DYNATECT®

DYNAMIC EQUIPMENT PROTECTION

GORTITE® VF AUTOMATED MACHINE SAFETY DOOR

High-Speed Vertical Fabric Roll-Up

Safely Automate Machine Access & Automation Work Flow

HIGH-SPEED VERTICAL FABRIC ROLL-UP

KEEP HAZARDOUS OPERATIONS SEPARATE FROM PEOPLE, EQUIPMENT, AND MATERIALS

Dynatect's Gortite® VF Automated Machine Safety Door is a movable barrier engineered for demanding industrial environments and evolving safety regulations. It reduces the automation footprint while maintaining safe access to minimize cycle time and maximize output. The proven VF Door separates hazardous operations from operators, material handling equipment, and other workflows. It helps contain machine or process-generated hazards including light debris, fluid splatter/mist, weld byproducts (smoke, sparks, flash), and is visibly safer than light curtains. The door is compatible with existing fencing to further isolate environments.

CONTROL SYSTEM OPTIONS
(2) Door-mounted "travel-end" sensors (24VDC proximity switches)
(1) Door-mounted braked gearmotor with quick-disconnect interface
(1) Door-mounted inverter-controlled gearmotor with quick-disconnect interface
(1) NEMA 4X (IP66) control box with motor contactors and phase relay
(1) NEMA 4X (IP66) control box with variable speed drive and PLC logic
Control box logic to accept inputs from (2) door-mounted "travel end" sensors, 3rd-party "up" signal, and 3rd-party "down" contact
Customer must provide 24VDC power supply for switches
(1) 24VDC power supply and (3) pushbuttons (up, down, e-stop)
Includes integrated logic to accommodate options of: non-safety rated LiDAR, fixed photo eye, and light curtain
Door-mounted passive block for consolidating most sensor options into 19-pin connector

Key Advantages

EASY INSTALLATION - The modular design includes baseplates with leveling screws, legs, a header with pre-rolled curtain assembly and gearbox, and a motor. No cutting, drilling, or welding is required. The free-standing design is not dependent on machine or walls for support. (Installer must anchor to floor).

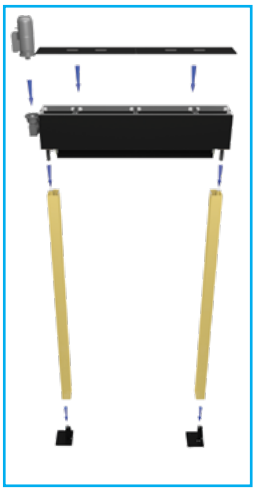
SIMPLICITY - Sensor cables are routed to the motor-side leg column with quick disconnects. An optional passive block simplifies access.

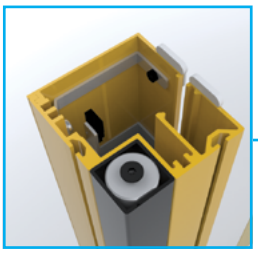
ACCESSIBILITY - The removable aluminum leg covers support easy access for setup, travel adjustment, and preventative maintenance.

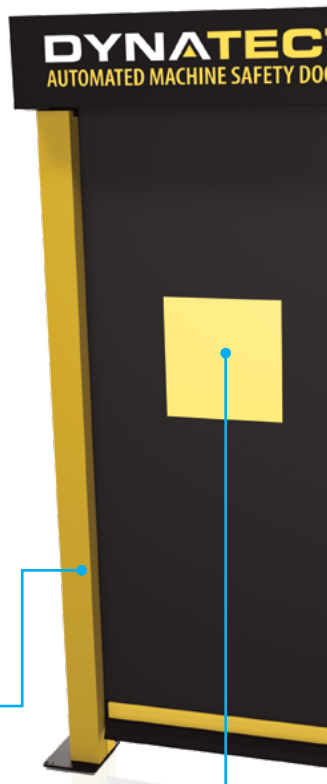
ADAPTABILITY - Integrated T-slots on the header and legs allow for accessory and structure mounting. Wall-mount options and custom brackets are available.

APPEARANCE - Powder-coated aluminum and steel surfaces enhance facility aesthetics.

RELIABILITY - Door mechanism moves freely on roller-based guidance system for smooth, low-wear operation. Proximity sensors eliminate the need for mechanical cam switches.





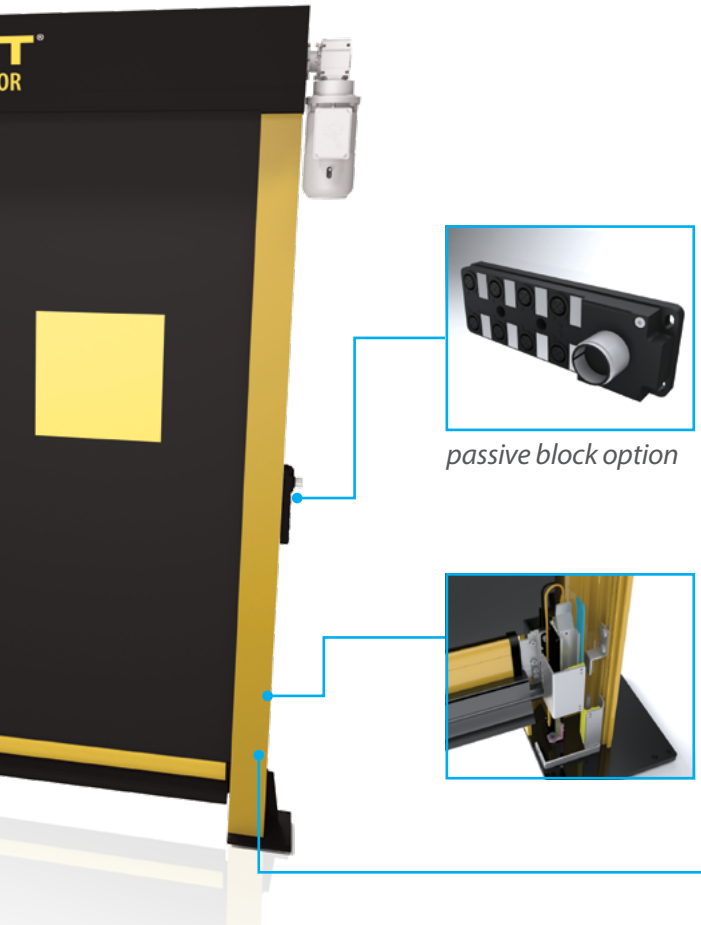


WINDOW OPTION

Need to see through to the other side? One or more clear windows can be optionally specified. Standard window size is 18 by 18 inches. For welding applications, red or bronze OSHA-compliant UV windows are available.

	STANDARD OFFERING	INTEGRATOR CONTROL BOX OPTION*	VARIABLE SPEED CONTROLLER OPTION*
	included	included	included
	included	included	—
	—	—	included
	—	included	—
	—	—	included
	—	included	included
	included	included	—
	—	—	included
	Customer can provide their own logic for these features		included
	optional	included	included

*Customer must mount the control box and route field wiring



passive block option

Features

DURABILITY

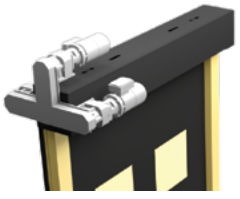
- 44" / second standard speed
- Motor shaft is integrated to the honeycombed roller tube, minimizing motor oscillation
- Leg assembly of extruded aluminum profiles and structural 2" square steel tube
- Tested for more than 5 million cycles
- 1 year limited warranty

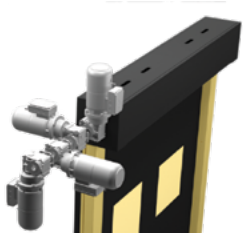
SAFETY

- Closed door is retained in columns to reduce fall-through risk, conforming to OSHA guardrail requirements
- Optional LiDAR scanner enables object detection and reversing functions:
  - **Option 1: Non-safety rated LiDAR scanner (most common option)** • **Does** integrate directly with Dynatect's Variable Speed Controller option or could be paired with user-provided controls
  - **Option 2: Safety-rated LiDAR scanner** • **Does not** integrate directly with Dynatect's Variable Speed Controller option and must be paired with user-provided safety relay/PLC
- Safety interlock option meets PLe/Cat 4 safety requirements when combined with appropriate logic and conformance to risk assessment

FLEXIBILITY

- Field adjustable heights for end-travel sensors and optional interlock sensors
- Wide variety of options from "controls-by-integrator" to "turnkey"
- Standard motor accommodates multiple orientations to minimize overall door width





SAFETY SENSOR OPTIONS (available with any control system option)

- Sensor for detecting interference and supporting door-auto reverse function:
  - LiDAR scanner (doorway object detection and reversing)
    - Safety-Rated LiDAR scanner available upon request
  - Fixed photo eye prevents, or stops, the door from traveling closed if an obstruction is sensed
  - Fixed 40" Light Curtain

Note: Installer must ensure that the door, its controls, and any safety devices conform to applicable safety standards

- Door Hold-Down Switch
  - Latches door in closed-position, controlled by signal from machine
- Door Closed Safety Interlock Switch and Safety Relay
  - Helps meet PLe/Cat-4 safety requirements when combined with appropriate logic and conformance to risk assessment
  - Optional safety relay shipped loose or integrated into operator control unit
  - Safety circuit wiring required during installation

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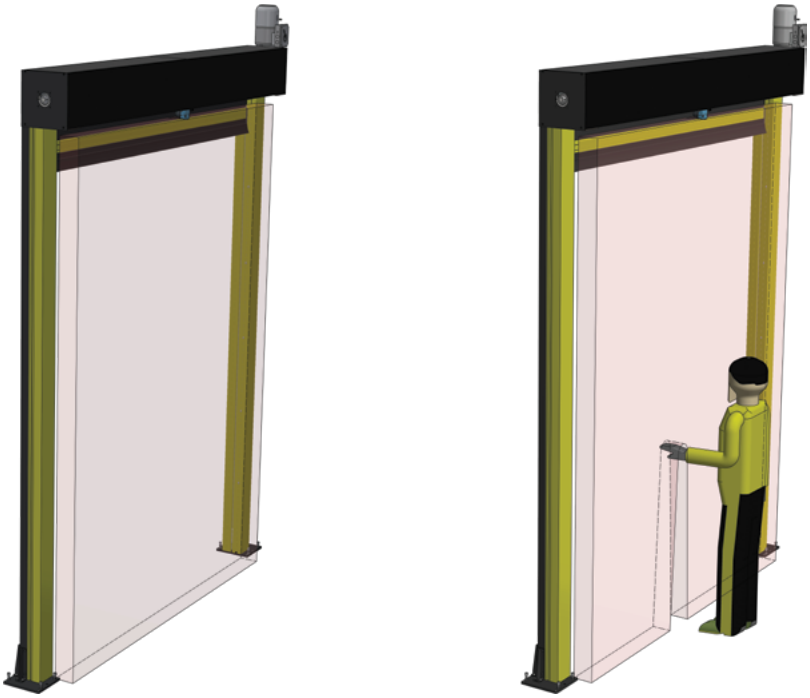
Field Applications

Designing End-of-Line Palletizing Systems? Prepare for Global Safety Code Harmonization. Integrate pallet wrapping machines with safety guarding that enables controlled, intermittent access. Physical barriers effectively separate personnel from moving equipment, supporting compliance and enhancing operational safety.

Space-Efficient Guarding for Automation Dynatect's VF Door provides secure access to this robotic welding cell, designed for aluminum automotive components. The physical barrier minimizes floor space while maintaining safety.

LiDAR Scanner Option

The LiDAR scanner's primary sensing purpose is to measure if person or object has approached the door. Breaking the scanned area triggers a door stop or stop/reverse sequence to avoid or minimize any impact force. The illustration below shows an example of sensing coverage.



Laser Protection / Rigid Aluminum Roll-Up Door

Dynatect's Laser Protection Doors provide modular, economical, light-tight, secure, robust, and rapid doors ideal for laser applications with a site laser safety officer. This automated roll-up door system consists of a shade constructed of double-wall anodized aluminum slats featuring a ball-and-socket style configuration that is both strong and light tight. This type of hollow aluminum semi-reflective extrusion serves as a functional light-tight, heat-dissipating barrier. Customers have consistently and successfully conducted their own safety analysis and approval for each application. **Learn more at: dynatect.com/laser-door**


Laser Side

Operator Side

GLOBAL HEADQUARTERS

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