EMBOSSED
DOORS

TRADITION MEETS AVANT-GARDE

This line brings together the strength of steel with the flexibility of the latest technology in order to personalize the design of doors. For classic elegance and an economical solution, choose from our pre-embossed panel doors. For a more contemporary look, draw the lines, curves and panels yourself to enrich the perspectives of your project with a unique touch. Either way, your embossed doors will benefit from the quality and guarantee of DE LA Fontaine.

EXAMPLES OF USE
- Hotels
- Office buildings
- Apartments, condominiums
- Residences for seniors
- Student residences
- Recreation centers

BENEFITS
- Fire resistance approval: Positive pressure UL 10C: Up to 180 minutes; British Standard (BS-476-22): Up to 240 minutes
- Surpasses the American National Standards Institute ANSI A250.4 standard
- Includes materials with high recycled content
- The performance of a commercial-grade steel door, moderate to heavy-duty
- Soundproofing option available, rating between 33 and 47 STC
- Personalized and exclusive design thanks to embossed panels and lines on the surface of the door
- Pre-finished in factory: Standard and custom colors

CHOICE OF DESIGN
- Pre-embossed panel doors
- Personalized, made-to-measure embossed doors: Straight lines and curves
- V-type or U-type embossing
- Regular or inverted embossing

MATERIALS
- Pre-embossed door: A40 galvannealed steel, 18-gauge
- Door with personalized embossing: A40 and A60 galvannealed steel, stainless steel, type 304, 316, satin finish # 4, 18, 16-gauge
FIRE RATING:

UL 10C (positive pressure): Up to 90 minutes
- Polystyrene/honeycomb core, 2438 mm x 2743 mm (8'0" x 9'0") maximum dimension
- Mineral core, 2438 mm x 2438 mm (8'0" x 8'0") maximum dimension

UL 10C: Up to 180 minutes, (positive pressure)
- Honeycomb core, 2438 mm x 2438 mm (8'0" x 8'0") maximum dimension

British Standard (BS-476-22): Up to 120 minutes,
- Honeycomb core, 2438 mm x 2438 mm (8'0" x 8'0") maximum dimension

British Standard (BS-476-22): Up to 240 minutes,
- Honeycomb core, 1219 mm x 2438 mm (4'0" x 8'0") maximum dimension

ACOUSTICAL RATING:
This product is available with acoustical rating; STC 33 through 47 per ASTM E90.

REFERENCED STANDARDS:
- ANSI A250.3: Test Procedure and Acceptance Criteria for Factory Applied Finish Painted Steel Surfaces for Steel Doors and Frames
- ANSI A250.4: Test Procedure and Acceptance Criteria for Physical Endurance for Steel Doors and Hardware Reinforcings.
- ANSI A250.10: Test Procedure and Acceptance Criteria for Prime Painted Steel Surfaces for Steel Doors and Frames
- NAAMM-HMMA 850: Fire Rated Hollow Metal Doors and Frames
- NFPA 80: Standard for Fire Door and Other Opening Protectives
- NFPA 252: Standard Methods of Fire Tests of Door Assemblies
- NFPA 257: Standard on Fire Tests for Window and Glass Block Assemblies.
- CAN4-S106-M80: Standard Method for Fire Test of Window and Glass Block Assemblies.
- British Standard BS: 476-22

MATERIAL

Custom embossed door:
- Galvannealed steel A40, A60, Stainless steel type 304, 316 satin finish # 4
- 18-gauge, 11 mm (0.045), 16-gauge, 1.4 mm (0.056 in)

Pre-embossed door:
- Galvannealed steel A40
- 18-gauge, 11 mm (0.045)

RELATED LEED CREDIT:

MR Credit 4.1 Recycled Content: 10 % or 20%

Steel:
Our main supplier of galvannealed steel furnishes steel with a total recycled content of 58%. This includes a total post-consumer content of 20%, a total pre-consumer content of 25%, with the balance comprised of home scrap.

Our stainless steel is comprised of 80% recycled content. This includes a total post-consumer content of 20%, a total pre-consumer content of 50%, with the balance comprised of home scrap.

Core:
Our main supplier of honeycomb furnishes a product with a total recycled content of 20%. This includes a total post-consumer content of 10%; a total pre-consumer content of 10%.

Our main supplier of polystyrene furnishes a product with a total recycled content of 69.4%. This includes a total post-consumer content of 33.6%; a total pre-consumer content of 35.8%.
STORAGE, HANDLING AND INSTALLATION


- Approved door and hardware schedule
- Approved shop drawings
- Manufacturer’s recommendations
- Local building codes
- NFPA 80
- ANSI/DHI A115.1G Installation Guide for Doors and Hardware

AVAILABILITY

De La Fontaine products are available from our distributors in Canada, USA and Gulf Cooperative Countries or directly from the factory for other countries. Please visit our website at www.delafontaine.com or contact de La Fontaine for local contact information. Our products are ready for shipment in 1-4 weeks depending of complexity of design and pre-finishing requirements.

WARRANTY

De La Fontaine Inc. warrants all material manufactured by us to be free from defects in material and workmanship that could happen under normal conditions of use and maintenance within one year following the date of their delivery.

Our obligation is strictly limited to repair or replace, at de La Fontaine Inc. options, defective material supplied. Any defects or loss caused to the products following their delivery at the building site and that ensue notably from their manipulation, handling, storing or installation are expressly excluded from the present warranty.

MAINTENANCE

Door surface:

For everyday cleaning, simply wipe the surface with a soft, damp cloth and mild detergent; then rinse thoroughly with warm water and wipe dry.

Before recoating the surface must be clean, dry and free of contaminants. A slight sanding is always recommended.

De La Fontaine factory finish paint is a 2K waterborne acrylic urethane, baked-on. Consult with paint manufacturer’s instruction for the proper conditions required for their product.

TECHNICAL SERVICE

Detailed information including product literature, test reports, installation instruction, and information on special application is available through de La Fontaine. Please visit our website at www.delafontaine.com or communicate with us at tech@delafontaine.com or call at +1 819 821-9230.
C-6

With its embossed motifs, this door combines design elegance with the performance of steel. Approved fire resistant and surpassing the strictest of industry norms, this door benefits from the DE LA FONTAINE guarantee. Moreover, like all of our products, it is prefinished in factory which is a major advantage in terms of quality and efficiency.

SPECIFICATION // PART 2 - PRODUCTS

2.1 MANUFACTURER

de La Fontaine Inc.
4115 Brodeur Street
Sherbrooke, Québec, J1L 1K4, CANADA
Phone local: 819-821-9230
Phone toll free from USA: 800-565-9230
Phone International: +1 819 821-9230
E-mail: info@delafontaine.com
Website: www.delafontaine.com

2.2 MATERIALS

A. Steel requirements:
   1. Interior doors: comply with ASTM A653, Designation A40.

B. Door core:
   1. Interior doors: Impregnated Honeycomb, with 25 mm (1 in) cell maximum diameter.
   2. Exterior doors: Polystyrene core Type 1, fire retardant and a minimum R value of 7.03 (hr °F • sq.ft)/BTU.

2.3. FABRICATION

A. Physical performance
   1. Comply with level A according to ANSI A250.4

B. Door
   1. Door model: de La Fontaine door model: C-6
   2. Metal thickness: 18-gauge, 1.1 mm (0.045 in)
   3. Door thickness: 44.4 mm (1 3/4 in)
   4. Edge construction: seamless, continuously welded, internally steel reinforced stiles of 18-gauge, 1.1 mm (0.045 in). Fully welded centered seam (CW series).
   5. Door end channels: 16-gauge, 1.4 mm (0.056 in), projection welded every 2 in (50 mm). Steel flush channel putty-filled seam and ground smooth at top and bottom location.
   6. Vertical edge on active door: Beveled edges on both side 3.2 mm (1/8 in) in 50.8 mm (2 in).
C. Fire rated openings

1. Manufacture doors and frames as successfully tested in accordance with British Standard (BS-476-22) or:
   - a. NFPA 80
   - b. NFPA 252
   - c. NFPA 257
   - d. UL 10C

2. Fire rating up to 240 minutes. (For detailed information, please review the general information sheet of this collection)

2.4. FINISHING

A. Factory pre-finish door

1. Finish paint shall comply with ANSI A250.3
2. de La Fontaine finish color # DLF 278
3. Provide touch-up paint kits for field repair.

Other options available; please communicate with us for customized doors.

The changes brought to this technical drawing must be approved by our Engineering Department. This product has size limitations, please review our technical data book.
With its embossed motifs, this door combines design elegance with the performance of steel. Approved fire resistant and surpassing the strictest of industry norms, this door benefits from the DE LA FONTAINE guarantee. Moreover, like all of our products, it is prefinished in factory which is a major advantage in terms of quality and efficiency.

**SPECIFICATION // PART 2 - PRODUCTS**

2.1 MANUFACTURER

de La Fontaine Inc.
4115 Brodeur Street
Sherbrooke, Québec, J1L 1K4, CANADA
Phone local: 819-821-9230
Phone toll free from USA: 800-565-9230
Phone International: +1 819 821-9230
E-mail: info@delafontaine.com
Website: www.delafontaine.com

2.2 MATERIALS

A. Steel requirements:
   1. Interior doors: comply with ASTM A653, Designation A40.

B. Door core:
   1. Interior doors: Impregnated Honeycomb, with 25 mm (1 in) cell maximum diameter.
   2. Exterior doors: Polystyrene core Type 1, fire retardant and a minimum R value of 7.03 (hr • °F • sq.ft)/BTU.

2.3. FABRICATION

A. Physical performance
   1. Comply with level A according to ANSI A250.4

B. Door
   1. Door model: de La Fontaine door model: C-7
   2. Metal thickness: 18-gauge, 1.1 mm (0.045 in)
   3. Door thickness: 44.4 mm (1 3/4 in)
   4. Edge construction: seamless, continuously welded, internally steel reinforced stiles of 18-gauge, 1.1 mm (0.045 in). Fully welded centered seam (CW series).
   5. Door end channels: 16-gauge, 1.4 mm (0.056 in), projection welded every 2 in (50 mm). Steel flush channel putty-filled seam and ground smooth at top and bottom location.
   6. Vertical edge on active door: Beveled edges on both side 3.2 mm (1/8 in) in 50.8 mm (2 in).
C. Fire rated openings

1. Manufacture doors and frames as successfully tested in accordance with British Standard (BS-476-22) or:
   a. NFPA 80
   b. NFPA 252
   c. NFPA 257
   d. UL 10C

2. Fire rating up to 240 minutes. (For detailed information, please review the general information sheet of this collection)

2.4. FINISHING

A. Factory pre-finish door

1. Finish paint shall comply with ANSI A250.3
2. De La Fontaine finish color # DLF 285
3. Provide touch-up paint kits for field repair.

Other options available; please communicate with us for customized doors.

The changes brought to this technical drawing must be approved by our Engineering Department. This product has size limitations, please review our technical data book.
C-7a

With its embossed motifs, this door combines design elegance with the performance of steel. Approved fire resistant and surpassing the strictest of industry norms, this door benefits from the DE LA FONTAINE guarantee. Moreover, like all of our products, it is prefinished in factory which is a major advantage in terms of quality and efficiency.

SPECIFICATION // PART 2 - PRODUCTS

2.1 MANUFACTURER

de La Fontaine Inc.
4115 Brodeur Street
Sherbrooke, Québec, J1L 1K4, CANADA
Phone local: 819-821-9230
Phone toll free from USA: 800-565-9230
Phone International: +1 819 821-9230
E-mail: info@delafontaine.com
Website: www.delafontaine.com

2.2 MATERIALS

A. Steel requirements:
   1. Interior doors: comply with ASTM A653, Designation A40.

B. Door core:
   1. Interior doors: Impregnated Honeycomb, with 25 mm (1 in) cell maximum diameter.
   2. Exterior doors: Polystyrene core Type 1, fire retardant and a minimum R value of 7.03 (hr • °F • sq.ft)/BTU.

2.3. FABRICATION

A. Physical performance
   1. Comply with level A according to ANSI A250.4

B. Door
   1. Door model: de La Fontaine door model: C-7a
   2. Metal thickness: 18-gauge, 1.1 mm (0.045 in)
   3. Door thickness: 44.4 mm (1 3/4 in)
   4. Edge construction: seamless, continuously welded, internally steel reinforced stiles of 18-gauge, 1.1 mm (0.045 in). Fully welded centered seam (CW series).
   5. Door end channels: 16-gauge, 1.4 mm (0.056 in), projection welded every 2 in (50 mm). Steel flush channel putty-filled seam and ground smooth at top and bottom location.
   6. Vertical edge on active door: Beveled edges on both side 3.2 mm (1/8 in) in 50.8 mm (2 in).
C. Fire rated openings

1. Manufacture doors and frames as successfully tested in accordance with British Standard (BS-476-22) or:
   a. NFPA 80
   b. NFPA 252
   c. NFPA 257
   d. UL 10C

2. Fire rating up to 240 minutes. (For detailed information, please review the general information sheet of this collection)

2.4. FINISHING

A. Factory pre-finish door

1. Finish paint shall comply with ANSI A250.3
2. de La Fontaine finish color # DLF 276
3. Provide touch-up paint kits for field repair.

Other options available; please communicate with us for customized doors.

The changes brought to this technical drawing must be approved by our Engineering Department. This product has size limitations, please review our technical data book.
C-7b

With its embossed motifs, this door combines design elegance with the performance of steel. Approved fire resistant and surpassing the strictest of industry norms, this door benefits from the DE LA FONTAINE guarantee. Moreover, like all of our products, it is prefinished in factory which is a major advantage in terms of quality and efficiency.

SPECIFICATION // PART 2 - PRODUCTS

2.1 MANUFACTURER

de La Fontaine Inc.
4115 Brodeur Street
Sherbrooke, Québec, J1L 1K4, CANADA
Phone local: 819-821-9230
Phone toll free from USA: 800-565-9230
Phone International: +1 819 821-9230
E-mail: info@delafontaine.com
Website: www.delafontaine.com

2.2 MATERIALS

A. Steel requirements:
   1. Interior doors: comply with ASTM A653, Designation A40.

B. Door core:
   1. Interior doors: Impregnated Honeycomb, with 25 mm (1 in) cell maximum diameter.
   2. Exterior doors: Polystyrene core Type 1, fire retardant and a minimum R value of 7.03 (hr • °F • sq.ft)/BTU.

2.3. FABRICATION

A. Physical performance
   1. Comply with level A according to ANSI A250.4

B. Door
   1. Door model: de La Fontaine door model: C-7B
   2. Metal thickness: 18-gauge, 1.1 mm (0.045 in)
   3. Door thickness: 44.4 mm (1 3/4 in)
   4. Edge construction: seamless, continuously welded, internally steel reinforced stiles of 18-gauge, 1.1 mm (0.045 in). Fully welded centered seam (CW series).
   5. Door end channels: 16-gauge, 1.4 mm (0.056 in), projection welded every 2 in (50 mm). Steel flush channel putty-filled seam and ground smooth at top and bottom location.
   6. Vertical edge on active door: Beveled edges on both side 3.2 mm (1/8 in) in 50.8 mm (2 in).
C. Fire rated openings

1. Manufacture doors and frames as successfully tested in accordance with British Standard (BS-476-22) or:
   a. NFPA 80
   b. NFPA 252
   c. NFPA 257
   d. UL 10C

2. Fire rating up to 240 minutes. (For detailed information, please review the general information sheet of this collection)

2.4. FINISHING

A. Factory pre-finish door

1. Finish paint shall comply with ANSI A250.3
2. de La Fontaine finish color # DLF 274
3. Provide touch-up paint kits for field repair.

Other options available; please communicate with us for customized doors.
C-8

With its embossed motifs, this door combines design elegance with the performance of steel. Approved fire resistant and surpassing the strictest of industry norms, this door benefits from the DE LA FONTAINE guarantee. Moreover, like all of our products, it is prefinished in factory which is a major advantage in terms of quality and efficiency.

SPECIFICATION // PART 2 - PRODUCTS

2.1 MANUFACTURER

de La Fontaine Inc.
4115 Brodeur Street
Sherbrooke, Québec, J1L 1K4, CANADA
Phone local: 819-821-9230
Phone toll free from USA: 800-565-9230
Phone International: +1 819 821-9230
E-mail: info@delafontaine.com
Website: www.delafontaine.com

2.2 MATERIALS

A. Steel requirements:
   1. Interior doors: comply with ASTM A653, Designation A40.

B. Door core:
   1. Interior doors: Impregnated Honeycomb, with 25 mm (1 in) cell maximum diameter.
   2. Exterior doors: Polystyrene core Type 1, fire retardant and a minimum R value of 7.03 (hr °F • sq.ft)/BTU.

2.3. FABRICATION

A. Physical performance
   1. Comply with level A according to ANSI A250.4

B. Door
   1. Door model: de La Fontaine door model: C-8
   2. Metal thickness: 18-gauge, 1.1 mm (0.045 in)
   3. Door thickness: 44.4 mm (1¾ in)
   4. Edge construction: seamless, continuously welded, internally steel reinforced stiles of 18-gauge, 1.1 mm (0.045 in). Fully welded centered seam (CW series).
   5. Door end channels: 16-gauge, 1.4 mm (0.056 in), projection welded every 2 in (50 mm). Steel flush channel putty-filled seam and ground smooth at top and bottom location.
   6. Vertical edge on active door: Beveled edges on both side 3.2 mm (1/8 in) in 50.8 mm (2 in).
C. Fire rated openings

1. Manufacture doors and frames as successfully tested in accordance with British Standard (BS-476-22) or:
   a. NFPA 80
   b. NFPA 252
   c. NFPA 257
   d. UL 10C

2. Fire rating up to 240 minutes. (For detailed information, please review the general information sheet of this collection)

2.4. FINISHING

A. Factory pre-finish door

1. Finish paint shall comply with ANSI A250.3
2. de La Fontaine finish color # DLF 287
3. Provide touch-up paint kits for field repair.

Other options available; please communicate with us for customized doors.
CED-101

With its embossed motifs, this door combines design elegance with the performance of steel. Approved fire resistant and surpassing the strictest of industry norms, this door benefits from the DE LA FONTAINE guarantee. Moreover, like all of our products, it is prefinished in factory which is a major advantage in terms of quality and efficiency.

SPECIFICATION // PART 2 - PRODUCTS

2.1 MANUFACTURER

de La Fontaine Industries Inc.
4115 Brodeur Street
Sherbrooke, Québec, J1L 1K4, CANADA
Phone local: 819-821-9230
Phone toll free from USA: 800-565-9230
Phone International: +1 819 821-9230
E-mail: info@delafontaine.com
Website: www.delafontaine.com

2.2 MATERIALS

A. Steel requirements:
1. Interior doors: comply with ASTM A653, Designation A40.
   Exterior doors: comply with ASTM A653, Designation A60.

B. Door core:
1. Interior doors: Impregnated Honeycomb, with 25 mm (1 in) cell maximum diameter.
2. Exterior doors: Polystyrene core Type 1, fire retardant and a minimum R value of 7.03 (hr •°F • sq.ft)/BTU or urethane core, solid block, minimum R value of 10.0 (hr •°F • sq.ft)/BTU.

2.3. FABRICATION

A. Physical performance
1. Comply with level A in accordance to ANSI A250.4

B. Door
1. Door model: de La Fontaine door model: CED-101
2. Metal thickness: 16-gauge, 1.4 mm (0.056 in)
3. Door thickness: 44.4 mm (1 3/4 in)
4. Edge construction: seamless, continuously welded, internally steel reinforced stiles of 16-gauge, 1.4 mm (0.056 in). Fully welded centered seam (CW series).
5. Door end channels: 16-gauge, 1.4 mm (0.056 in), projection welded every 2 in (50 mm). Steel flush channel putty-filled seam, sealed and ground smooth at top and bottom location. On exterior openings, provide weep-holes at bottom end channel.
6. Vertical edge on active door: Beveled edges on both side 3.2 mm (1/8 in) in 50.8 mm (2 in).

C. Fire rated openings

1. Manufacture doors and frames as successfully tested in accordance with British Standard (BS-476-22) or:
   a. NFPA 80
   b. NFPA 252
   c. NFPA 257
   d. UL 10C

2. Fire rating up to 240 minutes. (For detailed information, please review the general information sheet of this collection)

2.4. FINISHING

A. Factory pre-finish door

1. Finish paint shall comply with ANSI A250.3
2. de La Fontaine finish color # DLF 285
3. Provide touch-up paint kits for field repair.

Other options available; please communicate with us for customized doors.

The changes brought to this technical drawing must be approved by our Engineering Department.
CED-102

With its embossed motifs, this door combines design elegance with the performance of steel. Approved fire resistant and surpassing the strictest of industry norms, this door benefits from the DE LA FONTAINE guarantee. Moreover, like all of our products, it is prefinished in factory which is a major advantage in terms of quality and efficiency.

SPECIFICATION // PART 2 - PRODUCTS

2.1 MANUFACTURER

de La Fontaine Inc.
4115 Brodeur Street
Sherbrooke, Québec, J1L 1K4, CANADA
Phone local: 819-821-9230
Phone toll free from USA: 800-565-9230
Phone International: +1 819 821-9230
E-mail: info@delafontaine.com
Website: www.delafontaine.com

2.2 MATERIALS

A. Steel requirements:
1. Interior doors: comply with ASTM A653, Designation A40.
2. Exterior doors: comply with ASTM A653, Designation A60.

B. Door core:
1. Interior doors: Impregnated Honeycomb, with 25 mm (1 in) cell maximum diameter.
2. Exterior doors: Polystyrene core Type 1, fire retardant and a minimum R value of 7.03 (hr •°F • sq.ft)/BTU or urethane core, solid block, minimum R value of 10.0 (hr •°F • sq.ft)/BTU.

2.3. FABRICATION

A. Physical performance
1. Comply with level A in accordance to ANSI A250.4

B. Door
1. Door model: de La Fontaine door model: CED-102
2. Metal thickness: 16-gauge, 1.4 mm (0.056 in)
3. Door thickness: 44.4 mm (13/4 in)
4. Edge construction: seamless, continuously welded, internally steel reinforced stiles of 16-gauge, 1.4 mm (0.056 in). Fully welded centered seam (CW series).
5. Door end channels: 16-gauge, 1.4 mm (0.056 in), projection welded every 2 in (50 mm). Steel flush channel putty-filled seam, sealed and ground smooth at top and bottom location. On exterior openings, provide weep-holes at bottom end channel.
6. Vertical edge on active door: Beveled edges on both side 3.2 mm (1/8 in) in 50.8 mm (2 in).

C. Fire rated openings

1. Manufacture doors and frames as successfully tested in accordance with British Standard (BS-476-22) or:
   a. NFPA 80
   b. NFPA 252
   c. NFPA 257
   d. UL 10C

2. Fire rating up to 240 minutes. (For detailed information, please review the general information sheet of this collection)

2.4. FINISHING

A. Factory pre-finish door

1. Finish paint shall comply with ANSI A250.3
2. de La Fontaine finish color # DLF 272
3. Provide touch-up paint kits for field repair.

Other options available; please communicate with us for customized doors.

The changes brought to this technical drawing must be approved by our Engineering Department.
CED-103

With its embossed motifs, this door combines design elegance with the performance of steel. Approved fire resistant and surpassing the strictest of industry norms, this door benefits from the DE LA FONTAINE guarantee. Moreover, like all of our products, it is prefinished in factory which is a major advantage in terms of quality and efficiency.

SPECIFICATION // PART 2 - PRODUCTS

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de La Fontaine Inc.
4115 Brodeur Street
Sherbrooke, Québec, J1L 1K4, CANADA
Phone local: 819-821-9230
Phone toll free from USA: 800-565-9230
Phone International: +1 819 821-9230
E-mail: info@delafontaine.com
Website: www.delafontaine.com

2.2 MATERIALS

A. Steel requirements:
   1. Interior doors: comply with ASTM A653, Designation A40.
      Exterior doors: comply with ASTM A653, Designation A60.

B. Door core:
   1. Interior doors: Impregnated Honeycomb, with 25 mm (1 in) cell maximum diameter.
   2. Exterior doors: Polystyrene core Type 1, fire retardant and a minimum R value of 7.03 (hr • °F • sq.ft)/BTU or urethane core, solid block, minimum R value of 10.0 (hr • °F • sq.ft)/BTU.

2.3. FABRICATION

A. Physical performance
   1. Comply with level A in accordance to ANSI A250.4

B. Door
   1. Door model: de La Fontaine door model: CED-103
   2. Metal thickness: 16-gauge, 1.4 mm (0.056 in)
   3. Door thickness: 44.4 mm (13/4 in)
   4. Edge construction: seamless, continuously welded, internally steel reinforced stiles of 16-gauge, 1.4 mm (0.056 in). Fully welded centered seam (CW series).
   5. Door end channels: 16-gauge, 1.4 mm (0.056 in), projection welded every 152 mm (6 in). Steel flush channel putty-filled seam, sealed and ground smooth at top and bottom location. On exterior openings, provide weep-holes at bottom end channel.
6. Vertical edge on active door: Beveled edges on both side 3.2 mm (1/8 in) in 50.8 mm (2 in).

C. Fire rated openings
1. Manufacture doors and frames as successfully tested in accordance with British Standard (BS-476-22) or:
   a. NFPA 80
   b. NFPA 252
   c. NFPA 257
   d. UL 10C

2. Fire rating up to 240 minutes. (For detailed information, please review the general information sheet of this collection)

2.3. FINISHING

A. Factory pre-finish door
1. Finish paint shall comply with ANSI A250.3
2. de La Fontaine finish color # DLF 292
3. Provide touch-up paint kits for field repair.

Other options available; please communicate with us for customized doors.

The changes brought to this technical drawing must be approved by our Engineering Department.
CED-105

With its embossed motifs, this door combines design elegance with the performance of steel. Approved fire resistant and surpassing the strictest of industry norms, this door benefits from the DE LA FONTAINE guarantee. Moreover, like all of our products, it is prefinished in factory which is a major advantage in terms of quality and efficiency.

SPECIFICATION // PART 2 - PRODUCTS

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de La Fontaine Inc.
4115 Brodeur Street
Sherbrooke, Québec, J1L 1K4, CANADA
Phone local: 819-821-9230
Phone toll free from USA: 800-565-9230
Phone International: +1 819 821-9230
E-mail: info@delafontaine.com
Website: www.delafontaine.com

2.2 MATERIALS

A. Steel requirements:
   1. Interior doors: comply with ASTM A653, Designation A40.
      Exterior doors: comply with ASTM A653, Designation A60.

B. Door core:
   1. Interior doors: Impregnated Honeycomb, with 25 mm (1 in) cell maximum diameter.
   2. Exterior doors: Polystyrene core Type I, fire retardant and a minimum R value of 7.03 (hr •°F • sq.ft)/BTU or urethane core, solid block, minimum R value of 10.0 (hr •°F • sq.ft)/BTU.

2.3. FABRICATION

A. Physical performance
   1. Comply with level A in accordance to ANSI A250.4

B. Door
   1. Door model: de La Fontaine door model: CED-105
   2. Metal thickness: 16-gauge, 1.4 mm (0.056 in)
   3. Door thickness: 44.4 mm (1 3/4 in)
   4. Edge construction: seamless, continuously welded, internally steel reinforced stiles of 16-gauge, 1.4 mm (0.056 in). Fully welded centered seam (CW series).
   5. Door end channels: 16-gauge, 1.4 mm (0.056 in), projection welded every 2 in (50 mm). Steel flush channel putty-filled seam, sealed and ground smooth at top and bottom location. On exterior openings, provide weep-holes at bottom end channel.
6. Vertical edge on active door: Beveled edges on both side 3.2 mm (1/8 in) in 50.8 mm (2 in).

C. Fire rated openings
1. Manufacture doors and frames as successfully tested in accordance with British Standard (BS-476-22) or:
   a. NFPA 80
   b. NFPA 252
   c. NFPA 257
   d. UL 10C

2. Fire rating up to 240 minutes. (For detailed information, please review the general information sheet of this collection)

2.4. FINISHING

A. Factory pre-finish door
1. Finish paint shall comply with ANSI A250.3
2. de La Fontaine finish color # DLF 278
3. Provide touch-up paint kits for field repair.

Other options available; please communicate with us for customized doors.

The changes brought to this technical drawing must be approved by our Engineering Department.
CED-106

With its embossed motifs, this door combines design elegance with the performance of steel. Approved fire resistant and surpassing the strictest of industry norms, this door benefits from the DE LA FONTAINE guarantee. Moreover, like all of our products, it is prefinished in factory which is a major advantage in terms of quality and efficiency.

SPECIFICATION // PART 2 - PRODUCTS

2.1 MANUFACTURER

de La Fontaine Inc.
4115 Brodeur Street
Sherbrooke, Québec, J1L 1K4, CANADA
Phone local: 819-821-9230
Phone toll free from USA: 800-565-9230
Phone International: +1 819 821-9230
E-mail: info@delafontaine.com
Website: www.delafontaine.com

2.2 MATERIALS

A. Steel requirements:
   1. Interior doors: comply with ASTM A653, Designation A40.
   2. Exterior doors: comply with ASTM A653, Designation A60.

B. Door core:
   1. Interior doors: Impregnated Honeycomb, with 25 mm (1 in) cell maximum diameter
   2. Exterior doors: Polystyrene core Type 1, fire retardant and a minimum R value of 7.03 (hr • °F • sq.ft)/BTU or urethane core, solid block, minimum R value of 10.0 (hr • °F • sq.ft)/BTU.

2.3. FABRICATION

A. Physical performance
   1. Comply with level A in accordance to ANSI A250.4

B. Door
   1. Door model: de La Fontaine door model: CED-106
   2. Metal thickness: 16-gauge, 1.4 mm (0.056 in)
   3. Door thickness: 44.4 mm (1 3/4 in)
   4. Edge construction: seamless, continuously welded, internally steel reinforced stiles of 16-gauge, 1.4 mm (0.056 in). Fully welded centered seam (CW series).
   5. Door end channels: 16-gauge, 1.4 mm (0.056 in), projection welded every 2 in (50 mm). Steel flush channel putty-filled seam, sealed and ground smooth at top and bottom location. On exterior openings, provide weep-holes at bottom end channel.
6. Vertical edge on active door: Beveled edges on both side 3.2 mm (1/8 in) in 50.8 mm (2 in).

C. Fire rated openings
1. Manufacture doors and frames as successfully tested in accordance with British Standard (BS-476-22) or:
   a. NFPA 80
   b. NFPA 252
   c. NFPA 257
   d. UL 10C

2. Fire rating up to 240 minutes. (For detailed information, please review the general information sheet of this collection)

2.4. FINISHING

A. Factory pre-finish door
1. Finish paint shall comply with ANSI A250.3
2. de La Fontaine finish color # DLF 287
3. Provide touch-up paint kits for field repair.

Other options available; please communicate with us for customized doors.

The changes brought to this technical drawing must be approved by our Engineering Department.
CED-109

With its embossed motifs, this door combines design elegance with the performance of steel. Approved fire resistant and surpassing the strictest of industry norms, this door benefits from the DE LA FONTAINE guarantee. Moreover, like all of our products, it is prefinished in factory which is a major advantage in terms of quality and efficiency.

SPECIFICATION // PART 2 - PRODUCTS

2.1 MANUFACTURER

de La Fontaine Industries Inc.
4115 Brodeur Street
Sherbrooke, Québec, J1L 1K4, CANADA
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E-mail: info@delafontaine.com
Website: www.delafontaine.com

2.2 MATERIALS

A. Steel requirements:
   1. Interior doors: comply with ASTM A653, Designation A40.
      Exterior doors: comply with ASTM A653, Designation A60.

B. Door core:
   1. Interior doors: Impregnated Honeycomb, with 25 mm (1 in) cell maximum diameter.
   2. Exterior doors: Polystyrene core Type 1, fire retardant and a minimum R value of 7.03 (hr •°F • sq.ft)/BTU or urethane core, solid block, minimum R value of 10.0 (hr •°F • sq.ft)/BTU.

2.3. FABRICATION

A. Physical performance
   1. Comply with level A in accordance to ANSI A250.4

B. Door
   1. Door model: de La Fontaine door model: CED-109
   2. Metal thickness: 16-gauge, 1.4 mm (0.056 in)
   3. Door thickness: 44.4 mm (13/4 in)
   4. Edge construction: seamless, continuously welded, internally steel reinforced stiles of 16-gauge, 1.4 mm (0.056 in). Fully welded centered seam (CW series).
   5. Door end channels: 16-gauge, 1.4 mm (0.056 in), projection welded every 2 in (50 mm). Steel flush channel putty-filled seam, sealed and ground smooth at top and bottom location. On exterior openings, provide weep-holes at bottom end channel.
6. Vertical edge on active door: Beveled edges on both side 3.2 mm (1/8 in) in 50.8 mm (2 in).

C. Fire rated openings
1. Manufacture doors and frames as successfully tested in accordance with British Standard (BS-476-22) or:
   a. NFPA 80
   b. NFPA 252
   c. NFPA 257
   d. UL 10C

2. Fire rating up to 240 minutes. (For detailed information, please review the general information sheet of this collection)

2.4. FINISHING

A. Factory pre-finish door
1. Finish paint shall comply with ANSI A250.3
2. de La Fontaine finish color # DLF 276
3. Provide touch-up paint kits for field repair.

Other options available; please communicate with us for customized doors.

The changes brought to this technical drawing must be approved by our Engineering Department.
CED-110

With its embossed motifs, this door combines design elegance with the performance of steel. Approved fire resistant and surpassing the strictest of industry norms, this door benefits from the DE LA FONTAINE guarantee. Moreover, like all of our products, it is prefinished in factory which is a major advantage in terms of quality and efficiency.

SPECIFICATION // PART 2 - PRODUCTS

2.1 MANUFACTURER

de La Fontaine Inc.
4115 Brodeur Street
Sherbrooke, Québec, J1L 1K4, CANADA
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Phone toll free from USA: 800-565-9230
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E-mail: info@delafontaine.com
Website: www.delafontaine.com

2.2 MATERIALS

A. Steel requirements:
   1. Interior doors: comply with ASTM A653, Designation A40.
   2. Exterior doors: comply with ASTM A653, Designation A60.

B. Door core:
   1. Interior doors: Impregnated Honeycomb, with 25 mm (1 in) cell maximum diameter.
   2. Exterior doors: Polystyrene core Type 1, fire retardant and a minimum R value of 7.03 (hr •°F • sq.ft)/BTU or urethane core, solid block, minimum R value of 10.0 (hr •°F • sq.ft)/BTU.

2.3. FABRICATION

A. Physical performance
   1. Comply with level A in accordance to ANSI A250.4

B. Door
   1. Door model: de La Fontaine door model: CED-110
   2. Metal thickness: 16-gauge, 1.4 mm (0.056 in)
   3. Door thickness: 44.4 mm (1 3/4 in)
   4. Edge construction: seamless, continuously welded, internally steel reinforced stiles of 16-gauge, 1.4 mm (0.056 in). Fully welded centered seam (CW series).
   5. Door end channels: 16-gauge, 1.4 mm (0.056 in), projection welded every 2 in (50 mm). Steel flush channel putty-filled seam, sealed and ground smooth at top and bottom location. On exterior openings, provide weep-holes at bottom end channel.
6. Vertical edge on active door: Beveled edges on both side 3.2 mm (1/8 in) in 50.8 mm (2 in).

C. Fire rated openings
1. Manufacture doors and frames as successfully tested in accordance with British Standard (BS-476-22) or:
   a. NFPA 80
   b. NFPA 252
   c. NFPA 257
   d. UL 10C

2. Fire rating up to 240 minutes. (For detailed information, please review the general information sheet of this collection)

2.4. FINISHING

A. Factory pre-finish door
1. Finish paint shall comply with ANSI A250.3
2. Custom color by the Designer (2008-10 Benjamin Moore)
3. Provide touch-up paint kits for field repair.

Other options available; please communicate with us for customized doors.

The changes brought to this technical drawing must be approved by our Engineering Department.
CED-111

With its embossed motifs, this door combines design elegance with the performance of steel. Approved fire resistant and surpassing the strictest of industry norms, this door benefits from the DE LA FONTAINE guarantee. Moreover, like all of our products, it is prefinished in factory which is a major advantage in terms of quality and efficiency.

SPECIFICATION // PART 2 - PRODUCTS

2.1 MANUFACTURER

de La Fontaine Inc.
4115 Brodeur Street
Sherbrooke, Québec, J1L 1K4, CANADA
Phone local: 819-821-9230
Phone toll free from USA: 800-565-9230
Phone International: +1 819 821-9230
E-mail: info@delafontaine.com
Website: www.delafontaine.com

2.2 MATERIALS

A. Steel requirements:
   1. Interior doors: comply with ASTM A653, Designation A40.
   Exterior doors: comply with ASTM A653, Designation A60.

B. Door core:
   1. Interior doors: Impregnated Honeycomb, with 25 mm (1 in) cell maximum diameter.
   2. Exterior doors: Polystyrene core Type 1, fire retardant and a minimum R value of 7.03 (hr •°F • sq.ft)/BTU or urethane core, solid block, minimum R value of 10.0 (hr •°F • sq.ft)/BTU.

2.3. FABRICATION

A. Physical performance
   1. Comply with level A in accordance to ANSI A250.4

B. Door
   1. Door model: de La Fontaine door model: CED-111
   2. Metal thickness: 16-gauge, 1.4 mm (0.056 in)
   3. Door thickness: 44.4 mm (1¾ in)
   4. Edge construction: seamless, continuously welded, internally steel reinforced stiles of 16-gauge, 1.4 mm (0.056 in). Fully welded centered seam (CW series).
   5. Door end channels: 16-gauge, 1.4 mm (0.056 in), projection welded every 2 in (50 mm). Steel flush channel putty-filled seam, sealed and ground smooth at top and bottom location. On exterior openings, provide weep-holes at bottom end channel.
6. Vertical edge on active door: Beveled edges on both side 3.2 mm (1/8 in) in 50.8 mm (2 in).

C. Fire rated openings
1. Manufacture doors and frames as successfully tested in accordance with British Standard (BS-476-22) or:
   a. NFPA 80
   b. NFPA 252
   c. NFPA 257
   d. UL 10C

2. Fire rating up to 240 minutes. (For detailed information, please review the general information sheet of this collection)

2.4. FINISHING

A. Factory pre-finish door
1. Finish paint shall comply with ANSI A250.3
2. de La Fontaine finish color # DLF 285
3. Provide touch-up paint kits for field repair.

Other options available; please communicate with us for customized doors.

The changes brought to this technical drawing must be approved by our Engineering Department.
CED-112

With its embossed motifs, this door combines design elegance with the performance of steel. Approved fire resistant and surpassing the strictest of industry norms, this door benefits from the DE LA FONTAINE guarantee. Moreover, like all of our products, it is prefinished in factory which is a major advantage in terms of quality and efficiency.

SPECIFICATION // PART 2 - PRODUCTS

2.1 MANUFACTURER

de La Fontaine Industries Inc.
4115 Brodeur Street
Sherbrooke, Québec, J1L 1K4, CANADA
Phone local: 819-821-9230
Phone toll free from USA: 800-565-9230
Phone International: +1 819 821-9230
E-mail: info@delafontaine.com
Website: www.delafontaine.com

2.2 MATERIALS

A. Steel requirements:

1. Interior doors: comply with ASTM A653, Designation A40.
   Exterior doors: comply with ASTM A653, Designation A60.

B. Door core:

1. Interior doors: Impregnated Honeycomb, with 25 mm (1 in) cell maximum diameter.
2. Exterior doors: Polystyrene core Type 1, fire retardant and a minimum R value of 7.03 (hr •°F • sq.ft)/BTU or urethane core, solid block, minimum R value of 10.0 (hr •°F • sq.ft)/BTU.

2.3. FABRICATION

A. Physical performance

1. Comply with level A in accordance to ANSI A250.4

B. Door

1. Door model: de La Fontaine door model: CED-112
2. Metal thickness: 16-gauge, 1.4 mm (0.056 in)
3. Door thickness: 44.4 mm (13/4 in)
4. Edge construction: seamless, continuously welded, internally steel reinforced stiles of 16-gauge, 1.4 mm (0.056 in). Fully welded centered seam (CW series).
5. Door end channels: 16-gauge, 1.4 mm (0.056 in), projection welded every 2 in (50 mm). Steel flush channel putty-filled seam, sealed and ground smooth at top and bottom location. On exterior openings, provide weep-holes at bottom end channel.
6. Vertical edge on active door: Beveled edges on both side 3.2 mm (1/8 in) in 50.8 mm (2 in).

C. Fire rated openings
1. Manufacture doors and frames as successfully tested in accordance with British Standard (BS-476-22) or:
   a. NFPA 80
   b. NFPA 252
   c. NFPA 257
   d. UL 10C

2. Fire rating up to 240 minutes. (For detailed information, please review the general information sheet of this collection)

2.4. FINISHING

A. Factory pre-finish door
1. Finish paint shall comply with ANSI A250.3
2. de La Fontaine finish color # DLF 278
3. Provide touch-up paint kits for field repair.

Other options available; please communicate with us for customized doors.

The changes brought to this technical drawing must be approved by our Engineering Department.
STAINLESS STEEL
DOORS
At the heart of the experience and know-how of DE LA FONTAINE, this specialized line of products meets every demand: Foremost, the technical demands which govern the sanitized environments of hospitals and clean rooms as well as chemical and food industry factories. These are followed by esthetic considerations, with the endless possibilities of embossing to create a unique design for each project.

**EXAMPLES OF USE**
- Hotels
- Casinos
- Public baths
- Hospital centers
- Food industry
- Chemical industry
- Waste water treatment plants
- Laboratories (clean rooms)
- Transport (metros, airports)

**BENEFITS**
- Fire resistance approval: Positive pressure UL 10C: Up to 90 minutes; British Standard (BS-476-22): Up to 120 minutes
- Conforms to the American National Standards Institute ANSI A250.4 standard
- Includes materials with high recycled content
- Durability - when adequately maintained, stainless steel can last as long as the building
- High resistance to corrosion
- Resistant to bacteria thanks to sanitary welding that prevents bacteria from entering the joints
- Personalized design with embossed straight or curved lines and material inlays
- Soundproofing option available, rating between 33 and 47 STC

**CHOICE OF DESIGN**
- Personalized embossing and made-to-measure options
- V-type or U-type embossing
- Inlays of different materials
- Regular or inverted embossing

**MATERIALS**
- Door: Stainless steel type 304, 316, satin finish # 4, 18, 16-gauge
- Inlays: Stainless steel, brass, bronze, plastic laminate and metal laminate
FIRE RATING:

**UL 10C (positive pressure): Up to 90 minutes**
- Honeycomb core, 2438 mm x 2438 mm (8'0" x 8'0") maximum dimension

**British Standard (BS-476-22): Up to 120 minutes,**
- Honeycomb core, 2438 mm x 2438 mm (8'0" x 8'0") maximum dimension

ACOUSTICAL RATING:
This product is available with acoustical rating; STC 33 through 47 per ASTM E90

REFERENCED STANDARDS:
- ANSI A250.4: Test Procedure and Acceptance Criteria for Physical Endurance for Steel Doors and Hardware Reinforcements.
- NAAMM-HMMA 850: Fire Rated Hollow Metal Doors and Frames
- NFPA 80: Standard for Fire Door and Other Opening Protective
- NFPA 252: Standard Methods of Fire Tests of Door Assemblies
- NFPA 257: Standard on Fire Tests for Window and Glass Block Assemblies.
- CAN4-S106-M80: Standard Method for Fire Test of Window and Glass Block Assemblies.
- British Standard BS: 476-22

MATERIAL

Door material:
- **Stainless steel:** Type 304, 316 satin finish # 4
  18-gauge, 1.1 mm (0.045), 16-gauge, 1.4 mm (0.056 in)

Inlay material:
- **Stainless steel:** Type 304, 316 mirror finish # 8

**Metal laminate:** Depending of the design, the base metal will vary. Aluminum, brass, bronze, cooper and steel are available. Please visit our supplier website at: www.chemetalco.com for more information on their products.

**Plastic laminate:** Decorative laminates are a high pressure thermoset plastic surfacing material. Please visit our supplier website at: www.arborite.com for more information on their products.

RELATED LEED CREDIT:

MR Credit 4.1 Recycled Content: 10 % or 20%

**Steel:**
Our stainless steel is comprised of 80% recycled content. This includes a total post-consumer content of 20%, a total pre-consumer content of 50%, with the balance comprised of home scrap.

**Core:**
Our main supplier of honeycomb furnishes a product with a total recycled content of 20%. This includes a total postconsumer content of 10%; a total pre-consumer content of 10%.
Our main supplier of polystyrene furnishes a product with a total recycled content of 69.4%. This includes a total post-consumer content of 33.6%; a total pre-consumer content of 35.8%.
STORAGE, HANDLING AND INSTALLATION


- Approved door and hardware schedule
- Approved shop drawings
- Manufacturer’s recommendations
- Local building codes
- NFPA 80
- ANSI/DHI A115.1G Installation Guide for Doors and Hardware

AVAILABILITY

De La Fontaine products are available from our distributors in Canada, USA and Gulf Cooperative Countries or directly from the factory for other countries. Please visit our website at www.delafontaine.com or contact de La Fontaine Industries for local contact information. Our products availability depends on complexity of design, pre-finishing requirements and inlay material required. Please communicate with the factory for delivery time.

WARRANTY

De La Fontaine Inc. warrants all material manufactured by us to be free from defects in material and workmanship that could happen under normal conditions of use and maintenance within one year following the date of their delivery.

Our obligation is strictly limited to repair or replace, at de La Fontaine Inc. options, defective material supplied. Any defects or loss caused to the products following their delivery at the building site and that ensue notably from their manipulation, handling, storing or installation are expressly excluded from the present warranty.

MAINTENANCE

Door surface:

Stainless steel is easy to clean. Washing with soap or a mild detergent and warm water followed by a clean water rinse is usually quite adequate. An enhanced appearance will be achieved if the cleaned surface is finally wiped dry.

Cleaners are also available. Proprietary solutions, when used in accordance with makers’ instructions, should be safe but if used incorrectly (e.g. warm or concentrated), may cause discolouration or corrosion on stainless steels.

Slight scratches - use impregnated nylon pads. Polish with scrubs dressed with iron-free abrasives for deeper scratches. Follow polish lines. Then clean with soap or detergent as for routine cleaning. Do not use ordinary steel wool - iron particles can become embedded in stainless steel and cause further surface problems. Stainless steel and “Scotch-brite” scouring pads are satisfactory.

Plastic laminate material:

For everyday cleaning, simply wipe the surface with a soft, damp cloth and mild detergent; then rinse thoroughly with warm water and wipe dry.

For stubborn stains, use an all-purpose cleaner, with a damp cloth; then rinse thoroughly with warm water and wipe dry. Avoid harsh chemical cleaners.

Metal laminate material:

Clean with a soft cloth using mild soap and water or nonabrasive glass and metal cleaning liquids. Do not use ammonia, abrasive cleaners or pads, or harsh solvents.

TECHNICAL SERVICE

Detailed information including product literature, test reports, installation instruction, and information on special application is available through de La Fontaine. Please visit our website at www.delafontaine.com or communicate with us at tech@delafontaine.com or call at +1 819 821-9230.
SS-105

At the heart of the experience and savoir-faire of DE LA FONTAINE, this door responds to all demands. First, the technical demands that govern white rooms and antiseptic environments. Second, the esthetic demands with original design and good taste. Finally, the practical demands with a fast manufacturing time of three weeks.

SPECIFICATION // PART 2 - PRODUCTS

2.1 MANUFACTURER

de La Fontaine Inc.
4115 Brodeur Street
Sherbrooke, Québec, J1L 1K4, CANADA
Phone local: 819-821-9230
Phone toll free from USA: 800-565-9230
Phone International: +1 819 821-9230
E-mail: info@delafontaine.com
Website: www.delafontaine.com

2.2 MATERIALS

A. Steel requirements:
1. Low to medium corrosive environment: comply with ASTM A240, stainless steel type 304, satin finish # 4.

B. Door core:
1. Interior doors: Impregnated Honeycomb, with 25 mm (1 in) cell maximum diameter.
2. Exterior doors: Polystyrene core Type 1, fire retardant and a minimum R value of 7.03 (hr •°F • sq.ft)/BTU or urethane core, solid block, minimum R value of 10.0 (hr •°F • sq.ft)/BTU.

2.3. FABRICATION

A. Physical performance
1. Comply with level A in accordance to ANSI A250.4

B. Door
1. Door model: de La Fontaine door model: CED SS-105
2. Metal thickness: 18-gauge, 1.1 mm (0.045 in)
3. Door thickness: 44.4 mm (13/4 in)
4. Edge construction: seamless, continuously welded, internally steel reinforced stiles of 16-gauge, 1.4 mm (0.056 in). Fully welded centered seam (CW series).
5. Interior door end channels: 16-gauge, 1.4 mm (0.056 in), Snap-in steel flush channel at top and bottom location.
6. Exterior door end channels: 16-gauge, 1.4 mm (0.056 in), full flush, seamless, continuously welded and finish smooth at top location; snap-in steel flush channel at bottom location. Provide weep-holes at bottom end channel.

7. Vertical edge on active door: Beveled edges on both side 3.2 mm (1/8 in) in 50.8 mm (2 in).

C. Fire rated openings

1. Manufacture doors and frames as successfully tested in accordance with British Standard (BS-476-22) or:
   a. NFPA 80
   b. NFPA 252
   c. NFPA 257
   d. UL 10C

2. Fire rating up to 120 minutes. (For detailed information, please review the general information sheet of this collection)

Other options available; please communicate with us for customized doors.

The changes brought to this technical drawing must be approved by our Engineering Department.
SS-113

At the heart of the experience and savoir-faire of DE LA FONTAINE, this door responds to all demands. First, the technical demands that govern white rooms and antiseptic environments. Second, the esthetic demands with original design and good taste. Finally, the practical demands with a fast manufacturing time of three weeks.

SPECIFICATION // PART 2 - PRODUCTS

2.1 MANUFACTURER

de La Fontaine Inc.
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Phone International: +1 819 821-9230
E-mail: info@delafontaine.com
Website: www.delafontaine.com

2.2 MATERIALS

A. Steel requirements:
   1. Low to medium corrosive environment: comply with ASTM A240, stainless steel type 304, satin finish # 4.
      Highly corrosive environment: comply with ASTM A240, stainless steel type 316, satin finish # 4.

B. Door core:
   1. Interior doors: Impregnated Honeycomb, with 25 mm (1 in) cell maximum diameter.
   2. Exterior doors: Polystyrene core Type 1, fire retardant and a minimum R value of 7.03 (hr •°F • sq.ft)/BTU or urethane core, solid block, minimum R value of 10.0 (hr •°F • sq.ft)/BTU.

2.3. FABRICATION

A. Physical performance
   1. Comply with level A in accordance to ANSI A250.4

B. Door
   1. Door model: de La Fontaine door model: CED SS-113
   2. Metal thickness: 18-gauge, 1.1 mm (0.045 in)
   3. Door thickness: 44.4 mm (13/4 in)
   4. Edge construction: seamless, continuously welded, internally steel reinforced stiles of 16-gauge, 1.4 mm (0.056 in). Fully welded centered seam (CW series).
   5. Interior door end channels: 16-gauge, 1.4 mm (0.056 in), Snap-in steel
flush channel at top and bottom location.

6. Exterior door end channels: 16-gauge, 1.4 mm (0.056 in), full flush, seamless, continuously welded and finish smooth at top location; snap-in steel flush channel at bottom location. Provide weep-holes at bottom end channel.

7. Vertical edge on active door: Beveled edges on both side 3.2 mm (1/8 in) in 50.8 mm (2 in).

C. Fire rated openings

1. Manufacture doors and frames as successfully tested in accordance with British Standard (BS-476-22) or:
   a. NFPA 80
   b. NFPA 252
   c. NFPA 257
   d. UL 10C

2. Fire rating up to 120 minutes. (For detailed information, please review the general information sheet of this collection)

Other options available; please communicate with us for customized doors.

The changes brought to this technical drawing must be approved by our Engineering Department.
SS-114

At the heart of the experience and savoir-faire of DE LA FONTAINE, this door responds to all demands. First, the technical demands that govern white rooms and antiseptic environments. Second, the esthetic demands with original design and good taste. Finally, the practical demands with a fast manufacturing time of three weeks.

SPECIFICATION // PART 2 - PRODUCTS

2.1 MANUFACTURER

de La Fontaine Inc.
4115 Brodeur Street
Sherbrooke, Québec, J1L 1K4, CANADA
Phone local: 819-821-9230
Phone toll free from USA: 800-565-9230
Phone International: +1 819 821-9230
E-mail: info@delafontaine.com
Website: www.delafontaine.com

2.2 MATERIALS

A. Steel requirements:
   1. Low to medium corrosive environment: comply with ASTM A240, stainless steel type 304, satin finish # 4.

B. Door core:
   1. Interior doors: Impregnated Honeycomb, with 25 mm (1 in) cell maximum diameter.
   2. Exterior doors: Polystyrene core Type 1, fire retardant and a minimum R value of 7.03 (hr •°F • sq.ft)/BTU or urethane core, solid block, minimum R value of 10.0 (hr •°F • sq.ft)/BTU.

2.3. FABRICATION

A. Physical performance
   1. Comply with level A in accordance to ANSI A250.4

B. Door
   1. Door model: de La Fontaine door model: CED SS-114
   2. Metal thickness: 18-gauge, 1.1 mm (0.045 in)
   3. Door thickness: 44.4 mm (13/4 in)
   4. Edge construction: seamless, continuously welded, internally steel reinforced stiles of 16-gauge, 1.4 mm (0.056 in). Fully welded centered seam (CW series).
5. Interior door end channels: 16-gauge, 1.4 mm (0.056 in), Snap-in steel flush channel at top and bottom location.

6. Exterior door end channels: 16-gauge, 1.4 mm (0.056 in), full flush, seamless, continuously welded and finish smooth at top location; snap-in steel flush channel at bottom location. Provide weep-holes at bottom end channel.

7. Vertical edge on active door: Beveled edges on both side 3.2 mm (1/8 in) in 50.8 mm (2 in).

C. Fire rated openings

1. Manufacture doors and frames as successfully tested in accordance with British Standard (BS-476-22) or:
   a. NFPA 80
   b. NFPA 252
   c. NFPA 257
   d. UL 10C

2. Fire rating up to 120 minutes. (For detailed information, please review the general information sheet of this collection)

Other options available; please communicate with us for customized doors.

The changes brought to this technical drawing must be approved by our Engineering Department.
SS-112

At the heart of the experience and savoir-faire of DE LA FONTAINE, this door responds to all demands. First, the technical demands that govern white rooms and antiseptic environments. Second, the esthetic demands with original design and good taste. Finally, the practical demands with a fast manufacturing time of three weeks.

SPECIFICATION // PART 2 - PRODUCTS

2.1 MANUFACTURER

de La Fontaine Inc.
4115 Brodeur Street
Sherbrooke, Québec, J1L 1K4, CANADA
Phone local: 819-821-9230
Phone toll free from USA: 800-565-9230
Phone International: +1 819 821-9230
E-mail: info@delafontaine.com
Website: www.delafontaine.com

2.2 MATERIALS

A. Steel requirements:
   1. Low to medium corrosive environment: comply with ASTM A240, stainless steel type 304, satin finish # 4.

B. Inlay material:
   1. Comply with ASTM A240. Stainless steel type 304 or 316, mirror finish # 8.

C. Door core:
   1. Interior doors: Impregnated Honeycomb, with 25 mm (1 in) cell maximum diameter.
   2. Exterior doors: Polystyrene core Type 1, fire retardant and a minimum R value of 7.03 (hr •°F • sq.ft)/BTU or urethane core, solid block, minimum R value of 10.0 (hr •°F • sq.ft)/BTU.

2.3. FABRICATION

A. Physical performance
   1. Comply with level A in accordance to ANSI A250.4

B. Door
   1. Door model: de La Fontaine door model: CED SS-112
   2. Metal thickness: 18-gauge, 1.1 mm (0.045 in)
   3. Door thickness: 44.4 mm (13/4 in)
   4. Edge construction: seamless, continuously welded, internally steel reinforced stiles of 16-gauge, 1.4 mm (0.056 in). Fully welded centered seam (CW series).
5. Interior door end channels: 16-gauge, 1.4 mm (0.056 in), Snap-in steel flush channel at top and bottom location.

6. Exterior door end channels: 16-gauge, 1.4 mm (0.056 in), full flush, seamless, continuously welded and finish smooth at top location; snap-in steel flush channel at bottom location. Provide weep-holes at bottom end channel.

7. Vertical edge on active door: Beveled edges on both side 3.2 mm (1/8 in) in 50.8 mm (2 in).

C. Fire rated openings
1. Manufacture doors and frames as successfully tested in accordance with British Standard (BS-476-22) or:
   a. NFPA 80
   b. NFPA 252
   c. NFPA 257
   d. UL 10C

2. Fire rating up to 120 minutes. (For detailed information, please review the general information sheet of this collection)

Other options available; please communicate with us for customized doors.

The changes brought to this technical drawing must be approved by our Engineering Department.
DOORS WITH
INLAYS
With this line, everything is possible - insert a door number, a logo, signage, or simply exclusive decorative elements! The fruit of many years of research and development, our insertion procedure reinvents inlay by combining steel with other materials applied to the surface: wood, stainless, laminated plastic or brass. It offers exceptional flexibility in terms of design. So go ahead, imagine, draw, and create. DE LA FONTAINE takes care of the rest... strength and security included.

**EXAMPLES OF USE**
- Hotels
- Office buildings
- Apartments, condominiums
- Residences for seniors
- Institutions
- Businesses

**BENEFITS**
- **Fire resistance approval**: Positive pressure UL 10C: Up to 180 minutes; British Standard (BS-476-22): Up to 240 minutes
- **Conforms to the American National Standards Institute** ANSI A250.4 standard
- Includes **materials with high recycled content**
- **The performance** of a commercial-grade steel door, moderate to maximum duty
- **Soundproofing option** available, rating between 33 and 47 STC
- **Personalized** and exclusive design
- Possible combination of different materials on the surface of the door
- Ideal to insert door numbers, logos, signage or protective plates
- **Pre-finishing in factory**: Standard and custom colors

**CHOICE OF INLAY**
- Protective plates
- Vertical or horizontal straight lines or curves
- Moldings
- Signage, logos, numbers
- Combination of several of these elements

**MATERIALS**
- **Door**: A40 and A60 galvannealed steel, 18, 16, 14-gauge
- **Inlay**: Stainless steel, wood, steel or aluminum molding, brass, plastic laminate, bronze, metal laminate
FIRE RATING:

**UL 10C (positive pressure): Up to 90 minutes**
- Polystyrene/honeycomb core, 2438 mm x 2743 mm (8’0” x 9’0”) maximum dimension
- Mineral core, 2438 mm x 2438 mm (8’0” x 8’0”) maximum dimension

**UL 10C (positive pressure): Up to 180 minutes**
- Honeycomb core, 2438 mm x 2438 mm (8’0” x 8’0”) maximum dimension

**British Standard (BS-476-22): Up to 120 minutes**
- Honeycomb core, 2438 mm x 2438 mm (8’0” x 8’0”) maximum dimension

ACOUSTICAL RATING:
This product is available with acoustical rating; STC 33 through 47 per ASTM E90.

REFERENCED STANDARDS:
- ANSI A250.3: Test Procedure and Acceptance Criteria for Factory Applied Finish Painted Steel Surfaces for Steel Doors and Frames
- ANSI A250.4: Test Procedure and Acceptance Criteria for Physical Endurance for Steel Doors and Hardware Reinforcings.
- ANSI A250.10: Test Procedure and Acceptance Criteria for Prime Painted Steel Surfaces for Steel Doors and Frames
- NAAMM-HMMA 850: Fire Rated Hollow Metal Doors and Frames
- NFPA 80: Standard for Fire Door and Other Opening Protective
- NFPA 252: Standard Methods of Fire Tests of Door Assemblies
- NFPA 257: Standard on Fire Tests for Window and Glass Block Assemblies.
- CAN4-S106-M80: Standard Method for Fire Test of Window and Glass Block Assemblies.
- British Standard BS: 476-22

MATERIAL

**Door material:**
- Galvannealed steel A40 or A60
  - 18-gauge, 11 mm (0.045), 16-gauge, 1.4 mm (0.056 in),
  - 14-gauge, 1.8 mm (0.071 in)

**Inlay material:**
- **Stainless steel:** Stainless steel type 304 or 316, finish #4 or #8
- **Steel:** Painted galvanneal steel, A40 or A60
- **Metal laminate:** Depending of the design, the base metal will vary. Aluminum, brass, bronze, cooper and steel are available. Please visit our supplier website at: www.chemetalco.com for more information on their products.
- **Plastic laminate:** Decorative laminates are a high pressure thermoset plastic surfacing material. Please visit our supplier website at: www.arborite.com for more information on their products.
- **Molding:** Hardwood moldings are available in different species such as maple, yellow birch, oak, cherry tree, cherry birch. We also offer aluminum and steel moldings.
**RELATED LEED CREDIT:**

**Steel:**

MR Credit 4.1 Recycled Content: 10% or 20%

Our main supplier of galvannealed steel furnishes steel with a total recycled content of 58%. This includes a total post-consumer content of 20%, a total pre-consumer content of 25%, with the balance comprised of home scrap.

Our stainless steel is comprised of 80% recycled content. This includes a total post-consumer content of 20%, a total pre-consumer content of 50%, with the balance comprised of home scrap.

**Core:**

Our main supplier of honeycomb furnishes a product with a total recycled content of 20%. This includes a total post-consumer content of 10%; a total pre-consumer content of 10%.

Our main supplier of polystyrene furnishes a product with a total recycled content of 69.4%. This includes a total post-consumer content of 33.6%; a total pre-consumer content of 35.8%

**STORAGE, HANDLING AND INSTALLATION**


- Approved door and hardware schedule
- Approved shop drawings
- Manufacturer’s recommendations
- Local building codes
- NFPA 80
- ANSI/DHI A115.1G Installation Guide for Doors and Hardware

**AVAILABILITY**

De La Fontaine products are available from our distributors in Canada, USA and Gulf Cooperative Countries or directly from the factory for other countries. Please visit our website at www.delafontaine.com or contact de La Fontaine Industries for local contact information. Our products availability depends of complexity of design, pre-finishing requirements and inlay material required. Please communicate with the factory for delivery time.

**WARRANTY**

De La Fontaine Inc. warrants all material manufactured by us to be free from defects in material and workmanship that could happen under normal conditions of use and maintenance within one year following the date of their delivery.

Our obligation is strictly limited to repair or replace, at de La Fontaine Inc. options, defective material supplied. Any defects or loss caused to the products following their delivery at the building site and that ensue notably from their manipulation, handling, storing or installation are expressly excluded from the present warranty.

**MAINTENANCE**

**Door surface:**

For everyday cleaning, simply wipe the surface with a soft, damp cloth and mild detergent; then rinse thoroughly with warm water and wipe dry.

Before recoating the surface must be clean, dry and free of contaminants. A slight sanding is always recommended. De La Fontaine factory finish paint is a 2K waterborne acrylic urethane, baked-on. Consult with paint manufacturer’s instruction for the proper conditions required for their product.

**Plastic laminate material:**

For everyday cleaning, simply wipe the surface with a soft, damp cloth and mild detergent; then rinse thoroughly with warm water and wipe dry.

For stubborn stains, use an all-purpose cleaner, with a damp cloth; then rinse thoroughly with warm water and wipe dry. Avoid harsh chemical cleaners.

**Metal laminate material:**

Clean with a soft cloth using mild soap and water or nonabrasive glass and metal cleaning liquids. Do not use ammonia, abrasive cleaners or pads, or harsh solvents.

**Stainless steel:**

Washing with soap or a mild detergent and warm water followed by a clean water rinse is usually quite adequate. An enhanced appearance will be achieved if the cleaned surface is finally wiped dry.

**Wood molding:**

Clean with a soft humid cloth to remove dust. Do not wet wood and make sure to completely dry the surface.

**TECHNICAL SERVICE**

Detailed information including product literature, test reports, installation instruction, and information on special application is available through de La Fontaine. Please visit our website at www.delafontaine.com or communicate with us at tech@delafontaine.com or call at +1 819 821-9230.
INL-101

This door is a revolution. A design revolution that reinvents the art of marquetry. And a technological revolution that allows to combine steel with other material while preserving performance and resistance of a commercial-grade steel door. Moreover, like all the DE LA FONTAINE products, it is prefinished in factory which is a major advantage in terms of quality and efficiency.

SPECIFICATION // PART 2 - PRODUCTS

2.1 MANUFACTURER

de La Fontaine Inc.
4115 Brodeur Street
Sherbrooke, Québec, J1L 1K4, CANADA
Phone local: 819-821-9230
Phone toll free from USA: 800-565-9230
Phone International: +1 819 821-9230
E-mail: info@delafontaine.com
Website: www.delafontaine.com

2.2 MATERIALS

A. Steel requirements:
   1. Interior doors: comply with ASTM A653, Designation A40.

B. Inlay material:
   1. Comply with ASTM A240, stainless steel type 304 satin finish # 4

C. Door core:
   1. Interior doors: Impregnated Honeycomb, with 25 mm (1 in) cell maximum diameter.

2.3. FABRICATION

A. Physical performance
   1. Comply with Level A according to ANSI A250.4

B. Door

   1. Door model: de La Fontaine door model: INL-101
   2. Metal thickness: 18-gauge 1.1 mm (0.045 in)
   3. Door thickness: 44.4 mm (1\(\frac{3}{4}\) in)
   4. Edge construction: seamless, continuously welded, internally steel reinforced stiles of 18-gauge, 1.1 mm (0.045 in). Fully welded centered seam (CW series).
   5. Door end channels: 16-gauge, 1.4 mm (0.056 in), projection welded every 2 in (50 mm). Steel flush channel putty-filled seam and ground smooth at top and bottom location.
   6. Vertical edge on active door: Beveled edges on both side 3.2 mm (1/8 in) in 50.8 mm (2 in).
C. Fire rated openings

1. Manufacture doors and frames as successfully tested in accordance with British Standard (BS-476-22) or:
   a. NFPA 80
   b. NFPA 252
   c. NFPA 257
   d. UL 10C

2. Fire rating up to 180 minutes. (For detailed information, please review the general information sheet of this collection)

2.4. FINISHING

A. Factory pre-finish door

1. Finish paint shall comply with ANSI A250.3
2. de La Fontaine finish color # DLF 278
3. Provide touch-up paint kits for field repair.

Other options available; please communicate with us for customized doors.
INL-102

This door is a revolution. A design revolution that reinvents the art of marquetry. And a technological revolution that allows to combine steel with other material while preserving performance and resistance of a commercial-grade steel door. Moreover, like all the DE LA FONTAINE products, it is prefinished in factory which is a major advantage in terms of quality and efficiency.

SPECIFICATION // PART 2 - PRODUCTS

2.1 MANUFACTURER

de La Fontaine Inc.
4115 Brodeur Street
Sherbrooke, Québec, J1L 1K4, CANADA
Phone local: 819-821-9230
Phone toll free from USA: 800-565-9230
Phone International: +1 819 821-9230
E-mail: info@delafontaine.com
Website: www.delafontaine.com

2.2 MATERIALS

A. Steel requirements:
   1. Interior door: comply with ASTM A653, Designation A40.

B. Inlay material:

C. Door core:
   1. Interior doors: Impregnated Honeycomb, with 25 mm (1 in) cell maximum diameter.

2.3. FABRICATION

A. Physical performance
   1. Comply with Level A according to ANSI A250.4

B. Door
   1. Door model: de La Fontaine door model: INL-102
   2. Metal thickness: 18-gauge, 1.1 mm (0.045 in)
   3. Door thickness: 44.4 mm (1 3/4 in)
   4. Edge construction: seamless, continuously welded, internally steel reinforced stiles of 18-gauge, 1.1 mm (0.045 in). Fully welded centered seam (CW series).
   5. Door end channels: 16-gauge, 1.4 mm (0.056 in), projection welded every 2 in (50 mm). Steel flush channel putty-filled seam and ground smooth at top and bottom location.
   6. Vertical edge on active door: Beveled edges on both side 3.2 mm (1/8 in) in 50.8 mm (2 in).
C. Fire rated openings

1. Manufacture doors and frames as successfully tested in accordance with British Standard (BS-476-22) or:
   a. NFPA 80
   b. NFPA 252
   c. NFPA 257
   d. UL 10C

2. Fire rating up to 180 minutes. (For detailed information, please review the general information sheet of this collection)

2.4. FINISHING

A. Factory pre-finish door

1. Finish paint shall comply with ANSI A250.3
2. Door: de La Fontaine finished color # DLF 263
3. Inlay: de La Fontaine finished color # DLF 272
4. Provide touch-up paint kits for field repair.

Other options available; please communicate with us for customized doors.

The changes brought to this technical drawing must be approved by our Engineering Department.
INL-103

This door is a revolution. A design revolution that reinvents the art of marquetry. And a technological revolution that allows to combine steel with other material while preserving performance and resistance of a commercial-grade steel door. Moreover, like all the DE LA FONTAINE products, it is prefinished in factory which is a major advantage in terms of quality and efficiency.

SPECIFICATION // PART 2 - PRODUCTS

2.1 MANUFACTURER

de La Fontaine Inc.
4115 Brodeur Street
Sherbrooke, Québec, J1L 1K4, CANADA
Phone local: 819-821-9230
Phone toll free from USA: 800-565-9230
Phone International: +1 819 821-9230
E-mail: info@delafontaine.com
Website: www.delafontaine.com

2.2 MATERIALS

A. Steel requirements:
   1. Interior doors: comply with ASTM A653, Designation A40.

B. Inlay material:
   1. Comply with ASTM A240, stainless steel type 304 satin finish # 4

C. Door core:
   1. Interior doors: Impregnated Honeycomb, with 25 mm (1 in) cell maximum diameter.

2.3. FABRICATION

A. Physical performance
   1. Comply with Level A according to ANSI A250.4

B. Door
   1. Door model: de La Fontaine door model: INL-103
   2. Metal thickness: 18-gauge, 1.1 mm (0.045 in)
   3. Door thickness: 44.4 mm (1⅞ in)
   4. Edge construction: seamless, continuously welded, internally steel reinforced stiles of 18-gauge, 1.1 mm (0.045 in). Fully welded centered seam (CW series).
   5. Door end channels: 16-gauge, 1.4 mm (0.056 in), projection welded every 2 in (50 mm). Steel flush channel putty-filled seam and ground smooth at top and bottom location.
   6. Vertical edge on active door: Beveled edges on both side 3.2 mm (1/8 in) in 50.8 mm (2 in).
C. Fire rated openings

1. Manufacture doors and frames as successfully tested in accordance with British Standard (BS-476-22) or:
   a. NFPA 80
   b. NFPA 252
   c. NFPA 257
   d. UL 10C

2. Fire rating up to 180 minutes. (For detailed information, please review the general information sheet of this collection)

2.4. FINISHING

A. Factory pre-finish door

1. Finish paint shall comply with ANSI A250.3
2. de La Fontaine finish color # DLF 278
3. Provide touch-up paint kits for field repair.

Other options available; please communicate with us for customized doors.

The changes brought to this technical drawing must be approved by our Engineering Department.
INL-104

This door is a revolution. A design revolution that reinvents the art of marquetry. And a technological revolution that allows to combine steel with other material while preserving performance and resistance of a commercial-grade steel door. Moreover, like all the DE LA FONTAINE products, it is prefinished in factory which is a major advantage in terms of quality and efficiency.

SPECIFICATION // PART 2 - PRODUCTS

2.1 MANUFACTURER

de La Fontaine Inc.
4115 Brodeur Street
Sherbrooke, Québec, J1L 1K4, CANADA
Phone local: 819-821-9230
Phone toll free from USA: 800-565-9230
Phone International: +1 819 821-9230
E-mail: info@delafontaine.com
Website: www.delafontaine.com

2.2 MATERIALS

A. Steel requirements:
   1. Interior doors: comply with ASTM A653, Designation A40.

B. Inlay material:
   1. 25.4 mm (1 in) maple wood molding WM-282

C. Door core:
   1. Interior doors: Impregnated Honeycomb, with 25 mm (1 in) cell maximum diameter.

2.3. FABRICATION

A. Physical performance
   1. Comply with Level A according to ANSI A250.4

B. Door
   1. Door model: de La Fontaine door model: INL-104
   2. Metal thickness: 18-gauge, 1.1 mm (0.045 in)
   3. Door thickness: 44.4 mm (1 3/4 in)
   4. Edge construction: seamless, continuously welded, internally steel reinforced stiles of 18-gauge, 1.1 mm (0.045 in). Fully welded centered seam (CW series).
   5. Door end channels: 16-gauge, 1.4 mm (0.056 in), projection welded every 2 in (50 mm). Steel flush channel putty-filled seam and ground smooth at top and bottom location.
   6. Vertical edge on active door: Beveled edges on both side 3.2 mm (1/8 in) in 50.8 mm (2 in).
C. Fire rated openings

1. Manufacture doors and frames as successfully tested in accordance with British Standard (BS-476-22) or:
   a. NFPA 80
   b. NFPA 252
   c. NFPA 257
   d. UL 10C

2. Fire rating up to 180 minutes. (For detailed information, please review the general information sheet of this collection)

2.4. FINISHING

A. Factory pre-finish door

1. Finish paint shall comply with ANSI A250.3
2. Door: de La Fontaine finished color # DLF 277
3. Moulding: Clear stain
4. Provide touch-up paint kits for field repair.

Other options available; please communicate with us for customized doors.

The changes brought to this technical drawing must be approved by our Engineering Department.
INL-105

This door is a revolution. A design revolution that reinvents the art of marquetry. And a technological revolution that allows to combine steel with other material while preserving performance and resistance of a commercial-grade steel door. Moreover, like all the DE LA FONTAINE products, it is prefinished in factory which is a major advantage in terms of quality and efficiency.

SPECIFICATION // PART 2 - PRODUCTS

2.1 MANUFACTURER

de La Fontaine Inc.
4115 Brodeur Street
Sherbrooke, Québec, J1L 1K4, CANADA
Phone local: 819-821-9230
Phone toll free from USA: 800-565-9230
Phone International: +1 819 821-9230
E-mail: info@delafontaine.com
Website: www.delafontaine.com

2.2 MATERIALS

A. Steel requirements:
   1. Interior doors: comply with ASTM A653, Designation A40.

B. Inlay material:
   1. Plastic laminate # PL 1539

C. Door core:
   1. Interior doors: Impregnated Honeycomb, with 25 mm (1 in) cell maximum diameter.

2.3. FABRICATION

A. Physical performance
   1. Comply with Level A according to ANSI A250.4

B. Door
   1. Door model: de La Fontaine door model: INL-105
   2. Metal thickness: 18-gauge, 1.1 mm (0.045 in)
   3. Door thickness: 44.4 mm (1 3/4 in)
   4. Edge construction: seamless, continuously welded, internally steel reinforced stiles of 18-gauge, 1.1 mm (0.045 in). Fully welded centered seam (CW series).
   5. Door end channels: 16-gauge, 1.4 mm (0.056 in), projection welded every 2 in (50 mm). Steel flush channel putty-filled seam and ground smooth at top and bottom location.
   6. Vertical edge on active door: Beveled edges on both side 3.2 mm (1/8 in) in 50.8 mm (2 in).
C. Fire rated openings
1. Manufacture doors and frames as successfully tested in accordance with British Standard (BS-476-22) or:
   a. NFPA 80
   b. NFPA 252
   c. NFPA 257
   d. UL 10C

2. Fire rating up to 180 minutes. (For detailed information, please review the general information sheet of this collection)

2.4. FINISHING

A. Factory pre-finish door
   1. Finish paint shall comply with ANSI A250.3
   2. de La Fontaine finish color # DLF 263
   3. Provide touch-up paint kits for field repair.

Other options available; please communicate with us for customized doors.

The changes brought to this technical drawing must be approved by our Engineering Department.
INL-106

This door is a revolution. A design revolution that reinvents the art of marquetry. And a technological revolution that allows to combine steel with other material while preserving performance and resistance of a commercial-grade steel door. Moreover, like all the DE LA FONTAINE products, it is prefinished in factory which is a major advantage in terms of quality and efficiency.

SPECIFICATION // PART 2 - PRODUCTS

2.1 MANUFACTURER

de La Fontaine Inc.
4115 Brodeur Street
Sherbrooke, Québec, J1L 1K4, CANADA
Phone local: 819-821-9230
Phone toll free from USA: 800-565-9230
Phone International: +1 819 821-9230
E-mail: info@delafontaine.com
Website: www.delafontaine.com

2.2 MATERIALS

A. Steel requirements:
   1. Interior door: comply with ASTM A653, Designation A40.

B. Inlay material:
   2. Personalized logo or signage; provide detailed drawing and color information.

C. Door core:
   1. Interior doors: Impregnated Honeycomb, with 25 mm (1 in) cell maximum diameter.

2.3. FABRICATION

A. Physical performance
   1. Comply with Level A according to ANSI A250.4

B. Door
   1. Door model: de La Fontaine door model: INL-106
   2. Metal thickness: 18-gauge, 1.1 mm (0.045 in)
   3. Door thickness: 44.4 mm (1 3/4 in)
   4. Edge construction: seamless, continuously welded, internally steel reinforced stiles of 18-gauge, 1.1 mm (0.045 in). Fully welded centered seam (CW series).
   5. Door end channels: 16-gauge, 1.4 mm (0.056 in), projection welded every 2 in (50 mm). Steel flush channel putty-filled seam and ground smooth at top and bottom location.
6. Vertical edge on active door: Beveled edges on both side 3.2 mm (1/8 in) in 50.8 mm (2 in).

C. Fire rated openings
1. Manufacture doors and frames as successfully tested in accordance with British Standard (BS-476-22) or:
   a. NFPA 80
   b. NFPA 252
   c. NFPA 257
   d. UL 10C

2. Fire rating up to 180 minutes. (For detailed information, please review the general information sheet of this collection)

2.4. FINISHING

A. Factory pre-finish door
1. Finish paint shall comply with ANSI A250.3
2. Door: de La Fontaine finished color # DLF 287
3. Inlay: Provide custom color information to match
4. Provide touch-up paint kits for field repair

Other options available; please communicate with us for customized doors.

The changes brought to this technical drawing must be approved by our Engineering Department.
INL-107

This door is a revolution. A design revolution that reinvents the art of marquetry. And a technological revolution that allows to combine steel with other material while preserving performance and resistance of a commercial-grade steel door. Moreover, like all the DE LA FONTAINE products, it is prefinished in factory which is a major advantage in terms of quality and efficiency.

SPECIFICATION // PART 2 - PRODUCTS

2.1 MANUFACTURER

de La Fontaine Inc.
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Sherbrooke, Québec, J1L 1K4, CANADA
Phone local: 819-821-9230
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Phone International: +1 819 821-9230
E-mail: info@delafontaine.com
Website: www.delafontaine.com

2.2 MATERIALS

A. Steel requirements:
   1. Interior doors: comply with ASTM A653, Designation A40.

B. Inlay material:
   1. Plastic laminate # W-372

C. Door core:
   1. Interior doors: Impregnated Honeycomb, with 25 mm (1 in) cell maximum diameter.

2.3. FABRICATION

A. Physical performance
   1. Comply with Level A according to ANSI A250.4

B. Door
   1. Door model: de La Fontaine door model: INL-107
   2. Metal thickness: 18-gauge, 1.1 mm (0.045 in)
   3. Door thickness: 44.4 mm (1\(\frac{3}{4}\) in)
   4. Edge construction: seamless, continuously welded, internally steel reinforced stiles of 18-gauge, 1.1 mm (0.045 in). Fully welded centered seam (CW series).
   5. Door end channels: 16-gauge, 1.4 mm (0.056 in), projection welded every 2 in (50 mm). Steel flush channel putty-filled seam and ground smooth at top and bottom location.
   6. Vertical edge on active door: Beveled edges on both side 3.2 mm (1/8 in) in 50.8 mm (2 in).
C. Fire rated openings
1. Manufacture doors and frames as successfully tested in accordance with British Standard (BS-476-22) or:
   a. NFPA 80
   b. NFPA 252
   c. NFPA 257
   d. UL 10C
2. Fire rating up to 180 minutes. (For detailed information, please review the general information sheet of this collection)

2.4. FINISHING

A. Factory pre-finish door
1. Finish paint shall comply with ANSI A250.3
2. de La Fontaine finish color # DLF 285
3. Provide touch-up paint kits for field repair.

Other options available; please communicate with us for customized doors.

The changes brought to this technical drawing must be approved by our Engineering Department.
INL-108

This door is a revolution. A design revolution that reinvents the art of marquetry. And a technological revolution that allows to combine steel with other material while preserving performance and resistance of a commercial-grade steel door. Moreover, like all the DE LA FONTAINE products, it is prefinished in factory which is a major advantage in terms of quality and efficiency.

SPECIFICATION // PART 2 - PRODUCTS

2.1 MANUFACTURER

dé La Fontaine Inc.
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Phone local: 819-821-9230
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Phone International: +1 819 821-9230
E-mail: info@delafontaine.com
Website: www.delafontaine.com

2.2 MATERIALS

A. Steel requirements:
   1. Interior doors: comply with ASTM A653, Designation A40.

B. Inlay material:
   1. Plastic laminated # PL P-930

C. Door core:
   1. Interior doors: Impregnated Honeycomb, with 25 mm (1 in) cell maximum diameter.

2.3. FABRICATION

A. Physical performance
   1. Comply with Level A according to ANSI A250.4

B. Door
   1. Door model: de La Fontaine door model: INL-108
   2. Metal thickness: 18-gauge, 1.1 mm (0.045 in)
   3. Door thickness: 44.4 mm (1¾ in)
   4. Edge construction: seamless, continuously welded, internally steel reinforced stiles of 18-gauge, 1.1 mm (0.045 in). Fully welded centered seam (CW series).
   5. Door end channels: 16-gauge, 1.4 mm (0.056 in), projection welded every 2 in (50 mm). Steel flush channel putty-filled seam and ground smooth at top and bottom location.
   6. Vertical edge on active door: Beveled edges on both side 3.2 mm (1/8 in) in 50.8 mm (2 in).
C. Fire rated openings
1. Manufacture doors and frames as successfully tested in accordance with British Standard (BS-476-22) or:
   a. NFPA 80
   b. NFPA 252
   c. NFPA 257
   d. UL 10C

2. Fire rating up to 180 minutes. (For detailed information, please review the general information sheet of this collection)

2.4. FINISHING

A. Factory pre-finish door
1. Finish paint shall comply with ANSI A250.3
2. de La Fontaine finish color # DLF 292
3. Provide touch-up paint kits for field repair.

Other options available; please communicate with us for customized doors.

The changes brought to this technical drawing must be approved by our Engineering Department.
INL-109

This door is a revolution. A design revolution that reinvents the art of marquetry. And a technological revolution that allows to combine steel with other material while preserving performance and resistance of a commercial-grade steel door. Moreover, like all the DE LA FONTAINE products, it is prefinished in factory which is a major advantage in terms of quality and efficiency.

SPECIFICATION // PART 2 - PRODUCTS

2.1 MANUFACTURER

de La Fontaine Inc.
4115 Brodeur Street
Sherbrooke, Québec, J1L 1K4, CANADA
Phone local: 819-821-9230
Phone toll free from USA: 800-565-9230
Phone International: +1 819 821-9230
E-mail: info@delafontaine.com
Website: www.delafontaine.com

2.2 MATERIALS

A. Steel requirements:
   1. Interior doors: comply with ASTM A653, Designation A40.

B. Inlay material:
   1. Comply with ASTM A240, stainless steel type 304 finish # 8

C. Door core:
   1. Interior doors: Impregnated Honeycomb, with 25 mm (1 in) cell maximum diameter.

2.3. FABRICATION

A. Physical performance
   1. Comply with Level A according to ANSI A250.4

B. Door
   1. Door model: de La Fontaine door model: INL-109
   2. Metal thickness: 18-gauge, 1.1 mm (0.045 in)
   3. Door thickness: 44.4 mm (1 3/4 in)
   4. Edge construction: seamless, continuously welded, internally steel reinforced stiles of 18-gauge, 1.1 mm (0.045 in). Fully welded centered seam (CW series).
   5. Door end channels: 16-gauge, 1.4 mm (0.056 in), projection welded every 2 in (50 mm). Steel flush channel putty-filled seam and ground smooth at top and bottom location.
   6. Vertical edge on active door: Beveled edges on both side 3.2 mm (1/8 in) in 50.8 mm (2 in).
C. Fire rated openings

1. Manufacture doors and frames as successfully tested in accordance with British Standard (BS-476-22) or:
   a. NFPA 80
   b. NFPA 252
   c. NFPA 257
   d. UL 10C

2. Fire rating up to 180 minutes. (For detailed information, please review the general information sheet of this collection)

2.4. FINISHING

A. Factory pre-finish door

1. Finish paint shall comply with ANSI A250.3
2. de La Fontaine finish color # DLF 286
3. Provide touch-up paint kits for field repair.

Other options available; please communicate with us for customized doors.

The changes brought to this technical drawing must be approved by our Engineering Department.
INL-110

This door is a revolution. A design revolution that reinvents the art of marquetry. And a technological revolution that allows to combine steel with other material while preserving performance and resistance of a commercial-grade steel door. Moreover, like all the DE LA FONTAINE products, it is prefinished in factory which is a major advantage in terms of quality and efficiency.

SPECIFICATION // PART 2 - PRODUCTS

2.1 MANUFACTURER

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Phone toll free from USA: 800-565-9230
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Website: www.delafontaine.com

2.2 MATERIALS

A. Steel requirements:
   1. Interior doors: comply with ASTM A653, Designation A40.

B. Inlay material:
   1. Metal laminate # ML 803

C. Door core:
   1. Interior doors: Impregnated Honeycomb, with 25 mm (1 in) cell maximum diameter.

2.3. FABRICATION

A. Physical performance
   1. Comply with Level A according to ANSI A250.4

B. Door
   1. Door model: de La Fontaine door model: INL-110
   2. Metal thickness: 18-gauge, 1.1 mm (0.045 in)
   3. Door thickness: 44.4 mm (1¾ in)
   4. Edge construction: seamless, continuously welded, internally steel reinforced stiles of 18-gauge, 1.1 mm (0.045 in). Fully welded centered seam (CW series).
   5. Door end channels: 16-gauge, 1.4 mm (0.056 in), projection welded every 2 in (50 mm). Steel flush channel putty-filled seam and ground smooth at top and bottom location.
   6. Vertical edge on active door: Beveled edges on both side 3.2 mm (1/8 in) in 50.8 mm (2 in).
C. Fire rated openings
1. Manufacture doors and frames as successfully tested in accordance with British Standard (BS-476-22) or:
   a. NFPA 80
   b. NFPA 252
   c. NFPA 257
   d. UL 10C

2. Fire rating up to 180 minutes. (For detailed information, please review the general information sheet of this collection)

2.4. FINISHING

A. Factory pre-finish door
1. Finish paint shall comply with ANSI A250.3
2. de La Fontaine finish color # DLF 290
3. Provide touch-up paint kits for field repair.

Other options available; please communicate with us for customized doors.

The changes brought to this technical drawing must be approved by our Engineering Department.
This product has size limitations, please review our technical data book.
INL-111
This door is a revolution. A design revolution that reinvents the art of marquetry. And a technological revolution that allows to combine steel with other material while preserving performance and resistance of a commercial-grade steel door. Moreover, like all the DE LA FONTAINE products, it is prefinished in factory which is a major advantage in terms of quality and efficiency.

SPECIFICATION // PART 2 - PRODUCTS

2.1 MANUFACTURER
de La Fontaine Inc.
4115 Brodeur Street
Sherbrooke, Québec, J1L 1K4, CANADA
Phone local: 819-821-9230
Phone toll free from USA: 800-565-9230
Phone International: +1 819 821-9230
E-mail: info@delafontaine.com
Website: www.delafontaine.com

2.2 MATERIALS
A. Steel requirements:
   1. Interior doors: comply with ASTM A653, Designation A40.

B. Inlay material:
   1. Comply with ASTM A240, stainless steel type 304 finish # 8

C. Door core:
   1. Interior doors: Impregnated Honeycomb, with 25 mm (1 in) cell maximum diameter.

2.3. FABRICATION
A. Physical performance
   1. Comply with Level A according to ANSI A250.4

B. Door
   1. Door model: de La Fontaine door model: INL-111
   2. Metal thickness: 18-gauge, 1.1 mm (0.045 in)
   3. Door thickness: 44.4 mm (1¾ in)
   4. Edge construction: seamless, continuously welded, internally steel reinforced stiles of 18-gauge, 1.1 mm (0.045 in). Fully welded centered seam (CW series).
   5. Door end channels: 16-gauge, 1.4 mm (0.056 in), projection welded every 2 in (50 mm). Steel flush channel putty-filled seam and ground smooth at top and bottom location.
   6. Vertical edge on active door: Beveled edges on both side 3.2 mm (1/8 in) in 50.8 mm (2 in).
C. Fire rated openings

1. Manufacture doors and frames as successfully tested in accordance with British Standard (BS-476-22) or:
   a. NFPA 80
   b. NFPA 252
   c. NFPA 257
   d. UL 10C

2. Fire rating up to 180 minutes. (For detailed information, please review the general information sheet of this collection)

2.4. FINISHING

A. Factory pre-finish door

1. Finish paint shall comply with ANSI A250.3
2. de La Fontaine finish color # DLF 286
3. Provide touch-up paint kits for field repair.

Other options available; please communicate with us for customized doors.

The changes brought to this technical drawing must be approved by our Engineering Department.
DOORS WITH RECESSED PANELS
Let your imagination run free by creating your own model of door: Decide on the number of panels to embed as well as their size, add a molding of wood or aluminum to accent the relief, choose the pre-finishing color. And there you have it. You will have a unique door... a steel door which respects the most demanding of performance standards and is resistant to fire... a designer door which will harmoniously integrate into your project.

**EXAMPLES OF USE**
- Hotels
- Office buildings
- Apartments, condominiums
- Residences for seniors
- Student residences
- Institutions

**BENEFITS**
- **Fire resistance approval:** Positive pressure UL 10C: Up to 180 minutes; British Standard (BS-476-22): Up to 120 minutes
- **Conforms to the American National Standards Institute** ANSI A250.4 standard
- Includes **materials with high recycled content**
- **The performance** of a commercial-grade steel door, moderate to maximum duty
- **Personalized** and exclusive **design**
- **Pre-finishing in factory:** Standard and custom colors

**CHOICE OF DESIGN**
- Recessed panels
- Recessed panels with moldings

**MATERIALS**
- **Door:** A40 and A60 galvannealed steel, 18, 16, 14-gauge
- **Moldings:** Hardwood, aluminum or steel
FIRE RATING:

UL 10C (positive pressure): Up to 90 minutes
- Polystyrene/honeycomb core, 2438 mm x 2743 mm (8’0” x 9’0”) maximum dimension

UL 10C (positive pressure): Up to 180 minutes
- Honeycomb core, 2438 mm x 2438 mm (8’0” x 8’0”) maximum dimension

British Standard (BS-476-22): Up to 120 minutes,
- Honeycomb core, 2438 mm x 2438 mm (8’0” x 8’0”) maximum dimension

REFERENCED STANDARDS:
- ANSI A250.3: Test Procedure and Acceptance Criteria for Factory Applied Finish Painted Steel Surfaces for Steel Doors and Frames
- ANSI A250.4: Test Procedure and Acceptance Criteria for Physical Endurance for Steel Doors and Hardware Reinforcings.
- ANSI A250.10: Test Procedure and Acceptance Criteria for Prime Painted Steel Surfaces for Steel Doors and Frames
- NAAMM-HMMA 850: Fire Rated Hollow Metal Doors and Frames
- NFPA 80: Standard for Fire Door and Other Opening Protectives
- NFPA 252: Standard Methods of Fire Tests of Door Assemblies
- NFPA 257: Standard on Fire Tests for Window and Glass Block Assemblies.
- CAN4-S106-M80: Standard Method for Fire Test of Window and Glass Block Assemblies.
- British Standard BS: 476-22

MATERIAL

Door:
Galvannealed steel A40 or A60
18-gauge, 1.1 mm (0.045), 16-gauge, 1.4 mm (0.056 in),
14-gauge, 1.8 mm (0.071 in)

Moldings:
Our moldings are available in different hardwood species such as maple, yellow birch, oak, cherry tree, cherry birch. We also offer aluminum and steel moldings.

RELATED LEED CREDIT:

MR Credit 4.1 Recycled Content: 10% or 20%

Steel:
Our main supplier of galvannealed steel furnishes steel with a total recycled content of 58%. This includes a total post-consumer content of 20%, a total pre-consumer content of 25%, with the balance comprised of home scrap.

Core:
Our main supplier of honeycomb furnishes a product with a total recycled content of 20%. This includes a total post-consumer content of 10%; a total pre-consumer content of 10%.

Our main supplier of polystyrene furnishes a product with a total recycled content of 69.4%. This includes a total post-consumer content of 33.6%; a total pre-consumer content of 35.8%.
STORAGE, HANDLING AND INSTALLATION


- Approved door and hardware schedule
- Approved shop drawings
- Manufacturer’s recommendations
- Local building codes
- NFPA 80
- ANSI/DHI A115.1G Installation Guide for Doors and Hardware

AVAILABILITY

De La Fontaine products are available from our distributors in Canada, USA and Gulf Cooperative Countries or directly from the factory for other countries. Please visit our website at www.delafontaine.com or contact de La Fontaine Industries for local contact information. Our products availability depends on complexity of design, pre-finishing requirements and inlay material required. Please communicate with the factory for delivery time.

WARRANTY

De La Fontaine Inc. warrants all material manufactured by us to be free from defects in material and workmanship that could happen under normal conditions of use and maintenance within one year following the date of their delivery.

Our obligation is strictly limited to repair or replace, at de La Fontaine Inc. options, defective material supplied. Any defects or loss caused to the products following their delivery at the building site and that ensue notably from their manipulation, handling, storing or installation are expressly excluded from the present warranty.

MAINTENANCE

Door surface:

For everyday cleaning, simply wipe the surface with a soft, damp cloth and mild detergent; then rinse thoroughly with warm water and wipe dry.

Before recoating the surface must be clean, dry and free of contaminants. A slight sanding is always recommended. De La Fontaine factory finish paint is a 2K waterborne acrylic urethane, baked-on. Consult with paint manufacturer’s instruction for the proper conditions required for their product.

Wood molding:

Clean with a soft humid cloth to remove dust. Do not wet wood and make sure to completely dry the surface.

Simply wipe the surface with a soft, damp cloth and mild detergent; then rinse thoroughly with warm water and wipe dry.

TECHNICAL SERVICE

Detailed information including product literature, test reports, installation instruction, and information on special application is available through de La Fontaine. Please visit our website at www.delafontaine.com or communicate with us at tech@delafontaine.com or call at +1 819 821-9230.
**RPD-101-M**

With its recessed panels, this door integrates harmoniously into all projects, whether it is for new buildings or for historic renovations. Built with steel, with high technology, it respects the most demanding norms for performance and fire resistance. Moreover, like all the DE LA FONTAINE products, it is prefinished in factory which is a major advantage in terms of quality and efficiency.

**SPECIFICATION // PART 2 - PRODUCTS**

**2.1 MANUFACTURER**
de La Fontaine Inc.
4115 Brodeur Street
Sherbrooke, Québec, J1L 1K4, CANADA
Phone local: 819-821-9230
Phone toll free from USA: 800-565-9230
Phone International: +1 819 821-9230
E-mail: info@delafontaine.com
Website: www.delafontaine.com

**2.2 MATERIALS**

**A. Steel requirements:**
1. Interior doors: comply with ASTM A653, Designation A40.

**B. Molding:**
1. Aluminum molding AM 918 DB

**C. Door core:**
1. Interior doors: Impregnated Honeycomb, with 25 mm (1 in) cell maximum diameter.

**2.3. FABRICATION**

**A. Physical performance**
1. Comply with Level A according to ANSI A250.4

**B. Door**
1. Door model: de La Fontaine door model: RPD-101-M
2. Metal thickness: 16-gauge, 1.4 mm (0.056 in)
3. Door thickness: 44.4 mm (1⅗ in)
4. Edge construction: seamless, continuously welded, internally steel reinforced stiles of 18-gauge, 1.1 mm (0.045 in). Fully welded centered seam (CW series).
5. Door end channels: 16-gauge, 1.4 mm (0.056 in), projection welded every 2 in (50 mm). Steel flush channel putty-filled seam and ground smooth at top and bottom location.
6. Vertical edge on active door: Beveled edges on both side 3.2 mm (⅛ in) in 50.8 mm (2 in).
C. Fire rated openings
1. Manufacture doors and frames as successfully tested in accordance with British Standard (BS-476-22) or:
   a. NFPA 80
   b. NFPA 252
   c. NFPA 257
   d. UL 10C

2. Fire rating up to 180 minutes. (For detailed information, please review the general information sheet of this collection)

2.4. FINISHING

A. Factory pre-finish door
1. Finish paint shall comply with ANSI A250.3
2. Door: de La Fontaine finished color # DLF 276
3. Moulding finished color # DLF 276
4. Provide touch-up paint kits for field repair.

Other options available; please communicate with us for customized doors.

The changes brought to this technical drawing must be approved by our Engineering Department.
RPD-102-M

With its recessed panels, this door integrates harmoniously into all projects, whether it is for new buildings or for historic renovations. Built with steel, with high technology, it respects the most demanding norms for performance and fire resistance. Moreover, like all the DE LA FONTAINE products, it is prefinished in factory which is a major advantage in terms of quality and efficiency.

SPECIFICATION // PART 2 - PRODUCTS

2.1 MANUFACTURER

de La Fontaine Inc.
4115 Brodeur Street
Sherbrooke, Québec, J1L 1K4, CANADA
Phone local: 819-821-9230
Phone toll free from USA: 800-565-9230
Phone International: +1 819 821-9230
E-mail: info@delafontaine.com
Website: www.delafontaine.com

2.2 MATERIALS

A. Steel requirements:
   1. Interior doors: comply with ASTM A653, Designation A40.

B. Molding:
   1. Maple wood molding WM 849

C. Door core:
   1. Interior doors: Impregnated Honeycomb, with 25 mm (1 in) cell maximum diameter.

2.3. FABRICATION

A. Physical performance
   1. Comply with Level A according to ANSI A250.4

B. Door
   1. Door model: de La Fontaine door model: RPD-102-M
   2. Metal thickness: 16-gauge, 1.4 mm (0.056 in)
   3. Door thickness: 44.4 mm (1 3/4 in)
   4. Edge construction: seamless, continuously welded, internally steel reinforced stiles of 18-gauge, 1.1 mm (0.045 in). Fully welded centered seam (CW series).
   5. Door end channels: 16-gauge, 1.4 mm (0.056 in), projection welded every 2 in (50 mm). Steel flush channel putty-filled seam and ground smooth at top and bottom location.
   6. Vertical edge on active door: Beveled edges on both side 3.2 mm (1/8 in) in 50.8 mm (2 in).
C. Fire rated openings

1. Manufacture doors and frames as successfully tested in accordance with British Standard (BS-476-22) or:
   a. NFPA 80
   b. NFPA 252
   c. NFPA 257
   d. UL 10C

2. Fire rating up to 180 minutes. (For detailed information, please review the general information sheet of this collection)

2.4. FINISHING

A. Factory pre-finish door

1. Finish paint shall comply with ANSI A250.3
2. Door: de La Fontaine finished color # DLF 263
3. Moulding finished color, stain # DLF 263
4. Provide touch-up paint kits for field repair.

Other options available; please communicate with us for customized doors.

The changes brought to this technical drawing must be approved by our Engineering Department.
**RPD-103-M**

With its recessed panels, this door integrates harmoniously into all projects, whether it is for new buildings or for historic renovations. Built with steel, with high technology, it respects the most demanding norms for performance and fire resistance. Moreover, like all the DE LA FONTAINE products, it is prefinished in factory which is a major advantage in terms of quality and efficiency.

**SPECIFICATION // PART 2 - PRODUCTS**

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Website: www.delafontaine.com

**2.2 MATERIALS**

A. Steel requirements:
   1. Interior doors: comply with ASTM A653, Designation A40.

B. Molding:
   1. Maple wood molding QR225

C. Door core:
   1. Interior doors: Impregnated Honeycomb, with 25 mm (1 in) cell maximum diameter.

**2.3 FABRICATION**

A. Physical performance
   1. Comply with Level A according to ANSI A250.4

B. Door
   1. Door model: de La Fontaine door model: RPD-103-M
   2. Metal thickness: 16-gauge, 1.4 mm (0.056 in)
   3. Door thickness: 44.4 mm (13/4 in)
   4. Edge construction: seamless, continuously welded, internally steel reinforced stiles of 18-gauge, 1.1 mm (0.045 in). Fully welded centered seam (CW series).
   5. Door end channels: 16-gauge, 1.4 mm (0.056 in), projection welded every 2 in (50 mm). Steel flush channel putty-filled seam and ground smooth at top and bottom location.
   6. Vertical edge on active door: Beveled edges on both side 3.2 mm (1/8 in) in 50.8 mm (2 in).
C. Fire rated openings
This door cannot be fire rated because of the type of wood molding.

2.4. FINISHING

A. Factory pre-finish door
   1. Finish paint shall comply with ANSI A250.3
   2. Door: de La Fontaine finished color # DLF 277
   3. Moulding finished color: clear stain
   4. Provide touch-up paint kits for field repair.

Other options available; please communicate with us for customized doors.

The changes brought to this technical drawing must be approved by our Engineering Department.
RPD-103a-M

With its recessed panels, this door integrates harmoniously into all projects, whether it is for new buildings or for historic renovations. Built with steel, with high technology, it respects the most demanding norms for performance and fire resistance. Moreover, like all the DE LA FONTAINE products, it is prefinished in factory which is a major advantage in terms of quality and efficiency.

SPECIFICATION // PART 2 - PRODUCTS

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Sherbrooke, Québec, J1L 1K4, CANADA
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E-mail: info@delafontaine.com
Website: www.delafontaine.com

2.2 MATERIALS

A. Steel requirements:
   1. Interior doors: comply with ASTM A653, Designation A40.

B. Molding:
   1. Maple wood molding WM 849

C. Door core:
   1. Interior doors: Impregnated Honeycomb, with 25 mm (1 in) cell maximum diameter.

2.3. FABRICATION

A. Physical performance
   1. Comply with Level A according to ANSI A250.4

B. Door

   1. Door model: de La Fontaine door model: RPD-103a-M
   2. Metal thickness: 16-gauge, 1.4 mm (0.056 in)
   3. Door thickness: 44.4 mm (1 3/4 in)
   4. Edge construction: seamless, continuously welded, internally steel reinforced stiles of 18-gauge, 1.1 mm (0.045 in). Fully welded centered seam (CW series).
   5. Door end channels: 16-gauge, 1.4 mm (0.056 in), projection welded every 2 in (50 mm). Steel flush channel putty-filled seam and ground smooth at top and bottom location.
   6. Vertical edge on active door: Beveled edges on both side 3.2 mm (1/8 in) in 50.8 mm (2 in).
C. Fire rated openings

1. Manufacture doors and frames as successfully tested in accordance with British Standard (BS-476-22) or:
   a. NFPA 80
   b. NFPA 252
   c. NFPA 257
   d. UL 10C

2. Fire rating up to 180 minutes. (For detailed information, please review the general information sheet of this collection)

2.4. FINISHING

A. Factory pre-finish door

1. Finish paint shall comply with ANSI A250.3
2. Door: de La Fontaine finished color # DLF 292
3. Moulding finished color: stain # DLF 292
4. Provide touch-up paint kits for field repair.

Other options available; please communicate with us for customized doors.

The changes brought to this technical drawing must be approved by our Engineering Department.
RPD-104-S

With its recessed panels, this door integrates harmoniously into all projects, whether it is for new buildings or for historic renovations. Built with steel, with high technology, it respects the most demanding norms for performance and fire resistance. Moreover, like all the DE LA FONTAINE products, it is prefinished in factory which is a major advantage in terms of quality and efficiency.

SPECIFICATION // PART 2 - PRODUCTS

2.1 MANUFACTURER

de La Fontaine Inc.
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Website: www.delafontaine.com

2.2 MATERIALS

A. Steel requirements:
   1. Interior doors: comply with ASTM A653, Designation A40.

B. Door core:
   1. Interior doors: Impregnated Honeycomb, with 25 mm (1 in) cell maximum diameter.

2.3. FABRICATION

A. Physical performance
   1. Comply with Level A according to ANSI A250.4

B. Door
   1. Door model: de La Fontaine door model: RPD-104-S
   2. Metal thickness: 16-gauge, 1.4 mm (0.056 in)
   3. Door thickness: 44.4 mm (13/4 in)
   4. Edge construction: seamless, continuously welded, internally steel reinforced stiles of 18-gauge, 1.1 mm (0.045 in). Fully welded centered seam (CW series).
   5. Door end channels: 16-gauge, 1.4 mm (0.056 in), projection welded every 2 in (50 mm). Steel flush channel putty-filled seam and ground smooth at top and bottom location.
   6. Vertical edge on active door: Beveled edges on both side 3.2 mm (1/8 in) in 50.8 mm (2 in).
C. Fire rated openings

1. Manufacture doors and frames as successfully tested in accordance with British Standard (BS-476-22) or:
   a. NFPA 80
   b. NFPA 252
   c. NFPA 257
   d. UL 10C

2. Fire rating up to 180 minutes. (For detailed information, please review the general information sheet of this collection)

2.4. FINISHING

A. Factory pre-finish door

1. Finish paint shall comply with ANSI A250.3
2. Door: Custom color by Designer (Benjamin Moore # 2065-20)
3. Provide touch-up paint kits for field repair.

Other options available; please communicate with us for customized doors.

The changes brought to this technical drawing must be approved by our Engineering Department.
RPD-104a-S

With its recessed panels, this door integrates harmoniously into all projects, whether it is for new buildings or for historic renovations. Built with steel, with high technology, it respects the most demanding norms for performance and fire resistance. Moreover, like all the DE LA FONTAINE products, it is prefinished in factory which is a major advantage in terms of quality and efficiency.

SPECIFICATION // PART 2 - PRODUCTS

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E-mail: info@delafontaine.com
Website: www.delafontaine.com

2.2 MATERIALS

A. Steel requirements:
   1. Interior doors: comply with ASTM A653, Designation A40.

B. Inlay material:
   1. Stainless steel type 304, satin finish # 4: comply with ASTM A240
   2. Personalized logo or signage; provide detailed drawing

C. Door core:
   1. Interior doors: Impregnated Honeycomb, with 25 mm (1 in) cell maximum diameter.

2.3. FABRICATION

A. Physical performance
   1. Comply with Level A according to ANSI A250.4

B. Door

   1. Door model: de La Fontaine door model: RPD-104a-S
   2. Metal thickness: 16-gauge, 1.4 mm (0.056 in)
   3. Door thickness: 44.4 mm (1 3/4 in)
   4. Edge construction: seamless, continuously welded, internally steel reinforced stiles of 18-gauge, 1.1 mm (0.045 in). Fully welded centered seam (CW series).
   5. Door end channels: 16-gauge, 1.4 mm (0.056 in), projection welded every 2 in (50 mm). Steel flush channel putty-filled seam and ground smooth at top and bottom location.
   6. Vertical edge on active door: Beveled edges on both side 3.2 mm (1/8 in) in 50.8 mm (2 in).
C. Fire rated openings

1. Manufacture doors and frames as successfully tested in accordance with British Standard (BS-476-22) or:
   a. NFPA 80
   b. NFPA 252
   c. NFPA 257
   d. UL 10C

2. Fire rating up to 180 minutes. (For detailed information, please review the general information sheet of this collection)

2.4. FINISHING

A. Factory pre-finish door

1. Finish paint shall comply with ANSI A250.3
2. de La Fontaine finish color # DLF 285
3. Provide touch-up paint kits for field repair.

Other options available; please communicate with us for customized doors.

The changes brought to this technical drawing must be approved by our Engineering Department.
RPD-105a-M

With its recessed panels, this door integrates harmoniously into all projects, whether it is for new buildings or for historic renovations. Built with steel, with high technology, it respects the most demanding norms for performance and fire resistance. Moreover, like all the DE LA FONTAINE products, it is prefinished in factory which is a major advantage in terms of quality and efficiency.

SPECIFICATION // PART 2 - PRODUCTS

2.1 MANUFACTURER

de La Fontaine Inc.
4115 Brodeur Street
Sherbrooke, Québec, J1L 1K4, CANADA
Phone local: 819-821-9230
Phone toll free from USA: 800-565-9230
Phone International: +1 819 821-9230
E-mail: info@delafontaine.com
Website: www.delafontaine.com

2.2 MATERIALS

A. Steel requirements:
   1. Interior doors: comply with ASTM A653, Designation A40.

B. Molding:
   1. Aluminum molding AM V-15947

C. Door core:
   1. Interior doors: Impregnated Honeycomb, with 25 mm (1 in) cell maximum diameter.

2.3. FABRICATION

A. Physical performance
   1. Comply with Level A according to ANSI A250.4

B. Door
   1. Door model: de La Fontaine door model: RPD-105a-M
   2. Metal thickness: 16-gauge, 1.4 mm (0.056 in)
   3. Door thickness: 44.4 mm (1 3/4 in)
   4. Edge construction: seamless, continuously welded, internally steel reinforced stiles of 18-gauge, 1.1 mm (0.045 in). Fully welded centered seam (CW series).
   5. Door end channels: 16-gauge, 1.4 mm (0.056 in), projection welded every 2 in (50 mm). Steel flush channel putty-filled seam and ground smooth at top and bottom location.
   6. Vertical edge on active door: Beveled edges on both side 3.2 mm (1/8 in) in 50.8 mm (2 in).
C. Fire rated openings
1. Manufacture doors and frames as successfully tested in accordance with British Standard (BS-476-22) or:
   a. NFPA 80
   b. NFPA 252
   c. NFPA 257
   d. UL 10C

2. Fire rating up to 180 minutes. (For detailed information, please review the general information sheet of this collection)

2.4. FINISHING
A. Factory pre-finish door
1. Finish paint shall comply with ANSI A250.3
2. Door: de La Fontaine finished color # DLF 285
3. Moulding finished color: # DLF 285
4. Provide touch-up paint kits for field repair.

Other options available; please communicate with us for customized doors.

The changes brought to this technical drawing must be approved by our Engineering Department.
HOLLOW METAL
DOORS AND FRAMES
DE LA FONTAINE
INDUSTRIES OFFERS
A COMPLETE LINE
OF HIGH QUALITY
HOLLOW METAL DOORS
AND FRAMES BUILT
WITH GALVANNEALED
STEEL OR STAINLESS
STEEL. OUR COMPANY
EXPERTISE AND
REPUTATION FOR
RELIABILITY IS BASED
ON MORE THAN 40
YEARS OF EXPERIENCE
IN THE DOOR INDUSTRY.

MATERIAL
Our standard material is A40 heat-treated hot dipped galvanized steel. The zinc-iron alloy offers better corrosion resistance than primed cold rolled steel and requires less surface preparation for painting than hot dipped galvanized steel (G60-90). For exterior applications or wet areas, the A60 designation is available. de la Fontaine also offers stainless steel 304 and 316, finish #4 (satin finish) for highly corrosive environments or wet areas.

Our galvannealed steel is suitable for immediate painting, although we also offer water-borne primed products and factory prefinished products. Our primer and our factory paint have been developed to comply with current environmental standards and these options eliminate field VOC’s.

STEEL COMPLIANCE
- ASTM A653/A653M
  Our galvannealed steel complies with ASTM A653/A653M (Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy Coated (Galvannealed) by the Hot Dip Process).
- ASTM A240/A240M
- STEEL GAUGES
  For quality purpose, our steel gauges exceed the industry standard NAAIM/HAMMA 803 (steel tables).

RECYCLED CONTENT
The total recycled content of our galvannealed steel is approximately 58%.

This includes:
- a total post-consumer content of 20%
- a total post-industrial content of 25%
- the remaining 13% is comprised of home scrap.

The total recycled content of our stainless steel is approximately 80%.

This includes:
- a total post-consumer content of 20%
- a total post-industrial content of 50%
- the remaining 10% is comprised of home scrap.

FIRE RATING
The basic requirements and limitations affecting de La Fontaine fire doors and frames are defined by the National Fire Protection Association, NFPA 80 (Standard for Fire Doors and Other Opening Protective). Our products comply with UL 10C (Standard Positive Pressure Fire Tests of Door Assemblies), NFPA 252 (Standard Methods of Fire Test of Door Assemblies), NFPA 257 (Standard on Fire Test of Window and Glass Block Assemblies) and British Standard BS-476-22.

Since the de La Fontaine team is dedicated to innovation and new product development, we purchased our own testing facility. Once product development is complete, we perform a final test at the ITS facility to receive their approval and obtain listing, labeling, and follow-up services for the fire-rated products we manufacture. For additional information on the fire doors and frames manufactured by de La Fontaine, visit our website or contact us.

PRIMER
Our water-borne primer complies with current environmental standards due to its low VOC content. It meets ANSI standard A250.1D (Test Procedure and Acceptance Criteria for Prime Painted Steel Surfaces for Steel Doors and Frames). Our primer has improved protection against humidity and corrosion and it can be covered with any type of coating.
**Honeycomb (option A0):**
1" (25.4 mm) cell.
Compression ratio: 1875 lbs per sq ft.

**Polystyrene (option A1):** solid block,
R value: 7.0 (hr • °F • sq ft)/BTU
U value: 0.14 BTU/(hr • °F • sq ft)

**Urethane (option A3A):** solid block,
R value: 10.0 (hr • °F • sq ft)/BTU
U value: 0.10 BTU/(hr • °F • sq ft)

**Steel stiffened (options A12A, A6A):**
with vertical 18-gauge (0.044”/1.1 mm) steel stiffeners, 6" (152 mm) on C/L with solid polystyrene block, solid urethane block or mineral fiber wool.

**Mineral:**
solid block
Standard, inverted steel channels, projection welded, 16-gauge (0.056”/1.4 mm) or 14-gauge (0.071”/1.8 mm).

Flush steel channels, projection welded, 16-gauge (0.056”/1.4 mm) or 14-gauge (0.071”/1.8 mm), not sealed.

Flush steel channels, projection welded, 16-gauge (0.056”/1.4 mm) or 14-gauge (0.071”/1.8 mm), putty-finished seam and ground equal smooth, sealed.

Fully continuously welded centered seam. Flush internal steel channels, 16-gauge (0.056”/1.4 mm) or 14-gauge (0.071”/1.8 mm).

Standard inverted steel channels with screwed-in PVC (plastic) top cap.

Standard two-part sandwich-type vision kit, welded corner sections, 18-gauge (0.044”/1.1 mm). Available for 1/4” (6.3 mm) to 1” (25.4 mm) thick glass (option N).

Two-part sandwich-type vision kit with muntins, 18-gauge (0.044”/1.1 mm). Only available non-rated and for 1/4” (6.3 mm) and 1/2” (12.7 mm) thick glass (option N-O).

High frequency hinge reinforcement, 10-gauge (0.129”/3.3 mm) or 7-gauge (0.167”/4.2 mm) flat hinge reinforcement.

Cylindrical lock reinforcement, 12-gauge (0.105”/2.7 mm) lock front, 18-gauge (0.044”/11 mm) spacer. Mortise lock reinforcement, 12-gauge (0.105”/2.7 mm) lock front, 16-gauge (0.056”/1.4 mm) box.

Saw-mitered and continuously fully welded on the exposed side. Sanitary welded (SW). Welds are ground and finished smooth.
**FRAME SERIES AND PROFILES**

**NOTE:** LEAD LINING IS AVAILABLE IN THICKNESSES OF 1/32" (0.8 MM), 1/16" (1.6 MM) AND 1/8" (3.2 MM). FULL WIDTH OR HALF WIDTH PROFILE.

**Single return series (SR):**
Standard equal rabbet profile shown.
Available in:
- 18-gauge (0.044"/1.1 mm)
- 16-gauge (0.056"/1.4 mm)
- 14-gauge (0.071"/1.8 mm)
- 12-gauge (0.105"/2.7 mm).

**Double return series (DR):**
Standard equal rabbet profile shown.
Available in:
- 18-gauge (0.044"/1.1 mm)
- 16-gauge (0.056"/1.4 mm)
- 14-gauge (0.071"/1.8 mm).

**Less return series (LR) with applied molding:**
Molding by others, molding must be in hard wood to comply with fire rating. Standard equal rabbet profile shown.

**Thermal barrier profile:**
Available in SR series. 16-gauge (0.056"/1.4 mm) or 14-gauge (0.071"/1.8 mm). Must be welded for proper installation.

**Less return series (LR) with applied molding:**
Molding by others, molding must be in hard wood to comply with fire rating. Standard equal rabbet profile shown.

**Terminated (sanitary) stop:**
Closed end, 45 degrees. Also available with 90-degree closed end.

**Double egress profile:**
Available in:
- SR, DR, LR series.

**Custom Profiles**

**NOTE:** THESE PROFILES CAN BE FIRE RATED UP TO 90 MINUTES (POSITIVE PRESSURE UL 10C).

**Single rabbet profile.**

**Centered glass profile.**

**Caulking groove profile.**

**Radius profile.**

**Sloped sill profile.**

**Double stepped oggee profile.**

**Shadow line profile.**

**Standard ANSI 4 3/8" strike** reinforcement, 16-gauge (0.056"/1.4 mm). Mortar box, 16-gauge (0.056"/1.4 mm), furnished on all SR series frames with masonry anchors.

**High frequency hinge** reinforcement, 10-gauge (0.129"/3.3 mm) or 7-gauge (0.167"/4.2 mm) flat hinge reinforcement.

**Regular arm surface closer** reinforcement, 12-gauge (0.105"/2.7 mm).

**Parallel arm surface closer** reinforcement, 12-gauge (0.105"/2.7 mm).

**Standard Frame Hardware Reinforcements**

**NOTE:** FRAMES COME WITH SILENCERS INSTALLED AS A STANDARD FEATURE. ALL HARDWARE REINFORCEMENTS ARE PROJECTION WELDED. PLEASE CONTACT YOUR LOCAL REPRESENTATIVE FOR ADDITIONAL DETAILS ON HARDWARE REINFORCEMENT.
**FRAME ANCHORS**

- **Screw base anchor** (SBA).
- **Wire masonry anchor** (WMA) with welded base anchor.
- **Z bracket anchor** (ZBA).
- **Drywall strap anchor** (DSA).
- **“T” masonry anchor** (MTA) with welded base anchor.
- **Combination wood & steel-stud anchor** (DCA).
- **Existing wall anchor** (EWA).
- **Fixed mullion floor anchor**.

**REMOVABLE MULLION DETAILS**

- **Head/top** of mullion assembly detail. 90-minute fire rated (positive pressure; UL 10C).

**CUSTOM FRAME ELEVATIONS**

- **Arched frame**.
- **Segmented radius** borrowed lite.
- **True-radius** borrowed lite.

**NOTE:** Anchors are spot welded.

**NOTE:** 18-GAUGE (0.044”/1.1 MM) GLAZING BEAD.
SPECIALTY PRODUCTS

- STEEL SIFFENED DOORS
- ROUGH BUCK FRAME
- WINDSTORM DOORS
- SPLIT FRAME
- BACK TO MENU
STEEL STIFFENED DOORS
In the steel door and frame industry, many manufacturers offer a steel-stiffened door spot-welded to the door skins. de La Fontaine Industries cold fuses stiffeners to the door skins because we recognize the benefits and performance advantages of this process. The adhesive bonding we use leads to increased fatigue-resistance, which in turn leads to increased durability of the finished product. The performance of our adhesive shows that it is up to 9 times stronger than spot-welded assemblies under the ASTM D897-01 shear testing standard. Cold fusing eliminates weld marks, which provides a smooth and more esthetically pleasing surface.

**BENEFITS**

- 10-year warranty on the structural integrity of the continuously welded door.(1)
- No weld marks on door faces allows for use of glossy paint.
- Heavy-duty door.
- Shear test results demonstrate that cold fused stiffeners are up to 9 times stronger than spot-welded stiffened doors.
- Inverted embossed custom design.

**MATERIAL**

- A40 or A60 galvannealed steel, stainless steel type 304 or 316 satin finish # 4.

**GAUGES**

- **Flush door:**
  - 18-gauge (0.044”/ 1.1 mm);
  - 16-gauge (0.056”/ 1.4 mm);
  - 14-gauge (0.071”/ 1.8 mm);
  - 12-gauge (0.105”/ 2.7 mm).(2)
- **Inverted embossed door:**
  - 18-gauge (0.044”/ 1.1 mm);
  - 16-gauge (0.056”/ 1.4 mm).

**DOOR CONSTRUCTION**

- Lockseam on edge, filled lockseam on edge, or continuously welded.

**DOOR CORE**

- Steel stiffened with polystyrene or urethane. Vertical 18-gauge (0.044”/ 1.1 mm) channel stiffeners, 6” (152.4 mm) centers.

**FIRE RATING**

- 90 minutes, positive pressure UL 10C.

**Maximum dimensions:**

- Single opening, polystyrene:
  - 4’0” x 9’0” (1219 mm x 2743 mm);
- Double opening, polystyrene:
  - 8’0” x 9’0” (2438 mm x 2743 mm);
- Single opening, urethane:
  - 3’0” x 7’0” (914 mm x 2133 mm).

**ASTM D897-01**

- Shear resistance up to 9 times stronger than with spot welding. Test results available upon request.

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(1) Used in commercial applications only.
(2) Not available in stainless steel.
THE ROUGH
BUCK FRAME
The challenge of achieving a proper installation in retrofit opening projects is almost an act of faith... Fitting a square door in a non-square opening may result in unacceptable clearances between the door and the frame and may not provide workable hardware conditions for latching, gasketing or fire code requirements. Standard hollow metal frames do not allow for adjustment to compensate for out-of-square masonry openings and anchoring is unpredictable. de La Fontaine Industries is well known for its innovative team. Because your complete satisfaction is foremost in our mind, we have pushed the RBF concept further to replace an existing frame in a masonry wall.

**BENEFITS**

- Flexibility on opening height:
  - 4” (100.8 mm) head: 1/2” (12.5mm)
  - 2” (50.4 mm) head: 1/4” (6.4mm)
- Flexibility on opening width: 1/4” (6.4 mm) per jamb
- The finish frame can be installed square, level and plumb.
- Does not involve precise measurements on site.
- Solid anchorage of the frame; does not require grouting.
- Consistent clearance between the frame and the door provides compliance with codes and standards, energy efficiency, security and durability.
- Standard door sizes can be maintained.

**FRAME CONSTRUCTION**

- Knockdown for field assembly.

**SUBFRAME**

- U channel butted to the masonry wall.
- Pre-drilled holes for 1/4” (6.4 mm) Tapcon screws.
- 14-gauge adjustable floor base anchor

**FINISH FRAME**

- Compression anchors at critical locations to ensure accurate adjustment and tight-fitting miters.
- Includes a 12-gauge full sleeve closer reinforcement of 14” (356 mm) long.
- Pre-drilled holes for screws at 1” (25 mm) from each end of the jamb, then located 12” (305 mm) center to center.
- Securely attached to the galvannealed subframe with galvannealed # 12 x 1” (25 mm) self-drilling, self-tapping center pin torx security screws.

**MATERIAL**

- A40 and A60 galvannealed steel.
- Stainless steel type 304 or 316 finish # 4.

**GAUGES**

- 16, 14, 12-gauges for galvannealed steel.
- 16 or 14-gauges for stainless steel.

**FIRE RATING**

- Approved for 90 minutes (in positive pressure; UL 10C).
WINDSTORM-RESISTANT
DESIGNER DOORS
Storms and hurricanes are frequent in certain coastal areas, and construction standards demand high-performance products to ensure the safety of building occupants. de La Fontaine offers a durable door that meets the industry’s stringent standards, while the distinction of customized embossing allows you to combine performance and design.

**MATERIAL**
- A40 and A60 galvannealed steel; stainless steel, type 304 or 316, finish # 4.

**STEEL GAUGES**
- Flush door: 16-gauge (0.056”/1.4 mm); 14-gauge (0.071”; 1.8 mm); 12-gauge (0.105”/2.7 mm).
- Inverted embossed door: 16-gauge (0.056”/1.4 mm).
- Frame: 16-gauge (0.056”/1.4 mm) minimum.

**DOOR DIMENSIONS**
- Single door: up to 3’0” x 7’0” (914 mm x 2133 mm);
- Pair of doors: up to 6’0” x 7’0” (1829 mm x 2133 mm).

**FRAME**
- Jamb depth: 5” (146 mm) minimum; Existing wall anchor with tube.

**DOOR**
- Continuously welded door, 1 3/4” (44 mm) thick; Door perimeter is reinforced with an 18-gauge (0.044”/1.1 mm) U-channel

**WINDOW**
- Cut-out only with reinforcement; Maximum dimension is per glass manufacturer; Glass by others.

**DOOR CORE**
- Steel stiffened core with polystyrene.

**FIRE RATING**
- 90 minutes, positive pressure UL 10C.

**COMPLY WITH INDUSTRY WINDSTORM STANDARDS**
- ANSI A250.13, ASTM E330-02, ASTM E1886-05, ASTM E1996-09; Outswinging doors; Pressure: 70 psf; Impact: 350 lbs/ft; Class 1 door.

**HARDWARE**
- Single opening:
  - Cylindrical lock (10-gauge (0.129”/3.3 mm) reinforcement);
  - Mortise lock (10-gauge (0.129”/3.3 mm) reinforcement);
  - Rim exit device.
- Double opening:
  - Cylindrical lock X surface bolt (top and bottom);
  - Mortise lock X surface bolt (top and bottom);
  - Rim exit device X rim exit device X mullion;
  - Vertical rod exit device (surface or concealed, top and bottom).

**HINGE REINFORCEMENT**
- 10-gauge (0.129”/3.3 mm).

**PREFINISHING**
- Please refer to the technical sheet for more information.
PREFINISHED
SPLIT FRAME
DE LA FONTAINE has combined its expertise, experience and innovation to develop an exclusive and patented welded split frame available in a variety of configurations. Its design features—including a state-of-the-art anchoring system and sandwich structure—yield an accurate fit with a range of wall conditions and constructions. The result: a solid, strong and secure opening. In addition, our unique split frame comes prefinished from the factory for installation at the end of the construction cycle, which reduces the time spent on coordination and installation. Let us prove it to you on your next construction project.

**BENEFITS**

**End Users:**
- Durable opening with less maintenance.
- Ease of compliance with the annual fire door inspection mandated by NFPA 80, 2007 edition.

**Architects:**
- Factory prefinished products.
- Lack of field VOC’s.

**Contractors:**
- Installation can start once the walls have been painted.
- Factory prefinishing considerably reduces coordination and time spent on the jobsite.
- One sole responsibility for the complete opening.

**Distributors:**
- The frame, door and hardware can be assembled before shipping to the jobsite to ensure functionality of the opening.
- Fewer trips to the opening.
- Adjustability suitable for retrofit application.

**CONFIGURATIONS**
- Single-frame, double-frame, sidelite, transom and borrowed lite.

**ASSEMBLY**
- Two face-welded components. Wall anchors. Mullion anchors provided with sidelite.

**HARDWARE REINFORCEMENT**
- Commercial hardware reinforcements per NAAMM standard.

**PREFINISH**
- High quality and durable finish that exceeds ANSI A250.3.
- Standard and custom colors.

**FIRE RATING**
- **90-minute** (positive pressure; UL10C). Maximum overall dimensions: 8’2” x 10’3/4” (2489 mm x 3067 mm).
- **60-minute** (positive pressure; UL10C). Maximum overall dimensions: 10’ x 11’5” (3048 mm x 3480 mm)
- Pair of doors and field splice approved.

**LEED**
- Our galvannealed steel is comprised of 58% recycled steel (post-consumer: 20%; post-industrial: 25%; home scrap: 13%).

**PERFORMANCE**
- Exceeds American National Standards

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**MATERIAL**
- A40 and A60 galvannealed steel.
- Stainless steel, type 304 or 316, satin finish #4.

**STEEL GAUGE**
- **16-gauge** (0.056", 1.4 mm).
- **14-gauge** (0.071", 1.8 mm).

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* We recommend a pre-installation meeting before using this product. Please contact us for more details.
FINISHES
THE INLAYS
For doors with inlays, DE LA FONTAINE has selected a wide range of suitable materials to integrate into steel, among which are: wood, stainless, brass, plastic laminate and metal laminate. Whether it is for decorative elements (curves, lines, forms) or functional elements (protective plates, numbers, logos, signage), you can choose the material, the texture and the color which will give a classic and contemporary look to your door which is definitely avant-garde.

FOR MORE CHOICES, PLEASE VISIT OUR SUPPLIER WEBSITE:

- [www.arborite.com](http://www.arborite.com)
- [www.chemetalco.com](http://www.chemetalco.com)

The finishes shown may vary slightly; request a physical sample before final decision.
The finishes shown may vary slightly; request a physical sample before final decision.
THE MOLDINGS
Applicable to doors with recessed panels or doors with inlays, the moldings allow you to enrich the design with both a classic and warm touch. Moldings in aluminum, steel or in wood are installed in factory, before the painting process.

**UL 10C** (Standard Positive Pressure Fire Tests of Door Assemblies), British standard BS-476-22

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**THE MOLDINGS**

**ALUMINUM #AM 918 DB**

- 38.2mm (1 1/2”)
- 13.2mm (7/16”)
- 22.2mm (7/8”)

**STEEL #SM 1229 DB**

- 12.7mm (1/2”)
- 12.7mm (1/2”)

**STEEL #SM 845 DB**

- 25.4mm (1”)
- 14.3mm (9/16”)

**STEEL #SM 1853**

- 25.4mm (1”)
- 13.2mm (17/32”)

**ALUMINUM #AM V-15947**

- 12.6mm (1/2”)
- 12.1mm (15/32”)

**STEEL #SM 919 DB**

- 18.1mm (23/32”)
- 11.3mm (7/16”)

**STEEL #SM 2036-A**

- 14.3mm (9/16”)
- 12.7mm (1/2”)

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THE MOLDINGS

STEEL #SM 2545

HARDWOOD #WM GO229

HARDWOOD #WM 319

HARDWOOD #WM QR225

HARDWOOD #WM 513

HARDWOOD #WM 513

HARDWOOD #WM 048

HARDWOOD #WM 621

HARDWOOD #WM 849

HARDWOOD #WM 575

HARDWOOD #WM 151

HARDWOOD #WM 538
TELEPHONE
Local:
819 821-9230
Free of charge:
1 800 565-9230
International:
+ 1 819 821-9230

FACSIMILE
Local:
819 569-5928
Free of charge:
1 800 965-5928
International:
+ 1 819 569-5928

4115 Brodeur St.
Sherbrooke (Quebec) J1L 1K4
CANADA

anie@delafontaine.com
1. GENERAL

1.1. SECTION INCLUDES
   A. Comply with the requirements of Division 1.
   B. Provide the following products as listed on the door schedule and shown on the drawings, including but not limited to the following:
      1. Hollow metal doors
      2. Hollow metal frames
      3. Side lights, transom frames and borrowed lights
      4. Hollow metal panels
      5. Preparation of hollow metal doors and frames for finish hardware.

1.2. RELATED SECTIONS
   A. The following description of work is included for reference only and shall not be presumed complete:
      1. Finish carpentry: 06 20 00
      2. Wood doors: 08 14 00
      3. Stainless steel doors: 08 11 19
      4. Sound control door assemblies: 08 34 73
      5. Door hardware: 08 71 00
      6. Glazing: 08 80 00
      7. Painting and coating: 09 90 00
      8. Electrical: 26 00 00

1.3. REFERENCES
   A. ANSI A250.3-2007: Test Procedure and Acceptance Criteria for Factory Applied Finish Painted Steel Surfaces for Steel Doors and Frames (recommended for factory finished products)
   B. ANSI A250.4-2001: Test Procedure and Acceptance Criteria for Physical Endurance for Steel Doors and Hardware Reinforcings
   C. ANSI A250.10-1998 (R2004): Test Procedure and Acceptance Criteria for Prime Painted Steel Surfaces for Steel Doors and Frames
   F. ASTM A653/A653M-10: Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process
   G. ASTM E90-09: Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements
   I. ASTM E413-04: Classification for Rating Sound Insulation
   J. NAAMM-HMMA 803-08: Steel Tables
   K. NAAMM-HMMA 810-09: Hollow Metal Doors
   L. NAAMM-HMMA 820-08: Hollow Metal Frames
   M. NAAMM-HMMA 831-11: Recommended Hardware Locations for Hollow Metal Doors and Frames
   N. NAAMM-HMMA 840-07: Guide Specification for Installation of Hollow Metal Doors and Frames
O. NAAMM-HMMA 850-00: Fire Rated Hollow Metal Doors and Frames
P. NFPA 80-10: Standard for Fire Door and Other Opening Protective
R. NFPA 105-10: Standard for the Installation of Smoke Door Assemblies
S. NFPA 252-08: Standard Methods of Fire Tests of Door Assemblies
T. NFPA 257-07: Standard on Fire Tests for Window and Glass Block Assemblies
V. UL 10C: Standard for Safety Positive Pressure Fire Tests of Door Assemblies

1.4. PRE-INSTALLATION MEETING
A. Plan and manage a pre-installation meeting to explain the proper methods to install hollow metal doors and frames.

1.5. SUBMITTALS
A. Make submittals in accordance with Section 01 33 00.
B. Provide the following items in the submittal package:
   1. Door schedule
   2. Elevations of each door type
   3. Details of doors, including vertical and horizontal edge details and metal thickness
   4. Frame details for each frame type, including profiles and metal thickness
   5. Locations of reinforcements and preparation for hardware
   6. Details of each different wall opening condition
   7. Details of anchorage, joints, field splices and connections
   8. Details of accessories
   9. Details of moldings, removable stops and glazing
   10. Details of conduit and preparations for power, signal, and control systems
C. Upon Architect request, provide technical information on selected items.
D. Upon Architect request, provide 254 mm x 254 mm (10 in x 10 in) corner sample on selected items.
   1. Doors: Show vertical edge, end channels, core, hinges and other applied hardware reinforcements; glazing if applicable.
   2. Frames: Show profile, corner joint at head and jamb, anchors, glazing stop to show intersection between head and jamb; fixed panels if applicable.
E. Finish paint: Submit finish paint color samples of 127 mm x 127 mm (5 in x 5 in).
F. Provide products meeting the following LEED performance criteria:
   1. MRC4: For a product with recycled content, documentation indicating percentages by weight of post-consumer and pre-consumer recycled content. Provide product with maximum pre-consumer and post-consumer recycled content available, supported by appropriate documentation
G. Test and evaluation reports: Submit the following test and evaluation reports:
   1. Steel door and frame assemblies supplied under this section meet acceptance criteria of ANSI A250.4, Level A [Level B], [Level C]
   2. Primer applied on steel door and frame assemblies meet acceptance criteria of ANSI A250.10.
   3. Factory painted steel door and frame assemblies meet acceptance criteria of ANSI A250.3.
4. Insulated doors supplied in exterior openings meet specified thermal resistance rating.
5. Acoustic door and frame assemblies provide the STC and sound TL values specified within the critical frequency range, as determined and scheduled by the Consultant.
6. Windstorm rated assemblies meet standard ANSI A250.13, Class 1 requirements.
7. Ensure reports include name of testing authority, date of test, location of test facility, descriptions of test specimens, procedures used in testing and indicate compliance with acceptance criteria of the test.

H. Closeout submittals
   1. Provide the following information to the Owner:
      a. One copy of the as-built door and frame schedule;
      b. Name, address and phone number of manufacturer’s distributors;
      c. One copy of the manufacturer’s product warranty;
      d. Manufacturer’s product maintenance instructions.

1.6. QUALITY ASSURANCE
   A. Manufacturers: Execute work in this Section by a manufacturer who is a member of NAAMM. Ensure product quality meets standards set by this association.
   B. Ensure product is manufactured by a firm experienced in design and production of standard and custom commercial steel door and frame assemblies, integration of builders’ or electronic hardware and glazing assemblies, and other items affecting work.
   C. Distributors: Execute work in this Section by a distributor who has a minimum of 5 years’ experience in similar projects.
   D. Installers: Execute work in this Section by an installer who has a minimum of 5 years’ experience in similar projects.
   E. Doors and frames from a single source manufacturer.

1.7. DELIVERY, STORAGE AND HANDLING
   A. Delivery:
      1. Make deliveries in accordance with Section 01 65 00.
      2. Identify products with a label indicating manufacturer’s name, Architect’s opening number, product description and dimensions.
      3. Protect doors and frames during shipping.
      4. Upon delivery, inspect products for quantity and damage.
      5. Repair or replace damaged products before installation.
   B. Storage and handling:
      1. Store and handle products in accordance with Section 01 66 00.
      2. Store products in a clean, dry and secure area.
      3. Store and protect materials in accordance with NAAMM-HMMA 840.
      4. Remove wrappings or coverings from doors upon delivery at site. Store doors and welded frames in a vertical position with a minimum of 6 mm (1/4 in) space between them. Place material on blocking at least 102 mm (4 in) off the ground to permit air circulation.

1.8. WARRANTY
2. PRODUCTS

2.1. MANUFACTURERS

A. Acceptable manufacturer:
   1. de La Fontaine Inc.: [www.delafontaine.com](http://www.delafontaine.com).

B. Substitutions:
   1. Comply with Section 01 25 00
   2. Equal products in design, function and quality will be accepted upon Architect's approval only.

2.2. MATERIALS

A. Steel requirements:
   1. Interior doors and frames: Comply with ASTM A653, Designation ZF 120 (A40)
   2. Exterior doors and frames: Comply with ASTM A653, Designation ZF 180 (A60).

2.3. ACCESSORIES

A. Glazing moldings and stops
   1. Sandwich overlapping kit
      a. Two components with welded mitered corners and secured with minimum #6 corrosion-resistant countersunk sheet metal screws.
      b. Glazing moldings fabricated from 20-gauge, 0.8 mm (0.032 in) minimum.
      c. Fire-rated doors shall be prepared for listed glazing as required in accordance with the door manufacturer's fire rating procedure.
      d. Install screws on non-secure side.
      e. 18-gauge, 1.1 mm (0.042 in) channel reinforcements on glass size equal to or bigger than half-glass.
      f. Glazing to comply with Section 08 80 00.

   2. Flush kit
      a. On non-secure side, provide a full flush, non-removable molding.
      b. Glazing moldings fabricated from 20-gauge, 0.8 mm (0.032 in) minimum.
      c. Removable glass stops shall be channel-shaped, 20-gauge, 0.8 mm (0.032 in) minimum thickness, with tight-fitting butt or mitered corners and secured with minimum #6 corrosion-resistant countersunk sheet metal screws.
      d. Fire-rated doors shall be prepared for listed glazing as required in accordance with the door manufacturer's fire rating procedure.
      e. Install screws on non-secure side.
      f. 18-gauge, 1.1 mm (0.042 in) channel reinforcements on glass size equal to or bigger than half-glass.
      g. Glazing to comply with Section 08 80 00.
B. Frame accessories

1. Provide dust/mortar box at strike location on drywall and masonry frames.
2. Provide mortar guards for hinge reinforcements on masonry frames.
3. Provide temporary spreaders on welded frames. Provide one (1) bar for frames with less than 178 mm (7 in) jamb depth. Provide two (2) bars for frames with 178 mm (7 in) or greater jamb depth.
4. Drill holes for silencers. Single openings: 3 per strike jamb, located at hinge height. Pair openings: 2 per header at approximately 150 mm (6 in) each side of centerline of head stop.

C. Louvers

1. Louvers for non-fire rated doors shall be welded inverted V type, Y type.
2. Inverted V and Y type vanes shall be not less than 18-gauge, 1.1 mm (0.042 in) thickness.
3. Fire-rated doors shall be prepared for listed, automatic closing, fusible link; fire door louveres.
4. Louvers for exterior doors shall be provided with insect and/or bird screens.
5. Provide louveres of same material as door sheet.

2.4. DOOR FABRICATION

A. Door cores:

1. Interior openings: Impregnated honeycomb, with 25 mm (1 in) cell maximum diameter. Steel stiffened core: Continuous vertically formed steel sections, full thickness of the interior space between door faces. Stiffeners shall be 22 gauge, 0.6 mm (0.026 in) minimum thickness, spaced 152 mm (6 in) apart and securely fastened to both face sheets by industrial glue or laser welds [spot welded spaced a maximum of 127 mm (5 in) o. c. vertically]. Spaces between stiffeners shall be filled with polystyrene core Type 1, fire retardant conforming to ASTM C518.

2. Exterior openings: Polystyrene core Type 1, fire retardant conforming to ASTM C578 and a minimum R value of 7.03 (hr x°F x sq.ft)/BTU conforming to ASTM C518. [Urethane core: Rigid, cellular type, board, or foamed-in-place containing no urea formaldehyde resins and a minimum R value of 10.0 (hr x°F x sq.ft)/BTU, conforming to LTTR, CAN/ULCS770].

3. Temperature rise: Core composition to limit temperature rise on unexposed side of door to 250 degrees C (450 F) at 30 minutes. Test core as part of complete assembly in accordance with NFPA 252.

B. Hollow metal doors in light duty application

1. Physical performance: Level C according to ANSI A250.4.
2. Metal thickness: 20-gauge, 0.81 mm (0.032 in).
3. Edge construction: Full flush, lock seam on edge [full flush, lock seam on edge, industrial adhesive or tack welded every 254 mm (10 in) and putty filled].
4. Fabricate door to be flush with one continuous face free from joints, tool markings and abrasions, and with provision for glass and/or louvers as indicated on Door Schedule and Drawings.

C. Hollow metal doors in moderate duty application

1. Physical performance: Level B according to ANSI A250.4.
2. Metal thickness: 18-gauge, 1.1 mm (0.042 in).
3. Edge construction: Full flush, lock seam on edge [full flush, lock seam on edge, industrial adhesive or tack welded every 254 mm (10 in) and putty filled], [full flush, seamless with continuously welded edge seam; flush internal edge reinforcements of 16-gauge, 1.34 mm (0.053 in)].
4. Fabricate door to be flush with one continuous face free from joints, tool markings and abrasions, and with provision for glass and/or louvers as indicated on Door Schedule and Drawings.

D. Hollow metal doors in heavy duty application

1. Physical performance: Level A according to ANSI A250.4.
2. Metal thickness: 16-gauge, 1.34 mm (0.053 in).
3. Edge construction: Full flush, lock seam on edge [full flush, lock seam on edge, industrial adhesive or tack welded every 254 mm (10 in) and putty filled], [full flush, seamless with continuously welded edge seam; flush internal edge reinforcements of 16-gauge, 1.34 mm (0.053 in)].
4. Fabricate door to be flush with one continuous face free from joints, tool markings and abrasions, and with provision for glass and/or louvers as indicated on Door Schedule and Drawings.

E. Hollow metal doors in maximum duty application

1. Physical performance: Level A according to ANSI A250.4.
2. Metal thickness: 14-gauge, 1.70 mm (0.067 in).
3. Edge construction: Full flush, seamless with continuously welded edge seam; flush internal edge reinforcements of 14-gauge, 1.70 mm (0.067 in).
4. Fabricate door to be flush with one continuous face free from joints, tool markings and abrasions, and with provision for glass and/or louvers as indicated on Door Schedule and Drawings.

F. Door models

1. As indicated in the Door and Frame schedule.
   a. Pre-embossed panel door
   b. Custom embossed panel door
      1. Select from de La Fontaine CED series or [submit Designer’s customized drawing]
      2. Select U type embossing or [V type embossing]
      3. Select embossed or [reverse-embossing]
   c. Door with inlays
1. Select from de La Fontaine INL series or [submit Designer’s customized drawing]
2. Select inlay material from de La Fontaine standards or [submit Designer’s choice]

e. Door with recessed panel
1. Select from de La Fontaine RPD series or [submit Designer’s customized drawing]
2. Select molding design and material from de La Fontaine standards or [submit Designer’s choice]

f. Door with combined models
1. Submit Designer’s customized drawing
2. Select type of embossing, inlay material, moldings from de La Fontaine standards or [submit Designer’s choice]

G. End channels:
1. Interior door:
   a. Top of door: Close top of door with same material as face sheets, minimum 18-gauge, 1.1 mm (0.042 in). Steel inverted channel, projection welded. [Steel flush channel unfilled, projection welded]. [Fully continuously welded centered seam, no putty with flush internal reinforcement of minimum 18-gauge, 1.1 mm (0.042 in)].
   b. Bottom of door: Close bottom of door with same material as face sheets, minimum 18-gauge, 1.1 mm (0.042 in). Steel inverted channel projection welded. [Steel flush channel unfilled, projection welded]. [Fully continuously welded centered seam, no putty with flush internal reinforcement of minimum 18-gauge, 1.1 mm (0.042 in)].

2. Exterior door:
   a. Top of door: Close top of door with same material as face sheets, minimum 18-gauge, 1.1 mm (0.042 in). Steel flush channel, putty-filled seam and ground smooth, sealed, projection welded. [Fully continuously welded centered seam, no putty with flush internal reinforcement of minimum 18-gauge, 1.1 mm (0.042 in)].
   b. Bottom of door: Close bottom of door with same material as face sheets, minimum 18-gauge, 1.1 mm (0.042 in). Steel inverted channel, projection welded. [Steel flush channel unfilled, projection welded]. [Steel flush channel, putty-filled seam and ground smooth, sealed, projection welded]. [Fully continuously welded centered seam, no putty with flush internal reinforcement of minimum 18-gauge, 1.1 mm (0.042 in)].
   c. Provide weep-hole openings in bottom of exterior doors to allow moisture to escape.

H. Vertical edges on active doors:
1. Beveled edges on both sides: 3 mm per 50 mm, (1/8 in per 2 in). Square vertical edges are not acceptable.

2.5. FRAME FABRICATION

A. Hollow metal frame in light duty application
1. Frames:
   a. Physical performance: Level C according to ANSI A250.4.
   b. Metal thickness: 18-gauge, 1.1 mm (0.042 in).
   c. Metal thickness for openings over 1219 mm (48 in): 16-gauge, 1.34 mm (0.053 in).
   d. Frame assembly: Face welded, dressed smooth with seamless face. [Continuously welded through the entire profile, dressed smooth with seamless face]. [Knockdown].

2. Side light, transom frame, borrowed light:
   a. Metal thickness: 16-gauge, 1.34 mm (0.053 in).
   b. Frame assembly: face welded, dressed smooth with seamless face. [Continuously welded through the entire profile, dressed smooth with seamless face].
   c. Hollow metal panel: Same material, construction and finish as adjacent door assemblies.
   d. Glazing bead: 18-gauge, 1.1 mm (0.042 in), screw applied with countersunk holes, butted corners. Install screws on non-secure side.
   e. Glazing to comply with Section 08 80 00.
   f. When required due to site access or shipping limitations, fabricate frame product for large openings in sections, with splice joints for field assembly. Provide alignment plates or angles at each joint, fabricated of same thickness metal as frames.

B. Hollow metal frames in moderate duty application

1. Frames:
   a. Physical performance: Level B according to ANSI A250.4.
   b. Metal thickness: 16-gauge, 1.34 mm (0.053 in).
   c. Metal thickness for openings over 1219 mm (48 in): 14-gauge, 1.70 mm (0.067 in).
   d. Frame assembly: Face welded, dressed smooth with seamless face. [Continuously welded through the entire profile, dressed smooth with seamless face]. [Knockdown].

2. Side light, transom frame, borrowed light:
   a. Metal thickness: 16-gauge, 1.34 mm (0.053 in).
   b. Frame assembly: Face welded, dressed smooth with seamless face. [Continuously welded through the entire profile, dressed smooth with seamless face].
   c. Hollow metal panel: Same material, construction and finish as adjacent door assemblies.
   d. Glazing bead: 18-gauge, 1.1 mm (0.042 in), screw applied with countersunk holes, butted corners. Install screws on non-secure side.
   e. Glazing to comply with Section 08 80 00.
   f. When required due to site access or shipping limitations, fabricate frame product for large openings in sections, with splice joints for field assembly. Provide alignment plates or angles at each joint, fabricated of same thickness metal as frames.

3. Exterior frame, side light, transom frame, borrowed light:
a. Provide thermal break frame profile.

C. **Hollow metal frames in heavy duty application**

1. Frames:
   a. Physical performance: Level A according to ANSI A250.4.
   b. Metal thickness: 16-gauge, 1.34 mm (0.053 in).
   c. Metal thickness for openings over 1219 mm (48 in): 14-gauge, 1.70 mm (0.067 in).
   d. Frame assembly: Face welded, dressed smooth with seamless face. [Continuously welded through the entire profile, dressed smooth with seamless face], Knockdown frames are not acceptable.

2. Side light, transom frame, borrowed light:
   a. Metal thickness: 16-gauge, 1.34 mm (0.053 in).
   b. Frame assembly: Face welded, dressed smooth with seamless face. [Continuously welded through the entire profile, dressed smooth with seamless face].
   c. Hollow metal panel: Same material, construction and finish as adjacent door assemblies.
   d. Glazing bead: 18-gauge, 1.1 mm (0.042 in), screw applied with countersunk holes, butted corners. Install screws on non-secure side.
   e. Glazing to comply with Section 08 80 00.
   f. When required due to site access or shipping limitations, fabricate frame product for large openings in sections, with splice joints for field assembly. Provide alignment plates or angles at each joint, fabricated of same thickness metal as frames.

3. Exterior frame, side light, transom frame, borrowed light:
   a. Provide thermal break frame profile.

D. **Hollow metal frames in maximum duty application**

1. Frames:
   a. Physical performance: Level A according to ANSI A250.4.
   b. Metal thickness: 14-gauge, 1.70 mm (0.067 in).
   c. Metal thickness for openings over 1219 mm (48 in): 12-gauge, 2.36 mm (0.093 in).
   d. Frame assembly: Face welded, dressed smooth with seamless face. [Continuously welded through the entire profile, dressed smooth with seamless face], Knockdown frames are not acceptable.

2. Side light, transom frame, borrowed light:
   a. Metal thickness: 14-gauge, 1.70 mm (0.067 in).
   b. Frame assembly: Face welded, dressed smooth with seamless face. [Continuously welded through the entire profile, dressed smooth with seamless face].
   c. Hollow metal panel: Same material, construction and finish as adjacent door assemblies.
d. Glazing bead: 16-gauge, 1.34 mm (0.053 in), screw applied with countersunk holes, butted corners. Install screws on non-secure side.

e. Glazing to comply with Section 08 80 00.

f. When required due to site access or shipping limitations, fabricate frame product for large openings in sections, with splice joints for field assembly. Provide alignment plates or angles at each joint, fabricated of same thickness metal as frames.

3. Exterior frame, side light, transom frame, borrowed light:

   a. Provide thermal break frame profile.

2.6. SPLIT FRAME

   A. Frames:
      1. Physical performance: Level A according to ANSI A250.4.
      2. Metal thickness: 16-gauge, 1.34 mm (0.053 in).
      3. Two inter-lock type face-welded components, dressed smooth with seamless face.

   B. Side light, transom frame, borrowed light: Metal thickness: 16-gauge, 1.34 mm (0.053 in).
      1. Two inter-lock type face-welded components, dressed smooth with seamless face.
      2. Hollow metal panel: Same material, construction and finish as adjacent door assemblies.
      3. Glazing bead: 18-gauge, 1.1 mm (0.042 in), screw applied with countersunk holes, butted corners. Install screws on non-secure side.
      4. Glazing to comply with Section 08 80 00.
      5. When required due to site access or shipping limitations, fabricate frame product for large openings in sections, with splice joints for field assembly. Provide alignment plates or angles at each joint, fabricated of same thickness metal as frames.

2.7. ANCHORS

   A. Suitable for wall conditions
      1. Located close to hinge reinforcements and at the same height on strike jamb. Quantity: 2 per jamb up to 1,524 mm (60 in) of door opening height, one additional anchor for each additional 762 mm (30 in) of door height (or fraction thereof).
      2. Provide a welded adjustable floor anchor at the bottom of each jamb on welded frames; same material as frame and with 2 holes for bolting to floor.
      3. Masonry anchors: Provide T-strap wall anchors, minimum 16-gauge, 1.34 mm (0.053 in).
      4. Existing wall anchors: Minimum 18-gauge, 1.1 mm (0.042 in), spot welded to the frame.
      5. Steel/wood stud anchors: Minimum 18-gauge, 1.1 mm (0.042 in). Provide steel snap-in or welded in “Z” type stud anchors.

2.8. SPECIAL PROFILES

   A. Terminated stops: Where specified, shall be capped at heights as shown on the approved submittal drawings, and jamb joints below terminated stops shall be welded, filled and ground smooth so that there are no visible seams. Provide terminated stops 152 mm (6 in) above finish floor with a 45 [90]-degree angle cut.

2.9. SPECIALTY ASSEMBLIES

   A. Acoustical assemblies:
1. As indicated on the door and frame schedule, fabricate door and frame to comply with a minimum STC value of [XX] according to ASTM E90.

B. Windstorm assemblies:
   1. As indicated on the door and frame schedule, fabricate door and frame to comply with ASTM A250.13, Class 1.

2.10. CLEARANCES

A. On fire-rated openings: Comply with NFPA 80
B. On non-fire rated openings, the clearance shall be 3 mm (1/8 in) between the door and frame and between meeting edges of a pair of doors. The clearance between the bottom of the door and the bottom of the frame shall be 19 mm (3/4 in) without threshold.

2.11. MANUFACTURING TOLERANCES

A. Frame:
   1. Width and height: +1.6 mm (1/16 in), -0.8 mm (-1/32 in)
   2. Face, stop and rabbet: +/- 0.8 mm (+/- 1/32 in)
   3. Jamb depth: +/- 1.6 mm (+/- 1/16 in),

B. Door:
   1. Width and height: +/- 1.2 mm (+/- 3/64 in)
   2. Thickness: +/- 1.6 mm (+/- 1/16 in)
   3. Edge flatness: 1.6 mm (1/16 in) maximum
   4. Surface flatness: 3.1 mm (1/8 in) maximum
   5. Door twist: +/- 1.6 mm (+/- 1/16 in)

C. Hardware:
   1. Cutouts: Template dimension +0.38 mm (+0.015 in)
   2. Location: +/- 0.8 mm (+/- 1/32 in)
   3. Between hinge centerlines: +/- 0.4 mm (+/- 1/64)

2.12. FIRE-RATED OPENINGS

A. Manufacture doors and frames as successfully tested in accordance with:
   1. NFPA 80
   2. NFPA 252
   3. NFPA 257
   4. UL 10C
B. Identify each product with a fire label from one of the following testing agency: Underwriters Laboratories, Warnock Hersey (ITS).

2.13. FRAME HARDWARE PREPARATION

A. Factory to prepare hollow metal frame to receive template mortised hardware; include cut-outs, reinforcement, mortising, drilling, and tapping according to the Door and Hardware Schedule and templates.
B. Surface applied hardware: Factory reinforced only, 12-gauge, 2.36 mm (0.093 in).
C. Hinge and pivot reinforcements: 10-gauge, 3.12 mm (0.123 in) high frequency hinge reinforcements, with a flange [7-gauge, 4.24 mm (0.167 in) flat hinge reinforcements].
D. Strike reinforcement: 16-gauge, 1.34 mm (0.053 in) [12-gauge, 2.36 mm (0.093 in)]
E. Closer reinforcement: 12-gauge, 2.36 mm (0.093 in).
F. Other reinforcements: 16-gauge, 1.34 mm (0.053 in) [12-gauge, 2.36 mm (0.093 in)].

2.14. DOOR HARDWARE PREPARATION
A. Factory to prepare hollow metal door to receive template mortised hardware; include cut-outs, reinforcement, mortising, drilling, and tapping according to the Door and Hardware Schedule and templates.

B. Surface applied hardware: Factory reinforced only, 16-gauge, 1.34 mm (0.053 in), 12-gauge; 2.36 mm (0.093 in).

C. Hinge and pivot reinforcements: 10-gauge, 3.12 mm (0.123 in) high frequency hinge reinforcements, with a flange 7-gauge, 4.24 mm (0.167 in) flat hinge reinforcements.

D. Lock front reinforcement: 12-gauge, 2.36 mm (0.093 in).

E. Flush bolt reinforcement: 12-gauge, 2.36 mm (0.093 in).

F. Closer reinforcement: 16-gauge, 1.34 mm (0.053 in) 12-gauge, 2.36 mm (0.093 in).

G. Other reinforcements: 16-gauge, 1.34 mm (0.053 in) 12-gauge, 2.36 mm (0.093 in).

2.15. FINISHING

A. Galvannealed steel A40/A60: Factory applied primer to protect the area where zinc was removed in the welding process.

B. Primer: Comply with ANSI A250.10.

C. Factory prefinished doors and frames: Comply with ANSI A250.3.

1. Select color from manufacturer's standard color chart [custom color selected by the Designer].

2. Provide touch-up paint for field repairs

3. EXECUTION

3.1. EXAMINATION

A. Inspect rough openings to detect problems that would prevent the proper installation of doors and frames.

B. Rough openings shall be square, level and plumb with accurate dimensions.

3.2. INSTALLATION

A. Remove temporary spreaders on welded frames before installation and verify frame dimensions, swing, fire rating and opening number.

B. For grouted frames, apply on site a coat of bituminous coating inside the frame throat.

C. Install doors and frames in accordance with:

1. Approved door and hardware schedule
2. Approved shop drawings
3. Manufacturer’s recommendations
4. Local building codes
5. NFPA 80
6. NFPA 105
7. ANSI/DHI A115.1G
8. NAAMM HMMA 840

D. Install STC assemblies per manufacturer’s installation instructions.

E. Install Windstorm assemblies per manufacturer’s installation instructions.

3.3. ADJUSTING, CLEANING AND PROTECTION

A. Repair or replace damaged products.

B. Correct defects in installation.

C. Clean area in accordance with Section 01 74 00.
D. Protect doors and frames until transfer of the building to the Owner.

3.4. INSPECTION

A. Inspection of fire rated openings
   1. Comply with NFPA 80 requirements.
   2. Fire door assemblies shall be inspected and tested by an individual with knowledge and understanding of the operating components of the type of door. This person must confirm the door assembly will perform its intended function when exposed to fire conditions.
   3. A report shall be written for the AHJ and shall be submitted to the Owner.
   4. All deficiencies must be corrected before turning keys to the Owner.

END OF THIS SECTION