

GEFEST

THE FUTURE OF FIRE SUPPRESSION



presentation

GEFEST SOLUTION QAZAQSTAN

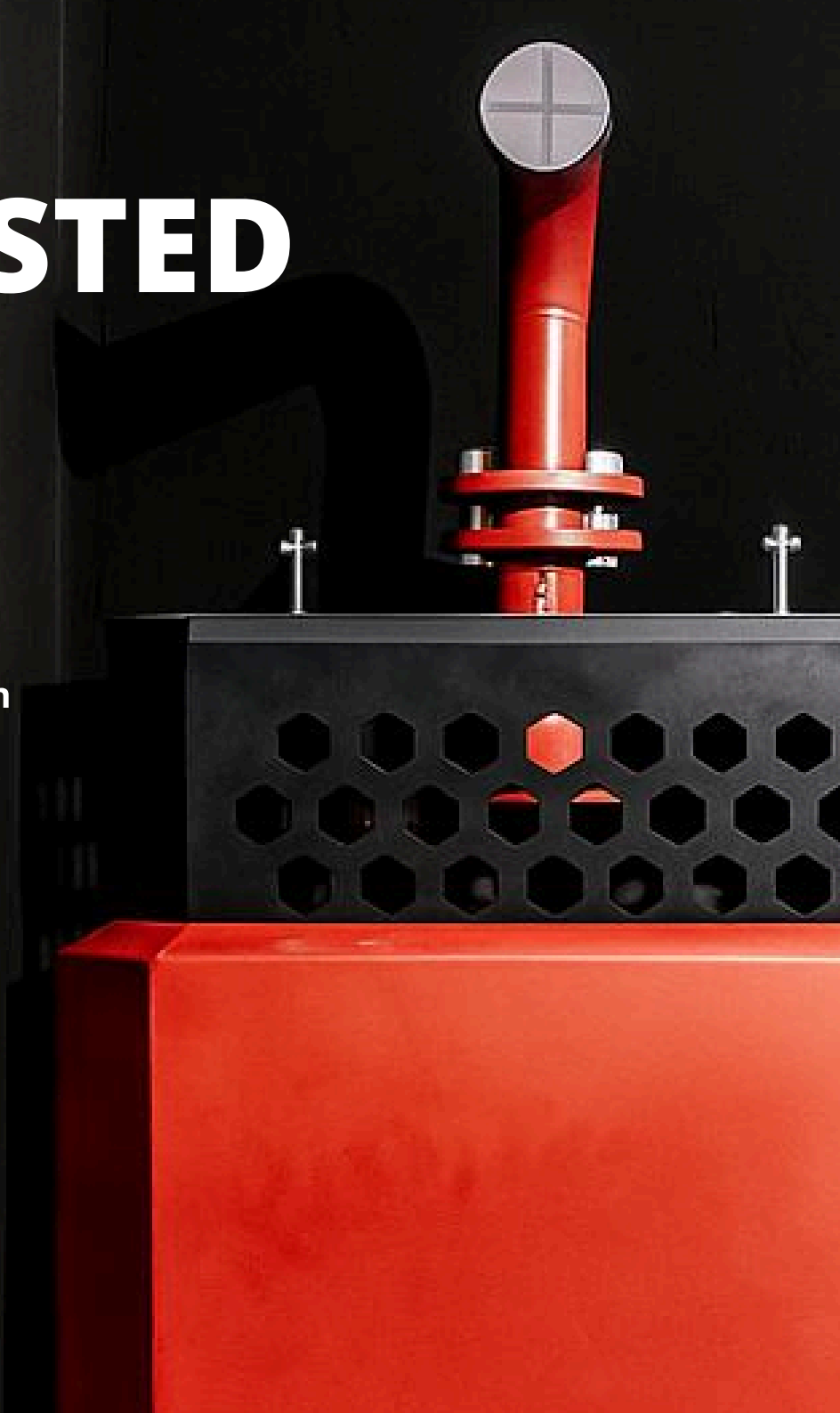
KAZAKHSTAN'S HIGH-TECH R&D COMPANY — CREATOR OF THE WORLD'S FIRST PATENTED
NEXT-GENERATION AERIAL POWDER FIRE SUPPRESSION SYSTEM.

WE DESIGN, MANUFACTURE AND IMPLEMENT UNIQUE SOLUTIONS WITH NO ANALOGUES IN THE
WORLD, WHICH ARE ALREADY PROTECTING CRITICAL INDUSTRIAL INFRASTRUCTURE TODAY.

INNOVATION TESTED IN FIRE

The first and only company to develop and patent in 2024 its own extinguishing agent and next-generation fire suppression modules.

Our technology is recognized by government authorities, supported by leading industrial players, and ready for release to global markets.



OUR CAPACITY

KAZAKH INNOVATION. GLOBAL STANDARD. TECHNOLOGY OF THE FUTURE.

In-house experimental design and production facilities

Own research and development team

Full-cycle plant for the production of innovative fire suppression systems at the Special Economic Zone "Innovative Technologies Park "Alatau"

Included in the Unified Industrialization Map of Kazakhstan

Participants of the President of Kazakhstan Award "Altyn Sapa" 2025 in the category "Best Innovative Project"

30.000+

modules per year

up to 1400 m³

extinguishing volume per module

up to 2 sec.

Complete fire suppression with zero chance of re-ignition

TESTING: PROVEN EFFECTIVENESS

IN APRIL 2025, IN PARTNERSHIP WITH EURASIAN RESOURCES GROUP (ERG), THE LARGEST-EVER TESTS IN KAZAKHSTAN WERE CONDUCTED FOR THE INNOVATIVE STORM AERIAL POWDER FIRE SUPPRESSION MODULES.

3

days

TOP 5

Critical
Scenarios

20+

ignition points

up to 2 sec

Fire extinguishing time

0%

chance of re-
ignition

- Average extinguishing time: less than 2 seconds after release of extinguishing agent
- Fire extinguishing in open and enclosed spaces
- No re-ignition



WHEN FRACTIONS OF A SECOND DETERMINE THE FATE OF AN OBJECT.

ADVANTAGES

By choosing us, you gain comprehensive fire suppression solutions.

FULL COVERAGE

Effective in blind spots, hard-to-reach areas, and shielded areas, regardless of geometry, building height, or fire load.

LITHIUM-ION BATTERIES

We have the world's only technology capable of effectively handling such fires.

SAFE FOR ASSETS

Does not damage property or material valuables.

AUTONOMY

stationary, wall-mounted, and floor-mounted systems do not require additional structures or insulation.

INSTANT EXTINGUISHING

Complete fire suppression in less than 2 seconds.

20 YEARS

service life

POWER PROVEN BY FACTS

30,000 UNITS

of specialized vehicles, modules, and technological installations per year — the plant's designed capacity

UP TO 15 MINUTES

of airborne extinguishing powder prevents re-ignition

A SYSTEM

with no analogues in the world in terms of efficiency and versatility



STORM

1000



STORM 100

/ TECHNICAL INFORMATION

CLASS A : 1300 M³

CLASS B : 900 M³

Fire-protected volume

-50°C +60°C

Operational temperature

357 KG

Total weight

666×658×1732MM

Dimensions, WxDxH

/ BASIC SPECIFICATION

10 SEC

Discharge duration of the extinguishing agent

82 KG

Powder weight

30 KG

Mass of propellant gas

A, B, C, E

Fire classes

25-30 M

Discharge range of fire extinguishing agent

20 YEARS

Service life

LESS THAN 1 SEC

Rapid system activation

STORM

10



STORM 10

/ TECHNICAL INFORMATION

CLASS A : 120 M³

CLASS B : 90 M³

Fire-protected volume

-50°C +60°C

Operational temperature

39 KG

Total weight

415×235×800MM

Dimensions, WxDxH

/ BASIC SPECIFICATION

15 SEC

Discharge duration of the extinguishing agent

7.6 KG

Powder weight

3.1 KG

Mass of propellant gas

A, B, C, E

Fire classes

8-10 M

Discharge range of fire extinguishing agent

20 YEARS

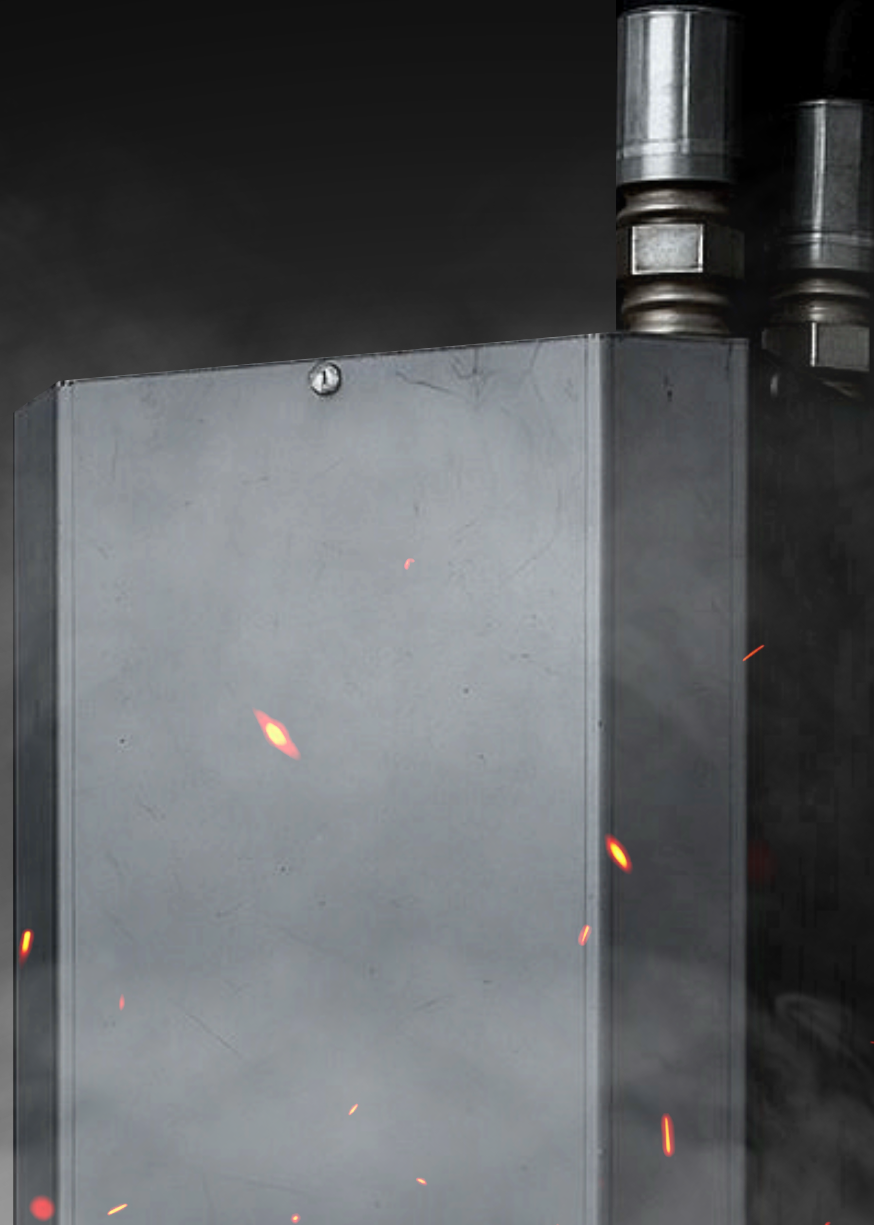
Service life

LESS THAN 1 SEC

Rapid system activation

STORM

5



STORM 5

/ TECHNICAL INFORMATION

CLASS A : 90 M³

CLASS B : 60 M³

Fire-protected volume

-50°C +60°C

Operational temperature

28 KG

Total weight

225×225×750MM

Dimensions, WxDxH

/ BASIC SPECIFICATION

5 SEC

Discharge duration of the extinguishing agent

4.1 KG

Powder weight

1.5 KG

Mass of propellant gas

A, B, C, E

Fire classes

5-6 M

Discharge range of fire extinguishing agent

10 YEARS

Service life

LESS THAN 1 SEC

Rapid system activation

TORNADO X



TORNADO X

Next-Generation Firefighting Vehicle — equipped with GEFEST's proprietary multi-purpose extinguishing powder (A, B, C, E classes).

It is designed for the elimination of high-flow oil and gas blowouts — more than 10,000 m³/day for oil and more than 10 million m³/day for gas. The compact block-container can be easily mounted on any type of chassis and can be quickly recharged directly in the field.

Additionally, the system can be equipped with a pneumatic hose, effectively extinguishing fires in buildings at heights of up to 50 meters. Protected volume over 30 000 m³ with response time of 1 sec. Extinguishing agent flow time - up to 30 sec.

More than 10,000 m³/day

Elimination of oil blowouts with flow rate

More than 10 mln m³/day

Elimination of gas blowouts with flow rate

INNOVATIVE FIRE PROTECTION SYSTEM FOR
THE PROTECTION OF TANKS AND TANK
FARMS



TYPHOON

Suitable both for individual tanks and for large tank farms with a capacity of up to **100 000 m³**

After activation the system extinguishes flames by releasing extinguishing agent within 10 seconds, without affecting the quality of petroleum products. It uses "Aero-powder" and carbon dioxide cylinders with separated component storage. Due to the rapid extinguishing speed, heating and further deformation of the tank are prevented, and no additional cooling of adjacent tanks is required.

-75°C +60°C

Extinguishing range

20 YEARS

Service life

10 SEC

Extinguishing agent
release time after
activation

LITHIUM-ION BATTERIES

PROBLEMS IN LITHIUM-ION BATTERY FIRE SUPPRESSION

It is impossible to extinguish lithium-ion batteries because of their chemical composition and operating principle, which can lead to chain reaction and thermal runaway. These batteries contain flammable electrolytes and release oxygen during combustion, which intensifies the flame. In case of fire, overheating of one cell provokes overheating and ignition of neighboring cells, leading to an uncontrollable fire situation. When burning, lithium-ion batteries emit toxic gases and pose a danger to people and the environment.

As of today, there is no method in the world for extinguishing lithium-ion batteries; the existing extinguishing agents are ineffective and even dangerous due to chemical reactions.

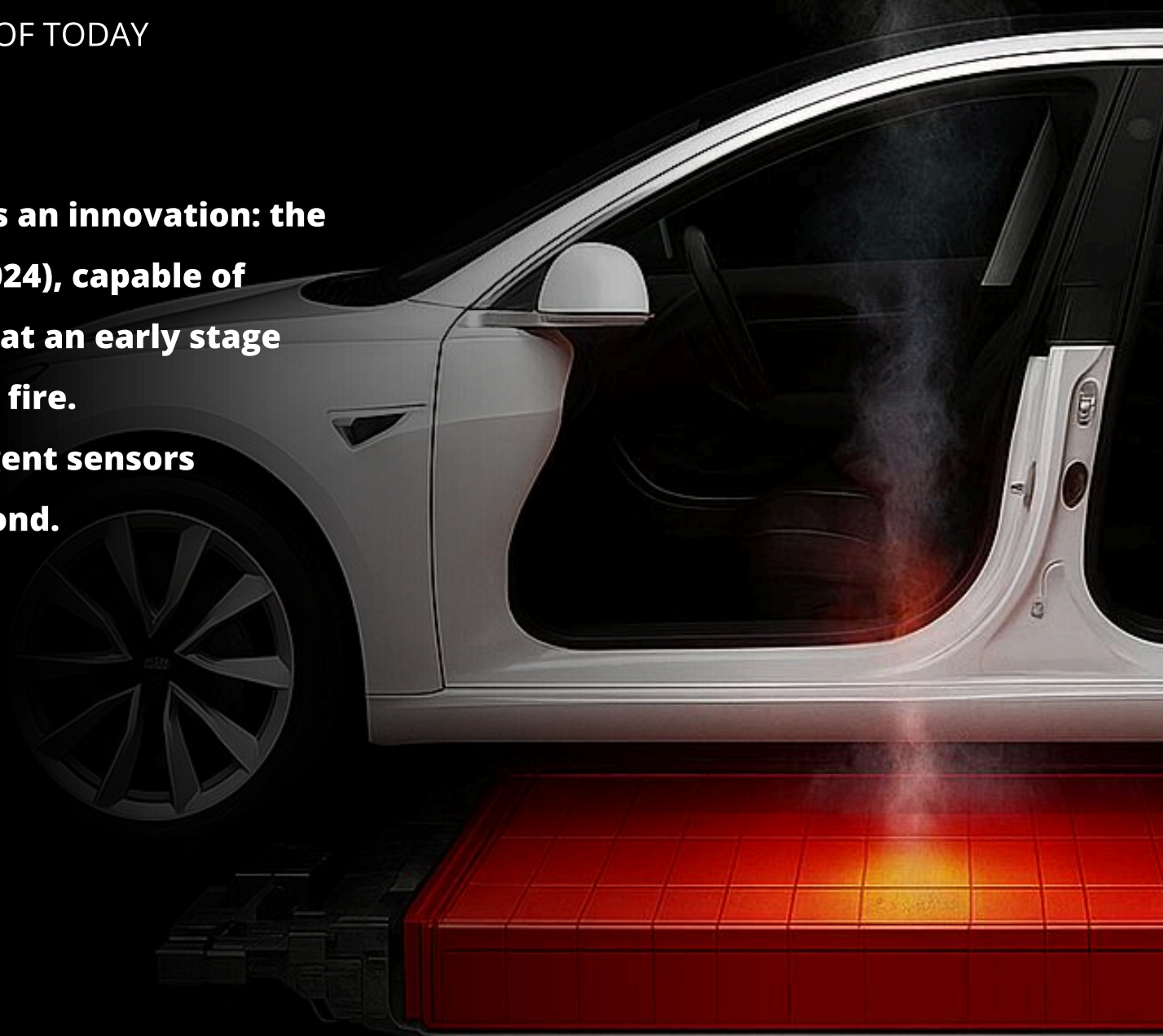


LITHIUM-ION BATTERIES

THE ENERGY OF THE FUTURE, THE RISK OF TODAY

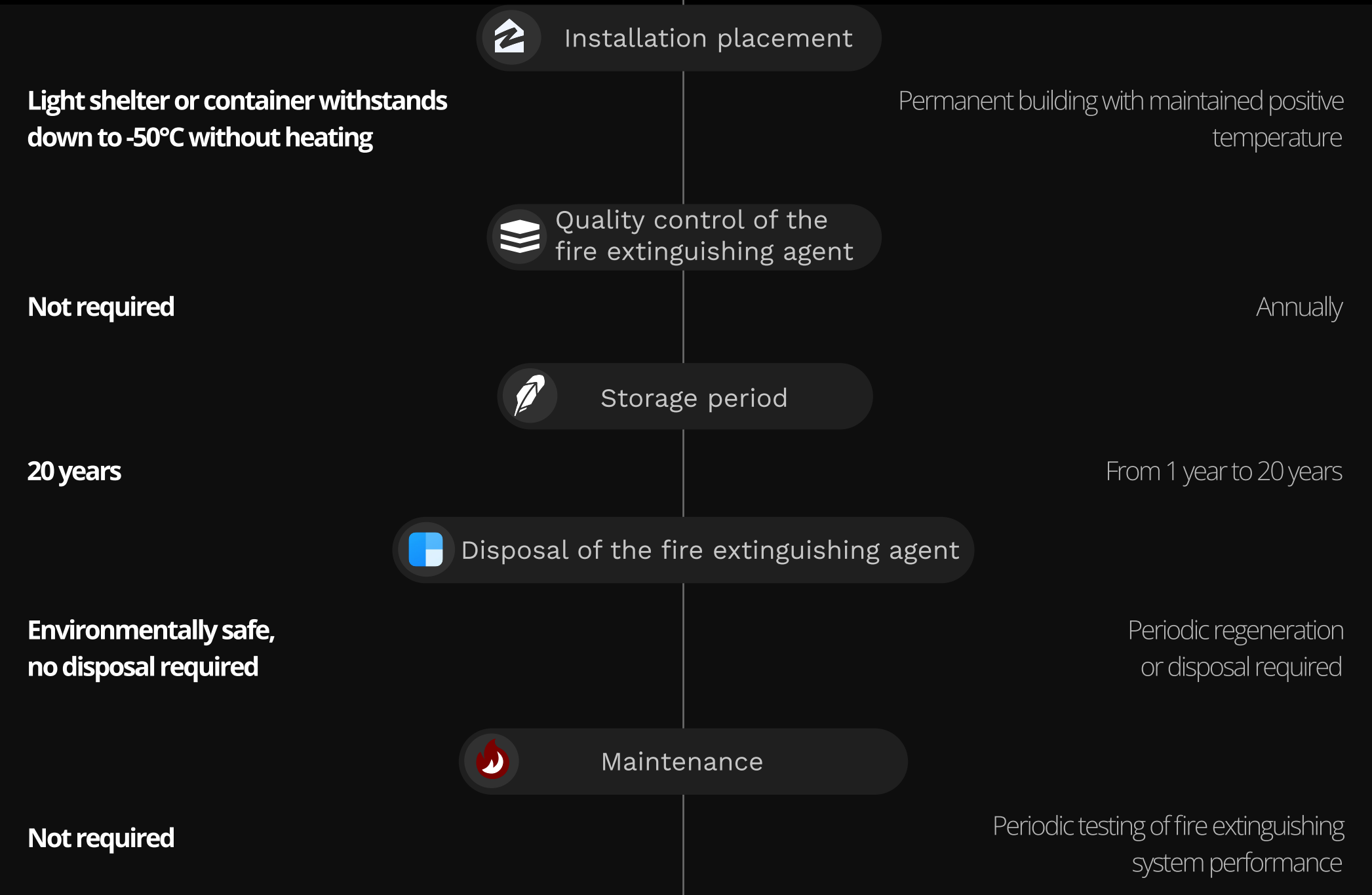
GEFEST Solution Qazaqstan presents an innovation: the patented powder "GEFEST-ABCE" (2024), capable of extinguishing lithium-ion batteries at an early stage and preventing the development of fire.

The next step — a system of intelligent sensors monitoring the batteries every second.



GEFEST

Standard solutions



FIRE X - GEL´

The gel is designed for containing and extinguishing both crown and surface forest fires. It enables the creation of protective and support lines in combating wildfires of both types of fires.

The gel combines both wetting and fire-extinguishing properties, ensuring multifunctional application. The gel provides fire containment and suppression with a consumption rate dozens of times lower than that of water. It reduces environmental impact, provides high efficiency in fire suppression, and prevents re-ignition.

Completely environmentally friendly. Causes no harm to forests, flora, or fauna. Contributes to the restoration of the soil surface after fire, promoting faster forest growth and recovery.

STABLE DURING STORAGE. SHELF LIFE – UP TO 10 YEARS.

/ TECHNICAL DATA



Effectively acts on the fire source due to a complex of extinguishing factors



Adheres to the surface, providing prolonged action



Surpasses traditional formulations in wetting and retention on soil and vegetation

/ BASIC SPECIFICATION



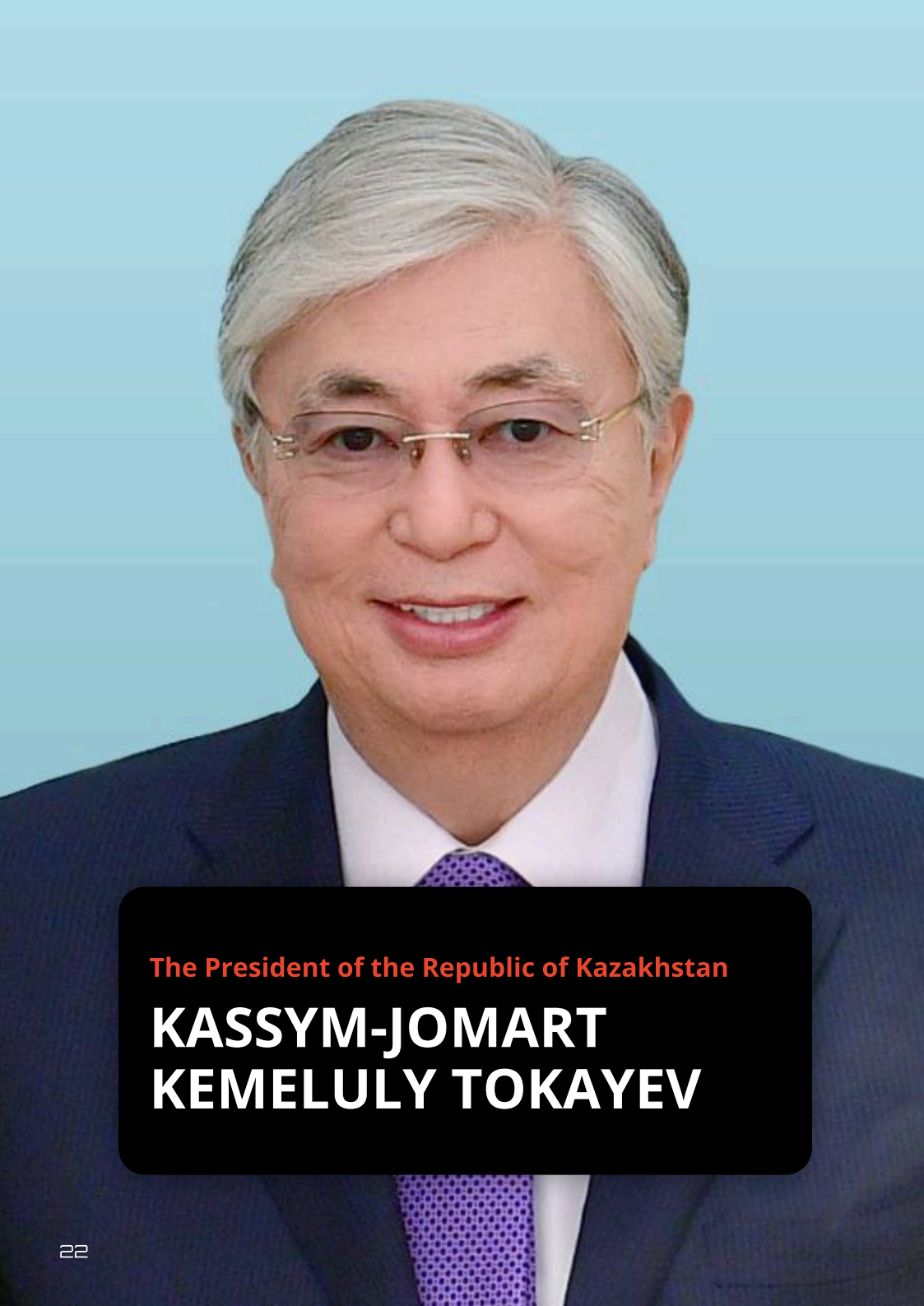
Suitable for ground, aerial, and manual application



Effective in extinguishing surface and rocky forest fires



Prevents re-ignition by thoroughly wetting the soil



The President of the Republic of Kazakhstan

**KASSYM-JOMART
KEMELULY TOKAYEV**

NATIONAL LEADERSHIP SUPPORTS DOMESTIC MANUFACTURERS!

"...It is of utmost importance to maximize the use of our own resources and workforce—in other words, everything that constitutes national value."

"The government has a duty to protect domestic producers. This should not be interpreted as an intention to close our economy from the outside world: it must remain open, while ensuring that the interests of national business are safeguarded."

**The Message of the Head of State,
September 3, 2024.**

COMPLIES TO ALL INTERNATIONAL REQUIREMENTS

ENVIRONMENTALLY FRIENDLY PRODUCTION COMPLYING WITH SANPIN AND INTERNATIONAL STANDARDS.

Ø1 ECO-Certificates

Ø2 Harmless for human and environment

Ø3 Doesn't require recycling and processing

Ø4 Support for Eco-Initiatives and Cooperation with NGOs

JOIN THE TECHNOLOGIES OF FUTURE

GEFEST SOLUTION QAZAQSTAN MADE IN KAZAKHSTAN. WORKS ALL
OVER THE WORLD. SAFE. EFFECTIVE. RELIABLE.

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