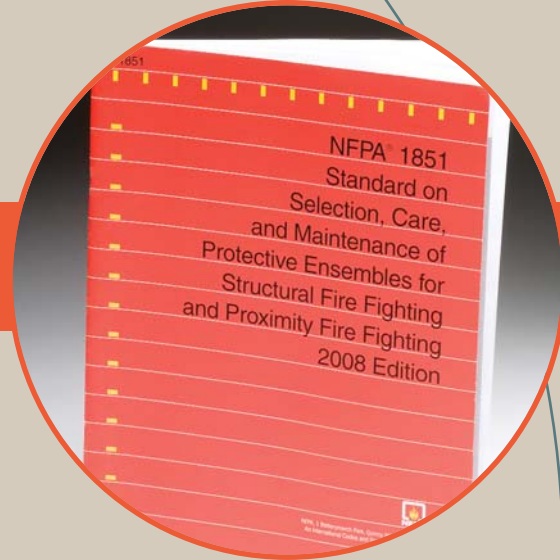


NFPA 1851, 2008 Edition: Compliance Guide for Cairns® Fire Helmets

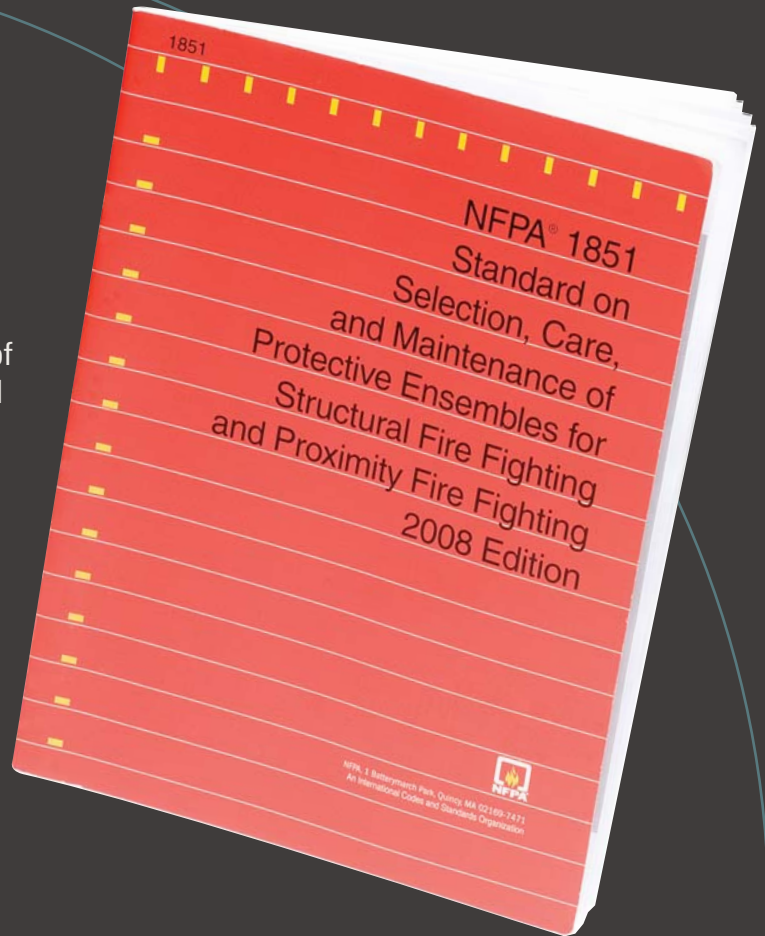


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INTRODUCTION:

The National Fire Protection Association recently released a newly revised edition of the NFPA 1851 Standard for the Selection, Care, and Maintenance of Protective Ensembles for Structural Fire Fighting and Proximity Firefighting. This new 2008 edition of the standard provides guidelines for record keeping, accessory use, cleaning, inspection, repair, and retirement of ensemble elements.



MSA has reviewed this NFPA standard carefully and noted which rules relate to Cairns Fire Helmets. This MSA Compliance Guide will help you meet the specifications of this standard.

Much of the information regarding inspection criteria, cleaning criteria, repair, and retirement of your Cairns Fire Helmet is also available in the Cairns Fire Helmet Owner's Guide, which is available at our website www.MSAnet.com.

MSA strongly recommends that you obtain a copy of NFPA 1851, 2008 Edition from the NFPA to ensure complete compliance.

MSA has made available an **optional** online quiz and training certificate for those organizations requiring documentation of NFPA 1851 compliance training for Cairns Fire Helmets. Visit the Fire Helmets page on www.MSAnet.com for more information.



RECORD KEEPING:

The first element of the standard to be considered is record keeping. The standard specifies that the following basic records be kept for each Cairns Fire Helmet:

1. Person to whom the helmet is issued
2. Date and condition when issued
3. Manufacturer and model name or design
4. Manufacturer's identification number, lot number or serial number
5. Month and year of manufacture
6. Date(s) and findings of advanced inspection(s)
7. Date(s) and findings of advanced cleaning or decontamination
8. Reason for advanced cleaning or decontamination and who performed cleaning or decontamination
9. Date(s) of repair(s), who performed repair(s), and brief description of repair(s)
10. Date of retirement
11. Date and method of disposal

Repairs
Date: _____ Performed By: _____ Reason: _____

Advanced Cleaning
Date: _____ Performed By: _____ Reason: _____

Advanced Inspection
Date: _____ Performed By: _____ Reason: _____

Cairns® Fire Helmet Tracking Form


Helmet Issued To: _____
Date Issued: _____
Condition when Issued: _____

Helmet Model:


<input type="checkbox"/> Houston N6A	<input type="checkbox"/> N5A New Yorker	<input type="checkbox"/> 880 Tradition
<input type="checkbox"/> Cairns 1010	<input type="checkbox"/> Cairns 1044	<input type="checkbox"/> Classic 1000
<input type="checkbox"/> Metro 660C	<input type="checkbox"/> Phoenix 660	<input type="checkbox"/> Invader 664
<input type="checkbox"/> Intruder 990	<input type="checkbox"/> Structural 360S	<input type="checkbox"/> HP3 Commando
<input type="checkbox"/> Rescue 360R	<input type="checkbox"/> Other _____	

Helmet Serial Number: _____
Manufactured On: _____ Month: _____ Year: _____
Date Retired: _____
Date Disposed Of: _____
Disposal Method: _____

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Organizations should have a system for keeping these minimum records for their Cairns Fire Helmets.

To aid with the record keeping guidelines, MSA has created an easy-to-use Cairns Fire Helmet Tracking Form. You may download this form from our website, www.MSAnet.com.

USE OF ACCESSORIES:

NFPA 1851, 2008 Edition guides organizations to request and receive written approval from the fire helmet manufacturer before using specific accessories on the fire helmet. MSA will evaluate accessories for Cairns Fire Helmets and accept or reject the requests.

Requests should be submitted with a sample of the accessory to:

MSA

**Attn: Product Line Manager, Cairns Helmets
1100 Cranberry Woods Drive
Cranberry Township, PA 16066**

Requests should be submitted in writing using MSA's Cairns Fire Helmet Accessory Use Request Form. This form may be downloaded from the Fire Helmets page on www.MSAnet.com.

MSA will evaluate your accessory for fitness of use on your particular Cairns Fire Helmet model, then let you know whether or not it is approved, detailing the results in a letter. Submitted samples of accessories will not be returned, as destructive testing may be required during evaluation.

Cairns® Fire Helmet Accessory Use Request Form

Name: _____
Phone Number: _____ Email Address: _____
Title: _____
Organization: _____
Organization Address: _____
Number of Helmets Accessory to be used on: _____
Style of Helmet Accessory to be Used on:


<input type="checkbox"/> Houston N6A	<input type="checkbox"/> N5A New Yorker	<input type="checkbox"/> 880 Tradition
<input type="checkbox"/> Cairns 1010	<input type="checkbox"/> Cairns 1044	<input type="checkbox"/> Classic 1000
<input type="checkbox"/> Metro 660C	<input type="checkbox"/> Phoenix 660	<input type="checkbox"/> Invader 664
<input type="checkbox"/> Intruder 990	<input type="checkbox"/> Structural 360S	<input type="checkbox"/> HP3 Commando
<input type="checkbox"/> Rescue 360R	<input type="checkbox"/> Other _____	

Trade Name of Accessory: _____
Model/Part Number of Accessory: _____
Manufacturer of Accessory: _____

Note: A sample of the accessory must be submitted with request form. Accessories cannot be evaluated without a sample to analyze. Submitted samples will NOT be returned after evaluation.

SUBMIT REQUEST TO MSA
Attn: Product Line Manager, Cairns Helmets
1100 Cranberry Woods Drive • Cranberry Township, PA 16066

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ROUTINE CLEANING:

Cairns Fire Helmets must be cleaned after each use, but before the routine inspection. This is to limit exposure to any possible contamination that may be present on the fire helmet after firefighting activities. This is referred to in NFPA 1851 as Routine Cleaning.

To clean faceshields, goggles, or the Defender® Visor lens:

- Use mild cleaning agents such as ethyl alcohol or a mild detergent and water, and a soft sponge or cloth.
- **NEVER** use abrasives, solvents, paint removers, acetone, paint or lacquer thinner, or any chlorinated organic solvents.

To clean Bourke Eye Shields:

- Use a mild detergent and water, and a soft sponge or cloth.
- **NEVER** use abrasives, solvents, paint removers, acetone, paint thinner, lacquer thinner, or any chlorinated organic solvents.

Before cleaning the helmet shell, remove the faceshield/goggles/Bourkes/Defender lens and set aside.

To clean Leather shells (Houston N6A® and New Yorker N5A®):

- Use only mild detergents and lukewarm water.
- To remove tar drips, industrial cleaners (such as DuPont Tar Remover) can be used. Use only on tar spots, not the entire surface. Other spots can be cleaned with alcohol if an organic solvent is required.

To clean fiberglass/Kevlar composite shells (Cairns® 1010, Cairns® 1044, Classic 1000, 660C Metro®, Invader 664®, Intruder 990®, and Commando HP3®):

- Use only mild solvents, such as ethyl alcohol, mild detergents and water, mild abrasives, industrial cleaners (such as DuPont Tar Remover), acetone, or paint remover.

To clean thermoplastic shells (880 Tradition®, Phoenix 660®, Structural 360S®, and Rescue 360R):

- Use mild cleaning agents such as ethyl alcohol or a mild detergent and water, and a soft sponge or cloth.
- **NEVER** use abrasives, solvents, paint removers, acetone, paint or lacquer thinner, or any chlorinated organic solvents.

To clean flannel headband liners and the Defender Visor heatshield:

- Machine wash and dry on low settings.

To clean the proximity bonnet and shroud:

- Remove the bonnet and shroud from the helmet. Use mild soap or detergent to wash the shroud in warm soapy water.
- Rinse thoroughly with clean water
- Air dry at room temperature

To clean the 6" gold-coated proximity faceshield:

- Clean the faceshield with mild detergent.
- Rinse with clean water, and dry with a soft cloth.

Helmets that are not thoroughly cleaned and dried should NOT be worn.

These instructions are also available in the Maintenance Section of the Cairns Fire Helmet Owner's Guide (MSA p/n 10043529), which is available on our website, **www.MSAnet.com**. Specific instructions for proximity gear can be found in separate instructions (MSA p/n 10042222), which is available on our website, **www.MSAnet.com**.

These instructions should be referenced as a guide for routine cleaning of the fire helmet after each use.



ROUTINE INSPECTION:

After each use and after cleaning, inspect your Cairns Fire Helmet. This is referred to in NFPA 1851 as Routine Inspection.

Inspect Cairns Fire Helmets and all helmet accessories after each use for impact, thermal, and general damage. A damaged helmet must NEVER be used.

If your Cairns Fire Helmet has been exposed to excessive heat, taken an impact, or sustained damage, it must be disassembled and have an advanced inspection performed.

Use the following criteria to inspect your Cairns Fire Helmet after each use:

Helmet shell. Replace if any of these conditions exist:

• ***Leather shell (Houston N6A and New Yorker N5A):***

- Shell is punctured.
- Rib stitching is cut or broken.
- Reinforcing wire is exposed.

• ***Fiberglass/Kevlar composite shells (Cairns 1010, Cairns 1044, Classic 1000, 660C Metro, Invader 664, Intruder 990, and Commando HP3):***

- Cracks are longer than one inch.
- Any size crack goes completely through the shell material.
- Soft spots are equal to or larger to than a thumb pad. Smaller soft spots require removal of the impact cap and an advanced inspection.

• ***Thermoplastic Shells (880 Tradition, 660 Phoenix, Structural 360S, and Rescue 360R):***

- Shell has a crack of any size.
- Shell has a dull or chalky finish.
- The reinforcing wire is exposed (880 Tradition).

Edge trim:

- Reattach if it's separated but intact.
- Replace if it's broken or the aluminum core is exposed.

Reflective trim. Replace if any of these conditions exist:

- It is charred, partially detached, non-reflective, or missing.



Faceshield and hardware. Replace if any of these conditions exist:

- Faceshield is blistered, bubbled, cracked, or charred.
- The E-ring is missing.
- The shaft is not intact.

Defender Visor lens. Replace if any of these conditions exist:

- The lens is blistered, bubbled, cracked, or charred.
- The quick-connect clips are broken.
- The lens will not stay in the stowed position and cannot be adjusted.

Goggle. Inspect the following and replace if damage exists:

- Ventilation and filtration.
- Lens, frame, straps, adjustment assembly, and mounting hardware.

Breakaway tabs. Replace if any of these conditions exist:

- Any tabs are missing, bent, or damaged.

Chinstrap. Replace if any of these conditions exist:

- Any parts are frayed, missing, or broken.
- Any stitching is missing, cut, frayed, or broken.
- The Velcro fastener is clogged or worn out.
- The quick-release button is brittle, broken, or missing.
- The postman's slide is loose.

Suspension straps. Ensure that straps lie flat and pass between alignment guides.

Replace if any of these conditions exist:

- Any stitching is missing, cut, or broken.
- Straps have any tears or abrasions.
- Straps show any brittleness.
- Straps show any discoloration.

Earlap. Replace if any of these conditions exist:

- Stitching is missing, cut or broken.
- Nomex layer is discolored, charred, or perforated.
- Flannel liner is torn or seared.

Headband. Replace if any of these conditions exist:

- Headband is brittle, torn, cracked, or broken.
- Headband has holes in it.
- You can open the ratchet by tugging on the legs.

Proximity firefighting overcovers and shrouds. Replace if any of these conditions exist:

- Loss of reflectivity.
- Loss of reflective coatings.
- Damage or loss of functionality of the overcover to helmet attachment.
- Damage or loss of functionality of the shroud to helmet attachment.
- Distortion of face opening resulting in gaps around the faceshield.

These instructions are also available in the Maintenance Section of the Cairns Fire Helmet Owner's Guide (MSA p/n 10043529), which is available on our website, www.MSAnet.com.

Specific instructions for proximity gear can be found in separate instructions (MSA p/n 10042222), which is available on our website, www.MSAnet.com.



ADVANCED CLEANING:

The only difference between routine cleaning and advanced cleaning of a Cairns Fire Helmet is that NFPA 1851, 2008 specifies that all detachable items be removed from the helmet and cleaned separately. This includes the eye protection, headband liners, and impact cap (if applicable).

Advanced cleaning must be performed yearly, or more often, if needed. Instructions for disassembling each type of Cairns Fire Helmet model for advanced cleaning are in the Cairns Fire Helmet Owner's Guide (MSA P/N 10043529), available on www.MSAnet.com.

The following helmet models have impact caps that must be removed and cleaned: Cairns 1010, Cairns 1044, Classic 1000, 660C Metro, Invader 664, Phoenix 660, Intruder 990, Structural 360S, Rescue 360R, and Commando HP3.

Houston N6A and New Yorker N5A leather helmets have impact caps, but they can be removed only at the factory and are not considered detachable items.

NFPA 1851, 2008, Section 7.3, Advanced Cleaning and Decontamination, specifies that this advanced cleaning be performed only by members of the organization who have been trained to a level required by the manufacturer.

Cairns Fire Helmets are designed to be simple to repair and maintain, and can be completely disassembled and reassembled

by reading, understanding, and following the instructions in the Cairns Fire Helmet Owner's Guide. MSA does not require any additional training to complete advanced cleaning on a Cairns Fire Helmet.

Records of advanced cleaning should be kept on the Cairns Fire Helmet Tracking Form.



ADVANCED INSPECTION:

The main difference between routine inspection and advanced inspection is that NFPA 1851, 2008 specifies that helmets be inspected for compliance with the NFPA 1851, 2008 accessory specifications of section 4.2.3. Also, if present, the impact cap must be removed and inspected. The rest of the advanced inspection specifications are the same as the routine inspection specifications.

Advanced inspection must be performed yearly, or more often, if needed.

If present and detachable, the impact cap must be removed using the procedures for your specific type of helmet in the Cairns Fire Helmet Owner's Guide (MSA P/N 10043529), available on www.MSAnet.com.

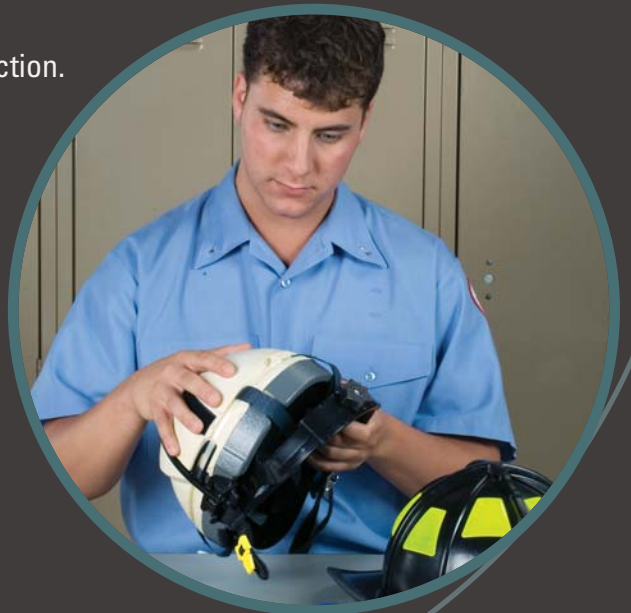
The following helmet models have impact caps that must be removed and inspected: Cairns 1010, Cairns 1044, Classic 1000, 660C Metro, Invader 664, Phoenix 660, Intruder 990, Structural 360S, Rescue 360R, and Commando HP3.

Houston N6A and New Yorker N5A leather helmets have impact caps, but they can be removed only at the factory and are not considered detachable items.

After you remove the impact cap, use these guidelines for inspection.

Impact Inspection. Replace if any of these conditions exist:

- You see a halo effect (ring of discolored foam)
- You find cracking and/or brittleness.
- You see evidence of impact
- Plastic tube is cracked
- Plastic tube is out of round
- Rubber tube is no longer supple and elastic
- Defender suspension tie is broken
- Impact cap liner/ring has holes or blistering
- Earlaps are missing Velcro (except 880 Tradition)
- Impact cap is cracked or deformed



NFPA 1851, 2008 Edition, Section 6.3, Advanced Inspection, specifies that this advanced inspection be performed only by members of the organization who have been trained to a level required by the manufacturer.

Cairns Fire Helmets are designed to be simple to repair and maintain, and can be completely disassembled, inspected, and reassembled by reading, understanding, and following the instructions in the Cairns Fire Helmet Owner's Guide. MSA does not require any additional training to complete advanced inspections.

Records of advanced inspection should be kept on the Cairns Fire Helmet Tracking Form.

REPAIR:

Your Cairns Fire Helmet was designed to be easy to maintain and repair. Repairs are necessary **ONLY** when the inspection criteria are not met for your particular type of Cairns Fire Helmet. Replacement parts can be ordered by calling MSA's Customer Service at **1-800-MSA-2222**.

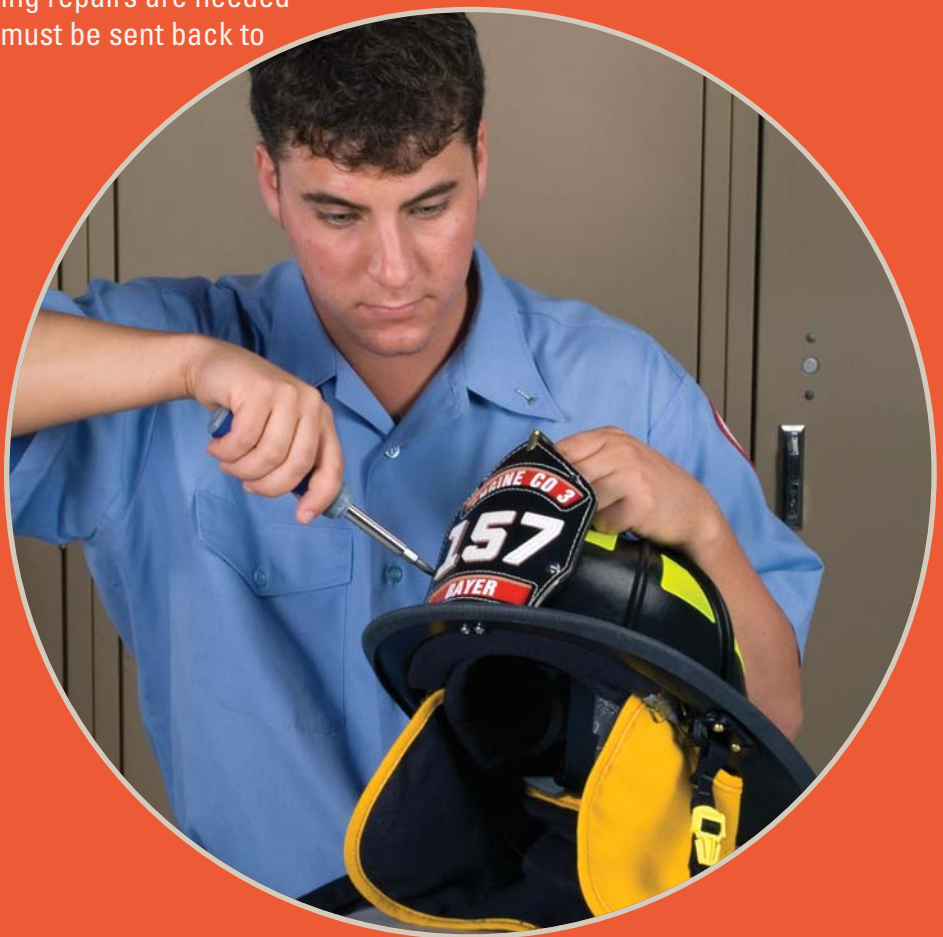
NFPA 1851, 2008 Edition, Section 8, Repair, specifies that repairs be performed only by members of the organization who have been trained to a level required by the manufacturer.

Cairns Fire Helmets are designed to be simple to repair and maintain, and can be completely disassembled and reassembled by reading, understanding, and following the instructions in the Cairns Fire Helmet Owner's Guide. MSA does not require any additional training to complete repairs on most Cairns Fire Helmets.

Certain MSA Cairns leather helmet repairs can be made only by MSA at the Cairns Fire Helmet factory. If any of the following repairs are needed on a Cairns leather helmet, the helmet must be sent back to the factory:

- Repaint
- Replace earlap
- Replace impact cap
- Replace front holder
- Replace suspension system
- Replace ratchet
- Replace D-ring
- Replace faceshield/hardware
- Replace chinstrap

Records of all helmet repairs should be kept on the Cairns Fire Helmet Tracking Form.



RETIREMENT OF THE FIRE HELMET:

In most cases, Cairns Fire Helmets can be repaired and kept in service. However, if a Cairns Fire Helmet has been too damaged to be repaired, it must be taken out of service and replaced.

In addition to retirement of a fire helmet due to damage, NFPA 1851, 2008 Edition specifies that the fire helmet be retired 10 years after the date of manufacture.

If parts have been replaced throughout the life of the helmet, it must be retired when the oldest component reaches 10 years old.

The Cairns Fire Helmet Tracking Form should be used to keep track of the helmet's age and any repairs, and the helmet must be retired when 10 years is reached.

Records of all helmet retirements should be kept on the Cairns Fire Helmet Tracking Form, which is available on our website, www.MSAnet.com.



OPTIONAL ONLINE CERTIFICATION:

An optional quiz and training certificate is available if your organization requires a documented understanding of NFPA 1851 compliance training for Cairns Fire Helmets. This certification can be obtained by successfully completing a short online quiz to demonstrate your knowledge of Cairns Fire Helmets and NFPA 1851.



Go to the Fire Helmets page on www.MSAnet.com and follow the instructions to complete the quiz. Your certificate will be immediately available for printing or saving after successfully completing the quiz.

Note: This Bulletin contains only a general description of the products shown. While uses and performance capabilities are described, under no circumstances shall the products be used by untrained or unqualified individuals and not until the product instructions including any warnings or cautions provided have been thoroughly read and understood. Only they contain the complete and detailed information concerning proper use and care of these products.



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