

EC-TYPE EXAMINATION CERTIFICATE (MODULE B)

Application of: Council Directive 96/98/EC of 20 December 1996 on Marine Equipment as amended by directive (EU) 2015/559, issued as "Forskrift om Skipsutstyr" by the Norwegian Maritime Directorate. This Certificate is issued by DNV GL AS under the authority of the Government of the Kingdom of Norway.

This is to certify:

That the Deep fat cooking equipment fire extinguishing systems components (automatic or manual type)

with type designation(s)
Incorporated deep fat extinguishing system

Issued to

A-Plus Engineering Company
Shanghai China, China

is found to comply with the requirements in the following Regulations/Standards:

Annex A.1, item No. A.1/3.43 and Annex B, Module B in the Directive; SOLAS 74 as amended, Regulation II-2/1, II-2/10 & X/3 and 2000 HSC Code 7

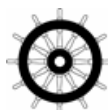
Further details of the equipment and conditions for certification are given overleaf.

This Certificate is valid until **2021-07-06**.

Issued at **Høvik** on **2016-07-07**

DNV GL local station:
Shanghai CMC

Approval Engineer:
Ragnar Tonjer



Notified Body
No.: **0575**

for **DNV GL AS**

Vidar Dolonen
Head of Notified Body

Product description

"Incorporated deep fat extinguishing system"

comprised of an extinguisher cylinder 5.7 L containing 5.7 L Ansul R-102 wet chemical suppressant, a nitrogen propellant gas cylinder, a regulated release assembly, stainless steel piping and a nozzle.

The system is delivered with the following model names: "MFEX2*10", "MFEX2*20", "MFEX2*D20" and "MFEX*20T".

Application/Limitation

The system is composed of the following main components:

Part	Drawing	Description, material
Nitrogen cylinder assembly	Ansul: Part No. 5373 Aplus: Part No. PJ11.002	LT-30-R nitrogen cartridge
Extinguisher cylinder	Ansul: Part No. 429864 Aplus: Part No. PJ11.004	Fire extinguishing agent cylinder 5.7 L.
Burst Disc	Ansul Part No. 417911	Installed in the tank adaptor assembly for eliminating the siphoning of the agent up the pipe during extreme temperature variations.
Filter unit in nozzle	Ansul Part No. 419338 (nozzle)	A stainless steel filter is inside the nozzle.
Piping	See system drawings below	ø17x2.25mm stainless steel
Nozzle and protection cover	APLUS:AP05-105-000 Ansul:Part No. 419338 and 77676	ANSUL: 3N Nozzle Nozzle Identification: Chrome-Plated Body and Tip Rubber nozzle antiscaling cap
Suppressant	Ansul: Part No. 79694 Aplus: Part No. PJ11.001	"Ansul R-102" wet chemical Low pH Liquid Fire

The spray head is to be installed according to the following specifications:

System specifications	
Vertical distance from vat	600 mm
Length of extinguisher piping	1530 mm (max. 4 elbows)
Position of spray head	One in the right inner corner (front view) 600 mm over the protected area in a 45° angle to vertical axis.
Max. area protected	500x650 mm
Maximum vat size:	System arrangement drawings:
10 L	No. AP051-200-000S
20 L	No. AP052-200-000S
2*10 L	No. AP052-200-000-1
Operating pressure	6.9 bar

System components, such as pipes and pipe connections as well as welding of pipes are to be certified or inspected in accordance with DNV GL Rules or equivalent standards acceptable to the Flag State.

The following items are to be submitted for approval for each project:

- System arrangement plans including location of nozzle, section, release stations and control circuitry/arrangement.
- Specification of pipes, pressurised cylinder and associated components.

Installation testing:

- Pressure testing of pipe system to at least 1.5 times maximum working pressure.
- Function testing of the system.

Testing according to maker's manual.

Periodical testing:

Periodical control and inspection to be in accordance with makers manual.

Type Examination documentation

Fire Test Report Nos. Gn201303286 and Gn201303288 dated 2013-07-01 from Tianjin Fire Research Institute Testing Center, Ministry of Public Security, Tianjin, China.

Instruction manual Nos. V02-1311 (single vat) dated 2013-11-07 and V02-1312 (double vat) dated 2013-12-19, from A-Plus Engineering Company, Shanghai, China.

Tests carried out

Tested according to ISO 15371:2009.

Marking of product

The spray nozzle is to be marked with type designation whereas control unit is to be marked with name of manufacturer and type designation and Mark of Conformity.