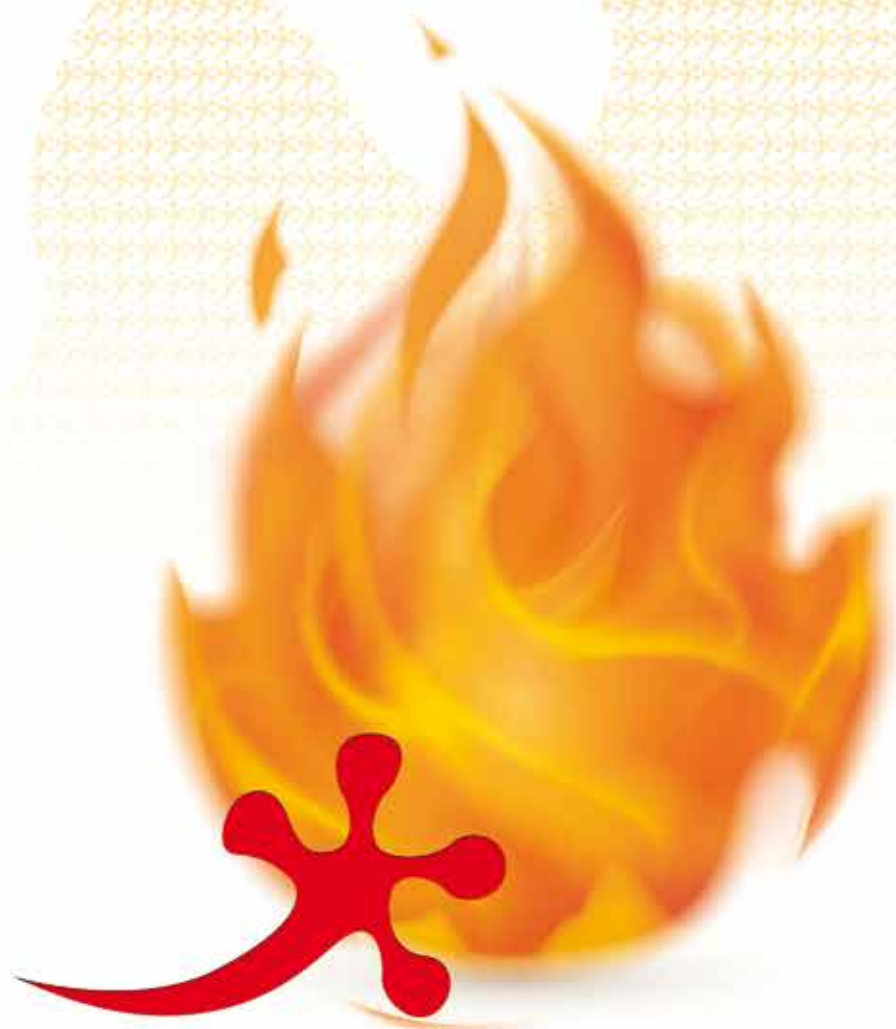


Catalogue

Firefighting



Dosing systems / High pressure / Transfer / Training

Class A and B foam

CTD PULVERISATION

The dosage and sprayer specialist for over 30 years!

The French equipment designer and manufacturer, **CTD PULVERISATION** has become a benchmark in environmental protection and firefighting.

With many years of experience in crop-spraying behind it, this company, founded in the 1980s, has developed convincing innovative technologies for a wide range of applications.

Based in the Ain department very close to the Beaujolais area, **CTD PULVERISATION** has a modern, functional production site, perfectly adapted to its three types of business.



Garden Range



CTD PULVERISATION, a key partner of the EXEL group, markets sprayers for gardens or for professional use, accessories and spare parts for the main brands in the EXEL group: Laser, Berthoud, Cooper Pegler & Tecnomat, and watering accessories for the Hozelock brand.

CTD has a very wide range of spare parts permanently in stock and provides fast repair service for the general public and professionals.

Parks and Gardens Range



CTD PULVERISATION offers a wide range of crop-spraying and dosage equipment for the maintenance of parks and gardens (weeding, watering), treatment of trees, maintenance of streets and urban furniture (disinfection, deodorisation, high-pressure washing), industrial spraying (treatment of roofs, building maintenance, pest control, etc.), and disinfection.

Fire Range



CTD PULVERISATION is the European leader in automatic foam dosing systems for firefighting.

The CTD systems (Cameleon, Salamandre, Triton, etc.) can be used with all types of foam concentrates and additives. They facilitate interventions in case of fire. These systems are designed to be accurate, reliable, to save time on intervention and also water and foam consumption.

OUR COMMITMENTS



THE COMPANY

- 1 Head office** based in Guéréins near Lyon
- 1 Spare parts shop**
- 1 Modern production plant**
- 1 Worldwide distribution network**
- 1 Research and Development office (R&D)**
- 1 Testing station & laboratory**
- ISO 9001 certified**



CUSTOMERS RELATIONS

Customer relations is part of our corporate culture at **CTD**. Our customer service teams are here to help you to define your needs and guide you to choose the system you need. They also provides personalised follow-up at customers' sites with training in the use of our equipments. Our hotline is at your service for all your requests, from project enquiries to any problems you may encounter during use. Don't hesitate to ask us!



THE AFTER-SALES MINDSET

Our After-Sales teams cover the commissioning, maintenance and repair of all our products ranges in France and worldwide. We understand how important it is for your equipment to be fully functional at all times, and you have our committed support to assist you in this aim. At the same time, our spare parts department is continually improving the order processing system to meet your expectations. We make every effort to process your orders in real time.

OUR KNOW-HOW



CUSTOMISED DESIGN

CTD also designs and manufactures all types of equipment based on specifications. The company invests over 5 % of its turnover each year in researching new products. If you have a specific project, our teams work for you to find the **best solution for your needs**.

Specific equipment already designed on request:



Fire protection Heliport Monaco



Dosing systems for anti-riot vehicles



Vehicle outfitting



Foam concentrate storage trailer



Trailer for submerged motor pump



Hydrant toggle trailer

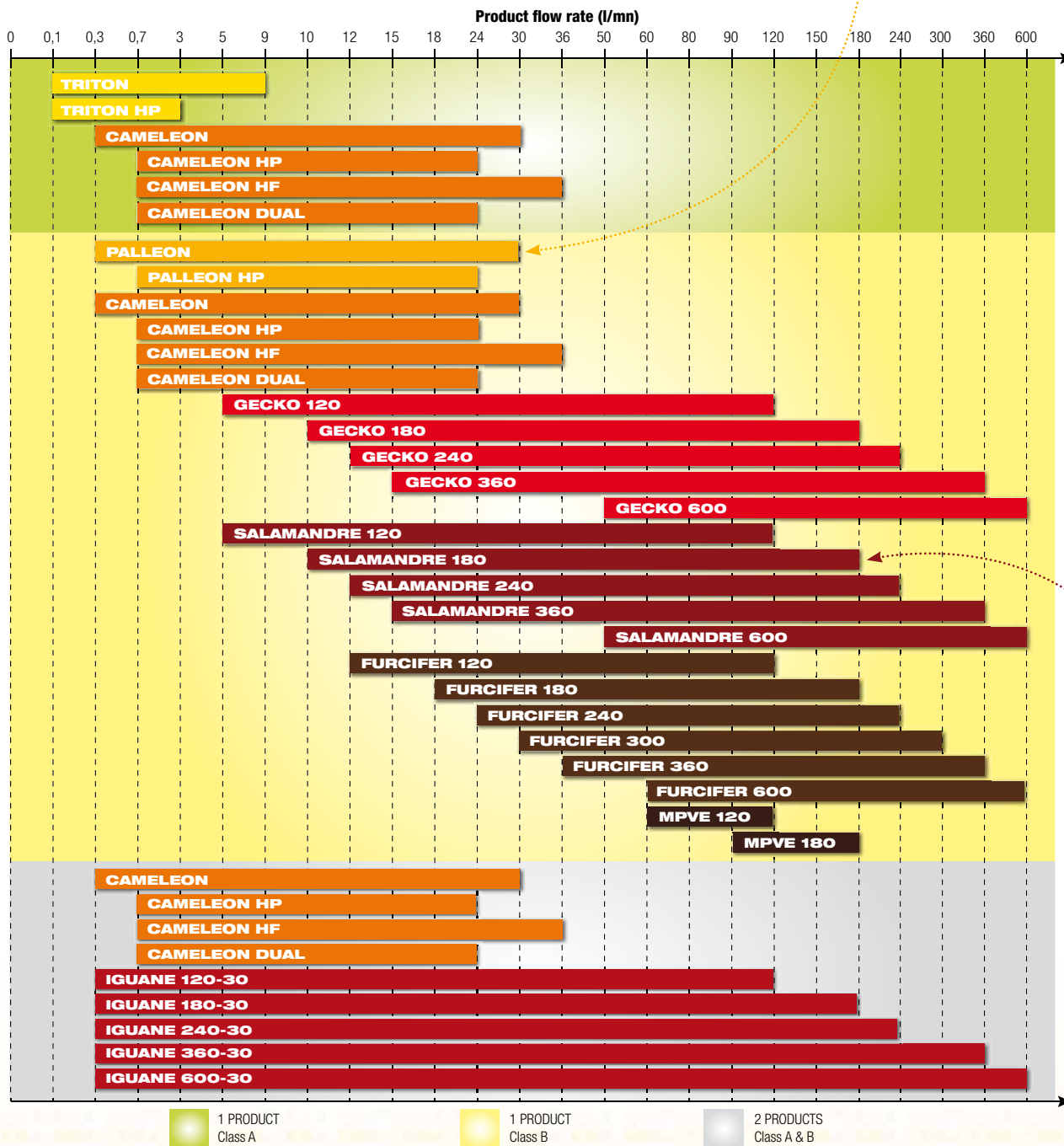
HOW TO CHOOSE YOUR FOAM DOSING SYSTEM

1. Choose the type(s) of product(s) you are going to use (CLASS A or B, or CLASS A & B foam)

2. Calculate the minimum and maximum product flow rate using the following formula:

$$\text{Water flow rate (l/min)} \times \text{Concentration (\%)} = \text{Product flow rate (l/min)}$$

EXAMPLE NO.1
 If you want to use a 400 l/min foam nozzle with 3 % CLASS B foam on your vehicle:
 $400 \text{ l/min} \times 3\% = 12 \text{ l/min of product}$
The PALLEON system corresponds to your needs
 See page 8



CTD is here to advise you and help you choose the equipment best suited to your needs.

EXAMPLE NO.2
 If you want to use a 3000 l/min monitor with 6 % CLASS B foam on your skid:
 $3000 \text{ l/min} \times 6\% = 180 \text{ l/min of product}$
The SALAMANDRE 180 system corresponds to your needs - See page 18

A wide range of systems designed for firefighting.

DOSING SYSTEMS

TRITON

P. 6-7

- Low pressure
- High pressure
- Mobile

PALLEON

P. 8-9

- Low pressure
- High pressure
- Mobile

CAMELEON

P. 10-13

- Low pressure
- High pressure
- High flow rate
- Dual

GECKO

P. 14-15

IGUANE

P. 16-17

SALAMANDRE

P. 18-19

FURCIFER

P. 20-21

MPVE

P. 22

HIGH PRESSURE

TRIOCEROS

P. 23

TRANSFER PUMPS

MTE

P. 24

TRAINING EQUIPMENT

EPPM

P. 25

MONITOR TRAILER

MONITOR TRAILER

P. 26

TRITON IS DESIGNED FOR FIREFIGHTING VEHICLES USING ONLY CLASS A FOAM.

TRITON low pressure

- **Pump:** 9 l/min
- **Pressure:** 15 bar
- **Dosage:** 0.1 to 1%
- **Water flow rate (DN40):** 30 - 850 l/min
(other flow rates possible)
- **Power supply:** Electricity 24VDC
(other voltages possible)

TRITON HP high pressure

- **Pump:** 3 l/min
- **Pressure:** 45 bar
- **Dosage:** 0.1 to 1%
- **Water flow rate (DN40):** 35 - 350 l/min
(other flow rates possible)
- **Power supply:** Electricity 24VDC
(other voltages possible)

TRITON MOBILE

- **Pump:** 9 l/min
- **Pressure:** 15 bar
- **Dosage:** 0.1 to 1%
- **Water flow rate (DN40):** 30 - 850 l/min
(other flow rates possible)
- **Power supply:** Electricity 24VDC
(other voltages possible)

OPERATING PRINCIPLE

TRITON starts up as soon as the battery master switch is turned on. Dosage begins by pressing the START/STOP button. The + and - buttons allow for quick and easy selection of the desired additive concentration.

Positive injection TRITON system inject CLASS A foam according to real time waterflow as soon as a nozzle is open. TRITON does not require flushing after use.



Configuration button

Quick and easy selection of the desired additive concentration (0.1 to 1 % in 0.1 % increments)

Power START/STOP

SCREEN BENEFITS

+ ADAPTABLE

- Optional secondary screen
- Several languages available

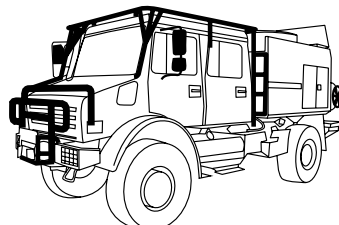
+ FULL DISPLAY

- Water flow rate
- Actual concentration
- Product tank levels with pressure
- Dosage selection
- Intervention report

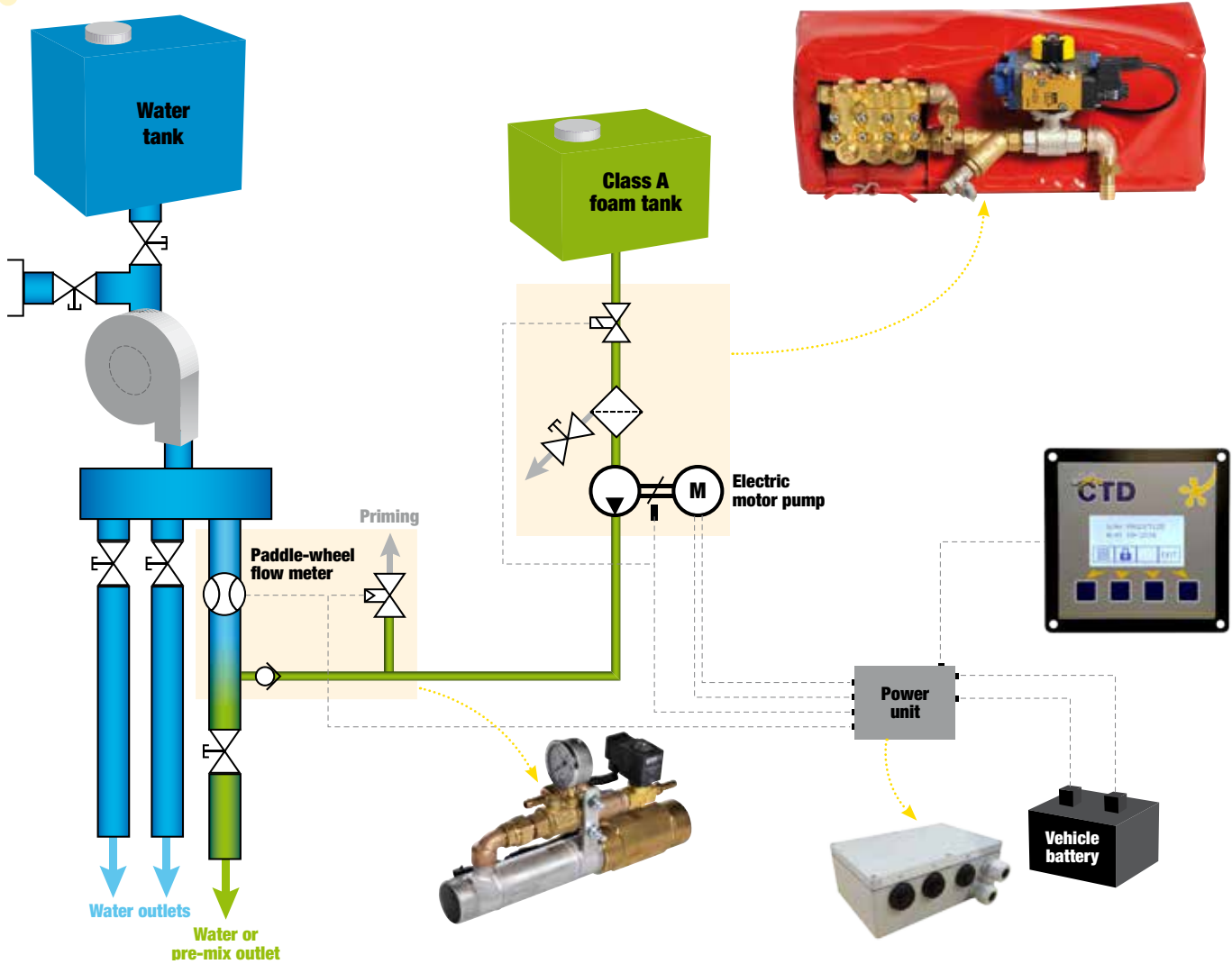
+ UNIT

- 128 x 64 display size
- Waterproof (IP68)
- Impact resistant
- Compact size
- Remote start-up
- Operating temperature between -20°C et +50°C

VEHICLES FITTED EXAMPLES



OPERATING DIAGRAM



SYSTEM BENEFITS



SIMPLE

- Quick start-up
- Instantaneous production of foam
- No require flushing



EFFECTIVE

The use of class A product makes fire extinguishing more effective and reduce fire fighter intervention time.



FUNCTIONAL

- Delivered in a pre-mounted kit
- Can be fitted on all types of vehicles
- Compatible with all Class A additives
- Easy to install (new vehicles or vehicles already in service)
- Light weight and compact size
- Easy maintenance



HIGH PERFORMANCE

Injecting the product under pressure means TRITON can be used whatever the water flow rate and pressure. Pre-mixing is performed in the truck without any pressure loss this allows fireman deployment to be far from the danger zones.



ECONOMICAL

Quicker extinguishing means less water consumption.

Mobile version available

TRITON MOBILE

- Stand-alone system which only requires a connection to the vehicle's 24V power supply using the plug provided.
- Can be stored in the boot thanks to its compact size
- L = 600 mm x W = 400 mm x H = 280 mm - 33 kg



PALLEON IS DESIGNED FOR FIREFIGHTING VEHICLES USING ONLY CLASS B FOAM.

PALLEON low pressure

- Pump : 30 l/min
- Pressure : 12 bar
- Dosage : 1 à 6%
- Water flow rate (DN65): 50-2000 l/min
(other flow rates possible)
- Power supply : Electricity 24V
(other voltages possible)

PALLEON HP high pressure

- Pump : 24 l/min
- Pressure : 40 bar
- Dosage : 1 à 6%
- Water flow rate (DN40): 35-350 l/min
(other flow rates possible)
- Power supply : Electricity 24V
(other voltages possible)

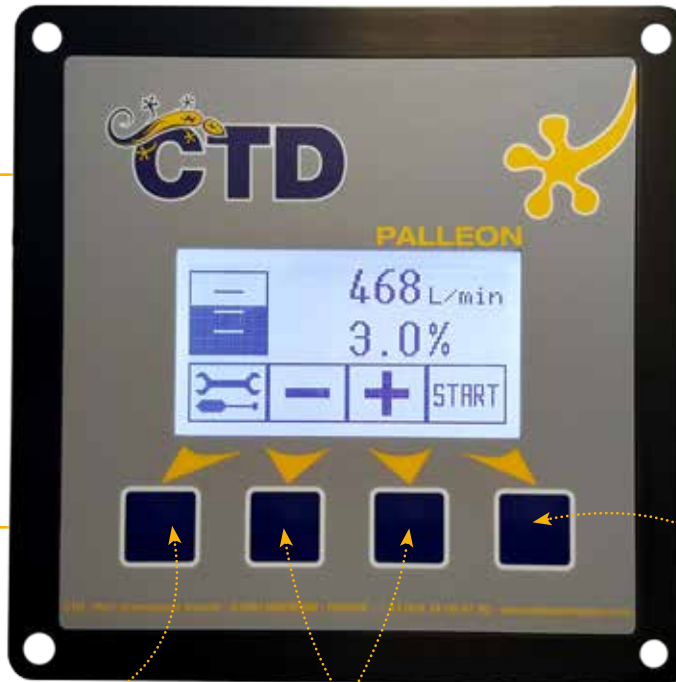
PALLEON MOBILE

- Pump : 24 l/min
- Pressure : 15 bar
- Dosage : 1 à 6%
- Water flow rate (DN40): 30-850 l/min
(other flow rates possible)
- Power supply : Electricity 24V
(other voltages possible)

OPERATING PRINCIPLE

PALLEON starts up as soon as the battery master switch is turned on. Dosage begins by pressing the START/STOP button. The + and - buttons allow for quick and easy selection of the desired CLASS B foam concentration.

Positive injection PALLEON system inject CLASS B foam according to real time waterflow as soon as a nozzle is open. After intervention, PALLEON automatically starts a flushing cycle.



Configuration
button

Quick and easy selection of the desired
CLASS B foam concentration (1 to 6 % in 0.1 % increments)

SCREEN BENEFITS

+ UNIT

- 128 x 64 display size
- Waterproof (IP68)
- Impact resistant
- Compact size
- Remote start-up
- Operating temperature between -20°C and +50°C

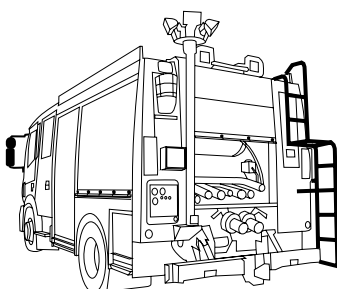
+ FULL DISPLAY

- Water flow rate
- Concentration
- Product tank level with capacity
- Dosage selection
- Intervention report

+ ADAPTABLE

- Secondary screen option is possible
- Several languages available

VEHICLES FITTED EXAMPLES

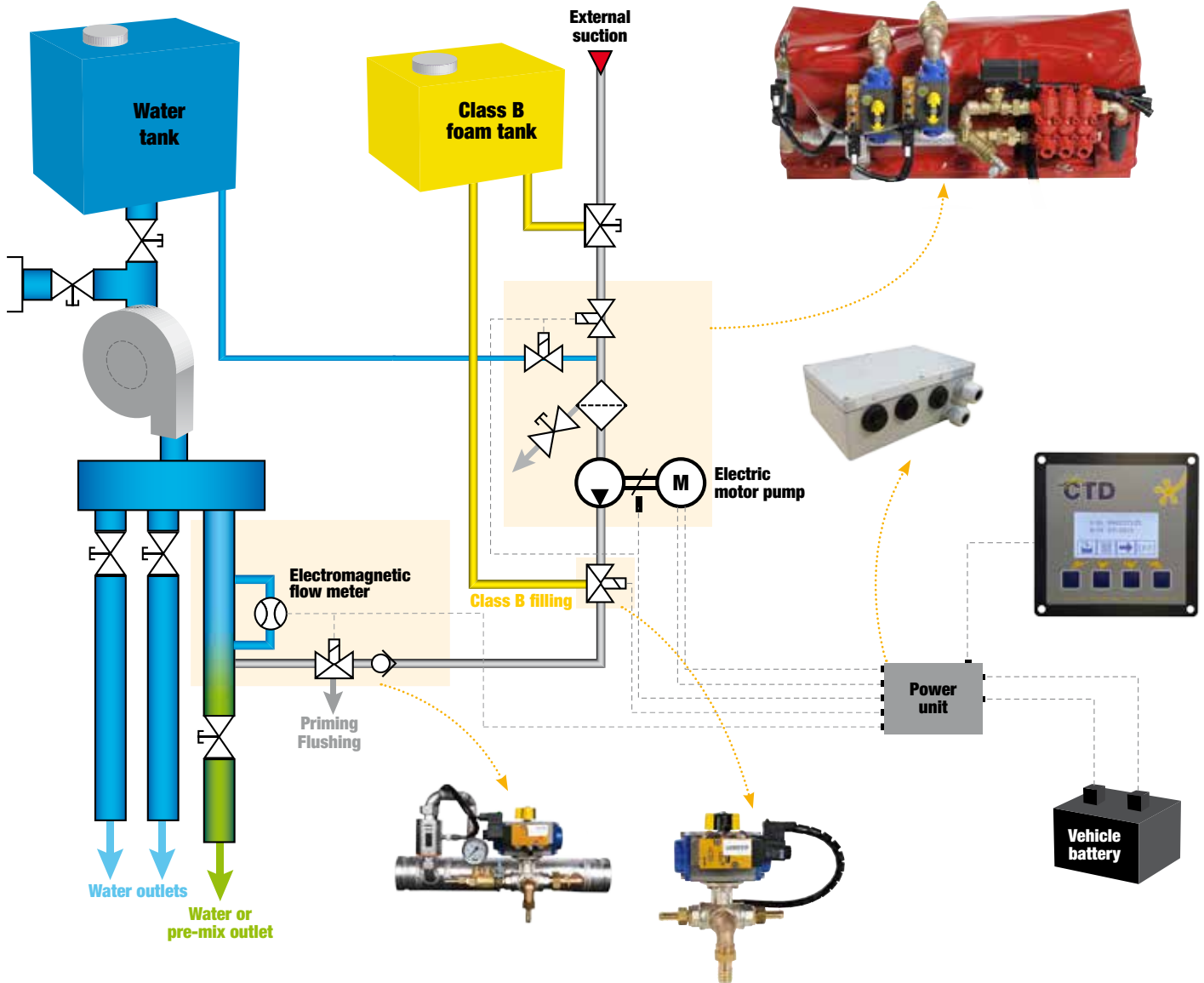


Mobile version available PALLEON MOBILE

- Stand-alone system which only requires a connection to the vehicle's 24V power supply using the plug provided.
- Can be stored in the boot thanks to its compact size
- L = 600 mm x W = 400 mm x H = 320 mm - 41 kg



OPERATING DIAGRAM



SYSTEM BENEFITS

+ INTUITIVE

- Easy start-up
- Didactic screen
- Automatic flushing

+ HIGH PERFORMANCE

Injecting the product under pressure means PALLEON can be used whatever the water flow rate and pressure. Pre-mixing is performed in the truck without any pressure loss this allows fireman deployment to be far from the danger zones.

+ FUNCTIONAL

- Can be fitted on all types of vehicles
- Delivered in a pre-mounted kit
- Compatible with all Class B products
- Easy to install
- Operating temperature between -20°C and +50°C
- Light weight and compact size
- Easy maintenance

+ UPGRADABLE

- External suction
- Product tank filling from the ground
- Injection on LP or HP system

+ EFFECTIVE

The use of class B product makes fire extinguishing more effective and reduces firefighter intervention time. The possibility of injecting the product directly from an external container increases the autonomy of the dosage system. Installing tanks for class B product directly on the vehicle combined with the tank filling function reduces product handling.

CAMELEON IS DESIGNED FOR LOW- AND MEDIUM-POWER FIREFIGHTING VEHICLES USING CLASS A AND/OR CLASS B FOAM.

**CAMELEON
low pressure**

- **Pump:** 30 l/min
- **Pressure:** 12 bar
- **Dosage:** 0.1 to 6%
- **Water flow rate (DN65):** 50 - 2000 l/min
(other flow rates possible)
- **Power supply:** Electricity 24VDC
(other voltages possible)

**CAMELEON HP
high pressure**

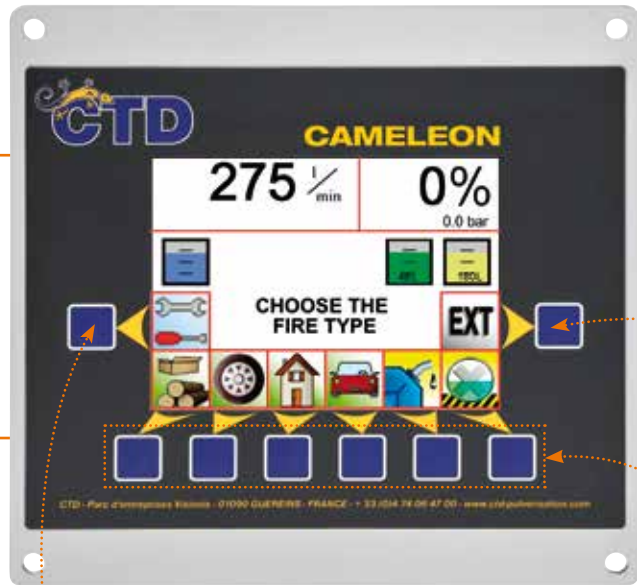
- **Pump:** 24 l/min
- **Pressure:** 40 bar
- **Dosage:** 0.1 to 6%
- **Water flow rate (DN40):** 35 - 350 l/min
(other flow rates possible)
- **Power supply:** Electricity 24VDC
(other voltages possible)

**CAMELEON HF
high flow**

- **Pump:** 36 l/min
- **Pressure:** 12 bar
- **Dosage:** 0.1 to 6%
- **Water flow rate (DN65):** 50 - 2000 l/min
(other flow rates possible)
- **Power supply:** Electricity 24VDC
(other voltages possible)

OPERATING PRINCIPLE

CAMELEON starts up as soon as the battery master switch is turned on. Select one of the six concentrations will automatically prime the pump then inject the foam selected according to real time water flow. Single point positive injection system involves an immediate foam production. After intervention, CAMELEON automatically starts a flushing cycle.



Configuration button

Intervention keys

External suction button

SCREEN BENEFITS

UNIT

- Colour screen
- 6" display size
- Waterproof (IP68)
- Impact resistant
- Compact size
- Remote start-up
- Operating temperature between -20°C and +50°C

FULL DISPLAY

- Water flow rate
- Actual concentration
- Dosage icons
- Foam injection pressure
- Product tank levels with capacity
- Autonomy

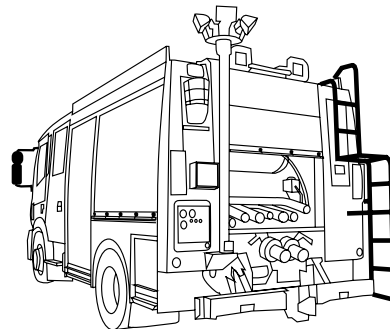
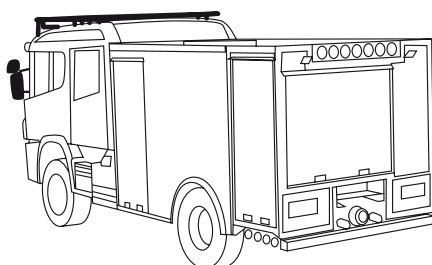
MONITORING

- Intervention report
- Fault log
- Training mode

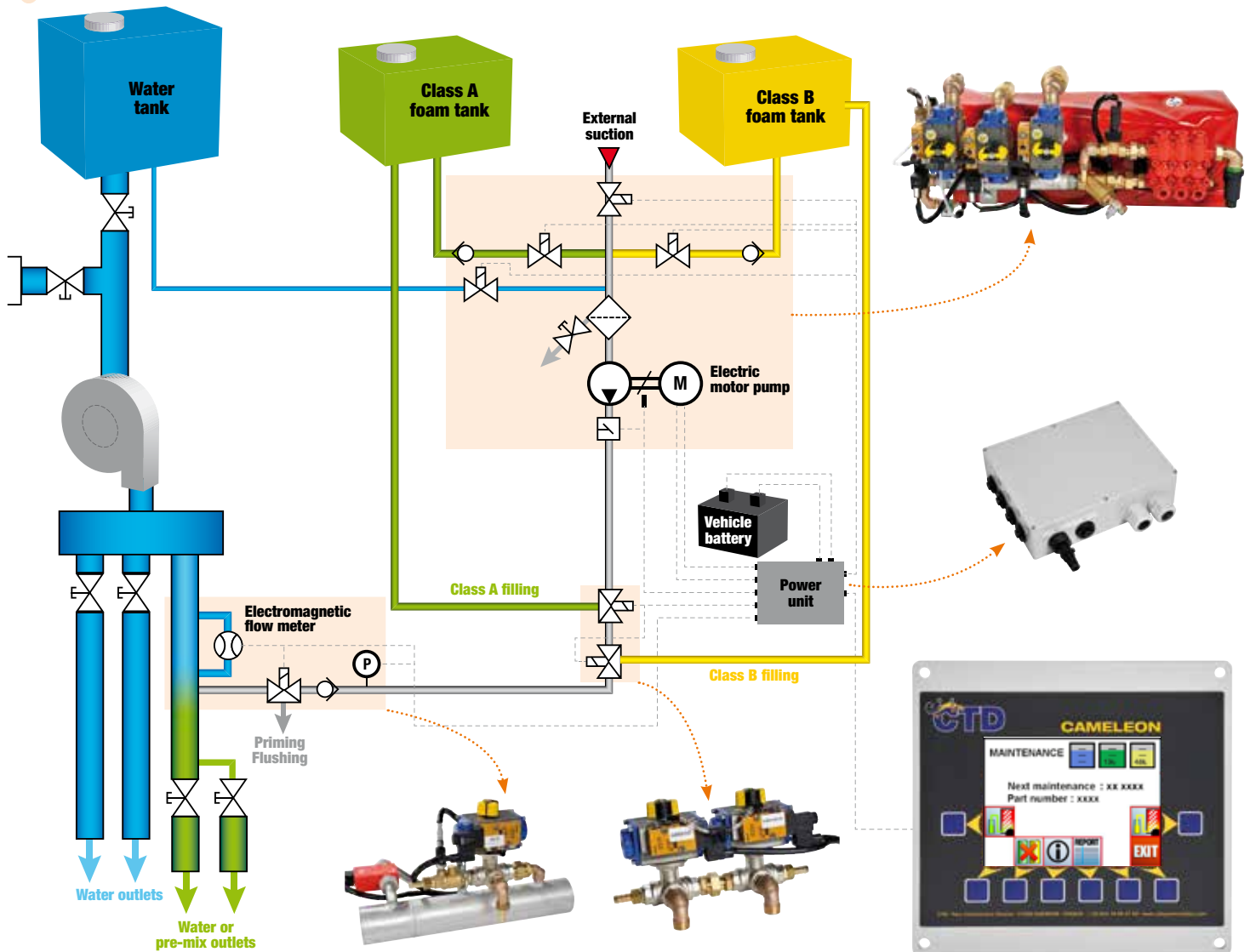
ADAPTABLE

- Customisable icons
- Remote start-up
- Secondary screen option is possible
- Download intervention report by bluetooth
- Several languages available
- CAN Open external link

VEHICLES FITTED EXAMPLES



OPERATING DIAGRAM



SYSTEM BENEFITS

+ INTUITIVE

- Easy start-up
- Didactic screen

+ AUTOMATIC

- Priming
- Flushing
- Frost protection

+ UPGRADABLE

- External suction
- Product tank filling from the ground
- Dosage of up to 4 different products
- Several possible injection points
- Injection on LP or HP system

+ FUNCTIONAL

- Can be fitted on all types of vehicles
- Delivered in a pre-mounted kit
- Compatible with all Class A and B products
- Easy to install
- Operating temperature between -20°C and +50°C
- Light weight and compact size
- Easy maintenance

+ HIGH PERFORMANCE

Injecting the product under pressure means CAMELEON can be used whatever the water flow rate and pressure. Pre-mixing is performed in the truck without any pressure loss this allows fireman deployment to be far from the danger zones.

+ EFFECTIVE

The use of class A and B products makes fire extinguishing more effective and reduces firefighter intervention time. The possibility of injecting the product directly from an external container increases the autonomy of the dosage system. Installing tanks for class A and B products directly on the vehicle combined with the CAMELEON's tank filling function reduces product handling.

+ ECONOMICAL

A training mode allows the equipment to be tested without foam use. CAMELEON dosing accuracy considerably reduces the amounts of product used during operations. Quicker extinguishing means less water consumption.

CAMELEON DUAL

SPECIFIC STUDIES
POSSIBLE

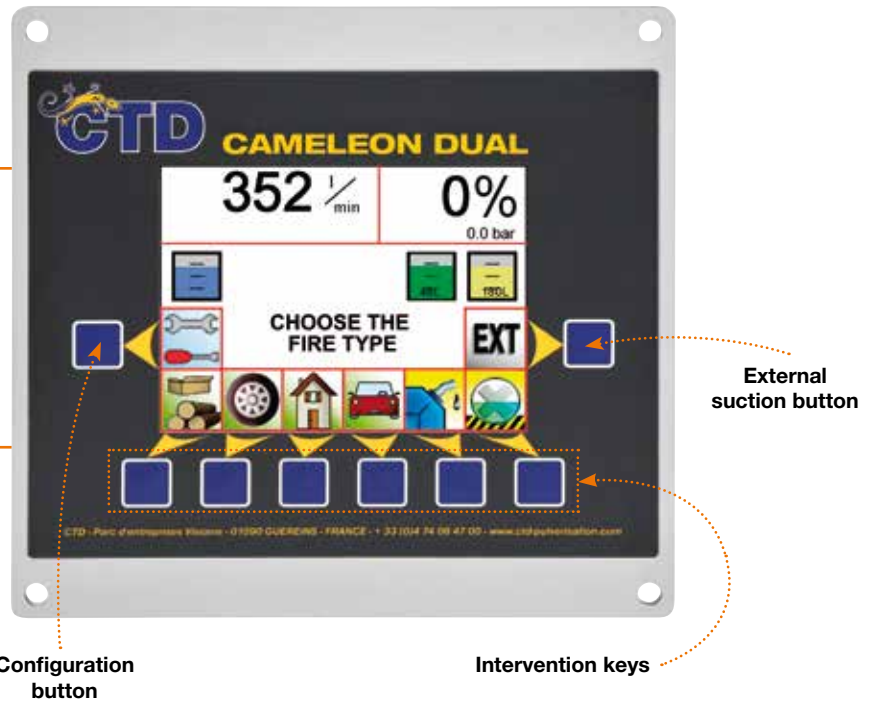
CAMELEON DUAL IS DESIGNED FOR FIREFIGHTING VEHICLES EQUIPPED WITH A LP/HP WATER PUMP AND USING CLASS A AND/OR CLASS B FOAM AT DIFFERENT PRESSURES.

CAMELEON DUAL low and high pressure

- **Pump:** 30 l/min in LP and 24 l/min in HP
- **Pressure:** 15 bar in LP and 40 bar in HP
- **Dosage:** 0.1 to 6%
- **LP water flow rate (DN65):** 50 - 2000 l/min (other flow rates possible)
- **HP water flow rate (DN40):** 35 - 350 l/min (other flow rates possible)
- **Power supply:** Electricity 24VDC (other voltages possible)

OPERATING PRINCIPLE

CAMELEON DUAL starts up as soon as the battery master switch is turned on. Select one of the six concentrations will automatically prime the pump then inject the foam selected according to real time water flow. Single point positive injection system involves an immediat foam production. After intervention, CAMELEON DUAL automatically starts a flushing cycle.



SCREEN BENEFITS

+ UNIT

- Colour screen
- 6" display size
- Waterproof (IP68)
- Impact resistant
- Compact size
- Remote start-up
- Operating temperature between -20°C and +50°C

+ FULL DISPLAY

- Water flow rate
- Actual concentration
- Dosage icons
- Foam injection pressure
- Product tank levels with capacity
- Autonomy

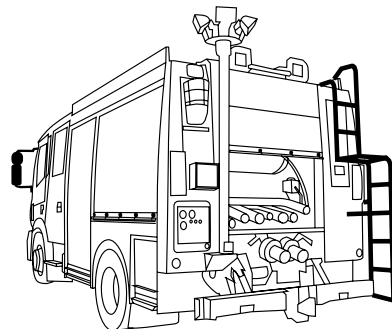
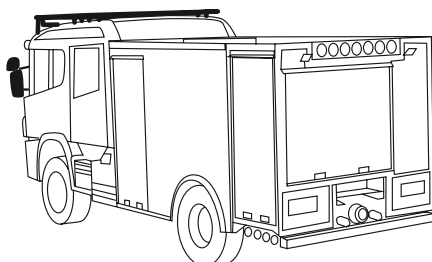
+ MONITORING

- Intervention report
- Fault log
- Training mode

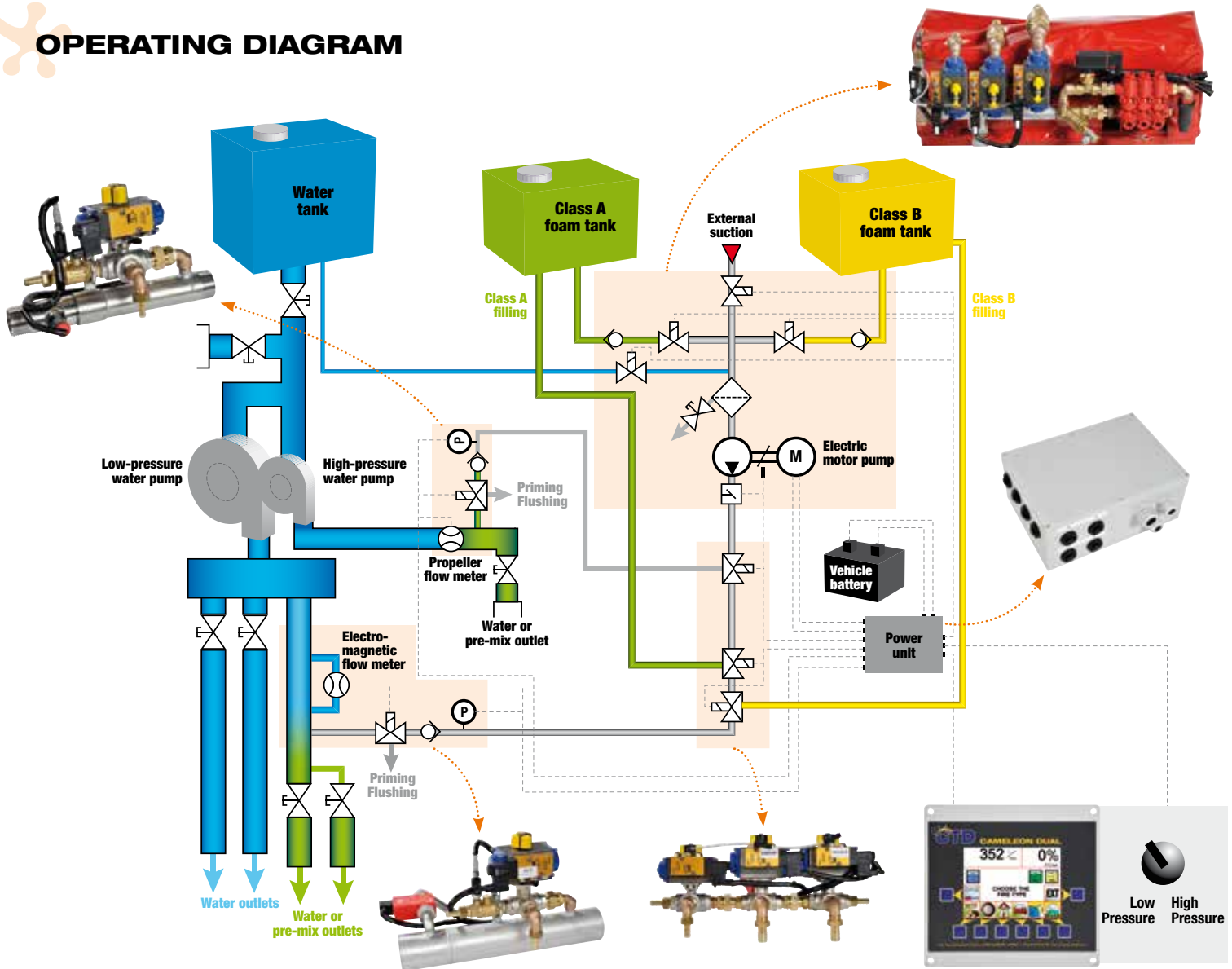
+ ADAPTABLE

- Customisable icons
- Remote start-up
- Secondary screen option is possible
- Download intervention report by bluetooth
- Several languages available
- CAN Open external link

VEHICLES FITTED EXAMPLES



OPERATING DIAGRAM



SYSTEM BENEFITS

+ INTUITIVE

- Easy start-up
- Didactic screen

+ AUTOMATIC

- Priming
- Flushing
- Frost protection

+ FUNCTIONAL

- Can be fitted on all types of vehicles
- Delivered in a pre-mounted kit
- Compatible with all Class A and B products
- Easy to install
- Light weight and compact size
- Easy maintenance

+ UPGRADABLE

- External suction
- Product tank filling from the ground
- Dosage of up to 4 different products
- Several possible injection points
- Injection on LP or HP system

+ HIGH PERFORMANCE

Injecting the product under pressure means CAMELEON DUAL can be used whatever the water flow rate and pressure. Pre-mixing is performed in the truck without any pressure loss this allows fireman deployment to be far from the danger zones.

+ LP/HP MIXED USE

CAMELEON DUAL allows the product to be injected either in the low pressure part of the water pump or the high pressure part, by using a selection switch. This means just one system is needed for LP/HP foam production.

+ EFFECTIVE

The use of class A and B products makes fire extinguishing more effective and reduces firefighter intervention time. The possibility of injecting the product directly from an external container increases the autonomy of the dosage system. Installing tanks for class A and B products directly on the vehicle combined with the CAMELEON DUAL's tank filling function reduces product handling.

+ ECONOMICAL

A training mode allows the equipment to be tested without foam use. CAMELEON DUAL dosing accuracy considerably reduces the amounts of product used during operations. Quicker extinguishing means less water consumption.

GECKO IS DESIGNED FOR HIGH-POWER FIREFIGHTING VEHICLES USING ONLY CLASS B FOAM

GECKO

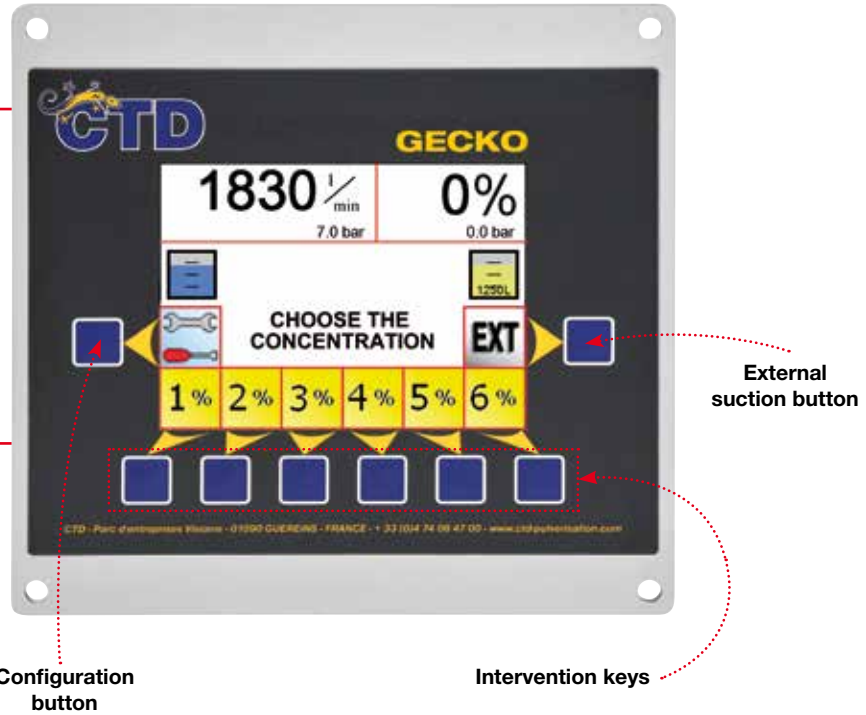
- **Pump:** 120 to 600 l/min *(depending on the model)*
- **Pressure:** 16 bar
- **Dosage:** 1 to 6%
- **Water flow rate:** 80 - 20,000 l/min *(depending on the size of the manifold)*

- **Energy:** Diesel
Petrol
Hydraulic
Power take-off

**A RANGE OF
5 MODELS**
(details p.4)

OPERATING PRINCIPLE

GECKO starts up as soon as the battery master switch is turned on. Selecting a concentration starts the pump with an automatic priming. GECKO injects the foam concentrate under pressure according to the water flow rate as soon as a nozzle is opened and automatically regulates the volume of foam concentrate via a regulation valve. External suction allows a huge using autonomy. After intervention, GECKO automatically starts a flushing cycle.



SCREEN BENEFITS

+ UNIT

- Colour screen
- 6" display size
- Waterproof (IP68)
- Impact resistant
- Compact size
- Remote start-up
- Operating temperature between -20°C and +50°C

+ FULL DISPLAY

- Water flow rate
- Actual concentration
- Pre-defined concentration icons
- Water pressure and foam injection pressure
- Product tank levels with capacity
- Autonomy

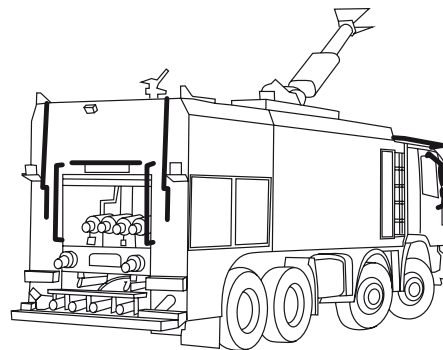
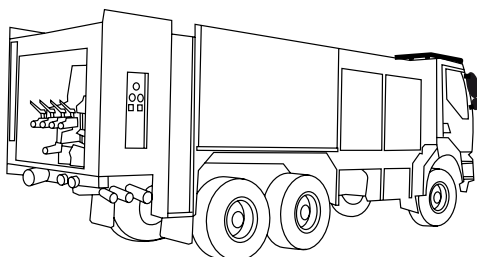
+ MONITORING

- Intervention report
- Fault log

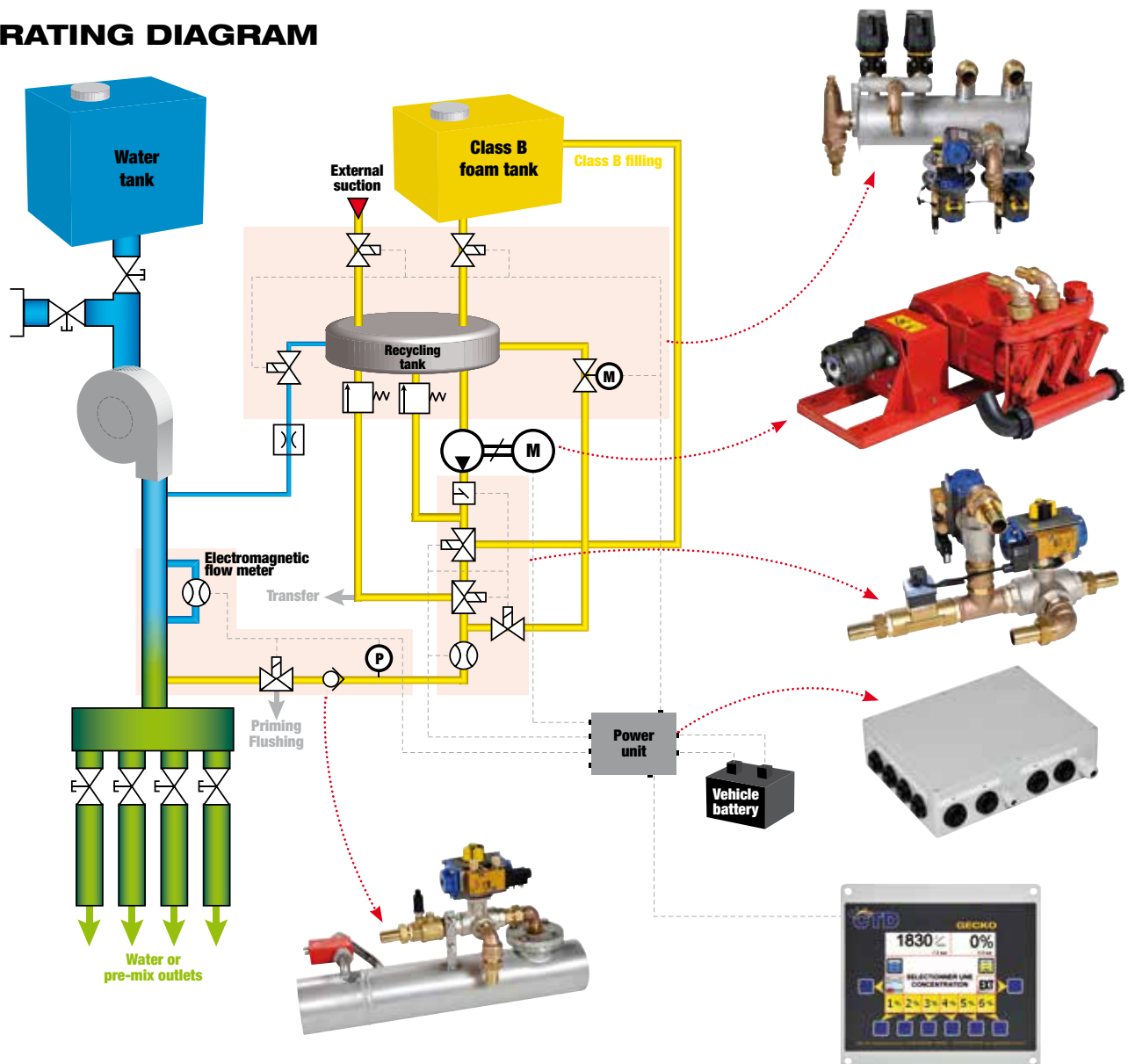
+ ADAPTABLE

- Customisable icons
- Secondary screen option is possible
- Download intervention report by bluetooth
- Several languages available

VEHICLES FITTED EXAMPLES



OPERATING DIAGRAM



SYSTEM BENEFITS

+ HIGH PERFORMANCE

Injecting the product under pressure means GECKO can be used whatever the water flow rate and pressure. This makes it possible to use considerable lengths of hose line. Pre-mixing is performed in the truck without any pressure loss this allows fireman deployment to be far from the danger zones.

+ TAILOR-MADE

Each model has an operating range adapted to the needs of the spray apparatus and the types of risk.

+ COMPREHENSIVE

- Automatic priming and flushing
- External suction
- Product tank filling from the ground
- Transfer of product to an external container
- Automatic frost protection

+ FUNCTIONAL

- Compatible with all Class B foam concentrates
- Can be fitted on all types of vehicles
- Available as a pre-mounted kit or mounted on its own frame
- Thermal engines or hydraulic motor
- Easy maintenance

+ EFFECTIVE

Class B foam concentrate use on industrial fires means extinguishing will be faster and easier to cool down more effectively burning areas. The possibility of injecting the product either from the tank onboard the vehicle or directly from an external stock increases the autonomy of the dosing system and allows foam to be continuously produced at a perfectly controlled concentration. The tank filling function means operators does not need to handle the product.

+ ECONOMICAL

A training mode allows the equipment to be tested without foam use
GECKO dosing accuracy considerably reduces the amounts of product used during operations.

IGUANE IS DESIGNED FOR HIGH-POWER FIREFIGHTING VEHICLES USING CLASS A & B FOAM

IGUANE CLASS A FOAM

- **Pump:** 30 l/min
- **Pressure:** 15 bar
- **Dosage:** 0.1 to 1%
- **Water flow rate:** 80 - 20,000 l/min
(depending on the size of the manifold)
- **Power supply:** Electricity 24VDC *(other voltages possible)*

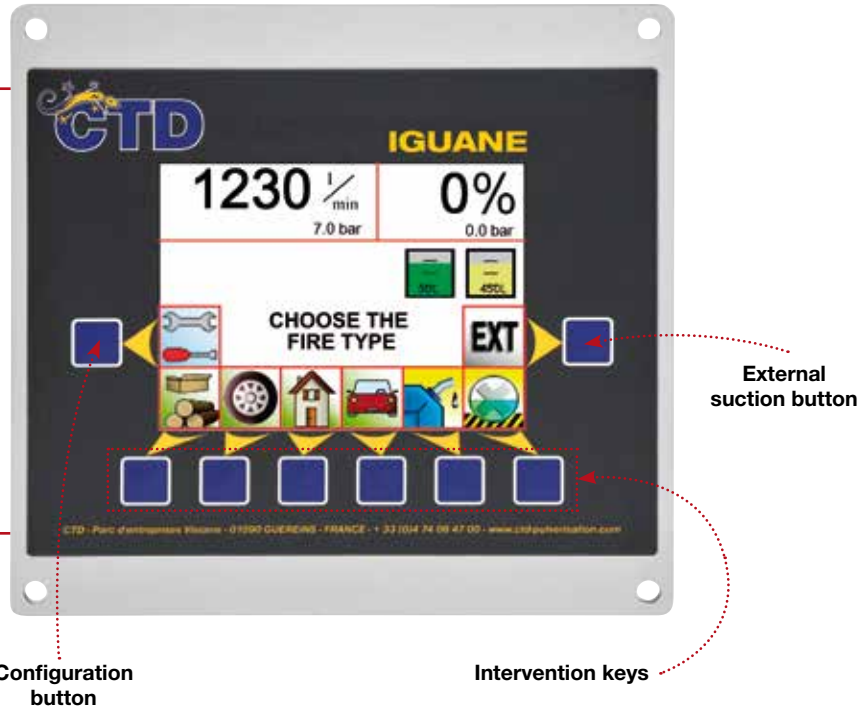
CLASS B FOAM

- **Pump:** 120 to 600 l/min *(depending on the model)*
- **Pressure:** 16 bar
- **Dosage:** 1 to 6%
- **Water flow rate:** 80 - 20,000 l/min
(depending on the size of the manifold)
- **Energy:** Diesel or Hydraulic

**A RANGE OF
5 MODELS**
(details p.4)

OPERATING PRINCIPLE

IGUANE starts up as soon as the battery master switch is turned on. Selecting a Class A concentration activates the electric pump dosing. IGUANE automatically primes then injects foam concentrate according to the real time water flow. Selecting a Class B concentration starts the hydraulic motor-pump and automatically primes then injects the foam concentrate under pressure. IGUANE injects the foam concentrate under pressure as soon as a nozzle is opened. A regulation valve automatically adjusts the foam injection according to the real time water flow. IGUANE allows continuous dosing whatever product and water flow rate ranges are used. After intervention, IGUANE automatically starts a flushing cycle.



SCREEN BENEFITS

+ UNIT

- Colour screen
- 6" display size
- Waterproof (IP68)
- Impact resistant
- Compact size
- Remote start-up
- Operating temperature between -20°C and +50°C

+ FULL DISPLAY

- Water flow rate
- Actual concentration
- Predefined concentration icons for the two products
- Water pressure and injection pressure for Class A & B foam
- Product tank levels with capacity
- Autonomy

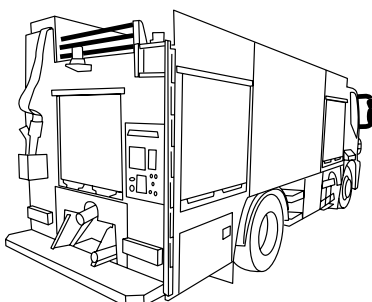
+ MONITORING

- Intervention report
- Fault log

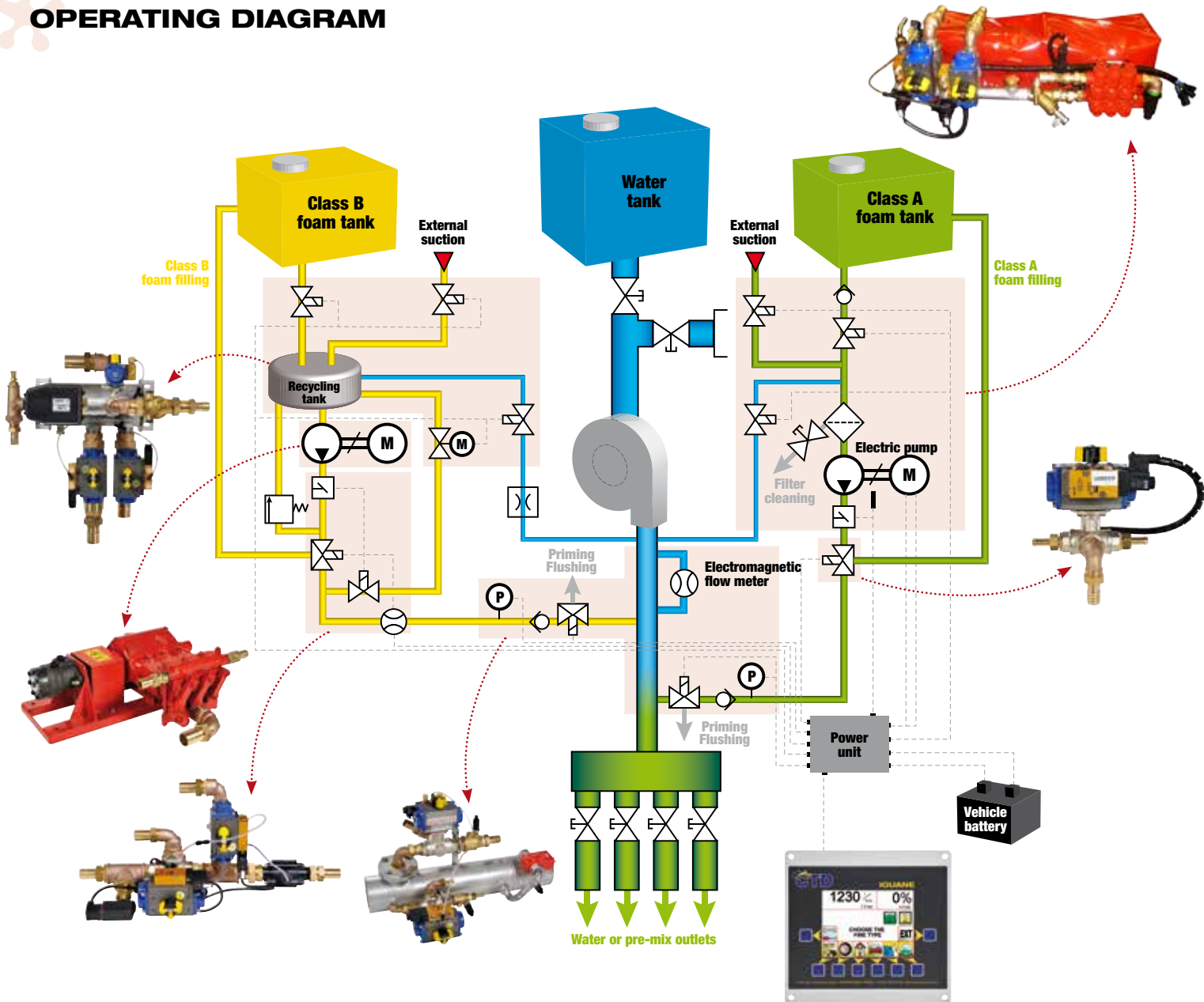
+ ADAPTABLE

- Customisable icons
- Secondary screen option is possible
- Download intervention report by bluetooth
- Several languages available

VEHICLES FITTED EXAMPLES



OPERATING DIAGRAM



SYSTEM BENEFITS

HIGH PERFORMANCE

Injecting the product under pressure means IGUANE can be used whatever the water flow rate and pressure. This makes it possible to use considerable lengths of hoses lines. Pre-mixing is performed in the truck without any pressure loss this allows fireman deployment to be far from the danger zones.

ECONOMICAL

A training mode allows the equipment to be tested without foam use

FUNCTIONAL

- Compatible with all Class A and B products
- Can be fitted on all types of vehicles
- Available as a pre-mounted kit or mounted on its own frame
- Electric motor for the Class A foam, and thermal engine or hydraulic motor for the Class B foam
- Easy maintenance

COMPREHENSIVE

- Automatic priming and flushing for both products
- External suction
- Product tank filling from the ground
- Class B foam transfer to an external container

MULTI-PURPOSE

Class A foam use on urban fires, improves the speed and effectiveness of extinguishing, thereby reducing water consumption. Class B foam concentrate use on industrial fires, means extinguishing will be faster and easier to cool down more effectively burning areas. The possibility of injecting the product either from the tank onboard the vehicle or directly from an external stock increases the autonomy of the dosing system and allows foam to be continuously produced at a perfect controlled concentration. The tank filling function means operators do not need to handle the product.

SALAMANDRE IS AN ELECTRONIC DOSING SYSTEM DESIGNED FOR THE PROTECTION OF INDUSTRIAL SITES REQUIRING MAJOR STAND-ALONE FIRE EXTINGUISHING EQUIPMENT USING FOAM.

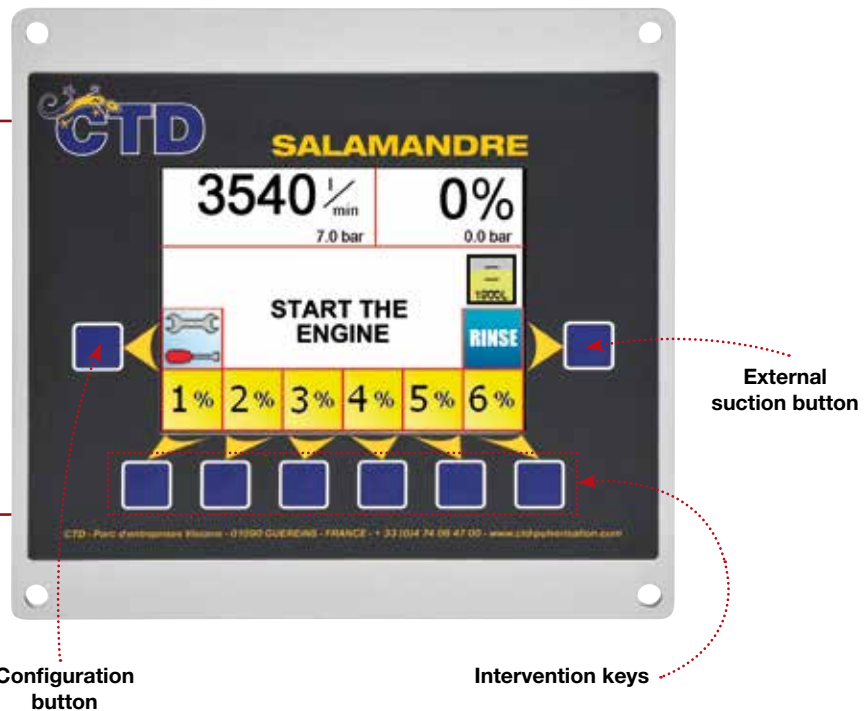
SALAMANDRE

- **Pump:** 120 to 600 l/min (depending on the model)
- **Pressure:** 16 bar
- **Dosage:** 1 to 6%
- **Water flow rate:** 300 to 20,000 l/min (depending on the size of the manifold)
- **Energy:** Diesel
Petrol
(others energies on request)

**A RANGE OF 5
MODELS**
(details p.4)

OPERATING PRINCIPLE

As soon as the thermal engine is started up, the pump draws up the foam concentrate via the recycling tank.
If dosing is not requested, the liquid circulates in a closed loop.
When a dosage concentration is activated, SALAMANDRE injects the foam concentrate into the water pipe and automatically adjusts the volume of foam concentrate via a regulation valve.
The amount of foam concentrate injected depend of the real time water flow rate and the desired concentration.
At the end of the operation, the circuit is cleaned by a simple press on the "FLUSHING" button.



SCREEN BENEFITS

- | | | | |
|--|--|--|---|
| <p>+ UNIT</p> <ul style="list-style-type: none"> • Colour screen • 6" display size • Waterproof (IP68) • Impact resistant • Compact size • Operating temperature between -20°C and +50°C | <p>+ FULL DISPLAY</p> <ul style="list-style-type: none"> • Water flow rate • Actual concentration • Pre-defined concentration icons • Water pressure and product injection pressure • Product tank levels with capacity • Autonomy | <p>+ MONITORING</p> <ul style="list-style-type: none"> • Intervention report • Fault log | <p>+ MODULAR</p> <ul style="list-style-type: none"> • Customisable icons • Remote start-up • Several languages available |
|--|--|--|---|

INSTALLATIONS



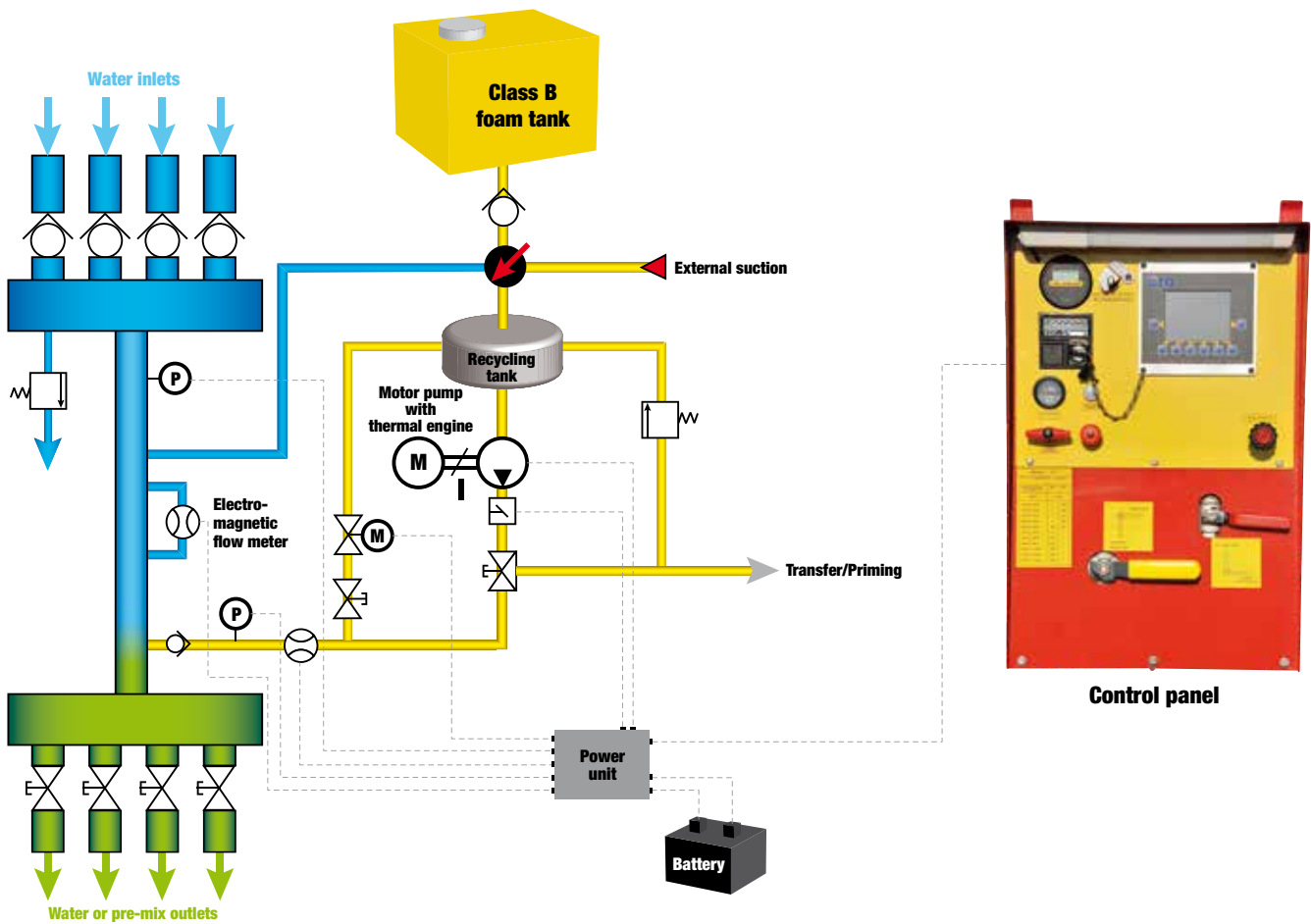
Salamandre 360
Stand-alone unit

Salamandre 240
on foam concentrate skid

Salamandre 120
on trailer

Salamandre 360
on trailer

OPERATING DIAGRAM



SYSTEM BENEFITS

+ HIGH PERFORMANCE

Injecting the product under pressure means SALAMANDRE can be used whatever the water flow rate and pressure. This makes it possible to use considerable lengths of hose line. SALAMANDRE can therefore be placed anywhere along the discharge lines, allowing deployment considerably further away from the danger zone. Operations to supply foam concentrate are more easy and safe.

+ DIDACTIC

SALAMANDRE uses various embedded sensors to continuously display the status of the system on the screen. This provides didactic assistance enabling the user to monitor the stages of system start-up

+ FUNCTIONAL

- Compatible with all Class B foam concentrates
- Stand-alone system
- Can be adapted for a fixed mount (skid) or mobile mount (trailer)
- Various drive motors
- High level of autonomy
- Easy maintenance

+ UPGRADABLE

- External suction
- Product tank filling from the ground
- Product tank agitation
- Foam transfer to an external container
- Emergency operating mode
- Battery floating charger

+ TAILOR-MADE

Each model has an operating range adapted to the needs of the spray apparatus and the types of risks. The size of the pre-mix manifold is tailored according to the needs of the number of inlets/outlets (type and size of connections).

+ EFFECTIVE

CLASS B foam concentrate use on industrial fires means extinguishing will be faster and easier to cool down more effectively burning areas. The possibility of injecting the product directly from an external stock increases the autonomy of the dosing system and allows foam to be continuously produced at a perfectly controlled concentration.

FURCIFER

FURCIFER IS AN "AROUND THE PUMP" FOAM SYSTEM TYPE, INJECTING FOAM DEPENDING OF VARIABLE WATER FLOW DESIGNED FOR HIGH-POWER FIREFIGHTING VEHICLES USING CLASS B FOAM.

FURCIFER

- **Eductor:** Bronze fittings 1 1/2" NPT - 3" NPT (depending on the model)
- **Dosage:** 1 to 6%
- **Foam flow rate:** 10 - 600 l/min (depending on the model)
- **Water flow rate:** 250 - 10 000 l/min (depending on the model)

A RANGE OF 6 MODELS

(details p.4)

OPERATING PRINCIPLE

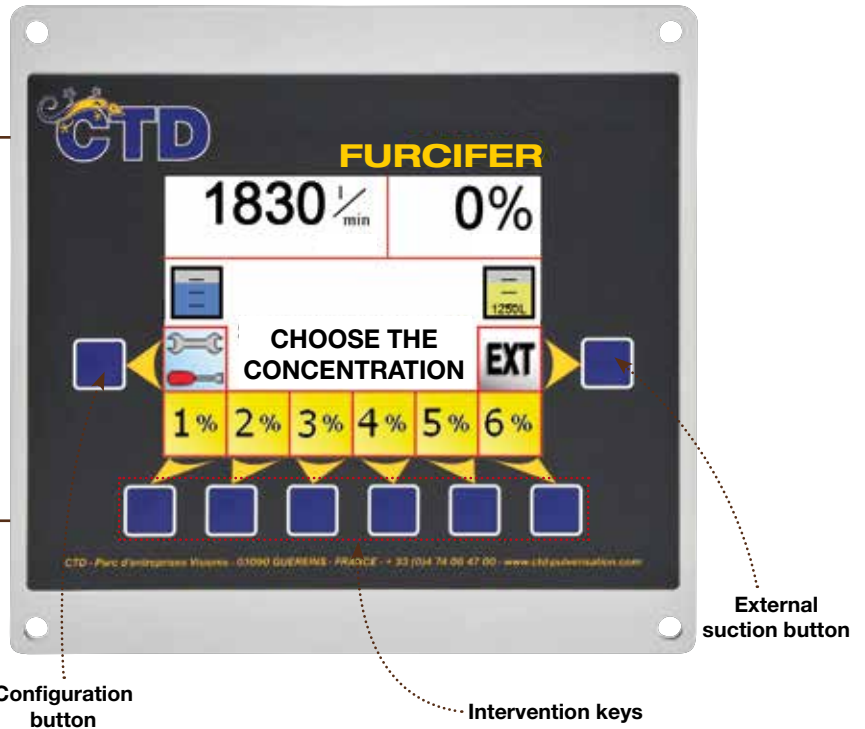
The FURCIFER starts up as soon as the battery master switch is turned on.

Selecting a concentration associated with the opening of a nozzle allows to inject the foam concentrate through eductor fitted on the water pump.

A motorized valve automatically regulates the volume of foam concentrate proportionally to water flow.

The system is in the standby when the nozzle is closed.

Pressing the «STOP» button stops the dosage and starts an automatic flushing cycle.



SCREEN BENEFITS

+ FULL DISPLAY

- Water flow rate
- Actual concentration
- Pre-defined concentration icons
- Product tank levels with capacity
- Autonomy

+ ADAPTABLE

- Customisable icons
- Secondary screen option is possible
- Download intervention report by bluetooth
- Several languages available

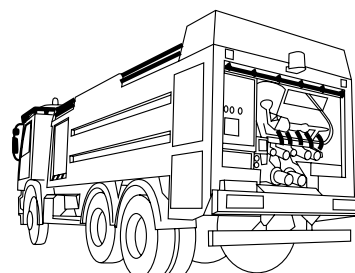
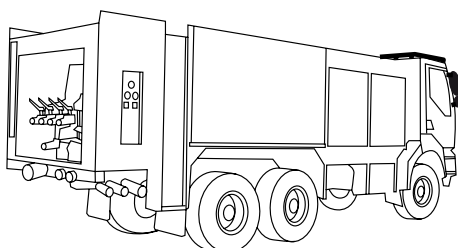
+ MONITORING

- Intervention report
- Fault log

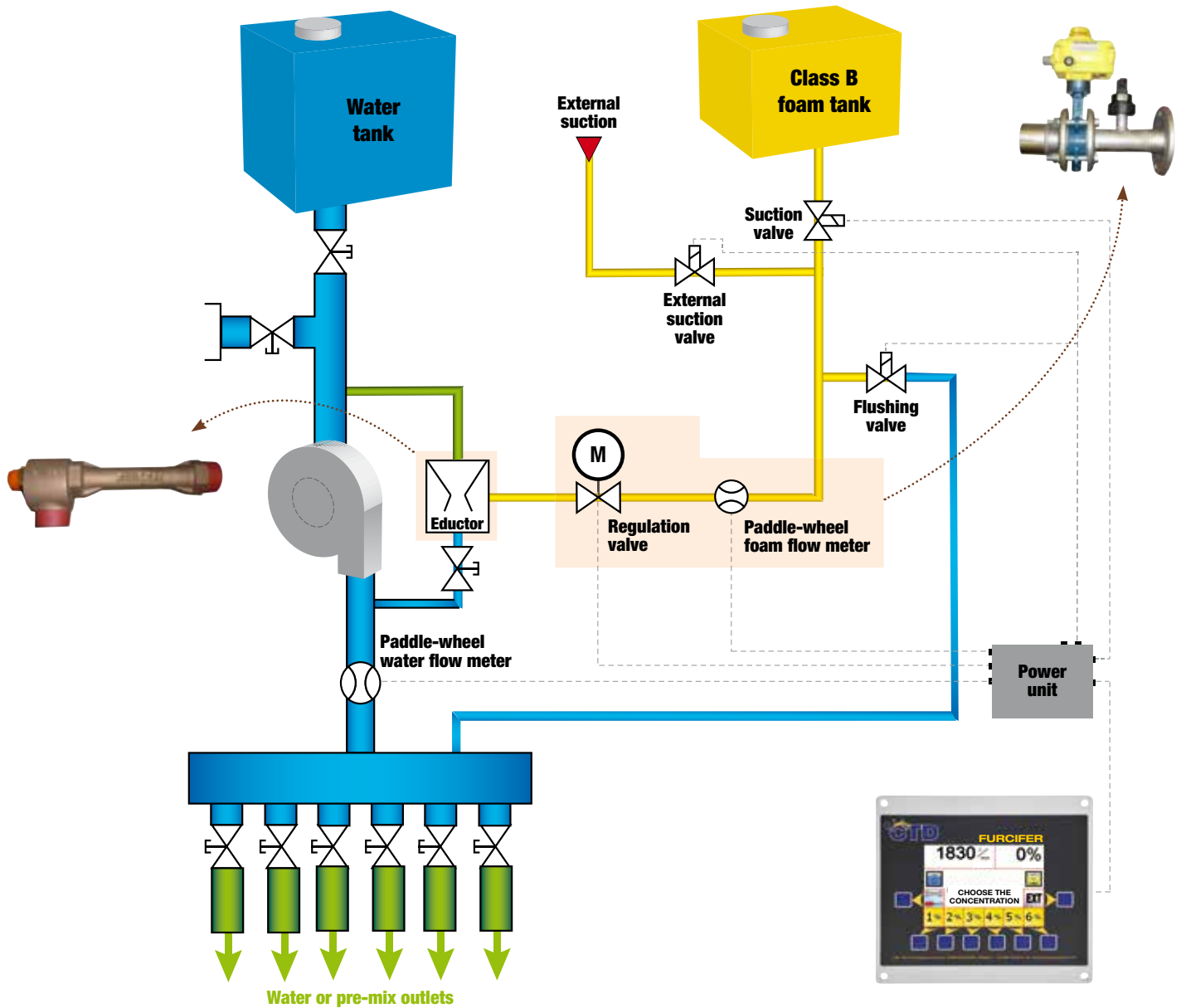
+ UNIT

- Colour screen
- 6" display size
- Waterproof (IP68)
- Impact resistant
- Compact size
- Remote start-up
- Operating temperature between -20°C and +50°C

VEHICLES FITTED EXAMPLES



OPERATING DIAGRAM



SYSTEM BENEFITS



NO FOAM PUMP FOR PRESSURIZING THE FOAM CONCENTRATE



HIGH RELIABILITY



FUNCTIONAL



HIGH PRECISION ELECTRONIC FOAM DOSAGE



EFFECTIVE



REDUCED SIZE OF COMPONENTS



ECONOMICAL

MPVE IS A MECHANICAL BALANCE PRESSURE SYSTEM DOSING SYSTEM WITH MANUAL ADJUSTMENT DESIGNED FOR THE PROTECTION OF INDUSTRIAL SITES REQUIRING STAND-ALONE FIRE EXTINGUISHING EQUIPMENT USING FOAM.

MPVE 120

- **Pump:** 120 liters
- **Pressure:** 16 bar
- **Dosage:** 3 to 6%
- **Water flow rate range:** 1000 to 4000 l/min
- **Energy:** Thermal engine
Electricity

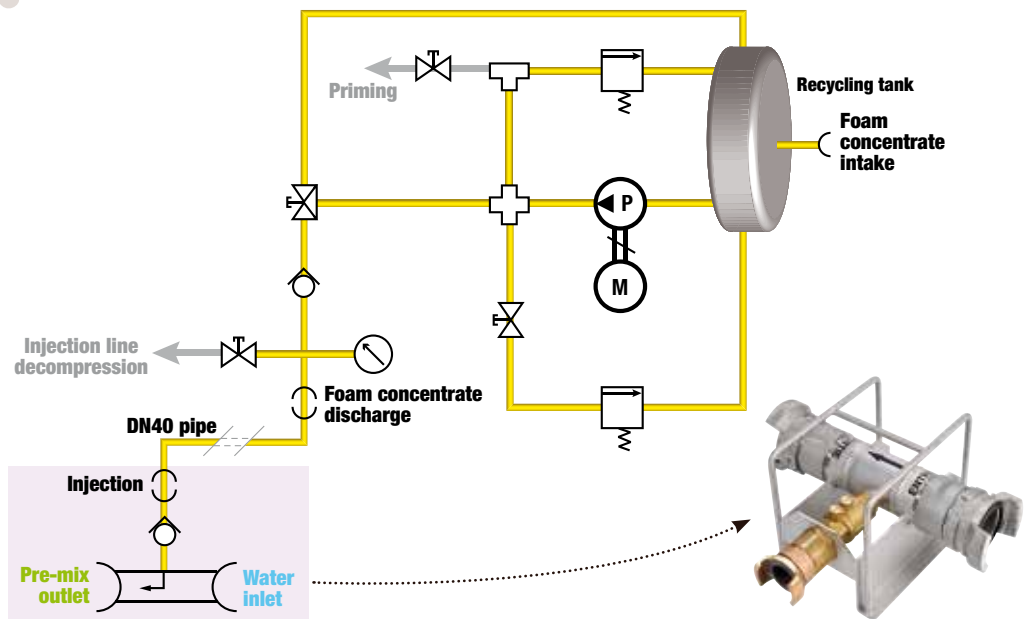
MPVE 180

- **Pump:** 180 liters
- **Pressure:** 16 bar
- **Dosage:** 3 to 6%
- **Water flow rate range:** 1500 to 6000 l/min
- **Energy:** Thermal engine
Electricity

OPERATING DIAGRAM

OPERATING PRINCIPLE

After connection to the foam concentrate tank and once the thermal engine is started up, the MPVE draws up the foam concentrate via the recycling tank. In standby, the liquid circulates in a closed loop, to prevent any risk of unintentional injection. Set the manual valve on injection position allows the transfer of the foam concentrate under pressure into the water pipe via the injector inserted on the line.



SYSTEM BENEFITS



HIGH PERFORMANCE

Injecting the product under pressure means MPVE can be used whatever the water flow rate and pressure. This means significant lengths of pipe can be used between the motor pump and the water line. The possibility to install the injector anywhere along the pipe allows firemen deployment to be far from the danger zones.



FUNCTIONAL

- Volumetric pistons pump
- Compatible with all foam concentrates
- Stand-alone system
- High level of autonomy
- Easy maintenance



SIMPLE

Implementing the system with a single valve to operate makes the MPVE accessible to everyone. An abacus helps the users to check if they have the correct ratio (foam concentration/water flow rate) to ensure an efficient foam application for great extinguishing.



EFFECTIVE

Class B foam concentrate use on industrial fires means extinguishing will be faster and easier to cool down more effectively burning areas.

INSTALLATIONS



MPVE 120 Petrol



MPVE 180 on foam concentrate skid

TRIOCEROS IS A HIGH-PRESSURE APPARATUS FOR EXTINGUISHING SMALL FIRES, ESPECIALLY DESIGNED FOR SMALL 4WD FIREFIGHTING VEHICLES. IT COMBINES THE ADVANTAGES OF HIGH PRESSURE AND CLASS A FOAMS CONCENTRATES.

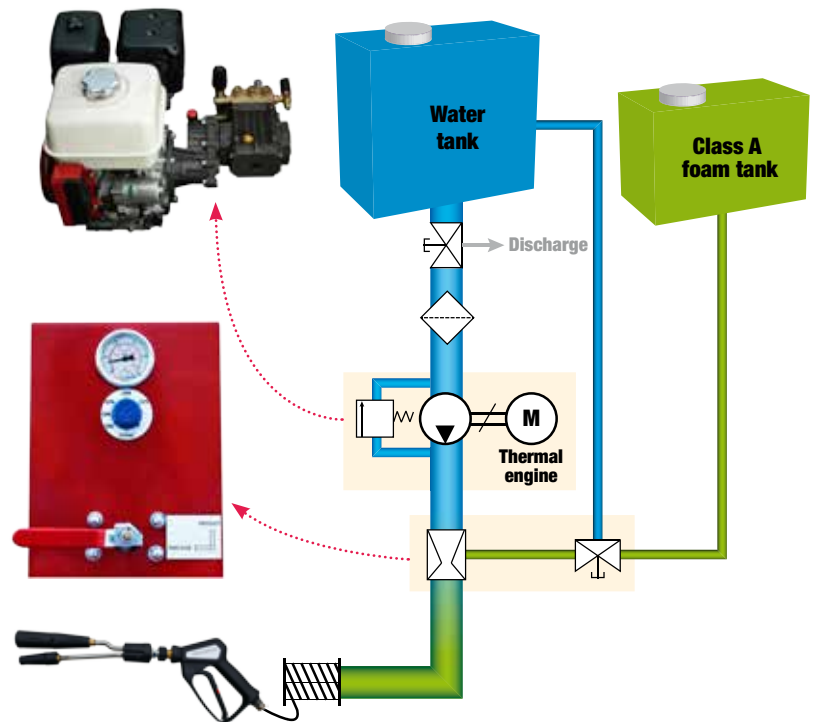
TRIOCEROS

- Pump : 21 l/min
- Pressure : 200 bar
- Dosage : 0.1 to 1%
- Energy : Petrol 11CV
Diesel 12CV
- Start up : Electric and manual
- Reel : Hose 25m
(other lengths possible)

OPERATING PRINCIPLE

From the start of the thermal engine, the pump rises in pressure. Opening the nozzle makes the engine accelerate and set the pressure at 200 bar. Then, the user chooses the position of the nozzle : water mist, additived water or foam and inject the foam concentrate. The user just has to open the product's valve and to set the concentration with the thumbwheel.

OPERATING DIAGRAM



SYSTEM BENEFITS

+ EXTINGUISHING

The high-pressure nozzle offers 3 positions :

- Position "high pressure" water mist spray stick or diffused, for a better cooling of the fire attack area.
- Position "low pressure" spray stick with addition of class A foam concentrate to get an additived water particularly efficient on brush fires.
- Position "foam" allowing to project a semi-humid foam (overrun 10) on any material. Perfect againt small urban fires (trash cans, cars...).

+ ECONOMICAL

Using high pressure allows to reduce the needs of water with high efficiency thanks to the CLASS A foam concentrate. In areas of difficult access, this strongly increases the extinguishing autonomy.

+ UPGRADABLE

TRIOCEROS is adaptable on any material and vehicules. A wide variety of options allows to build a tailor-made solution (tanks, reels, undercarriage).

+ EFFECTIVE

High pressure allows to schrink the size of the water drops, therefore increasing the cooling power of the water by catching more heat.

ACHIEVEMENT



OPTION



Vacuum cleaner function

Designed for discharging any kinds of garbage, algae or sludge, mud..., this accessory is easily plugged into the hose in place of the nozzle. It allows to suck water in case of small flooding.
Suction capability : 250 l/mn

OUR PUMPS ARE SPECIALLY DESIGNED FOR CLASS B FOAM TRANSFER OR ANY OTHER VISCOUS LIQUID.

PT40

- **Pump:** 40 l/min
- **Pressure:** 4 bar
- **Energy:** Thermal engine
(petrol)
Electricity

PT200

- **Pump:** 200 l/min
- **Pressure:** 5 bar
- **Energy:** Thermal engine
(petrol or diesel)
Electricity

PT400

- **Pump:** 400 l/min
- **Pressure:** 5 bar
- **Energy:** Thermal engine
(petrol or diesel)

PT600

- **Pump:** 600 l/min
- **Pressure:** 5 bar
- **Energy:** Thermal engine
(diesel)

PT800

- **Pump:** 800 l/min
- **Pressure:** 5 bar
- **Energy:** Thermal engine
(diesel)

PT1000

- **Pump:** 1000 l/min
- **Pressure:** 5 bar
- **Energy:** Thermal engine
(diesel)

OPERATING PRINCIPLE

After connection to the foam concentrate tank and once the thermal engine is started up, the motor pump draws up the product. The product is transferred as soon as the discharge valve on the motor pump is opened. The technology used means that the characteristics of the foam concentrate are not altered during transfer, this maintain optimum product quality. The motor speed determines the product discharge rate.

BENEFITS

- ⊕ Volumetric pump specially adapted to the foam viscosity concentrate products.
- ⊕ No product alteration during transfer
- ⊕ Integrated over pressure safety valve
- ⊕ Motor pump with adjustable flow rates via by-pass on the intake side
- ⊕ Simple, functional control panel
- ⊕ Foam concentrate discharge manifold sized according to the flow rates

INSTALLATIONS



40 l/min portable electric transfer pump



1000 l/min trolley-mounted transfer pump with thermal engine



1000 l/min skid-mounted transfer pump with thermal engine

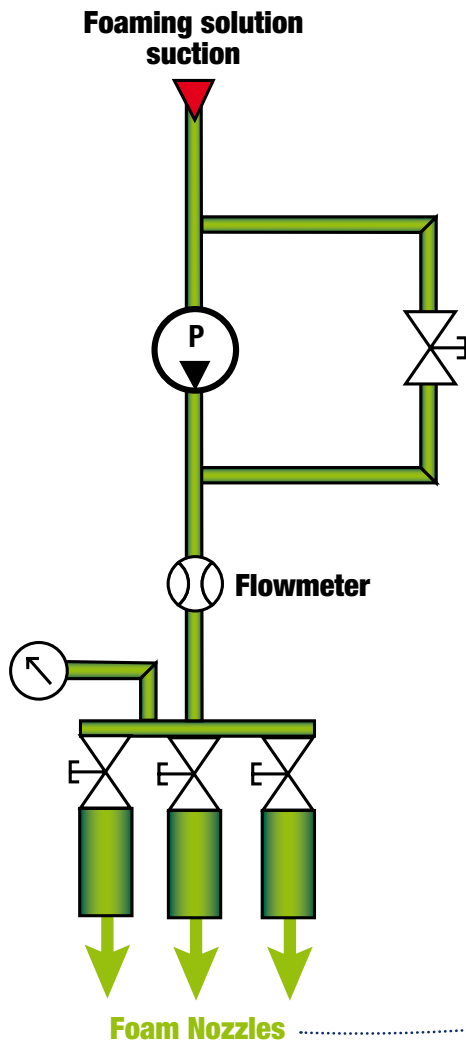
PREMIX FOAM ELECTROPUMP IS A TRAINING KIT TO DISCOVER OPERATION AND EFFICIENCY OF CLASS A&B ON REAL FIRES.

EPPM

- Pump : 4,5 l/min
- Pressure : 4 bar
- Power supply : Electricity 12 V ou 220 V



OPERATING DIAGRAM



OPERATING PRINCIPLE

EPPM is switched on by turning the ON/OFF button allowing the pump to suck the foam solution prepared upstream. The control valve adjusts service pressure of the used foam nozzles.

A digital display allow premix flow application control.

Nozzles can be customized to adjust the flow rate and expansion rate. The stainless steel tank and accessories provided, allow any kinds of tests depending on the simulated attack mode.



BENEFITS



Pedagogic kit developed to improve special fires extinguishing knowledge.



Delivered with multiple accessories :
 - Fire Simulation Stainless steel tank
 - Mini Nozzles, low and high expansion
 - Dosing Test tubes



Easily transportable in its aluminum case



Flow display and pressure adjustments allows control of different extinguishing possibilities, application rate measurements, and different simulated fire attack types.



Let understandable benefit of different nozzles used with foam on liquid fires.

MONITOR TRAILER

SPECIFIC STUDIES
POSSIBLE



THIS MONITOR TRAILER CAN BE DIRECTLY PLUGGED INTO HYDRANT SYSTEM. THEREFORE, IT IS AUTONOMOUSLY OPERATED IN ORDER TO ACHIEVE THE COOLING OF THE DANGER ZONE.

MONITOR TRAILER

- Trailer : Simple axle
- Drawbar : Articulated
- PTAC : 500 kg
- Cannon Water Flow : 3000 l/min
(other flow rates possible)
- Storage Box : 2 to 4 hoses DN 100

OPERATING PRINCIPLE

Each water intake is individual. Once the necessary hoses connected, the regulation valve located under the cannon allows to open or close the water flow. The 4 landing gears allow to stabilize the trailer during the water discharge. The cannon is manually operated and oriented on the fire.



BENEFITS



Individual water supply thanks to check valves on each water intakes.



Compact size and light weight so as the trailer is towable without trailer license



Angled water intake connector accessible thanks to an inspection hatch



Antiskid floor



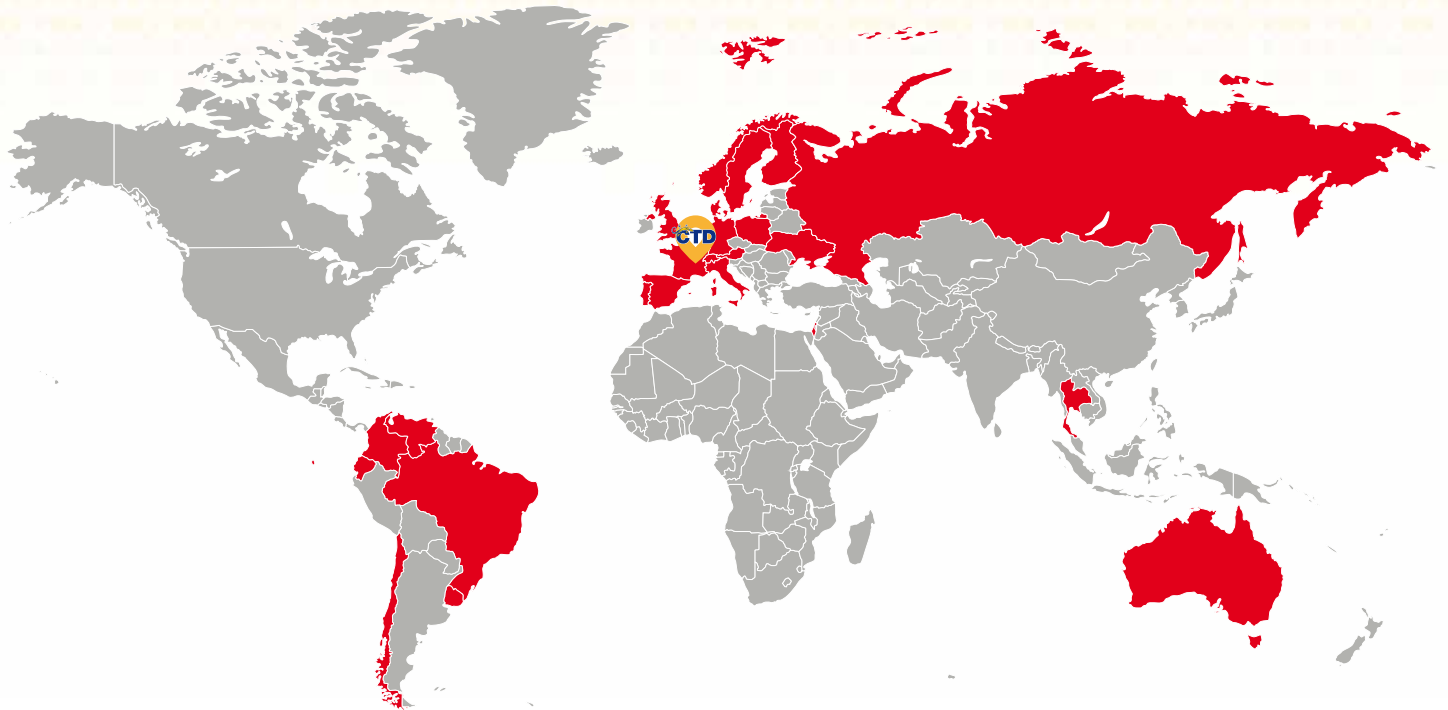
4 telescopic landing gears with screws

ACHIEVEMENTS



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