

**GENERAL DESCRIPTION:**

The HOSE STREAM 120® INSTALLED BACK-TO-BACK is a deployable Steel-Tex fire shutter system composed of wired reinforced steel-textile shutter on round steel tubes in a fire rated assembly. The Steel-Tex fire shutter remains retracted above the finished ceiling until activated by fire alarm or smoke alarm at which point they descend at 6 in/sec. and create a smoke and fire barrier. The shutter can also be nonmotorized when activated by a fusible link for smaller openings. The system consists of:

- A back to back headbox/roller roller assembly with 0.05 in. thick galvanized steel headboxes at a minimum 9 in. x 9 in. dimension. Maximum span up to 146 ft. and drop height of 20 ft.
- A motor controller (MC) is housed in a steel enclosure and mounted onto the motor end of the head boxes. NFPA 70 compliant DC motor interfaced with Control Panel (CP) and suitably weighted bottom bars. Internal or external motors depending on length.
- Removable fire rated cover plates incorporated to allow access to shutter roller.
- Shutter passes through fire rated galvanized steel auxiliary rails (side guides) that are factory painted or can be repainted in the field by others.
- If required, egress switches can be provided on both sides of shutter when shutter is directly in the path of egress.
- Tested at Guardian Fire Testing Laboratories.  
Accreditation  
ISO 17025 (testing)  
ISO 17020 (inspection)  
ISO 17065 (production certification)

**STANDARDS:**

The HOSE STREAM 120® INSTALLED BACK-TO-BACK is certified for quality by ISO 9000, meets and exceeds the requirements of:

- Tested in accordance to UL 10B and ASTM E2226 (Hose Stream)
- NFPA 252 Compliance
- Tested to UL 1784
- UL864 Releasing Device

**PERFORMANCE:**

- Three hours fire rated at 1800°F
- Bottom bars deploy ~6"/second. Heavier bottom bars deploy ~12"/second.
- Two parallel fire shutters with 90 minute fire-resistance can be considered to have a 3 hour fire resistance rating based on "harmathy's rule".
- Fail-safe battery backup

**Component Additive Calculation Procedure**

The component additive calculation procedure is a method to determine conservatively the fire resistance ratings of load-bearing light-frame wood floor and roof assemblies and of load-bearing and nonload-bearing wall assemblies. With this procedure, as with Harmathy's rules 1 and 2, one assumes that times can be assigned to the types and thicknesses of protective membranes and that an assembly with two or more protective membranes has a fire resistance rating at least that of the sum of the times assigned for the individual layers and the times assigned to the framing. The procedure was developed by the National Research Council of Canada (NRCC), and has gained code approval in both the U.S. and Canada.

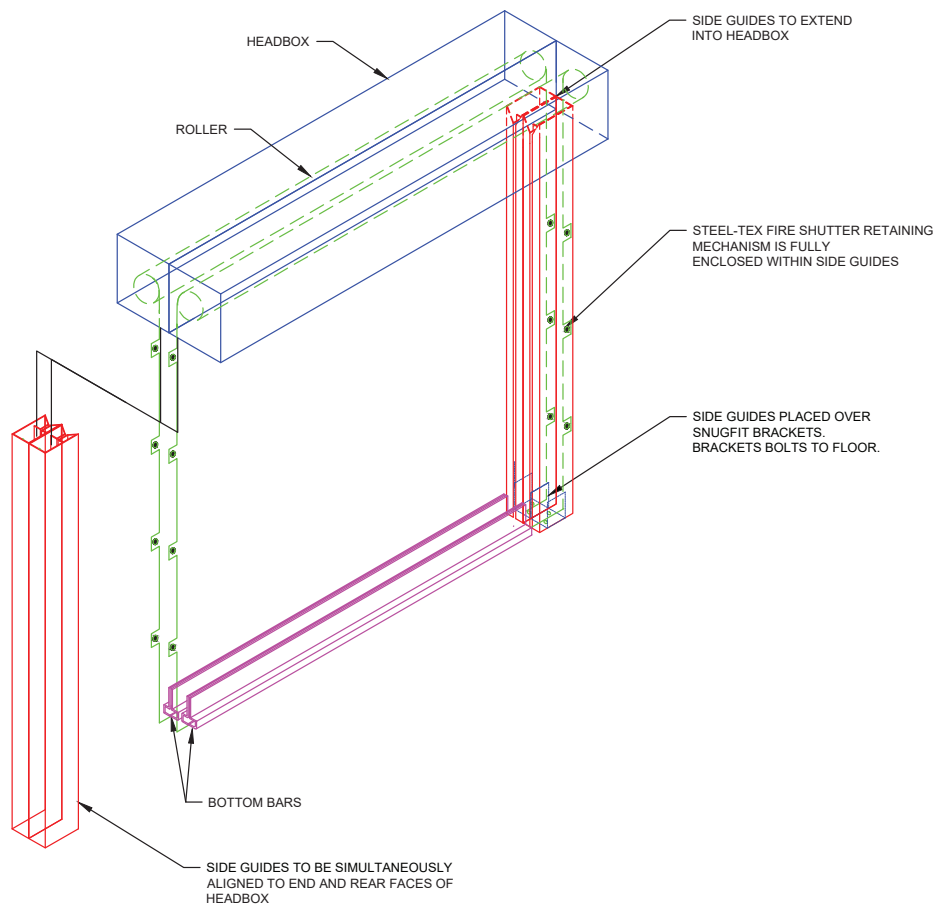
- a. Two doors, each with a fire protection rating of 1 1/2 hours, installed on opposite sides of the same opening in a fire wall, shall be deemed equivalent in fire protection rating to one 3-hour fire door.

## CONTROL PANEL (CP):

The Steel-tex fire shutter deployment mechanism is directly synched and integrated in the fire alarm emergency systems.

When an alarm signal is detected, the Control Panel (CP) will automatically trigger all the shutter systems to deploy in a controlled descent under gravity. In normal operating conditions the CP provides AC supply to the Motor Controller (MC) to keep the shutters in retracted condition. Should smoke be detected, the fire alarm control system will send a signal to the CP and the shutters will deploy at a controlled speed to their operational position. When the fire alarm system goes back to normal power mode, the shutters will automatically retract back to the housing.

## BACK TO BACK HOSE STREAM SHUTTER DIAGRAM



**U.S. SMOKE & FIRE®**

12310 Pinecrest Road, Suite 300, Reston, VA 20191 • Phone: 888.917.8777 • Fax: 888.917.8777  
Washington, DC • Boston • New York • Miami • Dallas • San Francisco  
[www.ussmokeandfire.com](http://www.ussmokeandfire.com) • [aeteam@ussmokeandfire.com](mailto:aeteam@ussmokeandfire.com)

