

AUTOMATIC FIRE EXTINGUISHER WITH A SPRINKLER NOZZLE »B«

TECHNICAL DATA SHEET

1. Composition

Automatic fire extinguisher with dispersing Bonpet fluid consists of:

- tank containing extinguishing liquid Bonpet
- sprinkler nozzles for fire-fighting with a manometer.

Sprinkler nozzle can be activated at different temperatures: from 57°C to 182°C.

Automatic fire extinguisher B2 in B4



Automatic fire extinguisher B6 in B12



Sprinkler nozzles for fire-fighting with a manometer



Document version:
1.2

Created:
01.12.2017

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Reviewed and approved:
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2. Activation

When the fire breaks out comes to a rapid increase of temperature. The ampoule on the sprinkler nozzle falls apart and pressure in tank thought nozzles steadily begins to put/spread out extinguish liquid on the fire.

A fire-extinguisher can be fixed with the special holder or special clamps for the tube – we must get stable extinguisher position, above or in a place we want to protect. The place of installation of automatic fire extinguisher must be available for maintenance and control pressure gauge.

Bonpet liquid activation

The components of Bonpet liquid cause a fast transport of the heat on a chemical part, using water when they get in contact with hot surface. Wet chemicals decompose into gasses (CO₂, N₂) which suffocate fire directly on burning surface, by preventing fire to get to the oxygen. The gasses suffocate fire directly on burning surface (intensive cooling and approximately 60-times bigger volume comparing to the size of a drop) due to this relatively small quantity of chemicals is needed to effectively put out a fire.

Non-decomposed components of Bonpet liquid that remain on the surface after the fire has been extinguished, have the ability to disintegrate and cool the surface, if there is a slight increase of temperature.

Bonpet liquid is suitable for fire class A, B in F and the consequences from the fire class C.

3. Technical characteristics

Bonpet Liquid

Physical state	Liquid
Colour	Slightly coloured liquid
Smell	Slight ammonia smell
pH	8,5 – 9,1
Density	1,1000 – 1,1500 g/ml
Flammability	Not flammable
Solubility in water at 20oC v g/l	Completely soluble in water
Freezing point	-14,5°C
Boiling point	103°C
Flashpoint	Non-existent
Explosion point	Non-existent
Ignition temperature	Non-existent
Decomposition temperature	Nad 300oC
Decomposition products	N ₂ , CO ₂ , H ₂ O

Automatic fire extinguisher with a sprinkler nozzle »B« types

Type of appliance (Type - Lit)	Dimensions (Length and Ø)	Weight (kg)	FIRE OF CLASS »A« Solids (closed area)	FIRE OF CLASS »B« Inflammable liquid (container Ø)	FIRE OF CLASS »F« Organic fats and oil (container Ø)	Life expectancy / service interval	The pressure in the reservoir (bar)	Fire sprinkler nozzles for fire-fighting with a manometer
B2 - 2l	38 cm/110mm	4	15 m ³	Ø 900 mm	Ø 400 mm	5y / 1y	18 bar	57°C, 68°C , 79°C, 93°C , 141°C, 182°C
B4 - 4l	43 cm/140mm	7	20 m ³	Ø 1100 mm	Ø 800 mm	5y / 1y	18 bar	
B6 - 6l	36 cm / 218mm	12,8	20 m ³	Ø 2000 mm	Ø 1100 mm	5y / 1y	18 bar	
B12 - 12l	35 cm / 300mm	25,7	20 m ³	Ø 3000 mm	Ø 2000 mm	5y / 1y	18 bar	

* Recommended distance from a potential fire source is between 2 and 4 meters (max.2m with B2/B4 and max.4m with B6/B12)

* Fire sprinkler nozzles for fire 68°C and 93°C on stock, other needs order min. 100pcs

* Propellant/pushing gas - Nitrogen (N₂)

4. Bonpet Liquid classification (MPA Dresden)

Standard EN 3-7 : 2007 + A1:2007	27A, 144B, 75F (for 6 lit. Fire extinguisher Bonpet)
Freezing point	-14,5°C

5. Guarantee and Life expectancy

Guarantee with regular maintenance: **1 year**

Guarantee of Bonpet Liquid	5 years
Life expectancy	20 years, with regular maintenance

After 5 years the liquid must be changed. The chemical characteristics are changing as the result of the aging.

Reference values:

- Density of Bonpet liquid (min. 1,1000 g/ml),
- Viscosity of Bonpet liquid (1,89 mm²/s pri 20°C).

Maintenance and service interval

Maintenance and service interval					
Type	Occasionally (customer)	Maintenance 1st inspection	Interval	Maintenance next inspection	
Extinguisher Bonpet 2l	Accessibility, purity, undamaged, pressure	Checking / inspection and cleaning, label replacement, seal replacement, filling with N ₂ (if needed)	2l+1l/5l	additional liquid and replacement of the valve head with the pressure gauge	
Extinguisher Bonpet 6l	Accessibility, purity, undamaged, pressure	Checking / inspection and cleaning, label replacement, seal replacement, filling with N ₂ (if needed)	2l+1l/5l	additional liquid and replacement of the valve head with the pressure gauge	
Automatic Extinguisher B2	Accessibility, purity, undamaged, pressure	Checking / inspection and cleaning, label replacement, seal replacement, filling with N ₂ (if needed)	1l+1l/5l	additional liquid and the nozzle with a pressure gauge	
Automatic Extinguisher B4	Accessibility, purity, undamaged, pressure	Checking / inspection and cleaning, label replacement, seal replacement, filling with N ₂ (if needed)	1l+1l/5l	additional liquid and the nozzle with a pressure gauge	
Automatic Extinguisher B6	Accessibility, purity, undamaged, pressure	Checking / inspection and cleaning, label replacement, seal replacement, filling with N ₂ (if needed)	1l+1l/5l	additional liquid and the nozzle with a pressure gauge	
Automatic Extinguisher B12	Accessibility, purity, undamaged, pressure	Checking / inspection and cleaning, label replacement, seal replacement, filling with N ₂ (if needed)	1l+1l/5l	additional liquid and the nozzle with a pressure gauge	

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6. Label on automatic fire extinguisher with a sprinkler nozzle:

Each B2 (B4) is a label with the basic data:

- The name of the manufacturer,
- Type of product,
- The method of installation (vertical, or up to a max. 45 °)
- Information on the mandatory maintenance,
- Application possibility,
- The date of manufacture (month and year).



7. How to use automatic extinguisher



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8. Additional documents and certificates

- MPA Dresden certificate, certificate of conformity KB 185/14 water based extinguished media – Bonpet,
- Safety Data Sheet (based on Hygiene Institute report, Germany).

Document version: 1.2	Created: 01.12.2017	Author: Urban Romih	Reviewed and approved: Matej Škerbic
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