

## DELIVERING AFFORDABLE, RUGGED PERFORMANCE



### DOOR DESIGN

### QUALITY MAINTENANCE FREE CONSTRUCTION



THE TF-138 offers a 1<sup>3</sup>/<sub>8</sub>-inch thick, super-insulated laminated door built to shield your business from every weather extreme. Highly effective Polystyrene insulation is bonded between 26-gauge substrate to provide incredible strength and thermal protection while maintaining a solid, quiet operation. Flush wood grain panels match strength with beauty.

### WINDOW OPTIONS

THE CHOICE IS YOURS. Optional 17" x 12", 24" x 12", 24" x 8" and long panel windows can be installed in any section. (Long panel windows available in white, forest green, sandstone and beige.)

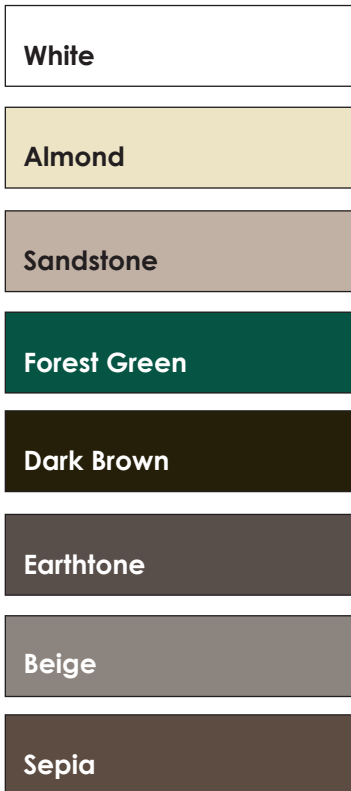
### TRACK REQUIREMENTS

	CLEAR HEADROOM* <small>(add 4" for draw bar operator)</small>		SIDE HEADROOM		DEPTH INTO ROOM	
	2" Track	3" Track	2" Track	3" Track	Manually Operated	Motor Operated
STANDARD LIFT	16"	17"	4½"	5½"	Door Height + 20"	Door Height + 50"
HIGH LIFT <small>(extra clearance)</small>	Desired Lift + 12"	Desired Lift + 12"	4½" Except as noted	5½" Except as noted	Door Height less High Lift + 24"	Door Height less High Lift + 24"
LOW HEADROOM-REAR	7"	7"	6"	9"	Door Height + 30"	Door Height + 50"
VERTICAL LIFT	2 x Door Height + 12"	2 x Door Height + 12"	4½" Except as noted	5½" Except as noted	18" Into Room	18" Into Room

### OPTIONAL ITEMS

- Exhaust ports can be installed on any section.
- Special Headroom Track.

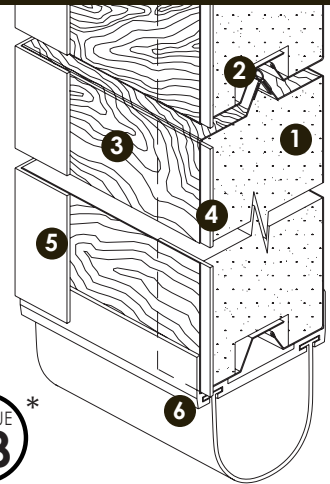
\* FOR LARGE DOORS, CALL FOR HEADROOM REQUIREMENTS.



\*Printed colors may vary slightly from actual door colors.

## WOOD GRAIN RAISED PANEL STEEL DOORS

- 1 Effective Polystyrene insulation is bonded to each steel skin, providing strong thermal protection to the very edge of each section.
- 2 Tough PVC seal provides a continuous thermal break on all sections that reduces thermal transmission. Uniquely designed tongue and groove section joints create a weather-resistant seal against rain, snow and wind.
- 3 Strong embossed hot-dipped galvanized steel. The pre-finished exterior and interior are then coated with a baked-on polyester primer and acrylic finish.
- 4 18-gauge hot-dipped galvanized recessed and concealed hardware back-up plates are carried the full height of the section, providing superior strength and durability than commonly-used hinge pads.
- 5 End stiles are 18-gauge, hot-dipped galvanized steel.
- 6 Our tough "U"-shaped bottom weather-seal helps protect against the elements.



R VALUE  
6.8\*

\*Calculated R values are in accordance with DASMA guidelines under TDS - 163.

## SPECIFICATIONS

### PART 1 – GENERAL

**1.01 Work Included** – The doors will be TF-138 as manufactured by North Central Door Co., Inc. of Bemidji, Minnesota.

**1.02 Related Work** – Opening preparation, structural metal work, access panels finish or filed painting, field electrical wiring, wire, conduit, fuses, and disconnect switches are in the Scope of Work of other divisions or trades.

### PART 2 – PRODUCT

**2.01 Door Sections** – TF-138 sections shall be 1-3/8" thick, roll formed from commercial quality hot dipped galvanized steel per ASTM A-525. Exterior and interior skins to have a two-coat baked on polyester finish over an epoxy primer. (TF-138 available in white, brown, sepia brown, almond, sandstone, earthtone, beige, and forest green) Door sections constructed of wood grain embossed 26 gauge interior and exterior, pressure bonded to a 1-3/8" thick expanded polystyrene insulation core (no CFC's). Interior and exterior skins to be separated by a continuous dual durometer vinyl extrusion to form an effective thermal break and a weather resistant seal along section joint. End stiles to be 18 gauge, G-40 galvanized steel.

**2.02 Track** – Hot dipped galvanized steel per ASTM A-526, 2" (50.8 mm) or 3" (76.3 mm) depending on door size. Tracks to be continuous angle mounted and fully adjustable for sealing door to jamb. Continuous angle size to be not less than 2-5/16" (58.7 mm) x 5" (127 mm) x 3/32" (2.4 mm) on 2" (50.8 mm) and 3" (88.9 mm) x 6" (152 mm) x 1/8" (3.2 mm) on 3 1/2" (76.2 mm) track. Horizontal track to be adequately reinforced with continuous angle.

**2.03 Hardware** – All hinges and brackets made from galvanized steel. 2" (50.8 mm) or 3" (76.2 mm) diameter track rollers have steel ball bearings.

**2.04 Spring Counterbalance** – Heavy duty oil tempered wire torsion springs on continuous ball bearing cross header shaft. Galvanized aircraft type lifting cables with minimum safety factor of 5 to 1.

**2.05 Insulation** – Will be 1-3/8" thick expanded polystyrene (no CFC's) with an R-value of 6.7 and U-value of 0.150 in accordance with ASTM C-177.

**2.06 Weather Stripping** – Door to be finished with a complete weather-stripping system to reduce air infiltration. Bottom of door to have flexible U-shaped vinyl seal encased in extruded aluminum retainer to conform to irregularities in floor. Optional jamb seal to be Neoprene rubber blade type in aluminum retainer attached to jamb with mechanical fasteners. Weather-stripping to be replaceable without removal of track, angle mounting, or door hardware. Maximum air leakage per foot of door perimeter (floor, jamb and header) shall not exceed .81 CFM (6.36 cm<sup>3</sup>/min.) @ 25 MPH (40.2 KM/hr.). No air leakage shall be detected between section joints when tested in accordance with ASTM E-283.

**2.07 Lock** – Interior Locking – Interior dead bolt is provided with hole to receive padlock. – Optional Exterior Locking – T-handle assembly with a steel striker engaging track.

**2.08 Glazing** – Lite inserts to be 24" (610 mm) x 8" (203 mm), 24" (610 mm) x 12" (305 mm), 17" (432 mm) x 12" (305 mm) thermal type, 1/2" (13 mm) insulated glass. Glass unit to be encased in two piece injection molded polypropylene plastic frame.

**2.09 Warranties** – TF-138, Ten Year Delamination and Ten Year Rust Limited Warranties – In addition to the North Central Door Co. one year limited warranty, and subject to the conditions and limitations stated in the warranty, doors shall be free from delamination of the expanded polystyrene insulation and its exterior and interior skins for ten years from delivery date. The expanded polystyrene will maintain its R-value for ten years from delivery date as tested in accordance with ASTM C-236.

### PART 3 – EXECUTION

**3.01 Installation** – North Central Door Co., LLC. Series Thermal Flush doors shall be installed by authorized North Central Door Co., LLC. Distributor.

## 10 YEAR LIMITED RUST WARRANTY

North Central Door Company, LLC warrants to the original consumer purchaser all door sections of its steel garage doors against rust-through due to the paint finish cracking, checking or peeling (losing adhesion) for a period of ten (10) years from the date of delivery, when installed in accordance with the instructions from the manufacturer. Claims concerning warranty must be made to the North Central Door dealer from who purchased within the warranty period. This warranty is exclusive and in lieu of all other warranties, either expressed or implied. In no event shall seller be liable for special or consequential damages. However, some states do not allow the exclusion of incidental or consequential damages. If you live in a state that does not allow said exclusions, the above limitation may

## 1 YEAR LIMITED DEFECT WARRANTY

North Central Door Company, LLC warrants to the original consumer purchaser all door sections of its steel garage doors against defects in workmanship or materials for a period of one (1) year. Should any defects occur, North Central Door Company shall, upon notification, correct any deficiency at their option, by repairing or replacing any defective section or sections. This warranty does not include normal wear, damage beyond the manufacturer's control, or replacement labor.

