

2WH-36 Hi Form™

COMPOSITE DECK

TECHNICAL MANUAL



Dependable
Steel





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1.1 General Information



General

1. 2WH-36 Hi Form® composite steel deck is manufactured from galvanized steel ASTM A653 SS grade 50 or bare steel ASTM A1008 SS grade 50.
2. The concrete slab depths noted in the tables are measured from the bottom of deck to the top of concrete.
3. Superimposed load is the load that can be applied to the composite deck in addition to the weight of the steel deck and concrete.
4. The vertical load span is the clear span between supporting members.
5. No uniform service load, based on an L/360 deflection limit, is shown when the load is greater than the allowable superimposed load.
6. Shoring spans are based on the requirements of ANSI/SDI C-2011 which includes the weight of the deck, concrete, and 1.00 kPa uniform construction load or 2.2 kN/m line load at mid span. The theoretical deflection is limited to L/180, but not to exceed 19mm.
7. For composite steel deck assemblies that exceed the scope of the table, the performance may be determined in accordance with ANSI/SDI C-2011.
 - a. For 2WH-36 Hi Form™, the embossment shape is Type II with an embossment factor, K = 1.0, reference Eq. A2-8 in ANSI/SDI C-2011.
8. Definition of symbols for composite deck

A_s	Area of reinforcing steel
I_{cr}	Cracked moment of inertia
I_u	Un-cracked moment of inertia
$(I_{cr} + I_u)/2$	Moment of inertia for determining deflection under service load
L	Vertical load clear span
M_{no}/Ω	Allowable flexural moment
V_n/Ω	Allowable vertical shear
ϕM_{no}	Factored flexural moment
ϕV_n	Factored vertical shear
ϕS_n	Factored diaphragm shear
PAF	Power actuated fastener
W/Ω	Allowable superimposed load
ϕW	Factored superimposed load

Concrete and minimum reinforcing

1. The minimum 28-day compressive strength for structural concrete must be 3,000 psi (20.68 MPa). The appropriate concrete density (normal weight or structural lightweight) is indicated in the tables.
2. The minimum reinforcing may be provided by reinforcing steel, welded wire fabric, or fibers in accordance with the following:
 - a. Minimum steel reinforcing shall be equal to 0.00075 times the area of the concrete above the steel deck but not less than 152mm x 152mm MW9 x MW9 welded wire fabric with a 414 mPa minimum tensile strength.
 - b. Concrete fibers in accordance with ANSI/SDI C-2011 section 13.a.1 or 13.a.2.

Diaphragm Shear of Composite Decks Attachment with Arc Spot Welds, Power Actuated Fasteners, or self drilling screws.

1. Deck attached to supports perpendicular to the flutes of the deck shall be per the pattern shown in the tables.
2. Deck attached to supports running parallel with the flutes shall be attached to transfer the shear between the deck and the supporting member using arc spot welds, power actuated fasteners, or self drilling screws.
 - a. Spacing of welds or fasteners transferring shear between the composite steel deck and supporting structures shall be based on the shear demand and the weld or fastener shear resistance.

fastener spacing (m) = weld or fastener capacity (kN) / shear demand (kN/m)
 - b. Resistance and safety factors for diaphragm shear, $\phi = 0.5$ and $\Omega = 3.25$ respectively.
 - c. Factored composite diaphragm shear may be converted to allowable diaphragm shears as follows by dividing the factored diaphragm shear by 1.625. $S_a = \phi S_u / (\phi \Omega)$
 - d. Spacing of welds or fasteners running parallel with the deck shall not exceed 914mm on center.
3. Welds and fasteners to the supports shall be as follows:
 - a. Welds
13mm effective diameter arc spot weld
6mm x 25mm effective arc seam weld

General Information 1.1

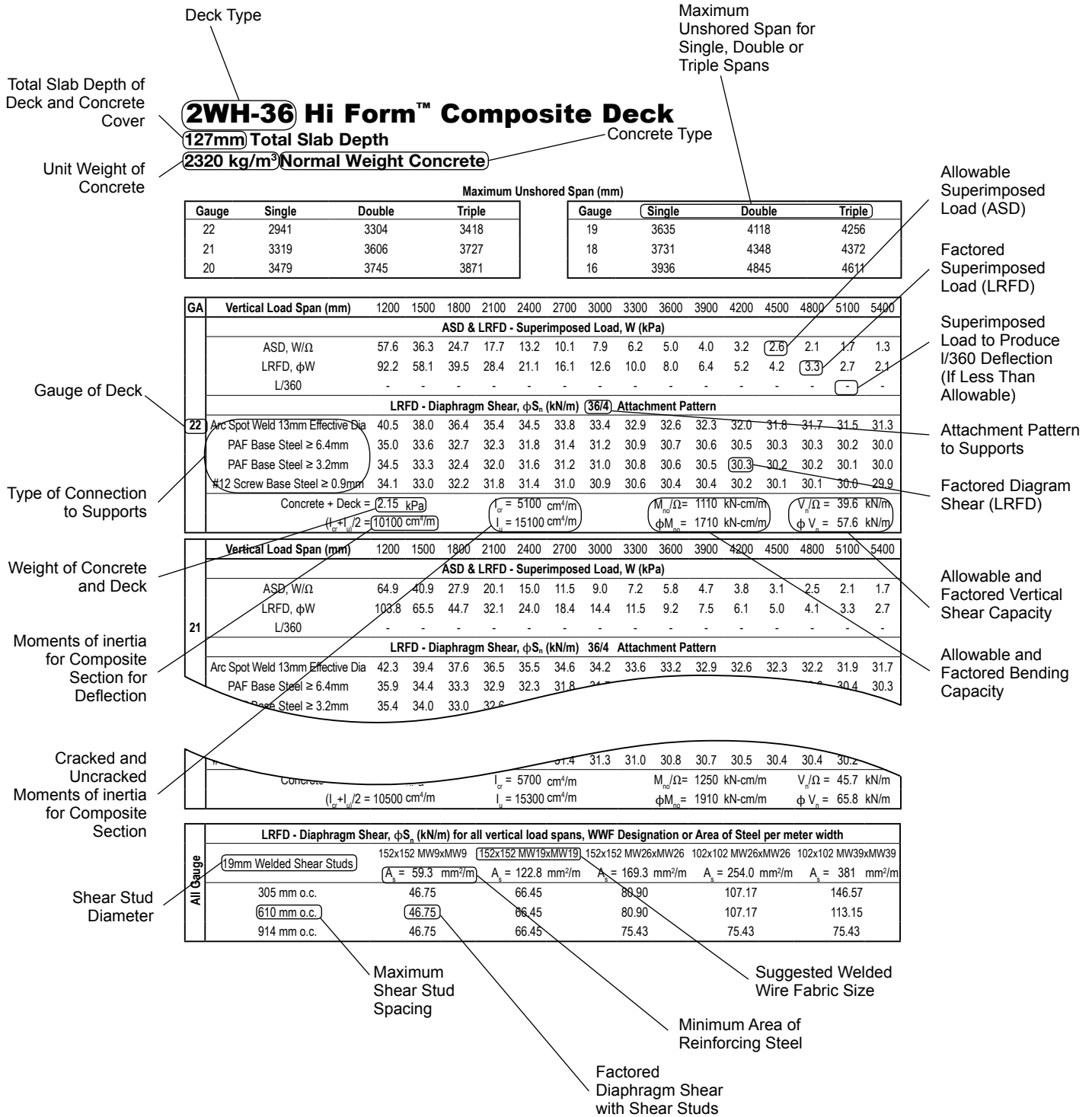


Figure 1.1: How to Read Composite Tables

1.1 General Information

- b. Power actuated fasteners in support steel \geq 6.3mm thick.
Hilti X-ENP19
Pneutek K64
Pneutek K66
- c. Power actuated fasteners in support steel \geq 3.2mm thick.
Hilti X-HSN24 & X-EDNK22
Pneutek K63
Pneutek K61
- d. Self drilling screws in support steel
 \geq 0.86mm thick
#12 Screw

- 7. The supporting member flange shall not be less than 7.6mm inches thick unless the welded stud shear connector is welded over the web of the supporting member. Reference AISC 360-10 I3.2d(6)
- 8. The maximum center-to-center spacing of welded stud shear connector shall not exceed 8 times the depth of concrete above the deck or 914mm per AISC 360-10 Section I3.2d(6).
- 9. Concrete reinforcement details shall be in accordance with ACI 318.
- 10. For local shear transfer in the field of the diaphragm, 19mm diameter welded stud shear connectors shall be determined in accordance with AISC 360-10.
- 11. The following shear capacities are for 51mm of concrete cover above the steel deck and may be used conservatively for all thicknesses greater than 51mm:

Side seam attachment between deck panels

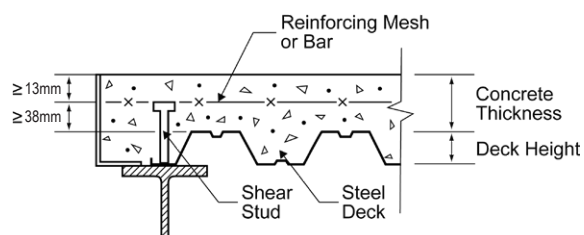
- 1. The minimum side seam attachment is a button punch at 914mm on center.
- 2. Arc top seam welds, or self drilling screws may be substituted on a one-to-one basis for button punches.

Diaphragm shear with welded shear studs

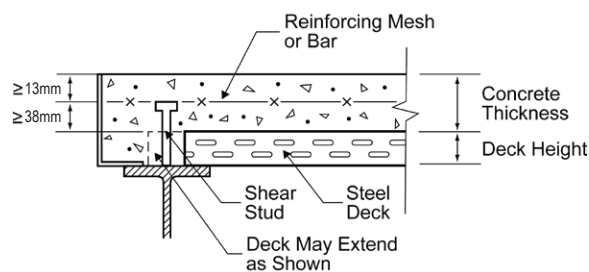
- 1. Concrete shear reinforcing steel must be provided that meets the minimum specified reinforcing area, A_s , in the table based on suggested welded wire reinforcing size. Reinforcing steel shall have minimum yield strength of 414 mPa and meet the requirements of ACI 318 for standard reinforcing bars or WRI standard welded wire reinforcement.
- 2. To achieve tabulated diaphragm shears, the welded stud shear connectors are only required at locations in which diaphragm shear is being transferred between the composite deck slab and supporting members. Intermediate support members may be attached with welds, screws, or PAF's (power actuated fasteners)
- 3. Intermediate ribs of the steel deck not attached with welded stud shear connectors shall be fastened to the supporting member with arc spot welds, self drilling screws or power actuated fasteners.
- 4. The welded stud shear connector strength assumes the weak position in the deck flute. Reference AISC 360-10 Commentary and Figure C-I3.4.
- 5. Tabular values for shear strength of concrete diaphragm above deck is in accordance with ACI 318 based on a resistance factor $\phi = 0.75$. See ACI 318 section 9.3.4 for additional requirements to be considered in seismic design.
- 6. The welded stud shear connector must extend 38mm above the top of the steel deck and must have a minimum of 13mm concrete cover above the top of the installed welded stud shear connector. Reference AISC 360-10 Section I3.2c(b).

Concrete Type	Shear Capacity	
	Allowable	Factored
2320 kg/m ³ Normal Weight Concrete	45.8 kN	68.9 kN

12. See figures below for typical details



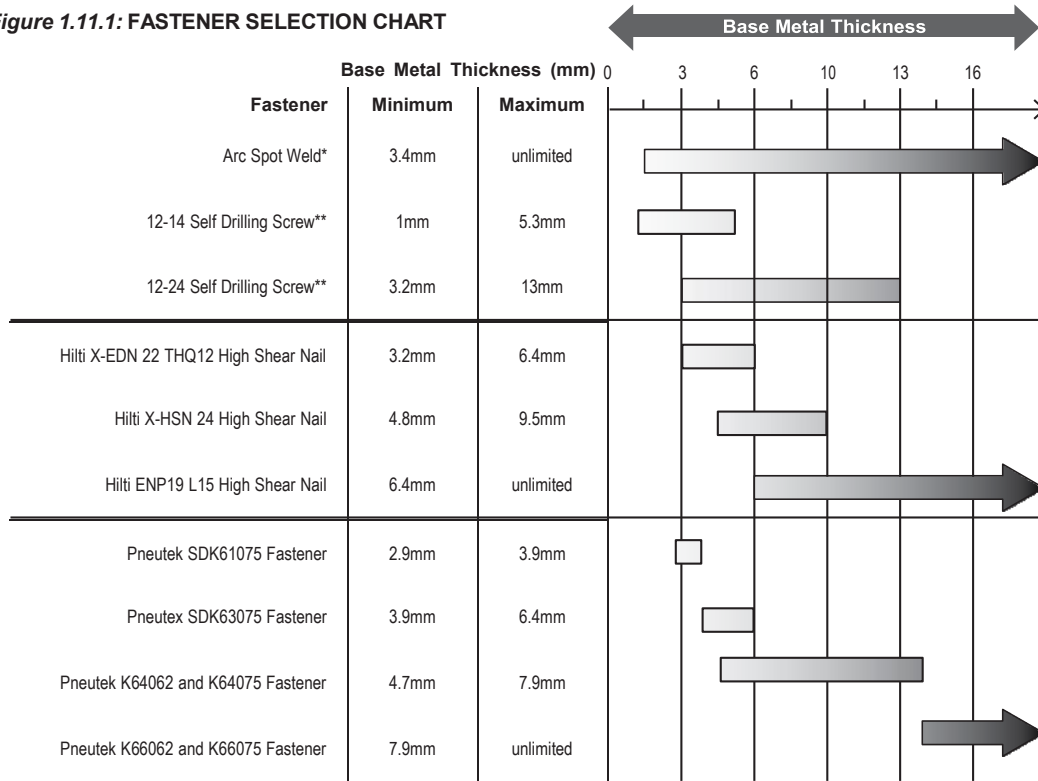
Deck Parallel to Beam



Deck Perpendicular to Beam

General Information 1.1

Figure 1.11.1: FASTENER SELECTION CHART



*Below 10 gauge is not recommended due to the difficulty of producing a good quality weld. **Correct drill point must be selected for the base material thickness.

13. For diaphragm shear of composite steel deck assemblies attached with welded shear studs that exceed the scope of the tables, the diaphragm shear may be determined in accordance with the provision of ACI 318 and AISC 360-10 as follows.
 - a. The diaphragm shear shall be the lesser of the capacity of the reinforced concrete and the capacity of the welded shear studs to transfer the shear from the supporting member to the reinforced concrete section.
 - b. Reinforced concrete shear shall be determined in accordance with the requirements of ACI 318 using the concrete thickness above the steel deck.
 - c. The welded shear stud strength shall be determined in accordance with AISC 360-10.

1.2 Fire Resistance Ratings

Fire Resistance Rating-Floor Deck

Restrained Assembly Hourly Rating	UL Design No.	Concrete Thickness “(Above Deck)” Type	Fireproofing Type
1, 1 1/2,	D703	64mm LWT & NWT	Cementitious
3	D708	64mm LWT & NWT	Cementitious
1, 1 1/2 & 2	D722	64mm LWT & NWT	Cementitious
1, 1 1/2, 2, 3 & 4	D739	64mm LWT & NWT	Cementitious
1, 1 1/2,	D743	51mm LWT & NWT	Cementitious
2 & 3	D755	64mm LWT & NWT	Cementitious
1, 1 1/2,	D759	64mm LWT & NWT	Cementitious
2, 3 & 4	D760	64mm LWT & NWT	Cementitious
3 & 4	D754	83mm LWT	Cementitious
2	D764	64mm LWT	Cementitious
3	D768	64mm LWT & NWT	Cementitious
1, 1 1/2, 2, 3 & 4	D782	83mm LWT	Cementitious
1, 1 1/2,	D832	64mm LWT & NWT	Fibrous
1, 1 1/2, 2, 3 & 4	D858	64mm LWT & NWT	Fibrous
2	D861	64mm LWT & NWT	Fibrous
1, 1 1/2,	D859	51mm LWT & NWT	Fibrous
1, 1 1/2,	D871	64mm LWT & NWT	Fibrous
2	D826	83mm LWT	None
2	D840	83mm LWT	None
1	D902	64mm LWT	None
1		89mm NWT	
1 1/2		76mm LWT	
1 1/2		102mm NWT	
2		83mm LWT	
2		114mm NWT	
3		106mm LWT	
3		133mm NWT	
2	D907	83mm LWT	None
3/4 or 1	D914	64mm LWT	None
1	D918	64mm LWT	None
1		89mm NWT	
1 1/2		102mm NWT	
2		83mm LWT	
2		114mm NWT	
3		116mm LWT	
3		133mm NWT	
1	D919 D931	64mm LWT	None
1		84mm NWT	
1 1/2		76mm LWT	
1 1/2		102mm NWT	
2		83mm LWT	
2		114mm NWT	
3		106mm LWT	
3	133mm NWT		
2	D920	83mm LWT	None
3/4 or 1	D929	64mm LWT	None
1		89mm NWT	
1 1/2		76mm LWT	
1 1/2		102mm NWT	
2		83mm LWT	
2		114mm NWT	

Support Fastening 1.3

Figure 1.11.10

Nominal Strength		WELDING CAPACITIES		
Deck Panel	Gauge	Arc Spot (puddle) Weld (13mm effective diameter)		Arc Seam Weld (9.5 mm x 25 mm in effective width & length)
		Shear (kN)	Tensile (kN)	Shear (kN)
			IBC	
2WH-36 Hi Form™	22	10.3	10.0	16.7
	21	12.8	11.3	19.1
	20	14.3	12.0	20.3
	19	20.0	14.2	24.6
	18	24.6	15.8	27.7
	16	31.9	19.6	35.4
2WHF-36	20/20	37.8	23.3	43.2
	20/18	39.3	26.5	50.6
	20/16	39.3	30.2	58.9
	18/20	39.3	26.8	51.3
	18/18	39.3	30.2	58.9
	18/16	39.3	34.6	67.5
	16/20	39.3	30.6	59.6
	16/18	39.3	34.6	67.5
	16/16	39.3	39.2	76.2

Calculated in accordance with section E of the *AISI Cold Formed Steel Design Manual S100-2012*

Figure 1.11.11

Nominal Strength		MECHANICAL FASTENER CAPACITIES							
Deck Panel	Gauge	Nominal Shear Strength (kN)							
		Screws		Hilti			Pneutek		
		#12 Self Drill	X-ENP-19 L15	X-HSN 24	X-EDNK22 THQ12	K64062 K64075	K63062 K63075	SDK63075	SDK61075
2WH-36 Hi Form™	22	6.0	7.0	6.5	6.5	7.9	7.4	7.5	6.7
	21	6.9	7.9	7.4	7.4	9.1	8.9	8.3	7.5
	20	7.3	8.4	7.8	7.8	9.8	9.6	8.6	8.0
	19	8.8	10.0	9.3	9.3	12.0	11.8	9.8	9.4
	18	9.8	11.2	10.4	10.4	13.7	13.2	10.6	10.4
	16	12.3	13.8	12.8	12.8	17.8	16.2	12.4	12.7
2WHF-36	20/20	14.8	16.4	15.3	15.3	22.3	18.9	14.0	14.9
	20/18	17.1	18.8	17.4	17.4	26.6	21.2	15.4	16.8
	20/16	19.6	21.2	19.7	19.7	31.6	23.5	16.8	18.7
	18/20	17.3	19.0	17.6	17.6	27.0	21.4	15.5	16.9
	18/18	19.6	21.2	19.7	19.7	31.6	23.5	16.8	18.7
	18/16	22.1	23.6	21.9	21.9	36.9	25.6	18.1	20.4
	16/20	19.8	21.4	19.9	19.9	32.1	23.7	16.9	18.8
	16/18	22.1	23.6	21.9	21.9	36.9	25.6	18.1	20.4
16/16	24.6	25.9	24.1	24.1	42.5	27.7	19.4	22.1	

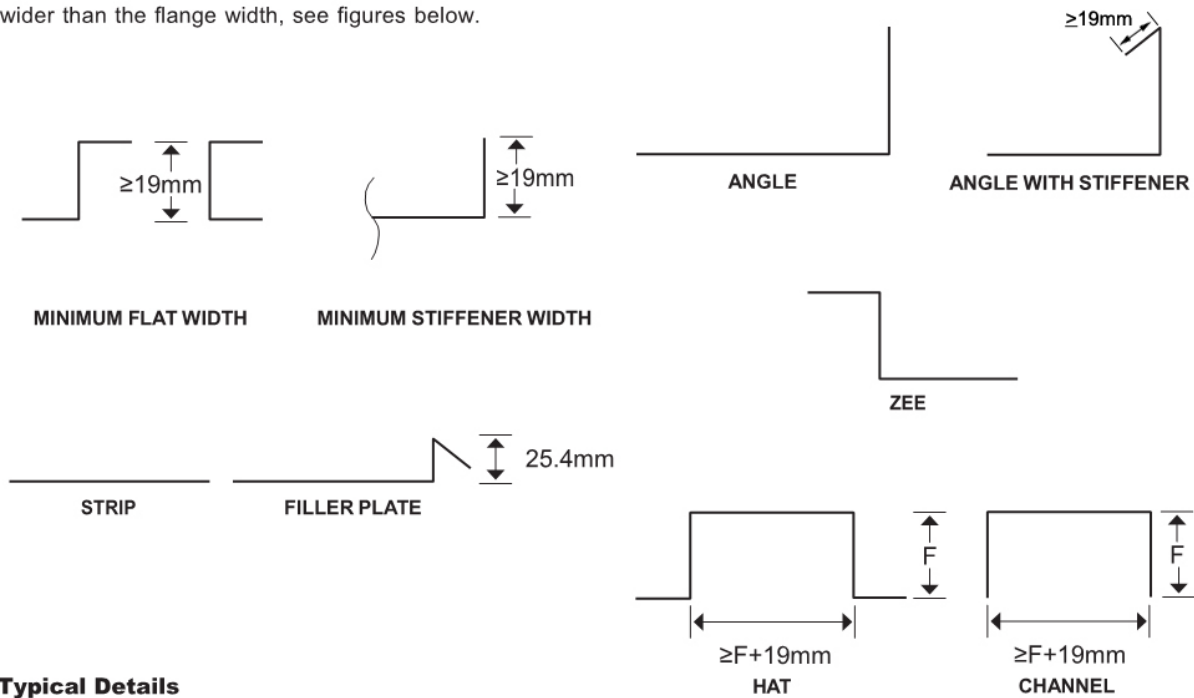
Calculated in accordance with the *Steel Deck Institute Diaphragm Design Manual*

1.3 Flashings

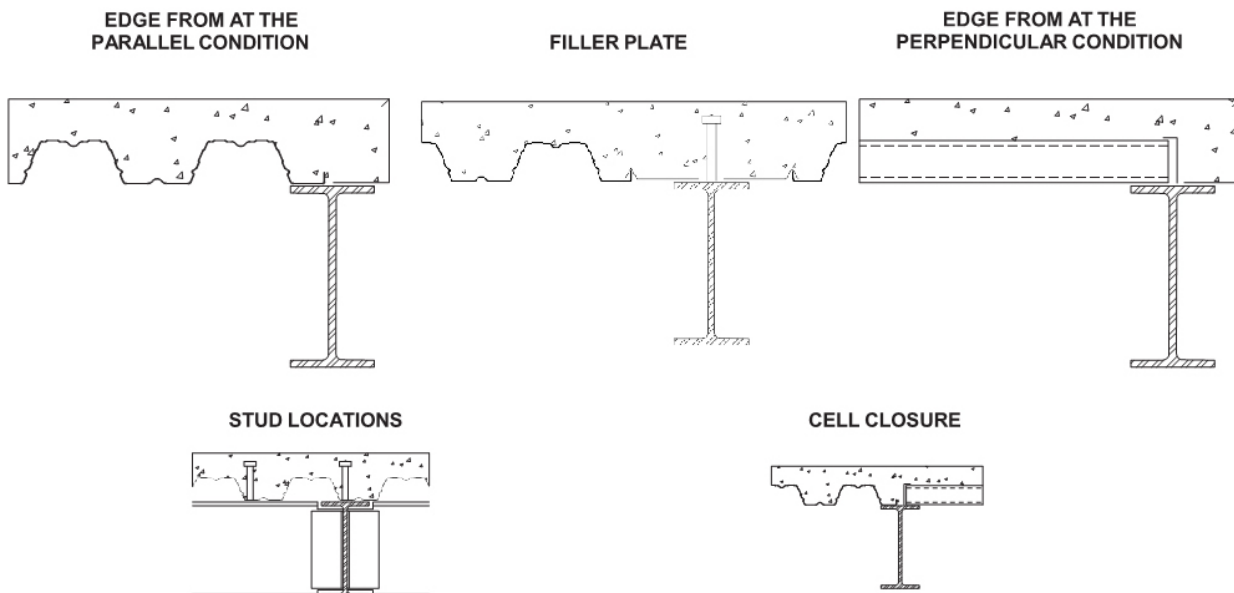
Flashings.

Galvanized steel flashings are custom manufactured by Steel Masters International (ME) FZE. to meet the project requirements. The flashings are formed from ASTM A653 SS Grade 33 galvanized steel sheet. Flashings are available in most common structural shapes in 7 gauges. (Figure 1.13.9 and 1.13.10). The standard length is 3048mm, shorter lengths available upon request. The minimum width of any stiffener or flat cross section width is 19mm". Channels, Hats, and Cee's web must be 19mm" wider than the flange width, see figures below.

FLASHING THICKNESS BY GAUGE	
Gauge	Base Steel Thickness (mm)
22	0.74
20	0.89
18	1.19
16	1.50
14	1.78
12	2.67
10	3.43



Typical Details



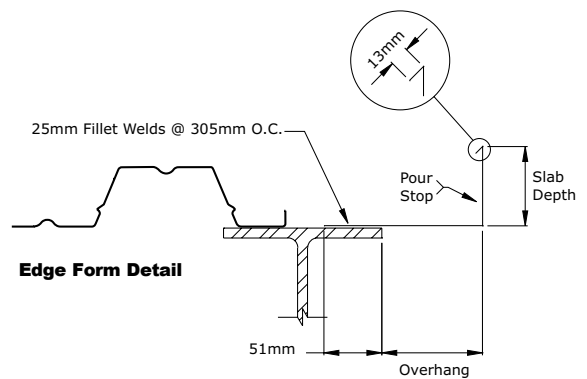
SDI Edge Form 1.5

2320 kg/m³ Normal Weight Concrete



SDI is the Steel Deck Institute, the author of the following table.

Slab Depth	Overhung (mm)												
	0	25	51	76	102	127	152	178	203	229	254	279	305
102	20	20	20	20	18	18	16	14	12	12	12	10	10
108	20	20	20	18	18	16	16	14	12	12	12	10	10
114	20	20	20	18	18	16	16	14	12	12	12	10	10
121	20	20	18	18	16	16	14	14	12	12	10	10	10
127	20	20	18	18	16	16	14	14	12	12	10	10	
133	20	18	18	16	16	14	14	12	12	12	10	10	
140	20	18	18	16	16	14	14	12	12	12	10	10	
146	20	18	16	16	14	14	12	12	12	12	10	10	
152	18	18	16	16	14	14	12	12	12	10	10	10	
159	18	18	16	14	14	12	12	12	12	10	10		
165	18	16	16	14	14	12	12	12	12	10	10		
171	18	16	14	14	14	12	12	12	10	10	10		
178	16	16	14	14	12	12	12	12	10	10	10		
184	16	16	14	14	12	12	12	10	10	10			
191	16	14	14	12	12	12	12	10	10	10			
197	16	14	14	12	12	12	10	10	10	10			
203	14	14	12	12	12	12	10	10	10				
210	14	14	12	12	12	10	10	10	10				
216	14	12	12	12	12	10	10	10					
222	14	12	12	12	12	10	10	10					
229	14	12	12	12	10	10	10						
235	12	12	12	12	10	10	10						
241	12	12	12	10	10	10							
248	12	12	12	10	10	10							
254	12	12	10	10	10	10							
260	12	12	10	10	10								
267	12	12	10	10	10								
273	12	10	10	10									
279	12	10	10	10									
286	12	10	10										
292	10	10	10										
298	10	10											
305	10	10											



SDI Edge Form Table Notes:

1. Horizontal and vertical Deflection is limited to 6 mm maximum for concrete dead load
2. Design stress is limited to 138 mpa for concrete dead load temporarily increased by one-third for the construction live load of 1 kpa
3. Pour Stop Selection Table does not consider the effect of the performance, Deflection, or rotation of the pour stop support which may include both the supporting composite deck and/or the frame.
4. Vertical leg return lip is recommended for type 16 and lighter.
5. This selection is not meant to replace the judgement of experienced Structural Engineers and shall be considered as a reference only.
6. SDI reserves the right to change any information in this section without notice.

1.6 Accessories

Steel Masters International (ME) FZE. offers a variety of accessories to complement our steel deck offer. These include flashings, sump pans, weld washers, and profile cut top (small void) and bottom (large void) neoprene foam and galvanized steel closures.

When accessories are called for in the specifications, the location must be clearly shown on the structural and architectural drawings. Specifications that call for the use of profile cut closures where walls meet the metal deck may lead to unnecessary construction costs if they are only needed at exterior walls or specific interior locations.

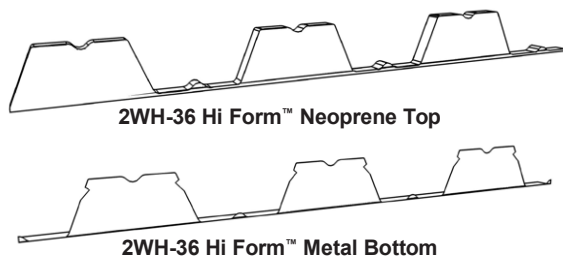
Profile Cut Neoprene Closures.

Neoprene closures may be used on the top and bottom of the steel deck to reduce vapor, moisture, and air from infiltrating into the building or roof assembly. These are die-cut from black closed cell neoprene foam. The foam is manufactured in accordance with ASTM D-1056 and passes the FM VSS No. 302, UL 94HBF, and UL 94 HF1 flammability tests.

Profile Cut Metal Closures.

Metal closures may be used to control animal nesting within the building structure. Metal closures may be used in combination with neoprene closures. Metal closures with caulking can also be used to reduce noise infiltration as part of an acoustically engineered system. The metal closures are stamped out of 22 gauge galvanized sheet steel.

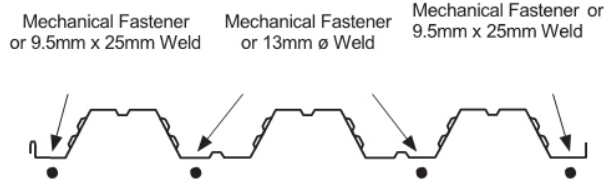
2WH-36 Hi Form™ NEOPRENE AND METAL CLOSURES



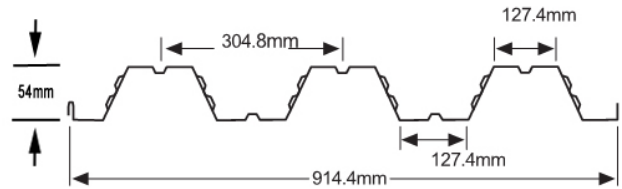
2WH-36 Hi Form™ Deck 2.1

Section Properties

Attachment Patterns



Note: Weld sizes are effective, not visible. Refer to AISI S100-2012 or AWS D1.3 for additional welding requirements.



Panel Properties

Gauge	Weight w Pa	Base Metal Thickness t mm	Yield Strength F _y mPa	Tensile Strength F _u mPa	Gross Section Properties				
					Area A _g mm ² /m	Moment of Inertia I _g cm ⁴ /m	Distance to N.A. from Bottom		Radius of Gyration r mm
							y _b mm	S _g cm ³ /m	
22	75.2	0.737	345	448	958	49.45	27.18	18.21	22.7
21	85.5	0.838	345	448	1090	56.22	27.18	20.66	22.7
20	90.7	0.889	345	448	1156	59.64	27.18	21.90	22.7
19	108.8	1.067	345	448	1387	71.55	27.18	26.19	22.7
18	121.8	1.194	345	448	1552	80.04	27.18	29.23	22.7
16	152.8	1.499	345	448	1948	100.4	27.18	31.24	22.7

Gauge	Effective Section Modulus					Effective Moment of Inertia			
	For Compression	For Bending at F _y			For Deflection at Service Load				
	Area	Section Modulus	Distance to N.A. from Bottom	Section Modulus	Distance to N.A. from Top	Moment of Inertia	Moment of Inertia	Uniform Load Only	
								I _d = (2I _e +I _g)/3	I _e
	A _e ⁺ mm ² /m	S _e ⁺ cm ³ /m	y _b mm	S _e ⁻ cm ³ /m	Y _t mm	I _e ⁺ cm ⁴ /m	I _e ⁻ cm ⁴ /m	I _e ⁺ cm ⁴ /m	I _e ⁻ cm ⁴ /m
22	606	13.1	26.4	13.6	27.9	41.0	40.9	43.9	43.7
21	754	15.9	26.5	16.4	28.0	48.6	48.3	51.1	50.9
20	833	17.3	26.5	17.9	28.0	52.6	52.1	54.9	54.6
19	1128	22.6	26.6	23.3	28.1	66.6	65.8	68.3	67.7
18	1353	26.6	26.7	27.3	28.15	76.9	75.8	77.9	77.2
16	1883	35.5	26.8	35.4	28.3	100.4	99.3	100.4	99.6

Reactions at Supports (kN/m) Based on Web Crippling

Gauge	Condition	Bearing Length of Webs							
		Allowable (R _n /Ω)				Factored (ΦR _n)			
		25mm	51mm	102mm	152mm	25mm	51mm	102mm	152mm
22	End	4.6	5.7	7.3	8.5	7.0	8.7	11.1	13.0
	Interior	7.7	9.3	11.5	13.3	11.4	13.8	17.0	19.7
21	End	5.8	7.2	9.2	10.8	8.8	11.0	14.0	16.5
	Interior	9.8	11.8	14.6	16.7	14.5	21.7	21.7	24.8
20	End	6.5	8.1	10.3	12.0	9.9	12.3	15.7	18.3
	Interior	11.0	13.1	16.2	18.6	16.3	19.4	24.0	27.6
19	End	9.2	11.3	14.3	16.5	14.0	17.2	21.6	25.2
	Interior	15.5	18.4	22.6	25.7	23.0	27.3	33.6	38.2
18	End	11.4	13.9	17.5	20.2	17.4	21.2	26.7	30.8
	Interior	19.2	22.7	27.7	31.4	28.5	33.7	41.1	46.6
16	End	17.4	21.0	26.2	30.2	26.5	32.0	40.0	46.1
	Interior	29.5	34.6	41.7	47.2	43.8	51.4	62.0	70.1

Web Crippling Constraints

h=55mm

r= 3.2mm

θ=64°

2WH-36 Hi Form™ Composite Deck

102mm Total Slab Depth
2320 kg/m³ Normal Weight Concrete



Maximum Unshored Span (mm)

Gauge	Single	Double	Triple	Gauge	Single	Double	Triple
22	2400	2700	2900	19	3200	3450	3800
21	2750	2940	3250	18	3300	3700	3900
20	2800	3060	3400	16	3500	4250	4150

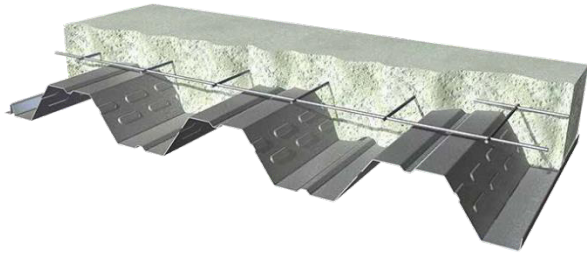
GA	Vertical Load Span (mm)	1800	1950	2100	2250	2400	2550	2700	2850	3000	3150	3300	3450	3600	3750	3900
22	ASD & LRFD - Superimposed Load, W (kPa)															
	ASD, W/Ω	18.9	15.9	13.6	11.6	10.1	8.8	7.7	6.8	5.9	5.3	4.7	4.2	3.7	3.4	3.0
	LRFD, φW	30.3	25.5	21.6	18.6	16.1	14.0	12.3	10.8	9.5	8.4	7.5	6.7	6.0	5.3	4.8
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, φS_n (kN/m) 36/4 Attachment Pattern															
	Arc Spot Weld 13mm Effective Dia	35.3	34.9	34.3	33.8	33.4	33.0	32.7	32.6	32.3	32.0	31.8	31.6	31.4	31.4	31.2
	PAF Base Steel ≥ 6.4mm	31.6	31.5	31.2	30.9	30.6	30.4	30.2	30.2	30.1	29.9	29.8	29.7	29.6	29.6	29.5
	PAF Base Steel ≥ 3.2mm	31.3	31.2	30.9	30.7	30.4	30.3	30.1	30.1	29.9	29.8	29.6	29.5	29.4	29.4	29.4
	#12 Screw Base Steel ≥ 0.9mm	31.0	31.0	30.7	30.4	30.2	30.0	29.9	29.9	29.7	29.6	29.5	29.4	29.3	29.3	29.2
	Concrete + Deck = 1.78 kPa (I _{cr} + I _u)/2 = 5505 cm ⁴ /m				I _{cr} = 3125 cm ⁴ /m I _u = 7885 cm ⁴ /m				M _{no} /Ω = 885 kN-cm/m φM _{no} = 1350 kN-cm/m				V _n /Ω = 44.1 kN/m φV _n = 66.0 kN/m			

GA	Vertical Load Span (mm)	1800	1950	2100	2250	2400	2550	2700	2850	3000	3150	3300	3450	3600	3750	3900
21	ASD & LRFD - Superimposed Load, W (kPa)															
	ASD, W/Ω	21.3	18.0	15.3	13.2	11.4	10.0	8.7	7.7	6.8	6.1	5.4	4.8	4.3	3.9	3.5
	LRFD, φW	34.1	28.8	24.5	21.1	18.2	15.9	14.0	12.3	10.9	9.7	8.7	7.7	6.9	6.2	5.6
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, φS_n (kN/m) 36/4 Attachment Pattern															
	Arc Spot Weld 13mm Effective Dia	36.5	36.0	35.4	34.8	34.3	33.9	33.5	33.4	33.1	32.8	32.5	32.3	32.1	32.0	31.8
	PAF Base Steel ≥ 6.4mm	32.2	32.1	31.7	31.4	31.1	30.9	30.7	30.7	30.5	30.4	30.2	30.1	29.9	30.0	29.8
	PAF Base Steel ≥ 3.2mm	31.9	31.8	31.5	31.2	30.9	30.7	30.5	30.5	30.3	30.2	30.0	29.9	29.8	29.8	29.7
	#12 Screw Base Steel ≥ 0.9mm	31.6	31.6	31.2	30.9	30.7	30.5	30.3	30.3	30.1	30.0	29.9	29.7	29.6	29.7	29.6
	Concrete + Deck = 1.79 kPa (I _{cr} + I _u)/2 = 5735 cm ⁴ /m				I _{cr} = 3435 cm ⁴ /m I _u = 8035 cm ⁴ /m				M _{no} /Ω = 990 kN-cm/m φM _{no} = 1515 kN-cm/m				V _n /Ω = 44.1 kN/m φV _n = 66.0 kN/m			

GA	Vertical Load Span (mm)	1800	1950	2100	2250	2400	2550	2700	2850	3000	3150	3300	3450	3600	3750	3900
20	ASD & LRFD - Superimposed Load, W (kPa)															
	ASD, W/Ω	22.5	19.0	16.2	13.9	12.1	10.5	9.2	8.2	7.2	6.4	5.7	5.1	4.6	4.2	3.7
	LRFD, φW	36.0	30.4	25.9	22.3	19.3	16.9	14.8	13.1	11.6	10.3	9.2	8.2	7.4	6.7	6.0
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, φS_n (kN/m) 36/4 Attachment Pattern															
	Arc Spot Weld 13mm Effective Dia	37.1	36.6	35.9	35.3	34.8	34.4	33.9	33.8	33.5	33.1	32.9	32.6	32.4	32.3	32.1
	PAF Base Steel ≥ 6.4mm	32.5	32.4	32.1	31.7	31.4	31.1	30.9	30.9	30.7	30.6	30.4	30.3	30.1	30.2	30.0
	PAF Base Steel ≥ 3.2mm	32.2	32.1	31.8	31.4	31.2	30.9	30.7	30.7	30.5	30.4	30.2	30.1	29.9	30.0	29.9
	#12 Screw Base Steel ≥ 0.9mm	31.9	31.8	31.5	31.2	30.9	30.7	30.5	30.5	30.4	30.2	30.1	29.9	29.8	29.9	29.7
	Concrete + Deck = 1.80 kPa (I _{cr} + I _u)/2 = 5840 cm ⁴ /m				I _{cr} = 3570 cm ⁴ /m I _u = 8100 cm ⁴ /m				M _{no} /Ω = 1040 kN-cm/m φM _{no} = 1595 kN-cm/m				V _n /Ω = 44.1 kN/m φV _n = 66.0 kN/m			

2WH-36 Hi Form™ Composite Deck 2.2

102mm Total Slab Depth
2320 kg/m³ Normal Weight Concrete



GA	Vertical Load Span (mm)	1800	1950	2100	2250	2400	2550	2700	2850	3000	3150	3300	3450	3600	3750	3900
19	ASD & LRFD - Superimposed Load, W (kPa)															
	ASD, W/Ω	26.6	22.5	19.2	16.5	14.4	12.5	11.1	9.8	8.7	7.8	6.9	6.2	5.6	5.1	4.6
	LRFD, φW	42.1	35.9	30.6	26.4	23.0	20.1	17.7	15.7	13.9	12.4	11.1	10.0	9.0	8.1	7.4
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, φS_n (kN/m) 36/4 Attachment Pattern															
	Arc Spot Weld 13mm Effective Dia	39.2	38.8	37.9	37.2	36.5	36.0	35.5	35.3	34.9	34.5	34.2	33.9	33.6	33.6	33.3
	PAF Base Steel ≥ 6.4mm	33.7	33.6	33.2	32.7	32.4	32.0	31.8	31.8	31.6	31.4	31.2	31.0	30.8	30.9	30.7
PAF Base Steel ≥ 3.2mm	33.3	33.3	32.8	32.4	32.1	31.8	31.5	31.6	31.3	31.1	30.9	30.8	30.6	30.7	30.6	
#12 Screw Base Steel ≥ 0.9mm	33.0	33.0	32.5	32.1	31.8	31.5	31.3	31.4	31.1	30.9	30.8	30.6	30.4	30.6	30.4	
Concrete + Deck = 1.81 kPa					$I_{cr} = 4070 \text{ cm}^4/\text{m}$			$M_{no}/\Omega = 1220 \text{ kN-cm/m}$			$V_n/\Omega = 44.1 \text{ kN/m}$					
		$(I_{cr} + I_u)/2 = 6210 \text{ cm}^4/\text{m}$			$I_u = 8360 \text{ cm}^4/\text{m}$			$\phi M_{no} = 1870 \text{ kN-cm/m}$			$\phi V_n = 66.0 \text{ kN/m}$					
18	ASD & LRFD - Superimposed Load, W (kPa)															
	ASD, W/Ω	29.4	24.8	21.2	18.3	15.9	13.9	12.3	10.9	9.7	8.7	7.8	7.0	6.2	5.5	4.9
	LRFD, φW	46.9	39.6	33.9	29.3	25.4	22.3	19.6	17.4	15.5	13.8	12.4	11.2	10.1	9.1	8.3
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, φS_n (kN/m) 36/4 Attachment Pattern															
	Arc Spot Weld 13mm Effective Dia	40.8	40.3	39.4	38.5	37.8	37.1	36.6	36.5	36.0	35.6	35.2	34.8	34.4	34.5	34.2
	PAF Base Steel ≥ 6.4mm	34.5	34.5	34.0	33.5	33.1	32.7	32.4	32.5	32.2	32.0	31.7	31.5	31.3	31.4	31.3
PAF Base Steel ≥ 3.2mm	34.1	34.1	33.6	33.1	32.7	32.4	32.1	32.2	32.0	31.7	31.5	31.3	31.1	31.2	31.1	
#12 Screw Base Steel ≥ 0.9mm	33.8	33.8	33.3	32.9	32.5	32.2	31.9	32.0	31.8	31.5	31.3	31.1	30.9	31.1	30.9	
Concrete + Deck = 1.82 kPa					$I_{cr} = 4395 \text{ cm}^4/\text{m}$			$M_{no}/\Omega = 1340 \text{ kN-cm/m}$			$V_n/\Omega = 44.1 \text{ kN/m}$					
		$(I_{cr} + I_u)/2 = 6450 \text{ cm}^4/\text{m}$			$I_u = 8520 \text{ cm}^4/\text{m}$			$\phi M_{no} = 2050 \text{ kN-cm/m}$			$\phi V_n = 66.0 \text{ kN/m}$					
16	ASD & LRFD - Superimposed Load, W (kPa)															
	ASD, W/Ω	35.7	30.2	25.9	22.4	19.5	17.1	15.1	13.4	11.6	10.0	8.7	7.6	6.7	5.9	5.3
	LRFD, φW	57.1	48.4	41.4	35.8	31.2	27.3	24.2	21.5	19.2	17.1	15.4	13.9	12.6	11.4	10.4
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, φS_n (kN/m) 36/4 Attachment Pattern															
	Arc Spot Weld 13mm Effective Dia	44.8	44.3	43.1	42.0	41.0	40.2	39.4	39.4	38.8	38.2	37.6	37.2	36.7	36.8	36.4
	PAF Base Steel ≥ 6.4mm	36.8	36.8	36.1	35.5	34.9	34.4	34.0	34.3	33.9	33.5	33.2	32.9	32.7	32.9	32.7
PAF Base Steel ≥ 3.2mm	36.0	36.0	35.4	34.8	34.3	33.8	33.4	33.7	33.4	33.0	32.7	32.5	32.2	32.5	32.3	
#12 Screw Base Steel ≥ 0.9mm	36.0	36.0	35.3	34.8	34.3	33.8	33.4	33.7	33.4	33.0	32.7	32.5	32.2	32.5	32.3	
Concrete + Deck = 1.85 kPa					$I_{cr} = 5110 \text{ cm}^4/\text{m}$			$M_{no}/\Omega = 1625 \text{ kN-cm/m}$			$V_n/\Omega = 44.1 \text{ kN/m}$					
		$(I_{cr} + I_u)/2 = 7005 \text{ cm}^4/\text{m}$			$I_u = 8910 \text{ cm}^4/\text{m}$			$\phi M_{no} = 2480 \text{ kN-cm/m}$			$\phi V_n = 66.0 \text{ kN/m}$					
All Gauges	LRFD - Diaphragm Shear, φS_n (kN/m) for all vertical load spans, WWF Designation or Area of Steel per meter width															
	19mm Welded Shear Studs	152x152 MW9xMW9			152x152 MW19xMW19			152x152 MW26xMW26			102x102 MW26xMW26			102x102 MW39xMW39		
		$A_s = 59.3 \text{ mm}^2/\text{m}$			$A_s = 122.8 \text{ mm}^2/\text{m}$			$A_s = 169.3 \text{ mm}^2/\text{m}$			$A_s = 254.0 \text{ mm}^2/\text{m}$			$A_s = 381 \text{ mm}^2/\text{m}$		
	305 mm o.c.	46.49			66.19			80.64			106.91			146.31		
	610 mm o.c.	46.49			66.19			80.64			106.91			113.15		
914 mm o.c.	46.49			66.19			75.43			75.43			75.43			

2.2 2WH-36 Hi Form™ Composite Deck

114mm Total Slab Depth
2320 kg/m³ Normal Weight Concrete



Maximum Unshored Span (mm)

Gauge	Single	Double	Triple	Gauge	Single	Double	Triple
22	2300	2600	2800	19	3000	3280	3650
21	2600	2800	3100	18	3100	3550	3850
20	2700	2900	3250	16	3300	4050	3980

GA	Vertical Load Span (mm)	1800	1950	2100	2250	2400	2550	2700	2850	3000	3150	3300	3450	3600	3750	3900
22	ASD & LRFD - Superimposed Load, W (kPa)															
	ASD, W/Ω	22.8	19.2	16.4	14.0	12.2	10.6	9.3	8.2	7.2	6.4	5.7	5.1	4.5	4.1	3.6
	LRFD, φW	36.5	30.7	26.2	22.5	19.4	16.9	14.8	13.1	11.6	10.2	9.1	8.1	7.3	6.5	5.8
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, φS_n (kN/m) 36/4 Attachment Pattern															
	Arc Spot Weld 13mm Effective Dia	42.6	42.2	41.6	41.2	40.7	40.4	40.0	39.9	39.6	39.4	39.1	38.9	38.8	38.7	38.5
	PAF Base Steel ≥ 6.4mm	38.9	38.8	38.5	38.2	38.0	37.8	37.6	37.6	37.4	37.3	37.1	37.0	36.9	36.9	36.8
	PAF Base Steel ≥ 3.2mm	38.6	38.5	38.2	38.0	37.8	37.6	37.4	37.4	37.2	37.1	37.0	36.9	36.7	36.8	36.7
	#12 Screw Base Steel ≥ 0.9mm	38.4	38.3	38.0	37.8	37.6	37.4	37.2	37.2	37.1	36.9	36.8	36.7	36.6	36.6	36.6
	Concrete + Deck = 2.07 kPa (I _{cr} + I _u)/2 = 7695 cm⁴/m					I _{cr} = 4260 cm⁴/m I _u = 11130 cm⁴/m				M _{no} /Ω = 1065 kN-cm/m φM _{no} = 1630 kN-cm/m				V _n /Ω = 51.2 kN/m φV _n = 73.6 kN/m		

GA	Vertical Load Span (mm)	1800	1950	2100	2250	2400	2550	2700	2850	3000	3150	3300	3450	3600	3750	3900
21	ASD & LRFD - Superimposed Load, W (kPa)															
	ASD, W/Ω	25.8	21.7	18.5	15.9	13.8	12.1	10.6	9.3	8.3	7.4	6.6	5.9	5.3	4.7	4.3
	LRFD, φW	41.2	34.8	29.6	25.5	22.1	19.3	16.9	14.9	13.3	11.8	10.5	9.4	8.4	7.6	6.8
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, φS_n (kN/m) 36/4 Attachment Pattern															
	Arc Spot Weld 13mm Effective Dia	43.8	43.4	42.7	42.2	41.7	41.2	40.9	40.7	40.4	40.1	39.8	39.6	39.4	39.3	39.1
	PAF Base Steel ≥ 6.4mm	39.5	39.4	39.1	38.8	38.5	38.2	38.0	38.0	37.8	37.7	37.5	37.4	37.3	37.3	37.2
	PAF Base Steel ≥ 3.2mm	39.2	39.1	38.8	38.5	38.2	38.0	37.8	37.8	37.6	37.5	37.3	37.2	37.1	37.1	37.0
	#12 Screw Base Steel ≥ 0.9mm	38.9	38.9	38.5	38.3	38.0	37.8	37.6	37.6	37.5	37.3	37.2	37.1	36.9	37.0	36.9
	Concrete + Deck = 2.08 kPa (I _{cr} + I _u)/2 = 8005 cm⁴/m					I _{cr} = 4690 cm⁴/m I _u = 11320 cm⁴/m				M _{no} /Ω = 1195 kN-cm/m φM _{no} = 1825 kN-cm/m				V _n /Ω = 51.2 kN/m φV _n = 76.8 kN/m		

GA	Vertical Load Span (mm)	1800	1950	2100	2250	2400	2550	2700	2850	3000	3150	3300	3450	3600	3750	3900
20	ASD & LRFD - Superimposed Load, W (kPa)															
	ASD, W/Ω	27.2	22.9	19.5	16.9	14.6	12.8	11.2	9.9	8.8	7.8	7.0	6.3	5.6	5.1	4.5
	LRFD, φW	43.5	36.7	31.3	27.0	23.4	20.4	18.0	15.8	14.1	12.5	11.2	10.0	9.0	8.1	7.3
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, φS_n (kN/m) 36/4 Attachment Pattern															
	Arc Spot Weld 13mm Effective Dia	44.4	44.0	43.3	42.7	42.1	41.7	41.3	41.1	40.8	40.5	40.2	39.9	39.7	39.7	39.5
	PAF Base Steel ≥ 6.4mm	39.9	39.8	39.4	39.0	38.7	38.5	38.2	38.3	38.1	37.9	37.7	37.6	37.4	37.5	37.4
	PAF Base Steel ≥ 3.2mm	39.5	39.5	39.1	38.8	38.5	38.2	38.0	38.0	37.9	37.7	37.5	37.4	37.3	37.3	37.2
	#12 Screw Base Steel ≥ 0.9mm	39.2	39.2	38.8	38.5	38.3	38.0	37.8	37.9	37.7	37.5	37.4	37.2	37.1	37.2	37.1
	Concrete + Deck = 2.08 kPa (I _{cr} + I _u)/2 = 8155 cm⁴/m					I _{cr} = 4895 cm⁴/m I _u = 11415 cm⁴/m				M _{no} /Ω = 1255 kN-cm/m φM _{no} = 1925 kN-cm/m				V _n /Ω = 51.2 kN/m φV _n = 76.8 kN/m		

2.2 2WH-36 Hi Form™ Composite Deck

127mm Total Slab Depth
2320 kg/m³ Normal Weight Concrete



Maximum Unshored Span (mm)

Gauge	Single	Double	Triple	Gauge	Single	Double	Triple
22	2200	2430	2730	19	2890	3120	33470
21	2450	2680	2990	18	2960	3360	3750
20	2640	2780	3100	16	3200	3900	3860

GA	Vertical Load Span (mm)	1800	1950	2100	2250	2400	2550	2700	2850	3000	3150	3300	3450	3600	3750	3900
22	ASD & LRFD - Superimposed Load, W (kPa)															
	ASD, W/Ω	27.0	22.7	19.3	16.6	14.4	12.5	11.0	9.7	8.6	7.6	6.8	6.0	5.4	4.8	4.4
	LRFD, φW	43.1	36.3	30.9	26.6	23.0	20.1	17.6	15.5	13.7	12.2	10.8	9.7	8.7	7.8	6.9
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, φS_n (kN/m) 36/4 Attachment Pattern															
	Arc Spot Weld 13mm Effective Dia	49.9	49.5	49.0	48.5	48.1	47.7	47.4	47.2	47.0	46.7	46.5	46.3	46.1	46.0	45.8
	PAF Base Steel ≥ 6.4mm	46.2	46.1	45.8	45.5	45.3	45.1	44.9	44.9	44.7	44.6	44.5	44.3	44.2	44.2	44.1
	PAF Base Steel ≥ 3.2mm	46.0	45.9	45.6	45.3	45.1	44.9	44.7	44.7	44.5	44.4	44.3	44.2	44.1	44.1	44.0
	#12 Screw Base Steel ≥ 0.9mm	45.7	45.6	45.3	45.1	44.9	44.7	44.5	44.5	44.4	44.3	44.1	44.0	44.0	44.0	43.9
	Concrete + Deck = 2.36 kPa				I _{cr} = 5625 cm ⁴ /m				M _{no} /Ω = 1255 kN-cm/m				V _n /Ω = 55.2 kN/m			
(I _{cr} + I _u)/2 = 10405 cm ⁴ /m				I _u = 15190 cm ⁴ /m				φM _{no} = 1920 kN-cm/m				φV _n = 79.2 kN/m				
21	ASD & LRFD - Superimposed Load, W (kPa)															
	ASD, W/Ω	30.4	25.7	21.9	18.8	16.3	14.3	12.5	11.1	9.8	8.8	7.8	7.0	6.3	5.6	5.1
	LRFD, φW	48.7	41.1	35.0	30.1	26.1	22.8	20.1	17.7	15.7	14.0	12.5	11.2	10.1	9.0	8.1
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, φS_n (kN/m) 36/4 Attachment Pattern															
	Arc Spot Weld 13mm Effective Dia	51.1	50.7	50.0	49.5	49.0	48.6	48.2	48.0	47.7	47.4	47.2	46.9	46.7	46.7	46.5
	PAF Base Steel ≥ 6.4mm	46.9	46.8	46.4	46.1	45.8	45.6	45.3	45.4	45.2	45.0	44.8	44.7	44.6	44.6	44.5
	PAF Base Steel ≥ 3.2mm	46.5	46.5	46.1	45.8	45.6	45.3	45.1	45.1	45.0	44.8	44.7	44.5	44.4	44.5	44.4
	#12 Screw Base Steel ≥ 0.9mm	46.3	46.2	45.9	45.6	45.3	45.1	44.9	45.0	44.8	44.7	44.5	44.4	44.3	44.3	44.2
	Concrete + Deck = 2.37 kPa				I _{cr} = 6195 cm ⁴ /m				M _{no} /Ω = 1410 kN-cm/m				V _n /Ω = 58.8 kN/m			
(I _{cr} + I _u)/2 = 10815 cm ⁴ /m				I _u = 15430 cm ⁴ /m				φM _{no} = 2155 kN-cm/m				φV _n = 88.2 kN/m				
20	ASD & LRFD - Superimposed Load, W (kPa)															
	ASD, W/Ω	32.1	27.1	23.1	19.9	17.3	15.1	13.3	11.7	10.4	9.3	8.3	7.5	6.7	6.0	5.5
	LRFD, φW	51.4	43.4	37.0	31.9	27.7	24.2	21.3	18.8	16.7	14.8	13.3	11.9	10.7	9.7	8.7
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, φS_n (kN/m) 36/4 Attachment Pattern															
	Arc Spot Weld 13mm Effective Dia	51.7	51.3	50.6	50.0	49.5	49.0	48.6	48.5	48.1	47.8	47.5	47.3	47.0	47.0	46.8
	PAF Base Steel ≥ 6.4mm	47.2	47.1	46.7	46.4	46.1	45.8	45.6	45.6	45.4	45.2	45.1	44.9	44.8	44.8	44.7
	PAF Base Steel ≥ 3.2mm	46.8	46.8	46.4	46.1	45.8	45.6	45.3	45.4	45.2	45.0	44.9	44.7	44.6	44.7	44.5
	#12 Screw Base Steel ≥ 0.9mm	46.5	46.5	46.2	45.8	45.6	45.4	45.1	45.2	45.0	44.8	44.7	44.6	44.4	44.5	44.4
	Concrete + Deck = 2.38 kPa				I _{cr} = 6465 cm ⁴ /m				M _{no} /Ω = 1480 kN-cm/m				V _n /Ω = 58.8 kN/m			
(I _{cr} + I _u)/2 = 11010 cm ⁴ /m				I _u = 15550 cm ⁴ /m				φM _{no} = 2265 kN-cm/m				φV _n = 88.2 kN/m				

2.2 2WH-36 Hi Form™ Composite Deck

140mm Total Slab Depth
2320 kg/m³ Normal Weight Concrete



Maximum Unshored Span (mm)

Gauge	Single	Double	Triple	Gauge	Single	Double	Triple
22	2100	2300	2600	19	2750	2990	3330
21	2360	2550	2800	18	2850	3230	3600
20	2500	2650	2950	16	3050	3730	3740

GA	Vertical Load Span (mm)	1800	1950	2100	2250	2400	2550	2700	2850	3000	3150	3300	3450	3600	3750	3900
22	ASD & LRFD - Superimposed Load, W (kPa)															
	ASD, W/Ω	31.2	26.3	22.4	19.2	16.7	14.6	12.8	11.3	10.0	8.9	7.9	7.0	6.3	5.6	5.1
	LRFD, φW	49.9	42.1	35.9	30.8	26.7	23.3	20.4	18.0	15.9	14.2	12.6	11.3	10.1	9.0	8.1
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, φS_n (kN/m) 36/4 Attachment Pattern															
	Arc Spot Weld 13mm Effective Dia	57.3	56.9	56.3	55.8	55.4	55.0	54.7	54.6	54.3	54.0	53.8	53.6	53.4	53.3	53.2
	PAF Base Steel ≥ 6.4mm	53.6	53.5	53.1	52.9	52.6	52.4	52.2	52.2	52.0	51.9	51.8	51.7	51.6	51.6	51.5
	PAF Base Steel ≥ 3.2mm	53.3	53.2	52.9	52.6	52.4	52.2	52.0	52.0	51.9	51.7	51.6	51.5	51.4	51.4	51.3
	#12 Screw Base Steel ≥ 0.9mm	53.0	52.9	52.7	52.4	52.2	52.0	51.9	51.9	51.7	51.6	51.5	51.4	51.3	51.3	51.2
	Concrete + Deck = 2.65 kPa (I _{cr} + I _u)/2 = 13685 cm ⁴ /m					I _{cr} = 7720 cm ⁴ /m I _u = 20150 cm ⁴ /m				M _{no} /Ω = 1450 kN-cm/m φM _{no} = 2220 kN-cm/m				V _n /Ω = 59.3 kN/m φV _n = 85.2 kN/m		

GA	Vertical Load Span (mm)	1800	1950	2100	2250	2400	2550	2700	2850	3000	3150	3300	3450	3600	3750	3900
21	ASD & LRFD - Superimposed Load, W (kPa)															
	ASD, W/Ω	35.2	29.7	25.4	21.8	19.0	16.6	14.6	12.9	11.4	10.2	9.1	8.1	7.3	6.6	5.9
	LRFD, φW	56.4	47.6	40.6	35.0	30.4	26.5	23.3	20.6	18.3	16.3	14.6	13.0	11.7	10.5	9.5
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, φS_n (kN/m) 36/4 Attachment Pattern															
	Arc Spot Weld 13mm Effective Dia	58.5	58.0	57.4	56.8	56.3	55.9	55.5	55.4	55.1	54.8	54.5	54.3	54.0	54.0	53.8
	PAF Base Steel ≥ 6.4mm	54.2	54.1	53.7	53.4	53.1	52.9	52.7	52.7	52.5	52.3	52.2	52.0	51.9	51.9	51.8
	PAF Base Steel ≥ 3.2mm	53.9	53.8	53.5	53.2	52.9	52.7	52.5	52.5	52.3	52.1	52.0	51.9	51.7	51.8	51.7
	#12 Screw Base Steel ≥ 0.9mm	53.6	53.5	53.2	52.9	52.7	52.5	52.3	52.3	52.1	52.0	51.8	51.7	51.6	51.7	51.6
	Concrete + Deck = 2.66 kPa (I _{cr} + I _u)/2 = 14215 cm ⁴ /m					I _{cr} = 7950 cm ⁴ /m I _u = 20475 cm ⁴ /m				M _{no} /Ω = 1625 kN-cm/m φM _{no} = 2490 kN-cm/m				V _n /Ω = 66.7 kN/m φV _n = 95.6 kN/m		

GA	Vertical Load Span (mm)	1800	1950	2100	2250	2400	2550	2700	2850	3000	3150	3300	3450	3600	3750	3900
20	ASD & LRFD - Superimposed Load, W (kPa)															
	ASD, W/Ω	37.2	31.4	26.8	23.1	20.1	17.6	15.4	13.6	12.1	10.8	9.7	8.7	7.8	7.0	6.4
	LRFD, φW	59.6	50.3	42.9	37.0	32.1	28.1	24.7	21.8	19.4	17.3	15.5	13.9	12.5	11.3	10.2
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, φS_n (kN/m) 36/4 Attachment Pattern															
	Arc Spot Weld 13mm Effective Dia	59.1	58.6	57.9	57.3	56.8	56.3	55.9	55.8	55.4	55.1	54.9	54.6	54.4	54.3	54.1
	PAF Base Steel ≥ 6.4mm	54.5	54.4	54.0	53.7	53.4	38.2	52.9	52.9	52.7	52.5	52.4	52.2	52.1	52.1	52.0
	PAF Base Steel ≥ 3.2mm	54.2	54.1	53.7	53.4	53.1	52.9	52.7	52.7	52.5	52.3	52.2	52.0	51.9	52.0	51.9
	#12 Screw Base Steel ≥ 0.9mm	53.9	53.8	53.5	53.2	52.9	52.7	52.5	52.5	52.3	52.2	52.0	51.9	51.8	51.8	51.7
	Concrete + Deck = 2.66 kPa (I _{cr} + I _u)/2 = 14470 cm ⁴ /m					I _{cr} = 8305 cm ⁴ /m I _u = 20635 cm ⁴ /m				M _{no} /Ω = 1715 kN-cm/m φM _{no} = 2625 kN-cm/m				V _n /Ω = 66.7 kN/m φV _n = 100.1 kN/m		

2.2 2WH-36 Hi Form™ Composite Deck

165mm Total Slab Depth
2320 kg/m³ Normal Weight Concrete



Maximum Unshored Span (mm)

Gauge	Single	Double	Triple	Gauge	Single	Double	Triple
22	1950	2180	2420	19	2600	2800	3120
21	2200	2380	2650	18	2650	2990	3360
20	2300	2470	2750	16	2850	3480	3570

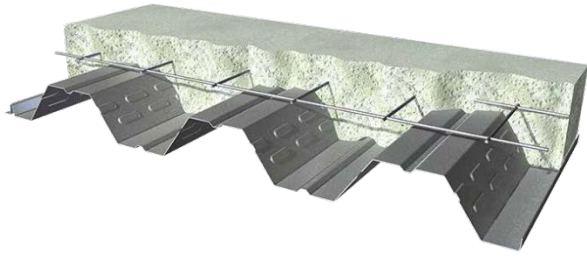
GA	Vertical Load Span (mm)	1800	1950	2100	2250	2400	2550	2700	2850	3000	3150	3300	3450	3600	3750	3900
22	ASD & LRFD - Superimposed Load, W (kPa)															
	ASD, W/Ω	40.0	33.8	28.8	24.8	21.5	18.7	16.4	14.5	12.9	11.4	10.2	9.1	8.2	7.4	6.6
	LRFD, φW	64.0	54.0	46.0	39.6	34.3	30.0	26.3	23.2	20.6	18.3	16.3	14.6	13.1	11.8	10.6
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, φS_n (kN/m) 36/4 Attachment Pattern															
	Arc Spot Weld 13mm Effective Dia	71.9	71.5	71.0	70.5	70.0	69.7	69.3	69.2	68.9	68.7	68.5	68.2	68.0	68.0	67.8
	PAF Base Steel ≥ 6.4mm	68.2	68.1	67.8	67.5	67.3	67.1	66.9	66.9	66.7	66.6	66.4	66.3	66.2	66.2	66.1
	PAF Base Steel ≥ 3.2mm	67.9	67.8	67.5	67.3	67.1	66.9	66.7	66.7	66.5	66.4	66.3	66.2	66.1	66.1	66.0
	#12 Screw Base Steel ≥ 0.9mm	67.7	67.6	67.3	67.1	66.9	66.7	66.5	66.5	66.4	66.2	66.1	66.0	65.9	66.0	65.9
	Concrete + Deck = 3.23 kPa				$I_{cr} = 11090 \text{ cm}^4/\text{m}$			$M_{no}/\Omega = 1855 \text{ kN-cm/m}$			$V_n/\Omega = 67.2 \text{ kN/m}$					
$(I_{cr} + I_u)/2 = 22180 \text{ cm}^4/\text{m}$				$I_u = 33255 \text{ cm}^4/\text{m}$			$\phi M_{no} = 2840 \text{ kN-cm/m}$			$\phi V_n = 97.9 \text{ kN/m}$						

GA	Vertical Load Span (mm)	1800	1950	2100	2250	2400	2550	2700	2850	3000	3150	3300	3450	3600	3750	3900
21	ASD & LRFD - Superimposed Load, W (kPa)															
	ASD, W/Ω	45.2	38.2	32.6	28.1	24.4	21.4	18.8	16.6	14.7	13.2	11.8	10.5	9.5	8.6	7.7
	LRFD, φW	72.4	61.1	52.2	45.0	39.0	34.1	30.0	26.6	23.6	21.0	18.8	16.9	15.2	13.7	12.4
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, φS_n (kN/m) 36/4 Attachment Pattern															
	Arc Spot Weld 13mm Effective Dia	73.1	72.7	72.0	71.5	71.0	70.5	70.2	70.0	69.7	69.4	69.2	68.9	68.7	68.6	68.5
	PAF Base Steel ≥ 6.4mm	68.9	68.7	68.4	68.1	67.8	67.5	67.3	67.3	67.2	67.0	66.8	66.7	66.6	66.6	66.5
	PAF Base Steel ≥ 3.2mm	68.5	68.5	68.1	67.8	67.5	67.3	67.1	67.1	67.0	66.8	66.7	66.5	66.4	66.4	66.3
	#12 Screw Base Steel ≥ 0.9mm	68.2	68.2	67.9	67.6	67.3	67.1	66.9	66.9	66.8	66.6	66.5	66.4	66.3	66.3	66.2
	Concrete + Deck = 3.24 kPa				$I_{cr} = 12250 \text{ cm}^4/\text{m}$			$M_{no}/\Omega = 2080 \text{ kN-cm/m}$			$V_n/\Omega = 75.3 \text{ kN/m}$					
$(I_{cr} + I_u)/2 = 22990 \text{ cm}^4/\text{m}$				$I_u = 33740 \text{ cm}^4/\text{m}$			$\phi M_{no} = 3185 \text{ kN-cm/m}$			$\phi V_n = 108.3 \text{ kN/m}$						

GA	Vertical Load Span (mm)	1800	1950	2100	2250	2400	2550	2700	2850	3000	3150	3300	3450	3600	3750	3900
20	ASD & LRFD - Superimposed Load, W (kPa)															
	ASD, W/Ω	47.8	40.4	34.5	29.7	25.9	22.6	19.9	17.6	15.7	14.0	12.5	11.3	10.2	9.1	8.3
	LRFD, φW	76.5	64.6	55.2	47.5	41.3	36.1	31.8	28.2	25.0	22.4	20.0	18.0	16.2	14.7	13.3
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, φS_n (kN/m) 36/4 Attachment Pattern															
	Arc Spot Weld 13mm Effective Dia	73.7	73.3	72.6	72.0	71.5	71.0	70.6	70.4	70.1	69.8	69.5	69.3	69.0	69.0	68.8
	PAF Base Steel ≥ 6.4mm	69.2	69.1	68.7	68.3	68.0	67.8	67.6	67.6	67.4	67.2	67.0	66.9	66.7	66.8	66.7
	PAF Base Steel ≥ 3.2mm	68.8	68.8	68.4	68.1	67.8	67.5	67.3	67.4	67.2	67.0	66.9	66.7	66.6	66.6	66.5
	#12 Screw Base Steel ≥ 0.9mm	68.5	68.5	68.1	67.8	67.6	67.3	67.1	67.2	67.0	66.8	66.7	66.6	66.4	66.5	66.4
	Concrete + Deck = 3.25 kPa				$I_{cr} = 12805 \text{ cm}^4/\text{m}$			$M_{no}/\Omega = 2195 \text{ kN-cm/m}$			$V_n/\Omega = 79.5 \text{ kN/m}$					
$(I_{cr} + I_u)/2 = 23395 \text{ cm}^4/\text{m}$				$I_u = 33970 \text{ cm}^4/\text{m}$			$\phi M_{no} = 3360 \text{ kN-cm/m}$			$\phi V_n = 114.0 \text{ kN/m}$						

2WH-36 Hi Form™ Composite Deck 2.2

165mm Total Slab Depth
2320 kg/m³ Normal Weight Concrete



GA	Vertical Load Span (mm)	1800	1950	2100	2250	2400	2550	2700	2850	3000	3150	3300	3450	3600	3750	3900				
19	ASD & LRFD - Superimposed Load, W (kPa)																			
	ASD, W/Ω	56.8	48.0	41.1	35.4	30.9	27.1	23.9	21.2	18.9	16.9	15.2	13.7	12.4	11.2	10.2				
	LRFD, φW L/360	90.8	76.8	65.7	56.7	49.4	43.3	38.2	33.9	30.2	27.1	24.3	21.9	19.8	17.9	16.3				
	LRFD - Diaphragm Shear, φS_n (kN/m) 36/4 Attachment Pattern																			
	Arc Spot Weld 13mm Effective Dia	75.8	75.4	74.5	73.8	73.2	72.6	72.1	72.0	71.5	71.2	70.8	70.5	70.2	70.2	69.9				
	PAF Base Steel ≥ 6.4mm	70.3	70.3	69.8	69.4	69.0	68.7	68.4	68.5	68.2	68.0	67.8	67.6	67.4	67.5	67.4				
	PAF Base Steel ≥ 3.2mm	69.9	69.9	69.4	69.0	68.7	68.4	68.1	68.2	68.0	67.8	67.6	67.4	67.2	67.3	67.2				
	#12 Screw Base Steel ≥ 0.9mm	69.6	69.6	69.2	68.8	68.5	68.2	67.9	68.0	67.8	67.6	67.4	67.2	67.1	67.2	67.0				
	Concrete + Deck = 3.26 kPa (I _{cr} +I _u)/2 = 24745 cm ⁴ /m									I _{cr} = 14685 cm ⁴ /m										
											M _{no} /Ω = 2585 kN-cm/m						V _n /Ω = 83.8 kN/m			
																	φM _{no} = 3955 kN-cm/m			
																		φV _n = 125.7 kN/m		
18	ASD & LRFD - Superimposed Load, W (kPa)																			
	ASD, W/Ω	62.9	53.2	45.5	39.4	34.3	30.1	26.6	23.6	21.1	18.9	17.0	15.3	13.9	12.6	11.4				
	LRFD, φW L/360	100.6	85.1	72.9	63.0	54.9	48.2	42.5	37.8	33.7	30.2	27.2	24.5	22.2	20.2	18.3				
	LRFD - Diaphragm Shear, φS_n (kN/m) 36/4 Attachment Pattern																			
	Arc Spot Weld 13mm Effective Dia	77.4	77.0	76.0	75.2	74.4	73.8	73.2	73.1	72.6	72.2	71.8	71.4	71.1	71.1	70.8				
	PAF Base Steel ≥ 6.4mm	71.2	71.2	70.6	70.1	69.7	69.3	69.0	69.1	68.9	68.6	68.4	68.2	67.9	68.1	67.9				
	PAF Base Steel ≥ 3.2mm	70.8	70.8	70.2	69.8	69.4	69.0	68.7	68.9	68.6	68.3	68.1	67.9	67.7	67.9	67.7				
	#12 Screw Base Steel ≥ 0.9mm	70.5	70.5	69.9	69.5	69.1	68.8	68.5	68.6	68.4	68.2	67.9	67.7	67.6	67.7	67.5				
	Concrete + Deck = 3.27 kPa (I _{cr} +I _u)/2 = 25695 cm ⁴ /m																			
											I _{cr} = 15915 cm ⁴ /m								M _{no} /Ω = 2855 kN-cm/m	
																			V _n /Ω = 83.8 kN/m	
																			φM _{no} = 4370 kN-cm/m	
																			φV _n = 125.7 kN/m	
16	ASD & LRFD - Superimposed Load, W (kPa)																			
	ASD, W/Ω	77.1	65.4	56.0	48.5	42.3	37.2	32.9	29.3	26.2	23.5	21.2	19.2	17.4	15.9	14.5				
	LRFD, φW L/360	123.4	104.6	89.6	77.6	67.7	59.5	52.7	46.9	41.9	37.6	33.9	30.7	27.9	25.4	23.2				
	LRFD - Diaphragm Shear, φS_n (kN/m) 36/4 Attachment Pattern																			
	Arc Spot Weld 13mm Effective Dia	81.4	81.0	79.7	78.6	77.6	76.8	76.0	76.0	75.4	74.8	74.3	73.8	73.4	73.5	73.1				
	PAF Base Steel ≥ 6.4mm	73.5	73.5	72.7	72.1	71.6	71.1	70.6	70.9	70.5	70.2	69.9	69.6	69.3	69.6	69.3				
	PAF Base Steel ≥ 3.2mm	72.7	72.5	72.0	71.4	70.9	70.5	70.1	70.4	70.0	69.7	69.4	69.1	68.9	69.2	68.9				
	#12 Screw Base Steel ≥ 0.9mm	72.7	72.5	72.0	71.4	70.9	70.4	70.0	70.3	70.0	69.7	69.4	69.1	68.9	69.1	68.9				
	Concrete + Deck = 3.30 kPa (I _{cr} +I _u)/2 = 27720 cm ⁴ /m																			
																				M _{no} /Ω = 3480 kN-cm/m
																				V _n /Ω = 83.8 kN/m
																				φM _{no} = 5325 kN-cm/m
																				φV _n = 125.7 kN/m
All Gauges	LRFD - Diaphragm Shear, φS_n (kN/m) for all vertical load spans, WWF Designation or Area of Steel per meter width																			
	19mm Welded Shear Studs	152x152 MW9xMW9			152x152 MW19xMW19			152x152 MW26xMW26			102x102 MW26xMW26			102x102 MW39xMW39						
		A _s = 59.3 mm ² /m			A _s = 122.8 mm ² /m			A _s = 169.3 mm ² /m			A _s = 254.0 mm ² /m			A _s = 381 mm ² /m						
	305 mm o.c.	n/a			112.95			127.40			153.67			193.07						
	610 mm o.c.	n/a			112.95			113.15			113.15			113.15						
914 mm o.c.	n/a			75.43			75.43			75.43			75.43							

2.3 2WH-36 Hi Form™ Composite Deck

184mm Total Slab Depth
2320 kg/m³ Normal Weight Concrete

Maximum Unshored Span (mm)

Gauge	Single	Double	Triple	Gauge	Single	Double	Triple
22	1900	2070	2320	19	2500	2670	2970
21	2100	2270	2530	18	2550	2880	3210
20	2200	2360	2620	16	2750	3320	3470

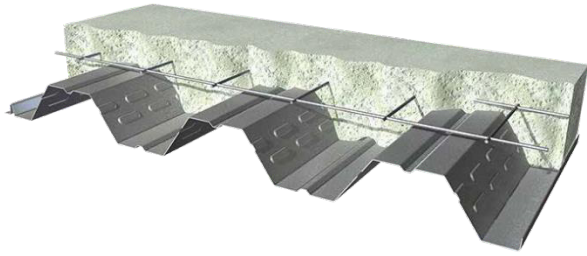
GA	Vertical Load Span (mm)	1800	1950	2100	2250	2400	2550	2700	2850	3000	3150	3300	3450	3600	3750	3900	
22	ASD & LRFD - Superimposed Load, W (kPa)																
	ASD, W/Ω	46.8	39.5	33.7	29.0	25.1	21.9	19.3	17.0	15.1	13.5	12.0	10.7	9.6	8.7	7.8	
	LRFD, φW	74.9	63.2	53.9	46.3	40.2	35.1	30.8	27.2	24.1	21.5	19.2	17.2	15.4	13.9	12.5	
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	LRFD - Diaphragm Shear, φS_n (kN/m) 36/4 Attachment Pattern																
	Arc Spot Weld 13mm Effective Dia	82.9	82.5	82.0	81.5	81.0	80.7	80.3	80.2	79.9	79.7	79.4	79.2	79.0	79.0	79.0	78.8
	PAF Base Steel ≥ 6.4mm	79.2	79.1	78.8	78.5	78.3	78.1	77.9	77.9	77.7	77.5	77.4	77.3	77.2	77.2	77.1	
	PAF Base Steel ≥ 3.2mm	78.9	78.8	78.5	78.3	78.1	77.8	77.7	77.7	77.5	77.4	77.3	77.1	77.1	77.1	77.0	
	#12 Screw Base Steel ≥ 0.9mm	78.7	78.6	78.3	78.1	77.8	77.7	77.5	77.5	77.4	77.2	77.1	77.0	76.9	77.0	76.9	
	Concrete + Deck = 3.66 kPa						I _{cr} = 14605 cm ⁴ /m						M _{no} /Ω = 2165 kN-cm/m	V _n /Ω = 74.6 kN/m			
(I _{cr} + I _u)/2 = 30425 cm ⁴ /m						I _u = 46250 cm ⁴ /m						φM _{no} = 3310 kN-cm/m	φV _n = 108.3 kN/m				

GA	Vertical Load Span (mm)	1800	1950	2100	2250	2400	2550	2700	2850	3000	3150	3300	3450	3600	3750	3900
21	ASD & LRFD - Superimposed Load, W (kPa)															
	ASD, W/Ω	53.0	44.7	38.2	32.9	28.6	25.0	22.0	19.5	17.3	15.5	13.8	12.4	11.2	10.1	9.1
	LRFD, φW	84.7	71.5	61.1	52.7	45.7	40.0	35.2	31.2	27.7	24.7	22.1	19.9	17.9	16.1	14.6
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, φS_n (kN/m) 36/4 Attachment Pattern															
	Arc Spot Weld 13mm Effective Dia	84.1	83.7	83.0	82.5	82.0	81.5	81.1	81.0	80.7	80.4	80.1	79.9	79.7	79.6	79.4
	PAF Base Steel ≥ 6.4mm	79.8	79.7	79.4	79.1	78.8	78.5	78.3	78.3	78.1	78.0	77.8	77.7	77.5	77.6	77.5
	PAF Base Steel ≥ 3.2mm	79.5	79.4	79.1	78.8	78.5	78.3	78.1	78.1	77.9	77.8	77.6	77.5	77.4	77.4	77.3
	#12 Screw Base Steel ≥ 0.9mm	79.2	79.2	78.8	78.6	78.3	78.1	77.9	77.9	77.8	77.6	77.5	77.4	77.2	77.3	77.2
	Concrete + Deck = 3.68 kPa						I _{cr} = 16145 cm ⁴ /m						M _{no} /Ω = 2435 kN-cm/m	V _n /Ω = 82.2 kN/m		
(I _{cr} + I _u)/2 = 31510 cm ⁴ /m						I _u = 46870 cm ⁴ /m						φM _{no} = 3725 kN-cm/m	φV _n = 118.7 kN/m			

GA	Vertical Load Span (mm)	1800	1950	2100	2250	2400	2550	2700	2850	3000	3150	3300	3450	3600	3750	3900
20	ASD & LRFD - Superimposed Load, W (kPa)															
	ASD, W/Ω	56.0	47.3	40.4	34.9	30.3	26.5	23.4	20.7	18.4	16.4	14.7	13.2	11.9	10.8	9.8
	LRFD, φW	89.6	75.7	64.6	55.7	48.5	42.4	37.3	33.1	29.4	26.3	23.6	21.2	19.1	17.2	15.6
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, φS_n (kN/m) 36/4 Attachment Pattern															
	Arc Spot Weld 13mm Effective Dia	84.7	84.3	83.6	83.0	82.4	82.0	81.6	81.4	81.1	80.8	80.5	80.2	80.0	80.0	79.8
	PAF Base Steel ≥ 6.4mm	80.2	80.1	79.7	79.3	79.0	78.8	78.5	78.6	78.4	78.2	78.0	77.9	77.7	77.8	77.7
	PAF Base Steel ≥ 3.2mm	79.8	79.7	79.4	79.1	78.8	78.5	78.3	78.4	78.2	78.0	77.8	77.7	77.6	77.6	77.5
	#12 Screw Base Steel ≥ 0.9mm	79.5	79.5	79.1	78.8	78.6	78.3	78.1	78.2	78.0	77.8	77.7	77.5	77.4	77.5	77.4
	Concrete + Deck = 3.68 kPa						I _{cr} = 16890 cm ⁴ /m						M _{no} /Ω = 2570 kN-cm/m	V _n /Ω = 86.4 kN/m		
(I _{cr} + I _u)/2 = 32050 cm ⁴ /m						I _u = 47180 cm ⁴ /m						φM _{no} = 3925 kN-cm/m	φV _n = 124.3 kN/m			

2WH-36 Hi Form™ Composite Deck 2.2

184mm Total Slab Depth
2320 kg/m³ Normal Weight Concrete



GA	Vertical Load Span (mm)	1800	1950	2100	2250	2400	2550	2700	2850	3000	3150	3300	3450	3600	3750	3900
19	ASD & LRFD - Superimposed Load, W (kPa)															
	ASD, W/Ω	66.6	56.3	48.2	41.6	36.2	31.7	28.1	24.9	22.2	19.9	17.9	16.1	14.6	13.2	12.0
	LRFD, φW L/360	106.4	90.1	77.0	66.6	57.9	50.8	44.9	39.8	35.5	31.8	28.6	25.8	23.3	21.1	19.2
	LRFD - Diaphragm Shear, φS_n (kN/m) 36/4 Attachment Pattern															
	Arc Spot Weld 13mm Effective Dia	86.8	86.4	85.5	84.8	84.2	83.6	83.1	83.0	82.5	82.1	81.8	81.5	81.2	81.2	80.9
	PAF Base Steel ≥ 6.4mm	81.3	81.3	80.8	80.4	80.0	79.7	79.4	79.5	79.2	79.0	78.8	78.6	78.4	78.5	78.4
	PAF Base Steel ≥ 3.2mm	80.9	80.9	80.4	80.0	79.7	79.4	79.1	79.2	79.0	78.7	78.5	78.4	78.2	78.3	78.2
	#12 Screw Base Steel ≥ 0.9mm	80.6	80.6	80.2	79.8	79.4	79.2	78.9	79.0	78.8	78.6	78.4	78.2	78.1	78.2	78.0
	Concrete + Deck = 3.70 kPa (I _{cr} + I _u)/2 = 33810 cm ⁴ /m						I _{cr} = 19420 cm ⁴ /m I _u = 48265 cm ⁴ /m			M _{no} /Ω = 3025 kN-cm/m φM _{no} = 4635 kN-cm/m			V _n /Ω = 97.5 kN/m φV _n = 140.0 kN/m			
	18	ASD & LRFD - Superimposed Load, W (kPa)														
ASD, W/Ω		73.7	62.4	53.4	46.2	40.3	35.4	31.2	27.8	24.8	22.2	20.0	18.1	16.4	14.8	13.6
LRFD, φW L/360		118.0	99.9	85.5	73.9	64.4	56.6	50.0	44.4	39.6	35.5	32.0	28.9	26.2	23.8	21.6
LRFD - Diaphragm Shear, φS_n (kN/m) 36/4 Attachment Pattern																
Arc Spot Weld 13mm Effective Dia		88.4	88.0	87.0	86.2	85.4	84.8	84.2	84.1	83.6	83.2	82.8	82.4	82.1	82.1	81.8
PAF Base Steel ≥ 6.4mm		82.2	82.2	81.6	81.1	80.7	80.3	80.0	80.1	79.8	79.6	79.4	79.1	78.9	79.1	78.9
PAF Base Steel ≥ 3.2mm		81.7	81.7	81.2	80.8	80.4	80.0	79.7	79.8	79.6	79.3	79.1	78.9	78.7	78.8	78.7
#12 Screw Base Steel ≥ 0.9mm		81.4	81.4	80.9	80.5	80.1	79.8	79.5	79.6	79.4	79.1	78.9	78.7	78.5	78.7	78.5
Concrete + Deck = 3.71 kPa (I _{cr} + I _u)/2 = 35025 cm ⁴ /m							I _{cr} = 21080 cm ⁴ /m I _u = 48995 cm ⁴ /m			M _{no} /Ω = 3345 kN-cm/m φM _{no} = 5115 kN-cm/m			V _n /Ω = 97.5 kN/m φV _n = 146.2 kN/m			
16		ASD & LRFD - Superimposed Load, W (kPa)														
	ASD, W/Ω	90.7	76.8	65.9	57.0	49.8	43.8	38.7	34.5	30.8	27.7	25.0	22.6	20.6	18.7	17.1
	LRFD, φW L/360	145.1	123.0	105.4	91.2	79.6	70.0	62.0	55.2	49.4	44.3	40.0	36.2	32.9	30.0	27.4
	LRFD - Diaphragm Shear, φS_n (kN/m) 36/4 Attachment Pattern															
	Arc Spot Weld 13mm Effective Dia	92.4	91.9	90.7	89.6	88.6	87.8	87.0	87.0	86.4	85.8	85.3	84.8	84.3	84.4	84.0
	PAF Base Steel ≥ 6.4mm	84.5	84.5	83.7	83.1	82.5	82.1	81.6	81.9	81.5	81.2	80.8	80.6	80.3	80.6	80.3
	PAF Base Steel ≥ 3.2mm	83.7	83.5	83.0	82.4	81.9	81.4	81.0	81.3	81.0	80.7	80.4	80.1	79.9	80.1	79.9
	#12 Screw Base Steel ≥ 0.9mm	83.4	83.4	83.0	82.4	81.9	81.4	81.0	81.3	81.0	80.7	80.4	80.1	79.8	80.1	79.9
	Concrete + Deck = 3.74 kPa (I _{cr} + I _u)/2 = 37730 cm ⁴ /m						I _{cr} = 24830 cm ⁴ /m I _u = 50725 cm ⁴ /m			M _{no} /Ω = 4085 kN-cm/m φM _{no} = 6245 kN-cm/m			V _n /Ω = 97.5 kN/m φV _n = 146.2 kN/m			
	All Gauges	LRFD - Diaphragm Shear, φS_n (kN/m) for all vertical load spans, WWF Designation or Area of Steel per meter width														
19mm Welded Shear Studs		152x152 MW9xMW9			152x152 MW19xMW19			152x152 MW26xMW26			102x102 MW26xMW26			102x102 MW39xMW39		
		A _s = 59.3 mm ² /m			A _s = 122.8 mm ² /m			A _s = 169.3 mm ² /m			A _s = 254.0 mm ² /m			A _s = 381 mm ² /m		
305 mm o.c.		n/a			112.95			127.40			153.67			193.07		
610 mm o.c.		n/a			112.95			113.15			113.15			113.15		
914 mm o.c.	n/a			75.43			75.43			75.43			75.43			



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