



Certificate of Conformity

Certificate num.	Registration date	Version	Valid until	
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Product designation

Victaulic®, Vic-Flex™ Series AH4, braided flexible hose assemblies

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

Agent/distributor

Victaulic Australia Pty Ltd
112 Harvey Street South, EAGLE FARM, QLD, AUSTRALIA, 4009

Registrant

Victaulic® Company
4901 Kesslersville, EASTON, PA, UNITED STATES, 18044-0031

Producer

Victaulic® Company
4901 Kesslersville, EASTON, PA, UNITED STATES, 18044-0031

Conformance criteria and evaluation

The Victaulic®, Vic-Flex™ Series AH4, braided flexible hose assemblies has been evaluated and verified as conforming with the relevant requirements of the following criteria.

1. Approval Standard FM Class Number 1637, 'Approval Standard for Flexible Sprinkler Hose With Threaded End Fittings'.
2. Factory Mutual - Evaluation and approval, 'FM approval'.

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.

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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Producer's description

Available Sizes by Component

- Series AH4 Braided Hose: 31, 36, 48, 60, 72"/790, 915, 1220, 1525, 1830 mm. Note: length includes adapter nipple and 5.75"/140 mm straight reducer.
- Internal braided hose diameter 1" (25)mm
- Sprinkler Reducers:
 - Sprinkler Connections: 15 and 20mm (½ and ¾")
 - Straight Lengths: 140, 230, 330 mm (5.75, 9, 13")
 - 90° Elbows:
 - Short (typically used with concealed sprinklers)
 - Long (typically used with recessed pendent sprinklers)
 - Low Profile Short (for use with Style AB5, AB11 and AB12 Bracket)
 - Low Profile Long (for use with Style AB5, AB11 and AB12 Bracket)
- Inlet Connections:
 - 1" 25 mm () NPT or BSPT adapter nipples for attaching to pipe and fittings

Technical specification

The following details are a representative extract of the technical specification for the Victaulic®, Vic-Flex™ Series AH4, braided flexible hose assemblies and may be subject to change. Complete and current details should be determined from the designated producer's technical manual/data sheets.

Schedule of variant designations

The following is a schedule of validated variant designations of the certified/listed equipment.

Model	NPT	k-Factor	Minimum Bend Radius	Number of Bends	Rated Working Pressure	Hose Assembly length	Equivalent Length of 1 in. Schedule 40 Pipe
AH4-31	15 mm (1/2")	8.07 l/kPa ^½ (5.6 USgpm/psi ^½)	178 mm (7")	2	1380 kPa (200 psi)	790 mm (31")	6.3 m (20.6 ft)
AH4-36	15 mm (1/2")	8.07 l/kPa ^½ (5.6 USgpm/psi ^½)	178 mm (7")	2	1380 kPa (200 psi)	915 mm (36")	9.0 m (29.7 ft)
AH4-48	15 mm (1/2")	8.07 l/kPa ^½ (5.6 USgpm/psi ^½)	178 mm (7")	3	1380 kPa (200 psi)	1220 mm (48")	8.3 m (27.5 ft)
AH4-60	15 mm (1/2")	8.07 l/kPa ^½ (5.6 USgpm/psi ^½)	178 mm (7")	4	1380 kPa (200 psi)	1525 mm (60")	10.9 m (35.7 ft)
AH4-72	15 mm (1/2")	8.07 l/kPa ^½ (5.6 USgpm/psi ^½)	178 mm (7")	4	1380 kPa (200 psi)	1830 mm (72")	14.0 m (45.9 ft)
AH4-31	20 mm (3/4")	11.53 l/kPa ^½ (8.0 USgpm/psi ^½)	178 mm (7")	2	1380 kPa (200 psi)	790 mm (31")	4.0 m (13.3 ft)
AH4-36	20 mm (3/4")	11.53 l/kPa ^½ (8.0 USgpm/psi ^½)	178 mm (7")	2	1380 kPa (200 psi)	915 mm (36")	6.6 m (21.7 ft)
AH4-48	20 mm (3/4")	11.53 l/kPa ^½ (8.0 USgpm/psi ^½)	178 mm (7")	3	1380 kPa (200 psi)	1220 mm (48")	6.4 m (21.2 ft)
AH4-60	20 mm (3/4")	11.53 l/kPa ^½ (8.0 USgpm/psi ^½)	178 mm (7")	4	1380 kPa (200 psi)	1525 mm (60")	8.5 m (27.9)
AH4-72	20 mm (3/4")	11.53 l/kPa ^½ (8.0 USgpm/psi ^½)	178 mm (7")	4	1380 kPa (200 psi)	1830 mm (72")	11. m (38.8 ft)
AH4-31	20 mm (3/4")	16.14 l/kPa ^½ (11.2 USgpm/psi ^½)	178 mm (7")	2	1380 kPa (200 psi)	790 mm (31")	5.0 m (16.4 ft)
AH4-36	20 mm (3/4")	16.14 l/kPa ^½ (11.2 USgpm/psi ^½)	178 mm (7")	2	1380 kPa (200 psi)	915 mm (36")	6.6 m (21.7 ft)
AH4-48	20 mm (3/4")	16.14 l/kPa ^½ (11.2 USgpm/psi ^½)	178 mm (7")	3	1380 kPa (200 psi)	1220 mm (48")	8.7 m (28.5 ft)

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Model	NPT	k-Factor	Minimum Bend Radius	Number of Bends	Rated Working Pressure	Hose Assembly length	Equivalent Length of 1 in. Schedule 40 Pipe
AH4-60	20 mm (3/4")	16.14 l/kPa ^½ (11.2 USgpm/psi ^½)	178 mm (7")	4	1380 kPa (200 psi)	1525 mm (60")	10.5 m (34.7 ft)
AH4-72	20 mm (3/4")	16.14 l/kPa ^½ (11.2 USgpm/psi ^½)	178 mm (7")	4	1380 kPa (200 psi)	1830 mm (72")	11.6 m (38.6 ft)
AH4-31	20 mm (3/4")	20.18 l/kPa ^½ (14 USgpm/psi ^½)	178 mm (7")	2	1380 kPa (200 psi)	790 mm (31")	5.0 m (16.3 ft)
AH4-36	20 mm (3/4")	20.18 l/kPa ^½ (14 USgpm/psi ^½)	178 mm (7")	2	1380 kPa (200 psi)	915 mm (36")	6.7 m (21.8 ft)
AH4-48	20 mm (3/4")	20.18 l/kPa ^½ (14 USgpm/psi ^½)	178 mm (7")	3	1380 kPa (200 psi)	1220 mm (48")	8.6 m (28.3 ft)
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AH4-72	20 mm (3/4")	20.18 l/kPa ^½ (14 USgpm/psi ^½)	178 mm (7")	4	1380 kPa (200 psi)	1830 mm (72")	12.6 m (41.5 ft)

Schedule of components and/or assemblies

The following is a schedule of validated components and/or assemblies of the certified/listed equipment.

Brackets:	Application
Style AB1	Suspended and hard-lid ceilings and sidewalls, allows installation before most ceiling tiles in place
Style AB2	Suspended and hard-lid ceilings and sidewalls, allows for vertical sprinkler adjustment, and installation before most ceiling tiles in place
Style AB3	Surface mount applications, wood, metal and block walls, or ceilings
Style AB4	Hard-lid ceilings with hat furring channel grid systems, allows for vertical sprinkler adjustment
Style AB5	Hard-lid ceilings and sidewalls, allows for vertical sprinkler adjustment
Style AB7	Suspended and hard-lid ceilings
Style AB7	Adjustable for suspended and hard-lid ceilings
Style AB8	Hard-lid ceilings with CD 60/27 profile metal studs (regionally available)
Style AB10	Armstrong® TechZone™ ceilings
Style AB11	Lay-in panel suspended t-grid ceilings or drywall suspended t-grid ceilings, allows for low profile installations (use only with 90° low profile elbows)
Style AB12	Suspended and hard-lid ceilings, allows for vertical sprinkler adjustment, and allows for low profile installation down to 4"/100mm.

Schedule of properties/characteristics

The following schedule is an extract of physical and operational properties/characteristics of the certified/listed equipment.

Maximum working temperature	107°C (225°F)
Maximum working pressure	1375 kPa (200 psi)
Connections	To adapter nipple (inlet) via 1" (25) mm NPT or BSPT male thread To sprinkler head (outlet) via ½" or ¾"/15 mm or 20 mm
Minimum bend radius	178 mm (7")
Flexible hose	300-series Stainless Steel
Collar/weld fitting	300-series Stainless Steel
Gasket seal	Victaulic EPDM
Nut and nipple	Carbon steel, zinc plated
Reducer (15 mm (½") or 20 mm (¾"))	Carbon steel, zinc-plated
Brackets	Carbon steel, zinc-plated

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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.			
Approval Identification	3049653	Certificate of Compliance This certificate is issued for the following: FLEXIBLE SPRINKLER HOSES WITH THREADED END FITTINGS FOR USE IN COMMERCIAL SUSPENDED CEILINGS MODELS AH1-31, AH1-36, AH1-48, AH1-60, AH1-72, AH2-31, AH2-36, AH2-48, AH2-60, AH2-72, AH4-31, AH4-36, AH4-48, AH4-60, AH4-72 WITH A MODIFICATION OF A BRACKET ATTACHMENT SYSTEM "STRUT CHANNEL WITH PIPE CLAMP". FM Approvals Class: 1637	18-Jun-2013	FM Approvals, US
Extract	fm_w3_VictaulicAH4_v_2019-08-02.pdf	Models AH4-31, AH4-36, AH4-48, AH4-36, AH4-60, AH4-72 (fm_w3_VictaulicAH4_v_2019-08-02.pdf)	2-Aug-2019	
Data sheet	VS-10.82 8506 Rev A	Victaulic® VS-10.82 Victaulic® VicFlex™ Sprinkler Fittings Series AH4 Braided Flexible Hose	Sep-2018	Victaulic® Company, US