FLAT-PACK STEEL FURNITURE

SPECIFICATION SHEET

Bench 01

Two powder-coated steel legs. Seven 2x4s from your local lumber yard. Up to 8 ft long, seats five.

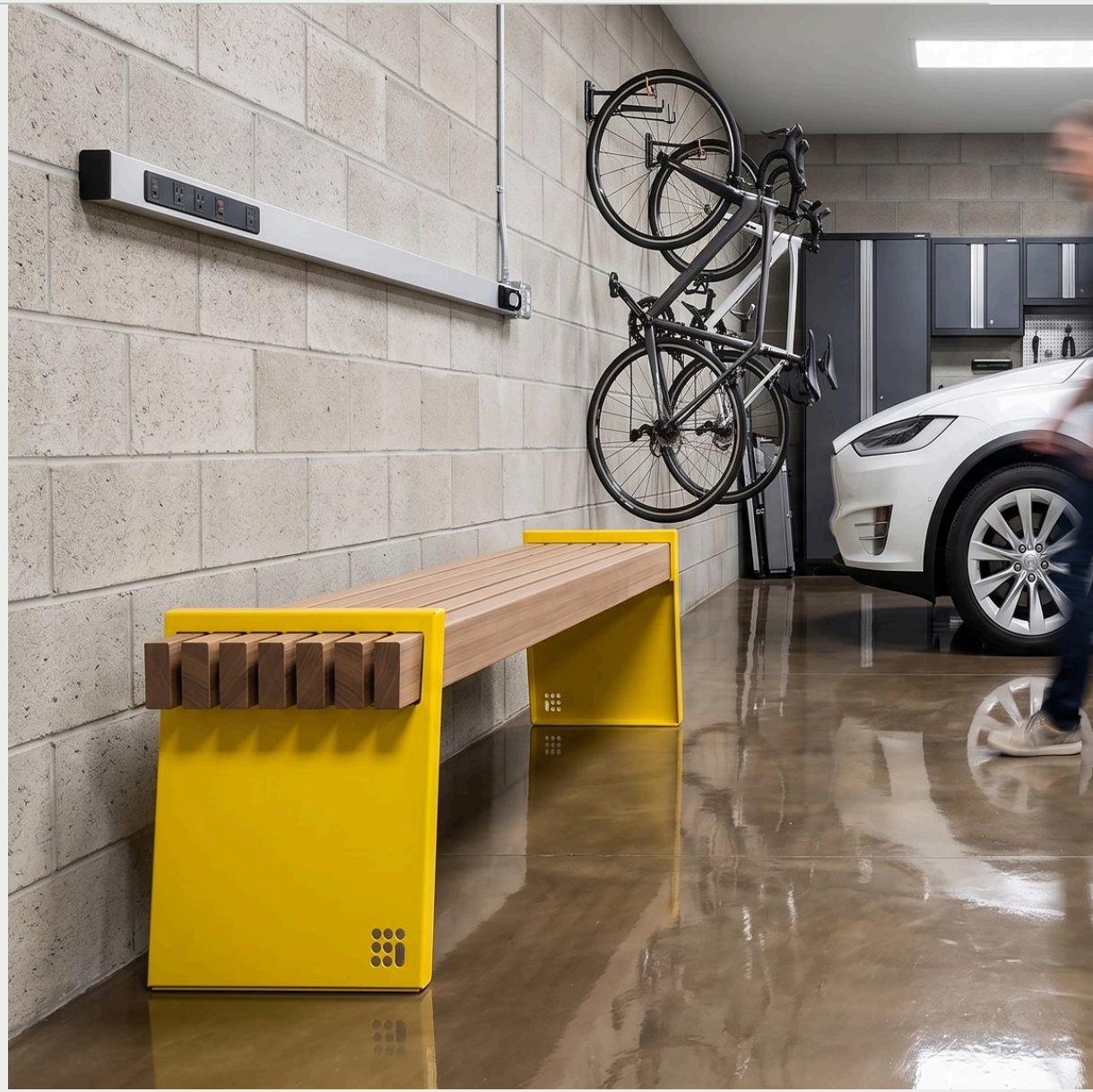
tall order

Edition one
October 2026

Seven boards, two legs

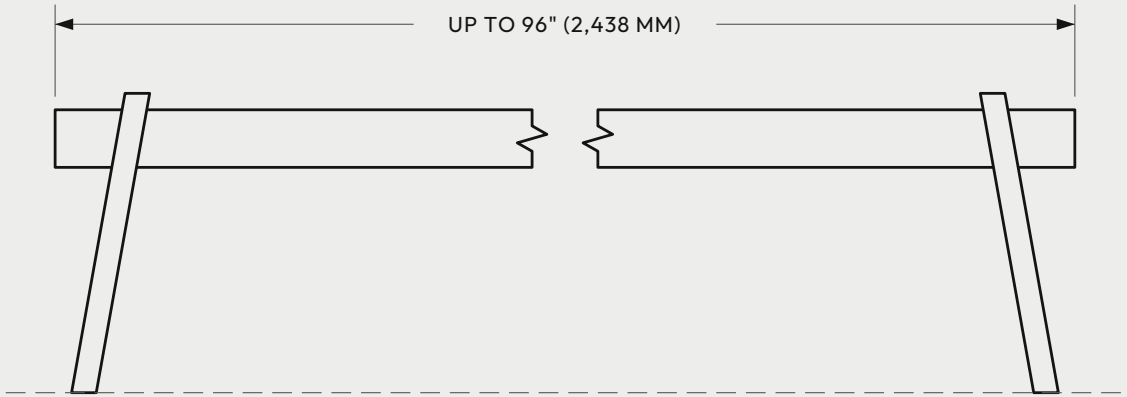
We make the steel legs. You buy seven 2x4s, cut them to length and slide them through.

Height	18.2", 462 mm
Seat height	17.2", 437 mm
Length	Up to 96", 2,438 mm
Depth	15", 381 mm
Seats	Up to 5 adults on an 8 ft bench
Weight capacity	1,000 lb (454 kg), spread along the seat
In the box	2 steel legs, 11 ga (3 mm) laser-cut, powder coated
You add	7 boards, 2x4, bought locally, and 14 wood screws. Optional: 1/4-20 leveling feet
Build time	About 20 minutes with a mitre saw, an hour by hand
Finishes	9 powder colours

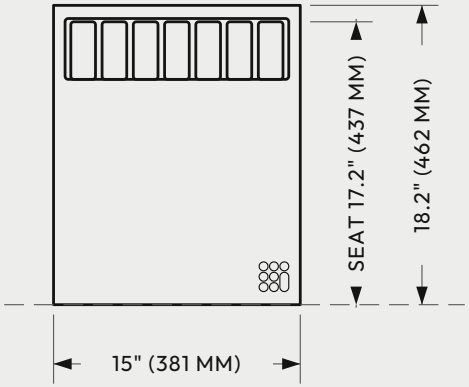


Gloss Yellow, pine boards

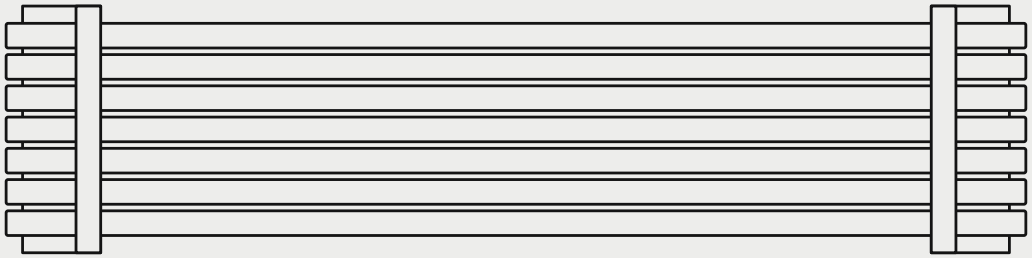
Front, top and side



FRONT



SIDE



TOP

Length is set by your boards, up to 96" with 8 ft boards. A 6 ft bench is 72", 1,829 mm.

Height is 18.2" to the top of the legs. Seat height, at the top of the boards, is 17.2".

Depth is 15" at the legs. Boards sit inside that width.

What to buy

Seven standard 2x4s from any lumber yard or home centre. Pick the straightest boards in the stack.

> **8 ft maximum.** Longer boards are not supported. Rough-sawn lumber is oversized and will not fit the legs.

Also buy

- Sandpaper, 120 and 180 grit. One sheet of each
- Wood finish, if you want one. See Cut, sand, finish
- Optional: 1/4-20 threaded leveling feet

Tools

A mitre saw, circular saw, or hand saw and square. Tape measure. A clamp for the stop block. Drill/driver or screwdriver, plus a drill bit for pilot holes.

No saw? Most lumber yards and home centres will cut boards for you. Ask for all seven at the same length.

Quantity	7 boards
Size	2x4, surfaced four sides. Actual size 1.5" × 3.5", 38 × 89 mm
Wood	Pine, SPF (spruce-pine-fir) or cedar. Hardwood such as oak or walnut also works. For outdoor use, cedar or pine with an exterior oil or clear coat is recommended
Grade	#2 or better. Straight, with no cracks, splits or large knots
Length	Up to 8 ft. Cut all seven to the same length
Fit	Boards stand on edge, 3.5" tall, and slide through both legs
Screws, softwood	14 × 2" coarse-thread wood screws for pine, SPF and cedar
Screws, hardwood	14 × 1.5" fine-thread wood screws. Drill pilot holes first

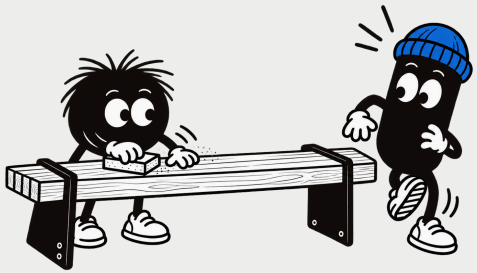
Prepare the boards

Cut

- Pick your length, up to 8 ft. A 4 ft bench seats two, 5 ft seats three, 6 ft makes a hallway bench, 8 ft seats five
- Clamp a stop block where the board ends, then cut all seven against it. Measure once
- Stack the boards and line up one end. Trim any that run long
- Board ends show past the steel on the finished bench, so cut them cleanly

Sand

Sand edges, faces and cut ends with 120 grit, then 180 grit. You are taking off sharp edges and splinters, not chasing perfection. Do it before assembly, while every surface is easy to reach.



Finish

Finish before assembly and let it dry or cure as the maker directs. Not sure? Oil is a good start indoors. Outdoors, use an exterior oil and reapply now and then, or an exterior-rated clear coat.

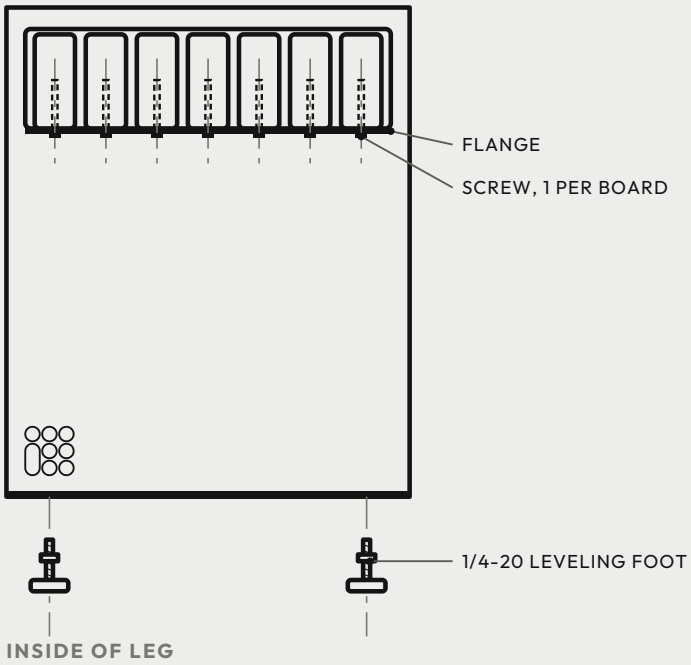
Finish	Looks like	Effort	Good for	Fixing it later
Raw	Pale and natural. Changes with age and use	None	Dry indoor spaces, if you don't mind marks and natural ageing	Sand it and start over whenever you like
Oil	Brings out the grain. Warm and slightly richer	Apply as directed, often several coats	Everyday indoor use. Exterior oils work outdoors with occasional reapplication	Clean and reapply as directed
Wax	Close to raw, with a soft sheen	Apply and buff as directed	Light indoor use in dry spaces	Apply more wax
Clear coat	Lacquer or poly over the wood. Matte, satin or gloss	Several coats plus drying time	Spills and high traffic. Exterior-rated for outdoors	Damaged areas may need sanding and refinishing

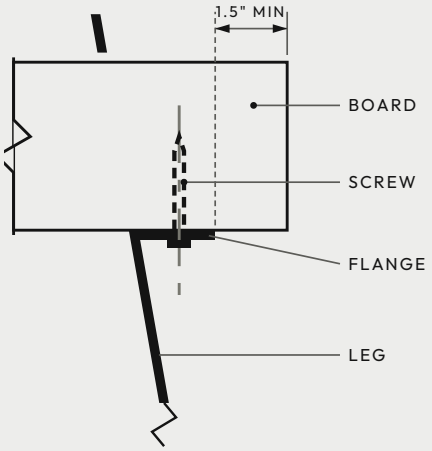
Put it together

No glue, jigs or clamps. Pilot holes are recommended, and required for hardwood. Snug the screws; do not overtighten.

1. Lay all seven boards parallel on a table, about 1/2" apart, with almost a foot hanging off the edge.
2. Hold a leg upside down. Angle it inward and slide it over the board ends.
3. Tilt the leg outward, gently guiding each board between the alignment fingers in the steel.
4. The leg comes to rest on the seven boards and stands on its own.
5. Check that the board ends are flush and stick out at least 1.5" past the mounting flange. Drive one screw through the flange into each board.
6. Spin the bench 180 degrees and repeat for the second leg, so all 14 screws are in.
7. Turn the bench onto its legs, check every screw, then sit on it. Check the screws again after the first few uses.

Leveling feet. The legs accept 1/4-20 threaded leveling feet, sold separately.





DETAIL, 2X

You built a bench.

Made for sitting

Holds up to 1,000 lb (454 kg) spread along the seat. That is five adults on an 8 ft bench.

Safety

- For sitting only. Do not stand, jump or climb on the bench
- Do not exceed 1,000 lb, and do not use boards longer than 8 ft
- Set it on a firm, level floor
- Check the boards from time to time. Replace any that crack, split or warp
- Supervise children

Steel legs

Wipe with mild soap and water. No solvents or abrasive pads. Touch up any chip promptly: bare steel under a chip will rust and spread beneath the coating.

Boards

Refresh your finish as it wears, as described under Cut, sand, finish. Outdoors, reapply exterior oil or touch up the clear coat as it wears.

Screws

Wood moves with the seasons. Check the screws now and then and snug up any that have loosened.

Outdoors

The legs can live outside. Keep the feet out of standing water and touch up chips before they rust.

Nine powder colours

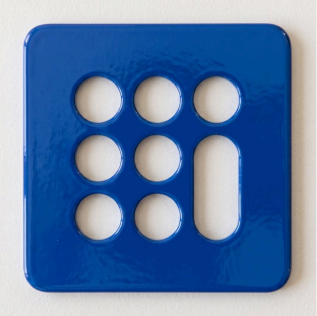
Every leg is powder coated after cutting, edges included.

Coating	Powder coat, applied after laser cutting
Coverage	All faces and cut edges, including the mark
Thickness	.002" to .005" (2 to 5 mil) per side
Powders	Tiger Drylac and Cardinal
Gloss	20% matte to 90% gloss, by colour
Durability	Resists impact, chemicals, UV and weather

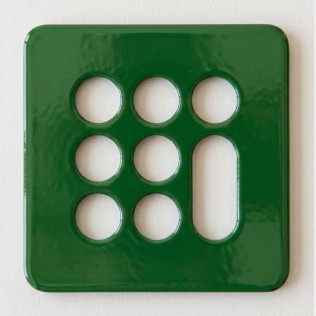
Textured Black
Textured, 50% gloss
Tiger Drylac 059/81073

Textured Gray
Textured
Tiger Drylac 138/90030

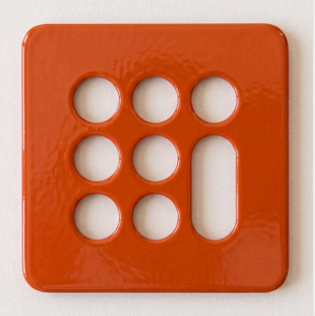
Matte White
Matte, 20% gloss
Cardinal T002 WH08



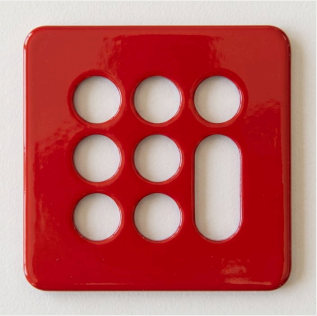
Gloss Blue
Gloss, 90%
Tiger Drylac 149/42280, RAL 5010



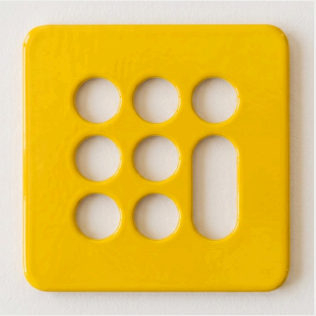
Gloss Green
Gloss, 90%
Tiger Drylac 149/52900, RAL 6001



Safety Orange
Gloss, 90%
Tiger Drylac 139/20010



Gloss Red
Gloss, 90%
Cardinal T009-RD03, RAL 3002



Gloss Yellow
Gloss, 90%
Cardinal T009-TL01, RAL 1018

Bronze
Satin, 25% gloss
Tiger Drylac 061/68002