



Metal Spiral Stairways



SPIRAL STAIRS



D105

By blending contrasting materials we create a vibrant composition.

The red oak handrail of the Wildwood is tamed (completely formed and pre-fit) to the shape of the metal spiral stair.

Round painted steel main and mid balusters support the handrail, which is usually shipped, knocked down (KD), in two to four pieces (depending on radius and tread quantity). The laminated wood profile B5235M can be shipped as one continuous piece for a set up stair.

Model number: D105

Handrail: Red oak

Balusters: ½" Round

Shown with options:

Handrail: Red oak

Treads: Red oak

Paint color: White

Other wood profiles offered are shown on page 8 in this section



Represents our standard stairways



Represents stairs with upgraded balusters or railings.



Represents our most elaborate stairs featuring panel or special balusters. These stairs are pictured in our full line PDF catalog.

SPIRAL STAIRS

D100

This stair is an affordable and simple design. No frills, straightforward, always popular – steel profile hand-rail with steel main and mid balusters.

Model number: D100

Handrail: Steel standard rail cap profile

Balusters: ½" Square

Treads: Carpet grade

Shown with standard model options in Black. (Carpet on treads not included)

Painted steel standard rail cap profile handrail with square steel main and mid balusters.



You can create your own stair model by substituting other balusters or panels for those shown. See the Iron Balusters by StairTrends



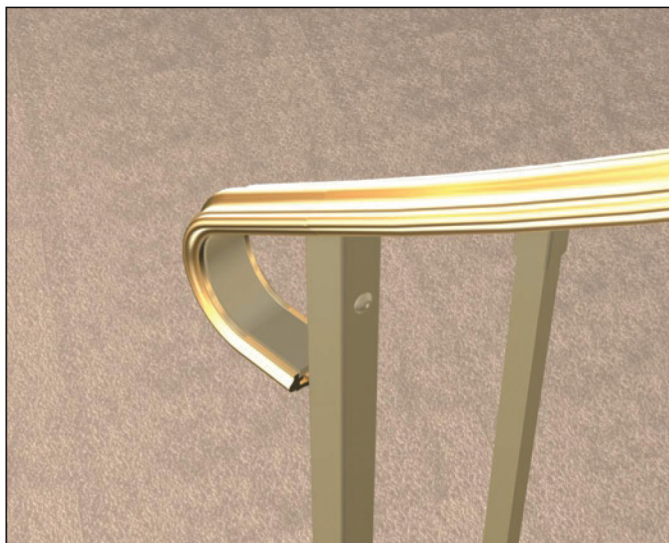
SPIRAL STAIRS



D103

A destination you can choose again and again, the steel main and mid balusters of the D103 spiral are topped with a polished brass profile handrail with enclosed underside.

Model number: D103
 Handrail: Polished brass standard rail cap profile
 Balusters: ½" Square
 Shown with options:
 Treads: Red oak edge
 Paint color: Terratone
 Brass handrail is enclosed to smooth, flat surface on the underside.



Handrail is also available in Copper and Steel.



Represents our standard stairways



Represents stairs with upgraded balusters or railings.



Represents our most elaborate stairs featuring panel or special balusters. These stairs are pictured in our full line PDF catalog.

SPIRAL STAIRS

Model D154

Handrail: Round

painted steel tube

Panels: Round

painted steel tube

Shown with op-
tions:

Treads: Painted

smooth pan

Paint color: Dark

pewter

Round horizontal

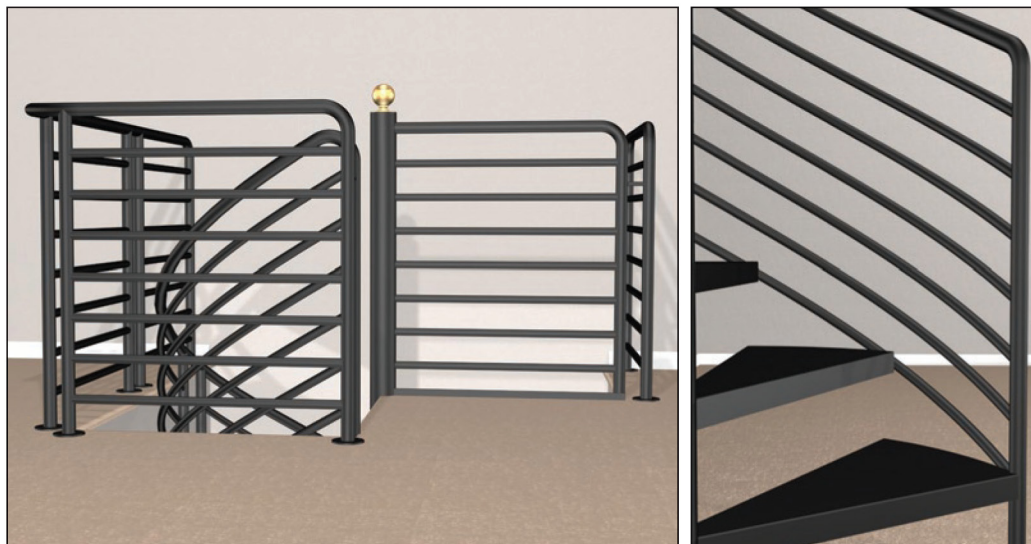
tubes join to the

vertical end post at

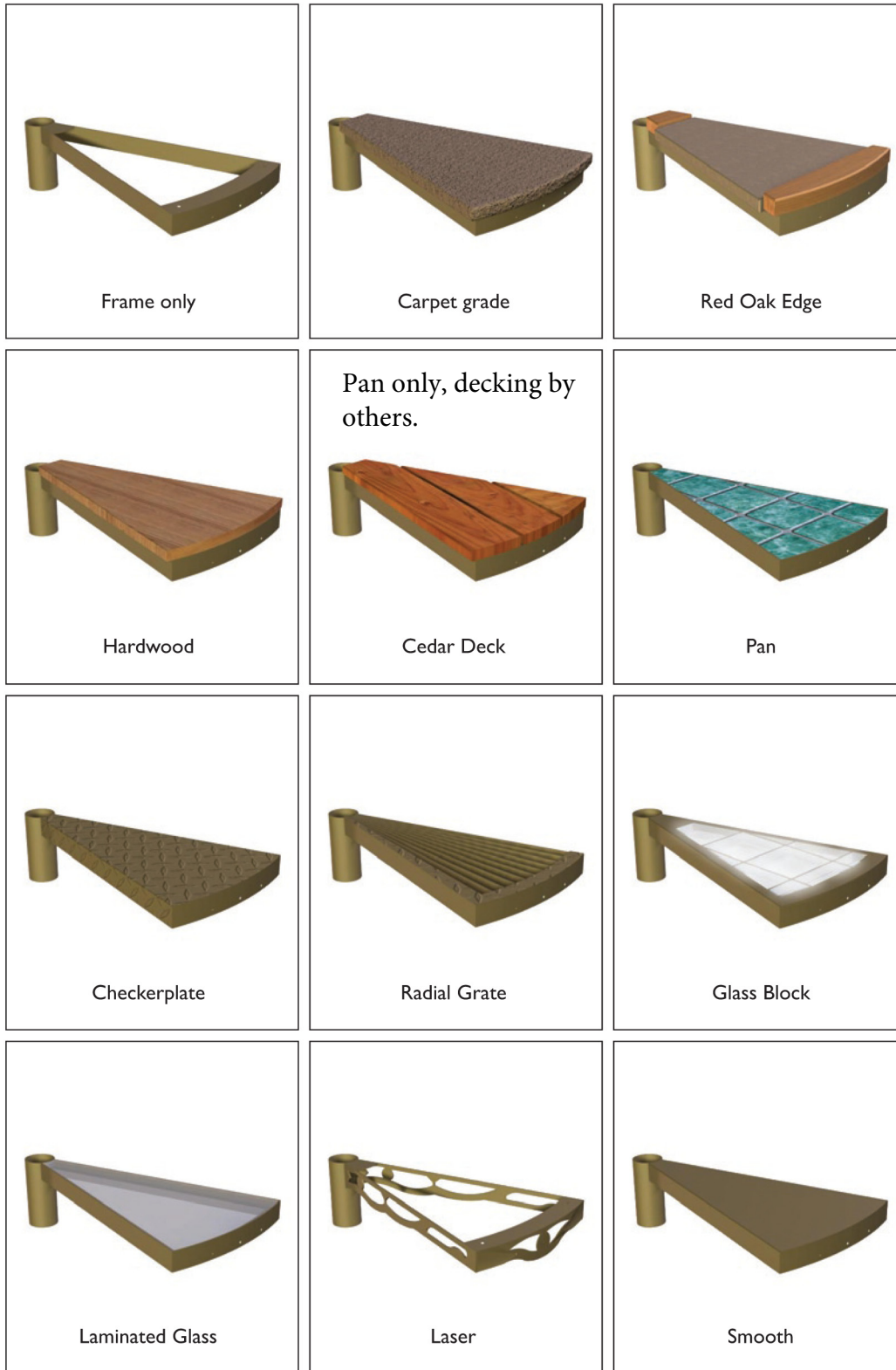
the finish.



Matching balcony railing is available. Balcony railing surrounds the stairwell opening or encloses the balcony area. For more info about platform styles or platform and balcony railings, see the Order Guide at the end of this section.



Tread Options



All parts necessary for a complete stair and matching platform rail are included in the price. Stair models include: carpet grade tread covers, carpet grade platform covers, and a painted center column cap.

Tread options.

Carpet grade tread and platform covers are included in the price of each Custom Iron spiral stair. Select from the following styles of tread and platform cover options: Frame only, Red Oak Edge, Hardwood, Cedar Deck, Pan (fill not included), Checkerplate, Radial Grate, Glass Block, Laminated Glass, Customizable Laser-cut, or Smooth.

Hardwood treads and platform covers.

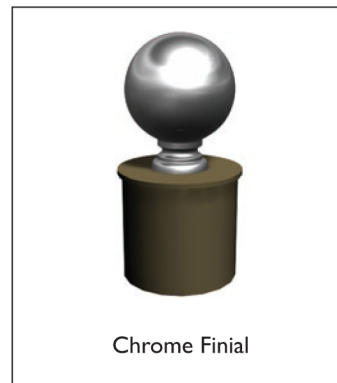
Several different wood species are available for tread and platform covers. • Red oak • Hard maple • Hickory • White oak • Beech • Cherry • Brazilian cherry • Walnut • Quarter sawn white oak Please inquire about other species of wood not listed here. All wood products provided are supplied unfinished (natural)

Options



Riser options

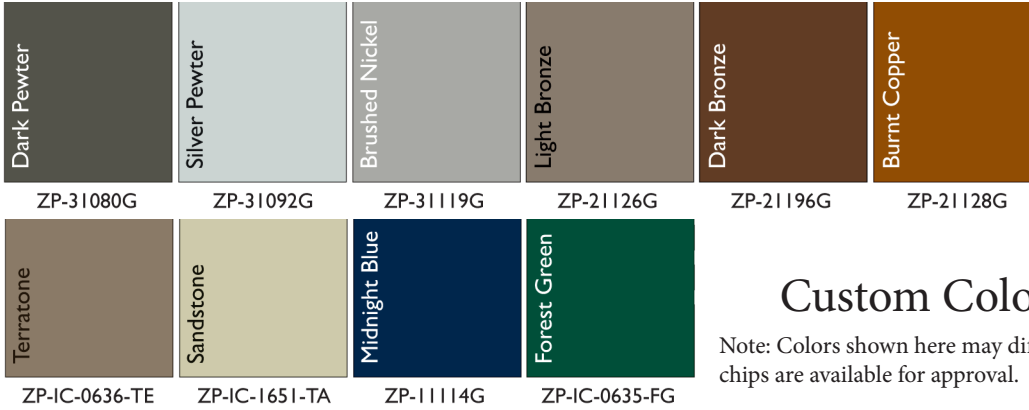
Risers are attached between the treads of a spiral stair to provide a pass-through barrier between the treads. We offer the following four riser options: Econo, Oak, Scroll, and Solid.



Finial options

A painted center column cap is included in the price of each spiral stair. You can add an optional finial to top the center column at the platform rail. Additional options are: Hardwood Cap, Basket, Painted, Brass, and Chrome.

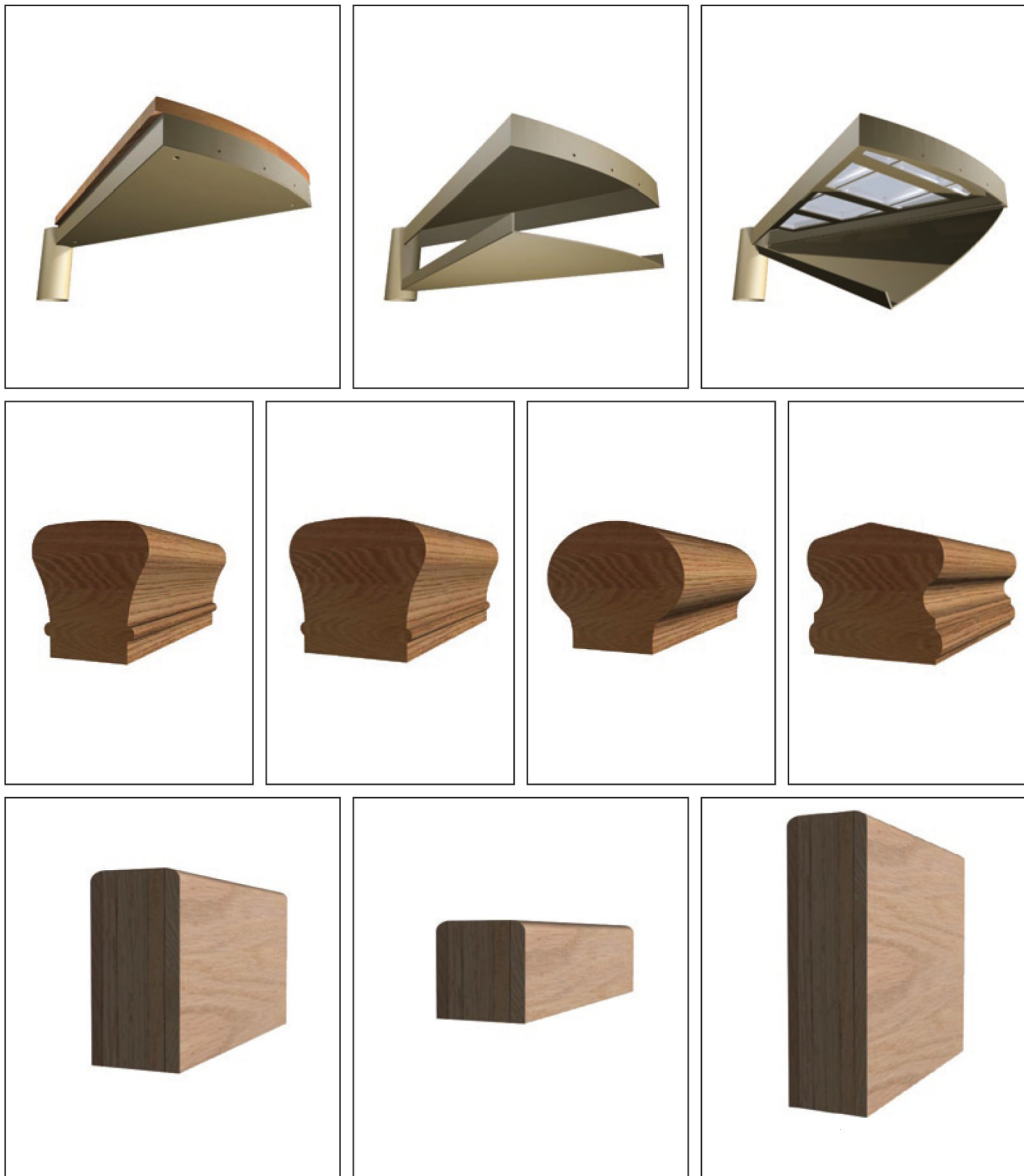
Optional Color Options



Custom Colors are available

Note: Colors shown here may differ from actual painted samples. Sample chips are available for approval.

Options



Closure options

Optional tread bottom closures provide a clean look to the underside of a spiral stair. We offer closures for these tread frames: Hardwood, and Glass Block.

D105

alternative wood profiles
Wood handrails for the D105 spiral stair are available in four industry standard profiles plus three additional rectangular profiles. All but the rectangular handrail profile are available in the same species listed for wood tread and platform covers (with the exception of quarter sawn white oak). All wood products provided are supplied unfinished (natural).

Standard Colors

Note: Colors shown here may differ from actual painted samples. Sample chips are available for approval.

				
Black Satin	Brown	Brick	White	Winter White
ZP-IC-963I	ZP-IC-0535	ZP-IC-0535-BK	ZP-IC-1645	ZP-IC-153I

Spiral Stair Installation

Step 1. Position treads Position bottom tread and place center column in tread sleeve. • Lower remaining treads onto the column and attach to the tread below it.
Note: Treads are numbered from the top down. It is easier to install the treads on the column, from a corner of the second floor opening.

Step 2. Fasten platform Place the platform over the center column and fasten to the floor opening. • Position the treads and column into the final position.

Note: Use 4" bolts with lock washers and nuts if the floor joists are exposed. These are supplied. For other floor systems, you should select and supply an appropriate fastener. For example, use lag bolts if the floor/ceiling is closed.

Step 3. Plumb & secure column Level base plates with shims if the floor is uneven at the stair location. Plumb center column. • Fasten the bottom tread to the floor using fasteners selected by you for your system.

Step 4. Fasten treads Fasten the lower tread to the tread above it using 1/4" x 1/2" round head screws and lock washers.

Note: The fasteners are supplied with the stair, usually in the same color as the stair.

Step 5. Lower handrail Lower the bottom section of the handrail onto the main balusters. • Lower successive sections of handrail into place.

Note: A wood block and hammer may be needed to seat the handrail sleeves onto the balusters.

Step 5A. Wood handrail option: Assemble the handrail onto the main balusters starting from the bottom. • While mounting the top section of the handrail, glue the two sections and connect with the hanger bolt. • Install the star nut assembly through the 1" access hole and tighten with a hammer and flathead screwdriver.

Step 6. Fasten metal handrail sections Fasten the handrail sections to each other and to the main balusters using 1/4" x 1/2" round head screws and lock washers.

Note: The fasteners are supplied with the stair, usually in the same color as the stair.

Step 7. Inject silicone For stairs with mid baluster sockets, inject clear silicone into the sockets. • Place mid baluster in socket and fasten to the associated tread.

Note: Inject enough to get a good seal. Remove all excess after mid baluster is inserted.

Note: If using a round tube handrail and round mid balusters, you may need to use a center punch to dampen vibration. Tap the punch at a point on the handrail about 1/16" away from the mid baluster.

Step 8. Insert mid baluster into handrail socket. • When applicable, place spacer on baluster stud between baluster and tread. • Fasten baluster with 10-24 flange nut.

Step 9. Align the wood tread covers with the tread cover frame and touching the balusters.

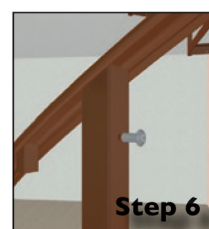
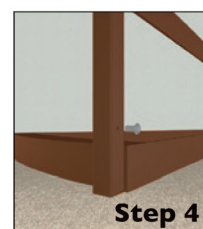
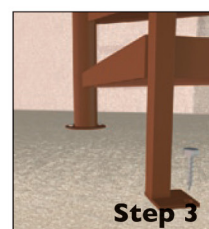
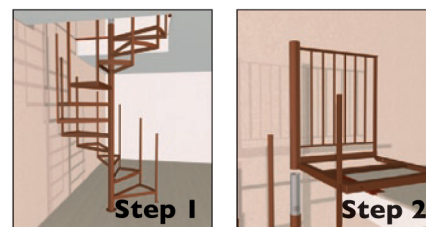
• Using #9 x 1" buglehead "grippy" screw after drilling a 7/64" diameter pilot hole.

Note: Wood treads should be finished before installation.

Step 10. Lower the platform cover onto the platform frame so the cover is flush with the edges of the frame. • Use 9 #8 x 1" wood screws to mount the platform frame.

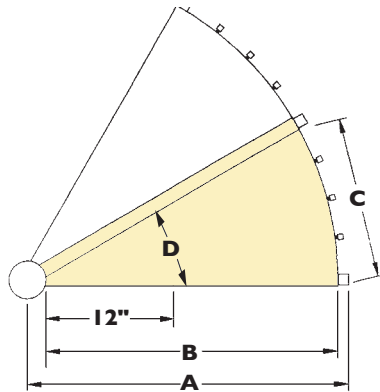
Step 11. Install level rail panel into place. • Drill a 3/8" diameter hole in the support baluster for the spacers and hardware for assembly. • Mount to the wall support. (Mounting hardware selected by you.)

Note: These instructions are meant as a guideline. Your site conditions may dictate variations to these instructions.



Order Guidelines

- 1 Diameter** Common sizes of spiral stairways range from 3 1/2' to 6' diameter. A 5' diameter spiral stair meets requirements of many building codes. Custom diameters are available upon request. The finished opening should be 4" larger than the stair diameter to assure proper handrail clearance.



Tread Dimensions

Diameter	3 1/2'	4'	4 1/2'	5'	5 1/2'	6'
A (radius)	21"	24"	27"	30"	33"	36"
B	18"	21"	24"	27"	30"	33"
C @ 30°	10 1/4"	11 3/4"	13 1/4"	15"	16 1/2"	18"
D @ 30°	7 1/2"	7 1/2"	7 1/2"	7 1/2"	7 1/2"	7 1/2"
C @ 27°	9 1/4"	10 3/4"	12"	13 1/2"	14 3/4"	16 1/4"
D @ 27°	6 5/8"	6 5/8"	6 5/8"	6 5/8"	6 5/8"	6 5/8"

(Dimensions C & D are from the nosing of one tread to the nosing of the next tread.)

- 2 Height** Measure the vertical distance from finished floor to finished floor. The stair is not adjustable.

Tread quantity is determined by finished floor to floor height divided by 9.5.

88 to 95"	9 treads
> to 104 1/2"	10 treads
> to 114"	11 treads
> to 123 1/2"	12 treads
> to 133"	13 treads
> to 142 1/2"	14 treads
> to 144"	15 treads

Stairs are available to any height. Multiple story spirals are available. Please inquire.

3 Platform Style

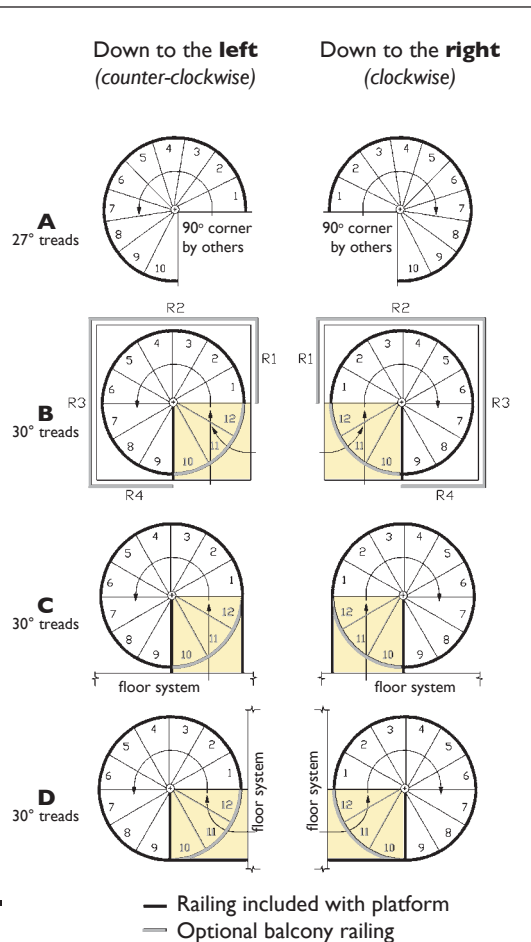
A No platform 90° corner by others. Shown with 27° treads (see Degree of Rotation at right). Please determine the upper floor system thickness and then check with us.

B Designed for use in a stairwell. The stairwell is assumed square unless specified round or otherwise. "B" platforms connect at two sides to the opening. If the finished opening is not 4" larger than the stairway, please provide dimensions.

C Designed for attaching to a balcony and has railings on two sides.

D Designed for attaching to a balcony and has an "L" shaped railing on two sides.

Custom platforms are often required when access is limited. Please check with us.



- 4 Direction of Rotation**
Down to the **left** (counter-clockwise)

Down to the **right** (clockwise)

Degree of Rotation

30° Many building codes require 30° treads. Spiral stairs with platform B, C or D are supplied with 30° treads unless specified otherwise.

27° Stairs with No Platform are supplied with 27° treads to increase headroom under your 90° corner (unless specified otherwise).
WARNING: 27° treads may not meet your building code requirements.

Custom tread rotation is also available.

NOTE: Platform nomenclature has changed from our printed price section. Please use the information found in this brochure and in our 12 page most popular stair version.

Order Guidelines

- Iron balcony railings can NOT be cut to length on site.

Iron balcony railings are very sturdy because they are built to job specifications.

All posts are welded to the railing.

- Let us determine the railing lengths.

Supply a sketch of the finished opening with your order, including drywall or other finish material. The examples in this section illustrate the type of information required for us to build your railings accurately.

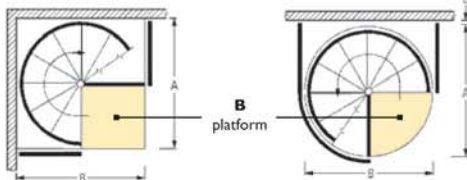
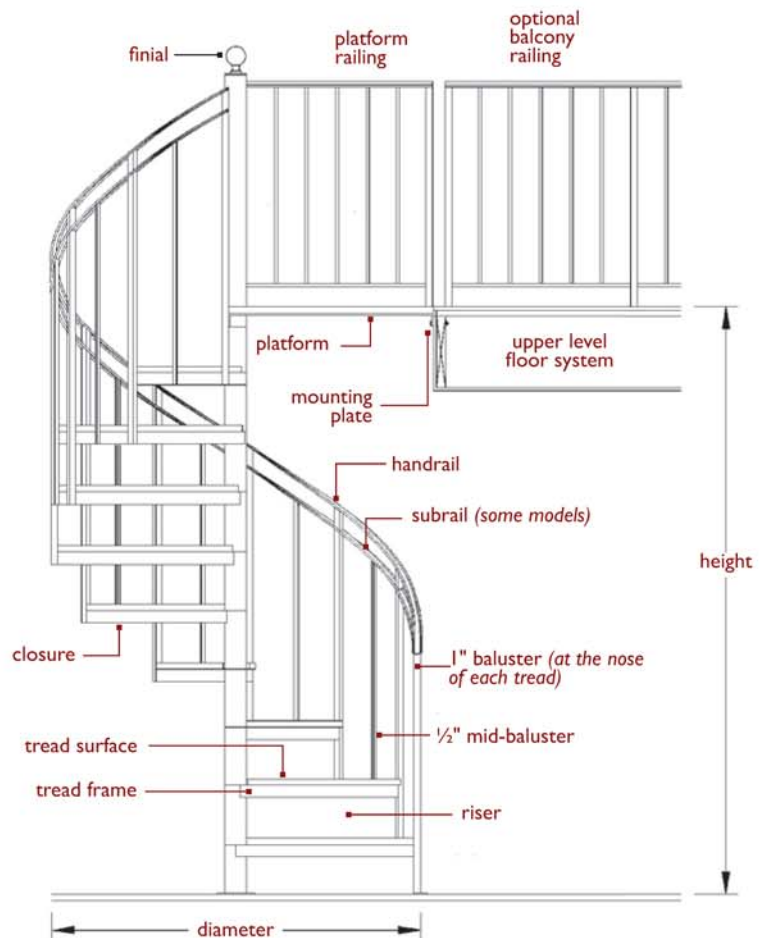
- Safety balcony railing is designed 36" tall with spaces less than 4", unless specified otherwise. This complies with most residential building code requirements.

- Your Iron balcony railings will fit well and install easily.

Determine Mid Baluster quantity

Quantity	Diameter of your stair					
	3½'	4'	4½'	5'	5½'	6'
0	10½"	12"	13½"	15"	17"	18½"
1	4¾"	5½"	6½"	7½"	8"	8½"
2	3"	3½"	4¼"	5"	5½"	5¾"
3			3"	3¼"	3¾"	4¼"
4						3¼"
spacing between mid balusters						
base price includes	2	2	3	3	3	4

Glossary of terms

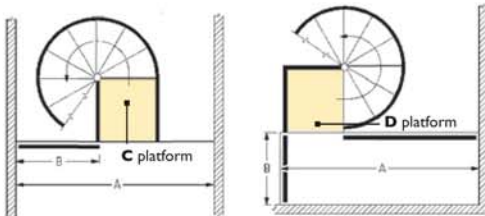


Square opening

A & B are finished opening dimensions. (down to the right)

Round opening

A & B are finished opening dimensions. C is the distance from the finished opening to the finished wall. (down to the left)



Balcony or loft railing

A & B are finished balcony dimensions. (down to the left)

Technical Specifications

Construction

KD Unless specified otherwise, all spiral stairs are shipped “**Knocked-Down**”. A KD stair is NOT A KIT.

Enjoy the confidence of knowing your stair is completely assembled during fabrication. This minimizes field assembly time and assures a quality product.

SU A stair that’s shipped “**Set-Up**” has all welded connections. It can’t be knocked down.

KIT Kit stairs require fabrication during installation. A kit Spiral Stairs with limited options **is available** call for more information.

Material A variety of materials can be used for the basic stair construction (*center column and tread frames*).

- Steel (assumed unless specified otherwise)
- “Galvanized” Steel (actually zinc plated steel)
- Aluminum (will usually have tapered tread legs)
- Stainless Steel (brushed finish)

Exterior Stairs

Aluminum or Galvanized Steel are recommended for exterior applications to prevent corrosion. A Set-Up steel stair is also an option, however packing and freight costs can be substantial.

A KD steel stair is intended for interior use only.

Wood All hardwood is sanded to 80 grit. Finish is by others. Hardwood rail caps are supplied long to be job fit.

Tread & Platform Surfaces (*all thicknesses listed below are actual*)

We can build to any specifications, however, unless specified otherwise, the following specifications will be applied to your order.

- **Frame Only:** A pattern is supplied. The stair will be built for your 3/4” particle board with carpet.
- **Carpet Grade:** 3/4” high-density particle board on the treads and 3/4” CDXU plywood on the platform.
- **Red Oak Edge:** 1½” Red Oak & 3/4” particle board
- **Hardwood:** A 1” tread is available for all sizes.
- **Cedar Deck:** 1” x 5¼” decking
- **Pan:** Built for your application. Our standard pan is made of 12 gauge steel and is 1¼” deep.
- **Smooth or Checkerplate:** 12 gauge steel is standard
- **Radial Grate:** The maximum space is less than 1”
- **Glass Block:** 1” thick block set into a special pan
- **Laminated Glass:** 1” thick laminated glass set into a special frame
- **Laser Cut:** Custom designs using ¼” steel bar or aluminum material

Risers Open riser staircases (open riser is standard for most models) do not meet the 4” sphere code requirement. If you must comply with the 4” sphere code requirement, we offer four riser options.

Closure Available to conceal the bottom of the tread frame. Depending on the tread surface chosen, flathead screws may be visible. They can be puttied, sanded smooth and painted over during installation.

Distributed by:

www.stairtrends.com

(216) 292-6555 / Fax (216) 292-6584; E-mail: info@stairtrends.com