



Certificate of Conformity

Certificate num.	Registration date	Version	Valid until	
afp - 1584	21-Mar-2003	Number 21	Issue date 28-Apr-2022	30-Apr-2023

Product designation

AFT flexi-dropper™, YB25 series, 25 mm braided, flexible sprinkler dropper

(Refer to the Schedule/enclosures for further specified details)

Agent/distributor

AFT Fire Supplies Pty Ltd
6 Sir Joseph Banks Street, BOTANY, NSW, AUSTRALIA, 2019

Registrant

AFT Fire Supplies Pty Ltd
6 Sir Joseph Banks Street, BOTANY, NSW, AUSTRALIA, 2019

Producer

Yong Won E.N.C., Ltd
Jeil Building, 5th Floor, #44-35, Yoido-Kong, YUNGDENGPO-GU, SEOUL, KOREA, REPUBLIC OF, 150-010

Conformance criteria and evaluation

The AFT flexi-dropper™, YB25 series, 25 mm braided, flexible sprinkler dropper has been evaluated and verified as conforming with the relevant requirements of the following criteria.

1. Australian Standard AS 2118.1:2017, Clause 7.6, 'Automatic fire sprinkler systems, Part 1: General systems'.
2. Australian Standard AS 2118.1-2006, Clause 7.6, 'Automatic fire sprinkler systems, Part 1: General systems'.
3. Underwriters Laboratories Standard UL 2443, Edition 1, 24 Aug 2006, 'Standard for Safety for Flexible Sprinkler Hose with Fittings for Fire Protection Service'.
4. Underwriters Laboratories - Evaluation and listing, 'UL listing'.
5. Approval Standard FM Class Number 1637, 'Approval Standard for Flexible Sprinkler Hose With Threaded End Fittings'.
6. Factory Mutual - Evaluation and approval, 'FM approval'.
7. SSL Appraisal Specification FAS-112, Version 1.0, 'Rigid and Flexible Type Adjustable Pipe Droppers for Sprinkler Systems'.

This certification is issued within the scope of CSIRO Verification Services – Rules governing ActivFire Scheme and is valid only for the product(s) as submitted for evaluation and verification of conformity, subject to the following conditions.

- Reference to details, limitations and requirements, where documented as a schedule/enclosure with this certificate.
- The Registrant is responsible for their attestation of conformity and ensuring that on-going production complies with the conformance criteria defined in this certificate.
- This certificate will not be valid if any changes or modifications are made to the product which have not been notified and validated by CSIRO Verification Services.
- This certificate is subject to periodical re-validation upon verification that all requirements, as determined by the conformity assessment body, continue to be satisfactorily met by the Registrant.
- This certificate may only be reproduced in its published form, without modification and inclusive of all schedules/enclosures.
- Any changes, errors or omissions, must be submitted in writing and if necessary or requested, substantiated with relevant evidence.
- Any representations, such as advertising or other marketing related activities or articles shall reflect the correct contents of this certificate and conform with all relevant trade practices and consumer protection legislation and regulations.
- Any terms or conditions of use as applicable to content and documentation as published or accessed through web sites administered by the CSIRO Verification Services.

Issued by

David Whittaker
Executive Officer – ActivFire Scheme



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Limitations/conditions of conformance

Limitations/conditions of conformance, where identified on this certificate, are derived from qualifications from evaluation(s) for conformity and/or other related technical documentation. All details with respect to design, assembly and installation instructions and restrictions should be checked against the producer's current technical manual/data sheets and the requirements of the Authority having Jurisdiction.

Specified limitations/conditions, determined from the evaluation for conformity, include the following.

- i. Installation in accordance with the limitations and requirements contained in AFT "flexi-dropper™" Data Sheet. Copies of these documents are available from the designated supplier.
- ii. All "flexi-dropper™" installations shall use only the ceiling-grid method of support, as detailed in the provided manufacturer's installation instructions supplied with the "flexi-dropper™" hardware.
- iii. Rated pressure 1380 kPa.
- iv. Maximum ambient temperature 149°C.

Producer's description

The AFT flexi-dropper™, YB25 series, 25 mm braided, flexible sprinkler dropper consists of a stainless-steel flexible metallic hose assembly with a special inlet nipple and a special outlet nipple plus a custom-ordered set of light-weight support components.

The AFT flexi-dropper™, YB25 series, 25 mm braided, flexible sprinkler dropper is intended to be used where it is desired to provide a convenient and low-cost means of installation and relocation of the sprinkler heads, eg. in a multi-tenancy rental office building where occasional re-arranging of partition wall layouts is necessary. One of the principal advantages of using the flexi-dropper™ is the substantial cost-saving made by not having to *accurately* install the fixed pipework.

The flexi-dropper™ hose assembly has an identical female "slip-nut" at each end to facilitate connection to the supplied special nipples. The inlet nipple is threaded DN25 male BSP at one end, the other end having a male thread to suit the "slip-nut" of the hose assembly. The straight or ninety degree outlet nipple has a male hose "slip-nut" thread at one end and a DN15 female BSP thread, for installation of the sprinkler head, at the other end. Each "slip-nut" joint is fitted with an NBR 'O' ring to provide leak-free sealing with little more than firm hand-tightening of the "slip-nut".

The light-weight support components consist of a 650 mm or 1300 mm or 1600 mm length of steel square hollow section (SHS), two identical extruded aluminium or steel clamps for securing the SHS to the ceiling supporting channels, and a steel support bracket for rigidly clamping the outlet nipple to the SHS. The bracket and clamps provide a convenient and quick means of accurately setting-up the location of the sprinkler head relative to the ceiling grid. The aluminium or steel clamps are available with a nominal height of 38mm, 58 mm and 76 mm (for normal pendent-mounted sprinkler heads) and 76 mm or 90 mm (for recessed and fully-concealed) type sprinkler heads).

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Technical specification

The following details are a representative extract of the technical specification for the AFT flexi-dropper™, YB25 series, 25 mm braided, flexible sprinkler dropper and may be subject to change. Complete and current details should be determined from the designated producer's technical manual/data sheets.

AFT, flexi-dropper™, YB25 series, 25mm braided, flexible sprinkler hose fitting:

1. "flexi-dropper™" assemblies and design characteristics:

Model	Nominal length (mm)	Nominal inlet by outlet size (mm)	Equivalent length of Schedule 40 (DN25) pipe (metres)	Max num. of 90° bends	Min. bend radius (mm)
YB25-700	700	25 x 15	6.71	2	76
		25 x 20	8.53		
YB25-1000	1000	25 x 15	11.89	3	76
		25 x 20	16.47		
YB25-1200	1200	25 x 15	17.08	3	76
		25 x 20	19.21		
YB25-1500	1500	25 x 15	17.98	3	76
		25 x 20	22.57		
YB25-1800	1800	25 x 15	20.43	3	76
		25 x 20	22.57		

2. Typical dimensions of hose assembly:

Dimension	Value (mm)
Overall length of hose assembly	Nom. length less 180
O.d. Of braided sleeve	27
Length of braided sleeve	Nom. length less 300
I.D. of tube	25.3
Wall thickness of tube (approx.)	0.3
A/f measurement of union nut (hexagonal)	38
Length of nut	22
Across-corners measurement of nut	41
Sleeve retaining ring o.d.	35
Sleeve retaining ring length	10
Internal thread of union nut	36.0 x 2.0 S.I. form

3. Materials and finishes:

Component	Material	Finish
Hose tube	304 SS	Bright-drawn
Braided sleeve	0.3 mm 304 SS Wire	Bright-drawn
Slip-nut	Brass, BSC 3771	Grit-blasted
Sleeve-retaining ring	Brass, BSC 2700	Grit-blasted
Inlet nipple	Mild Steel	Electroplated zinc
Outlet nipple	Mild Steel	Electroplated zinc
Mounting bracket	Mild steel	Electroplated zinc
SHS clamps	Aluminium	Grid-blasted
Mounting-bar (SHS)	Mild Steel	Bright-drawn

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Supplementary information

Schedule of relevant articles

The following schedule is an extract of articles significant and/or related as evidence of conformity.

Reference		Title / description	Date issued (or date validated)	Source
Ident. type	Ident.			
File ref.	VENF.EX15531	VENF.EX15531, Flexible Sprinkler Hose with Fittings (ul_w3_VENF.EX15531.AFT-FlexHose_v_2020-11-06.pdf)	6-Nov-2020	Underwriters Laboratories Inc., US; UL Product iQ™
Extract	fm_w3_YongWenModelYB25_v_2020-11-06.pdf	Model YB25 Product Specification (fm_w3_YongWenModelYB25_v_2020-11-06.pdf)	6-Nov-2020	FM Approvals, US
Instructions	-	AFT Australian Pty Ltd Flexi-dropper Installation Guide	12-Apr-2016	AFT Australia Pty Limited, AU
Report No.	XF1899R1	Listing Investigation – R. B. Sprinkler Joint Model 'YB25 (AFT "flexi-dropper")	13-Mar-2003	Scientific Services Laboratory, AU