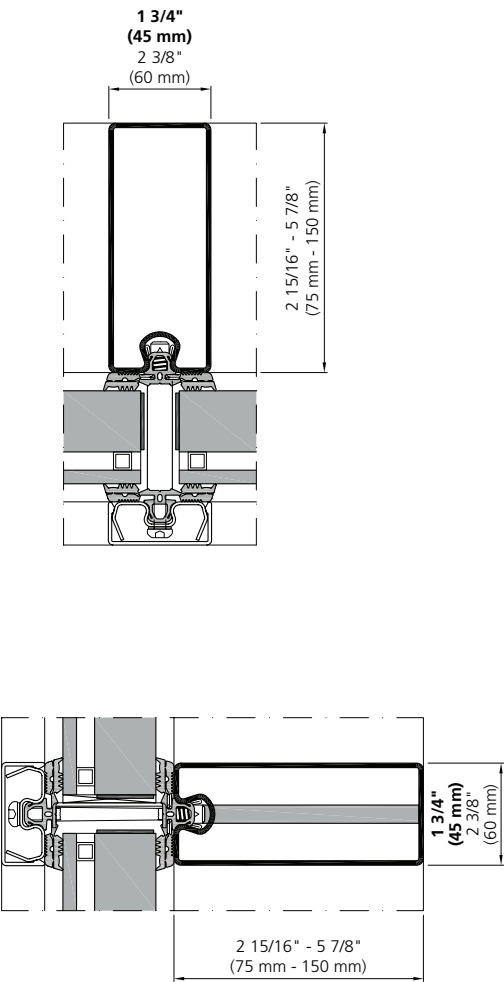


Steel



forsterthermfix vario

60 / 90 and 120 minutes



Maximum Allowable Size

Rating	Max. Exposed Glass Area Per Piece	Max. Exposed Single Dimension
60 Minutes	5,605 sq. inches	95"
90 Minutes	3,724 sq. inches	95"
120 Minutes	3,724 sq. inches	111"

Forster thermfix vario fire-protection: the comprehensive programme for self-supporting fire-resistant constructions made from mullion/transom profiles, universally suitable for use as vertical elements (façades), as well as inner and outer partition walls in fire-resistant categories 60 / 90 and 120 minutes.

Decisive advantages

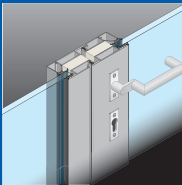
- High degree of aesthetic appeal**
- Thanks to extremely slender visible sidelight of 1 - 3/4" (45mm) or 2 - 3/8" (60mm) – and individual profile design and surface treatment.
- Performance**
- Impressive element sizes for generous appearance and transparency over a large area.
  - Can be used over several storeys up to a height of 16' 5" (5000 mm)
- Safety and protection**
- Listed and labeled by Underwriters Laboratories, Inc. ® and Underwriters Laboratories of Canada. File number for labeled 60/120 minute fire-rated assemblies is R-16641 Design Number U537. Frame tests performed in accordance with ASTM E-119, NFPA 251, UL 263, UL 9, UL 10C, UBC 7-2, UBC 7-4.
- Creativity**
- Perfectly harmonising components ensure extraordinary potential for freedom of design.
  - Also in combination with Forster fuego fire-resistant doors
  - Trouble-free assembly using mechanical T-joints.

You can obtain further information about specific approvals from Vetrotech Saint-Gobain NA [www.vetrotechusa.com](http://www.vetrotechusa.com)



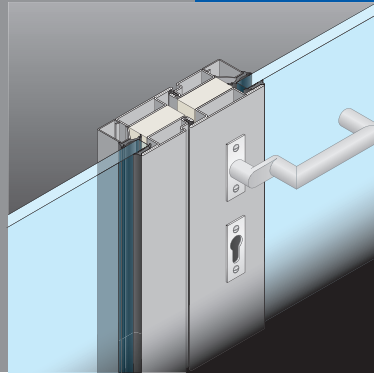
Fire-resistant doors and screenings

The system Forster fuego has proved itself many times over and now completes the range with tested fire-resistant doors and fire-resistant glazing 40 / 60 / 90 and 120 minutes. The door constructions are particularly suitable for areas subject to heavy traffic and satisfy the most stringent requirements with regard to functionality and constant stress.



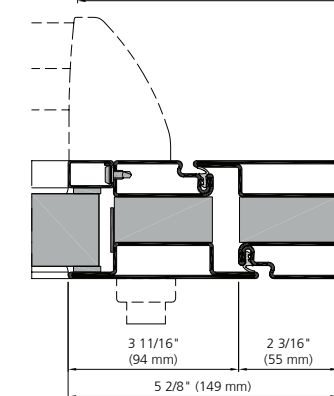
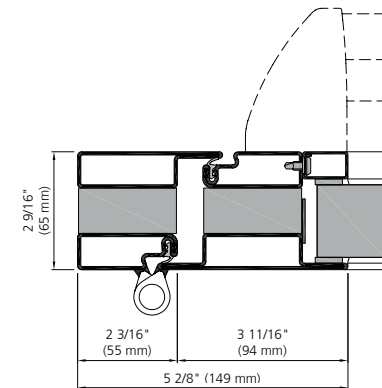


Steel

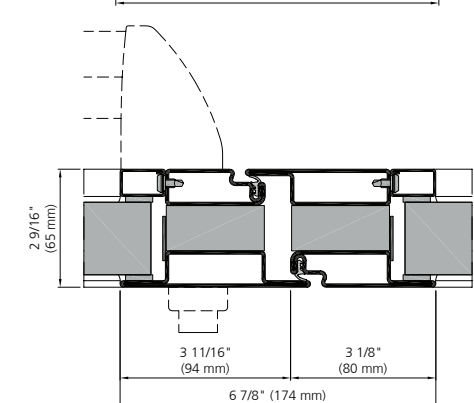
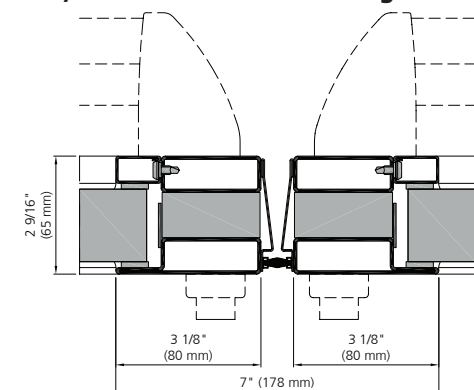


## Tested and approved fire protection VDS Curtain Wall System for glazed fire-resistant doors and screenings 45 / 60 / 90 and 120 minutes

### 60 / 90 minute stand alone door



### 60 / 90 minute door meeting stiles



Forster fuego is the tested and approved, very extensive complete profile system with fittings and accessories for flush single- and double-leaved glazed doors, as well as for generously proportioned glazed walls.

Areas subjected to a great deal of traffic demand robust constructions. The steel elements of VDS Curtain Wall satisfy the most stringent requirements with regard to technical functionality and extreme continuous stress.

### Decisive advantages

High degree of aesthetic appeal

- Uniform look throughout on profiles and fittings. The Z-shaped profile allows maximum widths.

Locks and fittings (approved american hardware can be used)

- Fittings to match the system.
- Attractively shaped stainless steel handles set and slender roller door hinges.
- Concealed door-closing systems.

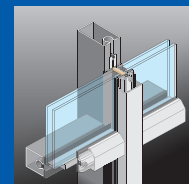
Safety and protection

- Fire-resistant doors in combination with smoke-resistant requirements.
- Fire-resistant screening 45 / 60 / 90 and 120 minutes
- Maximum safety that remains invisible.
- Passes positive pressure test standards UL 10C, UBC 7-2 and UBC 7-4

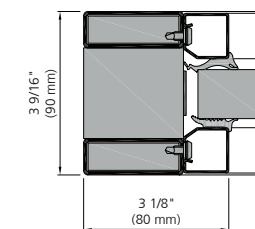
Listed and labeled by Underwriters Laboratories® and Underwriters Laboratories of Canada. File number for labeled 60 / 90 / 120 minute fire-rated assemblies is R-16641 / R-21835 design U533. Frame tests performed in accordance with ASTM E119, NFPA 251, UL 263, UL 9, UL 10C, UBC 7-2 and UBC 7-4. Door tests performed in accordance with UL 10B, UL 10C.

### Fire-resistant curtain-wall

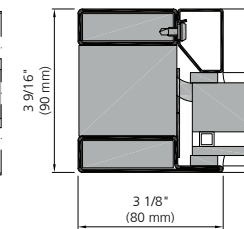
The slim, multifunctional mullion/transom system Forster thermfix vario completes the system range with a tested fire-resistant glazing 60 / 90 and 120 minutes available either in steel or in stainless steel. With a visible section width of only 45 mm, the system satisfies even the most exacting aesthetic demands.



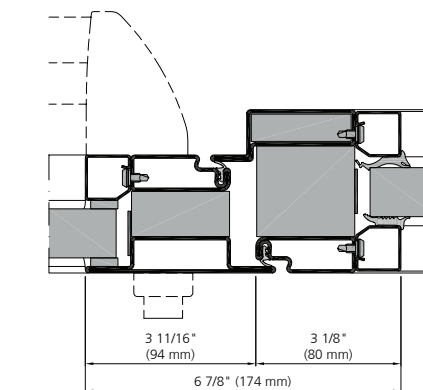
### 60 minute interior window



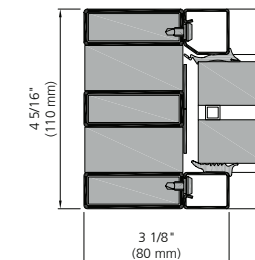
### 60 minute exterior window



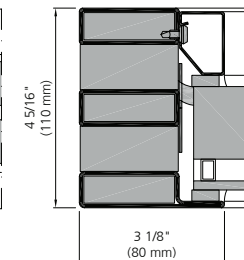
### 60 minute frame assembly with 90 minute door



### 120 minute interior window



### 120 minute exterior window



### 120 minute frame assembly with 90 minute door

