

Rapid Seal Adapter (RSA) Fittings Sprinkler Installation and Gasket Replacement

General Description

Rapid Seal Adapter (RSA) Fittings are intended for use in fire protection sprinkler systems comprised of CPVC pipe and fittings. A gasket housed within the fitting eliminates the need to apply sealant to sprinkler threads and reduces the effort necessary to complete a leak-free installation.

These installation instructions do not take the place of nor do they eliminate the need for the installer to fully read and understand the complete CPVC Fire Sprinkler Products Installation Instructions and Technical Handbook IH-1900 and individual product technical data sheets. Current documentation can be obtained by contacting Johnson Controls or visiting www.tyco-fire.com.

Technical Data

Approvals

UL and C-UL Listed
FM Approved
LPCB Certified
NSF-pw Certified

Maximum Working Pressure

175 psi (12,1 bar)

Pipe Thread Connection

1/2 in. NPS

IMPORTANT

Refer to Technical Data Sheet TFP2300 for warnings pertaining to regulatory and health information.

Always refer to Technical Data Sheet TFP700 for the "INSTALLER WARNING" that provides cautions with respect to handling and installation of sprinkler systems and components. Improper handling and installation can permanently damage a sprinkler system or its components and cause the sprinkler to fail to operate in a fire situation or cause it to operate prematurely.

Physical Characteristics

Housing BLAZEMASTER CPVC Compound
Cap BLAZEMASTER CPVC Compound
Gasket Polyurethane

Installation

The TYCO Rapid Seal Adapter Fittings must be installed in accordance with this section.

Installing a Sprinkler in an RSA Fitting

Install a sprinkler in an RSA fitting in accordance with the following procedure.

Refer to individual sprinkler data sheets for additional information including required sprinkler wrenches.

CAUTION

Do not apply thread sealant or TEFLON thread tape on sprinklers intended to be installed in RSA Fittings. Thread Sealant or TEFLON tape may not allow the sprinkler to seat properly and cause leakage and/or equipment failure.

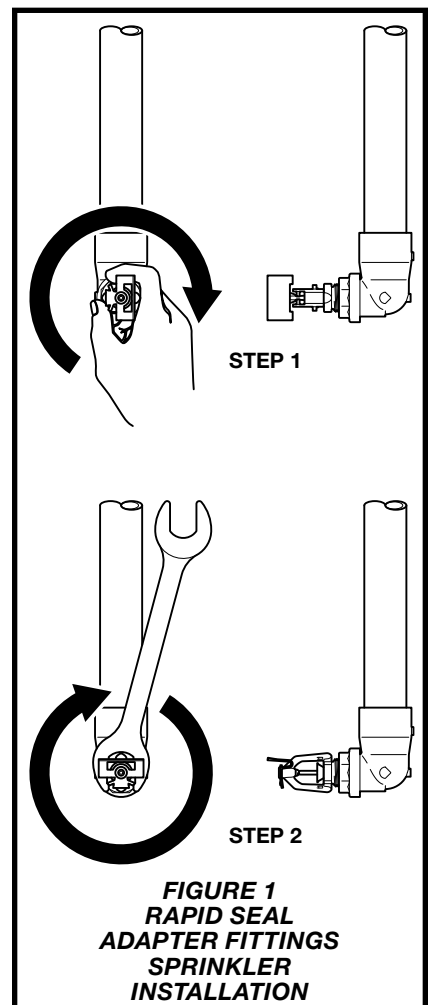
Step 1. Ensure the sprinkler threads are clean and do not have thread sealant such as tape or paste applied. Avoiding cross-threading, gently thread the sprinkler into the fitting and hand-tighten until the sprinkler makes contact with the gasket.

CAUTION

Do not over-torque sprinklers when wrench-tightening with the manufacturer required sprinkler wrench. Over-torquing may result in equipment damage.

For recessed applications do not attempt to compensate for insufficient sprinkler depth within the Escutcheon Plate by under- or over-tightening the sprinkler. Re-adjust the sprinkler fitting position to suit.

Step 2. Orient the sprinkler as needed by applying the manufacturer specified sprinkler wrench to the sprinkler wrench flats and tighten up to an additional full turn, or by applying up to a maximum torque of 7 lb-ft (9,5 N·m).



**FIGURE 1
RAPID SEAL
ADAPTER FITTINGS
SPRINKLER
INSTALLATION**

Care and Maintenance

The TYCO Rapid Seal Adapter Fittings must be maintained and serviced in accordance with this section.

Before closing a fire protection system main control valve for maintenance work on the fire protection system that it controls, obtain permission to shut down the affected fire protection system from the proper authorities and notify all personnel who may be affected by this decision.

After placing a fire protection system in service, notify the proper authorities and advise those responsible for monitoring proprietary and/or central station alarms.

The owner is responsible for the inspection, testing, and maintenance of their fire protection system and devices in compliance with this document, as well as with the applicable standards of the NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) such as NFPA 25, in addition to the standards of any authority having jurisdiction. Contact the installing contractor or product manufacturer with any questions. Any impairments must be immediately corrected.

Automatic sprinkler systems are recommended to be inspected, tested, and maintained by a qualified inspection service in accordance with local requirements and/or national codes.

Replacing a Gasket in an RSA Fitting

NOTICE

Gasket Replacement and its associated tools were not evaluated as part of the UL Listing program.

In the event that a sprinkler, installed in an RSA fitting longer than six months, is removed due to damage or activation, the RSA fitting or the RSA fitting gasket must be replaced.

Step 1. Remove the sprinkler from the RSA fitting.

CAUTION

Use caution when removing the gasket to avoid damaging the adapter threads. Failure to do so may result in equipment damage or failure.

Step 2. Use the rapid seal gasket removal pick as shown in Figure 2 to carefully remove the gasket from the RSA fitting. Discard the old gasket.

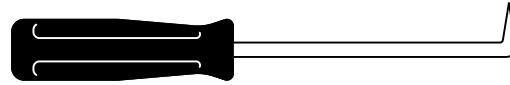
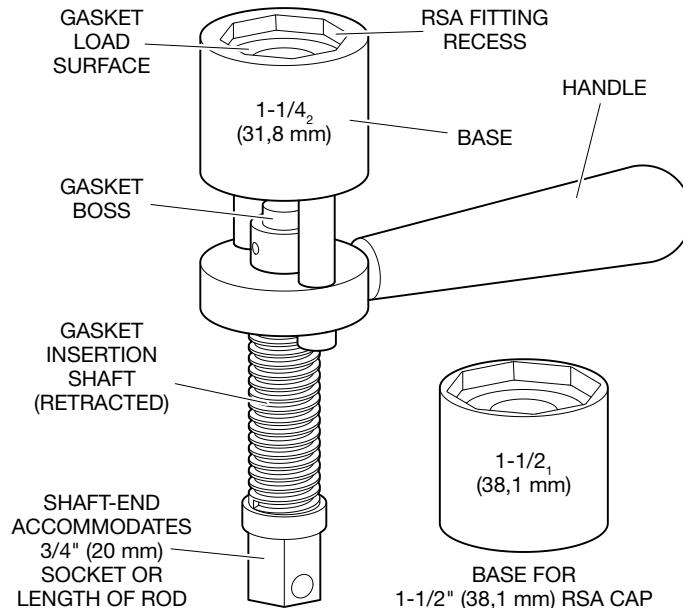


FIGURE 2
RAPID SEAL GASKET REMOVAL PICK



Notes:
1. 1-1/2 in. (38,1 mm) base used to replace gaskets in Version 1 adapters
2. 1-1/4 in. (31,8 mm) base used to replace gaskets in Version 2 adapters

FIGURE 3
RAPID SEAL GASKET REPLACEMENT TOOL

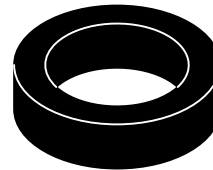


FIGURE 4
RAPID SEAL REPLACEMENT GASKET

Step 3. Verify that the RSA fitting port is clean and free of all debris, chips, or burrs. Failure to do so may result in equipment damage or failure.

Step 4. Ensure the tool base socket is the correct size, 1 1/4 in. (31,8 mm) or 1 1/2 in. (38,1 mm), for the RSA fitting.

Note: To change the base socket, remove two socket head cap screws using a 3/16 in. (4,5 mm) hex key wrench.

Step 5. Rotate the rapid seal gasket replacement tool insertion shaft, as shown in Figure 3, counter-clockwise until fully retracted. Place the rapid seal replacement gasket, as shown in Figure 4, onto the shaft end boss and rotate the shaft clockwise until the gasket is flush with the surface of the base recess.

Step 6. Holding the rapid seal gasket replacement tool base recess shown in Figure 3 firmly against the face of the RSA fitting, rotate the insertion shaft until fully engaged. Remove the rapid seal gasket replacement tool from the RSA and verify that the gasket is evenly seated and fully installed in the RSA fitting port.

Step 7. Install the replacement sprinkler in accordance with the Installing a Sprinkler in an RSA Fitting section in this data sheet.

Limited Warranty

For warranty terms and conditions, visit
www.tyco-fire.com.

Ordering Procedure

Contact your local distributor for availability. When placing an order, indicate the full product name and Part Number (P/N).

Rapid Seal Adapter

(Version 1, Phasing-Out)

Specify: Rapid Seal CPVC Sprinkler Adapter, (specify type), (specify size, Inch Slip x NPS), P/N (specify):

Female

3/4 (DN20) x 1/2 80175RS
1 (DN25) x 1/2 80176RS

Spigot

1 (DN25) x 1/2 80178RS

90° Elbow

1 (DN25) x 1/2 80198RS
3/4 (DN20) x 1/2 80199RS

Rapid Seal Adapter

(Version 2, Phasing-In)

Specify: Rapid Seal CPVC Sprinkler Adapter, (specify type), (specify size, Inch Slip x NPS), P/N (specify):

Female

3/4 (DN20) x 1/2 80175RS2*
1 (DN25) x 1/2 80176RS2

Spigot

3/4 (DN20) x 1/2 80177RS2
1 (DN25) x 1/2 80175RS2*

90° Elbow

3/4 (DN20) x 1/2 80199RS2
1 (DN25) x 1/2 80198RS2

Tee

3/4 (DN20) x 3/4 (DN20) x 1/2 80250RS2
1 (DN25) x 1 (DN25) x 1/2 80251RS2

Back to Back Tee

1 (DN25) x 1/2 x 1/2:
3 3/8 in. (85,7 mm) E-to-E 80460RS2
3 5/8 in. (92,1 mm) E-to-E 80459RS2

Back to Back Cross

1 (DN25) x 1 (DN25) x 1/2 x 1/2:
3 3/8 in. (85,7 mm) E-to-E 80462RS2
3 5/8 in. (92,1 mm) E-to-E 80463RS2

* Part number 80175RS2 is a dual purpose fitting, usable as either a 3/4 in. (DN20) female adapter or a 1 in. (DN25) spigot adapter.

Replacement Tools and Gasket

Rapid Seal Gasket Replacement Tool 3060
Rapid Seal Gasket Removal Pick 3061
Rapid Seal Replacement Gasket (Qty 10) .3062

