Thermiser® Insulated Doors

Model ESD20

Practical Design Applications for Security and Temperature Control

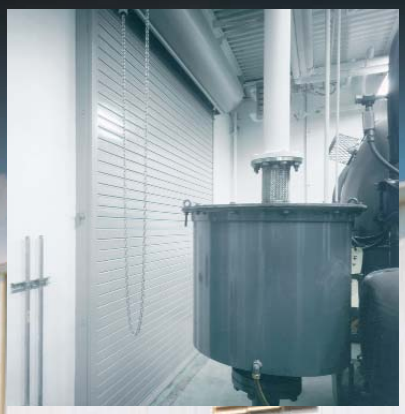
- Industry
- Distribution
- Healthcare
- Transportation
- Retail
- Utilities
- Education
- Hospitality/Public Space

Benefits

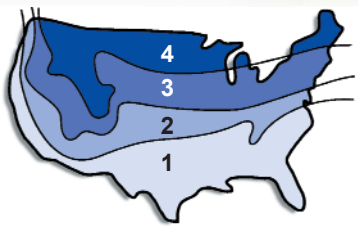
- Q/S Program - Cornell can manufacture and ship most standard Thermiser® doors in one to two weeks.
- 15/16" thick insulated slat.
- Powder coated guides and end plate brackets are standard.
- Insulated extruded aluminum bottom bar.
- Perimeter weather stripping is standard.
- Size Flexibility - each unit is built to exact opening size requirements.
- Compact Storage - curtain stores in an overhead coil that is totally supported by the side guides.
- Low Life Cycle Cost - rugged construction and commercial quality materials assure long life.
- Maintenance - little to none.
- Repairs - job records are retained and parts are readily available.

Available Options

- Vision windows
- Cylinder or slide bolt locking
- Bottom bar sensing edge for motorized units
- Windloads exceeding 20 psf
- Operator covers for exterior mounted units or exposed operators below 8'-0" high



Thermiser doors pay for themselves* in 42 to 48 months depending on climatic zone.



Zone	Winter Savings	Summer Savings	Total Savings	Payback Years
4	$234	$152	$386	4
3	$175	$228	$403	3.8
2	$117	$305	$422	3.7
1	$59	$382	$441	3.5

Thermiser doors help to keep buildings warm in winter and cool in summer.

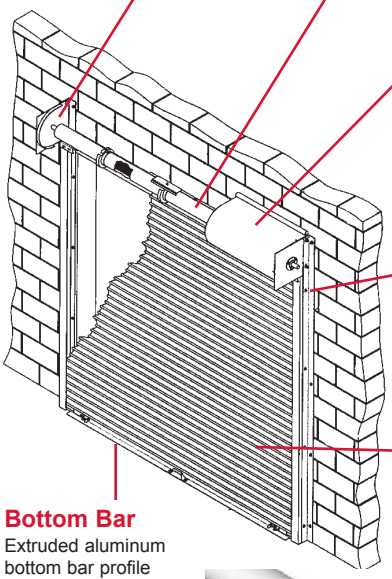
*Savings based on upgrading to a Thermiser Door from a WeatherGard

Thermiser® Door Components

Brackets
Minimum 3/16" steel plates bolt to guide assembly and support counter balance shaft and curtain.
Standard Material & Finish: steel, with SpectraShield® powder coating 30-7192 gray

Counter-balance Shaft
4-1/2" minimum diameter outer shaft and 1-1/4" minimum inner shaft. This assembly supports the curtain and contains counter balance torsion springs for assisting operation.
Standard Material: steel

Hood
Protective sheet metal enclosure for the curtain that provides weather resistance at the head of the door and keeps the brackets rigid.
Standard Material and Finish: Galvanized steel with exclusive GalvaNex™ finish in light gray
Optional Materials: aluminum, stainless



Guides
Minimum 3/16" angle assemblies bolt to the wall and support the entire weight of the door.
Standard Material & Finish: steel with SpectraShield® powder coating 30-7192 gray
Optional Materials: stainless steel or aluminum angles

Bottom Bar
Extruded aluminum bottom bar profile mates with curtain face slat extending insulation to the floor. Equipped with weather seal. Lock mechanisms available.
Standard Material & Finish: mill finish extruded aluminum
Optional Materials: steel or stainless steel angles

Curtain
Double skin interlocking roll formed metal slats are filled with 7/8" thick closed cell pressure foamed in place urethane insulation and have a Flame Spread Index of 0 and a Smoke Developed Index of 10 as tested per ASTM E84. Curtain assembly materials meet the foam plastic insulation requirements of the 2003 IBC® , section 2603. Insulating process is CFC free with an Ozone Depletion Potential (ODP) rating of zero. The slat has an R-value of 8.0 (U-factor of 0.125) as calculated using the ASHRAE Handbook of Fundamentals. Nylon endlocks are riveted to ends of alternate slats to maintain slat alignment, prevent wear and eliminate metal to metal contact between curtain edge and guides providing smooth, quiet operation. Built to withstand a 20 psf windload.

Exterior skin available in: 24, 22, 20 and 18 gauge galvanized steel with exclusive GalvaNex™ finish in light gray; 22 gauge stainless steel, #4 finish; 18 gauge aluminum in mill, clear or color anodized.

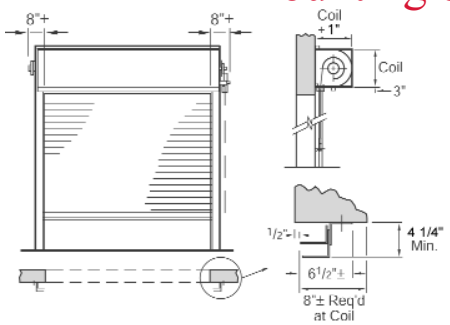
Interior skin available in: 24 gauge galvanized steel with exclusive GalvaNex™ finish in light gray, 22 gauge available with 22 or 20 gauge exterior skin; 22 gauge stainless steel, #4 finish; 18 gauge aluminum in mill, clear or color anodized.

Standard Material & Finish: Galvanized steel with exclusive GalvaNex™ finish in light gray

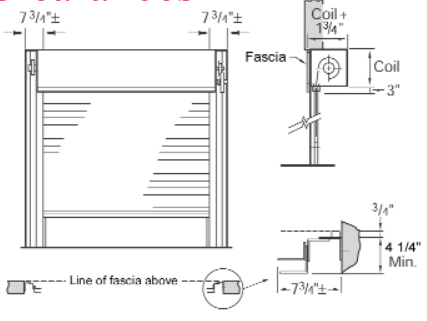
Optional Materials: aluminum, stainless steel

Operation
Hand chain, hand crank and motors are available. Doors operate by rotating the shaft gear end. The opposite end of the shaft applies spring tension and is equipped with a spring adjusting wheel.

Mounting & Clearances

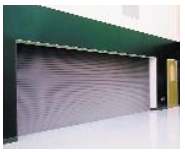


Face of Wall
Maintains clearance of full opening, minimal exposed components.



Between Jambs
Mounts within the opening, fascia (front hood closure piece) required.

Sound Transmission Control



A Thermiser can cut transmission of sound by 37% vs. non-insulated rolling doors. Hospitals, schools and universities are just some examples of applications where Thermisers are used for decreasing sound transmission. The STC (Sound Transmission Class) rating for Thermisers is 26.

Special Applications

- High Cycle Construction - for doors expected to operate more than 20 cycles per day such as parking garage doors, sally ports and certain industrial applications.
- Combination Doors - combines two different curtains on the same opening. Typically a Thermiser insulated door is used in conjunction with either a ScreenGard™ door or an open design rolling grille.
- Sloping or Irregular Sills - special bottom bar designs can meet odd floor conditions including slopes, curbs or rails.
- Pass Doors - a hollow metal man door and hinged frame within a Thermiser rolling door curtain.
- Removable Guide Mullions - used for extra wide openings that require full access on a limited basis.

Optional Finishes

- Galvanized steel with exclusive GalvaNex™ finish in tan or white
- Aluminum in mill, clear or color anodized
- Stainless steel, 300 series #4 finish
- Hot-dip galvanizing on steel components
- Powder coat finish in selected color
- Zinc Rich Gray corrosion resistant powder coating

SpectraShield® Powder Coat Finish

Cornell's SpectraShield® Powder Coat Finish in a choice of over 200 colors adds durability and aesthetic value. Surface preparation and the coating process produces a smooth, long lasting finish at controlled costs.

SPECTRASHIELD®

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An ISO 9001:2000 Registered Company

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Thermiser doors are built to order to fit specific dimensions up to 30' wide x 30' high. Larger sizes available; consult factory.