft	150	300	14mn 26
Evacuation in the 3rd associated liferaft	150	450	19mn 49
Evacuation in the 4th associated liferaft	150	600	25mn 15
Evacuation in the primary liferaft	131	731	29 mn 30
Disconnect the slide	0	731	30 mn 00

Configuration - HSC	number of evacuated persons	Total number of evacuated persons	Cumulated time
Evacuation in the primary liferaft and 2nd associated liferaft	302	302	14 mn 30
Evacuation in the 3rd liferaft	95	397	17 mn 10
Disconnect the slide	0	397	17 mn 40

4.3 Evacuation capacity of MES MIS 10.9m & MES MIS 12.5 m

Configuration of the MES MIS		Total number of evacuated persons	
PRIMARY LIFERAFT	**SECONDARY LIFERAFTS**	**within 30 min**	**within 17 min 40**
(1 x) 150 TO SR V	(4 x) 150 TO SR V	750	390
(1 x) 150 TO SR V	(8 x) 50 TO	550	-
(1 x) 150 TO SR V	(8 x) 50 TO SR	550	-

4.4 Evacuation height

Designation	Slide Length	Maximum Evacuation Height
MES MIS 4.8 m	6.64 m	4.8 m
MES MIS 6.2 m	9.01 m	6.2 m
MES MIS 7.7 m	11.76 m	7.7 m
MES MIS 9.3 m	14.5 m	9.3 m
MES MIS 10.9 m	17.2 m	10.9 m
MES MIS 12.5 m	20 m	12.5 m

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) 6.2.2.1.5.2 in the case of a passenger ship.
- Maximum stowage height of the additional associated liferaft is to be according to the limitation given by the BV type approval certificate .
- 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 MES SLIDE and associated liferaft 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 - 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.

5.5 - 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).

5.6 - 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.

5.7 - 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

Markings on container	Markings 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 last serviced	Name and place of servicing station where it was last serviced and the date of 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**'s 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 Type Approval Certificate N°47691/A1 BV issued on 03/03/2017 by Bureau Veritas

***** END OF CERTIFICATE *****