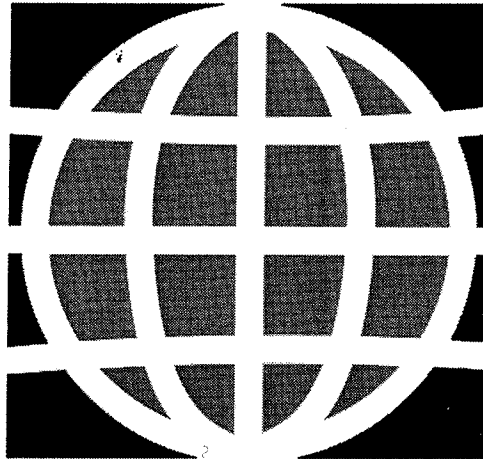


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**BRIXON**

# Product Information Package

Fall 2005

# Product Information

## ADJUSTMENT LATCH RELEASE FORCE

Brixon latches are designed to operate under a wide variety of conditions with a variety of options available to suit particular purposes. The user must insure that the latches are appropriate for the particular application. Any questions regarding model selections should be referred to the factory.

It is recommended that the latch release force be adjusted prior to mounting when the internal components are visible. The pressure setting should allow the latch to open at an internal pressure slightly higher than that encountered under normal operation circumstances. Caution: Factory Mutual Global requires that latches open at a maximum internal pressure of 50 lbs/ft<sup>2</sup> (244.1 kg/m<sup>2</sup>), while NFPA (National Fire Protection Association) recommends 30 lbs/ft<sup>2</sup> (146.5 kg/m<sup>2</sup>); in general, the lowest practical setting should be used.

The appropriate release pressure is obtained by the following calculations. (The formula assumes a hinged door with the latches mounted on the edge opposite the hinges.)

NOTE: Divide door area by 2 if door is hinged. Divide by 1 if not hinged. (Ex: Blow out panel).

$$\frac{\text{vent area} \times \text{maximum internal pressure}}{2 \text{ (if hinged)}} = \text{force on latches at release}$$

$$\frac{\text{force on latches}}{\text{number of latches}} = \text{latch release setting for each latch}$$

### EXAMPLE:

2 ft. by 4 ft. hinged door, internal release pressure of 15 pounds per square foot, using two latches.

$$\frac{(2' \times 4') \times (15 \text{ lbs.})}{2} = 60 \text{ lbs/sq ft} \quad 60 \text{ lbs} \div 2 = 30 \text{ lbs. setting per latch.}$$

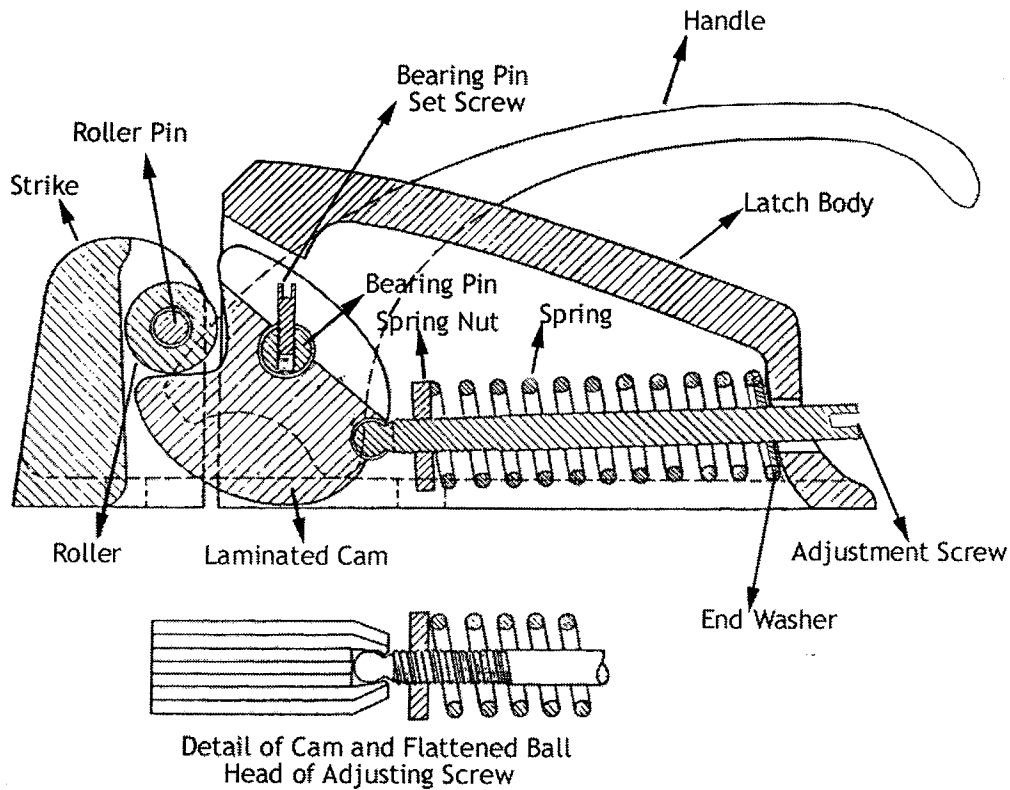
## LATCH RELEASE FORCE ADJUSTMENT CHART

### ENGLISH

Latch Model	Release Pressure (lbs)		Pressure (lbs) Per Turn	Pressure (lbs) Per 1/2 turn	Full turns Available
	Min	Max.			
1	3.9	17	1.50	0.750	8.75
91	3.9	17	1.50	0.750	8.75
2	10.	45	2.50	1.250	14
3	43	180	5.96	2.980	23
83	43	180	5.96	2.980	23
93	43	180	5.96	2.980	23
4	58.	285	9.87	4.935	23
84	58	285	9.87	4.935	23
94	58	285	9.87	4.935	23

### METRIC

Latch Model	Release Pressure (kgs)		Pressure (kgs) Per Turn	Pressure (kgs) Per 1/2 turn	Full turns Available
	Min	Max.			
1	1.8	7.7	0.67	.0335	8.75
91	1.8	7.7	0.67	.0335	8.75
2	4.5	20.4	1.14	.570	14
3	19.5	81.6	2.70	1.350	23
83	19.5	81.6	2.70	1.350	23
93	19.5	81.6	2.70	1.350	23
4	26.3	129.3	4.48	2.240	23
84	26.3	129.3	4.48	2.240	23
94	26.3	129.3	4.48	2.240	23



**Note:** Precise pressure adjustment is not possible due to the location of the strike, the amount of gasket compression, friction, etc. The listed values are a guide only, and if the release pressure is critical, the pressure must be measured directly at the door after installation for more accuracy. The estimated variance is plus or minus 2 full turns.

To adjust, have the latch in the door closed position, wherein one rivet which holds the laminated cam together is exposed.

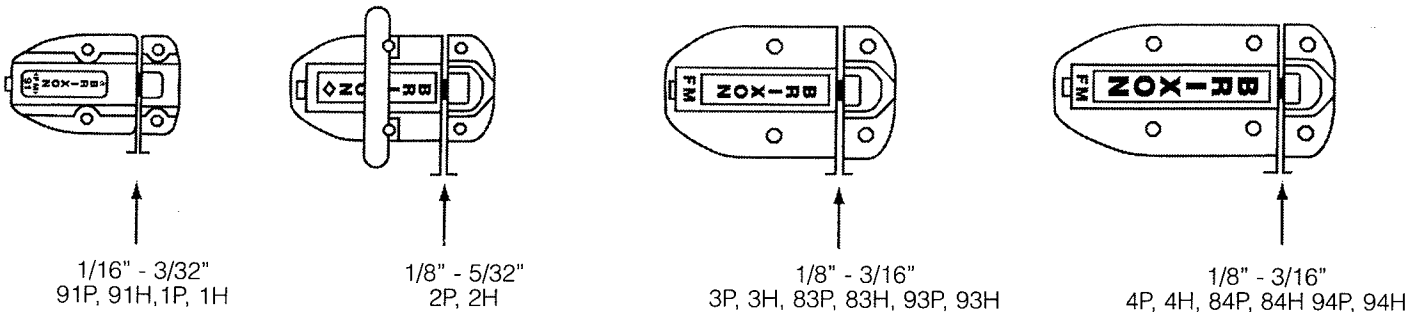
Turn the adjusting screw counter-clockwise to its loosest position, making sure that the square nut does not come off the ball pin and the nut has full thread engagement. Using the table on page 18 as a guide, tighten the adjusting screw clockwise a half turn at a time until the desired pressure setting is reached. It should be possible to feel the adjusting screw slipping into the relaxed position at each half turn. For example, if you wanted 107 lbs. pressure setting on a #4 latch, you would tighten the adjusting screw 10 half turns  $(10 \times 4.935) + (58 \text{ lbs. min.}) = 107 \text{ lbs.}$

If the latch is mounted, adjustment can be made by turning the adjustment screw to its tightest position and backing off to the desired setting. Latches can be factory adjusted upon request for additional cost. For example, if you wanted 107 lbs pressure setting on a #4 latch, you tighten the adjustment screw clockwise to its maximum position. Then you would loosen the adjustment screw counter-clockwise 36 half turns  $\{285 \text{ lbs max.} - (36 \times 4.935)\} = 107 \text{ lbs.}$

## MOUNTING

The latch and strike assembly must be securely mounted so that the laminated cam is centered on the strike roller and the assembly is perpendicular to the door-frame line. The distance between the latch and strike housing should be 1/16" to 3/32" for #91 models and #1 models (#1 model no longer for sale). The distance between the latch and strike is 1/8" to 5/32" for the #2 model. #3, #83, #93, #4, #84 and #94 latches and strikes should be spaced 1/8" to 3/16" apart.

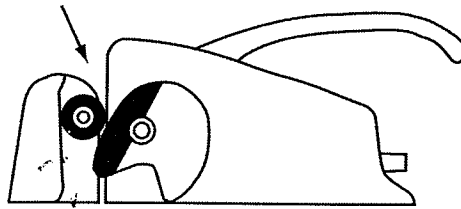
### LATCH / STRIKE SPACING



**NOTE: IF THE STRIKE IS MOUNTED TOO FAR FROM THE LATCH, THE LATCH CANNOT OPERATE PROPERLY.**

Latches should be tested for proper operation after adjustment and/or installation. Ensure that the roller forces the cam of the latch into the fully open position when the door is opened and that the opened cam will contact the roller and be forced into the closed position as the door is closed. Failure to do so may cause an unanticipated rebound, since the latch and strike will not engage upon closing. Misalignment of the latch and strike may also cause this rebound.

Hinges must be strong and securely fastened to avoid horizontal &/or vertical misalignment due to "play" in the door. Additionally, the strike mounting must be sufficiently rigid so that the strike does not bend or twist upon closing. If the body moves toward the hinges, it is possible for the latch to close in the wrong position as shown below in illustration #3, resulting in very high and unsafe pressure.



(#3) Cam in wrong position from improper strike mounting

This is most likely to happen when the door is slammed (excessively) and/or the latch mechanism is dirty or corroded. In this event, the door may be more difficult to open, either by hand or in the event of an explosion. It is also a warning that maintenance is required and that a hazardous situation exists.

Because of the rather large tolerances involved in casting, each latch/strike combination must be individually aligned, and alignment must be rechecked whenever latches are replaced to avoid possible malfunctions as listed below.

In mounting the 3H, 83H, 93H, 4H, 84H, 94H or 4HD latches, it may be found that the handle stops interfere with the mounting nuts, when studs are used. If you intend to use studs, consult the manufacturer for information on modifications that may be necessary.

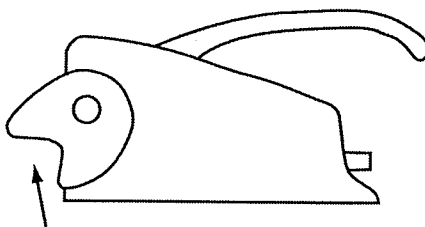
## OPERATION

The Brixon latch operates in a manner similar to a toggle switch. When the door and latch are in the closed position, the latch will hold the door closed unless enough pressure is applied to compress the spring sufficiently to cause tripping of the cam into the open position. When the cam is in the open position, the door is free to open.

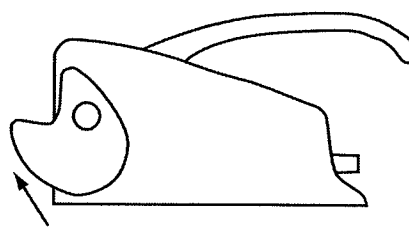
Closing is essentially the reverse of the above, with the force to reset the cam being supplied by the closing door.

The forces required for operation depend upon the settings of the latch (see ADJUSTMENT) - The higher the setting and the larger the latch, the greater the required force.

The recommended procedure for closing a door equipped with the 3H, 83H, 93H, 4H, 84H, or 94H latches is to fold the handle back immediately prior to closing or, better, to first open and then close the handles. When folding the handles back, the cam should remain in the "open" position (illustration #4). If for any reason the cam is in the "closed" position (illustration #5) while the door is open, the latch and/or its mounting is defective, and the door would rebound open instead of latching.



(#4) Cam in door open position



(#5) Cam in door closed position

In the event of an explosion, the latch will begin to open when the internal pressure equals the setting of the latch. However, due to inertia in the latch-door system, there will be a slight delay between application of pressure and the opening of the door (See NFPA No. 68). This might allow a considerable pressure build-up, depending upon the oven size, type, and amount of material exploding, and the time lag involved. In the event of an explosion of maximum violence, the effectiveness of the latches is reduced. However, most explosions are not of maximum violence (FM Global Approval Guide, 1998 8-1).

## SUMMARY AND CAUTIONS FOR OPERATORS

1. Violent slamming is potentially hazardous and must be avoided.
2. For reasons listed above, the door may not latch when closing; beware of rebound.
3. Keep clear of the arc of the door.
4. Keep clear of the operating parts of the latch and handle, particularly the laminated cam, strike roller, both ends & handle stop of the heavy duty handles, and the stops for standard 3H, 4H, 83H, 84H, 93H, & 94H handles.

## WARNINGS AND LIMITATIONS: ALL MODELS

1. In the event of an explosion, the door will open rapidly with little or no warning. It is therefore recommended that the area in the arc of the door be marked as a danger area, perhaps by "red striping", a cage, or personnel barricade.
2. If the door is closed with insufficient force to trip the cam, the door will rebound.
3. If, for some reason, the cam is the "closed" (figure 5) position while the door is open, the door will rebound rather than latching when closed. This could be caused by a misaligned strike (all latches) and/or a loose handle (3H, 83H, 93H, 4H, 84H and 94H latches only), or by the cam being struck and rotated accidentally while in the "open" (figure 4) position.
4. If excessive force is used in closing (slamming) the door, the tendency of the door to rebound may be sufficient to cause the latch (and door) to reopen.

A rebounding door would not normally cause a dangerous situation unless some aggravating condition is present. It is essential that the person closing the door is aware of the possibility of rebound, and is warned against violent slamming. The forces involved, and therefore the hazards, increase with the size and setting of the latch.

5. The door may open unexpectedly if material (such as a large casting) should fall and strike the interior of the door.
6. Brixon recommends that close attention be paid to the selection of hinges. If the hinges are not strong enough to withstand the maximum internal pressure, allowing for build-up due to time lag, the door may become a projectile.
7. The latches should be set at the lowest practical setting. Factory Mutual Global recommends a maximum venting pressure of 50 lbs./ft<sup>2</sup>. Whereas NFPA recommends a maximum of 30 lbs./ft<sup>2</sup>. Lower settings should always be used where practical for maximum safety.
8. Due to the inherent brittle nature of cast iron, high impact loads may fracture castings, possibly resulting in a flying fragment. This is not expected to occur under normal conditions, but is possible under unusually severe conditions

## WARNINGS AND LIMITATIONS: SPECIAL PRECAUTIONS FOR 3H, 4H, 83H, 84H, 93H & 94H LATCHES

#91, #1(#1 model no longer sold) and #2 latches have pull type handles which do not affect the operation of the latch. The models 3H, 4H, 83H, 84H, 93H & 94H latches have handles which open the cam when used, but also allow the cam to open without the use of the handle. The following pertains to models 3H, 4H, 83H, 84H, 93H & 94H handle-type latches:

When the handle is in the "closed" (down) position, the cam operates independently of the handle.

1. When the handle is moved from the "closed" (down) position to the "open" (up) position, the cam is forced into the open (page 20, figure 4) position. The cam cannot be in the closed position with the handle up unless:
  - a) The handle is very loose
  - b) The internal socket set screw is broken or missing
  - c) The handle has been removed and reinstalled improperly.
  - d) The handle cross pin is broken or missing (83H, 84H, 93H & 94H)

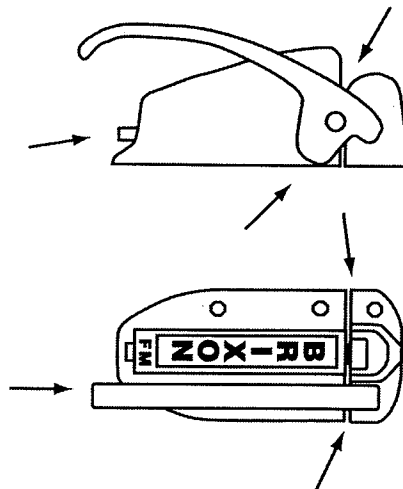
If any of the above situations occur, a hazardous condition exists and must be corrected.

2. If the handle is up while the door is being closed, the handle will snap back into the down position. In models 3H and 4H latches manufactured prior to 1979, especially chrome-plated latches, the handle may contact the door itself with considerable force, which would create a hazard to hands placed in the same area (See diagram below). Model 3H and 4H latch handles made after 1979, (similar to old handle except with larger rectangular stops), and model 83H, 84H, 93H & 94H latches stop well above the surface of the door if the handles have not been altered.

3. Keep hands away from cams, rollers, handle stops, and away from areas between latch body and handle when closing. (See diagram to the right).

4. If the socket set screw breaks, the handle becomes inoperable. Replacement of the socket set screw with one not identical to the original may cause a hazardous condition by destroying the independence of the cam and handle. Additionally, the bearing pin, handle, and cam must not be altered or used with any other latch. Each handle is individually fitted at the factory.

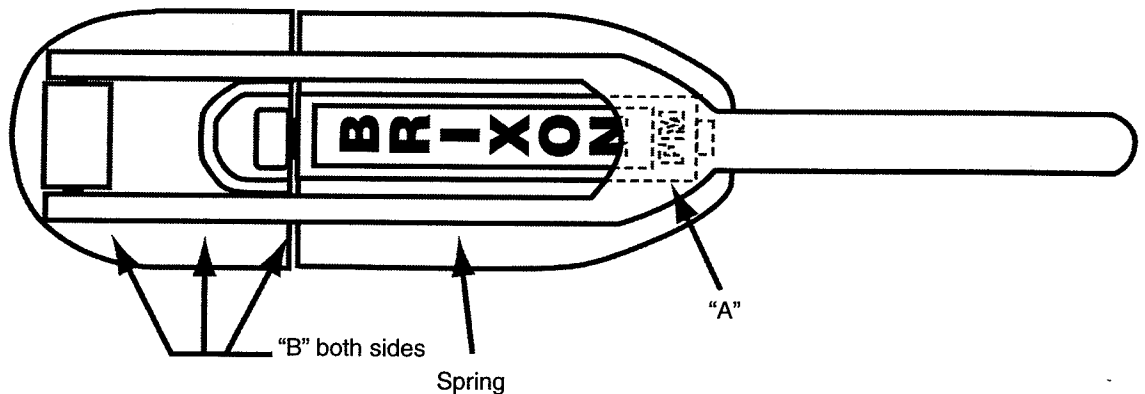
5. Closing, and especially slamming, of the door with the handle up increases the possibility of shearing the internal socket set screw.



(#6) Old style handles: Keep hands away from this area too.

## LIMITATIONS

1. The #1 die-cast zinc model (no longer sold) is not suitable for high temperature use the #91 stainless steel model.
2. The #SP2A aluminum and #SP2B brass latches are recommended for spark proof applications.
3. Standard 3H, 4H, 83H, 84H, 93H & 94H handles are not designed for multiple latch applications since all handles must be opened simultaneously to avoid undue strain on the latches, doors, and/or hinges. The #4HD and #410 heavy duty handles are recommended for such applications, or Brixon can custom fabricate linked latch assemblies.
4. Brixon latches, like all other latches, will eventually wear out or need replacement due to inherent properties of the material used. The expected life depends strongly upon the conditions of use. If the latch is properly maintained, and in a non-corrosive and dry area, probable failure points are:
  - a) Cracking of the casting near the bearing pin or base holes because of impact loads. This may result in a hazard in the case of a flying fragment. This is not common, but abuse of the latches makes it more likely.
  - b) The spring may lose temper because of prolonged heating or fatigue. This is not expected to be hazardous, but the door will open and/or rebound more easily than normal.
5. If the latch is operated in an exterior or corrosive atmosphere, failure is more likely to be due to rusting of internal parts and/or castings. Corrosion of internal parts results in the probability of the latch mechanism "freezing" and is a major hazard in the event of an explosion. Corrosion of the casting will render it more prone to cracking or breaking under impact. (See "MAINTENANCE")
6. Brixon Manufacturing Co. makes no claims for corrosion resistance beyond the properties of the materials used (see "MATERIALS" in the ADDITIONAL INFORMATION section 4).
7. Modifications of Brixon latches should not be made without consulting Brixon Manufacturing and without prior approval of Brixon Manufacturing Co.
8. Field repairs of Brixon latches are not recommended.
9. The following warnings pertain to Models 4HD and 410:
  - a) Be sure return spring is operative to avoid crushing and denting danger at points "A" on closing.
  - b) Keep hands and other objects away from interior of resistance arm (points "B").



## REPLACEMENT PARTS

The following replacement parts are available from the factory:

BODIES only (all models)

STRIKES only (all models)

HANDLES only - #2 only.

ALL OTHER REPAIR OR REPLACEMENT OF INTERNAL PARTS MUST BE DONE IN OUR FACTORY.

FOR ADDITIONAL INFORMATION AND ORDERING, CALL OR WRITE:



**Brixon Manufacturing Co.**

3115 Mike Collins Drive • Eagan, MN 55121  
Ph: (800) LATCHES (528-2437) • Ph:(651) 688-2540  
Fax:(651) 688-6234  
Web site: [www.brixon.com](http://www.brixon.com) • Email: [info@brixon.com](mailto:info@brixon.com)

## MAINTENANCE

Latches must have the explosion-venting feature tested periodically to insure that corrosion and/or build-up of foreign materials has not affected the mechanism. Under normal operation conditions, lubricate the bearing pin within the laminated cam with an SAE 30-50 high temperature oil EVERY TWO MONTHS.

Model 3H and 4H latches should have the set screws in the handle tightened as needed.

### NOTICE FOR LATCHES IN EXTERIOR OR INTERIOR CORROSIVE ENVIRONMENTS

Regular Brixon iron safety latches® (which are designed for interior use) are not recommended for exterior or corrosive applications.

We recommend the Brixon® 90 Series all stainless steel investment cast latches for most corrosive applications.

Maintenance of all Brixon latches is important at regular intervals.

1. Check to see that the latch is properly lubricated: <
2. Open the door to make sure all parts are free to move.

The lubricating should be as follows:

The crucial pivot joint, which is the bearing pin about which the laminated cam pivots, should be oiled with an SAE 30 to SAE 50 high temperature oil at least every two months.

For use in cold areas we recommend using SAE 10-20 high temperature lubricant at least every two months.

If you need further information on maintenance of Brixon® latches or if you wish to replace your latches with corrosion resistant latches, contact Brixon (information at bottom of previous page).

Our model 91, 2, 3, 83, 93, 4, 84 & 94 latches are available with the following options for corrosion resistance.

	Paint	Powder Coat	E-Coat	Duplex Anodize	Chrome Plate	Nickel Plate	Galvanize	Electropolish	Polish/Buf Passivate
Iron	•	•	•		•	•	•		
Aluminum		•	•	•					
Brass		•	•		•	•			
Steel	•	•	•		•	•	•		
Stainless Steel		•	•					•	•

Brixon® Model SP2B Spark proof Brass, and SP2A spark proof aluminum latches are also available for exterior or interior corrosive applications.

Iron latches can rust and could subsequently freeze up so that the latch could become a lock and would not open if there were an explosion. In prior Product Information Packages, Brixon has always warned against the use of iron latches in exterior or interior corrosive applications and if despite our warnings they continue to be used, we strongly suggest that they be replaced by a latch recommended for corrosive conditions to avoid possible accidents or injury.

### ADDITIONAL INFORMATION: CORROSION

Stainless steel\*\* internal parts should last approximately five times as long as steel parts depending on the severity of the corrosive atmosphere. Trace metals in stainless steel tend to create chromium oxide coating which can be attacked by a wet chloride ion in marine conditions, and eventually rust will occur. Only the end-user can know the severity of corrosive conditions, and proper, regular maintenance becomes even more important under severe corrosive conditions.

Aluminum will oxidize and discolor with time, but the discoloration will not affect the strength or overall life of aluminum. It may be difficult, however, to distinguish corrosion from discoloration.

Salt or corrosive atmospheres can cause aluminum to break down and become weakened. At the spot of corrosion, powdering will occur and also pitting of the latch body or strike. For this reason Brixon suggests that aluminum should be preserved with a protective coating if it is exposed to corrosive conditions. Black E Coat and Duplex anodizing are options available to preserve aluminum. (See WARNINGS AND LIMITATIONS section).

Spark proof Brass latches are corrosion resistant and are available in our #2 model only. For marine conditions with heavy salt corrosion such as on ships or on oil rigs at sea, an aluminum bronze can be special ordered in the #2 model.

\*\*Brixon uses the following stainless steel alloys: 15-7, 301 302, 303, and 304, 416 (hardened & passivated), and 316.

# Additional Information: Materials

<b>MODEL 1 (No longer sold)</b> <b>STANDARD DIE CAST ZINC</b>	
<b>Bodies</b>	Die Cast Zinc
<b>Strikes</b>	Die Cast Zinc
<b>Handles</b>	Die Cast Zinc
<b>Cam</b>	Mild Steel Hardened Zinc Plated
<b>Spring</b>	Music Wire
<b>Ballpin</b>	12L14 Steel Hardened Zinc Plated
<b>Rivets</b>	1010 Steel Annealed
<b>Roller</b>	Mild Steel Hardened Zinc Plated
<b>Strike Pin &amp; Body Pin</b>	Mild Steel Zinc Plated

<b>MODEL 1 (No longer sold)</b> <b>STANDARD IRON</b>	
<b>Bodies</b>	Ductile Iron 60-40-18
<b>Strikes</b>	Ductile Iron 60-40-18
<b>Handles</b>	Ductile Iron 60-40-18
<b>Cam</b>	Mild Steel Hardened Zinc Plated
<b>Spring</b>	Music Wire
<b>Ballpin</b>	12L14 Steel Hardened Zinc Plated
<b>Rivets</b>	1010 Steel Annealed
<b>Roller</b>	Mild Steel Hardened Zinc Plated
<b>Strike Pin &amp; Body Pin</b>	Mild Steel Zinc Plated

<b>MODEL 91</b> <b>STANDARD STAINLESS STEEL</b>	
<b>Bodies</b>	316 Stainless Steel
<b>Strikes</b>	316 Stainless Steel
<b>Handles</b>	316 Stainless Steel
<b>Cam</b>	316 Stainless Steel
<b>Spring</b>	301 Stainless Steel
<b>Ballpin</b>	303 Stainless Steel
<b>E-Clips</b>	15-7 Stainless Steel
<b>Roller</b>	303 Stainless Steel
<b>Strike Pin &amp; Body Pin</b>	303 Stainless Steel

\* H Models Only

E Coating or Duplex Anodizing  
optional on all Aluminum Models.

Chrome Plating optional on all models.

<b>MODEL 2</b> <b>STANDARD IRON</b>	
<b>Bodies</b>	Grey Iron Class 30
<b>Strikes</b>	Grey Iron Class 30
<b>Handles</b>	Ductile Iron 65-45-12
<b>Cam</b>	Mild Steel Hardened Zinc Plated (Optional: 304 SS)
<b>Spring</b>	Chrome Silicon (Optional: 301 SS)
<b>Ballpin</b>	12L14 Steel Hardened Zinc Plated (Optional: 303 SS)
<b>E-Clips</b>	SAE 1060-1090 Steel, Zinc Plated (Optional: 15-7 SS)
<b>Rivets</b>	1010 Steel Annealed (Optional: 302 SS)
<b>Roller</b>	Mild Steel Hardened Zinc Plated (Optional: 303 SS)
<b>Strike Pin &amp; Body Pin</b>	Mild Steel Zinc Plated (Optional: 303 SS)

<b>MODEL 2</b> <b>STANDARD ALUMINUM</b>	
<b>Bodies</b>	Aluminum 319
<b>Strikes</b>	Aluminum 319
<b>Handles</b>	Aluminum 713
<b>Cam</b>	Mild Steel Hardened Zinc Plated (Optional: 304 SS)
<b>Spring</b>	Chrome Silicon (Optional: 301 SS)
<b>Ballpin</b>	12L14 Steel Hardened Zinc Plated (Optional: 303 SS)
<b>E-Clips</b>	SAE 1060-1090 Steel, Zinc Plated (Optional 15-7 SS)
<b>Rivets</b>	1010 Steel Annealed (Optional: 302 SS)
<b>Roller</b>	Mild Steel Hardened Zinc Plated (Optional: 303 SS)
<b>Strike Pin &amp; Body Pin</b>	Mild Steel Zinc Plated (Optional: 303 SS)

<b>MODEL 2</b> <b>SPARKPROOF ALUMINUM</b>	
<b>Bodies</b>	Aluminum 319
<b>Strikes</b>	Aluminum 319
<b>Handles</b>	Aluminum 713
<b>Cam</b>	Brass 26000
<b>Spring</b>	Chrome Silicon (Optional: 301 SS)
<b>Ballpin</b>	Brass CDA 360
<b>E-Clips</b>	15-7 Stainless Steel
<b>Rivets</b>	C11000 Brass
<b>Roller</b>	Brass CDA 360
<b>Strike Pin &amp; Body Pin</b>	Brass CDA 360

<b>MODEL 2</b> <b>SPARKPROOF BRASS</b>	
<b>Bodies</b>	Cast Brass C83450
<b>Strikes</b>	Cast Brass C83450
<b>Handles</b>	Cast Brass C83450
<b>Cam</b>	Brass 26000
<b>Spring</b>	301 Stainless Steel
<b>Ballpin</b>	Brass CDA 360
<b>E-Clips</b>	15-7 Stainless Steel
<b>Rivets</b>	C11000 Brass
<b>Roller</b>	Brass CDA 360
<b>Strike Pin &amp; Body Pin</b>	Brass CDA 360

<b>MODEL 3</b> <b>STANDARD IRON</b>	
<b>Bodies</b>	Grey Iron Class 30
<b>Strikes</b>	Ductile Iron 65-45-12
<b>Handles</b>	Ductile Iron 65-45-12
<b>Cam</b>	Mild Steel Hardened Zinc Plated (Optional: 304 SS)
<b>Spring</b>	Chrome Silicon (Optional: 301 SS)
<b>Torsion Spring*</b>	302 Stainless Steel
<b>Ballpin</b>	12L14 Steel Hardened Zinc Plated (Optional: 303 SS)
<b>E-Clips</b>	SAE 1060-1090 Steel, Zinc Plated (Optional: 15-7 SS)
<b>Rivets</b>	1010 Steel Annealed (Optional: 302 SS)
<b>Roller</b>	Mild Steel Hardened Zinc Plated (Optional: 303 SS)
<b>Strike Pin &amp; Body Pin</b>	Mild Steel Zinc Plated (Optional: 303 SS)
<b>Screw</b>	Mild Steel Zinc Plated (Optional: 303 SS)

<b>MODEL 3</b> <b>STANDARD ALUMINUM</b>	
<b>Bodies</b>	Aluminum 356-T6
<b>Strikes</b>	Aluminum 356-T6
<b>Handles</b>	Aluminum 713
<b>Cam</b>	Mild Steel Hardened Zinc Plated (Optional: 304 SS)
<b>Spring</b>	Chrome Silicon (Optional: 301 SS)
<b>Torsion Spring*</b>	302 Stainless Steel
<b>Ballpin</b>	12L14 Steel Hardened Zinc Plated (Optional: 303 SS)
<b>E-Clips</b>	SAE 1060-1090 Steel, Zinc Plated (Optional 15-7 SS)
<b>Rivets</b>	1010 Steel Annealed (Optional: 302 SS)
<b>Roller</b>	Mild Steel Hardened Zinc Plated (Optional: 303 SS)
<b>Strike Pin &amp; Body Pin</b>	Mild Steel Zinc Plated (Optional: 303 SS)
<b>Screw</b>	Mild Steel Zinc Plated (Optional: 303 SS)



**MODEL 4  
STANDARD IRON**

<b>Bodies</b>	Ductile Iron 65-45-12
<b>Strikes</b>	Ductile Iron 65-45-12
<b>Handles</b>	Ductile Iron 65-45-12
<b>Cam</b>	Mild Steel Hardened Zinc Plated (Optional: 304 SS)
<b>Spring</b>	Chrome Silicon (Optional: 301 SS)
<b>Torsion Spring*</b>	302 Stainless Steel
<b>Ballpin</b>	12L14 Steel Hardened Zinc Plated (Optional: 303 SS)
<b>E-Clips</b>	SAE 1060-1090 Steel, Zinc Plated (Optional: 15-7 SS)
<b>Rivets</b>	1010 Steel Annealed (Optional: 302 SS)
<b>Roller</b>	Mild Steel Hardened Zinc Plated (Optional: 303 SS)
<b>Strike Pin &amp; Body Pin</b>	Mild Steel Zinc Plated (Optional: 303 SS)
<b>Screw</b>	302 Stainless Steel

**MODEL 4  
STANDARD ALUMINUM**

<b>Bodies</b>	Aluminum 356-T6
<b>Strikes</b>	Aluminum 356-T6
<b>Handles</b>	Aluminum 713
<b>Cam</b>	Mild Steel Hardened Zinc Plated (Optional: 304 SS)
<b>Spring</b>	Chrome Silicon (Optional: 301 SS)
<b>Torsion Spring*</b>	302 Stainless Steel
<b>Ballpin</b>	12L14 Steel Hardened Zinc Plated (Optional: 303 SS)
<b>E-Clips</b>	SAE 1060-1090 Steel, Zinc Plated (Optional: 15-7 SS)
<b>Rivets</b>	1010 Steel Annealed (Optional: 302 SS)
<b>Roller</b>	Mild Steel Hardened Zinc Plated (Optional: 303 SS)
<b>Strike Pin &amp; Body Pin</b>	Mild Steel Zinc Plated (Optional: 303 SS)
<b>Screw</b>	Mild Steel Zinc Plated (Optional: 303 SS)

**MODEL 83  
CAST STEEL**

<b>Bodies</b>	1045 Carbon Steel
<b>Strikes</b>	1045 Carbon Steel
<b>Handles</b>	1045 Carbon Steel
<b>Cam</b>	Mild Steel Hardened Zinc Plated (Optional: 304 SS)
<b>Spring</b>	Chrome Silicon (Optional: 301 SS)
<b>Torsion Spring*</b>	302 Stainless Steel
<b>Ballpin</b>	12L14 Steel Hardened Zinc Plated (Optional: 303 SS)
<b>E-Clips</b>	SAE 1060-1090 Steel, Zinc Plated (Optional: 15-7 SS)
<b>Rivets</b>	1010 Steel Annealed (Optional: 302 SS)
<b>Roller</b>	Mild Steel Hardened Zinc Plated (Optional: 303 SS)
<b>Strike Pin &amp; Body Pin</b>	416 Stainless Steel Hardened & Passivated
<b>Cross Pin*</b>	303 Stainless Steel
<b>Screw</b>	302 Stainless Steel

**MODEL 84  
CAST STEEL**

<b>Bodies</b>	1045 Carbon Steel
<b>Strikes</b>	1045 Carbon Steel
<b>Handles</b>	1045 Carbon Steel
<b>Cam</b>	Mild Steel Hardened Zinc Plated (Optional: 304 SS)
<b>Spring</b>	Chrome Silicon (Optional: 301 SS)
<b>Torsion Spring*</b>	302 Stainless Steel
<b>Ballpin</b>	12L14 Steel Hardened Zinc Plated (Optional: 416 SS Hardened & Passivated)
<b>E-Clips</b>	SAE 1060-1090 Steel, Zinc Plated (Optional: 15-7 SS)
<b>Rivets</b>	1010 Steel Annealed (Optional: 302 SS)
<b>Roller</b>	Mild Steel Hardened Zinc Plated (Optional: 303 SS)
<b>Strike Pin &amp; Body Pin</b>	303 Stainless Steel
<b>Cross Pin*</b>	303 Stainless Steel
<b>Screw</b>	303 Stainless Steel

**MODEL 93  
STAINLESS STEEL**

<b>Bodies</b>	316 Stainless Steel
<b>Strikes</b>	316 Stainless Steel
<b>Handles</b>	316 Stainless Steel
<b>Cam</b>	304 Stainless Steel
<b>Spring</b>	301 Stainless Steel
<b>Torsion Spring*</b>	302 Stainless Steel
<b>Ballpin</b>	416 SS Hardened & Passivated
<b>E-Clips</b>	15-7 Stainless Steel
<b>Rivets</b>	302 Stainless Steel
<b>Roller</b>	303 Stainless Steel
<b>Strike Pin &amp; Body Pin</b>	303 Stainless Steel
<b>Cross Pin*</b>	303 Stainless Steel
<b>Screw</b>	303 Stainless Steel

**MODEL 94  
STAINLESS STEEL**

<b>Bodies</b>	316 Stainless Steel
<b>Strikes</b>	316 Stainless Steel
<b>Handles</b>	316 Stainless Steel
<b>Cam</b>	304 Stainless Steel
<b>Torsion Spring*</b>	301 Stainless Steel
<b>Ballpin</b>	416 SS Hardened & Passivated
<b>E-Clips</b>	15-7 Stainless Steel
<b>Rivets</b>	302 Stainless Steel
<b>Roller</b>	303 Stainless Steel
<b>Strike Pin &amp; Body Pin</b>	303 Stainless Steel
<b>Cross Pin*</b>	303 Stainless Steel
<b>Screw</b>	303 Stainless Steel

\* H Models Only

E Coating or Duplex Anodizing optional on all Aluminum Models.

Chrome Plating optional on all models.

# Why Specify Brixon?

- *Brixon latches are re-usable*
- *Brixon latches are not destroyed in venting like rupture disks or explosion panels.*
- *Once a latch is released, all you need to do is slam the door shut and the latch is ready to go!*
- *Brixon latches are economical*
- *Brixon's model #2 latches list as low as \$40.10.*
- *Brixon offers a very generous OEM discount structure.*
- *Brixon makes latches to fit on most any door*
- *Brixon has the most complete line of explosion venting latches in the world; including the largest and smallest explosion venting safety latches in the world.*
- *Brixon offers the widest pressure release range*
- *Brixon's Factory Mutual (FM) approved latches can be adjusted from as low as .01 PSI to pressure in excess of 3,000 pounds per door (using multiple latches).*
- *Brixon offers a wide variety of castings*
- *Brixon has latches that are entirely stainless steel. Brixon also offers cast steel, cast aluminum, cast iron, as well as spark-proof brass and spark-proof aluminum.*
- *Brixon offers a wide variety of finish options*
- *Brixon latches can be chrome plated, anodized, e-coated, electropolished, or polished/buffed/passivated (finish options dependent on latch casting.)*
- *Brixon offers the widest range of adjustability*
- *Brixon latches can be adjusted with a turn of a screwdriver or Allen wrench.*
- *Brixon's 80's and 90's series latches are compatible with both English (U.S.) and metric systems.*
- *Brixon latches are easy to operate*
- *Brixon latches usually ship with in a week*
- *Brixon latches are easy to install*
- *Brixon Latches have many uses & applications*



**1-800-LATCHES**  
**[www.brixon.com](http://www.brixon.com)**

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# Brixon Order Form

Photo copy this form, fill it out and fax to (651) 688-6234

or mail to Brixon Manufacturing Co. 3115 Mike Collins Drive • Eagan, MN 55121

You may also phone your order to (800) LATCHES (528-2437) or (651) 688-2540 or Email [info@brixon.com](mailto:info@brixon.com).  
or visit our web site at [www.brixon.com](http://www.brixon.com) and place your order via order online

Date: \_\_\_\_\_ Existing Account Number: \_\_\_\_\_

New Account? \*\* New customers: First order will be shipped COD or Credit Card.

If you require an open account, please fax your bank and vendor references along with your PO. When your credit is approved we'll inform you of your terms.

Brixon accepts payment in several forms. Personal and Business checks, and major Credit Cards. You may use your Visa, Mastercard, American Express, or Discover card for an automatic payment. International orders may be paid with Wire Transfers: Prepayment or Credit Card.

Name (Primary Contact): \_\_\_\_\_

Company Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_ Country: \_\_\_\_\_

Phone Number: \_\_\_\_\_ Fax Number: \_\_\_\_\_

Ship to Address (if different from above):

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_ Country: \_\_\_\_\_

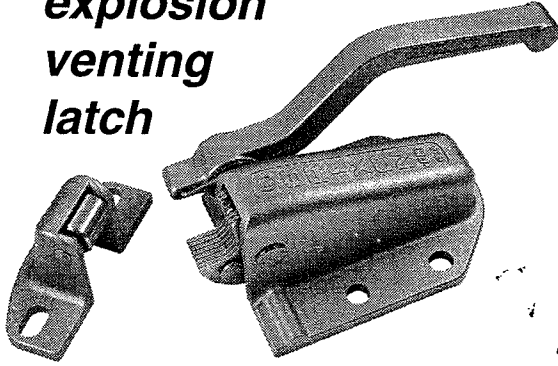
Special Instructions: \_\_\_\_\_

Quantity	Model # Description	OEM	List Price	Sub Total

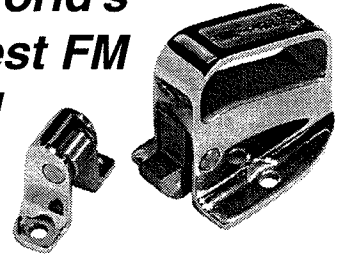
Credit Card #: \_\_\_\_\_ Cardholder Name: \_\_\_\_\_ Expiration Date: \_\_\_\_\_

Additional comments \_\_\_\_\_

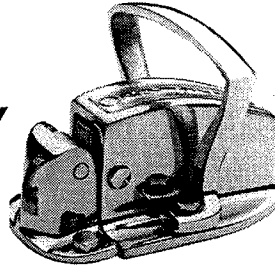
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explosion  
venting  
latch**



**The World's  
smallest FM  
approved  
latches**

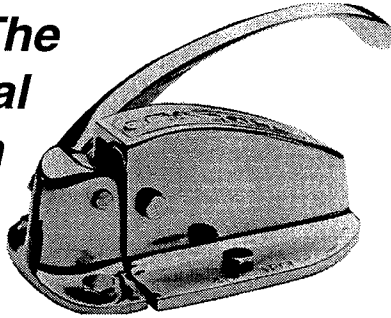


**The only  
FM approved  
sparkproof  
latches available**

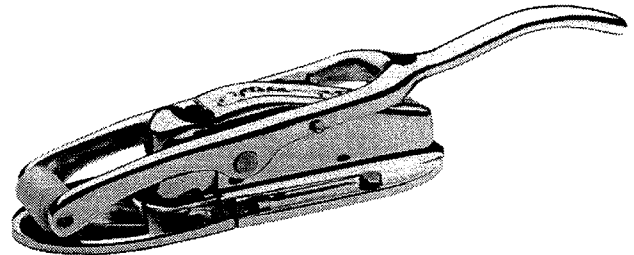


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latch**



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