



Product Alert

February 13, 2019

Type of Notification: Counterfeit

FM Approvals has been made aware of suspect counterfeit automatic fire sprinklers found in Taiwan bearing an FM Approvals mark. FM Approvals has neither tested nor certified these products.

Product Identity: The sprinklers bear the marking “TYCO” on the wrench boss, however, the identity of the manufacturer is unknown.

Description: 3/4” NPT frangible bulb type automatic upright sprinklers

FM Approval status: **Not FM Approved**

Hazard involved: These automatic sprinklers cannot be relied upon to react to or control a fire. Failure by any of the following mechanisms is possible: failure of the thermal element, orifice leakage, premature or delayed operation, bulb strutting (incomplete fracture), ejection of the deflector, inadequate or excessive discharge rate, corrosive attack, failure to operate, failure to produce an adequate discharge pattern, etc.

The sprinklers were not produced by Tyco Fire Protection Products.

If you suspect you are in possession of any of these counterfeit sprinklers bearing the FM Approvals certification marking, please bring that to the attention of:

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FM Approvals, Quality Department
Norwood, MA, USA
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Email: Antonio.pires@fmapprovals.com

Figure 1 below shows a counterfeit upright style sprinkler found bearing a counterfeit FM Approvals mark on the right and an authentic Tyco TY4151 upright sprinkler on the left for comparison. The counterfeit sprinkler is very similar in appearance to the authentic Tyco model. The font used for the wrench boss marking showing the manufacturer designation “TYCO” is slightly different, and the chrome plating on the frame of the counterfeit is slightly more reflective.

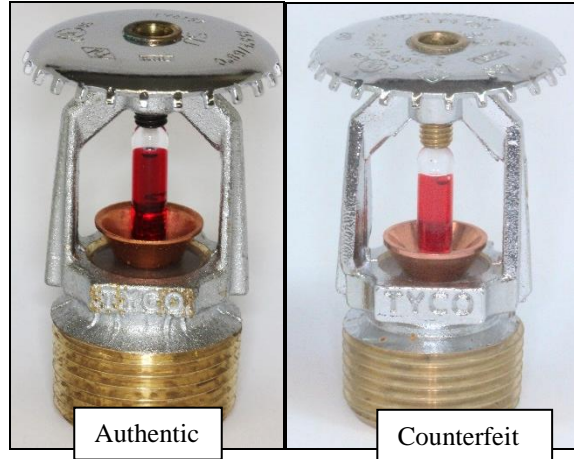


Figure 1. Comparison of the counterfeit sprinkler found bearing the counterfeit FM Approvals mark (right) and an authentic Tyco TY4151 upright sprinkler (left).

Figure 2 below shows the opposite sides of the authentic TY4151 (left) and the counterfeit sprinkler (right). The casting marks on this side of the wrench bosses both show the year of manufacture.

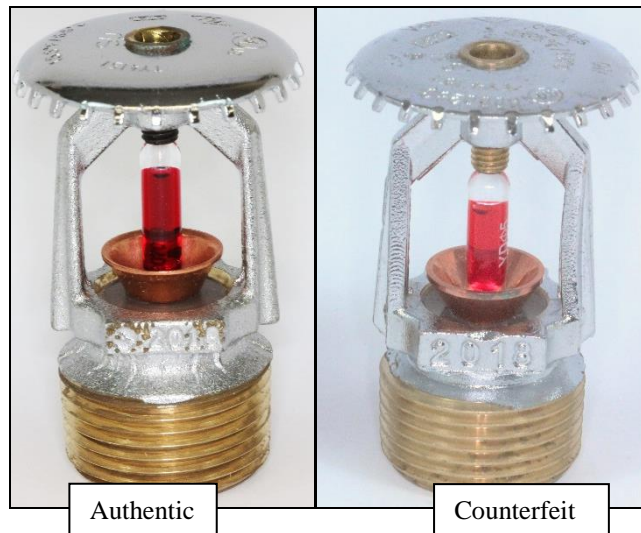


Figure 2. Comparison of a counterfeit sprinkler found bearing the counterfeit FM Approvals mark (right) and an authentic Tyco TY4151 upright sprinkler (left).

Figure 3 below shows the markings on the different frangible glass bulbs used in the counterfeit sprinklers (right) and authentic Tyco sprinklers (left). The bulb in the counterfeit sprinkler is marked “YDϕ5” while the authentic Tyco sprinkler uses a Geissler bulb marked with “▷G◁.” The authentic sprinkler is also FM Approved to use a JOB G5 bulb, and will be marked as such. There are no FM Approved sprinklers that use bulbs bearing the YDϕ5 model designation.

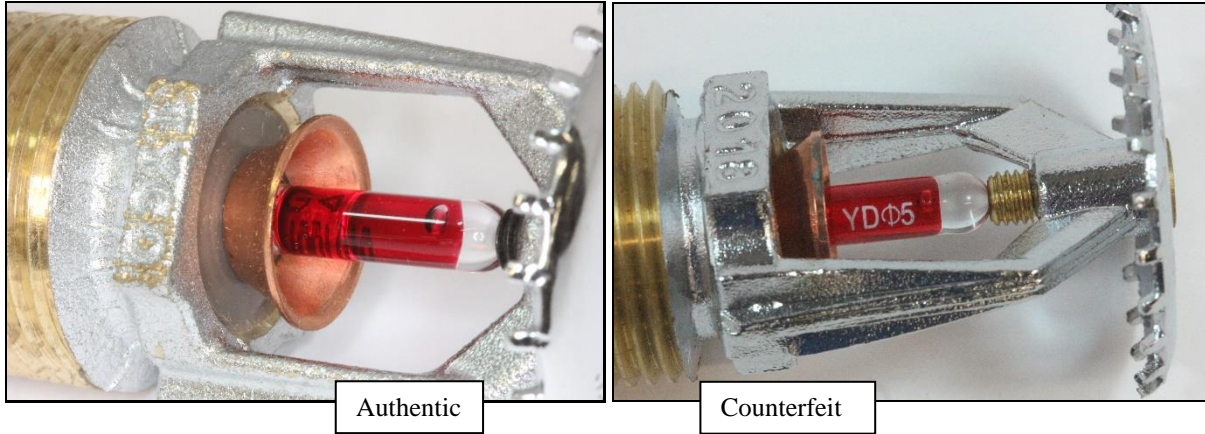


Figure 3. The different bulbs used in authentic Tyco sprinklers (left) and the counterfeit sprinklers (right)

Figure 4 below shows a comparison of the deflectors and deflector markings on the counterfeit sprinkler (right) and an authentic Tyco upright sprinkler (left). Markings vary on the authentic Tyco deflector and they are not a reliable way to differentiate a counterfeit. The counterfeit, however, is marked with the letters “QR” (designating a “quick response” thermal response rating) as well as the sprinkler identification number (SIN) “TY4151.” An authentic TY4151 deflector will not have the QR marking.

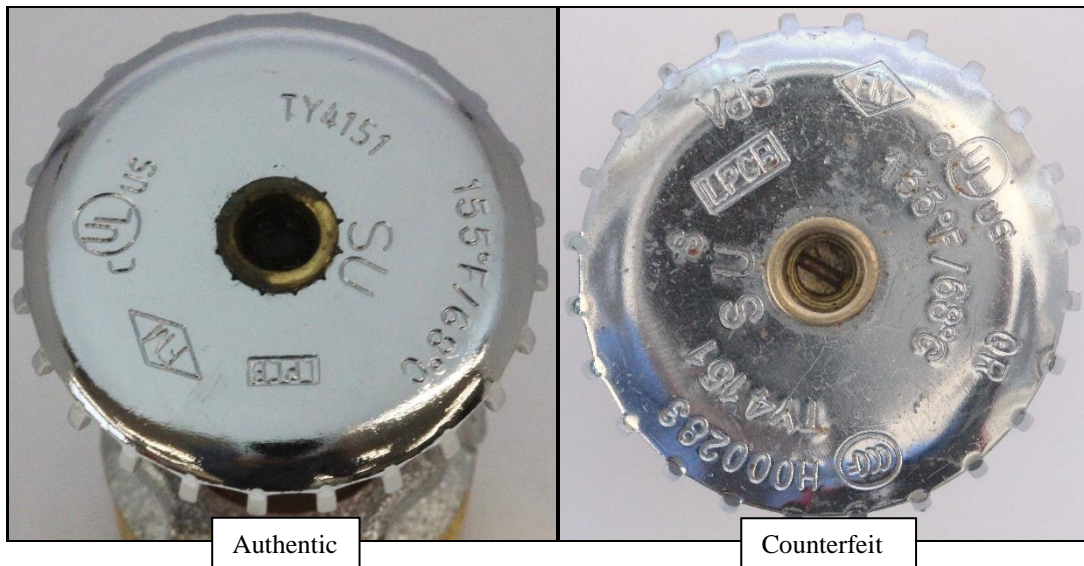


Figure 4. Differences in appearance of the deflectors and deflector markings on the counterfeit sprinklers (right) and an authentic Tyco sprinkler (left).

Figure 5 below shows the inlet areas of the authentic TY4151 sprinkler on the left and the counterfeit sprinkler on the right. The counterfeit cap is similar in color to the one used in the authentic sprinkler, however, the shape of the bottom of the counterfeit cap is very different from the authentic part.

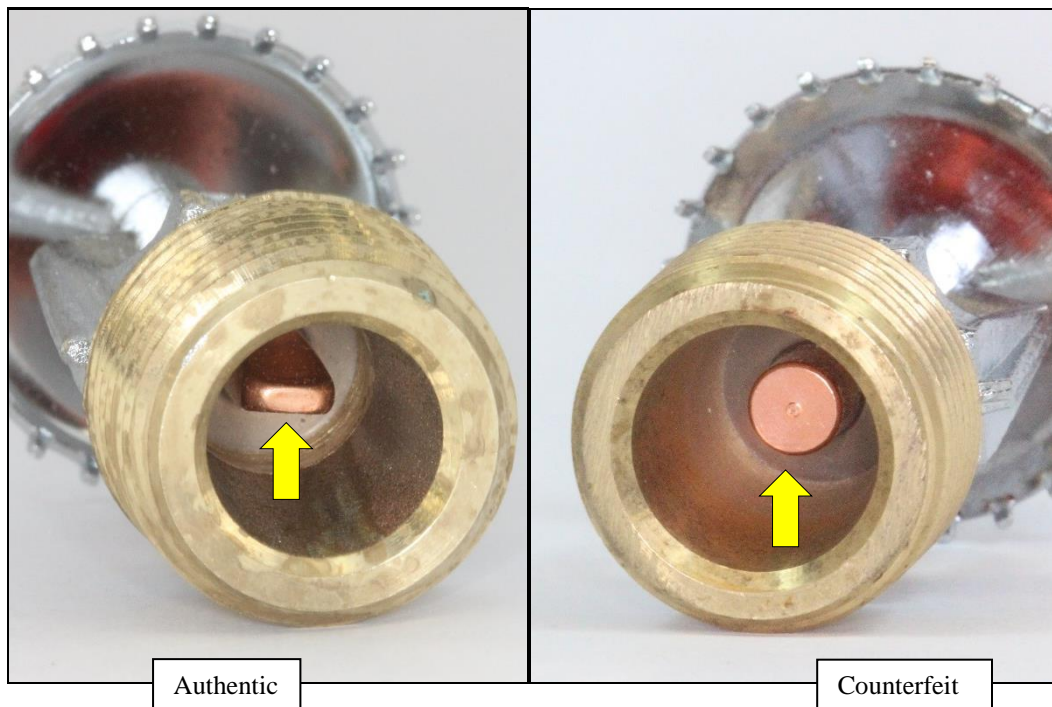


Figure 5. Differences in the form of the bottom of the orifice cap between an authentic Tyco TY4151 (left) and the counterfeit sprinkler (right).