



Product Alert – Counterfeit Tyco Fire Products - Automatic Fire Sprinklers (TY3351)

August 21, 2023

Type of Notification: Counterfeit

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

Company Identity: Unknown

Product Identity: The sprinklers bear the sprinkler identification number (SIN) “TY3351” which is designated to Tyco Fire Products and the marking “TYCO,” however, these were not made by Tyco Fire Products. The identity of the manufacturer is unknown.

Description: ½ inch NPT bulb-type horizontal sidewall style sprinkler

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, separation of the deflector, inadequate or excessive discharge rate, corrosive attack, failure to operate, failure to produce an adequate discharge pattern, etc.

If you suspect you are in possession of counterfeit TY3351 sprinklers bearing the FM Approvals certification marking or if you have any information relative to these referenced products, please bring that to the attention of:

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Figure 1 is a photograph of an authentic TY3351 sprinkler next to one of the counterfeit sprinklers. Chrome-plated TY3351 sprinklers are also FM Approved even though this authentic example has no decorative finish. The markings on the wrench boss are similar between the two and include the name “TYCO” (on the opposite side to the one shown), the year of manufacture, and a mold cavity identification symbol. The shape of the frame arms of the counterfeit sprinkler are clearly different. The counterfeit also uses a visibly different compression screw, indicated by the arrows in the left photo, which is silver in color (even in chrome-plated authentic sprinklers, the compression screw is plain brass) and has several more exposed threads. The orifice caps are also visibly different. The authentic TY3351 uses a cold formed copper cap while the counterfeit has a machined cap with a yellow/brass color.

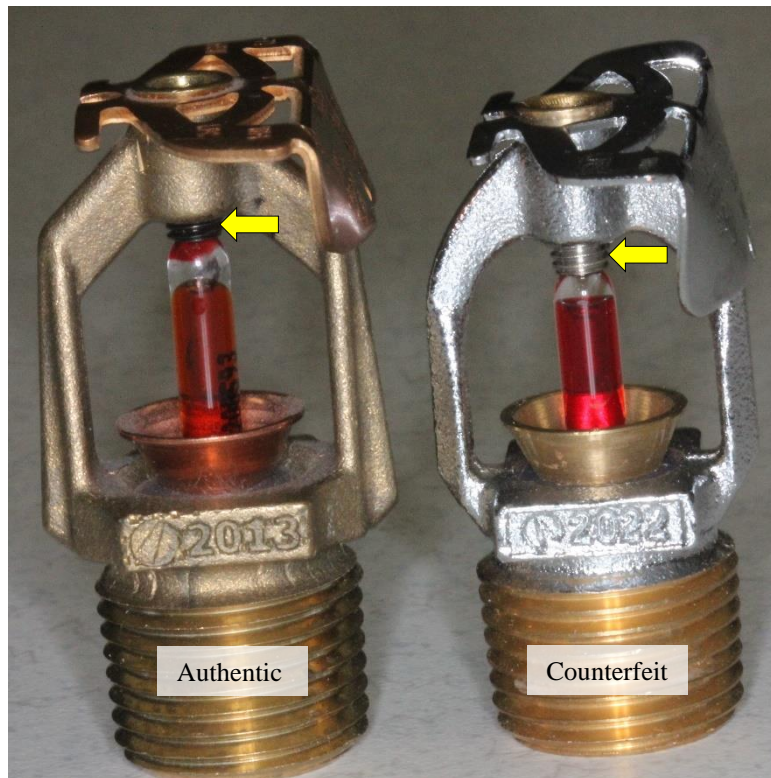


Figure 1. Photograph of an authentic Tyco TY3351 sprinkler (left) and a counterfeit TY3351 sprinkler (right).

Figure 2 on the next page is a close photograph of the inlets of the authentic TY3351 (left) and the counterfeit sprinkler (right). The counterfeit orifice cap has visible annular tool marks and may have been turned from bar stock, while the authentic caps are stamped/extruded and have no annular tool marks.

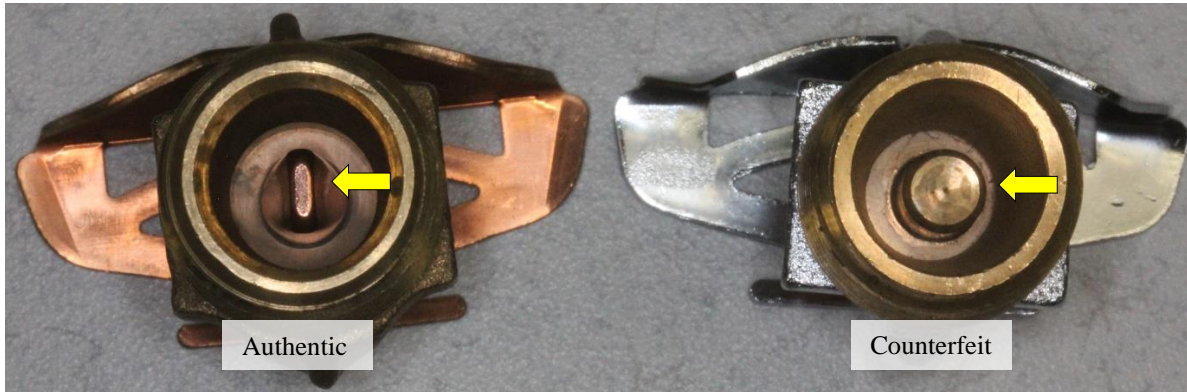


Figure 2. Authentic Tyco sprinkler (left) and counterfeit (right). The inlet sides of the orifice caps are visible and indicated by the yellow arrows. The authentic cap is stamped/extruded while the counterfeit appears to be machined with visible tool marks.

Figure 3 below shows the deflectors of the authentic and counterfeit sprinklers, left and right, respectively. The content and positioning of the stampings on the deflectors are largely the same, except for the “HSW” designation, which appears on the horizontal flange on the counterfeit, and the forward-facing surface of the authentic sprinkler.



Figure 3. Authentic TY3351 deflector (left) and counterfeit deflector (right). The markings are similar, including the appearance and position FM Approvals mark.