AVR ALPHAVET ROBOTICS

ALPHAVET 1989

DISINFECTION GATE

– THE FOUNDATION OF EFFECTIVE EPIDEMIC CONTROL ON THE FARM

HYGate

On a livestock farm, the greatest risk of disease transmission comes from vehicles entering and leaving the premises (feed trucks, livestock transport trucks, service vehicles). African swine fever, avian influenza, Salmonella, and other pathogens can easily enter the facility via organic contaminants adhering to the vehicle body, wheels, fenders, and undercarriage. The HYGate disinfection gate ensures a standardized, controlled, and documentable disinfection process that minimizes the risk associated with uncontrolled passage.

TECHNICAL SPECIFICATIONS AND COMPONENTS

During the design of the equipment, industrial reliability, high load capacity, and precise chemical dosing were the basic requirements.

PARAMETER	VALUE / SPECIFICATIONS
Pump capacity	60–70 liters/minute output
Number of nozzles	21 units (in side, top, and bottom positions)
Chemical concentration	Adjustable between 1–8%
Frame material	Stainless steel pipe (1.4301)
Height	~5,000 mm (selectable/adjustable between 4–5 m)
Width	Minimum ~4,000 mm (modularly expandable according to specific requirements)
Wind resistance	Rated for wind gusts up to 80–100 km/h

PUMP AND NOZZLE SYSTEM



OUTPUT:
The high-performance pump sprays 60–70 liters of liquid per minute, ensuring proper disinfection of the entire surface.

CHASSIS DISINFECTANT:
Nozzles built into the ramp spray the vehicle's chassis and wheel wells, where pathogens are most likely to persist.

CROP PROTECTION:
The built-in solenoid valve allows the upper spread pattern to be shut off, so that feed or other loose cargo remains dry

MULTI-POINT COVERAGE:
The 21 nozzles treat the vehicle from the sides, from above, and from below.

CONTROL AND AUTOMATION

STARTUP: Automatic, photocell (infrared barrier) detection, which activates the system when a vehicle passes through.
PLC CONTROL: Intelligent monitoring, which tracks parameters in real time.
PREDICTIVE MAINTENANCE: Continuous monitoring of the pump and operating hours, with fault reporting. Can be integrated into the system and monitored remotely.
SAFETY FEATURES: Dry-run protection, tank empty detection, emergency stop switch.
TRAFFIC CONTROL: Traffic light-based traffic control and status indicator lights to ensure clear passage.
DESIGN: UV-resistant cabling, IP65 (or higher) protection rating, industrial-grade plastic, custom-built insulated electrical enclosure.



WINTER OPERATIONS (FROST PROTECTION)

To ensure reliable operation in sub-zero temperatures during the winter, the unit is equipped with integrated heating systems:

- Heated frame.
- Insulated and heated mechanical compartment, which houses the water tank, pump, and electrical controls.
- Piping and nozzles equipped with freeze protection.

INSTALLATION TERMS AND SERVICES

Commissioning fixed-installation gates requires minimal infrastructure preparation:

- A flat, load-bearing concrete foundation surface.
- A 230V or 400V electrical outlet near the installation site.
- A nearby municipal water supply.

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FREE
ON-SITE ASSESSMENT

Prior to installation, our experts will assess—free of charge—the site conditions, the width of the entrance, and the layout of the driveway. The gate's modular design allows us to fully accommodate custom dimensions and special technical requirements.

For further detailed technical information, to request a custom quote, or to place an order for this product, please contact our staff!

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