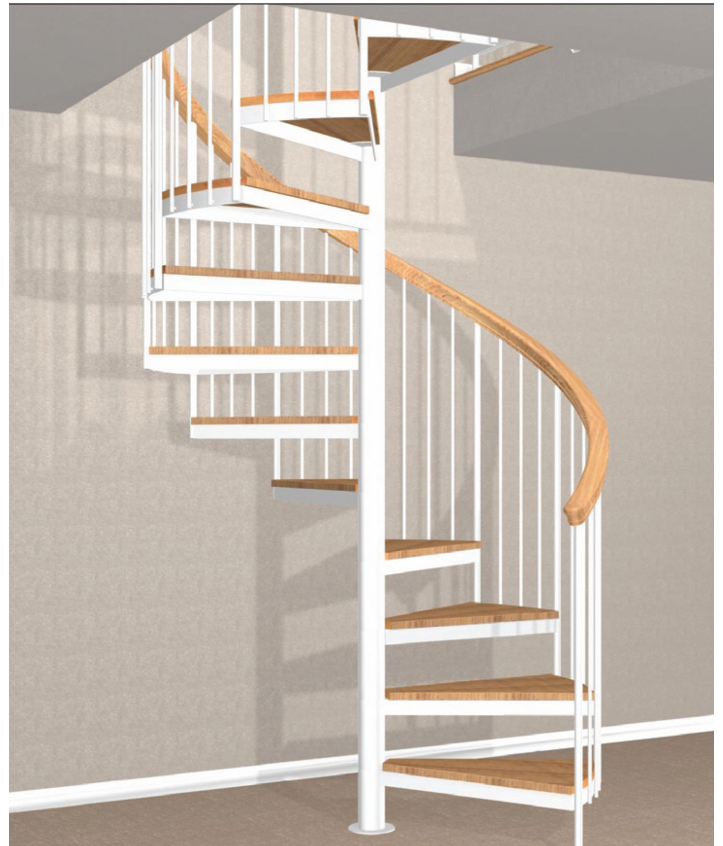




# Metal Spiral Stairways

Full Line Brochure



# 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: 1/2" 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 handrail 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

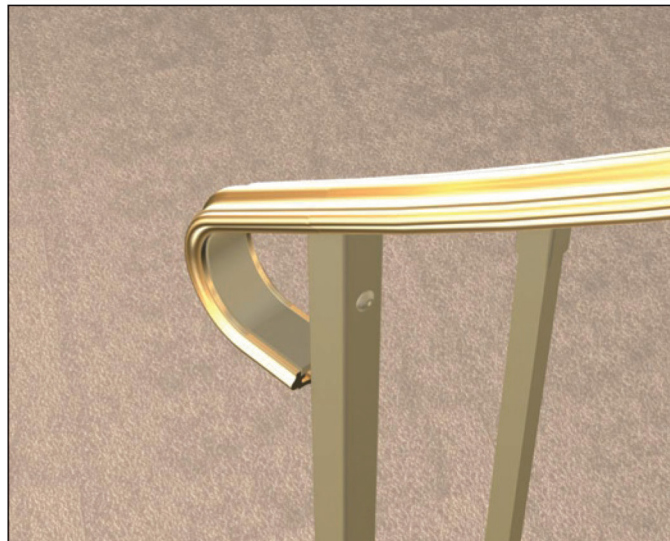
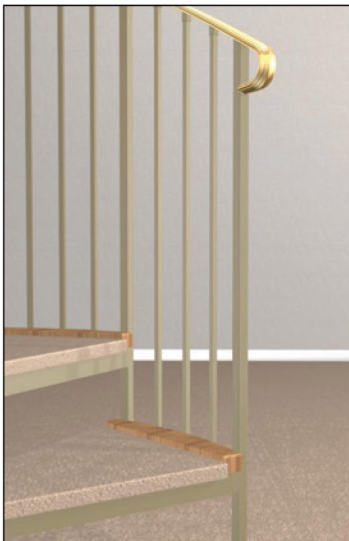
Balusters: ½” Square

### Shown with options:

Treads: Red oak edge

Paint color: Terratone

*Brass handrail is enclosed to smooth, flat surface on the underside.*



Represents our standard stairways



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# SPIRAL STAIRS

## D450

Let your discovery of this splendid playground welcome you home. Sturdy wire mesh panels attached to round steel end posts and handrail seem to echo with the sound of children at play.

Model number: D450

Handrail: Round painted steel tube

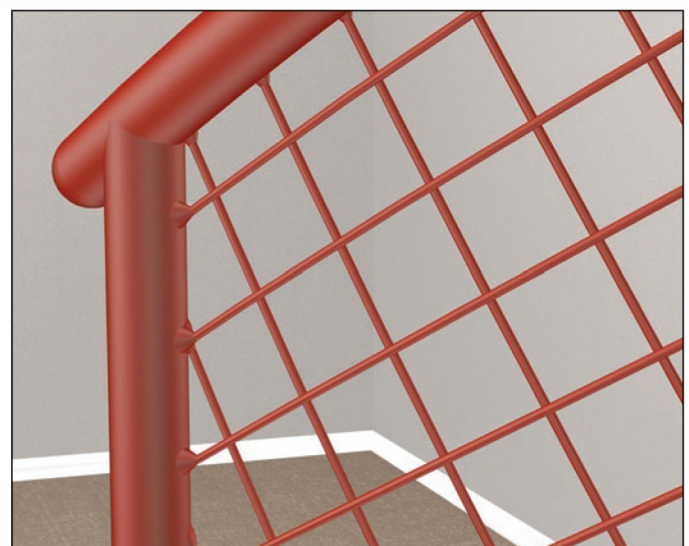
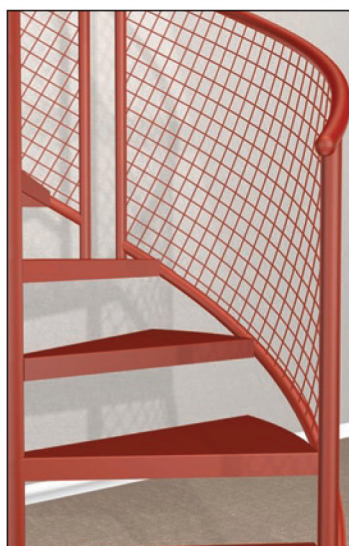
Panels: Wire mesh

**Shown with options:**

Treads: Smooth

Paint color: Brick

*Wire is welded at every intersection of the mesh and every wire end is welded to either the center of the vertical end posts or the center of the handrail.*



# SPIRAL STAIRS



## D155

Sweeping horizontal lines of eight round tubes flow naturally from the top to the bottom, as though rendered with an artist's hand. Note the unique transition from horizontal to vertical at the bottom stair detail.

Model number: D155

Handrail: Round painted steel tube

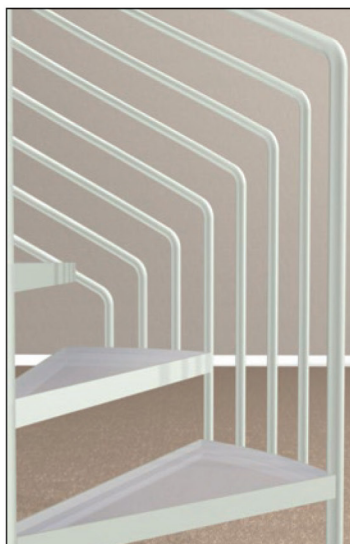
Panels: Round painted steel tube

Shown with options:

Treads: Laminated glass

Paint color: Winter white

*Round horizontals drop in an obtuse angle at the finish*



Platform railing is welded or fastened (depending on the platform style) to the platform, and it attaches to the center column above the platform. Platform railing is included in the price of every spiral stair.

See the Spiral Order Guide for more information.

# SPIRAL STAIRS

## D154

The D154 retains the artistic horizontal sweep of the D155, differing in the bottom detail. Ending on a staccato beat, the horizontal finishes directly into a vertical end post.

Handrail: Round painted steel tube

Panels: Round painted steel tube

Shown with options:

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.



# SPIRAL STAIRS



## D443

Accented by meticulously handcrafted steel leaves and roses of brass, the woodsy textured vines wind their way along the stair's path. Also available with steel accents.

Model number: D443

Handrail: Polished brass with brass rose sub-rail

Balusters: 90150 (vine), 90120 (square)

Shown with options:

Treads: Maple

Paint color: Dark verdigris with gold highlights

Inside handrail

Rich brass roses among steel vines in the sub-rail topped by the handsome brass handrail and volute



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

## D420

Transport yourself to ancient Greece with these classic wave panels. Inspired by Greek art and architecture, the fluid grace of this stair is achieved by the combination of the curves in the main and companion panels.

Model number: D420

Handrail: Embossed brass or embossed copper

Panels: 90670 (large), 90671 (small)

Shown with options:

Handrail: Embossed brass

Treads: Red oak

Paint color: Light bronze

Closure: Hardwood

Matching detailed scrollwork filler between the end post and embossed return-to-floor handrail.



Smooth elements in baluster and panels are also available with hammered and other embossed surfaces.

# SPIRAL STAIRS



## D433

Reminiscent of fine lace work found in Belgium, this stair has ornate detail and an elaborate border skirting. The theme continues with a floral embossed brass handrail.

Model number: D433

Handrail: Embossed brass or embossed copper

Balusters: 90130

Panels: 90650

Shown with options:

Handrail: Embossed brass

Treads: Red oak

Paint color: Antique natural

Matching detailed scrollwork filler between the end post and embossed return-to-floor style handrail.



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# SPIRAL STAIRS

## D423

Carry on a centuries old tradition with this modern adaptation of the classic Spanish gate style. Accents include scroll skirting and embossed brass or copper handrail.

Model number: D423

Handrail: Embossed brass or embossed copper

Panels: 90620

Shown with options:

Handrail: Embossed copper

Treads: Red oak

Paint color: Antique natural

Matching detailed scrollwork filler between the end post and embossed return-to-floor style handrail.



Embossed copper and brass handrails are also available with an aged finish. Please inquire.



# SPIRAL STAIRS



## D112

Enjoy a slice of France set down in the tropics. The D112 expresses both the fun and the flavor of the island.

The stair is accented by basket balusters and an embossed brass handrail with a graceful turnout.

Model number: D112

Handrail: Embossed brass, steel, or copper

Balusters: 90171 (basket), 90130 (square)

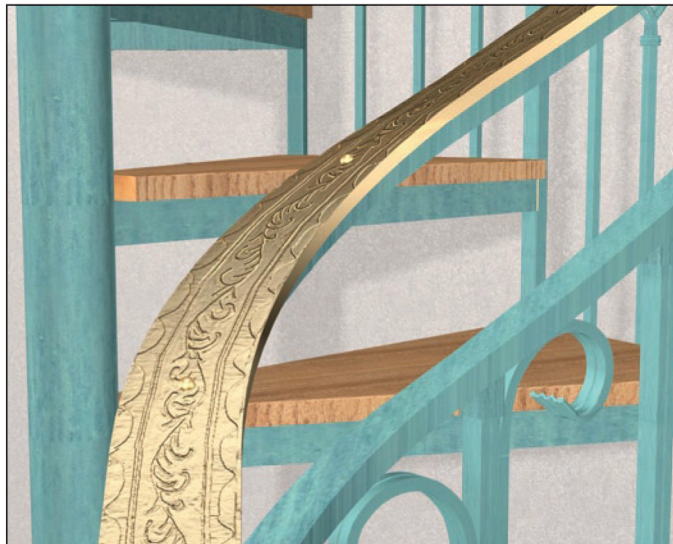
Shown with options:

Handrail: Embossed brass

Treads: Red oak

Paint color: Verdigris

Matching detailed scrollwork filler between the end post and embossed brass return-to-floor handrail on a turnout tread.



Represents our standard stairways



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# SPIRAL STAIRS

## D112A

Similar to the D112 with an understated elegance, this all painted stair is designed without the sub-rail and mid baluster scroll. The handrail finishes in a “return-to-floor” style.

Model number: D112A

Handrail: Embossed steel

Balusters: 90160 (basket),  
90130 (square)

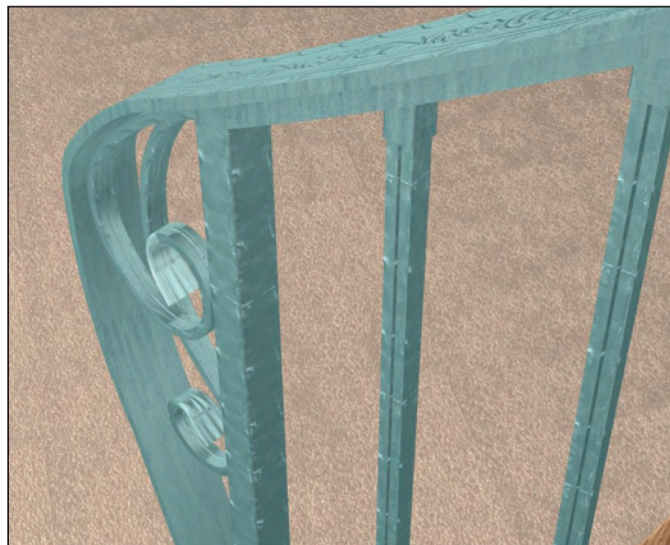
Shown with options:

Handrail: Embossed steel

Treads: Red oak

Paint color: Verdigris

Scrollwork filler between the end post and embossed steel return-to-floor handrail.



# SPIRAL STAIRS



D475

Experience the clear clean lines of the D475 stair. Laminated glass side panels with polished edges offer the illusion of a curving waterfall frozen in space.

Model number: D475

Handrail: Round painted steel tube

Panels: Laminated glass

Shown with options:  
Treads: Glass block  
Paint color: Midnight blue

Laminated glass panels hover between round painted steel handrail and bottom sub-rail.



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

D130

Reflecting both the simplicity and subtle detail found in nature's favored places, the D130 features a double volute handrail of round steel tubing and round bar balusters with a gentle gleam of brass or nickel rings.

Model number: D130

Handrail: Round painted steel tube with sub-rail and double volute

Balusters: 90271 (brass, brass ring) or 90274 (stainless, brass ring) or 90192 (steel, brass ring).

Shown with options:

Balusters: 90192 (steel, brass ring)

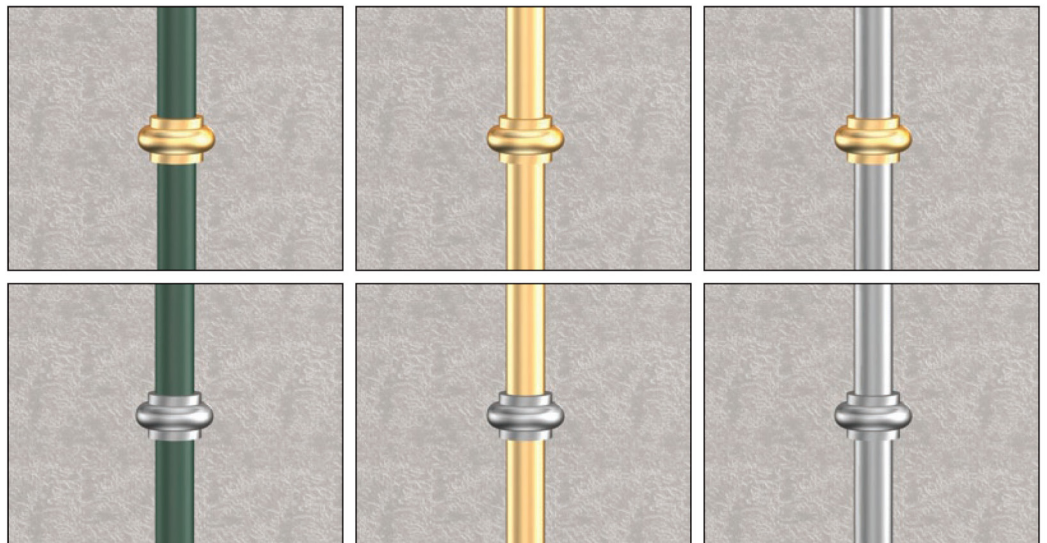
Handrail: Round painted steel tube

Treads: Red oak

Paint color: Forest green

Round handrail and sub-rail finish to a double volute. Also available with polished brass ring or brushed nickel ring on painted, brass or stainless round mid-balusters.

Many baluster accents are available in steel, stainless, brass, or copper.



# SPIRAL STAIRS



## D366

Capture this rustic and sophisticated combination of steel and copper. Rugged hammered and chiseled balusters are the perfect complement to the diamond-shaped copper baskets and embossed copper handrail.

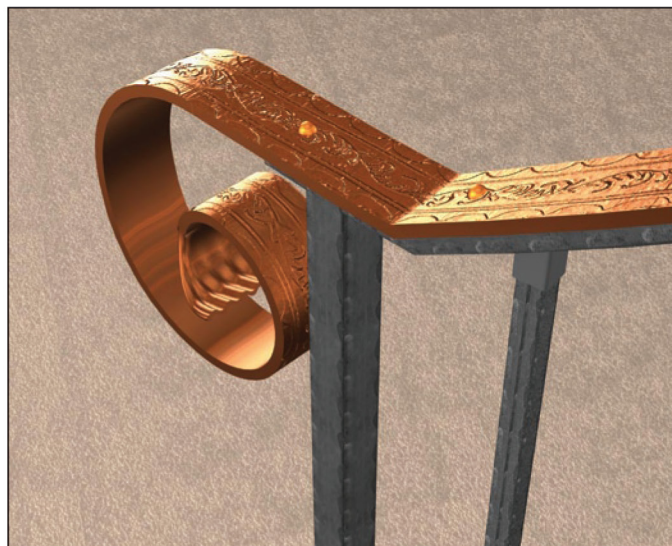
Model number: D366

Handrail: Embossed copper with fishtail scroll or embossed brass without fishtail scroll

Balusters: 90138 (basket), 90130 (square)

Shown with options:  
Handrail: Embossed copper  
Treads: Red oak  
Paint color: Antique natural

Embossed copper handrail finishes with a fishtail scroll



	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

## D366A

Continuing the rugged motif, the D366A stair sports diamond-shaped baskets and an embossed handrail of steel. This all steel version whispers of cabins on the river near deep clear quarry lakes.

Model number: D366A

Handrail: Embossed steel

Balusters: 90141 (basket),  
90130 (square)

Shown with options:  
Treads: Red oak  
Paint color: Antique  
natural

Embossed steel handrail  
finishes with a fishtail  
scroll



Handrail styles shown on  
spiral stair models can be  
used on other stair models



# SPIRAL STAIRS



## D464

Bright bursts of energy lead the way with sunburst panels on alternating treads. These vivid laser cut panels are welded to round panels for attachment to the round steel handrail. Pairs of round mid balusters create a sleek symmetry.

Model number: D464

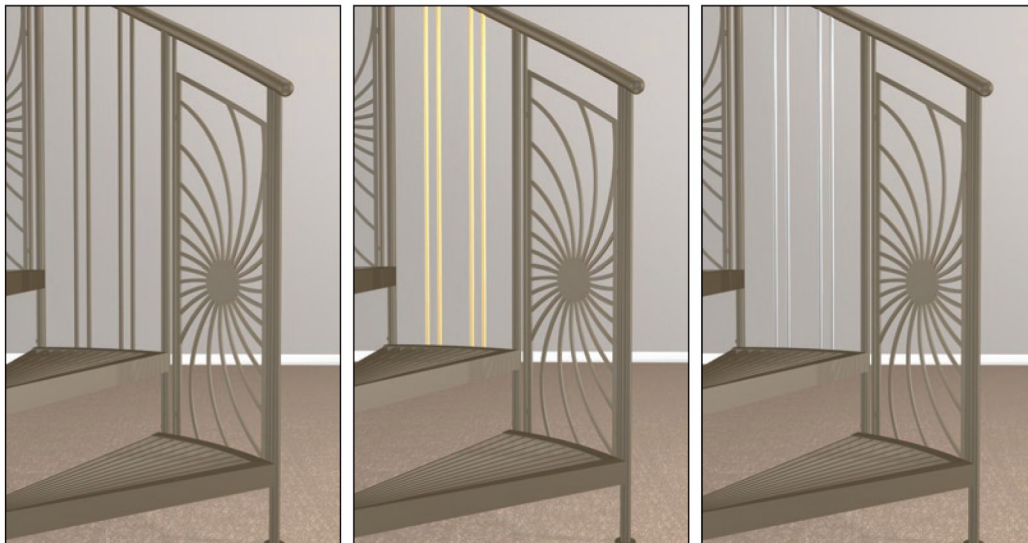
Handrail: Round painted steel tube

Balusters: 90190 (steel) or 90272 (stainless) Also available in brass. Please inquire.

Panels: 90710

Shown with options:  
Treads: Radial grate  
Paint color: Dark bronze

Laser cut sunburst panels are made-to-order for each spiral stair. Round mid balusters are available in steel, brass, or stainless.



# SPIRAL STAIRS

## D465

Greet each day with a sunrise reaching over the waves. Laser cut sunrise and wave panels encompass two treads and are then briefly interrupted by a rainfall of round wave balusters. The sunshine and water are complemented by the round main balusters and round steel handrail.

Model number: D465

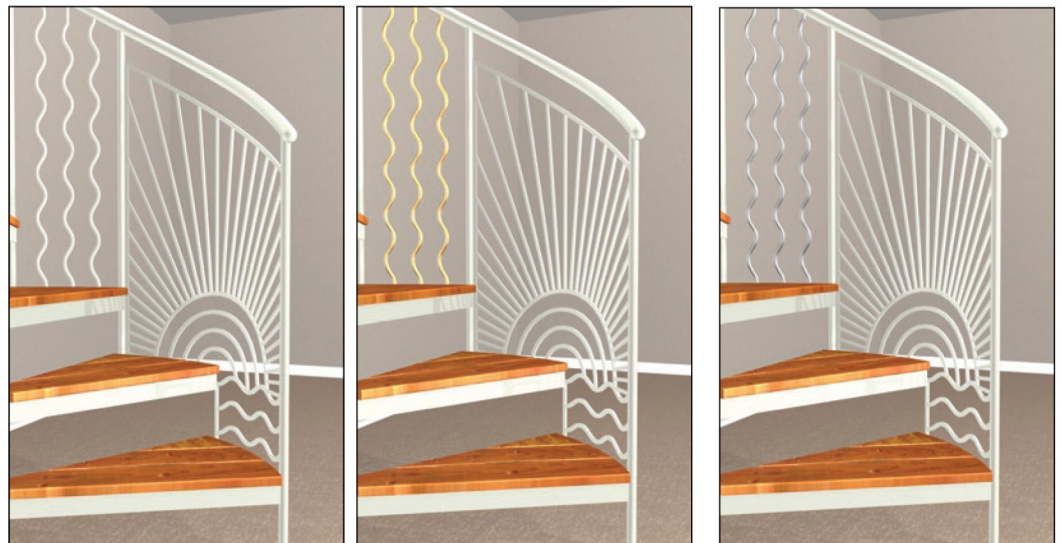
Handrail: Round painted steel tube

Balusters: 90182 (steel)  
Also available in stainless or brass. Please inquire.

Panels: 90700

Shown with options:  
Balusters: Painted steel  
Treads: Cedar deck  
Paint color: White

Mid baluster waves are available in steel, brushed stainless and polished brass.



# SPIRAL STAIRS



D224C

As a coastal lighthouse warmly beckons seafaring folk, the D224C stair invites world-weary travelers home. A channel allowing insertion of square main balusters supports the round handrail. Baluster and handrail options include a mix of polished brass, brushed stainless, and painted steel.

Model number: D224C

Handrail with channel: Round brass or round stainless or round painted steel tube

Balusters: 90190 (steel) or 90272 (stainless) Also available in brass. Please inquire.

Shown with options:

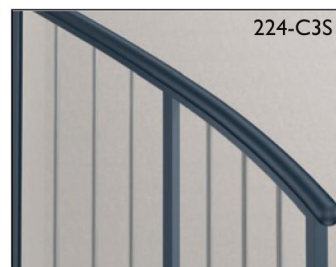
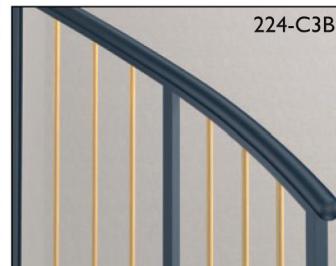
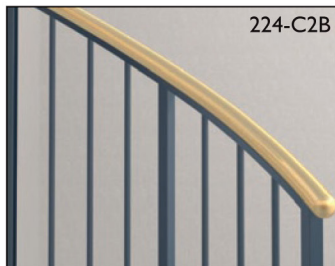
Handrail: Round brushed stainless

Balusters: Brushed stainless

Treads: Red oak

Paint color: Midnight blue

Combinations include: brass handrail with brass mid balusters (224-C1B), brass handrail with painted mid balusters (224-C2B), painted handrail with brass mid balusters (224-C3B), brushed stainless handrail with brushed stainless mid balusters (224-C1S), brushed stainless handrail with painted mid balusters (224-C2S), and painted handrail with brushed stainless mid balusters (224-C3S).



# SPIRAL STAIRS

D224N

Envision the serenity of a moonlit stroll along a warm pacific bay. There are treasures to be found at the water's edge. The round handrail of the D224N is supported by round main and mid balusters. Like the D224C stair, baluster and handrail options include a mix of polished brass, brushed stainless, and painted steel.

Model number: D224N

Handrail: Round stainless or round painted steel tube

Balusters: 90190 (steel) or 90272 (stainless) Also available in brass. Please inquire.

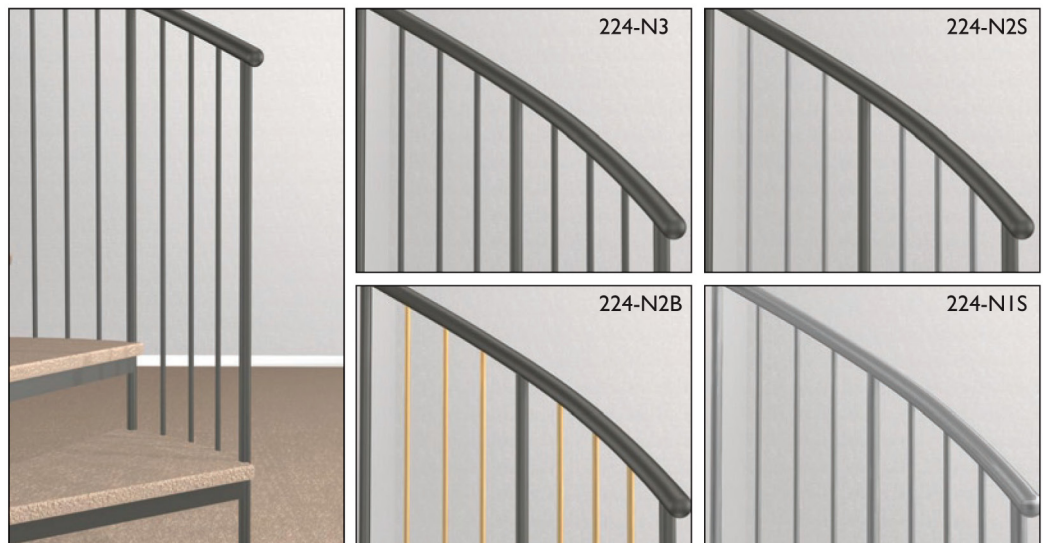
Shown with options:

Handrail: Round painted steel  
Treads: Carpeted (carpet not sold)

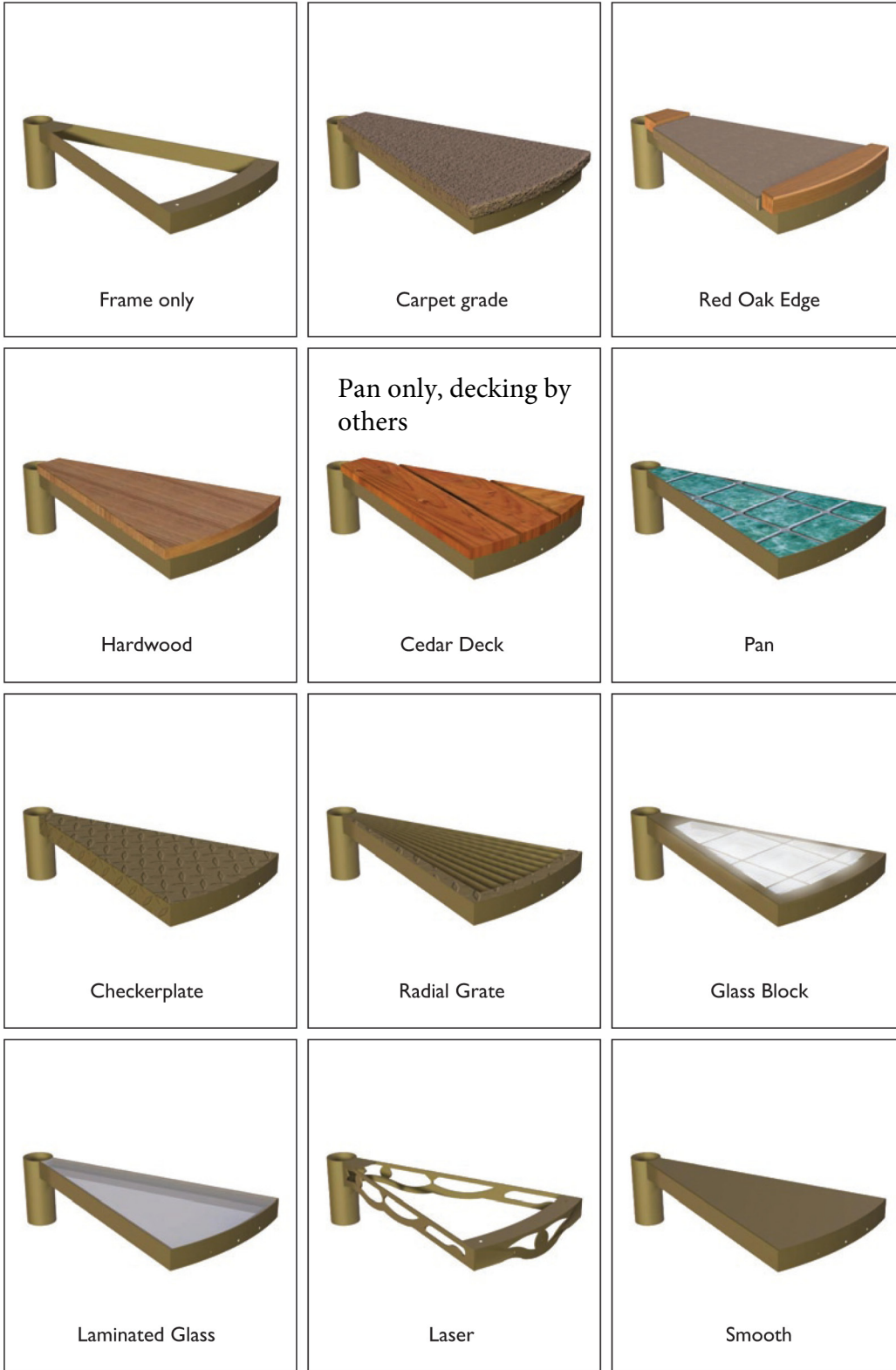
Paint color: Dark pewter

Combinations include: painted handrail with painted mid balusters (224-N3), painted handrail and main balusters with brushed stainless mid balusters (224-N2S), painted handrail and main balusters with brass mid balusters (224-N2B), complete stair in brushed stainless (224-N1S).

Carpet grade tread and platform covers are included in the price of every spiral stair. See the other tread and platform cover options 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.

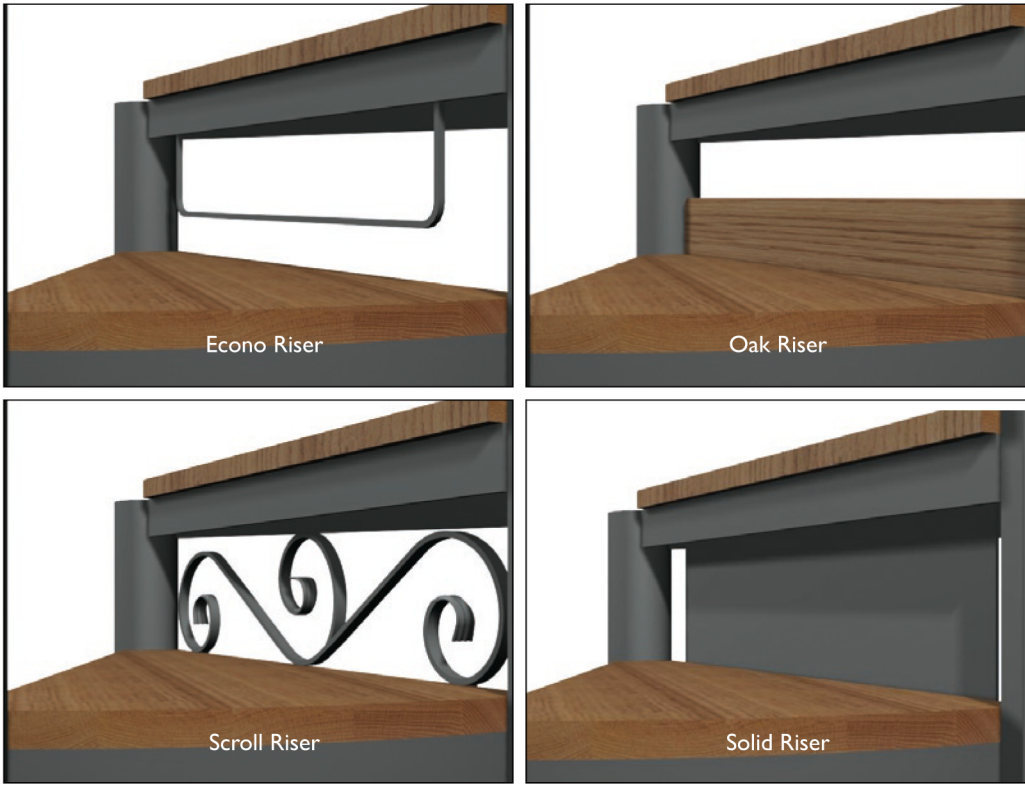
## Tread options.

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

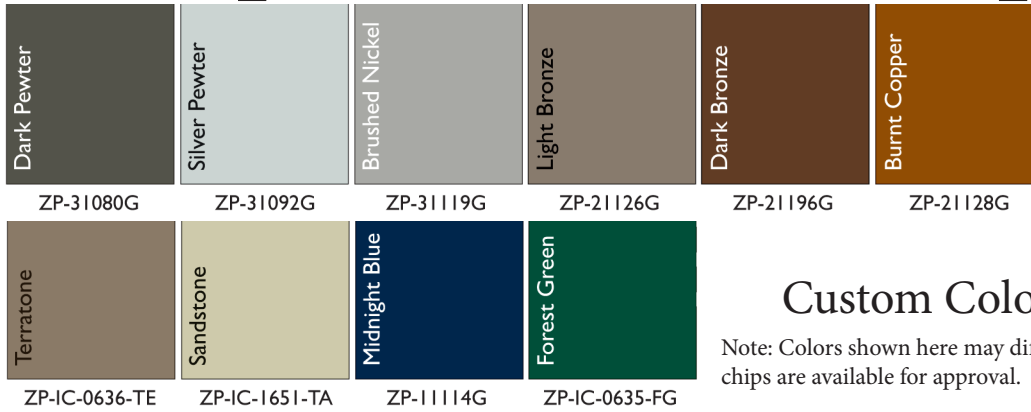
Risers are attached between the treads of a spiral stair to provide a pass-through barrier between the treads. We offer the following four riser options: Econo, Oak, Scroll, and Solid.



## 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.



# 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.

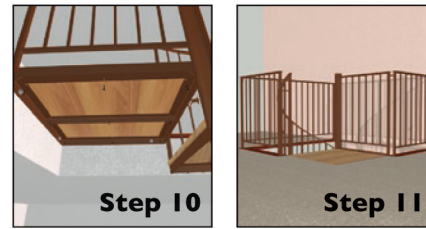
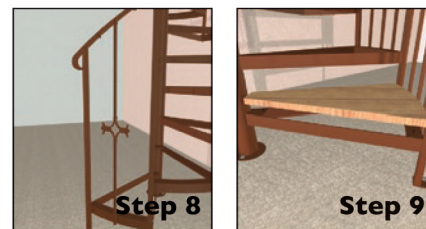
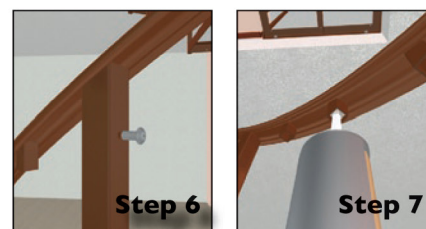
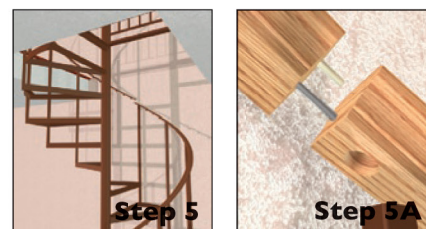
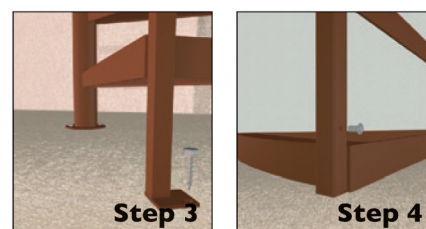
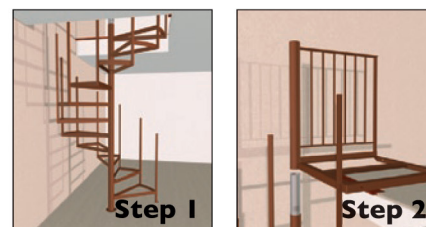
**Step 9. Align the wood tread covers with the tread cover frame and touching the balusters.** • Using #9 x 1" buglehead "grippit" screw after drilling a 7/64" diameter pilot hole.

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.

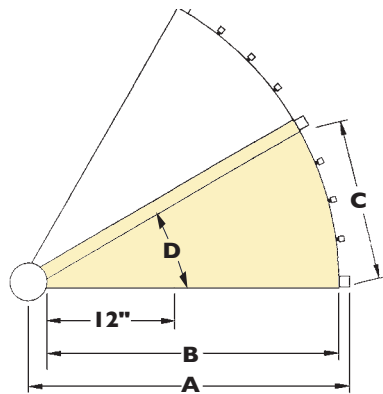
**Step 11. Install level rail panel into place.** • Drill a 3/8" diameter hole in the support baluster for the spacers and hardware for assembly. • Mount to the wall support. (Mounting hardware selected by you.)

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.



**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.

## 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.)

## 3 Platform Style

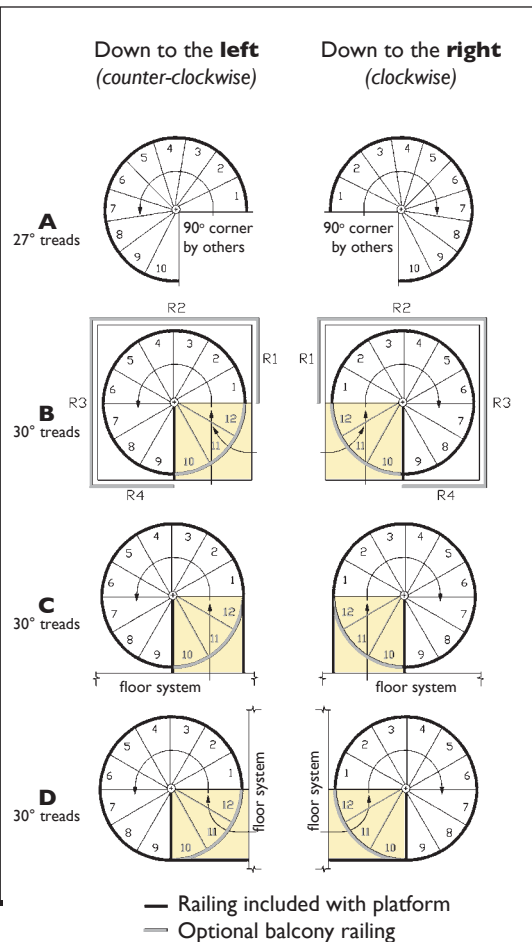
**A No platform 90° corner** by others. Shown with 27° treads (see Degree of Rotation at right). Please determine the upper floor system thickness and then check with us.

**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.

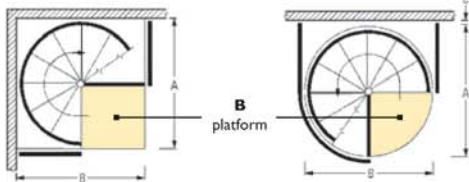
Supply a sketch of the finished opening with your order, including drywall or other finish material. The examples in this section illustrate the type of information required for us to build your railings accurately.

- 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

		Diameter of your stair					
		3½'	4'	4½'	5'	5½'	6'
Quantity	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

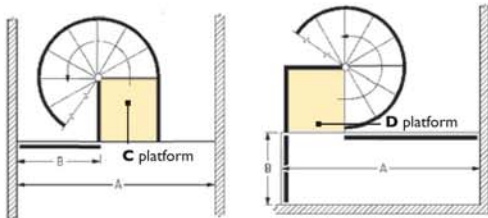


### Square opening

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

### Round opening

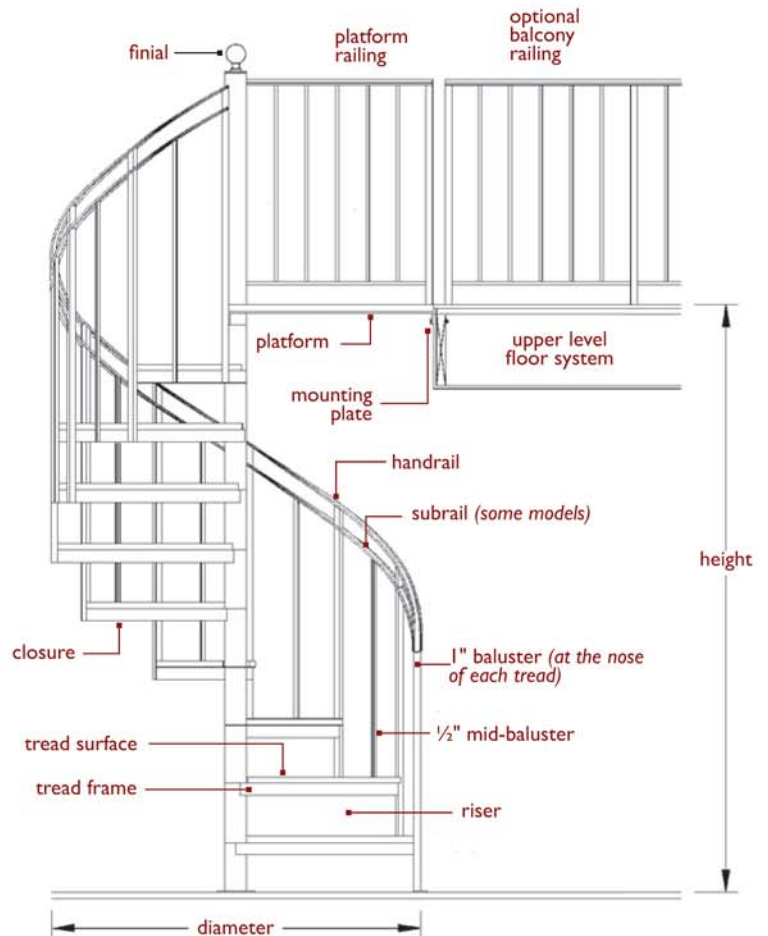
A & B are finished opening dimensions. C is the distance from the finished opening to the finished wall. (down to the left)



### Balcony or loft railing

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

## Glossary of terms



# 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:** 1/2” Red Oak & 3/4” particle board
- **Hardwood:** A 1” tread is available for all sizes.
- **Cedar Deck:** 1” x 5/4” decking
- **Pan:** Built for your application. Our standard pan is made of 12 gauge steel and is 1/4” 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 1/4” 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.

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