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How to Rodent Proof
Swing Doors
with Rodent Resistant RodeXit Seals
Installed by Means of Screws and Washers Only
February 2022

CONTENTS

1	IMPORTANT INTRODUCTION	2
1.1	The Doors	2
1.2	Gaps and Astragals	2
1.3	Installation With or Without a Mounting Strip	2
1.4	Heavily Slanting Thresholds	3
1.5	Monitoring and Maintenance	3
2	SINGLE DOORS	3
2.1	Tools and Materials	3
2.2	The Seal may be Installed on Either Side	4
2.3	How to Proof a Single Door	5
3	DOUBLE DOORS	6
3.1	Threshold Gaps and Subastragal Gaps of Double Doors	6
3.1.1	When There Isn't an Astragal on the Mounting Side	6
3.1.2	When There Is an Astragal on the Mounting Side	7
3.2	Astragal Gaps of Double Doors	7
3.2.1	Tools and Materials	8
3.2.2	How to Install the Seal	8
4	SALOON DOORS	9
4.1	Threshold Gaps and Subastragal Gaps of Saloon Doors	9
4.2	Astragal Gaps of Saloon Doors	9
5	TIPS & TRICKS	10
5.1	The Instructional Video	10
5.2	Installation on the Push Side Provides Tighter Proofing	10
5.3	If a Very High Degree of Protection is Required	10
5.4	Motorized swing doors	10
5.5	What if there is a Kickplate on the Door?	11
5.6	Protection Against Colliding Pallet Jacks	11
5.7	How to Handle Very Uneven Thresholds	11
5.8	Tin Snips with Long Blades are Best	12
5.9	How to Seal Up the Upper Edge of a RodeXit Seal	12

1 IMPORTANT INTRODUCTION

1.1 The Doors

This is a guide on how to rodent proof swing doors with RodeXit seals installed by means of screws and washers only – that is without using a mounting strip.

With a single layer you can proof an up to 1.4 in (35 mm) high threshold gap. With a double layer you can proof an up to 2 in (5 cm) high threshold gap.

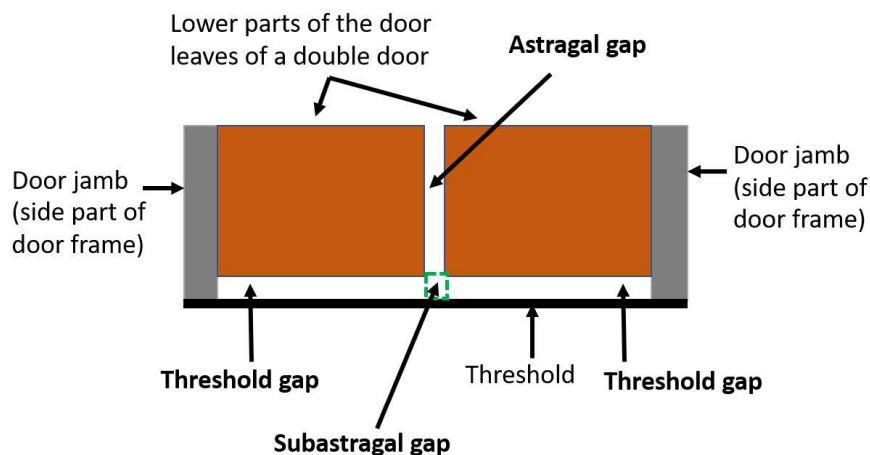
The proofing of single doors on single-directional hinges is described in section 2. The proofing of double doors on single-directional hinges is described in section 3. The proofing of saloon doors on bidirectional hinges is described in section 4. In section 5 you will find some valuable tips and tricks.

1.2 Gaps and Astragals

The “threshold gap” of a single door is the horizontal gap between the door leaf and the underlying threshold. There’s a threshold gap under each of the door leaves of a double door.

The “astragal gap” of a double swing door is the vertical gap between the 2 door leaves. The astragal gap is covered by a vertical strip called an “astragal” on at least one side of the door unless the door is a saloon type door with bidirectional hinges.

The “subastragal gap” of a double swing door is the small gap right under the astragal gap and between the 2 threshold gaps.



The RodeXit All-In-One seal can be used for proofing all 3 gap types. The WAVE door sweep can be used for proofing threshold gaps and subastragal gaps. When the word “seal” is used in the following it shall be understood as referring to either the All-In-One seal or the WAVE door sweep unless it appears from the context that it refers to the All-In-One seal only.

1.3 Installation With or Without a Mounting Strip

The RodeXit seals can be secured to the door with or without the use of mounting strips. Mounting strips are used when an aesthetically more pleasing installation is called for:



This guide covers installation without mounting strips only.

1.4 Heavily Slanting Thresholds

The threshold should always be level, but sometimes it isn't. Sometimes the threshold slants upward away from the hinge jamb and sometimes it slants downward away from the hinge jamb.

If the threshold slants upwards away from the hinge jamb, the seal shall be installed in the usual way.



If it slants downwards away from the hinge jamb, the seal should be installed with the door leaf in an open position. The seal should furthermore be supplemented with a brush door sweep installed on the other side of the door while the door is closed (see section 5.7).

1.5 Monitoring and Maintenance

All rodent proofed doors should at regular intervals be monitored for maintenance needs. The seals should be fixed or replaced if they are seriously compromised – for example due to severe rodent attacks.



2 SINGLE DOORS

2.1 Tools and Materials

You will need these tools and materials:

- 1) A roll of All-In-One seal or WAVE door sweep.
- 2) A tape measure or another measuring device.
 - A telescopic measuring stick is extremely practical especially when the seal is to be installed on the push side of the door and you have to measure the distance between the 2 side jambs.
- 3) Tin snips for trimming the length of the seal – preferably straight tin snips with long blades.
- 4) Suitable flatheaded screws.
 - 1 inch (25 mm) long No. 10 (4.8 mm) hex head screws or pan head screws with a No. 2 Philips recess are suitable for most doors. It is generally a good idea to use self-drilling sheet metal screws for sheet metal doors.
- 5) Corresponding washers.
- 6) A corresponding screw bit.
- 7) A cordless screwdriver.

8) Possibly: A drill bit for drilling pilot holes.



If you want to get both hands free for screwing the seal onto the door, it is handy also to have some around 1 lb (½ kg) heavy objects that can hold the seal in place during the installation.

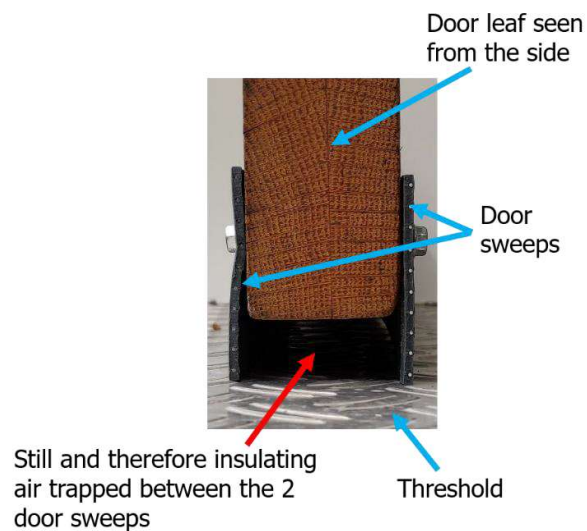


2.2 The Seal may be Installed on Either Side

You can install the seal on the push side, on the pull side or on both sides.

Installation on both sides is always worth considering because:

- It will increase the protection against rodents and other pests.
- It will considerably improve the insulating properties of the door.
- The extra cost will usually be more than compensated by saved heating and/or cooling costs.



2.3 How to Proof a Single Door

Follow these steps:

- 1) Close and lock the door.



- 2) If there is a door holder in the way, dismount it. Remount it after proofing the door. If remounting isn't possible, replace the old door holder with a new and compatible one.



- 3) Measure the door:

- If you install the seal on the push side measure the width of the door opening.
- If you install the seal on the pull side measure the width of the door leaf.

- 4) Cut off a corresponding length of seal.



- 5) Place the seal on the ground. It is a good idea to use 2 heavy objects for holding it in place, so you get both hands free.



- 6) If the gap is up to 35 mm, place a screw with a washer in each of the upper screw-hole markings marked with red or yellow circles.



If the gap is larger than 35 mm, you may have to place the screws somewhat closer to the upper edge.

Do not press the seal hard downwards. It should make only light contact with the ground.

If you install the seal on the pull side, and the seal touches the hinge-side jamb, the seal will rub against the jamb and thereby upset the operation of the door. Therefore, don't let the seal touch the hinge-side jamb on the pull side:



Too close to the hinge jamb on the pull side



OK



Make sure that there is a screw about 1 inch (2½ cm) or closer to each end.

If the door leaf is equipped with a flush bolt take care not to hit the flush bolt with a screw:



- 7) Open and close the door to check if it operates satisfactorily. It is quite OK if there is moderate friction between the seal and the ground / the floor. If it is difficult to open and close the door, there is something wrong with the door. E.g. the hinge jamb may be out of true, or the ground / the floor may be sloping negatively towards the door. If it is very difficult to open and close the door, the door problem should be fixed.

3 DOUBLE DOORS

Threshold gaps and subastragal gaps of double doors can be proofed with All-In-One seals and WAVE door sweeps. See section 3.1. Astragal gaps of double doors are proofed with All-In-One seals. See section 3.2.

3.1 Threshold Gaps and Subastragal Gaps of Double Doors

You proof threshold gaps and subastragal gaps of double doors in much the same way as you proof threshold gaps of single doors.

The only differences are

- 1) that you use 2 seals instead of 1 and
- 2) that the 2 seals have to cover not only the threshold gaps but also the subastragal gap.

The way you proof threshold gaps and subastragal gaps depends on whether there is an astragal or not on the mounting side of the door. In section 3.1.1 it is described how to do it when there isn't an astragal on the mounting side. In section 3.1.2 it is described how to do it when there is.

3.1.1 When There Isn't an Astragal on the Mounting Side

You proof the double door in the same way as a single door except for this:

- 1) Trim the 2 seals, so they can adjoin in the middle of the astragal gap:



- 2) Do not make them overlap. It is OK if there is a gap of up to 1/16 inch (1.5 mm) between them.

3.1.2 When There Is an Astragal on the Mounting Side

You proof the double door in the same way as a single door except for this:

- 1) Trim the 2 seals, so they can adjoin at the free edge of the astragal:



Do not make them overlap. It is OK if there is a gap of up to 1/16 inch (1.5 mm) between them.

- 2) Loosen the lowermost part of the astragal - e.g. unscrew the lowermost 2 screws.
- 3) Tuck one of the 2 seals behind the loosened astragal and align the end of the seal with the free edge of the astragal:



- 4) Screw the 2 seals onto the 2 door leaves.
- 5) Retighten the astragal.

3.2 Astragal Gaps of Double Doors

If there isn't an astragal on the mounting side, you should consider rodent proofing at least the lowermost 12 in (30 cm) of the astragal gap on that side of the door.

You should also consider proofing the entire astragal gap because:

- 1) It will improve the protection against pests such as climbing and flying insects including cockroaches.
- 2) It will considerably improve the insulating properties of the door.
- 3) The extra cost will usually be more than compensated by saved heating and/or cooling costs.

The seal shall be mounted:

- On the active door leaf (the one that opens first), when you mount it on the pull side.
- On the passive door leaf (the other door leaf) when you mount it on the push side.

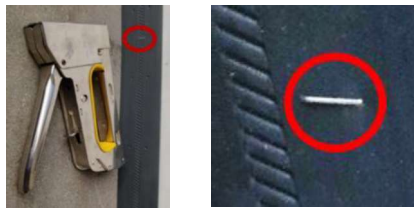
3.2.1 Tools and Materials

You will need:

- 1) A roll of All-In-One seal.
- 2) The same screws, washers and tools that you need when proofing the threshold gaps of single doors (see section 2.1).
- 3) Possibly a Stanley knife.





If the door is a wooden door, it is handy to have a staple gun with staples for temporarily attaching the seal to the door.



3.2.2 How to Install the Seal

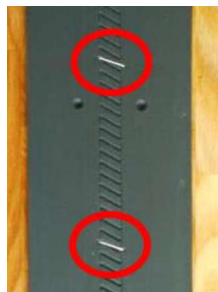
Follow these steps:

- 1) Close and lock the door. 
- 2) Cut off the required piece of the seal. 
- 3) If there is a door handle and/or a door lock in the way, trim the seal to accommodate the handle and/or the lock. Crosswise cuts (the red dotted lines) can be made with tin snips while lengthwise cuts (the green dotted line) are best made with a Stanley knife:

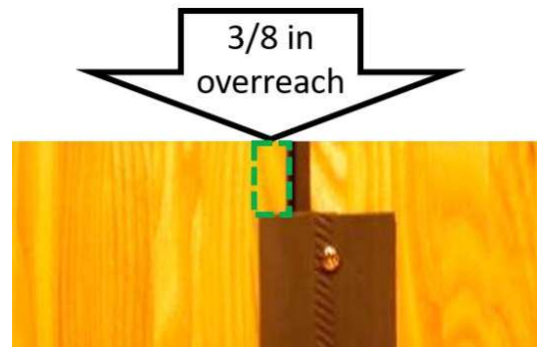


- 4) Screw the seal onto the door.

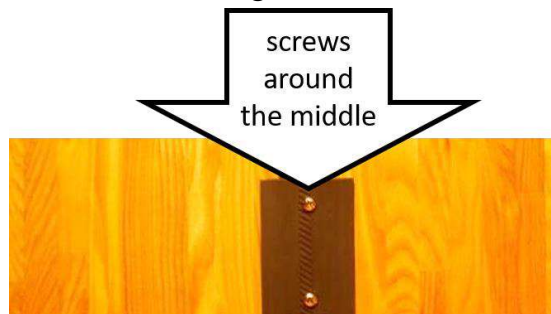
When mounting on a wooden door, you can get both hands free for screwing the seal onto the door if you as a makeshift measure attach the seal by means of staples:



The seal shall be mounted, so it overreaches the astragal gap by around 3/8 inch (10 mm):



The screws should as a main rule be placed around the middle of the seal and not as indicated by the dot-shaped screw hole markings:



Fasten the uppermost screw first. Thereafter, continue downwards placing a screw for each around 4 inches (10 cm) until you reach the bottom end of the seal.

Take care not to place any screws in the lock box and the flush bolt if any.

There should be a screw about 1 inch (2½ cm) from each end.

- 5) Open and close the door to check if it operates satisfactorily.

4 SALOON DOORS

You proof saloon doors with bidirectional hinges in much the same way as you proof ordinary double doors with single directional hinges.

4.1 Threshold Gaps and Subastragal Gaps of Saloon Doors

The threshold gaps and subastragal gaps of saloon doors are proofed with RodeXit seals in the same way as the pull side of an ordinary double swing door that isn't equipped with an astragal on the pull side.

4.2 Astragal Gaps of Saloon Doors

The astragal gap of a saloon door is proofed with an All-In-One seal in the same way as the astragal gap of an ordinary double swing door except that the seal should obviously not reach beyond the astragal gap.

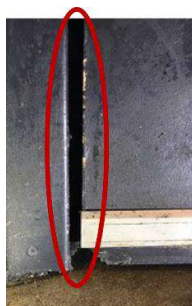
5 TIPS & TRICKS

5.1 The Instructional Video

On www.rodexit.com you can watch an instructional video on how to proof the threshold gap of a swing door with a RodeXit seal installed by means of screws and washers only – that is without the use of a mounting strip.

5.2 Installation on the Push Side Provides Tighter Proofing ¹

There are no side gaps on the push side of a door. Therefore, the proofing of the threshold gap will be tightest if you install the RodeXit seal on the push side.



Pull side



Push side

5.3 If a Very High Degree of Protection is Required

Under normal circumstances it is sufficient to install a single layer. If a particularly high degree of protection is required – e.g. because of a very high rodent pressure – you should install

- two layers on one side of the door and/or
- seals on both sides of the door:



A double layer is installed in the same way as a single layer.

5.4 Motorized swing doors

If you install the seal on a motorized swing door, make sure that the seal does not rub against the ground during opening and closing. If the seal rubs against the ground, the friction may trigger the door's security sensor, so the operation of the door will be compromised. Problems with too much friction can sometimes be solved simply by adjusting the sensor.

¹ Photos by Sergey Nemykin / Industrial Pest Elimination.

5.5 What if there is a Kickplate on the Door?

It is no problem if there is a Kickplate on the Door. You simply use it as a mounting strip:

- 1) Unscrew the lowermost screws that hold the kickplate.
- 2) Tuck up the seal between the kick-plate and the door leaf.
- 3) Remount the screws.



5.6 Protection Against Colliding Pallet Jacks

Pallet jack drivers often drive their pallet jacks into the push side of a door in order to force it open. That may damage the door and any rodent proofing seal mounted on that side of the door.

If there is pallet jack traffic through the door and you install a seal on the push side, you should therefore consider protecting the door and the seal with a kickplate. You can use the kickplate as mounting strip when installing the seal.

5.7 How to Handle Very Uneven Thresholds

If the threshold is so uneven that there will be substantial gaps under the seal, the threshold should be repaired before installing the seal.

Though it is not the best solution, you can as an alternative supplement the seal with a brush door sweep that will conform better to the uneven surface.

Such a brush door sweep may be installed on one side of the door while the RodeXit seal is installed on the other side.

The brush door sweep may also be installed on the same side as the RodeXit seal. In that case the brush door sweep should be used as mounting strip when securing the RodeXit seal to the door.



5.8 Tin Snips with Long Blades are Best

Straight tin snips with long blades are better than tin snips with ordinary blades because:

- It is a lot easier to make straight cuts with long blades.
- It is possible to cut the seal in a single clip.



5.9 How to Seal Up the Upper Edge of a RodeXit Seal

You can seal up the upper edge of a RodeXit seal

- by sealing the edge with silicone or
- by installing the seal with a mounting strip that is capable of covering the upper edge.