

TYCO IS HERE TO HELP



Tyco will work closely with you to make the installation of Rapid Response Residential Fire Sprinkler Systems a quick and easy addition to your new home construction. We can develop a customized builder program, including model home support, technical training and support, home buyer marketing materials, and cooperative marketing allowances to help you promote and profit from the installation of Rapid Response Residential Fire Sprinkler Systems in every home you build.

We look forward to working with you.



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HELP THEM PROTECT THEIR WORLD.



 **rapidresponse**[®]
RESIDENTIAL FIRE SPRINKLER SYSTEM
A Tyco International Company

SAVE LIVES

PROTECT PROPERTY

REDUCE DEVELOPMENT COSTS

INCREASE PROFIT OPPORTUNITY

CREATE A COMPETITIVE ADVANTAGE



HOME BUYERS ARE LOOKING UP TO TYCO FOR STATE-OF-THE-ART FIRE PROTECTION



Last year, over 300,000 fires in the home took the lives of over 3,000 men, women and children while injuring more than 14,000. These home fires caused property damage totaling more than 5 billion dollars.

It happens...

You build their dream home. Then in an instant, their home, their possessions, and tragically, the lives of those they love are lost when fire strikes.

Tyco wants to help you protect their world.

Introducing the **Rapid Response Residential Fire Sprinkler System** – state-of-the-art fire protection technology designed specifically for the home.



AESTHETICALLY PLEASING. AFFORDABLY PRICED.

Rapid Response Residential Fire Sprinklers come in a wide range of styles and colors that will complement any décor or home design. And, as technology has improved, the costs of installation have significantly decreased in most cases less than \$2.00 per square foot in new home construction.

To help offset the cost for home buyers, many insurance companies now offer discounts of up to 20 percent on homeowners' insurance premiums.



We can match any Sherwin-Williams color for Flat Plate and Domed Concealed Sprinklers you install.



SMART BUSINESS

Beyond saving lives and protecting property, installing a home fire sprinkler system is a smart business decision. Your commitment to building the highest quality, safest home possible, distinguishes you as a trusted industry leader. In addition, significant business-building benefits can result from site development incentives, called "trade ups" that can increase land use and decrease development costs. Lower development costs in combination with this easy safety up-sell opportunity will help to

**Increase the
profitability of every
home you build.**

There's never been a better time than now to begin making state-of-the-art fire protection technology an integral part of every home you build.

SPRINKLER SUCCESS IN SCOTTSDALE

Fire Deaths and Average Dollar Damage in 15 years since passing ordinance requiring a home fire sprinkler in every new home built in Scottsdale, Arizona.

	Homes With Fire Sprinklers	Homes Without Fire Sprinklers
Fire Deaths	0	13
Average Dollar Damage	\$2,166	\$45,019

Today more than 50 percent of the homes in Scottsdale, Arizona, are protected with fire sprinkler systems.

Success stories like Scottsdale, Arizona, have prompted the increase of home fire sprinkler installations in new home construction across the country.

RAPID RESPONSE RESIDENTIAL FIRE SPRINKLER SYSTEM

The Rapid Response Residential Fire Sprinkler System, designed specifically for the home, is the most complete system on the market today, meeting all the requirements specified by the National Fire Protection Association (NFPA) for residential use.

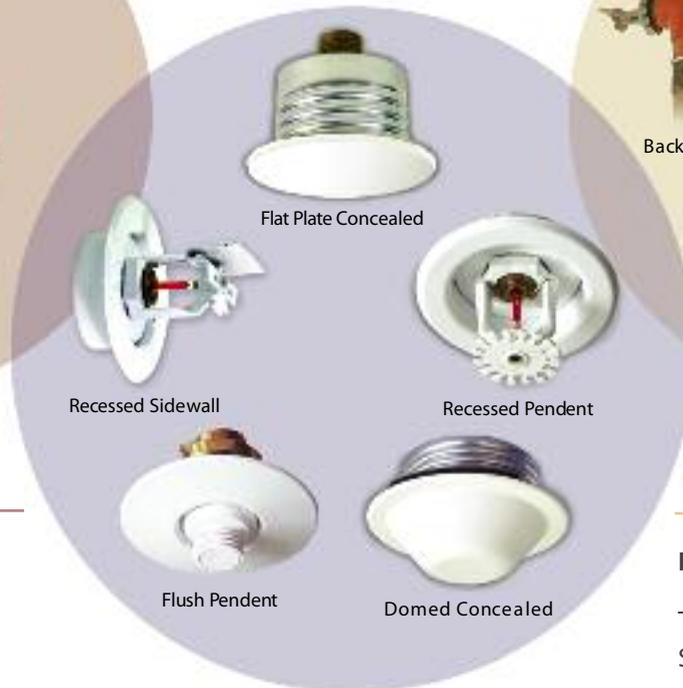
Beyond a diverse selection of sprinkler designs and finishes, the system features BlazeMaster® CPVC pipe and fittings, and a full line of system components.

MOST COMPLETE SYSTEM IN THE MARKET TODAY



SYSTEM COMPONENTS

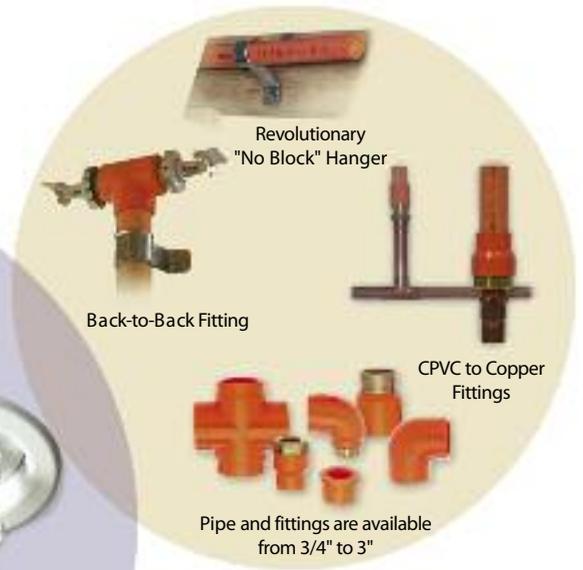
The Rapid Response Residential Fire Sprinkler System includes a full line of system components including riser assemblies, valves, water flow detectors, alarm bells and hangers.



SPRINKLER HEADS

Designed To Blend With Any Décor

Rapid Response sprinklers are available in a wide variety of styles, colors and finishes – including brass, chrome, white or custom colors – to blend with any décor and fit any home design.



PIPE & FITTINGS

Featuring BlazeMaster® Pipe & Fittings

The Rapid Response Residential Fire Sprinkler System features CPVC pipe and fittings manufactured with Lubrizol's BlazeMaster® compound.

BlazeMaster® CPVC offers outstanding fire performance and can be used across the entire Rapid Response Residential Fire Sprinkler System product portfolio.

HOW RAPID RESPONSE RESIDENTIAL FIRE SPRINKLERS WORK

A plan drawing for the system is prepared, taking into consideration room sizes, sprinkler coverage, pipe locations and water supply.

Individual sprinklers are located according to the system design. Sprinklers are linked by a network of CPVC piping hidden behind walls and ceilings in finished areas and are usually supplied by the household water source.

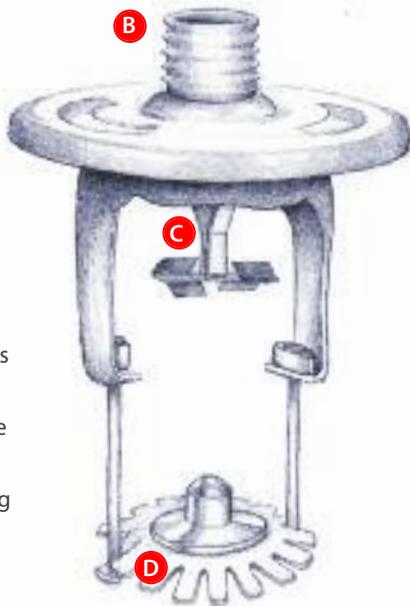
Even if you are building a custom home with unique layouts, high or sloped ceilings, or other distinctive elements – a wide variety of sprinkler designs make it possible to easily and aesthetically install a Rapid Response Residential Fire Sprinkler System.



A single residential pendent sprinkler can protect a room area up to 20' x 20'.



A Concealed Sprinkler
This sprinkler type mounts flush with the ceiling. The cover plate is held in place by solder that releases the plate at 135° F, clearing the way for the sprinkler to operate.



B Threaded Inlet
Connected to CPVC pipe through sprinkler head adapter.

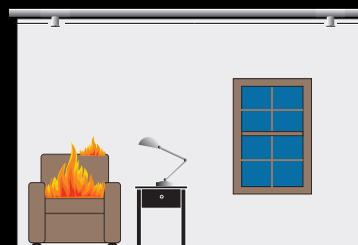
C Thermally Sensitive Element
Most residential sprinklers operate at 155°F. Only when the element reaches its operating temperature, the bulb bursts or the link assembly separates and allows water to flow.

D Deflector
The water stream hits the specially designed deflector and distributes the water in a unique pattern to control or suppress the fire.

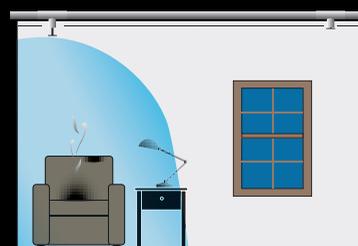
Illustrations of internal and external flat plate concealed sprinkler components.

In the unfortunate event that a home fire starts, the Rapid Response sprinkler closest to the flame activates to control or extinguish the fire before it can build deadly heat and smoke. This gives the family added time to escape safely, and helps limit damage to the home.

In less time that it takes the fire department to arrive on the scene, Rapid Response Residential Fire Sprinklers will contain or even extinguish a home fire – 90 percent of the time with only a single sprinkler activating.



Each sprinkler protects the area below it. Excessive heat activates the sprinkler over that area.



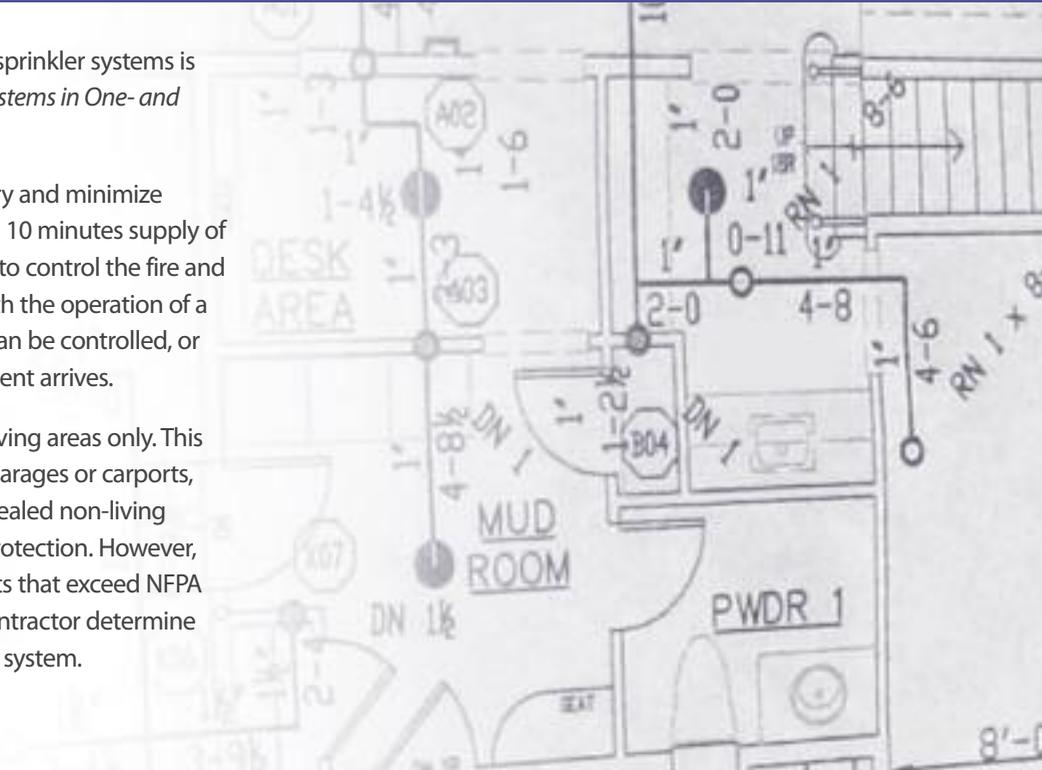
Only the sprinkler closest to the fire will activate, spraying water directly on the fire and the area that the sprinkler has been designed to protect.

THE STANDARD FOR INSTALLATION EXCELLENCE

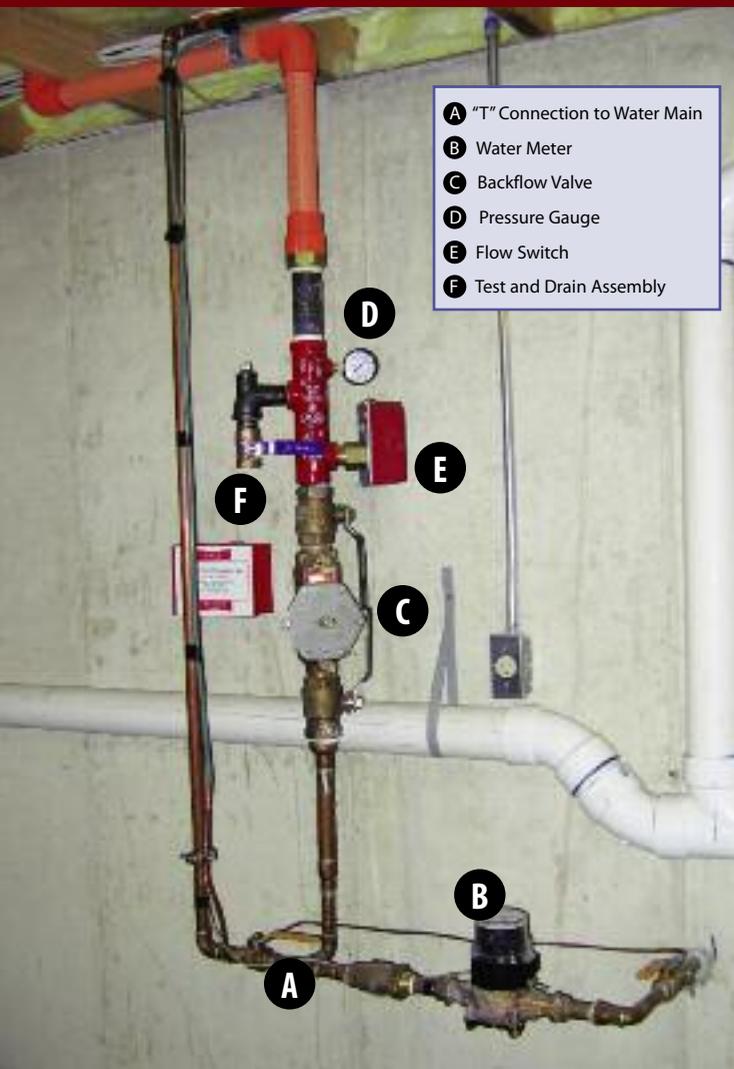
The national installation standard for home fire sprinkler systems is *NFPA 13D, Standard for Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes*.

NFPA 13D is intended to save lives, prevent injury and minimize property damage. The standard requires at least 10 minutes supply of sprinkler-delivered water on the fire in an effort to control the fire and give residents enough time to safely escape. With the operation of a home fire sprinkler system, a typical home fire can be controlled, or even extinguished, by the time the fire department arrives.

NFPA 13D requires sprinklers to be installed in living areas only. This means that small bathrooms, closets, pantries, garages or carports, attached open structures, attics, and other concealed non-living spaces, are exempt from mandatory sprinkler protection. However, local building authorities may have requirements that exceed NFPA 13D, so you'll want to have your fire sprinkler contractor determine local code requirements prior to designing your system.



INSTALLING A RAPID RESPONSE RESIDENTIAL FIRE SPRINKLER SYSTEM



In areas served by public water, the water supply for the fire sprinkler system comes directly from the household water main through a "T" connection either before or after the water meter. This is called the "riser".

The **riser** serves as the **brains of the system**. It features a pressure gauge, flow switch and a check or backflow valve (where required by code) and the test and drain assembly.

NFPA 13D doesn't require a **flow alarm**, but local codes may call for it. The **flow switch monitors any water flow** through the system and can be wired to an inside bell, or an outside horn or strobe, so as to alert neighbors of sprinkler activation in case a fire strikes when no one is home. The flow switch can also be connected to a monitored security system.

In some areas, **backflow prevention** devices are required. They work to **separate the water** used in the sprinkler system from the water used for household applications, in order to prevent any cross-contamination of potable water.

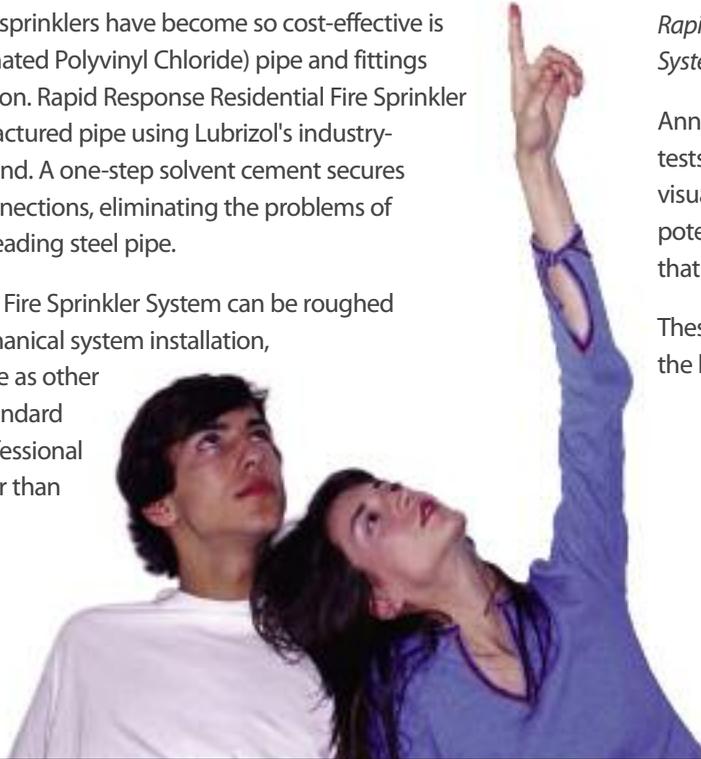
WHAT ABOUT HOMES ON A WELL OR WHERE WATER PRESSURE IS VERY LOW?

A pump and tank can provide the 10 minutes of adequate water pressure required by NFPA 13D.

LOW COST, SIMPLE INSTALLATION AND EASY TO MAINTAIN

One of the reasons home fire sprinklers have become so cost-effective is the lightweight CPVC (Chlorinated Polyvinyl Chloride) pipe and fittings now used for system installation. Rapid Response Residential Fire Sprinkler Systems feature CPVC manufactured pipe using Lubrizol's industry-leading BlazeMaster® compound. A one-step solvent cement secures the CPVC pipe and fitting connections, eliminating the problems of sweating copper joints or threading steel pipe.

A Rapid Response Residential Fire Sprinkler System can be roughed in anytime during other mechanical system installation, and trimmed at the same time as other contractors are working. A standard installation by a qualified professional installer should take no longer than one to two days.



Rapid Response Residential Fire Sprinkler Systems require very little maintenance.

Annual flow switch and water flow alarm tests ensure their proper operation, while visual system inspections help to identify potential system obstructions and assure that all valves are open.

These tests can easily be performed by the homeowner.

SELECTING YOUR INSTALLATION PARTNER

One of the most important decisions you'll make is choosing your sprinkler installation partner. It is critically important that you select an experienced sprinkler system installer that is knowledgeable about, and will strictly adhere to the NFPA standard.

A good sprinkler contractor will help you with:

- Code concerns
- Water usage issues
- Permit requirements
- Staying on schedule and budget

The sprinkler contractor will:

- Design the system
- Prepare shop drawings and hydraulic calculations to meet code requirements
- File proper permits during approval process
- Coordinate with other Trades



PROPER SPRINKLER PLACEMENT

Using your home's floor plans, the sprinkler system designer will determine the pipe routing, sizing, and the proper number, type and layout of sprinklers throughout the home.

Often, a room will be protected by a single sprinkler covering up to a 20' x 20' area. Larger areas may require more than one sprinkler. In multiple story installations, sidewall style sprinklers can eliminate the need for pipe in cold attic spaces.

RESIDENTIAL FIRE SPRINKLERS ARE SMART BUSINESS

Over and above the life- and property-saving benefits of residential fire sprinkler systems, your business may be able to benefit from cost-saving incentives offered by many municipalities – called “trade ups” – for committing to fire sprinkler installations in the new homes you build.

Trade ups in the form of zoning and site development incentives can increase land use, decrease development costs, and improve the overall profitability of every home you build.



TYPICAL TRADE UPS INCLUDE:

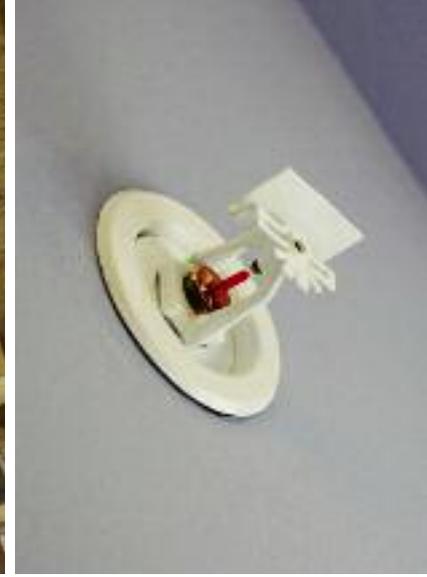
- **Street width reduction** – substantially reducing the amount of pavement in every linear foot of street in the development
- **Additional units permitted** – increases of up to 20 percent are not uncommon
- **Longer dead-end streets** – allows for additional building lots to be accessed
- **Increased hydrant spacing** – fewer fire hydrants equate to lower development costs
- **Increased street grades and building setbacks** – steeper street grades and building locations further from paved fire vehicle access may be permitted
- **“T” turnarounds permitted** – could create at least one additional lot per cul-de-sac
- **Required fire hydrant flow can be greatly reduced** – Fire flow is the major factor in water main size – lower fire flows nearly always mean smaller mains

A Reese-Carr Report of Scottsdale, Arizona, concluded that after considering municipal trade ups, the overall cost of installing residential fire sprinkler systems could be less than \$200 per unit.

Even without these significant incentives, sprinklers can be installed in the average new home for less than \$2.00 per square foot.

Finally, installing residential fire sprinklers in every home you build provides you with a competitive advantage and positions you as a market leader. Prospective home buyers will trust that you will be building them a state-of-the-art home with advanced safety and fire protection technology.

A Home Fire Sprinkler Coalition survey showed that builders who offer fire sprinklers as a standard feature of new homes are viewed as being “safety concerned” (70%), “innovative” (52%), and “caring” (51%). Thirty nine percent of homeowners said they would be more likely to hire such a builder to build their house over a builder that does not offer fire sprinklers as a standard feature.



In most communities, home fire sprinklers are a recognized public safety improvement. You are encouraged to meet with local fire service, building code and town officials about your intentions to install Rapid Response Residential Fire Sprinkler Systems in every new home you build.

RECOMMENDING RAPID RESPONSE RESIDENTIAL FIRE SPRINKLER SYSTEMS TO YOUR HOME BUYERS

Tyco is taking a leadership role with homebuilders and home buyers to encourage the inclusion of state-of-the-art fire protection technology in every new home built.

A recent national poll commissioned by the Home Fire Sprinkler Coalition found that **45%** of US homeowners said a sprinklered home was more desirable than an unsprinklered home. **69%** of homeowners believe having a fire sprinkler system increases the value of their home, and **38%** said they would be more likely to purchase a new home with sprinklers than without.

We're pleased to offer you point-of-purchase marketing materials to help you recommend the installation of a Rapid Response Residential Fire Sprinkler System to prospective home buyers.



AVAILABLE MATERIALS INCLUDE:

Counter Display – overviews the benefits of installing a Rapid Response Residential Sprinkler System. Includes pocket to hold educational brochures.

Educational Brochure – discusses features and benefits of the Rapid Response Residential Fire Sprinkler System and illustrates how home fire sprinklers work to contain or even extinguish a fire.

Educational DVD – 3-minute video presentation overviews the features and benefits of the Tyco Rapid Response Residential Fire Sprinkler System.



To order your marketing materials, please visit our Web site at www.tyco-rapidresponse.com



SYSTEM GUIDE AND INSTALLATION SUPPORT

Recognizing that residential sprinklers are being installed in many areas where conditions are not described specifically in the code standards, Tyco has developed the *Rapid Response Residential Fire Sprinkler System Design Guide*.

The Design Guide covers many topics including sloped ceiling conditions, obstructions to the sprinkler pattern, location of sprinklers in odd shaped rooms or near heat sources, and much, much more.

