



# SUPERIOR

## SAUNA & STEAM

### Custom Sauna Kit Assembly Instructions

Thank you for purchasing a sauna from Superior Sauna & Steam. It will bring you many years of sauna enjoyment.

On arrival from freight truck, please inspect palletized sauna kit for possible shipping damage. Check off itemized parts on the original invoice to make sure your kit has arrived complete and intact. **Notify the trucking company and Superior Sauna (phone 877-872-2806) at the time of delivery if any damages.**

Review these instructions thoroughly as it will make your residential or commercial sauna project easier if you understand the assembly process before starting. See our Literature Library on the website [www.SuperiorSaunas.com](http://www.SuperiorSaunas.com) for specific install manuals for components like Sauna Heaters, Lighting Kits, Bench Skirting Valances and more.

The team at Superior Sauna & Steam appreciates your business. Enjoy your Superior Sauna experience.

#### TOOLS NEEDED:

- Safety Glasses
- Framing Square
- Level
- Chalk Line
- Stapler, electric or hand powered
- Hammer and Nail Punch
- Tape Measure
- Circular Saw
- Cordless Drill or Screw Gun
- Brad Nail Gun (recommended)
- Miter Box Saw or Miter Table Chop Saw
- Torx and other driver bits

#### RECOMMENDED FASTENERS:

- Use only quality stainless steel or chromate screws and fasteners
- Stainless steel brad nails for tongue and groove paneling and trim pieces
- Staple for foil barrier behind paneling can be steel

**Warning! Galvanized steel fasteners will likely corrode and leave stains on wood**

#### PARTS NOT INCLUDED WITH SAUNA LINER KIT:

- **Wall Framing Materials:** 2x4s or 2x6s, treated lumber sill plate, 16d framing nails, etc.
- **Fiberglass Insulation:** Obtain the highest R value according to wall thickness (paper faced for easier installation)
- **Electrical Wiring Supplies:** Check Sauna Heater install manual for correct gauge wire

## FRAMING & PREPARATION:

**Warning! Before you begin installing wall paneling it is extremely important that there is adequate blocking/ nailers installed to the framing for heater and bench support.**

At this point review where every part of the sauna will be mounted including the Sauna Heater, Bench Rails, Bench Pillars, and Valance Brackets, etc. Make sure that every part has solid framing or nailers to fasten to. Use the 3-D Sauna Room Design Drawing as a visual reference for support nailers.

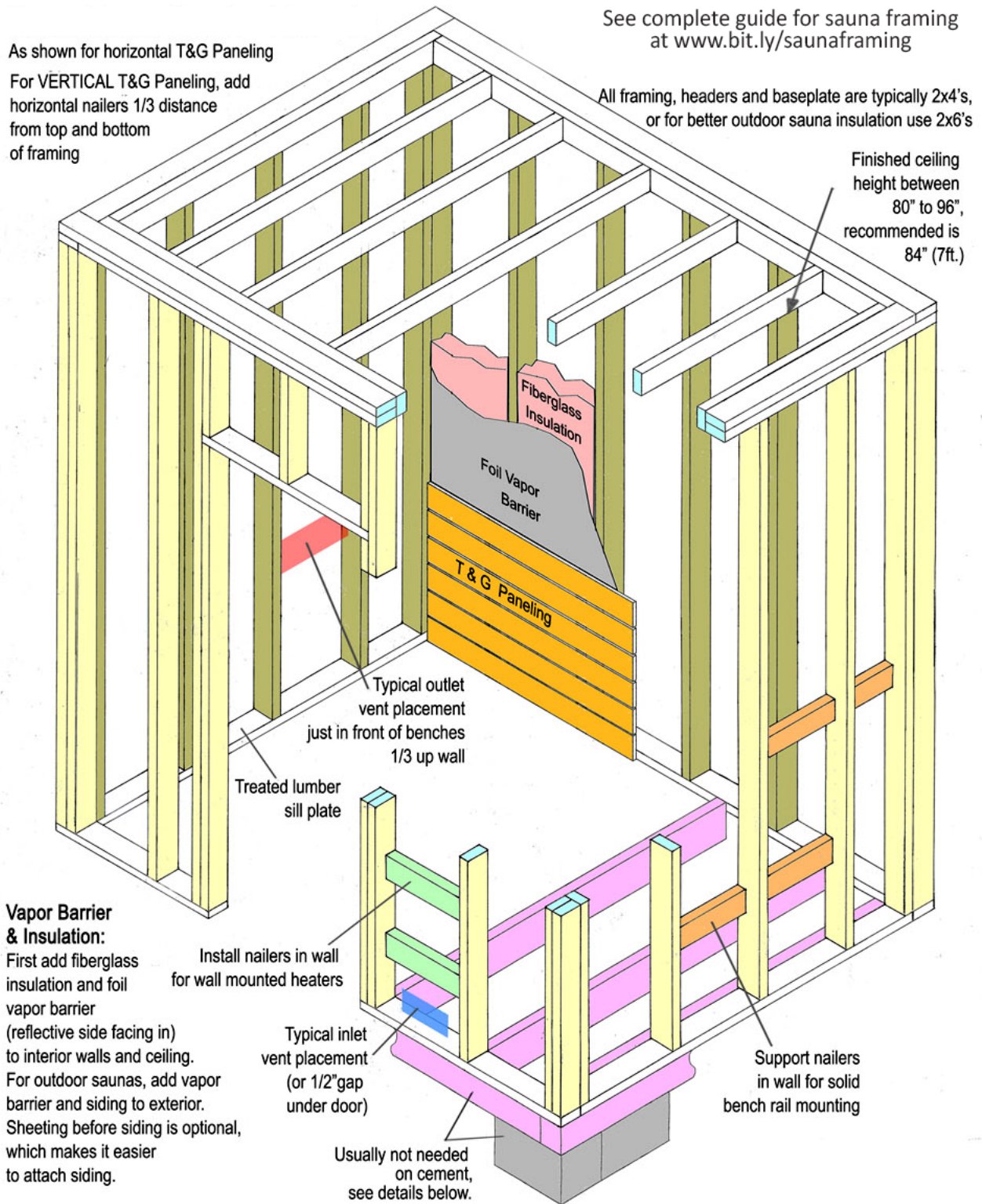
Remember, T&G paneling thickness on wall studs (for example  $\frac{3}{4}$ " T&G on 2 sides totals  $1\frac{1}{2}$ " ) means the net interior space and benches are at that length. For Vertical T&G paneling, check that you have horizontal nailers and furring strips in at least 4 spots along T&G board length, with approx  $\frac{1}{3}$  up from floor and  $\frac{1}{3}$  down from ceiling for paneling to fasten to. For Horizontal T&G paneling, if a portion of the sauna is solid wall construction, those walls should be framed with furring strips or standard 2x4 framing.

Ideally the sauna heater is placed on the opposite wall from benches. Heater controls should be directly on the outside of the wall from the heater, as this makes the electrical wiring much simpler. Heater controls are best placed on latch side of the door for ease of use. Determine the location of the heater in the sauna as recommended by your sauna representative or as described by your heater installation instructions and template supplied with the heater. Add two 2x4 supports between the studs for the heater brackets. See sauna heater install manual for proper heating supports. **Note:** *The metal heater hanging brackets are installed after the T&G installation. The 2x4 supports are not needed when using an optional floor stand.*

## WIRING & INSULATION:

After blocking/nailers are installed, you should have a licensed electrician rough in all of the required wiring for the sauna heater and control panel, lighting and any other accessories. Paper faced fiberglass insulation is recommended for easier stapling to face of framing studs. Next, insulate the 2x4 or 2x6 constructed walls with max R value fiberglass or proper heat rated foam at R13 to R33 value.

## Sauna Room Framing Example



**Outdoor Sauna foundation info:** A concrete slab is an option for permanent Outdoor Sauna install. Insulate slab or underneath wood floor. **ALTERNATIVE TO CONCRETE SLAB:** Set 8" x 8" x 16" concrete blocks for corners. Build a 4x6" treated lumber base frame tied together with steel corner brackets, add 2x6" joist hangers, install treated 2x6 floor joists, and use 3/4" treated plywood for floor base board. Optional to add sauna floor drain kit with rubber sheeting over wood floor. For roof design ideas, see photos of Outdoor Saunas. [www.SuperiorSaunas.com](http://www.SuperiorSaunas.com)

# Sauna Kit Assembly

## 1. Vapor Barrier

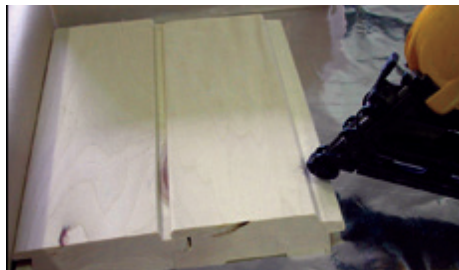
Be sure proper nailer supports are installed between studs for bench rails and heater mounting before beginning (see Framing Preparation). Staple the special sauna foil vapor barrier (foil side facing you) starting at floor and work horizontally around the room attaching with staples. Allow a little extra vapor barrier in corners to be sure foil doesn't get stretched and torn during paneling assembly. Continue stapling foil vapor barrier tiers around room up to the ceiling, allowing " to 3" overlap onto lower row. Then install vapor barrier on ceiling, taking time to overlap the foil onto walls. For best results, tape seams with high-heat aluminum foil tape.



## 2. Tongue & Groove Paneling

A brad nailer is recommended for speed and accuracy. Using a regular hammer for paneling installation can cause damage to boards tongue preventing the paneling from fully seating. Also a small punch is handy to sink each nail head below surface. It is advised to use stainless steel finishing nails to prevent fastener corrosion which will cause unsightly discoloring and dark streaks. Nail board tongue at 45 degree angle into framing stud or nailer, positioned so that nail will just be hidden by groove of next board. It is best to cut a few pieces of paneling so you can use the scrap cut-offs to practice the nailing technique. Allow a minimum 1/2" gap from bottom of T&G to finished floor level which will allow airflow and prevent moisture wicking off floor and staining /deteriorating wall boards. Allow enough clearance for flooring material or tiles to slide underneath T&G and still have 1/2" gap. Most applications are vertical to minimize board waste.

Install ceiling paneling first. After the ceiling is paneled then install T&G panels on the walls. Start T&G paneling on both sidewalls then panel front and back walls. Use a level to start first board straight then check levelness every couple boards. Nail into tongue on ends and at least 2 spots evenly spaced. The end piece of paneling near corners can be face nailed where the corner trim will cover nail heads (3/4" cove molding is typical). Do not install panels over the door opening. Cut to fit and install cove molding in corners and ceiling as needed. "Recommended Horizontal Paneling Applications" starting at bottom of room, alternate short pieces to every other end of wall. Or place seams as desired in other pattern or random. **Note:** *It is recommended to install the T&G with tongue side up. This will help prevent any moisture from collecting in the groove.* **Option:** *Your T&G boards may vary in shade, particularly with cedar. To make a nice transition, lay out all your boards for a given wall in a pattern from light to dark. In general cases fasten your lighter boards towards the top of the wall and darker ones towards the bottom, but personal preference is the rule.*



## 3. Sauna Benches

Now see bench installation instruction sheet and bench parts. View the bench video at [www.superiorsaunas.com](http://www.superiorsaunas.com) to help visualize bench designs. Mount rails and set benches, be sure rails are well fastened into framing backer board and studs behind tongue and groove paneling. Most saunas have two bench tiers with typical bench top heights at 18" and 36". For third tier benches set height at 54" (recommended minimum ceiling height of 7' 6"). **See bench assembly for more details and diagrams.**

**Basswood Benches:** Bench top is 1 3/4" thick. Top of Bench Rail heights need to be mounted at 16 1/4" for the 1st tier, 34 1/4" for the second tier, and 52 1/4" for the third tier if needed.

**Cedar Benches:** Bench top is 1 1/2" thick. Top of Bench Rail heights need to be mounted at 16 1/2" for the first tier, 34 1/2" for the 2nd tier, and 52 1/2" for the third tier if needed.

**Wall Mounted Bench Rails:** Use a pencil to scribe bench rail height and mounting positions. In certain cases wall rails may need trimming. If dowels are in rails they should face up and towards the front of bench, to fit between bench seat boards to hold from sliding. Start with the rails for the main benches. Use the provided 4" fasteners to mount the rail to the wall, making sure the screws are hitting the backer board supports inside the wall. Use a level to ensure that all of the bench rails will be the same height around the entire sauna.

# Sauna Kit Assembly

**Pillar Supports:** Once all wall rails are in place, install the main bench tops to help determine where pillar supports will fit. Install the adjustable feet into bottom of supports then adjust height accordingly to raise or lower the pillar to bottom of bench. Pillars that support the end of an L-Bench should be installed directly parallel to the main benches. Double Pillars that support the center of main benches should be installed last. Lay the double pillar down under bottom bench and raise up in place with the bench tops resting on the wall rails. Adjust the feet to raise the pillar to bottom of benches. Fasten all pillars to walls with 4" screws, making sure screws are hitting the support backing inside the wall.

**Bench Valance / Skirting Installation:** For kits that include Bench Valances, review the provided Bench Support Layout drawing. Valance Brackets need to be mounted directly in front of the wall mounted rail so that the top of the bracket is flush with the top of the rail and make sure that the Valance Bracket stop block is facing down. Use the provided 4" fasteners to secure the brackets to the wall. In certain cases brackets may be pre-installed on to the according pillar. Now set the valances in place.

**Standard or Deluxe Backrest:** Position the backrest approximately 20" from the top of the bench to the top of the backrest or which ever position suites your comfort, by test positioning before fastening. Fasten using the provided 4" fasteners making sure to use a level to make for a clean install.

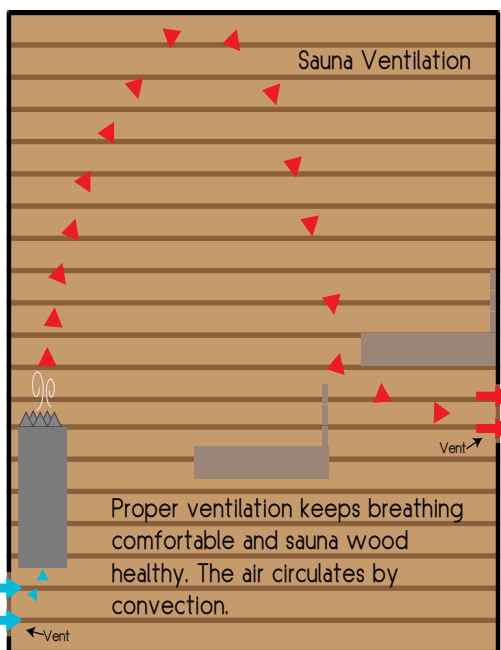
**Finishing:** You may want to do a final sanding with an electric palm sander, fine grit paper to polish paneling and benches to a perfect finish. Use optional natural sauna wood treatment Paraffin Oil for protecting sauna benches from moisture and perspiration soaking in.

## 4. Venting

Venting is very important for health of sauna woods and provides adequate oxygen for sauna users, especially in wood burning saunas. Outlet vent should be underneath the top bench on wall across from sauna heater to minimize heat loss. Trace louvered vent box on wall and cut slightly larger hole through wall with a jig saw for a clean cut, then fasten vent box in wall with louvers on exterior side of wall. Attach sliding vent door w/ frame on inside wall with finish nailer. You will also need a lower intake vent under heater or nearby if you do not have approximately a 1/2" gap under door. For maximum efficiency, install the intake vent directly underneath the heater to create a convection effect that will more evenly heat the room.



Inside view of installed Sauna Vent Kit. Outlet Vent is typically installed on Opposite wall about 1/3 up from the floor.



Outside view of installed Sauna Vent Kit. Inlet vent should be under Sauna Heater as shown here, to heat incoming air.

## 5. Lighting

Install wall mounted Vapor Proof Sauna Light Fixture according to instruction sheet. For the Spectra Recessed Sauna Lighting Kit, see our website Literature Library Install Guides if it is not enclosed in the Sauna Kit Literature Envelope. Always test fit vapor proof fixtures with wiring attached before drilling holes in ceiling, to be sure wiring will reach. Sections of the Spectra wire harness can be extended by splicing in extra wire per installation instructions.

# Sauna Kit Assembly

## 6. Door

Place the door into the framed opening and fasten the hinge side to the 2x4 frame. For added strength and durability replace one screw per hinge (on jamb side) with a 4" screw that will secure into the framing. This step will ensure your sauna door will stay true throughout the years. Mount so the door jamb is flush with the surface of the exterior wall material. Be sure the door is level and plumb. If it is not, use shims between the opposite side jamb and frame. If you do not install the door perfectly square you may have problems with the door opening and closing properly. After the door is securely fastened into place, stuff fiberglass insulation around door jamb and seal with foil vapor barrier. Finish installing tongue and groove wall paneling up to the door jamb then install the door casing trim with a finishing nailer. Use suitable exterior door trim to match sauna exterior walls. Door handles are one of the few sauna parts that can have a stain or wood sealant applied to prevent sweat and moisture from soaking in and staining.

## 7. Heater

The Sauna Heater should be installed by a licensed electrician according to the heater installation manual following the manufacturer's specifications. When fastening the heater to the wall, be absolutely sure fasteners are going into blocking or studs behind paneling to support the weight of heater and rocks. Wall mounted Sauna heater controls should be placed on exterior wall, near latch side of door for easy use on entering (never put wall controls facing inside sauna room).

## 8. Heater Guard

Now attach heater guard according to heater manufacturer's installation manual. Place pre-built heater guard into place and fasten using the provided 4" fasteners. For custom built heater guards, follow the heater installation manuals specifications to ensure the prevention of combustion. Inspect heater guard a couple times a year to make sure it is securely installed.

## 9. Flooring

Now assemble snap together Red Cedar or Ipe hardwood tile flooring on walking area in front of benches. Plastic based tiles are safe to use in cooler temperatures of sauna floor and if saw cutting is needed to fit tiles perfectly, remove any screws from bottom of tile that may be in path of saw blade. Ipe is a very dense wood (similar to teak) and it is recommended to use a quality saw with a very sharp blade.

## 10. Base Board Trim

After flooring material is installed, cut baseboard trim to fit around bottom edge of walls, leaving a 1/4" gap between flooring material and base board trim. Fasten with finishing nailer. **Warning! Do not use any paraffin based wood putties because the heat of the sauna will melt the filler out of the wood. We recommend using "DAP Plastic Wood" or "Wood Workers Friend" that can be found at any hardware store or home centers.**

## 11. Finishing Sanding

Wear a protective breathing mask to avoid breathing in dust particles. Cedar dust is especially dangerous to the respiratory system. Once you have finished the installation of your sauna kit, use a electric powered orbital palm sander and sanding sponges with a fine grit (180-220) to give a final touch up sanding to remove small dents, nicks and marks from installation. Use a vacuum to remove all of the sanding dust.



# Sauna Design Key Features

## 1. Sauna Ventilation

The number one feature for a clean long lasting sauna is proper air exchange. There should be an upper outlet vent approximately 3 feet off of the floor, usually under the top bench. The lower intake vent should be at floor level, near the sauna heater which helps to circulate by convection. For indoor saunas, instead of the lower vent, it is acceptable to just leave a 1/2" gap under the door.

Leave vents open (and door open if possible) when finished using the sauna, to minimize the time that bacteria that are exposed to an ideal growing environment. Building codes require similar air exchange and with the high temperatures and humidity in saunas it is very important so that bacteria and fungi do not grow and destroy wood grain.

## 2. Sauna Vapor Barrier

It is important that the foil vapor barrier is used in sauna design to keep moisture out of walls. Foil vapor barrier adds 1R value of insulation. Plastic or synthetic vapor barriers are not designed for high temperatures inside of the sauna and will likely breakdown and release toxins and be rendered ineffective. Any hot spots like knots in paneling can melt holes in plastic and synthetic vapor barriers, exposing the inner wall to damaging water vapor. Simply install by stapling vapor barrier around walls and ceiling with foil side facing you. Recommended 2" to 3" overlap at seams and use aluminum foil tape on seams for best results.



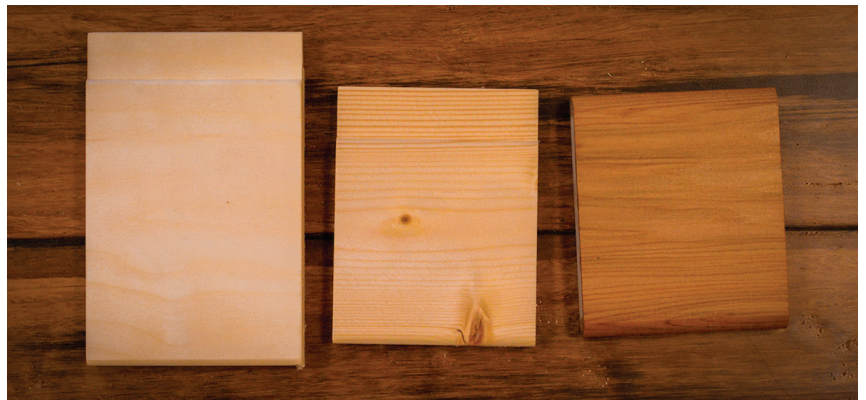
## 3. Sauna Wood Types

The woods used for sauna steam rooms vary widely, usually depending on what types of woods are available locally. Sauna woods for walls and ceiling are milled with tongues & grooves (T&G) that interlock tightly and make installation easy. Superior Sauna uses Aspen, Spruce and Cedar for our saunas

**Aspen** is very light in color and provides a more soothing sauna experience. It is also considered the most non-allergenic wood for sauna use. This means that more people (especially in public or commercial saunas) can enjoy the health benefits of sauna without irritating certain respiratory conditions, as the famous aromatic Cedar wood scent sometimes can. Superior Sauna Aspen sauna wood comes with a milled relief groove on the backside to allow airflow behind the wood and vapor barrier. It also features a waterfall style T&G design for a more effective water resistant seal.

**Nordic Spruce** sauna wood paneling is a great choice for any residential or commercial sauna. The quality rustic look (with small tight knots) is very traditional and beautiful with its unique wood grain. Nordic Spruce sauna wood is popular for use in Finnish and European traditional saunas.

**Western Red Cedar** is a very popular sauna wood with its varying shades of color and aromatic scent. Western Red Cedar T&G sauna wood is available in two different thicknesses for sauna building. Cedar sauna woods have natural oils which gives them a naturally resistant property to many bacteria, fungi and insects.



*Aspen, Spruce and Cedar treated with a paraffin oil.*

**Sauna Wood Paneling Install:** note that **Stainless steel finishing nails** are recommended to attach sauna paneling because regular or galvanized nails will corrode over time and leave dark streaks and stains on the walls. We offer 15, 16 and 18 gauge nails to fit many brands of nail guns (for speed and accuracy). Start with your 2"x4" or 2"x6" framed insulated sauna room walls and ceiling. As you construct your sauna room the only place you may want to use a treated material is on the sill plate. Plan wiring well in advance for sauna light, sauna heater unit and heater control panel. While paneling and trim are being installed, make sure to keep it 1 1/2" off of floor so it doesn't wick moisture and so there is clearance for Ipe wood flooring tiles or duckboard.

Remember the sauna woods must breathe, so never use sealants or coatings that would break down from the heat and release harmful gases. Sauna Wood Treatment Oil is available and can be applied to paneling and benches to help keep wood cleaner by not allowing excess perspiration to soak into wood fibers. The oil treatment is great for high maintenance commercial saunas or daily used home saunas.

# Sauna Design Key Features

## 4. Sauna Benches

Superior Sauna benches are made of clear grain woods, white Basswood or Red Cedar and feature fully rounded edges for maximum comfort. Many of our bench designs utilize wall mounted rails that allow bench seats to lift out and easily be removed for cleaning sauna. Benches and backrests should be made with clear lumber, as knots make for uncomfortable 'hot spots'. Be sure to install benches with hidden fasteners (from bottom through support into bottom of bench top board) so there are no exposed hot metal fasteners to burn sauna users. Basswood bench stock measures 5 1/2" wide by 1 3/4" thick. Red Cedar size is 5 1/2" wide by 1 1/2" thick. These commercial quality materials will outlast other types of sauna benches, as the surface can be sanded every year or so to maintain a 'new' look. Portable sauna benches are another option for additional guest seating or as a cooling off bench outside of sauna. Portable benches can be made to ANY custom size.

**Note:** Clear grain is on exposed parts, there may be knots hidden on the back, and will not impact sauna use.



## 5. Sauna Heater

There are a variety of types and sizes of Sauna Heaters for any location, commercial or residential. All of our sauna heaters can have water poured over the rocks to produce steam like in traditional Finnish steam saunas.

**Wood Burning Sauna Stoves** are the most traditional type of sauna heater and offer the most heat output. Wood sauna stoves usually have the option of a built in water heating tank for bathing after the sauna session.

**Electric Sauna Heaters** are the most convenient to use and take up very little room space.

Electric sauna heaters should have a sturdy heater guard installed according to heater manufacturer specifications. Wood-burning sauna heaters have much hotter surface temps, so they don't typically use a heater guard and usually require a brick or stone wall inlay near heater to act as a heat shield. Water can be used on the rocks for steam with all of Superior Saunas heaters. The Finnleo brand sauna heaters are excellent when used wet or dry. Finnleo has the best warranty in the industry with 5 years for residential use and 1 year for commercial installations. Tylo, Scandia and Polar are other brands of quality electric sauna heaters. We offer replacement parts for most sauna heaters in service, brands



## 6. Sauna Door

Sauna door types are All Wood, Half Glass, or Full Glass panel. There are several sizes available from standard 24" wide, up to 36" wide handicap accessible doors. The All Wood door is paneled on both sides with your choice of T&G paneling and features an insulated core. Glass panel sauna doors come standard with sealed pre-hung jamb, 1/4" plate glass door, and all hardware with a special coating for sauna use. Custom sauna doors can be ordered to fit any existing sauna room and pre-hung is optional.

Rough openings for pre-hung sauna doors are typically framed 3" larger on width and height from door jamb size. It is recommended to frame in doors and windows soon after they arrive for a perfect fit with casing and door jamb thickness.

If you plan to build your own sauna door, our Sauna Door Hardware Kits feature heavy duty stainless steel spring hinges, spring ball catch latches and quality wood handles.



## 7. Sauna Window

Sauna windows allow ambient light to enter and help make the sauna space seem larger. For outdoor sauna cabins, the sauna window allows a nice view of the lake or the use of an oil lantern for night time lighting, hung outside the sauna of course. For indoor saunas, you can set up a TV on a shelf outside the window. Tempered double pane, insulated glass units are used for efficiency and safety. Window frames are made with quality select grade woods. Rough openings for windows are usually framed 1/2" larger on width and height from casing size.

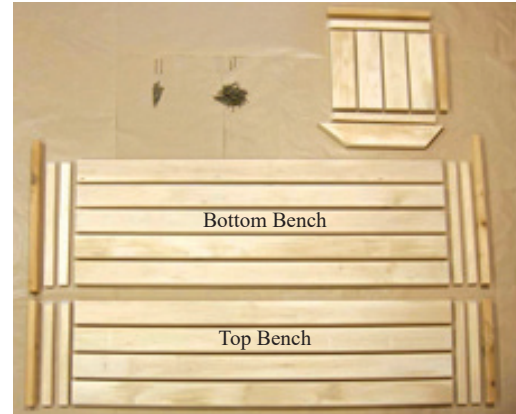
# Stout Bench Assembly Instructions

For Wall Mounted & Portable Benches

Assemble your elegant, commercial quality Stout Benches in minutes with simple tools. Check invoice and provided picture for bench length and depth. These instructions cover a 2 tier bench layout with "L-Bench" on lower tier. If you have a triple tier bench and have questions, feel free to call. Bench kits are typically shipped already assembled.

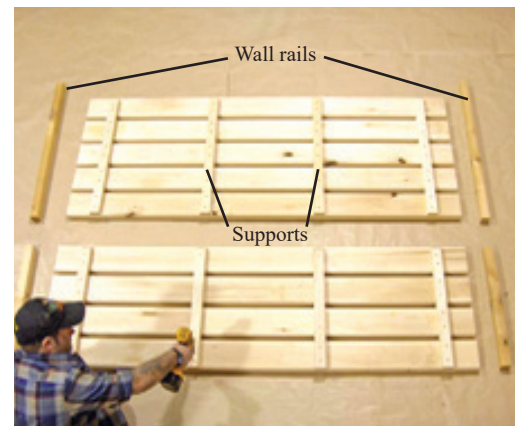
## Wall-Mounted Benches

1. Layout all pieces as shown, with top surface of bench boards facing down. Gap-between boards is  $\frac{3}{4}$ ", use suitable spacers if necessary. First put down cardboard, etc. to protect wood finish while assembling. Fasten bench supports 3" from each end of main benches. If more than 2 supports, just evenly space remaining bench supports in between the first two.



2. Use 2" long screws through bench latt into bench stock.

**If bench has U-pillars:** Fasten angled bracket or U-pillars with proper length screws into bottom of bench seat, (pre-measure so screw tips don't puncture through the top of the bench.) Use longer 4" screws to secure angled brace or U-pillars to walls



3. Fasten bench mounting rails to walls with 4" long screws, making sure screws are secured into backing nailers behind paneling. Lower bench rail is longer to allow sliding of bench under top bench, a dowel in the rail holds bench in front position. General rules for Bench heights are 18" for 1st tier, 36" for 2nd tier and 54" for 3rd tier if overall height allows ( 7'6" or so). Benches are not usually fastened to rails to allow for sliding purposes.



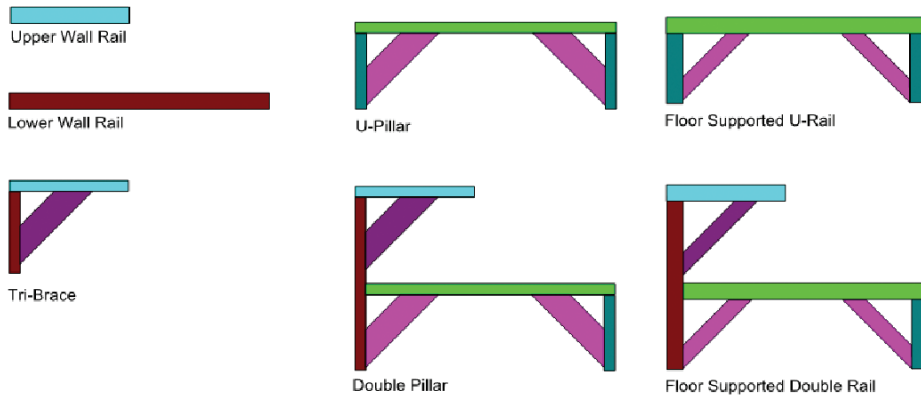
Call our design consultants for all your do it yourself sauna part needs. We manufacture and distribute custom sauna kits, prefab saunas and all sauna components to complete your sauna project. DIY sauna parts, heaters and accessories are shipped world wide.



# Stout Bench Pillar Placement Guide

**Important!!!** Make sure to install nailer supports to framing before T&G paneling is installed

## Bench Support Types



**Note:** Side wall Floor Supported Rails are typically for sauna projects where only benches are being replaced and the original paneling will not be replaced (doesn't have proper backing inside of wall).

## Tips



Adjust height of bench feet before attaching pillars to wall, so pillars are same height as the wall mounted rails.

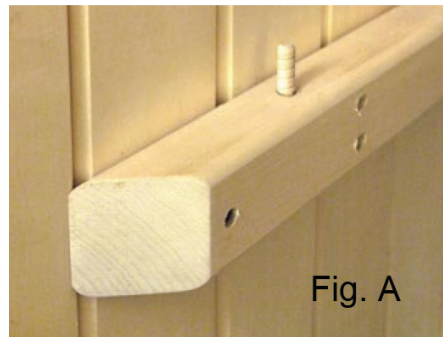


Fig. A

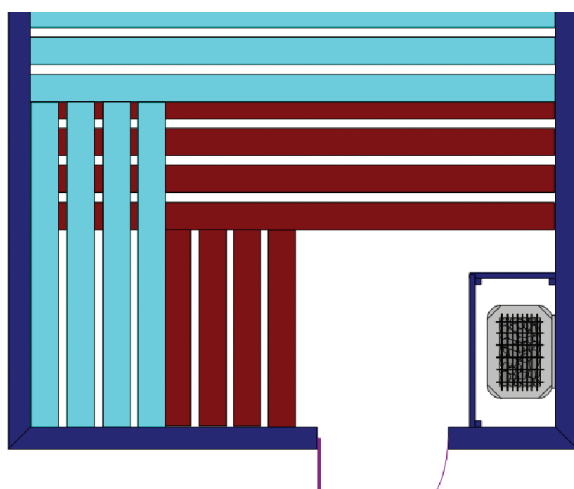


Fig. B

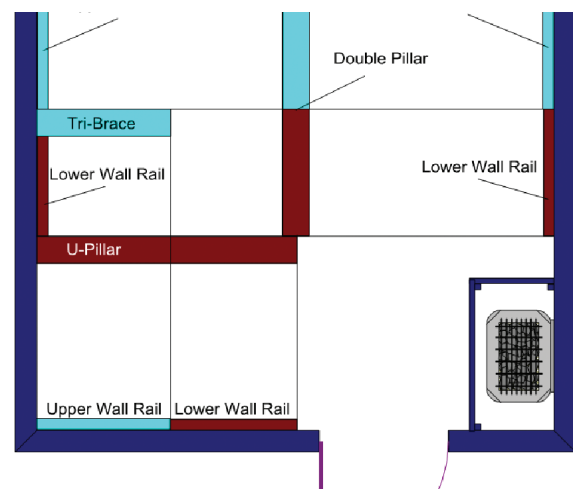
It is recommended to install 'Stops' on top of wall mounted rails to hold the bench from sliding. Typically 1/2" dowels are used, to fit in the gap between the 1st and 2nd bench planks (Fig. A).

Usually bottom and/or middle level benches have dowel at front end of wall rail so bench can easily adjust seating capacity (Fig. B). The benches can still be easily lifted out for thorough cleaning of the sauna.

## Sample Bench Layout



## Sample Pillar Layout



# Stout Bench Support Instructions

## TOOLS NEEDED:

- Tape Measure
- 1/2" Electric Drill
- Pencil
- #12 counter sink drill bit
- Level
- T-25 Torx bit

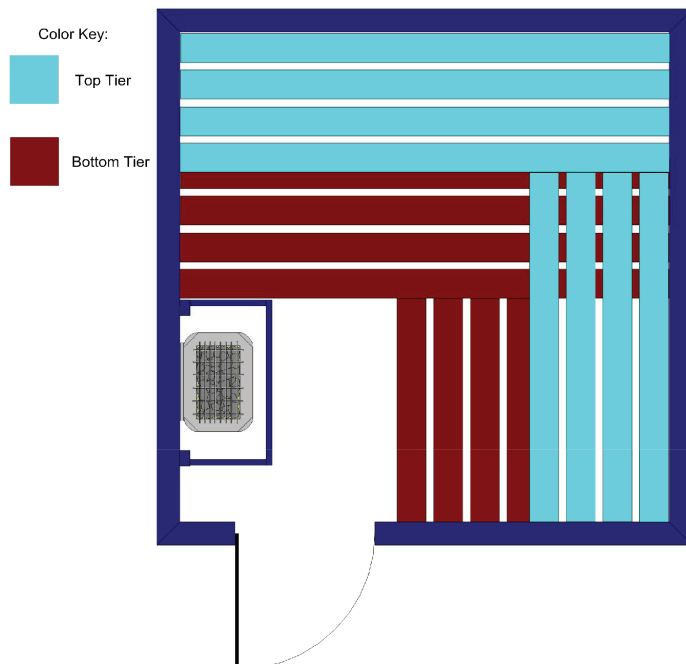
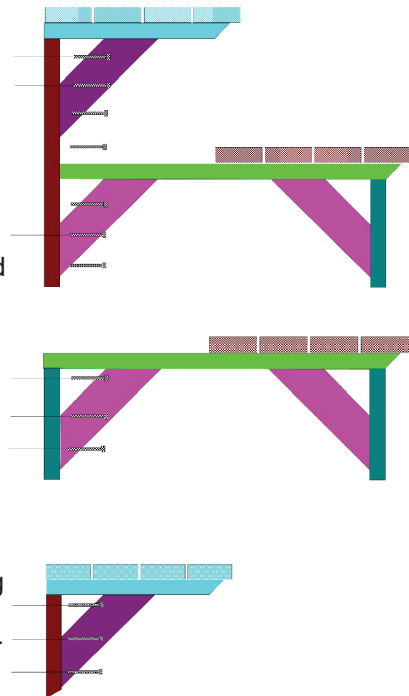
## Walls Rails

Supports ends of benches that come in contact with a wall. Wall rails receive support primarily from the framing. The majority of the load on the benches is supported by the wall rails so adequate framing within the wall is **extremely important** to assure your bench system will be properly supported. Install wall rails **before** you begin installing pillar supports. Standard bench heights are 18" for the bottom tier and 36" above finished floor for the top tier. These measurements are finished, you will need to subtract the bench thickness so that your finished benches are installed at 18 and 36 inches with the bench tops in place. If they are not installed at the correct height your pillars will not support the benches correctly.

## Pillars

Double pillars and U-Pillars have adjustable feet to aid in leveling the support and to keep the wood from wicking moisture from the floor. The lower bench can easily slide underneath the top bench for cleaning purposes. Adequate framing within wall is **extremely important**.

- 1. Double Pillar** - A Double Pillar is a support that is designed to brace both the top and the bottom benches. A double pillar is typically used in the center of the two main benches to eliminate the benches from sagging in the center. Double Pillars may also be used to support the open end in bench systems that do not span the entire distance of a wall.
- 2. U-Pillar** - A U-Pillar is designed to support the floating end of a Lower L-Bench. The opposite end of the L-Bench will be supported by a Wall Rail. U-Pillars may also be used to support the center of a bottom bench to prevent sagging. The Lower Bench can slide back on U-Pillars.
- 3. Triangle Brace** - A Triangle Brace is designed to support the floating end of A Upper L-Bench. Triangle Braces are raised off of the floor and receives support primarily from the extra backing within the wall.



## Pillar Positioning Example:

Diagram to the right outlines a typical bench Layout. Main Benches are against the back wall and the L-Benches are laying against the right wall.

# Stout Bench Support Instructions

## Pillar Installation:

Though Pillars get support from the floor for adequate strength, it is extremely important to make sure there is proper framing within the wall before starting.

### Step 1

Begin with the bottom main bench wall rails. Use tape measure and a pencil to scribe the correct height to mount the rail. Then scribe screw hole location on the wall rail. Using a #12 countersink drill bit pre-drill first pilot hole and then fasten rail using provided 4 " screws. After the first screw is holding the rail in place use a level to adjust the rail then finish fastening.

### Step 2

Install the bottom L-Bench Wall Rail as shown on the front wall in the diagram to the right.

### Step 3

Install wall rails for the top main bench. Then install the wall rail for the top L-Bench.

### Step 4

Install adjustable feet into the double pillar and position it into place but do not fasten at this time. Set top and bottom main benches into place then adjust the feet on the pillar until it is supporting the center of the benches in the correct manner. Scribe fastener location pre-drill and fasten using 4 " screws.

### Step 5

Install bottom u-pillar In the same manner as the double pillar.

### Step 6

Scribe the mounting position for the upper triangle brace and then fasten the triangle brace into position.

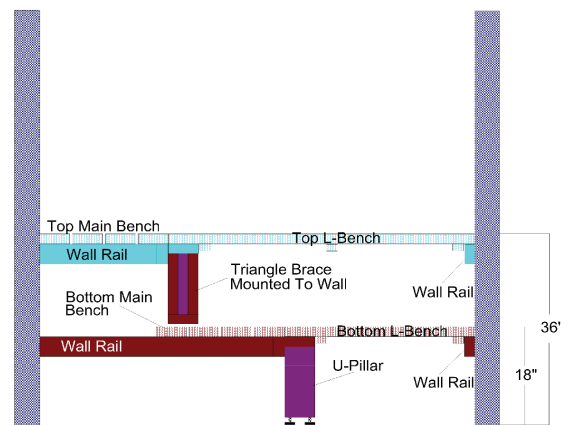
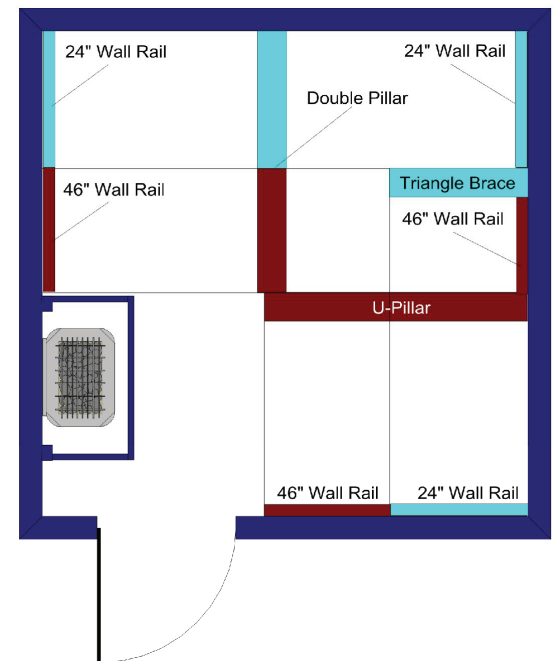
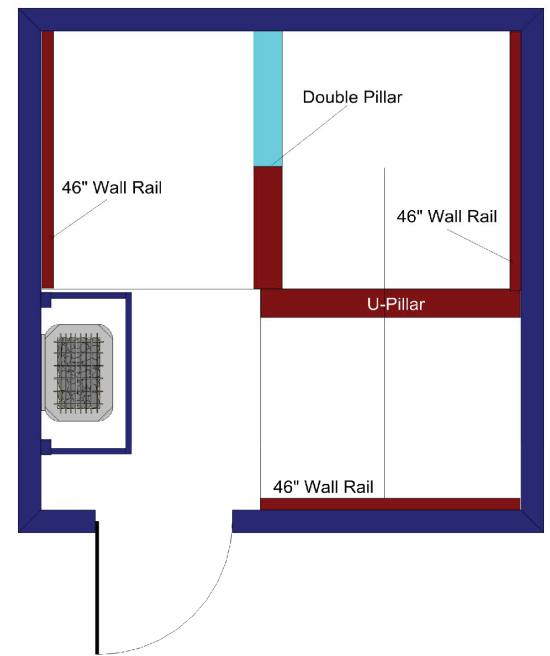
### Step 7

It is recommended to install "stops " on top of wall mounted rails to hold bench from sliding.



### Step 8

Install the remaining bench tops, then use an Orbital Palm sander with 220 grit sand paper to touch up the benches.



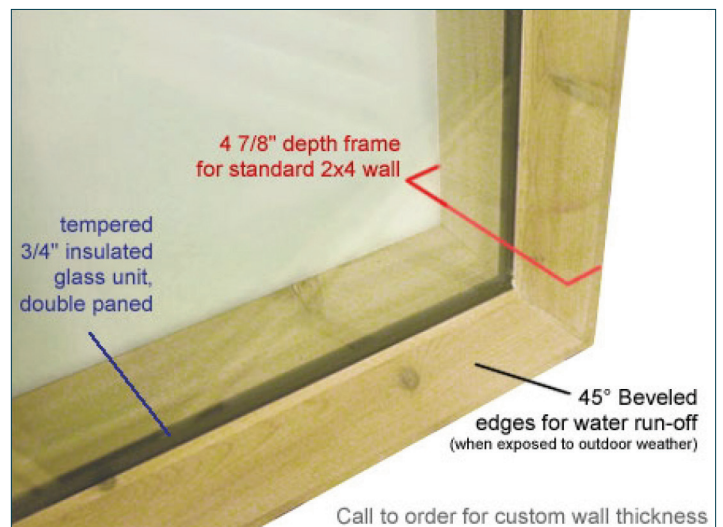
The diagram above illustrates the front view of the installed pillars, rails, and benches on the right side wall.

# Window Installation

Check rough opening by measuring the top, middle, bottom and the height on both sides. If the measurements differ more than 1" cut filler strips to level or plumb the window jamb. Optimally you want a 1/4" gap all the way around the window using wooden shims to maintain spacing. If you are installing an outdoor exposed window use a self-adhering waterproof membrane and wrap the window overlapping about 12" at the corners of the windows. Add flashing where needed.



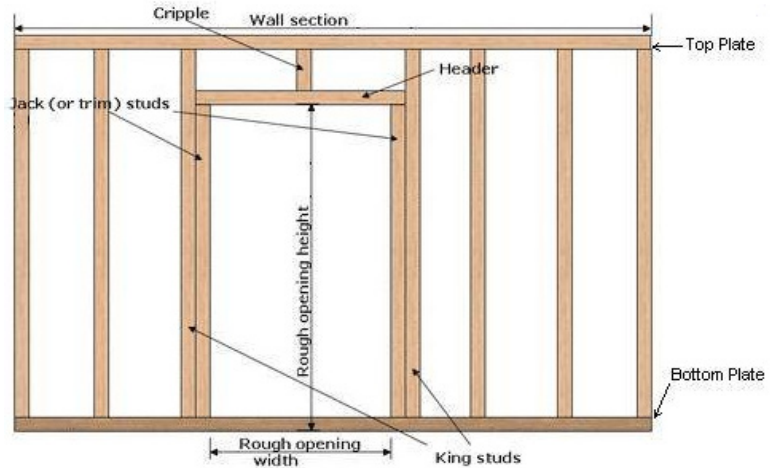
Next install the windows making sure that the gaps around the window are even, using shims to keep the window stationary. Then fasten the window in the shimmed areas with a nail or screw from behind the framing for a cleaner finish. Stuff the gap with insulation. Finally you may now trim out the window. If putting trim on the outside, first run a bead of silicone all the way around the wood window frame, also bead around the glass where it meets the frame & around the trim to keep moisture from penetrating into the wall.



# Sauna Door Installation Instructions

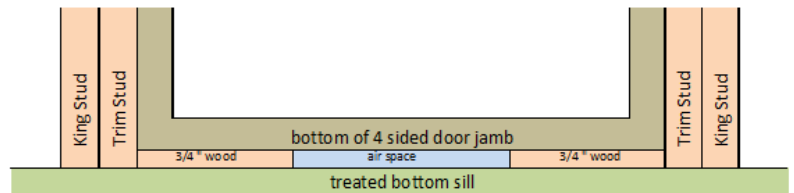
When framing the door start by running king studs from ceiling to floor, between the top and bottom plate<sup>1</sup>. Begin by making the initial rough opening 4" wider than the width of the door frame. Use a level to assure they are plumb. Then cut two jack (trim) studs ½" longer than door frame height. Mount to the inside of each king stud. Install header on top of each trim stud & use cripple stud if needed. Recommended for wider doors.

Next, place door in opening and make sure the door jamb is square and plumb, permanently fasten hinge side of door to trim stud (use shims if needed). Use four evenly spaced shim spots to keep door latch side of jamb plumb and square then fasten to other trim stud. Replace one of the four ¾" screws holding each hinge into the jamb and replace with 4" screws so the door is anchored into the framing studs also.

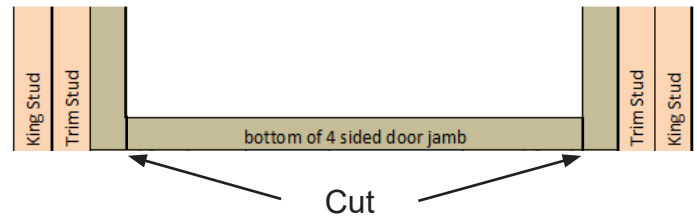


Bottom Plate May be removed for 3 sided jamb. Ex. ADA doors

**Venting hint:** If installing door with four sided jamb and intake air vent is needed under door, place ¾" pieces of wood underneath each side of jamb bottom. Caulk well to prevent seepage.



**For ADA 36" Doors:** Cut out bottom of jamb for wheelchair access by stiles. Add sweep to the bottom of the door if vent gap is not needed.



<sup>1</sup> Bottom sill plate should be treated wood. Where sill plate meets floor must be caulked well to prevent water leakage in the case of excessive water use

# Sauna Care Instructions

With very minimal maintenance you can keep your sauna room looking great for many years. The following is only a general guide. **IMPORTANT: NEVER** use a water hose to clean a sauna, as the untreated wood will absorb water and cause mold, fungi, etc. to grow fast and blacken wood fibers. Saunas should always have vents for fresh air intake and outtake, or substitute a ½" gap under door for inlet.

## Step 1:

Do not paint, varnish or stain the interior portions of your sauna. The wood needs to breathe (absorb and slowly release heat and humidity). Also, artificial finishes make the wood surface much hotter, create the possibility of harmful fumes from the wood sealer, and take away some of the "softness" of heat and steam penetrating the wood. Finnish made Paraffin Oil Treatment Kit (available at [www.SuperiorSaunas.com](http://www.SuperiorSaunas.com)) is a product that is tested and proven safe for sauna use, to protect sauna woods from excess moisture and helps to maintain a clean sauna.

## Step 2:

Door handles and floor boards are an exception to step #1. These two points of the sauna can get dirty easily. To make cleaning easier, you can safely treat the handles and floor boards with a good wood sealant or polyurethane finish. The door handles and floor boards are not exposed to the high heat as near the ceiling, that may cause off-gassing.

## After Sauna Care:

## Step 3:

After you're finished using the sauna, use a towel to wipe any excess moisture off of benches, prop the duckboards off the floor. Leave the sauna door open, to air it out completely. The heat remaining in the rocks and in the wood should dry the sauna completely, and even can help dry down the shower area, if it is adjacent to the sauna room. For snap-together Ipe wood floor tiles, clean surface daily to weekly in public facilities or as needed. It is suggested to remove floor tiles semi-annually to clean sub floor.

## Step 4:

The simplest method of sauna maintenance is to use a tested and proven safe sauna cleaner such as **Sauna Clean** (available at [www.SuperiorSaunas.com](http://www.SuperiorSaunas.com)). Sauna Clean is an environmentally friendly disinfectant, bacteria remover and odor eliminator used by facilities with saunas and steam baths. With a hand brush and properly diluted cleaner, do a quick scrubbing of the benches, walls, backrests, etc. After scrubbing, **ALWAYS** wipe up any excess water with a towel to protect wood fibers. Commercial saunas should be cleaned daily or weekly depending on usage. Residential saunas weekly or monthly depending on usage. This will keep your sauna looking great for years.



## Step 5:

If you get some dirt, sweat stains or mold developing anywhere in sauna (if #4 is missed a few times) try the following:

- Dilute a few cap fulls of bleach with a gallon of tap water and give a good scrub with a hand brush.
- To get the benches or sauna paneling looking like new, you can lightly sand with fine grit sand paper about once per year. It will lighten them more to their original condition.

## Step 6:

**ALWAYS** wipe up any excess water with a towel to protect sauna wood fibers. After cleaning sauna, it is recommended to turn on sauna for a session to help with properly drying wood fibers.

With these simple maintenance tips your sauna will stay inviting, fresh smelling, and enjoyable to be in. The main rule is: **ENJOY!**

## Optional Maintenance for Commercial Facilities:

Commercial facilities can benefit from using an Ozone Generator automatic sanitizing system to save on labor hours of cleaning a sauna by hand. The PowerZone 400 unit works by safely neutralizing bacteria before it has a chance to multiply and break down sauna wood fibers.

# Best Way to Enjoy a Sauna

Written for Virtual Finland by Erkki Helamaa, architect, Professor emeritus and Juha Pentikainen, Professor, University of Helsinki.

**Reserve enough time** says the Finnish Sauna Society's bathing guide. Since a group of real experts has compiled the instructions they are well worth following. The brief instructions may, however, need a few additional explanations.

**Start the session by having a shower.** This instruction probably exists for reasons of general hygiene, and is as such necessary. But showering or swimming in the summer before the sauna is also good for another reason. Bathing in a hot sauna is said to be more pleasant if your skin is wet. Many disagree, though, and bathe without wetting their skin because they want to feel the sweat forming on their skin. So, there are two schools of thought: believers in a wet and a dry skin. It's a question of personal taste.

**Use a bench cover to sit on,** say the instructions, again probably for reasons of hygiene. A bench cover is also useful because the benches in a sauna get very hot, sometimes burning hot.

**Temperature should be around 80-90 °C / 175-190 °F.** Add humidity by throwing water on the stove. It is also good to know that you should stay in the heat only as long as it feels good. Competition about who lasts longest is unhealthy and contrary to the spirit of the sauna.

**The Sauna is a sweat bath.** Many bathers know very little about sweating, though, and go about it in totally the wrong way by throwing two or three ladle fulls of water on the hot stones as soon as they sit down on the bench. What follows is a sudden heat shock, a real battering on the skin enough to stop the normal functioning of the sweat glands. It takes time to perspire properly. To sweat bathers need their body temperature to rise by a couple of degrees, a kind of self-induced fever. This takes 8-12 minutes, depending on the person's perspiration capacity. Raising the temperature of the sauna will not speed up the perspiration process.



**A rapid change from hot to cold is not recommended.** That means a really sudden change! You need a suitable length of time to adjust first. Otherwise, too, cooling off and resting are an essential part of sauna bathing. The worst shortcoming of town saunas is the lack of a suitable terrace or balcony where the bather could cool off. The advantage of a waterside sauna is that you can plunge into the cooling water straight from the heat and exchange your steam bath for a watery one. In winter the bravest take a dip in icy water or roll in pure white snow. Only the rugged North can offer such wintry pleasures.

**Before washing, warm yourself up, then after washing you can go back to the heat.** Cleanliness is an essential part of sauna bathing.

Folk tradition recognizes all types of sauna, except one for washing in. Researchers have calculated that in the olden days only 2-3 liters of water was used per bather. Today things are different. Lots of water is used and far too much soap. Less would suffice, because the thorough sweating opens up the pores and cleans them of sebum, bacteria and all sorts of dirt. After sweating and a good rinse the bather is squeaky clean. Mothers should be particularly aware of this and not pester little boys with horrid washing routines!

**Repetition of the sauna/cooling off process can be done as many times as the bather likes.** Washing and swimming are followed by a gentle after heat. How many times should you go into the heat? As many as you wish. Once is enough if that's how you feel. Three times is perhaps the average moderate number. **Always finish the bathing session by rinsing yourself with refreshing water.**

**Then rest and drink something refreshing. Only dress after you have stopped perspiring altogether.** After a sauna bath you should not be in a hurry to go anywhere. Even dressing can wait. Although you may have a heavenly feeling, you should keep your feet firmly on the ground. The Sauna Society, with its authoritative voice, therefore concludes its instructions to all bathers saying: **Before and while in the sauna avoid anything alcoholic and over eating. A light snack and refreshing drink are the perfect ending to an enjoyable sauna.**

# DIY Sauna Parts & Sauna Options

The steam sauna parts source for the Do-It-Yourselfer and Contractor alike. Whether it's a residential or commercial sauna, remodel or new construction, we carry all the parts to build a quality sauna.

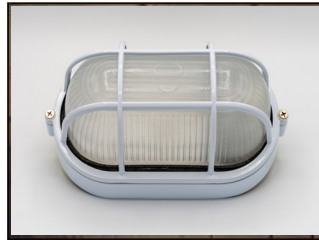
**FACTORY DIRECT:** Superior Sauna manufactures many of the most common DIY sauna parts (\*)

## Sauna Accessories:

A sauna is not complete without the essential accessories: water bucket, ladle, and thermometer. We also have hygrometers, 15 minute sand timers, eucalyptus oil, backrests, headrests, sauna speakers, and more. Visit [www.SuperiorSaunas.com](http://www.SuperiorSaunas.com) to see all we have to offer.



Alum. Foil Vapor Barrier



Sauna Room Lights



Air Circulation Wall Vents \*



Sauna Heaters & Parts



Multi Tier Benches \*



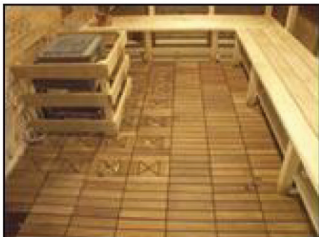
Portable Benches \*



Tongue & Groove Paneling \*



Ipe Flooring Tiles



Ipe Tiled Sauna



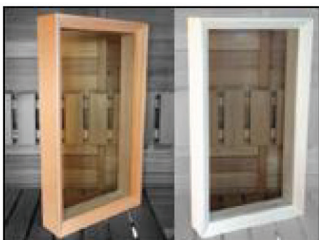
All Glass Doors



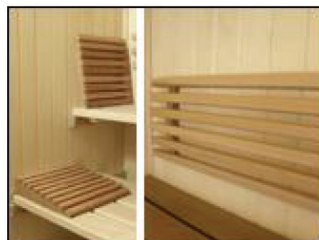
Wood Framed Glass Doors



T&G Paneled Doors



Sauna Windows



Headrest & Backrest



Heater Guards



Sauna Accessories