



Page 2 of 3
Document number MED 1250261
Issue number 1

**DESIGN APPRAISAL DOCUMENT**

Date 20 March 2013	Quote this reference on all future communications LDSO/SFS/TA/MF
-----------------------	---

**ATTACHMENT TO EC TYPE EXAMINATION (MODULE B) CERTIFICATE No.MED 1250261**

The undernoted documents have been appraised for compliance with the relevant requirements of International Conventions and European Union legislation for the EC Type Examination of Marine Equipment for use on Merchant Ships Registered in the European Economic Area.

This Design Appraisal Document (schedule) forms part of the Certificate.

**APPROVAL DOCUMENTATION**

Fire Insurers Laboratory of Korea (FILK), Gyeonggi-Do, Korea, Fire Test Report No. 2002-0287, dated 8 June 2002.

**CONDITIONS OF CERTIFICATION**

1. The system has been designed for compliance with SOLAS as Amended, II-2 Regulation 10.6.4 and is restricted to applications on ships which are constructed before 1 July 2013, in accordance with MSC.1/Circ. 1433.
2. For use in Single or Multiple Vat Deep Fat Fryers, installed on board ships. The capacity and arrangement of the spray nozzles is to be verified against the specifications of the deep fat cooking installation and shall be located as denoted in GENERAL NOTES.
3. Arrangement drawings and calculations are to be submitted for acceptance in each case where it is proposed to install this system. All principal components of the system are to be identified, with their location in relation to the deep fat cooking installations being indicated.
4. Production items of the subject equipment are to be manufactured in accordance with either an approved Production Quality Assurance system (Module D), a Product-Quality assurance system (Module E) or a Product Verification Process (Module F). The wheelmark cannot be affixed to the product until a conformity assessment module is in place.
5. Each item, batch or lot of the equipment is to be issued with a "Declaration of Conformity" and have the "Mark of Conformity" affixed after a conformity assessment module is in place.

**GENERAL NOTES**

1. Additional spray nozzles must be fitted in the extraction system plenum and duct as well as the main nozzle protecting the cooker. Nozzle types: 3N-Deep Fat Fryer, 2W-Duct Protection and 1W-Plenum Protection.
2. Maximum surface area of deep fat fryer tested: two areas, each 185mm (Wide) x 370mm (Length).
3. Maximum volume of deep fat fryer tested: two basins (14 Ltrs) each 185 x 370 x 280 mm.
4. Maximum height of nozzle above fryer 0.890m  
Minimum height of nozzle above fryer 0.640m  
(Single nozzle within hood, centred over fryer)
5. The system is powered by a nitrogen gas cylinder (ref: LT-30-R) designed to give a working pressure of 759 kPa through a regulator.
6. The system is charged with 11.4 litres (3 gal) of Ansulex Low pH Liquid Fire Suppressant.

OFFICE COPY  
Lloyd's Register

### DESIGN APPRAISAL DOCUMENT

Date 20 March 2013	Quote this reference on all future communications LDSO/SFS/TA/MF
-----------------------	---

#### ATTACHMENT TO EC TYPE EXAMINATION (MODULE B) CERTIFICATE No.MED 1250261

7. Piping shall be made of stainless steel having a minimum grade of SUS 304, 10mm (<sup>3</sup>/<sub>8</sub>" ) " dia., maximum pipe length: 10.2m.
8. The system pipework including; flexible hoses, pipes, valves and fittings are to be LR Approved, in accordance with Lloyd's Register Rules, Part 5, Chapter 12.
9. Valves and fittings in pressure piping exceeding 7 bar and all pumps are to be designed and tested to codes of practice recognised by Lloyd's Register, indicating that they can withstand the pressure expected in service, giving regard to their installed location.
10. The storage system containers and associated pressure components are to be designed and tested to codes of practice recognised by Lloyd's Register, indicating that they can withstand the pressure expected in service, giving regard to their installed location.
11. The deep-fat cooking equipment must be fitted with a primary and back-up thermostat with an alarm to alert the operator in the event of failure of either thermostat.
12. Activation of the system must:
  - Shut off power to the Deep-Fat Cooking Equipment being protected by such system.
  - Initiate an audible alarm within the space containing the Deep-Fat Cooking Equipment being protected.
13. The controls for manual operation of the fire-extinguishing system must be clearly labelled for ready use by the crew.
14. On completion of the installation final acceptance of the system is dependent on satisfactory survey and testing in accordance with the manufacturer's design manual.

#### PLACE OF PRODUCTION

Tyco Safety Products/ Ansul Inc.  
1, Stanton Street  
Marinette  
Wisconsin, 54143-2542  
United States of America (USA)

OFFICE COPY  
Lloyd's Register

Martin Farrier  
Lead Specialist  
For and on behalf of Lloyd's Register Verification  
**LRV EC Distinguishing No. 0038**