ENHANCED STRUCTURAL PERFORMANCE THROUGH UNIQUE INTERLOCKING DESIGN

A non-traditional curtain wall system that allows glazing installation from either side, providing greater strength and stability with less material weight per lineal for substantial cost savings.
Using our engineering experience with aluminum curtain wall, we designed our TubeLock curtain wall to save you time and money on materials and labor while providing features missing from conventional curtain walls.

Why TubeLock?
- Glazing and reglazing flexibility provides easier system integration during project design phase
- Tubelock horizontal to vertical mullion joint design significantly reduces field labor assembly costs
- Mill finish main frame components help support shorter project dry-in schedules
- Framing and glazing can proceed while finish for trim is still being selected
- Unique three way adjustable anchors provide flexibility while providing vertical system expansion.
- Adjustable anchors accommodate wind load, live load or dead load anchoring conditions
- Head and sill anchors provide for easy adjustment and quick installation of vertical Mullions
- Mullion has a high strength to weight ratio due to tubular I-beam design
- The use of shallow horizontals reduces material cost while retaining strength
- Only interior and exterior covers require finish allowing reduced finishing cost
- Shear blocks and zone dams are unnecessary
- Straight cut trim caps save time and labor during fabrication

Our Design
TubeLock Curtain Wall is one of FM Graham’s new and innovative products in the curtain wall market. The system is designed with a minimal number of parts resulting in cost savings in both materials and field fabrication labor. The design of the TubeLock system keeps all fabrication, assembly bolts and frame sealants hidden behind snap covers. This gives the system clean lines with no exposed fasteners.

Since the main structural elements of the TubeLock curtain wall are the tubular I-beams, interior and exterior snap covers are installed after curtain wall installation and glazing. This results in shorter dry-in times, allowing other trades to start interior finishing work. Interior snap covers are needed only in vision areas, resulting in savings in material and finishing costs in spandrel locations. TubeLock system installations can also have different factory applied finish colors in multiple locations; interior and exterior finishes are independent of each other. Exterior snap covers can be made in different depths and profiles can be provided to meet project aesthetic requirements. For vision areas with blinds, shallow horizontal trim covers allow blinds to pass uninterrupted past the horizontal Mullions.

The tubular I-beam in the TubeLock curtain wall design yields high structural values for tall unsupported spans and high torsional rigidity unavailable in conventional I beam curtain walls. The tubular pocket of the I beam that serves as a receiver for the slide in anchors can also accommodate structural reinforcement when necessary.

TubeLock curtain wall fabrication is simplified, using a patented horizontal to vertical mullion design employing a single bolt to fasten the horizontal to the vertical mullion. Joints are also easily accessible for sealant application. All these advantages add up to cost savings for installation labor.

The TubeLock curtain wall system also provides flexibility in glazing. It can be glazed from the interior at vision areas or the exterior at spandrel locations using the same parts and extrusions for both installations. This reduces material handling and fabrication costs.

FM Graham provides TubeLock curtain wall as a factory fabricated product that ships knock down (KD) directly to the job site or the dealer’s warehouse. Like all FM Graham products, we provide design, details, shop drawings and PE stamps as part of our standard package.

Performance
Independent laboratory testing by an accredited testing agency has shown that the TubeLock curtain wall system has met the following minimum performance criteria:
- Air Infiltration - Does not exceed 0.01 cfm per square foot of fixed area at a test pressure of 6.24 psf when tested in accordance with ASTM E283
- Water Infiltration - Passed 15 psf per ASTM E331
- Uniform Load Deflection - Passed +/- 80 psf per ASTM E330
- Uniform Load Structural - Passed +/- 120 psf per ASTM E330
- Thermal Performance - System meets a minimum frame CRF of 67 when tested in accordance with AAMA 1503.