

Adjustable Drop Nipple

Merit® Eliminator Adjustable Drop Nipples provide the user with the ability to adjust fire sprinkler assemblies (concealed, recessed, or pendent) to fit flush to the finished ceiling without having to cut a drop nipple or drain the system.

- Available in two models, female or male thread inlet, with three standard lengths with adjustment up to 3" (7.62 cm)
- UL Listed, FM Approved, and BSA-NYC Approved for installation to NFPA Bulletin 13 requirements. VdS Approved for the European market.
- Cold formed from steel conforming to ASTM Grade.
- Inner nipples employ two (2) "O-Rings" to provide added assurance of sealing. The "F" Model is designed to keep "O-Rings" from impinging upon the one inch (1") inlet threads when fully retracted.
- The bore of the outer nipple is precision formed to a close tolerance while held to a microfinish of 50 to provide for positive sealing of the "O-Rings".
- Each unit is hydrostatically tested to insure "O-Ring" integrity prior to shipment.
- Each unit is marked with a lot number to insure full traceability.
- Qualifying tests on all models are performed at 1500 psi, while the various models are rated for 300 psi operation.
- Threads are cut to be better than or equal to the requirements of ANSI B1.20.1, NPT or ISO-7-1 threads.



For Listings/Approval Details and Limitations, visit our website at www.asc-es.com or contact an ASC Engineered Solutions™ Sales Representative.

Product Approvals

Eliminator Adjustable Drop Nipple:
(UL VGSQ - EX3829, FM Approval Guide Chapter 1 -
Adjustable Sprinkler Fittings VdS Certificate #G4930033 BSA: 886-86-SA)

Adjustable Drop Model	Inlet x Outlet Size	Adjustment	Equivalent Length	Rated Pressure	Max. Ceiling Ambient Temperature
NPT	In./mm	In./mm	Ft./M	psig	F/C
M1.150	1 x ½	1	1	300	300° 148°
	25 x 13	25.4	0.3		
M3.150	1 x ½	3	1		
	25 x 13	76.2	0.3		
ME3.150	1 x ½	3	1		
	25 x 13	76.2	0.3		
F1.150	1 x ½	1	4.2		
	25 x 13	25.4	1.3		
F2.150	1 x ½	2	1.3		
	25 x 13	50.8	0.4		
F3.150	1 x ½	3	1.5		
	25 x 13	76.2	0.5		
F3.175	1 x ¾	3	2.9		
	25 x 19	76.2	0.9		

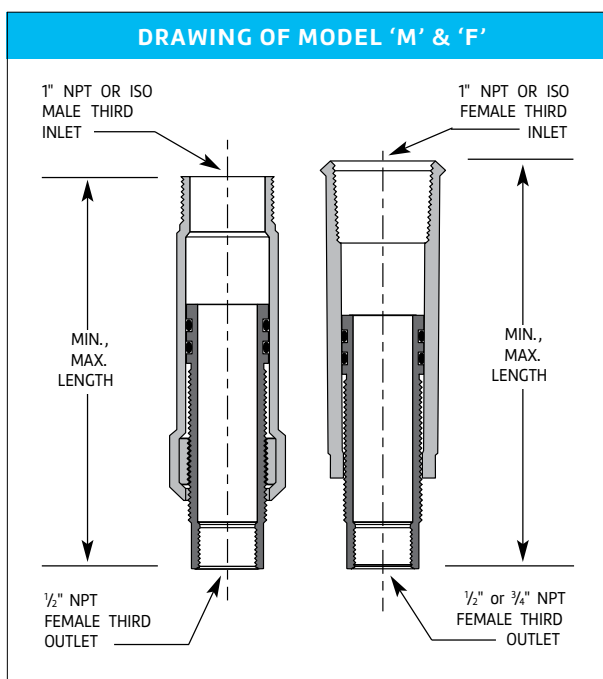
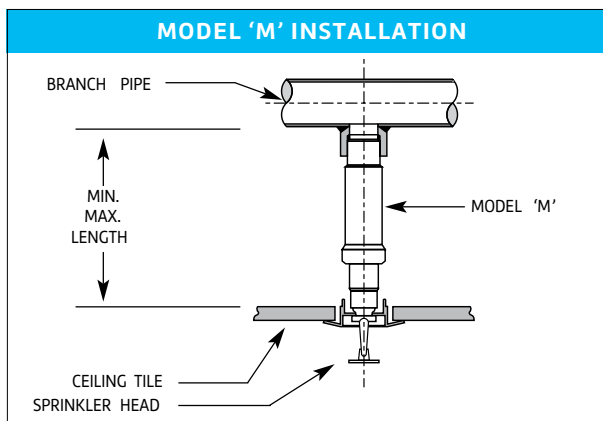
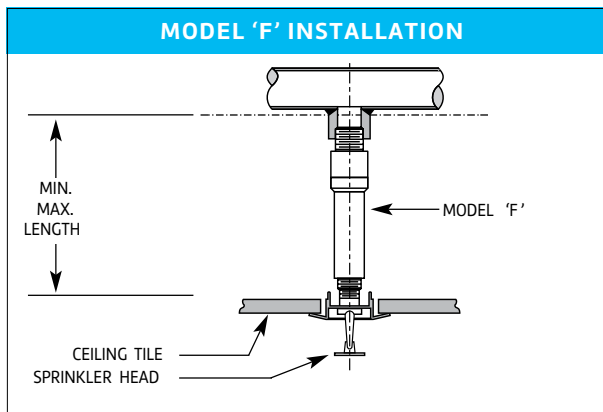
Eliminator Adjustable Drop Nipple

Model Number	Part #	Inlet	Outlet	Minimum Length	Maximum Length	Maximum Adjustment	Maximum Sprinkler Orifice	Weight
	NPT/ISO	NPT/ISO	NPT/ISO	In./mm	In./mm	In./mm	In./mm	Lbs./kg
M1.150*	531150	1" Male	½" Female	4.125	5.125	1.00	0.531	1.00
	551150	25 mm Male	13 mm Female	104.8	130.2	25.4	13.5	0.45
M3.150	533150	1" Male	½" Female	6.125	9.125	3.00	0.531	1.25
	553150	25 mm Male	13 mm Female	155.6	231.8	76.2	13.5	0.57
ME3.150*	543150	1" Male	½" Female	7.875	10.875	3.00	0.531	1.50
	563150	25 mm Male	13 mm Female	200.0	276.2	76.2	13.5	0.68
F1.150	501150	1" Female	½" Female	3.500	4.500	1.00	0.625	0.80
	511150	25 mm Female	13 mm Female	88.9	114.3	25.4	15.9	0.36
F2.150*	502150	1" Female	½" Female	4.500	6.500	2.00	0.625	1.00
	512150	25 mm Female	13 mm Female	114.3	165.1	50.8	15.9	0.45
F3.150	503150	1" Female	½" Female	5.500	8.500	3.00	0.531	1.25
	513150	25 mm Female	13 mm Female	139.7	215.9	76.2	13.5	0.57
F3.175	503175	1" Female	¾" Female	7.350	10.350	3.00	0.625	1.40
	513175	25 mm Female	19 mm Female	186.7	262.9	76.2	15.9	0.64

*Special Order.
Length Tolerance ± ¼".

PROJECT INFORMATION	APPROVAL STAMP
Project:	Approved
Address:	Approved as noted
Contractor:	Not approved
Engineer:	Remarks:
Submittal Date:	
Notes 1:	
Notes 2:	

Adjustable Drop Nipple



Installation

- For use in wet and dry pipe automatic sprinkler systems installed in accordance with all applicable standards or codes. (See item 4)
- Before starting the job of making sprinklers into steel threads of the above fittings, count the number of fully developed male threads on the brand of sprinkler to be installed into the fittings. If seven (7) perfect threads are counted, the sprinkler should thread into the 1/2" or 3/4" thread from three (3) to four (4) threads hand tight. If five (5) to six (6) threads are counted, the sprinkler should thread into the 1/2" or 3/4" thread from two (2) to three (3) threads hand tight.
- The use of an anaerobic pipe thread sealant is preferred for thread make up when connecting to another pipe fitting or nipple. If attaching a sprinkler head, please refer to the manufacturer's installation instructions and apply pipe thread sealant only to male threads of the sprinkler.
- If either of the above fails to allow the sprinkler to make-up to a minimum of from five (5) to six (6) full threads, do not over tighten the sprinkler. Instead back the sprinkler out of the fitting. Clean any debris and/or pipe sealant from both the male and female threads. Gauge both the male threads of the sprinkler and the female threads of the Adjustable Drop Nipple for compliance with ANSI B1.2.1. Specification for Tapered Pipe Threads. The same procedure would apply if a leak has been detected. If within tolerance, reapply the anaerobic pipe sealant and make-on to the required length. Allow twenty-four hours for setting.
- Connect the Adjustable Drop Nipple assembly to the sprinkler system by wrenching on the make-up area on the Drop Nipple. **DO NOT WRENCH ON THE BARREL PORTION OF THE UNIT OR SPRINKLER.** Damage to the Adjustable Drop Nipple or Sprinkler may result.
- After the ceiling has been installed adjust the sprinkler to its final position by using the sprinkler wrench and assemble the escutcheon plate to the inner support ring. It is recommended that the system pressure be relieved when adjusting, however it is not necessary to drain the system.

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1 General Description

Merit Eliminator Adjustable Drop Nipples Models “M” and “F” are the screw type consisting of an outer case which has one (1) inch N.P.T. or ISO-7 male or female thread on the inlet, and an inner case which has either a one-half inch (½”) or a three-quarter inch (¾”) N.P.T. sprinkler connection. The inner case employs O-Ring Seals and adjusts either in or out over the range of the adjustment. Merit Eliminator Adjustable Drop Nipples are designed for use in automatic fire sprinkler systems installed in accordance with all applicable standards or codes. (See item 4). The purpose of these fittings is to allow for the final adjustment of the drop nipple between a branch line and a pendant sprinkler by eliminating the need to re-cut the existing drop nipple in order to fit-up flush to the ceiling. Merit Eliminator Adjustable Drop Nipples do not require any secondary locking following final adjustment and they will not extend as a result of vibrations or pressure surges in the system.

2 Approvals & Standards

Merit Eliminator Adjustable Drop Nipples are listed by the Underwriters Laboratories, Inc. (UL Listing Number 5750) and approved by the Factory Mutual Research Corporation (FM). In addition, Model “M” and “F” Adjustable Drop Nipples are approved by the New York Board of Materials and Equipment Standard (BSA-886-86-5A) and verband der Schadenversicherer e.V., (Vds).

3 Technical Data

Merit Adjustable Drop Nipples are rated for use at a maximum temperature of 300°F, and a maximum service pressure of 300 psi. The approximate friction loss based on the Hazen and Williams Formula expressed in equivalent length of one (1) inch, schedule 40 pipe (where C= 120) is 1' for ½” outlet Model “M”, 2.6' for ¾” outlet Model “M”, 4.2' for F1, 1.3' for F2, 1.5' for F3.150, and 2.9' for F3.175. Merit Eliminator Drop nipples maximum sprinkler orifice size for Models M3.150, ME3.150, M1.150, and F3.150 is ¹⁷/₃₂” and Models F1.150, F2.150 and F3.175 is ⁵/₈”. The inlet and outlet threads conform to ANSI B1.20.1 / ISO-7R/RC. The O-Ring seals used in the manufacture are an ethylene propylene elastomer (EPDM). The outer and inner casings are manufactured from high strength carbon Steel. All Model “M” and “F” Adjustable Drop Nipples are hydrostatically tested for O-ring integrity prior to shipment.

4 Warning

Adjustable Drop Nipples described herein must be installed and maintained in compliance with this document as well as the applicable standards of the National Fire Protection Association in addition to the standards for any other authorities having jurisdiction. **DO NOT USE ANY PETROLEUM BASED LUBRICANTS ON THE O-RING SEALS.** Petroleum based lubricants are incompatible with EPDM and will impair serviceability of the unit.