# Defender<sup>™</sup> Automated Barrier Door

Designed with the latest regulations and most demanding manufacturing processes in mind, the Defender is the ideal safety guarding device in any manufacturing environment. Anywhere that a machine operator interfaces with a machine, robot or process is an ideal application for the Defender.

Automated to the Process - Increases productivity.

**1 HP Motor/Brake/Gear Box** - Engineered for millions of cycles.

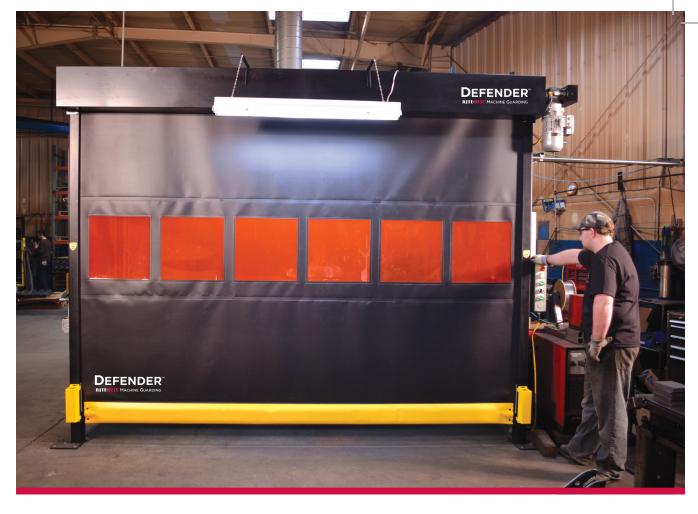
GUARD PROTECT

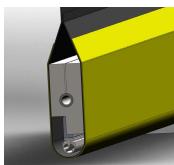
Reduces Floor Space
Requirements - Can be safely located closer to hazard.

PLe/Cat. 4 Safety Switches/ Control - per EN ISO 13849-1; 5IL 3 per EN 62061.

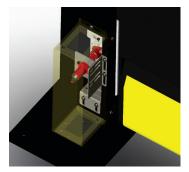
**Protects** operators at point of operation.

**Guards** machinery.





Wireless CE Reversing Edge per EN 13241-1, 89/106/EEC; 2006/42/EC; 2004/108/EC.



PLe Interlock switches confirm door is in the SAFE position.



Armorplex<sup>™</sup> curtain material with various window color options.



## **Specifications**

### Mode

DFNDR - Defender Automated Barrier Door.

### Size

**Minimum** 3' x 3' [610 mm x 914 mm]. **Maximum** 16' x 16' [4877 mm x 4877 mm].

### Speed

40" [1020 mm] per second operation; Up to 60" [1524 mm] per second with optional variable frequency drive.

### Rotary Cam Limit Switch

25:1 ratio. With Auxiliary N.O. contacts for door position notification.

### Optional Absolute Encoder

Magnetic absolute multi-turn, 4096 PPR with 8192 turns.

### Curtain Material

Armorplex™ 40 oz. (1134 g) vinyl coated polyester flame resistant (NFPA 701 small scale) high tensile ASTM test black curtain material 18" x 18" [457 mm x 457 mm]. PVC framed window in multiple color availability.

### **Curtain Retention**

Fully Sealed UHMW Barrier Tabs™; 450 lbs. (204 kg) tear-out force.

### **Drive System**

1 HP (0,75 kW) Motor Assembly with 20 N\*m brake with lockable hand release lever and corrosion protection, TEFC. IP 55 Enclosure rating, UL and CSA listed. NEMA 56C output. Multiple motor locations and orientations.

### Gear Box

Worm Gear reducer 10:1 ratio. Optional helical inline drive.

### Wireless CE Reversing Edge

Per EN 13241-1, 89/106/EEC: 2006/42/EC: 2004/108/EC.

### Safety Features

Padded safety edge technology protects personnel and property. Gravity fed down operation not powered down.

# HEADER SHROUD MOTOR RASY POSITION: FROM ILEGACIUP OR DOWN (Standard) STIM OF CURTAIN IN UP POSITION CURTAIN IN UP POSITION CURTAIN IN UP POSITION STIM OF CURTAIN IN UP POSITION CURTAIN IN UP POSITION (SHOWN AT 0' STOP POSITION) CORDRED DOOR WIDTH IS MEASURED CORDRED DOOR WIDTH

### **Eight Safety Switch Models**

8 switch types to choose from with 3 mounting options.

### Optional Photo Eye Strip

40" [1020 mm] active height with 3.6" [92 mm] channel spacing with advance automatic signal tracking ensures easy onsite set-up. Transmitter and receiver detectors are optically synchronized. May be wired control. STOPS the door only, will not reverse.

### Cycles

Continuous duty design for millions of cycles.

### **Header Assembly Details**

Fully shrouded 1-1/4" [32 mm] tubular steel ladder style design with curtain pre-rolled on 4" [102 mm] OD 11 gauge roller tube.

### Guide/Support

All steel 3/16" [4.8 mm] wall construction 3"  $\times$  2-3/4" [76 mm  $\times$  70 mm] with optional 1-1/2"  $\times$  3", [38 mm  $\times$  76 mm] 11 gauge box frame. Heavy-duty mounting rail for added rigidity. Welded 1/2" [12.7 mm] thick 8" $\times$  8" [203 mm  $\times$  203 mm] base plate with multiple guide location configurations.

### Control Box Options

**Integrator Control Package:** No buttons. Includes: motor short circuit protection, motor overload protection, automatically stops door at limits, and Turck connectors. Rotary cam limit switch.

**Relay Control Package:** Open/close/stop buttons, full-featured controls. Includes: Motor short circuit protection, motor overload protection, automatically stops door at limits, and Turck connectors. Rotary cam limit switch.

**PLC Control Package:** Open/close/stop buttons, advanced VFD controls. Includes: Motor short circuit protection, motor overload protection, encoder, i-COMM 3 digital controller with LCD display, and Turck connectors.

### Limited warranty

Five (5) Year for motor, brake and gearbox. Two (2) Year on all mechanical and electrical parts.



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