NON-LOAD-BEARING INTERIOR STEEL STUD FRAMING

18 mil C-studs for interior partitions, furring, ceilings and bulkheads



PRODUCT 01 · FRAMING SOLUTION

Cold-formed 18 mil (25 ga reference) steel C-studs for interior walls that carry no axial load. The studs stand in matching floor and ceiling track and are finished with gypsum board on one or both faces. Light and easy to cut and screw.

- Four web widths: 1-5/8", 2-1/2", 3-5/8" and 6"
- 1-1/4" embossed flanges with a mid-flange rib and 3/16" lips
- Stiffening groove along the web
- Keyhole service knockouts on the web centreline
- Lengths 8', 9', 10' and 12'; other lengths on request
- Fit our 18 mil standard, deep-leg and slotted track of the same width
- Hot-dip galvanized G40 steel for interior service

WEB WIDTHS	STUD FLANGE	STUD LIP	THICKNESS	MIN. YIELD	COATING
1-5/8" – 6"	1-1/4" · 31.8 mm	3/16" · 4.8 mm	18 mil · 0.018"	33 ksi · 230 MPa	G40 · Z120

1 WHERE IT IS USED

- Interior partitions and demising walls finished with gypsum board
- Furring and liner walls against concrete or masonry
- Bulkheads, soffits, drops and ceiling framing
- Chase walls and pipe or duct enclosures
- Fire-rated and acoustic wall assemblies, when the listed design calls for 18 mil studs

NOT FOR

Axial loads, exterior walls, curtain walls under wind load, or walls holding heavy finishes. Use structural studs, 33 mil and up (Product 02).

2 PART NUMBER

362	S	125	-18
WEB DEPTH	MEMBER	FLANGE / LEG	THICKNESS
1/100 in · 362 = 3-5/8"	S = stud · T = track	1/100 in · 125 = 1-1/4"	mils · 18 = 0.018" min.

The industry four-part designator: web depth and flange (or leg) width in 1/100 inch, the member type, and minimum base-steel thickness in 1/1000 inch (mils). Order by part number, length and quantity.

3 MATERIAL

PROPERTY	VALUE
Steel	Sheet steel to ASTM A1003/A1003M
Min. base-steel thickness	0.018" · 0.455 mm
Design thickness	0.0188" · 0.478 mm
Min. yield strength	33 ksi · 230 MPa
Coating	G40 (Z120) hot-dip zinc, ASTM A653/A653M
Member standard	ASTM C645, non-structural framing
Gauge reference	25 ga · no colour code

Thickness is the minimum base steel, without coating. Gauge numbers are a reference only; specify by mils. General information only: see the Important notice on page 5.

STEEL
Steel is a non-combustible material

DIMENSIONALLY STABLE
Steel does not rot, shrink or split

LIGHT
A 10' 362S125-18 stud weighs roughly 4 lb

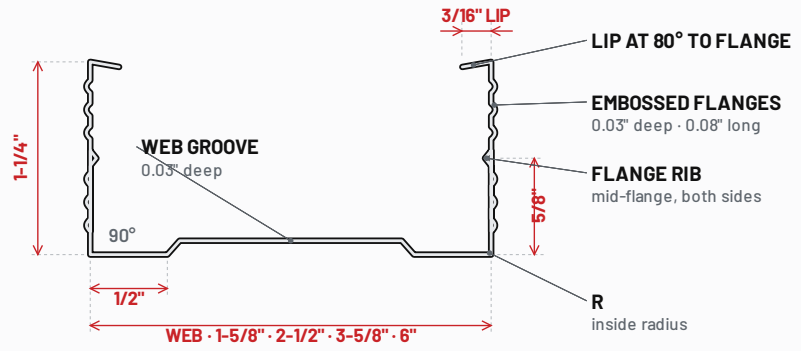
RECYCLABLE
Offcuts and scrap steel can be recycled

DIMENSIONS & PART NUMBERS

4 stud sizes · 18 mil · 1-1/4" flange

4 STUD PROFILE

SATURN 18 MIL C-STUD · S125



AT A GLANCE

SECTION	C-stud, lips at 80°
WIDTHS	1-5/8" · 2-1/2" · 3-5/8" · 6"
FLANGE	1-1/4" · 31.8 mm
LIP	3/16" · 4.8 mm
THICKNESS	0.018" min. · 0.0188" design
FLANGES	Embossed, mid-flange rib
WEB	Stiffening groove, keyhole knockouts
COLOUR CODE	None (18 mil)
LENGTHS	8' · 9' · 10' · 12'

Section not to scale; groove depth drawn larger for clarity. Web width and flange are outside dimensions.

5 STUDS

PART NO.	WEB	WEB, MM	FLANGE	LIP	LB/FT	KG/M	LENGTHS
162S125-18	1-5/8"	41.3	1-1/4"	3/16"	.273	.406	8' · 9' · 10' · 12'
250S125-18	2-1/2"	63.5	1-1/4"	3/16"	.329	.489	8' · 9' · 10' · 12'
362S125-18	3-5/8"	92.1	1-1/4"	3/16"	.401	.596	8' · 9' · 10' · 12'
600S125-18	6"	152.4	1-1/4"	3/16"	.553	.822	8' · 9' · 10' · 12'

6 TRACK TO USE WITH EACH STUD

STUD	STANDARD TRACK · 1-1/4" LEG	DEEP-LEG · 2"	DEEP-LEG · 3"	SLOTTED TRACK
162S125-18	162T125-18	162T200-18	–	–
250S125-18	250T125-18	250T200-18	250T300-18	250ST250-18
362S125-18	362T125-18	362T200-18	362T300-18	362ST250-18
600S125-18	600T125-18	600T200-18	600T300-18	600ST250-18

Track takes a stud of the same width. Tracks have their own data sheet (Product 04); slotted track, Product 05.

ORDERING

Give part number, length and quantity, e.g. **362S125-18 × 10'-0"**. Other lengths on request.

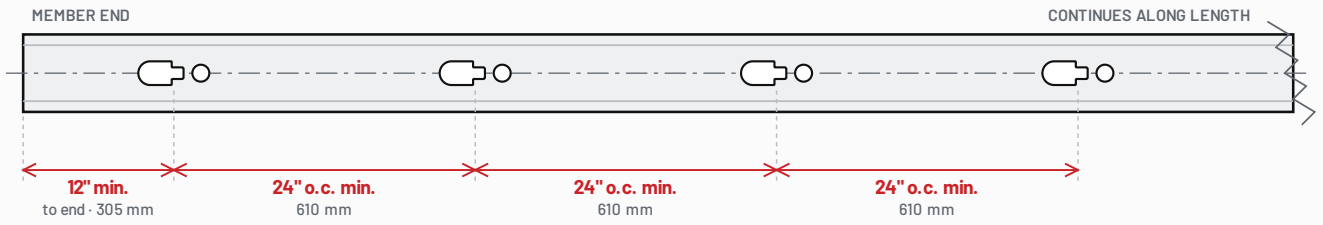
NEED MORE STRENGTH?

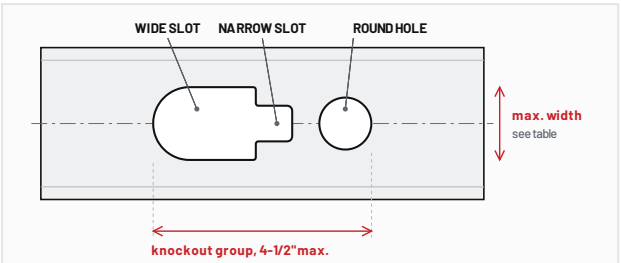
Studs from 33 mil (20 ga reference) with 1-1/4" to 3" flanges: Product 02, Load-bearing stud framing system.

KNOCKOUTS, WEIGHTS & ORDERING

Reference data for estimating and ordering

7 SERVICE KNOCKOUTS





TYPICAL INDUSTRY LIMITS FOR WEB KNOCKOUTS

STUD	MAX. WIDTH	MAX. GROUP LENGTH
1-5/8"	13/16" · 20.6 mm	4-1/2" · 114 mm
2-1/2"	1-1/4" · 31.8 mm	4-1/2" · 114 mm
3-5/8"	1-1/2" · 38.1 mm	4-1/2" · 114 mm
6"	1-1/2" · 38.1 mm	4-1/2" · 114 mm

Each knockout is a wide slot with a round end, a narrower slot, and a separate round hole, all on the web centreline. The slots take bridging and carrying channel, conduit and pipe; the round hole takes wiring through a grommet. The table shows the usual industry limits for knockout size and spacing; exact dimensions of our knockouts are available on request. Shape shown is typical and not to scale.

8 APPROX. WEIGHT PER STUD, LB

STUD	8'	9'	10'	12'
162S125-18	2.2	2.5	2.7	3.3
250S125-18	2.6	3.0	3.3	3.9
362S125-18	3.2	3.6	4.0	4.8
600S125-18	4.4	5.0	5.5	6.6

9 APPROX. WEIGHT PER STUD, KG

STUD	8'	9'	10'	12'
162S125-18	1.0	1.1	1.2	1.5
250S125-18	1.2	1.3	1.5	1.8
362S125-18	1.5	1.6	1.8	2.2
600S125-18	2.0	2.3	2.5	3.0

Approximate weights, calculated from nominal dimensions for the base steel only. Actual weights vary with thickness tolerance, coating and knockouts. For handling and shipping estimates only, not for design.

10 BEFORE YOU ORDER: CHECKLIST

- Wall height, floor to structure above
- Stud width for wall thickness and services
- Stud spacing: 12", 16" or 24" o.c.
- Finish and deflection limit (L/120, L/240, L/360)
- Lateral load from the code or the designer
- Board on one face or both
- Head of wall: fixed, deep-leg or slotted track
- Fire or STC assembly the wall must match
- Openings, jambs and backing locations
- Lengths and quantities from the takeoff

STRUCTURAL DESIGN DATA

This data sheet does not give section properties, limiting heights or other design values. Where the project needs them, the design professional should use engineered data for the specific product and confirm the selection. Contact us about available technical data.

DESIGN & SELECTION

General selection guidance for design professionals and installers

11 SELECTION BASICS

Pick the web width for the wall thickness and services, then check that the wall height is within the limiting height for the stud, spacing, lateral load and deflection limit. Limiting height is the tallest wall at which the stud stays within both its strength and its allowed deflection.

FINISH ON THE WALL	TYPICAL DEFLECTION LIMIT
Flexible finishes, no board	L/120
Gypsum board	L/240
Veneer plaster, ceramic tile	L/360
Stone, brick, heavy finishes	Use structural studs

L = stud span. L/240 on a 10' wall allows 1/2" of mid-height bow under the design load. Limits shown are common practice only; the building code, project specification and design professional govern.

LATERAL LOAD

Interior partitions are commonly checked at 5 psf (0.24 kPa). Corridors, lobbies, stairs and walls near large openings or pressurized spaces may need more; the building code and the designer decide.

ONE FACE OR TWO

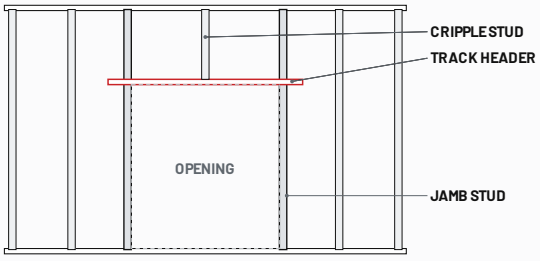
Height tables for interior steel studs usually count on board screwed to both flanges, working with the stud. Walls boarded on one face only, or parts that run bare above a ceiling, need values for the stud alone, which are lower.

Limiting heights: contact us about available technical data. Stud selection for each wall rests with the project's design professional.

12 HEAVIER STUDS MAY BE NEEDED

- The wall is taller than the 18 mil limiting height
- Ceramic tile, stone or other heavy or brittle finishes
- Door jambs, especially heavy, solid-core or frequently used doors
- Walls carrying shelving, cabinets, TVs, handrails or grab bars
- Exterior walls, wind load or any axial load
- High-impact areas such as corridors, gyms and service rooms

13 OPENINGS & BACKING



Jambs are usually heavier or doubled studs. The header is a length of track with its flanges cut and bent down over the jambs, and cripple studs above it at the wall spacing. Wall-hung items need backing, such as steel plate, strap or blocking fixed across the studs, set before the board goes on; do not hang loads from the thin flange alone.

14 SPLICES & SERVICES

Splice studs only where the design professional permits, and as detailed. Run pipes and cable through the knockouts, with grommets or sleeves where wiring passes through steel; never cut the flanges or lips.

FIRE & SOUND

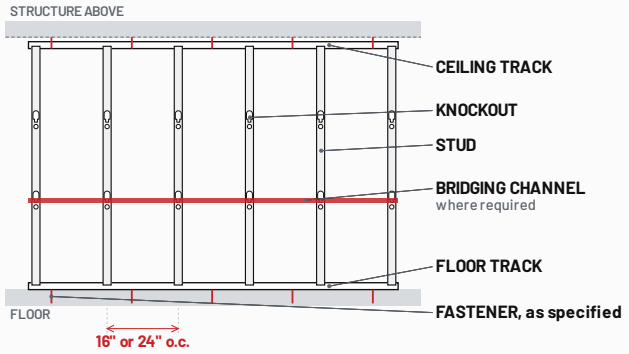
A fire-resistance rating (CAN/ULC-S101, ASTM E119) or STC rating (ASTM E90, E413) belongs to the whole tested or listed assembly, not to the stud. Match stud width, thickness and spacing, board type and layers, screws, insulation and sealant to the listed design, such as the tables of the National Building Code of Canada or a ULC or UL listing.

Specification guide · Section 09 22 16: Non-load-bearing steel C-studs to ASTM C645, 18 mil (0.018" minimum base steel), 33 ksi, G40 coating to ASTM A653, sizes as shown on the drawings, with matching 18 mil track; Saturn Metal DS-01.
Certification: our cold-formed framing members are product certified by CISC to CSSBI 61:24. Certification covers only the members named in our current Product Scope Listing; confirm the status of a specific member with us before relying on it.

INSTALLATION, SYSTEM & STANDARDS

How the parts go together, and the standards referenced

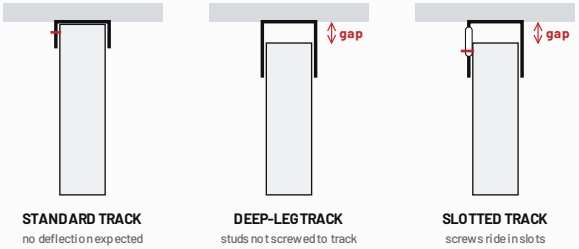
15 TYPICAL INSTALLATION



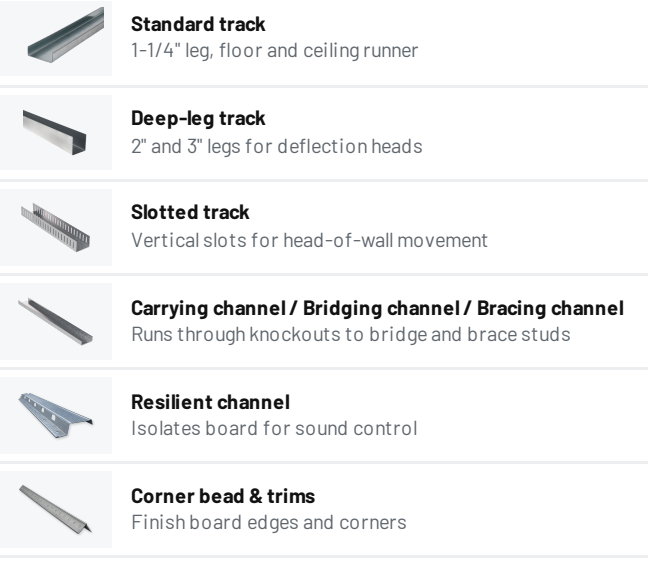
1. Lay out the wall. Fix floor and ceiling track with fasteners suited to the base, at the spacing the project requires (commonly 24" o.c. maximum) and near each end.
2. Stand studs in the tracks at the design spacing, usually 16" or 24" o.c., with knockouts lined up. Keep the open side of all studs facing the same way.
3. Screw each stud flange to the track on both faces, unless the head must allow deflection.
4. Where the slab above deflects, use deep-leg or slotted track and leave the gap the design requires.
5. Frame openings, backing and bridging as designed, then apply board with Type S screws (ASTM C1002) as ASTM C840 and the project documents require.

General information only, not installation instructions. Install to ASTM C754 and C840, the project drawings and specifications, any listed fire or acoustic assembly, and applicable codes.

16 HEAD OF WALL



17 SYSTEM PARTS



Standard track
1-1/4" leg, floor and ceiling runner

Deep-leg track
2" and 3" legs for deflection heads

Slotted track
Vertical slots for head-of-wall movement

Carrying channel / Bridging channel / Bracing channel
Runs through knockouts to bridge and brace studs

Resilient channel
Isolates board for sound control

Corner bead & trims
Finish board edges and corners

18 STANDARDS

- ASTM C645 · non-structural members
- ASTM A1003 · A653 · steel & coating
- ASTM C754 · C840 · installation
- ASTM C1002 · drywall screws
- CSA S136 · cold-formed steel design
- CAN/ULC-S101 · ASTM E119 · fire
- ASTM E90 · E413 · sound (STC)

19 TYPICAL SCREWS

- Stud to track: #8 pan or wafer head, 1/2", sharp point
- Board to stud: Type S #6 bugle head, fine thread
- Penetration through the steel per ASTM C754 / C840
- Follow the screw maker's data and the project documents

20 STORAGE

Store bundles dry, off the ground and under ventilated cover to prevent wet-storage stain. Edges are sharp: use gloves and appropriate PPE. Do not drop or walk on bundles.

IMPORTANT NOTICE

This data sheet gives general product information only. It is not engineering, design or installation advice. A qualified design professional must review every application, and the building code and project documents always govern. Drawings are schematic and not to scale; dimensions are nominal and subject to standard tolerances. Values marked typical or approximate are for reference only. Standards are referenced by name for identification; always use the edition required by the governing code. Saturn Metal may change products and information without notice; confirm current data before ordering or specifying. Warranties and remedies, if any, are only those in Saturn Metal's written terms of sale. Product names of standards bodies and certification programs belong to their owners. Saturn Metal is a manufacturer and/or supplier of metal products; this data sheet does not mean that the product shown is manufactured by Saturn Metal. © Saturn Metal