

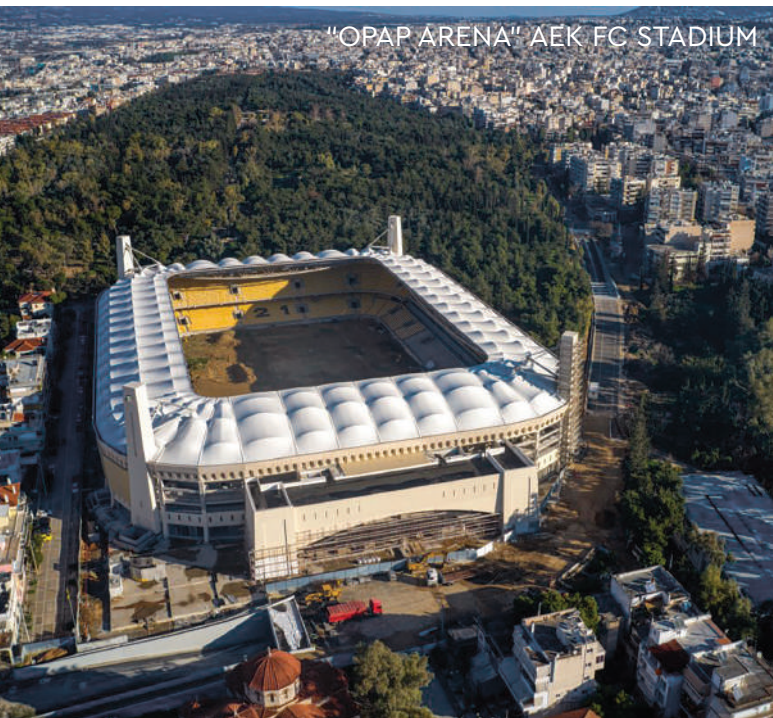
FIREFIGHTING SETS

Specialized production line • Full certification by independent bodies
 Unlimited parametrisation capabilities • Integrated support services



INDICATIVE
PROJECTS WITH
**FIREFIGHTING
SYSTEMS** BY IDATOR

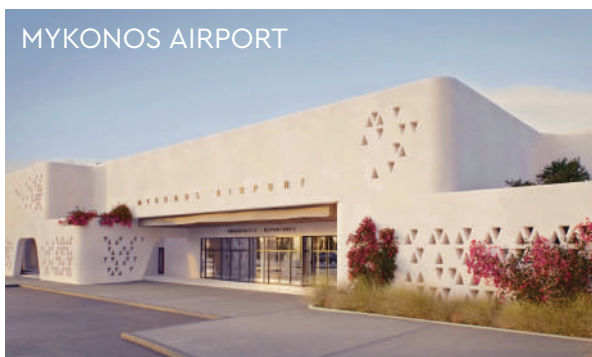




"OPAP ARENA" AEK FC STADIUM



IKOS ODISIA HOTEL



MYKONOS AIRPORT



HERAKLEOUS PORT



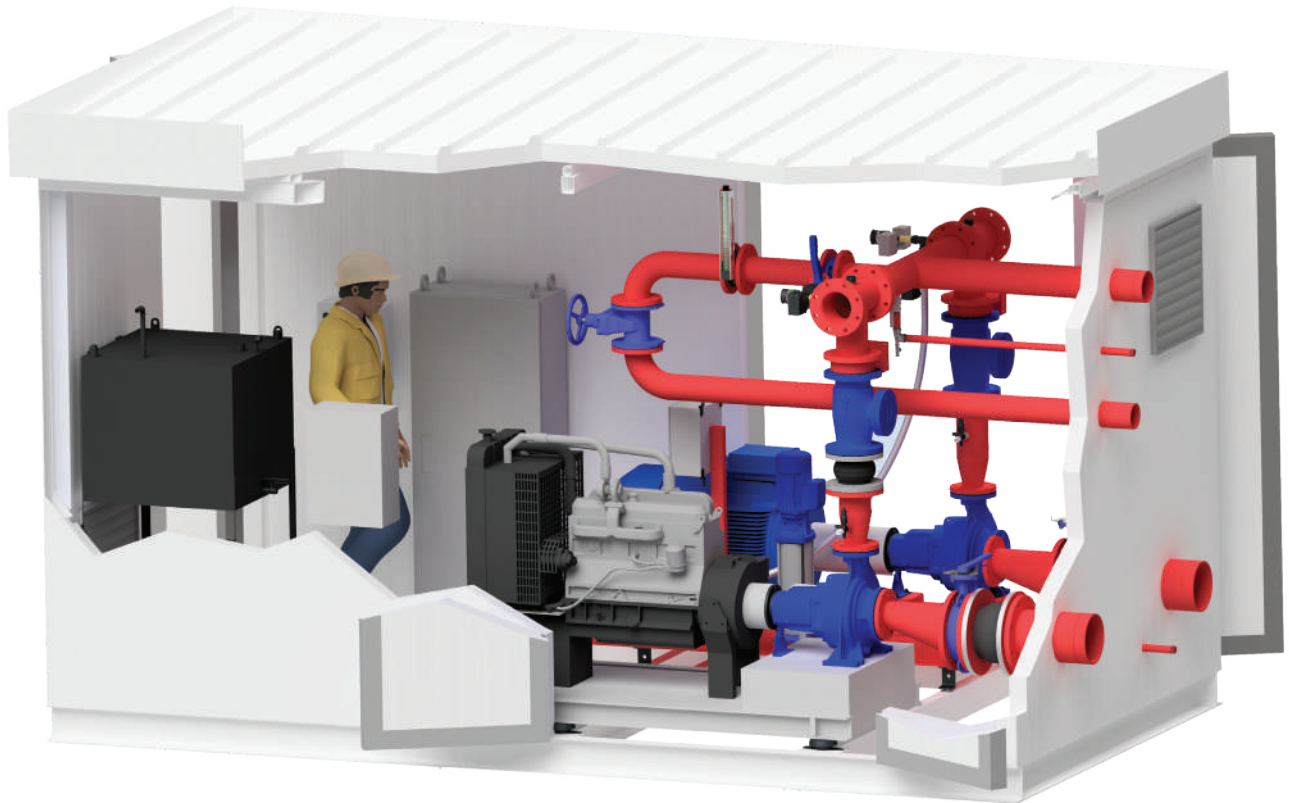
MUSEUM OF VERGINA



MILOS HOTEL



"MACEDONIA" AIRPORT



**CONTAINERIZED
FIREFIGHTING
PUMP SETS**

In line with the modern global trend for compact solutions based on speed and ease of installation, Idator was the first company in Greece to present the solution of a containerized firefighting pump set. The containers are constructed entirely in our factory and are dimensioned based on the needs of each installation.

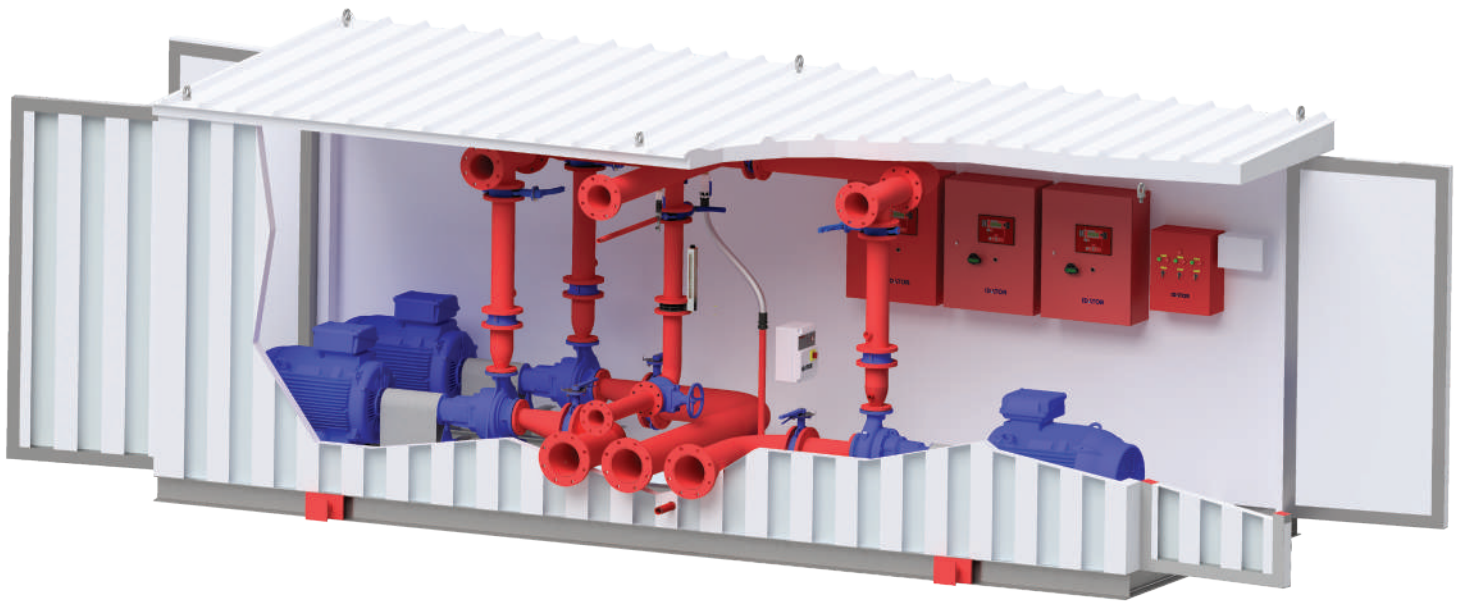


ADVANTAGES



- ◆ **Reduced footprint**
Occupies significantly less space compared to conventional pumping stations
- ◆ **Fully equipped**
Provided with all accessories and equipment necessary for its proper operation

- ◆ **Design & Implementation**
Idator offers a complete system that includes:
 - > Design
 - > 3D Drawings
 - > Installation (upon request)
- ◆ **Total warranty**
Total guarantee offered for the proper operation of the system
- ◆ **Comprehensive trial**
Full trial and checks in our premises using modern equipment
- ◆ **Outdoor installation**
The container is transported as a complete system in order to be installed in the outdoor area of the building. It only requires a connection to the water supply network and to the electricity network
- ◆ **Ease of access**
Easier access to the container, especially in case of a breakdown



CONTAINERIZED FIREFIGHTING PUMP SETS

Basic composition

- ◆ Frame made of iron profile beams, dimensioned according to the intended loads
- ◆ Wall panels consisting of an EI 60 A2 S1 fire-resistant panel, with 60' fire resistance
- ◆ Roof cover consisting of an EI 60 A2 S1 fire-resistant panel, with an appropriate inclination for the drainage of stormwater
- ◆ Removable roof (if applicable, it can be removed together with the wall panels)
- ◆ Metal sheet floor (non-slip at points accessible to pedestrians). This is not required if it is intended to be encased in reinforced concrete
- ◆ Fire-resistant main entrance with a key
- ◆ Side doors allowing access and ease of maintenance, opened either with a key or from inside the container



- ◆ Complete firefighting set (with a selection among combinations of electric and diesel pumps), mounted on appropriate beams
- ◆ Suction kit with appropriate cross-sections and devices

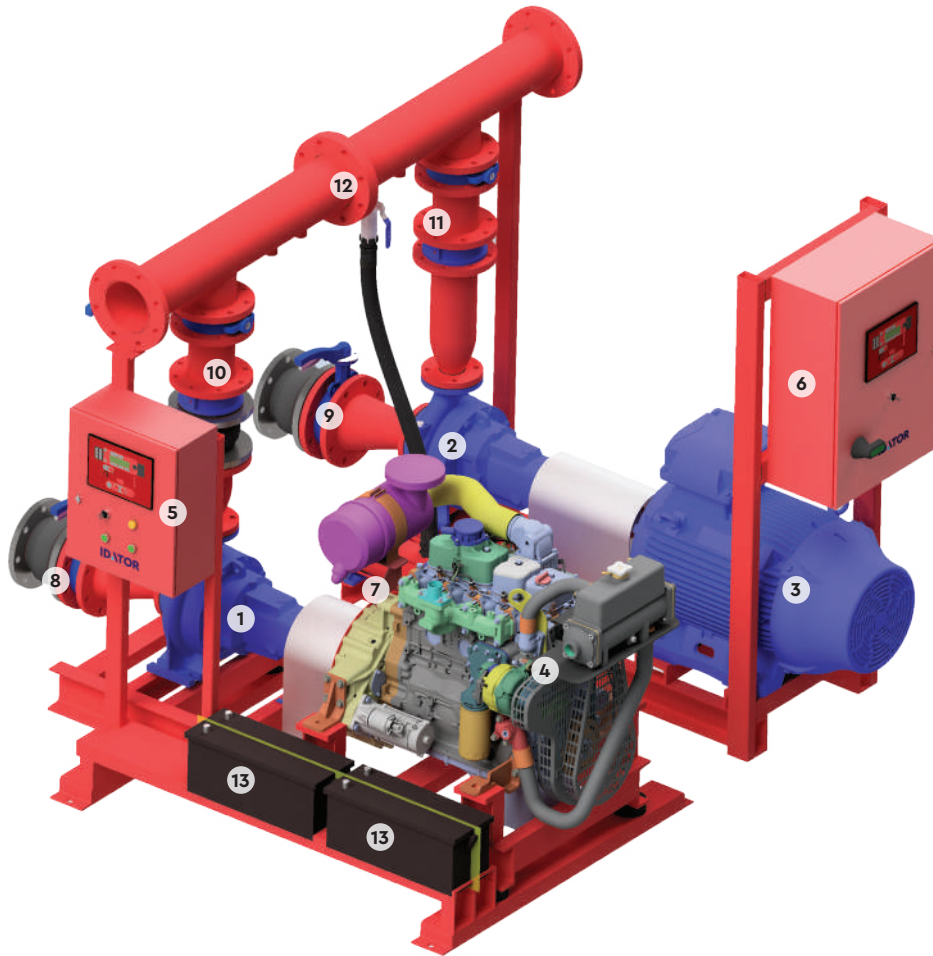
- ◆ Within the container, provisions for the future connection of suction and discharge lines, test line, cooling lines, with appropriate pipelines and all required hydraulic fittings and valves
- ◆ Exhaust pipe with a suitable end at the top of the container
- ◆ Fuel tank connected to the diesel engine
- ◆ Robust pipe supports to avoid oscillations and leaks
- ◆ Firefighting set electrical panels with full electrical connection
- ◆ Routing for the connection of the main supply of the electric pump and the electricity supply of the distribution panel

Auxiliary devices

- ◆ Distribution panel for auxiliary loads
- ◆ Lighting with switch and socket outlets
- ◆ Ventilation with gravity louvres at the inlet and outlet
- ◆ Radiator for maintaining an acceptable level that prevents damage to piping and pumps due to frost

Safety devices

- ◆ Sprinkler for internal fire extinguishing
- ◆ Safety lighting
- ◆ Emergency exit bars to prevent the entrapment of staff
- ◆ Fire extinguisher



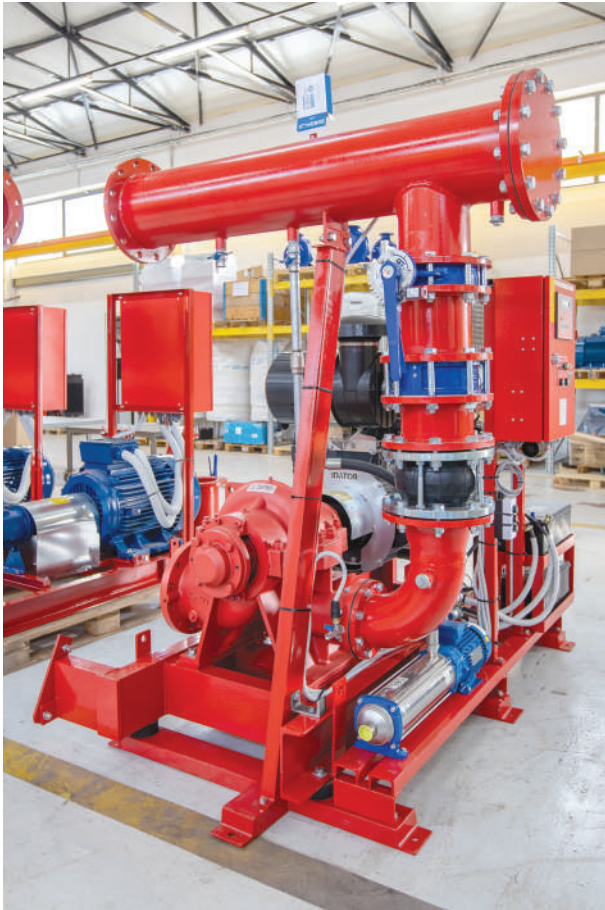
- 1 Diesel pump
- 2 Electric pump
- 3 Electric motor
- 4 Diesel engine
- 5 Diesel pump panel
- 6 Electric pump panel
- 7 Jockey pump
- 8 Diesel pump suction kit
- 9 Electric pump suction kit
- 10 Hydraulic components for diesel pump discharge
- 11 Hydraulic components for electric pump discharge
- 12 "Modular" discharge manifold
- 13 Diesel pump starter batteries



FEN / FIREFIGHTING SETS COMPLIANT WITH EN12845

A complete range of split-type firefighting sets that fully covers the new European Standard EN12845:2015+A1:2019 on the design, construction and maintenance of firefighting sets.

The firefighting sets are constructed in accordance with the applicable regulations of the European Union, bear the CE marking and are certified for compliance with the EN12845:2015+A1:2019 standard.



STANDARDS & GUIDELINES

European Standard EN12845 has been approved by CEN (European Committee for Standardization) and adopted by ELOT.

CEN members are committed to complying with the CEN/CENELEC Rules of Procedure.

Standards complied with:

- ◆ EN 12845:2015 + A1:2019
- ◆ EN 60204.1:2006 + A1:2009
- ◆ EN 349
- ◆ EN 13857
- ◆ EN 13850
- ◆ EN 1037
- ◆ EN ISO 12100:2010

Directives:

- ◆ 2006/42/EC
- ◆ 2004/108/EC
- ◆ 2006/95/EC

Certifications:

- ◆ FEN series certification according to EN 12845 by TUV AUSTRIA
- ◆ CE declaration of conformity

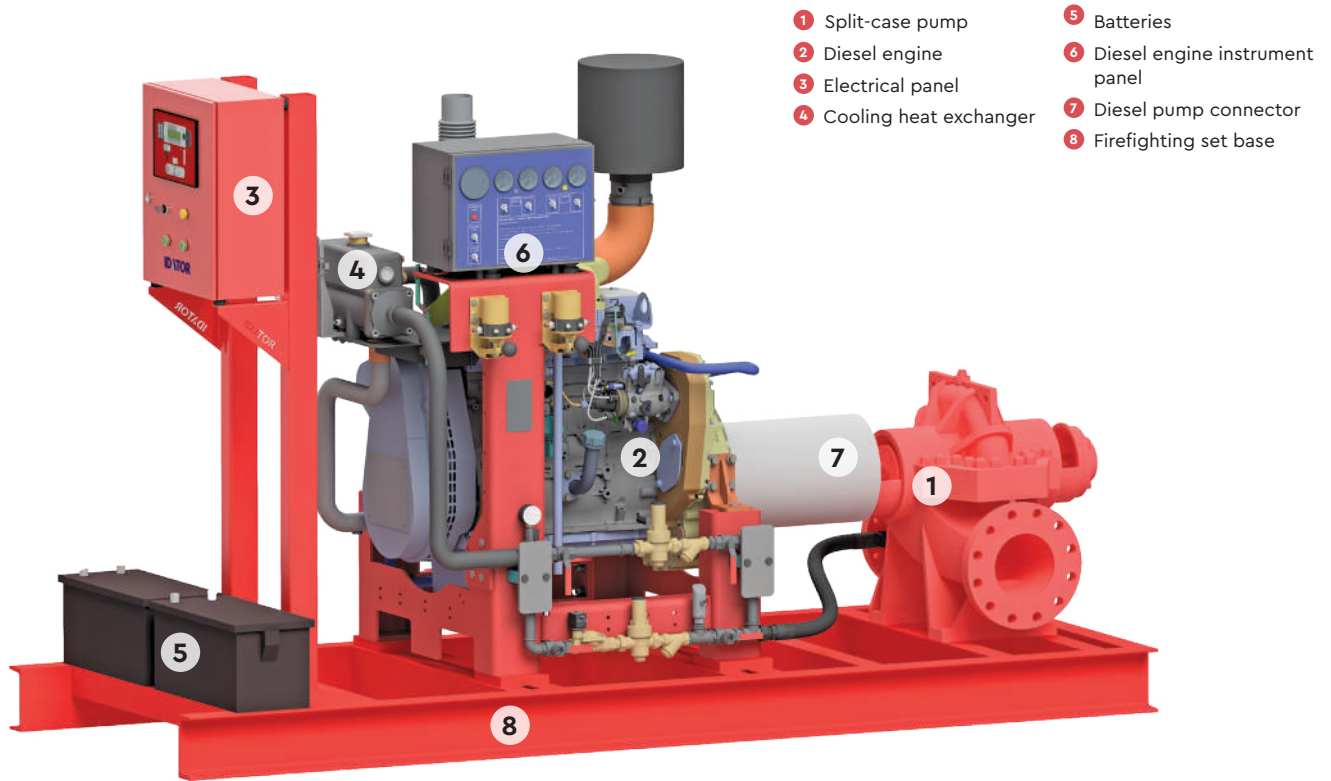
COMPOSITION



A typical fire fighting set consists of:

- ◆ A main electrically powered pump set
- ◆ A backup diesel-powered pump set
- ◆ An auxiliary electric Jockey pump
- ◆ Three independent automation panels
- ◆ A discharge manifold with hydraulic pump discharge accessories
- ◆ A pressure vessel
- ◆ A fuel tank
- ◆ Two suction kits with eccentric cones for the main and the backup pump
- ◆ Split base frames (modular structure)
- ◆ Impact-absorbent mounting of the diesel engine frame

For different configurations, please contact the Sales Department.



- 1 Split-case pump
- 2 Diesel engine
- 3 Electrical panel
- 4 Cooling heat exchanger
- 5 Batteries
- 6 Diesel engine instrument panel
- 7 Diesel pump connector
- 8 Firefighting set base



What is NFPA 20?

- ◆ NFPA 20 is the regulation issued by the U.S. National Fire Protection Association defining the requirements for the installation of stationary pumps for fire protection.
- ◆ It covers various aspects, including the design, construction, installation, operation and maintenance of fire pump systems.
- ◆ These systems are critical for the provision of sufficient water supply and pressure for firefighting purposes in buildings and factories.
- ◆ NFPA 20 establishes regulations to ensure the reliability and effectiveness of fire pump systems.

UL LISTED & FM APPROVED/NFPA 20 FIREFIGHTING SETS



What is UL?

- ◆ Underwriters Laboratories Inc. (UL), based in the U.S.A., is an independent product safety certification organisation that establishes product reliability standards and checks the reliability of materials, structures, facilities, procedures or systems based on such standards.
- ◆ UL assesses and tests scientific construction materials, firefighting systems, as well as their components, wires and cables, for electrical hazards and fire and injury risks.
- ◆ UL provides testing and certification services. The official UL website (www.ul.com) includes a list of certifications stating all UL-certified products and their manufacturers.



What is FM?

- ◆ FM Global is a U.S. based international insurance company that provides property insurance and risk management solutions.
- ◆ FM Approvals is a division of FM Global that certifies industrial and commercial products and services for companies. FM Approvals is a world leader in third-party testing and certification services.
- ◆ Aiming at avoiding material damage, it ensures that products and services meet the highest quality, technical integrity and performance standards for use in commercial and industrial facilities.
- ◆ If a product or service complies with the FM Approvals standards, it is marked as "FM APPROVED".



ENGINEERING SERVICES

1 Study phase

◆ Consulting services

Our specialised engineers can support you in pump selection, detailed study of the specifications, as well as exploration of the optimal solution, adapted to the specificities of each project.

◆ Design

After the details have been finalised, mechanical design is carried out based on the space in question, as well as electrical design based on the functional requirements.



◆ Drafting of the technical specifications

A complete technical dossier is provided, together with a technical and financial offer. The technical dossier includes: detailed specifications, technical description, MEP shop drawings, technical characteristics of the main hardware, installation, operation and maintenance manuals, hardware certificates, company certificates, CE declaration of conformity.



2 Construction phase

◆ Implementation of the construction drawing & construction

After the placement of the order, a 3D construction drawing is created that includes all the necessary technical details and calculations for the correct and reliable construction of the firefighting set. This is followed by the respective construction procedure.

◆ Firefighting set testing

After construction has been completed, a series of thorough checks is carried out to confirm the technical correctness and compliance with the original specifications. This includes a thorough testing of the set in our testing facility, with a maximum flow rate capacity of $>600\text{m}^3/\text{h}$ and a maximum pressure of 25 bar. The quantities are measured using certified high-precision instruments. During the test, the set is connected to a water tank and, through a recirculation network, we conduct a complete functional test, automation test, creation of an experimental curve and confirmation of the operating point, and finalisation of the settings of the operating devices. After the proper operation of the set has been verified at every level, the results are collected and a Test Report is drafted with all the measured quantities. A witness test in the presence of the customer is available upon request.

3 Installation phase

◆ Inspection of the installation site

Our engineers visit the installation site so that, in collaboration with the project engineer, they can confirm the technical correctness of the installation parameters. Proposals are made regarding the proper installation and the ideal orientation of the firefighting set, the optimal routing of pipelines and cabling is indicated, and appropriate devices and locations for pipeline support are proposed.

This ensures the smooth operation and safety of the system and the staff.



TOTAL CARE MAINTENANCE SERVICES

After the firefighting sets have been installed, Idator provides further commissioning – startup services covering the final settings and the commissioning of the system, so that final delivery/acceptance can take place. The firefighting sets and the devices required for their operation should be subjected to periodic trial operation and full checks at regular intervals, in order to ascertain and ensure their full operational readiness.

◆ **Training of operation and maintenance technicians**

Training of technicians who will be responsible for the operation of the firefighting set, both regarding its proper operation as well as the points that they should monitor during their inspections. The Greek Fire Service provisions and international standards require the regular operation of the firefighting set in order to confirm its readiness or to record



any problems so that they can be corrected. Training includes everything that must be known and checked by the competent persons of the facility during regular operations.

◆ **Inspection of the installation and trial operation**

The proper installation of a fire fighting set is of crucial importance for its effectiveness and reliability. Before and after installation, we check all key points, such as suction, the removal of exhaust gases and the mounting of the set. Moreover, during the trial operation we check its performance and the response of all instruments and sensors under real conditions.

◆ **Regular maintenance contracts**

Our specialised technicians undertake the periodic maintenance of your fire fighting set at regular intervals every year. Maintenance includes a check of 40+ points, trial operation and confirmation of the good condition of the set.

◆ **Invasive and corrective actions in case of faults**

In all cases of unexpected faults we intervene and restore the functionality of the fire fighting set within the agreed time limits. Using specialised repair crews and a full stock of spare parts, we guarantee that your fire fighting set will be immediately restored to its original condition.

◆ **Reconstruction services for old sets**

A fire fighting set usually has a long life span. By replacing individual parts, such as the diesel engine or one of the electrical panels, we can extend the life of a fire fighting set or even build a new one using only the functional parts of the old set.

■ GENERAL BUILDING APPLICATIONS

- 1 O. KARAGLANI – D. ANTONOPOULOS S.A. – EKPEDEFTIKI ANAGENNISI SCHOOL
- 2 ZARA STORE – 45 TSIMISKI STREET, THESSALONIKI
- 3 NEW WING ADDITION TO THE SURGICAL AND PATHOLOGICAL DIVISION OF THE “MAMASEIO” HOSPITAL, KOZANI
- 4 PIRAEUS TOWER – THREE FIREFIGHTING SETS
- 5 “OPAP ARENA” AEK FC STADIUM
- 6 AB VASSILOPOULOS SUPERMARKET – LARISA
- 7 AB VASSILOPOULOS SUPERMARKET – NEA ALIKARNASSOS – HERAKLION, CRETE
- 8 HELLENIC ELECTRICITY DISTRIBUTION NETWORK OPERATOR (HEDNO) BUILDING IN PAGRATI, ATHENS
- 9 FOLLEY’S COLLEGE – CYPRUS
- 10 RESIDENCE FOR PEOPLE WITH DISABILITIES (PWD) IN PIKERMI
- 11 VALKONST – CYPRUS-OFFICE BUILDING
- 12 OFFICE BUILDING – LIVE PLUS3
- 13 RIVER WEST OPEN SHOPPING MALL
- 14 SKLAVENITIS SUPERMARKET – KIFISIA
- 15 STOP S.A. OFFICE BUILDING – PIRAEUS
- 16 OLYMPIA GROUP OFFICE BUILDING – KATO KIFISIA
- 17 HEALTHCARE S.A. BUILDING – KATO KIFISIA
- 18 UNIVERSITY OF THE AEGEAN – SCHOOL OF SOCIAL SCIENCES, MYTILENE
- 19 NET COMPANY – INTRASOFT OFFICE BUILDING – ATHENS
- 20 KAVALA AIRPORT
- 21 SKIATHOS AIRPORT
- 22 KEFALLONIA AIRPORT
- 23 ZAKYNTHOS AIRPORT
- 24 CORFU AIRPORT
- 25 AKTION AIRPORT
- 26 MYKONOS AIRPORT
- 27 SANTORINI AIRPORT
- 28 MYTILENE AIRPORT
- 29 KOS AIRPORT
- 30 RHODES AIRPORT
- 31 MACEDONIA AIRPORT
- 32 CHIOS AIRPORT

■ CENTRAL INFRASTRUCTURE

- 1 ALMYROS MOTORIST SERVICE STATION – MAGNISIA PREFECTURE
- 2 KALLIDROMO TUNNELS
- 3 VRAVRONA TUNNEL, ATTICA
- 4 WASTE TRANSPORT STATION – ELAIONAS, ATTICA
- 5 WASTE TREATMENT PLANT IN ILIA PREFECTURE – TWO SETS
- 6 NEW OIL PIER IN N. IKONIO – **NFPA 20 FIREFIGHTING UNIT – UL/FM APPROVED**
- 7 HERAKLEOUS PORT – **NFPA 20 FIREFIGHTING UNIT – UL/FM APPROVED**

REFERENCE LIST FIREFIGHTING PROJECTS BY IDATOR

■ HOTELS

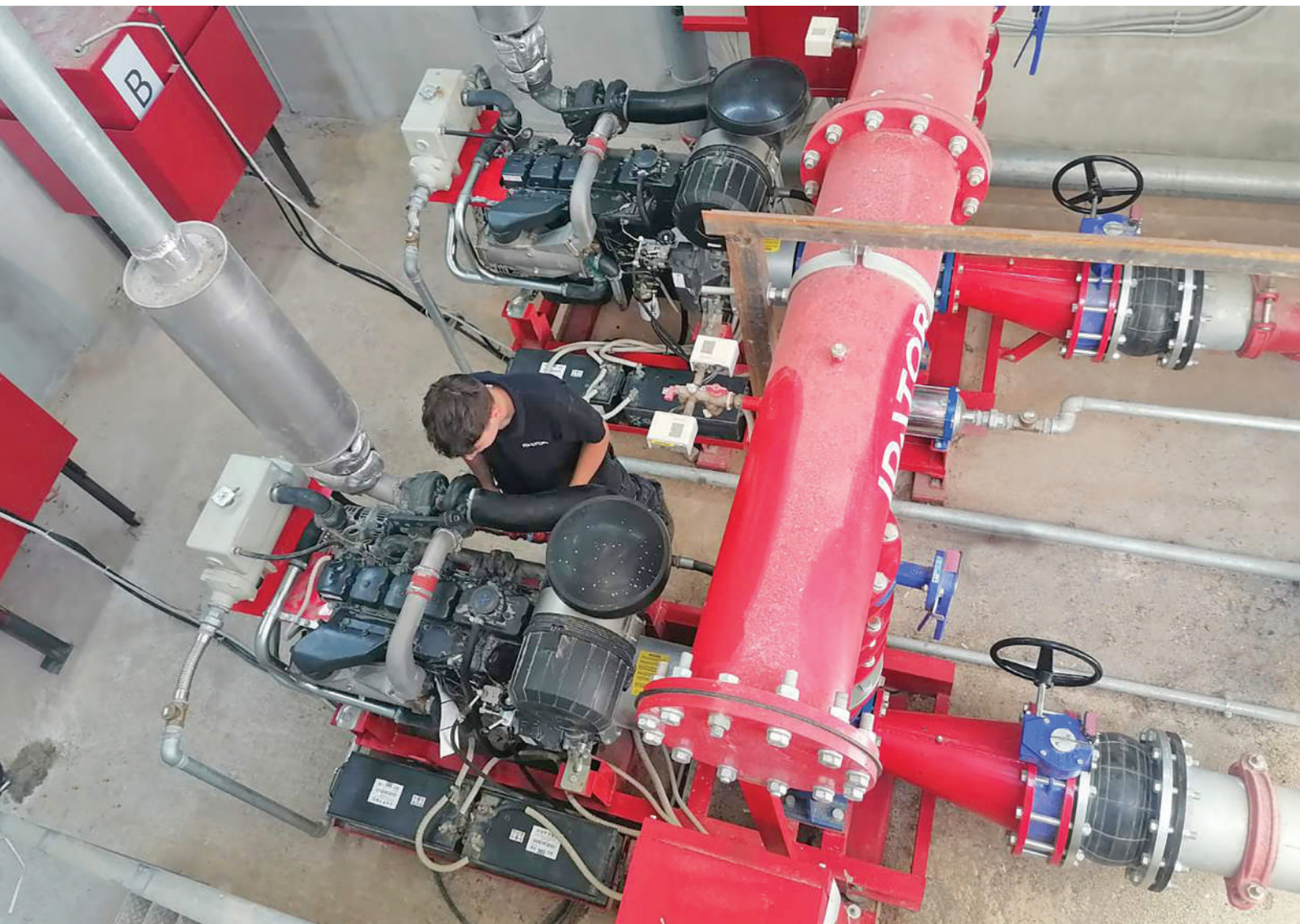
- 1 ROCCA MARE HOTEL – HERAKLION, CRETE
- 2 MILOS HOTEL – ATHENS
- 3 LAS HOTEL – GYTHEIO
- 4 HORIZON BEACH RESORT HOTEL – KOS
- 5 RADISSON BLU ZAFFRON HOTEL – KAMARI, SANTORINI
- 6 BROWN CORINTHIA BEACH HOTEL – AG. THEODORI, CORINTHIA REGION
- 7 MONASTY – AUTOGRAPH COLLECTION HOTEL, THESSALONIKI
- 8 IKOS OCEANIA HOTEL – FIVE SETS – CHALKIDIKI
- 9 IKOS ODISIA HOTEL – CORFU
- 10 LUX&EASY SIGNATURE HOTEL – ATHENS
- 11 ONE&ONLY AESTHESIS HOTEL – GLYFADA

■ LOGISTICS CENTERS

- 1 NOVA LUCE SA – AVLONA WAREHOUSES
- 2 ARCHEIOTHIKI S.A. – WAREHOUSES IN THE INDUSTRIAL AREA OF THESSALONIKI
- 3 TWO GOLDAIR WAREHOUSE FACILITIES
- 4 ALFAOMEGA PHARMACEUTICAL WAREHOUSES (THREE SETS) – ASPROPYRGOS
- 5 REAL EST WAREHOUSE FACILITIES – ASPROPYRGOS
- 6 FOODLINK WAREHOUSE FACILITIES – ASPROPYRGOS
- 7 KRITIKOS SUPERMARKET WAREHOUSE FACILITIES – MAGOULA, ATTICA
- 8 SC TERRA INVEST – WAREHOUSE FACILITIES, ROMANIA
- 9 KAFKAS S.A. WAREHOUSE FACILITIES – ASPROPYRGOS
- 10 FIDAKIS S.A. WAREHOUSE FACILITIES – ASPROPYRGOS
- 11 INFOQUEST WAREHOUSE FACILITIES – ASPROPYRGOS

■ INDUSTRIAL PROJECTS

- 1 PACCOR INDUSTRIAL PACKAGING PRODUCTION FACILITY – ROMANIA – **CONTAINERIZED FIREFIGHTING PUMP SET**
- 2 RAYCAP FACILITIES – CYPRUS
- 3 VIOKYT S.A. – PACKAGING PLANT
- 4 PYRROS AGRICULTURAL COOPERATIVE – MUNICIPALITY OF ARTA
- 5 PAPADOPOULOS S.A. FOOD COMPANY – TWO FIREFIGHTING SETS
- 6 ELINOIL S.A. – THREE SETS IN THE FACILITIES OF ASPROPYRGOS – AGRIA VOLOU – PORTO LAGOS
- 7 PERFUMELAND S.A. – KERATEA







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HELLENIC TECHNOLOGIES
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