Floating Benches
No Floor Supports
SAUNA LINER KIT INSTALLATION-1x4 FLOATING BENCH TOPS

*** BEFORE YOU BEGIN: READ ALL THE WRITTEN AND DRAWN INSTRUCTIONS AND REVIEW THE MATERIAL LIST ***

Remember the old carpenter's proverb: "Measure Twice, Cut Once.

** SPECIAL NOTE FOR CONTRACTORS **:

We realize you already possess the skill and know-how to build the sauna and you may choose not to read these instructions. At the very least, make sure you carefully review the material list before you begin cutting. Material is supplied in specified lengths for particular uses. The kit has been counted twice before it leaves our factory. 95% of the time, "shortages" are a result of certain pieces being cut incorrectly, leaving a shortfall elsewhere.

IMPORTANT NOTES:

Clear cedar kits use the finest “Grade ‘A’ & Better” tongue & groove cedar for lining material. But even with this top grade, you may find certain boards that you do not like. Pre-sort your sauna kit to find this material and make an effort to "hide" these boards. Install these boards behind the bench where they will not be visible. In the case of front wall boards, cut them so that you can hide less attractive boards behind the heater. The cedar is finished on two sides to give you more flexibility in selecting the face you prefer.

Unless otherwise discussed and ordered, the door is located on the long wall across from the benches. The material supplied is based on this criteria.

The cedar for the ceiling is generally run in the shortest direction  Please check the "Material Packing List" to determine which way the cedar runs in your sauna.

If the material delivered does not correspond to your sauna design or layout, contact us before you install. Do not cut down boards intended for something else. We will not provide additional material in these circumstances.

FRAMING

NOTE: This instruction manual has no details for general framing. It is assumed that you possess basic carpentry skills to install this kit and have the know-how to frame the walls. The instructions note blocking as required to support the benches and heater.

Use 2" x 4" kiln-dried SPF (spruce, pine, fir) studs to frame the walls and ceiling. (If the ceiling span is over 10’, use 2” x 6” studs to frame the ceiling.)

*** Unless otherwise specified, kits up to 8’ x 8’ are lined horizontally (see drawing #1). Kits over 8’x8’ are lined vertically and should be STRAPPED HORIZONTALLY (see drawing ).

*** Frame or strap the ceiling to an inside height of 83-1/2".

Provide extra blocking for heater mounting brackets and bench cleats (supports). (See drawing #3). The sauna door rough opening is generally 26” x 76-1/2”. some doors have different openings; i.e. frameless. (For your exact rough opening see your "Material Packing List".)

Frame the walls at 16" on centre. If the walls are already framed and you wish to change the direction, they should be strapped using 1” x 2” spruce strapping at 16" on centre.
VENTING
Sauna venting does not mean venting to the outdoors as you would for a shower. It refers to an inlet (below heater) and an outlet (generally high in opposite corner).

Frame for inlet and outlet vents if being incorporated in sauna
For heaters up to 9 kw, one outlet slide vent is included with kit. See drawing #2a for vent details.
Fixed grill vent is available as option for inlet
Exterior grill not included. Use painted aluminium (or other) to match exterior decor.
Our outlet vent requires 4.5" x 4.5" opening. Use studs to frame opening
Inlet and outlet vent openings should be same area. Approximately 19 square inches (min) for heaters up to 9kw. Approximately 40 square inches (min) for larger heaters.

IS VENT REQUIRED?
Often, what is outside the sauna can limit the ability to easily install simple vents. With a gap under the door, cross-venting may not be required. Ideally, inlet should be low behind heater. Outlet should be catty-corner from heater; high on the wall. Inlet and outlet should not be on same will. "Bad" venting can be worse than no venting.
Vents should be installed for the following:
1. Tylo sauna heater.
2. If there is no gap under door (i.e. our frameless glass door.)
3. If foil seams are taped

DOOR
See Your Material List To Verify Door Rough Opening.
The standard size for the sauna door is 24" x 74". Rough opening must be 26" x 76-1/2" from finished floor.
Frameless door has different rough opening. See material list for size.
The doors are pre-hung on the jamb. The doors are hung to allow for a ¾" gap at the bottom for a fresh air intake. (Frameless door has bottom threshold-there is no gap at bottom (making vents more important).

WIRING
Electrical rough-in of wiring should be done at this time. If using an outside control (not built into the heater), the thermostat should be installed at this time. Install on the wall outside the sauna with the sensing bulb located as indicated in heater instruction manual.
Sauna Craft controls: (TPT3 or EL13) locate the sensing bulb 1” maximum from the ceiling 1'-2’ away from the heater.
For Tylo Pure or Elite controls, locate sensor 1” from ceiling, 3" to side of heater, preferably not in corner).
See electrical wiring drawings with selected heater/control. See heater specification for wire and breaker size.

Hook-up of the heater and light can be done at this time; it is generally easier to wait until the sauna is completed.
The Wiring Should Be Done Only By A Qualified Electrician.

INSULATION
The space between the studs should be filled with 3 1/2", R-12 fiberglass insulation. The walls and ceiling should be insulated in the same manner. Roxul can be used as well.

VAPOUR BARRIER
Install aluminium foil. Staple to the inside edge-face of studs over the insulation. Overlap the seams approximately 3". Install with "shiny" side facing into the sauna. DO NOT TAPE SEAMS. The foil is intended more as a heat reflector.

INNER LINING
Before you begin, examine all the pieces of tongue and groove cedar. You may find certain boards that you do not like, whether it is due to a knot or color. Make an effort to "hide" these boards. Install these boards behind the bench and behind the heater where they will not be visible.

Kits come with several extra pieces of tongue and groove cedar at no additional charge to allow you to discards some boards altogether.

Use the specified lengths of tongue and groove cedar (see "Material Packing List"). Depending on the actual inside finished size of your sauna, it may be necessary to trim these boards. Nail through the tongue only in order to conceal all nail heads (Blind nailing - see drawing #4).
HORIZONTAL LINING (see drawing #1)
While required, most choose to line the ceiling first
The cedar wall pieces should be left about 1/2” off the floor. If a tile baseboard has been installed, you start above the base. Start at the floor and work your way up. Ensure the first board is level. Check the level every 4-6 boards. The first cedar piece should be installed with the tongue facing up. There is up to a 1/32” variation in width. Corners may not line up perfectly. Corner moulding is supplied.

VERTICAL LINING (drawing provided as required)
The cedar wall pieces should be left about 1/2” off the floor. If a tile baseboard has been installed, you can start above the base or overlap it. Corner moulding is supplied.

EXTERIOR
Not included unless ordered as option. For exterior walls: drywall or panelling may be used to match your decor.

BENCHES
(See Drawings #3,5,6 &10 for construction details).
There are clear, cedar 1x4 s4s boards for the bench top construction.
1x4 s4s knotty cedar for bench girths

BEFORE DOING ANY FASTENING, select the boards to make sure the BETTER side of the board comes out on the sitting surface. While you build the benches, the better side will be faced down because you are fastening from the bottom. (That way you do not get any nails showing up on finished surface.) Use the nails supplied.
(See Drawings #5, #6 and #10 for bench assembly.)
We also recommend that you glue girths as well to strengthen benches

If the sauna is 5’ or more deep, the top bench is 20” wide (5 boards) and bottom bench is 36” wide (9 boards). If the sauna is 4’ deep, make the benches 20” and 28”.

BENCH SUPPORTS

With floating bench style, you provide your bench sub-structure framing.
Bench framing to be constructed of 2x6 SPF (spruce).
For smaller saunas (6’ bench or shorter) 2x4 may be used for bench frame.
See detail for 2x6 blocking in wall and vertical post supports
We provide surface mounting joist janger and special Lumber Loc, structural wood screw.

"L" SHAPED RETURN BENCH

For an "L"- bench, built same 2x6 joist for supports.
Secure L bench support to main fram support using joist hangers (provided).
Or you use your own carriage bolts

Bench tops built same as for main benches

Note:
If building Floating L with glass front wall, you need to consider support for open end of bench.
Manual shows detail for example of metal bracket to support top L.
For two tier L, you will like require some kind of floor support or post
HEATER

**Sauna Craft** heaters (up to 9kw) can be mounted in the corner or on a straight wall. Generally, the least amount of space is occupied by mounting the heater on the wall, 2" from the corner. **Tylo** heaters can only be mounted on a straight wall.

**GUARD RAIL**

Use the 2x2 for the vertical posts and the 1x3 for the horizontal rails. (See drawing #8).

Tylo Heaters have cool-touch shell and some do not install the guard. However, a guard is provided for you and it is recommended that you install the guard.

**FASTENERS**  Nails are galvanised. Screws are treated.

Joist Hangers (incl) supplied for 2x6 spruce joists (not incl)

Special "Lumber Loc" structural screws provide along with #20 torx driver bit

**PRESERVATIVE**

Residential: We recommend leaving the cedar natural. Most preservatives will mask the scent of the cedar.

Commercial: Should be treated with sauna preservative.

**FLOOR (Option)**

Use 1x4 cedar, square edge laid over 1x4 cedar sleepers. Top boards should be spaced 1/2" apart.

The sleepers should be placed at 1'-0" on centre. (See drawing #9)

**BACKREST (Option)**

See material list and special instruction provided if these options are selected.

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**HOW TO TAKE A SAUNA**

1. Start with a brief shower using warm water and soap. Rinse thoroughly. Do not towel dry.

2. Enter the pre-heated sauna - 80°-90° C - (176°-194° F) Relax and allow your body to perspire freely in the soft dry heat. Do not throw water on the rocks in this first session. Do not expect to begin and finish your sauna in a few minutes. Even in the extreme heat of a sauna, it takes time for your body temperature to rise and for you to begin to perspire freely.

3. Cool off with a cold shower.

4. How long you stay in the sauna is up to you. It depends on your comfort level. It is not an endurance test. People often start at 5-10 minute intervals and work up to longer periods.

5. Re-enter the sauna. Sprinkle water on the hot rocks to bring up a little steam and increase the humidity. This will increase the feeling of heat and assist the perspiration process. If you like add a few drops of scented essence such as eucalyptus into the water you splash on the rocks. It will disperse throughout the sauna.

6. Take a cold shower. Repeat the sauna/cold water cycle as often as you desire.

7. Dry yourself completely. Then sit or lie down, letting your body relax.

8. Dress and have a light sauna snack.

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**NOTE:** When used for the first time, you will notice smoke coming off the heater elements. This is normal. Leave the door open and allow the sauna to run about 20 minutes.

For additional information: SAUNAFIN SAUNA & STEAM
115 Bowes Road, Unit #2, Concord, Ontario L4K 1H7
Phone: 905-738-4017 Fax:(905) 738-2486
Note: This drawing is generic and does not necessarily reflect your exact sauna. Check your Sauna Material List for specifics on your sauna.
### REINFORCING STUDS for BENCHES and HEATERS

#### Bench Blocking

A) Top bench reinforcement (2x6)
B) Bottom bench reinforcement (2x6)
C) Heater reinforcement

**Measurement from floor to top of reinforcing stud**

- **A)** Top bench reinforcement (2x6)
- **B)** Bottom bench reinforcement (2x6)
- **C)** Heater reinforcement

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- **C)** Heater reinforcement

### NAILING TECHNIQUE

1-1/4" galvanized finishing nails for lining (supplied)

*Many prefer to use their own brad nailer (all brads are galvanized)*
Vent Details

A NOTE ON VENTING:
In many cases a vent is not required for normal sauna function. If you have access to vent walls after the fact, you may elect to forgo vents with the knowledge that they could be added at a later date.
If you do not have access after the fact, it is more of a "now or never" scenario. In this case we recommend you install the cross ventilation. If wall inaccessible (i.e. exterior wall), you can look at options of venting over the ceiling and ducting to open area. We do not recommend venting to the outdoors

OUTLET located high on wall diagonal from inlet
Cedar slide vent on sauna side.
Exterior has aluminum grill (not included) to match exterior decor.
1. Inlet vent low behind heater approx. 6” above floor. Cut opening or drill holes. Exterior: use painted aluminum grill (not supplied)

2. Outlet vent installed far corner from heater. Generally, high on wall, but can be on ceiling.

3. Vent to room adjoining sauna. Do not vent to outdoors.

4. If outlet is exterior (block) wall, you must duct or construct chase through stud cavity and over drop ceiling. Exhaust into room in front of sauna.

The inlet vent should be driven straight through the wall directly below the center of the heater. The cross-section of the vent for a wall mounted sauna is approx. 19 sq.in. For larger saunas approx. 40 sq.in

Position the air inlet and outlet vents as far away from one another as possible (diagonally opposite). The outlet vent should be located high on a wall or in the ceiling, and should have the same cross-section area as the inlet vent. Spent air should always be led back into house – it should not be discharged directly to the outside. Do not install inlet and outlet vents on same wall. Bad ventilation can be worse than no ventilation.

A: Outlet vent through the sauna wall (seen from above). The vent is placed high up, near the ceiling.

B: Outlet vent through the cavity above the sauna ceiling (seen from the side).

C: Outlet vent through a drum under the ceiling in the sauna (seen from the side). The outlet duct should be placed at an angle between the ceiling and the wall. The drum can be built of wooden panelling and have the same area as the outlet vent.

A: Air Inlet (low) A: Air Outlet (high)
SAUNA DOORS

Frameless
R/O=27-1/2” x 76-1/2
includes bottom spacer with gap
(reversible)

Cedar Framed Insulated Glass
R/O=26” x 76-1/2
gap under door
(non-reversible)

Trim/Double Header
R/O=27-1/2” x 76-1/2
If you don't use frameless door
bottom spacer, or door is shorter
than R/O for another reason,
you can "double case" header

NOTE: Rough Opening means above "finished" floor; i.e. above tile
#5 BENCH CONSTRUCTION - 1X4 OVER 1X4
(For Floating benches, sitting on 2x6 (or 2x4) spruce joist)

1 x 4 s4s clear (square edge), cedar bench tops over 1x4 s4s knotty cedar sleepers

* 1 x 4 t&g eased edge (rip to fit)
Install eased edge after the fact.
Glue & Nail to 2x6 joist

Girth approx. every 1' (position a girth under each 2x6 joist cross-block)

#6 BOTTOM VIEW OF BENCH
NOTE: Fasten girths from bottom to avoid exposed nails on sitting surface
Be careful not to nail through seating surface. We recommend carpenter's glue along with supplied nails.

★ For benches, use nails with heads (supplied).
Ensures nails do not pierce seating surface
#7

BENCH CLEAT & GIRTH
FOR ALL BENCHES

1"x4" BENCHGIRTH
(knotty cedar)

Girths approx. every 12". Space so that there will be girth over each joist cross-blocking.

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#8

STANDARD HEATER
GUARD FENCE

1x3 cedar rails
2x2 cedar posts

*May be larger for non-standard heater

#9

1" x 4" DUCKBOARD FLOOR
(where included)

1x4 cedar tops
(5/8" spacing)

1x4 knotty cedar sleepers
(-12" spacing)
Floating Sauna Bench 1x4 (clear) tops over 1x4 girth over 2x6 Spruce joist (on edge). 2x6 sitting on Joist Hanger (For benches under 6' long, joists & hangers may be reduced to 2x4)

Bench Sub-Structure (joists) By Others - We provide joist hanger & screws

- 1x4 tops over 1x4 sleepers w/ 5/8” gap
- 2x6 SPF (spruce) edge (supplied by others)
- 2@ 1x4 t&g (trim as required)
- double plate of 2x6 with vertical 2x4 to transfer load to floor
- Secure joist hanger through cedar in to 2x6 blocking
  Attach one 2x6 to joist hanger (using Lumber Loc screws & bit provided)
  Attach second 2x6 to face for additional support
- Back 2x6 to fastened through cedar in to vertical studs (blocking not required)
- Back 2x6 support
  Secure to back wall (into wall studs)
- Double 2x6 @ front
  One on joist hanger
- 2x6 cross member 12” o.c.
Top L-Bench

Top L Bench Metal bracket (by others)
To be secured to wall stud framing.
Extend past cedar face approx. 19”

Bottom L-Bench

A metal bracket may not be suitable for 3’ span
You may need to consider cedar post or support
or build part front wall below bench line to add
wood blocking and wall joists
Jamb Extension Detail

Cedar framed Door (where required)

Exterior Casing (By others)

Cedar Lining

Interior Casing

Where stud wall is thicker than standard; i.e. 2x6 studs. 1x2 or 1x3 for jamb extension.
Secure jamb extension to jamb so that it extends flush with inside cedar lining of sauna.
Install inside casing to conceal the gap at the jamb.

Frameless Glass Door

Exterior finish & Casing (By others)

Cedar Lining

Interior Casing

For Frameless door jamb, nail jamb extension to stud.
Trim so its flush to inside cedar lining.
Use 1x2 or 1x3 for jamb extension.