

Certificate of Conformity

Certificate num.	Registration date	Version	Valid until	
afp - 1697	22-Sep-2004	Number 7	Issue date 1-May-2013	30-Apr-2014

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Product designation

Dixon, hot-dip galvanised, light wall, fire sprinkler and hydrant pipe
(Refer to the Schedule/enclosures for further specified details)

Agent/distributor

Dixon (Asia Pacific) Pty Ltd
170 Francis Road, WINGFIELD, SA, AUSTRALIA, 5013

Registrant

Dixon (Asia Pacific) Pty Ltd
170 Francis Road, WINGFIELD, SA, AUSTRALIA, 5013

Producer

Weifang East Steel Pipe Co., Ltd
28 Chunyuan Road, Weicheng District, WEIFANG, SHANDONG, CHINA

Conformance criteria and evaluation

The Dixon, hot-dip galvanised, light wall, fire sprinkler and hydrant pipe has been evaluated and verified as conforming with the relevant requirements of the following criteria.

1. Australian Standard AS 4118.2.1-1995, 'Fire sprinkler systems - Piping - General'.
2. Australian Standard DR 02094, 'Electric resistance welded steel pipe for pressure purposes'.
3. SSL Appraisal Specification FAS-119, Version 4.0, 'Light Wall ERW Steel Pipe, to AS 4118.2.1, & Draft Australian Standard DR02094CP-PDR (20/02/02), for Fire Protection Systems'.
4. Underwriters Laboratories - Evaluation, follow-up services and listing, 'UL listing'.

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. Fire system designers, and authorities having jurisdiction, must confirm that the codes or standards used for the systems design adequately address the hydraulic characteristics of this product. Full hydraulic analysis is an approved and recommended method of determining that system performance will meet design requirements.

(Limitations/conditions of conformance continue)

Issued by



David Whittaker
Executive Officer – ActivFire Scheme



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- ii. Pipes shall be used below ground, unless externally wrapped or coated for additional corrosion protection in accordance with the relevant standard.

Producer's description

The Dixon, hot-dip galvanised, light wall, fire sprinkler and hydrant pipe is cold formed and electric resistance welded mild steel pipe made from hot-rolled steel strip. Hot-dip galvanizing after forming, welding and cutting to length protects the pipe internally and externally. The wall thickness of these pipes exceeds those specified in Table 3.1.2 of AS 4118.2.1 - 1995, giving them a suitable pressure rating for use in AS 2118-conforming sprinkler systems. The steel used to manufacture these pipes conforms to the relevant requirements of ASTM A 135 - 01, providing improved resistance to impact at 0°C. The hot-dip galvanised coating of these pipes conforms to the requirements of AS/NZS 4792, Coating Class HDG300, the minimum coating mass being 300 grams/m². The pressure rating is suitable for use in sprinkler systems in accordance with AS 2118.1 and fire hydrant installations in accordance with AS 2419.1.

Sizes are suitable for use with rolled-groove type couplings and fittings of suitable diameter and groove profile, and are also suitable for joining by shouldered-end couplings, or by butt-welding.

Details of the range of sizes covering by this listing, and corresponding dimensional data, are included in the Technical Specifications portion of this document.

Technical specification

The following details are a representative extract of the technical specification for the Dixon, hot-dip galvanised, light wall, fire sprinkler and hydrant pipe and may be subject to change. Complete and current details should be determined from the designated producer's technical manual/data sheets.

General

Dixon, hot-dip galvanised, light wall, fire sprinkler and hydrant pipe is manufactured by using an electric resistance welding method in accordance with the requirements of ASTM Standard A135-01.

Leak-Tightness

The leak-tightness and integrity of the weld is ensured by 100% testing with eddy-current type in-line automatic flaw-detection equipment which automatically controls automatic flawed-pipe ejection machinery located at the outlet end of the pipe mill.

Galvanising

Hot-dip galvanized coating is applied in accordance with AS/NZS 4792, Coating class HDG300, and has a minimum average mass of 300 grams/m² of pipe surface.

Pipe Dimensions

Nominal size DN	Outside diameter			Wall thickness (mm)	Mass kg/m
	Nominal (mm)	Min. (mm)	Max. (mm)		
DN20	26.7	26.4	27.0	2.11	1.3
DN25	33.4	33.1	33.7	2.77	2.1
DN32	42.2	41.8	42.6	2.77	2.7
DN38	48.3	47.8	48.8	2.77	3.1
DN50	60.3	59.7	60.9	2.77	3.9
DN65	76.1	75.3	76.9	3.05	5.3
DN80	88.9	88.0	89.8	3.05	6.5
DN90	101.6	100.6	102.6	3.05	7.4
DN100	114.3	113.2	115.4	3.05	8.4
DN125	141.3	139.9	142.7	3.40	11.6
DN150	165.1	163.4	166.8	3.40	13.6
DN200	219.1	216.9	221.3	4.78	25.4

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Steel physical properties

Property	ASTM A135-01 steel grade	
	A	B
Yield Strength (MPa) Min.	207	241
Tensile Strength (MPa) Min.	331	414
Elongation in 50 mm, min, %: for pipe of any size, if tested using a full-size longitudinal test specimen	35	30

Steel chemical properties

Element	Composition, max, %	
	Steel grade A	Steel grade B
Carbon	0.25	0.30
Manganese	0.95	1.20
Phosphorus	0.035	0.035
Sulphur	0.035	0.035

Note:

The above mass values have been derived by calculation assuming that the pipe dimensions are exactly as above.