

*This is an abbreviated guide and is not intended as a substitute for the CAFCO<sup>®</sup> BLAZE-SHIELD<sup>®</sup> II HS Application and Installation Manual. All applicators should thoroughly review the Application and Installation Manual prior to applying this product.*

**ACCEPTABLE NOZZLES:**

2-1/2" (64 mm) I.D. RA-9 Airless or 2" (51 mm) I.D. RA-6 Airless nozzles manufactured by Hydra-Cone. The use of an expander sleeve is recommended to provide an even spray pattern.  
2-1/2" (64 mm) I.D. Boss 8 and 6 jet Airless nozzles manufactured by Contractors Consulting Service.

2-1/2" (64 mm) I.D. High output Air/Water nozzle manufactured by Hydra-Cone. The use of an expander sleeve is recommended to provide an even spray pattern. A 10 to 20 cfm (280 to 570 liters/min) **AIR COMPRESSOR** providing 60 psi (4.1 kg/cm<sup>2</sup>) air pressure at the nozzle is required when using an Air/Water nozzle.

**UNACCEPTABLE NOZZLE:**

2" or 2-1/2" (51 or 64 mm) I.D. Hydra-Cone (Center Stem Jet) manufactured by Hydra-Cone.

**RECOMMENDED EQUIPMENT:**

Unisul - All Pneumatic Fireproofing Machines  
Contractors Consulting Service - All BOSS Machines

**MACHINE SETTINGS:**

Unisul - Carding boxes or slide gates should be fully opened.  
BOSS - Discs should be set at position 10.

When feeding material, empty only one bag of material into machine hopper at a time. When the hopper is one quarter full, empty next bag into the hopper.

**WATER RATIO:**

Approximately 1.3 to 1 water to material ratio, by weight. Water pressure should be a minimum of 65 psi (4.4 kg/cm<sup>2</sup>) as measured at the nozzle. Refer to the CAFCO BLAZE-SHIELD II HS Application and Installation Manual for methods to determine water to product ratios.

**WATER BOOSTER PUMP:**

IT IS MANDATORY THAT A WATER BOOSTER PUMP WITH A 55 GAL. (208 LITER) RESERVOIR TANK BE USED TO INSURE PROPER WATER PRESSURE AND VOLUME.

**HOSE SET-UP:**

**TRANSFER HOSE** must be smooth interior, rubber or plastic with a 2-1/2" (64 mm) or 3" (76 mm) Inside Diameter (I.D.). Hose must be reinforced to resist kinking or cracking, and must resist static build up. Flexible hose length should not exceed 250 ft. (76 m). Metal standpipe 2-1/2" – 3" (64-76 mm) I.D. must be used when transfer height exceeds 3 stories or 36 ft (11 m) or when total length (horizontal plus vertical) of material hose were to exceed 250 ft (76 m).

**LIGHTWEIGHT FLEX HOSE (WHIP HOSE)** must be smooth interior, rubber or plastic with a 2" (51 mm) or 2-1/2" (64 mm) Inside Diameter. Hose must be lightweight and flexible to allow mobility at the nozzle, and must resist static build up. The maximum whip hose length is 25 ft. (8 m).

**NOZZLE DISTANCE:**

18" to 24" (0.4 to 0.6 m) from the substrate.

**APPLICATION TEMPERATURE:**

Maintain a minimum substrate and ambient temperature of 40°F (4°C) prior to, during, and a minimum of 24 hours after application.

**SURFACE PREPARATION:**

Ensure surfaces are clean and free of dirt, oil, grease, loose mill scale, paints/primers (other than those tested and found acceptable) and any other materials that may impair adhesion. For applications to painted/primed steel, contact the Isolatek International Technical Department.

**Note: Some substrates may require the use of CAFCO<sup>®</sup> BOND-SEAL or metal lath. Refer to the CAFCO BLAZE-SHIELD II HS Application and Installation Manual for specific requirements.**

**VENTILATION:**

Provide a minimum of 4 complete air exchanges per hour until the material is dry.

**WATER OVERSPRAY:**

IT IS MANDATORY THAT THE CAFCO **BLAZE-SHIELD II HS** BE OVERSPRAYED WITH WATER BEFORE THE END OF THE WORK DAY. IF WATER OVERSPRAY IS NOT PROVIDED, THE MINIMUM BOND STRENGTHS MAY NOT BE MAINTAINED.

**WATER TO FIBER RATIO & PRODUCTIVITY:**

1. **DETERMINE THE MAXIMUM WATER OUTPUT.**
  - Establish the maximum water quantity by opening the water valve to the fully open position and directing the spray into a 5 gallon pail\* for 1 minute.
  - Measure the height of the water in inches.
  - Compare the height of the water in the pail to the chart below and determine the maximum bag per hour rate.
  
2. **DETERMINE THE CAFCO BLAZE-SHIELD II HS FEED RATE**
  - Measure the time it takes to spray one bag. This is done by spraying material until the hopper is nearly empty. Material should be at the level of the top of the auger in hopper bottom.
  - Turn feed off, empty one bag into hopper.
  - Turn feed on and start stopwatch. When material is at the level of the top of the auger (the initial starting point) stop the stopwatch and record the time. E.G. Assume it takes 2 minutes 30 seconds to spray 1 bag.  
1 bag ÷ 2.5 minutes x 60 min./hr. = 24 bags/hr.
  
3. Adjust the material feed rate to match the water level measured.

**\* 5 gal. Pail is the one used for CAFCO BOND-SEAL. It measures 10-7/8” dia. at bottom, 11-3/8” dia. at top and is 15” high. Using any other pail (with different dimensions) will give erroneous results.**

Inches of Water/minute	Time to Spray One Bag	Bags/Hour
2.0	10 min. 43 sec.	5.6
2.5	8 min. 34 sec.	7.0
3.0	7 min. 9 sec.	8.4
3.5	6 min. 7 sec.	9.8
4.0	5 min. 21 sec.	11.2
4.5	4 min. 46 sec.	12.6
5.0	4 min. 17 sec.	14.0
5.5	3 min. 54 sec.	15.4
6.0	3 min. 34 sec.	16.8
6.5	3 min. 18 sec.	18.2
7.0	3 min. 4 sec.	19.6
7.5	2 min. 51 sec.	21.0
8.0	2 min. 41 sec.	22.4

**NOTE:** Only the listed equipment, nozzles and procedures are approved for applying CAFCO BLAZE-SHIELD II HS. Deviations from any of these recommendations will result in product not meeting claims as published in Isolatek’s literature. For complete details, refer to the CAFCO Application and Installation Manual. **This guide is not a substitute for the CAFCO BLAZE-SHIELD II HS Application and Installation Manual.**

The performance data herein reflects our expectations based on tests conducted in accordance with recognized standard methods. The sale of these products shall be subject to the Terms and Conditions of Sale set forth in the Company’s invoices.

No agent, employee or representative of the Company, or its subsidiary or affiliated companies, is authorized to modify this statement.



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