3WH-36 Hi Form™
COMPOSITE DECK
TECHNICAL MANUAL

SMI

Dependable Steel

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1.1 **General Information**

SMI Dependable Steel

General

1. 3WH-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 137.9 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 3WH-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)

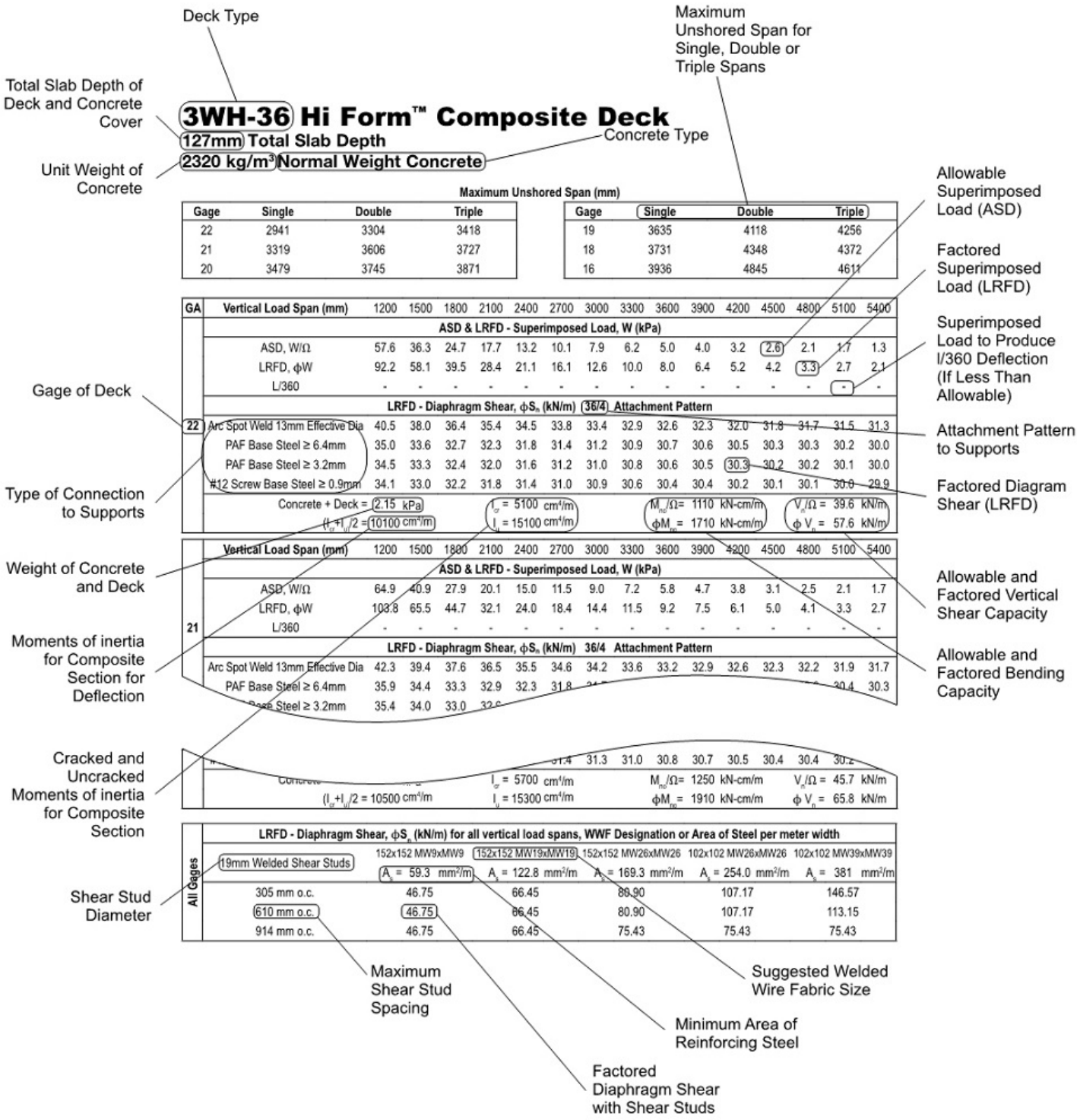
   b. Resistance and safety factors for diaphragm shear, $\phi = 0.5$ and $\Omega = 3.25$ respectively.

   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



GA | Vertical Load Span (mm) | 1200 | 1500 | 1800 | 2100 | 2400 | 2700 | 3000 | 3300 | 3600 | 3900 | 4200 | 4500 | 4800 | 5100 | 5400

ASD & LRFD - Superimposed Load, W (kPa)

	ASD, W/Ω	57.6	36.3	24.7	17.7	13.2	10.1	7.9	6.2	5.0	4.0	3.2	2.6	2.1	1.7	1.3
	LRFD, ϕW	92.2	58.1	39.5	28.4	21.1	16.1	12.6	10.0	8.0	6.4	5.2	4.2	3.3	2.7	2.1
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

LRFD - Diaphragm Shear, ϕS_n (kN/m) 36/4 Attachment Pattern

22	Arc Spot Weld 13mm Effective Dia	40.5	38.0	36.4	35.4	34.5	33.8	33.4	32.9	32.6	32.3	32.0	31.8	31.7	31.5	31.3
	PAF Base Steel ≥ 6.4mm	35.0	33.6	32.7	32.3	31.8	31.4	31.2	30.9	30.7	30.6	30.5	30.3	30.3	30.2	30.0
	PAF Base Steel ≥ 3.2mm	34.5	33.3	32.4	32.0	31.6	31.2	31.0	30.8	30.6	30.5	30.3	30.2	30.2	30.1	30.0
	#12 Screw Base Steel ≥ 0.9mm	34.1	33.0	32.2	31.8	31.4	31.0	30.9	30.6	30.4	30.4	30.2	30.1	30.1	30.0	29.9

Concrete + Deck = 2.15 kPa
$(I_{cr}+I_u)/2$ = 10100 cm⁴/m
I_{cr} = 5100 cm⁴/m
I_u = 15100 cm⁴/m
M_{no}/Ω = 1110 kN-cm/m
ϕM_{no} = 1710 kN-cm/m
V_n/Ω = 39.6 kN/m
ϕV_n = 57.6 kN/m

Vertical Load Span (mm) | 1200 | 1500 | 1800 | 2100 | 2400 | 2700 | 3000 | 3300 | 3600 | 3900 | 4200 | 4500 | 4800 | 5100 | 5400

ASD & LRFD - Superimposed Load, W (kPa)

	ASD, W/Ω	64.9	40.9	27.9	20.1	15.0	11.5	9.0	7.2	5.8	4.7	3.8	3.1	2.5	2.1	1.7
	LRFD, ϕW	103.8	65.5	44.7	32.1	24.0	18.4	14.4	11.5	9.2	7.5	6.1	5.0	4.1	3.3	2.7
21	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

LRFD - Diaphragm Shear, ϕS_n (kN/m) 36/4 Attachment Pattern

	Arc Spot Weld 13mm Effective Dia	42.3	39.4	37.6	36.5	35.5	34.6	34.2	33.6	33.2	32.9	32.6	32.3	32.2	31.9	31.7
	PAF Base Steel ≥ 6.4mm	35.9	34.4	33.3	32.9	32.3	31.8								30.4	30.3
	Base Steel ≥ 3.2mm	35.4	34.0	33.0	32.6											

	Concrete						31.4	31.3	31.0	30.8	30.7	30.5	30.4	30.4	30.2	

$(I_{cr}+I_u)/2$ = 10500 cm⁴/m
I_{cr} = 5700 cm⁴/m
I_u = 15300 cm⁴/m
M_{no}/Ω = 1250 kN-cm/m
ϕM_{no} = 1910 kN-cm/m
V_n/Ω = 45.7 kN/m
ϕV_n = 65.8 kN/m

LRFD - Diaphragm Shear, ϕS_n (kN/m) for all vertical load spans, WWF Designation or Area of Steel per meter width

All Gages	19mm Welded Shear Studs	152x152 MW9xMW9 A_s = 59.3 mm²/m	152x152 MW19xMW19 A_s = 122.8 mm²/m	152x152 MW26xMW26 A_s = 169.3 mm²/m	102x102 MW26xMW26 A_s = 254.0 mm²/m	102x102 MW39xMW39 A_s = 381 mm²/m
	305 mm o.c.	46.75	66.45	89.90	107.17	146.57
	610 mm o.c.	46.75	66.45	80.90	107.17	113.15
	914 mm o.c.	46.75	66.45	75.43	75.43	75.43

Figure 1.1: **How to Read Composite Tables**

b. Power actuated fasteners in support steel ≥ 6.3mm thick.
Hilti X-ENP19
Pneutek K64
Pneutek K66

c. Power actuated fasteners in support steel ≥ 3.2mm thick.
Hilti X-HSN24 & X-EDNK22
Pneutek K63
Pneutek K61

d. Self drilling screws in support steel
≥ 0.86mm thick
#12 Screw

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).

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).

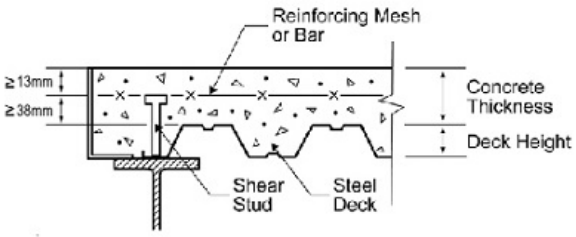
9. Concrete reinforcement details shall be in accordance with ACI 318.

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.

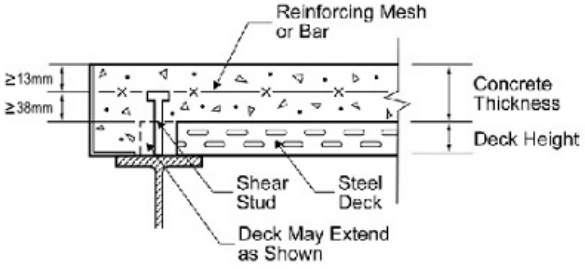
11. The following shear capacities are for 51mm of concrete cover above the steel deck and may be used conservatively for all thicknesses greater than 51mm:

Concrete Type	Shear Capacity	
	Allowable	Factored
2320 kg/m³ Normal Weight Concrete	45.8 kN	68.9 kN
1760 kg/m³ Light Weight Concrete	45.8 kN	68.9 kN

12. See figures below for typical details

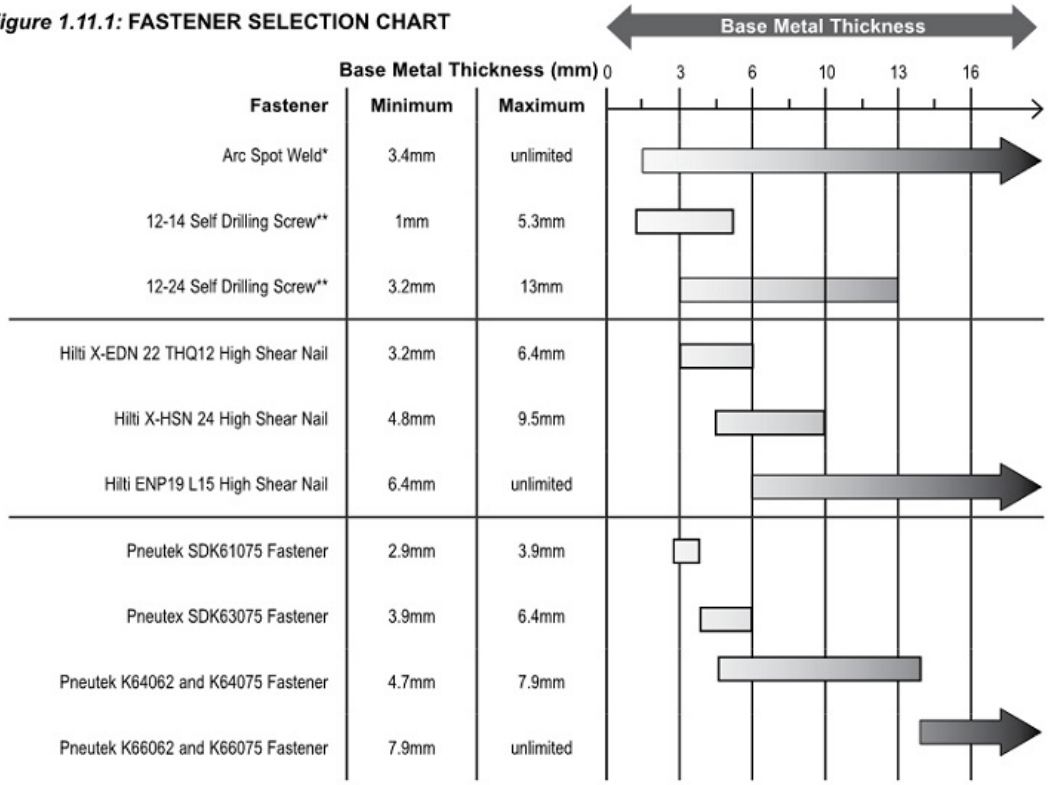


Deck Parallel to Beam



Deck Perpendicular to Beam

Figure 1.11.1: **FASTENER SELECTION CHART**



Fastener	Minimum	Maximum
Arc Spot Weld*	3.4mm	unlimited
12-14 Self Drilling Screw**	1mm	5.3mm
12-24 Self Drilling Screw**	3.2mm	13mm
Hilti X-EDN 22 THQ12 High Shear Nail	3.2mm	6.4mm
Hilti X-HSN 24 High Shear Nail	4.8mm	9.5mm
Hilti ENP19 L15 High Shear Nail	6.4mm	unlimited
Pneutek SDK61075 Fastener	2.9mm	3.9mm
Pneutex SDK63075 Fastener	3.9mm	6.4mm
Pneutek K64062 and K64075 Fastener	4.7mm	7.9mm
Pneutek K66062 and K66075 Fastener	7.9mm	unlimited

*Below 10 gage 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**

SMI Dependable Steel

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	Fiberous
1, 1 1/2, 2, 3 & 4	D858	64mm LWT & NWT	Fiberous
2	D861	64mm LWT & NWT	Fiberous
1, 1 1/2,	D859	51mm LWT & NWT	Fiberous
1, 1 1/2,	D871	64mm LWT & NWT	Fiberous
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	

Figure 1.11.10

Nominal Strength **WELDING CAPACITIES**

Deck Panel	Gage	Arc Spot (puddle) Weld (13mm effective diameter)		Arc Seam Weld (9.5 mm x 25 mm in effective width & length)
		Shear (kN)	Tensile (kN) IBC	Shear (kN)
3WH-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
3WHF-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**

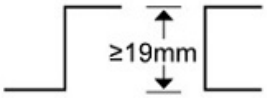
Deck Panel	Gage	Nominal Shear Strength (kN)							
		Screws	Hilti			Pneutek			
		#12 Self Drill	X-ENP-19 L15	X-HSN 24	X-EDNK22 THQ12	K64062 K64075	K63062 K63075	SDK63075	SDK61075
3WH-36 Hi Form™	22	6.0	7.0	6.5	6.5	7.9	7.4	7.5	6.7
	21	6.9	7.9	7.4	7.4	9.1	8.9	8.3	7.5
	20	7.3	8.4	7.8	7.8	9.8	9.6	8.6	8.0
	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
3WHF-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*

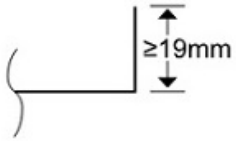
1.4 **Flashings**

FLASHING THICKNESS BY GAGE	
Gage	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

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 gages. (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.

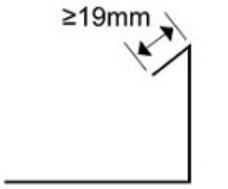


MINIMUM FLAT WIDTH



MINIMUM STIFFENER WIDTH

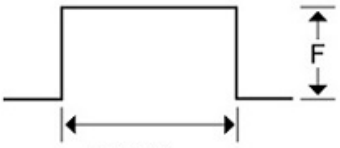
ANGLE



ANGLE WITH STIFFENER

ZEE

STRIP FILLER PLATE

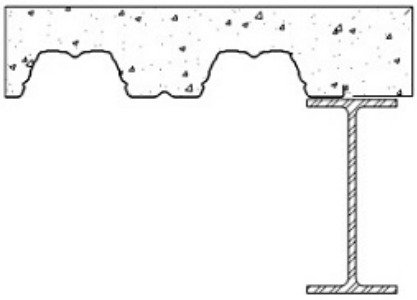


HAT

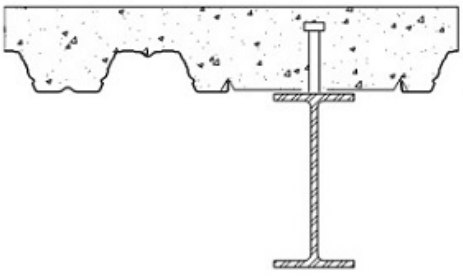
CHANNEL

Typical Details

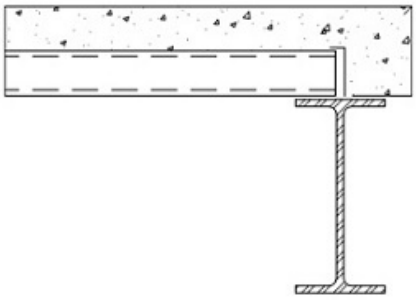
EDGE FROM AT THE PARALLEL CONDITION



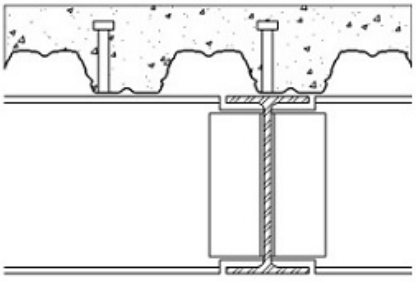
FILLER PLATE



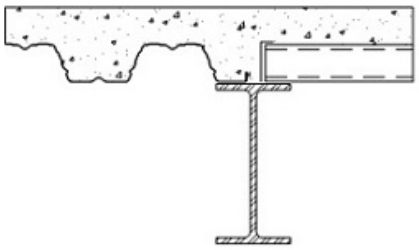
EDGE FROM AT THE PERPENDICULAR CONDITION



STUD LOCATIONS



CELL CLOSURE

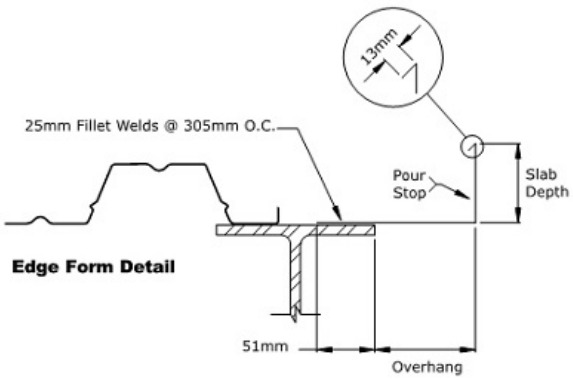


SDI Edge Form 1.5

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											



Edge Form Detail

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.

3WH-36 Hi Form™ NEOPRENE AND METAL CLOSURES

3WH-36 Hi Form™ Neoprene Top

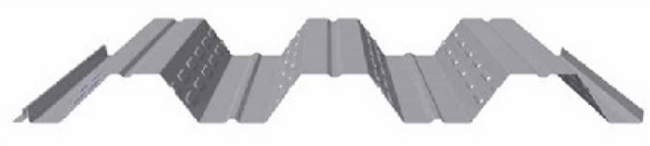
3WH-36 Hi Form™ Metal Bottom

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.

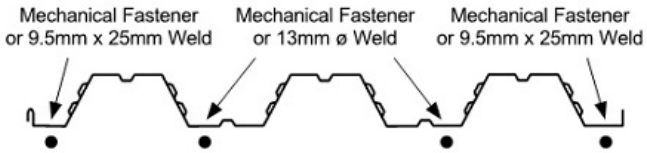
Profile Cut Metal Closures.
Metal closures may be used to control animal nesting within the building structure. Metal closures may be used in combination with neoprene closures. Metal closures with calking can also be used to reduce noise infiltration as part of an acoustically engineered system. The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

3WH-36 Hi Form™ Deck 2.1

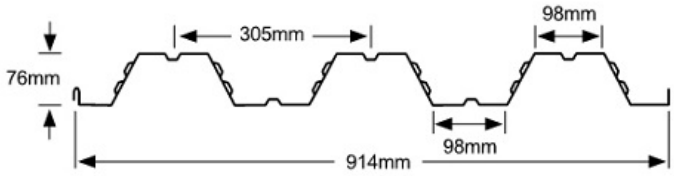
Section Properties



Attachment Patterns



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



Panel Properties

Gage	Weight	Base Metal Thickness	Yield Strength	Tensile Strength	Gross Section Properties: Area	Moment of Inertia	Distance to N.A. from Bottom	Section Modulus	Radius of Gyration
	w Pa	t mm	F_y mPa	F_u mPa	A_g mm²/m	I_g cm⁴/m	y_b mm	s_g cm³/m	r mm
22	81.3	0.737	345	448	1003	93.8	36.9	25.4	30.6
21	92.12	0.838	345	448	1140	107.0	37.0	28.9	30.6
20	97.06	0.889	345	448	1209	113.3	37.0	30.6	26.0
19	115.09	1.067	345	448	1449	136.1	37.1	36.6	30.6
18	128.49	1.194	345	448	1620	152.0	37.2	40.9	30.6
16	160.64	1.499	345	448	2030	190.7	37.4	51.1	30.7

Gage	Effective Section Modulus: For Compression Area	For Bending at F_y: Section Modulus	Distance to N.A. from Bottom	Section Modulus	Distance to N.A. from Bottom	Effective Moment of Inertia: For Deflection at Service Load: Moment of Inertia	Moment of Inertia	Uniform Load Only $I_d = (2I_e+I_g)/3$	
	A_e+ mm²/m	S_e+ cm³/m	y_b mm	S_e- cm³/m	y_b mm	I_e+ cm⁴/m	I_e- cm⁴/m	I+ cm⁴/m	I- cm⁴/m
22	612	19.8	34.2	21.5	39.6	92.4	91.0	92.9	91.9
21	751	24.2	35.4	25.7	38.9	107.0	105.6	107.0	106.1
20	824	26.2	35.8	27.7	38.5	113.3	112.4	113.3	112.7
19	1092	33.5	36.9	33.7	37.4	136.1	135.6	136.1	135.8
18	1276	37.8	37.2	37.7	37.4	152.0	152.0	152.0	152.0
16	1711	47.3	37.3	47.3	37.4	190.7	190.7	190.7	190.7

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

Gage	Condition	Bearing Length of Webs: Allowable (R_n/Ω) 25mm	51mm	102mm	152mm	Factored (ΦR_n) 25mm	76mm	102mm	152mm
22	End	3.9	4.8	6.1	7.2	5.9	8.5	9.4	11.0
	Interior	6.9	8.3	10.4	11.9	10.3	14.0	15.4	17.7
21	End	4.9	6.1	7.8	9.1	7.6	10.8	12.0	13.9
	Interior	8.8	10.6	13.1	15.0	13.1	17.8	19.5	22.3
20	End	5.5	6.9	8.7	10.1	8.5	12.0	13.3	15.5
	Interior	9.9	11.8	14.6	16.7	14.7	19.8	21.7	24.8
19	End	7.9	9.6	12.2	14.1	12.0	16.9	18.6	21.6
	Interior	14.0	16.6	20.3	23.1	20.8	27.7	30.2	34.4
18	End	9.7	11.9	14.9	17.3	14.9	20.7	22.9	26.5
	Interior	17.3	20.4	24.9	28.3	25.7	34.0	37.0	42.1
16	End	15.0	18.1	22.6	26.0	22.9	31.5	34.6	39.8
	Interior	26.6	31.1	37.5	42.4	39.5	51.5	55.8	63.1

Web Crippling Constraints h=89mm r= 3.2mm θ=54.4°

2.2 3WH-36 Hi Form™ Composite Deck

127mm Total Slab Depth

2320 kg/m³ Normal Weight Concrete

SMI Dependable Steel

Maximum Unshored Span (mm)

Gage	Single	Double	Triple
22	2941	3304	3418
21	3319	3606	3727
20	3479	3745	3871

Gage	Single	Double	Triple
19	3635	4118	4256
18	3731	4348	4372
16	3936	4845	4611

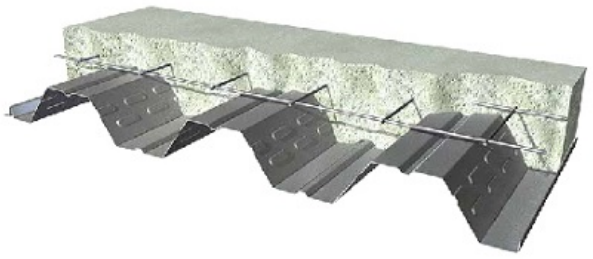
GA	Vertical Load Span (mm)	1200	1500	1800	2100	2400	2700	3000	3300	3600	3900	4200	4500	4800	5100	5400
22	**ASD & LRFD - Superimposed Load, W (kPa)**															
	ASD, W/Ω	57.6	36.3	24.7	17.7	13.2	10.1	7.9	6.2	5.0	4.0	3.2	2.6	2.1	1.7	1.3
	LRFD, ϕW	92.2	58.1	39.5	28.4	21.1	16.1	12.6	10.0	8.0	6.4	5.2	4.2	3.3	2.7	2.1
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, ϕS_n (kN/m) 36/4 Attachment Pattern															
	Arc Spot Weld 13mm Effective Dia	39.9	37.6	36.0	34.9	34.1	33.4	32.9	32.5	32.1	31.8	31.6	31.3	31.1	31.0	30.8
	PAF Base Steel ≥ 6.4mm	34.3	33.1	32.3	31.7	31.3	30.9	30.7	30.4	30.3	30.1	30.0	29.8	29.7	29.7	29.6
	PAF Base Steel ≥ 3.2mm	33.9	32.8	32.0	31.5	31.1	30.7	30.5	30.3	30.1	30.0	29.8	29.7	29.6	29.5	29.5
	#12 Screw Base Steel ≥ 0.9mm	33.5	32.4	31.7	31.2	30.8	30.6	30.3	30.1	30.0	29.8	29.7	29.6	29.5	29.5	29.4
	Concrete + Deck = 2.15 kPa				I_{cr} = 5100 cm⁴/m					M_{no}/Ω= 1110 kN-cm/m				V_n/Ω = 48.0 kN/m		
	$(I_{cr}+I_u)/2$ = 9300 cm⁴/m				I_u = 13500 cm⁴/m					ϕM_{no} = 1710 kN-cm/m				ϕ V_n = 69.4 kN/m		

GA	Vertical Load Span (mm)	1200	1500	1800	2100	2400	2700	3000	3300	3600	3900	4200	4500	4800	5100	5400
21	**ASD & LRFD - Superimposed Load, W (kPa)**															
	ASD, W/Ω	64.9	40.9	27.9	20.1	15.0	11.5	9.0	7.2	5.8	4.7	3.8	3.1	2.5	2.1	1.7
	LRFD, ϕW	103.8	65.5	44.7	32.1	24.0	18.4	14.4	11.5	9.2	7.5	6.1	5.0	4.1	3.3	2.7
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, ϕS_n (kN/m) 36/4 Attachment Pattern															
	Arc Spot Weld 13mm Effective Dia	41.5	38.8	37.1	35.8	34.8	34.1	33.5	33.0	32.6	32.3	32.0	31.7	31.5	31.3	31.1
	PAF Base Steel ≥ 6.4mm	35.1	33.7	32.8	32.1	31.6	31.2	30.9	30.7	30.5	30.3	30.1	30.0	29.9	29.8	29.7
	PAF Base Steel ≥ 3.2mm	34.6	33.3	32.4	31.8	31.4	31.0	30.7	30.5	30.3	30.1	30.0	29.9	29.8	29.7	29.6
	#12 Screw Base Steel ≥ 0.9mm	34.2	33.0	32.2	31.6	31.2	30.8	30.6	30.3	30.2	30.0	29.9	29.8	29.7	29.6	29.5
	Concrete + Deck = 2.16 kPa				I_{cr} = 5700 cm⁴/m					M_{no}/Ω= 1250 kN-cm/m				V_n/Ω = 56.7 kN/m		
	$(I_{cr}+I_u)/2$ = 9800 cm⁴/m				I_u = 13800 cm⁴/m					ϕM_{no} = 1910 kN-cm/m				ϕ V_n = 81.2 kN/m		

GA	Vertical Load Span (mm)	1200	1500	1800	2100	2400	2700	3000	3300	3600	3900	4200	4500	4800	5100	5400
20	**ASD & LRFD - Superimposed Load, W (kPa)**															
	ASD, W/Ω	68.4	43.2	29.5	21.2	15.9	12.2	9.6	7.6	6.2	5.0	4.1	3.4	2.8	2.3	1.8
	LRFD, ϕW	109.4	69.1	47.2	34.0	25.4	19.5	15.3	12.2	9.9	8.0	6.6	5.4	4.4	3.6	2.9
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, ϕS_n (kN/m) 36/4 Attachment Pattern															
	Arc Spot Weld 13mm Effective Dia	42.3	39.5	37.6	36.2	35.2	34.4	33.8	33.3	32.9	32.5	32.2	31.9	31.7	31.5	31.3
	PAF Base Steel ≥ 6.4mm	35.5	34.0	33.0	32.3	31.8	31.4	31.1	30.8	30.6	30.4	30.2	30.1	30.0	29.9	29.8
	PAF Base Steel ≥ 3.2mm	34.9	33.6	32.7	32.0	31.5	31.2	30.9	30.6	30.4	30.2	30.1	29.9	29.8	29.7	29.6
	#12 Screw Base Steel ≥ 0.9mm	34.5	33.2	32.4	31.8	31.3	31.0	30.7	30.4	30.2	30.1	29.9	29.8	29.7	29.6	29.5
	Concrete + Deck = 2.16 kPa				I_{cr} = 5900 cm⁴/m					M_{no}/Ω= 1320 kN-cm/m				V_n/Ω = 59.3 kN/m		
	$(I_{cr}+I_u)/2$ = 9900 cm⁴/m				I_u = 13900 cm⁴/m					ϕM_{no} = 2020 kN-cm/m				ϕ V_n = 88.3 kN/m		

3WH-36 Hi Form™ Composite Deck 2.2

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



GA	Vertical Load Span (mm)	1200	1500	1800	2100	2400	2700	3000	3300	3600	3900	4200	4500	4800	5100	5400
	ASD & LRFD - Superimposed Load, W (kPa)															
	ASD, W/Ω	80.6	51.0	34.9	25.2	18.9	14.6	11.5	9.2	7.5	6.1	5.1	4.2	3.5	2.9	2.4
	LRFD, ϕW	128.9	81.5	55.8	40.3	30.3	23.4	18.4	14.8	12.0	9.8	8.1	6.7	5.6	4.7	3.9
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, ϕS_n (kN/m) 36/4 Attachment Pattern															
19	Arc Spot Weld 13mm Effective Dia	45.1	41.7	39.4	37.8	36.6	35.6	34.9	34.3	33.7	33.3	32.9	32.6	32.3	32.1	31.8
	PAF Base Steel ≥ 6.4mm	36.8	35.0	33.8	33.0	32.4	31.9	31.5	31.2	30.9	30.7	30.5	30.4	30.2	30.1	30.0
	PAF Base Steel ≥ 3.2mm	36.1	34.5	33.4	32.7	32.1	31.6	31.3	31.0	30.7	30.5	30.3	30.2	30.1	29.9	29.8
	#12 Screw Base Steel ≥ 0.9mm	35.7	34.1	33.1	32.4	31.8	31.4	31.1	30.8	30.6	30.4	30.2	30.1	29.9	29.8	29.7
	Concrete + Deck = 2.18 kPa				I_{cr} = 6700 cm⁴/m					M_{no}/Ω= 1550 kN-cm/m				V_n/Ω = 59.3 kN/m		
	$(I_{cr}+I_u)/2$ = 10600 cm⁴/m				I_u = 14400 cm⁴/m					ϕM_{no} = 2370 kN-cm/m				ϕV_n = 88.9 kN/m		

GA	Vertical Load Span (mm)	1200	1500	1800	2100	2400	2700	3000	3300	3600	3900	4200	4500	4800	5100	5400
	ASD & LRFD - Superimposed Load, W (kPa)															
	ASD, W/Ω	88.9	56.3	38.6	27.9	21.0	16.2	12.8	10.3	8.4	6.9	5.7	4.8	4.0	3.4	2.8
	LRFD, ϕW	142.3	90.1	61.8	44.7	33.6	26.0	20.6	16.5	13.5	11.1	9.2	7.7	6.4	5.4	4.5
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, ϕS_n (kN/m) 36/4 Attachment Pattern															
18	Arc Spot Weld 13mm Effective Dia	47.2	43.3	40.8	38.9	37.6	36.5	35.6	34.9	34.4	33.9	33.4	33.1	32.8	32.5	32.2
	PAF Base Steel ≥ 6.4mm	37.7	35.7	34.4	33.5	32.8	32.3	31.8	31.5	31.2	30.9	30.7	30.5	30.4	30.2	30.1
	PAF Base Steel ≥ 3.2mm	37.0	35.2	34.0	33.1	32.5	32.0	31.6	31.2	31.0	30.7	30.5	30.4	30.2	30.1	30.0
	#12 Screw Base Steel ≥ 0.9mm	36.5	34.8	33.6	32.8	32.2	31.8	31.4	31.1	30.8	30.6	30.4	30.2	30.1	30.0	29.9
	Concrete + Deck = 2.19 kPa				I_{cr} = 7300 cm⁴/m					M_{no}/Ω= 1710 kN-cm/m				V_n/Ω = 59.3 kN/m		
	$(I_{cr}+I_u)/2$ = 11000 cm⁴/m				I_u = 14700 cm⁴/m					ϕM_{no} = 2610 kN-cm/m				ϕV_n = 88.9 kN/m		

GA	Vertical Load Span (mm)	1200	1500	1800	2100	2400	2700	3000	3300	3600	3900	4200	4500	4800	5100	5400
	ASD & LRFD - Superimposed Load, W (kPa)															
	ASD, W/Ω	98.8	68.8	47.2	34.3	25.8	20.1	15.9	12.9	10.6	8.7	7.3	6.1	5.0	4.2	3.5
	LRFD, ϕW	148.2	110.0	75.6	54.8	41.3	32.1	25.5	20.6	16.9	14.0	11.7	9.9	8.3	7.1	6.0
	L/360	-	-	-	-	-	-	-	-	-	-	-	6.1	5.0	4.2	3.5
	LRFD - Diaphragm Shear, ϕS_n (kN/m) 36/4 Attachment Pattern															
16	Arc Spot Weld 13mm Effective Dia	52.1	47.2	44.0	41.7	39.9	38.6	37.5	36.6	35.9	35.3	34.7	34.3	33.9	33.5	33.2
	PAF Base Steel ≥ 6.4mm	39.8	37.4	35.8	34.7	33.8	33.1	32.6	32.2	31.8	31.5	31.2	31.0	30.8	30.6	30.5
	PAF Base Steel ≥ 3.2mm	38.5	36.4	35.0	33.9	33.2	32.6	32.1	31.7	31.4	31.1	30.9	30.7	30.5	30.3	30.2
	#12 Screw Base Steel ≥ 0.9mm	38.5	36.4	34.9	33.9	33.1	32.5	32.1	31.7	31.4	31.1	30.8	30.6	30.5	30.3	30.2
	Concrete + Deck = 2.23 kPa				I_{cr} = 8600 cm⁴/m					M_{no}/Ω= 2070 kN-cm/m				V_n/Ω = 59.3 kN/m		
	$(I_{cr}+I_u)/2$ = 12000 cm⁴/m				I_u = 15400 cm⁴/m					ϕM_{no} = 3170 kN-cm/m				ϕV_n = 88.9 kN/m		

	LRFD - Diaphragm Shear, ϕS_n (kN/m) for all vertical load spans, WWF Designation or Area of Steel per meter width					
All Gages	19mm Welded Shear Studs	152x152 MW9xMW9	152x152 MW19xMW19	152x152 MW26xMW26	102x102 MW26xMW26	102x102 MW39xMW39
		A_s = 59.3 mm²/m	A_s = 122.8 mm²/m	A_s = 169.3 mm²/m	A_s = 254.0 mm²/m	A_s = 381 mm²/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 3WH-36 Hi Form™ Composite Deck

152mm Total Slab Depth

2320 kg/m³ Normal Weight Concrete

SMI Dependable Steel

Maximum Unshored Span (mm)

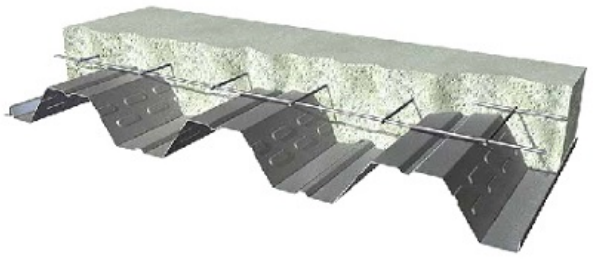
Gage	Single	Double	Triple
22	2694	3042	3144
21	3033	3318	3429
20	3181	3447	3563

Gage	Single	Double	Triple
19	3435	3791	3918
18	3527	4004	4132
16	3723	4465	4361

GA	Vertical Load Span (mm)	1200	1500	1800	2100	2400	2700	3000	3300	3600	3900	4200	4500	4800	5100	5400
22	**ASD & LRFD - Superimposed Load, W (kPa)**															
	ASD, W/Ω	77.3	48.7	33.2	23.9	17.8	13.6	10.6	8.4	6.8	5.5	4.4	3.6	2.9	2.3	1.9
	LRFD, ϕW	123.6	77.9	53.1	38.2	28.4	21.8	17.0	13.5	10.8	8.7	7.1	5.7	4.6	3.7	3.0
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, ϕS_n (kN/m) 36/4 Attachment Pattern															
	Arc Spot Weld 13mm Effective Dia	54.2	51.9	50.3	49.2	48.4	47.7	47.2	46.8	46.4	46.1	45.9	45.7	45.5	45.3	45.1
	PAF Base Steel ≥ 6.4mm	48.6	47.4	46.6	46.0	45.6	45.2	45.0	44.8	44.6	44.4	44.3	44.2	44.1	44.0	43.9
	PAF Base Steel ≥ 3.2mm	48.2	47.1	46.3	45.8	45.4	45.1	44.8	44.6	44.4	44.3	44.1	44.0	43.9	43.9	43.8
	#12 Screw Base Steel ≥ 0.9mm	47.8	46.7	46.0	45.5	45.2	44.9	44.6	44.4	44.3	44.1	44.0	43.9	43.8	43.8	43.7
	Concrete + Deck = 2.74 kPa					I_{cr} = 8300 cm⁴/m						M_{no}/Ω= 1490 kN-cm/m			V_n/Ω = 58.2 kN/m	
	$(I_{cr}+I_{ut})/2$ = 15700 cm⁴/m					I_u = 23000 cm⁴/m						ϕM_{no} = 2280 kN-cm/m			ϕ V_n = 84.7 kN/m	
21	**Vertical Load Span (mm)**	1200	1500	1800	2100	2400	2700	3000	3300	3600	3900	4200	4500	4800	5100	5400
	ASD & LRFD - Superimposed Load, W (kPa)															
	ASD, W/Ω	87.1	55.0	37.5	27.0	20.2	15.5	12.2	9.7	7.8	6.4	5.2	4.3	3.5	2.9	2.3
	LRFD, ϕW	139.3	88.0	60.1	43.3	32.3	24.9	19.5	15.6	12.5	10.2	8.3	6.8	5.6	4.6	3.7
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, ϕS_n (kN/m) 36/4 Attachment Pattern															
	Arc Spot Weld 13mm Effective Dia	55.8	53.2	51.4	50.1	49.2	48.4	47.8	47.3	46.9	46.6	46.3	46.0	45.8	45.6	45.4
	PAF Base Steel ≥ 6.4mm	49.4	48.0	47.1	46.4	45.9	45.5	45.2	45.0	44.8	44.6	44.4	44.3	44.2	44.1	44.0
	PAF Base Steel ≥ 3.2mm	48.9	47.6	46.8	46.1	45.7	45.3	45.0	44.8	44.6	44.4	44.3	44.2	44.1	44.0	43.9
	#12 Screw Base Steel ≥ 0.9mm	48.5	47.3	46.5	45.9	45.5	45.1	44.9	44.7	44.5	44.3	44.2	44.1	44.0	43.9	43.8
	Concrete + Deck = 2.75 kPa					I_{cr} = 9200 cm⁴/m						M_{no}/Ω= 1680 kN-cm/m			V_n/Ω = 66.8 kN/m	
	$(I_{cr}+I_{ut})/2$ = 16400 cm⁴/m					I_u = 23500 cm⁴/m						ϕM_{no} = 2570 kN-cm/m			ϕ V_n = 96.4 kN/m	
20	**Vertical Load Span (mm)**	1200	1500	1800	2100	2400	2700	3000	3300	3600	3900	4200	4500	4800	5100	5400
	ASD & LRFD - Superimposed Load, W (kPa)															
	ASD, W/Ω	91.9	58.0	39.7	28.6	21.4	16.5	13.0	10.4	8.4	6.8	5.6	4.6	3.8	3.1	2.6
	LRFD, ϕW	147.0	92.9	63.5	45.8	34.3	26.4	20.7	16.6	13.4	10.9	9.0	7.4	6.1	5.0	4.1
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, ϕS_n (kN/m) 36/4 Attachment Pattern															
	Arc Spot Weld 13mm Effective Dia	56.6	53.8	51.9	50.6	49.5	48.8	48.1	47.6	47.2	46.8	46.5	46.2	46.0	45.8	45.6
	PAF Base Steel ≥ 6.4mm	49.8	48.3	47.3	46.6	46.1	45.7	45.4	45.1	44.9	44.7	44.5	44.4	44.3	44.2	44.1
	PAF Base Steel ≥ 3.2mm	49.2	47.9	47.0	46.3	45.8	45.5	45.2	44.9	44.7	44.5	44.4	44.3	44.1	44.0	44.0
	#12 Screw Base Steel ≥ 0.9mm	48.8	47.5	46.7	46.1	45.6	45.3	45.0	44.8	44.6	44.4	44.3	44.1	44.0	43.9	43.9
	Concrete + Deck = 2.75 kPa					I_{cr} = 9600 cm⁴/m						M_{no}/Ω= 1770 kN-cm/m			V_n/Ω = 72.0 kN/m	
	$(I_{cr}+I_{ut})/2$ = 16700 cm⁴/m					I_u = 23700 cm⁴/m						ϕM_{no} = 2700 kN-cm/m			ϕ V_n = 103.5 kN/m	

3WH-36 Hi Form™ Composite Deck 2.2

152mm Total Slab Depth
2320 kg/m³ Normal Weight Concrete



GA	Vertical Load Span (mm)	1200	1500	1800	2100	2400	2700	3000	3300	3600	3900	4200	4500	4800	5100	5400
	ASD & LRFD - Superimposed Load, W (kPa)															
	ASD, W/Ω	108.3	68.6	47.0	34.0	25.5	19.7	15.6	12.5	10.2	8.4	6.9	5.8	4.8	4.0	3.4
	LRFD, ϕW	173.3	109.7	75.2	54.3	40.8	31.6	24.9	20.0	16.3	13.4	11.1	9.2	7.7	6.5	5.4
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, ϕS_n (kN/m) 36/4 Attachment Pattern															
19	Arc Spot Weld 13mm Effective Dia	59.5	56.0	53.8	52.1	50.9	49.9	49.2	48.6	48.0	47.6	47.2	46.9	46.6	46.4	46.1
	PAF Base Steel ≥ 6.4mm	51.1	49.3	48.2	47.3	46.7	46.2	45.8	45.5	45.3	45.0	44.8	44.7	44.5	44.4	44.3
	PAF Base Steel ≥ 3.2mm	50.5	48.8	47.7	47.0	46.4	45.9	45.6	45.3	45.0	44.8	44.7	44.5	44.4	44.3	44.1
	#12 Screw Base Steel ≥ 0.9mm	50.0	48.4	47.4	46.7	46.2	45.7	45.4	45.1	44.9	44.7	44.5	44.4	44.2	44.1	44.0
	Concrete + Deck = 2.77 kPa				I_{cr} = 11000 cm⁴/m					M_{no}/Ω= 2080 kN-cm/m				V_n/Ω = 79.6 kN/m		
	$(I_{cr}+I_u)/2$ = 17700 cm⁴/m				I_u = 24400 cm⁴/m					ϕM_{no} = 3180 kN-cm/m				ϕV_n = 119.4 kN/m		

GA	Vertical Load Span (mm)	1200	1500	1800	2100	2400	2700	3000	3300	3600	3900	4200	4500	4800	5100	5400
	ASD & LRFD - Superimposed Load, W (kPa)															
	ASD, W/Ω	119.7	75.9	52.0	37.7	28.4	22.0	17.4	14.0	11.4	9.4	7.9	6.6	5.5	4.7	3.9
	LRFD, ϕW	191.5	121.4	83.3	60.3	45.4	35.1	27.8	22.4	18.3	15.1	12.6	10.5	8.8	7.4	6.3
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, ϕS_n (kN/m) 36/4 Attachment Pattern															
18	Arc Spot Weld 13mm Effective Dia	61.5	57.6	55.1	53.3	51.9	50.8	50.0	49.3	48.7	48.2	47.8	47.4	47.1	46.8	46.5
	PAF Base Steel ≥ 6.4mm	52.0	50.0	48.8	47.8	47.1	46.6	46.2	45.8	45.5	45.3	45.0	44.9	44.7	44.6	44.4
	PAF Base Steel ≥ 3.2mm	51.3	49.5	48.3	47.4	46.8	46.3	45.9	45.6	45.3	45.0	44.8	44.7	44.5	44.4	44.3
	#12 Screw Base Steel ≥ 0.9mm	50.8	49.1	48.0	47.1	46.5	46.1	45.7	45.4	45.1	44.9	44.7	44.5	44.4	44.3	44.2
	Concrete + Deck = 2.78 kPa				I_{cr} = 11900 cm⁴/m					M_{no}/Ω= 2290 kN-cm/m				V_n/Ω = 79.6 kN/m		
	$(I_{cr}+I_u)/2$ = 18400 cm⁴/m				I_u = 24900 cm⁴/m					ϕM_{no} = 3510 kN-cm/m				ϕV_n = 119.5 kN/m		

GA	Vertical Load Span (mm)	1200	1500	1800	2100	2400	2700	3000	3300	3600	3900	4200	4500	4800	5100	5400
	ASD & LRFD - Superimposed Load, W (kPa)															
	ASD, W/Ω	132.6	92.7	63.8	46.3	34.9	27.2	21.6	17.5	14.4	11.9	10.0	8.4	7.2	6.1	5.2
	LRFD, ϕW	198.9	148.4	102.0	74.1	55.9	43.5	34.6	28.0	23.0	19.1	16.0	13.5	11.4	9.8	8.3
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, ϕS_n (kN/m) 36/4 Attachment Pattern															
16	Arc Spot Weld 13mm Effective Dia	66.4	61.6	58.3	56.0	54.3	52.9	51.8	50.9	50.2	49.6	49.0	48.6	48.2	47.8	47.5
	PAF Base Steel ≥ 6.4mm	54.1	51.7	50.1	49.0	48.1	47.5	46.9	46.5	46.1	45.8	45.5	45.3	45.1	44.9	44.8
	PAF Base Steel ≥ 3.2mm	52.8	50.7	49.3	48.2	47.5	46.9	46.4	46.0	45.7	45.4	45.2	45.0	44.8	44.6	44.5
	#12 Screw Base Steel ≥ 0.9mm	52.8	50.7	49.2	48.2	47.5	46.9	46.4	46.0	45.7	45.4	45.2	45.0	44.8	44.6	44.5
	Concrete + Deck = 2.842 kPa				I_{cr} = 14000 cm⁴/m					M_{no}/Ω= 2790 kN-cm/m				V_n/Ω = 79.6 kN/m		
	$(I_{cr}+I_u)/2$ = 20000 cm⁴/m				I_u = 26000 cm⁴/m					ϕM_{no} = 4270 kN-cm/m				ϕV_n = 119.4 kN/m		

	LRFD - Diaphragm Shear, ϕS_n (kN/m) for all vertical load spans, WWF Designation or Area of Steel per meter width					
All Gages	19mm Welded Shear Studs	152x152 MW9xMW9	152x152 MW19xMW19	152x152 MW26xMW26	102x102 MW26xMW26	102x102 MW39xMW39
		A_s = 59.3 mm²/m	A_s = 122.8 mm²/m	A_s = 169.3 mm²/m	A_s = 254.0 mm²/m	A_s = 381 mm²/m
	305 mm o.c.	60.88	80.58	95.03	121.30	160.70
	610 mm o.c.	60.88	80.58	95.03	113.15	113.15
	914 mm o.c.	60.88	75.43	75.43	75.43	75.43

2.2 3WH-36 Hi Form™ Composite Deck

165mm Total Slab Depth

2320 kg/m³ Normal Weight Concrete

SMI Dependable Steel

Maximum Unshored Span (mm)

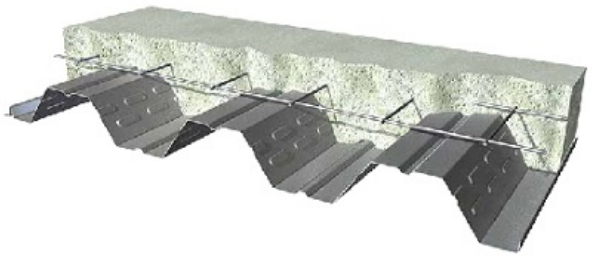
Gage	Single	Double	Triple
22	2592	2932	3030
21	2917	3198	3305
20	3058	3322	3434

Gage	Single	Double	Triple
19	3328	3654	3777
18	3444	3860	3990
16	3635	4306	4259

GA	Vertical Load Span (mm)	1200	1500	1800	2100	2400	2700	3000	3300	3600	3900	4200	4500	4800	5100	5400
22	**ASD & LRFD - Superimposed Load, W (kPa)**															
	ASD, W/Ω	87.7	55.3	37.7	27.1	20.2	15.5	12.1	9.6	7.7	6.2	5.1	4.1	3.3	2.7	2.2
	LRFD, ϕW	140.3	88.5	60.3	43.4	32.3	24.8	19.4	15.4	12.4	10.0	8.1	6.6	5.4	4.3	3.5
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, ϕS_n (kN/m) 36/4 Attachment Pattern															
	Arc Spot Weld 13mm Effective Dia	61.4	59.1	57.5	56.4	55.5	54.9	54.4	53.9	53.6	53.3	53.0	52.8	52.6	52.4	52.3
	PAF Base Steel ≥ 6.4mm	55.8	54.6	53.8	53.2	52.7	52.4	52.1	51.9	51.7	51.6	51.4	51.3	51.2	51.1	51.0
	PAF Base Steel ≥ 3.2mm	55.4	54.2	53.5	52.9	52.5	52.2	52.0	51.7	51.6	51.4	51.3	51.2	51.1	51.0	50.9
	#12 Screw Base Steel ≥ 0.9mm	55.0	53.9	53.2	52.7	52.3	52.0	51.8	51.6	51.4	51.3	51.2	51.1	51.0	50.9	50.9
	Concrete + Deck = 3.03 kPa				I_{cr} = 10300 cm⁴/m					M_{no}/Ω= 1690 kN-cm/m				V_n/Ω = 64.6 kN/m		
	$(I_{cr}+I_u)/2$ = 19800 cm⁴/m				I_u = 29200 cm⁴/m					ϕM_{no} = 2590 kN-cm/m				ϕ V_n = 94.3 kN/m		
21	**Vertical Load Span (mm)**	1200	1500	1800	2100	2400	2700	3000	3300	3600	3900	4200	4500	4800	5100	5400
	ASD & LRFD - Superimposed Load, W (kPa)															
	ASD, W/Ω	98.8	62.4	42.7	30.7	23.0	17.7	13.9	11.1	9.0	7.3	6.0	4.9	4.0	3.3	2.7
	LRFD, ϕW	158.1	99.9	68.3	49.2	36.8	28.3	22.2	17.7	14.3	11.7	9.6	7.9	6.5	5.3	4.3
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, ϕS_n (kN/m) 36/4 Attachment Pattern															
	Arc Spot Weld 13mm Effective Dia	63.0	60.3	58.5	57.3	56.3	55.6	55.0	54.5	54.1	53.7	53.4	53.2	53.0	52.8	52.6
	PAF Base Steel ≥ 6.4mm	56.6	55.2	54.2	53.6	53.1	52.7	52.4	52.1	51.9	51.8	51.6	51.5	51.4	51.3	51.2
	PAF Base Steel ≥ 3.2mm	56.1	54.8	53.9	53.3	52.8	52.5	52.2	52.0	51.8	51.6	51.5	51.3	51.2	51.1	51.1
	#12 Screw Base Steel ≥ 0.9mm	55.6	54.4	53.6	53.1	52.6	52.3	52.0	51.8	51.6	51.5	51.3	51.2	51.1	51.0	51.0
	Concrete + Deck = 3.04 kPa				I_{cr} = 11400 cm⁴/m					M_{no}/Ω= 1900 kN-cm/m				V_n/Ω = 73.2 kN/m		
	$(I_{cr}+I_u)/2$ = 20600 cm⁴/m				I_u = 29700 cm⁴/m					ϕM_{no} = 2910 kN-cm/m				ϕ V_n = 106.1 kN/m		
20	**Vertical Load Span (mm)**	1200	1500	1800	2100	2400	2700	3000	3300	3600	3900	4200	4500	4800	5100	5400
	ASD & LRFD - Superimposed Load, W (kPa)															
	ASD, W/Ω	104.3	65.9	45.1	32.5	24.4	18.8	14.8	11.8	9.6	7.8	6.4	5.3	4.4	3.6	3.0
	LRFD, ϕW	166.9	105.5	72.1	52.0	39.0	30.0	23.6	18.9	15.3	12.5	10.3	8.5	7.0	5.8	4.8
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, ϕS_n (kN/m) 36/4 Attachment Pattern															
	Arc Spot Weld 13mm Effective Dia	63.8	61.0	59.1	57.7	56.7	55.9	55.3	54.8	54.3	54.0	53.7	53.4	53.1	52.9	52.8
	PAF Base Steel ≥ 6.4mm	56.9	55.5	54.5	53.8	53.3	52.9	52.5	52.3	52.0	51.9	51.7	51.6	51.4	51.3	51.2
	PAF Base Steel ≥ 3.2mm	56.4	55.0	54.1	53.5	53.0	52.6	52.3	52.1	51.9	51.7	51.5	51.4	51.3	51.2	51.1
	#12 Screw Base Steel ≥ 0.9mm	56.0	54.7	53.8	53.2	52.8	52.4	52.1	51.9	51.7	51.6	51.4	51.3	51.2	51.1	51.0
	Concrete + Deck = 3.05 kPa				I_{cr} = 11900 cm⁴/m					M_{no}/Ω= 2010 kN-cm/m				V_n/Ω = 78.4 kN/m		
	$(I_{cr}+I_u)/2$ = 21000 cm⁴/m				I_u = 30000 cm⁴/m					ϕM_{no} = 3070 kN-cm/m				ϕ V_n = 113.2 kN/m		

3WH-36 Hi Form™ Composite Deck 2.2

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



GA	Vertical Load Span (mm)	1200	1500	1800	2100	2400	2700	3000	3300	3600	3900	4200	4500	4800	5100	5400
	ASD & LRFD - Superimposed Load, W (kPa)															
	ASD, W/Ω	123.1	77.9	53.4	38.6	29.0	22.5	17.8	14.3	11.6	9.6	7.9	6.6	5.5	4.6	3.9
	LRFD, ϕW	196.9	124.7	85.5	61.8	46.5	36.0	28.4	22.8	18.6	15.3	12.7	10.6	8.9	7.4	6.2
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, ϕS_n (kN/m) 36/4 Attachment Pattern															
19	Arc Spot Weld 13mm Effective Dia	66.6	63.2	60.9	59.3	58.1	57.1	56.3	55.7	55.2	54.8	54.4	54.1	53.8	53.5	53.3
	PAF Base Steel ≥ 6.4mm	58.2	56.5	55.3	54.5	53.9	53.4	53.0	52.7	52.4	52.2	52.0	51.8	51.7	51.6	51.4
	PAF Base Steel ≥ 3.2mm	57.6	56.0	54.9	54.1	53.6	53.1	52.7	52.4	52.2	52.0	51.8	51.7	51.5	51.4	51.3
	#12 Screw Base Steel ≥ 0.9mm	57.1	55.6	54.6	53.9	53.3	52.9	52.6	52.3	52.0	51.8	51.7	51.5	51.4	51.3	51.2
	Concrete + Deck = 3.07 kPa				I_{cr} = 13600 cm⁴/m					M_{no}/Ω= 2360 kN-cm/m				V_n/Ω = 92.4 kN/m		
	$(I_{cr}+I_u)/2$ = 22200 cm⁴/m				I_u = 30800 cm⁴/m					ϕM_{no} = 3610 kN-cm/m				ϕV_n = 138.6 kN/m		

GA	Vertical Load Span (mm)	1200	1500	1800	2100	2400	2700	3000	3300	3600	3900	4200	4500	4800	5100	5400
	ASD & LRFD - Superimposed Load, W (kPa)															
	ASD, W/Ω	136.1	86.3	59.2	42.9	32.3	25.0	19.8	16.0	13.1	10.8	9.0	7.5	6.3	5.4	4.5
	LRFD, ϕW	217.8	138.1	94.7	68.6	51.7	40.1	31.7	25.6	20.9	17.3	14.4	12.1	10.1	8.6	7.2
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, ϕS_n (kN/m) 36/4 Attachment Pattern															
18	Arc Spot Weld 13mm Effective Dia	68.6	64.8	62.2	60.4	59.0	58.0	57.1	56.4	55.8	55.3	54.9	54.6	54.2	53.9	53.7
	PAF Base Steel ≥ 6.4mm	59.1	57.2	55.9	55.0	54.3	53.7	53.3	53.0	52.7	52.4	52.2	52.0	51.9	51.7	51.6
	PAF Base Steel ≥ 3.2mm	58.5	56.6	55.4	54.6	53.9	53.4	53.0	52.7	52.4	52.2	52.0	51.8	51.7	51.6	51.4
	#12 Screw Base Steel ≥ 0.9mm	58.0	56.3	55.1	54.3	53.7	53.2	52.8	52.5	52.3	52.1	51.9	51.7	51.6	51.4	51.3
	Concrete + Deck = 3.08 kPa				I_{cr} = 14800 cm⁴/m					M_{no}/Ω= 2610 kN-cm/m				V_n/Ω = 92.4 kN/m		
	$(I_{cr}+I_u)/2$ = 23100 cm⁴/m				I_u = 31400 cm⁴/m					ϕM_{no} = 3990 kN-cm/m				ϕV_n = 138.6 kN/m		

GA	Vertical Load Span (mm)	1200	1500	1800	2100	2400	2700	3000	3300	3600	3900	4200	4500	4800	5100	5400
	ASD & LRFD - Superimposed Load, W (kPa)															
	ASD, W/Ω	154.0	105.6	72.6	52.8	39.8	31.0	24.7	20.0	16.4	13.6	11.4	9.7	8.2	7.0	6.0
	LRFD, ϕW	231.0	169.0	116.2	84.4	63.7	49.6	39.5	32.0	26.3	21.8	18.3	15.5	13.1	11.2	9.6
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, ϕS_n (kN/m) 36/4 Attachment Pattern															
16	Arc Spot Weld 13mm Effective Dia	73.6	68.7	65.5	63.2	61.4	60.1	59.0	58.1	57.4	56.7	56.2	55.7	55.3	55.0	54.7
	PAF Base Steel ≥ 6.4mm	61.3	58.9	57.3	56.1	55.3	54.6	54.1	53.6	53.3	53.0	52.7	52.5	52.3	52.1	51.9
	PAF Base Steel ≥ 3.2mm	60.0	57.9	56.4	55.4	54.6	54.0	53.6	53.2	52.8	52.6	52.3	52.1	51.9	51.8	51.6
	#12 Screw Base Steel ≥ 0.9mm	60.0	57.8	56.4	55.4	54.6	54.0	53.5	53.2	52.8	52.6	52.3	52.1	51.9	51.8	51.6
	Concrete + Deck = 3.11 kPa				I_{cr} = 17300 cm⁴/m					M_{no}/Ω= 3180 kN-cm/m				V_n/Ω = 92.4 kN/m		
	$(I_{cr}+I_u)/2$ = 25100 cm⁴/m				I_u = 32800 cm⁴/m					ϕM_{no} = 4860 kN-cm/m				ϕV_n = 138.6 kN/m		

	LRFD - Diaphragm Shear, ϕS_n (kN/m) for all vertical load spans, WWF Designation or Area of Steel per meter width				
All Gages	19mm Welded Shear Studs	152x152 MW9xMW9	152x152 MW19xMW19	152x152 MW26xMW26	102x102 MW26xMW26	102x102 MW39xMW39
		A_s = 59.3 mm²/m	A_s = 122.8 mm²/m	A_s = 169.3 mm²/m	A_s = 254.0 mm²/m	A_s = 381 mm²/m
	305 mm o.c.	n/a	87.77	102.22	128.49	167.89
	610 mm o.c.	n/a	87.77	102.22	113.15	113.15
	914 mm o.c.	n/a	75.43	75.43	75.43	75.43

2.2 3WH-36 Hi Form™ Composite Deck

191mm Total Slab Depth

2320 kg/m³ Normal Weight Concrete

SMI Dependable Steel

Maximum Unshored Span (mm)

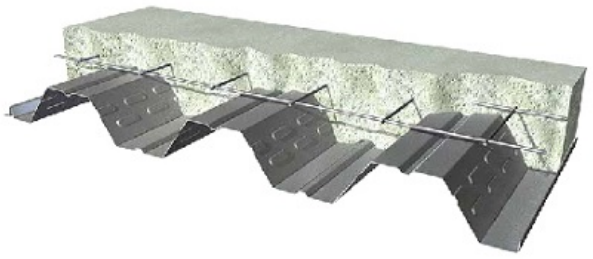
Gage	Single	Double	Triple
22	2422	2742	2835
21	2721	2992	3092
20	2852	3108	3213

Gage	Single	Double	Triple
19	3146	3420	3535
18	3260	3614	3735
16	3487	4033	4085

GA	Vertical Load Span (mm)	1200	1500	1800	2100	2400	2700	3000	3300	3600	3900	4200	4500	4800	5100	5400
22	**ASD & LRFD - Superimposed Load, W (kPa)**															
	ASD, W/Ω	109.3	69.0	47.1	33.9	25.3	19.4	15.2	12.1	9.7	7.9	6.4	5.2	4.3	3.5	2.8
	LRFD, ϕW	174.9	110.4	75.3	54.2	40.5	31.1	24.3	19.4	15.6	12.6	10.3	8.4	6.9	5.6	4.5
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, ϕS_n (kN/m) 36/4 Attachment Pattern															
	Arc Spot Weld 13mm Effective Dia	75.7	73.4	71.8	70.7	69.9	69.2	68.7	68.3	67.9	67.6	67.3	67.1	66.9	66.8	66.6
	PAF Base Steel ≥ 6.4mm	70.1	68.9	68.1	67.5	67.1	66.7	66.4	66.2	66.0	65.9	65.7	65.6	65.5	65.4	65.4
	PAF Base Steel ≥ 3.2mm	69.7	68.5	67.8	67.2	66.8	66.5	66.3	66.1	65.9	65.7	65.6	65.5	65.4	65.3	65.3
	#12 Screw Base Steel ≥ 0.9mm	69.3	68.2	67.5	67.0	66.6	66.3	66.1	65.9	65.8	65.6	65.5	65.4	65.3	65.2	65.2
	Concrete + Deck = 3.62 kPa					I_{cr} = 15000 cm⁴/m						M_{no}/Ω= 2110 kN-cm/m			V_n/Ω = 77.4 kN/m	
	$(I_{cr}+I_{ut})/2$ = 30000 cm⁴/m					I_{ut} = 44900 cm⁴/m						ϕM_{no} = 3230 kN-cm/m			ϕ V_n = 113.5 kN/m	
21	**Vertical Load Span (mm)**	1200	1500	1800	2100	2400	2700	3000	3300	3600	3900	4200	4500	4800	5100	5400
	ASD & LRFD - Superimposed Load, W (kPa)															
	ASD, W/Ω	123.3	77.9	53.3	38.4	28.8	22.2	17.4	13.9	11.3	9.2	7.6	6.2	5.2	4.3	3.5
	LRFD, ϕW	197.3	124.7	85.3	61.5	46.1	35.5	27.9	22.3	18.0	14.7	12.1	10.0	8.2	6.8	5.6
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, ϕS_n (kN/m) 36/4 Attachment Pattern															
	Arc Spot Weld 13mm Effective Dia	77.3	74.6	72.9	71.6	70.6	69.9	69.3	68.8	68.4	68.1	67.8	67.5	67.3	67.1	66.9
	PAF Base Steel ≥ 6.4mm	70.9	69.5	68.6	67.9	67.4	67.0	66.7	66.5	66.3	66.1	65.9	65.8	65.7	65.6	65.5
	PAF Base Steel ≥ 3.2mm	70.4	69.1	68.2	67.6	67.2	66.8	66.5	66.3	66.1	65.9	65.8	65.7	65.6	65.5	65.4
	#12 Screw Base Steel ≥ 0.9mm	69.9	68.7	67.9	67.4	66.9	66.6	66.3	66.1	65.9	65.8	65.7	65.5	65.4	65.4	65.3
	Concrete + Deck = 3.63 kPa					I_{cr} = 16600 cm⁴/m						M_{no}/Ω= 2370 kN-cm/m			V_n/Ω = 86.1 kN/m	
	$(I_{cr}+I_{ut})/2$ = 31100 cm⁴/m					I_{ut} = 45600 cm⁴/m						ϕM_{no} = 3630 kN-cm/m			ϕ V_n = 125.3 kN/m	
20	**Vertical Load Span (mm)**	1200	1500	1800	2100	2400	2700	3000	3300	3600	3900	4200	4500	4800	5100	5400
	ASD & LRFD - Superimposed Load, W (kPa)															
	ASD, W/Ω	130.2	82.3	56.4	40.7	30.5	23.5	18.5	14.8	12.0	9.9	8.1	6.7	5.6	4.6	3.8
	LRFD, ϕW	208.3	131.8	90.2	65.1	48.8	37.6	29.7	23.8	19.3	15.8	13.0	10.8	8.9	7.4	6.1
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, ϕS_n (kN/m) 36/4 Attachment Pattern															
	Arc Spot Weld 13mm Effective Dia	78.1	75.3	73.4	72.0	71.0	70.2	69.6	69.1	68.6	68.3	68.0	67.7	67.5	67.3	67.1
	PAF Base Steel ≥ 6.4mm	71.2	69.8	68.8	68.1	67.6	67.2	66.8	66.6	66.4	66.2	66.0	65.9	65.7	65.6	65.5
	PAF Base Steel ≥ 3.2mm	70.7	69.4	68.5	67.8	67.3	66.9	66.6	66.4	66.2	66.0	65.9	65.7	65.6	65.5	65.4
	#12 Screw Base Steel ≥ 0.9mm	70.3	69.0	68.2	67.5	67.1	66.7	66.5	66.2	66.0	65.9	65.7	65.6	65.5	65.4	65.3
	Concrete + Deck = 3.64 kPa					I_{cr} = 17300 cm⁴/m						M_{no}/Ω= 2500 kN-cm/m			V_n/Ω = 91.3 kN/m	
	$(I_{cr}+I_{ut})/2$ = 31600 cm⁴/m					I_{ut} = 45900 cm⁴/m						ϕM_{no} = 3830 kN-cm/m			ϕ V_n = 132.4 kN/m	

3WH-36 Hi Form™ Composite Deck 2.2

191mm Total Slab Depth
2320 kg/m³ Normal Weight Concrete



GA	Vertical Load Span (mm)	1200	1500	1800	2100	2400	2700	3000	3300	3600	3900	4200	4500	4800	5100	5400
	ASD & LRFD - Superimposed Load, W (kPa)															
	ASD, W/Ω	153.9	97.5	66.9	48.4	36.4	28.2	22.3	18.0	14.7	12.1	10.0	8.4	7.0	5.9	5.0
	LRFD, ϕW	246.2	156.0	107.0	77.5	58.3	45.1	35.7	28.8	23.5	19.3	16.1	13.4	11.3	9.5	8.0
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, ϕS_n (kN/m) 36/4 Attachment Pattern															
19	Arc Spot Weld 13mm Effective Dia	80.9	77.5	75.2	73.6	72.4	71.4	70.7	70.0	69.5	69.1	68.7	68.4	68.1	67.8	67.6
	PAF Base Steel ≥ 6.4mm	72.5	70.8	69.6	68.8	68.2	67.7	67.3	67.0	66.7	66.5	66.3	66.1	66.0	65.9	65.8
	PAF Base Steel ≥ 3.2mm	71.9	70.3	69.2	68.4	67.9	67.4	67.1	66.8	66.5	66.3	66.1	66.0	65.8	65.7	65.6
	#12 Screw Base Steel ≥ 0.9mm	71.4	69.9	68.9	68.2	67.6	67.2	66.9	66.6	66.4	66.2	66.0	65.8	65.7	65.6	65.5
	Concrete + Deck = 3.66 kPa				I_{cr} = 19900 cm⁴/m					M_{no}/Ω= 2950 kN-cm/m				V_n/Ω = 113.2 kN/m		
	$(I_{cr}+I_u)/2$ = 33600 cm⁴/m				I_u = 47200 cm⁴/m					ϕM_{no} = 4510 kN-cm/m				ϕV_n = 162.3 kN/m		

GA	Vertical Load Span (mm)	1200	1500	1800	2100	2400	2700	3000	3300	3600	3900	4200	4500	4800	5100	5400
	ASD & LRFD - Superimposed Load, W (kPa)															
	ASD, W/Ω	170.4	108.1	74.2	53.8	40.5	31.4	25.0	20.1	16.5	13.6	11.4	9.6	8.1	6.8	5.8
	LRFD, ϕW	272.6	172.9	118.7	86.1	64.9	50.3	39.9	32.2	26.4	21.8	18.2	15.3	12.9	10.9	9.3
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, ϕS_n (kN/m) 36/4 Attachment Pattern															
18	Arc Spot Weld 13mm Effective Dia	83.0	79.1	76.6	74.7	73.4	72.3	71.4	70.7	70.1	69.7	69.2	68.9	68.5	68.3	68.0
	PAF Base Steel ≥ 6.4mm	73.5	71.5	70.2	69.3	68.6	68.1	67.6	67.3	67.0	66.7	66.5	66.3	66.2	66.0	65.9
	PAF Base Steel ≥ 3.2mm	72.8	71.0	69.8	68.9	68.3	67.8	67.4	67.0	66.8	66.5	66.3	66.1	66.0	65.9	65.7
	#12 Screw Base Steel ≥ 0.9mm	72.3	70.6	69.4	68.6	68.0	67.5	67.2	66.8	66.6	66.4	66.2	66.0	65.9	65.8	65.6
	Concrete + Deck = 3.67 kPa				I_{cr} = 21600 cm⁴/m					M_{no}/Ω= 3260 kN-cm/m				V_n/Ω = 118.1 kN/m		
	$(I_{cr}+I_u)/2$ = 34800 cm⁴/m				I_u = 48000 cm⁴/m					ϕM_{no} = 4990 kN-cm/m				ϕV_n = 177.1 kN/m		

GA	Vertical Load Span (mm)	1200	1500	1800	2100	2400	2700	3000	3300	3600	3900	4200	4500	4800	5100	5400
	ASD & LRFD - Superimposed Load, W (kPa)															
	ASD, W/Ω	196.8	132.6	91.2	66.3	50.1	39.0	31.1	25.2	20.7	17.3	14.5	12.3	10.4	8.9	7.7
	LRFD, ϕW	295.2	212.2	146.0	106.1	80.2	62.4	49.7	40.3	33.2	27.6	23.2	19.6	16.7	14.3	12.3
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, ϕS_n (kN/m) 36/4 Attachment Pattern															
16	Arc Spot Weld 13mm Effective Dia	87.9	83.0	79.8	77.5	75.7	74.4	73.3	72.4	71.7	71.1	70.5	70.1	69.7	69.3	69.0
	PAF Base Steel ≥ 6.4mm	75.6	73.2	71.6	70.5	69.6	68.9	68.4	68.0	67.6	67.3	67.0	66.8	66.6	66.4	66.2
	PAF Base Steel ≥ 3.2mm	74.3	72.2	70.7	69.7	68.9	68.3	67.9	67.5	67.2	66.9	66.6	66.4	66.3	66.1	66.0
	#12 Screw Base Steel ≥ 0.9mm	74.3	72.1	70.7	69.7	68.9	68.3	67.9	67.5	67.1	66.9	66.6	66.4	66.3	66.1	66.0
	Concrete + Deck = 3.70 kPa				I_{cr} = 25400 cm⁴/m					M_{no}/Ω= 3980 kN-cm/m				V_n/Ω = 118.1 kN/m		
	$(I_{cr}+I_u)/2$ = 37700 cm⁴/m				I_u = 50000 cm⁴/m					ϕM_{no} = 6090 kN-cm/m				ϕV_n = 177.1 kN/m		

	LRFD - Diaphragm Shear, ϕS_n (kN/m) for all vertical load spans, WWF Designation or Area of Steel per meter width				
All Gages	19mm Welded Shear Studs	152x152 MW9xMW9	152x152 MW19xMW19	152x152 MW26xMW26	102x102 MW26xMW26	102x102 MW39xMW39
		A_s = 59.3 mm²/m	A_s = 122.8 mm²/m	A_s = 169.3 mm²/m	A_s = 254.0 mm²/m	A_s = 381 mm²/m
	305 mm o.c.	n/a	102.16	116.61	142.88	182.28
	610 mm o.c.	n/a	102.16	113.15	113.15	113.15
	914 mm o.c.	n/a	75.43	75.43	75.43	75.43

2.2 3WH-36 Hi Form™ Composite Deck

210mm Total Slab Depth

2320 kg/m³ Normal Weight Concrete

SMI Dependable Steel

Maximum Unshored Span (mm)

Gage	Single	Double	Triple
22	2315	2622	2708
21	2599	2861	2957
20	2723	2973	3072

Gage	Single	Double	Triple
19	3033	3271	3381
18	3143	3457	3573
16	3381	3859	3976

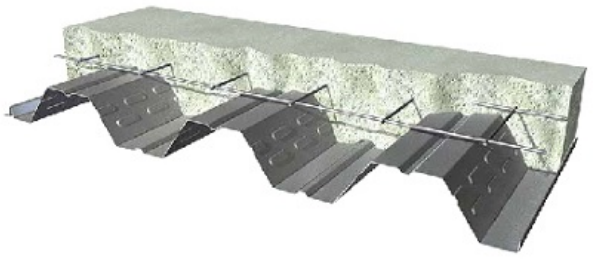
GA	Vertical Load Span (mm)	1200	1500	1800	2100	2400	2700	3000	3300	3600	3900	4200	4500	4800	5100	5400
22	**ASD & LRFD - Superimposed Load, W (kPa)**															
	ASD, W/Ω	126.0	79.5	54.3	39.1	29.2	22.4	17.6	14.0	11.3	9.2	7.5	6.1	5.0	4.1	3.3
	LRFD, ϕW	201.6	127.3	86.9	62.5	46.7	35.9	28.2	22.4	18.1	14.7	12.0	9.8	8.0	6.6	5.3
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, ϕS_n (kN/m) 36/4 Attachment Pattern															
	Arc Spot Weld 13mm Effective Dia	86.4	84.1	82.5	81.4	80.6	79.9	79.4	79.0	78.6	78.3	78.1	77.9	77.7	77.5	77.3
	PAF Base Steel ≥ 6.4mm	80.8	79.6	78.8	78.2	77.8	77.5	77.2	77.0	76.8	76.6	76.5	76.4	76.3	76.2	76.1
	PAF Base Steel ≥ 3.2mm	80.4	79.3	78.5	78.0	77.6	77.3	77.0	76.8	76.6	76.5	76.4	76.2	76.2	76.1	76.0
	#12 Screw Base Steel ≥ 0.9mm	80.0	79.0	78.2	77.7	77.4	77.1	76.8	76.7	76.5	76.4	76.2	76.1	76.1	76.0	75.9
	Concrete + Deck = 4.06 kPa				I_{cr} = 19100 cm⁴/m					M_{no}/Ω= 2430 kN-cm/m				V_n/Ω = 87.0 kN/m		
	$(I_{cr}+I_{ut})/2$ = 39500 cm⁴/m				I_{ut} = 59900 cm⁴/m					ϕM_{no} = 3720 kN-cm/m				ϕ V_n = 128.0 kN/m		

GA	Vertical Load Span (mm)	1200	1500	1800	2100	2400	2700	3000	3300	3600	3900	4200	4500	4800	5100	5400
21	**ASD & LRFD - Superimposed Load, W (kPa)**															
	ASD, W/Ω	142.2	89.9	61.5	44.4	33.3	25.6	20.2	16.2	13.1	10.7	8.8	7.3	6.0	5.0	4.1
	LRFD, ϕW	227.6	143.9	98.4	71.0	53.2	41.0	32.3	25.8	20.9	17.1	14.1	11.6	9.6	8.0	6.6
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, ϕS_n (kN/m) 36/4 Attachment Pattern															
	Arc Spot Weld 13mm Effective Dia	88.0	85.4	83.6	82.3	81.4	80.6	80.0	79.5	79.1	78.8	78.5	78.2	78.0	77.8	77.6
	PAF Base Steel ≥ 6.4mm	81.6	80.2	79.3	78.6	78.1	77.8	77.4	77.2	77.0	76.8	76.7	76.5	76.4	76.3	76.2
	PAF Base Steel ≥ 3.2mm	81.1	79.8	79.0	78.4	77.9	77.5	77.3	77.0	76.8	76.7	76.5	76.4	76.3	76.2	76.1
	#12 Screw Base Steel ≥ 0.9mm	80.7	79.5	78.7	78.1	77.7	77.3	77.1	76.9	76.7	76.5	76.4	76.3	76.2	76.1	76.0
	Concrete + Deck = 4.08 kPa				I_{cr} = 21200 cm⁴/m					M_{no}/Ω= 2730 kN-cm/m				V_n/Ω = 95.7 kN/m		
	$(I_{cr}+I_{ut})/2$ = 41000 cm⁴/m				I_{ut} = 60800 cm⁴/m					ϕM_{no} = 4180 kN-cm/m				ϕ V_n = 139.8 kN/m		

GA	Vertical Load Span (mm)	1200	1500	1800	2100	2400	2700	3000	3300	3600	3900	4200	4500	4800	5100	5400
20	**ASD & LRFD - Superimposed Load, W (kPa)**															
	ASD, W/Ω	150.3	95.1	65.1	47.0	35.3	27.2	21.5	17.2	14.0	11.5	9.5	7.8	6.5	5.4	4.5
	LRFD, ϕW	240.4	152.1	104.1	75.2	56.4	43.6	34.4	27.5	22.4	18.3	15.1	12.5	10.4	8.7	7.2
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, ϕS_n (kN/m) 36/4 Attachment Pattern															
	Arc Spot Weld 13mm Effective Dia	88.8	86.0	84.1	82.8	81.7	81.0	80.3	79.8	79.4	79.0	78.7	78.4	78.2	78.0	77.8
	PAF Base Steel ≥ 6.4mm	82.0	80.5	79.5	78.8	78.3	77.9	77.6	77.3	77.1	76.9	76.7	76.6	76.5	76.4	76.3
	PAF Base Steel ≥ 3.2mm	81.5	80.1	79.2	78.5	78.1	77.7	77.4	77.1	76.9	76.7	76.6	76.5	76.4	76.3	76.2
	#12 Screw Base Steel ≥ 0.9mm	81.0	79.7	78.9	78.3	77.8	77.5	77.2	77.0	76.8	76.6	76.5	76.3	76.2	76.1	76.1
	Concrete + Deck = 4.08 kPa				I_{cr} = 22200 cm⁴/m					M_{no}/Ω= 2890 kN-cm/m				V_n/Ω = 100.9 kN/m		
	$(I_{cr}+I_{ut})/2$ = 41800 cm⁴/m				I_{ut} = 61300 cm⁴/m					ϕM_{no} = 4420 kN-cm/m				ϕ V_n = 146.9 kN/m		

3WH-36 Hi Form™ Composite Deck 2.2

210mm Total Slab Depth
2320 kg/m³ Normal Weight Concrete



GA	Vertical Load Span (mm)	1200	1500	1800	2100	2400	2700	3000	3300	3600	3900	4200	4500	4800	5100	5400
19	**ASD & LRFD - Superimposed Load, W (kPa)**															
	ASD, W/Ω	177.8	112.7	77.3	56.0	42.1	32.7	25.9	20.8	17.0	14.1	11.7	9.8	8.2	6.9	5.9
	LRFD, ϕW	284.5	180.3	123.7	89.6	67.4	52.2	41.4	33.3	27.2	22.5	18.7	15.7	13.2	11.1	9.4
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, ϕS_n (kN/m) 36/4 Attachment Pattern															
	Arc Spot Weld 13mm Effective Dia	91.7	88.2	86.0	84.3	83.1	82.2	81.4	80.8	80.3	79.8	79.4	79.1	78.8	78.6	78.4
	PAF Base Steel ≥ 6.4mm	83.3	81.5	80.4	79.5	78.9	78.4	78.0	77.7	77.5	77.2	77.0	76.9	76.7	76.6	76.5
	PAF Base Steel ≥ 3.2mm	82.7	81.0	80.0	79.2	78.6	78.2	77.8	77.5	77.3	77.0	76.9	76.7	76.6	76.5	76.4
	#12 Screw Base Steel ≥ 0.9mm	82.2	80.7	79.6	78.9	78.4	77.9	77.6	77.3	77.1	76.9	76.7	76.6	76.5	76.3	76.2
	Concrete + Deck = 4.10 kPa				I_{cr} = 25500 cm⁴/m					M_{no}/Ω= 3400 kN-cm/m				V_n/Ω = 122.9 kN/m		
	$(I_{cr}+I_u)/2$ = 44200 cm⁴/m				I_u = 62800 cm⁴/m					ϕM_{no} = 5210 kN-cm/m				ϕV_n = 176.7 kN/m		

GA	Vertical Load Span (mm)	1200	1500	1800	2100	2400	2700	3000	3300	3600	3900	4200	4500	4800	5100	5400
18	**ASD & LRFD - Superimposed Load, W (kPa)**															
	ASD, W/Ω	197.0	125.0	85.8	62.2	46.9	36.4	28.9	23.4	19.1	15.9	13.2	11.1	9.4	8.0	6.8
	LRFD, ϕW	315.2	199.9	137.3	99.6	75.1	58.3	46.3	37.4	30.6	25.4	21.2	17.8	15.1	12.8	10.9
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, ϕS_n (kN/m) 36/4 Attachment Pattern															
	Arc Spot Weld 13mm Effective Dia	93.7	89.9	87.3	85.5	84.1	83.0	82.2	81.5	80.9	80.4	80.0	79.6	79.3	79.0	78.7
	PAF Base Steel ≥ 6.4mm	84.2	82.3	81.0	80.0	79.3	78.8	78.4	78.0	77.7	77.5	77.3	77.1	76.9	76.8	76.6
	PAF Base Steel ≥ 3.2mm	83.5	81.7	80.5	79.6	79.0	78.5	78.1	77.8	77.5	77.3	77.1	76.9	76.7	76.6	76.5
	#12 Screw Base Steel ≥ 0.9mm	83.0	81.3	80.2	79.4	78.7	78.3	77.9	77.6	77.3	77.1	76.9	76.8	76.6	76.5	76.4
	Concrete + Deck = 4.11 kPa				I_{cr} = 27700 cm⁴/m					M_{no}/Ω= 3770 kN-cm/m				V_n/Ω = 136.5 kN/m		
	$(I_{cr}+I_u)/2$ = 45800 cm⁴/m				I_u = 63900 cm⁴/m					ϕM_{no} = 5760 kN-cm/m				ϕV_n = 195.3 kN/m		

GA	Vertical Load Span (mm)	1200	1500	1800	2100	2400	2700	3000	3300	3600	3900	4200	4500	4800	5100	5400
16	**ASD & LRFD - Superimposed Load, W (kPa)**															
	ASD, W/Ω	228.9	153.6	105.7	76.9	58.1	45.3	36.1	29.3	24.1	20.1	16.9	14.3	12.2	10.4	9.0
	LRFD, ϕW	343.4	245.8	169.2	123.0	93.0	72.4	57.7	46.8	38.6	32.1	27.0	22.9	19.5	16.7	14.4
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, ϕS_n (kN/m) 36/4 Attachment Pattern															
	Arc Spot Weld 13mm Effective Dia	98.6	93.8	90.5	88.2	86.5	85.1	84.0	83.1	82.4	81.8	81.3	80.8	80.4	80.0	79.7
	PAF Base Steel ≥ 6.4mm	86.4	83.9	82.3	81.2	80.3	79.7	79.1	78.7	78.3	78.0	77.7	77.5	77.3	77.1	77.0
	PAF Base Steel ≥ 3.2mm	85.1	82.9	81.5	80.4	79.7	79.1	78.6	78.2	77.9	77.6	77.4	77.2	77.0	76.8	76.7
	#12 Screw Base Steel ≥ 0.9mm	85.0	82.9	81.5	80.4	79.7	79.1	78.6	78.2	77.9	77.6	77.4	77.2	77.0	76.8	76.7
	Concrete + Deck = 4.14 kPa				I_{cr} = 32700 cm⁴/m					M_{no}/Ω= 4610 kN-cm/m				V_n/Ω = 137.4 kN/m		
	$(I_{cr}+I_u)/2$ = 49600 cm⁴/m				I_u = 66400 cm⁴/m					ϕM_{no} = 7050 kN-cm/m				ϕV_n = 206.0 kN/m		

	LRFD - Diaphragm Shear, ϕS_n (kN/m) for all vertical load spans, WWF Designation or Area of Steel per meter width				
All Gages	19mm Welded Shear Studs	152x152 MW9xMW9	152x152 MW19xMW19	152x152 MW26xMW26	102x102 MW26xMW26	102x102 MW39xMW39
		A_s = 59.3 mm²/m	A_s = 122.8 mm²/m	A_s = 169.3 mm²/m	A_s = 254.0 mm²/m	A_s = 381 mm²/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 3WH-36 Hi Form™ Composite Deck

127mm Total Slab Depth

1760 kg/m³ Light Weight Concrete

SMI Dependable Steel

Maximum Unshored Span (mm)

Gage	Single	Double	Triple
22	3253	3619	3748
21	3671	3952	4085
20	3722	4105	4243

Gage	Single	Double	Triple
19	3887	4510	4551
18	3988	4761	4673
16	4202	5234	4923

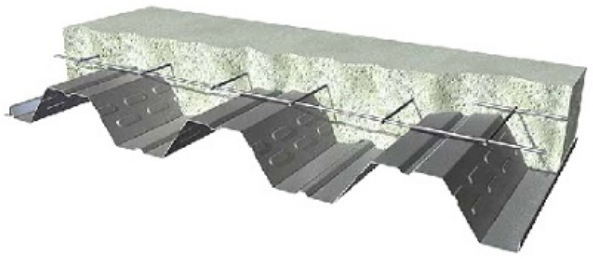
GA	Vertical Load Span (mm)	1200	1500	1800	2100	2400	2700	3000	3300	3600	3900	4200	4500	4800	5100	5400
22	**ASD & LRFD - Superimposed Load, W (kPa)**															
	ASD, W/Ω	55.5	35.1	24.0	17.3	13.0	10.0	7.8	6.3	5.1	4.1	3.4	2.8	2.3	1.9	1.6
	LRFD, ϕW	88.9	56.2	38.4	27.7	20.7	16.0	12.6	10.0	8.1	6.6	5.4	4.5	3.7	3.1	2.5
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, ϕS_n (kN/m) 36/4 Attachment Pattern															
	Arc Spot Weld 13mm Effective Dia	30.4	28.0	26.5	25.3	24.5	23.8	23.3	22.9	22.5	22.2	22.0	21.8	21.6	21.4	21.2
	PAF Base Steel ≥ 6.4mm	24.8	23.5	22.7	22.1	21.7	21.4	21.1	20.9	20.7	20.5	20.4	20.3	20.2	20.1	20.0
	PAF Base Steel ≥ 3.2mm	24.3	23.2	22.4	21.9	21.5	21.2	20.9	20.7	20.5	20.4	20.3	20.2	20.1	20.0	19.9
	#12 Screw Base Steel ≥ 0.9mm	23.9	22.9	22.2	21.7	21.3	21.0	20.7	20.6	20.4	20.3	20.1	20.0	20.0	19.9	19.8
	Concrete + Deck = 1.65 kPa					I_{cr} = 7000 cm⁴/m				M_{no}/Ω= 1070 kN-cm/m				V_n/Ω = 40.6 kN/m		
	$(I_{cr}+I_u)/2$ = 10800 cm⁴/m					I_u = 14500 cm⁴/m				ϕM_{no} = 1640 kN-cm/m				ϕ V_n = 58.3 kN/m		

GA	Vertical Load Span (mm)	1200	1500	1800	2100	2400	2700	3000	3300	3600	3900	4200	4500	4800	5100	5400
21	**ASD & LRFD - Superimposed Load, W (kPa)**															
	ASD, W/Ω	62.4	39.5	27.0	19.5	14.7	11.3	8.9	7.2	5.8	4.8	3.9	3.3	2.7	2.3	1.9
	LRFD, ϕW	99.8	63.1	43.2	31.2	23.4	18.1	14.3	11.5	9.3	7.6	6.3	5.2	4.4	3.6	3.0
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, ϕS_n (kN/m) 36/4 Attachment Pattern															
	Arc Spot Weld 13mm Effective Dia	32.0	29.3	27.5	26.2	25.3	24.5	24.0	23.5	23.1	22.7	22.4	22.2	21.9	21.7	21.6
	PAF Base Steel ≥ 6.4mm	25.5	24.1	23.2	22.6	22.1	21.7	21.4	21.1	20.9	20.7	20.6	20.5	20.3	20.2	20.1
	PAF Base Steel ≥ 3.2mm	25.0	23.7	22.9	22.3	21.8	21.5	21.2	20.9	20.7	20.6	20.4	20.3	20.2	20.1	20.0
	#12 Screw Base Steel ≥ 0.9mm	24.6	23.4	22.6	22.0	21.6	21.3	21.0	20.8	20.6	20.4	20.3	20.2	20.1	20.0	19.9
	Concrete + Deck = 1.66 kPa					I_{cr} = 7700 cm⁴/m				M_{no}/Ω= 1200 kN-cm/m				V_n/Ω = 44.5 kN/m		
	$(I_{cr}+I_u)/2$ = 11300 cm⁴/m					I_u = 14900 cm⁴/m				ϕM_{no} = 1830 kN-cm/m				ϕ V_n = 70.1 kN/m		

GA	Vertical Load Span (mm)	1200	1500	1800	2100	2400	2700	3000	3300	3600	3900	4200	4500	4800	5100	5400
20	**ASD & LRFD - Superimposed Load, W (kPa)**															
	ASD, W/Ω	65.7	41.6	28.5	20.6	15.5	12.0	9.5	7.6	6.2	5.1	4.2	3.5	2.9	2.5	2.1
	LRFD, ϕW	105.1	66.5	45.6	33.0	24.8	19.2	15.1	12.2	9.9	8.1	6.7	5.6	4.7	3.9	3.3
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, ϕS_n (kN/m) 36/4 Attachment Pattern															
	Arc Spot Weld 13mm Effective Dia	32.8	29.9	28.0	26.7	25.7	24.9	24.3	23.7	23.3	23.0	22.6	22.4	22.1	21.9	21.7
	PAF Base Steel ≥ 6.4mm	25.9	24.4	23.5	22.8	22.3	21.8	21.5	21.3	21.0	20.8	20.7	20.5	20.4	20.3	20.2
	PAF Base Steel ≥ 3.2mm	25.4	24.0	23.1	22.5	22.0	21.6	21.3	21.1	20.9	20.7	20.5	20.4	20.3	20.2	20.1
	#12 Screw Base Steel ≥ 0.9mm	24.9	23.7	22.8	22.2	21.8	21.4	21.1	20.9	20.7	20.5	20.4	20.3	20.2	20.1	20.0
	Concrete + Deck = 1.66 kPa					I_{cr} = 8000 cm⁴/m				M_{no}/Ω= 1260 kN-cm/m				V_n/Ω = 44.5 kN/m		
	$(I_{cr}+I_u)/2$ = 11600 cm⁴/m					I_u = 15100 cm⁴/m				ϕM_{no} = 1930 kN-cm/m				ϕ V_n = 77.2 kN/m		

3WH-36 Hi Form™ Composite Deck 2.3

127mm Total Slab Depth
1760 kg/m³ Light Weight Concrete



GA	Vertical Load Span (mm)	1200	1500	1800	2100	2400	2700	3000	3300	3600	3900	4200	4500	4800	5100	5400
19	**ASD & LRFD - Superimposed Load, W (kPa)**															
	ASD, W/Ω	74.1	48.8	33.5	24.3	18.3	14.2	11.3	9.1	7.4	6.2	5.1	4.2	3.4	2.9	2.4
	LRFD, ϕW	123.3	78.2	53.7	38.9	29.3	22.7	18.0	14.5	11.9	9.8	8.2	6.9	5.8	4.9	4.2
	L/360	-	-	-	-	-	-	-	-	-	-	-	4.2	3.4	2.9	2.4
	LRFD - Diaphragm Shear, ϕS_n (kN/m) 36/4 Attachment Pattern															
	Arc Spot Weld 13mm Effective Dia	35.6	32.2	29.9	28.3	27.1	26.1	25.4	24.7	24.2	23.8	23.4	23.1	22.8	22.5	22.3
	PAF Base Steel ≥ 6.4mm	27.3	25.5	24.3	23.5	22.9	22.4	22.0	21.7	21.4	21.2	21.0	20.8	20.7	20.6	20.5
	PAF Base Steel ≥ 3.2mm	26.6	25.0	23.9	23.2	22.6	22.1	21.8	21.5	21.2	21.0	20.8	20.7	20.5	20.4	20.3
	#12 Screw Base Steel ≥ 0.9mm	26.1	24.6	23.6	22.9	22.3	21.9	21.6	21.3	21.1	20.9	20.7	20.6	20.4	20.3	20.2
	Concrete + Deck = 1.68 kPa				I_{cr} = 9100 cm⁴/m					M_{no}/Ω= 1470 kN-cm/m				V_n/Ω = 44.5 kN/m		
	$(I_{cr}+I_u)/2$ = 12400 cm⁴/m				I_u = 15700 cm⁴/m					ϕM_{no} = 2250 kN-cm/m				ϕV_n = 88.9 kN/m		

GA	Vertical Load Span (mm)	1200	1500	1800	2100	2400	2700	3000	3300	3600	3900	4200	4500	4800	5100	5400
18	**ASD & LRFD - Superimposed Load, W (kPa)**															
	ASD, W/Ω	74.1	53.8	37.0	26.8	20.3	15.7	12.5	10.1	8.3	6.7	5.4	4.4	3.6	3.0	2.5
	LRFD, ϕW	135.7	86.1	59.2	43.0	32.4	25.2	20.0	16.2	13.3	11.0	9.2	7.8	6.6	5.6	4.8
	L/360	-	-	-	-	-	-	-	-	-	6.7	5.4	4.4	3.6	3.0	2.5
	LRFD - Diaphragm Shear, ϕS_n (kN/m) 36/4 Attachment Pattern															
	Arc Spot Weld 13mm Effective Dia	37.7	33.8	31.3	29.5	28.1	27.0	26.2	25.5	24.9	24.4	24.0	23.6	23.3	23.0	22.7
	PAF Base Steel ≥ 6.4mm	28.2	26.2	25.0	24.0	23.3	22.8	22.4	22.0	21.7	21.5	21.2	21.1	20.9	20.8	20.6
	PAF Base Steel ≥ 3.2mm	27.5	25.7	24.5	23.6	23.0	22.5	22.1	21.8	21.5	21.2	21.1	20.9	20.7	20.6	20.5
	#12 Screw Base Steel ≥ 0.9mm	27.0	25.3	24.2	23.4	22.7	22.3	21.9	21.6	21.3	21.1	20.9	20.7	20.6	20.5	20.4
	Concrete + Deck = 1.70 kPa				I_{cr} = 9800 cm⁴/m					M_{no}/Ω= 1620 kN-cm/m				V_n/Ω = 44.5 kN/m		
	$(I_{cr}+I_u)/2$ = 13000 cm⁴/m				I_u = 16200 cm⁴/m					ϕM_{no} = 2480 kN-cm/m				ϕV_n = 88.9 kN/m		

GA	Vertical Load Span (mm)	1200	1500	1800	2100	2400	2700	3000	3300	3600	3900	4200	4500	4800	5100	5400
16	**ASD & LRFD - Superimposed Load, W (kPa)**															
	ASD, W/Ω	74.1	59.3	45.0	32.7	24.7	19.3	15.4	12.2	9.4	7.4	5.9	4.8	4.0	3.3	2.8
	LRFD, ϕW	148.2	104.6	72.0	52.4	39.6	30.9	24.6	20.0	16.4	13.7	11.5	9.8	8.3	7.2	6.2
	L/360	-	-	-	-	-	-	-	12.2	9.4	7.4	5.9	4.8	4.0	3.3	2.8
	LRFD - Diaphragm Shear, ϕS_n (kN/m) 36/4 Attachment Pattern															
	Arc Spot Weld 13mm Effective Dia	42.7	37.8	34.6	32.3	30.5	29.2	28.1	27.2	26.5	25.8	25.3	24.8	24.4	24.1	23.8
	PAF Base Steel ≥ 6.4mm	30.4	28.0	26.4	25.2	24.4	23.7	23.2	22.7	22.4	22.1	21.8	21.6	21.4	21.2	21.0
	PAF Base Steel ≥ 3.2mm	29.1	27.0	25.5	24.5	23.7	23.1	22.7	22.3	21.9	21.7	21.4	21.2	21.0	20.9	20.7
	#12 Screw Base Steel ≥ 0.9mm	29.1	26.9	25.5	24.5	23.7	23.1	22.6	22.3	21.9	21.7	21.4	21.2	21.0	20.9	20.7
	Concrete + Deck = 1.73 kPa				I_{cr} = 11400 cm⁴/m					M_{no}/Ω= 1960 kN-cm/m				V_n/Ω = 44.5 kN/m		
	$(I_{cr}+I_u)/2$ = 14300 cm⁴/m				I_u = 17200 cm⁴/m					ϕM_{no} = 3000 kN-cm/m				ϕV_n = 88.9 kN/m		

	LRFD - Diaphragm Shear, ϕS_n (kN/m) for all vertical load spans, WWF Designation or Area of Steel per meter width				
All Gages	19mm Welded Shear Studs	152x152 MW9xMW9	152x152 MW19xMW19	152x152 MW26xMW26	102x102 MW26xMW26	102x102 MW39xMW39
		A_s = 59.3 mm²/m	A_s = 122.8 mm²/m	A_s = 169.3 mm²/m	A_s = 254.0 mm²/m	A_s = 381 mm²/m
	305 mm o.c.	39.46	59.17	73.61	99.88	139.29
	610 mm o.c.	39.46	59.17	73.61	99.88	113.15
	914 mm o.c.	39.46	59.17	73.61	75.43	75.43

2.3 3WH-36 Hi Form™ Composite Deck

140mm Total Slab Depth

1760 kg/m³ Light Weight Concrete

SMI Dependable Steel

Maximum Unshored Span (mm)

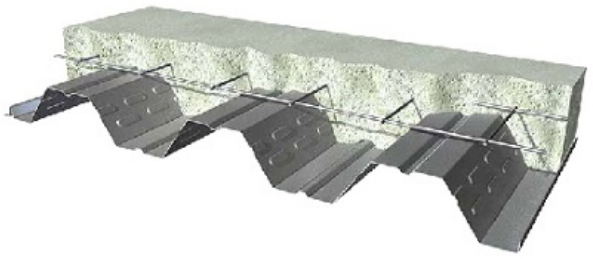
Gage	Single	Double	Triple
22	3113	3480	3602
21	3518	3799	3926
20	3613	3945	4078

Gage	Single	Double	Triple
19	3773	4336	4418
18	3873	4578	4537
16	4082	5085	4783

GA	Vertical Load Span (mm)	1200	1500	1800	2100	2400	2700	3000	3300	3600	3900	4200	4500	4800	5100	5400
22	**ASD & LRFD - Superimposed Load, W (kPa)**															
	ASD, W/Ω	64.9	41.0	28.0	20.2	15.2	11.7	9.2	7.4	6.0	4.9	4.0	3.3	2.7	2.3	1.9
	LRFD, ϕW	103.8	65.6	44.9	32.4	24.3	18.7	14.7	11.8	9.5	7.8	6.4	5.3	4.4	3.6	3.0
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, ϕS_n (kN/m) 36/4 Attachment Pattern															
	Arc Spot Weld 13mm Effective Dia	35.1	32.7	31.2	30.1	29.2	28.6	28.1	27.6	27.3	27.0	26.7	26.5	26.3	26.1	26.0
	PAF Base Steel ≥ 6.4mm	29.5	28.3	27.4	26.9	26.4	26.1	25.8	25.6	25.4	25.3	25.1	25.0	24.9	24.8	24.7
	PAF Base Steel ≥ 3.2mm	29.0	27.9	27.2	26.6	26.2	25.9	25.6	25.4	25.3	25.1	25.0	24.9	24.8	24.7	24.6
	#12 Screw Base Steel ≥ 0.9mm	28.6	27.6	26.9	26.4	26.0	25.7	25.5	25.3	25.1	25.0	24.9	24.8	24.7	24.6	24.5
	Concrete + Deck = 1.87 kPa					I_{cr} = 9000 cm⁴/m					M_{no}/Ω= 1250 kN-cm/m				V_n/Ω = 44.0 kN/m	
	$(I_{cr}+I_{ut})/2$ = 14100 cm⁴/m					I_{ut} = 19100 cm⁴/m					ϕM_{no} = 1910 kN-cm/m				ϕ V_n = 63.4 kN/m	
21	**Vertical Load Span (mm)**	1200	1500	1800	2100	2400	2700	3000	3300	3600	3900	4200	4500	4800	5100	5400
	ASD & LRFD - Superimposed Load, W (kPa)															
	ASD, W/Ω	72.8	46.1	31.6	22.8	17.1	13.3	10.5	8.4	6.8	5.6	4.6	3.9	3.2	2.7	2.3
	LRFD, ϕW	116.5	73.8	50.5	36.5	27.4	21.2	16.7	13.4	10.9	9.0	7.4	6.2	5.2	4.3	3.6
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, ϕS_n (kN/m) 36/4 Attachment Pattern															
	Arc Spot Weld 13mm Effective Dia	36.7	34.0	32.2	31.0	30.0	29.3	28.7	28.2	27.8	27.4	27.2	26.9	26.7	26.5	26.3
	PAF Base Steel ≥ 6.4mm	30.3	28.9	28.0	27.3	26.8	26.4	26.1	25.9	25.6	25.5	25.3	25.2	25.1	25.0	24.9
	PAF Base Steel ≥ 3.2mm	29.8	28.5	27.6	27.0	26.5	26.2	25.9	25.7	25.5	25.3	25.2	25.0	24.9	24.8	24.8
	#12 Screw Base Steel ≥ 0.9mm	29.3	28.1	27.3	26.8	26.3	26.0	25.7	25.5	25.3	25.2	25.0	24.9	24.8	24.7	24.7
	Concrete + Deck = 1.88 kPa					I_{cr} = 9900 cm⁴/m					M_{no}/Ω= 1400 kN-cm/m				V_n/Ω = 51.2 kN/m	
	$(I_{cr}+I_{ut})/2$ = 14800 cm⁴/m					I_{ut} = 19600 cm⁴/m					ϕM_{no} = 2140 kN-cm/m				ϕ V_n = 75.2 kN/m	
20	**Vertical Load Span (mm)**	1200	1500	1800	2100	2400	2700	3000	3300	3600	3900	4200	4500	4800	5100	5400
	ASD & LRFD - Superimposed Load, W (kPa)															
	ASD, W/Ω	76.7	48.6	33.3	24.1	18.1	14.0	11.1	8.9	7.3	6.0	5.0	4.1	3.5	2.9	2.4
	LRFD, ϕW	122.7	77.7	53.3	38.6	29.0	22.4	17.7	14.3	11.6	9.6	7.9	6.6	5.5	4.7	3.9
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, ϕS_n (kN/m) 36/4 Attachment Pattern															
	Arc Spot Weld 13mm Effective Dia	37.5	34.7	32.8	31.4	30.4	29.6	29.0	28.5	28.0	27.7	27.4	27.1	26.9	26.7	26.5
	PAF Base Steel ≥ 6.4mm	30.6	29.2	28.2	27.5	27.0	26.6	26.2	26.0	25.8	25.6	25.4	25.3	25.1	25.0	24.9
	PAF Base Steel ≥ 3.2mm	30.1	28.8	27.9	27.2	26.7	26.3	26.0	25.8	25.6	25.4	25.3	25.1	25.0	24.9	24.8
	#12 Screw Base Steel ≥ 0.9mm	29.7	28.4	27.6	26.9	26.5	26.1	25.9	25.6	25.4	25.3	25.1	25.0	24.9	24.8	24.7
	Concrete + Deck = 1.89 kPa					I_{cr} = 10300 cm⁴/m					M_{no}/Ω= 1470 kN-cm/m				V_n/Ω = 51.2 kN/m	
	$(I_{cr}+I_{ut})/2$ = 15100 cm⁴/m					I_{ut} = 19800 cm⁴/m					ϕM_{no} = 2250 kN-cm/m				ϕ V_n = 82.3 kN/m	

3WH-36 Hi Form™ Composite Deck 2.3

140mm Total Slab Depth
1760 kg/m³ Light Weight Concrete



GA	Vertical Load Span (mm)	1200	1500	1800	2100	2400	2700	3000	3300	3600	3900	4200	4500	4800	5100	5400
	ASD & LRFD - Superimposed Load, W (kPa)															
	ASD, W/Ω	85.4	57.1	39.2	28.4	21.4	16.6	13.2	10.7	8.7	7.2	6.0	5.1	4.3	3.6	3.1
	LRFD, ϕW	144.0	91.3	62.7	45.5	34.3	26.6	21.1	17.1	14.0	11.6	9.7	8.1	6.9	5.8	4.9
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, ϕS_n (kN/m) 36/4 Attachment Pattern															
19	Arc Spot Weld 13mm Effective Dia	40.4	36.9	34.7	33.0	31.8	30.9	30.1	29.5	29.0	28.5	28.1	27.8	27.5	27.3	27.1
	PAF Base Steel ≥ 6.4mm	32.0	30.2	29.1	28.2	27.6	27.1	26.7	26.4	26.2	25.9	25.7	25.6	25.4	25.3	25.2
	PAF Base Steel ≥ 3.2mm	31.4	29.7	28.7	27.9	27.3	26.9	26.5	26.2	26.0	25.7	25.6	25.4	25.3	25.2	25.1
	#12 Screw Base Steel ≥ 0.9mm	30.9	29.4	28.3	27.6	27.1	26.6	26.3	26.0	25.8	25.6	25.4	25.3	25.2	25.0	24.9
	Concrete + Deck = 1.91 kPa				I_{cr} = 11700 cm⁴/m					M_{no}/Ω= 1720 kN-cm/m				V_n/Ω = 51.2 kN/m		
	$(I_{cr}+I_u)/2$ = 16200 cm⁴/m				I_u = 20600 cm⁴/m					ϕM_{no} = 2630 kN-cm/m				ϕV_n = 102.5 kN/m		

GA	Vertical Load Span (mm)	1200	1500	1800	2100	2400	2700	3000	3300	3600	3900	4200	4500	4800	5100	5400
	ASD & LRFD - Superimposed Load, W (kPa)															
	ASD, W/Ω	85.4	62.9	43.3	31.4	23.7	18.4	14.7	11.9	9.7	8.1	6.8	5.7	4.7	3.9	3.3
	LRFD, ϕW	158.7	100.7	69.2	50.3	37.9	29.5	23.5	19.0	15.6	12.9	10.8	9.1	7.8	6.6	5.6
	L/360	-	-	-	-	-	-	-	-	-	-	-	5.7	4.7	3.9	3.3
	LRFD - Diaphragm Shear, ϕS_n (kN/m) 36/4 Attachment Pattern															
18	Arc Spot Weld 13mm Effective Dia	42.4	38.6	36.0	34.2	32.8	31.7	30.9	30.2	29.6	29.1	28.7	28.3	28.0	27.7	27.5
	PAF Base Steel ≥ 6.4mm	32.9	31.0	29.7	28.8	28.1	27.5	27.1	26.7	26.4	26.2	26.0	25.8	25.6	25.5	25.4
	PAF Base Steel ≥ 3.2mm	32.2	30.4	29.2	28.4	27.7	27.2	26.8	26.5	26.2	26.0	25.8	25.6	25.5	25.3	25.2
	#12 Screw Base Steel ≥ 0.9mm	31.7	30.0	28.9	28.1	27.5	27.0	26.6	26.3	26.0	25.8	25.6	25.5	25.3	25.2	25.1
	Concrete + Deck = 1.92 kPa				I_{cr} = 12600 cm⁴/m					M_{no}/Ω= 1890 kN-cm/m				V_n/Ω = 51.2 kN/m		
	$(I_{cr}+I_u)/2$ = 16900 cm⁴/m				I_u = 21200 cm⁴/m					ϕM_{no} = 2900 kN-cm/m				ϕV_n = 102.5 kN/m		

GA	Vertical Load Span (mm)	1200	1500	1800	2100	2400	2700	3000	3300	3600	3900	4200	4500	4800	5100	5400
	ASD & LRFD - Superimposed Load, W (kPa)															
	ASD, W/Ω	85.4	68.3	52.6	38.3	29.0	22.6	18.0	14.6	12.1	9.6	7.7	6.2	5.1	4.3	3.6
	LRFD, ϕW	170.8	122.3	84.2	61.3	46.4	36.1	28.8	23.4	19.3	16.1	13.6	11.5	9.8	8.4	7.3
	L/360	-	-	-	-	-	-	-	-	-	9.6	7.7	6.2	5.1	4.3	3.6
	LRFD - Diaphragm Shear, ϕS_n (kN/m) 36/4 Attachment Pattern															
16	Arc Spot Weld 13mm Effective Dia	47.4	42.5	39.3	37.0	35.2	33.9	32.8	31.9	31.2	30.6	30.0	29.6	29.2	28.8	28.5
	PAF Base Steel ≥ 6.4mm	35.1	32.7	31.1	30.0	29.1	28.4	27.9	27.5	27.1	26.8	26.5	26.3	26.1	25.9	25.8
	PAF Base Steel ≥ 3.2mm	33.8	31.7	30.3	29.2	28.5	27.9	27.4	27.0	26.7	26.4	26.2	26.0	25.8	25.6	25.5
	#12 Screw Base Steel ≥ 0.9mm	33.8	31.7	30.2	29.2	28.4	27.9	27.4	27.0	26.7	26.4	26.1	25.9	25.8	25.6	25.5
	Concrete + Deck = 1.95 kPa				I_{cr} = 14700 cm⁴/m					M_{no}/Ω= 2290 kN-cm/m				V_n/Ω = 51.2 kN/m		
	$(I_{cr}+I_u)/2$ = 18600 cm⁴/m				I_u = 22400 cm⁴/m					ϕM_{no} = 3510 kN-cm/m				ϕV_n = 102.5 kN/m		

	LRFD - Diaphragm Shear, ϕS_n (kN/m) for all vertical load spans, WWF Designation or Area of Steel per meter width					
All Gages	19mm Welded Shear Studs	152x152 MW9xMW9	152x152 MW19xMW19	152x152 MW26xMW26	102x102 MW26xMW26	102x102 MW39xMW39
		A_s = 59.3 mm²/m	A_s = 122.8 mm²/m	A_s = 169.3 mm²/m	A_s = 254.0 mm²/m	A_s = 381 mm²/m
	305 mm o.c.	44.86	64.56	79.01	105.28	144.68
	610 mm o.c.	44.86	64.56	79.01	105.28	113.15
	914 mm o.c.	44.86	64.56	75.43	75.43	75.43

2.3 3WH-36 Hi Form™ Composite Deck

152mm Total Slab Depth

1760 kg/m³ Light Weight Concrete

SMI Dependable Steel

Maximum Unshored Span (mm)

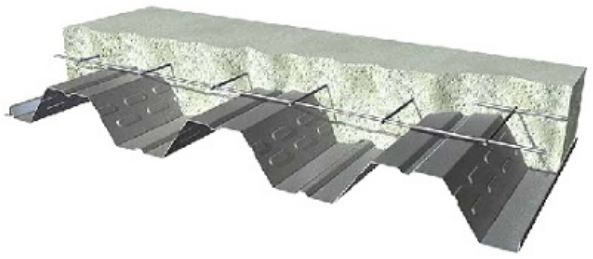
Gage	Single	Double	Triple
22	2990	3355	3471
21	3376	3662	3785
20	3517	3803	3931

Gage	Single	Double	Triple
19	3674	4181	4302
18	3772	4415	4419
16	3978	4918	4660

GA	Vertical Load Span (mm)	1200	1500	1800	2100	2400	2700	3000	3300	3600	3900	4200	4500	4800	5100	5400
22	**ASD & LRFD - Superimposed Load, W (kPa)**															
	ASD, W/Ω	74.7	47.2	32.3	23.3	17.5	13.5	10.6	8.5	6.9	5.6	4.7	3.8	3.2	2.6	2.2
	LRFD, ϕW	116.2	75.6	51.7	37.3	28.0	21.6	17.0	13.6	11.0	9.0	7.4	6.2	5.1	4.2	3.5
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, ϕS_n (kN/m) 36/4 Attachment Pattern															
	Arc Spot Weld 13mm Effective Dia	39.8	37.5	35.9	34.8	34.0	33.3	32.8	32.4	32.0	31.7	31.4	31.2	31.0	30.9	30.7
	PAF Base Steel ≥ 6.4mm	34.2	33.0	32.2	31.6	31.2	30.8	30.5	30.3	30.1	30.0	29.8	29.7	29.6	29.5	29.5
	PAF Base Steel ≥ 3.2mm	33.8	32.6	31.9	31.3	30.9	30.6	30.4	30.2	30.0	29.8	29.7	29.6	29.5	29.4	29.4
	#12 Screw Base Steel ≥ 0.9mm	33.4	32.3	31.6	31.1	30.7	30.4	30.2	30.0	29.9	29.7	29.6	29.5	29.4	29.3	29.3
	Concrete + Deck = 2.10 kPa					I_{cr} = 11400 cm⁴/m						M_{no}/Ω= 1440 kN-cm/m			V_n/Ω = 48.2 kN/m	
	$(I_{cr}+I_{ut})/2$ = 18000 cm⁴/m					I_{ut} = 24600 cm⁴/m						ϕM_{no} = 2200 kN-cm/m			ϕ V_n = 69.7 kN/m	
21	**Vertical Load Span (mm)**	1200	1500	1800	2100	2400	2700	3000	3300	3600	3900	4200	4500	4800	5100	5400
	ASD & LRFD - Superimposed Load, W (kPa)															
	ASD, W/Ω	83.9	53.1	36.4	26.3	19.8	15.3	12.1	9.7	7.9	6.5	5.4	4.5	3.8	3.2	2.6
	LRFD, ϕW	134.2	85.0	58.2	42.1	31.7	24.5	19.3	15.6	12.7	10.4	8.6	7.2	6.0	5.0	4.2
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, ϕS_n (kN/m) 36/4 Attachment Pattern															
	Arc Spot Weld 13mm Effective Dia	41.4	38.8	37.0	35.7	34.7	34.0	33.4	32.9	32.5	32.2	31.9	31.6	31.4	31.2	31.0
	PAF Base Steel ≥ 6.4mm	35.0	33.6	32.7	32.0	31.5	31.1	30.8	30.6	30.4	30.2	30.0	29.9	29.8	29.7	29.6
	PAF Base Steel ≥ 3.2mm	34.5	33.2	32.3	31.7	31.3	30.9	30.6	30.4	30.2	30.0	29.9	29.8	29.7	29.6	29.5
	#12 Screw Base Steel ≥ 0.9mm	34.1	32.9	32.1	31.5	31.1	30.7	30.5	30.2	30.1	29.9	29.8	29.7	29.6	29.5	29.4
	Concrete + Deck = 2.11 kPa					I_{cr} = 12500 cm⁴/m						M_{no}/Ω= 1610 kN-cm/m			V_n/Ω = 56.9 kN/m	
	$(I_{cr}+I_{ut})/2$ = 18900 cm⁴/m					I_{ut} = 25200 cm⁴/m						ϕM_{no} = 2460 kN-cm/m			ϕ V_n = 81.5 kN/m	
20	**Vertical Load Span (mm)**	1200	1500	1800	2100	2400	2700	3000	3300	3600	3900	4200	4500	4800	5100	5400
	ASD & LRFD - Superimposed Load, W (kPa)															
	ASD, W/Ω	88.4	56.0	38.4	27.8	20.9	16.2	12.8	10.3	8.4	6.9	5.8	4.8	4.0	3.4	2.9
	LRFD, ϕW	141.4	89.6	61.4	44.5	33.5	25.9	20.5	16.5	13.5	11.1	9.2	7.7	6.5	5.4	4.6
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, ϕS_n (kN/m) 36/4 Attachment Pattern															
	Arc Spot Weld 13mm Effective Dia	42.2	39.4	37.5	36.2	35.1	34.4	33.7	33.2	32.8	32.4	32.1	31.8	31.6	31.4	31.2
	PAF Base Steel ≥ 6.4mm	35.4	33.9	32.9	32.2	31.7	31.3	31.0	30.7	30.5	30.3	30.1	30.0	29.9	29.8	29.7
	PAF Base Steel ≥ 3.2mm	34.9	33.5	32.6	31.9	31.4	31.1	30.8	30.5	30.3	30.1	30.0	29.9	29.7	29.6	29.6
	#12 Screw Base Steel ≥ 0.9mm	34.4	33.1	32.3	31.7	31.2	30.9	30.6	30.4	30.2	30.0	29.9	29.7	29.6	29.5	29.5
	Concrete + Deck = 2.11 kPa					I_{cr} = 13100 cm⁴/m						M_{no}/Ω= 1690 kN-cm/m			V_n/Ω = 59.7 kN/m	
	$(I_{cr}+I_{ut})/2$ = 19300 cm⁴/m					I_{ut} = 25500 cm⁴/m						ϕM_{no} = 2590 kN-cm/m			ϕ V_n = 88.6 kN/m	

3WH-36 Hi Form™ Composite Deck 2.3

152mm Total Slab Depth
1760 kg/m³ Light Weight Concrete



GA	Vertical Load Span (mm)	1200	1500	1800	2100	2400	2700	3000	3300	3600	3900	4200	4500	4800	5100	5400
	ASD & LRFD - Superimposed Load, W (kPa)															
	ASD, W/Ω	99.5	65.8	45.2	32.8	24.7	19.2	15.3	12.3	10.1	8.4	7.0	5.9	5.0	4.2	3.6
	LRFD, ϕW	166.0	105.3	72.4	52.5	39.6	30.7	24.4	19.7	16.2	13.4	11.2	9.4	8.0	6.8	5.8
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, ϕS_n (kN/m) 36/4 Attachment Pattern															
19	Arc Spot Weld 13mm Effective Dia	45.1	41.7	39.4	37.8	36.5	35.6	34.8	34.2	33.7	33.2	32.9	32.5	32.3	32.0	31.8
	PAF Base Steel ≥ 6.4mm	36.7	35.0	33.8	33.0	32.3	31.9	31.5	31.2	30.9	30.7	30.5	30.3	30.2	30.0	29.9
	PAF Base Steel ≥ 3.2mm	36.1	34.5	33.4	32.6	32.0	31.6	31.2	30.9	30.7	30.5	30.3	30.1	30.0	29.9	29.8
	#12 Screw Base Steel ≥ 0.9mm	35.6	34.1	33.1	32.3	31.8	31.4	31.0	30.8	30.5	30.3	30.2	30.0	29.9	29.8	29.7
	Concrete + Deck = 2.13 kPa				I_{cr} = 14800 cm⁴/m					M_{no}/Ω= 1980 kN-cm/m				V_n/Ω = 59.7 kN/m		
	$(I_{cr}+I_u)/2$ = 20700 cm⁴/m				I_u = 26500 cm⁴/m					ϕM_{no} = 3030 kN-cm/m				ϕV_n = 118.5 kN/m		

GA	Vertical Load Span (mm)	1200	1500	1800	2100	2400	2700	3000	3300	3600	3900	4200	4500	4800	5100	5400
	ASD & LRFD - Superimposed Load, W (kPa)															
	ASD, W/Ω	99.5	72.6	49.9	36.3	27.4	21.3	17.0	13.7	11.3	9.4	7.9	6.6	5.6	4.8	4.1
	LRFD, ϕW	183.0	116.2	79.9	58.0	43.8	34.1	27.1	22.0	18.0	15.0	12.6	10.6	9.0	7.7	6.6
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, ϕS_n (kN/m) 36/4 Attachment Pattern															
18	Arc Spot Weld 13mm Effective Dia	47.1	43.3	40.7	38.9	37.5	36.5	35.6	34.9	34.3	33.8	33.4	33.1	32.7	32.5	32.2
	PAF Base Steel ≥ 6.4mm	37.7	35.7	34.4	33.5	32.8	32.3	31.8	31.5	31.2	30.9	30.7	30.5	30.4	30.2	30.1
	PAF Base Steel ≥ 3.2mm	37.0	35.2	33.9	33.1	32.4	31.9	31.5	31.2	30.9	30.7	30.5	30.3	30.2	30.1	29.9
	#12 Screw Base Steel ≥ 0.9mm	36.5	34.8	33.6	32.8	32.2	31.7	31.3	31.0	30.8	30.6	30.4	30.2	30.1	29.9	29.8
	Concrete + Deck = 2.14 kPa				I_{cr} = 16000 cm⁴/m					M_{no}/Ω= 2180 kN-cm/m				V_n/Ω = 59.7 kN/m		
	$(I_{cr}+I_u)/2$ = 21600 cm⁴/m				I_u = 27600 cm⁴/m					ϕM_{no} = 3340 kN-cm/m				ϕV_n = 119.4 kN/m		

GA	Vertical Load Span (mm)	1200	1500	1800	2100	2400	2700	3000	3300	3600	3900	4200	4500	4800	5100	5400
	ASD & LRFD - Superimposed Load, W (kPa)															
	ASD, W/Ω	99.5	79.6	60.8	44.2	33.5	26.1	20.9	16.9	14.0	11.7	9.8	8.0	6.6	5.5	4.6
	LRFD, ϕW	198.9	141.3	97.3	70.8	53.6	41.8	33.4	27.1	22.4	18.7	15.7	13.4	11.4	9.8	8.5
	L/360	-	-	-	-	-	-	-	-	-	-	9.8	8.0	6.6	5.5	4.6
	LRFD - Diaphragm Shear, ϕS_n (kN/m) 36/4 Attachment Pattern															
16	Arc Spot Weld 13mm Effective Dia	52.1	47.3	44.0	41.7	40.0	38.6	37.5	36.7	35.9	35.3	34.8	34.3	33.9	33.5	33.2
	PAF Base Steel ≥ 6.4mm	39.9	37.5	35.8	34.7	33.8	33.2	32.6	32.2	31.8	31.5	31.3	31.0	30.8	30.7	30.5
	PAF Base Steel ≥ 3.2mm	38.6	36.4	35.0	34.0	33.2	32.6	32.1	31.7	31.4	31.1	30.9	30.7	30.5	30.3	30.2
	#12 Screw Base Steel ≥ 0.9mm	38.5	36.4	35.0	33.9	33.2	32.6	32.1	31.7	31.4	31.1	30.9	30.7	30.5	30.3	30.2
	Concrete + Deck = 2.18 kPa				I_{cr} = 18500 cm⁴/m					M_{no}/Ω= 2640 kN-cm/m				V_n/Ω = 59.7 kN/m		
	$(I_{cr}+I_u)/2$ = 23600 cm⁴/m				I_u = 28700 cm⁴/m					ϕM_{no} = 4050 kN-cm/m				ϕV_n = 119.4 kN/m		

	LRFD - Diaphragm Shear, ϕS_n (kN/m) for all vertical load spans, WWF Designation or Area of Steel per meter width				
All Gages	19mm Welded Shear Studs	152x152 MW9xMW9	152x152 MW19xMW19	152x152 MW26xMW26	102x102 MW26xMW26	102x102 MW39xMW39
		A_s = 59.3 mm²/m	A_s = 122.8 mm²/m	A_s = 169.3 mm²/m	A_s = 254.0 mm²/m	A_s = 381 mm²/m
	305 mm o.c.	50.25	69.96	84.40	110.67	150.08
	610 mm o.c.	50.25	69.96	84.40	110.67	113.15
	914 mm o.c.	50.25	69.96	75.43	75.43	75.43

2.3 3WH-36 Hi Form™ Composite Deck

159mm Total Slab Depth

1760 kg/m³ Light Weight Concrete

SMI Dependable Steel

Maximum Unshored Span (mm)

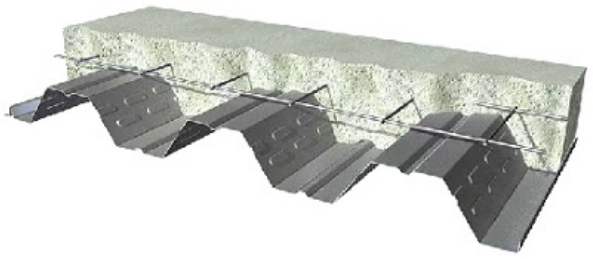
Gage	Single	Double	Triple
22	2935	3298	3411
21	3312	3598	3719
20	3474	3738	3864

Gage	Single	Double	Triple
19	3630	4109	4247
18	3726	4339	4365
16	3930	4835	4604

GA	Vertical Load Span (mm)	1200	1500	1800	2100	2400	2700	3000	3300	3600	3900	4200	4500	4800	5100	5400
22	**ASD & LRFD - Superimposed Load, W (kPa)**															
	ASD, W/Ω	79.7	50.4	34.5	24.9	18.7	14.4	11.4	9.1	7.4	6.0	5.0	4.1	3.4	2.8	2.4
	LRFD, ϕW	122.2	80.7	55.2	39.9	29.9	23.1	18.2	14.6	11.8	9.7	8.0	6.6	5.5	4.6	3.8
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, ϕS_n (kN/m) 36/4 Attachment Pattern															
	Arc Spot Weld 13mm Effective Dia	42.2	39.8	38.3	37.2	36.3	35.7	35.2	34.7	34.4	34.1	33.8	33.6	33.4	33.2	33.1
	PAF Base Steel ≥ 6.4mm	36.6	35.4	34.5	34.0	33.5	33.2	32.9	32.7	32.5	32.3	32.2	32.1	32.0	31.9	31.8
	PAF Base Steel ≥ 3.2mm	36.1	35.0	34.2	33.7	33.3	33.0	32.7	32.5	32.4	32.2	32.1	32.0	31.9	31.8	31.7
	#12 Screw Base Steel ≥ 0.9mm	35.7	34.7	34.0	33.5	33.1	32.8	32.6	32.4	32.2	32.1	32.0	31.9	31.8	31.7	31.6
	Concrete + Deck = 2.21 kPa					I_{cr} = 12700 cm⁴/m					M_{no}/Ω= 1530 kN-cm/m			V_n/Ω = 50.6 kN/m		
	$(I_{cr}+I_{ut})/2$ = 20200 cm⁴/m					I_{ut} = 27700 cm⁴/m					ϕM_{no} = 2340 kN-cm/m			ϕ V_n = 73.3 kN/m		
21	**Vertical Load Span (mm)**	1200	1500	1800	2100	2400	2700	3000	3300	3600	3900	4200	4500	4800	5100	5400
	ASD & LRFD - Superimposed Load, W (kPa)															
	ASD, W/Ω	89.6	56.7	38.9	28.1	21.1	16.4	12.9	10.4	8.5	7.0	5.8	4.8	4.0	3.4	2.8
	LRFD, ϕW	141.9	90.8	62.2	45.0	33.8	26.2	20.7	16.6	13.6	11.2	9.3	7.7	6.5	5.4	4.5
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, ϕS_n (kN/m) 36/4 Attachment Pattern															
	Arc Spot Weld 13mm Effective Dia	43.8	41.1	39.3	38.1	37.1	36.4	35.8	35.3	34.9	34.5	34.2	34.0	33.8	33.6	33.4
	PAF Base Steel ≥ 6.4mm	37.4	36.0	35.0	34.4	33.9	33.5	33.2	32.9	32.7	32.6	32.4	32.3	32.2	32.1	32.0
	PAF Base Steel ≥ 3.2mm	36.9	35.6	34.7	34.1	33.6	33.3	33.0	32.8	32.6	32.4	32.3	32.1	32.0	31.9	31.9
	#12 Screw Base Steel ≥ 0.9mm	36.4	35.2	34.4	33.9	33.4	33.1	32.8	32.6	32.4	32.3	32.1	32.0	31.9	31.8	31.8
	Concrete + Deck = 2.22 kPa					I_{cr} = 14000 cm⁴/m					M_{no}/Ω= 1720 kN-cm/m			V_n/Ω = 59.3 kN/m		
	$(I_{cr}+I_{ut})/2$ = 21200 cm⁴/m					I_{ut} = 28400 cm⁴/m					ϕM_{no} = 2630 kN-cm/m			ϕ V_n = 85.1 kN/m		
20	**Vertical Load Span (mm)**	1200	1500	1800	2100	2400	2700	3000	3300	3600	3900	4200	4500	4800	5100	5400
	ASD & LRFD - Superimposed Load, W (kPa)															
	ASD, W/Ω	94.4	59.8	41.0	29.7	22.4	17.3	13.7	11.0	9.0	7.4	6.2	5.2	4.3	3.7	3.1
	LRFD, ϕW	151.0	95.7	65.7	47.5	35.8	27.7	21.9	17.7	14.4	11.9	9.9	8.3	6.9	5.8	4.9
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, ϕS_n (kN/m) 36/4 Attachment Pattern															
	Arc Spot Weld 13mm Effective Dia	44.6	41.8	39.9	38.5	37.5	36.7	36.1	35.6	35.1	34.8	34.5	34.2	34.0	33.7	33.6
	PAF Base Steel ≥ 6.4mm	37.7	36.3	35.3	34.6	34.1	33.7	33.3	33.1	32.9	32.7	32.5	32.4	32.2	32.1	32.0
	PAF Base Steel ≥ 3.2mm	37.2	35.9	34.9	34.3	33.8	33.4	33.1	32.9	32.7	32.5	32.4	32.2	32.1	32.0	31.9
	#12 Screw Base Steel ≥ 0.9mm	36.8	35.5	34.6	34.0	33.6	33.2	33.0	32.7	32.5	32.4	32.2	32.1	32.0	31.9	31.8
	Concrete + Deck = 2.22 kPa					I_{cr} = 14600 cm⁴/m					M_{no}/Ω= 1810 kN-cm/m			V_n/Ω = 64.5 kN/m		
	$(I_{cr}+I_{ut})/2$ = 21700 cm⁴/m					I_{ut} = 28700 cm⁴/m					ϕM_{no} = 2770 kN-cm/m			ϕ V_n = 92.2 kN/m		

3WH-36 Hi Form™ Composite Deck 2.3

159mm Total Slab Depth
1760 kg/m³ Light Weight Concrete



GA	Vertical Load Span (mm)	1200	1500	1800	2100	2400	2700	3000	3300	3600	3900	4200	4500	4800	5100	5400
	ASD & LRFD - Superimposed Load, W (kPa)															
	ASD, W/Ω	107.5	70.4	48.4	35.1	26.5	20.6	16.3	13.2	10.8	9.0	7.5	6.3	5.4	4.6	3.9
	LRFD, ϕW	177.4	112.6	77.4	56.1	42.3	32.9	26.1	21.1	17.3	14.4	12.0	10.1	8.6	7.3	6.2
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, ϕS_n (kN/m) 36/4 Attachment Pattern															
19	Arc Spot Weld 13mm Effective Dia	47.5	44.0	41.8	40.1	38.9	37.9	37.2	36.6	36.0	35.6	35.2	34.9	34.6	34.4	34.1
	PAF Base Steel ≥ 6.4mm	39.1	37.3	36.2	35.3	34.7	34.2	33.8	33.5	33.3	33.0	32.8	32.7	32.5	32.4	32.3
	PAF Base Steel ≥ 3.2mm	38.5	36.8	35.7	35.0	34.4	33.9	33.6	33.3	33.0	32.8	32.7	32.5	32.4	32.3	32.1
	#12 Screw Base Steel ≥ 0.9mm	38.0	36.4	35.4	34.7	34.2	33.7	33.4	33.1	32.9	32.7	32.5	32.4	32.2	32.1	32.0
	Concrete + Deck = 2.24 kPa				I_{cr} = 16500 cm⁴/m					M_{no}/Ω= 2120 kN-cm/m				V_n/Ω = 64.5 kN/m		
	$(I_{cr}+I_u)/2$ = 23200 cm⁴/m				I_u = 29800 cm⁴/m					ϕM_{no} = 3240 kN-cm/m				ϕV_n = 122.1 kN/m		

GA	Vertical Load Span (mm)	1200	1500	1800	2100	2400	2700	3000	3300	3600	3900	4200	4500	4800	5100	5400
	ASD & LRFD - Superimposed Load, W (kPa)															
	ASD, W/Ω	107.5	77.6	53.4	38.8	29.3	22.8	18.1	14.7	12.1	10.0	8.4	7.1	6.1	5.2	4.4
	LRFD, ϕW	195.6	124.2	85.4	62.1	46.9	36.5	29.0	23.5	19.3	16.1	13.5	11.4	9.7	8.3	7.1
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, ϕS_n (kN/m) 36/4 Attachment Pattern															
18	Arc Spot Weld 13mm Effective Dia	49.5	45.7	43.1	41.3	39.9	38.8	38.0	37.3	36.7	36.2	35.8	35.4	35.1	34.8	34.6
	PAF Base Steel ≥ 6.4mm	40.0	38.1	36.8	35.8	35.2	34.6	34.2	33.8	33.5	33.3	33.1	32.9	32.7	32.6	32.5
	PAF Base Steel ≥ 3.2mm	39.3	37.5	36.3	35.5	34.8	34.3	33.9	33.6	33.3	33.1	32.9	32.7	32.6	32.4	32.3
	#12 Screw Base Steel ≥ 0.9mm	38.8	37.1	36.0	35.2	34.6	34.1	33.7	33.4	33.1	32.9	32.7	32.6	32.4	32.3	32.2
	Concrete + Deck = 2.25 kPa				I_{cr} = 17900 cm⁴/m					M_{no}/Ω= 2330 kN-cm/m				V_n/Ω = 64.5 kN/m		
	$(I_{cr}+I_u)/2$ = 24200 cm⁴/m				I_u = 30500 cm⁴/m					ϕM_{no} = 3570 kN-cm/m				ϕV_n = 129.0 kN/m		

GA	Vertical Load Span (mm)	1200	1500	1800	2100	2400	2700	3000	3300	3600	3900	4200	4500	4800	5100	5400
	ASD & LRFD - Superimposed Load, W (kPa)															
	ASD, W/Ω	107.5	86.0	65.1	47.3	35.8	28.0	22.3	18.2	15.0	12.5	10.6	8.9	7.3	6.1	5.2
	LRFD, ϕW	215.0	151.1	104.1	75.8	57.4	44.7	35.7	29.0	24.0	20.0	16.9	14.4	12.3	10.6	9.1
	L/360	-	-	-	-	-	-	-	-	-	-	-	8.9	7.3	6.1	5.2
	LRFD - Diaphragm Shear, ϕS_n (kN/m) 36/4 Attachment Pattern															
16	Arc Spot Weld 13mm Effective Dia	54.5	49.6	46.4	44.1	42.3	41.0	39.9	39.0	38.3	37.7	37.1	36.7	36.3	35.9	35.6
	PAF Base Steel ≥ 6.4mm	42.2	39.8	38.2	37.1	36.2	35.5	35.0	34.6	34.2	33.9	33.6	33.4	33.2	33.0	32.9
	PAF Base Steel ≥ 3.2mm	40.9	38.8	37.3	36.3	35.6	35.0	34.5	34.1	33.8	33.5	33.3	33.0	32.9	32.7	32.6
	#12 Screw Base Steel ≥ 0.9mm	40.9	38.8	37.3	36.3	35.5	34.9	34.5	34.1	33.8	33.5	33.2	33.0	32.9	32.7	32.6
	Concrete + Deck = 2.29 kPa				I_{cr} = 20700 cm⁴/m					M_{no}/Ω= 2830 kN-cm/m				V_n/Ω = 64.5 kN/m		
	$(I_{cr}+I_u)/2$ = 26500 cm⁴/m				I_u = 32300 cm⁴/m					ϕM_{no} = 4330 kN-cm/m				ϕV_n = 129.0 kN/m		

	LRFD - Diaphragm Shear, ϕS_n (kN/m) for all vertical load spans, WWF Designation or Area of Steel per meter width				
All Gages	19mm Welded Shear Studs	152x152 MW9xMW9	152x152 MW19xMW19	152x152 MW26xMW26	102x102 MW26xMW26	102x102 MW39xMW39
		A_s = 59.3 mm²/m	A_s = 122.8 mm²/m	A_s = 169.3 mm²/m	A_s = 254.0 mm²/m	A_s = 381 mm²/m
	305 mm o.c.	n/a	72.65	87.10	113.37	152.77
	610 mm o.c.	n/a	72.65	87.10	113.15	113.15
	914 mm o.c.	n/a	72.65	75.43	75.43	75.43

2.3 3WH-36 Hi Form™ Composite Deck

183mm Total Slab Depth

1760 kg/m³ Light Weight Concrete

SMI Dependable Steel

Maximum Unshored Span (mm)

Gage	Single	Double	Triple
22	2753	3106	3211
21	3102	3388	3502
20	3254	3519	3638

Gage	Single	Double	Triple
19	3483	3870	4000
18	3576	4088	4190
16	3774	4558	4421

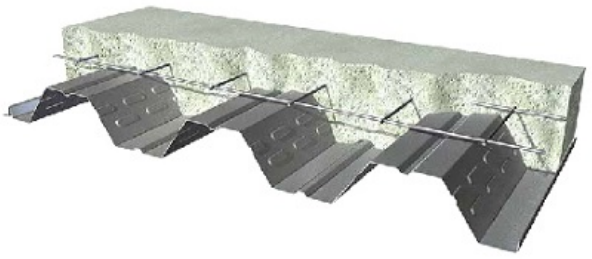
GA	Vertical Load Span (mm)	1200	1500	1800	2100	2400	2700	3000	3300	3600	3900	4200	4500	4800	5100	5400
22	**ASD & LRFD - Superimposed Load, W (kPa)**															
	ASD, W/Ω	99.4	62.9	43.1	31.1	23.4	18.0	14.2	11.4	9.3	7.6	6.3	5.2	4.4	3.6	3.0
	LRFD, ϕW	144.8	100.6	68.9	49.8	37.4	28.9	22.8	18.3	14.9	12.2	10.1	8.4	7.0	5.8	4.9
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, ϕS_n (kN/m) 36/4 Attachment Pattern															
	Arc Spot Weld 13mm Effective Dia	51.0	48.7	47.1	46.0	45.2	44.5	44.0	43.6	43.2	42.9	42.7	42.5	42.3	42.1	41.9
	PAF Base Steel ≥ 6.4mm	45.4	44.2	43.4	42.8	42.4	42.0	41.8	41.6	41.4	41.2	41.1	41.0	40.9	40.8	40.7
	PAF Base Steel ≥ 3.2mm	45.0	43.9	43.1	42.6	42.2	41.9	41.6	41.4	41.2	41.1	41.0	40.8	40.8	40.7	40.6
	#12 Screw Base Steel ≥ 0.9mm	44.6	43.5	42.8	42.3	42.0	41.7	41.4	41.2	41.1	41.0	40.8	40.7	40.6	40.6	40.5
	Concrete + Deck = 2.63 kPa					I_{cr} = 18400 cm⁴/m					M_{no}/Ω= 1910 kN-cm/m				V_n/Ω = 59.6 kN/m	
	$(I_{cr}+I_{ut})/2$ = 30200 cm⁴/m					I_{ut} = 41900 cm⁴/m					ϕM_{no} = 2920 kN-cm/m				ϕ V_n = 86.9 kN/m	

GA	Vertical Load Span (mm)	1200	1500	1800	2100	2400	2700	3000	3300	3600	3900	4200	4500	4800	5100	5400
21	**ASD & LRFD - Superimposed Load, W (kPa)**															
	ASD, W/Ω	111.8	70.8	48.6	35.2	26.5	20.5	16.2	13.1	10.7	8.8	7.3	6.1	5.1	4.3	3.6
	LRFD, ϕW	164.5	113.3	77.7	56.3	42.3	32.8	26.0	20.9	17.1	14.1	11.7	9.8	8.2	6.9	5.8
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, ϕS_n (kN/m) 36/4 Attachment Pattern															
	Arc Spot Weld 13mm Effective Dia	52.7	50.0	48.2	46.9	46.0	45.2	44.6	44.2	43.7	43.4	43.1	42.9	42.6	42.4	42.3
	PAF Base Steel ≥ 6.4mm	46.2	44.8	43.9	43.3	42.8	42.4	42.1	41.8	41.6	41.4	41.3	41.1	41.0	40.9	40.8
	PAF Base Steel ≥ 3.2mm	45.7	44.4	43.6	43.0	42.5	42.2	41.9	41.6	41.4	41.3	41.1	41.0	40.9	40.8	40.7
	#12 Screw Base Steel ≥ 0.9mm	45.3	44.1	43.3	42.7	42.3	42.0	41.7	41.5	41.3	41.1	41.0	40.9	40.8	40.7	40.6
	Concrete + Deck = 2.64 kPa					I_{cr} = 20300 cm⁴/m					M_{no}/Ω= 2140 kN-cm/m				V_n/Ω = 68.3 kN/m	
	$(I_{cr}+I_{ut})/2$ = 31600 cm⁴/m					I_{ut} = 42800 cm⁴/m					ϕM_{no} = 3280 kN-cm/m				ϕ V_n = 98.7 kN/m	

GA	Vertical Load Span (mm)	1200	1500	1800	2100	2400	2700	3000	3300	3600	3900	4200	4500	4800	5100	5400
20	**ASD & LRFD - Superimposed Load, W (kPa)**															
	ASD, W/Ω	117.9	74.7	51.3	37.2	28.0	21.7	17.2	13.9	11.3	9.4	7.8	6.5	5.5	4.7	3.9
	LRFD, ϕW	176.3	119.6	82.1	59.4	44.8	34.7	27.5	22.2	18.1	15.0	12.5	10.5	8.8	7.4	6.3
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, ϕS_n (kN/m) 36/4 Attachment Pattern															
	Arc Spot Weld 13mm Effective Dia	53.5	50.6	48.7	47.4	46.4	45.6	45.0	44.4	44.0	43.6	43.3	43.1	42.8	42.6	42.4
	PAF Base Steel ≥ 6.4mm	46.6	45.1	44.2	43.5	42.9	42.5	42.2	41.9	41.7	41.5	41.4	41.2	41.1	41.0	40.9
	PAF Base Steel ≥ 3.2mm	46.1	44.7	43.8	43.2	42.7	42.3	42.0	41.8	41.5	41.4	41.2	41.1	41.0	40.9	40.8
	#12 Screw Base Steel ≥ 0.9mm	45.6	44.4	43.5	42.9	42.5	42.1	41.8	41.6	41.4	41.2	41.1	41.0	40.9	40.8	40.7
	Concrete + Deck = 2.64 kPa					I_{cr} = 21200 cm⁴/m					M_{no}/Ω= 2260 kN-cm/m				V_n/Ω = 73.5 kN/m	
	$(I_{cr}+I_{ut})/2$ = 32300 cm⁴/m					I_{ut} = 43300 cm⁴/m					ϕM_{no} = 3450 kN-cm/m				ϕ V_n = 105.8 kN/m	

3WH-36 Hi Form™ Composite Deck 2.3

183mm Total Slab Depth
1760 kg/m³ Light Weight Concrete



GA	Vertical Load Span (mm)	1200	1500	1800	2100	2400	2700	3000	3300	3600	3900	4200	4500	4800	5100	5400
	ASD & LRFD - Superimposed Load, W (kPa)															
	ASD, W/Ω	137.6	88.0	60.5	43.9	33.2	25.8	20.5	16.6	13.6	11.3	9.5	8.0	6.8	5.8	5.0
	LRFD, ϕW	221.9	140.9	96.9	70.3	53.1	41.3	32.8	26.6	21.8	18.1	15.2	12.8	10.9	9.3	7.9
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, ϕS_n (kN/m) 36/4 Attachment Pattern															
19	Arc Spot Weld 13mm Effective Dia	56.3	52.9	50.6	49.0	47.8	46.8	46.1	45.4	44.9	44.5	44.1	43.8	43.5	43.2	43.0
	PAF Base Steel ≥ 6.4mm	47.9	46.2	45.0	44.2	43.6	43.1	42.7	42.4	42.1	41.9	41.7	41.5	41.4	41.3	41.2
	PAF Base Steel ≥ 3.2mm	47.3	45.7	44.6	43.8	43.3	42.8	42.5	42.2	41.9	41.7	41.5	41.4	41.2	41.1	41.0
	#12 Screw Base Steel ≥ 0.9mm	46.8	45.3	44.3	43.6	43.0	42.6	42.3	42.0	41.8	41.6	41.4	41.2	41.1	41.0	40.9
	Concrete + Deck = 2.66 kPa				I_{cr} = 24100 cm⁴/m					M_{no}/Ω= 2650 kN-cm/m				V_n/Ω = 82.6 kN/m		
	$(I_{cr}+I_u)/2$ = 34500 cm⁴/m				I_u = 44800 cm⁴/m					ϕM_{no} = 4050 kN-cm/m				ϕV_n = 135.6 kN/m		

GA	Vertical Load Span (mm)	1200	1500	1800	2100	2400	2700	3000	3300	3600	3900	4200	4500	4800	5100	5400
	ASD & LRFD - Superimposed Load, W (kPa)															
	ASD, W/Ω	137.6	97.3	66.9	48.6	36.8	28.6	22.8	18.5	15.2	12.7	10.7	9.0	7.7	6.6	5.7
	LRFD, ϕW	245.0	155.6	107.1	77.8	58.8	45.8	36.5	29.6	24.4	20.3	17.1	14.4	12.3	10.5	9.0
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, ϕS_n (kN/m) 36/4 Attachment Pattern															
18	Arc Spot Weld 13mm Effective Dia	58.4	54.5	52.0	50.1	48.8	47.7	46.8	46.1	45.6	45.1	44.7	44.3	44.0	43.7	43.4
	PAF Base Steel ≥ 6.4mm	48.9	46.9	45.6	44.7	44.0	43.5	43.1	42.7	42.4	42.2	41.9	41.8	41.6	41.4	41.3
	PAF Base Steel ≥ 3.2mm	48.2	46.4	45.2	44.3	43.7	43.2	42.8	42.4	42.2	41.9	41.7	41.6	41.4	41.3	41.2
	#12 Screw Base Steel ≥ 0.9mm	47.7	46.0	44.9	44.0	43.4	43.0	42.6	42.3	42.0	41.8	41.6	41.4	41.3	41.2	41.1
	Concrete + Deck = 2.67 kPa				I_{cr} = 26000 cm⁴/m					M_{no}/Ω= 2920 kN-cm/m				V_n/Ω = 82.6 kN/m		
	$(I_{cr}+I_u)/2$ = 36000 cm⁴/m				I_u = 45900 cm⁴/m					ϕM_{no} = 4470 kN-cm/m				ϕV_n = 154.2 kN/m		

GA	Vertical Load Span (mm)	1200	1500	1800	2100	2400	2700	3000	3300	3600	3900	4200	4500	4800	5100	5400
	ASD & LRFD - Superimposed Load, W (kPa)															
	ASD, W/Ω	137.6	110.1	81.7	59.5	45.1	35.2	28.1	22.9	18.9	15.8	13.4	11.4	9.8	8.4	7.3
	LRFD, ϕW	275.2	189.8	130.8	95.2	72.2	56.3	45.0	36.6	30.3	25.3	21.4	18.2	15.6	13.4	11.6
	L/360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	LRFD - Diaphragm Shear, ϕS_n (kN/m) 36/4 Attachment Pattern															
16	Arc Spot Weld 13mm Effective Dia	63.4	58.5	55.3	52.9	51.2	49.9	48.8	47.9	47.2	46.5	46.0	45.5	45.1	44.8	44.5
	PAF Base Steel ≥ 6.4mm	51.1	48.7	47.1	45.9	45.1	44.4	43.9	43.4	43.1	42.8	42.5	42.3	42.1	41.9	41.7
	PAF Base Steel ≥ 3.2mm	49.8	47.6	46.2	45.2	44.4	43.8	43.3	43.0	42.6	42.4	42.1	41.9	41.7	41.6	41.4
	#12 Screw Base Steel ≥ 0.9mm	49.8	47.6	46.2	45.2	44.4	43.8	43.3	42.9	42.6	42.3	42.1	41.9	41.7	41.6	41.4
	Concrete + Deck = 2.71 kPa				I_{cr} = 30300 cm⁴/m					M_{no}/Ω= 3550 kN-cm/m				V_n/Ω = 82.6 kN/m		
	$(I_{cr}+I_u)/2$ = 39400 cm⁴/m				I_u = 48400 cm⁴/m					ϕM_{no} = 5430 kN-cm/m				ϕV_n = 165.1 kN/m		

	LRFD - Diaphragm Shear, ϕS_n (kN/m) for all vertical load spans, WWF Designation or Area of Steel per meter width										
All Gages	19mm Welded Shear Studs	152x152 MW9xMW9		152x152 MW19xMW19		152x152 MW26xMW26		102x102 MW26xMW26		102x102 MW39xMW39	
		A_s = 59.3	mm²/m	A_s = 122.8	mm²/m	A_s = 169.3	mm²/m	A_s = 254.0	mm²/m	A_s = 381	mm²/m
	305 mm o.c.	n/a		82.77		97.22		123.49		162.89	
	610 mm o.c.	n/a		82.77		97.22		113.15		113.15	
	914 mm o.c.	n/a		75.43		75.43		75.43		75.43	

Sales & Marketing Office:

Steel Masters International (ME) FZE

PO Box 17603,
Jafza 15, Office 320,
Jebel Ali Free Zone,
Dubai, UAE
Tel: +971 4 887 2882
Fax: +971 887 2884
Mobile: +971 50 624 2634
sales@smi.ae

Factory Address:

Dependable Steel FZE

PO Box 2840,
Ahmed Bin Rashid Port and Free Zone,
Umm Al Quwain, UAE
ISO 9001:2015
www.DependableSteel.com