



# mintie ESS Environmental Shield System Instruction Manual

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**mintie ESS Environmental Shield System**



## **Environmental Shield System (ESS) User Manual**

### **ESS Specifications**

- Tested and rated for up to 700 cfm air flow per individual 24 x 24 register.
- Mintie Shields (Register Covers) are used for sealing HVAC system registers.
- Maximum register dimensions that can be sealed is 24 x 26.

### **ESS Components**

- Mintie Shields (Register Covers)
- Mintie Shield Applicator Head
- Long extendable pole

### **Initial Set Up of ESS**

#### **Part A:**

1. Notify Safety, Nursing & Facilities Departments of any HVAC registers you plan to seal or cover. Sealed registers may change the pressure balance within a facility and doing so requires approval.
2. Recheck all seals before work begins.
3. Slide the long extendable pole into the base of the Mintie Shield Applicator Head. There is a set pin attached to the neck of the Mintie Shield Applicator Head which secures the attachment.

### **Sealing Registers with Mintie Shields**

#### **Part B:**

1. Identify the registers to be sealed and check that Mintie Shield is large enough to cover the register with a 2" buffer of flat unobstructed surface on all sides to ensure a verifiable seal.
2. Adjust the orientation of the Mintie Shield Applicator Head using the push buttons in the cross bar. The head

should be in a straight, upright line for ceiling registers. The head should be at a right angle to the pole for wall mounted registers. For registers at a height or angle that require it, there is also a middle setting.

3. Place a Mintie Shield on the Applicator. Orient the backing so that it faces outward and can be peeled off. The circular punch outs in the shield should go over the lower prongs for ceiling attachment and the upper prongs when the applicator is at a right angle for wall mounted attachment.
4. Holding the applicator upright, carefully peel the protective backing away by pulling from the top toward the floor. This will ensure that the punch outs don't shift and the Mintie Shield stays in place.
5. Stand facing the register squarely (not at a corner) and in a position which aligns the shield to the register at a reasonable angle, Shields are easier to apply when not directly below the register.
6. Press the extender button at the top of the pole while holding the bottom grip and pull the upper and lower away from each other.

The pole should be extended far enough to be held at a slight angle when applying the Mintie Shield.

7. Use the black orientation line on the Mintie Shield to align and center the Shield with the register. The line should be placed on the ceiling in front of the register or on the wall above the register. Proper placement is necessary as only 2" above the line are adhesive. Placing the line on the register will leave less than a 2" buffer on the ceiling or wall.
8. The top of the side with the punch outs is not adhesive, which allows the punch outs to hang down. If the black orientation line is placed onto the register it may not leave enough adhesive section to maintain the minimum required 2" buffer.

## **Product Specifications**

### **ESS Components**

- 10 Mintie Shields
- 1 Roll of Mintie Tape (sample)
- 1 short 30"- 60" extendable pole
- 1 Mintie Shield Applicator Head

### **Mintie Shields (Register Covers)**

- Lightweight, flexible material
- Fire Retardant to NFPA 701-04 test 1
- 28" x 30" active area
- 24" x 26" maximum register coverage size
- Integrated Tabs

## **INITIAL SET UP**

### **Part A: Initial Set Up of ESS**

1. Notify Safety, Nursing & Facilities Departments of any HVAC registers you plan to seal or cover. Sealed registers may change the pressure balance within a facility and doing so requires approval.
2. Mintie Shields are tested and rated for up to 700 cfm air flow per individual 24" x 24" register. Mintie does not

recommend these shields for use when individual register air flows exceed this reading. Recheck all seals before work begins.

3. Slide the long extendable pole into the base of the Mintie Shield Applicator Head. There is a set pin attached to the neck of the Mintie Shield Applicator Head which secures the attachment. (Fig. A-1)



Fig. A-1

## SEALING REGISTERS

### Part B: Sealing HVAC System registers with Mintie Shields

1. Identify the registers to be sealed and check that Mintie Shield is large enough to cover the register with a 2" buffer of flat unobstructed surface on all sides to ensure a verifiable seal. The maximum register dimensions that can be sealed is 24" x 26"
2. Adjust the orientation of the Mintie Shield Applicator Head using the push buttons in the cross bar (Fig. B-1). The head should be in a straight, upright line for ceiling registers (Fig. B-2). The head should be at a right angle to the pole for wall mounted registers (Fig. B-3). For registers at a height or angle that require it, there is also a middle setting. (Fig. B-4)
3. Place a Mintie Shield on the Applicator (Fig. B-5). Orient the backing so that it faces outward and can be peeled off. The circular punch outs in the shield should go over the lower prongs for ceiling attachment (Fig. B-6) and the upper prongs when the applicator is at a right angle for wall mounted attachment (Fig. B-7).
4. Holding the applicator upright, carefully peel the protective backing away by pulling from the top toward the floor. This will ensure that the punch outs don't shift and the Mintie Shield stays in place. (Fig. B-8)

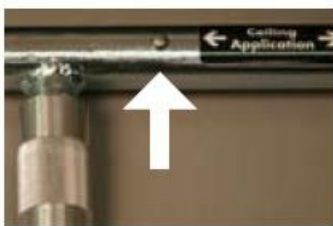


Fig. B-1



Fig. B-2



Fig. B-4



Fig. B-3



Fig. B-5

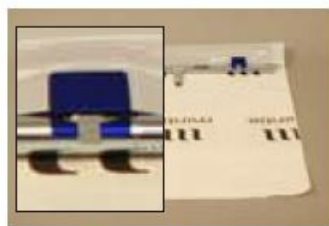


Fig. B-6

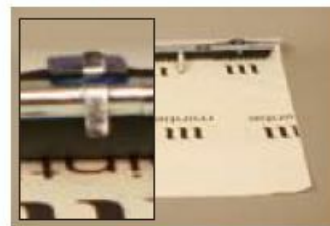


Fig. B-7



Fig. B-8

5. Stand facing the register squarely (not at a corner) and in a position which aligns the shield to the register at a reasonable angle, Shields are easier to apply when not directly below the register (Fig 9).
6. Press the extender button at the top of the pole while holding the bottom grip and pull the upper and lower

away from each other. The pole should be extended far enough to be held at a slight angle when applying the Mintie Shield. (Fig. B-10)

7. Use the black orientation line on the Mintie Shield to align and center the Shield with the register. The line should be placed on the ceiling in front of the register or on the wall above the register. Proper placement is necessary as only 2" above the line are adhesive. Placing the line on the register will leave less than a 2" buffer on the ceiling or wall. (Fig. B-11)
8. The top of the side with the punch outs is not adhesive, which allows the punch outs to hang down. If the black orientation line is placed onto the register it may not leave enough adhesive section to maintain the minimum required 2" buffer.



Fig. B-9



Fig. B-10

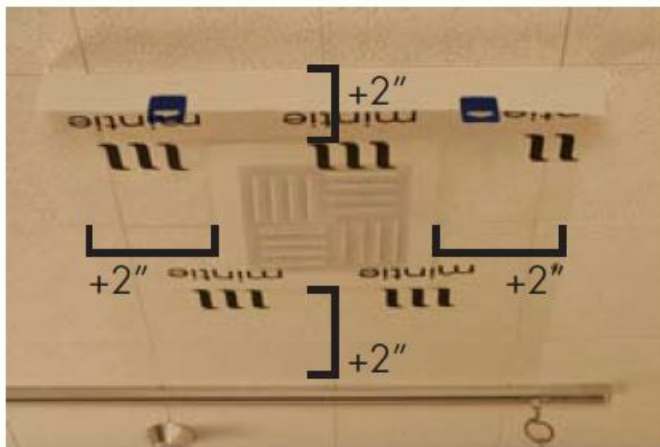


Fig. B-11

9. Slowly roll the applicator towards the opposite side of the register. As the applicator moves away from the punch outs (which are on the side of the Shield now attached to the ceiling or wall) the punch outs will slide off of the shield alignment prongs. (Fig. B-11)
10. If a wall register is directly adjacent to the ceiling, treat it as a ceiling register and orient the line at the end of the ceiling and roll toward and then down the wall.
11. If the Mintie Shield has been properly aligned it will stay square to the register. It may take several rolls to pressure seal all parts of the Shield to the outer register surface. Mintie recommends rolling perpendicular to the original direction. (Fig. B-12)
12. Be sure the shield is laying flat against the register and surrounding area. If there are folds or channels in the surface, or if there is not a +2" buffer of coverage around the register on each side please remove the cover and apply a new one. These conditions may encourage bubbles which could breach containment. (Fig. B-13)



Fig. B-11



Fig. B-12



Fig. B-13

## REMOVAL AND BREAKDOWN

### REMOVAL AND BREAKDOWN

#### Part C: Removing Mintie Shields and Tape

1. Remove any Mintie Tape and throw it away, it is not intended for reuse.
2. Remove Mintie Shields by extending the pole and using the hook on the end of the applicator to hook one of the punch outs. (Fig. C- 1)
3. Gently pull the Mintie Shield down and toward the opposite corner of the register (diagonally) until it comes off (Fig. C-2). Do not pull straight down as this may tear the punch outs.
4. Dispose of the Mintie Shield. They are not intended for reuse after initial deployment.
5. Remove the applicator head from the pole and place all components back in the box. (Fig. C.3)
6. Used Mintie Shields should be replaced with new Shields from a Refill box.



Fig. E-1



Fig. E-2



Fig. E-3

## APPROPRIATE USE

The Mintie Shield has been developed for use in health care environments for the purposes of blocking both supply and exhaust air flow traditionally delivered through HVAC ductwork, from escaping Ceiling and or Wall mounted air registers.

The Mintie Shield is manufactured from a special air capturing translucent fire retardant film, covered on the application side with an adhesive that allows it to be attached to all types of material surfaces commonly used in the health care patient environment to prevent air from passing through.

### These surfaces include:

- Painted surfaces
- Textured surfaces (such as ceiling tile, cellulose etc)
- Metal T-bar

To ensure air-tight attachment it should be noted that when using Mintie shields on any of the surfaces named above it is important that the surface to which the shields are applied has been maintained in accordance with relevant manufacturer recommendations and regulations. Surfaces should be free of:

- Rust / Corrosion /loosely attached materials/ Peeling paint
- Dust and lint particles
- Weather damage
- Installation and or use damage
- Water / Water damage including “Mildew and Mold”
- Oil
- Grease
- Rot
- Dirt
- Improperly installed attachment devices

The Mintie shields were designed and developed to satisfy the conditions as specified above and any inappropriate use will negate the Mintie seal guaranteed by this product.

## LIMITED PRODUCT WARRANTY

Mintie Technologies, Inc.®, warrants to the original purchaser that each part of the Mintie Environmental Shield System (ESS) to be free from defects in material or workmanship for a period of six (6) months after the date of original purchase. This warranty does not apply to disposable component after they have been used and appropriate length of use is determined by application, wear and tear.

## REMEDY LIMITATION

Mintie Technologies, Inc.'s® obligation and liability under this warranty is limited to the repair or replacement (at its option) of the product or its parts, after its own review and examination. This will be purchaser's exclusive remedy under this limited product warranty. Mintie Technologies,® Inc. will not be liable for incidental or consequential damages even if its attempts to repair the defects fails, but in such case (or if Mintie Technologies, Inc.® elects not to repair or replace) the purchaser will be entitled only to a refund of monies paid to Mintie Technologies, Inc.® for the ESS.

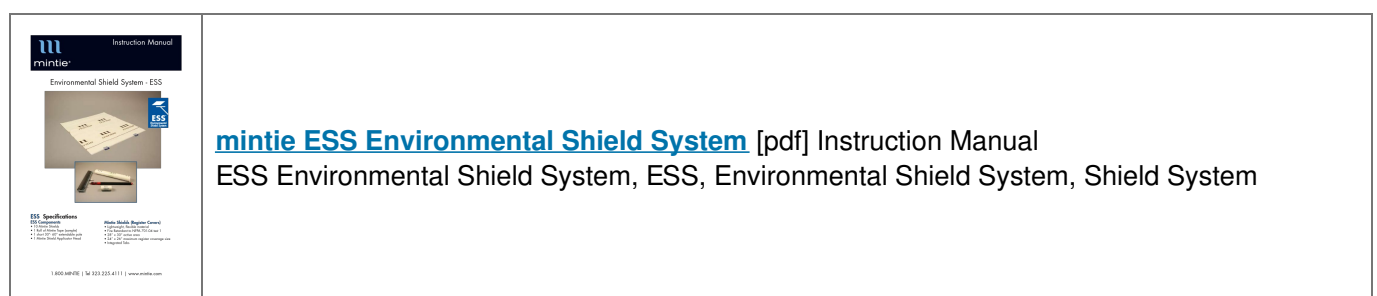
This warranty shall be void as to any product which has been altered or modified in any manner. This warranty does not apply to damages caused by any force of nature, to accidental or deliberated damage of the product, or to use of the product that does not conform with the product instructions.

## EXCLUSION OF ALL OTHER WARRANTIES

THERE ARE NO WARRANTIES THAT EXTEND BEYOND THE LIMITED PRODUCT WARRANTY SET FORTH ABOVE.

MINTIE TECHNOLOGIES, INC. DISCLAIMS ANY WARRANTY OF ANY OTHER KIND, INCLUDING WITHOUT LIMITATION, ANY WARRANTY THAT THE GOODS ARE MERCHANTABLE OR FIT FOR ANY PARTICULAR PURPOSE

## Documents / Resources



## References

-  [Commercial Indoor Air Quality Services in CA, NV, AZ & WA](#)

Manuals+.