

Glossary of Terms

Angle Mounted Track

A method of attaching a vertical track to a doorjamb using a full height continuous angle.

Anodize

An electrolytic method of coating aluminum with a protective or decorative film, which is generally clear in color.

Astragal

Weather-stripping added to bottom section of the door to seal the opening along the floor.

Back Hangs

The vertical supports for the horizontal track, cross-braced to prevent lateral movement and track spread.

Backroom

The required clearance from the face of the header to any obstruction to the rear of the horizontal track.

Bead

A metal, vinyl or rubber strip used to secure glass around the periphery of a pane.

Bottom Bracket

A structural support located on the bottom section of the door which provides for attachment of the lifting cables on the sectional doors. Also referred to as Bottom Corner Bracket. (Note: Track rollers may have a separate door attachment in some door designs.)

Break-Away Track

Vertical track assembly that steps back from the jamb used for high lift and vertical lift track to permit outside lock handle projection to clear the lintel.

Bumpers, Spring

A leaf spring installed at the end of the horizontal track. Especially useful on lift clearance or full vertical manually operated doors, acting as a cushion and stop.

Bracket Mounted Track

A method of fastening vertical track to a doorjamb using angle brackets. Also referred to as Mounted or Track Bracket

Cable Drums

Grooved drums on the torsion spring shaft that lifting cables wind around when door is opened. Designed to allow cable to be accumulated or dispensed in an orderly manner and to prevent lapping or cable chafing.

Cable Safety Device

A safety bottom fixture specifically designed to prevent a door from falling in the event of cable breakage.

Cable Sleeve

A manufactured device used to form a loop of cable, size of which is determined by the cable diameter.

Cable Stop

A swaged fitting at the end of the cable to prevent slippage through a slot in a drum.

Cables

Multi-strand wire used to attach the door, via bottom brackets, to the counterbalance mechanism.

Carry-Away Post

See Removable Post.

Center Bearing Plate

See Center Support Bearing.

Center Hinge

Flat hinge located on all intermediate stiles to allow for door section to turn the track radius as the door opens.

Center Lift Cable

Additional cable assembly, which is secured to the outside of the door at points toward the center of the door. Used to provide extra lifting support for extremely wide or heavy doors.

Center Post

See Mullion.

Center Stile/Mutt

Vertical members of a door section which provide structural rigidity and location for center hinge attachment.

Center Support Bearing

Bearing and mounting plate installed at approximately half the door width above the door which acts as a support for the spring shaft. Can be mounted in various locations, not necessarily in center, depending on size of springs.

Chain Hoist

Adds mechanical advantage to manually operated doors. Couples to one end of the solid torsion shaft.

Clearances

The amount of sideroom, headroom, and backroom required to properly install a sectional door.

Coupling

Adjustable cast iron connector in two halves for torsion solid shafts on wide doors. Eases installation and allows adjustment in cable lengths so doors will operate smoothly without cocking.

Curtain

The part of the sheet door that actually rolls up and down or slides side to side. Manufactured of corrugated sheets seamed together.

Cycle

One complete cycle of a door begins with the door in the closed position. The door is then moved to the open position and back to the closed position again. Note: Torsion spring operated doors with higher-than-normal cycle life requirements may be specified with 25,000, 50,000, or 100,000 cycle springs.

Dead Load

A static applied load. A load without movement.

Door Frame

The frame into which the door fits, consisting of two upright members called doorjamb, and a door header.

Door Size

Always specify the width first and the height second. Refer to Opening Size.

Double Thick Glass

Lighter than plate glass, about 1/8" (3.18 mm) thick, often termed double strength glass.

Drums

Circular stamped metal parts attached at various locations along the tubular shaft that allows the sheet door curtain to coil up when the door is opened.

Duplex Spring

A combination of two torsion

End Stiles

Stile located at each end of a door section that provides for attachment of end hinges.

Escutcheon

A plate surrounding the lock mechanism, acting as a bearing surface for the lock shaft; one of the parts of a lock set, usually held in place by small screws known as escutcheon screws.

Exhaust Ports

Orifices put in the bottom section of a door for release of carbon monoxide fumes when tubed from an automobile exhaust system.

Extension Springs

Counterbalance springs which provide lifting force by stretching. Commonly called stretch springs. Extension springs are mounted to each of the rear track hangers. They are attached to a pulley at the other end of the spring.

Exterior Lock

Keyed lock which can be operated on exterior of the door. Extrusion Fabricated aluminum or plastic shapes made by forcing a hot aluminum or plastic billets through a die in an extrusion press.

Flag Bracket

L-shaped bracket used to facilitate the union between vertical and horizontal tracks.

Flush Design

Refers to door sections unbroken by roll-formed ribs. The face of the complete door presents an even surface.

Follow-the-Roof Track

Designed to place the back track on the roof incline, and as close as practical to the roof. Can be used with standard lift or lift clearance track.

Front-Mounted Low Headroom

Low headroom hardware where springs mount on torsion shaft above opening.

Full Vertical Track Assembly

An assembly made up of a piece of vertical track and a piece of continuous angle or jamb brackets which is used to secure the track to the jamb.

Full Vision Section

A totally glazed section with various types of glass or clear plastic. The section is formed of aluminum extrusions that combine with steel sections above and below.

Galvanizing

Zinc coating to protect steel against corrosion.

Glass, Insulated

Two pieces of glass spaced approximately 1/4" (12.7 mm) apart and hermetically sealed to form a single-glazed unit with an air space between. Heat transmission through this type of glass may be as low as half that of non-insulated glass.

Glass, Tempered

Reheated to just below the melting point and suddenly cooled. When shattered it breaks into small pieces.

Glass, Wire

Polished or rough glass, 1/4" (6.35 mm) thick. Wire mesh is embedded within the glass so that the glass will not shatter when broken. Many types of wire patterns are available. (Commercial door application)

Glazed, Glazing

Section windows or lites in place of the steel or aluminum panel.

Headplate

Structural bracket used to secure vertical and horizontal track, as well as counterbalance systems.

Headroom

A measurement from the top of the door opening upward to the lowest building obstruction on the inside of the header wall. Use this measurement for vertical clearance all the way back to the end of the horizontal track.

High Cycle Springs

Special counterbalance springs with increased life cycle capability for high usage doors.

High-Lift

See Lift Clearance.

Hinges

All hinges perform two basic functions: 1. They join the sections together with bolts or screws. 2. They allow the sections to break, independent of each other, as the door travels.

Hinges on the end stiles perform two additional tasks: 1. They are designed to support a roller on which the door travels. 2. They are offset to provide a flush fit to the door itself when in the closed position.

Horizontal Track

An assembly usually made up of a section of track and reinforced with an angle that is used to both guide and support the door in the horizontal position. Furnished with an integral section of curved track. See Radius.

Incline

To slope, to slant. To follow roof pitch.

Inclined Track

Tapered vertical track and a graduated height of edge hinges which assure a weather tight fit between door and jamb.

Inside Lock

Spring loaded, sliding deadbolt lock operable only from interior of the door. Insulation Material that has the ability to reduce heat or cold transmission.

Insulation Terms:

BTU Amount of heat necessary to raise the temperature of one pound of water one degree Fahrenheit.

K-Value (Thermal Conductivity)

Laboratory determined value of thermal conductance of a material.

R-Value Ability of a material to retard the transmission of heat. The higher the R-value, the better the insulating performance.

U-Value (Heat Transmission Coefficient)

Amount of heat, in BTU, is transmitted through one square foot of material in one hour at a temperature difference of 1° F from one side to the other. The lower the U-value, the better the insulating material.

Jamb Seal

Weather-stripping attached to the door jamb to provide a seal along the jambs.

Jambs

The upright framing on each side of the door opening. When wood jambs are specified, the vertical track is mounted to the inside surface of the jamb and the stop molding is nailed to the side surface within the opening. For steel jambs, see Reverse Angle Mounting. For wood or masonry jambs, see Bracket Mounted Track and Angle Mounted Track.

Lift Clearance

Refers to track hardware that causes the door to rise vertically some distance before it levels out into a horizontal position. Also known as High Lift Track, Lift-Clearance is the distance above the top of door opening to the underside of horizontal tracks.

Lift-Handle

A handle, normally on the bottom section of the door, to assist in manually lifting the sectional door. Lites Frames glazed with glass or clear plastic. Number of panels in a section limits quantity of lites that can be installed. May be double glazed for insulation value. See Full Vision Section.

Low Headroom

Track hardware accessories to provide for door installation with minimum headroom conditions.

Master Keying

Arrangements whereby cylinder locks, although fitted with different keyed cylinders, can be opened or locked by means of one master key. In new buildings, the hardware supplier has responsibility for the lock cylinder and our locking device has to be coordinated with the hardware supplier. Cylinder may be furnished by this supplier and changed in the field.

Meeting Rail

The top or bottom horizontal rail in any section that meets and joins with an adjacent door section in horizontal rail.

Mounting Plates

Flat steel or wood members placed on the wall to accommodate spring support, spring shaft bearings, chain hoists and mountings for operators.

Movable Center Post

A lightweight extruded aluminum post/track assembly, which substitutes for the jamb between two adjacent doors and can be released and carried from the opening.

Mullion

A slender dividing bar. Usually designed to carry horizontal (wind) load but not vertical load.

Muntin

A bar member supporting and separating panes of glass within a sash or door.

Opening Size

Frequently called daylight opening or finished opening. Dimensions are taken between masonry or wood walls or between steel jambs.

Opening Width

Distance between jambs of the door opening.

Outside Hook-up

Bottom fixture with an arm that bends around vertical track to receive lifting cables.

Padding

Wood framing at jambs and header to which door track is mounted. Usually furnished by general contractor.

Pane

The area between vertical stiles in a door section.

Pass Door

Sometimes called pedestrian door or access door. It is a small swing door built into the larger upward acting door so that people can walk in and out without opening the large door.

Perimeter Seal

Complete weather-stripping package for sectional doors, consisting of astragal, jamb seal and header seal.

Perimeter Weather-strip

Vinyl or felt attached to corrugated sheet door curtain to prevent rubbing. Located at the ends or drum locations.

Rabbeted Joint

Joint formed by fitting together rails with grooves cut out of the opposing edges to permit overlapping weather tight meeting of sections. See Shiplap Joint and Tongue-and-Groove.

Radius

The curved portion of the track, which allows the door to move from vertical to horizontal (and vice versa). The curve is measured in inches, thus determining headroom requirements. See Headroom.

Rain or Water Stop

A step at the edge of the garage floor, approximately 1 (25.4 mm) higher than the outside finish. The door sits between the two.

Rear Track Hangers

Often constructed of punched angle iron, laterally braced, these hangers attach the end of the horizontal track to the garage ceiling. See Back Hangs.

Removable Post

Designed to allow the use of two or more doors in a single opening with center posts that can be removed when doors are in the up position. Especially desirable where small openings are required normally, but occasionally the entire clear opening is necessary.

Reverse Angle Mounting

An exceptionally sturdy method of track mounting used on all steel jambs and wood jambs at the architect's direction.

Roller

Assembly The combination of a wheel and axle that is used to guide a door through the track system, either 2" (50.8 mm) or 3" (76.2 mm) diameter, depending on track size. Available as short or long stem.

Rollers

Steel, ball-bearing wheels that allow sections to roll freely along door tracks.

RSLO/LSLO

Right side looking out/left side looking out. Used to indicate hand of chain hoist or electric operation or lite or exhaust port location.

Safety Spring Containment

An extra cable used with extension springs to prevent pieces of the spring from causing damage or injury in the event the spring breaks. The cable is threaded through the center of the spring and is secured on both ends of the horizontal track.

Sectional Joint Meeting Rail Seal

A weather-strip integral with the section at the joints between door sections.

Sectional Type Doors

Doors made of two or more horizontal sections hinged together to provide a door large enough to close the entire opening. Sectional doors are guided into the horizontal or open position by a system of vertical or horizontal tracks. May be fabricated of continuous roll-formed steel with reinforcing ribs, flush sections of steel or aluminum.

Shaft Bearings

Type of bearing that adequately supports the radial forces dictated by the weight of the counterbalance assembly and door weight, and the lateral forces exerted. See Center Support Bearing.

Shafts, Tubular and Solid

A tubular or solid steel counterbalance shaft transmits lifting force of the torsion springs to the cable drums and lifting cables.

Sheave

A pulley with integral ball bearings designed to handle a cable and used to control the movements of the cables employed in the door counterbalance system. Various types are stud or clevis.

Shiplap Joint

The configuration of the meeting rails. When closed, the shiplap prevents rain, wind, and light from infiltrating the door between the door sections. See Tongue-and-Groove.

Sideroom

A horizontal measurement from each side of the door opening outward along the wall to the nearest obstruction within the building.

Spring Anchor Plates

Designed to transmit torque from the stationary end of a torsion spring to the building structure and, at the same time, support the weight of the torsion shaft in a level attitude. The anchor plate is able to withstand the lateral forces exerted by a torsion spring. Usually supplied by the general contractor. See Center Support Bearing.

Spring Assembly

Hardware used to make up the door counterbalance assembly. Spring Bumper Small spring-cushioning bumper attached to the horizontal track, which stops the door at the full open position.

Spring Fittings

The sleeves or cones, which are used to affix the torsion springs to the torsion shaft. One piece is a stationary sleeve or spring retainer, and the second piece is an adjusting cone or winding sleeve.

Steel Jamb Mounting

Continuous angle attached to vertical track and fastened to the jamb by welding, self-tappers, or bolts.

Steel Jambs

Door framing made from either channel or angle iron.

Stop Molding

Serves to seal the perimeter of the door against weather and light infiltration. Stop molding is nailed to the jamb, outside the door, and is incorporated as one of the final steps in the installation process. Sometimes called doorstop, it is usually wooden or plastic. Stops Bars or brackets mounted at top of guides to prevent bottom bar from traveling out of the guides when the sheet door curtain is fully raised.

Straight Incline Track

Vertical track assembly that extends from floor to twice the height of the opening without break-away feature. See Break-Away Track.

Struts

L-shaped metal reinforcement members attached horizontally to the inside of the door section to add strength and rigidity. Struts are necessary on wide heavy doors to help prevent sagging and bowing and to provide additional reinforcement to comply with the required wind loading. Also called trusses.

Swing-Up Post

See Removable Post.

Tongue-and-Groove

The configuration of the meeting rails that differs from shiplap in having matching channel groove and protrusion on the longitudinal edges of the abutting meeting rails for wind and weather protection.

Top Fixture

Adjustable brackets that carry track rollers mounted on the top corners of the top section of the door.

Top Header Seal

Flat weather-strip fastened along the full width of top door section as a seal along the header.

Top Rail

The horizontal rail forming the top horizontal member of a door as distinguished from the meeting rails and bottom rail.

Top Seal

Weather-stripping which fastens to the top of the door to provide a seal along the top of the opening.

Torque

The turning effect of a tangential force acting at a distance from the axis of rotation or twist; torsion springs apply such effect to spring shafts.

Torsion Shaft

The shaft of a torsion spring assembly, which transmits lifting force of the torsion springs to cable drums and lifting cables.

Torsion Spring Counterbalance

Designed and constructed to provide a safe and durable conversion of spring torque to lifting force by balancing the weight of a sectional overhead type door.

Torsion Springs

Mounts above the door opening. The springs are manually wound, or charged, then set to a shaft which runs through the spring. The spring turns the shaft, which raises or lowers the door via the cables winding on drums.

Track

Provides a guide for the roller wheels. The vertical track is mounted to the jambs with brackets on each side of the door opening. The horizontal track contains a curved end called the radius (See Radius). In the closed position, the door is resting in the vertical track. In the open position, the door is suspended from the horizontal track. Sectional door track usually consists of 4 pieces: 2 vertical pieces and 2 horizontal pieces.

Trajectory

The arc of travel, or sweep of the top section, as the door is raised from closed to open position, important in planning the location of pipes, light fixtures, etc.

Vertical Lift

A hardware design that allows a sectional door to open vertically along the wall above the door opening without turning back inside the building.

Winding Bars

Used by installers to set initial tension on torsion springs at the winding cones.

Winding Cone

Part that fits into a torsion spring, permitting winding of the torsion spring and tension adjustment.

Winding Sleeves

Designed to allow the application in a safe manner of torque from a torsion spring. The design properly retains a torsion spring when fully wound or unwound and withstands the radial and lateral forces exerted by the torsion spring.

Windload

The lateral force that the wind exerts upon a door as it stands in a closed position.

Wood Jamb

Mounted Regular method of mounting vertical track to wood jambs.