

Sprinklers

Quick, Easy, Accurate & Independent

Introduction

Our goal at Dyne is to provide you with a worry-free system for meeting your sprinkler testing needs. NFPA 25 requires building owners to sample test installed sprinklers by a recognized testing lab. NFPA 25 states a representative sample of sprinklers for testing shall consist of a minimum of not less than four sprinklers or 1 percent of the number of sprinklers per individual sprinkler sample area, whichever is greater.

Dyne performs a plunge oven test to determine the release time. These tests are designed to ensure the sprinkler will release in a specified time when exposed to specific temperatures. Pictures of the sprinklers are also taken before and after testing.

Laboratory

Our laboratory uses industry standards to test your sprinklers to make sure they will perform effectively in a fire situation.

Certifications

Dyne Fire Protection Labs has been certified by the International Standards Organization ISO 9001 "Standards for Quality Management Systems" and ISO/IEC 17025 Accredited "General Requirements for the Competence of Testing and Calibration Laboratories".

Free
standard
sprinkler
sample
kit



NFPA 25 - Standard for the Inspection, Testing and Maintenance of Water-Based Fire Protection Systems

Standards

- Procedure based on UL 199, Edition 13, Section 33.2 and NFPA 25 2023 Edition 5.3.1.1.
- Testing fulfills NFPA 25 2023 Edition 5.3.1.1.



Dyne Fire Protection Labs tests all types of fire sprinklers:

- Standard
- Fast Response
- Dry

Response Time

Dyne tests the response time of the sprinklers to ensure the sprinklers will release in a specified amount of time when exposed to a defined temperature and air flow. The acceptable response time is based on a response time index (RTI). The RTI requirements are listed below. Note that a sprinkler coated with a material for corrosion resistance (wax for example) is allowed extra time as defined in UL 199. The response time of coated standard response sprinkler is 180 seconds or the maximum response time (whichever is greater).

NFPA 25 2026 Edition Sprinkler Field Service Test Requirements		Scenario	Initial Test	Subsequent Test*
NFPA 25 section 5.3.1.2 states "a representative sample of sprinklers for testing in accordance with 5.3.1.1 shall consist of either a minimum of 4 sprinklers or 1 percent of the number of sprinklers per sample area, whichever is greater." Where multiple scenarios apply, most stringent testing interval shall be followed.		Sprinklers manufactured prior to 1920	Not Applicable – Replace	Not Applicable
		Sprinklers used for protecting commercial-type cooking equipment and ventilating systems	Not Applicable – Replace annually (unless annual exam shows no build-up of grease or other material on bulb-type sprinklers)	Not Applicable
		Sprinklers exposed to harsh environments (examples can be found in NFPA 25 A.5.3.1.1.2)	5 years after install (10 years if sprinkler listed as corrosion resistant)	Every 5 years thereafter
		Solder type sprinklers with a temperature classification of extra high (325 °F, 163 °C) or greater that are exposed to semi continuous to continuous maximum allowable ambient temperature conditions (maximum allowable ambient conditions can be found in NFPA 25 Table 5.4.1.6.2)	5 years after install	Every 5 years thereafter
		Dry Sprinklers	20 years after install	Every 10 years thereafter**
		ESFR and CMSA Sprinklers (using fast response elements)	20 years after install	Every 10 years thereafter**
		Sprinklers with Fast Response Elements	25 years after install	Every 10 years thereafter**
		Sprinklers that have been installed for 50 years in dwelling units	Replace with fast-response sprinklers	Representative samples of sprinklers shall be tested for RTI that does not exceed 65 (m/s) ^{1/2}
		All other sprinklers	50 years after install	Every 10 years thereafter**
Sprinkler Testing Services	Response Time	Sensitivity Test, Plunge Oven Test	Validation of sprinkler operation to ensure the sprinkler will release in a specified time when exposed to a defined temperature and air flow. The acceptable response time is based on the following response time index (RTI) values: • Early suppression fast response (ESFR) sprinklers require RTI value less than 50 (meters-seconds)^{1/2} • Fast response sprinklers requires RTI value less than 65 (meters-seconds)^{1/2} • Standard response sprinklers requires RTI value less than 350 (meters-seconds)^{1/2}	

*Only applies if all samples in initial/previous subsequent test sample pass and remaining sprinklers represented by that sample set remained in service.

**If the sprinklers ever reach 75 years of age, subsequent testing shall be every 5 years, regardless of scenario.