

VENDOR SERVICE BULLETIN
ATA 26-24
FIRE PROTECTION – FIRE EXTINGUISHER -
HIGH TEMPERATURE EXPOSURE - GENERAL

PART MANUFACTURER	umlaut engineering GmbH
AFFECTED PART	Hand-held Fire Extinguisher HAFEX, model type: P3APP003010A P3APP003010B P3APP003010C

Issued	Checked	Approved
 Nils Kramer	 Dr. Ulf-Dieter Ulken	 Kai Hartmann

List of Revisions / Amendments

Issue	Affected Pages:	Reason for Revision / Amendment:
A	All	Initial Release

List of Effective Pages/Table of Contents

List of Revisions / Amendments	2
List of Effective Pages/Table of Contents	3
VSB Summary	4
1.0 Planning Information	4
A. Effectivity	4
B. Concurrent Requirements	4
C. Reason	4
D. Description	4
E. Compliance	5
F. Approval	5
G. Manpower	5
H. Weight and Balance	5
I. Electrical Load Data	5
J. References	5
2.0 Material Information	6
K. Material – Availability	6
L. Industry Support Information	6
M. List of components	7
3.0 Accomplishment Instructions	8
3.1 Determination of aircraft/equipment history	8
3.2 Inspection reporting of fire extinguisher	10
A. General	10
B. Preparation	10
C. Procedure	11
D. Re-identification of equipment	11
E. Test	11
F. Close-up	12
Annex A	13

VSB Summary

This Vendor Service Bulletin (VSB) introduces instructions to identify and replace potentially unsafe Hand-held Fire Extinguishers of type HAFEX.

1.0 Planning Information

A. Effectivity

Hand-held Fire Extinguisher HAFEX with part numbers (PNR):

- P3APP003010A
- P3APP003010B
- P3APP003010C

B. Concurrent Requirements

N/A

C. Reason

The equipment might have an impaired operability. This effect might occur after exposure of the equipment to temperatures higher than 65°C for a period longer than 288 hours continuous exposure.

This effect must be considered as a hidden defect which can lead to an impaired functionality of the equipment. This effect could even result in a complete loss of its intended function, which must be considered as a potential unsafe condition. Therefore, umlaut recommends taking action.

This VSB describes the recommended actions to identify potentially affected extinguishers to be replaced before re-turning the aircraft into service.

D. Description

With respect to COVID-19 pandemic many aircrafts have been taken out of operation and put to parking or storage mode. This parking or storage might have been performed in regions with high temperature profiles (outside air temperature above 40°C), which could lead to temperatures inside the aircraft of 65°C or higher.

The exposure to such high temperatures for such a long period is unlikely to occur in normal operation. However, during parking and storage of aircrafts, this exposure of the equipment to such high temperatures might occur as a result of parking or storage of aircrafts in regions with continuous high temperature levels, e.g. parking or storage in desert-like regions, without the extinguisher being removed from the aircraft.

Other aspects affecting temperature inside an aircraft are e.g. aircraft painting colour, installation location of the equipment inside the aircraft (cabin or cockpit, closed compartments).

E. Compliance

- 1) Classification: Recommended

F. Approval

With this VSB, umlaut engineering GmbH gives only accomplishment instructions. This VSB shall not be considered as approved design data and does not contain any change information that revises the equipment definition covered by approved modifications.

NOTE: THIS VSB DOES NOT REPRESENT APPROVED DESIGN DATA.
INSTRUCTIONS OF RELEVANT DESIGN HOLDER HAS TO BE CONSIDERED.

G. Manpower

Approx. 5 minutes per extinguisher is necessary to perform the inspection in section 3.2

H. Weight and Balance

None

I. Electrical Load Data

Not changed

J. References

CMM 26-24-02 – Component Maintenance Manual with Illustrated Parts List – HAFEX.

2.0 Material Information

K. Material – Availability

Contact umlaut engineering GmbH for availability.

L. Industry Support Information

Note: If you need more information about this Service Bulletin, or to obtain delivery data, contact the Customer Support Manager at:

umlaut engineering GmbH
Blohmstraße 12
21079 Hamburg
Germany

E-Mail: hafex@umlaut.com

M. List of components

The following parts from umlaut engineering GmbH are necessary to accomplish this VSB if a replacement is recommended (see section 3.2c)

(1) Material to be purchased (if applicable):

Original P/N*		
P/N	Description	QTY
P3APP003010A	HAFEX	1
P3APP003010B	HAFEX YELLOW	1
P3APP003010C	HAFEX GREEN	1

*NOTE: FOR SOME AIRCRAFT, AN ALTERNATIVE P/N CAN BE INSTALLED AS REPLACEMENT PART. UMLAUT RECOMMENDS TO USE THE ALTERNATIVE P/N AS REPLACEMENT TO COMPLETE THIS SERVICE BULLETIN. CHECK THE RELEVANT IPC FOR APPLICABILITY OF THE ALTERNATIVE P/N. IN CASE OF DOUBTS, CONTACT THE RELEVANT DESIGN HOLDER FOR SUPPORT.

Original P/N*			Alternative P/N*		
P/N	Description	QTY	P/N	Description	QTY
P3APP003010A	HAFEX	1	P3APP003010D	HAFEX UL	1
P3APP003010B	HAFEX YELLOW	1	P3APP003010E	HAFEX UL YELLOW	1
P3APP003010C	HAFEX GREEN	1	P3APP003010F	HAFEX UL GREEN	1

(2) Material supplied by the Operator (consumables):

- No additional material needed.

(3) Parts to be purchased to perform the change in shop:

- Not applicable (extinguisher cannot be repaired in shop).

3.0 Accomplishment Instructions

The instructions outlined in this chapter should be performed on monthly basis in case the extinguisher is potentially exposed to conditions as outlined in chapter 1c and 1d.

3.1 Determination of aircraft/equipment history

Collect the following information for each aircraft which has the mentioned equipment installed and provide the information to the equipment OEM and design holder for evaluation. To document the requested information, use the template provided in Annex A.

1. Has the aircraft been parked or stored outside in a region with high temperatures?
 - Rational: “high temperatures” in this context are considered as outside air temperatures of above 40°C
 - Rational: “outside” implies that the aircraft was exposed to direct sun lightIf yes, for how long has the aircraft been parked/stored and has the aircraft been returned to service?
2. Was the equipment installed on the aircraft during the whole period of parking or storage as described above?
 - If the equipment was removed from aircraft during parking or storage of the aircraft (as per applicable AMM) and the equipment was stored following the instructions laid down in the relevant equipment CMM (warehouse storage conditions: storage temperature of -40°C (-40°F) to +49°C (+120°F)), no further action are recommended.
3. Are there any potential factors that might lead to an exposure of the equipment to high temperatures (as described in section 1c and 1d), such as e.g.
 - Was the equipment potentially exposed to direct sun light (e.g. for installations in cockpit areas)?
 - Is the primary colour scheme of the upper part of aircraft fuselage other than white colour?
 - Rational: “colour scheme” influences the solar absorptivity which influences the temperatures inside the aircraft. The “darker” the colour scheme, the higher the potential temperature inside the aircraft cabin.
 - Rational: “upper part of aircraft fuselage” is the part of the fuselage which is exposed to direct sun light
 - In case of doubt, provide details.
4. Has there been any other potential event in which the equipment might have been exposed to high temperatures of more than 65°C for a longer period (as described in section 1c and 1d)? If yes, provide details (about duration, temperature, installation scenario, etc.).

Provide details about the above mentioned questions to the equipment OEM and design holder.

If one of the above questions has been answered with “yes”, continue with section 3.2 for the equipment installed on the aircrafts for which the answer has been “yes”.

In case of doubt, proceed with section 3.2.

3.2 Inspection reporting of fire extinguisher

A. General

The steps below outline the general accomplishment instructions. The detailed sequence is given in the procedure.

WARNING: MAKE SURE THAT YOU OBEY ALL THE WARNINGS AND ALL THE CAUTIONS INCLUDED IN THE REFERENCED PROCEDURES.

The inspection outlined in this chapter should be performed on monthly basis in case the extinguisher is potentially exposed to conditions as outlined in chapter 1c and 1d.

B. Preparation

How to identify if the fire extinguishers in your property are affected:

1. On the RFID label located on the lever of the fire extinguisher, check the part number (PNR). Only PNR P3APP003010A, P3APP003010B, P3APP003010C are subject to this service bulletin. (refer to Figure 1).

NOTE: THE PART NUMBER OF THE EXTINGUISHER IS THE DECISIVE CRITERION FOR THE IDENTIFICATION OF FIRE EXTINGUISHERS

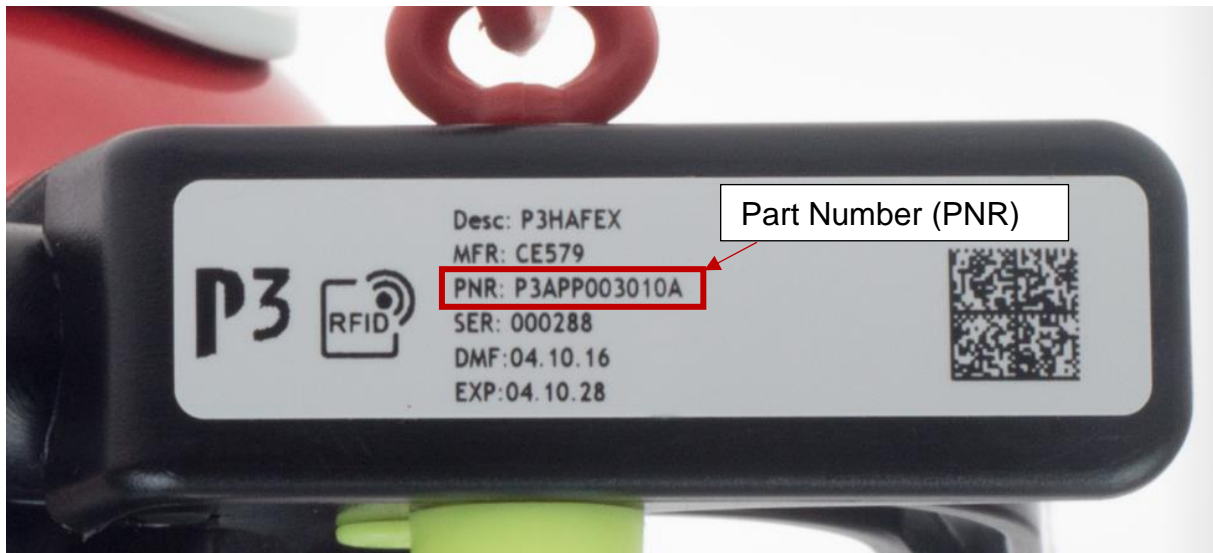


Figure 1: RFID Label.

C. Procedure

1. Remove the fire extinguisher from its bracket. **Refer to CMM 26-24-02 page 12001.**
2. Put extinguisher in upright position onto a flat and even surface with safety pin in place (Figure 2).
3. Push the lever up carefully with low force and using only one finger (Figure 3).
4. Release the lever.
NOTE: THE LEVER SHOULD MOVE DOWN BY ITS OWN.
5. Check presence of potential gap between safety pin and valve head (without touching the lever): check visually if the safety pin touches the valve head (Figure 4).
 - a. Case 1: safety pin touches valve head: the extinguisher can be considered as not affected. No further action needed.
 - b. Case 2: safety pin does not touch valve head: If there is a gap, the extinguisher might be affected in its function and should be considered INOP and should be replaced according to instructions provided by the design holder.
NOTE: THE CHECK PROCEDURE IS REPEATABLE. REPEAT THE TEST IF NEEDED.
6. In any case please report test results to equipment OEM and design holder.

NOTE: AN INOP EXTINGUISHER ITSELF IS NOT POSING A RISK TO CREW OR PASSENGERS BUT IS LIKELY NOT TO FULFIL ITS INTENDED FUNCTION.

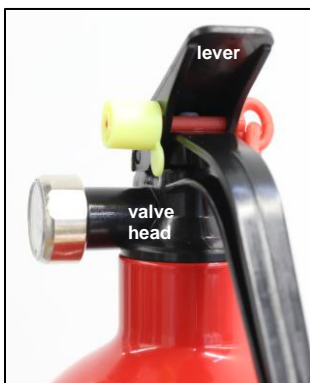


Figure 2: upright position

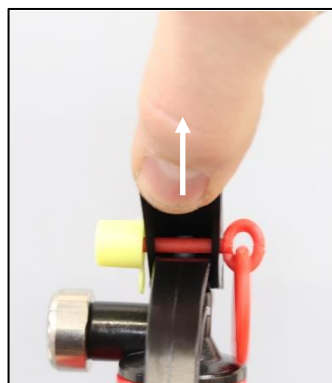


Figure 3: push lever up

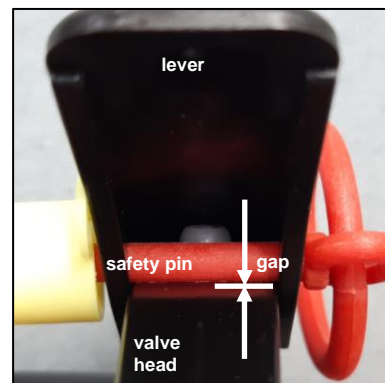


Figure 4: gap

D. Re-identification of equipment

Not applicable.

E. Test

Not applicable.

F. Close-up

Re-install fire extinguisher in bracket. **Refer to CMM 26-24-02 page 13001.**

Annex A

General information

Reporting company/entity:	
Company address:	

Reporting person (name):	
Position:	
Phone:	
email:	

date & signature/stamp:	
-------------------------	--

Filling instructions

Please complete all sections, type or print clearly and attach any additional information requested or you consider important.

Provide details about the below mentioned questions to the equipment OEM and responsible design holder.

For the OEM, send the filled questionnaire to hafex@umlaut.com, for the responsible design holder, send to relevant design holder focals.

If one of the below mentioned questions has been answered with “yes”, continue with section 3.2 of VSB P3VSB0000003 for the equipment installed on the aircrafts for which the answer has been “yes”. In case of doubt, also proceed with section 3.2 of the mentioned VSB.

Questions

Question 1: Has the aircraft been parked or stored outside in a region with high temperatures?

- Rational: “high temperatures” in this context are considered as outside air temperatures of above 40°C

-Rational: “outside” implies that the aircraft was exposed to direct sun light

yes no

Q1.1: If yes, for how long has the aircraft been parked/stored and has the aircraft been returned to service?

duration: _____

Q1.2: Has the aircraft been returned to service?

yes no

Question 2: Was the equipment installed on the aircraft during the whole period of parking or storage as described above?

yes no

NOTE: If the equipment was removed from aircraft during parking or storage of the aircraft (as per applicable AMM) and the equipment was stored following the instructions laid down in the relevant equipment CMM (warehouse storage conditions: storage temperature of -40°C (-40°F) to +49°C (+120°F)), no further action are recommended.

Question 3: Are there any potential factors that might lead to an exposure of the equipment to high temperatures (as described in section 1c and 1d), such as e.g.

Q3.1 Was the equipment potentially exposed to direct sun light (e.g. for installations in cockpit areas)?

yes no

Q3.2: Is the primary colour scheme of the upper part of aircraft fuselage other than white colour?

- Rational: "colour scheme" influences the solar absorptivity which influences the temperatures inside the aircraft. The "darker" the colour scheme, the higher the potential temperature inside the aircraft cabin.

- Rational: "upper part of aircraft fuselage" is the part of the fuselage which is exposed to direct sun light

yes no

Q3.3: In case of doubt, provide details.

details (such as colour code of primary colour scheme, other potential factors, etc.)

Question 4: Has there been any other potential event in which the equipment might have been exposed to high temperatures of more than 65°C for a longer period (as described in section 1c and 1d)? If yes, provide details (about duration, temperature, installation scenario, etc.).

yes no

details (such as duration, temperature, installation scenario, etc.)

If one of the above answered questions has been answered with "yes", continue with section 3.2 of VSB P3VSB0000003 for the equipment installed on the aircrafts for which the answer has been "yes". In case of doubt, also proceed with section 3.2 of the mentioned VSB.