

#### Counterfeit Tyco TY3351, TY3151 and TY325 Sprinklers (India)

Type of Notification: Counterfeit

FM Approvals has been notified of suspected counterfeit automatic fire sprinklers discovered in Mumbai, India bearing the FM Approvals certification mark.

Company Identity: Manufacturer is unknown. "TYCO" is marked on the sprinklers, but they were not

manufactured by Tyco Fire Products.

**Product Identity:** 1/2" NPT glass bulb sprinklers with horizontal sidewall, upright, and pendent-style

deflectors, marked "TY3351", "TY3151", and "TY325".

FM Approval Status: Not FM Approved

**Hazard Involved:** The products described in this product alert have never been tested or certified as FM Approved. These automatic sprinklers cannot be relied upon to react to or control a fire and use of products that falsely claim FM Approval may present a property risk for the user. Failure modes of untested sprinklers may include (but are not limited to): failure to operate or delayed operation in response to fire, early or unexpected operation, orifice leakage, deflector detachment under flow, inadequate discharge volume, and inadequate water distribution pattern.

If you suspect you are in possession of similar "Tyco" marked suspected counterfeit 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 FM Approvals.

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Figure 1 shows an authentic TY3331 sidewall sprinkler on the left and one of the suspected counterfeit TY3351s on the right. The authentic TY3331 is similar to the counterfeit TY3351 sprinklers except it uses a 3 mm bulb instead of 5 mm. Tyco also produces TY3351 marked sprinklers with a chrome finish that are also FM Approved. The deflector of the counterfeit TY3351 was damaged during shipping; if it were undamaged, it would appear very similar to the authentic version. The clearest identifying trait of the counterfeit sprinkler is the use of glass bulbs with the marking "ATOPØ5" while authentic bulbs are marked either "Job" or "G".

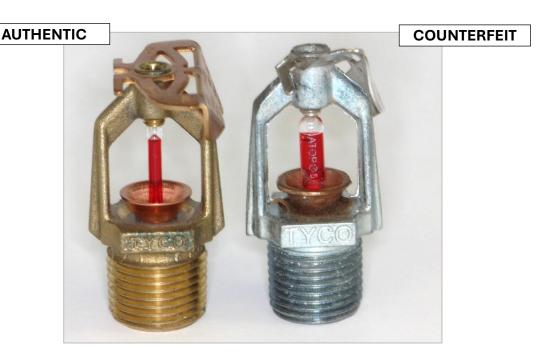


Figure 1. Photograph of an authentic TY3331 sprinkler (left) and a counterfeit TY3351 (right).

**Figure 2** shows the markings on the (damaged) deflector of the suspected counterfeit TY3351. The FM Approvals certification mark is in the lower right.



Figure 2. Photograph of the deflector markings on the counterfeit TY3351

**Figure 3** shows the inlets of the authentic TY3331 (left) and suspected counterfeit TY3351 (right). The orifice cap of the authentic sprinkler uses a drawn copper construction and has a flattened protrusion into inlet and appears very different to the counterfeit.

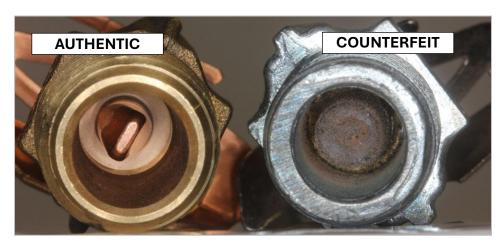


Figure 3. Photograph showing the inlets of the authentic TY3331 (left) and the counterfeit TY3351 (right)

**Figure 4** shows an authentic TY4151 (left) upright sprinkler next to a suspected counterfeit TY3151 sprinkler (right). The TY4151 is a K8.0 sprinkler and uses ¾ in. NPT thread but is otherwise identical to authentic TY3151 sprinklers. This TY4151 was used for comparison purposes only as it was available at the time of this product alert.

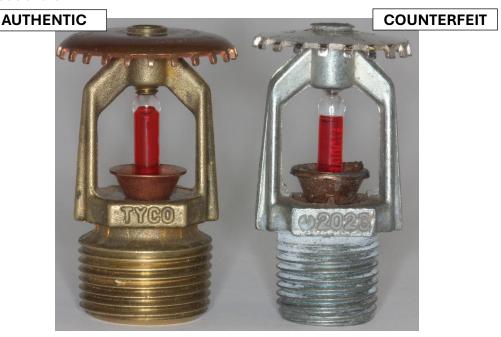


Figure 4. Photographs of an authentic TY4151 (left) and the counterfeit TY3151 (right).

**Figure 5** shows inlet views of the authentic TY4151 (left) and the suspected counterfeit TY3151 (left). The authentic TY4151 and TY3151 use the same drawn copper cap with the flattened inlet protrusion as the authentic TY3331/TY3351.

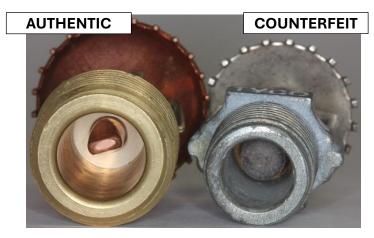


Figure 5. Photograph of an authentic TY4151 inlet (left) and a counterfeit TY3151deflector (right).

**Figure 6** shows the bulb markings of the suspected counterfeit TY3151 (top) and the authentic TY4151 (bottom). Like the counterfeit TY3351, the counterfeit TY3151also uses a bulb marked "ATOPØ5" while the authentic bulb is marked "Job G5."



Figure 6. Photographs of authentic orifice cap assemblies (left) and a counterfeit version (right).

**Figure 7** shows the markings on the deflector of the suspected counterfeit TY3151, including the FM Approvals certification mark.



Figure 7. Markings on the deflector of the counterfeit TY3151

**Figure 8** is a photograph of an authentic TY325 pendent sprinkler (left) and the suspected counterfeit TY325 (right). Authentic TY325 sprinklers use a newer, more compact frame design with rounded arms, while the counterfeit TY325 more closely resembles the frame used in the TY3351 and TY3151, with more angular arms.

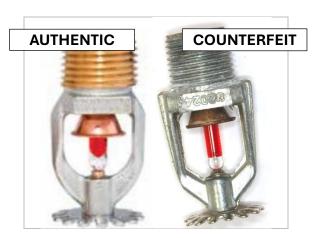


Figure 8. An authentic TY325 (left) and the counterfeit TY325 (right)

Figure 9 shows the deflector markings identified on the suspected counterfeit TY325 sprinkler.



Figure 9. Deflector markings on the counterfeit TY325