



GLASS COLUMN

Product Description

BASIC USE

Glass Fireproof Columns are a decorative covering for a structural columns, that carry a fire rating by Underwriters Laboratories. The tempered glass column cover is composed of three or more sections configured to form an enclosure, which then surrounds the structural fireproof column so that the column itself is not visible.

Glass Fireproof Columns allow a variety of decorative options, including marketing, branding or advertising images can be digitally printed in ceramic inks on the glass panel using a process of Vision Ink by Glasshape <https://glasshape.com/visionink/>. If temporary or changeable images are desired, a vinyl wrap system can be used and easily changed out on site. Glass Fireproof Columns can also be illuminated for custom designs with factory or site installed LED lighting for architectural applications.



ABOUT FIREPROOF COLUMNS

Black Rock Prefabricated Fireproof Columns were introduced in 1972 and are a market leader in the UL Listed prefabricated fireproof column industry. Our columns are designed as a prefabricated fireproof unit consisting of a load-bearing steel column encased in a proprietary insulating material which is permanently protected by an outer shell of non-load-bearing steel. Black Rock columns are rated and labeled by UL for fire retardant classifications of 2, 3 and 4 hour rating per ASTM E 119, as well as the latest specifications of the American Institute of Steel Institute, (AISI), and the American Concrete institute, (ACI). The inner load-bearing core column can be a wide-flange (WF), pile or hollow steel section (HSS) shape, meeting current ASTM grades. All core column fabrication is within accordance with American Institute of Steel Construction, (AISC), standards and practices. All connections are attached to the core column and can be designed to penetrate the outer shell without affecting the hourly rating, maintaining AISC standards.

The outer steel shell is available in many shapes and sizes, with custom sizing available. The attractive architecturally exposed structural steel, (AESS), outer shells make Black Rock the premier choice for exposed areas, including window wall construction, schools, dormitories, hospitals and parking garages. Structural WF, pipe, and HSS square and rectangular shapes meet ASTM standards and all outer shells are coated with standard metal primer (unless specified otherwise) prior to shipping. Stainless Steel, Aluminum, Copper, Bronze Cor-Ten, Galvanizing, SP-6 sandblasting and high-performance coatings are readily available.

Headquarters

Black Rock Fireproof Column
164 School Street
East Hartford, CT 06108

Talk to Us

(860) 610-4026

See Us Online

info@blackrockcolumn.com
Website: www.blackrockfireproof.com





Material and Composition

INTERIOR BLACK ROCK FIREPROOF COLUMN

INTERIOR CORE COLUMN

SPECIFIED BY THE ENGINEER CONSISTING OF ONE OF THE FOLLOWING:

- WF: A992
- HSS (A 500 GRADE B AND C SHAPE) *
- PIPE (A-53 GRADE B) OR A A106B SEAMLESS*
- HOLLOW CORE COLUMNS ARE FILLED WITH CONCRETE AS PER ASTM C94; 4K IN 28 DAYS

FIREPROOF INSULATING MATERIAL

PROPRIETARY VERMICULITE-BASED INSULATING MATERIAL IS UL-APPROVED AND CONFORMS TO ASTM C516-80.

- BATCHED AND PUMPED IN-HOUSE TO MAINTAIN QUALITY AND CONSISTENCY
- MINIMUM COVERING OF PROPRIETARY FIREPROOFING IS IN ACCORDANCE WITH MINIMUM HOURLY RATING REQUIREMENTS ESTABLISHED BY UL CLASSIFICATION ANSI/UL 263, ASTM E119

OUTER STEEL SHELL

- THE OUTER NON-LOAD BEARING STEEL SHELL IS AVAILABLE IN ROUND, SQUARE, RECTANGULAR AND CUSTOM SHAPES
- WALL THICKNESS VARIES FROM 10 GAUGE TO 3/8 INCH DEPENDING ON SIZE AND SHAPE
- SHOP PRIMING OF ALL SHELLS IS OUR SHOP STANDARD
- WHEN SPECIFIED SANDBLASTING AND HIGH-PERFORMANCE PRIMERS ARE AVAILABLE, ALL ARE PERFORMED IN-HOUSE
- CUSTOM SIZES ARE AVAILABLE UPON REQUEST

GLASSHAPE PANELS

STANDARD CONNECTION DESIGN;

- SPIDER FITTING
- STANDOFF ASSEMBLY
- SLOT MOUNT STANDOFF
- SHELF BRACKET
- GLASS CLAMP

ACCEPTABLE IMAGE FILES FOR GLASS PRINTING

AI, TIFF, JPG, EPS, PNG, PS, BMP.

3 PANELS @ 2400MM HIGH X 40" - 1000MM MINIMUM GIRTH

4 PANELS @ 2400MM HIGH X 30" - 780MM MINIMUM GIRTH

LED LIGHTING

- LEDS AND POWER SUPPLIES BY Q-TRAN, INC.
- LEDS ARE 3500K CCT WITH A 97 CRI.
- 5 WATTS AND 428 LUMENS PER FOOT.
- LEDS ARE INSTALLED IN LINEAR EXTRUSIONS (WIDE) WITH DIFFUSE (DF) LENSING WITH 97° BEAM ANGLE.
- LINEAR RUNS ARE MOUNTED VERTICALLY TO CONCRETE OR STEEL SHELL COLUMN AT APPROX 4" FROM GLASS AT 4" O.C. SPACING.
- POWER SUPPLIES ARE AVAILABLE NON-DIM OR WITH 0-10V OR ELV/MLV PHASE DIMMING.

VINYL WRAP

3M 8150 OPTICALLY CLEAR FILM

- CAST FILM
- FOR USE ON WINDOWS AND GLASS, ACRYLIC AND POLYCARBONATE.
- CREATE UNIQUE EFFECTS - ONE-WAY VISION, DUSTED CRYSTAL, AND MORE.
- MORE ADHESION VERSUS PERFORATED WINDOW FILM AND NO EDGE TAPE REQUIRED.
- OPTICAL CLARITY FOR EXCELLENT SEE-THROUGH.
- CONFORMABLE. HAS GREAT LIFTING RESISTANCE EVEN ON COMPOUND CURVED WINDOWS.

3M 3630 SCOTCHCAL™ TRANSLUCENT GRAPHIC FILM

- CAST FILM
- USED FOR BACKLIT GRAPHICS THAT HAVE UNIFORM COLOR IN BOTH REFLECTED AND TRANSMITTED LIGHT.
- WHITE, TRANSLUCENT FILM HAS A SYNTHETIC LAYFLAT LINER AND CLEAR, PRESSURE-SENSITIVE ADHESIVE.
- IT IS APPROVED FOR MAKING PERMANENT INTERIOR OR EXTERIOR GRAPHICS ON SELECTED LATEX/UV PRESSES.

FABRICATION PROCESS (2ND SURFACE APPLICATION)

- PRINT REVERSE IMAGE ON 3M 8150 OPTICALLY CLEAR FILM
- MOUNT 3M 3630 TO THE PRINTED SIDE OF THE 3M 8150
- DIGITALLY CUT THE PANELS TO FINAL SIZE FOR MOST ACCURATE IMAGE CONSISTENCY
- WET APPLY THE GRAPHIC PANEL(S) TO THE GLASS PANEL (MINIMIZES/ELIMINATES AIR BUBBLES)
- SQUEEGEE EXCESS WATER/SOLUTION



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- LET CURE/DRY FOR UP TO 36-48 HOURS
- GRAPHICS CAN BE EXCHANGED OUT PERIODICALLY

MODELS AND SIZES

COMPLETE STANDARD SIZES AVAILABLE ONLINE. CUSTOM SIZES AVAILABLE BY SPECIAL ORDER.

- TYPE OH: WF CORE COLUMN WITH ROUND OUTER SHELL
- TYPE SH: WF CORE COLUMN WITH SQUARE SHELL
- TYPE OO: ROUND CORE COLUMN WITH ROUND SHELL
- TYPE SO: ROUND CORE COLUMN WITH SQUARE SHELL
- TYPE SS: SQUARE CORE COLUMN WITH SQUARED OUTER SHELL
- TYPE RR: RECTANGULAR CORE COLUMN WITH RECTANGULAR SHELL

FIRE RATINGS

ALL COLUMNS ARE AVAILABLE IN THREE DIFFERENT HOURLY RATINGS:

- X106: TWO-HOUR
- X104: THREE-HOUR
- X101: FOUR-HOUR OPTIONS

CUSTOM SIZING FOR OUTER SHELLS

HIGH-PERFORMANCE PREP AND FINISH OPTIONS

PRODUCT LIMITATIONS

COLUMNS ARE SUITABLE FOR INTERIOR AND EXTERIOR APPLICATIONS

APPLICABLE STANDARDS

AMERICAN WELDING SOCIETY (AWS)

- AWS D.1.3 STRUCTURAL WELDING CODE

SHEET STEEL THE SOCIETY FOR PROTECTIVE COATINGS (SSPC)

- SSPC-PAINT 20 - ZINC RICH PRIMERS – TYPE I INORGANIC AND TYPE II ORGANIC STEEL STRUCTURES PAINTING COUNCIL (SSPC)
- SSPC PA1-[2016] SHOP, FIELD AND MAINTENANCE PAINTING OF STEEL
- SSPC SP3-[2004] POWER TOOL CLEANING
- SSPC SP 6/NACE NO. 3, COMMERCIAL BLAST CLEANING.
- SSPC SP 10/NACE NO. 2, NEAR-WHITE BLAST CLEANING. UL INTERNATIONAL

UL FILE NUMBER R8199

US GREEN BUILDING COUNCIL (USGBC)

- LEED NC VERSION 2.2-[2014]

LEED (LEADERSHIP IN ENERGY AND ENVIRONMENTAL DESIGN)

GREEN BUILDING RATING SYSTEM REFERENCE PACKAGE FOR NEW CONSTRUCTION AND MAJOR RENOVATIONS

American Institute for Steel Construction (AISC)

- AISC 303-[2010] Code of Standard Practice for Steel Buildings and Bridges
- AISC 325-[2011] Steel Construction Manual ASTM International (ASTM)
- ASTM A36/A36M-[2014] Specification for Structural Steel
- ASTM A123 Standard Specification for Zinc (Hot Dipped Galvanized) Coatings on Iron and Steel Products
- ASTM A572/A572M - 15 Standard Specification for High-Strength Low-Alloy Columbium-Vanadium Structural Steel
- ASTM A992/A992M - 11 Standard Specification for Structural Steel Shapes
- ASTM A276 / A276M - 17 Standard Specification for Stainless Steel Bars and Shapes
- ASTM B103 / B103M – 15 Standard Specification for Phosphor Bronze Plate, Sheet, Strip, and Rolled Bar
- ASTM B370 - 12 Standard Specification for Copper Sheet and Strip for Building Construction
- ASTM A1003 Standard Specification for Steel Sheet, Carbon, Metallic and Nonmetallic-Coated for Cold-Formed Framing Members
- ASTM C150 Standard Specifications for Portland Cement
- ASTM C404 Standard Specification for Aggregates for Masonry Grout
- ASTM C1107 Standard Specification for Packaged Dry, Hydraulic Cement Grout (Nonshrink)
- ASTM E119 Standard Test Methods for Fire Tests of Building Construction and Materials
- ASTM F3125/F3125M-[2015] Standard Specification for High Strength Structural Bolts, Steel and Alloy Steel, Heat
- Treated, 120 ksi (830 MPa) and 150 ksi (1040 MPa) Minimum Tensile Strength, Inch and Metric Dimensions



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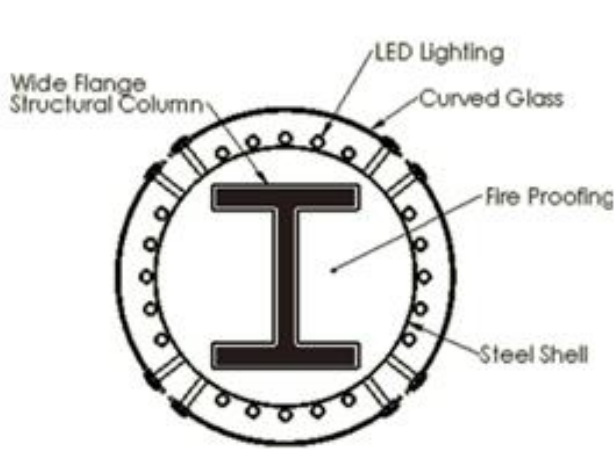
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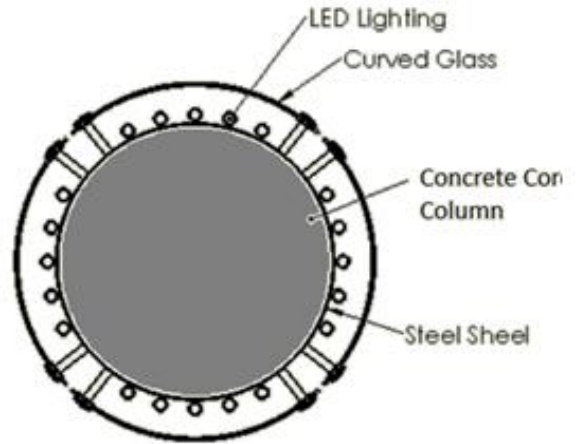
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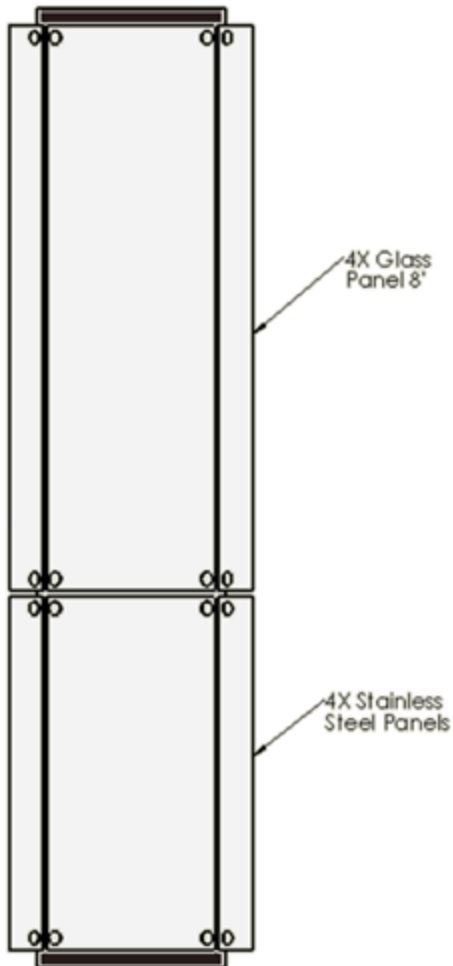




TYPE A - STUD



TYPE B - CONCRETE CORE



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