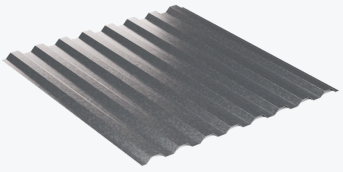
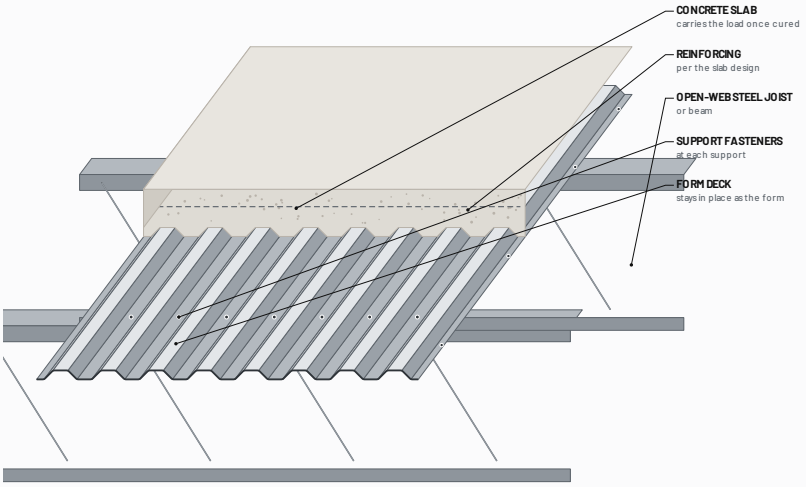
FORM DECK

Corrugated galvanized steel permanent form for concrete slabs and toppings · 9/16" × 3" · 36" and 30" cover



FORM DECK
F9-36 · 9/16" × 3" · 36" cover shown



PRODUCT 29 · STEEL ROOF DECK & FLOOR DECK

Saturn Metal form deck is a **shallow corrugated galvanized sheet** that stays in place as a **permanent form** under a concrete slab or topping. It carries the wet concrete and the crew across short spans between joists or beams, so there is no formwork to build and strip. Once the concrete cures, the **reinforced slab carries the load on its own**: the deck is a form, not reinforcement. Light to handle, quick to lay, in 36" or 30" cover widths.

- Replaces removable formwork on short spans
- 9/16" deep corrugation, 3" pitch; 26, 24 and 22 gauge
- 36" and 30" cover widths, cut to the length ordered
- G90 galvanized; painted underside on request

DEPTH	PITCH	COVER	GAUGES	FINISH	SPANS
9/16"	3"	36" · 30"	26 · 24 · 22	G90 galvanized	About 2' to 5'-6"

1 FOUR NAMES, ONE PRODUCT

Form deck
Our product name: a steel form that stays under the concrete.

Concrete form deck
The name on drawings: it forms the slab and is not counted as reinforcement.

Corrugated deck
Names the shape: a shallow, regular corrugation.

Permanent form
Says what it does: formwork that is never stripped.

2 THE PARTS OF THE DECK

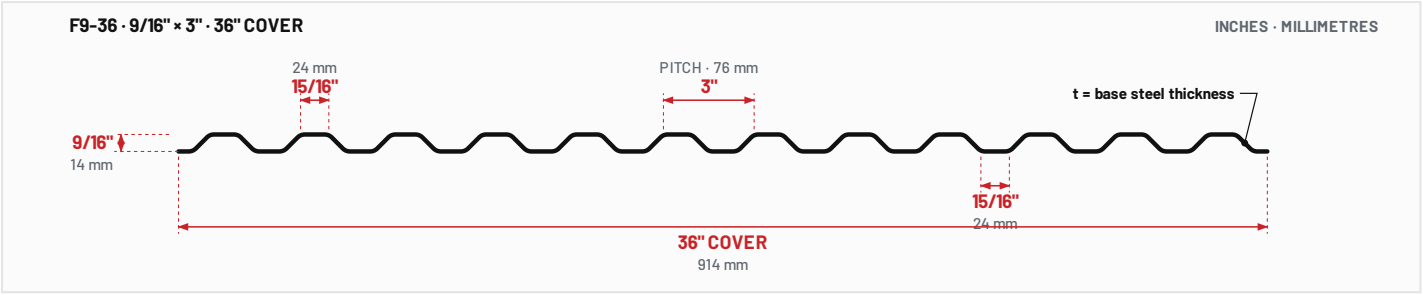
1. **Corrugations.** a 9/16" deep, 3" pitch wave across the sheet
2. **Crests and valleys.** equal flats top and bottom; the valleys bear on the supports
3. **Plain edges.** sheets nest one corrugation over the next
4. **Galvanized steel.** G90 zinc coating; painted underside on request

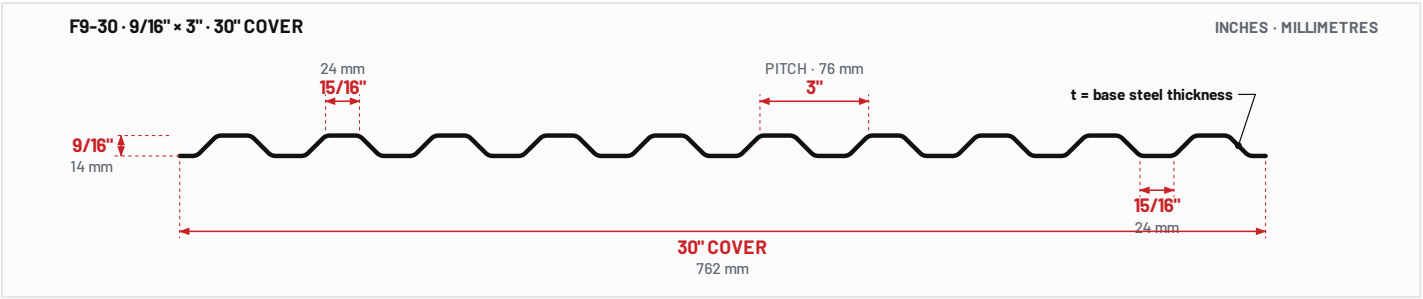
PERMANENT FORM	SHORT SPANS	LIGHT	TWO COVERS
Never stripped	About 2' to 5'-6"	Under 1-1/2 psf	36" and 30"

PROFILE & SPECIFICATIONS

Dimensioned sections, steel, gauges, finishes, weights and section properties

3 THE PROFILE, TWO COVERS





PROFILE	DEPTH	PITCH	COVER	CREST FLAT	VALLEY FLAT	CORRUGATIONS / SHEET	EDGES
F9-36	9/16" · 14 mm	3" · 76	36" · 914	15/16" · 24	15/16" · 24	12	Plain, nested one corrugation
F9-30	9/16" · 14 mm	3" · 76	30" · 762	15/16" · 24	15/16" · 24	10	Plain, nested one corrugation

4 SPECIFICATIONS

STEEL	Structural quality steel sheet, ASTM A653 / A653M, 33 ksi (230 MPa) minimum yield
GAUGES	26, 24, 22 (0.018", 0.024", 0.030" base steel)
FINISH	G90 (Z275) galvanized; prepainted underside on request
COVERS	36" (12 corrugations) and 30" (10 corrugations)
LENGTHS	Cut to the length ordered
EDGES	Plain; sheets nest one corrugation at the side lap
DESIGN	CSA S136 · non-composite form per CSSBI 12M · load tables as published for the deck product

5 WEIGHT PER SQUARE FOOT

GAUGE	BASE STEEL	WEIGHT, G90
26	0.018" · 0.46 mm	0.91 psf · 4.4 kg/m^2
24	0.024" · 0.61 mm	1.19 psf · 5.8 kg/m^2
22	0.030" · 0.76 mm	1.46 psf · 7.1 kg/m^2

Calculated from the nominal profile with G90 zinc.

6 NOMINAL GROSS SECTION PROPERTIES, PER FOOT (METRE) OF WIDTH

GAUGE	A IN^2/FT	I IN^4/FT	S IN^3/FT	A MM^2/M	I MM^4/M ×10^3	S MM^3/M ×10^3
26 · 0.018"	0.248	0.0128	0.0455	524	17	2.45
24 · 0.024"	0.330	0.0167	0.0592	697	23	3.18
22 · 0.030"	0.411	0.0203	0.0723	870	28	3.89

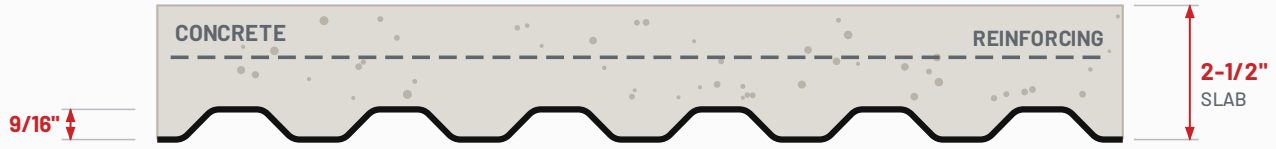
Gross values from the nominal profile; design properties and load tables for the deck product on your order come with the quotation.

+1 (416) 746-8000 · Sales@SaturnMetal.ca · www.SaturnMetal.ca

HOW IT WORKS & SPECIFYING

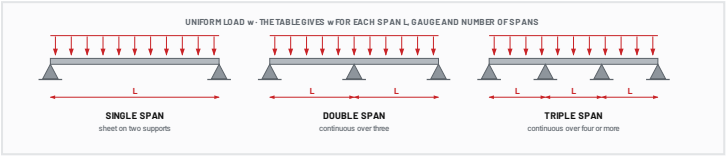
A permanent form: the pour, the slab, spans, slab weights, a specification guide and standards

7 THE SLAB, IN SECTION



NON-COMPOSITE · THE SLAB IS DESIGNED TO CARRY THE LOAD; THE DECK IS THE FORM

8 SPANS



Load tables for form deck run from about 2' to 5'-6" between supports, single, double and triple span, for each gauge: the uniform load of wet concrete and construction load the sheet carries at the deflection limit. Pick the gauge from the span and slab depth; shore at midspan where the table requires.

9 SLAB WEIGHT AND CONCRETE, NORMAL-WEIGHT CONCRETE

OVERALL SLAB	PSF	KPA	$YD^3/100\ FT^2$	$M^3/10\ M^2$
2" · 51 mm	23	1.09	0.53	0.44
2-1/2" · 64 mm	29	1.38	0.68	0.56
3" · 76 mm	35	1.68	0.84	0.69
3-1/2" · 89 mm	41	1.98	0.99	0.82
4" · 102 mm	48	2.28	1.15	0.94
5" · 127 mm	60	2.88	1.46	1.20

Overall depth from the bottom of the corrugation; concrete at 150 pcf plus 24 gauge deck. Before waste and ponding.

10 DESIGN NOTES

The form

During the pour the deck alone carries the wet concrete, the reinforcing and a construction load of about 20 psf (1 kPa). The tables give the spans for each gauge and slab depth; shore where the span is longer.

The slab

After curing the reinforced slab carries everything, spanning the supports with the deck as a lost form. Bars or mesh per the slab design.

Deflection

Form deck deflects more than deeper deck; the tables limit it so the slab does not pond. Allow for extra concrete on long spans.

Where it is not used

Where the deck must act with the concrete or carry the floor alone, use composite floor deck (DS-28).

11 SPECIFICATION GUIDE

Form deck: Saturn Metal F9 corrugated galvanized steel form deck, 9/16" deep × 3" pitch, [36"] [30"] cover, ASTM A653 / A653M 33 ksi, [26] [24] [22] gauge, G90 finish, lengths as scheduled, as a permanent non-composite form. Install with corrugations across supports, side laps nested, end laps on supports, fastened to supports and at side laps as shown; pour stops, closures and shoring as detailed.

12 STANDARDS

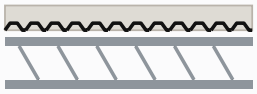
CSA S136	Design of cold-formed steel structural members
CSSBI 12M	Standard for composite steel deck (non-composite form)
ASTM A653	Steel sheet, zinc-coated (galvanized) or zinc-iron alloy-coated
CSA A23.1	Concrete materials and methods of construction

+1 (416) 746-8000 · Sales@SaturnMetal.ca · www.SaturnMetal.ca

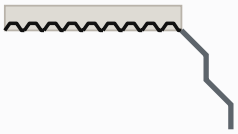
WHERE IT GOES & ON SITE

Slabs on joists, landings, toppings and roof fills; delivery, placing, fastening and the pour

13 WHERE IT GOES



SLABS ON STEEL JOISTS
short spans, thin slabs



STAIR LANDINGS
and small platforms



MEZZANINE TOPPINGS
concrete over a steel frame



ROOF SLABS & FILLS
light concrete roofs and fills

14 ON SITE

Delivery and storage

Bundles arrive banded by gauge, cover and length. Store off the ground, tilted to drain, under a ventilated cover; thin sheets dent easily, so keep them flat and do not walk on bundles.

Placing

Lay the sheets with the corrugations across the supports, starting at one end. Nest the side laps one corrugation and keep every end lap on a support with the bearing the tables assume.

Fastening

Screws or powder-actuated pins through the valleys to every support, and side-lap screws between supports, at the spacing the design shows. Fasten each sheet before the next.

Before the pour

Fit pour stops or edge forms at slab edges, closures at open corrugation ends, and shores where the tables call for them. Set the reinforcing on chairs.

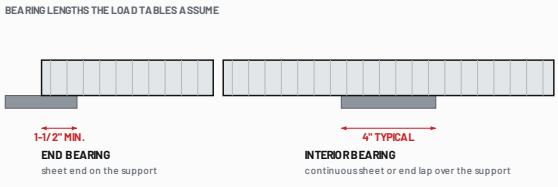
The pour

Place concrete evenly, never heaped; keep buggies and hoses on runways. Screed to the depth shown; on long spans allow for deflection.

Safety

Thin sheets are sharp and flex underfoot. Fasten before walking, keep bundles tied down in wind, and follow the site fall-protection plan.

15 BEARING



Load tables assume a minimum bearing at each support, commonly 1-1/2" at the ends and 4" at interior supports; less bearing needs a check by the designer.

16 DO & DON'T

DO	Keep corrugations across the supports and end laps on a support.
DO	Shore where the span exceeds the unshored limit in the table.
DON'T	Stack bundles, pallets or equipment on an unfastened or unshored deck.
DON'T	Count the deck as slab reinforcement unless the design says so.

ACCESSORIES, QUESTIONS & NOTICE

Pour stops, closures, edge angles, cover plates, ridge plates and sumps; common questions

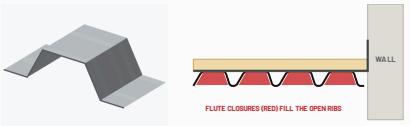
17 DECK ACCESSORIES

Galvanized accessories that close the form for the pour, cut to length. Fasteners and sealants by the decking and concrete trades, as the design shows.



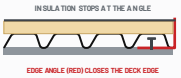
Pour stop

A galvanized angle, 20 to 12 gauge, fastened at the slab edge to hold the wet concrete; its vertical leg is the slab depth.



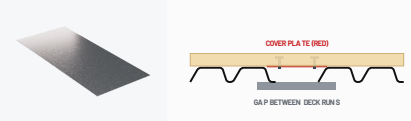
Flute closures

Metal or foam closures that fill the open ribs where the deck ends at a wall, parapet, curb or beam: they stop air, concrete, insulation and fire-stopping from passing through.



Edge angle

A galvanized angle along the deck edge that closes the ribs and gives the insulation or the slab edge a stop.



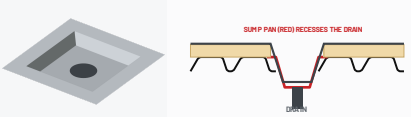
Cover plate

A flat galvanized strip that bridges the gap where deck runs meet, change direction or stop short at a beam.



Ridge & valley plate

A bent galvanized plate that covers the gap where the deck changes slope at a ridge or a valley, so insulation and membrane stay supported.



Sump pan

A recessed galvanized pan set into the deck at a roof drain, so the membrane slopes into the drain.

18 COMMON QUESTIONS

Form deck or composite deck?

Form deck when the slab is designed to carry the load on its own and spans are short. Composite deck (DS-28) when the deck is to act with the concrete.

Which gauge?

From the load table for the span and slab depth: 26 gauge for the shortest spans, 24 and 22 as spans and slabs grow.

36" or 30" cover?

Both are the same profile; 36" covers faster, 30" suits narrower bays and tighter layouts.

Do I need shoring?

Where the span exceeds what the sheet carries alone during the pour, as the table shows. One shore at midspan is usual.

Is the deck reinforcement?

No. The slab is reinforced to carry the loads; the deck is a permanent form unless the design states otherwise.

Painted underside?

On request, for an exposed underside; otherwise plain G90 galvanized.

Related: DS-03 cold-formed joists · DS-26 steel roof deck · DS-27 acoustic roof deck · DS-28 composite floor deck · DS-24 flat stock
Technical questions and quotes: +1 (416) 746-8000 · Sales@SaturnMetal.ca · www.SaturnMetal.ca

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. Deck gauge, span, shoring, fastening, bearing, slab depth, reinforcing and concrete must follow the structural design and the load tables published for the deck product on the order. Drawings are schematic and not to scale unless noted; dimensions are nominal and subject to standard tolerances. Values marked typical, approximate or commonly specified 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. Names of standards bodies belong to their owners. Saturn Metal is a metal products manufacturer and/or supplier; this sheet does not mean the product is manufactured by Saturn Metal. © Saturn Metal